

# Photometric Test Report



## ECLPANELTWC

740 W Tunable White and colourful

LED soft panel

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## TESTING PROCESS

Prolights has its own optical testing laboratory in order to provide accurate photometric reports for its lighting products. The testing laboratory contains certain variety of precise lighting measurement systems that ensure an optimal reading of all the characteristic parameters of the lighting devices. All measurements are made at a controlled room temperature of 20°C without any external light sources. This photometric report is obtained through the data measured by a high precision measurement system and analyzed by a dedicate software.

### **Prolights measurement instrument**

Prolights measurement instrument is a complete measurement system for any light source. It's equipped with two-axis goniometer, that enables to measure the full 3D distribution field of the light source. This instrument measures the light intensity, the beam angle and the most significative colors parameters, like color temperature, spectral distribution, CRI, CQS, TM-30 with a very high accuracy rate.

**Please Note:** All measurements are made with light source at operating temperature. Before starting the measurement, the instrument analyzes the process of the light source during the heating phase. The measuring process of all the parameters begins only when the light emission is stable, that is with a variation of less than 0.5% in a 15 minutes time frame.

### **Prolights measurement software**

The software provides user friendly interface for the operator who does the measurements, and it also analyzes and processes all the collected data by the instrument. With this software it is possible to see the measured data in real-time and it is possible to examine all the measured data and graphics afterwards as well. All information is collected in a specific Prolights template, and the software creates also IES and LDT files, which are widely used to transfer the photometric data, and to develop lighting system.

Additionally, the fixtures are rechecked using various hand-held instruments like Sekonic C-700 and Gossen Mavospec Base, this is done to ensure, that the data in the photometric report are as accurate as possible.



Total lumen output:

22039 lm

Peak candela output:

7611 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter HD

Target:

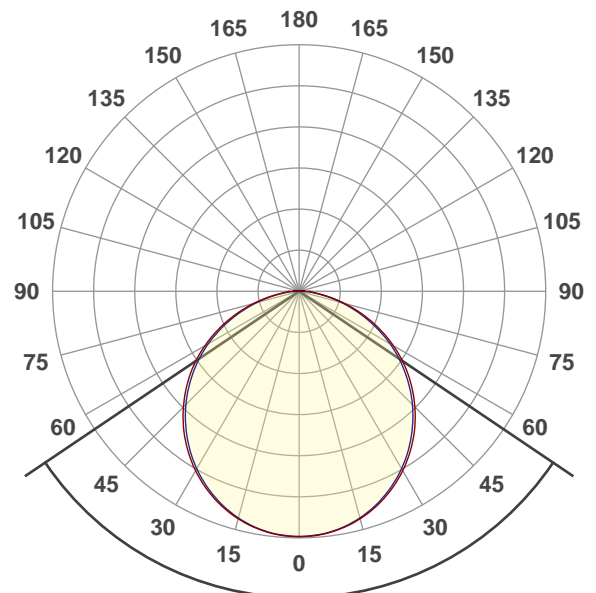
Full On

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:51:33

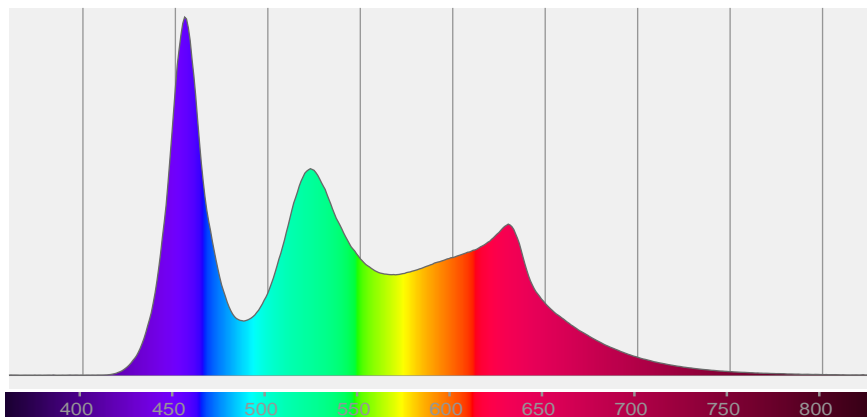


Beam angle 50%: 112°

Field angle 10%: 161,8°

Cut off angle 2.5%: 177,1°

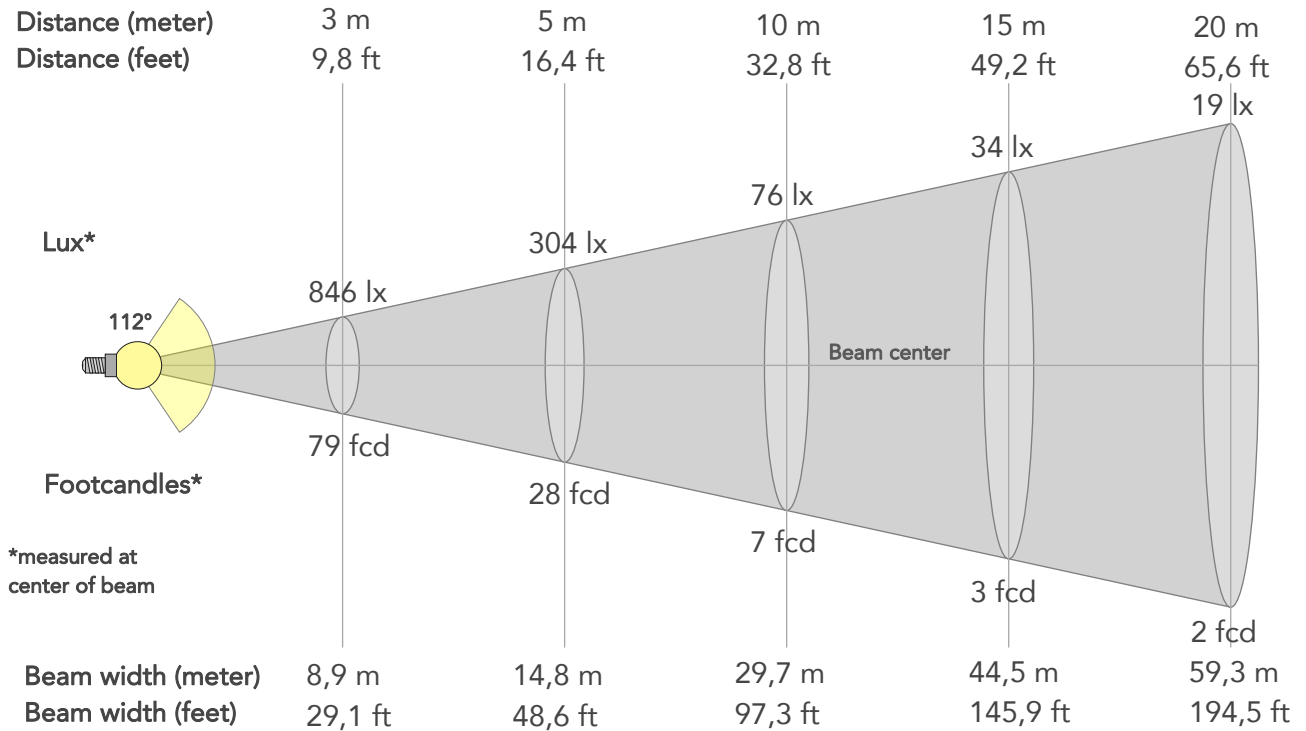
Spectra



# BEAM DETAILS



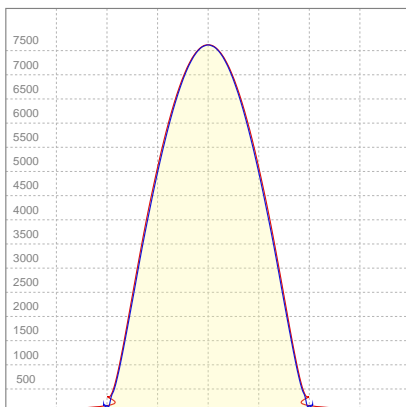
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
112°	161,8°	177,1°	77,2%	52,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	7611lx	1903lx	846lx	476lx	304lx	135lx	76lx	34lx	19lx	12lx	8lx	5lx	3lx
Footcand.	707fcd	177fcd	79fcd	44fcd	28fcd	13fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,9m	14,8m	22,2m	29,7m	44,5m	59,3m	74,1m	89m	118,6m	148,3m
Beam wid.	9,8ft	19,6ft	29,1ft	38,8ft	48,6ft	72,9ft	97,3ft	145,9ft	194,5ft	243,1ft	291,8ft	389ft	486,3ft

## LINEAR DISTRIBUTION DIAGRAM

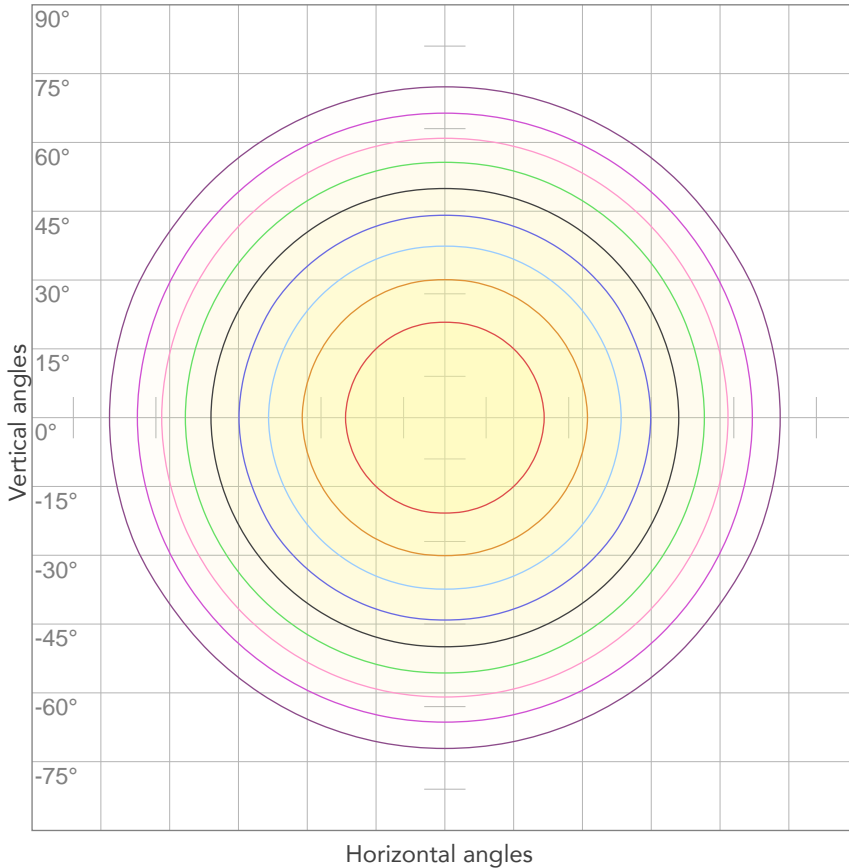


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,66A	352,5W	63lm/W

Power FC
0,95

## ISO CANDELA DIAGRAM



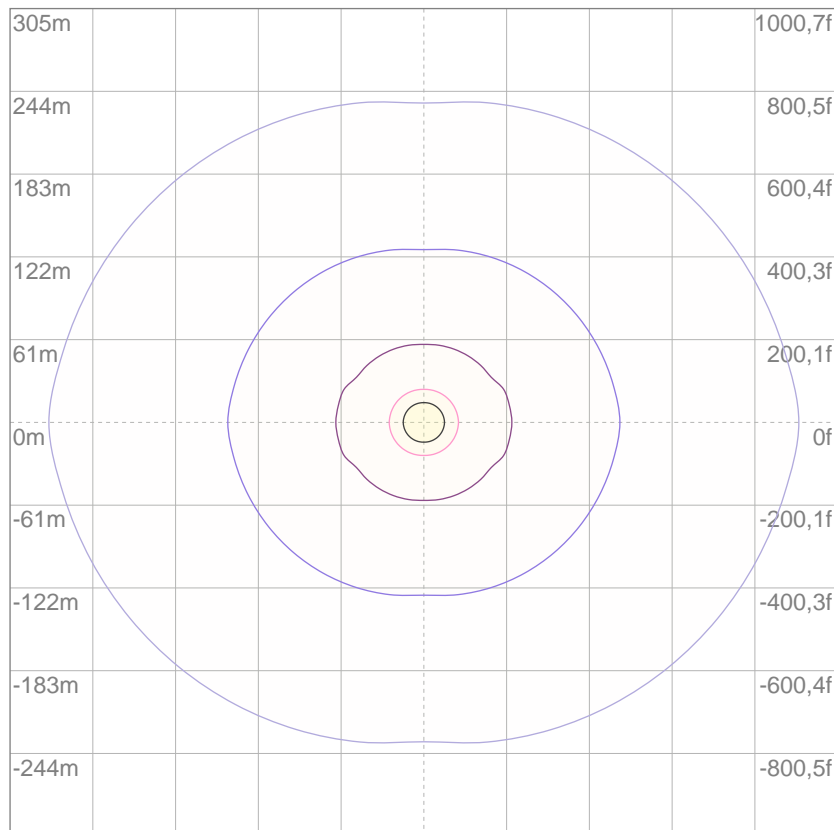
10%	761 cd
20%	1522 cd
30%	2283 cd
40%	3044 cd
50%	3806 cd
60%	4567 cd
70%	5328 cd
80%	6089 cd

Conditions:

Number of c-planes: 4

Candela at center: 7611 cd

## ISO LUX DIAGRAM



3%	2,28 lx
5%	3,81 lx
10%	7,61 lx
30%	22,8 lx
50%	38,1 lx

Conditions:

Number of c-planes: 4

Lux at center: 76,1 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

26443 lm

Peak candela output:

10113 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter MD

Target:

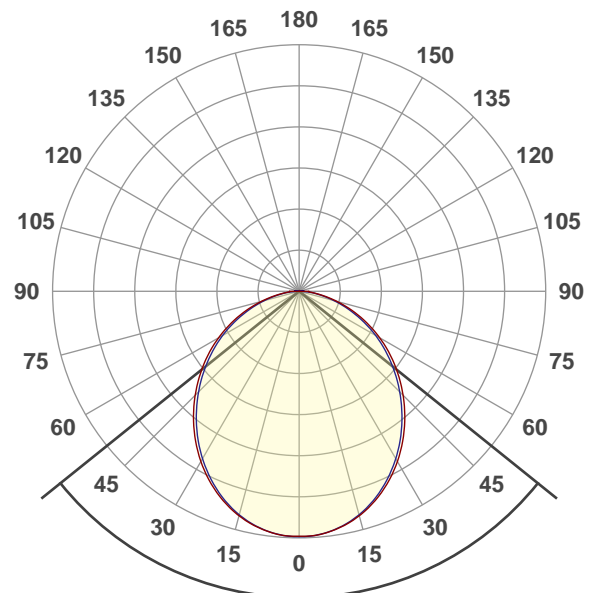
Full On

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:05:31

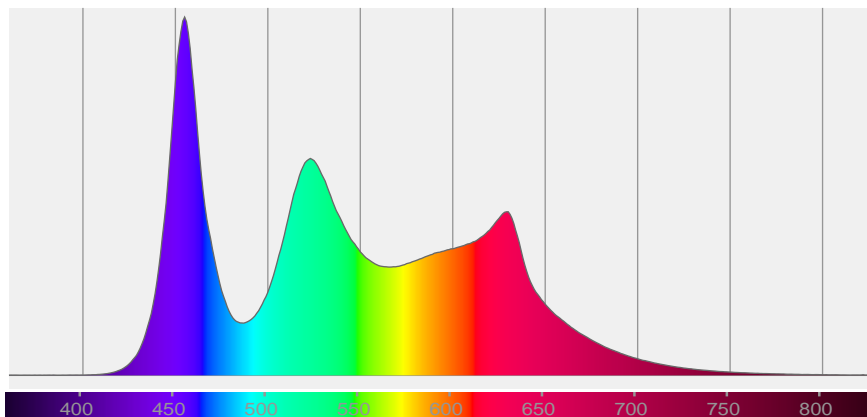


Beam angle 50%: 102,4°

Field angle 10%: 158,7°

Cut off angle 2.5%: 175,5°

Spectra

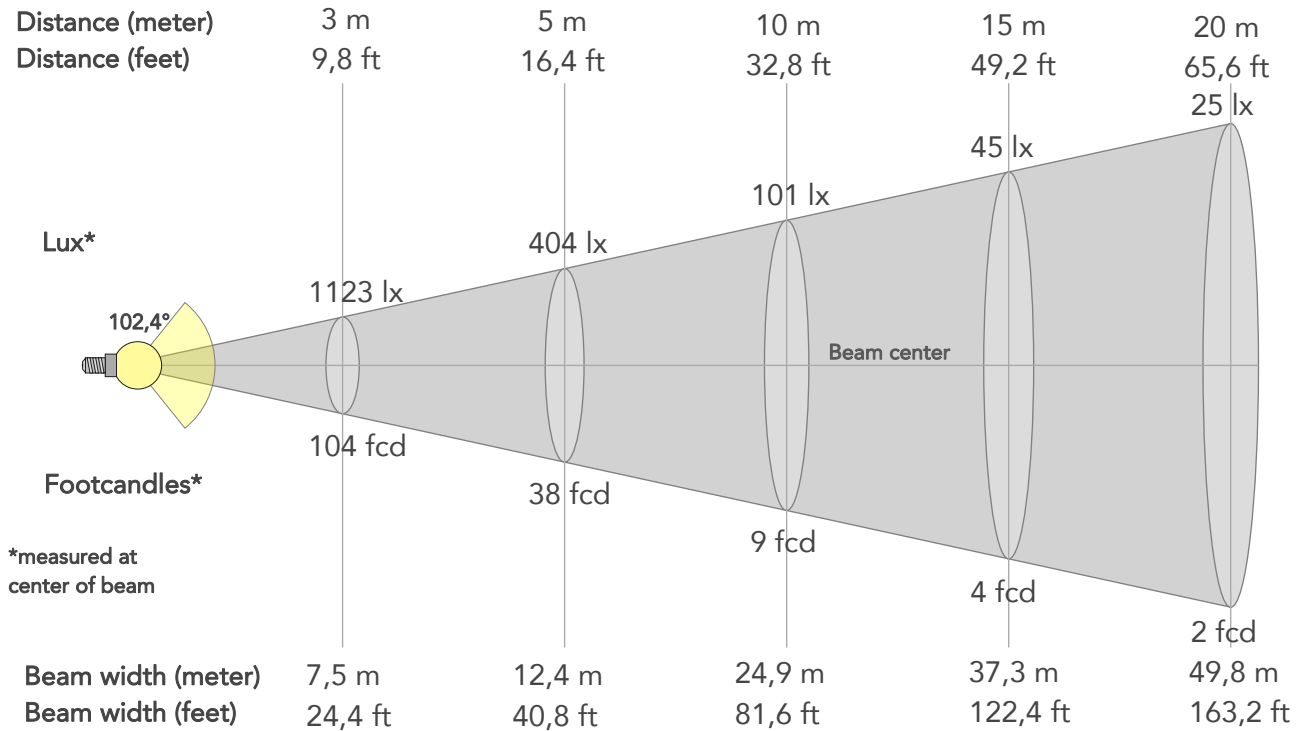




# BEAM DETAILS



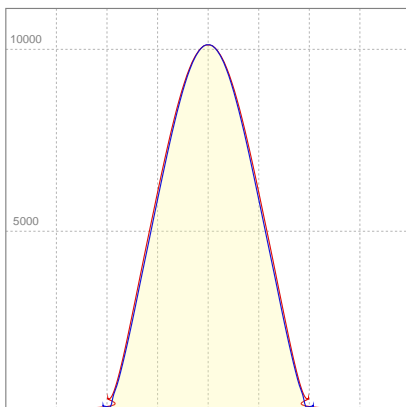
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,4°	158,7°	175,5°	78,9%	55,2%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	10108lx	2527lx	1123lx	632lx	404lx	180lx	101lx	45lx	25lx	16lx	11lx	6lx	4lx
Footcand.	939fcd	235fcd	104fcd	59fcd	38fcd	17fcd	9fcd	4fcd	2fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,5m	10m	12,4m	18,7m	24,9m	37,3m	49,8m	62,2m	74,6m	99,5m	124,4m
Beam wid.	8,2ft	16,4ft	24,4ft	32,6ft	40,8ft	61,2ft	81,6ft	122,4ft	163,2ft	204ft	244,8ft	326,4ft	408ft

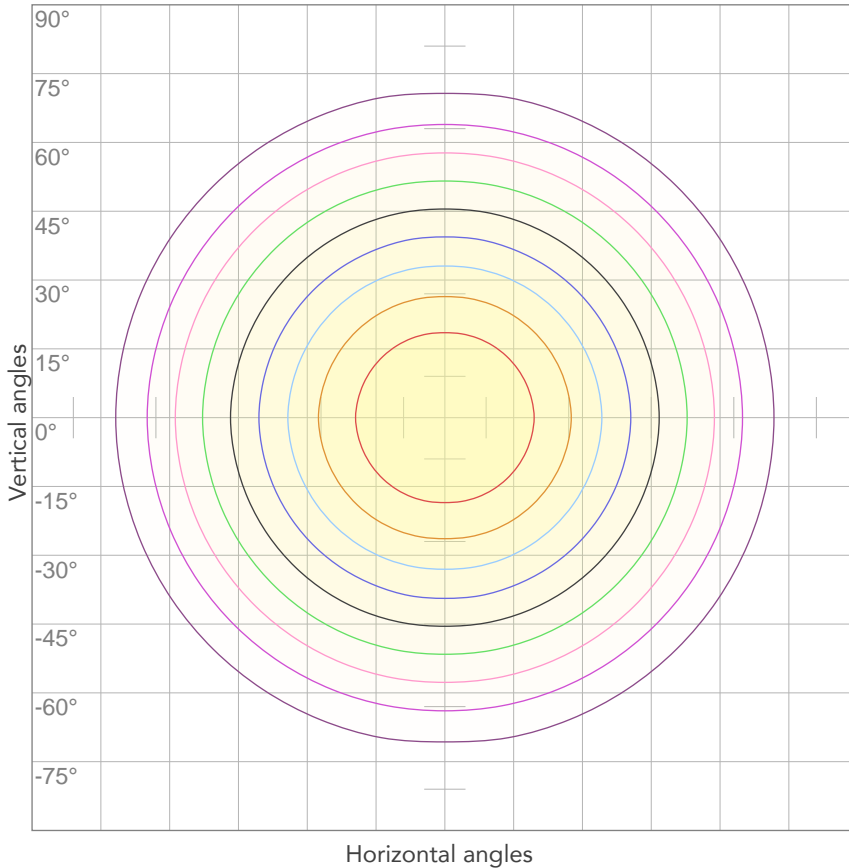
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,67A	353,3W	75lm/W
<b>Power FC</b>			
<b>0,95</b>			

## ISO CANDELA DIAGRAM



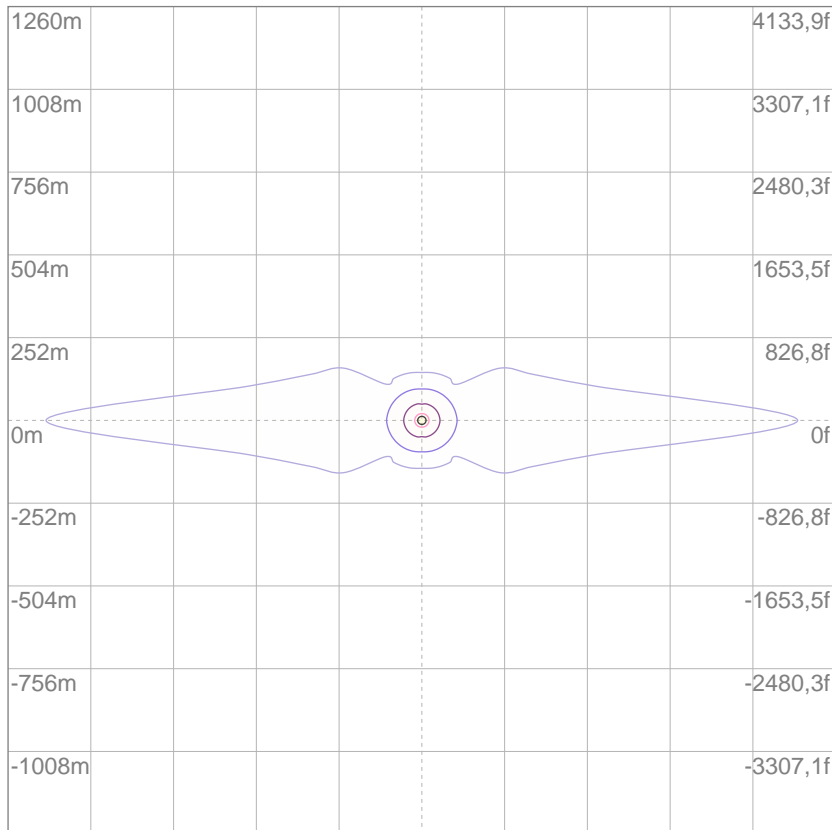
10%	1011 cd
20%	2022 cd
30%	3032 cd
40%	4043 cd
50%	5054 cd
60%	6065 cd
70%	7076 cd
80%	8087 cd

Conditions:

Number of c-planes: 4

Candela at center: 10108 cd

## ISO LUX DIAGRAM



3%	3,03 lx
5%	5,05 lx
10%	10,1 lx
30%	30,3 lx
50%	50,5 lx

Conditions:

Number of c-planes: 4

Lux at center: 101 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

25860 lm

Peak candela output:

9831 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter LD

Target:

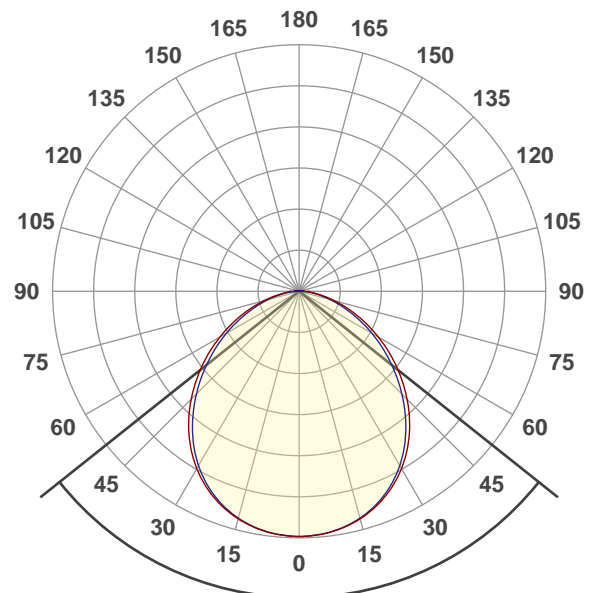
Full On

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:09:30

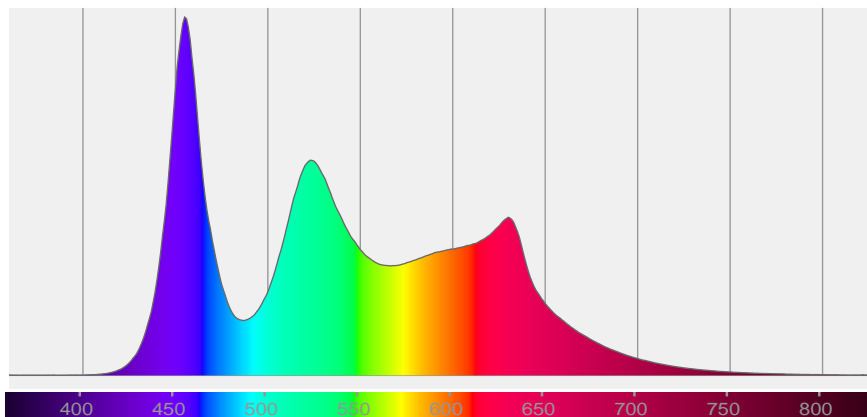


Beam angle 50%: 103°

Field angle 10%: 157°

Cut off angle 2.5%: 175,4°

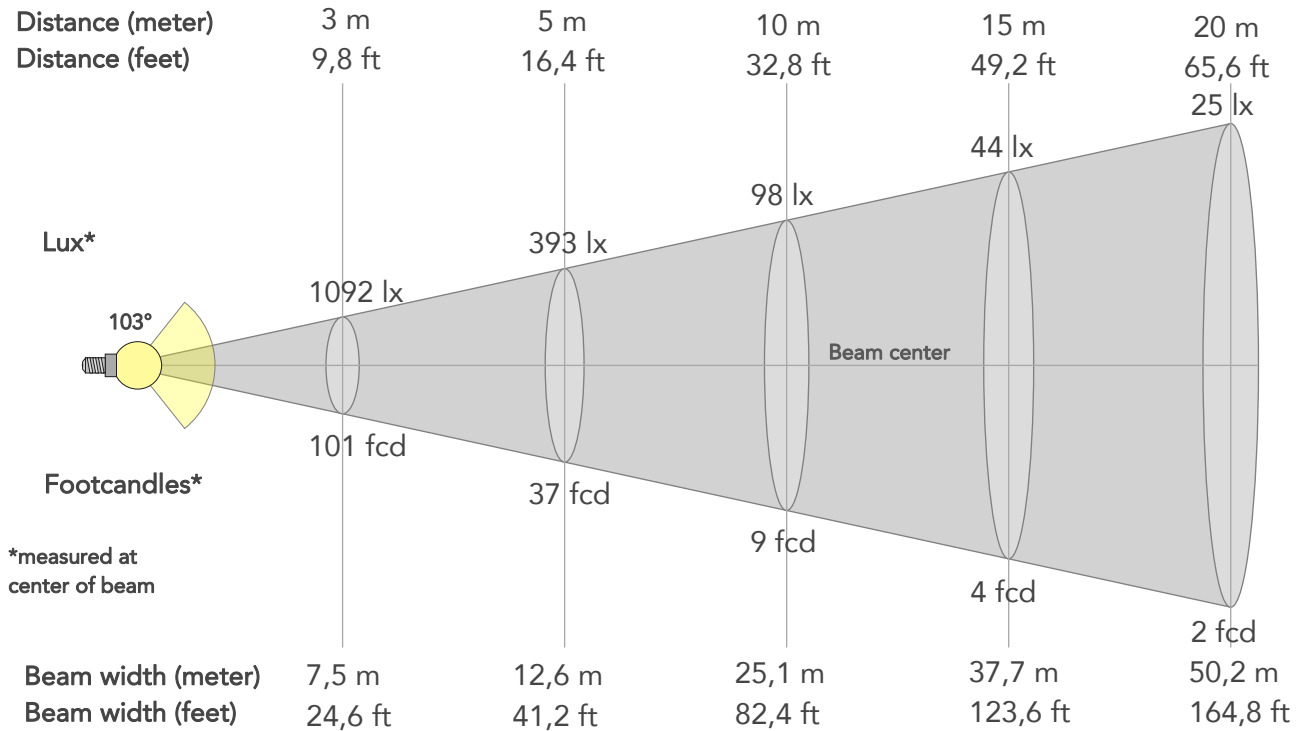
Spectra



# BEAM DETAILS



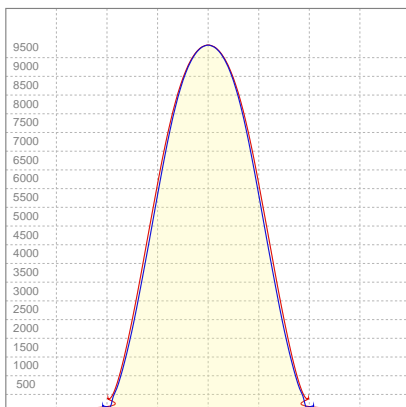
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
103°	157°	175,4°	80,2%	56,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	9828lx	2457lx	1092lx	614lx	393lx	175lx	98lx	44lx	25lx	16lx	11lx	6lx	4lx
Footcand.	913fcd	228fcd	101fcd	57fcd	37fcd	16fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,5m	10m	12,6m	18,8m	25,1m	37,7m	50,2m	62,8m	75,4m	100,5m	125,6m
Beam wid.	8,3ft	16,6ft	24,6ft	32,9ft	41,2ft	61,8ft	82,4ft	123,6ft	164,8ft	206ft	247,2ft	329,6ft	412ft

## LINEAR DISTRIBUTION DIAGRAM

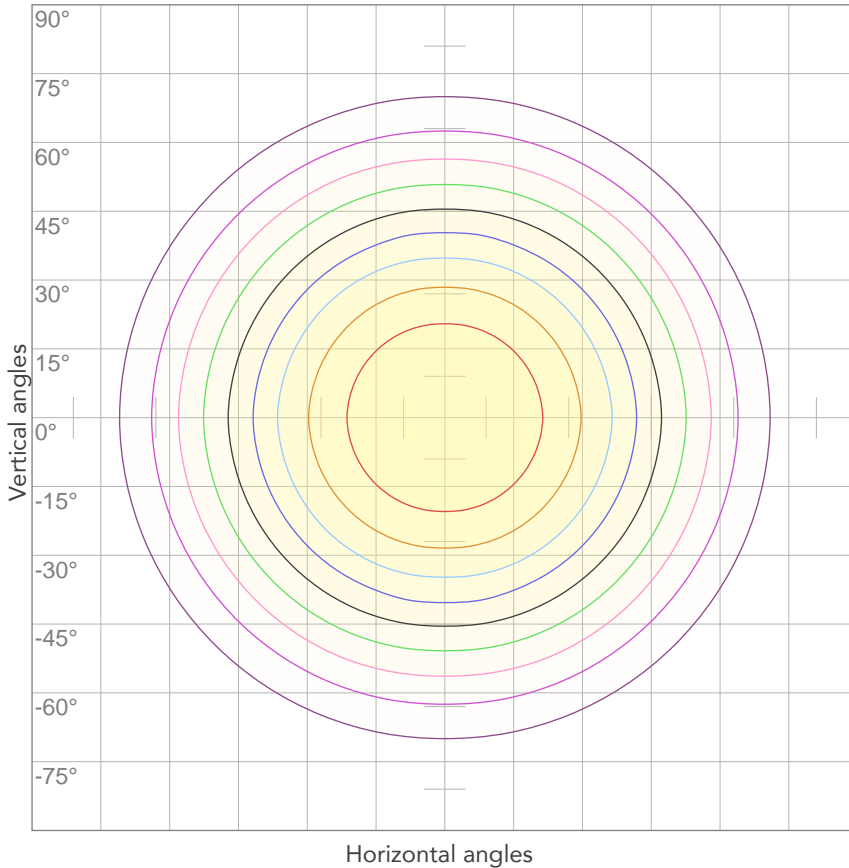


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,66A	352,2W	73lm/W

Power FC
0,95

## ISO CANDELA DIAGRAM



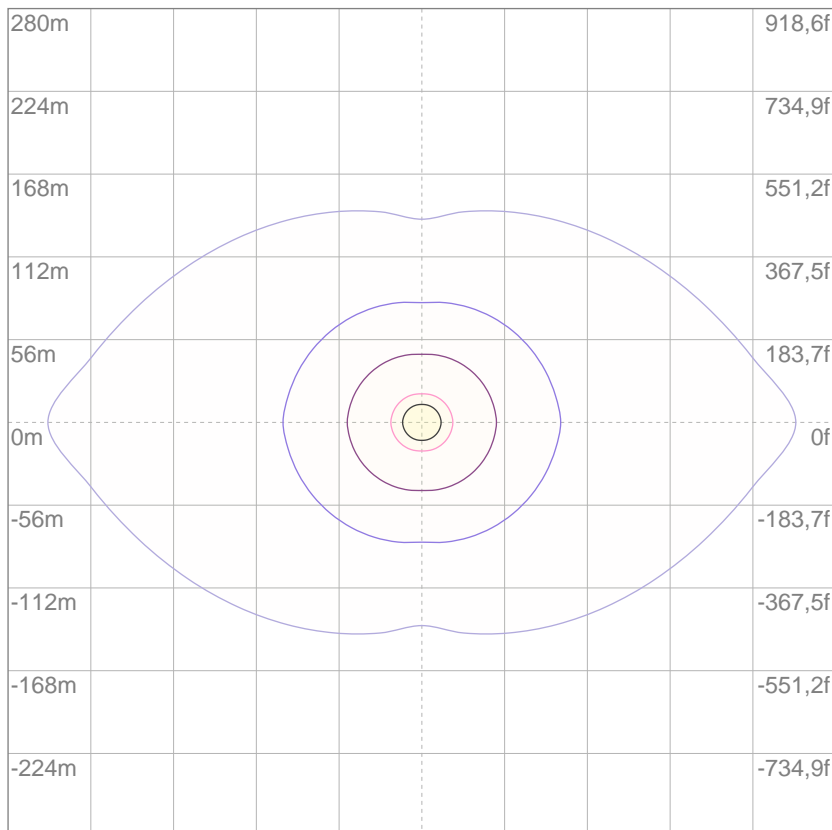
10%	983 cd
20%	1966 cd
30%	2948 cd
40%	3931 cd
50%	4914 cd
60%	5897 cd
70%	6880 cd
80%	7862 cd

Conditions:

Number of c-planes: 4

Candela at center: 9828 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2,95 lx
5%	4,91 lx
10%	9,83 lx
30%	29,5 lx
50%	49,1 lx

Conditions:

Number of c-planes: 4

Lux at center: 98,3 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*



Total lumen output:

5631 lm

Peak candela output:

1919 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter HD

Target:

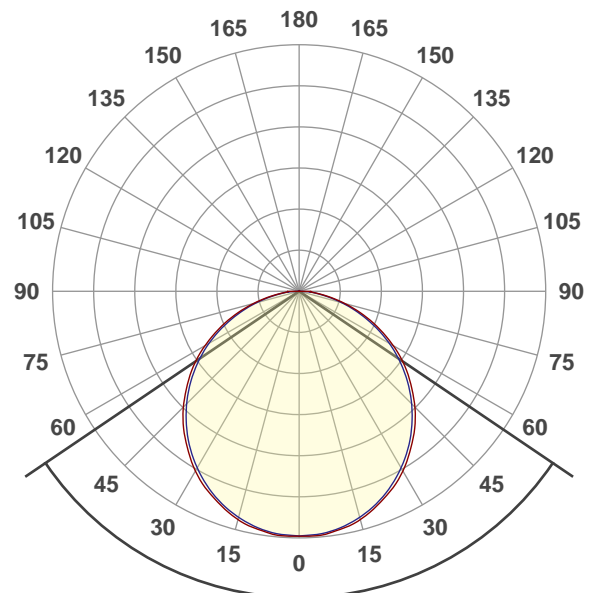
Red

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:53:22

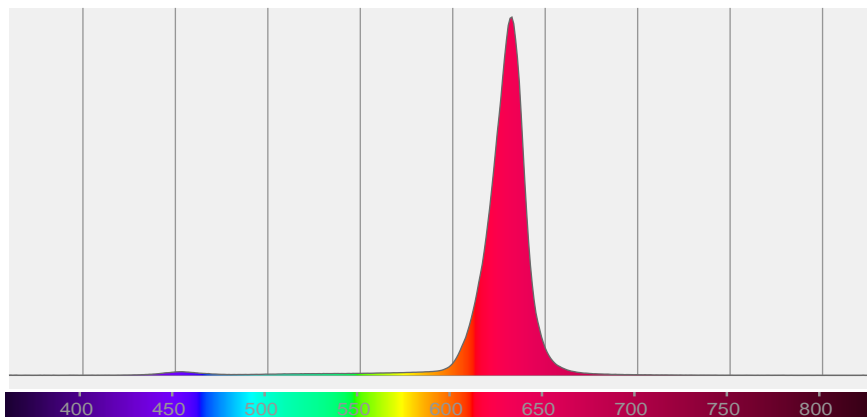


Beam angle 50%: 111,8°

Field angle 10%: 162°

Cut off angle 2.5%: 176,5°

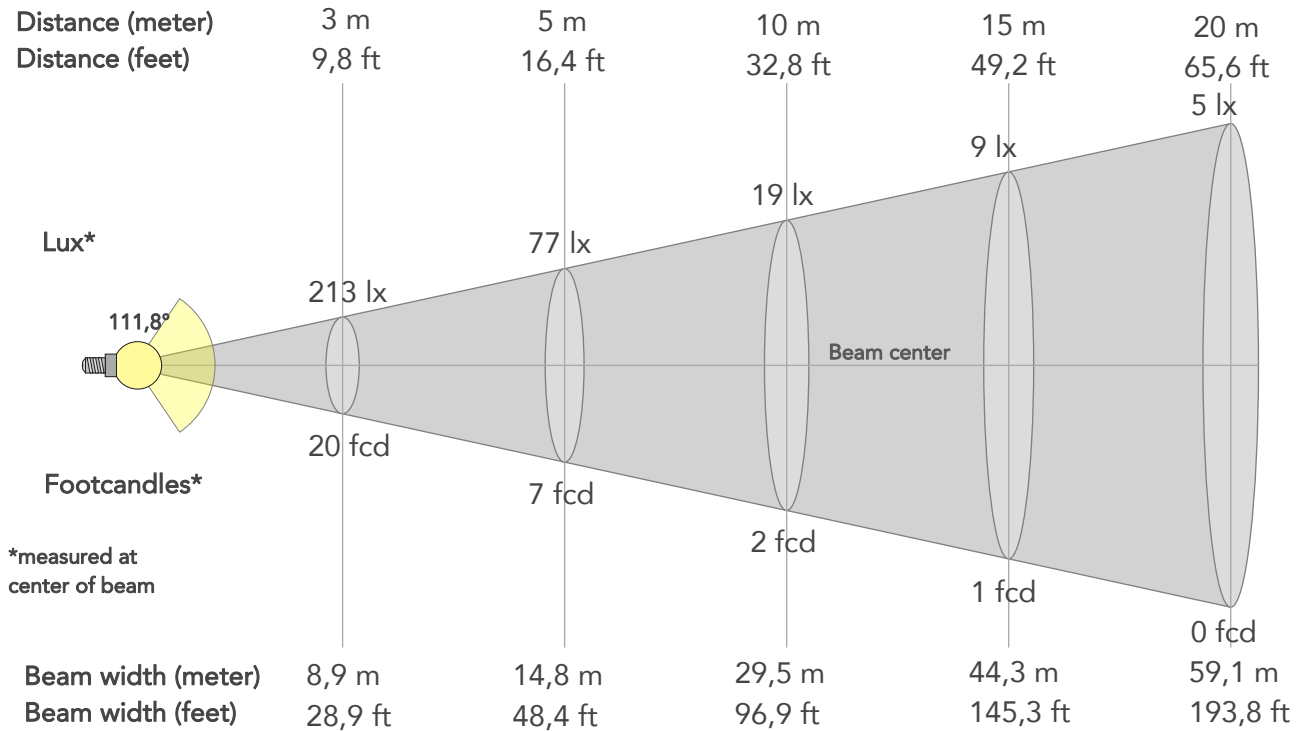
Spectra



# BEAM DETAILS



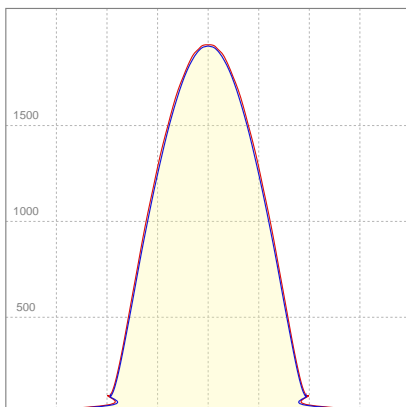
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
111,8°	162°	176,5°	76,0%	51,8%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1916lx	479lx	213lx	120lx	77lx	34lx	19lx	9lx	5lx	3lx	2lx	1lx	1lx
Footcand.	178fcd	45fcd	20fcd	11fcd	7fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,8m	14,8m	22,2m	29,5m	44,3m	59,1m	73,9m	88,6m	118,2m	147,7m
Beam wid.	9,7ft	19,5ft	28,9ft	38,7ft	48,4ft	72,7ft	96,9ft	145,3ft	193,8ft	242,2ft	290,7ft	387,6ft	484,5ft

## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,836A	159W	35lm/W

Power FC
0,95

## ISO CANDELA DIAGRAM



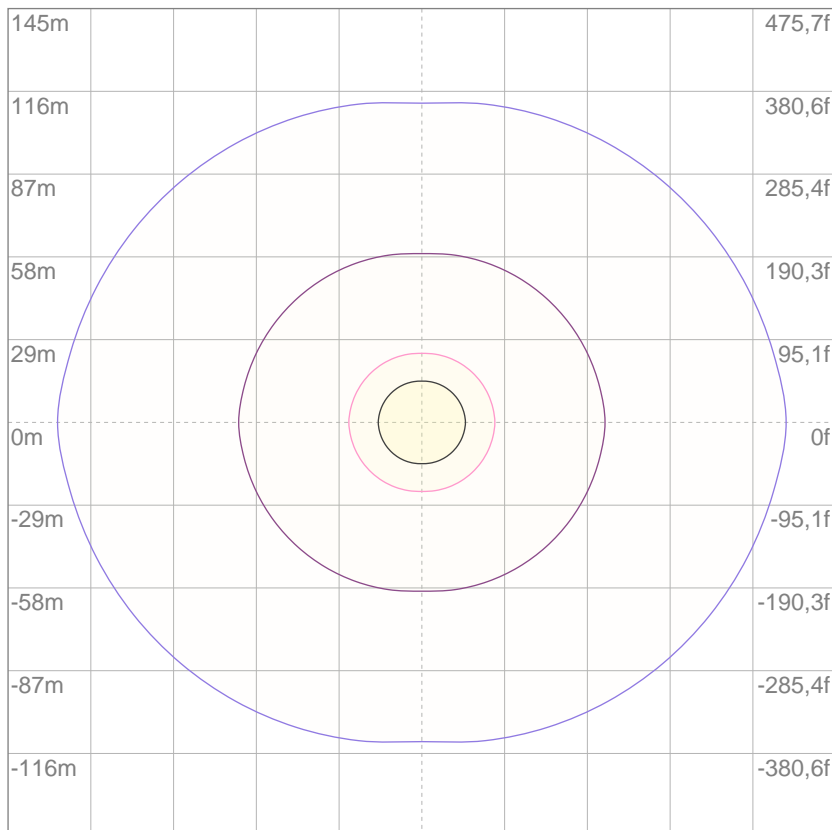
10%	192 cd
20%	383 cd
30%	575 cd
40%	766 cd
50%	958 cd
60%	1150 cd
70%	1341 cd
80%	1533 cd

Conditions:

Number of c-planes: 4

Candela at center: 1916 cd

## ISO LUX DIAGRAM



3%	0,575 lx
5%	0,958 lx
10%	1,92 lx
30%	5,75 lx
50%	9,58 lx

Conditions:

Number of c-planes: 4

Lux at center: 19,2 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*





Total lumen output:

6738 lm

Peak candela output:

2539 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter MD

Target:

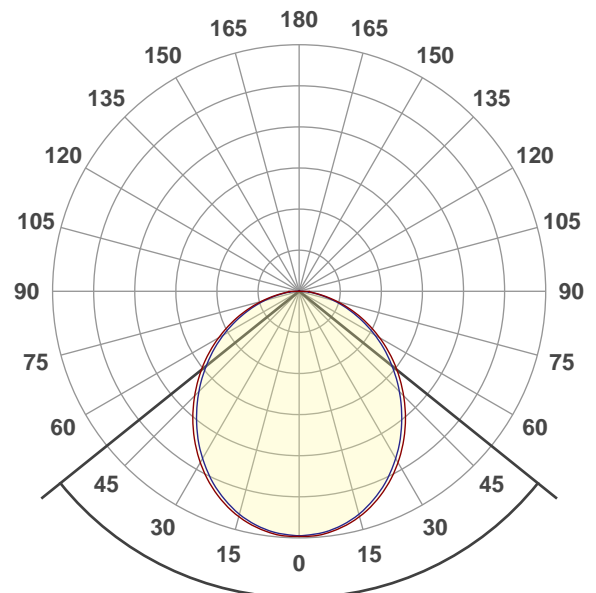
Red

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:17:16

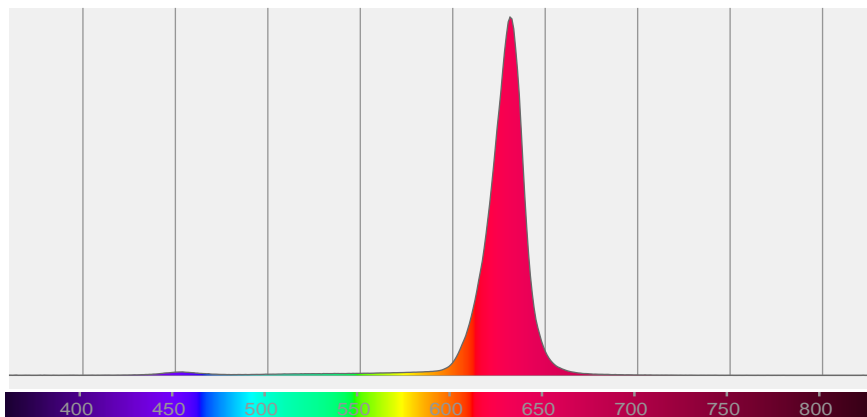


Beam angle 50%: 102,4°

Field angle 10%: 158,7°

Cut off angle 2.5%: 175,8°

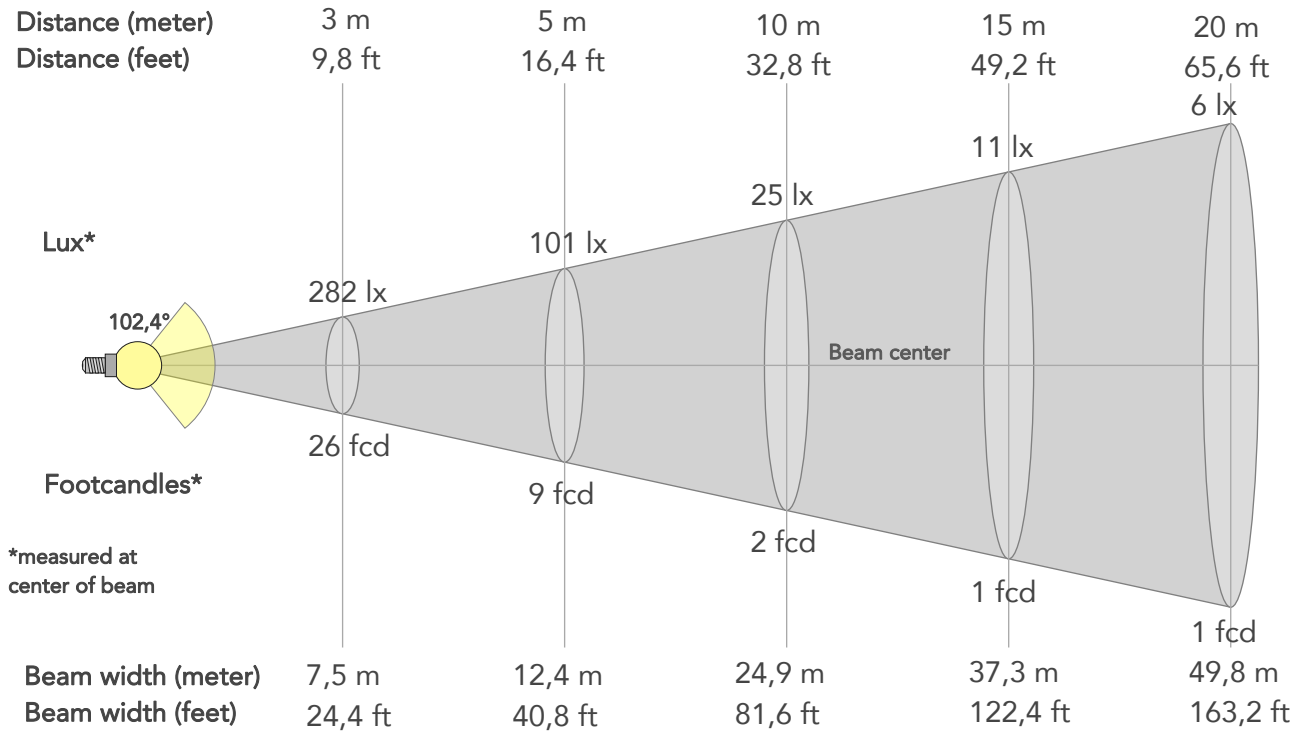
Spectra



# BEAM DETAILS



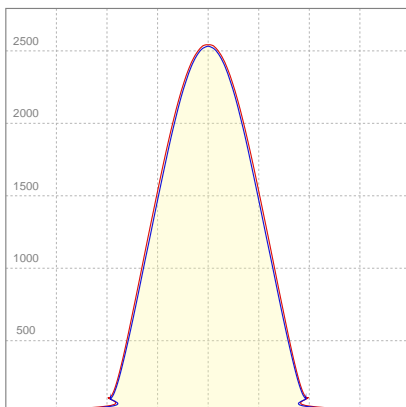
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,4°	158,7°	175,8°	77,8%	54,4%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	2534lx	634lx	282lx	158lx	101lx	45lx	25lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	235fcd	59fcd	26fcd	15fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	2,5m	5m	7,5m	10m	12,4m	18,7m	24,9m	37,3m	49,8m	62,2m	74,6m	99,5m	124,4m
Beam wid.	8,2ft	16,4ft	24,4ft	32,6ft	40,8ft	61,2ft	81,6ft	122,4ft	163,2ft	204ft	244,8ft	326,5ft	408,1ft

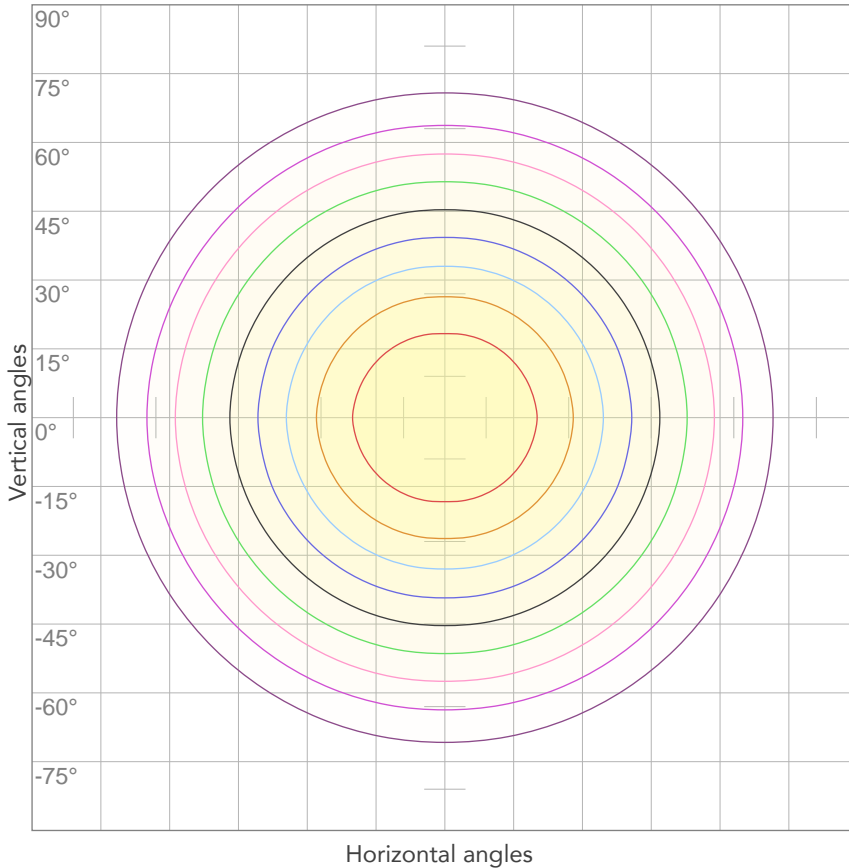
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,834A	158,8W	42lm/W
Power FC			
0,95			

## ISO CANDELA DIAGRAM



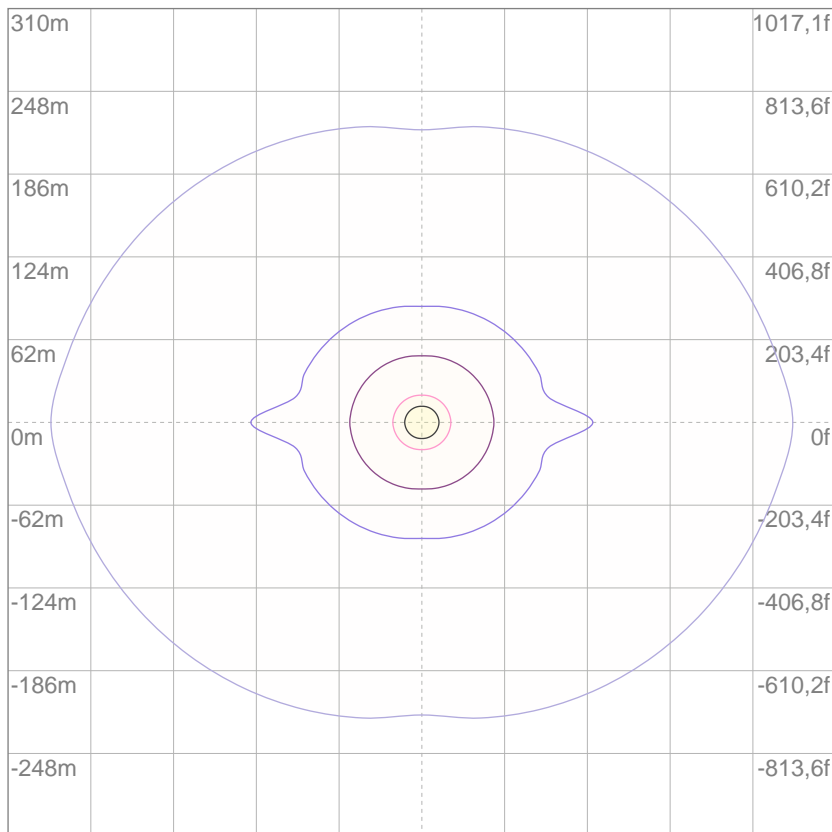
10%	253 cd
20%	507 cd
30%	760 cd
40%	1014 cd
50%	1267 cd
60%	1521 cd
70%	1774 cd
80%	2027 cd

Conditions:

Number of c-planes: 4

Candela at center: 2534 cd

## ISO LUX DIAGRAM



3%	0,760 lx
5%	1,27 lx
10%	2,53 lx
30%	7,60 lx
50%	12,7 lx

Conditions:

Number of c-planes: 4

Lux at center: 25,3 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

6443 lm

Peak candela output:

2392 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter LD

Target:

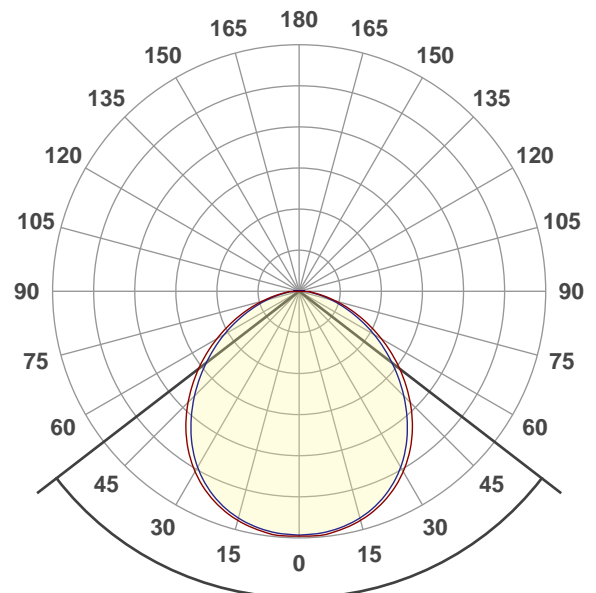
Red

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:11:18

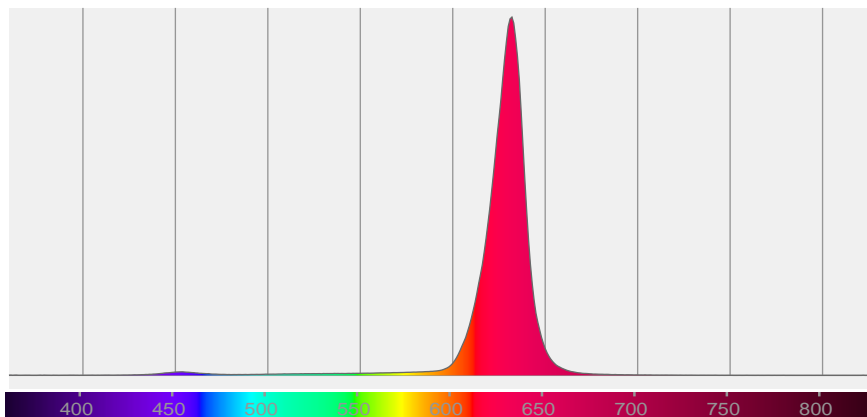


Beam angle 50%: 104,8°

Field angle 10%: 157,9°

Cut off angle 2.5%: 176,4°

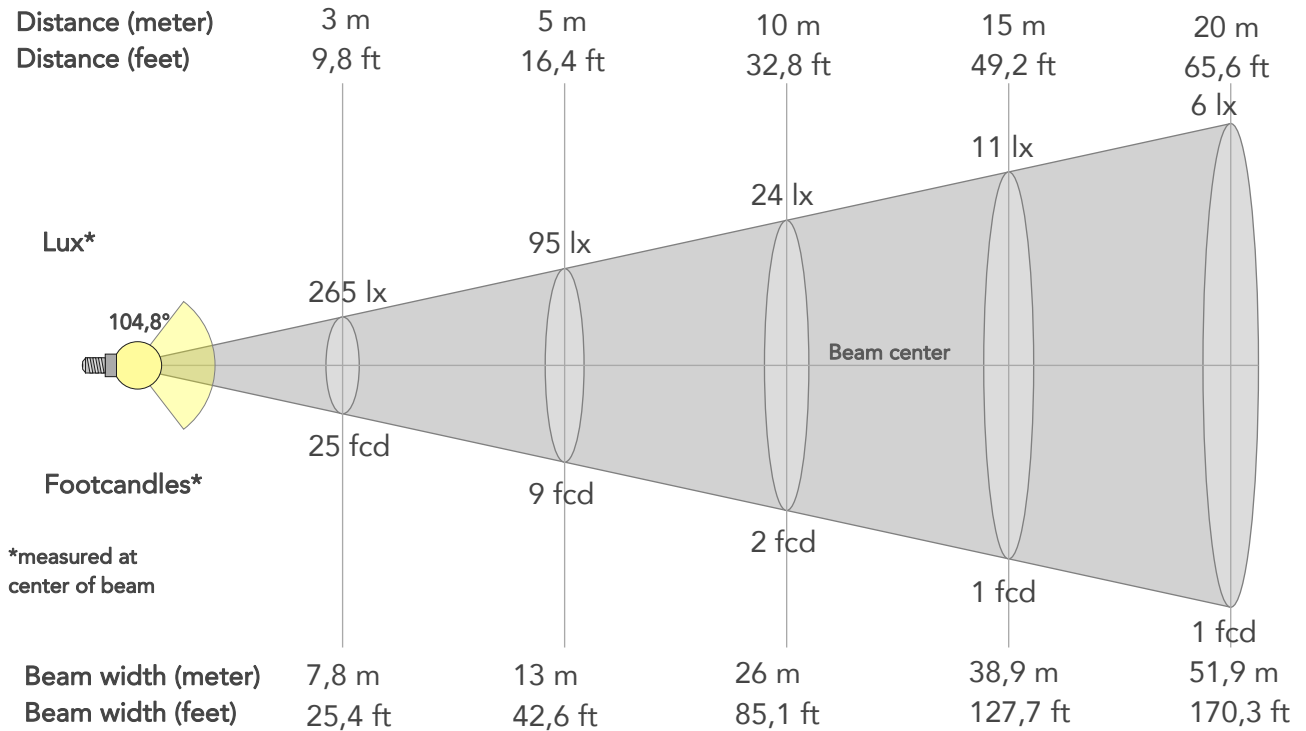
Spectra



# BEAM DETAILS



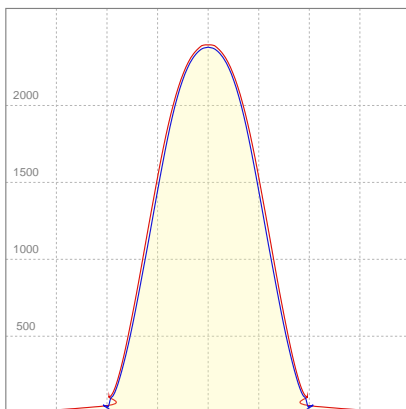
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
104,8°	157,9°	176,4°	79,7%	55,9%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	2385lx	596lx	265lx	149lx	95lx	42lx	24lx	11lx	6lx	4lx	3lx	1lx	1lx
Footcand.	222fcd	55fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	2,6m	5,2m	7,8m	10,4m	13m	19,5m	26m	38,9m	51,9m	64,9m	77,9m	103,8m	129,8m
Beam wid.	8,6ft	17,1ft	25,4ft	34ft	42,6ft	63,9ft	85,1ft	127,7ft	170,3ft	212,9ft	255,4ft	340,6ft	425,7ft

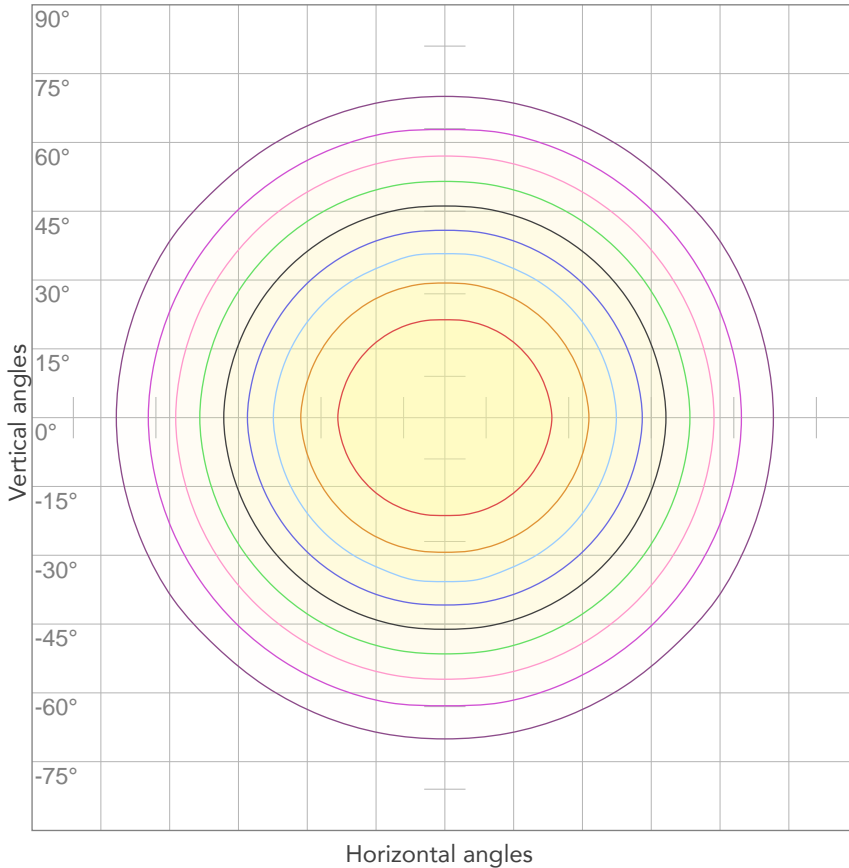
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,835A	159W	41lm/W
Power FC			
0,95			

## ISO CANDELA DIAGRAM



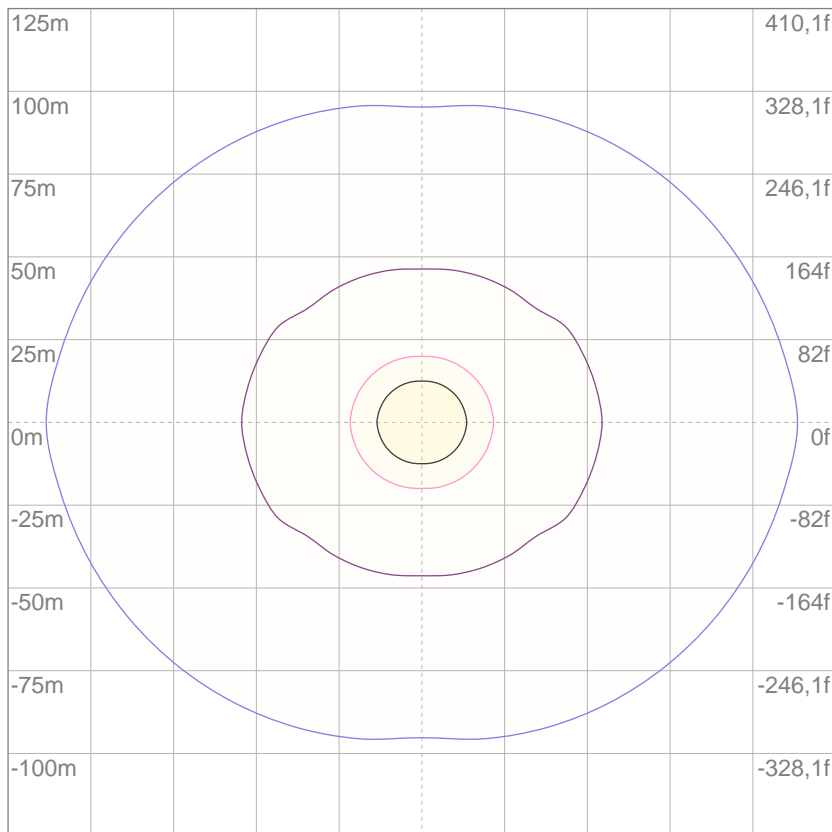
10%	238 cd
20%	477 cd
30%	715 cd
40%	954 cd
50%	1192 cd
60%	1431 cd
70%	1669 cd
80%	1908 cd

Conditions:

Number of c-planes: 4

Candela at center: 2385 cd

## ISO LUX DIAGRAM



3%	0,715 lx
5%	1,19 lx
10%	2,38 lx
30%	7,15 lx
50%	11,9 lx

Conditions:

Number of c-planes: 4

Lux at center: 23,8 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

12725 lm

Peak candela output:

4336 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter HD

Target:

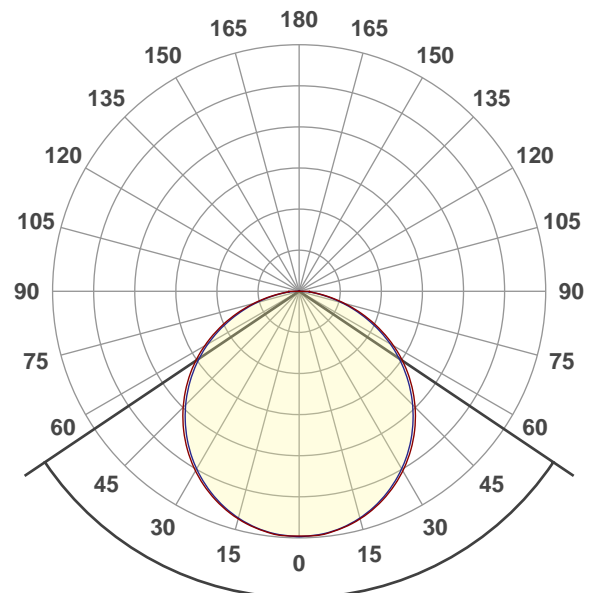
Green

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:55:01

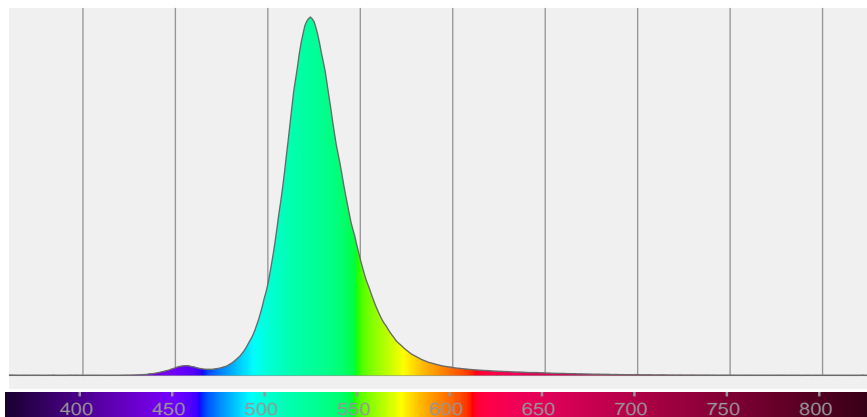


Beam angle 50%: 112,2°

Field angle 10%: 161,7°

Cut off angle 2.5%: 176,4°

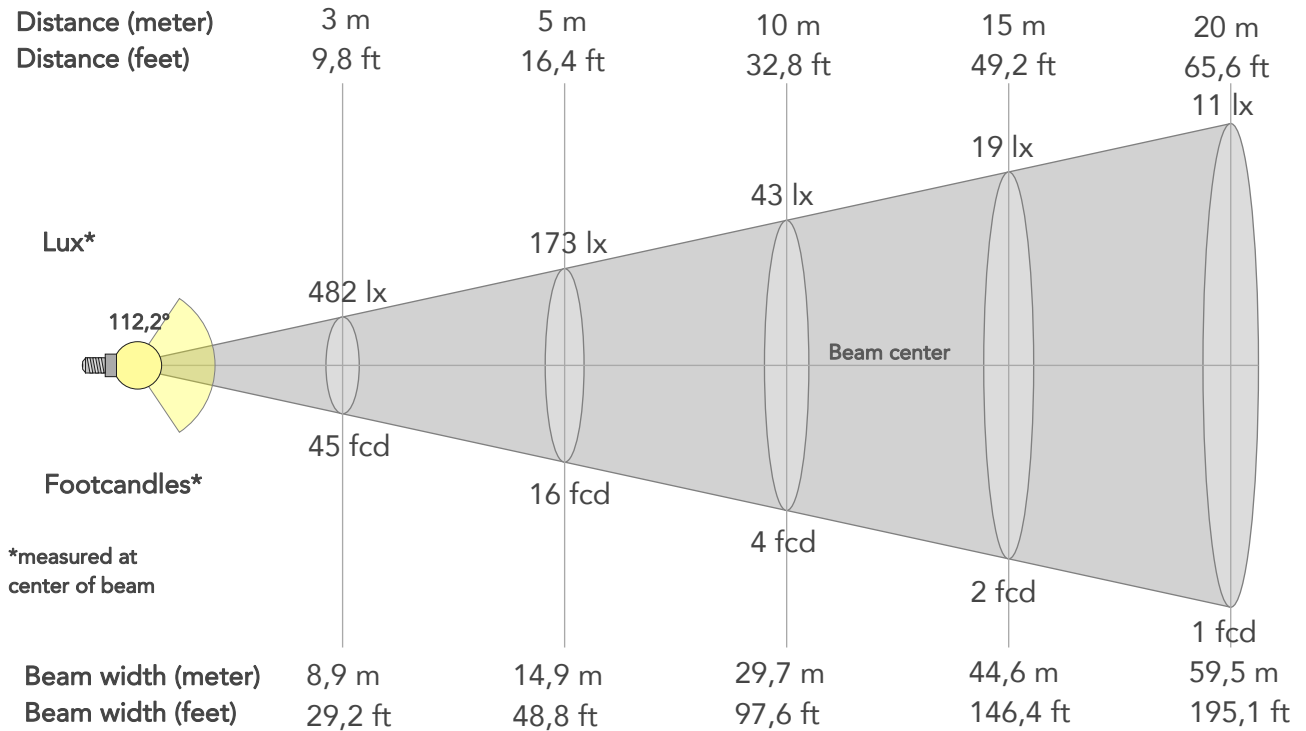
Spectra



# BEAM DETAILS



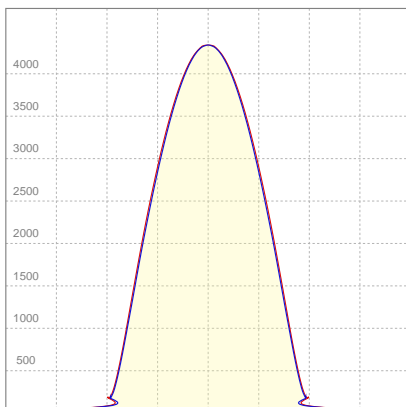
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
112,2°	161,7°	176,4°	76,3%	51,9%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4334lx	1084lx	482lx	271lx	173lx	77lx	43lx	19lx	11lx	7lx	5lx	3lx	2lx
Footcand.	403fcd	101fcd	45fcd	25fcd	16fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,9m	14,9m	22,3m	29,7m	44,6m	59,5m	74,4m	89,2m	119m	148,7m
Beam wid.	9,8ft	19,6ft	29,2ft	39ft	48,8ft	73,2ft	97,6ft	146,4ft	195,1ft	243,9ft	292,7ft	390,3ft	487,9ft

## LINEAR DISTRIBUTION DIAGRAM

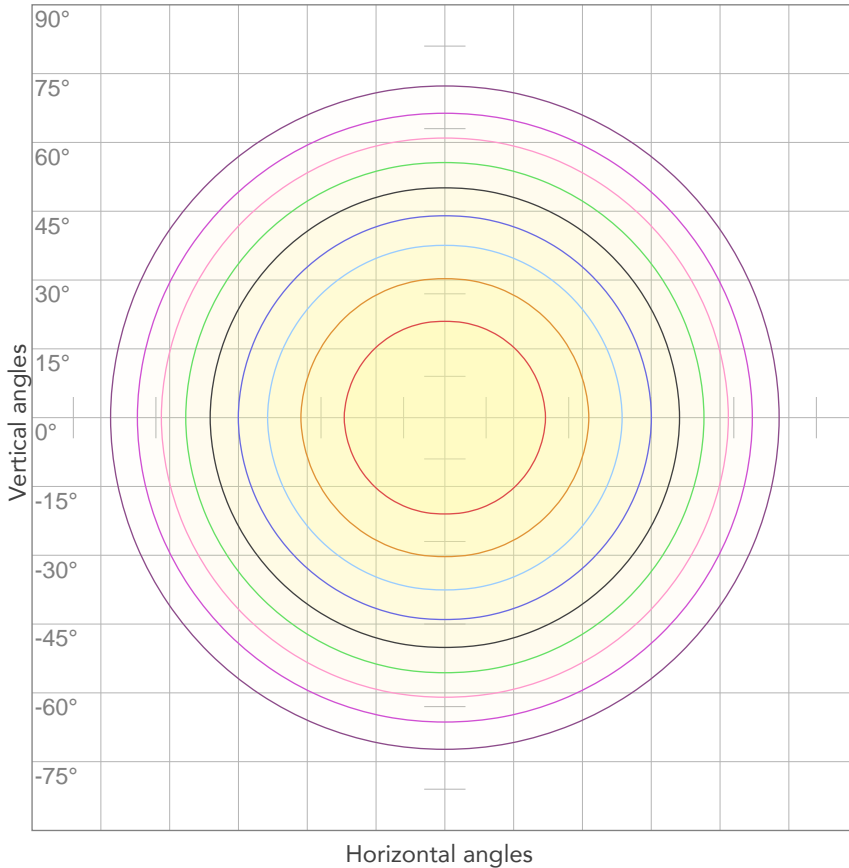


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	1,02A	202W	63lm/W
<b>Power FC</b>			
0,95			



## ISO CANDELA DIAGRAM



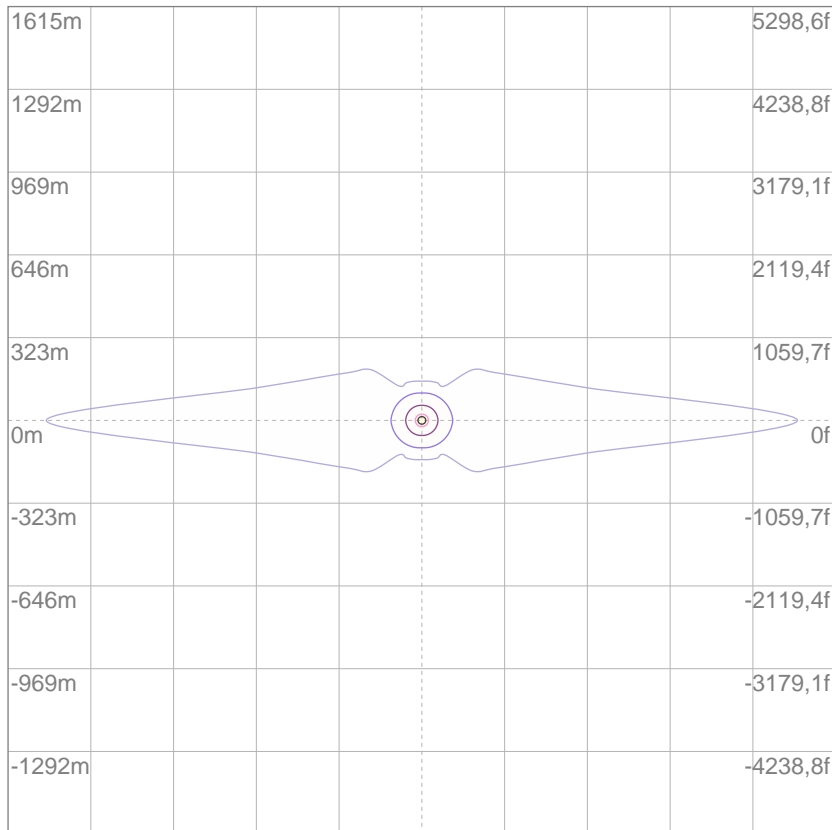
10%	433 cd
20%	867 cd
30%	1300 cd
40%	1734 cd
50%	2167 cd
60%	2601 cd
70%	3034 cd
80%	3467 cd

Conditions:

Number of c-planes: 4

Candela at center: 4334 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	1,30 lx
5%	2,17 lx
10%	4,33 lx
30%	13,0 lx
50%	21,7 lx

Conditions:

Number of c-planes: 4

Lux at center: 43,3 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*



Total lumen output:

14696 lm

Peak candela output:

5440 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter LD

Target:

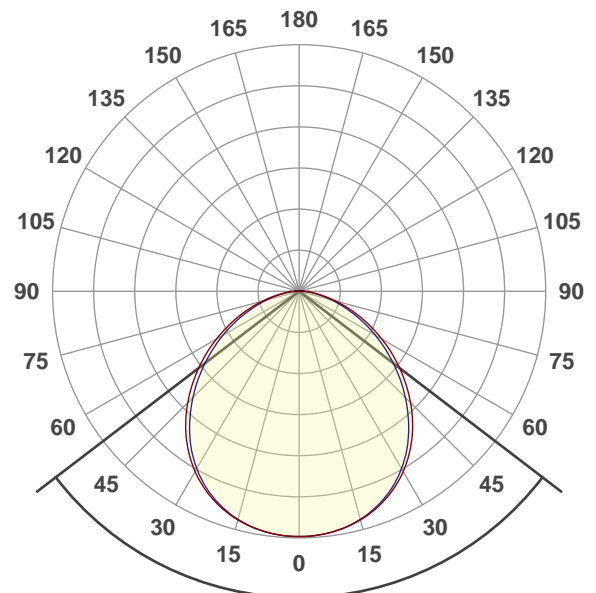
Green

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:13:00

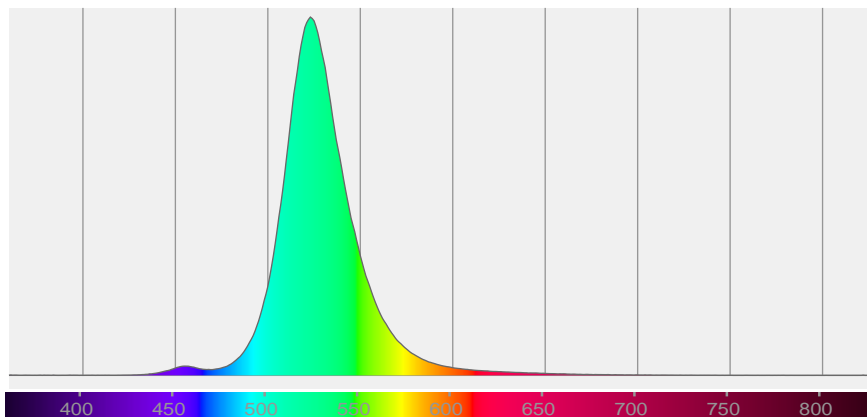


Beam angle 50%: 105,2°

Field angle 10%: 157,7°

Cut off angle 2.5%: 175,9°

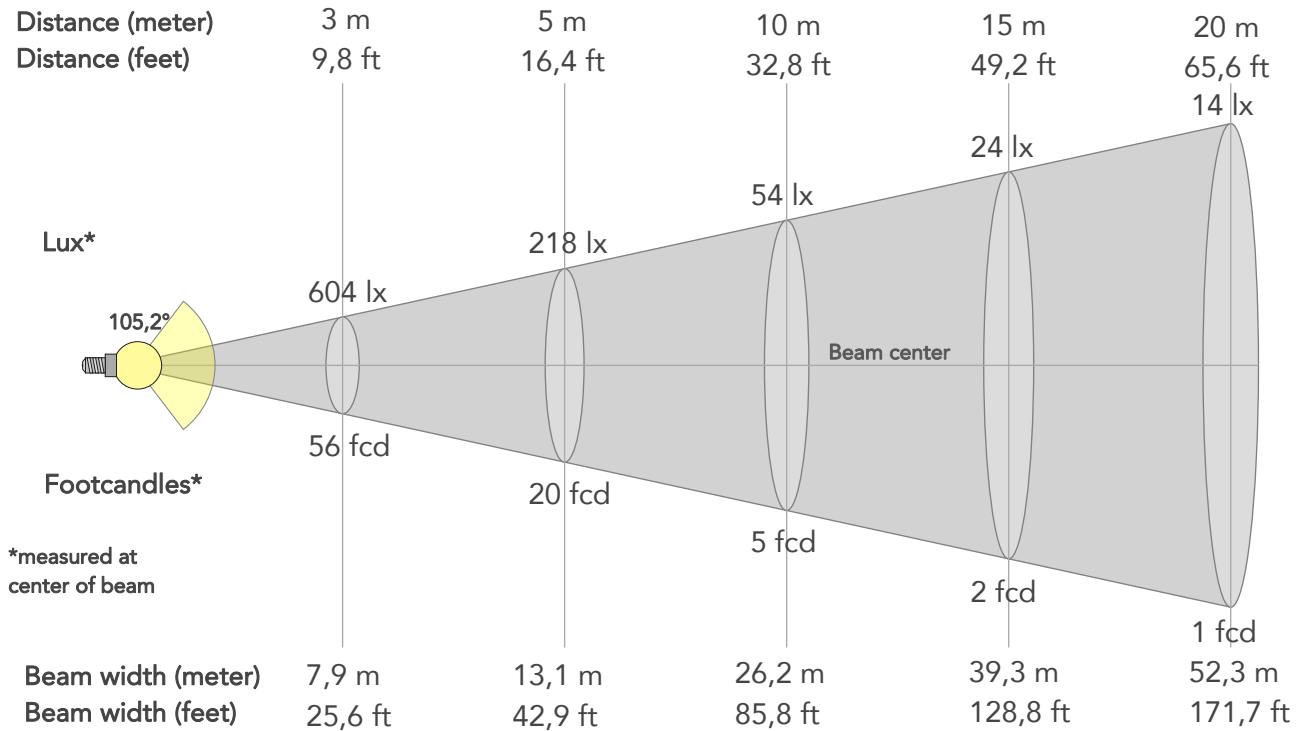
Spectra



# BEAM DETAILS



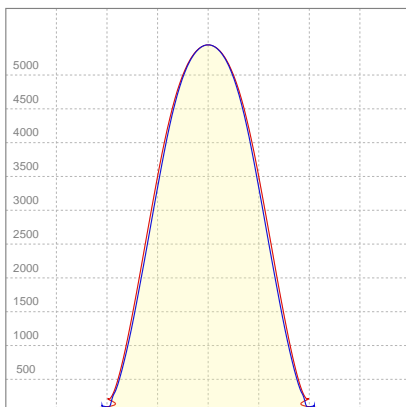
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
105,2°	157,7°	175,9°	80,0%	56,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	5440lx	1360lx	604lx	340lx	218lx	97lx	54lx	24lx	14lx	9lx	6lx	3lx	2lx
Footcand.	505fcd	126fcd	56fcd	32fcd	20fcd	9fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	2,6m	5,2m	7,9m	10,5m	13,1m	19,6m	26,2m	39,3m	52,3m	65,4m	78,5m	104,7m	130,8m
Beam wid.	8,6ft	17,3ft	25,6ft	34,3ft	42,9ft	64,4ft	85,8ft	128,8ft	171,7ft	214,6ft	257,5ft	343,3ft	429,2ft

## LINEAR DISTRIBUTION DIAGRAM

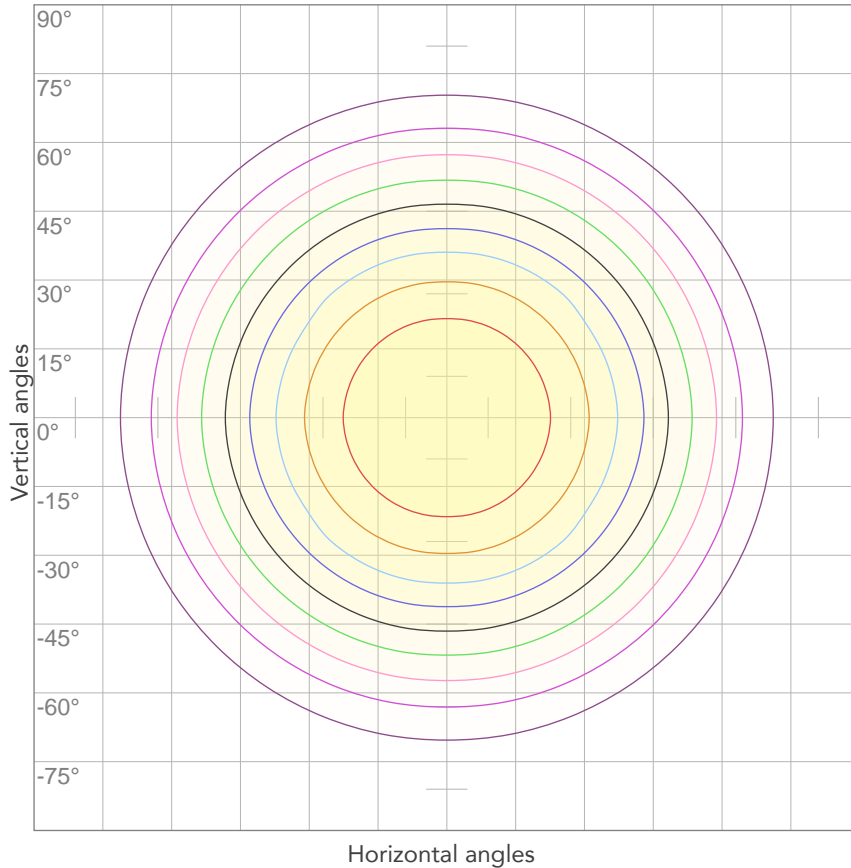


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	1,02A	202,1W	73lm/W

Power FC
0,95

## ISO CANDELA DIAGRAM



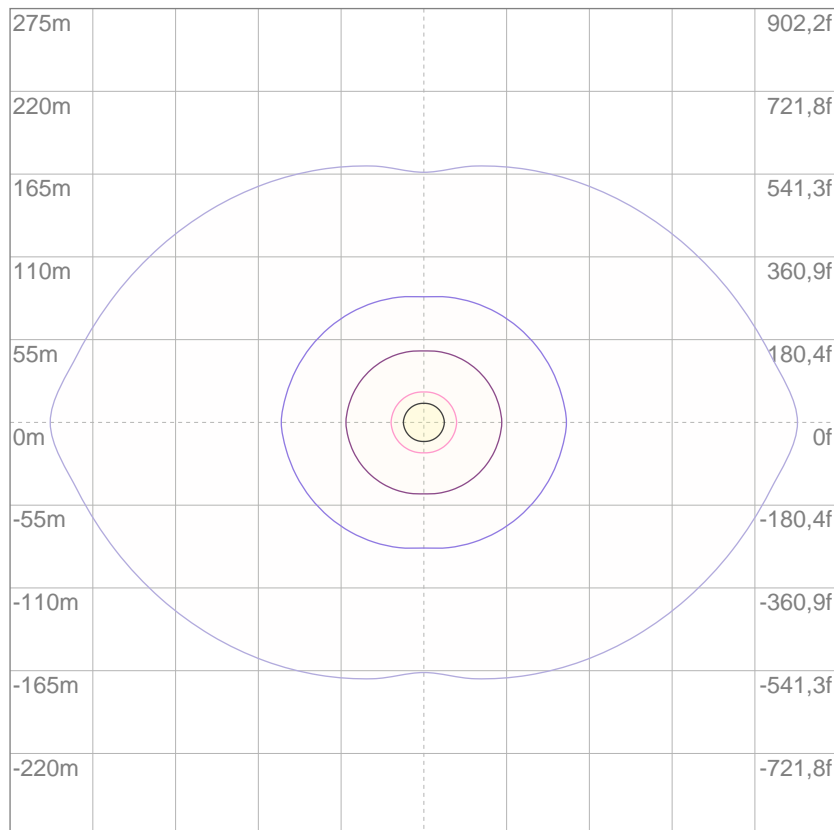
10%	544 cd
20%	1088 cd
30%	1632 cd
40%	2176 cd
50%	2720 cd
60%	3264 cd
70%	3808 cd
80%	4352 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 5440 cd

## ISO LUX DIAGRAM



3%	1,63 lx
5%	2,72 lx
10%	5,44 lx
30%	16,3 lx
50%	27,2 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 54,4 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

14728 lm

Peak candela output:

5593 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter MD

Target:

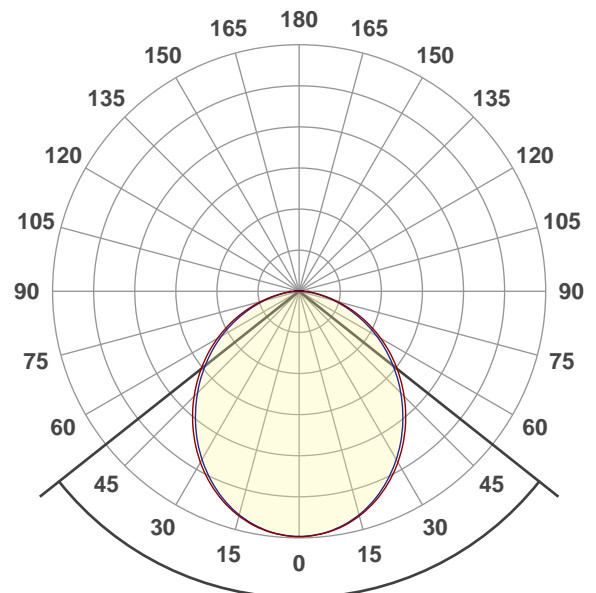
Green

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:18:58

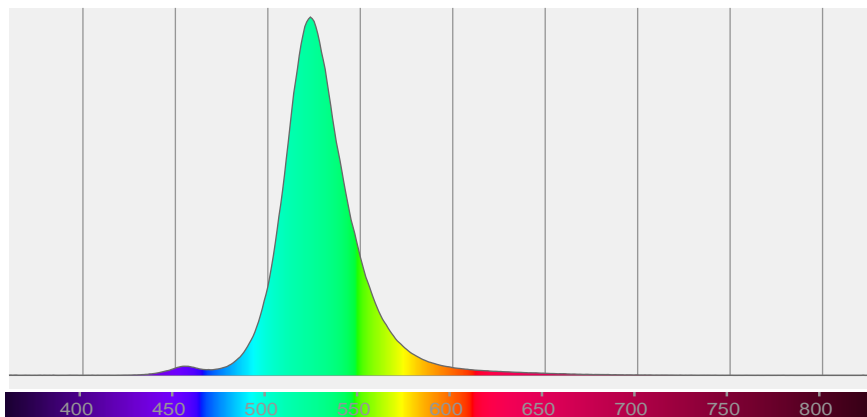


Beam angle 50%: 103,2°

Field angle 10%: 158,8°

Cut off angle 2.5%: 175,5°

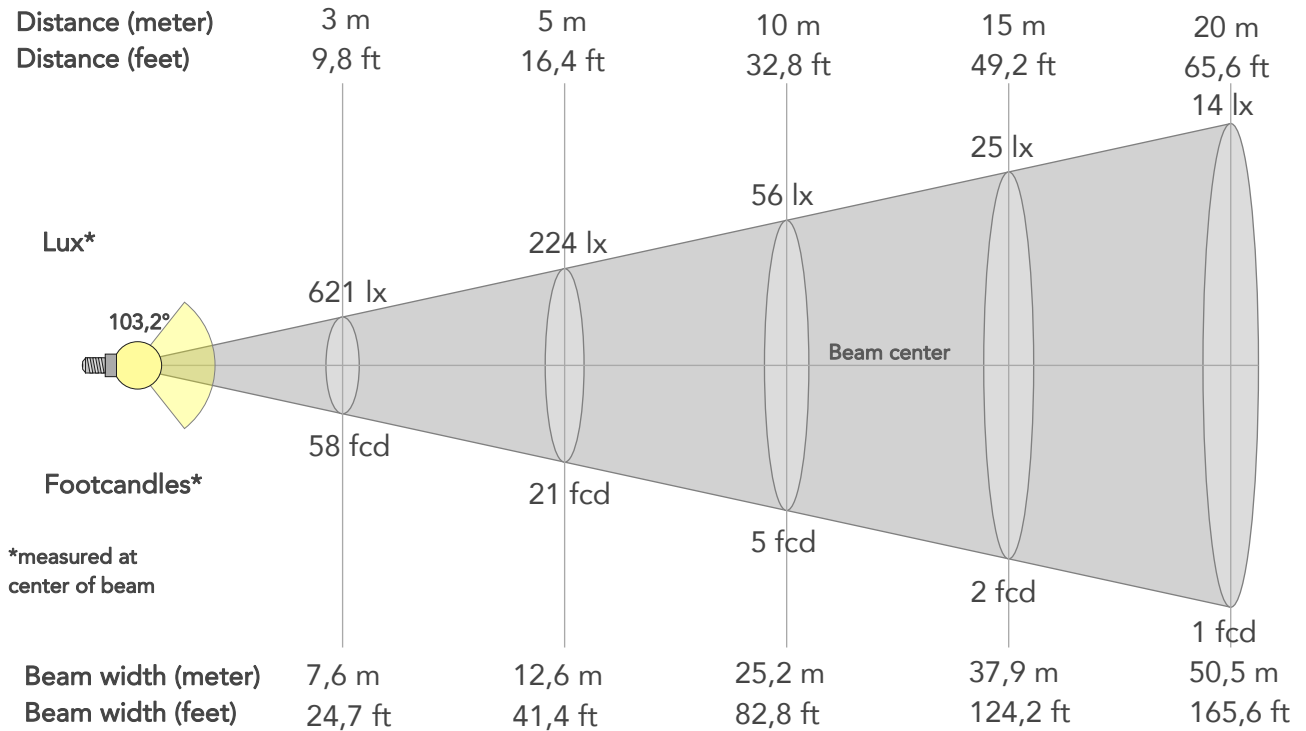
Spectra



# BEAM DETAILS



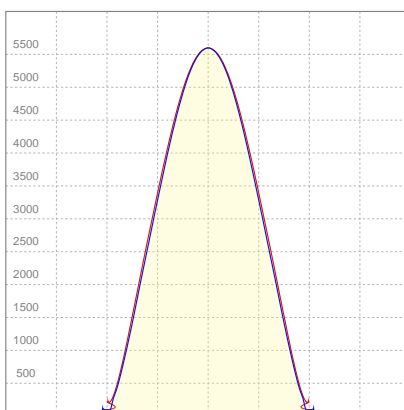
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
103,2°	158,8°	175,5°	78,9%	55,1%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	5591lx	1398lx	621lx	349lx	224lx	99lx	56lx	25lx	14lx	9lx	6lx	3lx	2lx
Footcand.	519fcd	130fcd	58fcd	32fcd	21fcd	9fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	2,5m	5m	7,6m	10,1m	12,6m	18,9m	25,2m	37,9m	50,5m	63,1m	75,7m	101m	126,2m
Beam wid.	8,3ft	16,7ft	24,7ft	33,1ft	41,4ft	62,1ft	82,8ft	124,2ft	165,6ft	207ft	248,4ft	331,2ft	414,1ft

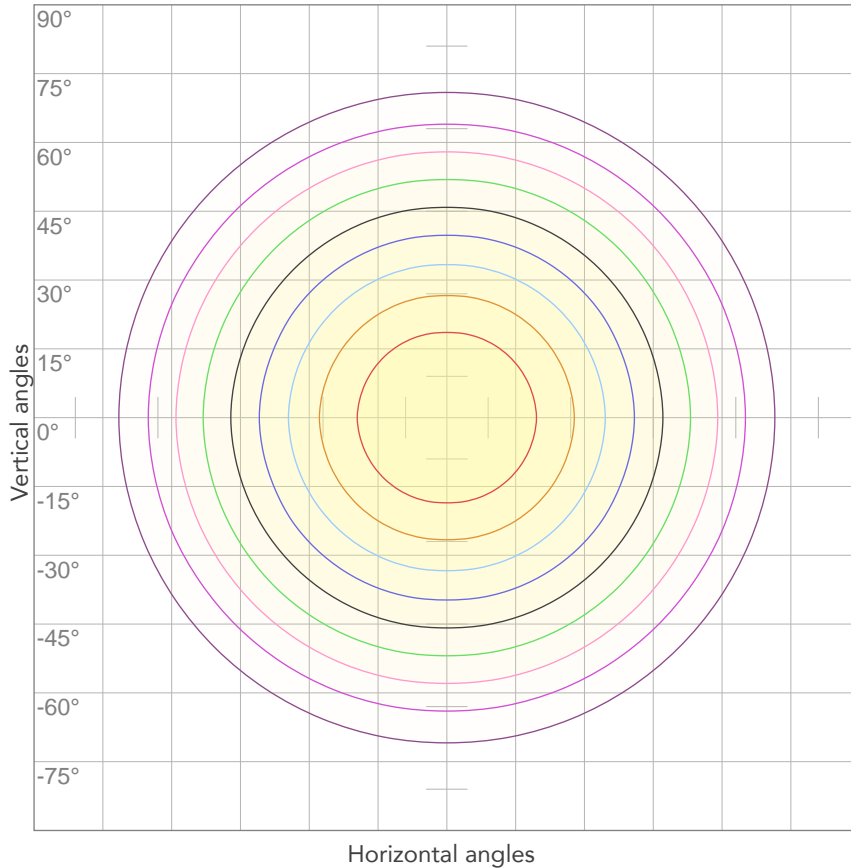
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,03A	202,9W	73lm/W
Power FC			
0,95			

## ISO CANDELA DIAGRAM



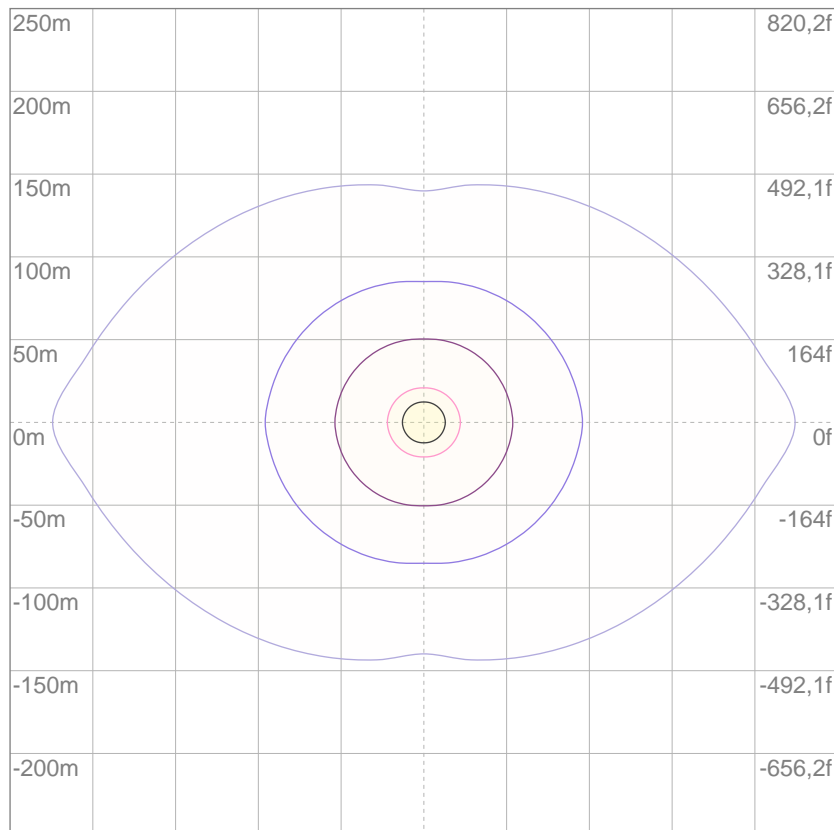
10%	559 cd
20%	1118 cd
30%	1677 cd
40%	2236 cd
50%	2795 cd
60%	3355 cd
70%	3914 cd
80%	4473 cd

Conditions:

Number of c-planes: 4

Candela at center: 5591 cd

## ISO LUX DIAGRAM



3%	1,68 lx
5%	2,80 lx
10%	5,59 lx
30%	16,8 lx
50%	28,0 lx

Conditions:

Number of c-planes: 4

Lux at center: 55,9 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

2698 lm

Peak candela output:

927 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter HD

Target:

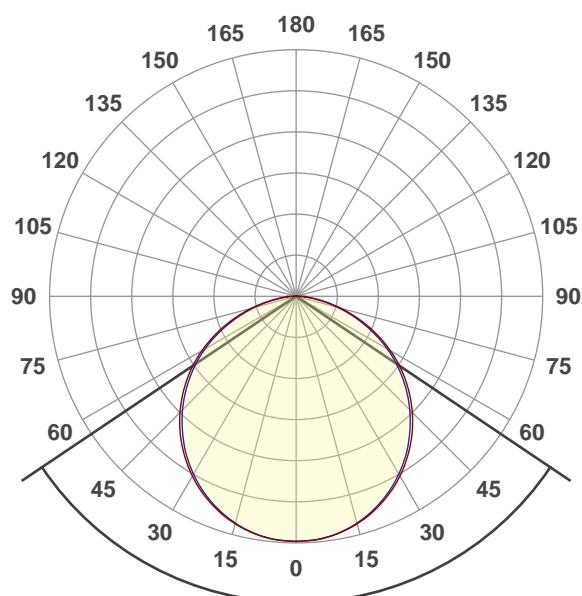
Blue

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:56:46

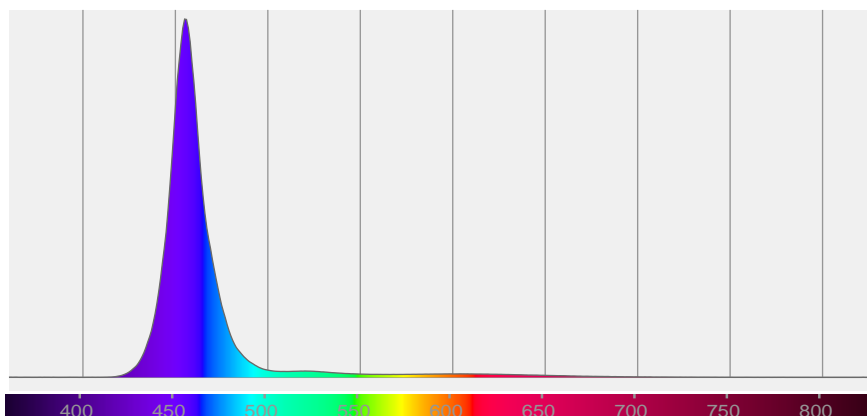


Beam angle 50%: 112,1°

Field angle 10%: 161°

Cut off angle 2.5%: 176,5°

Spectra

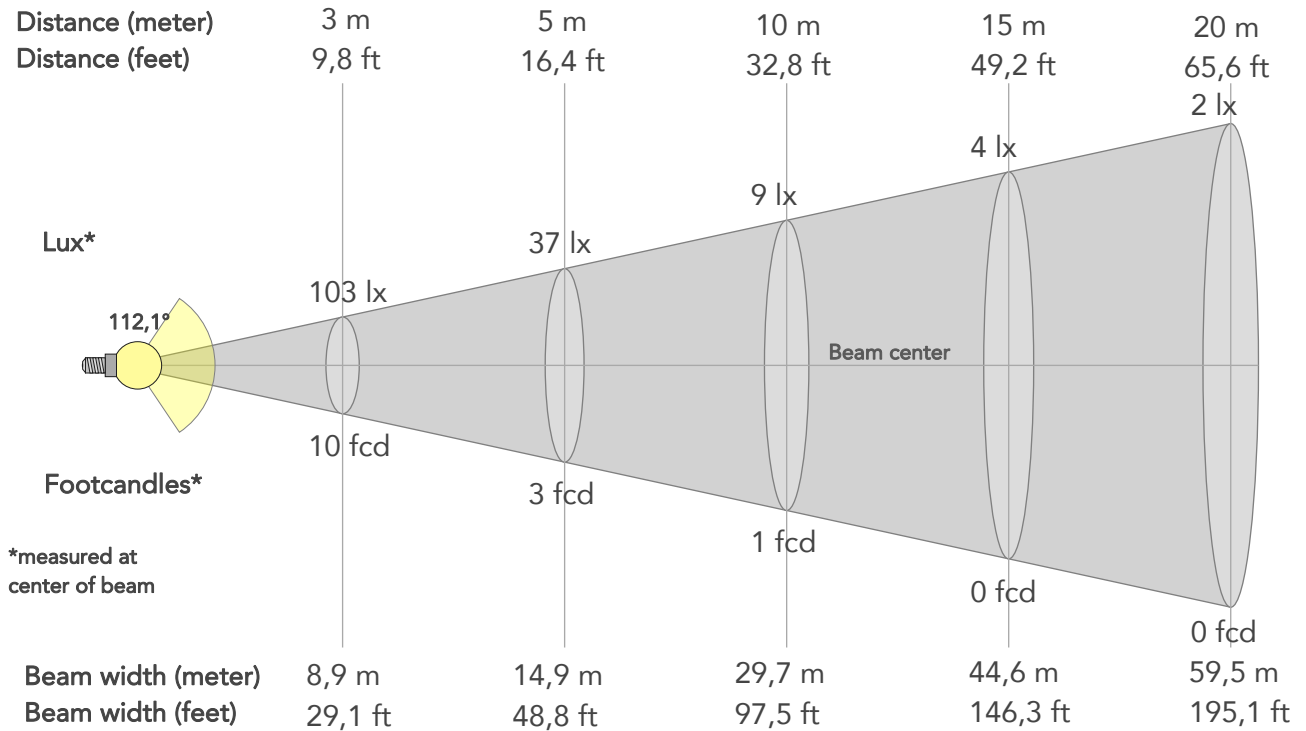




# BEAM DETAILS



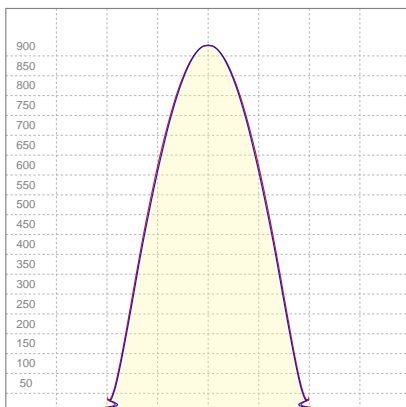
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
112,1°	161°	176,5°	77,1%	52,4%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	927lx	232lx	103lx	58lx	37lx	16lx	9lx	4lx	2lx	1lx	1lx	1lx	0lx
Footcand.	86fcd	22fcd	10fcd	5fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,9m	14,9m	22,3m	29,7m	44,6m	59,5m	74,3m	89,2m	118,9m	148,7m
Beam wid.	9,8ft	19,6ft	29,1ft	39ft	48,8ft	73,1ft	97,5ft	146,3ft	195,1ft	243,8ft	292,6ft	390,1ft	487,6ft

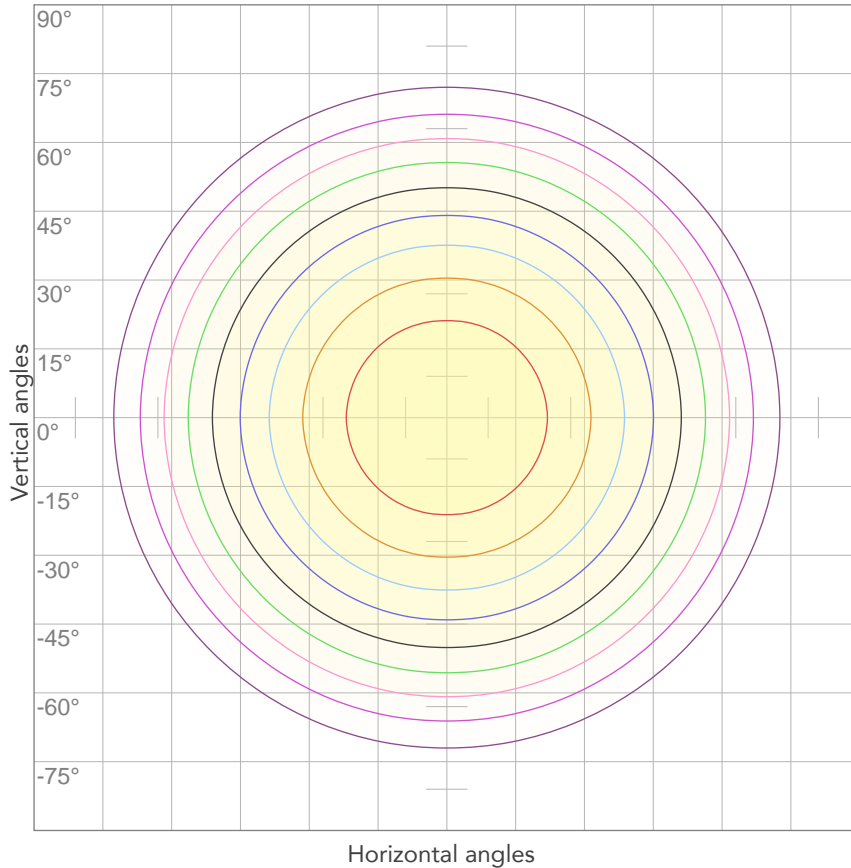
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,701A	124,1W	22lm/W
<b>Power FC</b>			
0,95			

## ISO CANDELA DIAGRAM



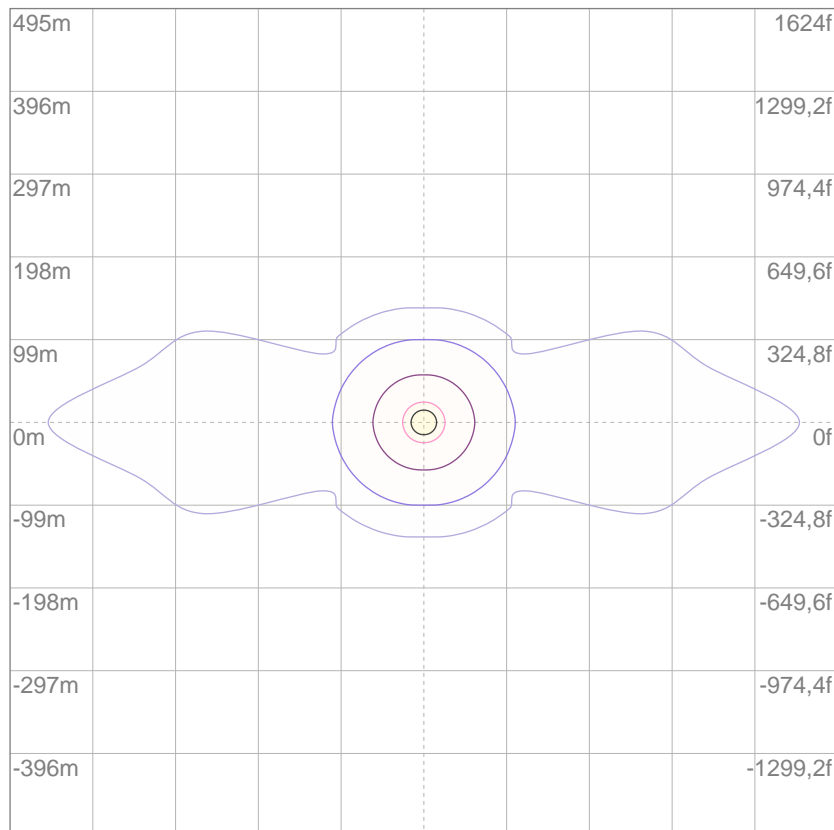
10%	93 cd
20%	185 cd
30%	278 cd
40%	371 cd
50%	463 cd
60%	556 cd
70%	649 cd
80%	741 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 927 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,278 lx
5%	0,463 lx
10%	0,927 lx
30%	2,78 lx
50%	4,63 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 9,27 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*



Total lumen output:

2973 lm

Peak candela output:

1137 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter MD

Target:

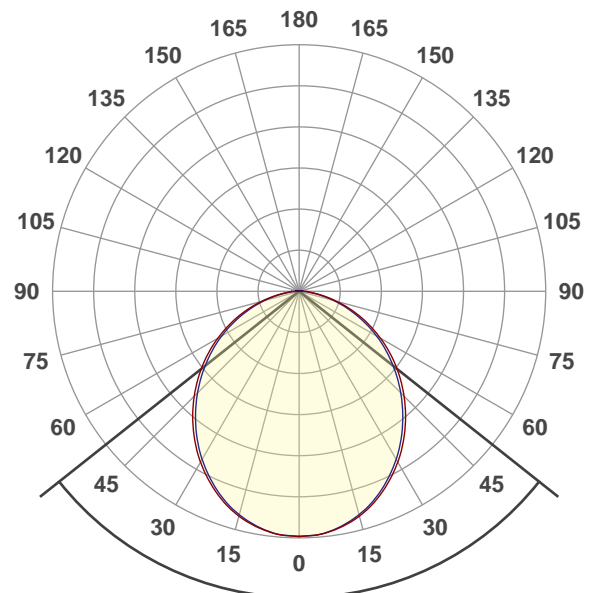
Blue

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:20:37

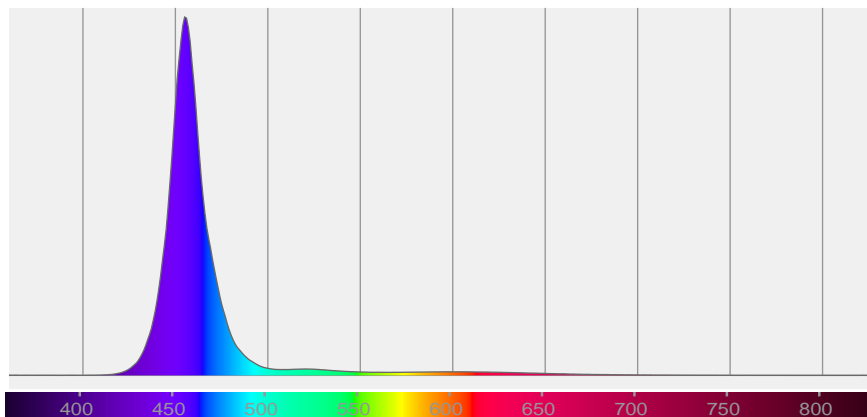


Beam angle 50%: 103,2°

Field angle 10%: 158,1°

Cut off angle 2.5%: 176,5°

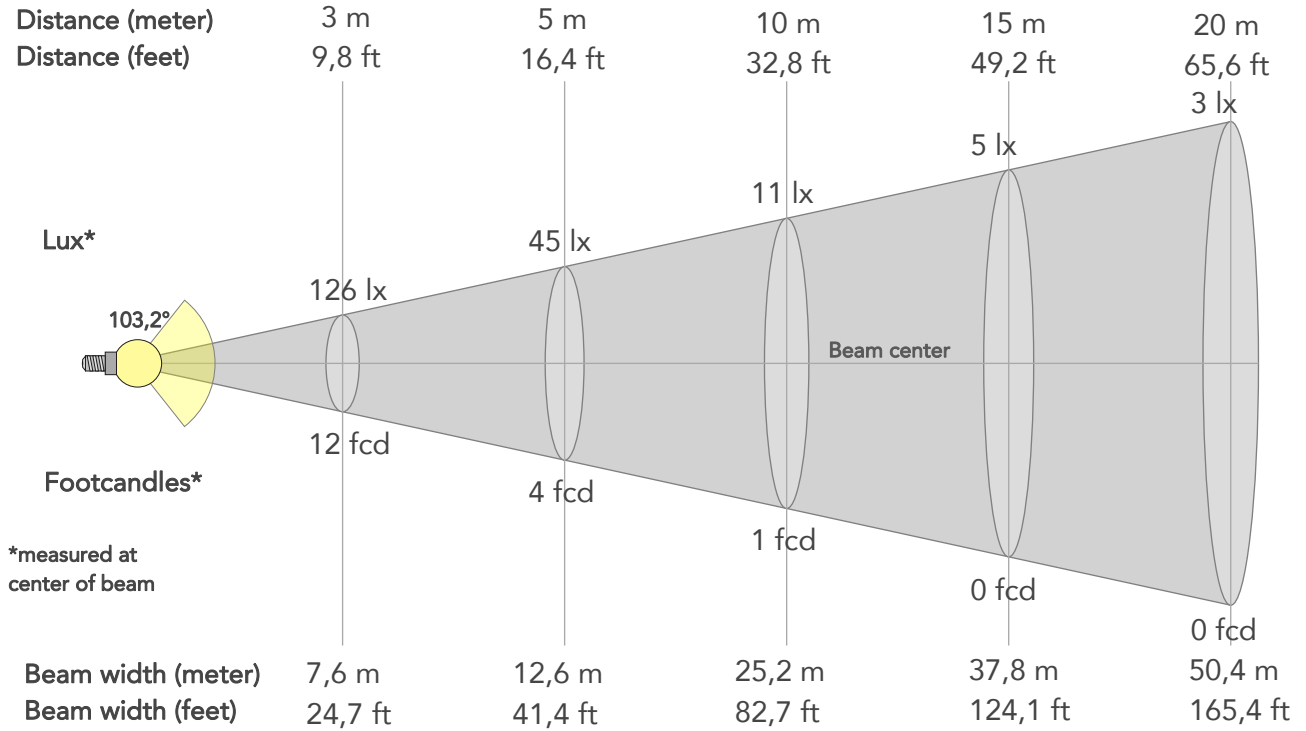
Spectra



# BEAM DETAILS



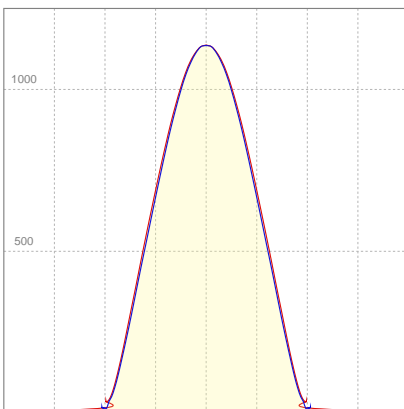
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
103,2°	158,1°	176,5°	79,4%	55,3%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1136lx	284lx	126lx	71lx	45lx	20lx	11lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	106fcd	26fcd	12fcd	7fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	2,5m	5m	7,6m	10,1m	12,6m	18,9m	25,2m	37,8m	50,4m	63m	75,6m	100,9m	126,1m
Beam wid.	8,3ft	16,6ft	24,7ft	33ft	41,4ft	62ft	82,7ft	124,1ft	165,4ft	206,8ft	248,1ft	330,8ft	413,5ft

## LINEAR DISTRIBUTION DIAGRAM

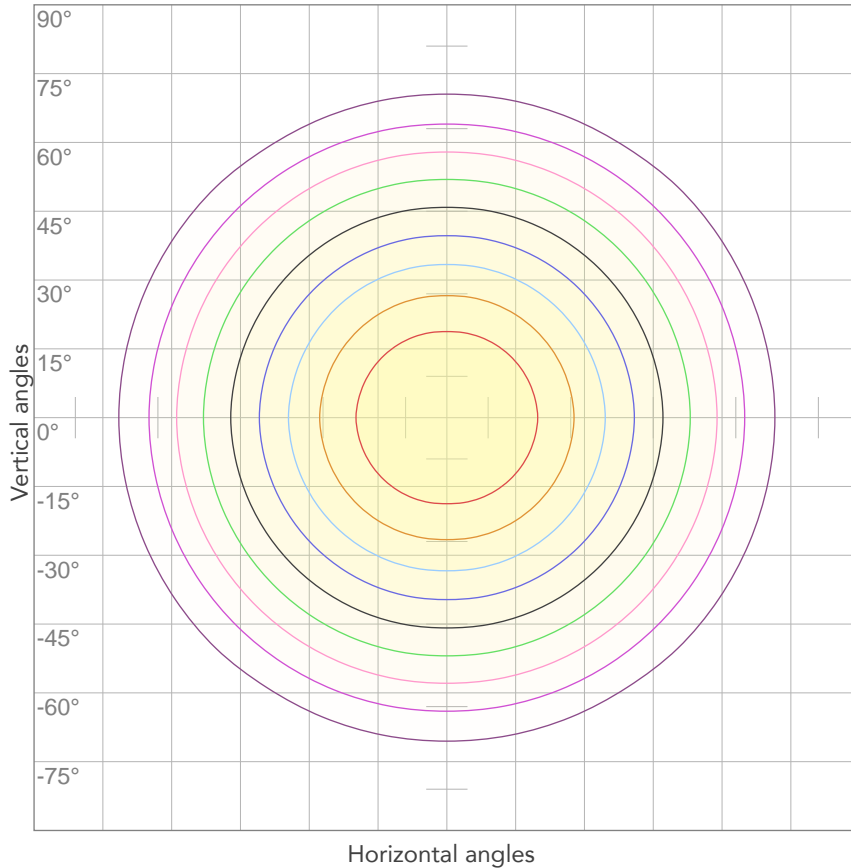


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,699A	123,7W	24lm/W

Power FC
0,95

## ISO CANDELA DIAGRAM



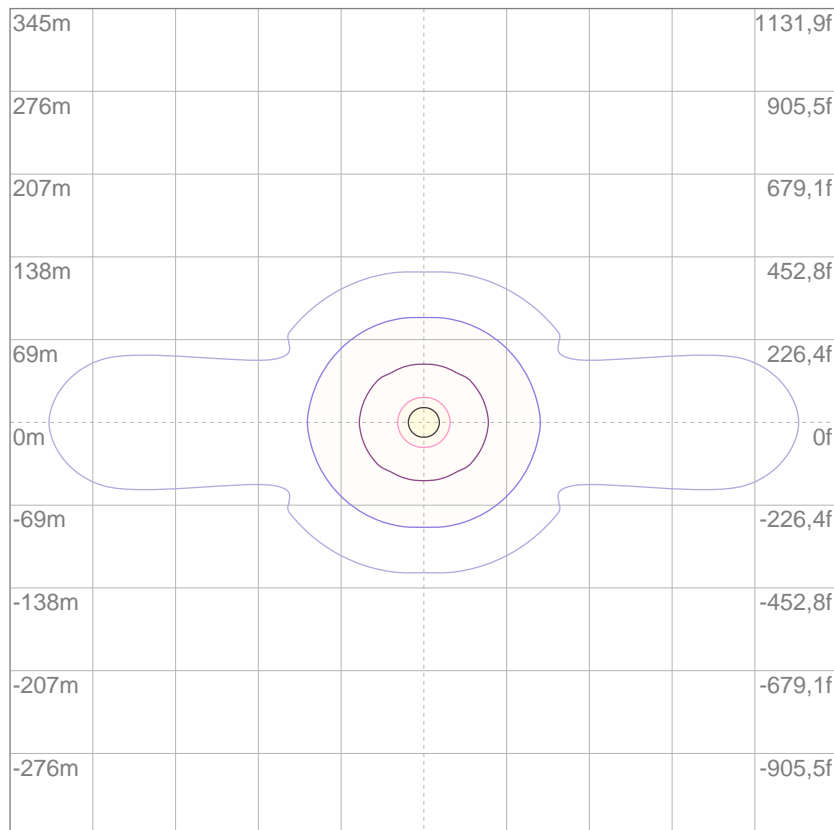
10%	114 cd
20%	227 cd
30%	341 cd
40%	454 cd
50%	568 cd
60%	682 cd
70%	795 cd
80%	909 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 1136 cd

## ISO LUX DIAGRAM



3%	0,341 lx
5%	0,568 lx
10%	1,14 lx
30%	3,41 lx
50%	5,68 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 11,4 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

2965 lm

Peak candela output:

1113 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter LD

Target:

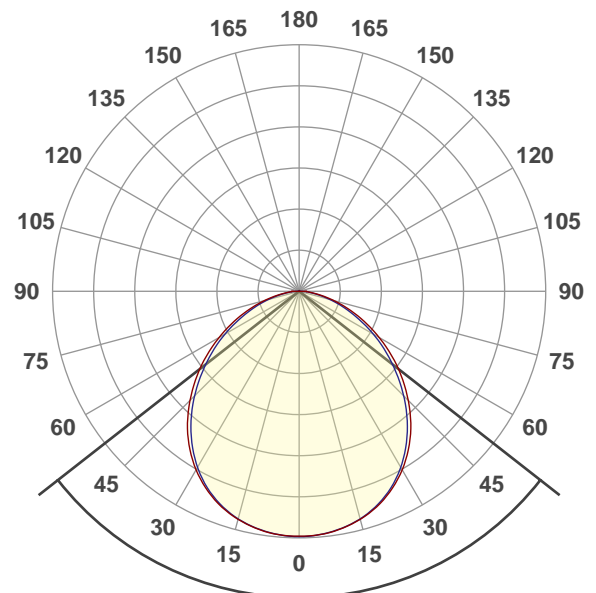
Blue

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:14:35

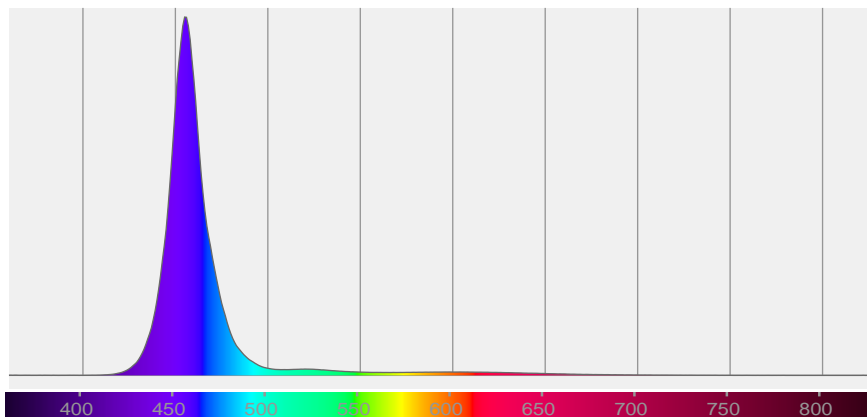


Beam angle 50%: 103,9°

Field angle 10%: 156,5°

Cut off angle 2.5%: 176,8°

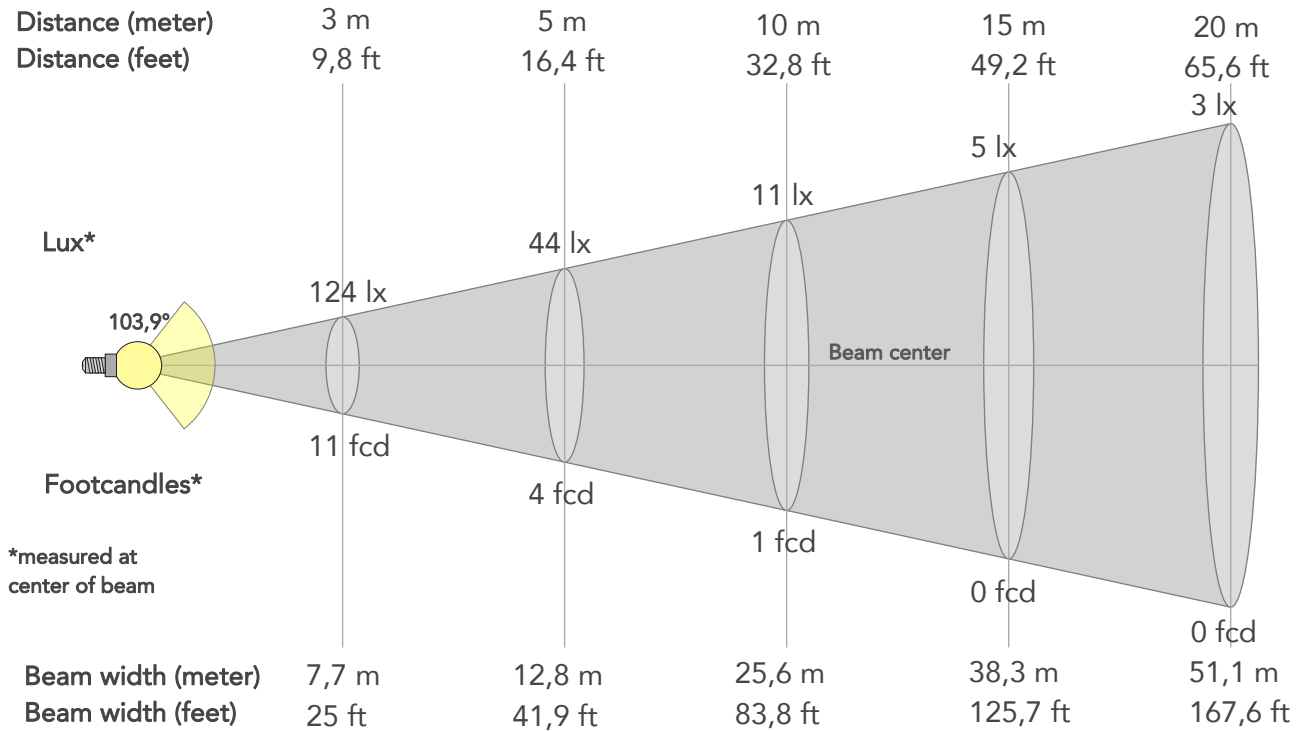
Spectra



# BEAM DETAILS



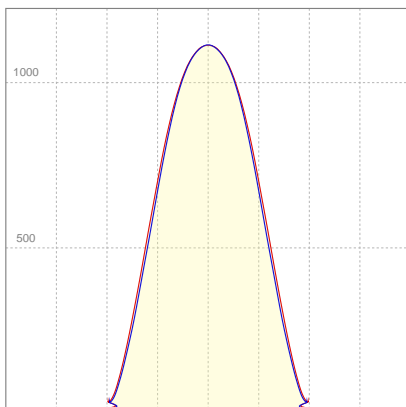
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
103,9°	156,5°	176,8°	80,1%	56,3%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1112lx	278lx	124lx	70lx	44lx	20lx	11lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	103fcd	26fcd	11fcd	6fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	2,6m	5,1m	7,7m	10,2m	12,8m	19,2m	25,6m	38,3m	51,1m	63,9m	76,7m	102,2m	127,8m
Beam wid.	8,4ft	16,9ft	25ft	33,5ft	41,9ft	62,9ft	83,8ft	125,7ft	167,6ft	209,6ft	251,5ft	335,3ft	419,1ft

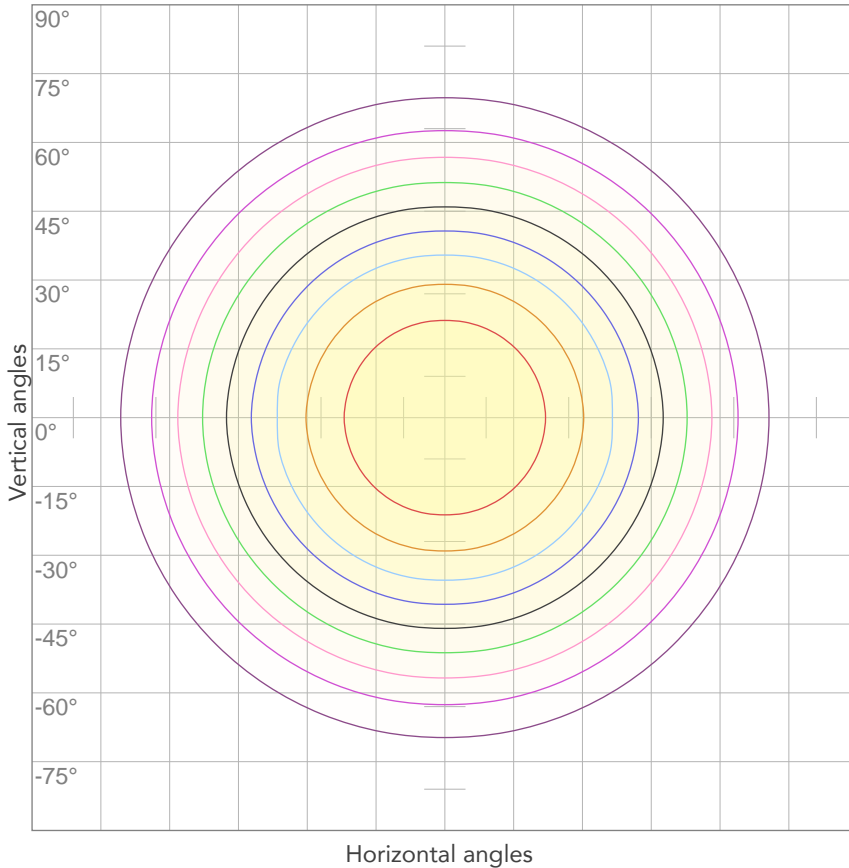
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,701A	124,1W	24lm/W
Power FC			
0,95			

## ISO CANDELA DIAGRAM



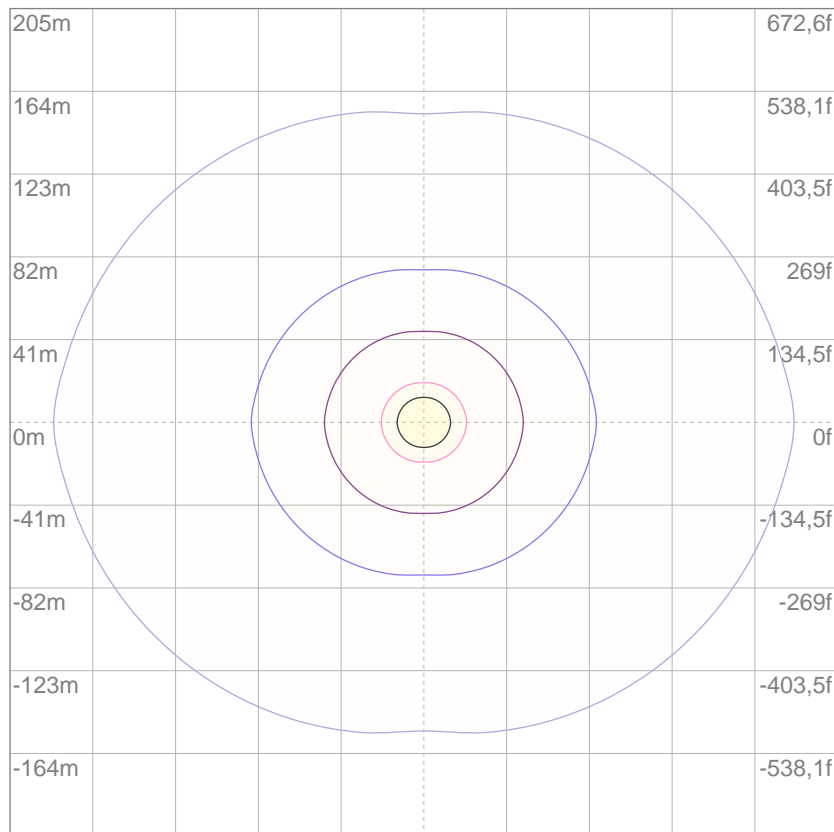
10%	111 cd
20%	222 cd
30%	334 cd
40%	445 cd
50%	556 cd
60%	667 cd
70%	779 cd
80%	890 cd

Conditions:

Number of c-planes: 4

Candela at center: 1112 cd

## ISO LUX DIAGRAM



3%	0,334 lx
5%	0,556 lx
10%	1,11 lx
30%	3,34 lx
50%	5,56 lx

Conditions:

Number of c-planes: 4

Lux at center: 11,1 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)





Total lumen output:

27139 lm

Peak candela output:

9376 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter HD

Target:

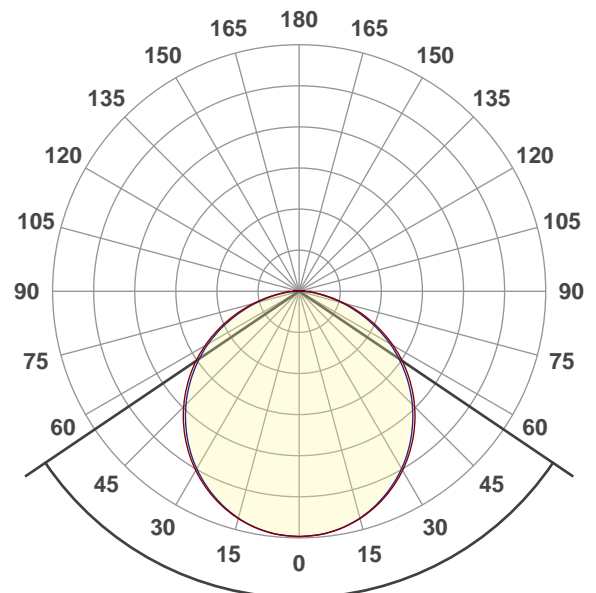
White

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:58:29

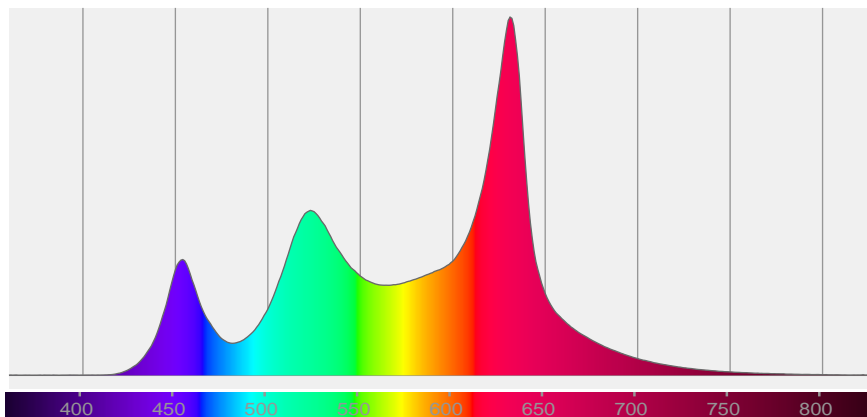


Beam angle 50%: 111,9°

Field angle 10%: 161,9°

Cut off angle 2.5%: 176,9°

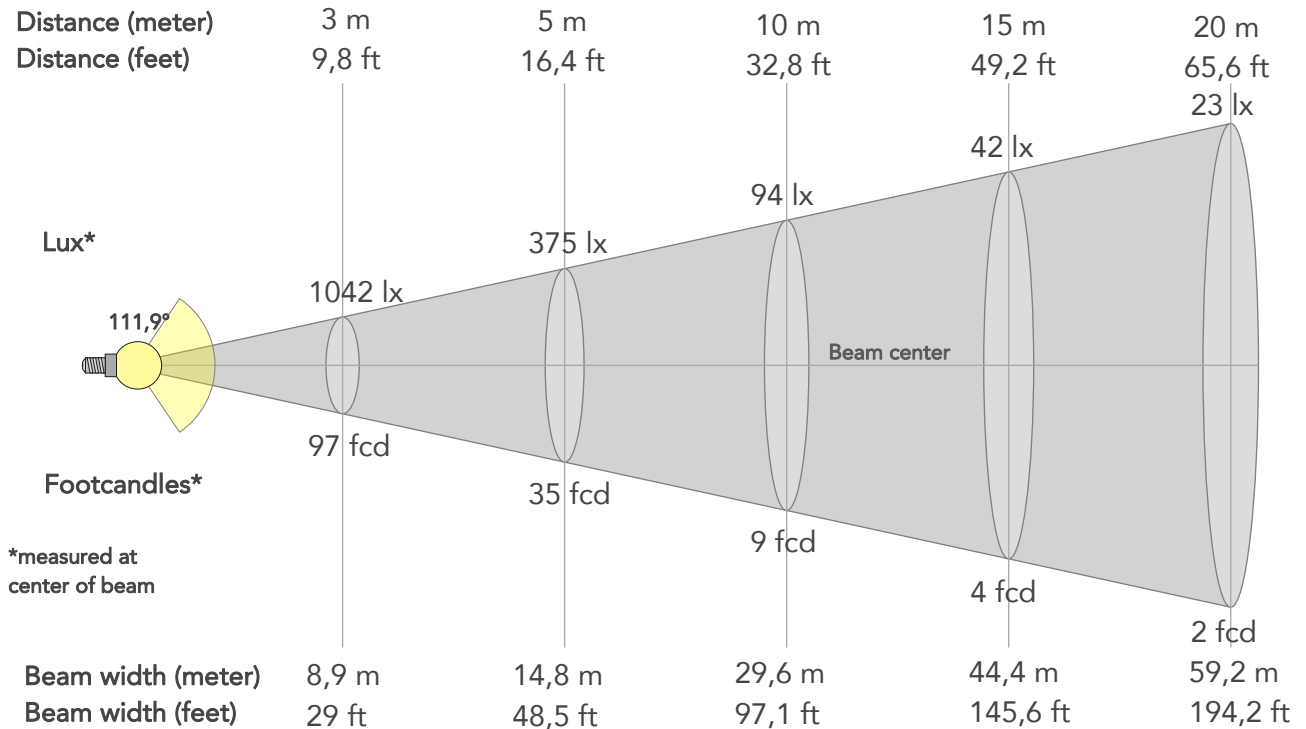
Spectra



# BEAM DETAILS



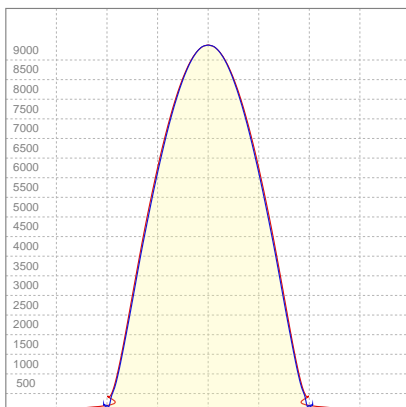
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
111,9°	161,9°	176,9°	77,1%	52,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	9375lx	2344lx	1042lx	586lx	375lx	167lx	94lx	42lx	23lx	15lx	10lx	6lx	4lx
Footcand.	871fcd	218fcd	97fcd	54fcd	35fcd	15fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,8m	14,8m	22,2m	29,6m	44,4m	59,2m	74m	88,8m	118,4m	148m
Beam wid.	9,8ft	19,5ft	29ft	38,8ft	48,5ft	72,8ft	97,1ft	145,6ft	194,2ft	242,7ft	291,2ft	388,3ft	485,4ft

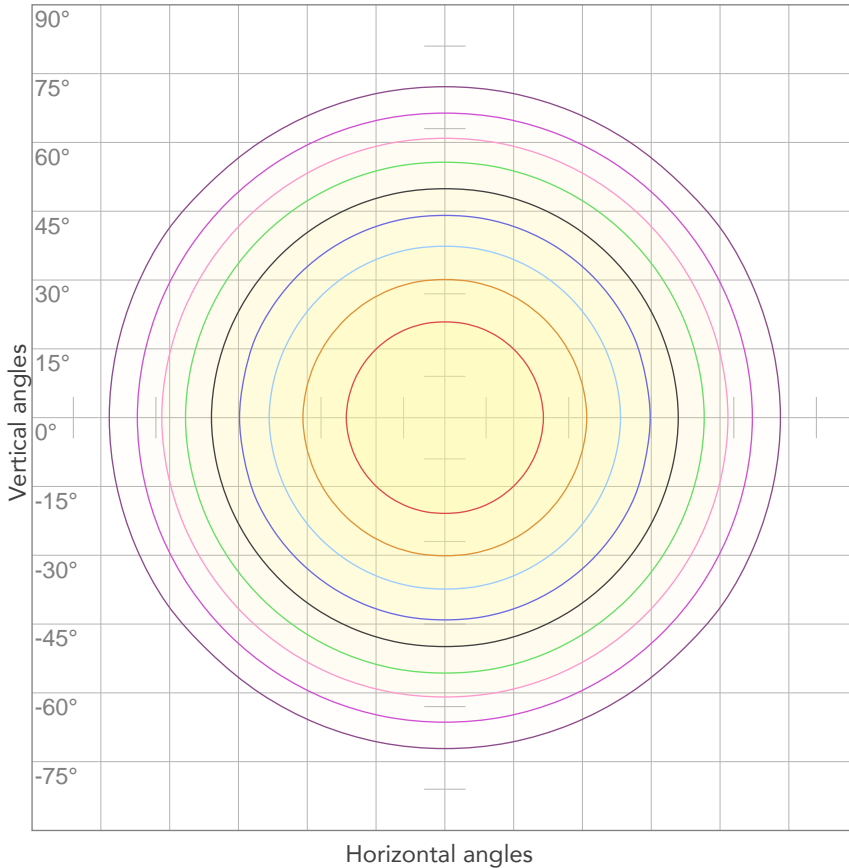
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	2,03A	434,5W	62lm/W
<b>Power FC</b>			
<b>0,95</b>			

## ISO CANDELA DIAGRAM



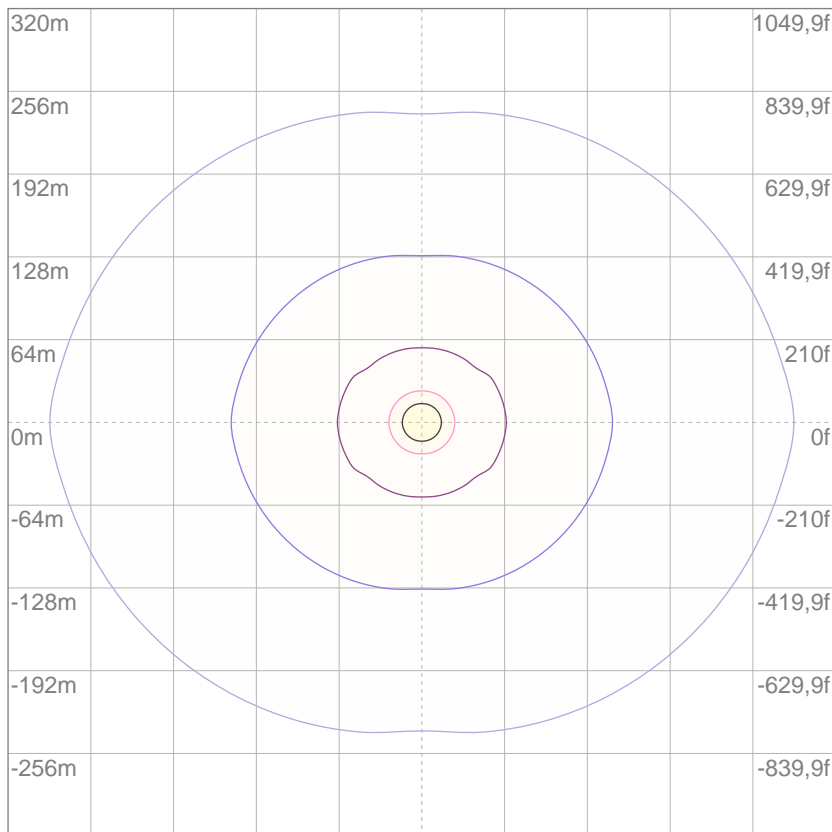
10%	937 cd
20%	1875 cd
30%	2812 cd
40%	3750 cd
50%	4687 cd
60%	5625 cd
70%	6562 cd
80%	7500 cd

Conditions:

Number of c-planes: 4

Candela at center: 9375 cd

## ISO LUX DIAGRAM



3%	2,81 lx
5%	4,69 lx
10%	9,37 lx
30%	28,1 lx
50%	46,9 lx

Conditions:

Number of c-planes: 4

Lux at center: 93,7 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

32072 lm

Peak candela output:

12295 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter MD

Target:

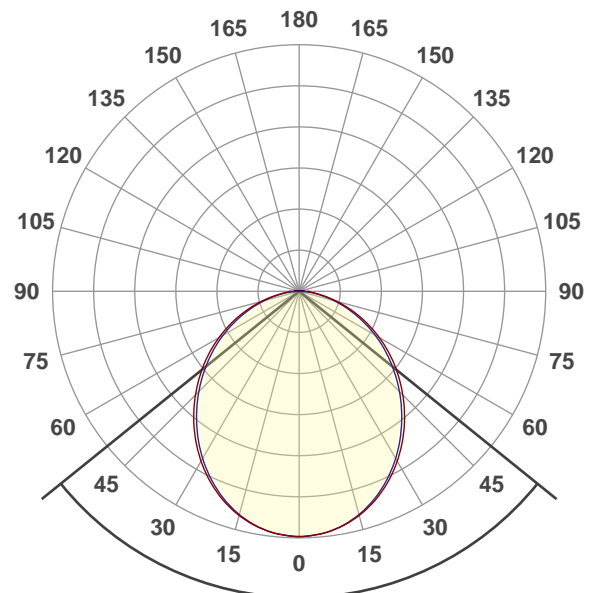
White

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:22:24

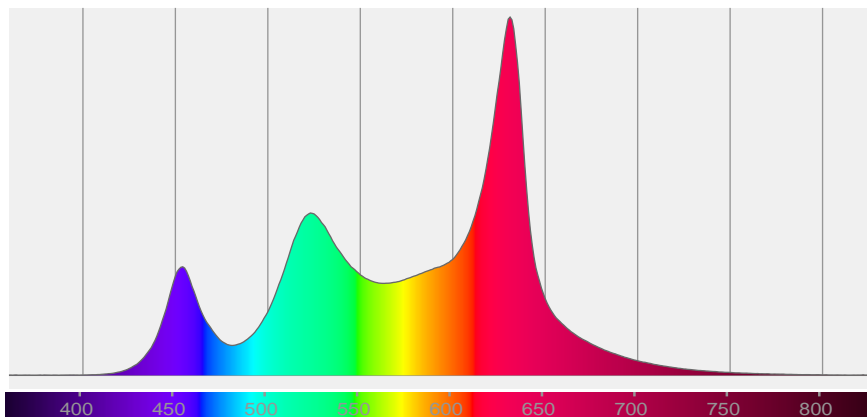


Beam angle 50%: 102,2°

Field angle 10%: 158,7°

Cut off angle 2.5%: 175,5°

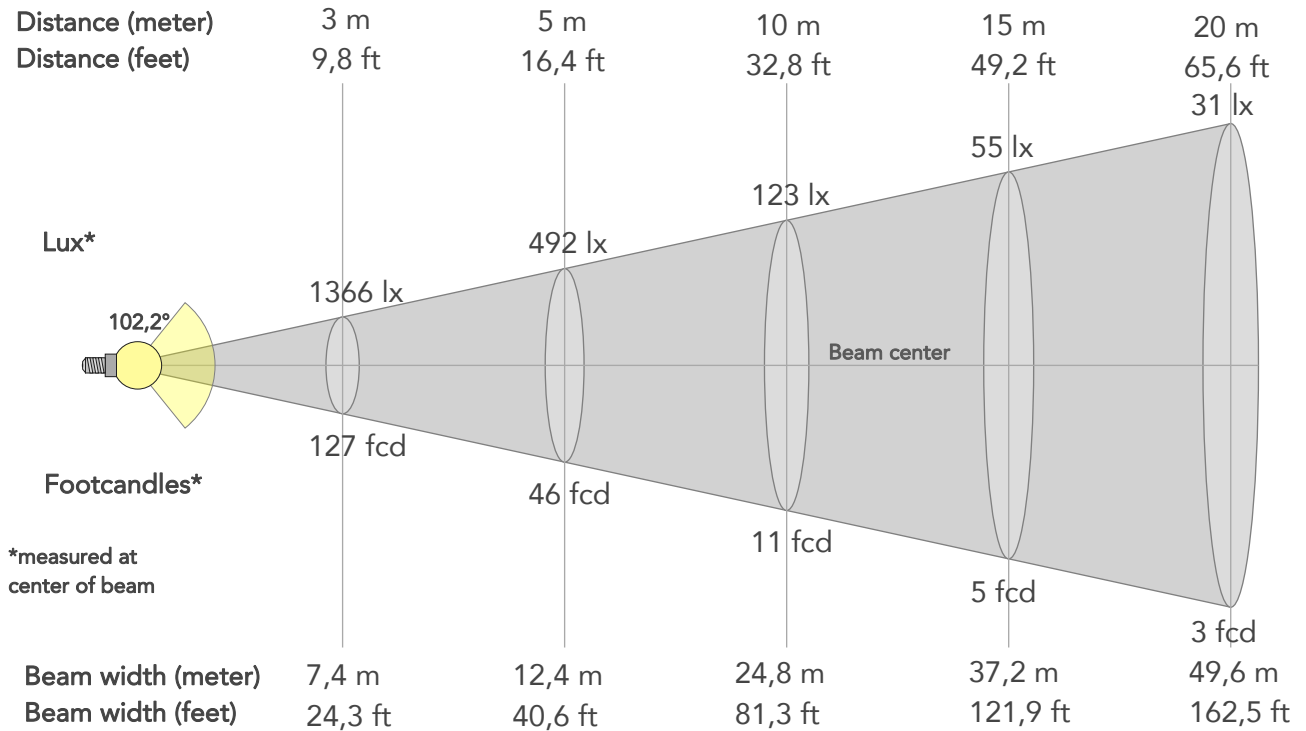
Spectra



# BEAM DETAILS



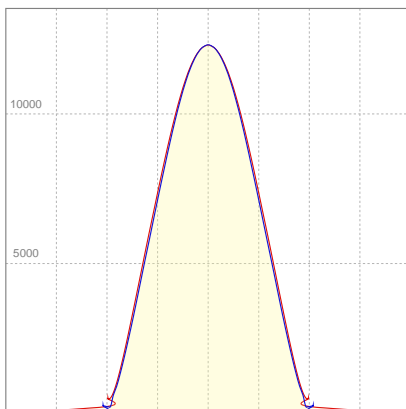
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,2°	158,7°	175,5°	78,9%	55,2%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12291lx	3073lx	1366lx	768lx	492lx	219lx	123lx	55lx	31lx	20lx	14lx	8lx	5lx
Footcand.	1142fcd	285fcd	127fcd	71fcd	46fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,4m	9,9m	12,4m	18,6m	24,8m	37,2m	49,6m	61,9m	74,3m	99,1m	123,9m
Beam wid.	8,2ft	16,4ft	24,3ft	32,5ft	40,6ft	61ft	81,3ft	121,9ft	162,5ft	203,2ft	243,8ft	325,1ft	406,3ft

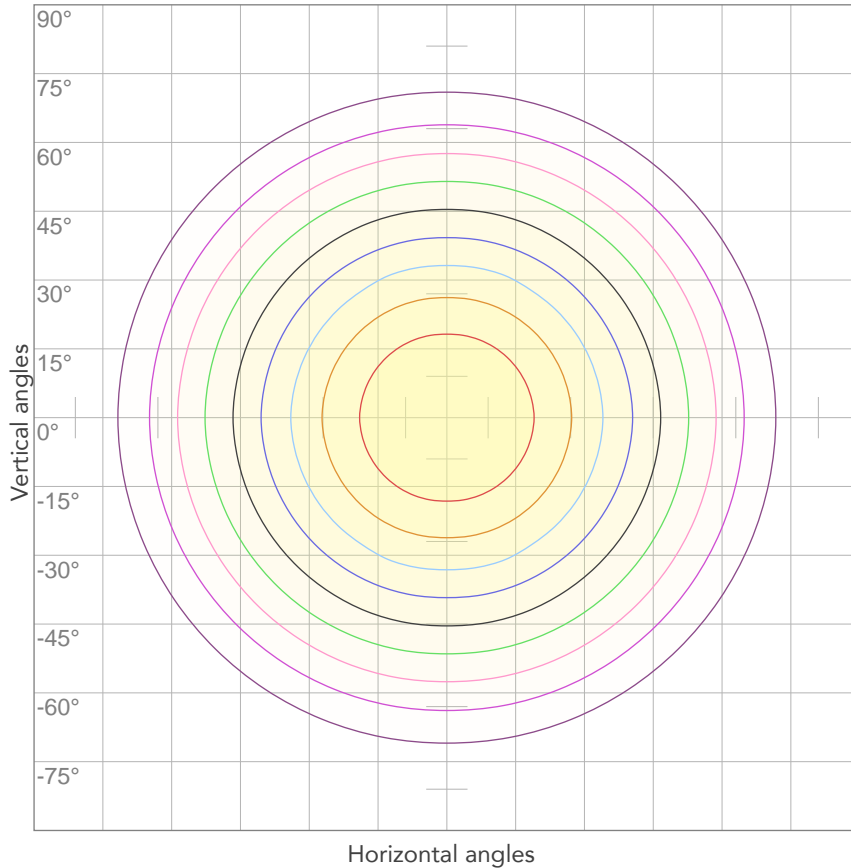
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	2,04A	434,9W	74lm/W
<b>Power FC</b>			
0,95			

## ISO CANDELA DIAGRAM



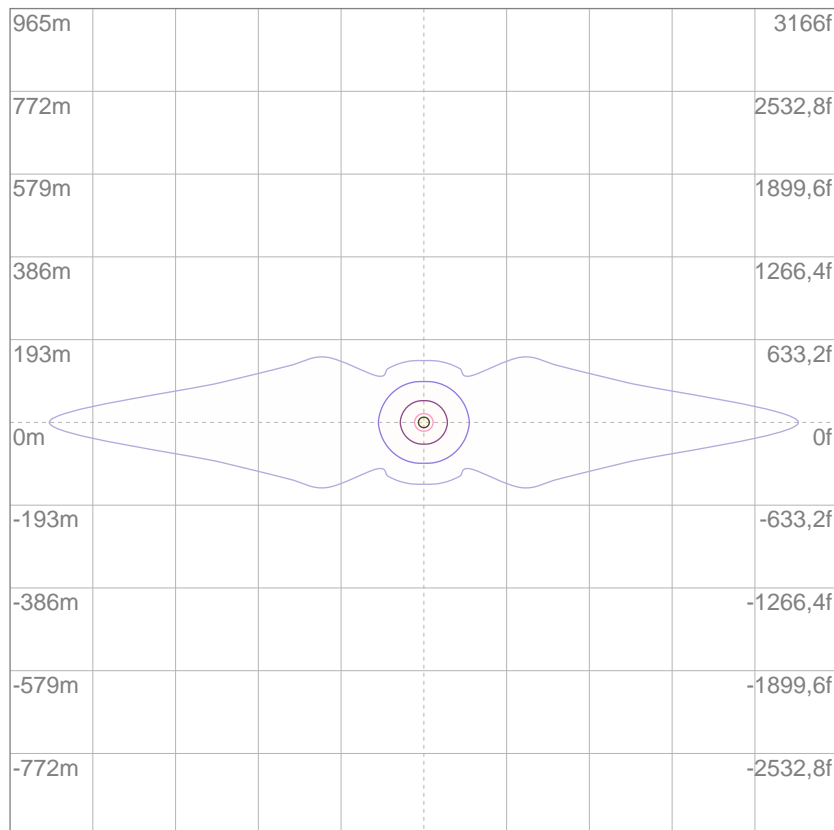
10%	1229 cd
20%	2458 cd
30%	3687 cd
40%	4916 cd
50%	6145 cd
60%	7375 cd
70%	8604 cd
80%	9833 cd

Conditions:

Number of c-planes: 4

Candela at center: 12291 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	3,69 lx
5%	6,15 lx
10%	12,3 lx
30%	36,9 lx
50%	61,5 lx

Conditions:

Number of c-planes: 4

Lux at center: 123 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*



Total lumen output:

31989 lm

Peak candela output:

12145 cd

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter LD

Target:

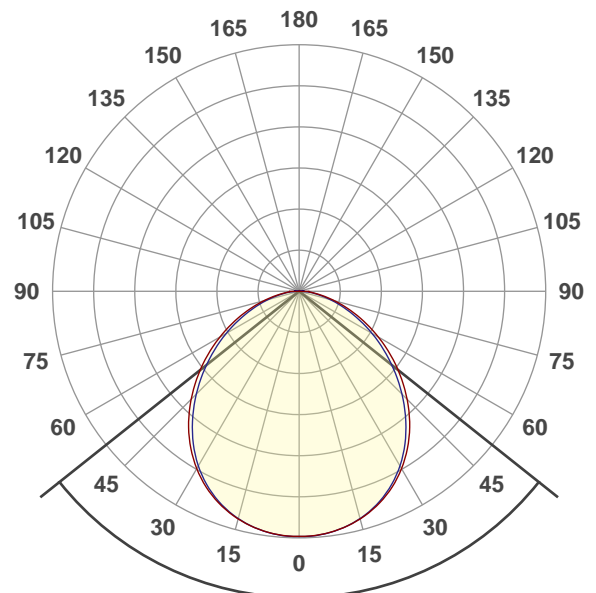
White

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:16:19

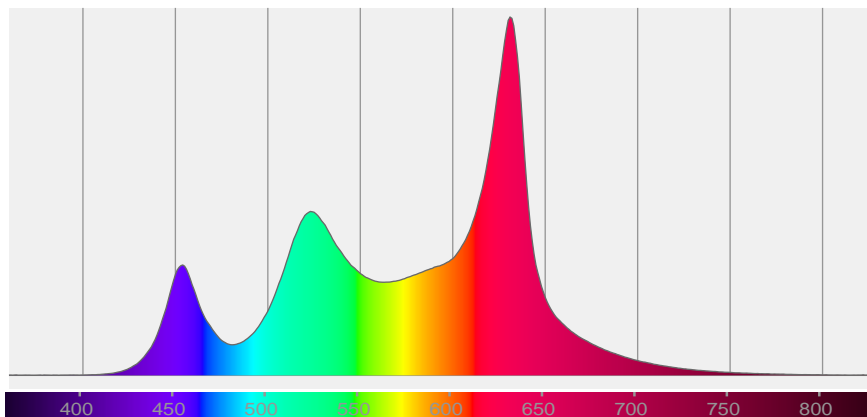


Beam angle 50%: 103°

Field angle 10%: 157,1°

Cut off angle 2.5%: 175,6°

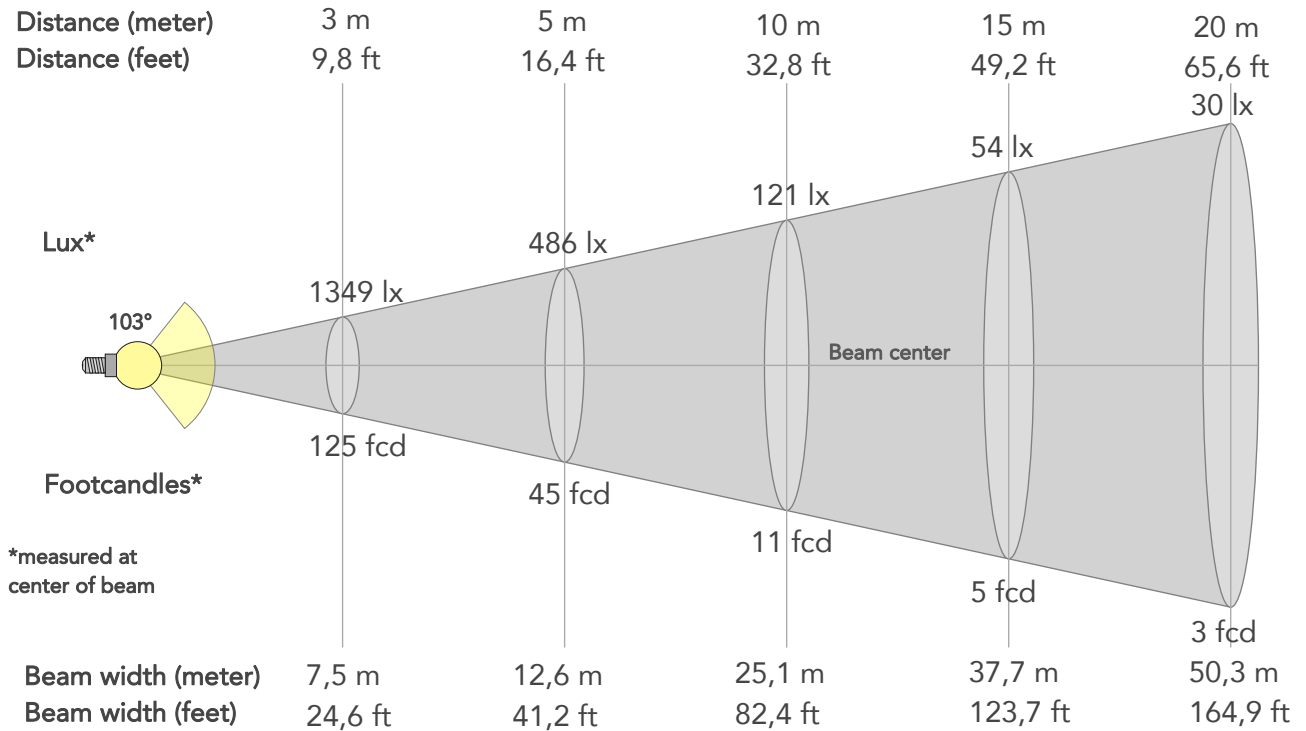
Spectra



# BEAM DETAILS



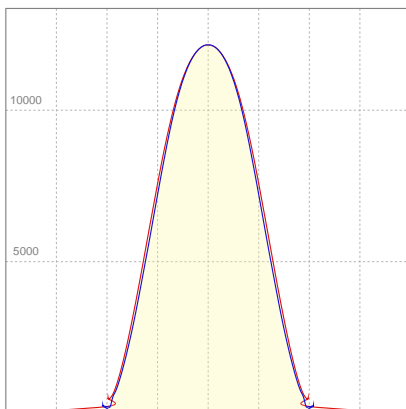
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
103°	157,1°	175,6°	80,3%	56,5%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12143lx	3036lx	1349lx	759lx	486lx	216lx	121lx	54lx	30lx	19lx	13lx	8lx	5lx
Footcand.	1128fcd	282fcd	125fcd	71fcd	45fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,5m	10,1m	12,6m	18,8m	25,1m	37,7m	50,3m	62,8m	75,4m	100,5m	125,7m
Beam wid.	8,3ft	16,6ft	24,6ft	32,9ft	41,2ft	61,8ft	82,4ft	123,7ft	164,9ft	206,1ft	247,3ft	329,7ft	412,2ft

## LINEAR DISTRIBUTION DIAGRAM

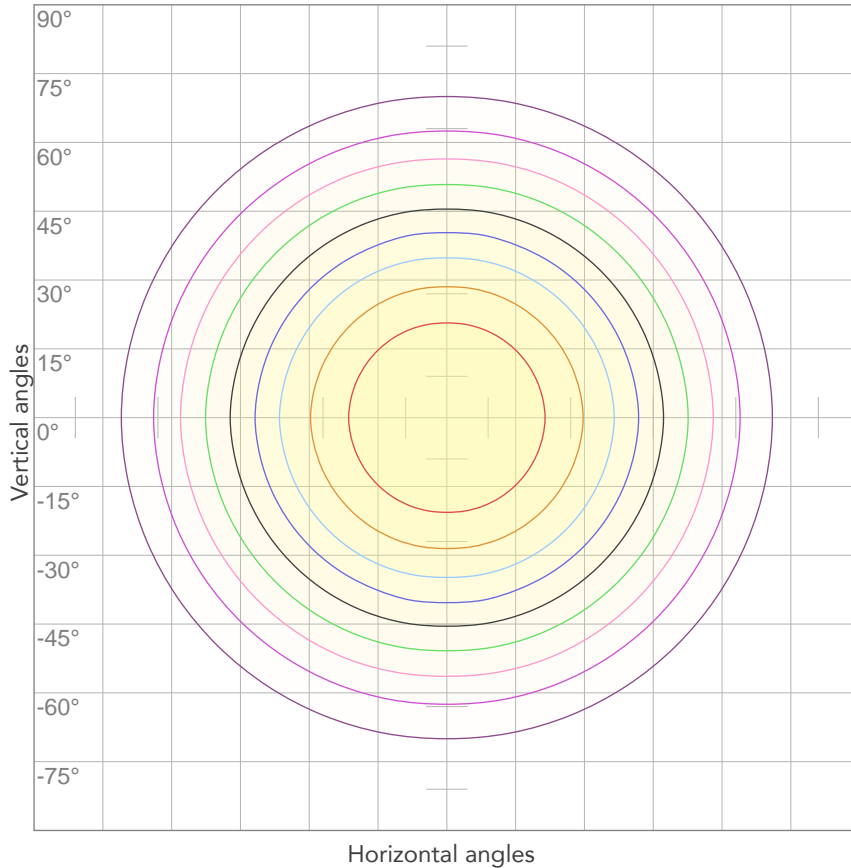


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	2,03A	434,5W	74lm/W
<b>Power FC</b>			
0,95			



## ISO CANDELA DIAGRAM



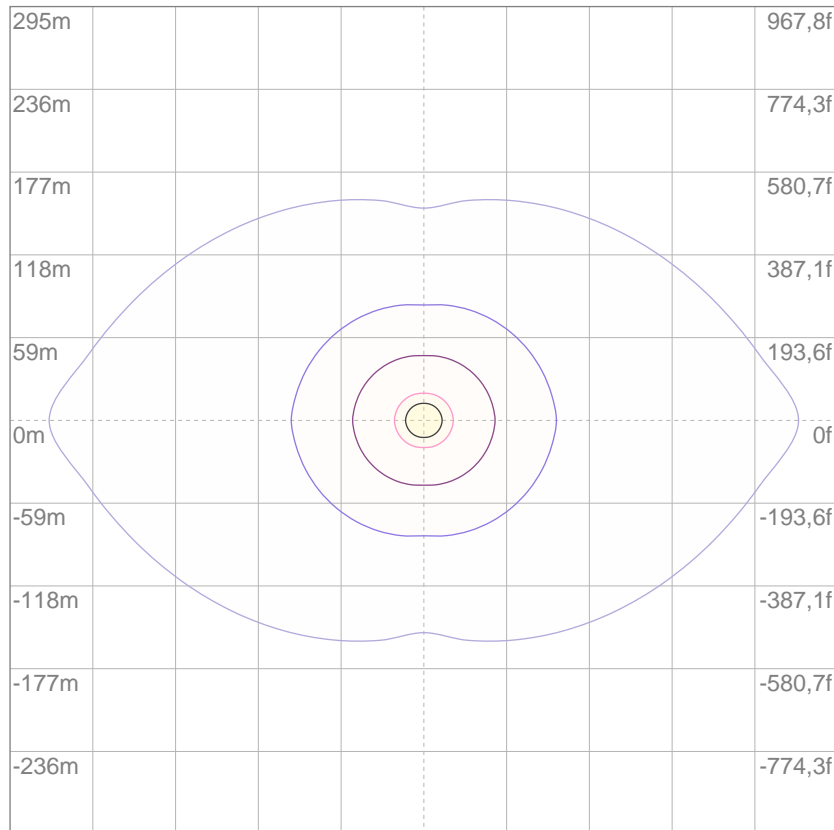
10%	1214 cd
20%	2429 cd
30%	3643 cd
40%	4857 cd
50%	6071 cd
60%	7286 cd
70%	8500 cd
80%	9714 cd

Conditions:

Number of c-planes: 4

Candela at center: 12143 cd

## ISO LUX DIAGRAM



3%	3,64 lx
5%	6,07 lx
10%	12,1 lx
30%	36,4 lx
50%	60,7 lx

Conditions:

Number of c-planes: 4

Lux at center: 121 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

27451 lm

Peak candela output:

9496 cd

Light quality:

CRI: 82,3

Color temperature:

2890 K

**PRODUCT NAME:**

ECLPANEL TWC

**MEASURAMENT CONDITIONS:**

Beam angle:

Filter HD

Target:

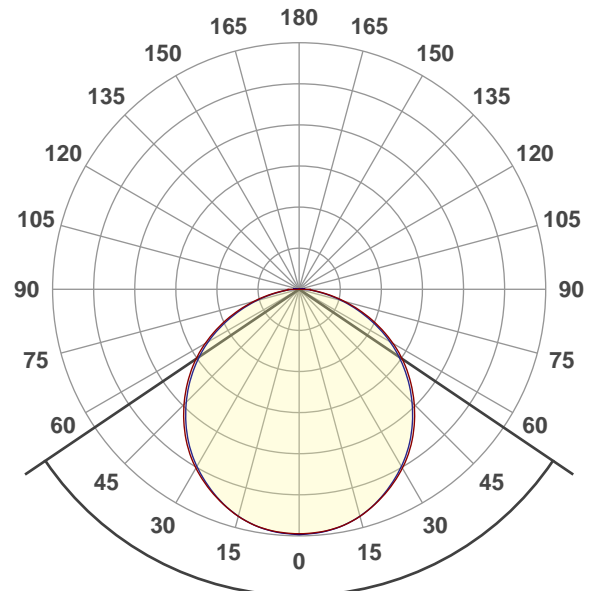
2800K

Operator:

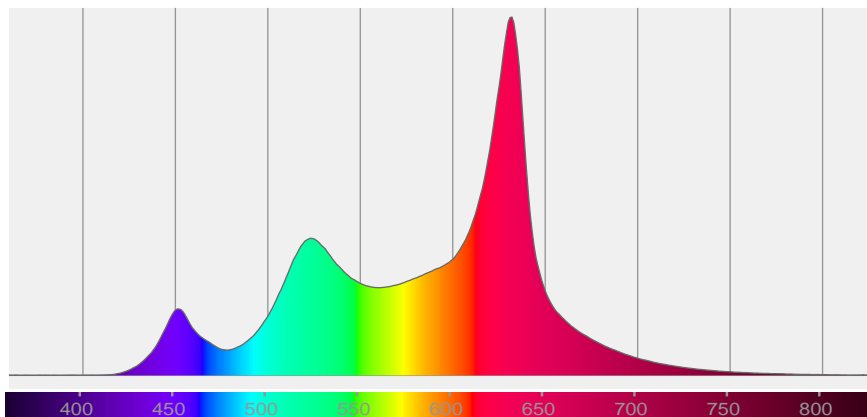
Paolo Carvone

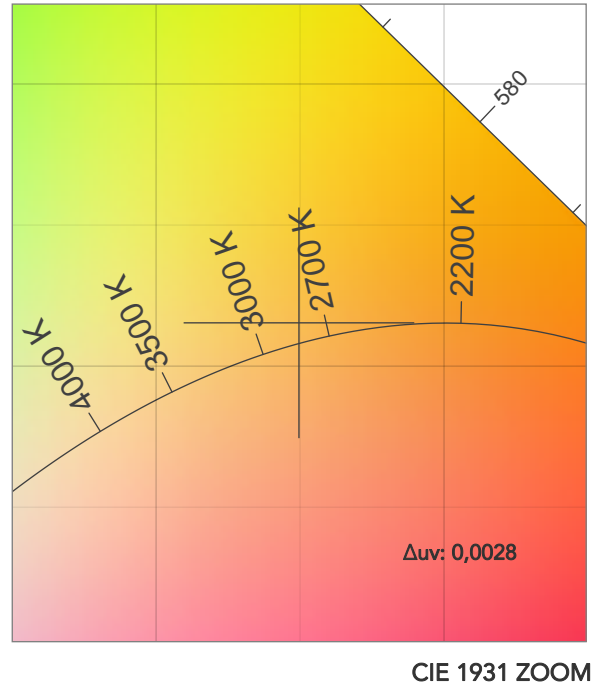
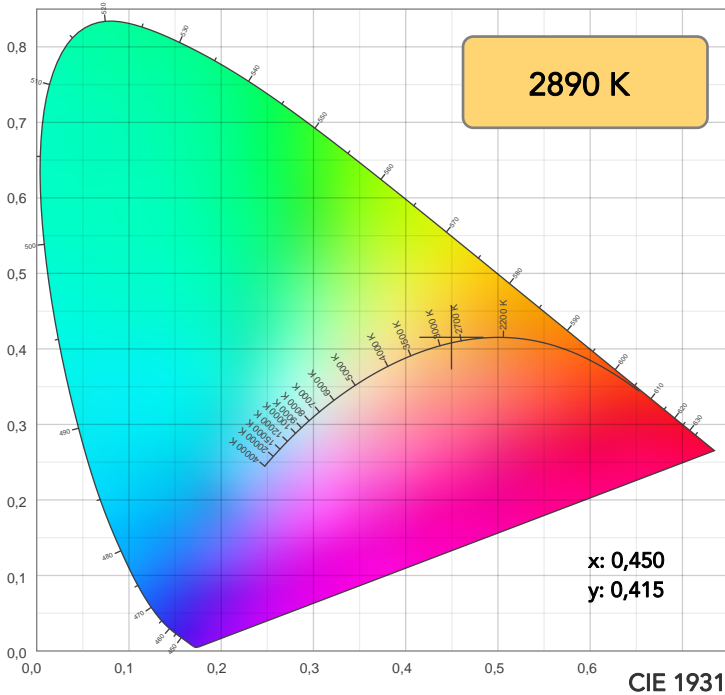
Date and time:

14/05/2020 18:00:23



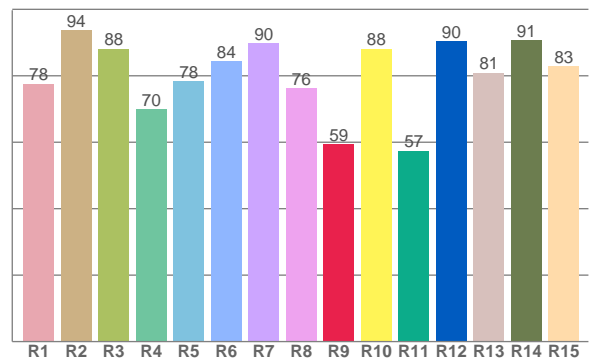
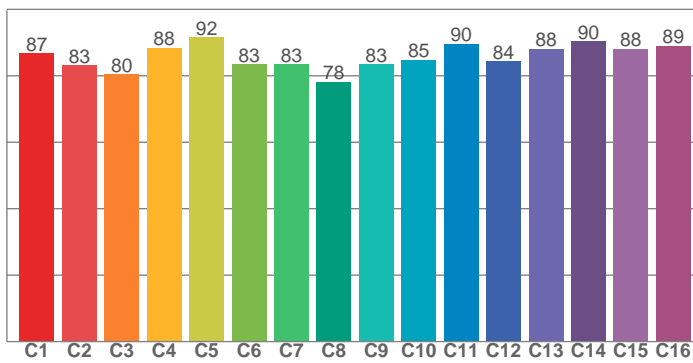
Spectra





TM30: 86,2

CRI: 82,3 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
77,6	93,6	88,2	70,0	78,4	84,4	89,8	76,3	59,5	88,1	57,4	90,3	80,9	90,6	82,9

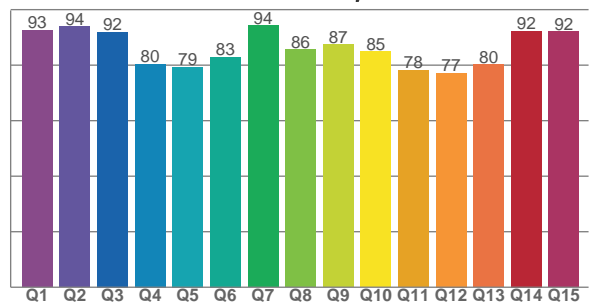
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
86,7	83,2	80,5	88,4	91,6	83,4	83,4	78,1	83,4	84,8	89,6	84,3	88,1	90,4	88,1	89,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,6	93,9	92,0	80,4	79,4	82,9	94,3	85,6	87,4	84,9	78,1	77,1	80,2	92,3	92,1

CQS: 84,8



COLOR PARAMETERS

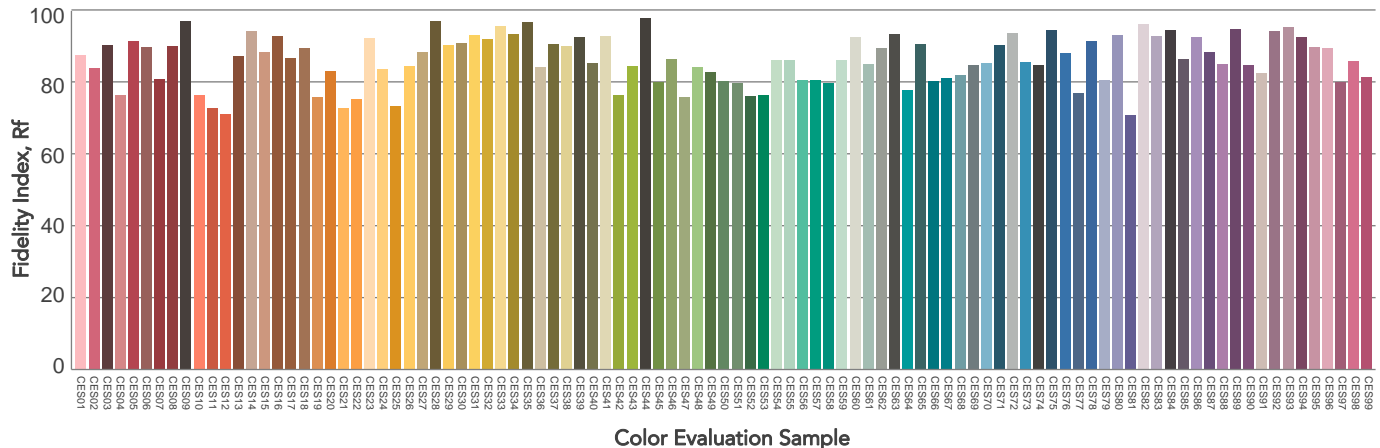
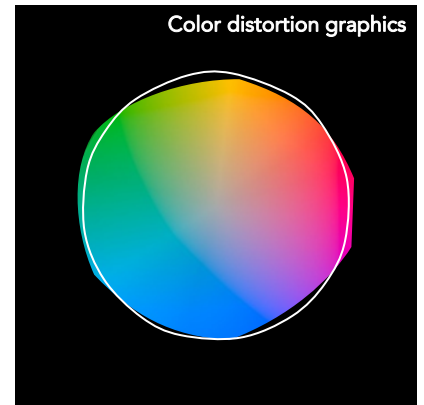
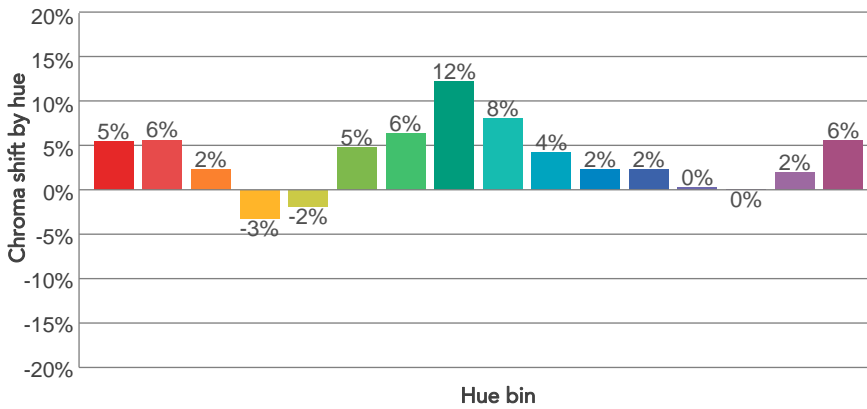
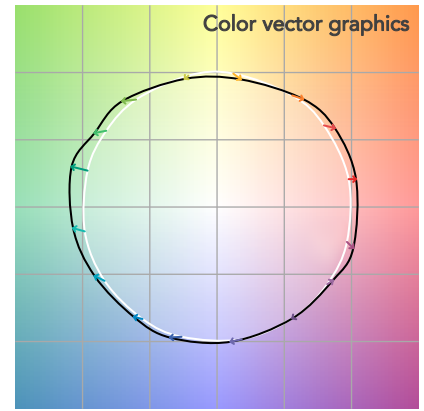
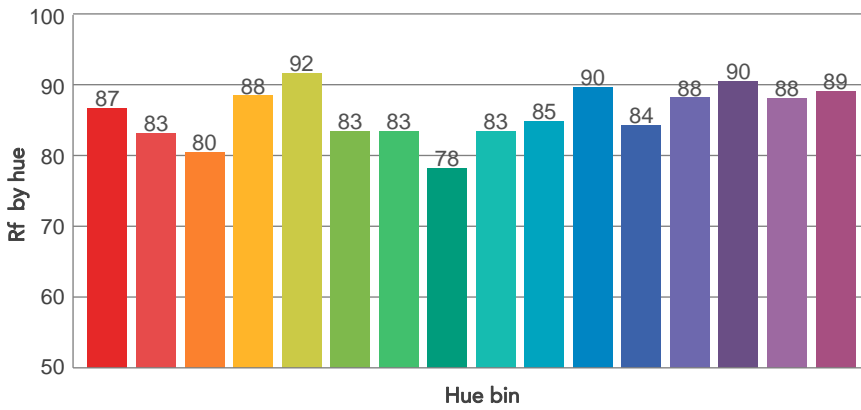
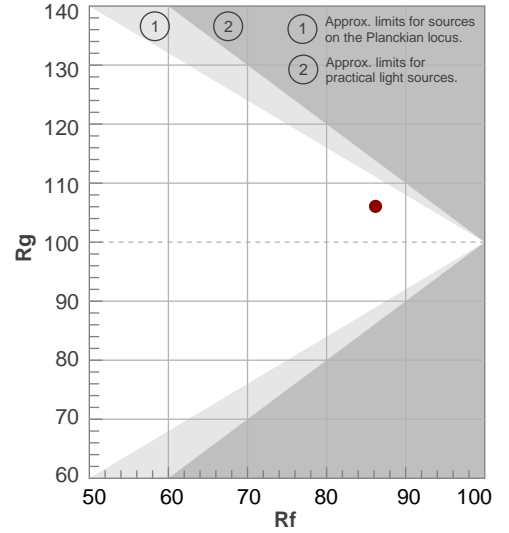
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
2890 K	82,3	59,5	86,2	106,1	84,8	71	0,450	0,415	0,0028

# TM30 DETAILS

**Rf 86,2**  
Fidelity index Rf

**Rg 106,1**  
Gammut index

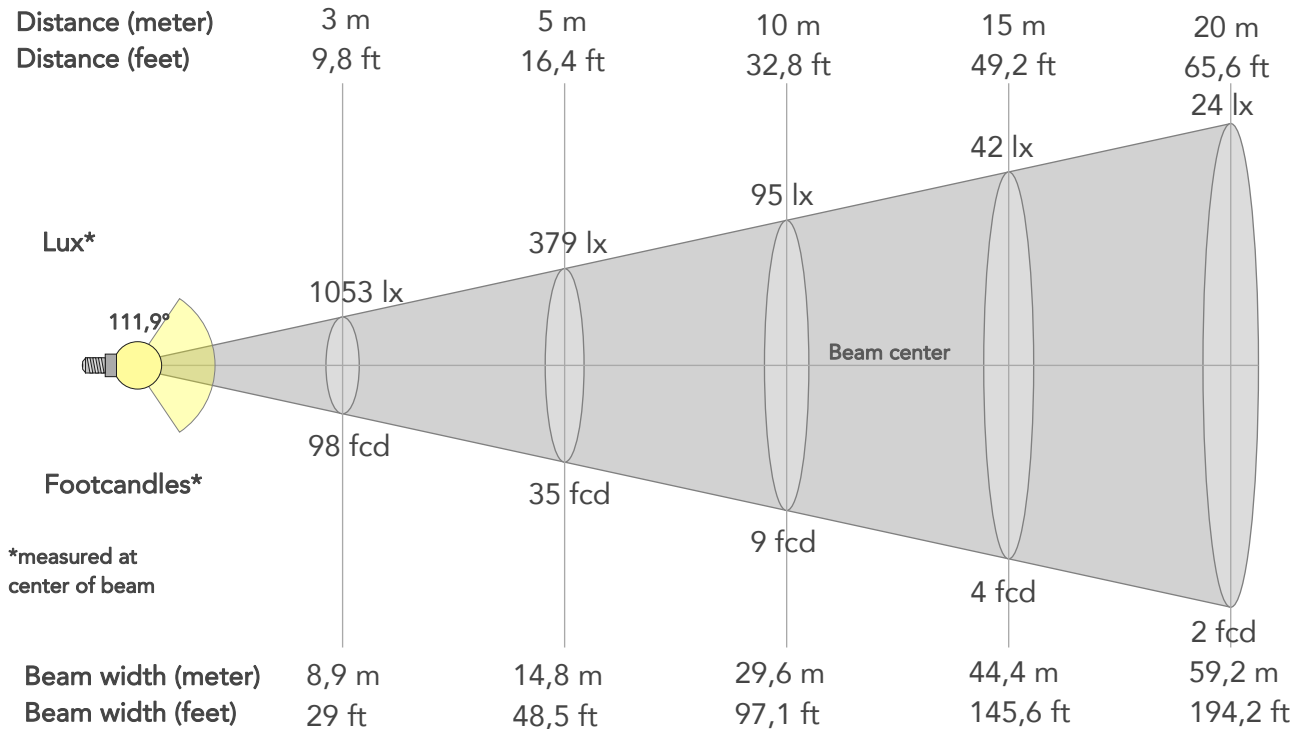
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	87	5%	-1%
2	83	6%	-6%
3	80	2%	-8%
4	88	-3%	-6%
5	92	-2%	3%
6	83	5%	9%
7	83	6%	6%
8	78	12%	-1%
9	83	8%	-4%
10	85	4%	-7%
11	90	2%	-6%
12	84	2%	-8%
13	88	0%	-8%
14	90	0%	-1%
15	88	2%	5%
16	89	6%	-4%



# BEAM DETAILS



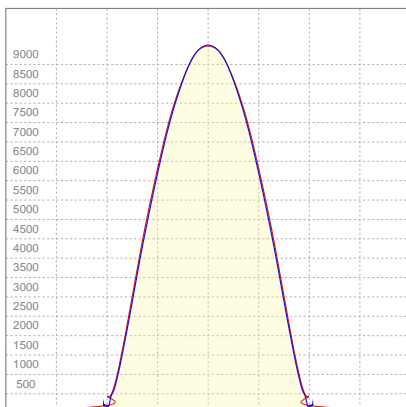
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
111,9°	161,9°	177,3°	77,2%	52,5%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	9481lx	2370lx	1053lx	593lx	379lx	169lx	95lx	42lx	24lx	15lx	11lx	6lx	4lx
Footcand.	881fcd	220fcd	98fcd	55fcd	35fcd	16fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,8m	14,8m	22,2m	29,6m	44,4m	59,2m	74m	88,8m	118,4m	148m
Beam wid.	9,8ft	19,5ft	29ft	38,8ft	48,5ft	72,8ft	97,1ft	145,6ft	194,2ft	242,7ft	291,2ft	388,3ft	485,4ft

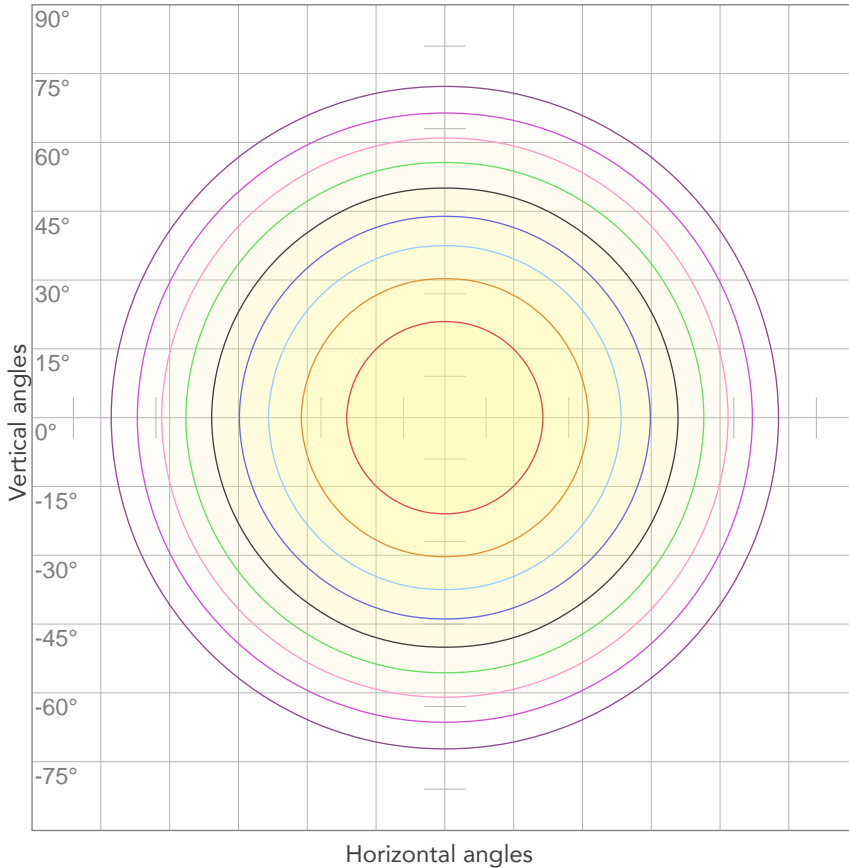
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	2,03A	433,5W	63lm/W
Power FC			
0,95			

## ISO CANDELA DIAGRAM



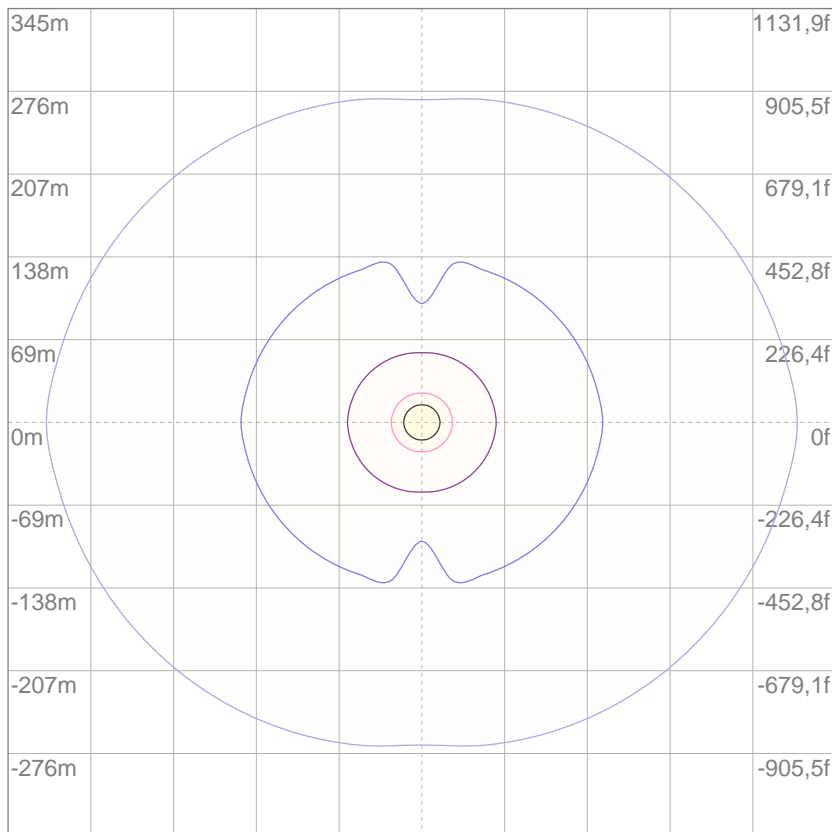
10%	948 cd
20%	1896 cd
30%	2844 cd
40%	3792 cd
50%	4740 cd
60%	5688 cd
70%	6636 cd
80%	7584 cd

Conditions:

Number of c-planes: 4

Candela at center: 9481 cd

## ISO LUX DIAGRAM



3%	2,84 lx
5%	4,74 lx
10%	9,48 lx
30%	28,4 lx
50%	47,4 lx

Conditions:

Number of c-planes: 4

Lux at center: 94,8 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

32559 lm

Peak candela output:

12495 cd

Light quality:

CRI: 84,6

Color temperature:

2875 K

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter MD

Target:

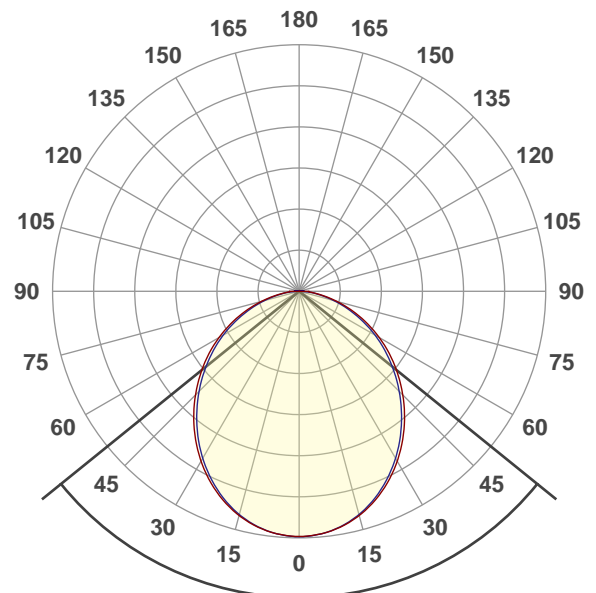
2800K

Operator:

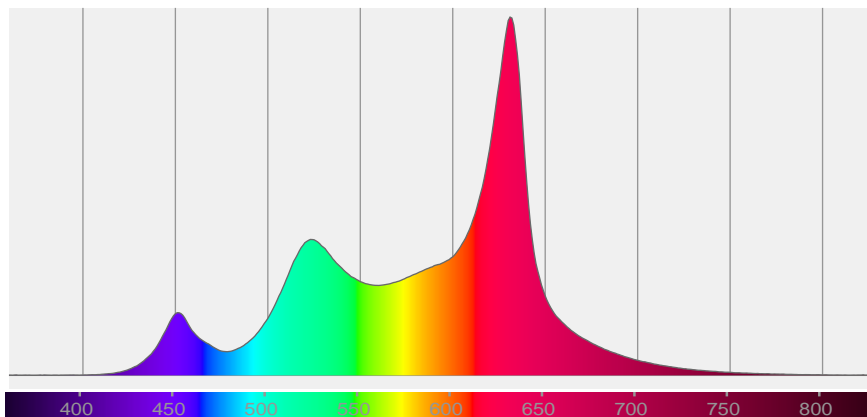
Paolo Carvone

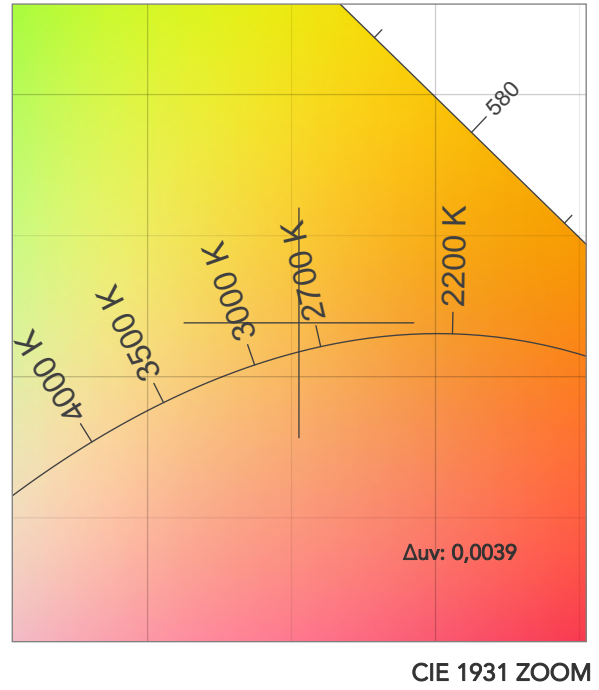
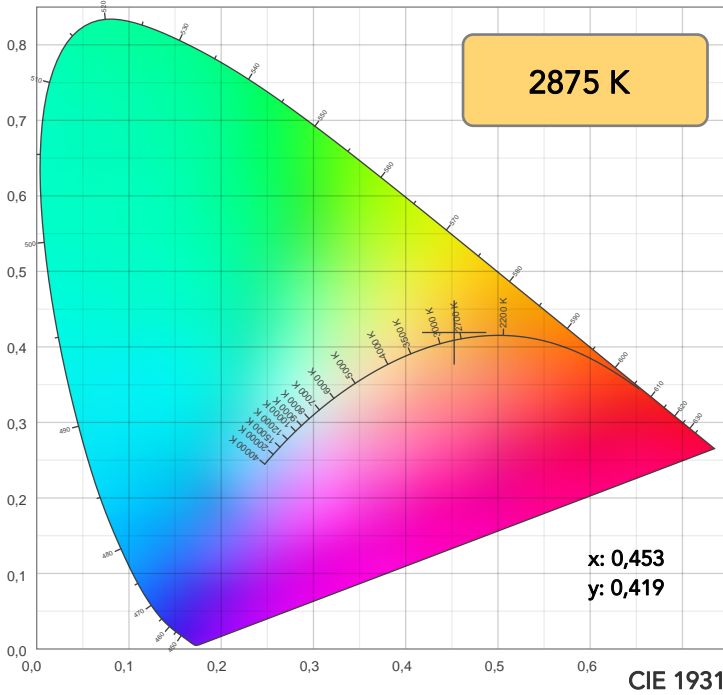
Date and time:

14/05/2020 17:24:12



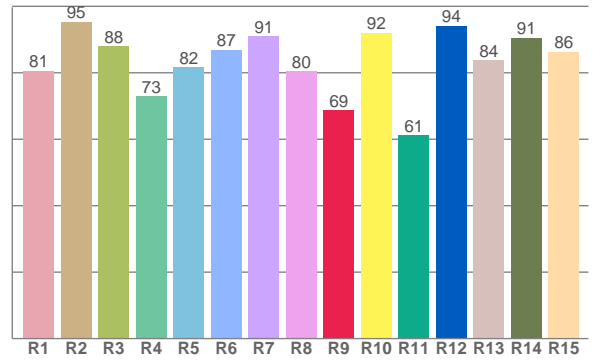
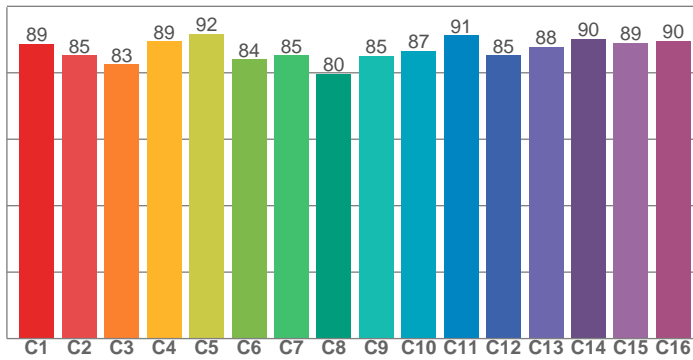
Spectra





TM30: 87,4

CRI: 84,6 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80,6	95,4	87,9	73,0	81,6	87,0	91,0	80,5	68,8	92,1	61,3	94,2	83,8	90,6	86,4

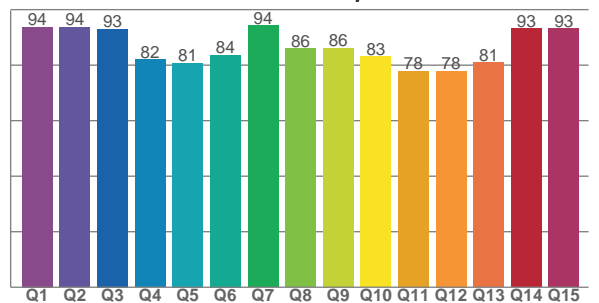
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
88,7	85,2	82,6	89,5	91,7	84,1	85,3	79,7	85,0	86,6	91,3	85,3	87,9	90,3	88,9	89,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,8	93,6	92,9	82,0	80,7	83,7	94,3	86,0	86,2	83,1	77,9	77,9	81,0	93,1	93,2

CQS: 85,1



COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
2875 K	84,6	68,8	87,4	105,0	85,1	73	0,453	0,419	0,0039

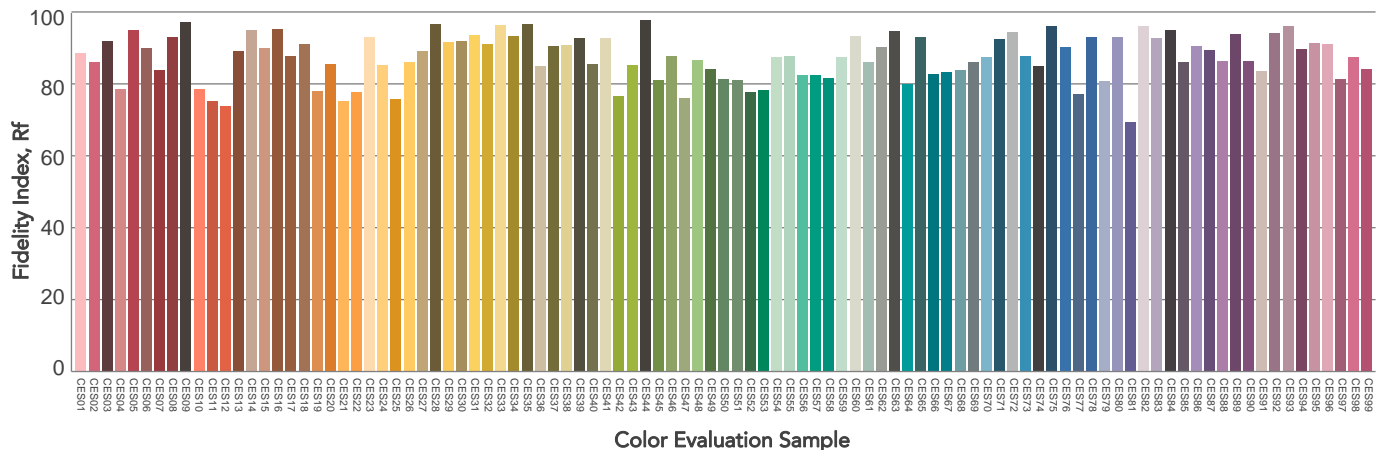
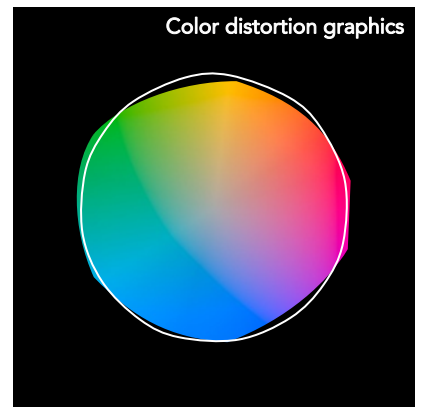
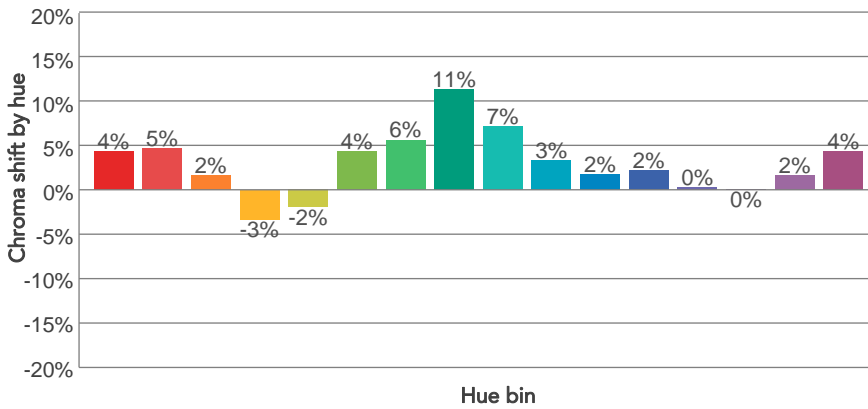
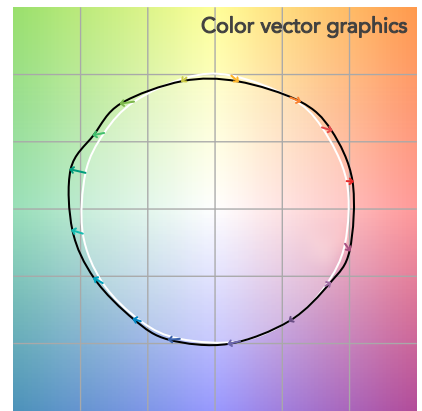
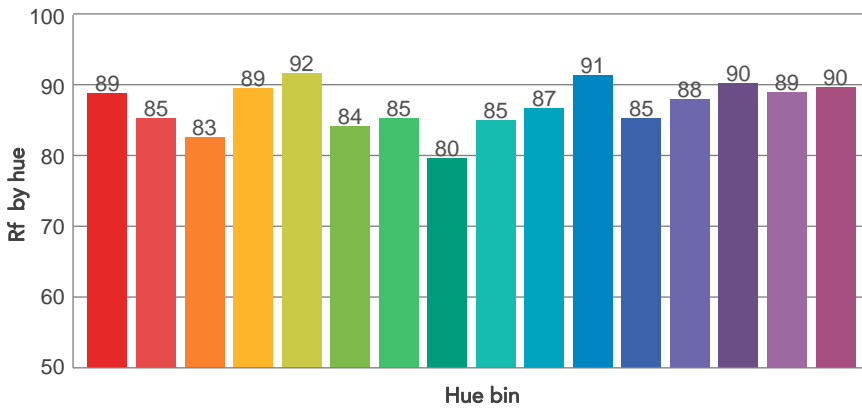
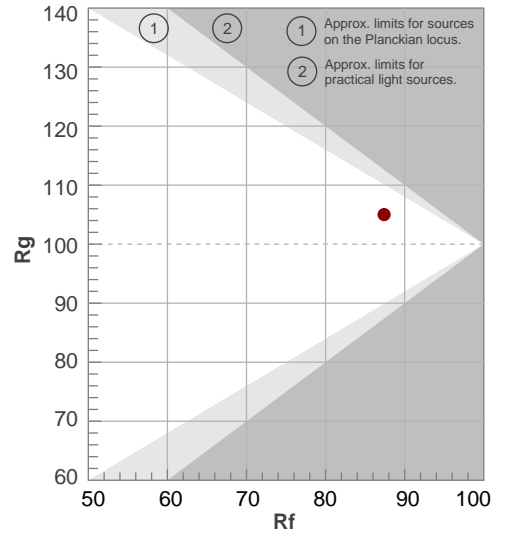


# TM30 DETAILS

**Rf 87,4**  
Fidelity index Rf

**Rg 105,0**  
Gammut index

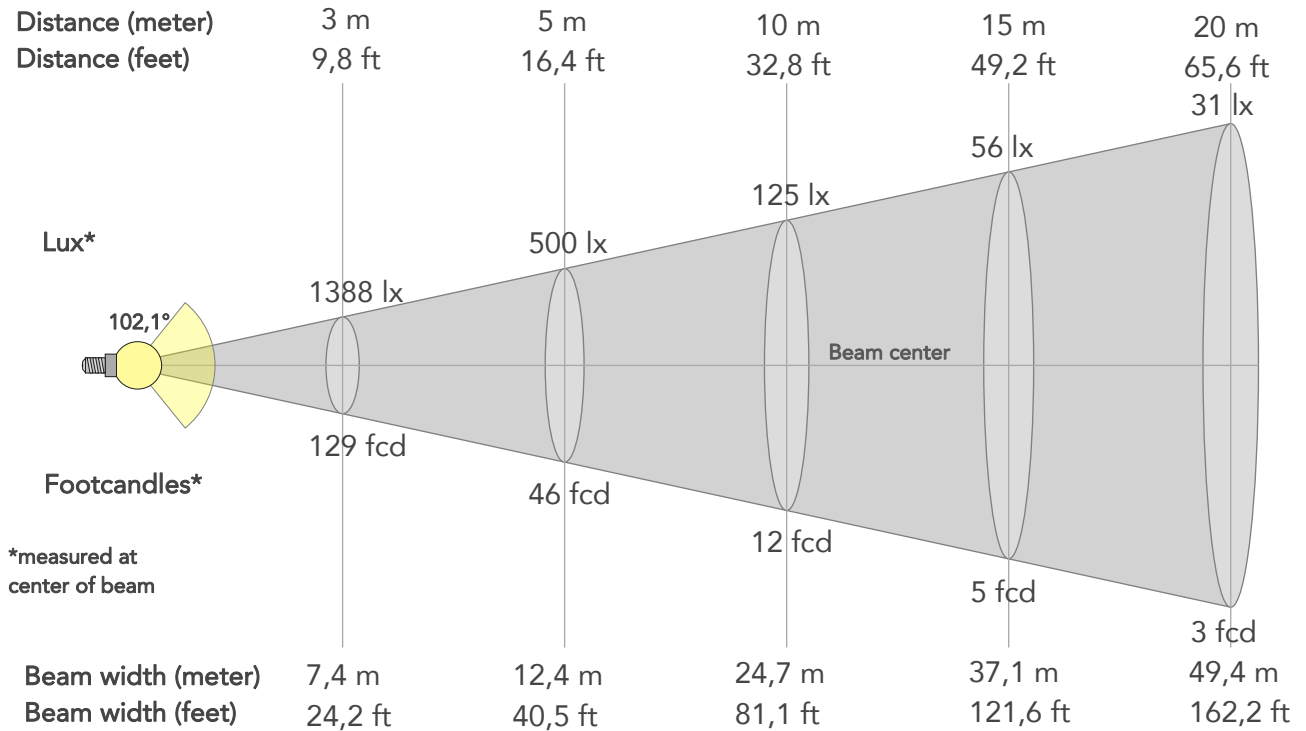
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	4%	-1%
2	85	5%	-6%
3	83	2%	-7%
4	89	-3%	-5%
5	92	-2%	4%
6	84	4%	9%
7	85	6%	6%
8	80	11%	0%
9	85	7%	-4%
10	87	3%	-6%
11	91	2%	-5%
12	85	2%	-8%
13	88	0%	-9%
14	90	0%	-2%
15	89	2%	4%
16	90	4%	-4%



# BEAM DETAILS



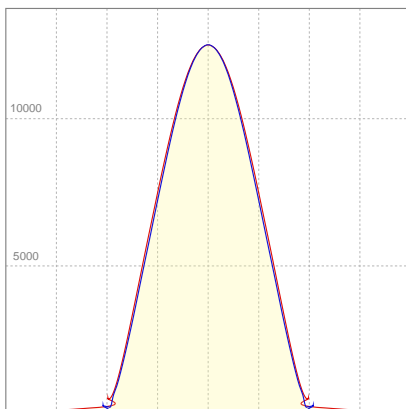
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,1°	158,6°	175,4°	78,9%	55,3%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12491lx	3123lx	1388lx	781lx	500lx	222lx	125lx	56lx	31lx	20lx	14lx	8lx	5lx
Footcand.	1160fcd	290fcd	129fcd	73fcd	46fcd	21fcd	12fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	4,9m	7,4m	9,9m	12,4m	18,5m	24,7m	37,1m	49,4m	61,8m	74,2m	98,9m	123,6m
Beam wid.	8,2ft	16,3ft	24,2ft	32,4ft	40,5ft	60,8ft	81,1ft	121,6ft	162,2ft	202,7ft	243,3ft	324,3ft	405,4ft

## LINEAR DISTRIBUTION DIAGRAM

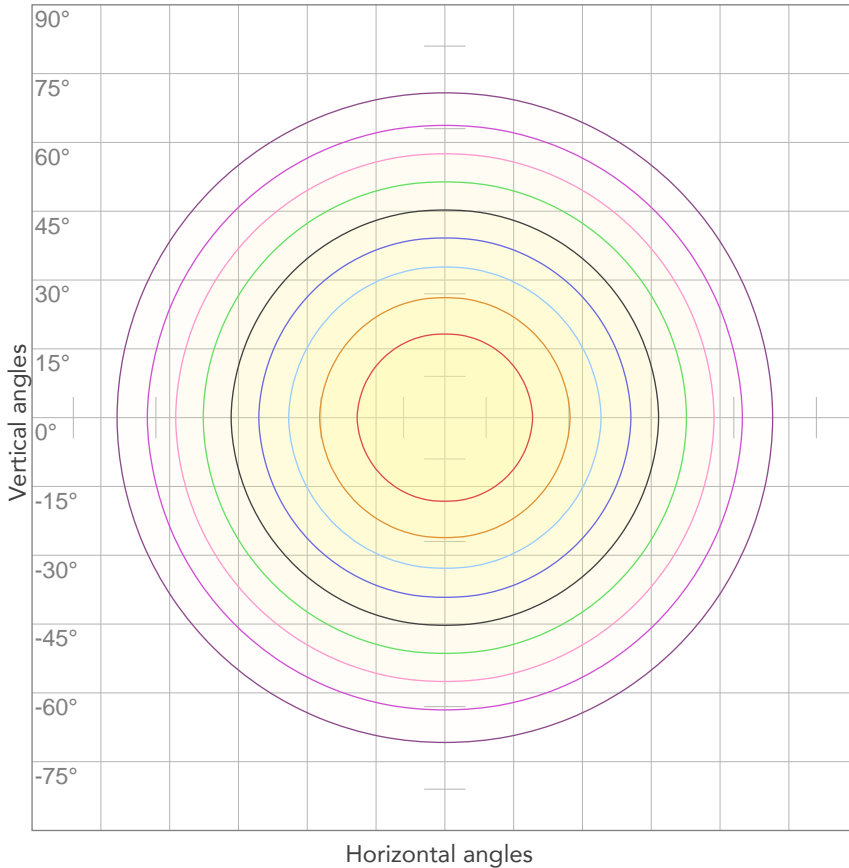


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	2,03A	433W	75lm/W

Power FC
0,95

## ISO CANDELA DIAGRAM



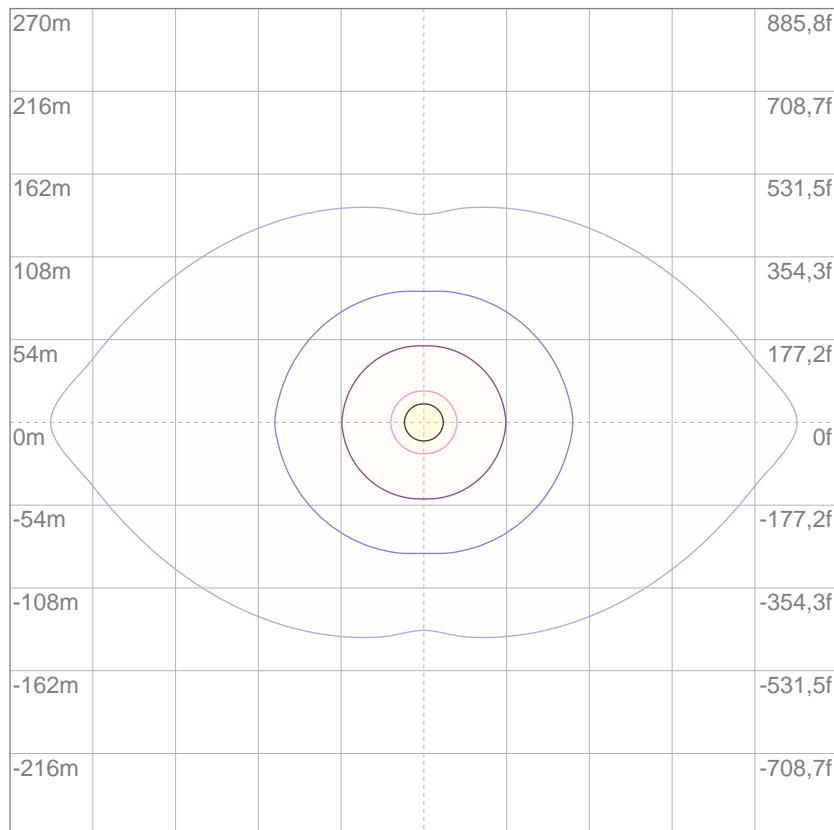
10%	1249 cd
20%	2498 cd
30%	3747 cd
40%	4996 cd
50%	6246 cd
60%	7495 cd
70%	8744 cd
80%	9993 cd

Conditions:

Number of c-planes: 4

Candela at center: 12491 cd

## ISO LUX DIAGRAM



3%	3,75 lx
5%	6,25 lx
10%	12,5 lx
30%	37,5 lx
50%	62,5 lx

Conditions:

Number of c-planes: 4

Lux at center: 125 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

32301 lm

Peak candela output:

12301 cd

Light quality:

CRI: 84,5

Color temperature:

2883 K

**PRODUCT NAME:**

**ECLPANEL TWC**

**MEASURAMENT CONDITIONS:**

Beam angle:

Filter LD

Target:

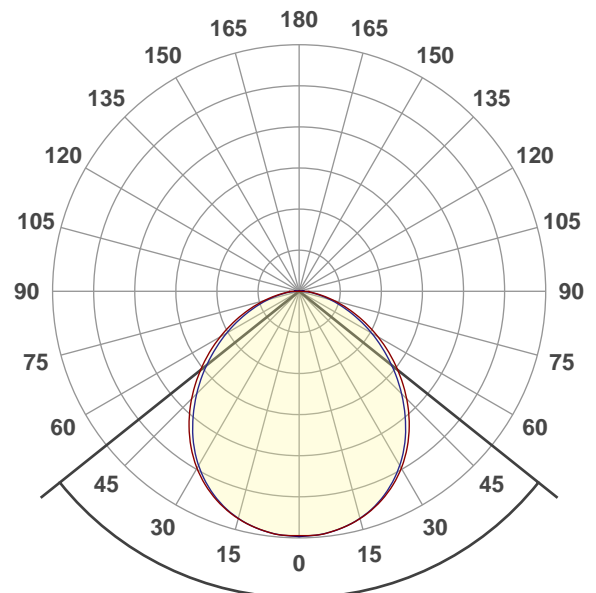
2800K

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:18:52

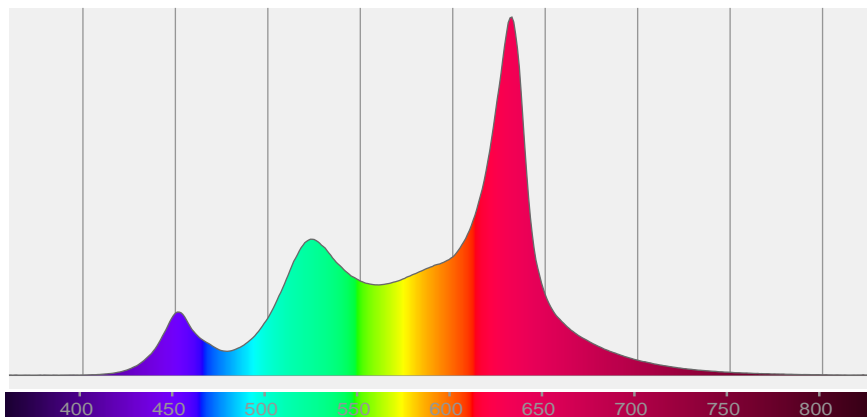


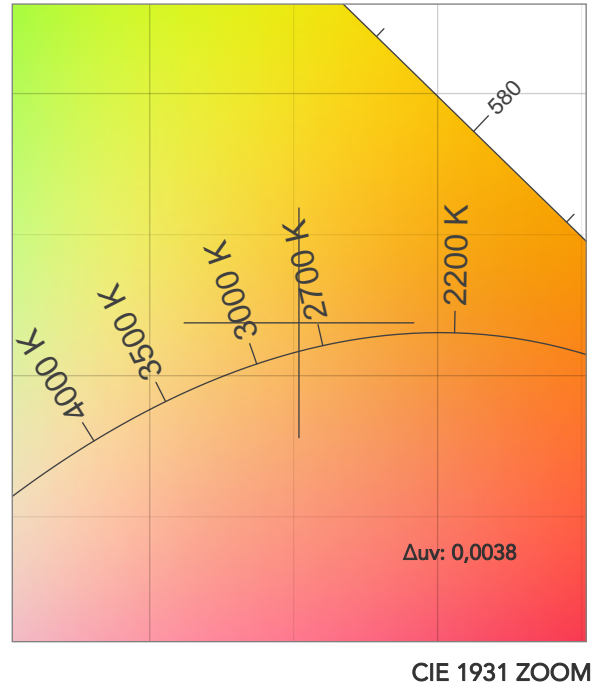
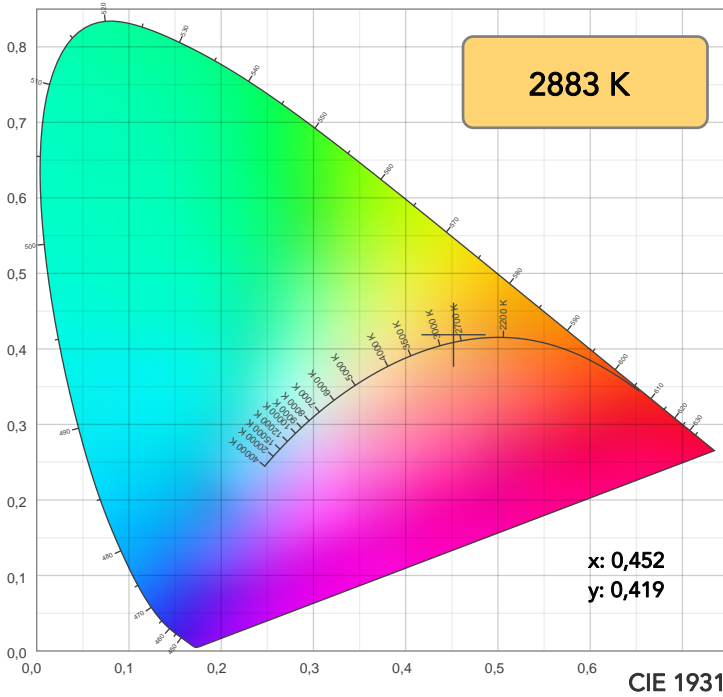
Beam angle 50%: 102,8°

Field angle 10%: 157°

Cut off angle 2.5%: 175,7°

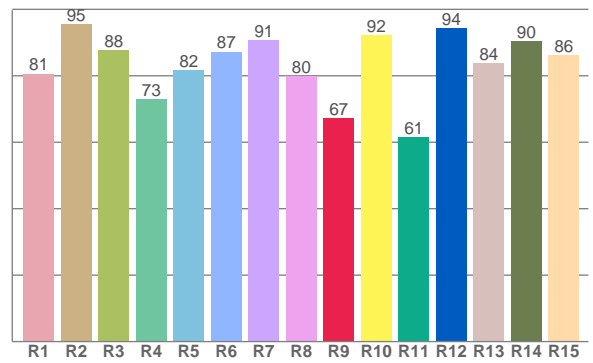
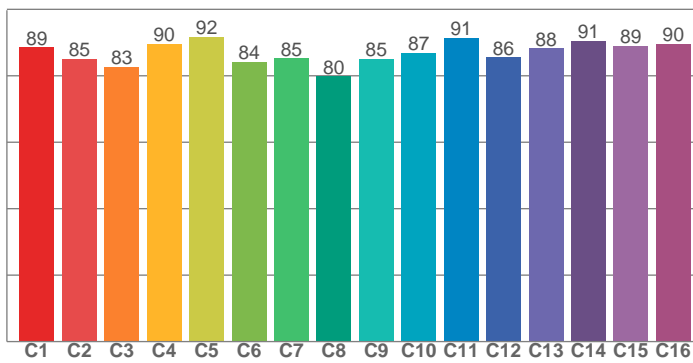
Spectra





TM30: 87,5

CRI: 84,5 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80,6	95,4	87,7	73,0	81,6	87,2	90,7	79,8	67,3	92,2	61,5	94,3	83,8	90,5	86,1

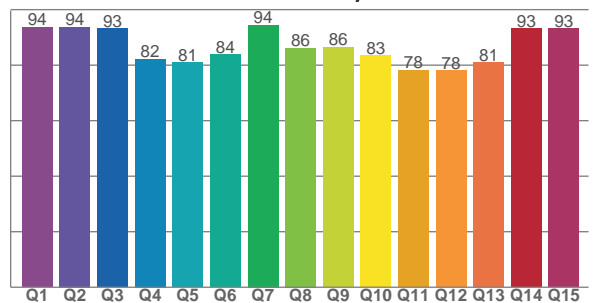
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
88,5	85,1	82,6	89,5	91,7	84,1	85,2	79,8	85,1	86,8	91,5	85,6	88,2	90,6	88,9	89,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,6	93,8	93,2	82,2	80,9	83,8	94,4	86,1	86,4	83,4	78,1	78,0	81,0	93,1	93,2

CQS: 85,3



## COLOR PARAMETERS

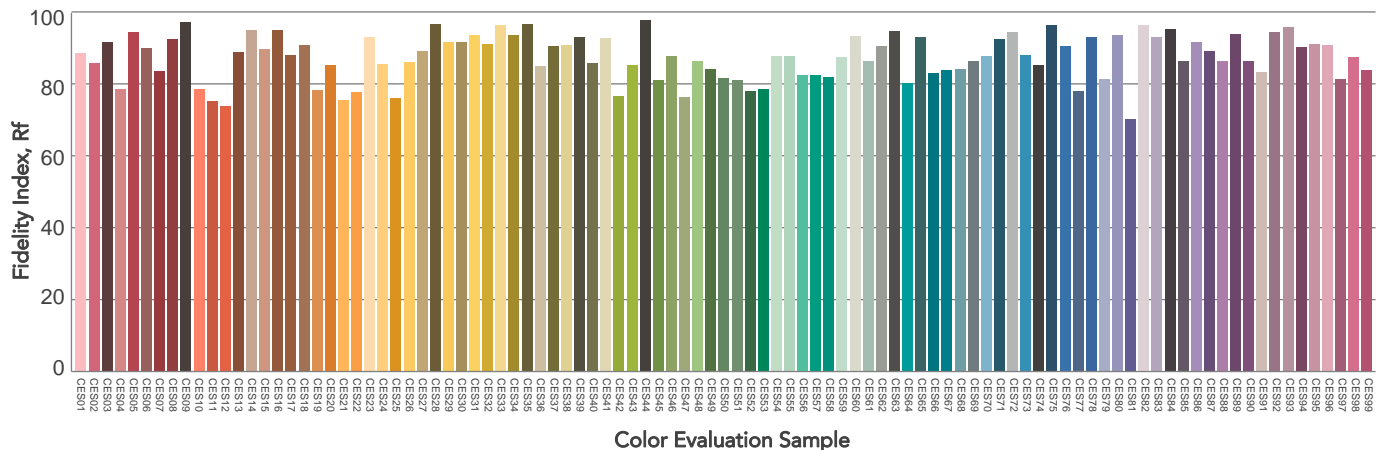
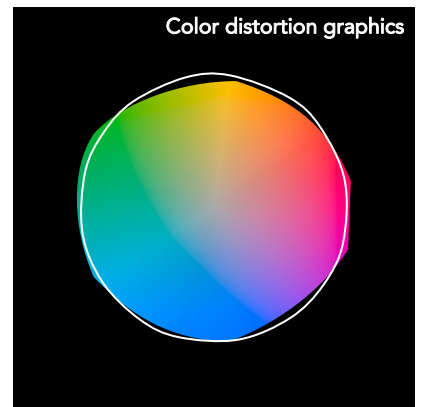
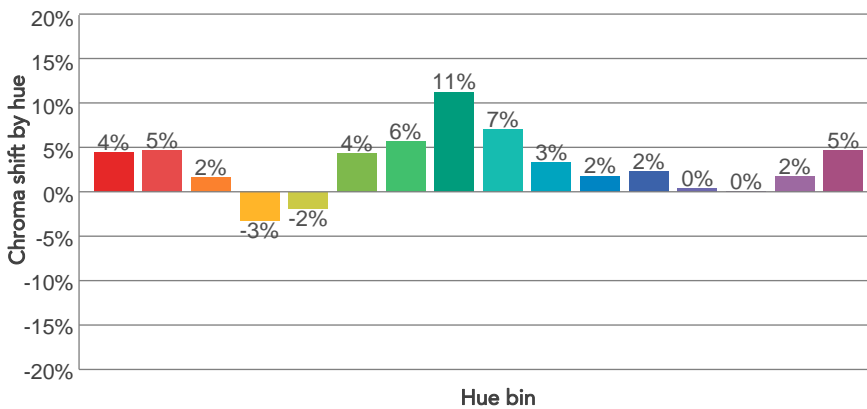
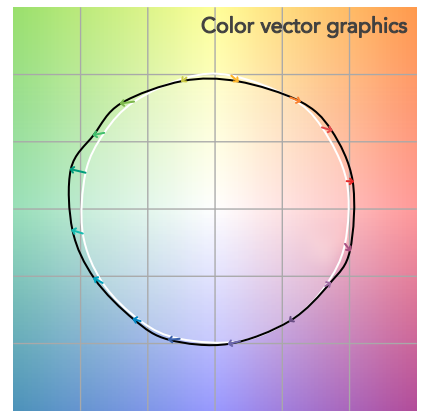
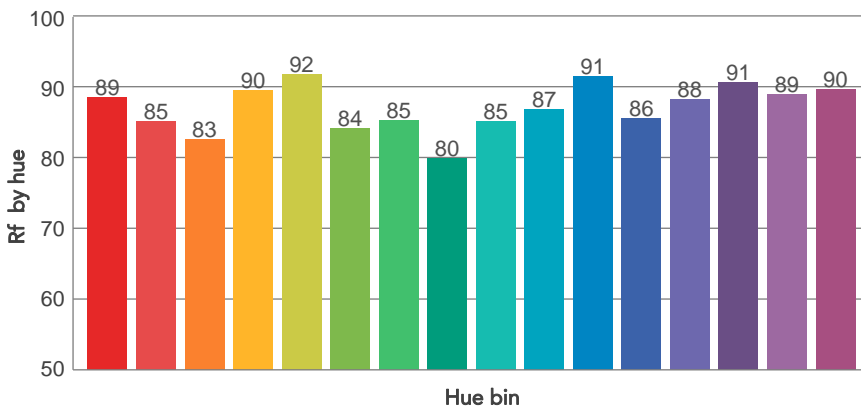
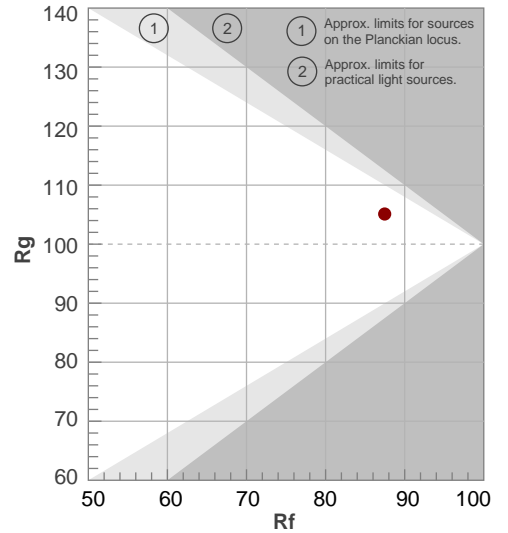
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2883 K	84,5	67,3	87,5	105,1	85,3	74	0,452	0,419	0,0038

# TM30 DETAILS

**Rf 87,5**  
Fidelity index Rf

**Rg 105,1**  
Gammut index

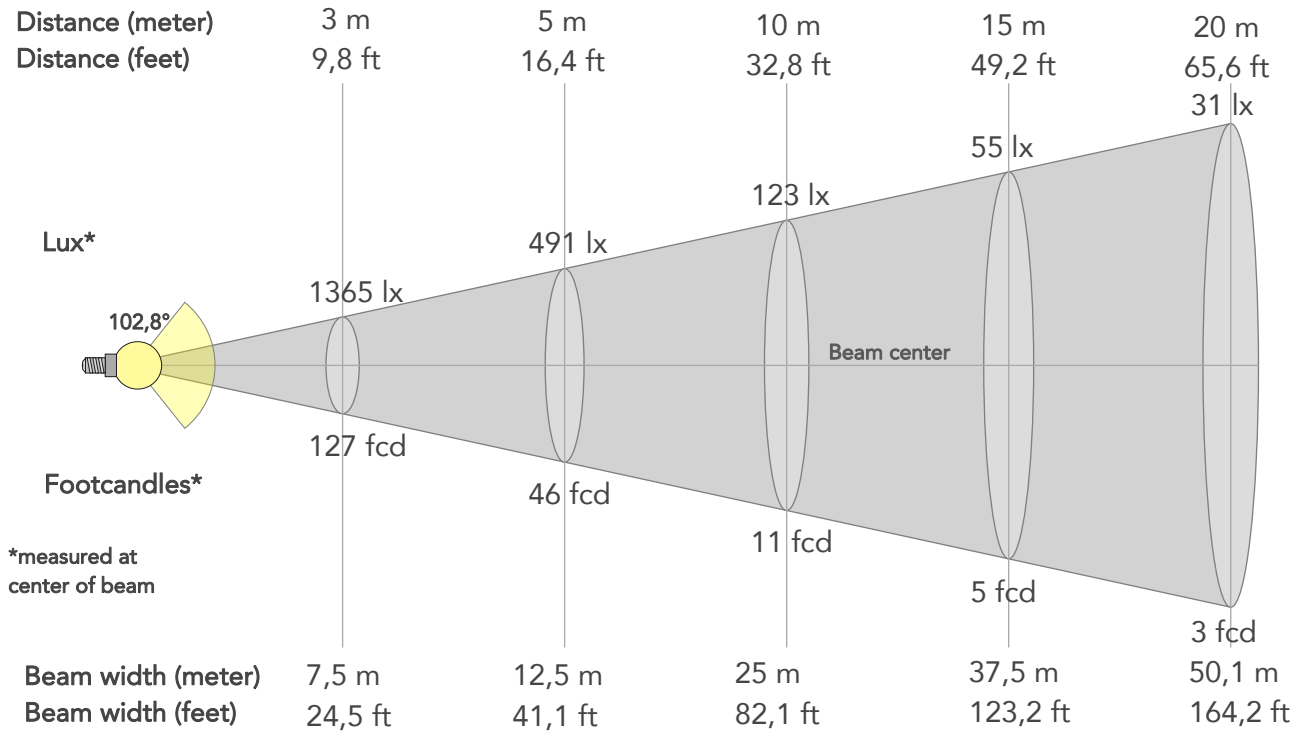
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	4%	-1%
2	85	5%	-6%
3	83	2%	-7%
4	90	-3%	-5%
5	92	-2%	4%
6	84	4%	9%
7	85	6%	6%
8	80	11%	0%
9	85	7%	-4%
10	87	3%	-6%
11	91	2%	-5%
12	86	2%	-8%
13	88	0%	-8%
14	91	0%	-2%
15	89	2%	4%
16	90	5%	-4%



# BEAM DETAILS



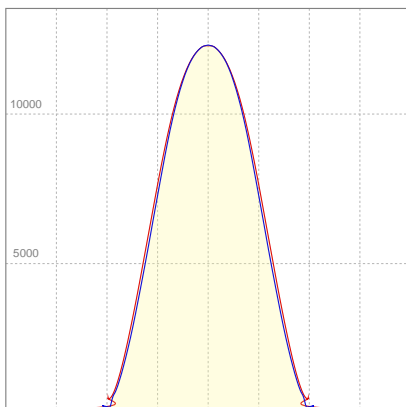
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,8°	157°	175,7°	80,2%	56,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12285lx	3071lx	1365lx	768lx	491lx	218lx	123lx	55lx	31lx	20lx	14lx	8lx	5lx
Footcand.	1141fcd	285fcd	127fcd	71fcd	46fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,5m	10m	12,5m	18,8m	25m	37,5m	50,1m	62,6m	75,1m	100,1m	125,2m
Beam wid.	8,3ft	16,5ft	24,5ft	32,8ft	41,1ft	61,6ft	82,1ft	123,2ft	164,2ft	205,3ft	246,3ft	328,4ft	410,5ft

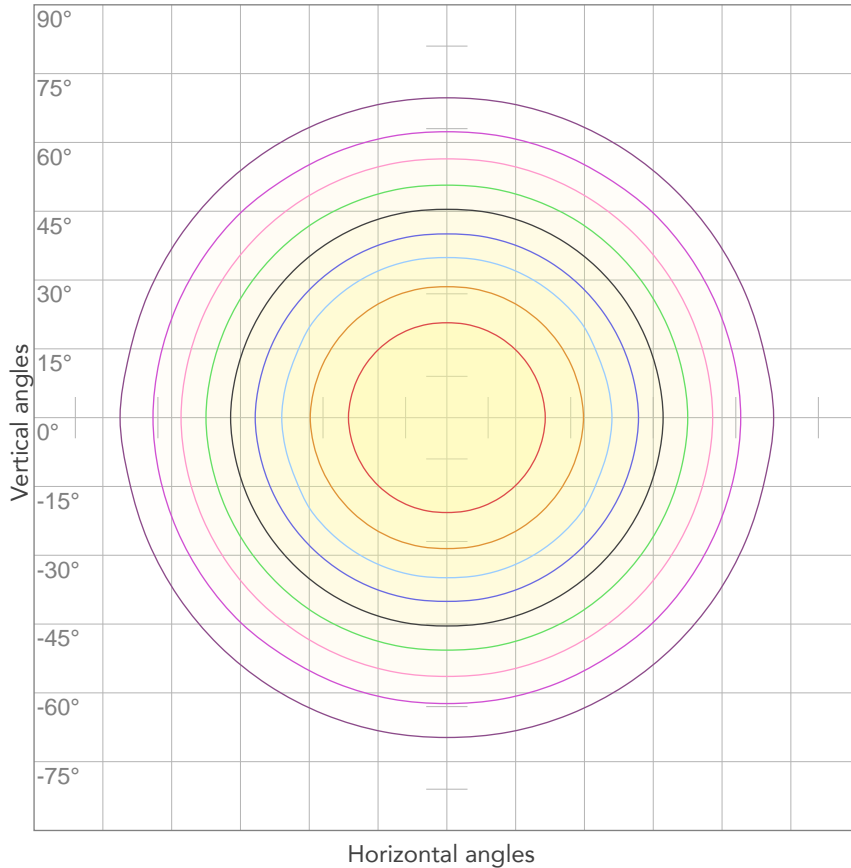
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,02A	432,4W	75lm/W
<b>Power FC</b>			
<b>0,95</b>			

## ISO CANDELA DIAGRAM



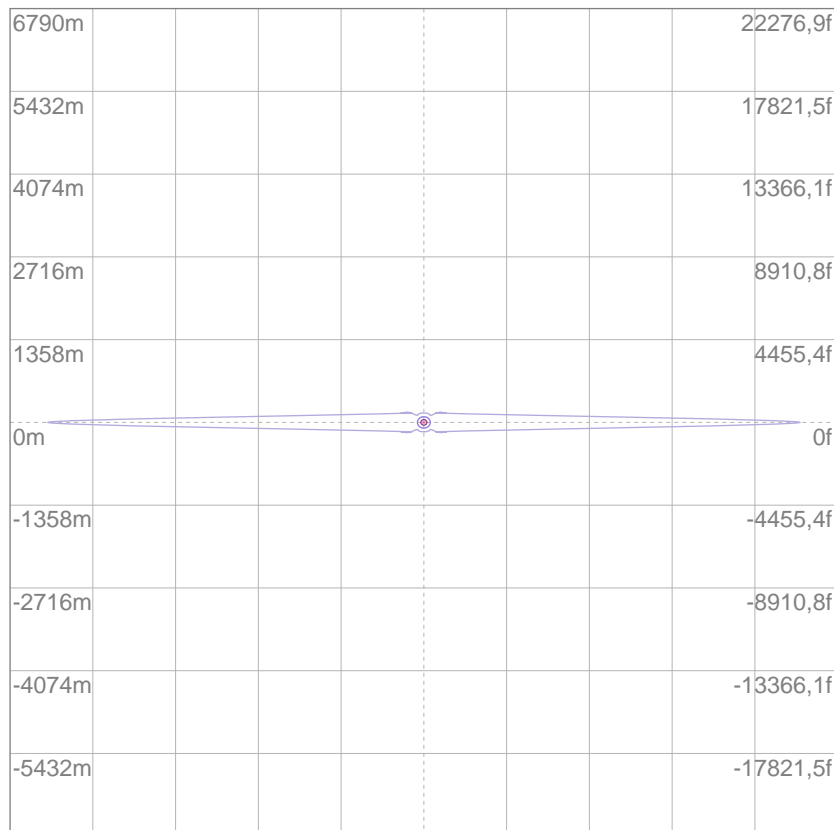
10%	1229 cd
20%	2457 cd
30%	3686 cd
40%	4914 cd
50%	6143 cd
60%	7371 cd
70%	8600 cd
80%	9828 cd

Conditions:

Number of c-planes: 4

Candela at center: 12285 cd

## ISO LUX DIAGRAM



3%	3,69 lx
5%	6,14 lx
10%	12,3 lx
30%	36,9 lx
50%	61,4 lx

Conditions:

Number of c-planes: 4

Lux at center: 123 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)





Total lumen output:

29524 lm

Peak candela output:

10059 cd

Light quality:

CRI: 92,4

Color temperature:

3311 K

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter HD

Target:

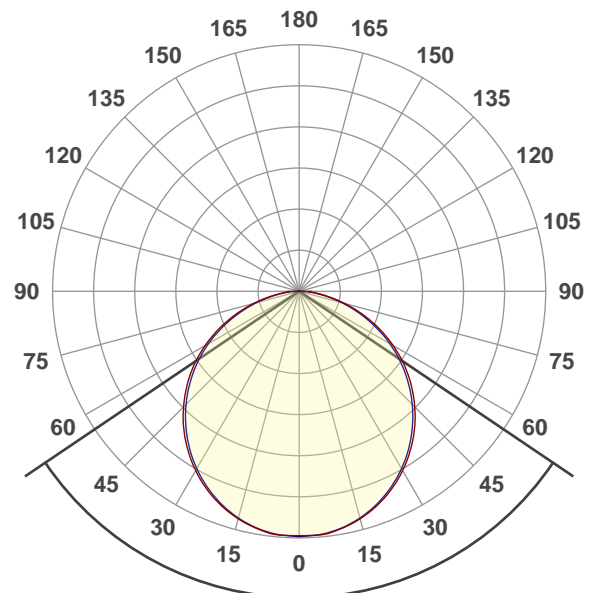
3200K

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:02:33

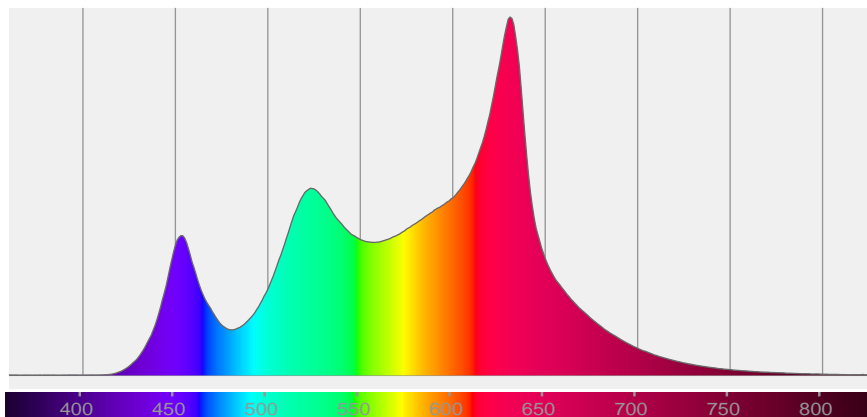


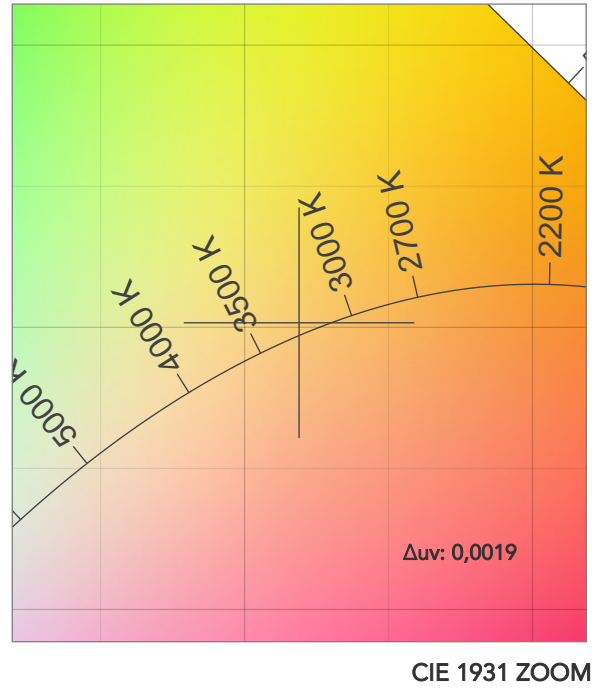
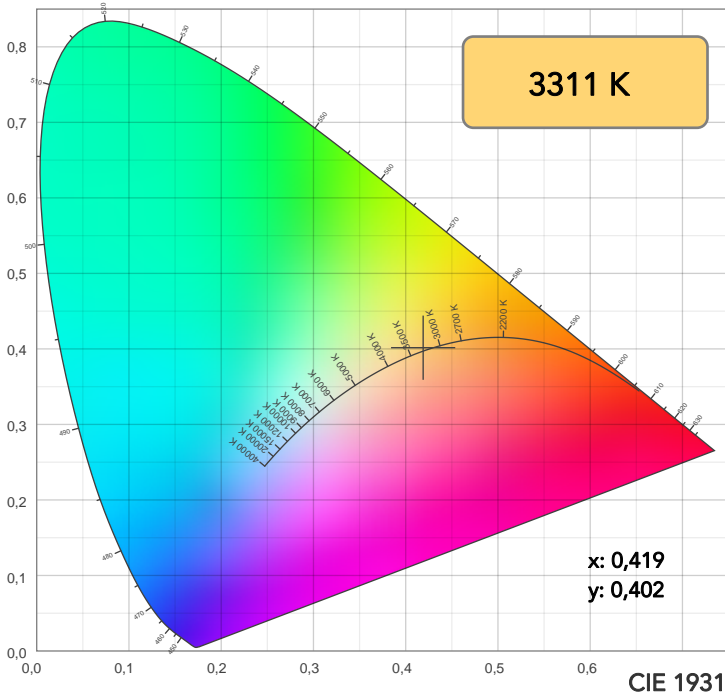
Beam angle 50%: 111,9°

Field angle 10%: 161,9°

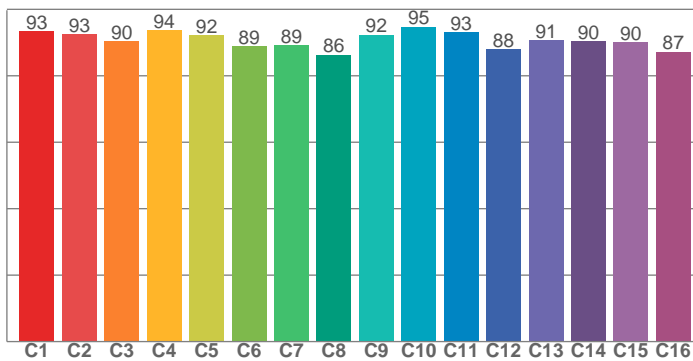
Cut off angle 2.5%: 176,4°

Spectra

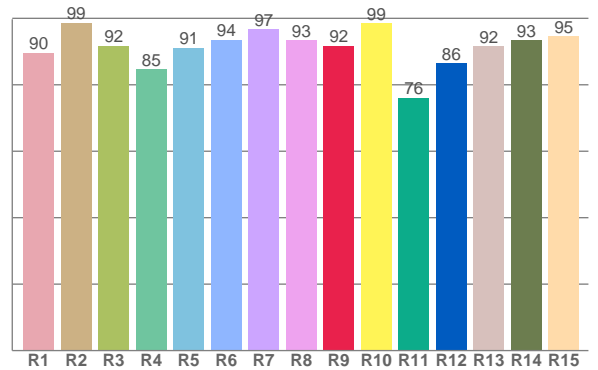




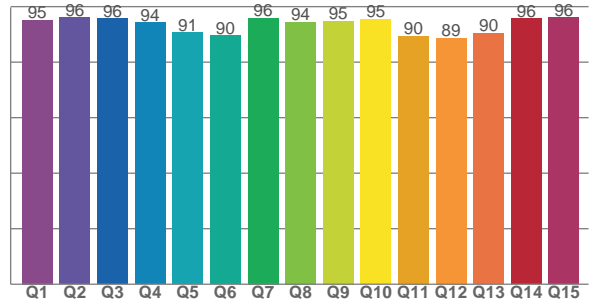
TM30: 91,4



CRI: 92,4 (R1-R8)



CQS: 92,9



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
89,7	98,7	91,7	84,7	91,1	93,5	96,7	93,4	91,7	98,6	76,1	86,5	91,6	93,4	94,6

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,3	92,5	90,4	93,6	92,1	88,9	89,1	86,3	92,2	94,8	93,0	87,9	90,6	90,4	90,0	87,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,2	96,0	95,7	94,3	90,6	89,6	95,9	94,5	94,9	95,4	89,5	88,8	90,4	95,7	96,0

COLOR PARAMETERS

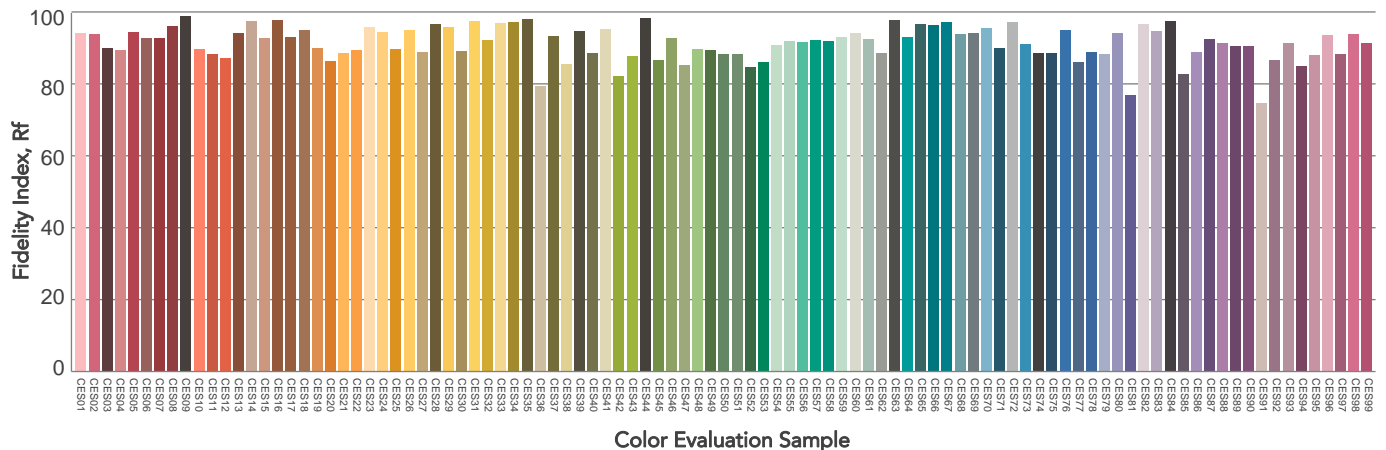
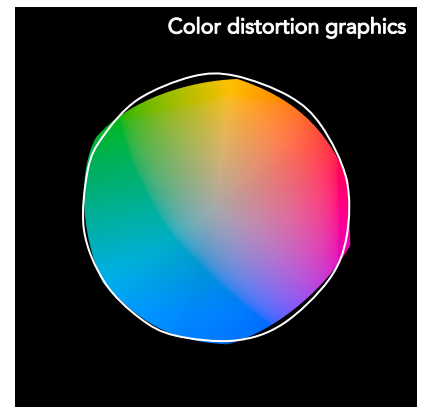
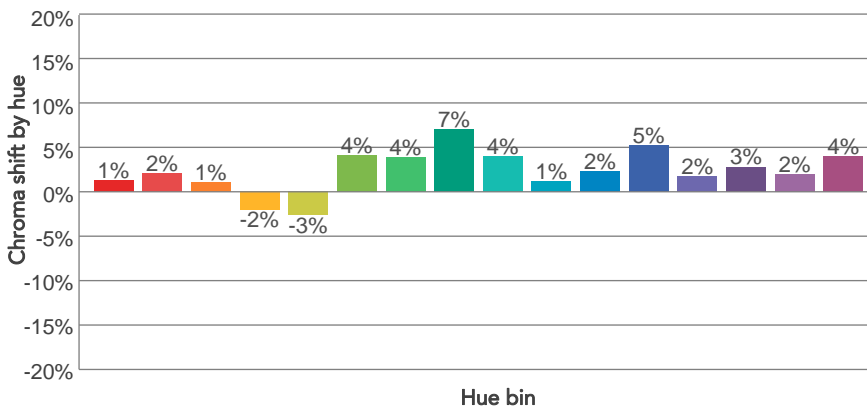
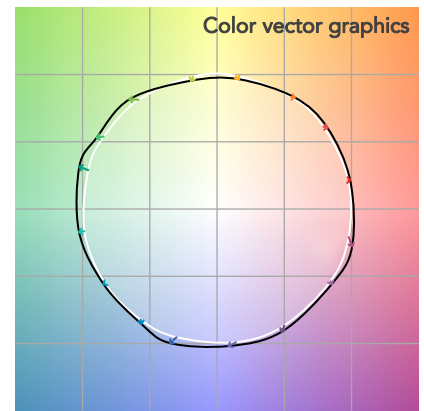
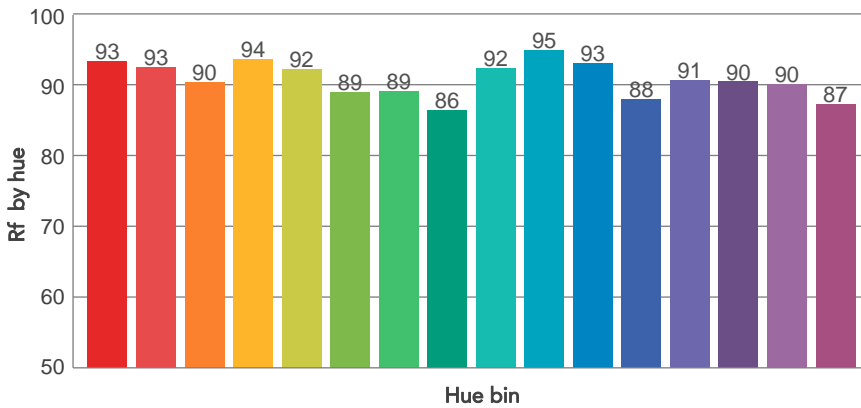
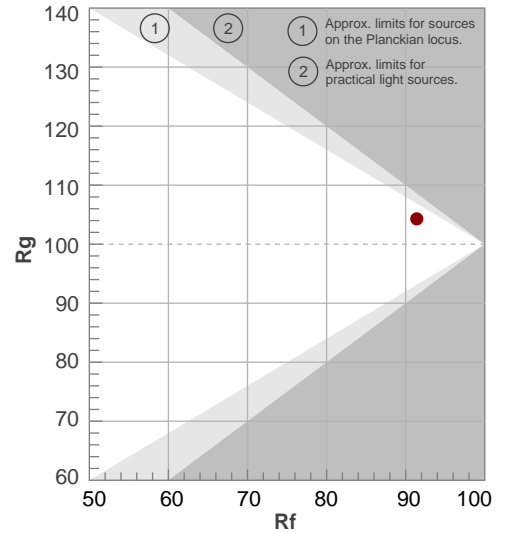
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3311 K	92,4	91,7	91,4	104,3	92,9	87	0,419	0,402	0,0019

# TM30 DETAILS

**Rf 91,4**  
Fidelity index Rf

**Rg 104,3**  
Gammut index

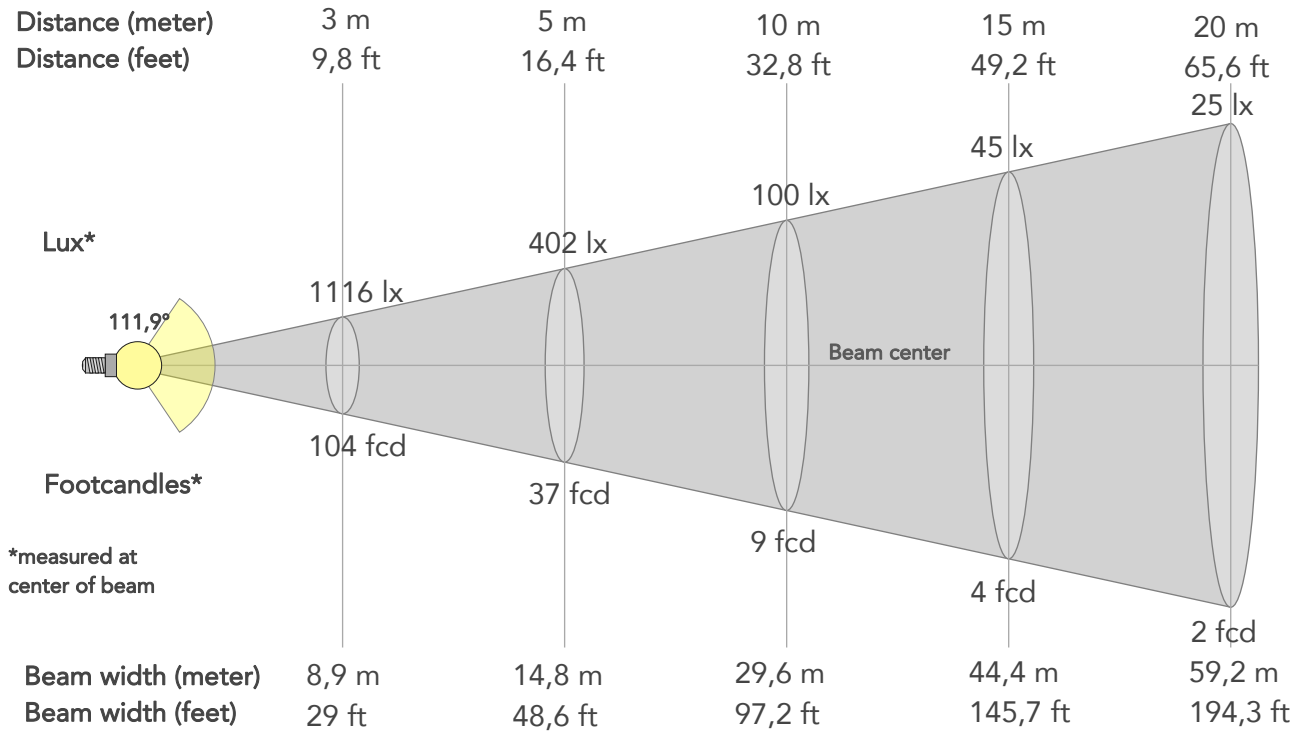
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	1%	0%
2	93	2%	-2%
3	90	1%	-3%
4	94	-2%	-2%
5	92	-3%	2%
6	89	4%	5%
7	89	4%	3%
8	86	7%	-1%
9	92	4%	0%
10	95	1%	0%
11	93	2%	2%
12	88	5%	-4%
13	91	2%	-6%
14	90	3%	-4%
15	90	2%	-1%
16	87	4%	-6%



# BEAM DETAILS



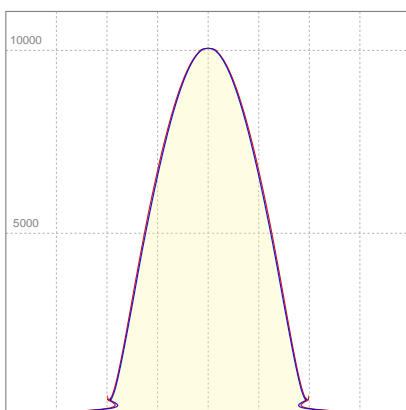
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
111,9°	161,9°	176,4°	76,1%	51,9%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	10048lx	2512lx	1116lx	628lx	402lx	179lx	100lx	45lx	25lx	16lx	11lx	6lx	4lx
Footcand.	934fcd	233fcd	104fcd	58fcd	37fcd	17fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,8m	14,8m	22,2m	29,6m	44,4m	59,2m	74,1m	88,9m	118,5m	148,1m
Beam wid.	9,8ft	19,6ft	29ft	38,8ft	48,6ft	72,9ft	97,2ft	145,7ft	194,3ft	242,9ft	291,5ft	388,6ft	485,8ft

## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	2,05A	439W	67lm/W
<b>Power FC</b>			
0,95			

## ISO CANDELA DIAGRAM



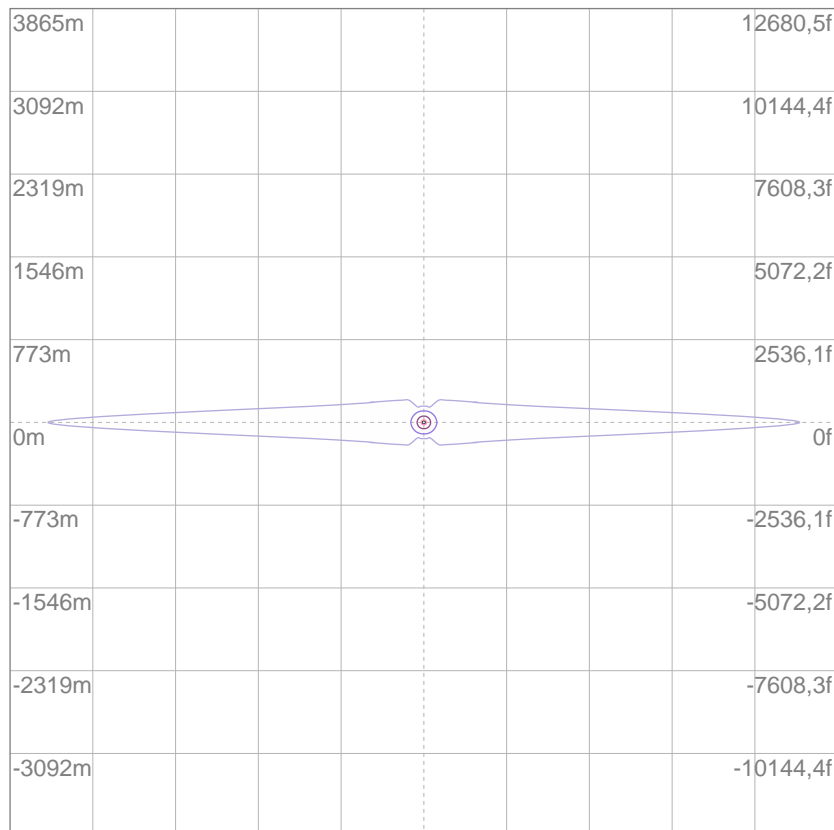
10%	1005 cd
20%	2010 cd
30%	3015 cd
40%	4019 cd
50%	5024 cd
60%	6029 cd
70%	7034 cd
80%	8039 cd

Conditions:

Number of c-planes: 4

Candela at center: 10048 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	3,01 lx
5%	5,02 lx
10%	10,0 lx
30%	30,1 lx
50%	50,2 lx

Conditions:

Number of c-planes: 4

Lux at center: 100 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*



Total lumen output:

33993 lm

Peak candela output:

13055 cd

Light quality:

CRI: 94,6

Color temperature:

3279 K

**PRODUCT NAME:**

**ECLPANEL TWC**

**MEASURAMENT CONDITIONS:**

Beam angle:

Filter MD

Target:

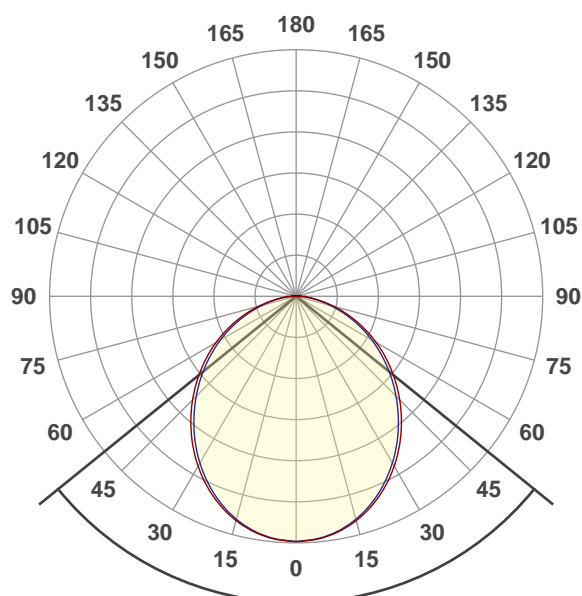
3200K

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:39:29

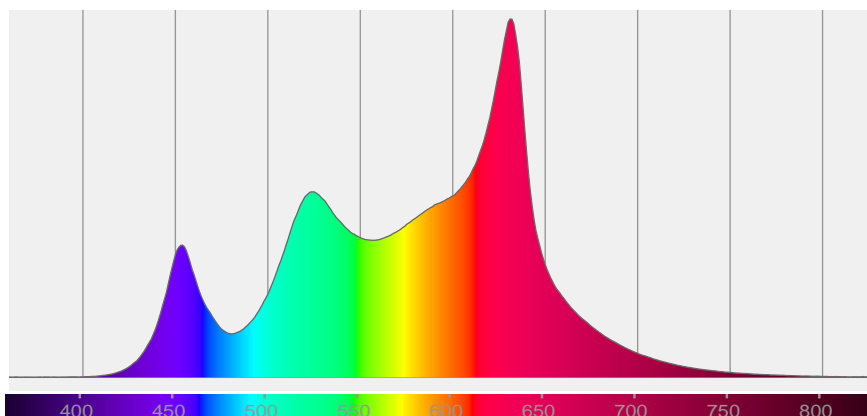


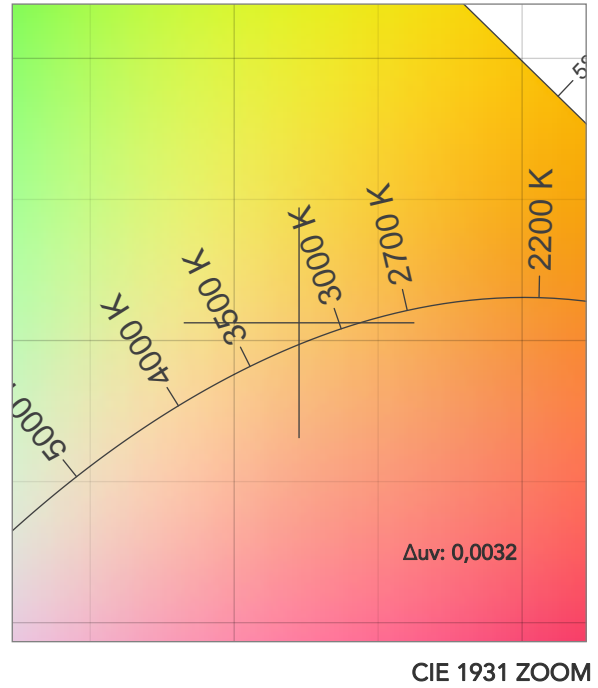
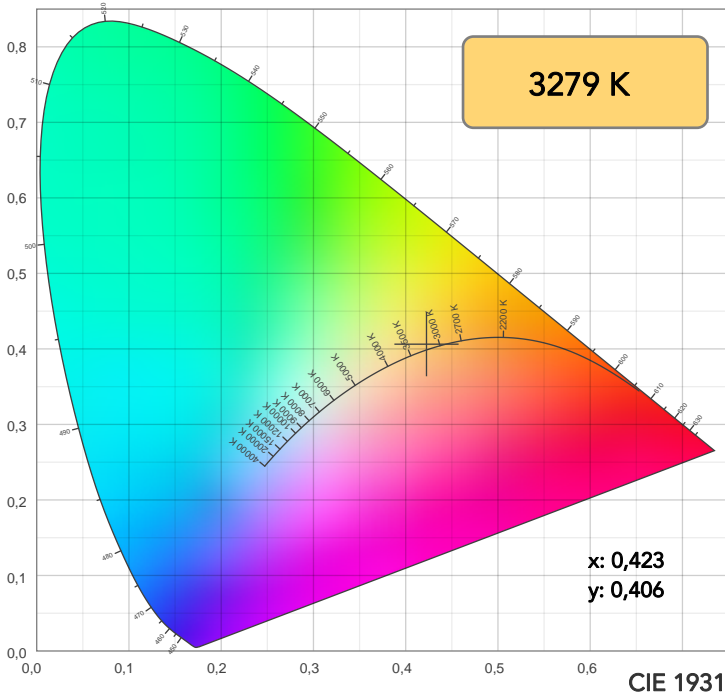
Beam angle 50%: 102°

Field angle 10%: 158,6°

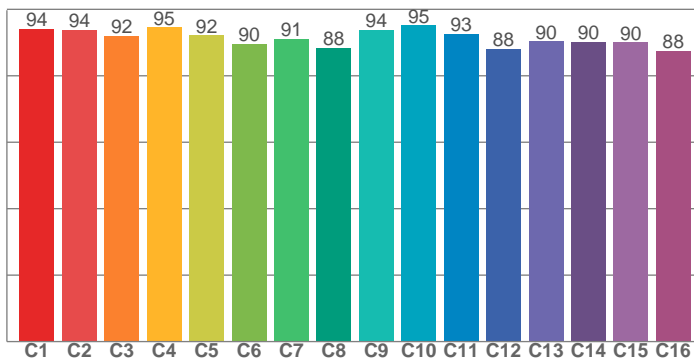
Cut off angle 2.5%: 175,6°

Spectra

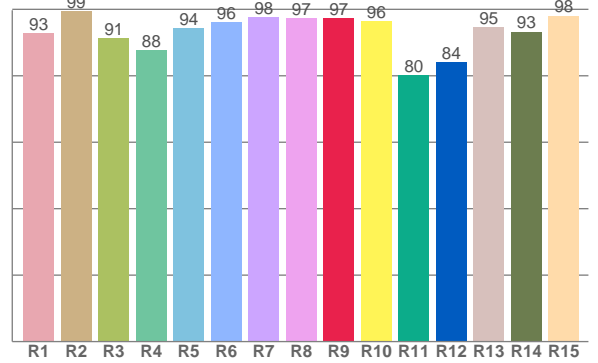




TM30: 92,0



CRI: 94,6 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,9	99,3	91,3	87,7	94,4	96,2	97,6	97,2	97,3	96,5	80,1	84,1	94,6	93,3	98,1

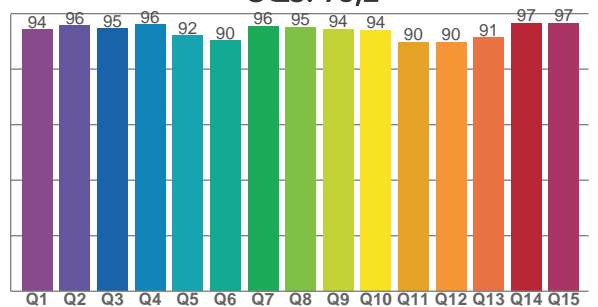
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,1	93,9	92,0	94,6	92,1	89,7	91,1	88,5	93,8	95,2	92,7	88,1	90,4	90,1	90,1	87,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,2	95,7	94,6	96,0	92,1	90,3	95,5	95,3	94,5	94,0	89,7	89,8	91,3	96,6	96,6

CQS: 93,2



COLOR PARAMETERS

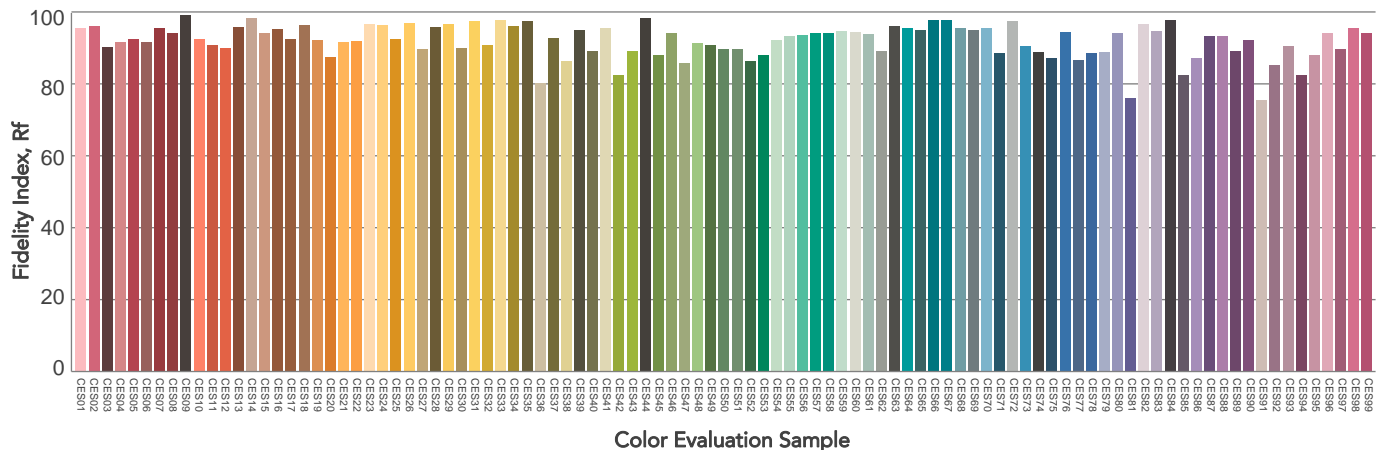
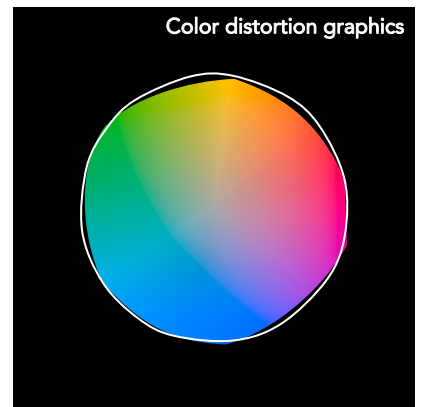
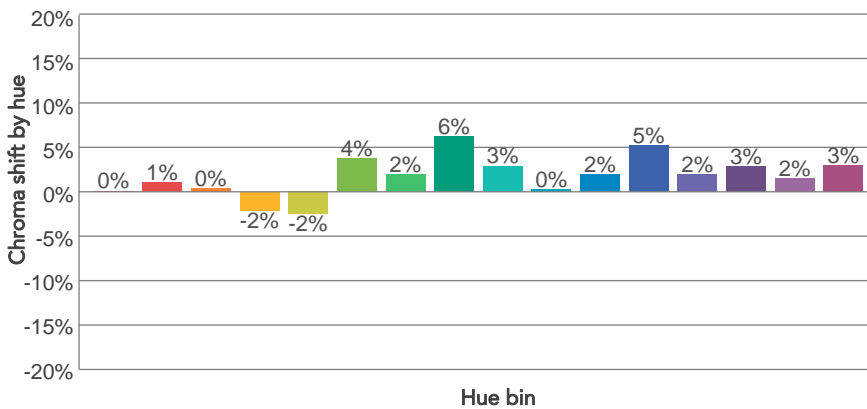
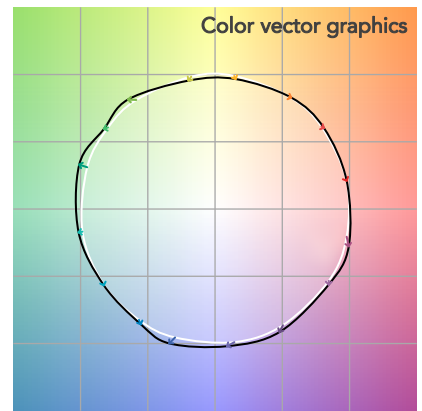
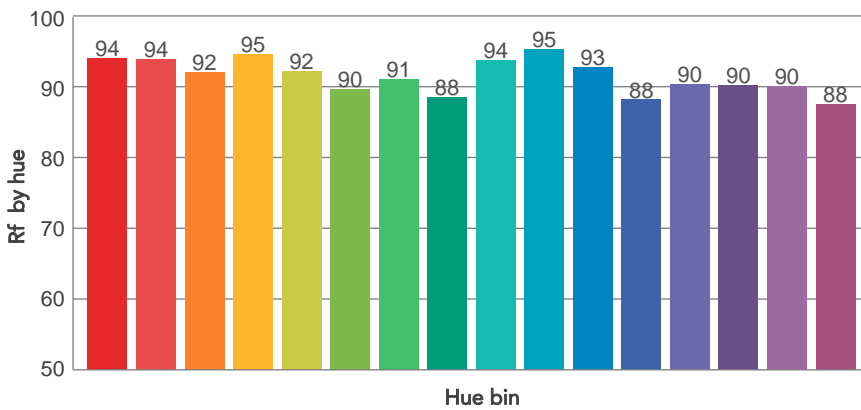
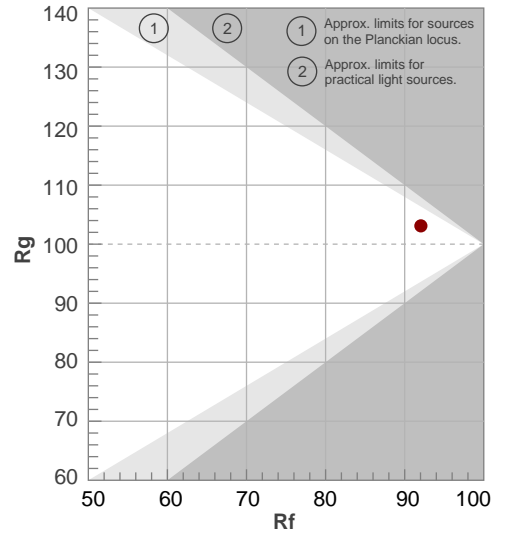
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3279 K	94,6	97,3	92,0	103,1	93,2	88	0,423	0,406	0,0032

# TM30 DETAILS

**Rf 92,0**  
Fidelity index Rf

**Rg 103,1**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	0%	0%
2	94	1%	-2%
3	92	0%	-2%
4	95	-2%	-1%
5	92	-2%	3%
6	90	4%	5%
7	91	2%	3%
8	88	6%	-1%
9	94	3%	0%
10	95	0%	1%
11	93	2%	3%
12	88	5%	-3%
13	90	2%	-6%
14	90	3%	-5%
15	90	2%	-2%
16	88	3%	-7%

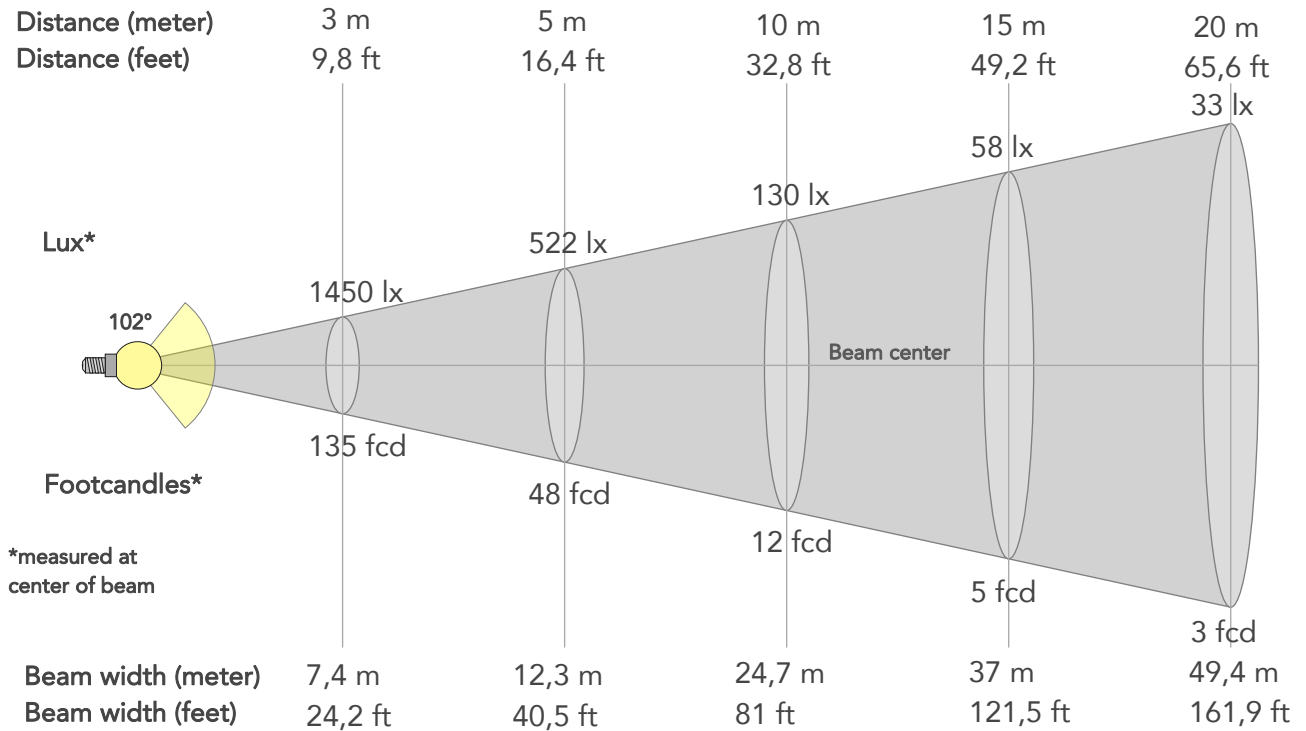




# BEAM DETAILS



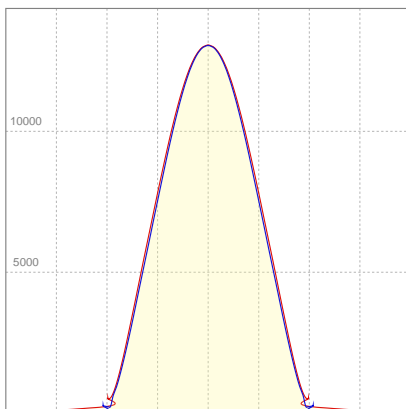
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102°	158,6°	175,6°	79,0%	55,2%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	13046lx	3262lx	1450lx	815lx	522lx	232lx	130lx	58lx	33lx	21lx	14lx	8lx	5lx
Footcand.	1212fcd	303fcd	135fcd	76fcd	48fcd	22fcd	12fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	4,9m	7,4m	9,9m	12,3m	18,5m	24,7m	37m	49,4m	61,7m	74,1m	98,7m	123,4m
Beam wid.	8,1ft	16,3ft	24,2ft	32,3ft	40,5ft	60,7ft	81ft	121,5ft	161,9ft	202,4ft	242,9ft	323,9ft	404,8ft

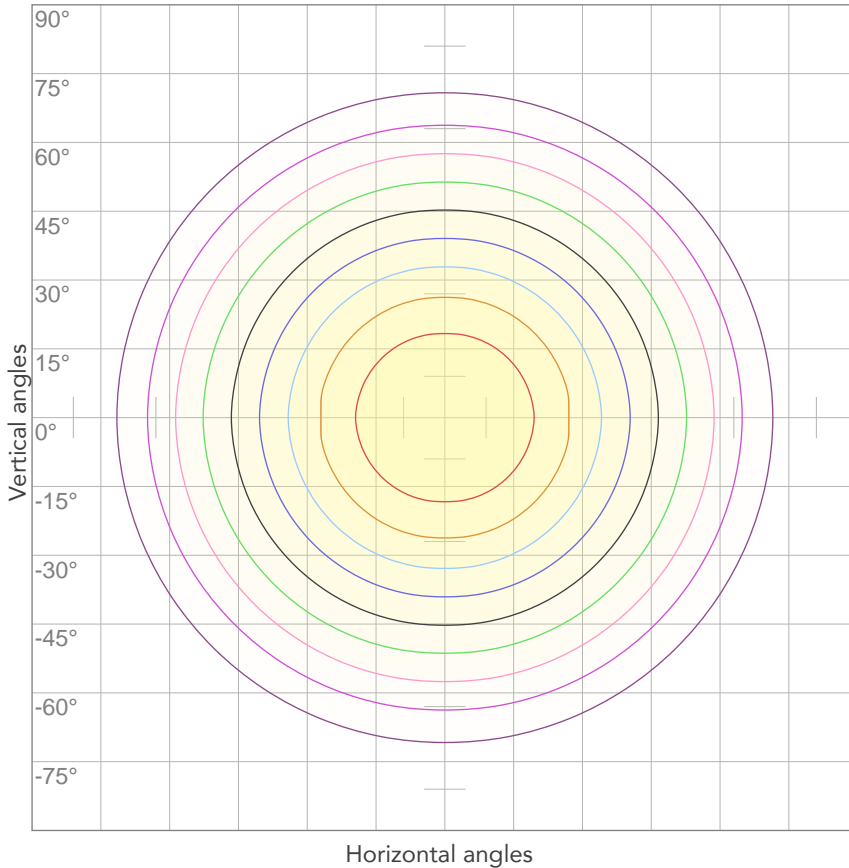
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	2,05A	437,4W	78lm/W
<b>Power FC</b>			
<b>0,95</b>			

## ISO CANDELA DIAGRAM



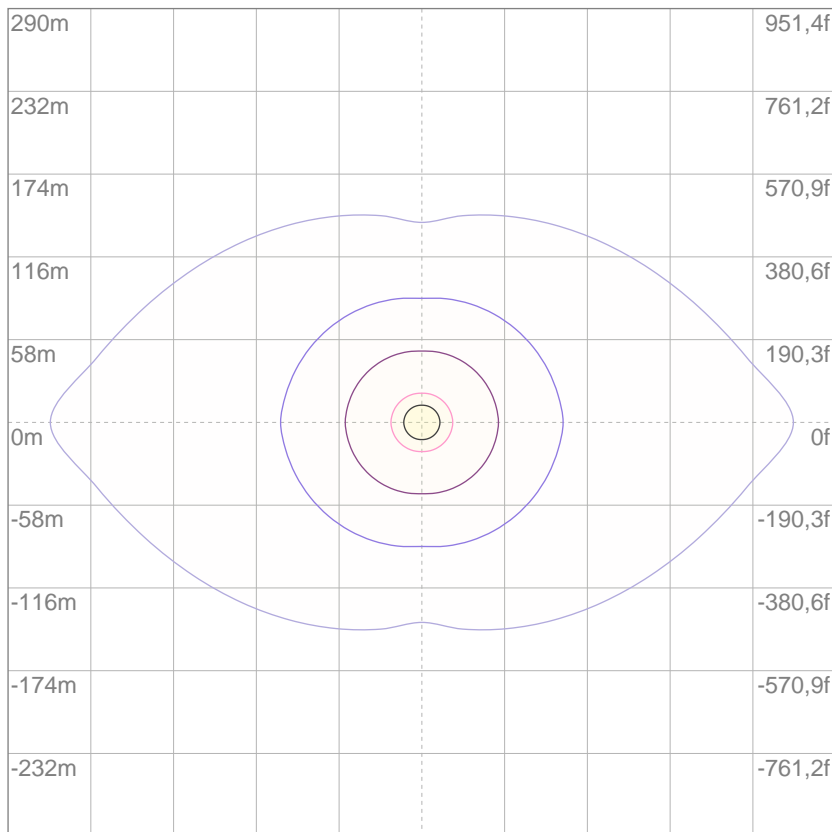
10%	1305 cd
20%	2609 cd
30%	3914 cd
40%	5218 cd
50%	6523 cd
60%	7828 cd
70%	9132 cd
80%	10437 cd

Conditions:

Number of c-planes: 4

Candela at center: 13046 cd

## ISO LUX DIAGRAM



3%	3,91 lx
5%	6,52 lx
10%	13,0 lx
30%	39,1 lx
50%	65,2 lx

Conditions:

Number of c-planes: 4

Lux at center: 130 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

34432 lm

Peak candela output:

13158 cd

Light quality:

CRI: 94,6

Color temperature:

3286 K

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter LD

Target:

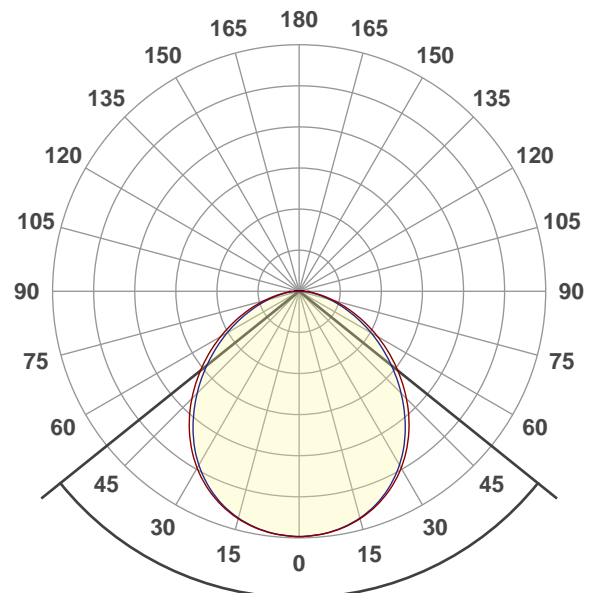
3200K

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:20:26

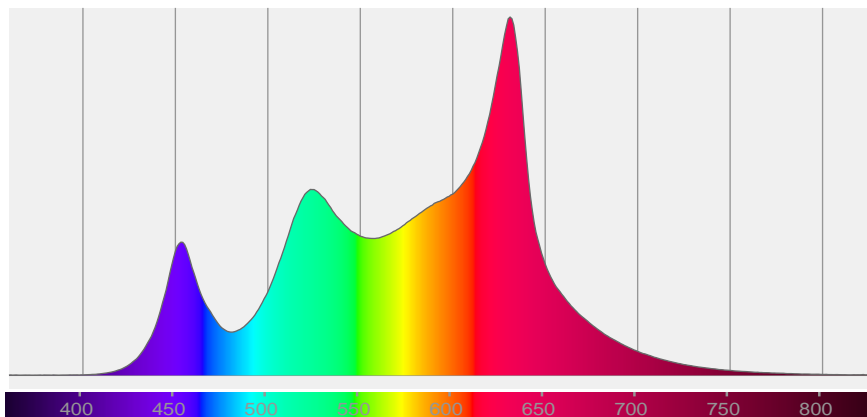


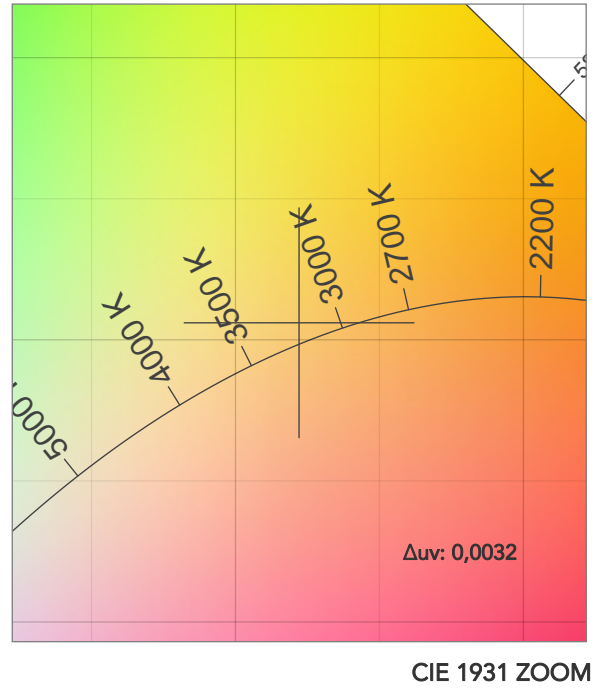
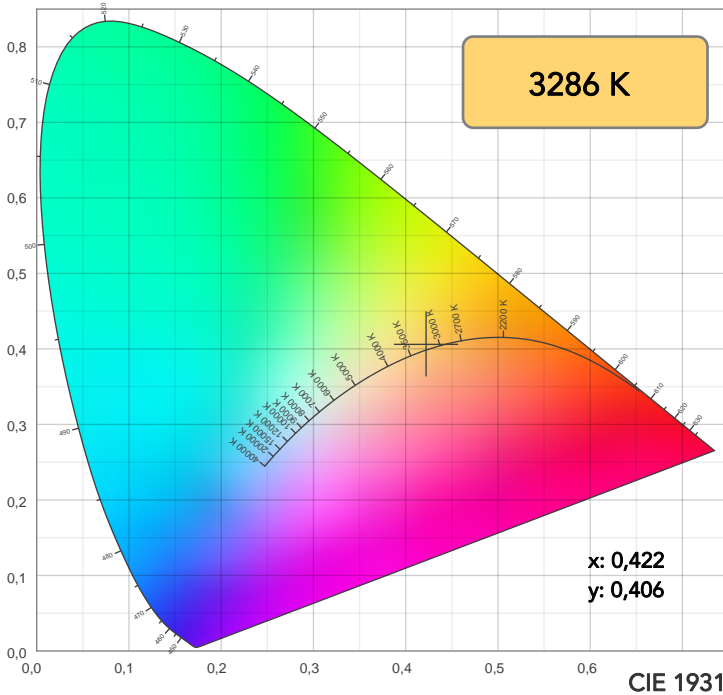
Beam angle 50%: 102,4°

Field angle 10%: 156,8°

Cut off angle 2.5%: 175,3°

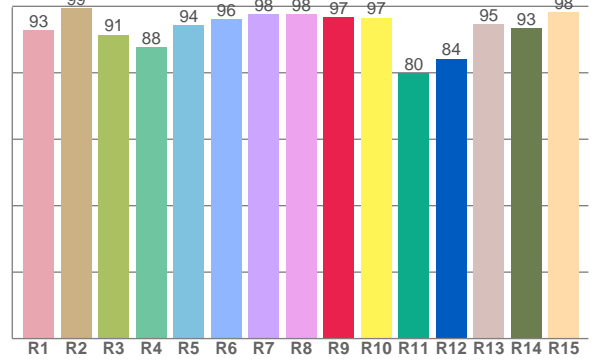
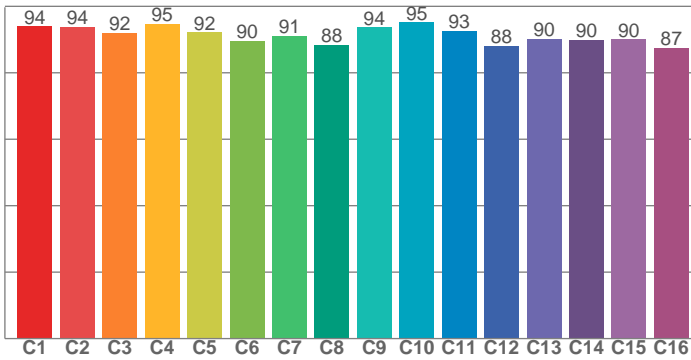
Spectra





TM30: 92,0

CRI: 94,6 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,9	99,3	91,4	87,6	94,4	96,1	97,7	97,6	96,8	96,5	79,9	84,2	94,6	93,3	98,2

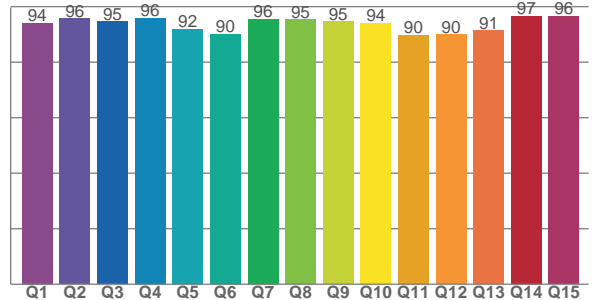
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,0	93,8	92,0	94,7	92,2	89,6	91,1	88,3	93,7	95,2	92,7	88,1	90,3	90,0	90,0	87,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,1	95,7	94,7	95,9	92,0	90,2	95,5	95,3	94,6	94,2	89,8	89,9	91,4	96,6	96,5

CQS: 93,2



COLOR PARAMETERS

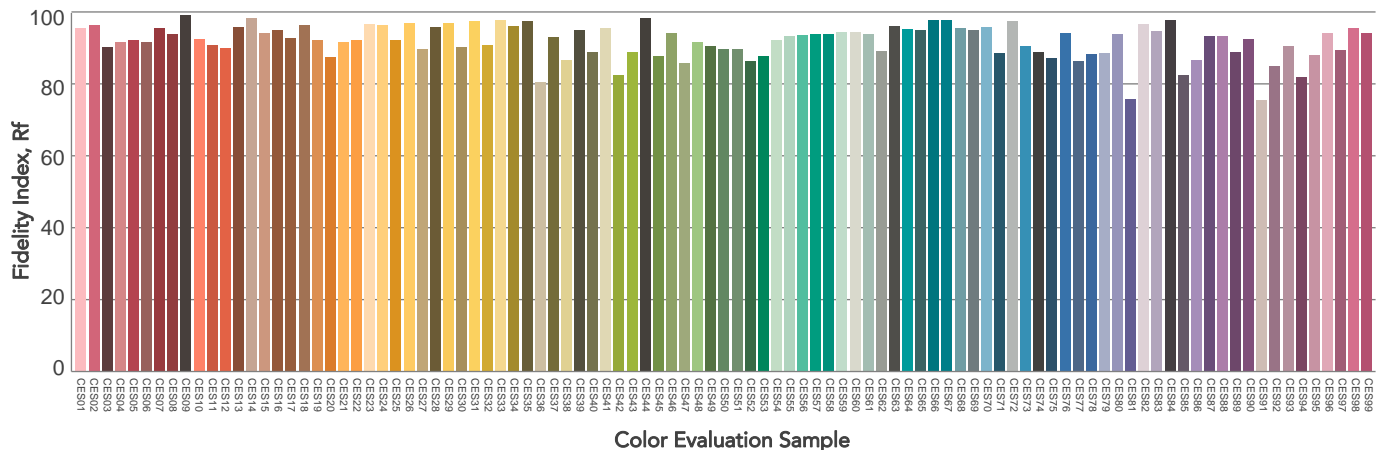
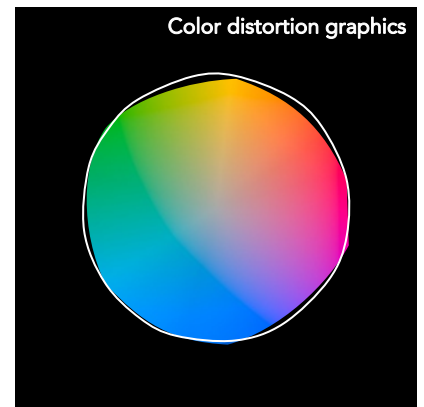
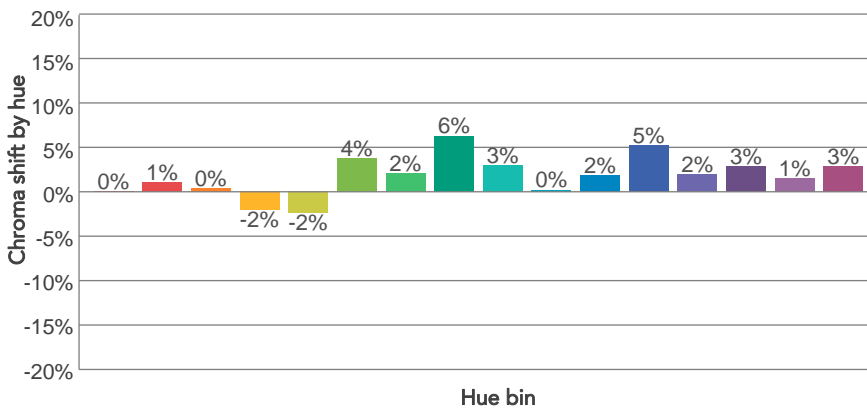
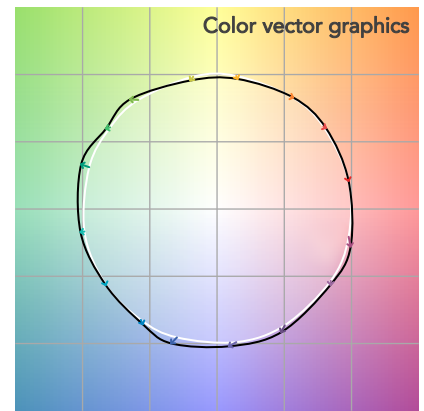
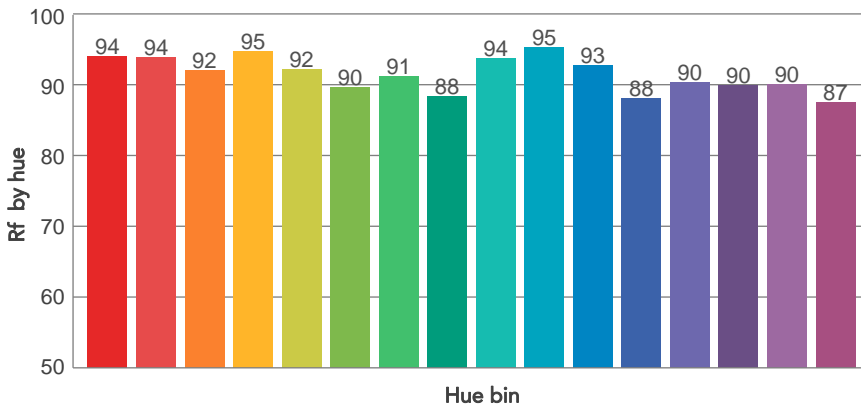
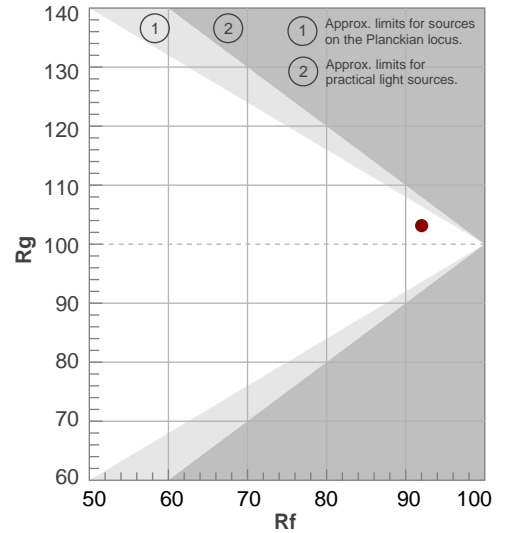
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3286 K	94,6	96,8	92,0	103,1	93,2	88	0,422	0,406	0,0032

# TM30 DETAILS

**Rf 92,0**  
Fidelity index Rf

**Rg 103,1**  
Gammut index

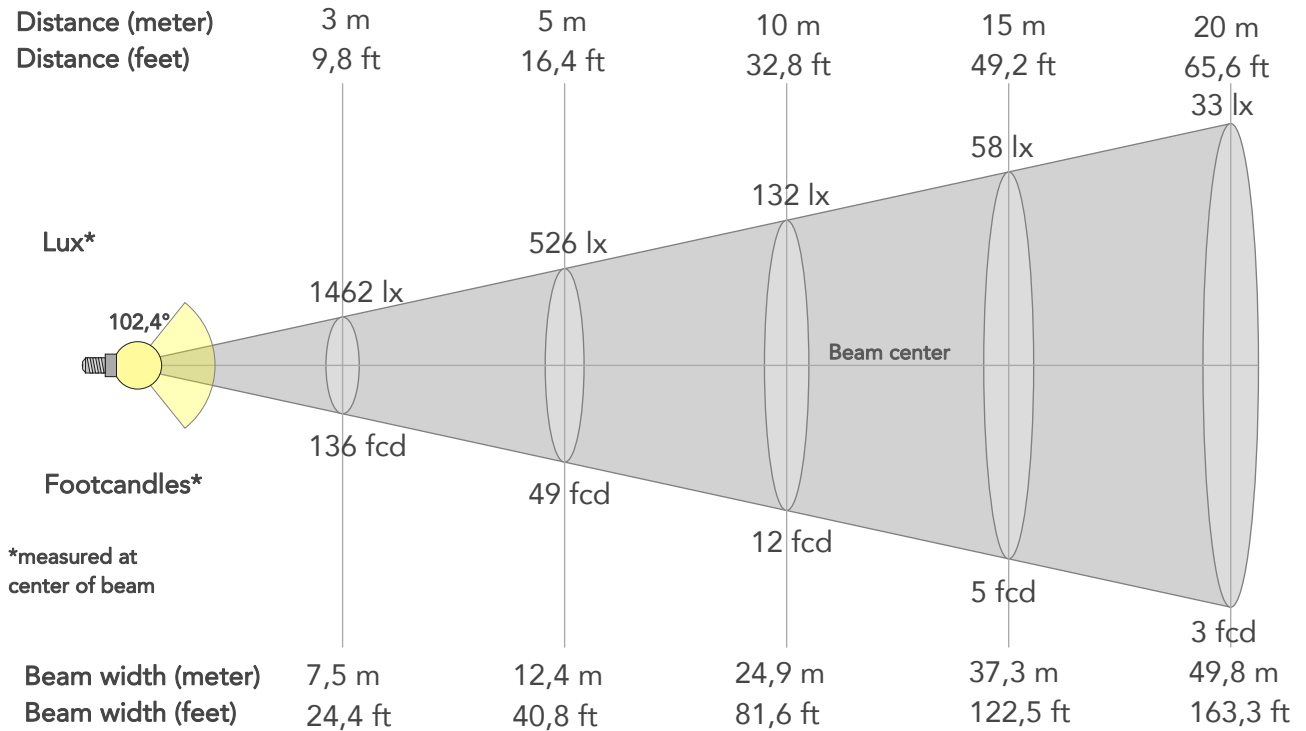
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	0%	0%
2	94	1%	-2%
3	92	0%	-2%
4	95	-2%	-1%
5	92	-2%	3%
6	90	4%	5%
7	91	2%	2%
8	88	6%	-1%
9	94	3%	0%
10	95	0%	1%
11	93	2%	3%
12	88	5%	-3%
13	90	2%	-6%
14	90	3%	-5%
15	90	1%	-3%
16	87	3%	-7%



# BEAM DETAILS



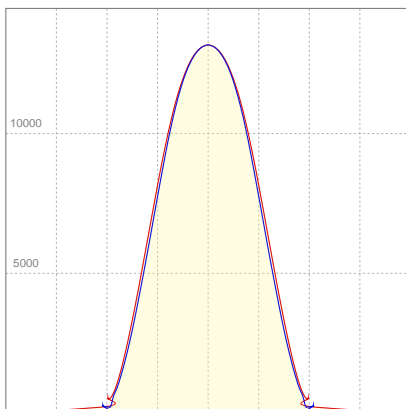
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,4°	156,8°	175,3°	80,2%	56,7%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	13158lx	3289lx	1462lx	822lx	526lx	234lx	132lx	58lx	33lx	21lx	15lx	8lx	5lx
Footcand.	1222fcd	306fcd	136fcd	76fcd	49fcd	22fcd	12fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,5m	10m	12,4m	18,7m	24,9m	37,3m	49,8m	62,2m	74,7m	99,6m	124,5m
Beam wid.	8,2ft	16,4ft	24,4ft	32,6ft	40,8ft	61,2ft	81,6ft	122,5ft	163,3ft	204,1ft	244,9ft	326,6ft	408,2ft

## LINEAR DISTRIBUTION DIAGRAM

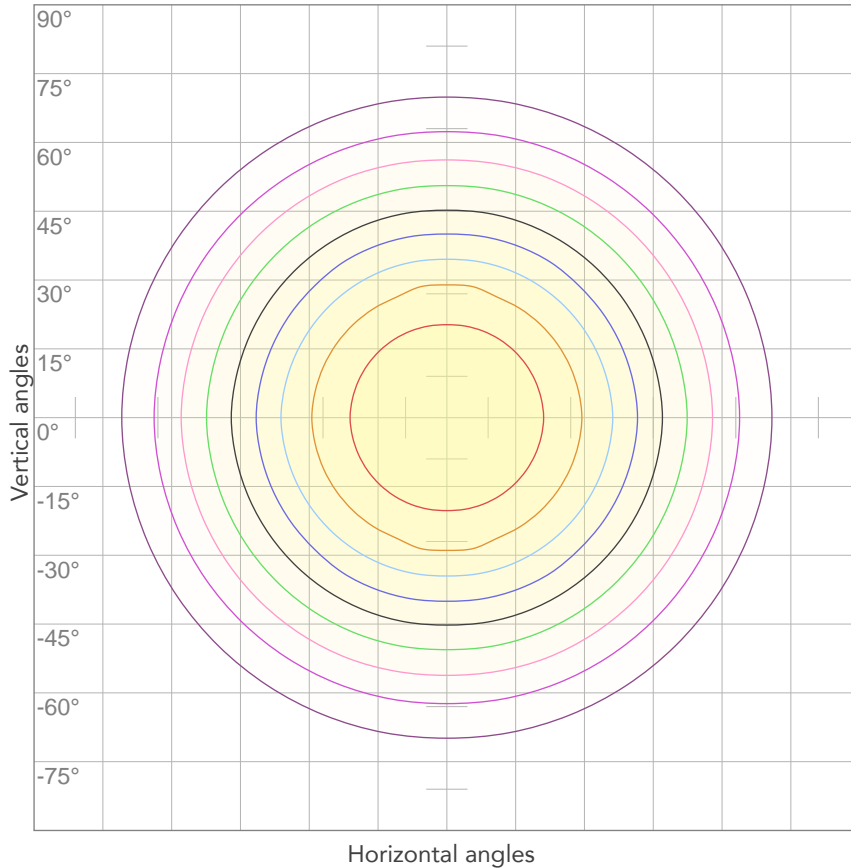


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,05A	438,8W	78lm/W

Power FC
0,95

## ISO CANDELA DIAGRAM



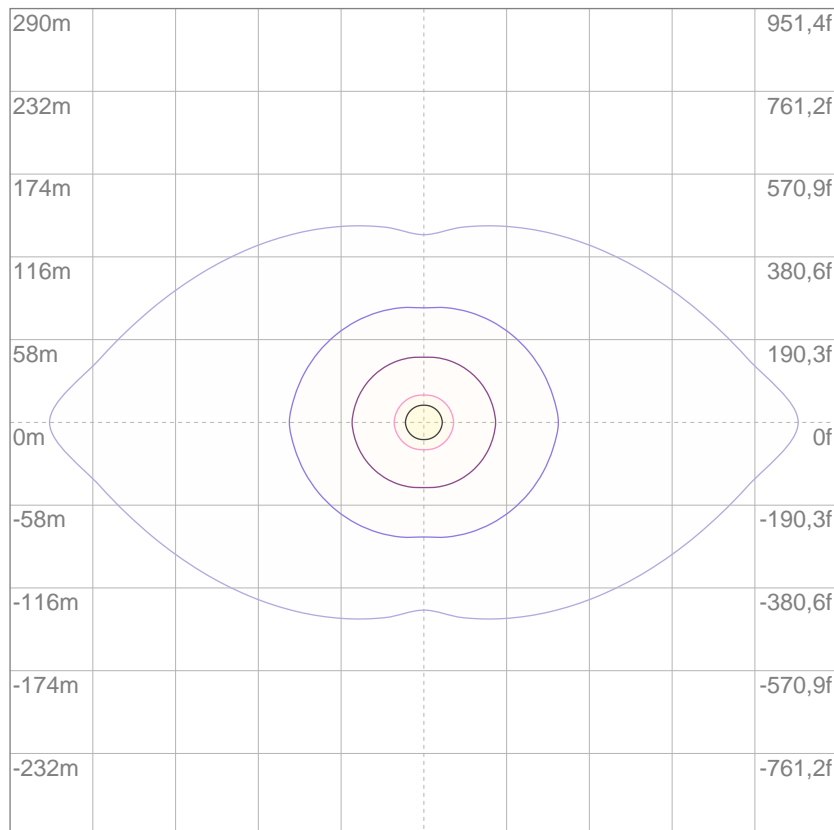
10%	1316 cd
20%	2632 cd
30%	3947 cd
40%	5263 cd
50%	6579 cd
60%	7895 cd
70%	9211 cd
80%	10526 cd

Conditions:

Number of c-planes: 4

Candela at center: 13158 cd

## ISO LUX DIAGRAM



3%	3,95 lx
5%	6,58 lx
10%	13,2 lx
30%	39,5 lx
50%	65,8 lx

Conditions:

Number of c-planes: 4

Lux at center: 132 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

29235 lm

Peak candela output:

9969 cd

Light quality:

CRI: 94,2

Color temperature:

4247 K

**PRODUCT NAME:**

**ECLPANEL TWC**

**MEASURAMENT CONDITIONS:**

Beam angle:

Filter HD

Target:

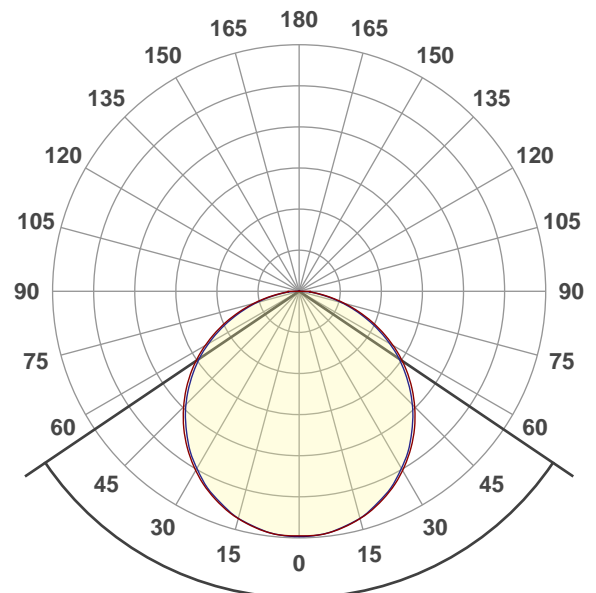
4000K

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:04:10

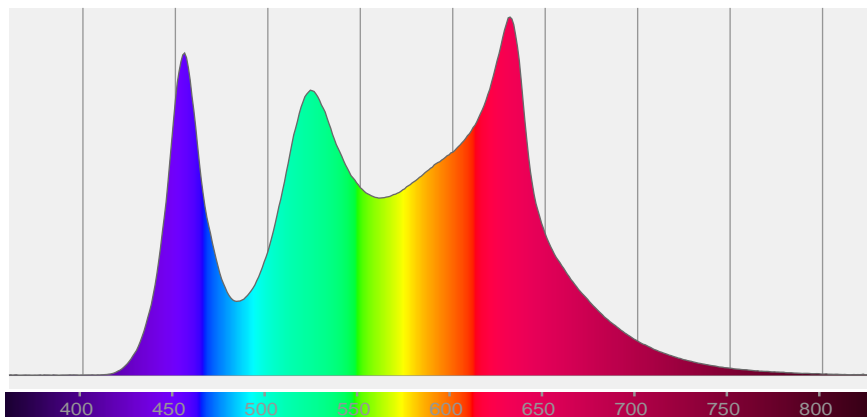


Beam angle 50%: 111,9°

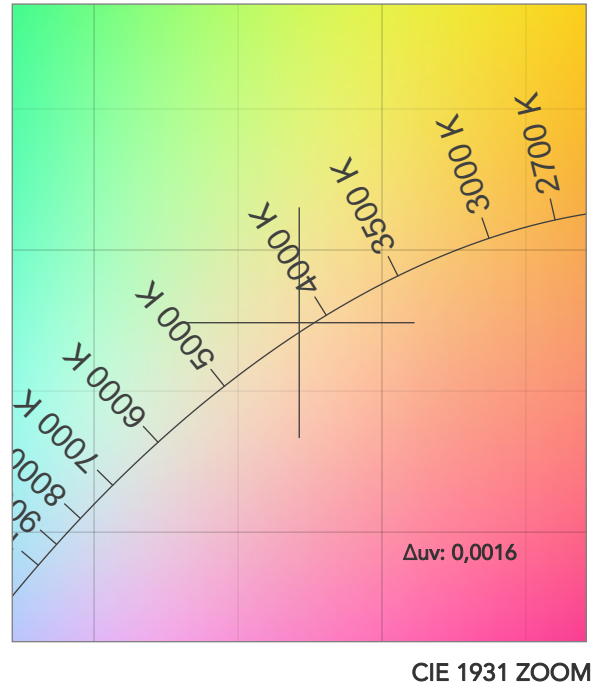
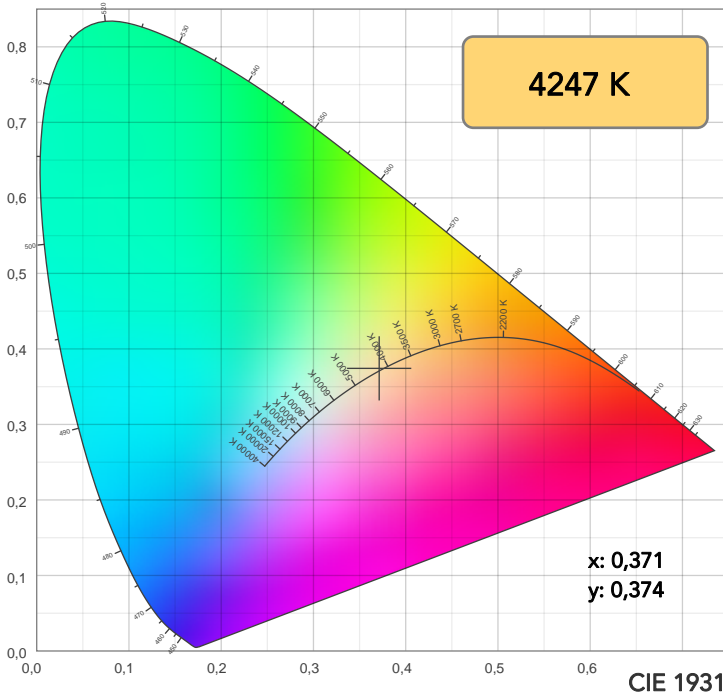
Field angle 10%: 161,8°

Cut off angle 2.5%: 176,4°

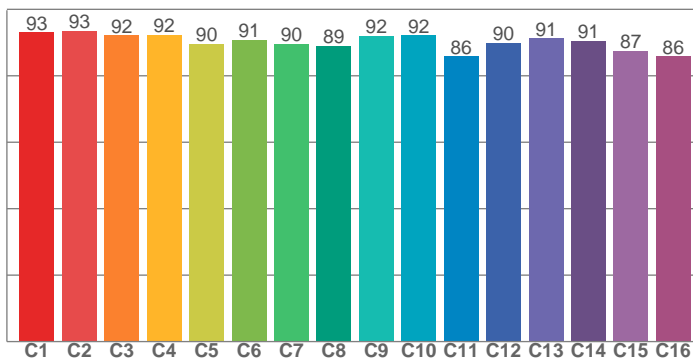
Spectra



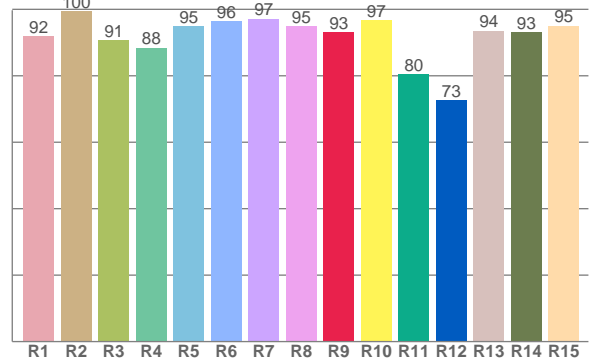




TM30: 90,5



CRI: 94,2 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91,9	99,5	90,7	88,5	94,9	96,4	97,2	94,9	93,1	96,7	80,5	72,7	93,6	93,2	95,0

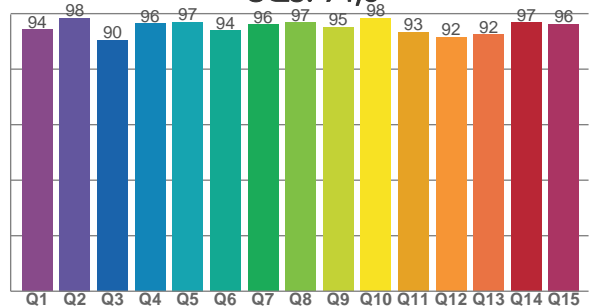
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,1	93,5	92,2	92,3	89,6	90,8	89,5	89,0	91,9	92,2	85,8	90,0	91,2	90,6	87,5	85,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,3	98,4	90,4	96,5	97,0	93,9	96,1	96,8	95,1	98,3	93,4	91,6	92,5	96,8	96,3

CQS: 94,6



COLOR PARAMETERS

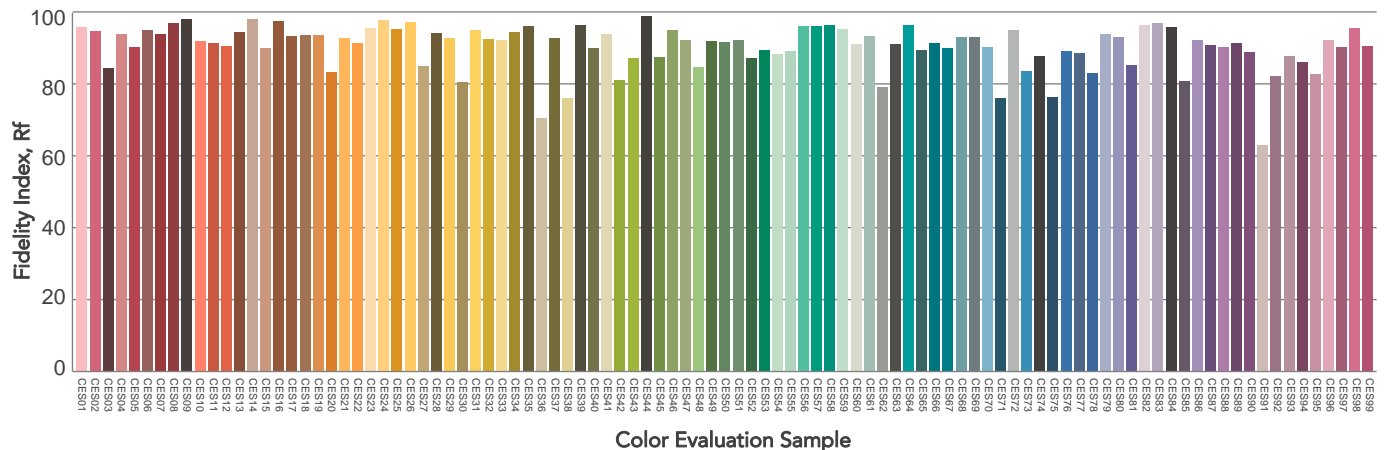
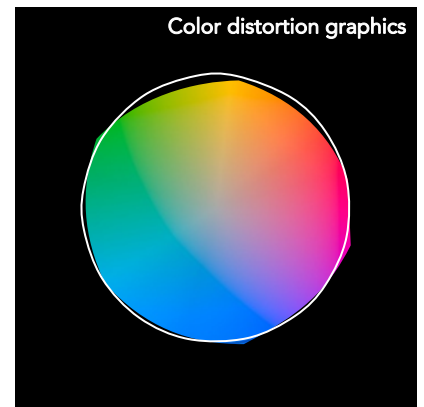
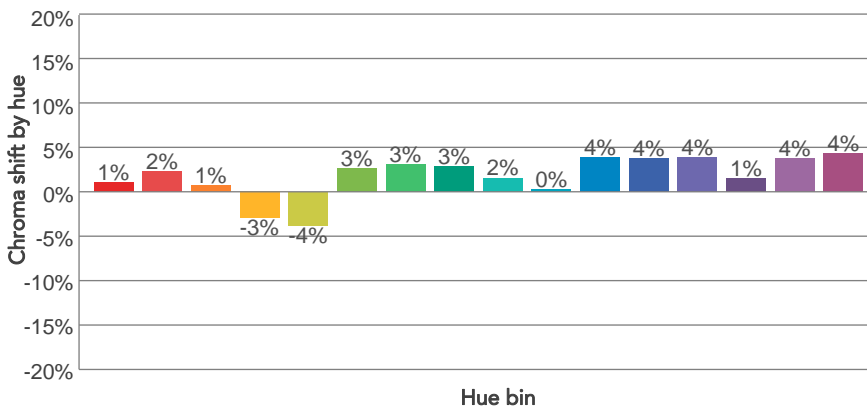
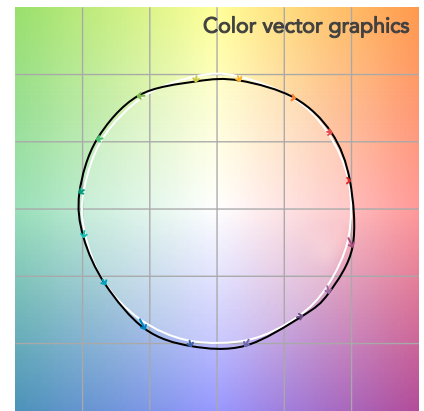
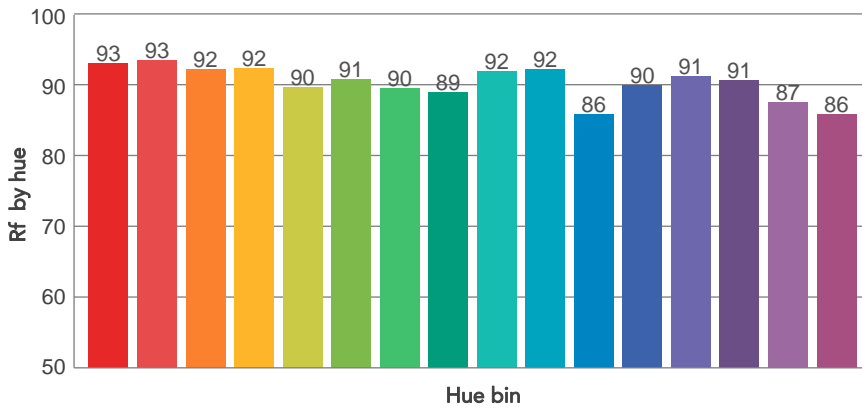
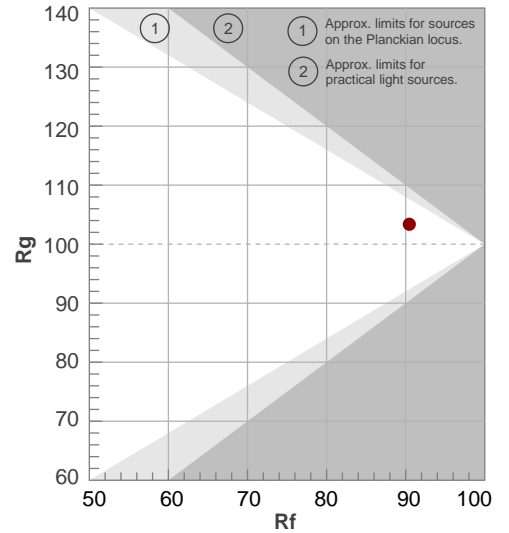
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4247 K	94,2	93,1	90,5	103,4	94,6	90	0,371	0,374	0,0016

# TM30 DETAILS

**Rf 90,5**  
Fidelity index Rf

**Rg 103,4**  
Gammut index

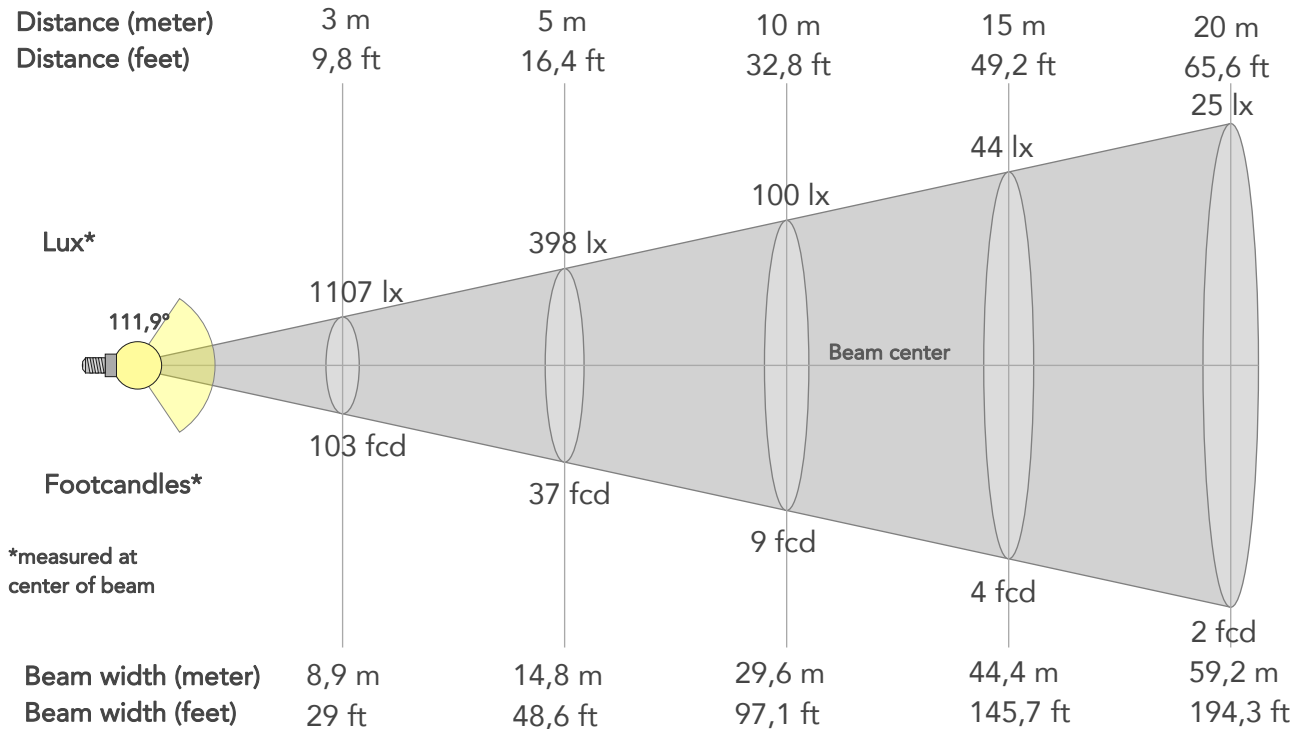
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	1%	0%
2	93	2%	-2%
3	92	1%	-2%
4	92	-3%	-2%
5	90	-4%	1%
6	91	3%	4%
7	90	3%	3%
8	89	3%	2%
9	92	2%	4%
10	92	0%	4%
11	86	4%	7%
12	90	4%	2%
13	91	4%	-4%
14	91	1%	4%
15	87	4%	-3%
16	86	4%	-5%



# BEAM DETAILS



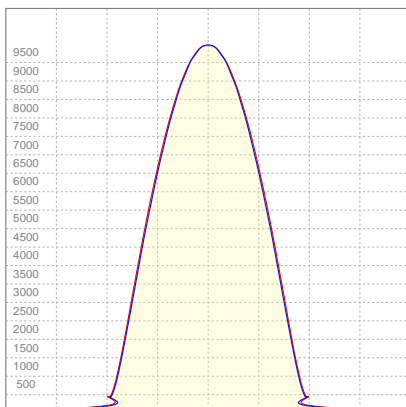
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
111,9°	161,8°	176,4°	76,2%	51,9%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	9960lx	2490lx	1107lx	622lx	398lx	177lx	100lx	44lx	25lx	16lx	11lx	6lx	4lx
Footcand.	925fcd	231fcd	103fcd	58fcd	37fcd	16fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,8m	14,8m	22,2m	29,6m	44,4m	59,2m	74m	88,8m	118,4m	148,1m
Beam wid.	9,8ft	19,5ft	29ft	38,8ft	48,6ft	72,8ft	97,1ft	145,7ft	194,3ft	242,8ft	291,4ft	388,5ft	485,6ft

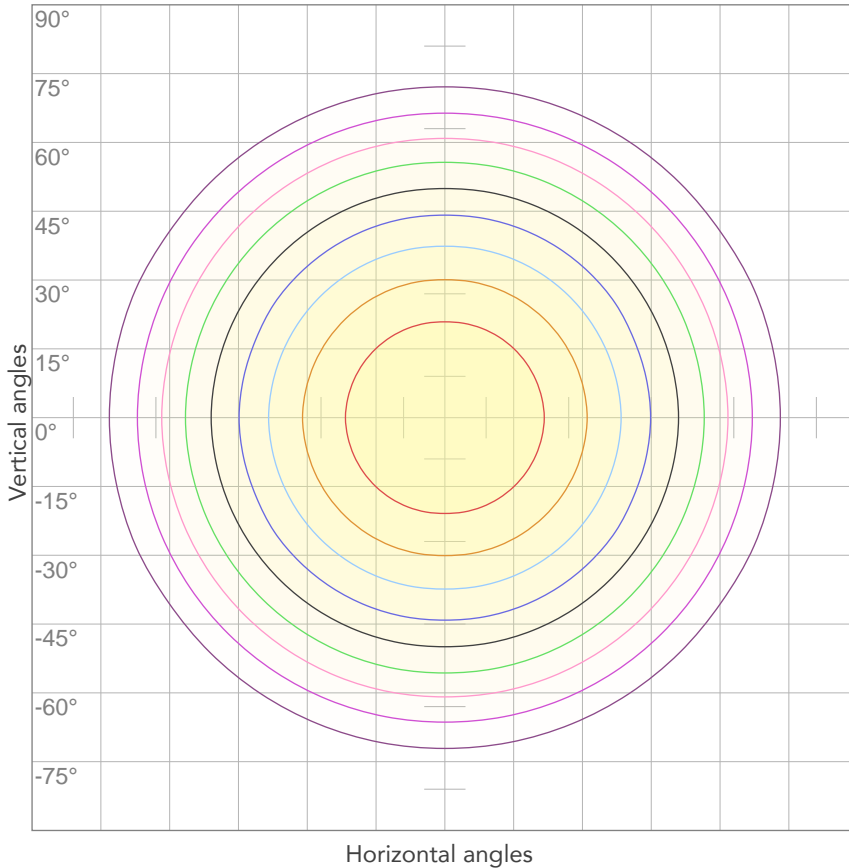
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,05A	439,9W	66lm/W
Power FC			
0,95			

## ISO CANDELA DIAGRAM



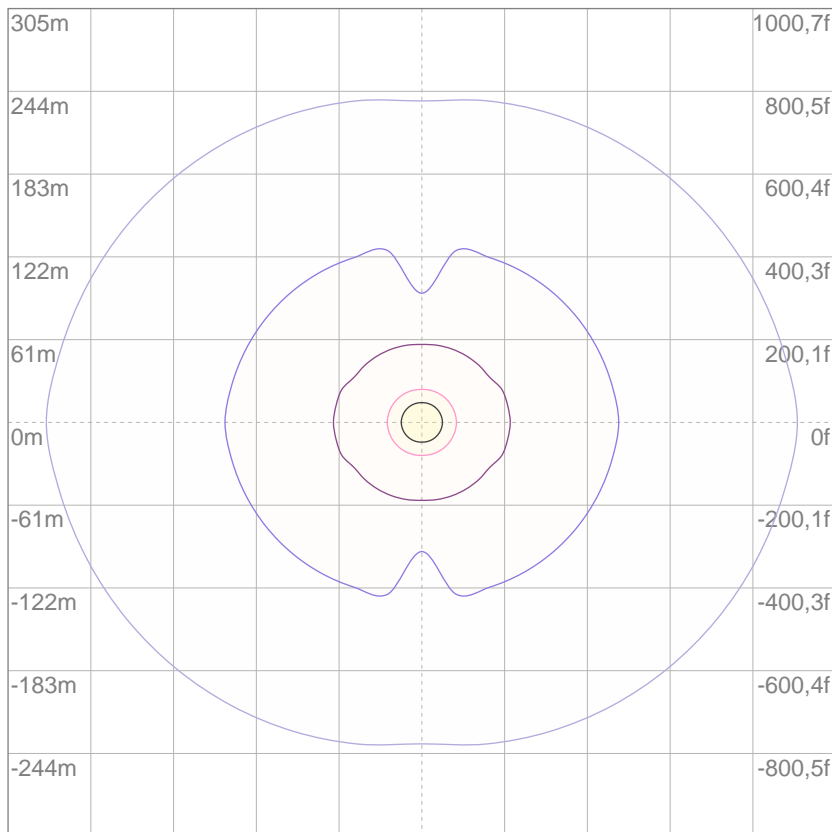
10%	996 cd
20%	1992 cd
30%	2988 cd
40%	3984 cd
50%	4980 cd
60%	5976 cd
70%	6972 cd
80%	7968 cd

Conditions:

Number of c-planes: 4

Candela at center: 9960 cd

## ISO LUX DIAGRAM



3%	2,99 lx
5%	4,98 lx
10%	9,96 lx
30%	29,9 lx
50%	49,8 lx

Conditions:

Number of c-planes: 4

Lux at center: 99,6 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

34236 lm

Peak candela output:

12939 cd

Light quality:

CRI: 95,9

Color temperature:

4158 K

**PRODUCT NAME:**

**ECLPANEL TWC**

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter MD

Target:

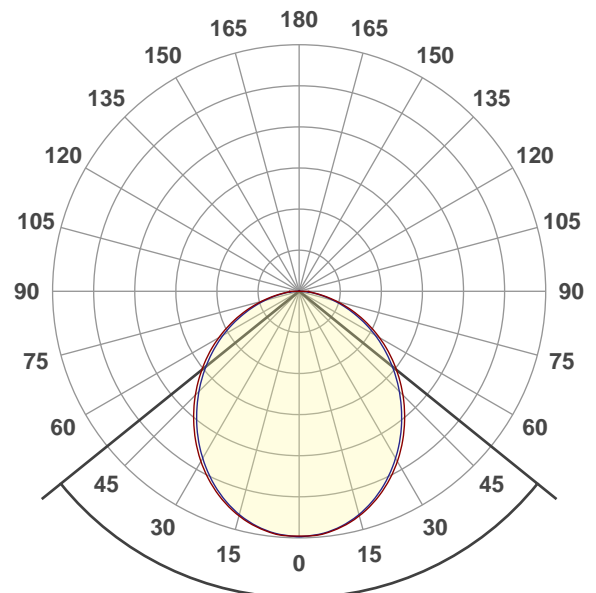
4000K

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:41:00

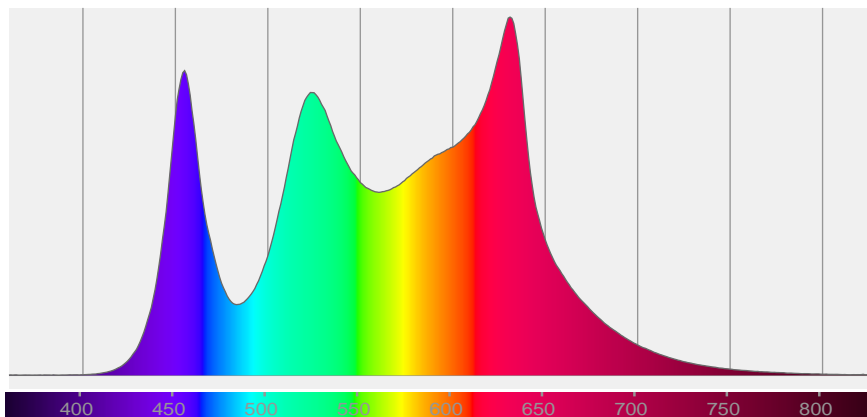


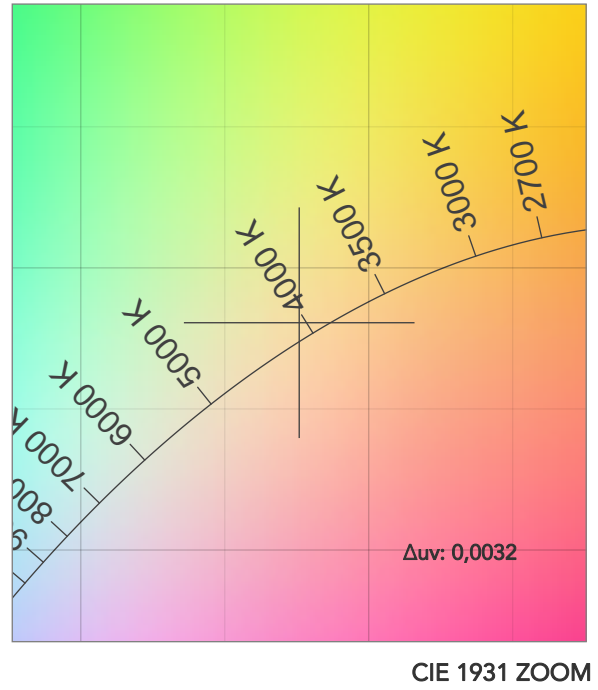
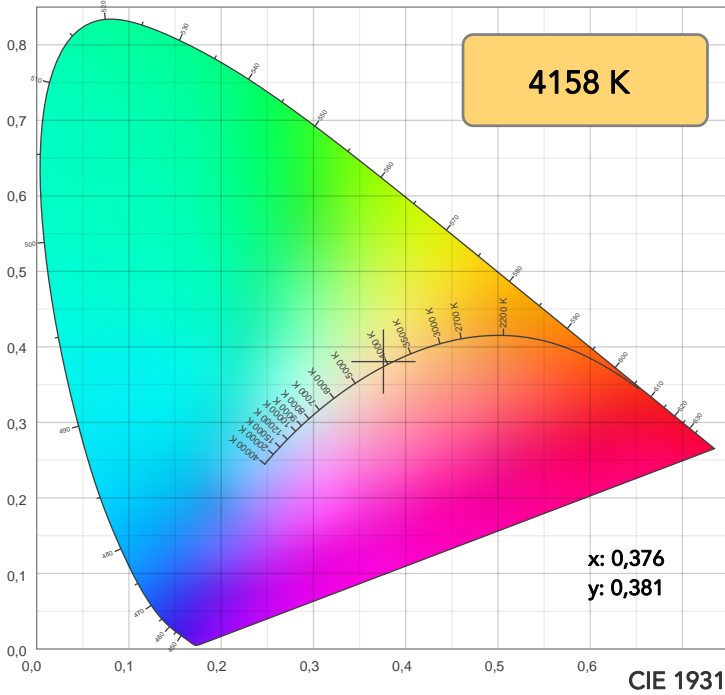
Beam angle 50%: 102,2°

Field angle 10%: 158,6°

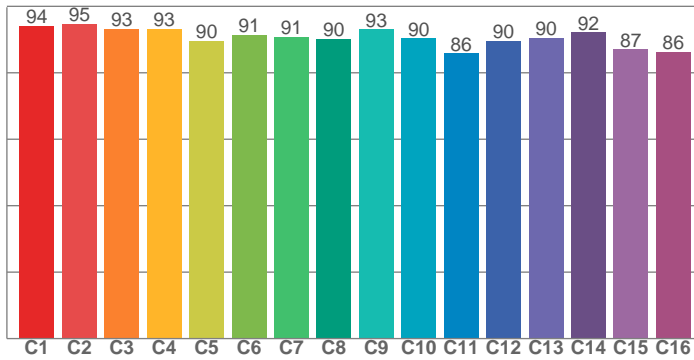
Cut off angle 2.5%: 175,9°

Spectra

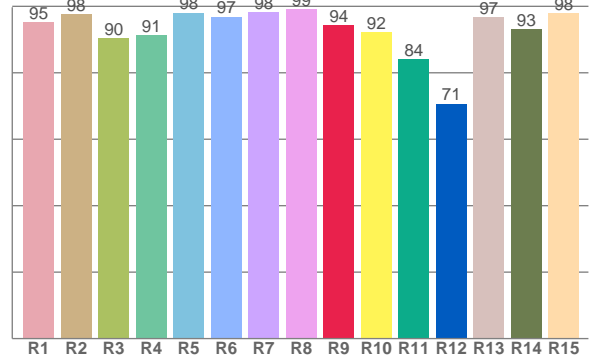




TM30: 90,8



CRI: 95,9 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95,3	97,6	90,4	91,2	98,1	96,8	98,1	99,2	94,4	92,3	84,0	70,7	96,7	93,2	97,8

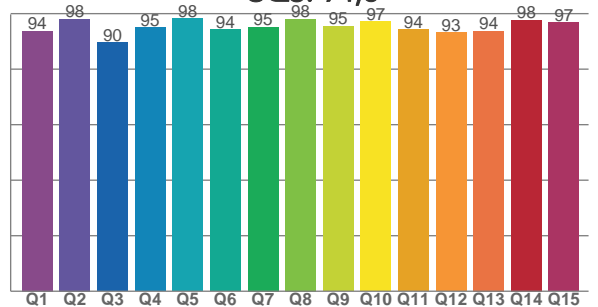
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,1	94,7	93,2	93,2	89,6	91,4	90,7	90,3	93,0	90,4	85,9	89,7	90,5	92,1	87,1	86,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,7	98,1	89,6	95,0	98,2	94,2	95,2	98,0	95,4	97,2	94,2	93,2	93,7	97,7	96,8

CQS: 94,8



COLOR PARAMETERS

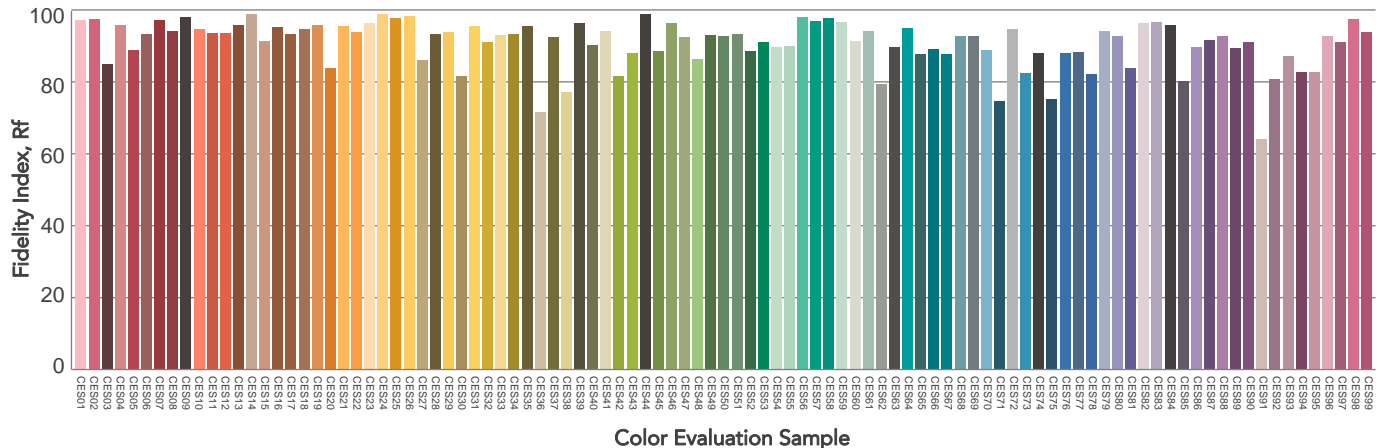
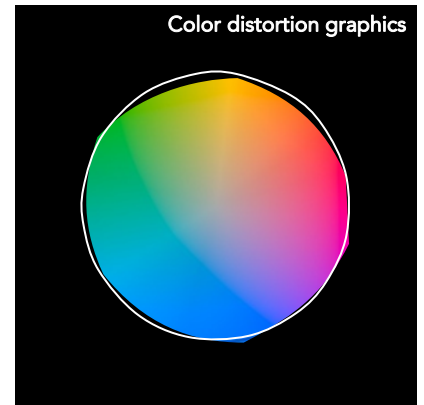
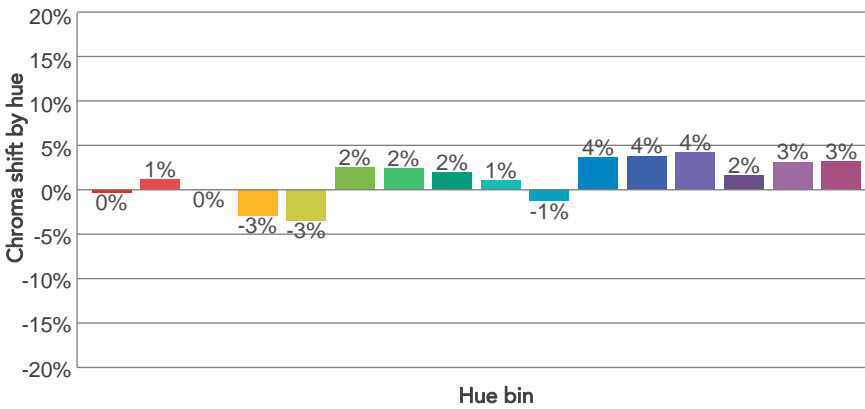
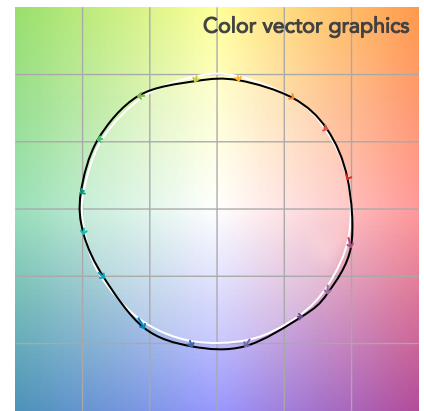
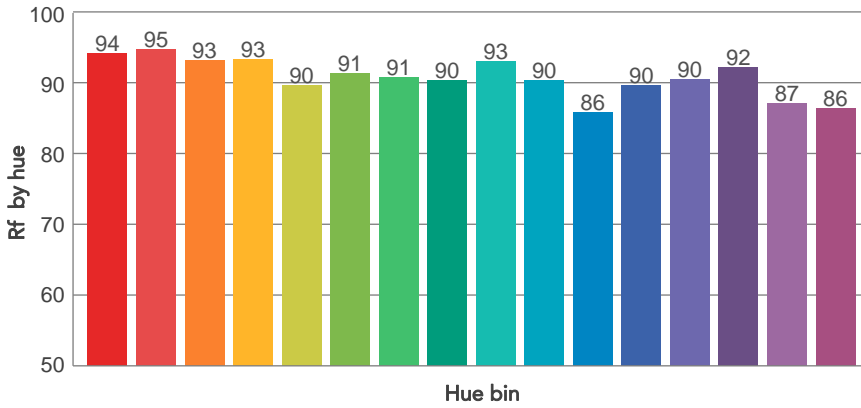
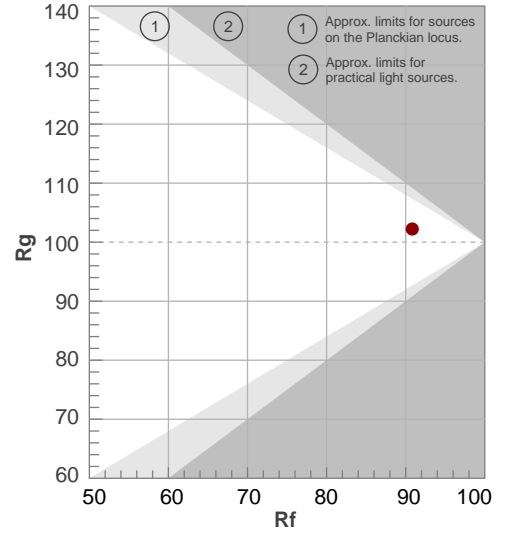
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4158 K	95,9	94,4	90,8	102,2	94,8	89	0,376	0,381	0,0032

# TM30 DETAILS

**Rf 90,8**  
Fidelity index Rf

**Rg 102,2**  
Gammut index

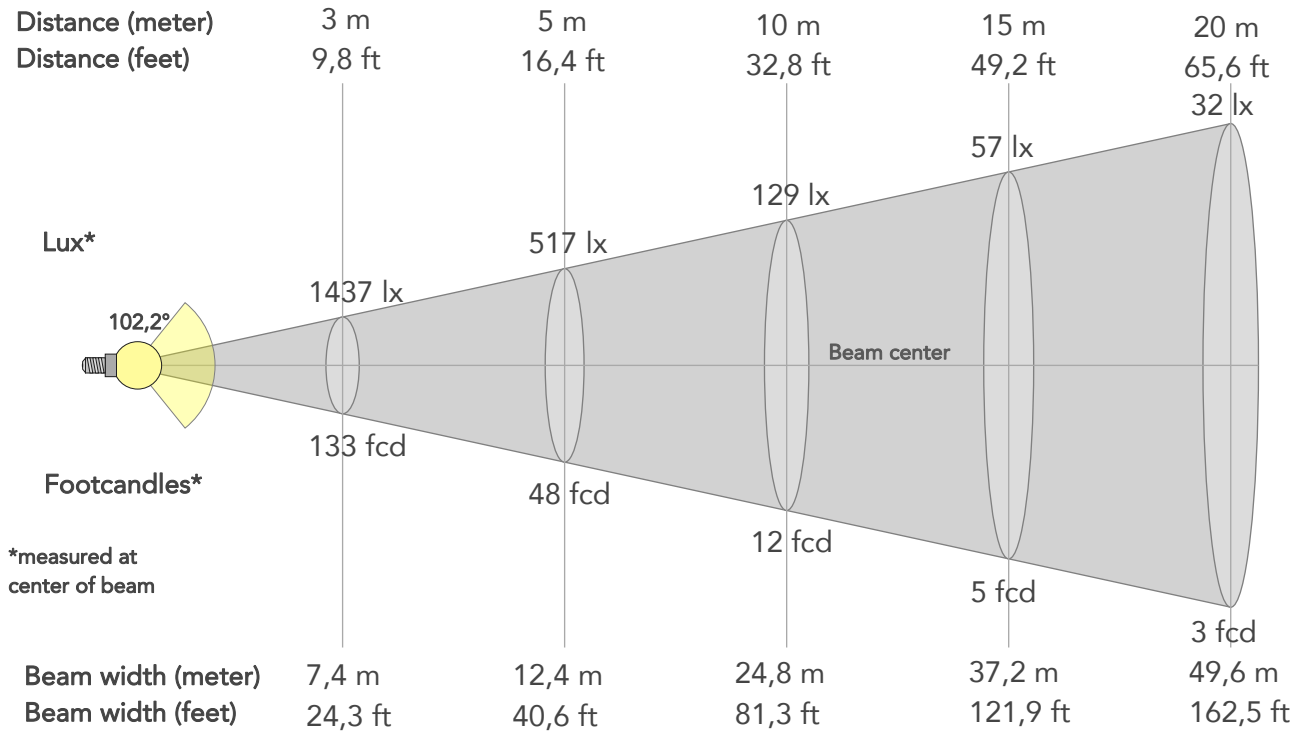
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	0%	0%
2	95	1%	-2%
3	93	0%	-1%
4	93	-3%	-1%
5	90	-3%	2%
6	91	2%	4%
7	91	2%	2%
8	90	2%	2%
9	93	1%	4%
10	90	-1%	5%
11	86	4%	7%
12	90	4%	2%
13	90	4%	-4%
14	92	2%	3%
15	87	3%	-5%
16	86	3%	-6%



# BEAM DETAILS



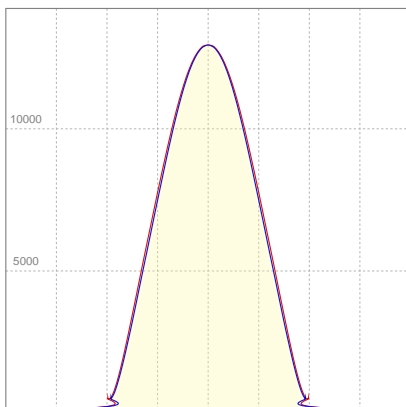
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,2°	158,6°	175,9°	77,8%	54,4%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12930lx	3233lx	1437lx	808lx	517lx	230lx	129lx	57lx	32lx	21lx	14lx	8lx	5lx
Footcand.	1201fcd	300fcd	133fcd	75fcd	48fcd	21fcd	12fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,4m	9,9m	12,4m	18,6m	24,8m	37,2m	49,6m	61,9m	74,3m	99,1m	123,9m
Beam wid.	8,2ft	16,4ft	24,3ft	32,5ft	40,6ft	60,9ft	81,3ft	121,9ft	162,5ft	203,2ft	243,8ft	325,1ft	406,3ft

## LINEAR DISTRIBUTION DIAGRAM

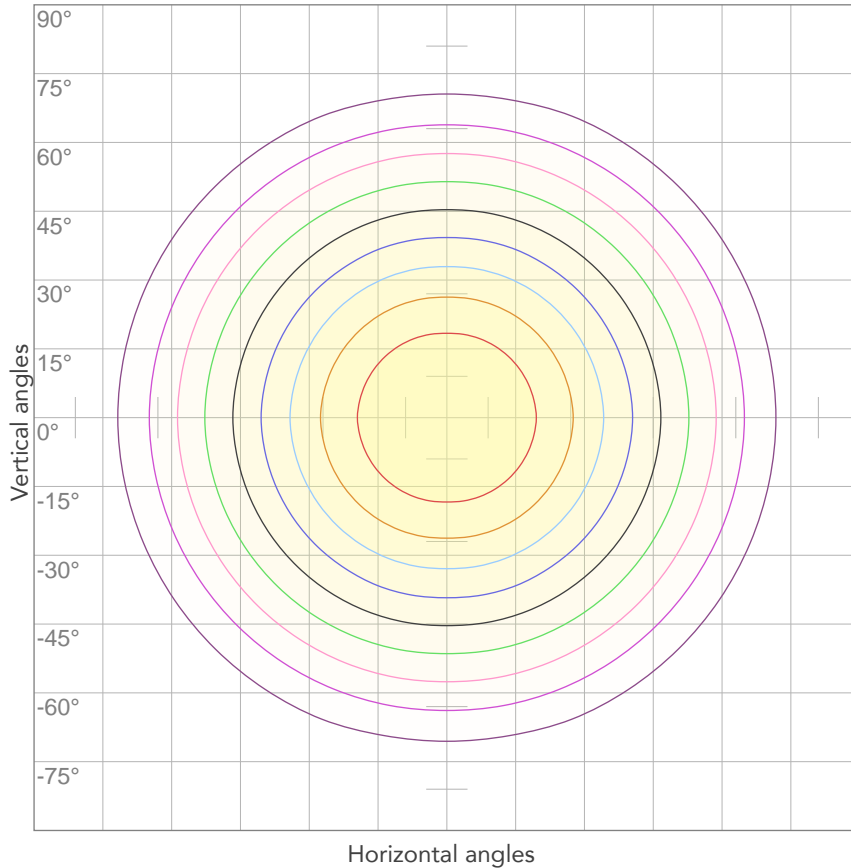


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	2,05A	438,3W	78lm/W
Power FC			
0,95			



## ISO CANDELA DIAGRAM



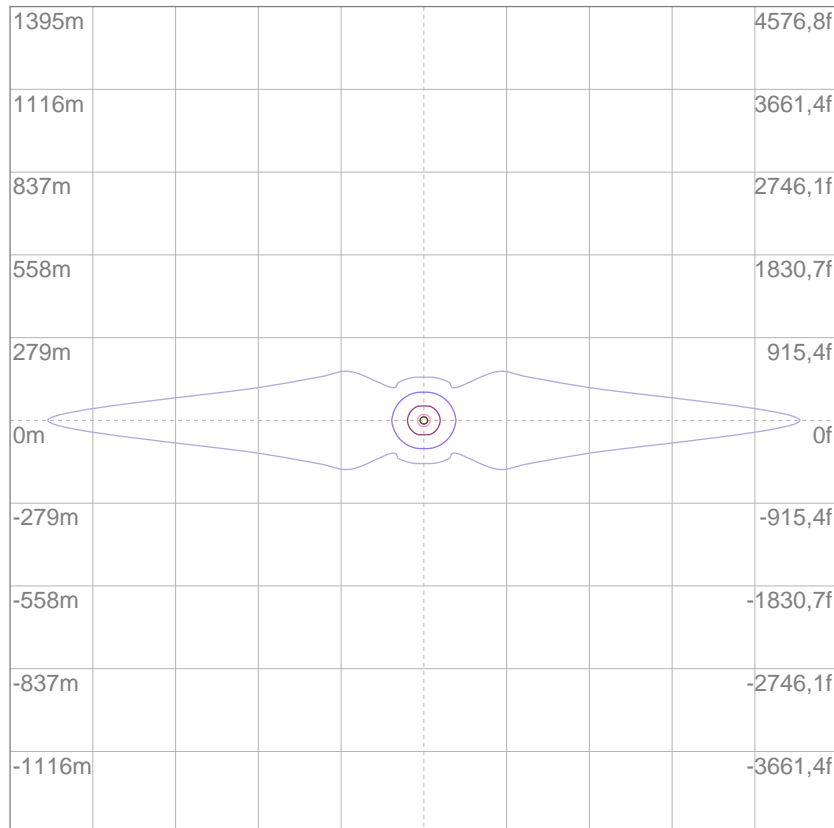
10%	1293 cd
20%	2586 cd
30%	3879 cd
40%	5172 cd
50%	6465 cd
60%	7758 cd
70%	9051 cd
80%	10344 cd

Conditions:

Number of c-planes: 4

Candela at center: 12930 cd

## ISO LUX DIAGRAM



3%	3,88 lx
5%	6,47 lx
10%	12,9 lx
30%	38,8 lx
50%	64,7 lx

Conditions:

Number of c-planes: 4

Lux at center: 129 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

34055 lm

Peak candela output:

12989 cd

Light quality:

CRI: 95,8

Color temperature:

4167 K

**PRODUCT NAME:**

ECLPANEL TWC

**MEASURAMENT CONDITIONS:**

Beam angle:

Filter LD

Target:

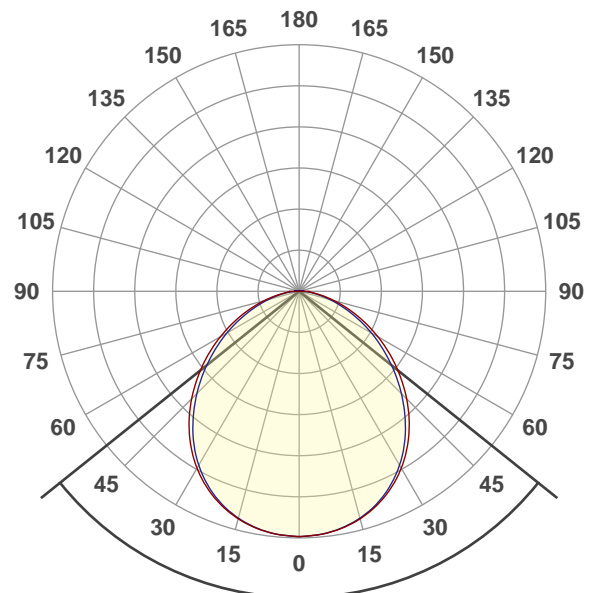
4000K

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:22:03

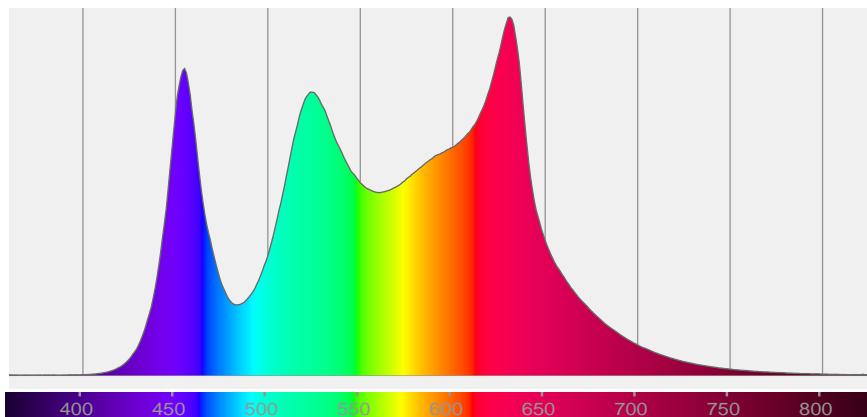


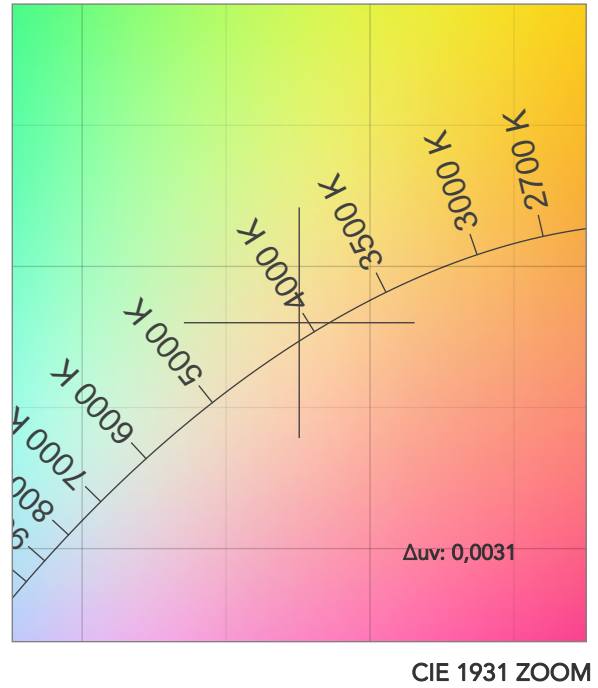
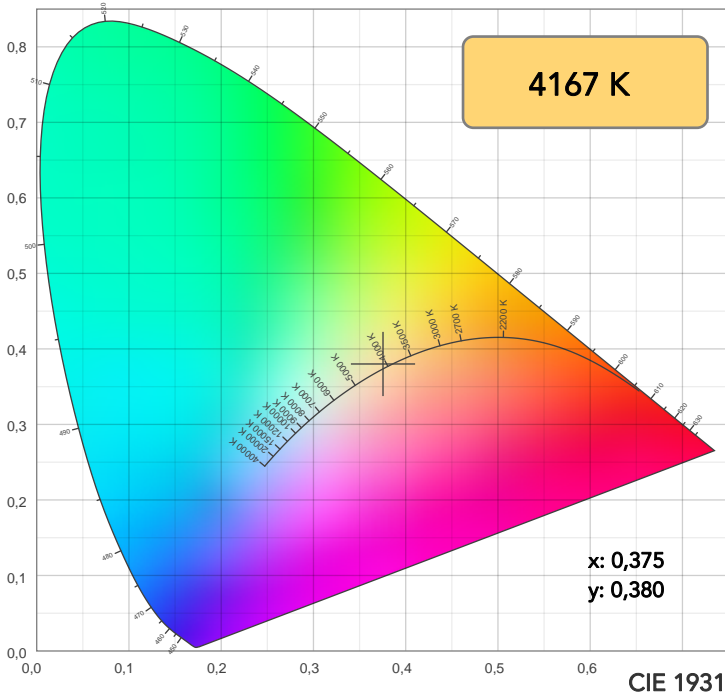
Beam angle 50%: 102,6°

Field angle 10%: 156,9°

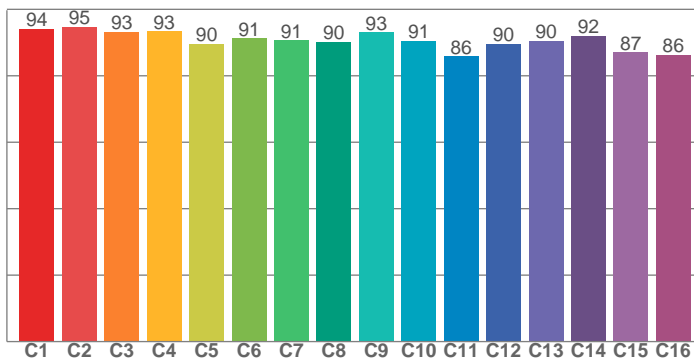
Cut off angle 2.5%: 175,8°

Spectra

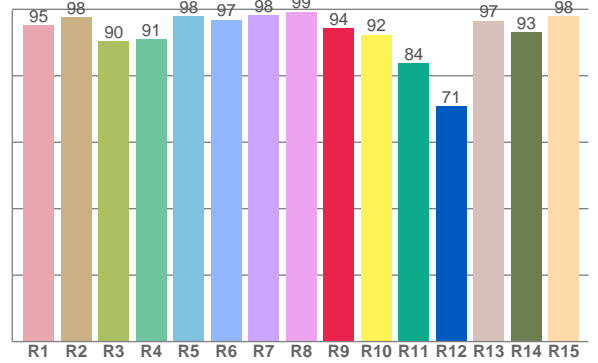




TM30: 90,8



CRI: 95,8 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95,2	97,6	90,5	91,1	98,0	96,8	98,1	99,3	94,2	92,4	83,8	70,8	96,6	93,2	97,9

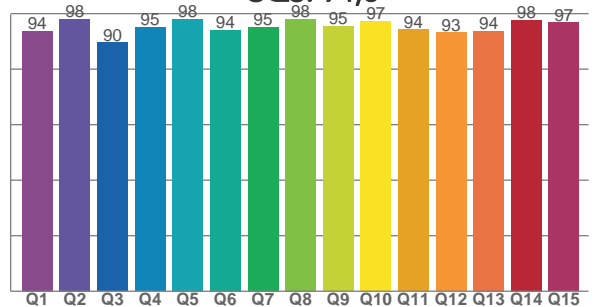
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,1	94,7	93,2	93,3	89,7	91,3	90,7	90,2	93,1	90,5	85,9	89,6	90,4	92,1	87,0	86,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,7	98,1	89,6	95,1	98,1	94,1	95,2	98,0	95,4	97,2	94,3	93,2	93,7	97,6	96,7

CQS: 94,8



COLOR PARAMETERS

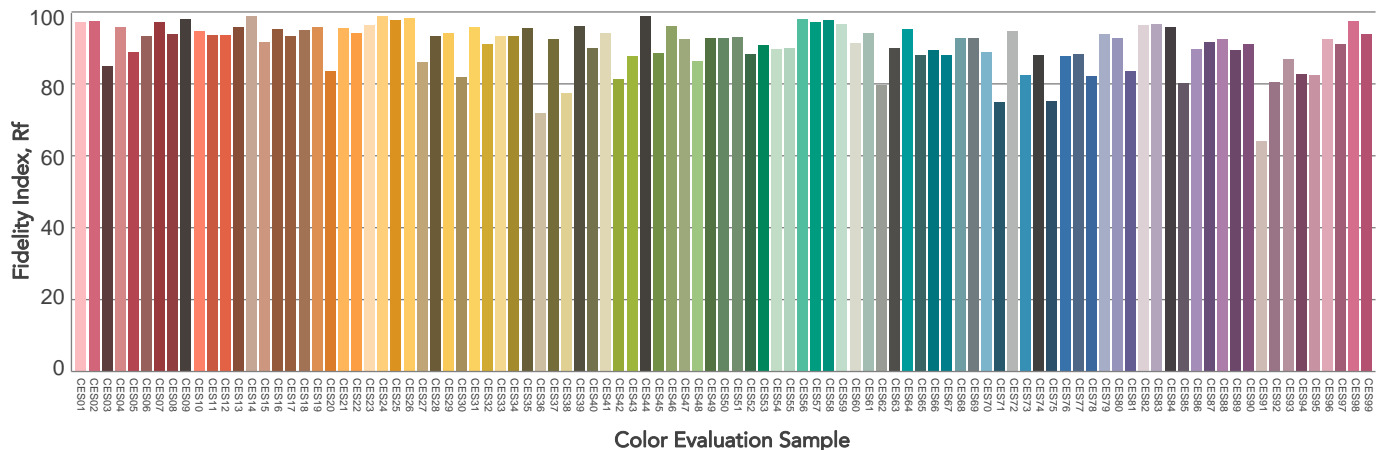
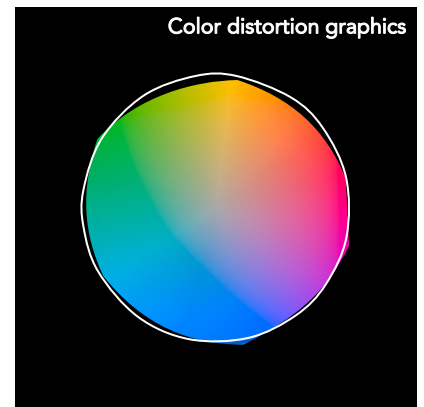
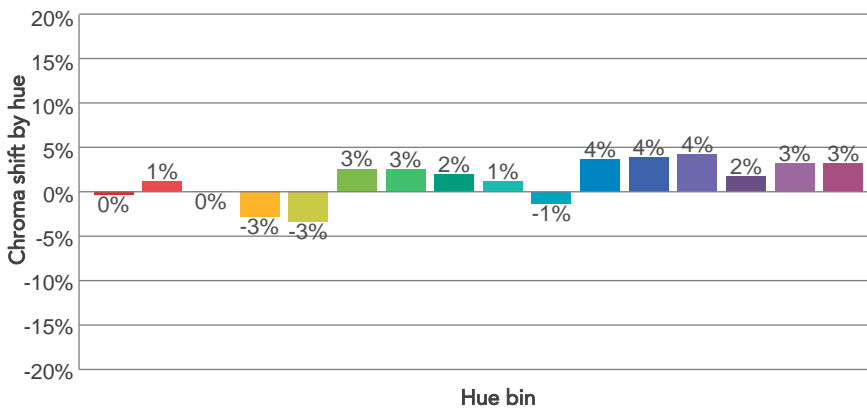
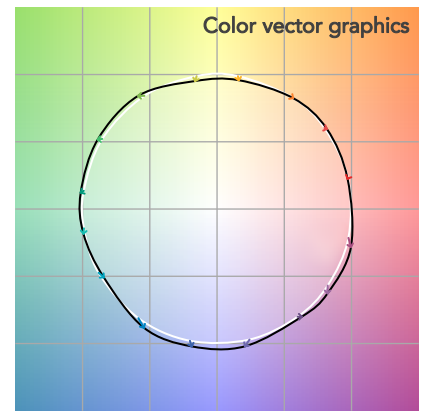
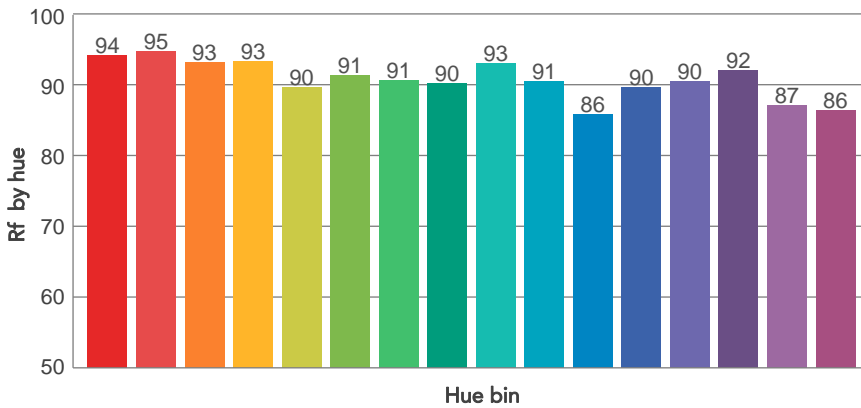
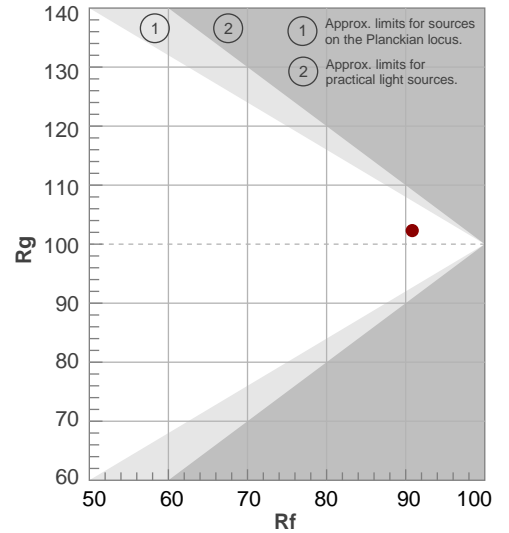
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4167 K	95,8	94,2	90,8	102,3	94,8	89	0,375	0,380	0,0031

# TM30 DETAILS

**Rf 90,8**  
Fidelity index Rf

**Rg 102,3**  
Gammut index

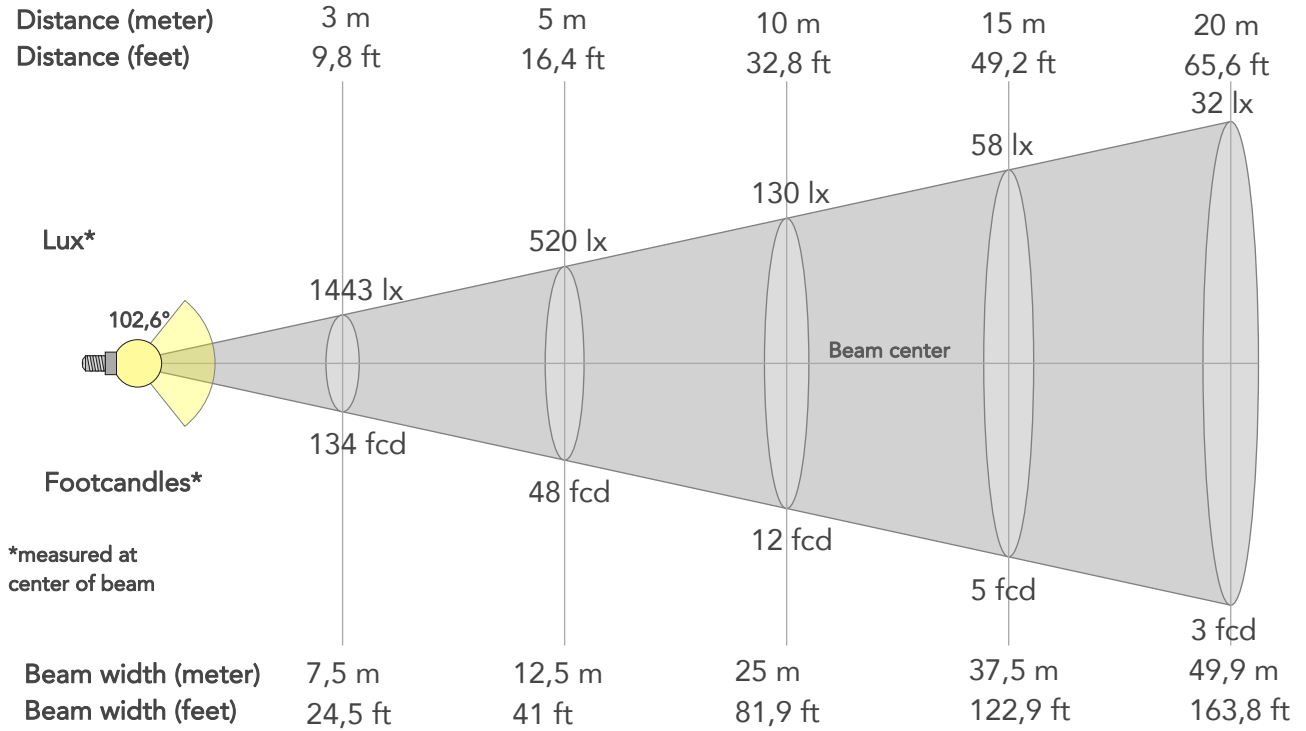
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	0%	-1%
2	95	1%	-2%
3	93	0%	0%
4	93	-3%	-1%
5	90	-3%	2%
6	91	3%	4%
7	91	3%	2%
8	90	2%	2%
9	93	1%	4%
10	91	-1%	5%
11	86	4%	7%
12	90	4%	2%
13	90	4%	-4%
14	92	2%	3%
15	87	3%	-5%
16	86	3%	-6%



# BEAM DETAILS



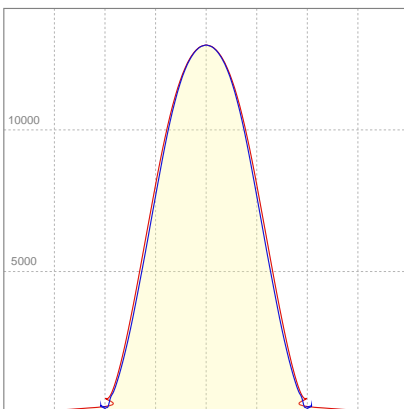
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,6°	156,9°	175,8°	80,3%	56,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12988lx	3247lx	1443lx	812lx	520lx	231lx	130lx	58lx	32lx	21lx	14lx	8lx	5lx
Footcand.	1207fcd	302fcd	134fcd	75fcd	48fcd	21fcd	12fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,5m	10m	12,5m	18,7m	25m	37,5m	49,9m	62,4m	74,9m	99,9m	124,9m
Beam wid.	8,2ft	16,5ft	24,5ft	32,7ft	41ft	61,4ft	81,9ft	122,9ft	163,8ft	204,8ft	245,7ft	327,6ft	409,5ft

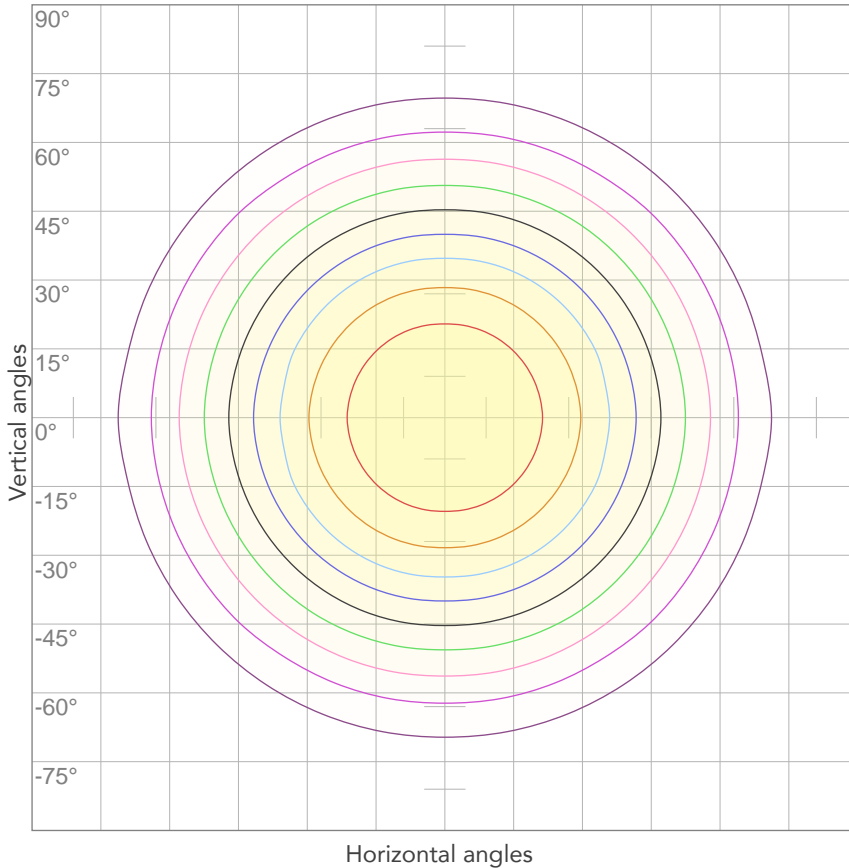
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,06A	439,8W	77lm/W
Power FC			
0,95			

## ISO CANDELA DIAGRAM



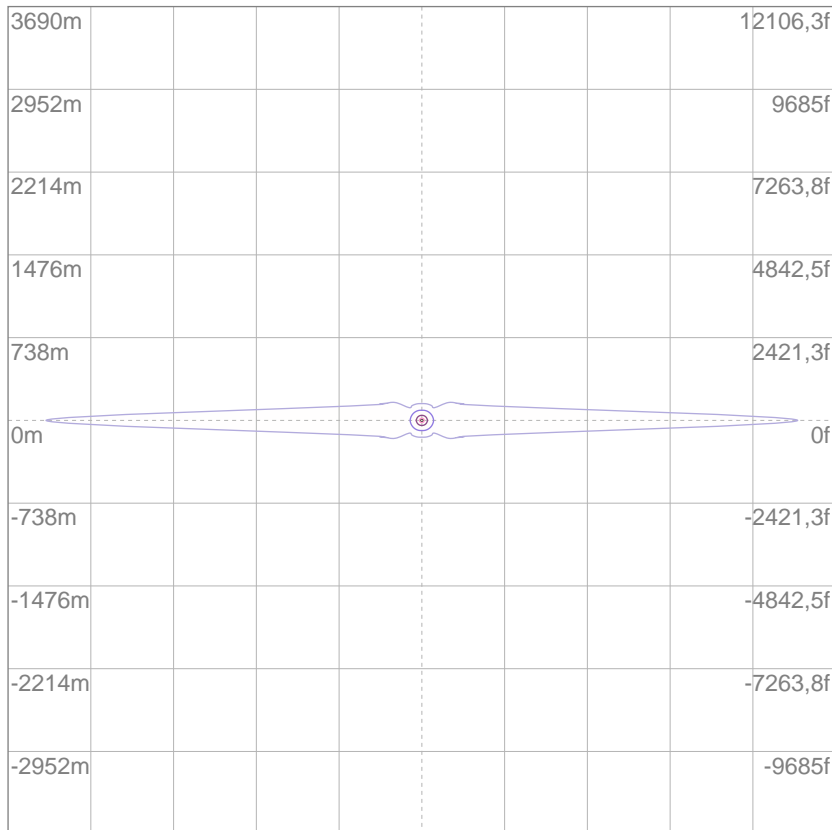
10%	1299 cd
20%	2598 cd
30%	3896 cd
40%	5195 cd
50%	6494 cd
60%	7793 cd
70%	9091 cd
80%	10390 cd

Conditions:

Number of c-planes: 4

Candela at center: 12988 cd

## ISO LUX DIAGRAM



3%	3,90 lx
5%	6,49 lx
10%	13,0 lx
30%	39,0 lx
50%	64,9 lx

Conditions:

Number of c-planes: 4

Lux at center: 130 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

27821 lm

Peak candela output:

9617 cd

Light quality:

CRI: 94,4

Color temperature:

6185 K

**PRODUCT NAME:**

**ECLPANEL TWC**

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter HD

Target:

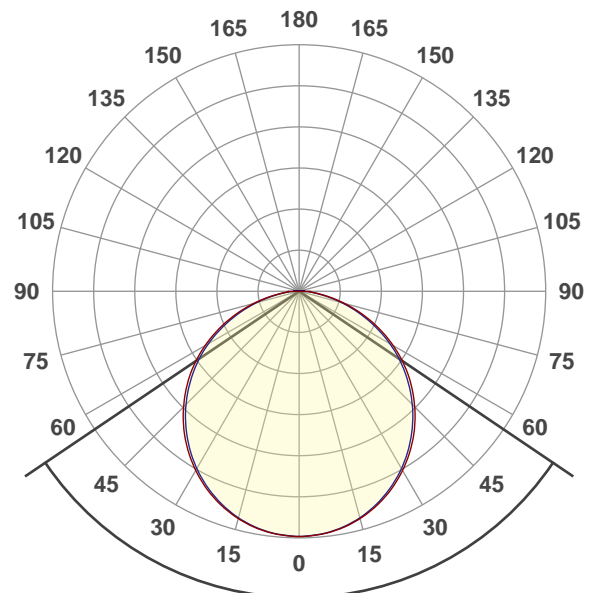
5600K

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:05:36

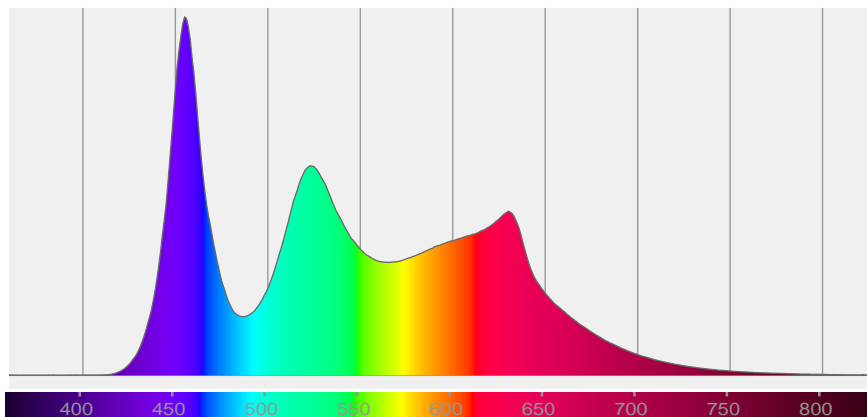


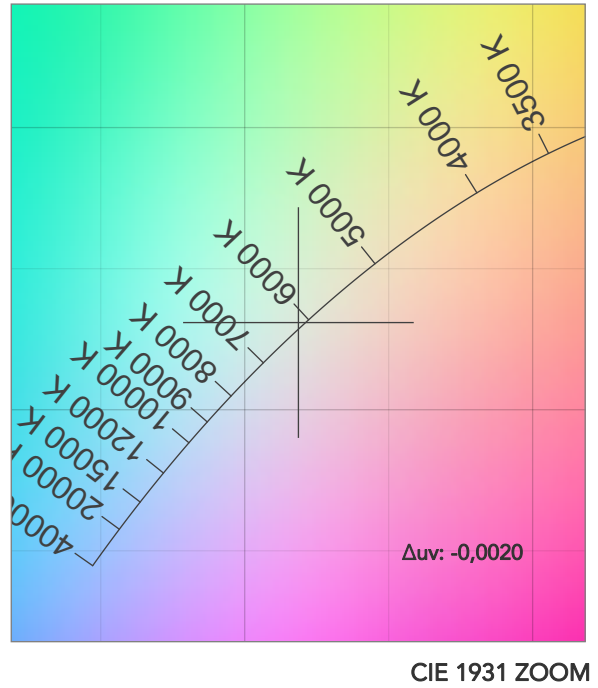
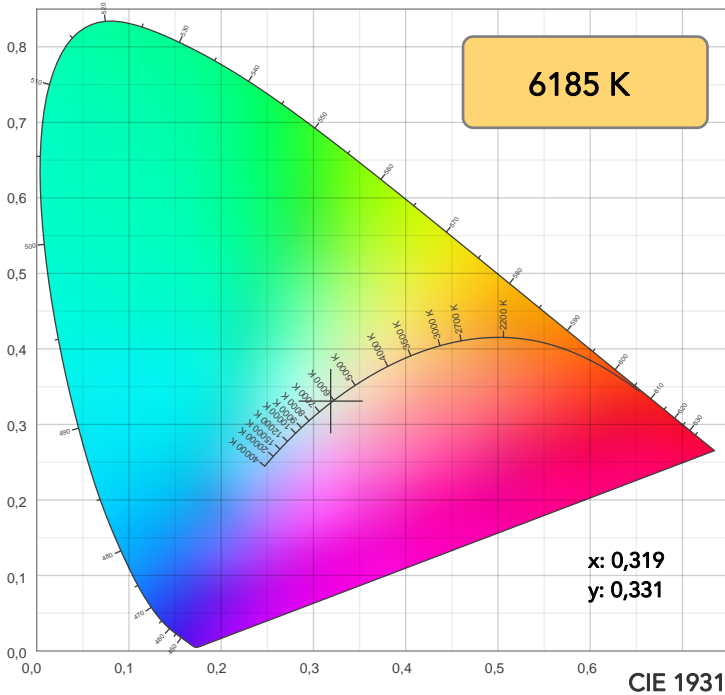
Beam angle 50%: 111,9°

Field angle 10%: 161,8°

Cut off angle 2.5%: 177,4°

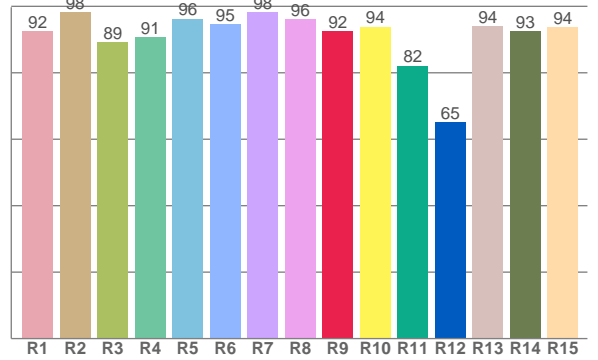
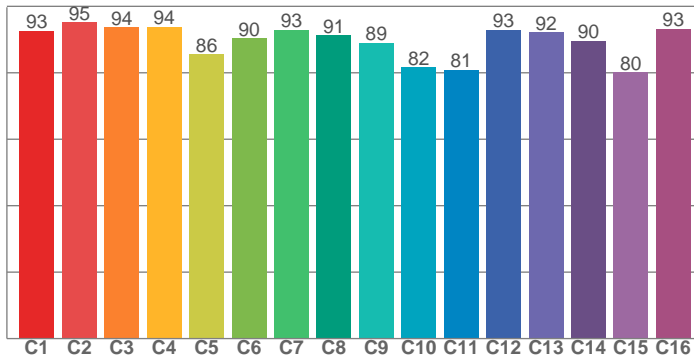
Spectra





TM30: 89,3

CRI: 94,4 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,5	98,1	89,1	90,6	96,3	94,5	98,2	96,0	92,5	93,8	82,1	65,2	94,0	92,6	93,6

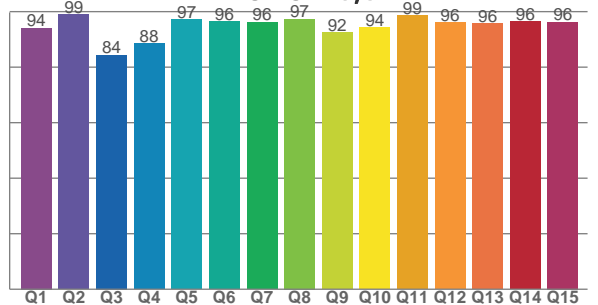
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,6	95,1	93,7	93,9	85,5	90,3	92,9	91,3	89,0	81,6	80,9	92,8	92,1	89,7	80,1	93,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,2	98,9	84,4	88,5	97,1	96,4	96,1	97,4	92,4	94,3	98,5	96,0	95,7	96,4	96,3

CQS: 93,6



COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6185 K	94,4	92,5	89,3	103,3	93,6	93	0,319	0,331	-0,0020

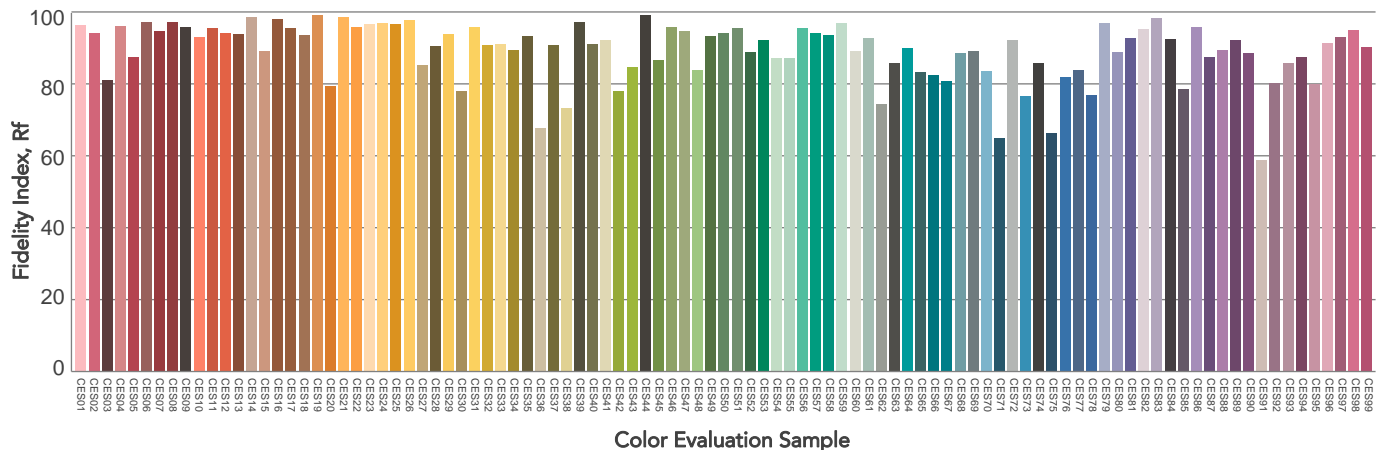
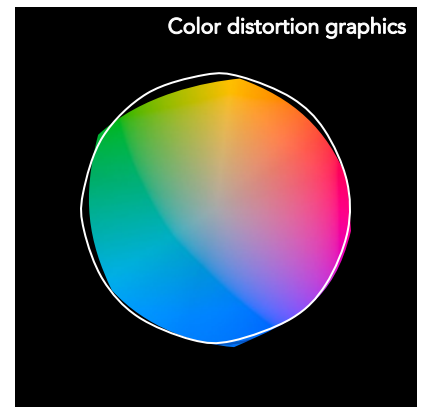
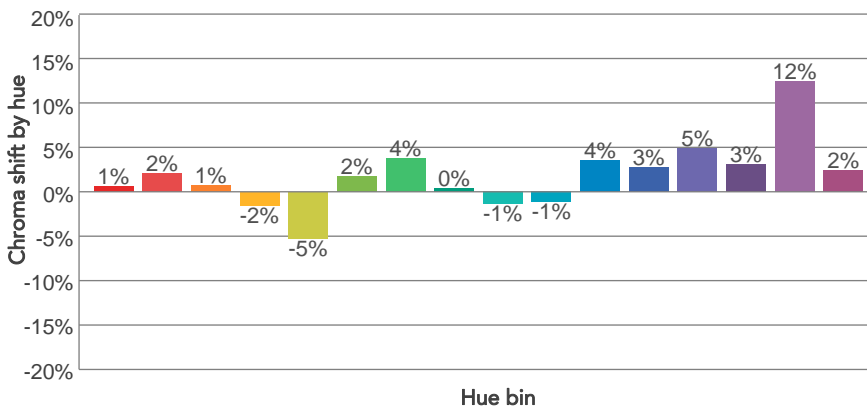
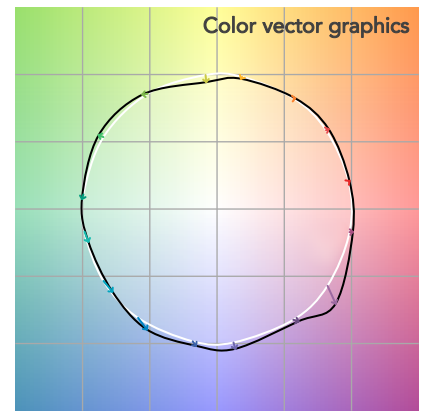
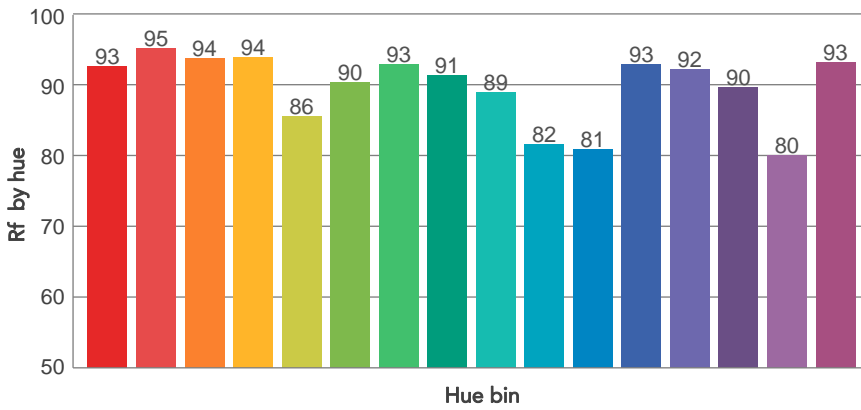
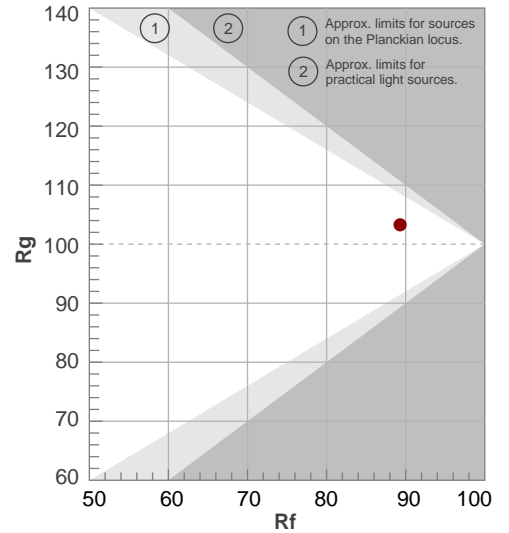


# TM30 DETAILS

**Rf 89,3**  
Fidelity index Rf

**Rg 103,3**  
Gammut index

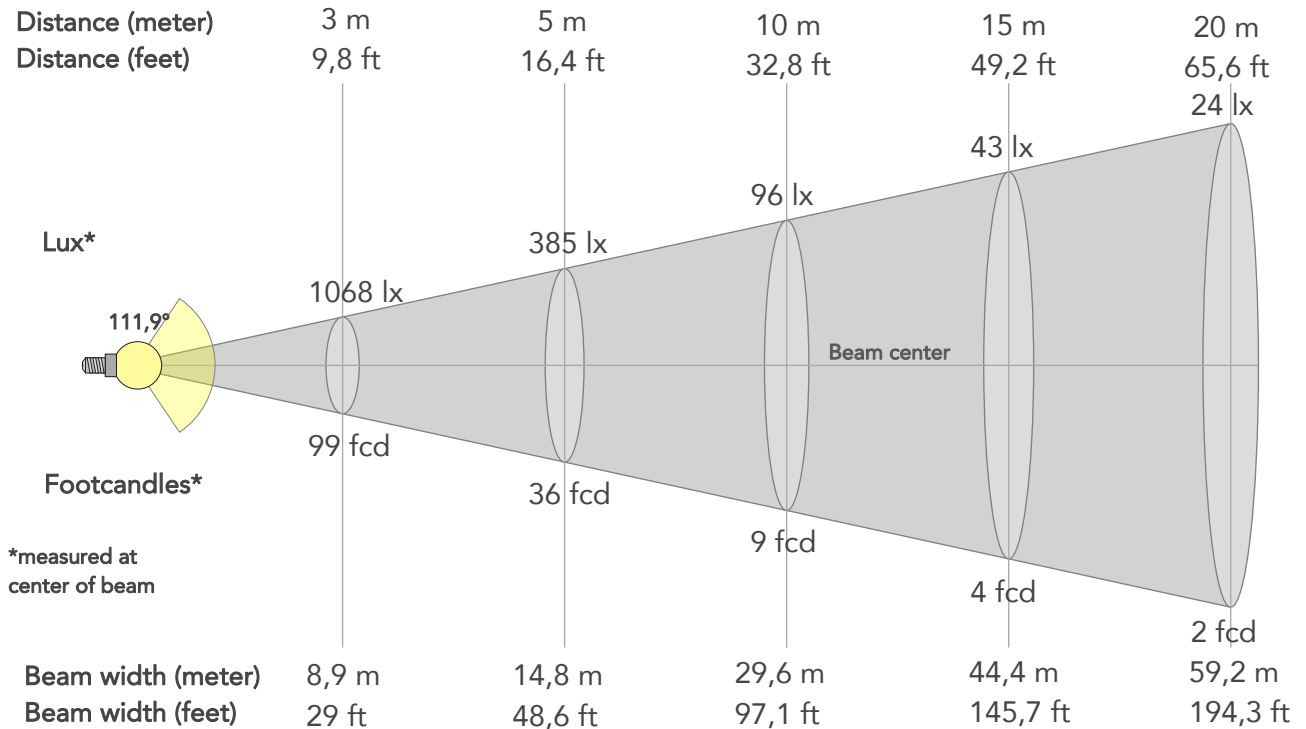
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	1%	0%
2	95	2%	0%
3	94	1%	-1%
4	94	-2%	1%
5	86	-5%	1%
6	90	2%	4%
7	93	4%	1%
8	91	0%	4%
9	89	-1%	8%
10	82	-1%	10%
11	81	4%	10%
12	93	3%	3%
13	92	5%	0%
14	90	3%	3%
15	80	12%	-8%
16	93	2%	1%



# BEAM DETAILS



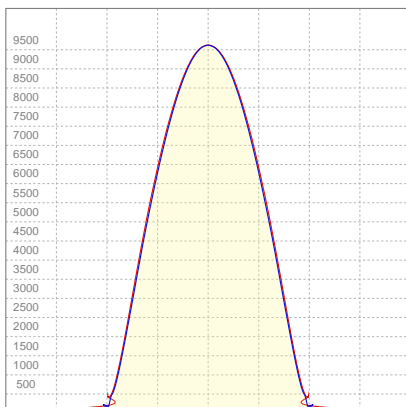
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
111,9°	161,8°	177,4°	77,2%	52,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	9613lx	2403lx	1068lx	601lx	385lx	171lx	96lx	43lx	24lx	15lx	11lx	6lx	4lx
Footcand.	893fcd	223fcd	99fcd	56fcd	36fcd	16fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,8m	14,8m	22,2m	29,6m	44,4m	59,2m	74m	88,8m	118,5m	148,1m
Beam wid.	9,8ft	19,5ft	29ft	38,8ft	48,6ft	72,9ft	97,1ft	145,7ft	194,3ft	242,8ft	291,4ft	388,5ft	485,7ft

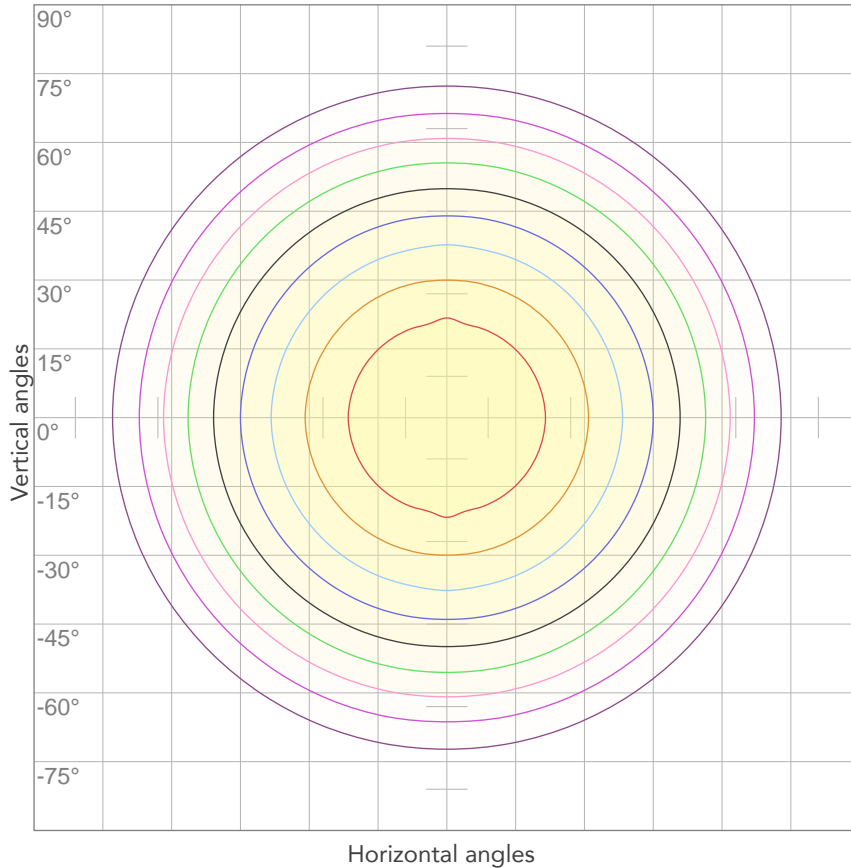
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,04A	439,2W	63lm/W
<b>Power FC</b>			
<b>0,95</b>			

## ISO CANDELA DIAGRAM



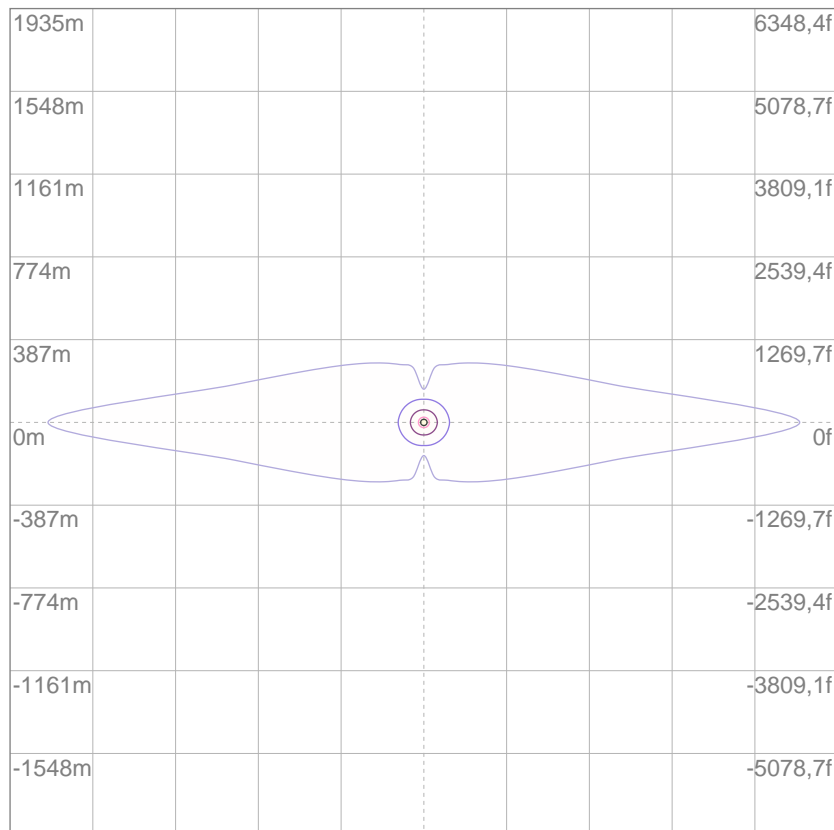
10%	961 cd
20%	1923 cd
30%	2884 cd
40%	3845 cd
50%	4807 cd
60%	5768 cd
70%	6729 cd
80%	7691 cd

Conditions:

Number of c-planes: 4

Candela at center: 9613 cd

## ISO LUX DIAGRAM



3%	2,88 lx
5%	4,81 lx
10%	9,61 lx
30%	28,8 lx
50%	48,1 lx

Conditions:

Number of c-planes: 4

Lux at center: 96,1 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

33069 lm

Peak candela output:

12475 cd

Light quality:

CRI: 95,5

Color temperature:

5904 K

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter MD

Target:

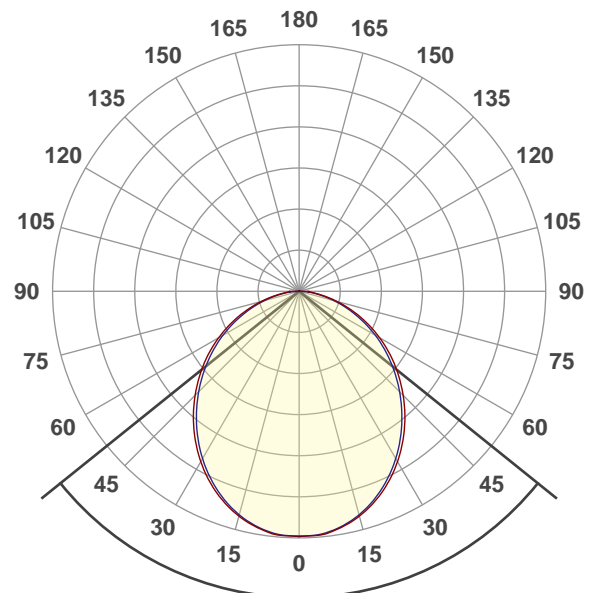
5600K

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:42:31

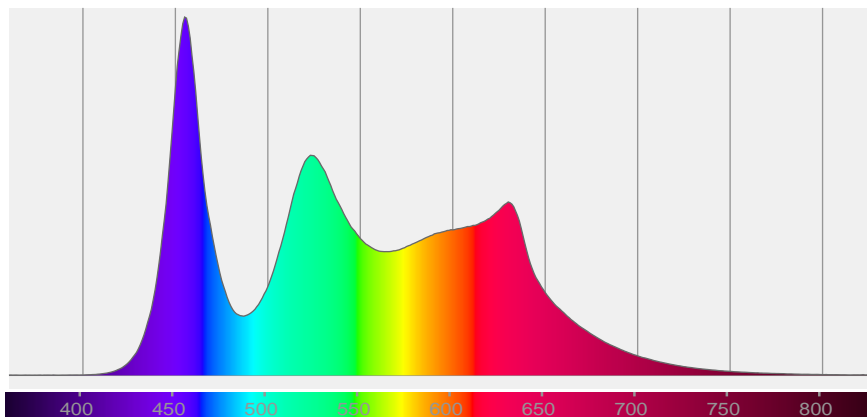


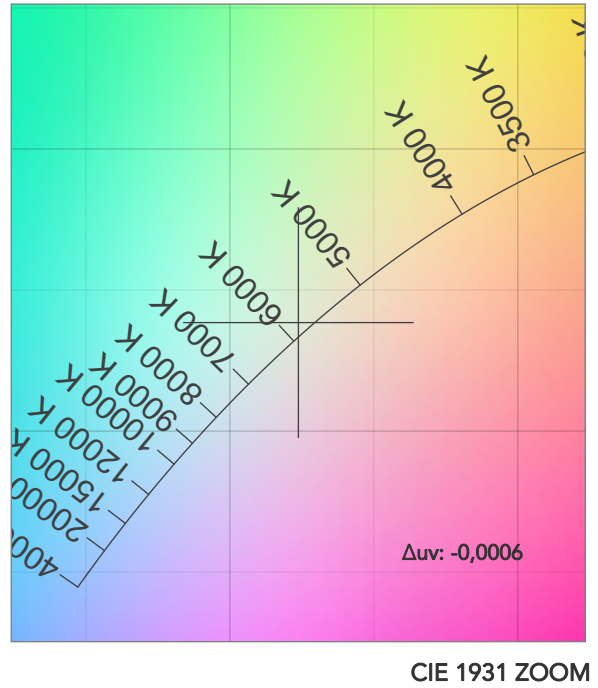
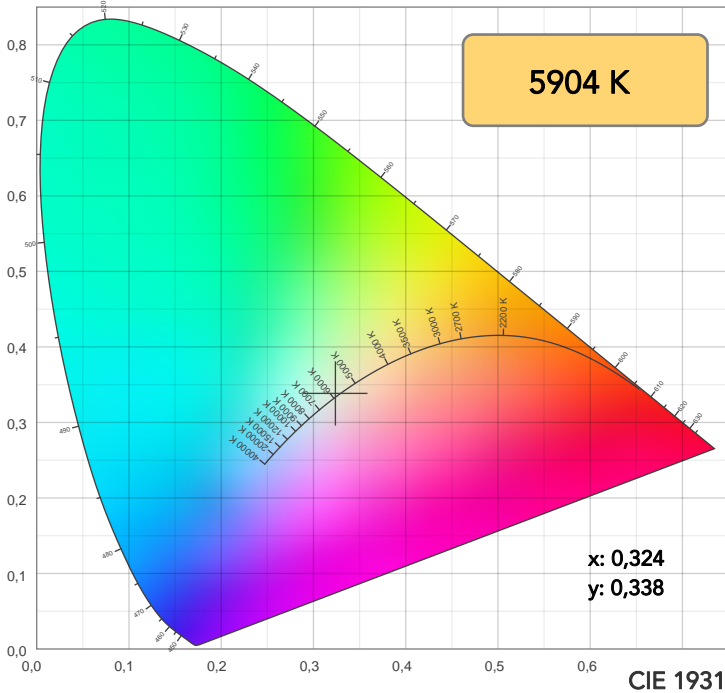
Beam angle 50%: 102,4°

Field angle 10%: 158,6°

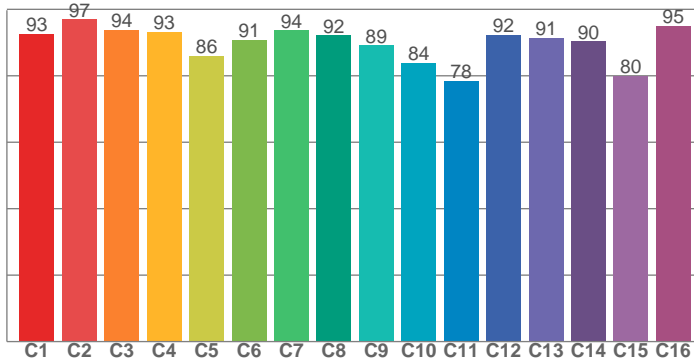
Cut off angle 2.5%: 175,9°

Spectra

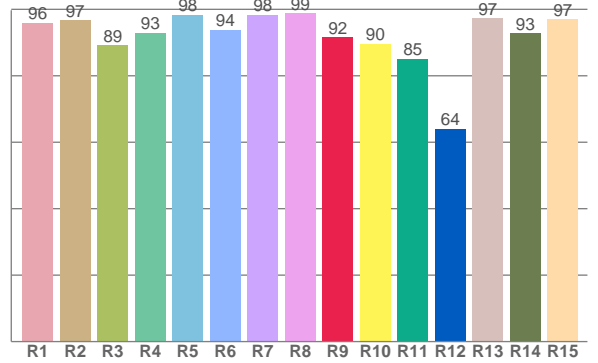




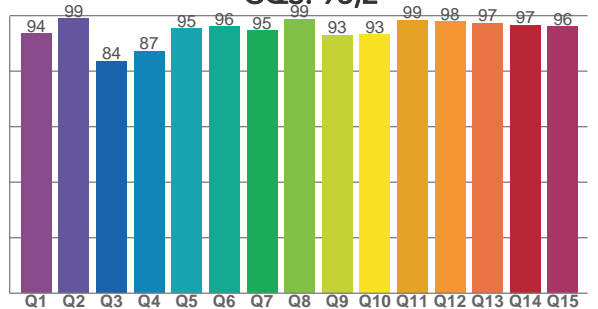
TM30: 89,5



CRI: 95,5 (R1-R8)



CQS: 93,2



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96,0	96,7	89,1	92,9	98,4	93,9	98,4	98,9	91,6	89,6	85,1	64,1	97,3	92,8	97,0

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,7	97,0	93,8	93,2	85,9	90,8	93,6	92,2	89,2	83,8	78,5	92,4	91,4	90,4	79,9	95,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,6	98,9	83,5	87,1	95,4	96,1	94,6	98,7	93,0	93,2	98,5	97,9	97,2	96,6	96,0

COLOR PARAMETERS

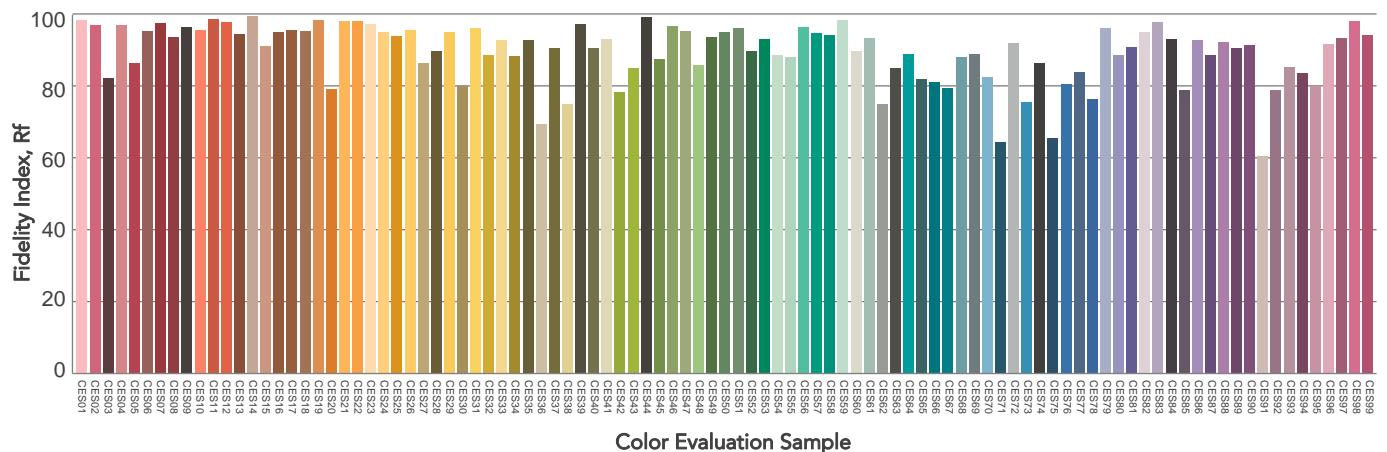
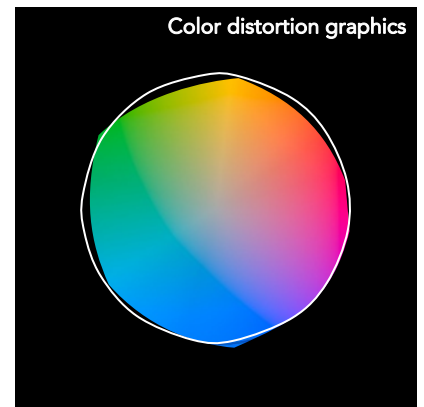
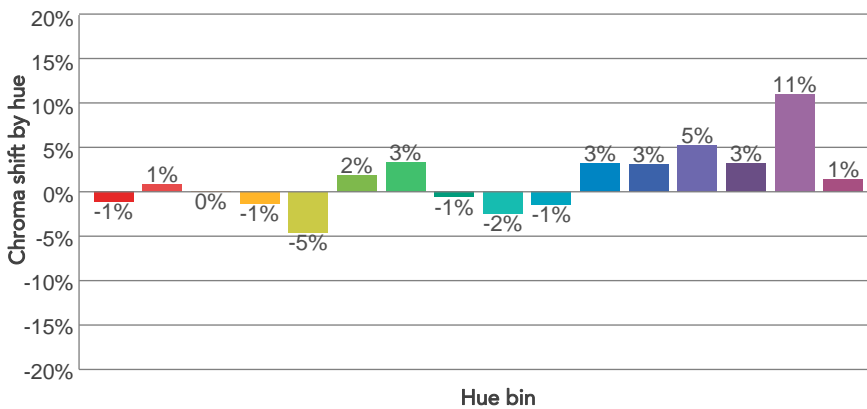
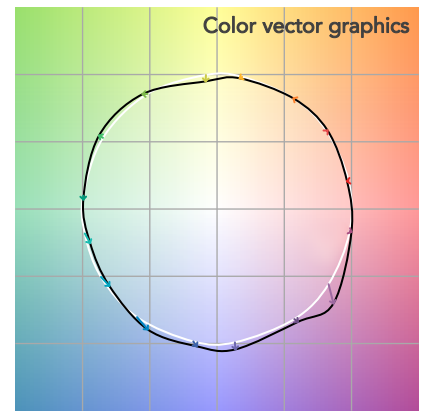
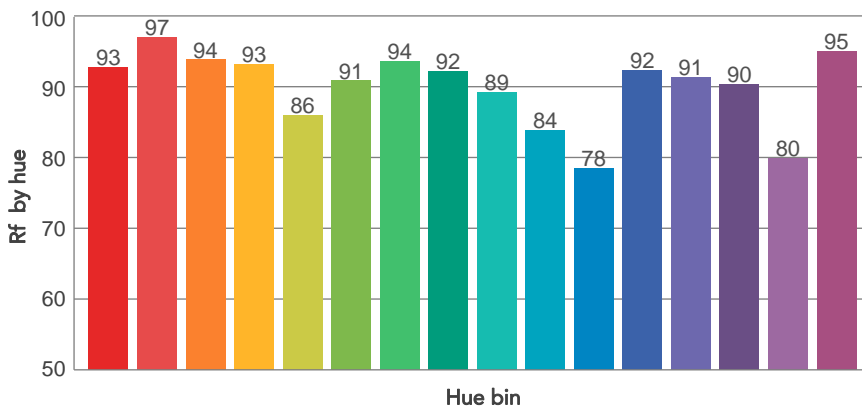
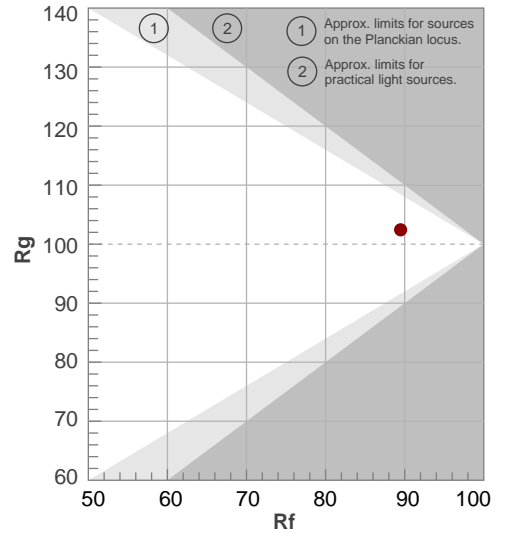
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5904 K	95,5	91,6	89,5	102,4	93,2	92	0,324	0,338	-0,0006

# TM30 DETAILS

**Rf 89,5**  
Fidelity index Rf

**Rg 102,4**  
Gammut index

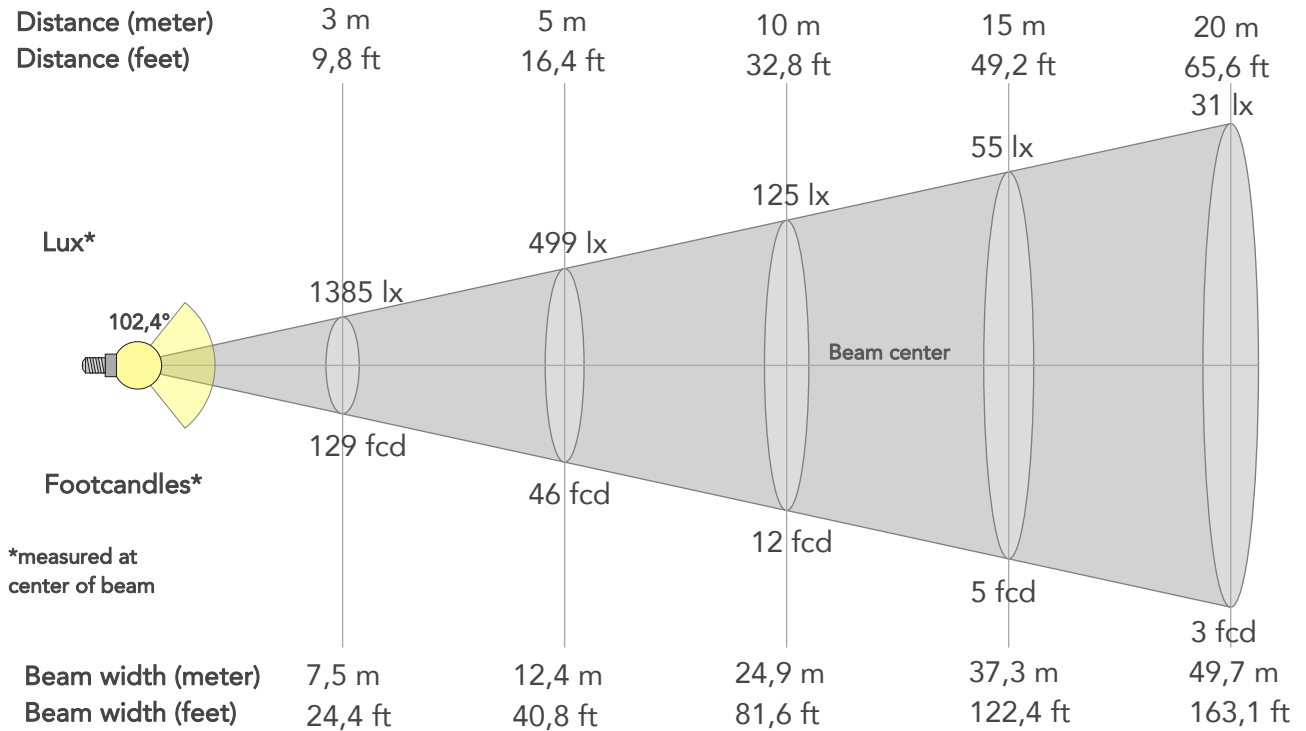
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	-1%	0%
2	97	1%	0%
3	94	0%	1%
4	93	-1%	2%
5	86	-5%	1%
6	91	2%	3%
7	94	3%	0%
8	92	-1%	3%
9	89	-2%	8%
10	84	-1%	9%
11	78	3%	12%
12	92	3%	3%
13	91	5%	-1%
14	90	3%	1%
15	80	11%	-10%
16	95	1%	0%



# BEAM DETAILS



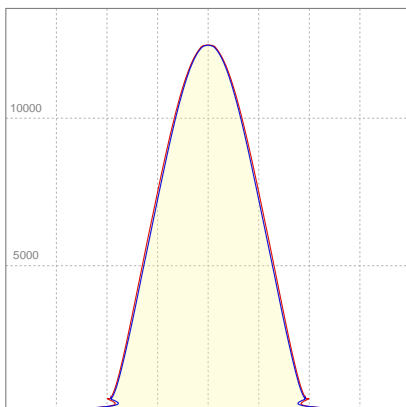
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,4°	158,6°	175,9°	77,8%	54,4%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12467lx	3117lx	1385lx	779lx	499lx	222lx	125lx	55lx	31lx	20lx	14lx	8lx	5lx
Footcand.	1158fcd	290fcd	129fcd	72fcd	46fcd	21fcd	12fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,5m	9,9m	12,4m	18,7m	24,9m	37,3m	49,7m	62,2m	74,6m	99,5m	124,3m
Beam wid.	8,2ft	16,4ft	24,4ft	32,6ft	40,8ft	61,2ft	81,6ft	122,4ft	163,1ft	203,9ft	244,7ft	326,3ft	407,9ft

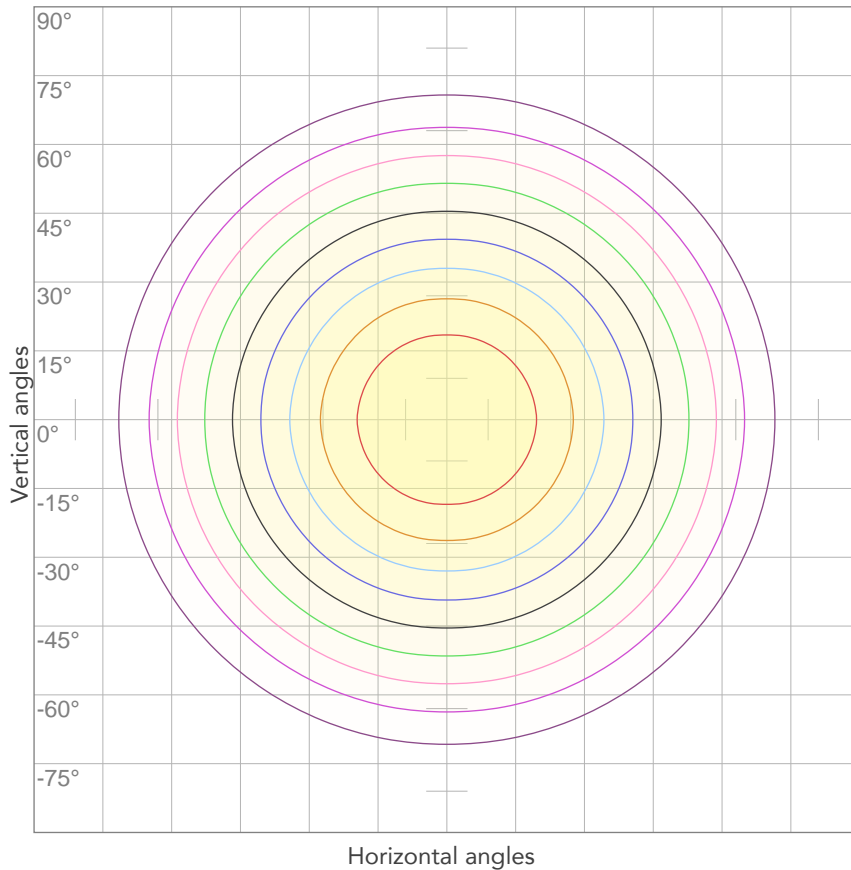
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	2,05A	438,2W	75lm/W
Power FC			
0,95			

## ISO CANDELA DIAGRAM



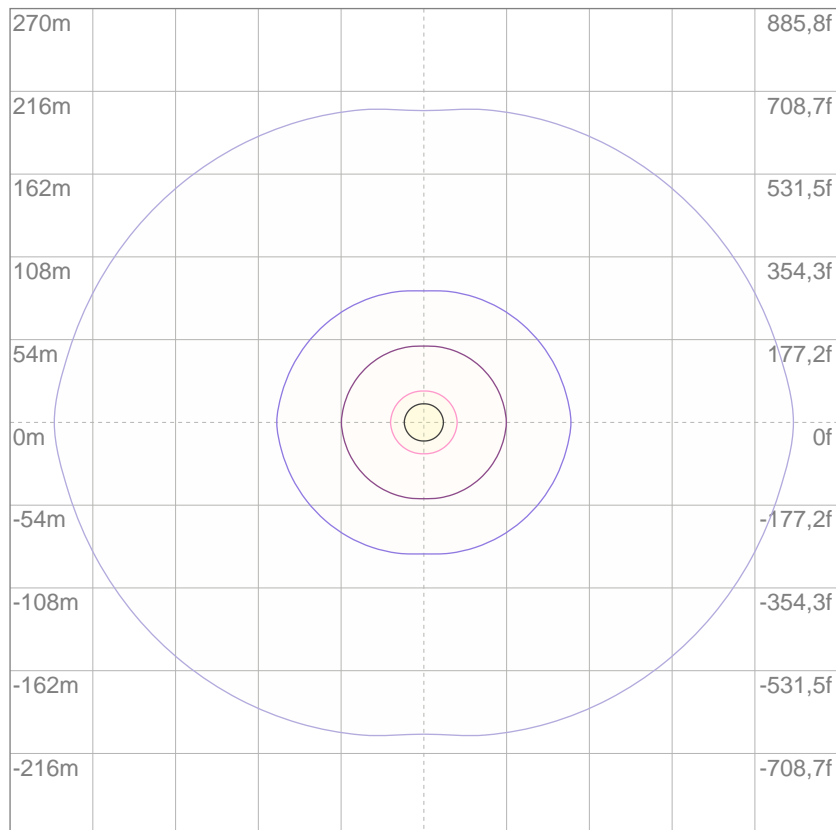
10%	1247 cd
20%	2493 cd
30%	3740 cd
40%	4987 cd
50%	6233 cd
60%	7480 cd
70%	8727 cd
80%	9973 cd

Conditions:

Number of c-planes: 4

Candela at center: 12467 cd

## ISO LUX DIAGRAM



3%	3,74 lx
5%	6,23 lx
10%	12,5 lx
30%	37,4 lx
50%	62,3 lx

Conditions:

Number of c-planes: 4

Lux at center: 125 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)





Total lumen output:

32794 lm

Peak candela output:

12480 cd

Light quality:

CRI: 95,5

Color temperature:

5931 K

**PRODUCT NAME:**

**ECLPANEL TWC**

**MEASURAMENT CONDITIONS:**

Beam angle:

Filter LD

Target:

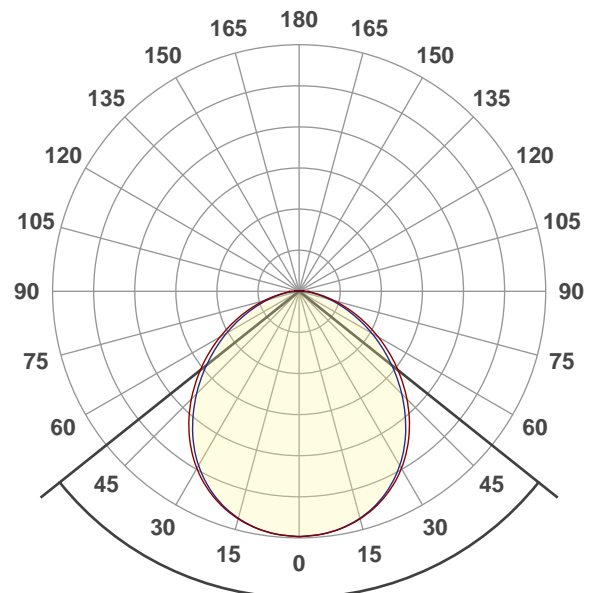
5600K

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:23:39

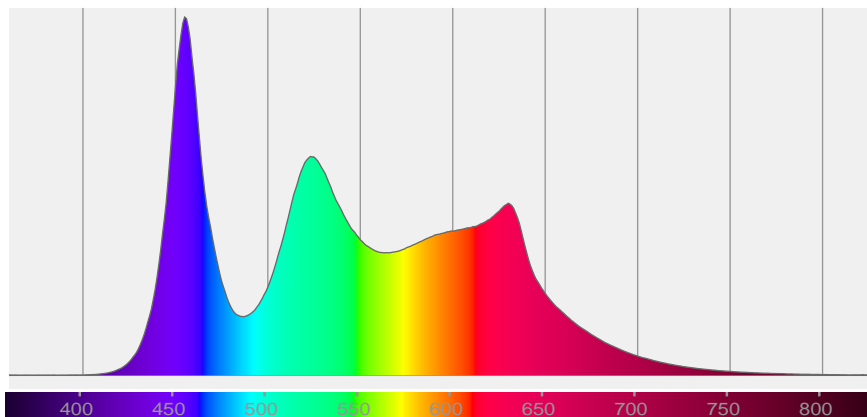


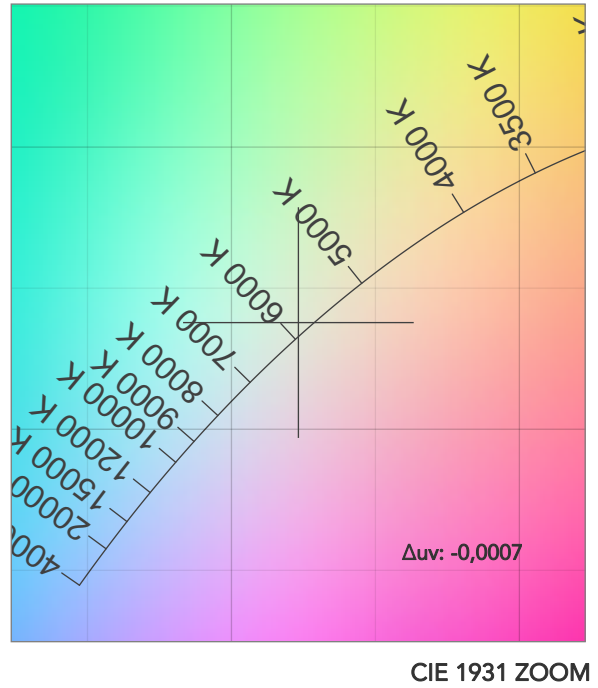
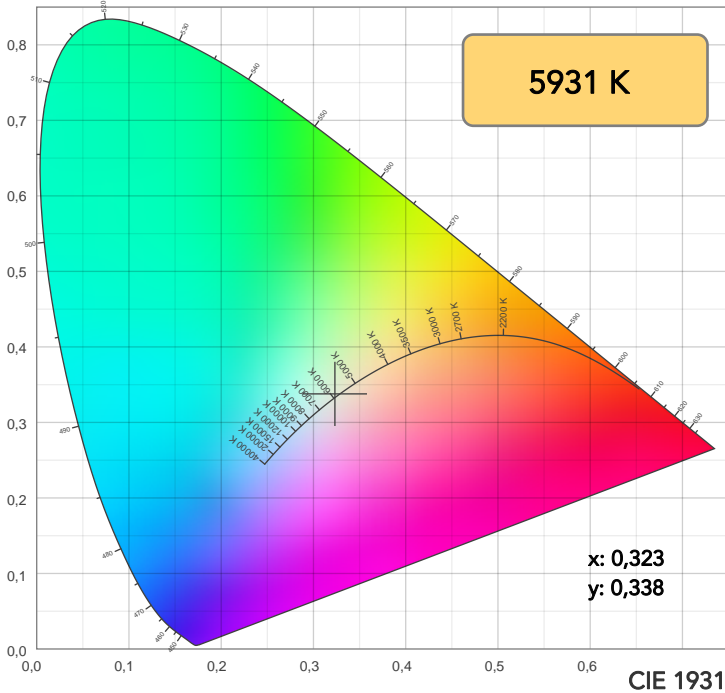
Beam angle 50%: 102,8°

Field angle 10%: 157°

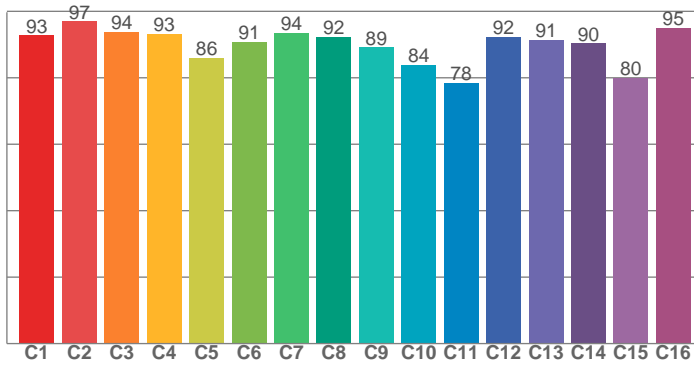
Cut off angle 2.5%: 175,8°

Spectra

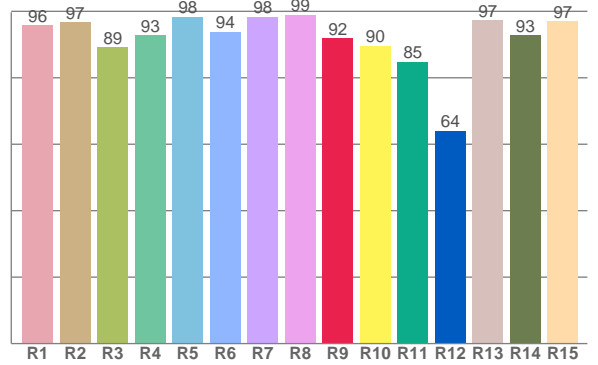




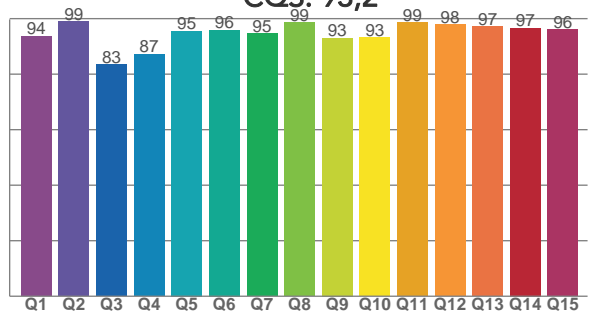
TM30: 89,5



CRI: 95,5 (R1-R8)



CQS: 93,2



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95,9	96,7	89,1	92,8	98,4	93,8	98,4	99,0	91,8	89,7	84,9	64,0	97,2	92,8	97,0

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,7	96,9	93,8	93,2	85,9	90,8	93,5	92,2	89,2	83,9	78,4	92,3	91,4	90,3	79,9	95,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,6	98,9	83,5	87,2	95,5	96,0	94,6	98,6	93,0	93,2	98,5	97,9	97,2	96,6	96,0

COLOR PARAMETERS

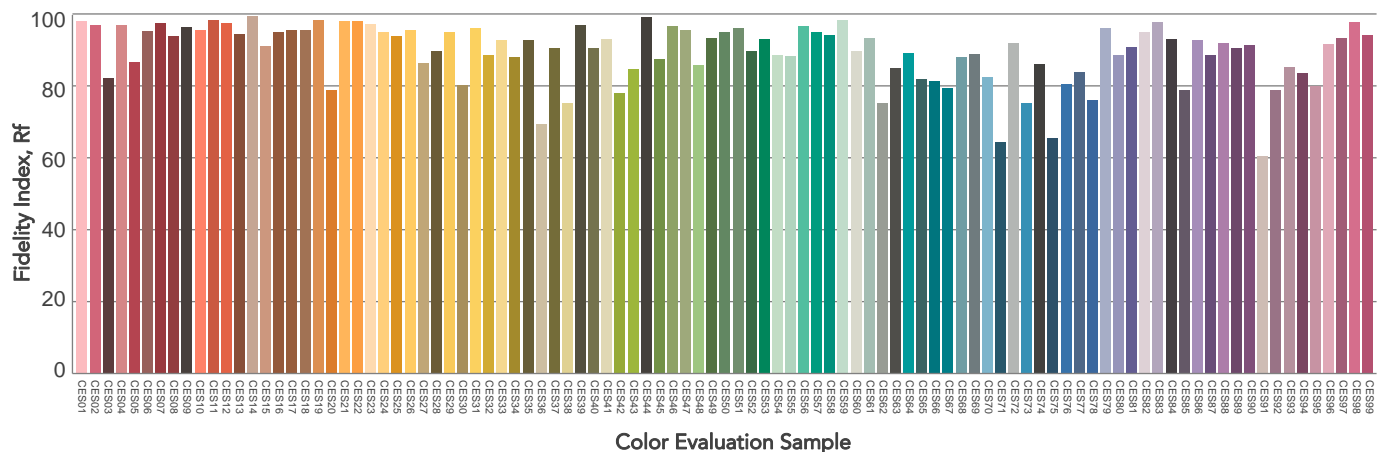
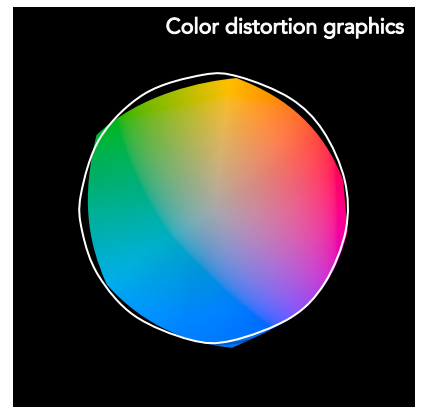
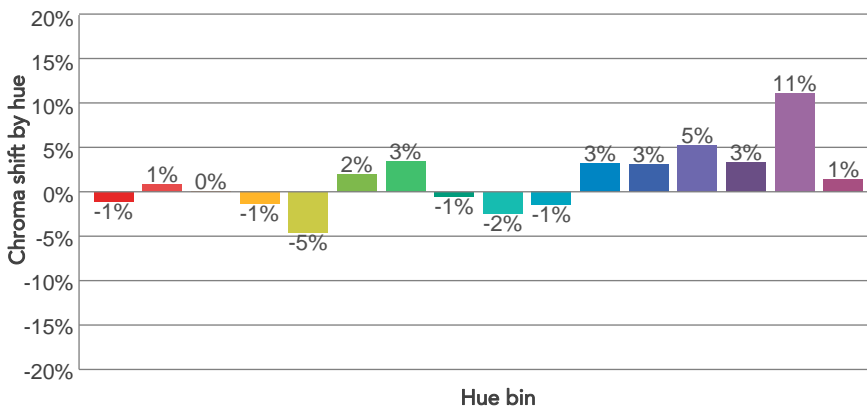
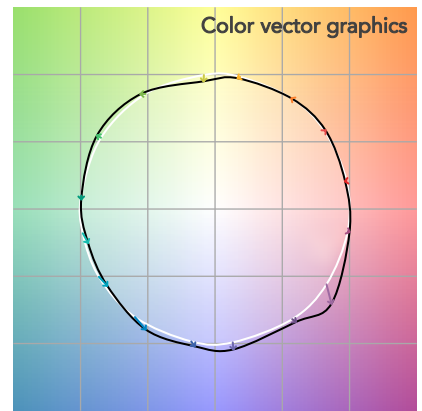
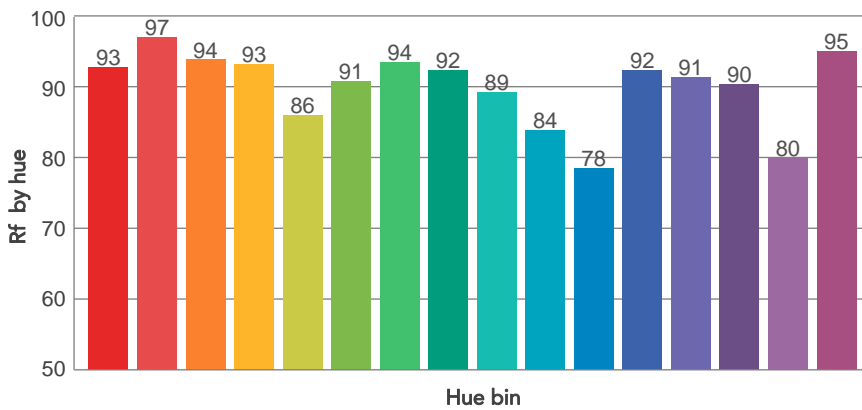
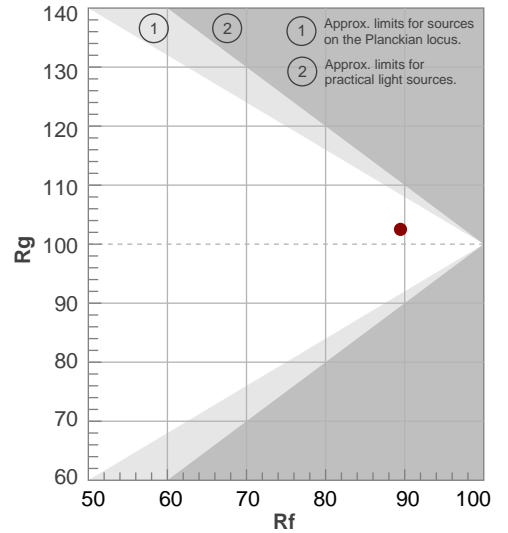
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5931 K	95,5	91,8	89,5	102,5	93,2	92	0,323	0,338	-0,0007

# TM30 DETAILS

**Rf 89,5**  
Fidelity index Rf

**Rg 102,5**  
Gammut index

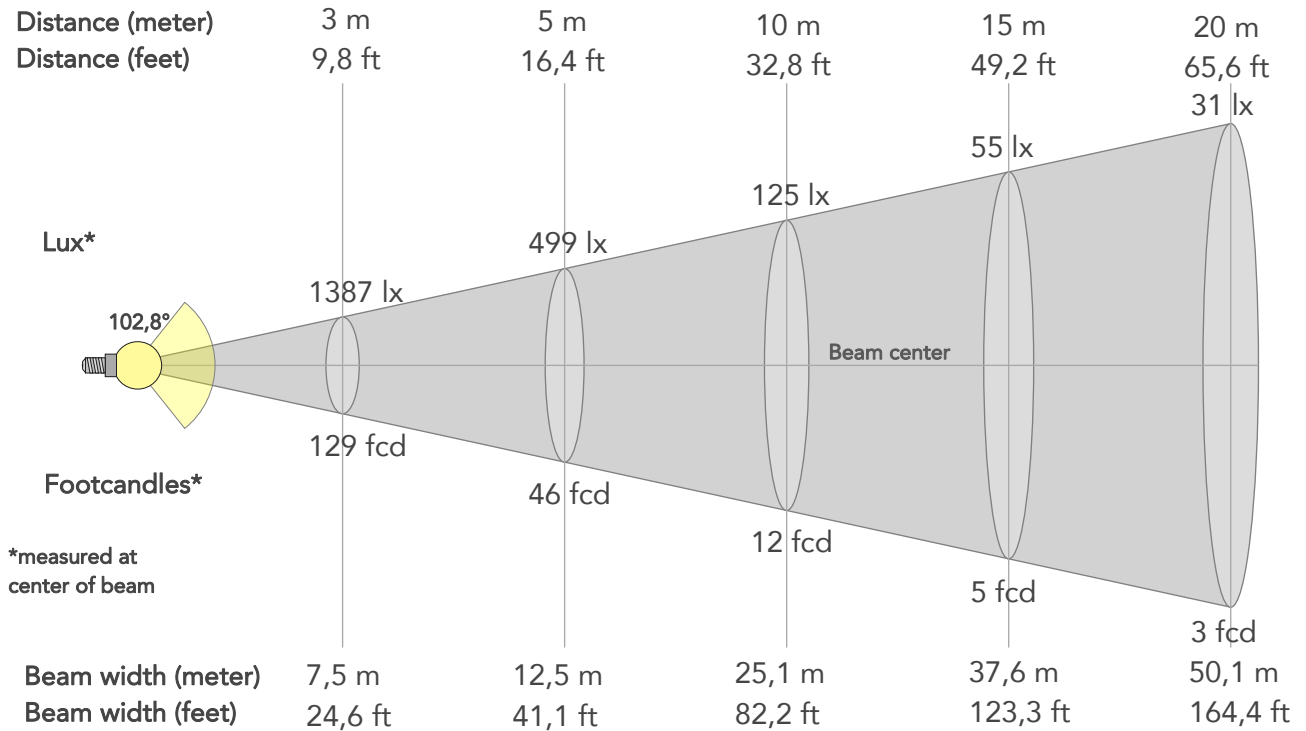
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	-1%	0%
2	97	1%	0%
3	94	0%	1%
4	93	-1%	2%
5	86	-5%	1%
6	91	2%	3%
7	94	3%	0%
8	92	-1%	3%
9	89	-2%	8%
10	84	-1%	9%
11	78	3%	12%
12	92	3%	3%
13	91	5%	-1%
14	90	3%	1%
15	80	11%	-10%
16	95	1%	0%



# BEAM DETAILS



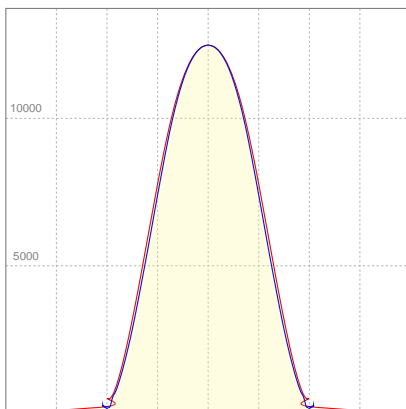
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,8°	157°	175,8°	80,2%	56,5%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12479lx	3120lx	1387lx	780lx	499lx	222lx	125lx	55lx	31lx	20lx	14lx	8lx	5lx
Footcand.	1159fcd	290fcd	129fcd	72fcd	46fcd	21fcd	12fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,5m	10m	12,5m	18,8m	25,1m	37,6m	50,1m	62,7m	75,2m	100,2m	125,3m
Beam wid.	8,3ft	16,5ft	24,6ft	32,8ft	41,1ft	61,7ft	82,2ft	123,3ft	164,4ft	205,5ft	246,6ft	328,8ft	411ft

## LINEAR DISTRIBUTION DIAGRAM

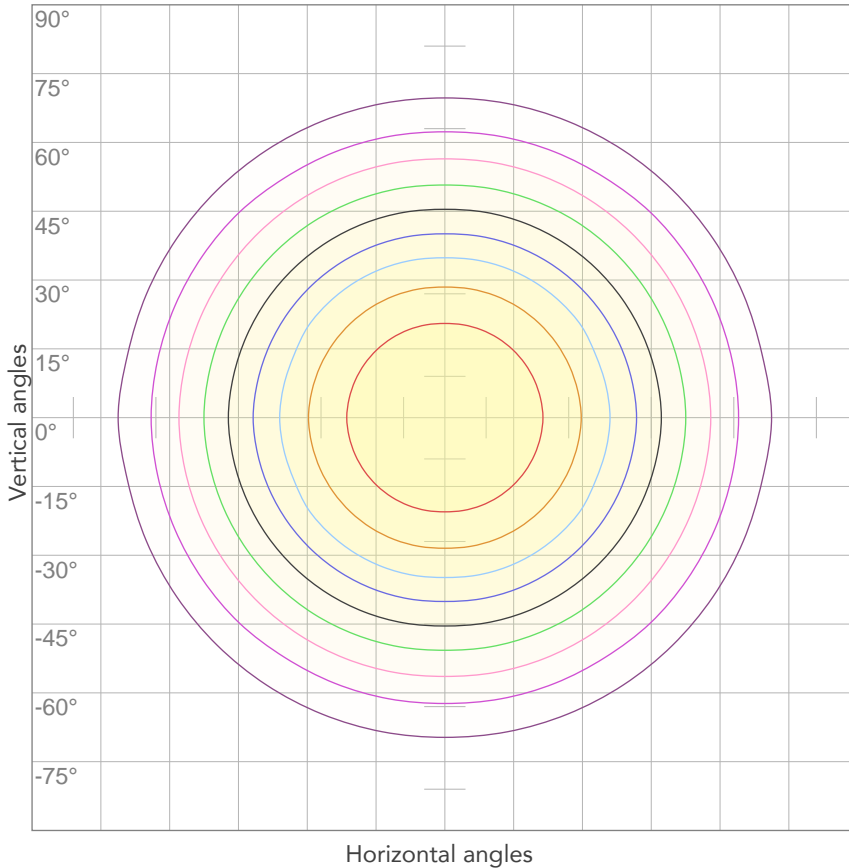


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,05A	440,2W	74lm/W

Power FC
0,95

## ISO CANDELA DIAGRAM



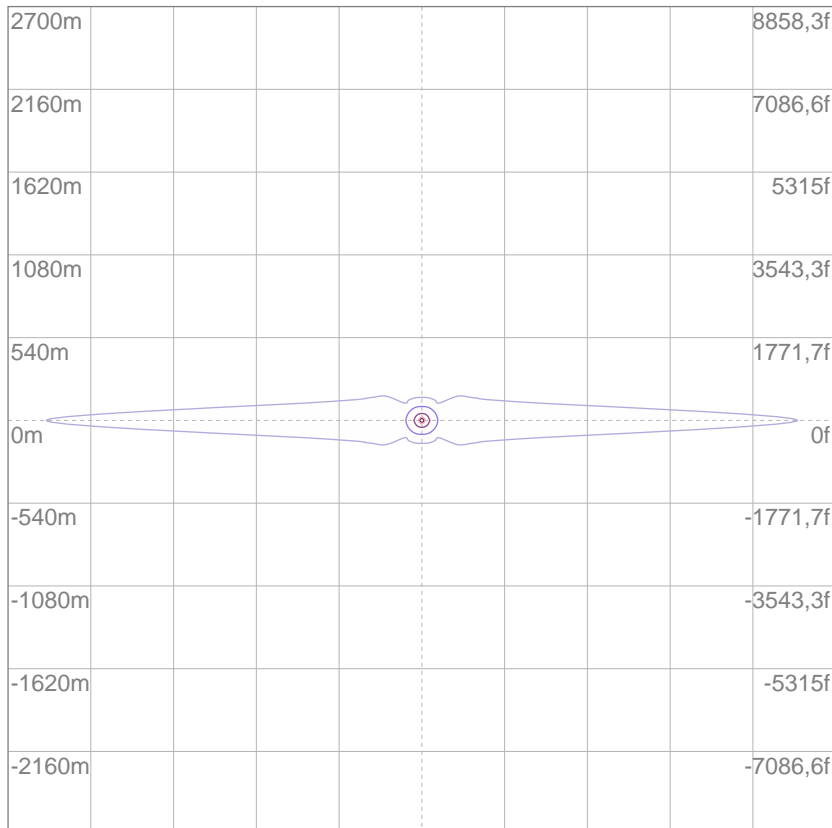
10%	1248 cd
20%	2496 cd
30%	3744 cd
40%	4992 cd
50%	6239 cd
60%	7487 cd
70%	8735 cd
80%	9983 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 12479 cd

## ISO LUX DIAGRAM



3%	3,74 lx
5%	6,24 lx
10%	12,5 lx
30%	37,4 lx
50%	62,4 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 125 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

27967 lm

Peak candela output:

9534 cd

Light quality:

CRI: 94,6

Color temperature:

6718 K

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter HD

Target:

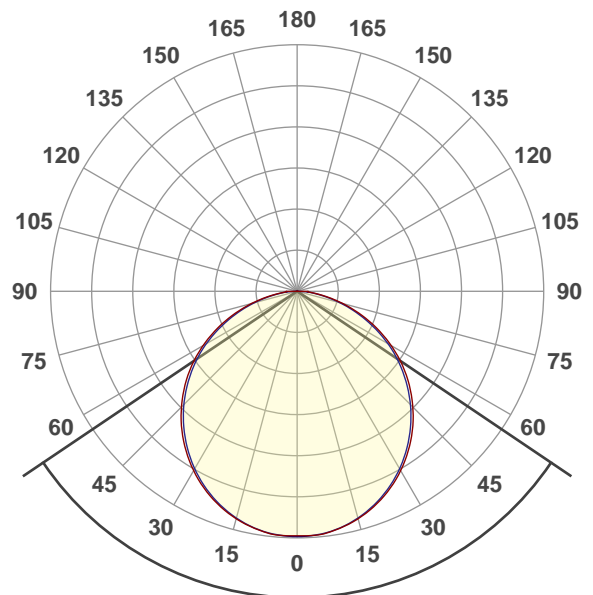
6000K

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:07:06

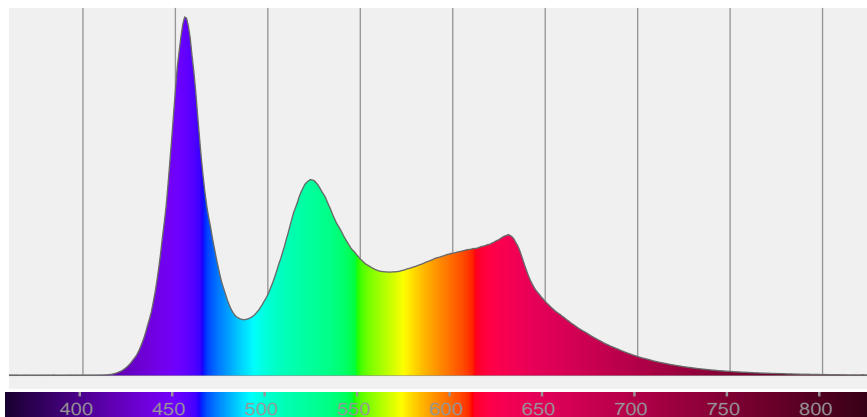


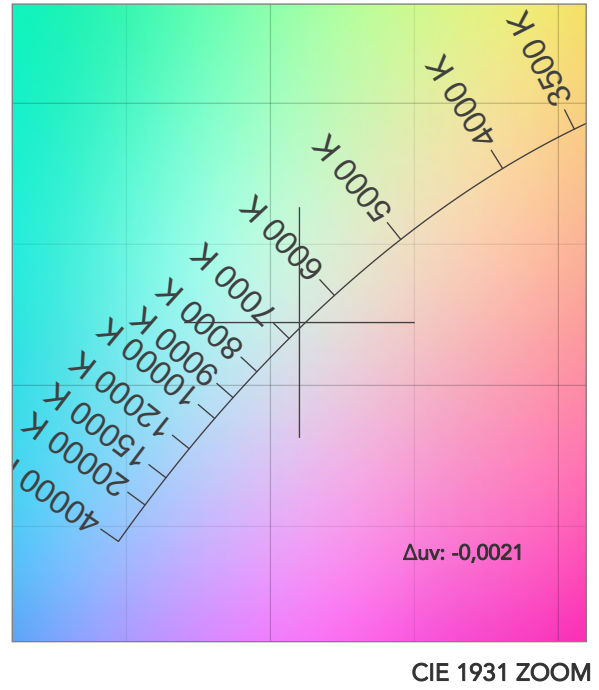
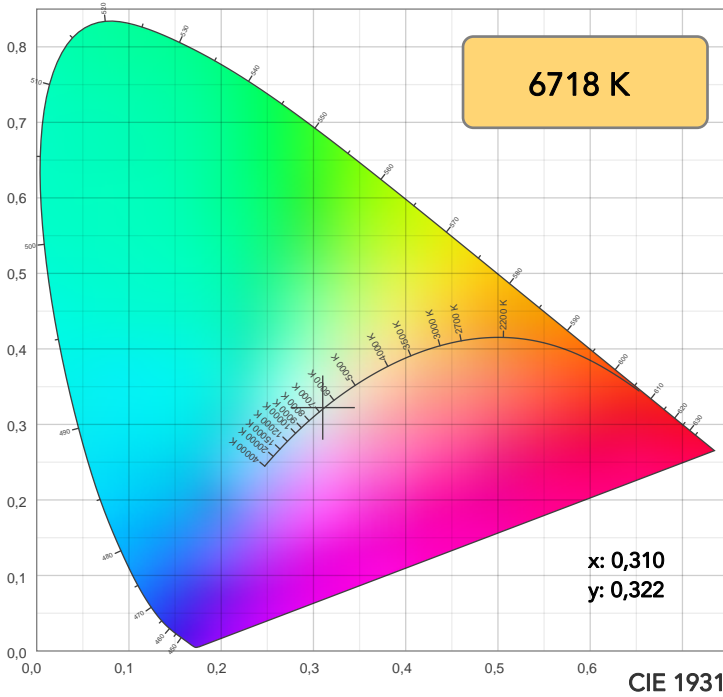
Beam angle 50%: 112°

Field angle 10%: 161,8°

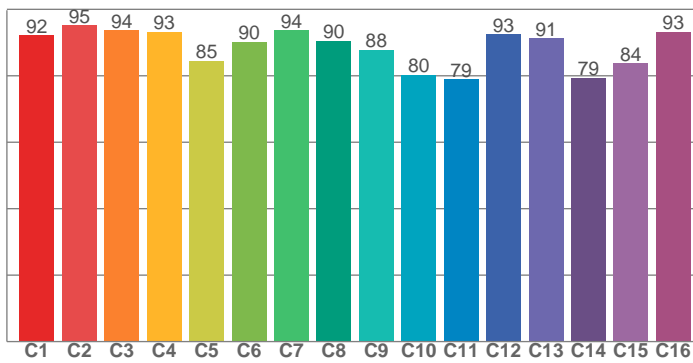
Cut off angle 2.5%: 176,4°

**Spectra**

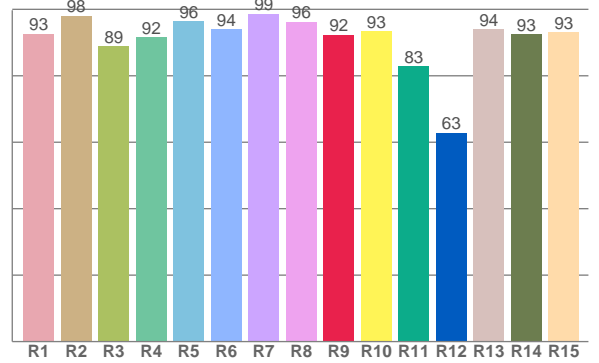




TM30: 88,7



CRI: 94,6 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,6	98,0	88,9	91,7	96,4	94,0	98,7	96,2	92,4	93,3	82,9	62,8	94,1	92,5	93,2

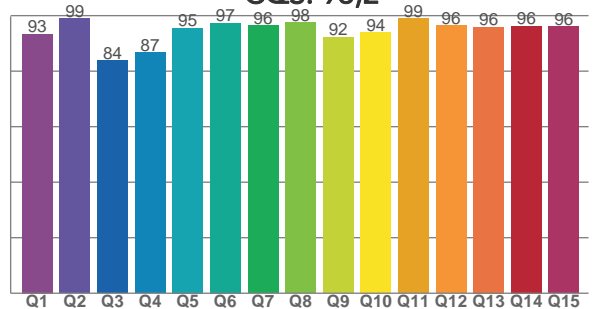
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,1	95,2	93,7	93,3	84,5	90,3	93,7	90,5	87,7	80,2	78,9	92,5	91,2	79,3	83,8	93,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,4	99,0	83,8	86,7	95,5	97,3	96,4	97,5	92,2	94,0	99,0	96,4	96,0	96,3	96,0

CQS: 93,2



COLOR PARAMETERS

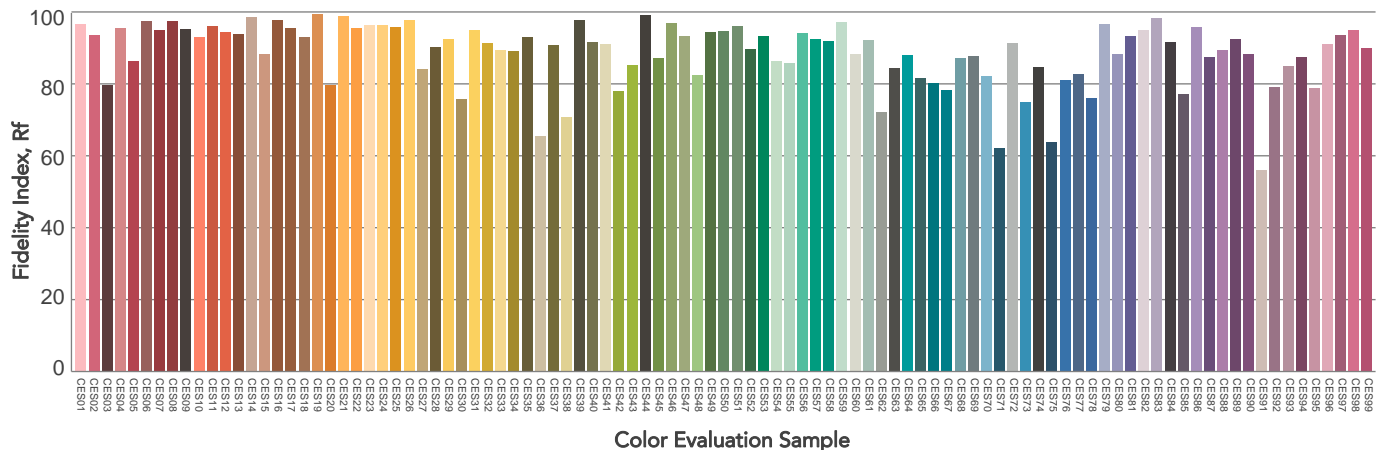
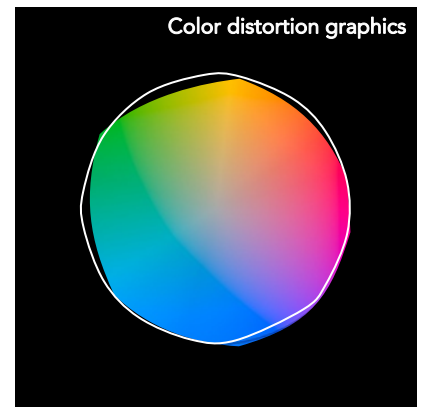
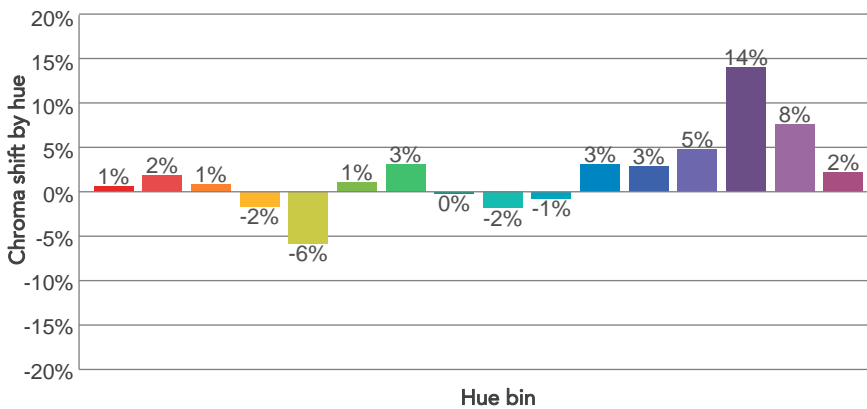
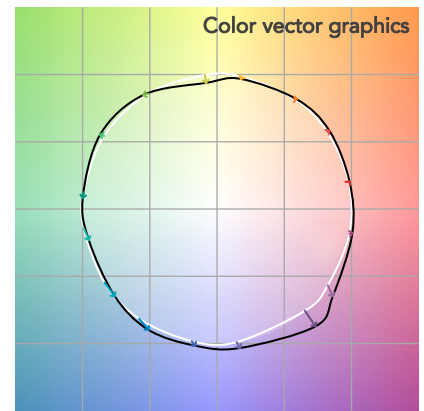
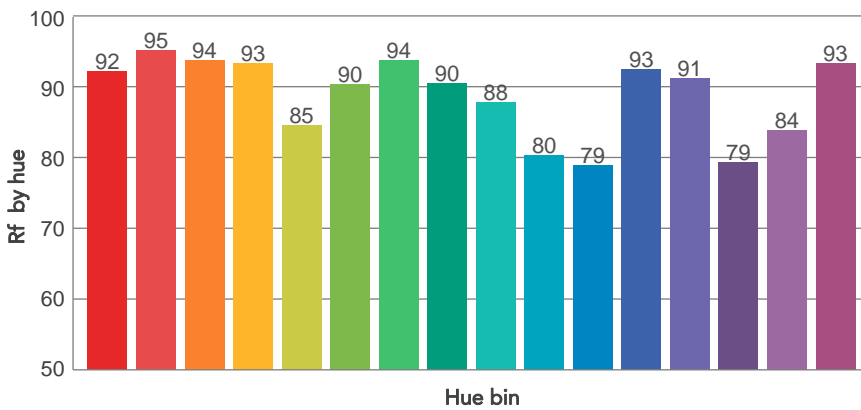
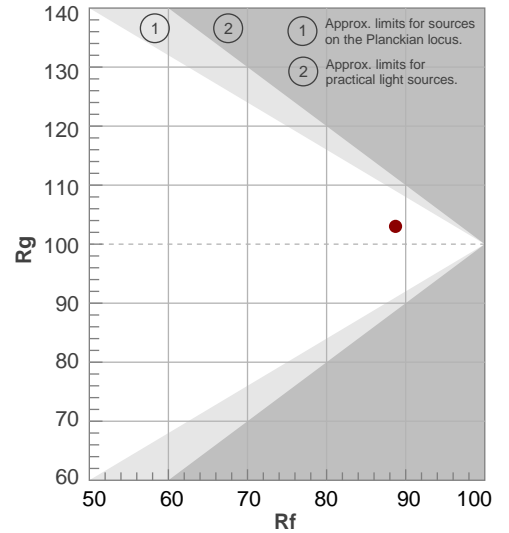
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6718 K	94,6	92,4	88,7	103,0	93,2	94	0,310	0,322	-0,0021

# TM30 DETAILS

**Rf 88,7**  
Fidelity index Rf

**Rg 103,0**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	1%	1%
2	95	2%	0%
3	94	1%	-1%
4	93	-2%	1%
5	85	-6%	0%
6	90	1%	3%
7	94	3%	1%
8	90	0%	4%
9	88	-2%	9%
10	80	-1%	13%
11	79	3%	10%
12	93	3%	3%
13	91	5%	2%
14	79	14%	0%
15	84	8%	-5%
16	93	2%	1%

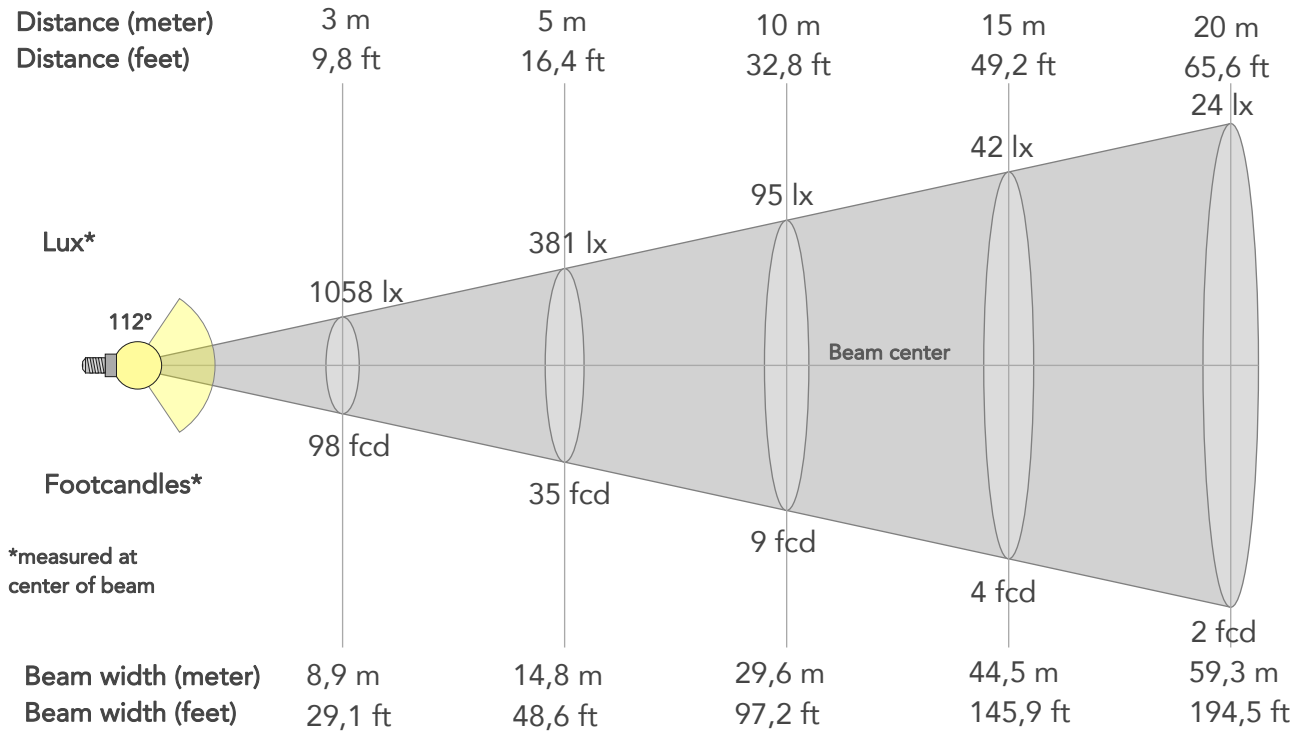




# BEAM DETAILS



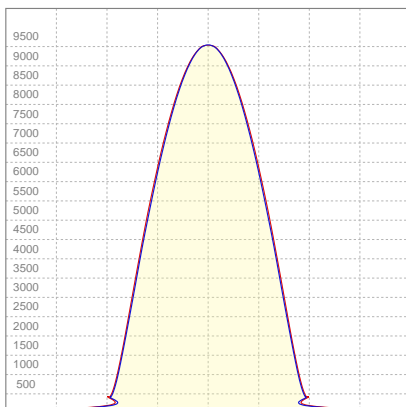
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
112°	161,8°	176,4°	76,2%	51,9%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	9526lx	2381lx	1058lx	595lx	381lx	169lx	95lx	42lx	24lx	15lx	11lx	6lx	4lx
Footcand.	885fcd	221fcd	98fcd	55fcd	35fcd	16fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,9m	14,8m	22,2m	29,6m	44,5m	59,3m	74,1m	88,9m	118,6m	148,2m
Beam wid.	9,8ft	19,6ft	29,1ft	38,8ft	48,6ft	72,9ft	97,2ft	145,9ft	194,5ft	243,1ft	291,7ft	389ft	486,2ft

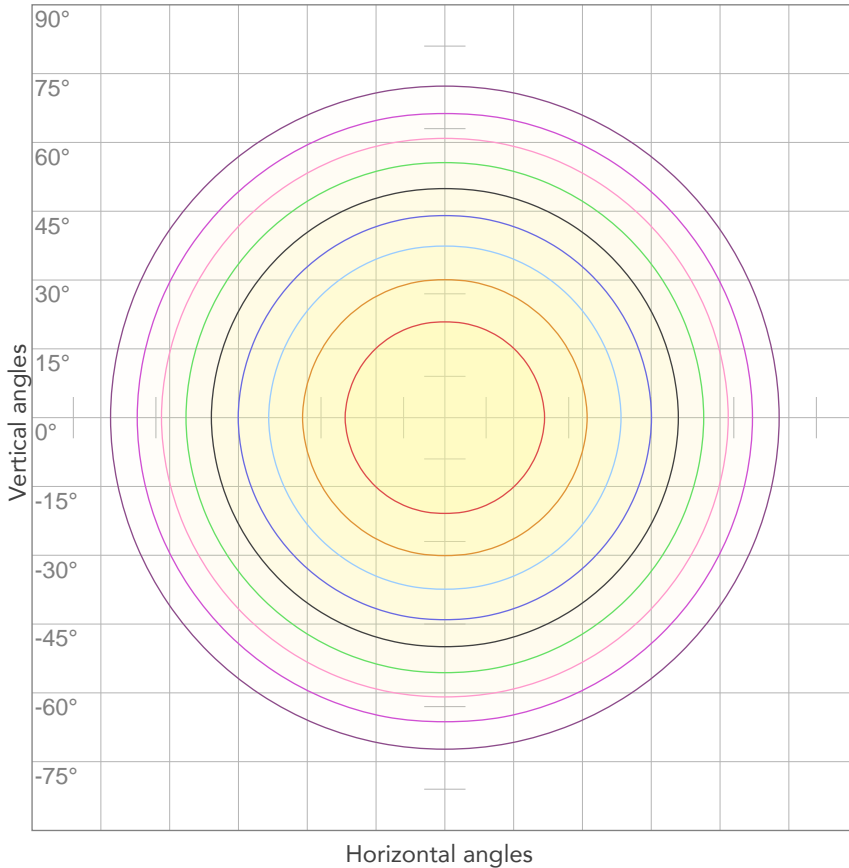
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	2,05A	439,4W	64lm/W
<b>Power FC</b>			
<b>0,95</b>			

## ISO CANDELA DIAGRAM



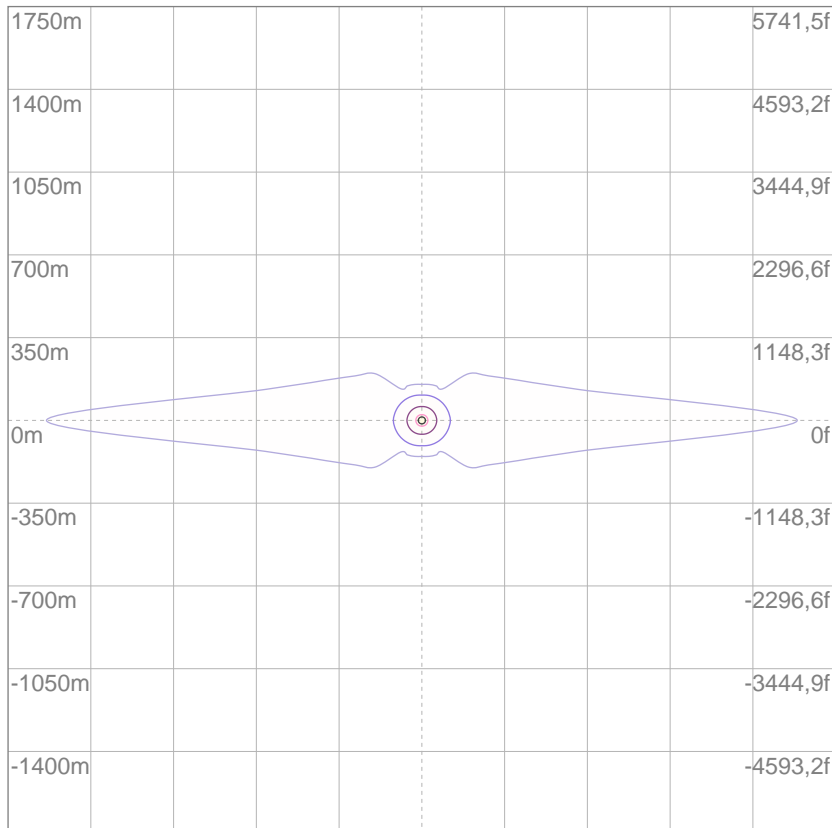
10%	953 cd
20%	1905 cd
30%	2858 cd
40%	3810 cd
50%	4763 cd
60%	5716 cd
70%	6668 cd
80%	7621 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 9526 cd

## ISO LUX DIAGRAM



3%	2,86 lx
5%	4,76 lx
10%	9,53 lx
30%	28,6 lx
50%	47,6 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 95,3 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

32820 lm

Peak candela output:

12377 cd

Light quality:

CRI: 95,5

Color temperature:

6366 K

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter MD

Target:

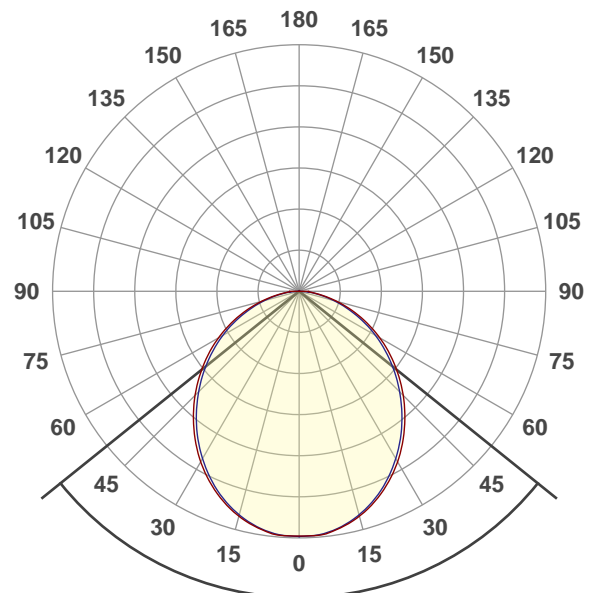
6000K

Operator:

Paolo Carvone

Date and time:

14/05/2020 17:43:54

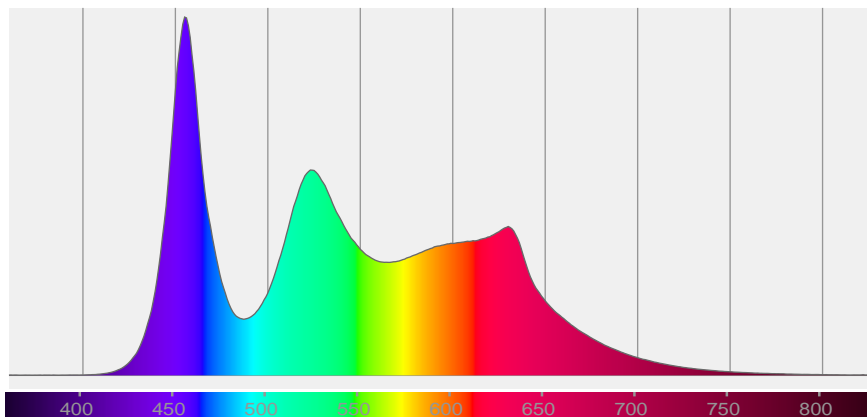


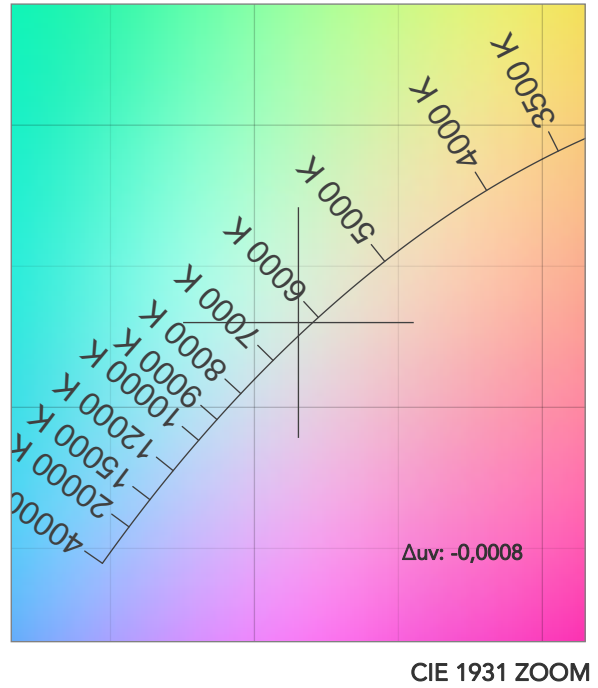
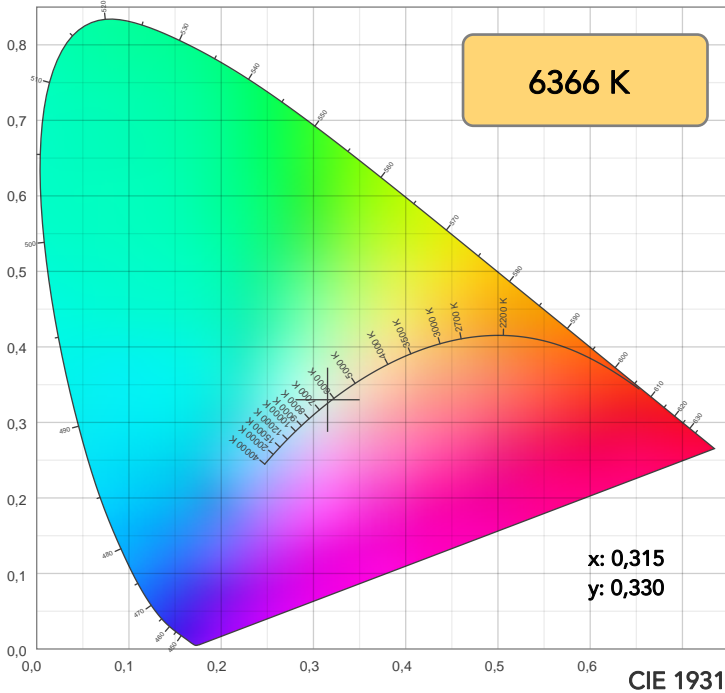
Beam angle 50%: 102,4°

Field angle 10%: 158,6°

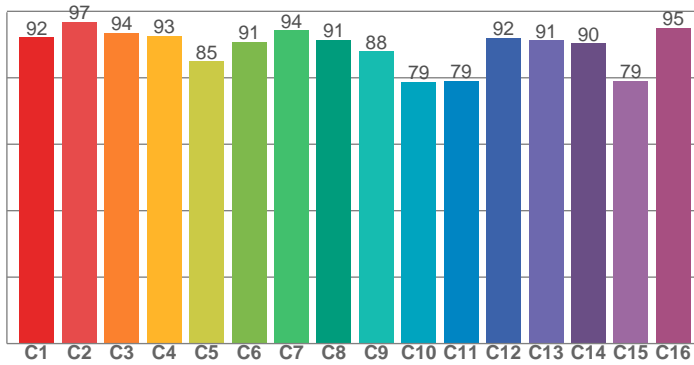
Cut off angle 2.5%: 175,9°

Spectra

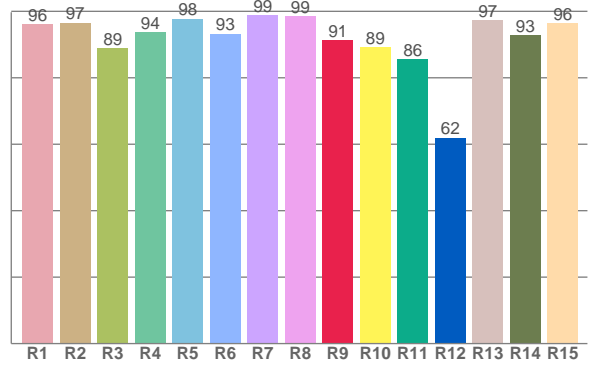




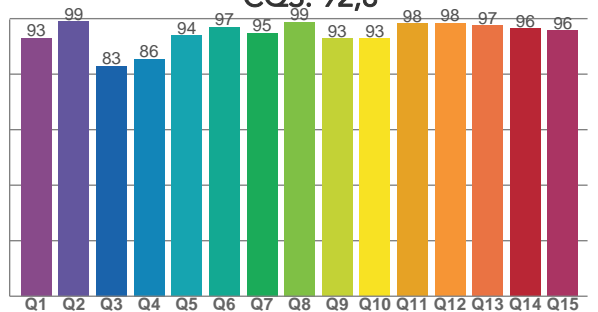
TM30: 88,9



CRI: 95,5 (R1-R8)



CQS: 92,8



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96,0	96,6	88,9	93,7	97,8	93,3	98,8	98,6	91,4	89,2	85,6	62,0	97,3	92,7	96,4

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,2	96,9	93,5	92,7	85,0	90,7	94,3	91,4	88,0	78,7	79,0	92,0	91,2	90,4	79,1	95,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,9	98,9	83,0	85,5	94,0	96,9	94,8	98,7	92,8	92,8	98,3	98,3	97,4	96,4	95,7

COLOR PARAMETERS

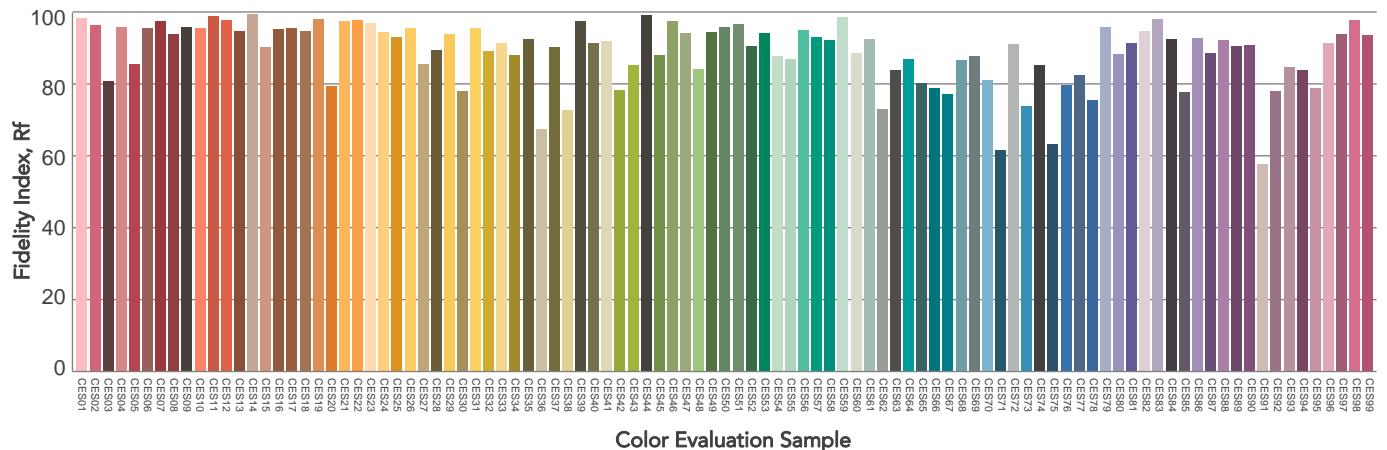
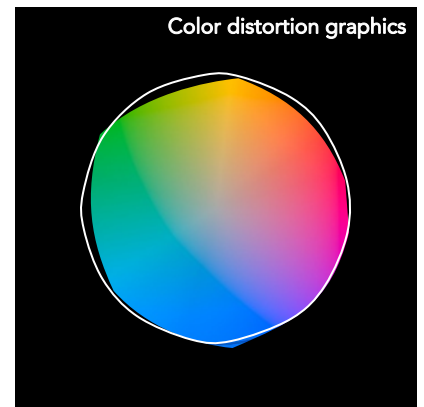
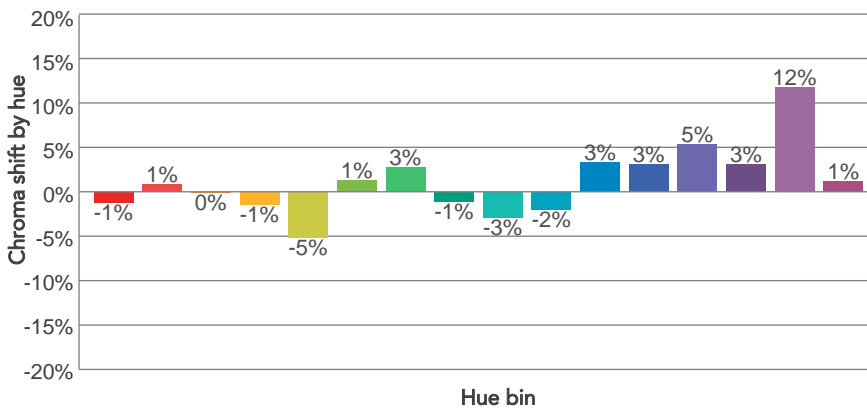
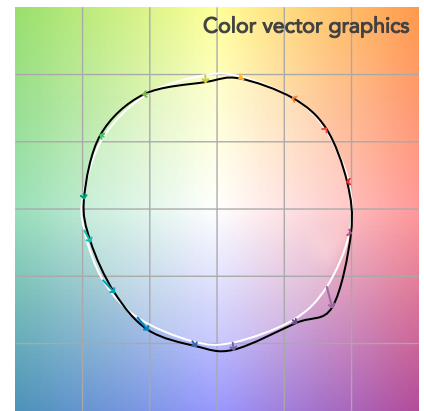
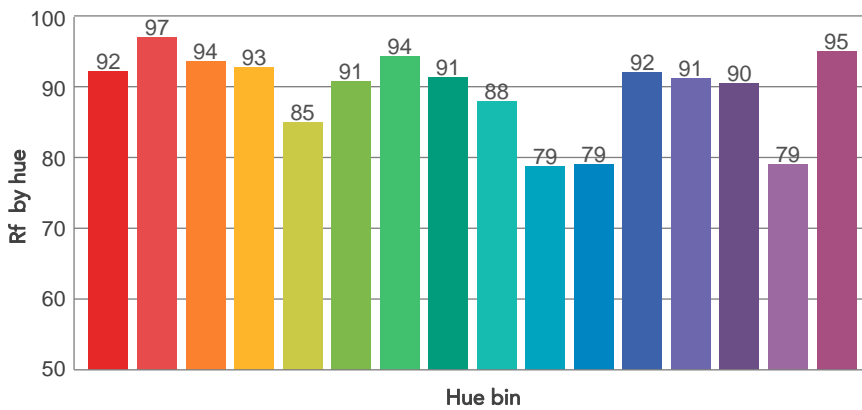
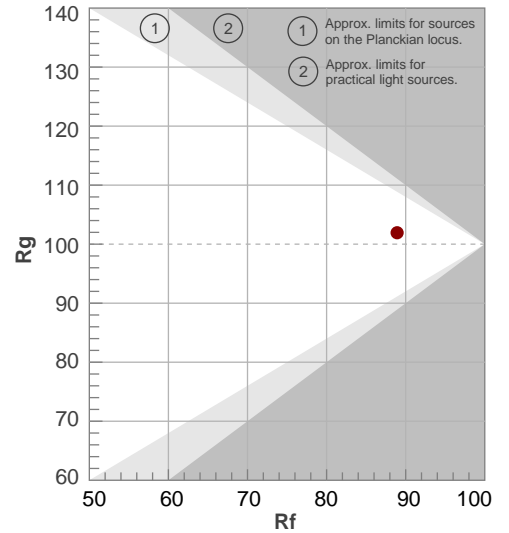
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6366 K	95,5	91,4	88,9	101,9	92,8	93	0,315	0,330	-0,0008

# TM30 DETAILS

**Rf 88,9**  
Fidelity index Rf

**Rg 101,9**  
Gammut index

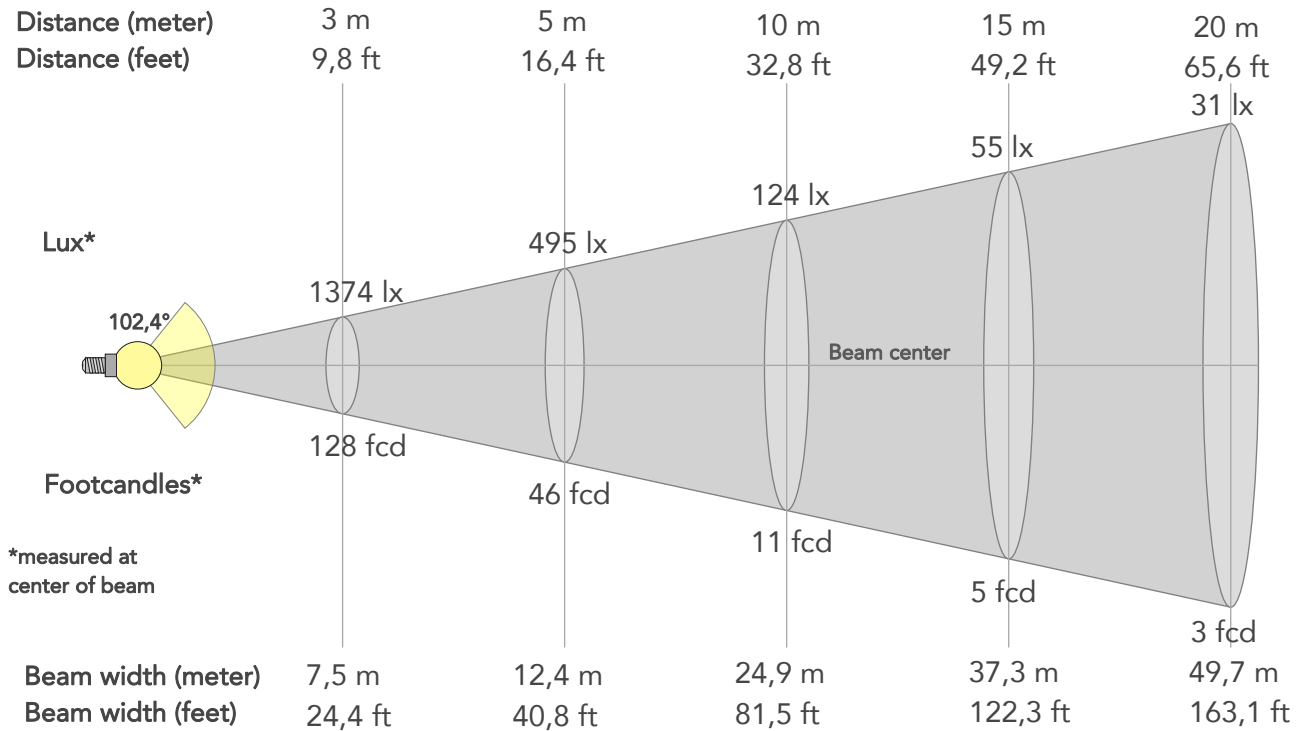
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	-1%	0%
2	97	1%	0%
3	94	0%	0%
4	93	-1%	2%
5	85	-5%	1%
6	91	1%	3%
7	94	3%	0%
8	91	-1%	3%
9	88	-3%	9%
10	79	-2%	12%
11	79	3%	11%
12	92	3%	3%
13	91	5%	0%
14	90	3%	1%
15	79	12%	-10%
16	95	1%	0%



# BEAM DETAILS



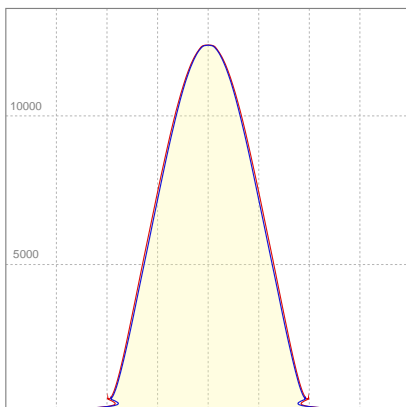
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,4°	158,6°	175,9°	77,9%	54,4%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12370lx	3092lx	1374lx	773lx	495lx	220lx	124lx	55lx	31lx	20lx	14lx	8lx	5lx
Footcand.	1149fcd	287fcd	128fcd	72fcd	46fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,5m	9,9m	12,4m	18,6m	24,9m	37,3m	49,7m	62,2m	74,6m	99,5m	124,3m
Beam wid.	8,2ft	16,4ft	24,4ft	32,6ft	40,8ft	61,2ft	81,5ft	122,3ft	163,1ft	203,9ft	244,6ft	326,2ft	407,7ft

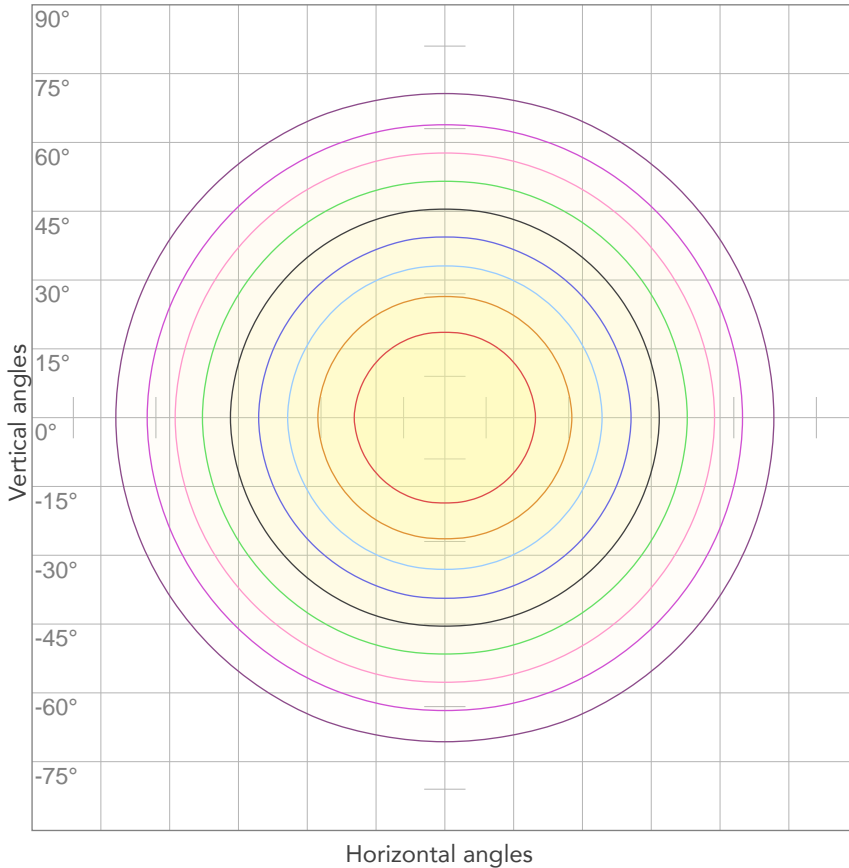
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	2,05A	438,6W	75lm/W
Power FC			
0,95			

## ISO CANDELA DIAGRAM



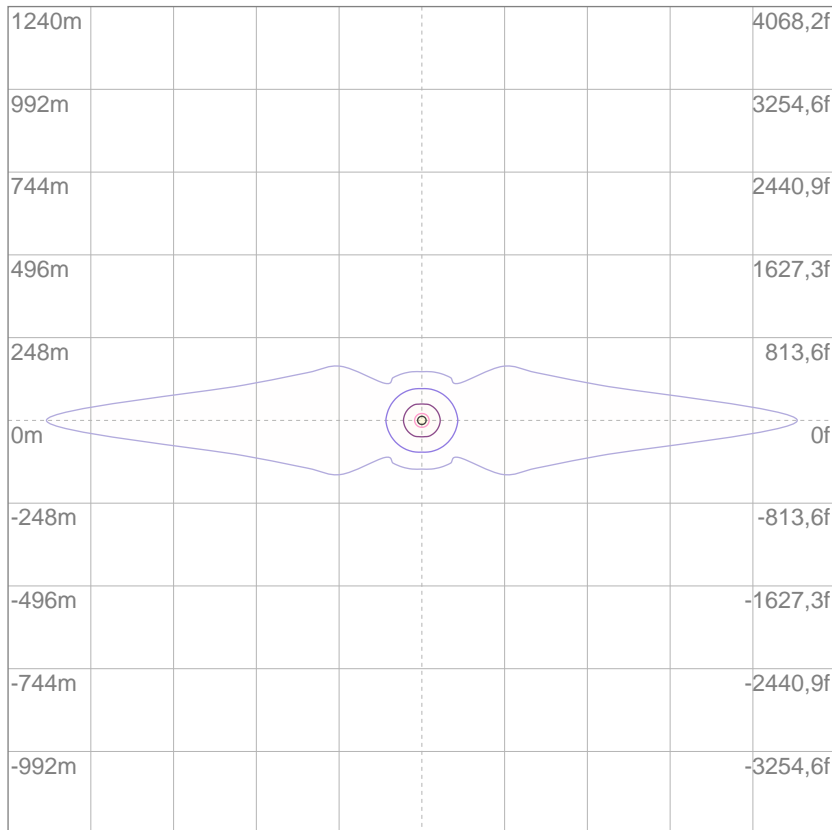
10%	1237 cd
20%	2474 cd
30%	3711 cd
40%	4948 cd
50%	6185 cd
60%	7422 cd
70%	8659 cd
80%	9896 cd

Conditions:

Number of c-planes: 4

Candela at center: 12370 cd

## ISO LUX DIAGRAM



3%	3,71 lx
5%	6,18 lx
10%	12,4 lx
30%	37,1 lx
50%	61,8 lx

Conditions:

Number of c-planes: 4

Lux at center: 124 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)



Total lumen output:

32474 lm

Peak candela output:

12368 cd

Light quality:

CRI: 95,4

Color temperature:

6401 K

**PRODUCT NAME:**

ECLPANEL TWC

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter LD

Target:

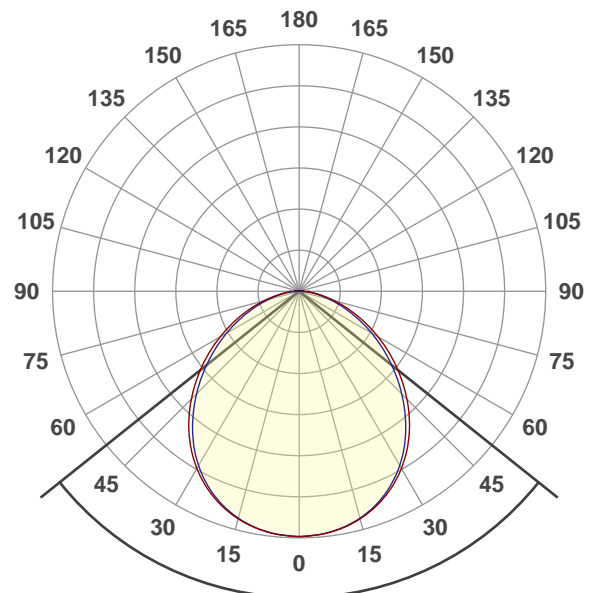
6000K

Operator:

Paolo Carvone

Date and time:

14/05/2020 18:25:13

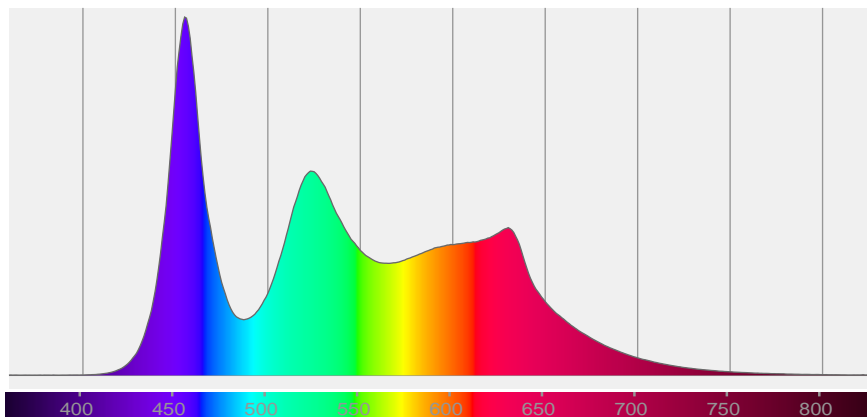


Beam angle 50%: 102,8°

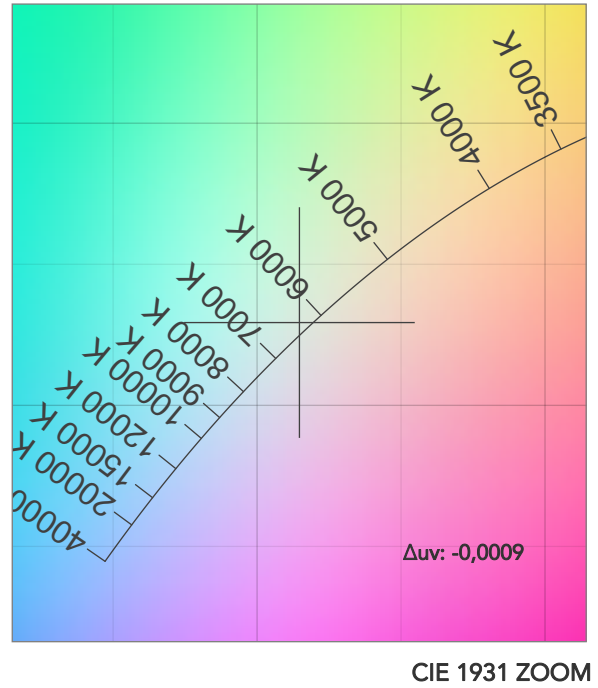
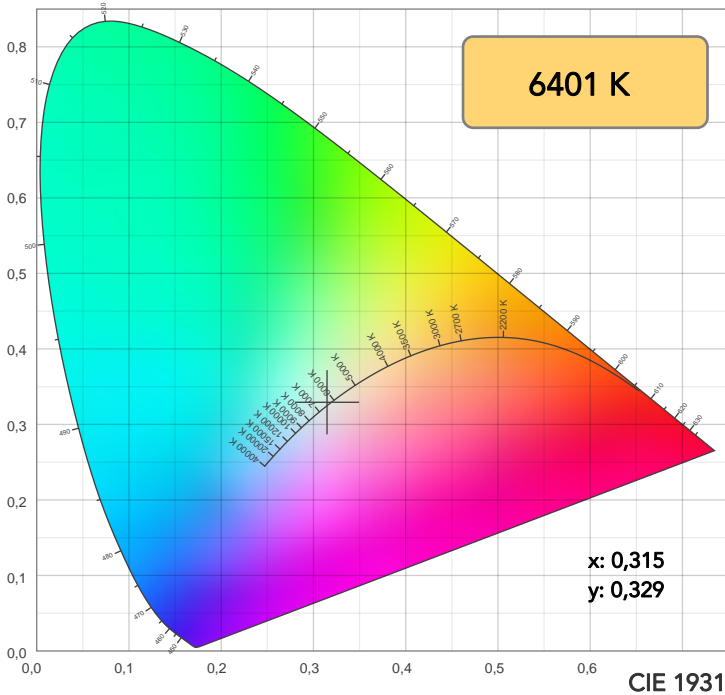
Field angle 10%: 156,9°

Cut off angle 2.5%: 175,3°

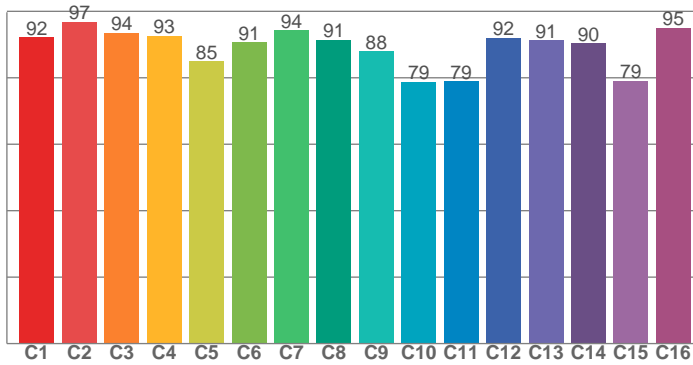
Spectra



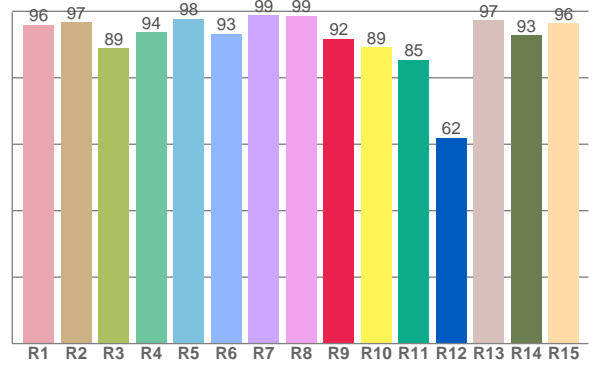




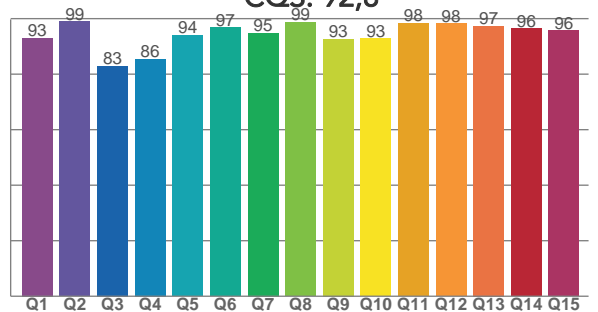
TM30: 88,9



CRI: 95,4 (R1-R8)



CQS: 92,8



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95,9	96,6	88,9	93,6	97,8	93,2	98,8	98,7	91,7	89,3	85,4	61,9	97,3	92,7	96,4

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,2	96,9	93,5	92,7	85,0	90,7	94,3	91,4	88,0	78,7	79,0	92,0	91,2	90,3	79,0	95,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,9	98,9	82,9	85,5	94,0	96,8	94,9	98,7	92,7	92,8	98,3	98,3	97,4	96,5	95,7

COLOR PARAMETERS

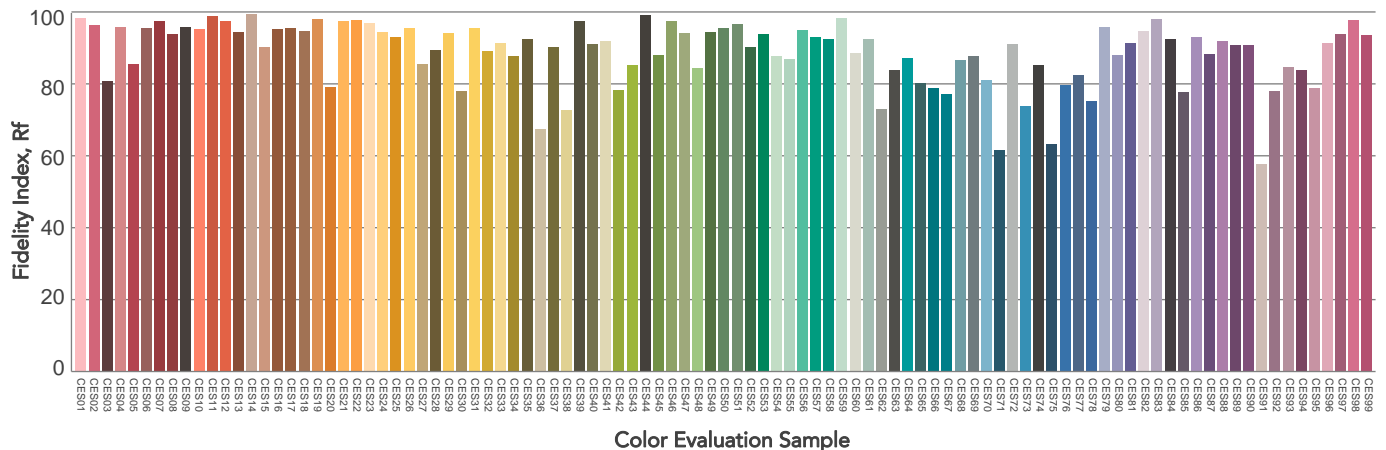
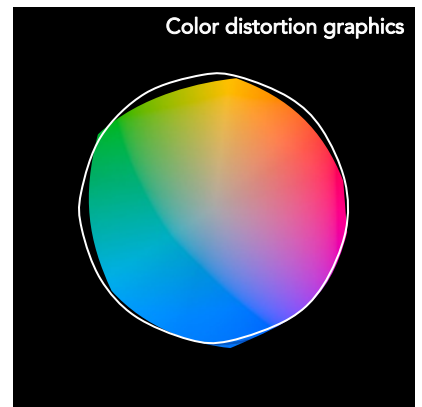
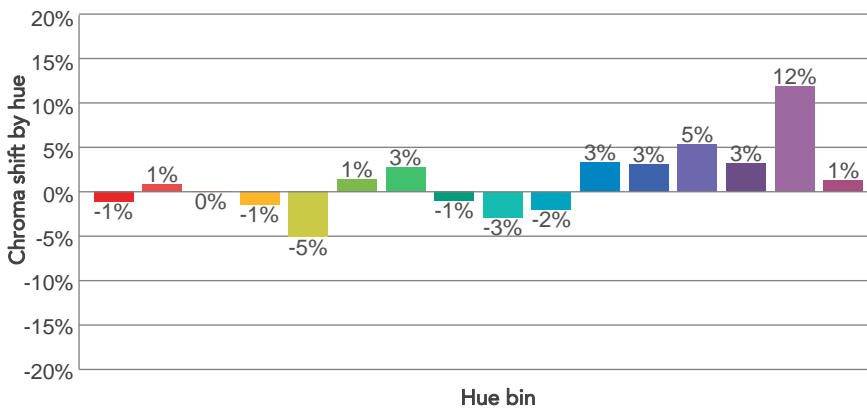
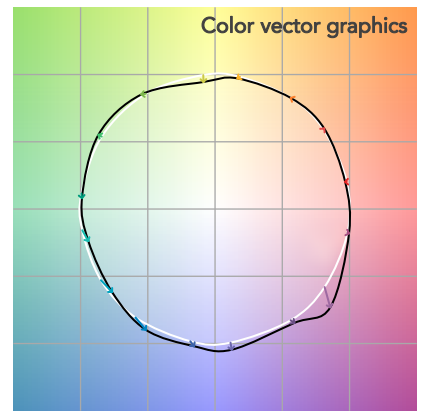
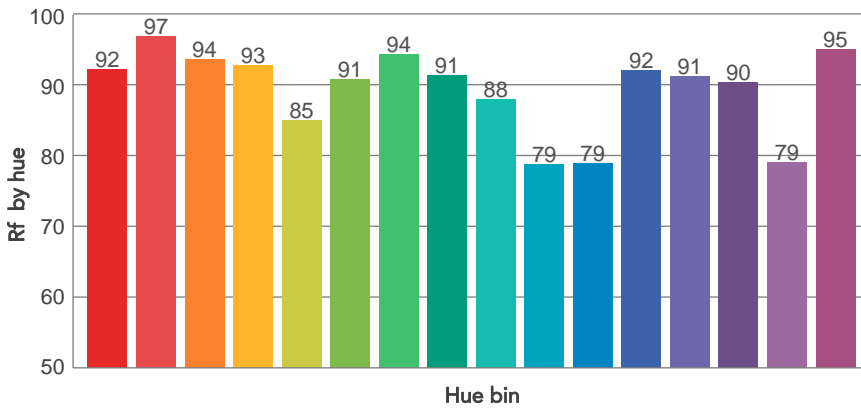
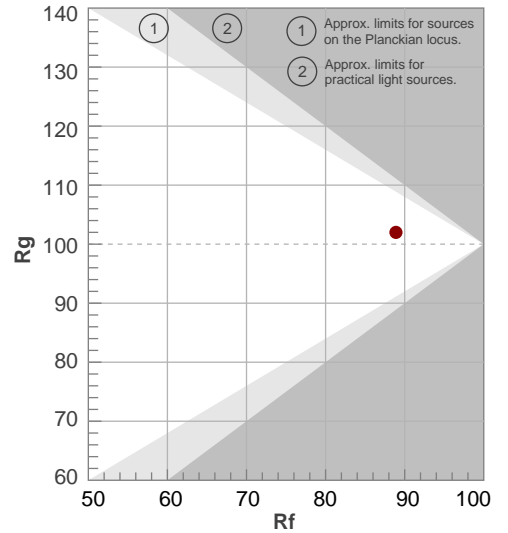
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6401 K	95,4	91,7	88,9	102,0	92,8	93	0,315	0,329	-0,0009

# TM30 DETAILS

**Rf 88,9**  
Fidelity index Rf

**Rg 102,0**  
Gammut index

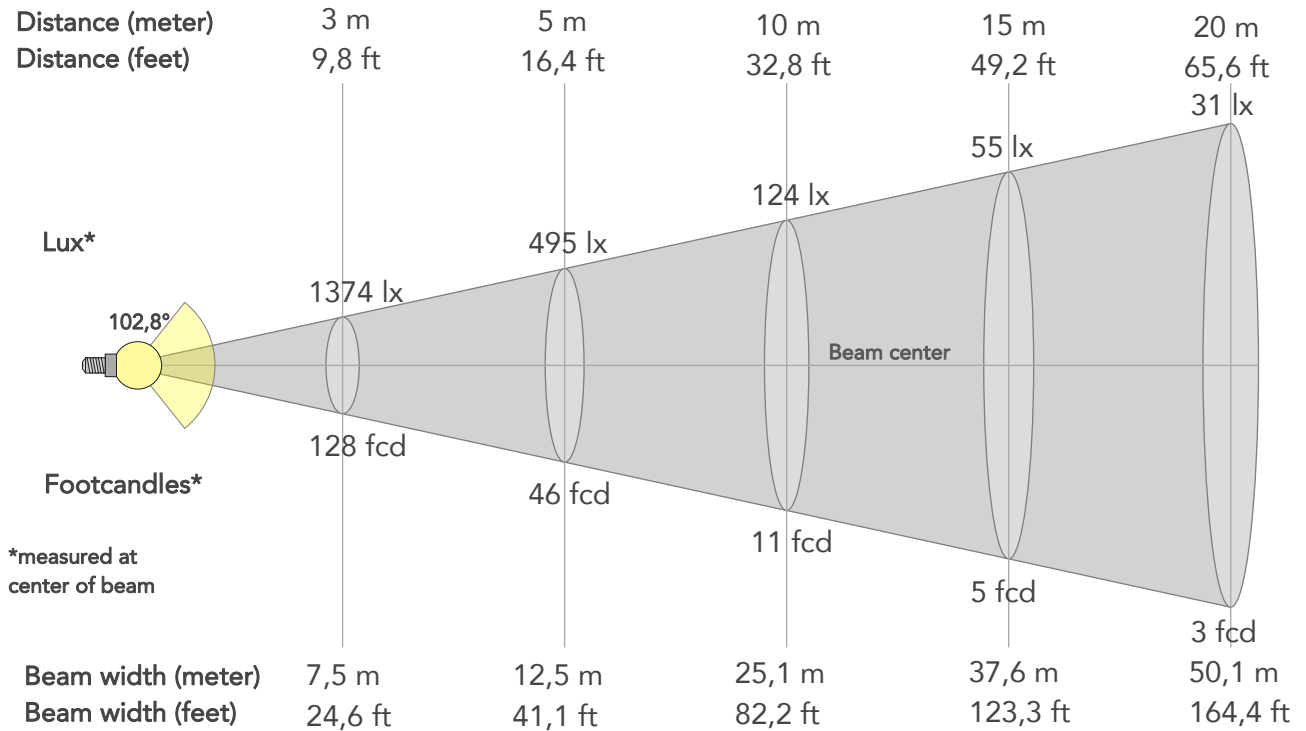
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	-1%	0%
2	97	1%	0%
3	94	0%	0%
4	93	-1%	2%
5	85	-5%	1%
6	91	1%	3%
7	94	3%	0%
8	91	-1%	3%
9	88	-3%	9%
10	79	-2%	12%
11	79	3%	11%
12	92	3%	4%
13	91	5%	0%
14	90	3%	1%
15	79	12%	-10%
16	95	1%	0%



# BEAM DETAILS



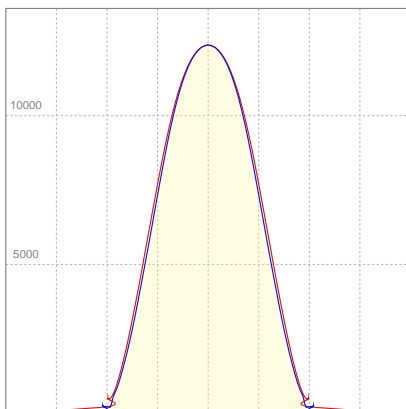
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,8°	156,9°	175,3°	80,3%	56,7%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12366lx	3092lx	1374lx	773lx	495lx	220lx	124lx	55lx	31lx	20lx	14lx	8lx	5lx
Footcand.	1149fcd	287fcd	128fcd	72fcd	46fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	2,5m	5m	7,5m	10m	12,5m	18,8m	25,1m	37,6m	50,1m	62,7m	75,2m	100,3m	125,3m
Beam wid.	8,3ft	16,5ft	24,6ft	32,8ft	41,1ft	61,7ft	82,2ft	123,3ft	164,4ft	205,5ft	246,7ft	328,9ft	411,1ft

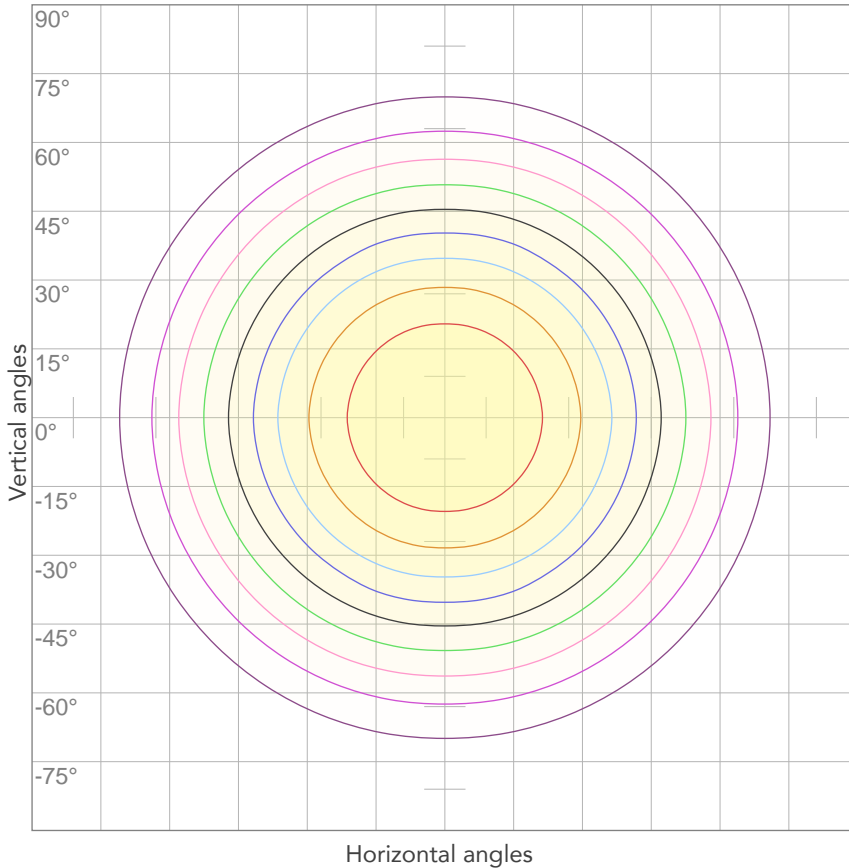
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	2,06A	439,7W	74lm/W
Power FC			
0,95			

## ISO CANDELA DIAGRAM



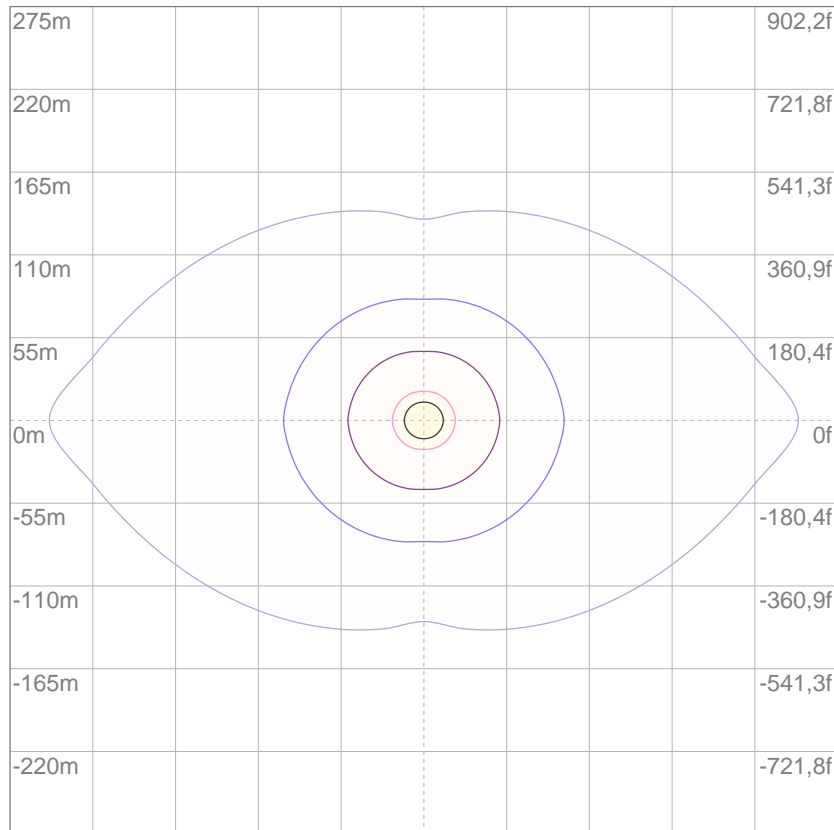
10%	1237 cd
20%	2473 cd
30%	3710 cd
40%	4947 cd
50%	6183 cd
60%	7420 cd
70%	8657 cd
80%	9893 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 12366 cd

## ISO LUX DIAGRAM



3%	3,71 lx
5%	6,18 lx
10%	12,4 lx
30%	37,1 lx
50%	61,8 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 124 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)