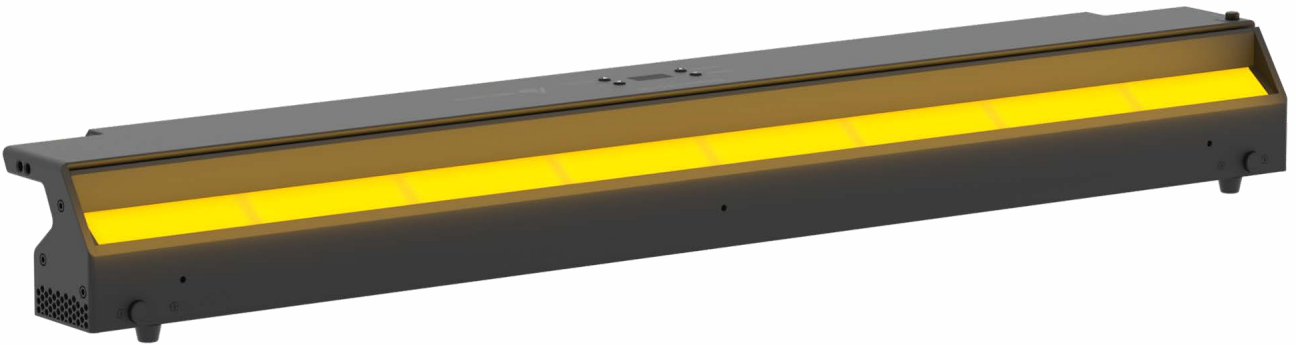


# Photometric Test Report



## ECLCYC100

330W RGB+W LED cyclorama projector

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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:

22649 lm

Peak candela output:

24784 cd



**PRODUCT NAME:**

ECL CYC100

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter Native

Target:

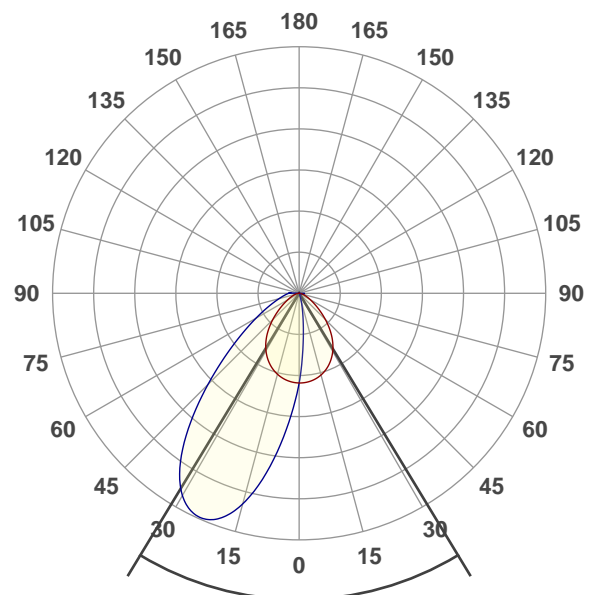
Full On

Operator:

Paolo Carvone

Date and time:

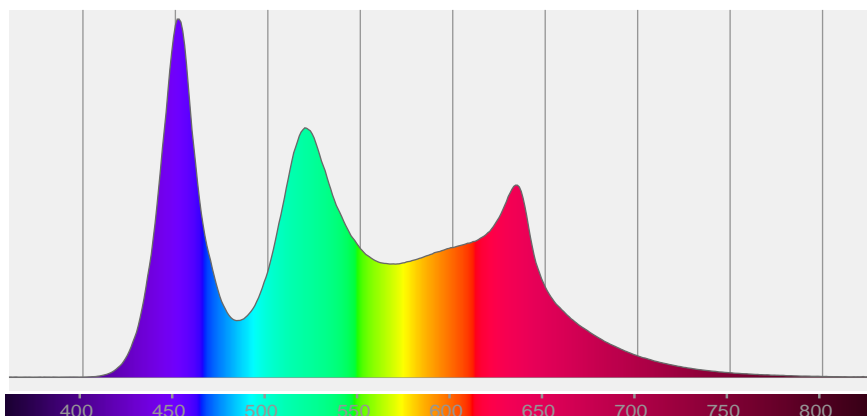
26/05/2020 12:03:24



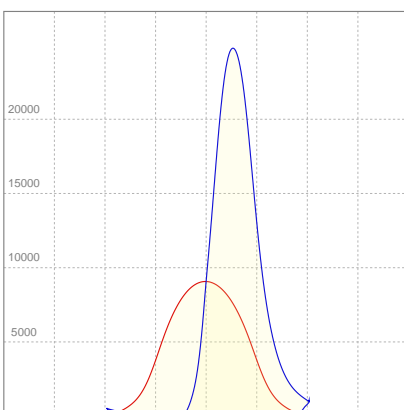
x(red curve) Beam angle 50%:82,9°

x(blue curve) Beam angle 50%:42°

Spectra



#### LINEAR DISTRIBUTION DIAGRAM

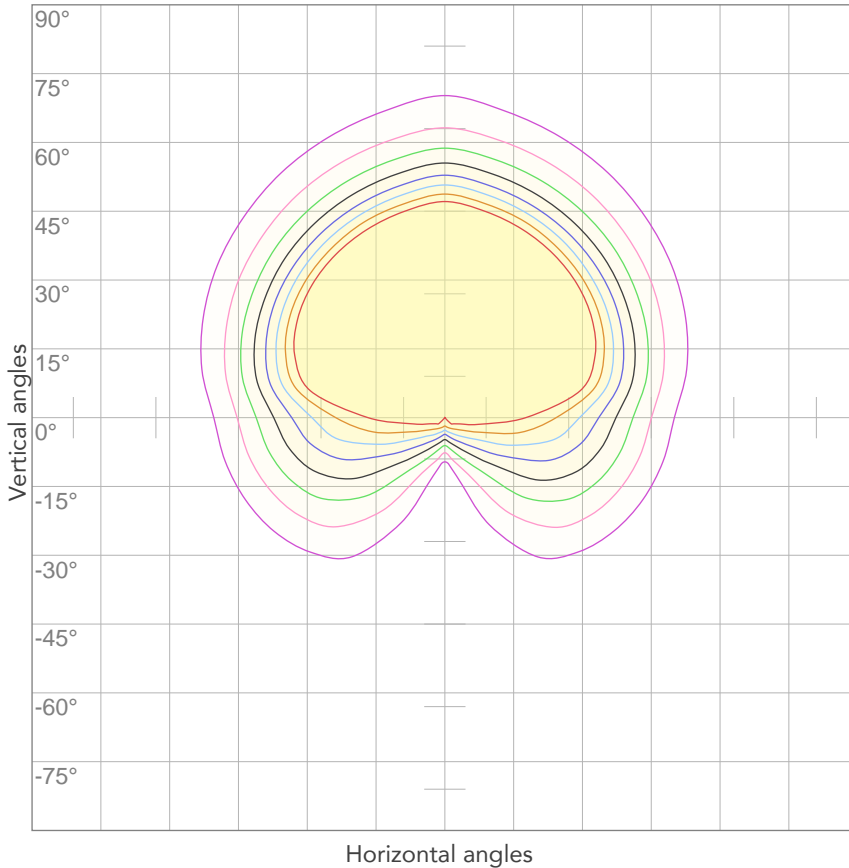


#### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>226V</b>	<b>1,42A</b>	<b>292,8W</b>	<b>77lm/W</b>

<b>Power FC</b>
<b>0,94</b>

## ISO CANDELA DIAGRAM



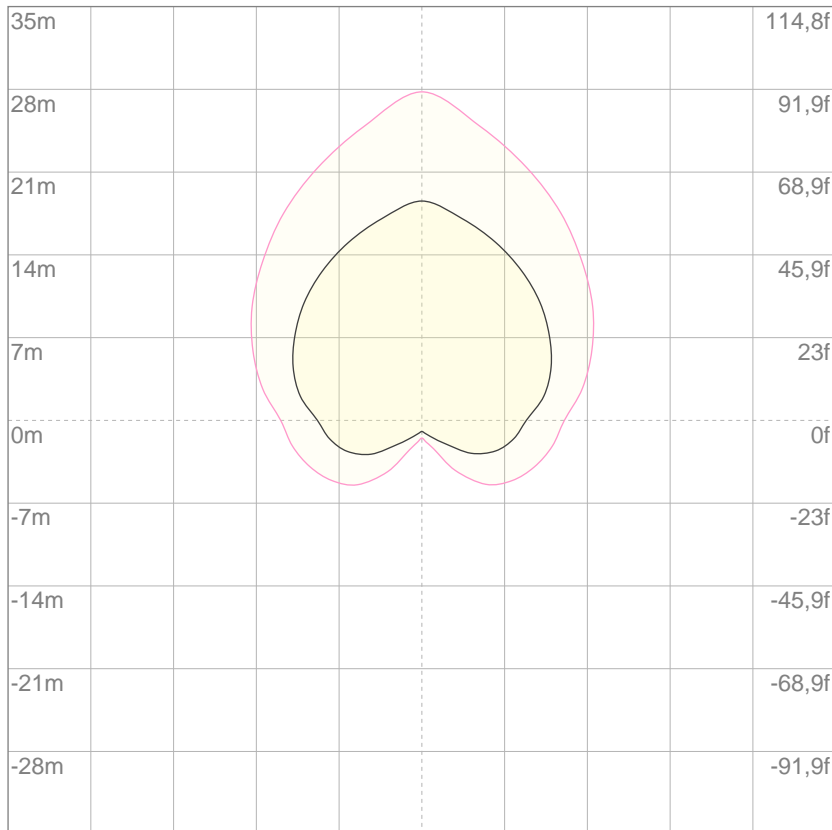
10%	907 cd
20%	1814 cd
30%	2721 cd
40%	3628 cd
50%	4535 cd
60%	5442 cd
70%	6349 cd
80%	7256 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 9070 cd

## ISO LUX DIAGRAM



3%	2,72 lx
5%	4,53 lx
10%	9,07 lx
30%	27,2 lx
50%	45,3 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 90,7 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:

4700 lm

Peak candela output:

5358 cd



PRODUCT NAME:

ECL CYC100

MEASUREMENT CONDITIONS:

Beam angle:

Filter Native

Target:

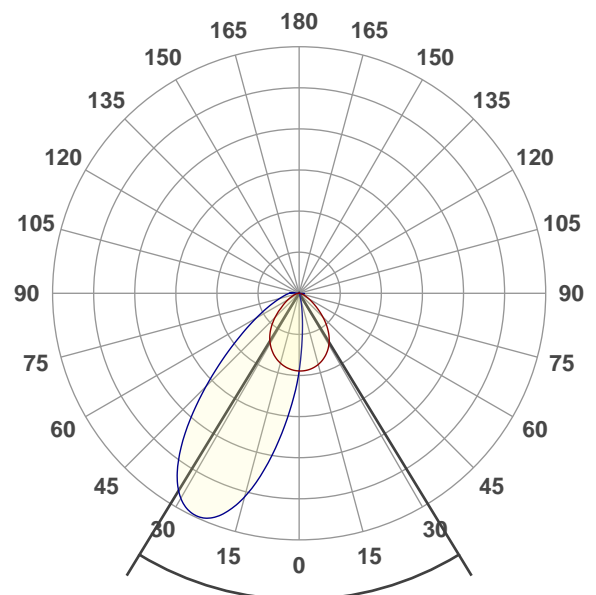
Red

Operator:

Paolo Carvone

Date and time:

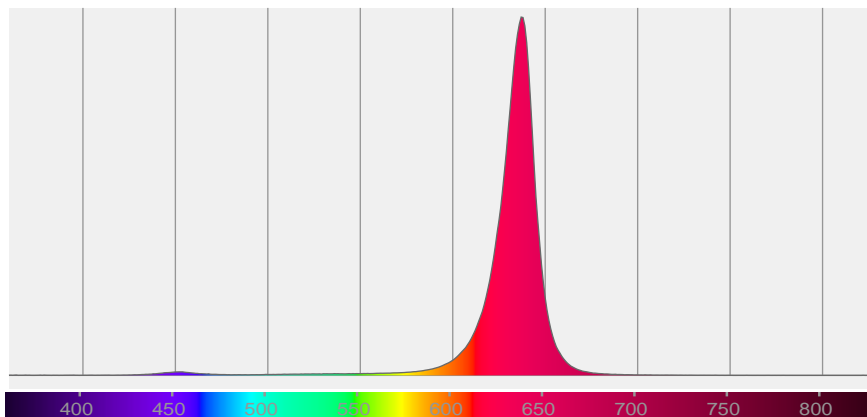
26/05/2020 12:06:48



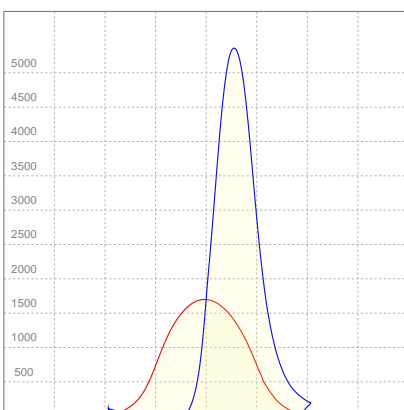
x(red curve) Beam angle 50%:82,9°

x(blue curve) Beam angle 50%:42°

Spectra



### LINEAR DISTRIBUTION DIAGRAM

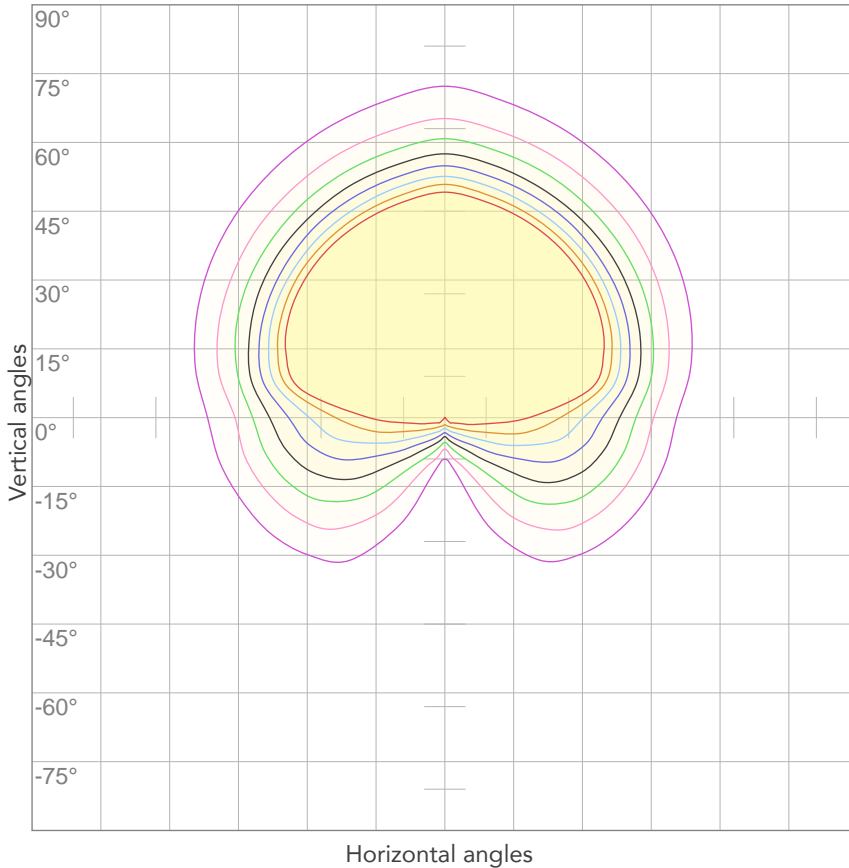


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>228V</b>	<b>0,544A</b>	<b>76,9W</b>	<b>61lm/W</b>
<b>Power FC</b>			
<b>0,94</b>			



## ISO CANDELA DIAGRAM



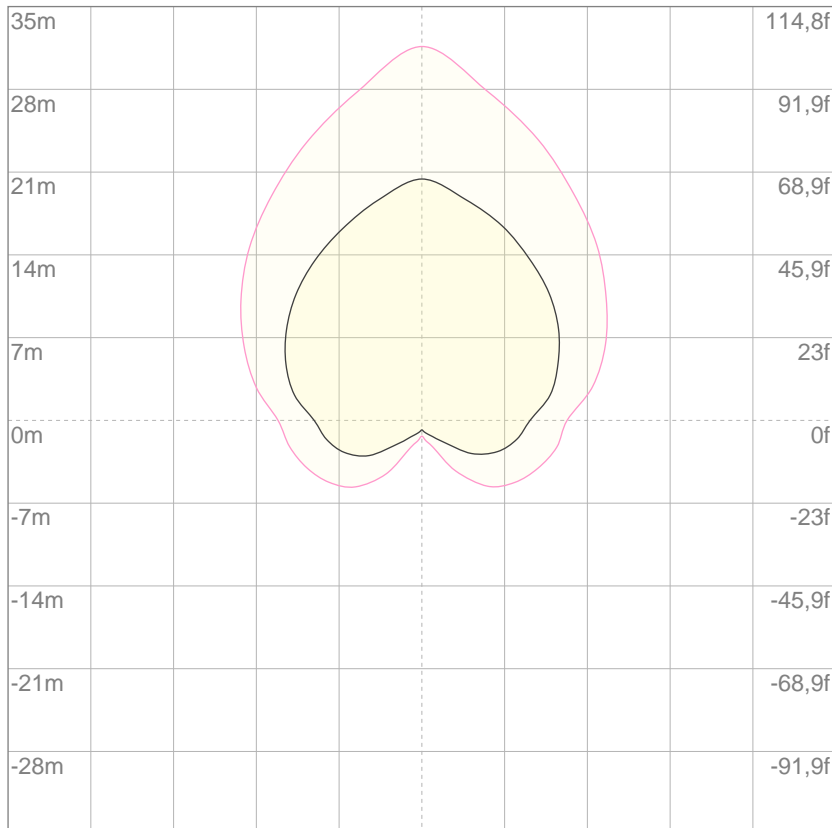
10%	170 cd
20%	340 cd
30%	509 cd
40%	679 cd
50%	849 cd
60%	1019 cd
70%	1189 cd
80%	1358 cd

Conditions:

Number of c-planes: 4

Candela at center: 1698 cd

## ISO LUX DIAGRAM



3%	0,509 lx
5%	0,849 lx
10%	1,70 lx
30%	5,09 lx
50%	8,49 lx

Conditions:

Number of c-planes: 4

Lux at center: 17,0 lx

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

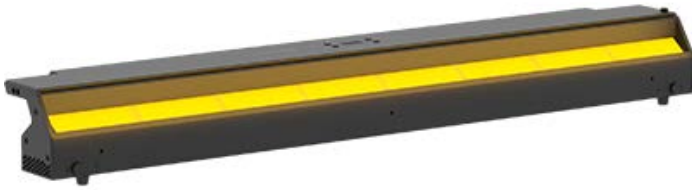
Mounting height: 10 meters (33 feet)

Total lumen output:

7335 lm

Peak candela output:

7897 cd



## PRODUCT NAME:

ECL CYC100

## MEASUREMENT CONDITIONS:

Beam angle:

Filter Native

Target:

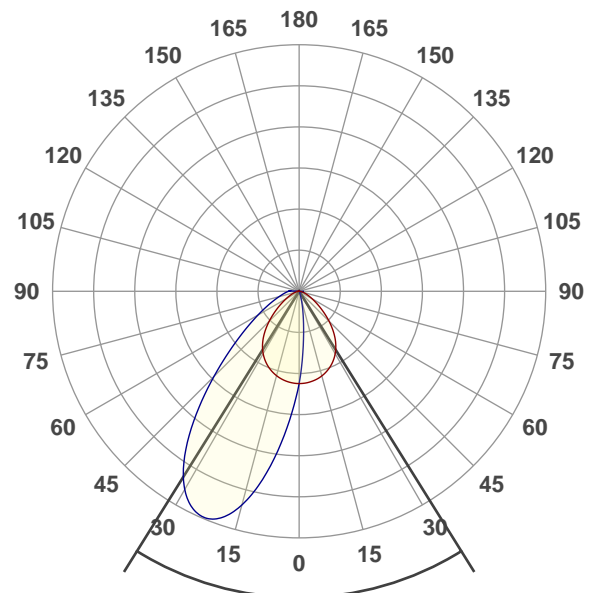
Green

Operator:

Paolo Carvone

Date and time:

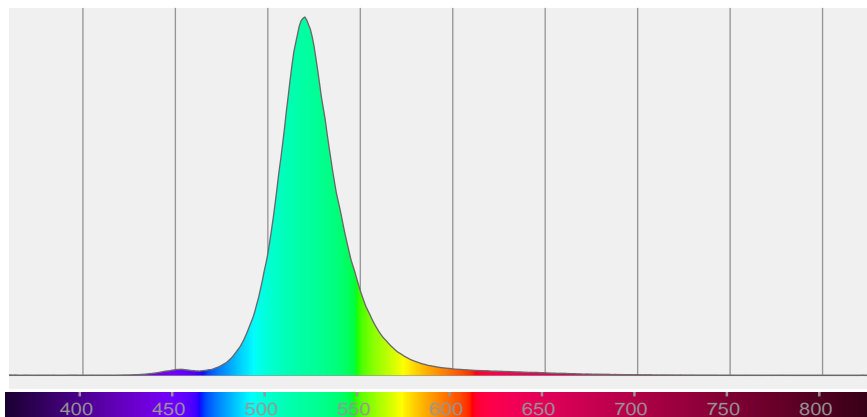
26/05/2020 12:09:30



x(red curve) Beam angle 50%:82,9°

x(blue curve) Beam angle 50%:42°

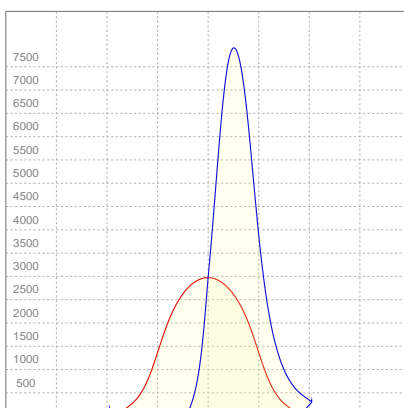
## Spectra



### 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	2973lx	743lx	330lx	186lx	119lx	53lx	30lx	13lx	7lx	5lx	3lx	2lx	1lx
Footcand.	276fcd	69fcd	31fcd	17fcd	11fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,2m	2,5m	3,7m	5m	6,2m	9,4m	12,5m	18,7m	25m	31,2m	37,4m	49,9m	62,4m
Beam wid.	4,1ft	8,2ft	12,2ft	16,4ft	20,5ft	30,7ft	40,9ft	61,4ft	81,9ft	102,4ft	122,8ft	163,8ft	204,7ft

### LINEAR DISTRIBUTION DIAGRAM

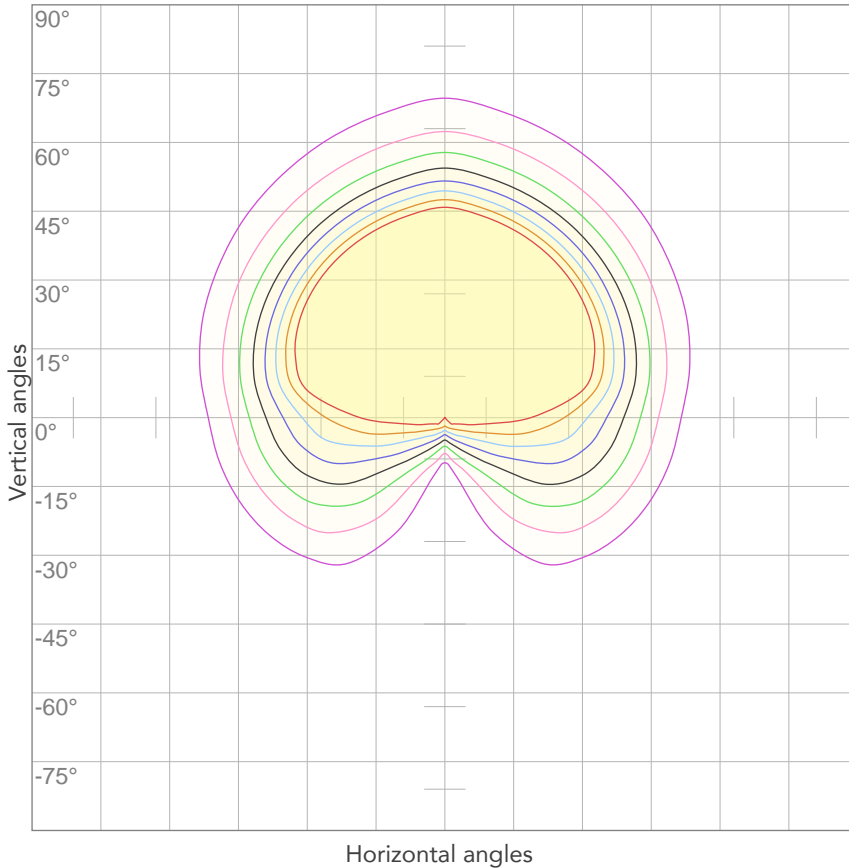


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>224V</b>	<b>0,597A</b>	<b>88,4W</b>	<b>83lm/W</b>

<b>Power FC</b>
<b>0,94</b>

## ISO CANDELA DIAGRAM



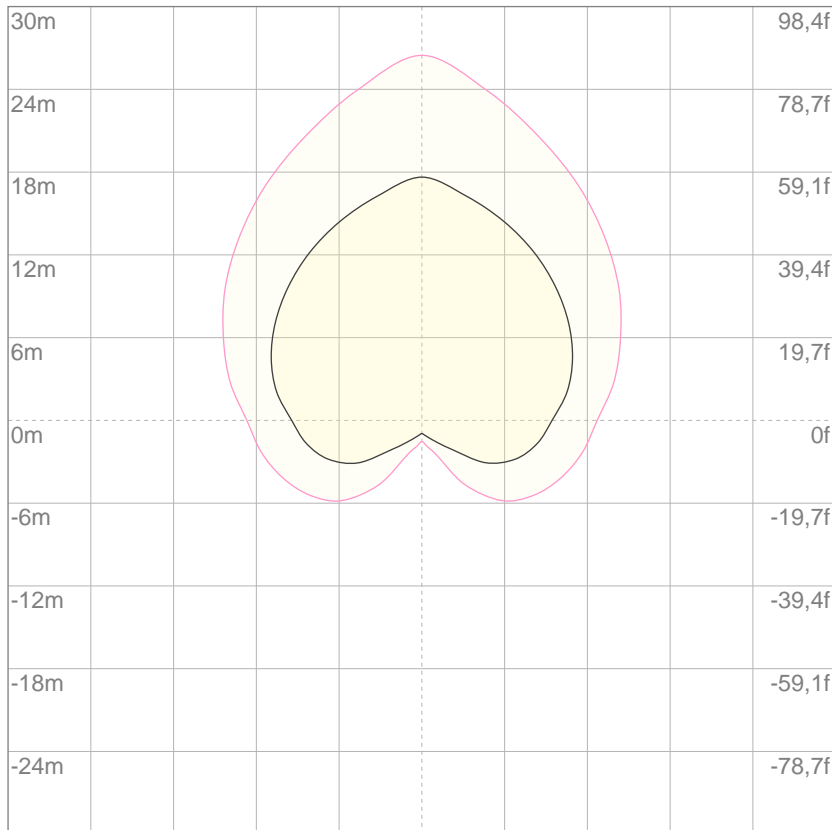
10%	297 cd
20%	595 cd
30%	892 cd
40%	1189 cd
50%	1487 cd
60%	1784 cd
70%	2081 cd
80%	2378 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 2973 cd

## ISO LUX DIAGRAM



3%	0,892 lx
5%	1,49 lx
10%	2,97 lx
30%	8,92 lx
50%	14,9 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 29,7 lx

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

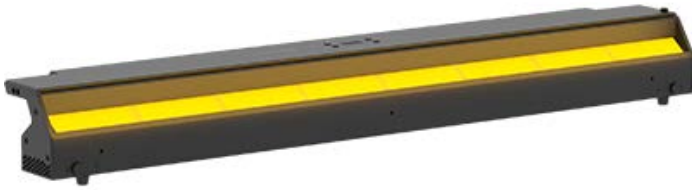
Mounting height: 10 meters (33 feet)

Total lumen output:

2620 lm

Peak candela output:

2890 cd



PRODUCT NAME:

ECL CYC100

MEASUREMENT CONDITIONS:

Beam angle:

Filter Native

Target:

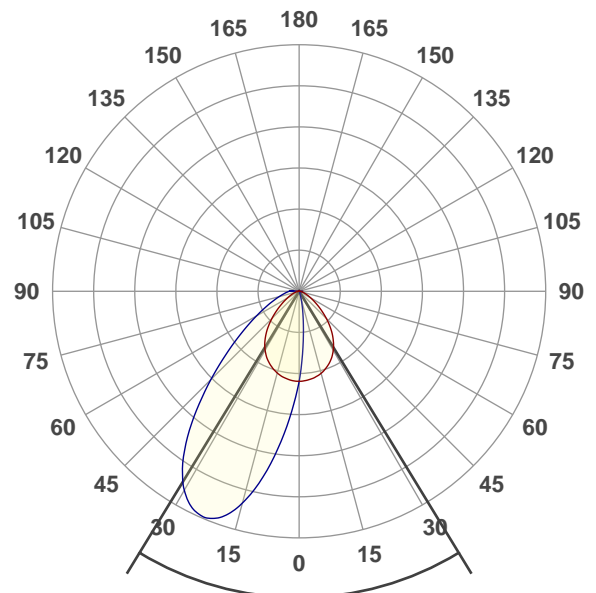
Blue

Operator:

Paolo Carvone

Date and time:

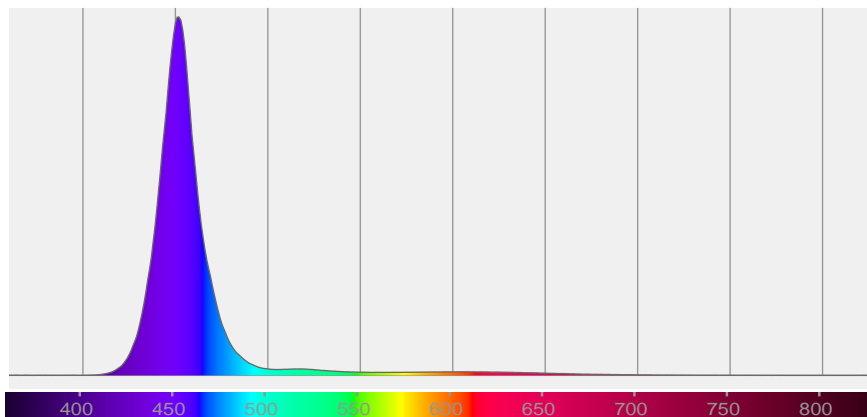
26/05/2020 12:12:27



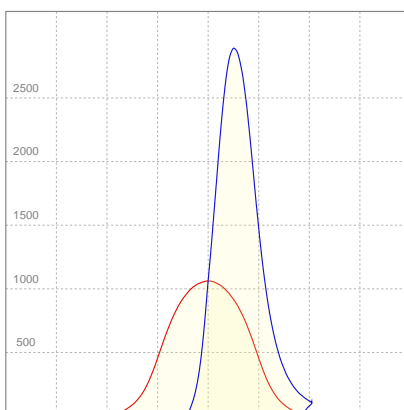
x(red curve) Beam angle 50%:82,9°

x(blue curve) Beam angle 50%:42°

Spectra



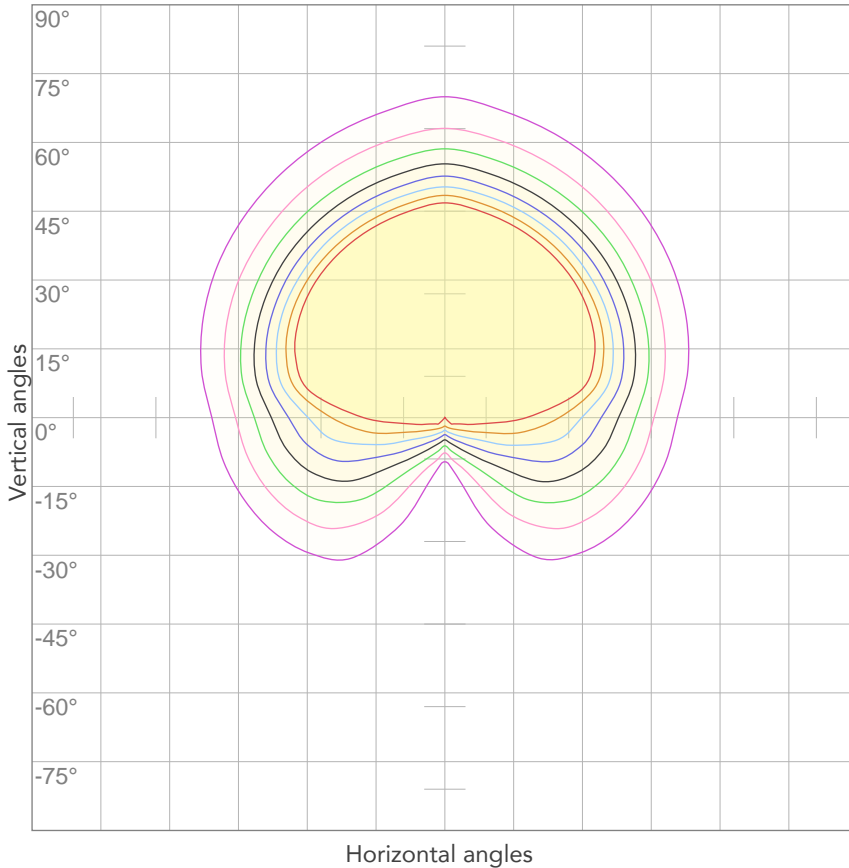
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>225V</b>	<b>0,635A</b>	<b>97,4W</b>	<b>27lm/W</b>
<b>Power FC</b>			
<b>0,94</b>			

## ISO CANDELA DIAGRAM



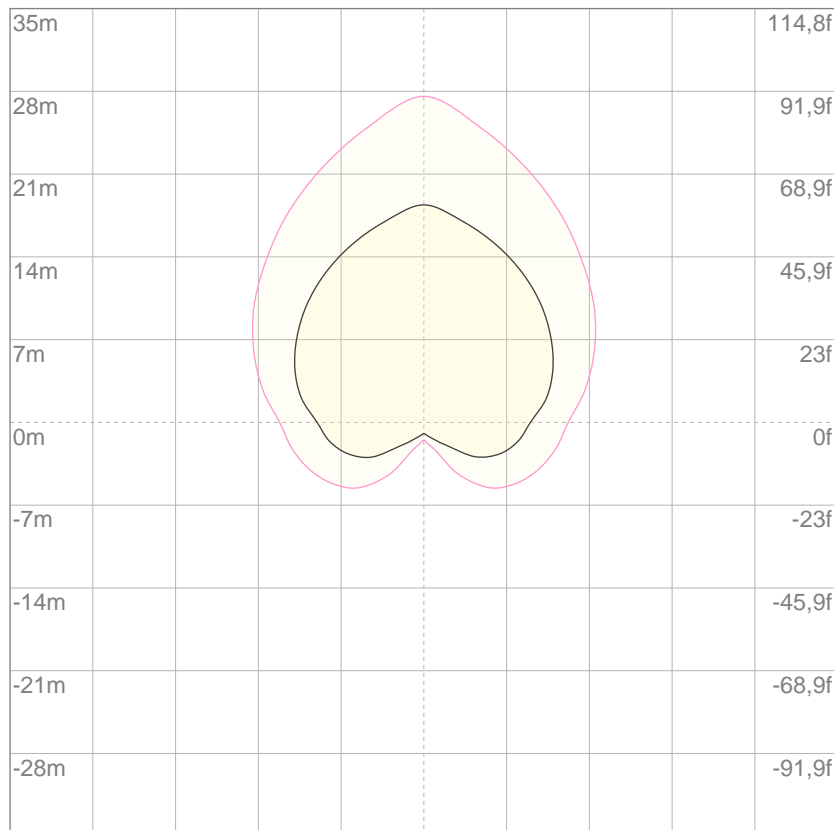
10%	106 cd
20%	212 cd
30%	318 cd
40%	424 cd
50%	530 cd
60%	636 cd
70%	743 cd
80%	849 cd

Conditions:

Number of c-planes: 4

Candela at center: 1061 cd

## ISO LUX DIAGRAM



3%	0,318 lx
5%	0,530 lx
10%	1,06 lx
30%	3,18 lx
50%	5,30 lx

Conditions:

Number of c-planes: 4

Lux at center: 10,6 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:

24943 lm

Peak candela output:

27335 cd



**PRODUCT NAME:**

ECL CYC100

**MEASURAMENT CONDITIONS:**

Beam angle:

Filter Native

Target:

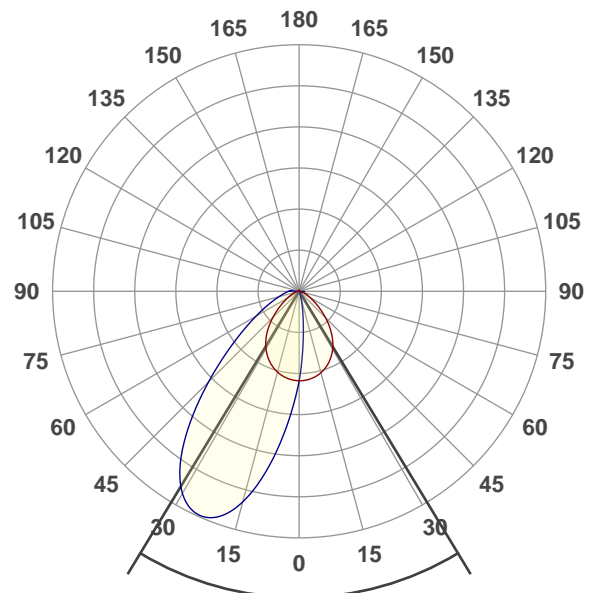
White

Operator:

Paolo Carvone

Date and time:

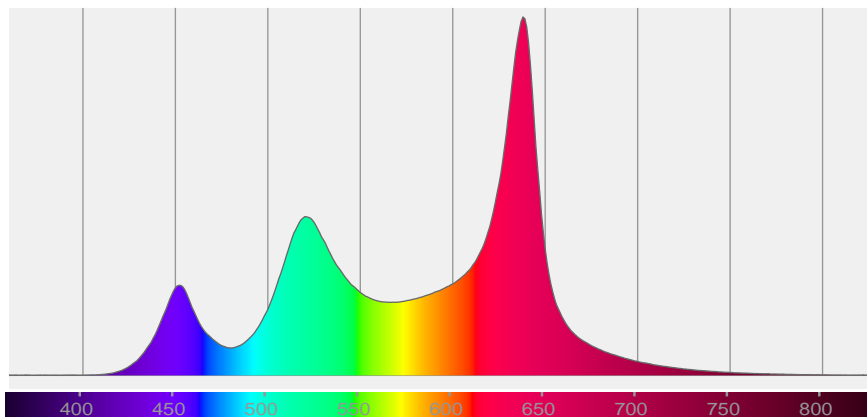
26/05/2020 12:16:23



x(red curve) Beam angle 50%:82,9°

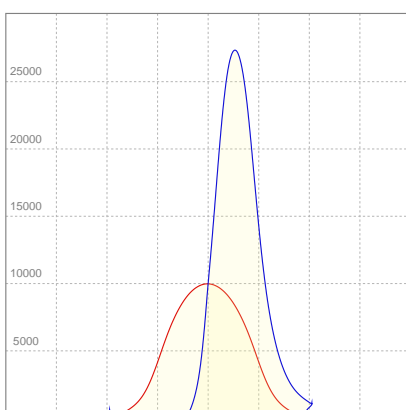
x(blue curve) Beam angle 50%:42°

Spectra





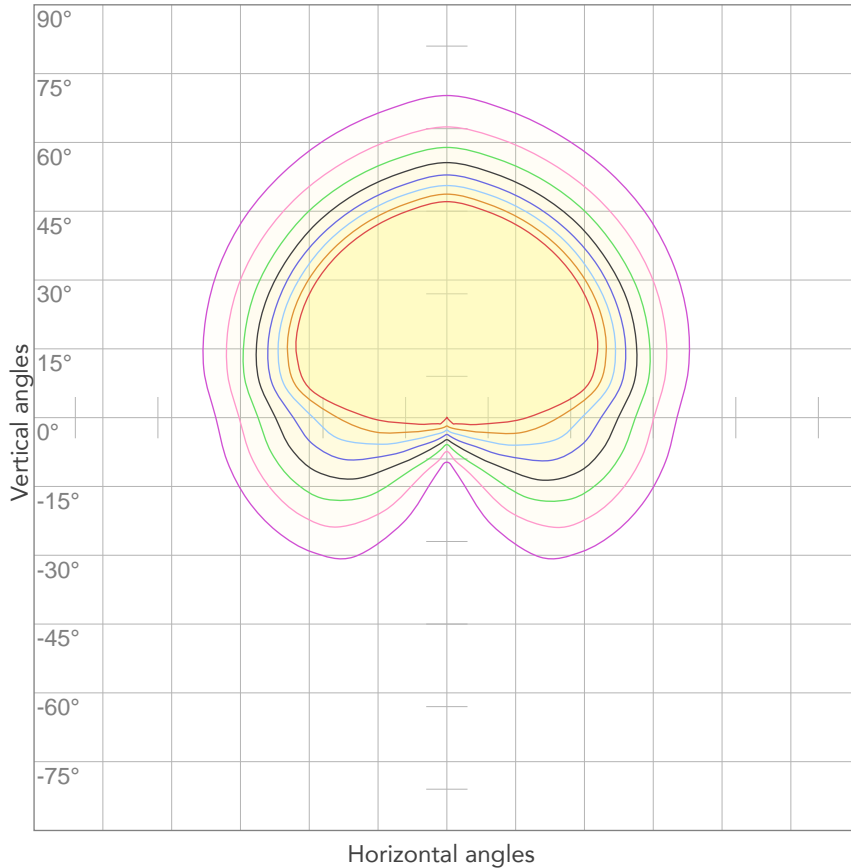
#### LINEAR DISTRIBUTION DIAGRAM



#### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>224V</b>	<b>1,55A</b>	<b>321,4W</b>	<b>78lm/W</b>
<b>Power FC</b>			
<b>0,94</b>			

## ISO CANDELA DIAGRAM



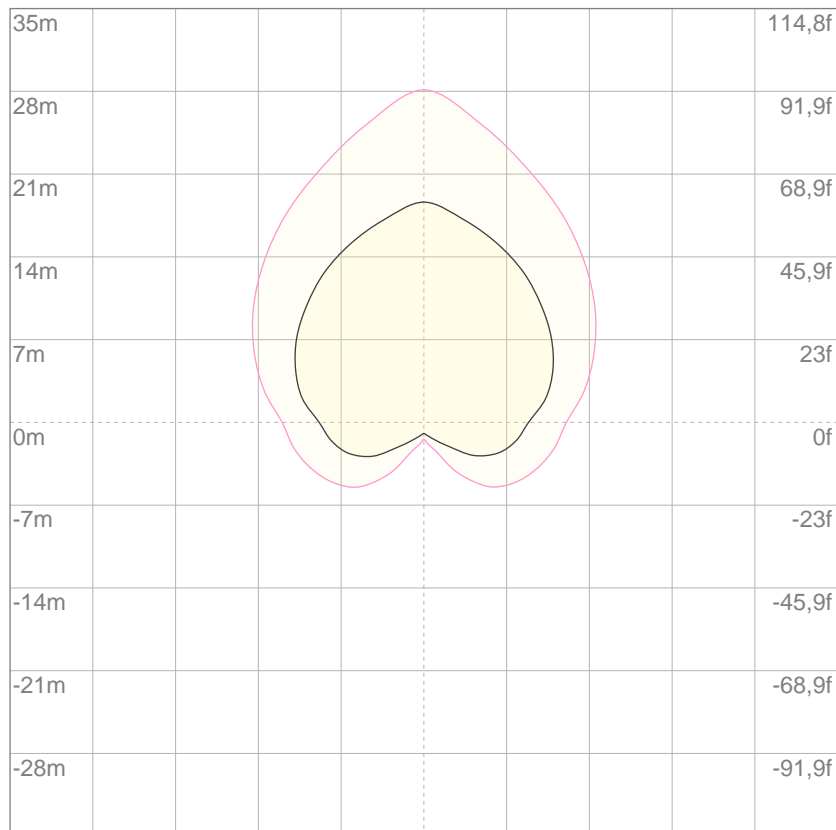
10%	998 cd
20%	1995 cd
30%	2993 cd
40%	3991 cd
50%	4988 cd
60%	5986 cd
70%	6984 cd
80%	7982 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 9977 cd

## ISO LUX DIAGRAM



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

**Conditions:**

Number of c-planes: 4

Lux at center: 99,8 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:

14566 lm

Peak candela output:

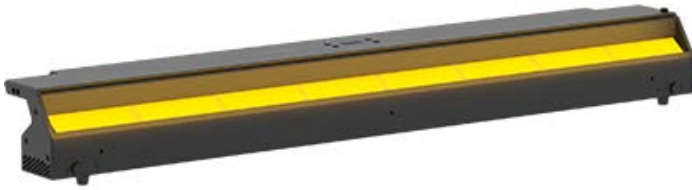
16063 cd

Light quality:

CRI: 93,0

Color temperature:

2833 K



**PRODUCT NAME:**

ECL CYC100

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter Native

Target:

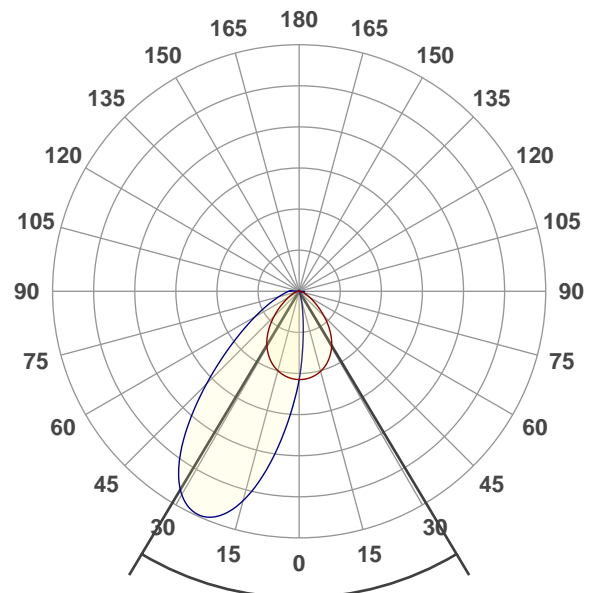
2800K

Operator:

Paolo Carvone

Date and time:

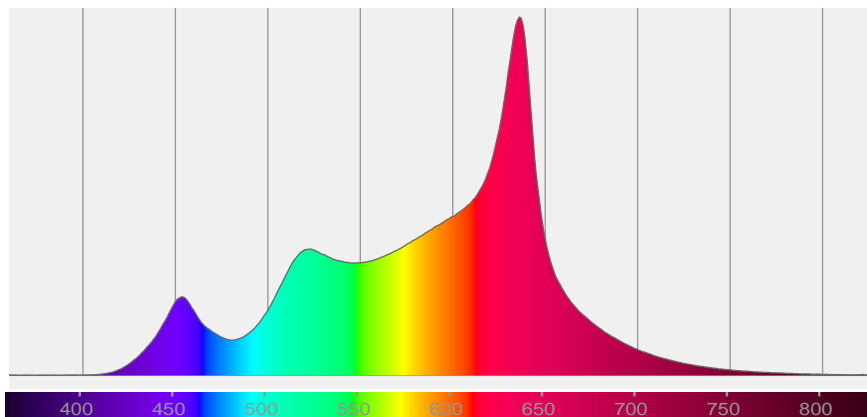
26/05/2020 12:19:25

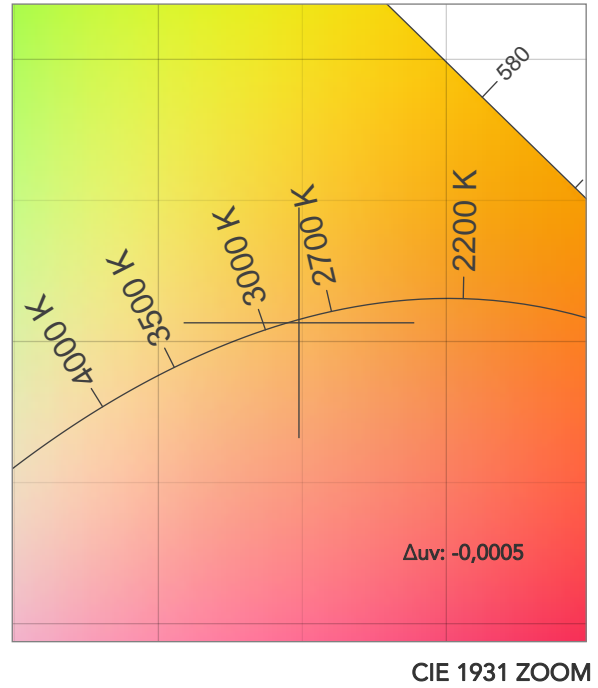
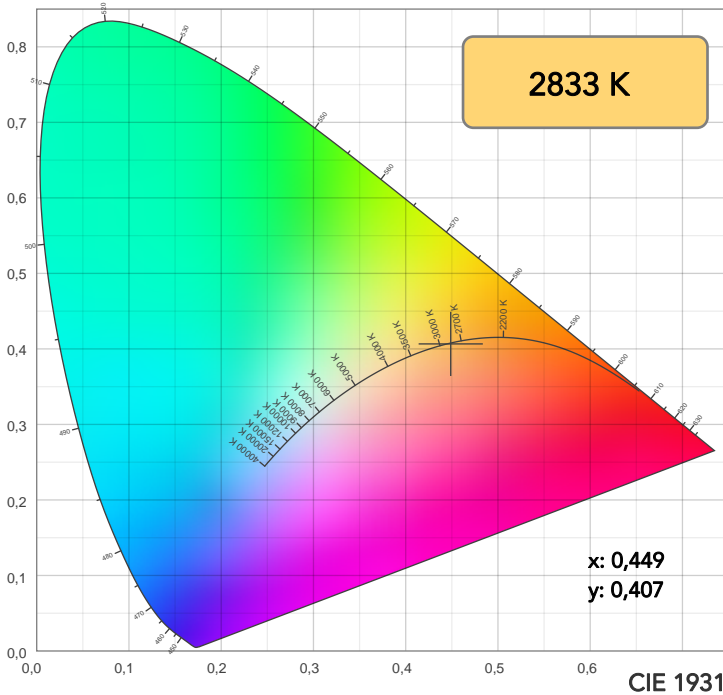


x(red curve) Beam angle 50%:82,9°

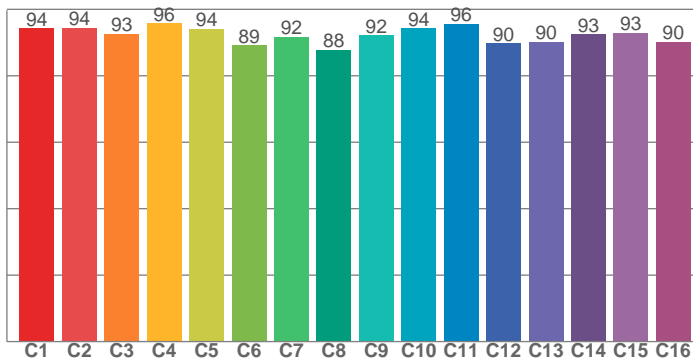
x(blue curve) Beam angle 50%:42°

Spectra

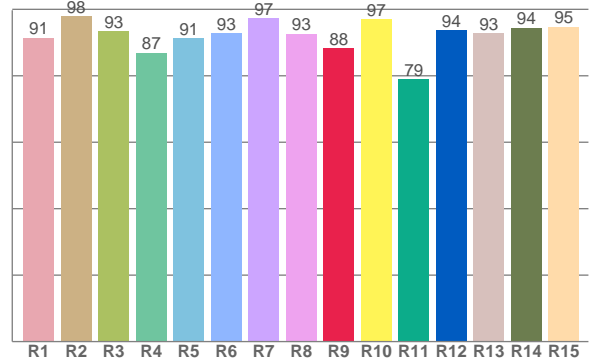




TM30: 92,9



CRI: 93,0 (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
91,5	98,0	93,3	86,9	91,3	92,8	97,4	92,7	88,2	97,1	79,0	93,7	92,8	94,4	94,8

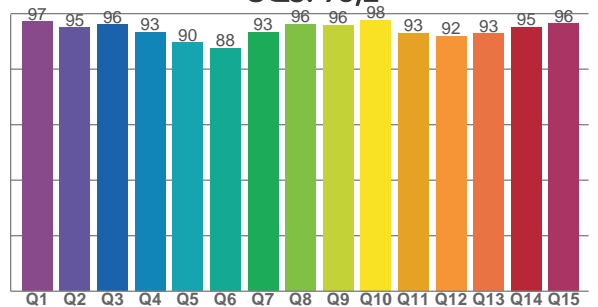
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,2	94,4	92,6	95,8	94,1	89,1	91,8	87,9	92,1	94,3	95,6	89,7	90,2	92,5	93,0	90,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,1	94,9	96,0	93,3	89,6	87,5	93,3	96,2	95,9	97,7	92,9	92,0	92,8	95,2	96,4

CQS: 93,2



COLOR PARAMETERS

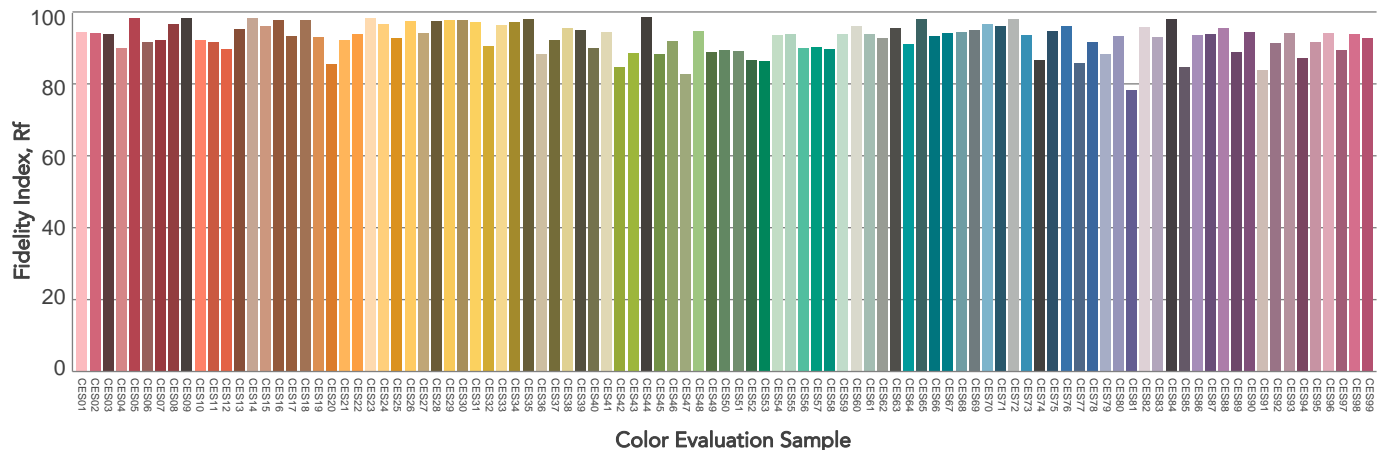
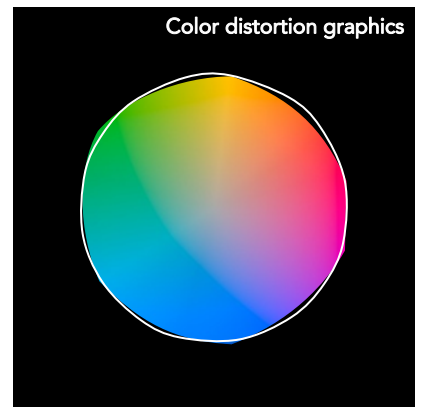
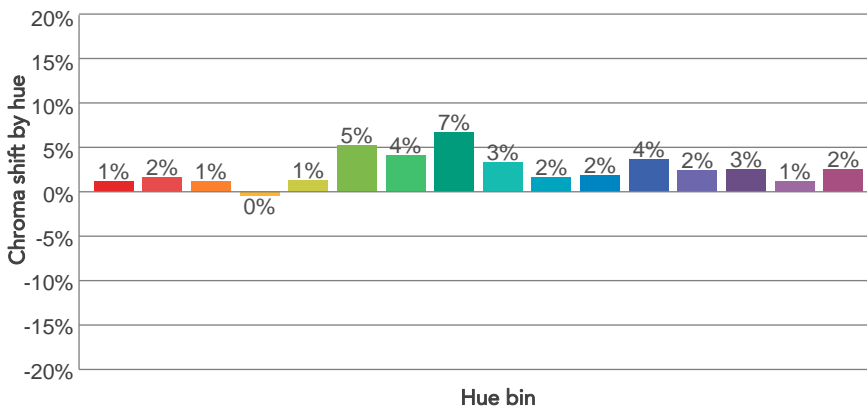
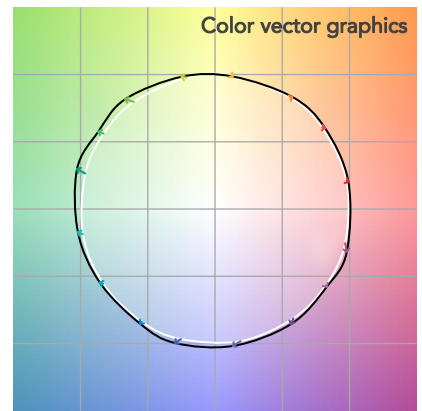
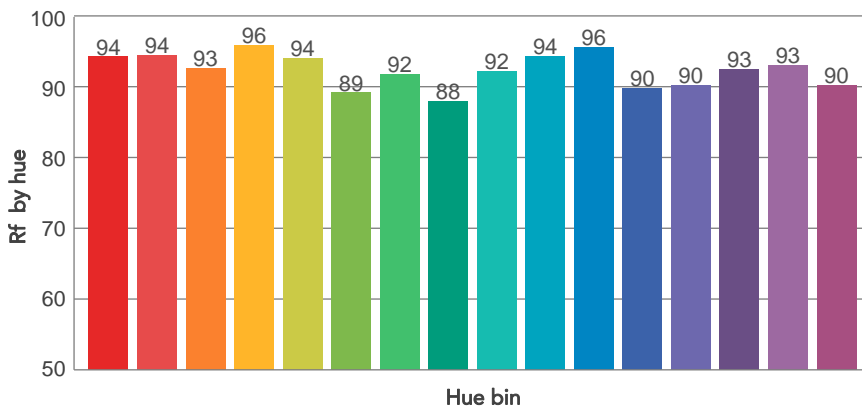
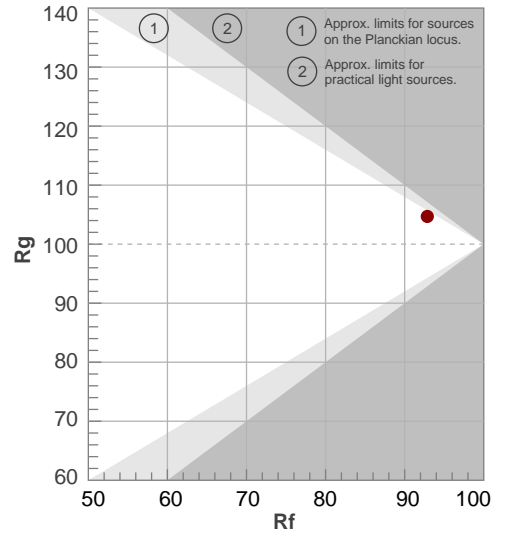
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2833 K	93,0	88,2	92,9	104,7	93,2	88	0,449	0,407	-0,0005

# TM30 DETAILS

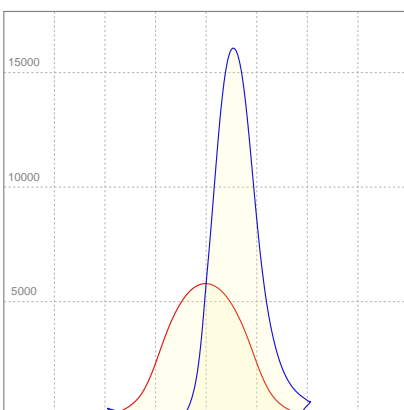
**Rf 92,9**  
Fidelity index Rf

**Rg 104,7**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	-1%
2	94	2%	-2%
3	93	1%	-1%
4	96	0%	-1%
5	94	1%	3%
6	89	5%	4%
7	92	4%	1%
8	88	7%	-2%
9	92	3%	-2%
10	94	2%	-2%
11	96	2%	0%
12	90	4%	-4%
13	90	2%	-6%
14	93	3%	-4%
15	93	1%	-1%
16	90	2%	-6%



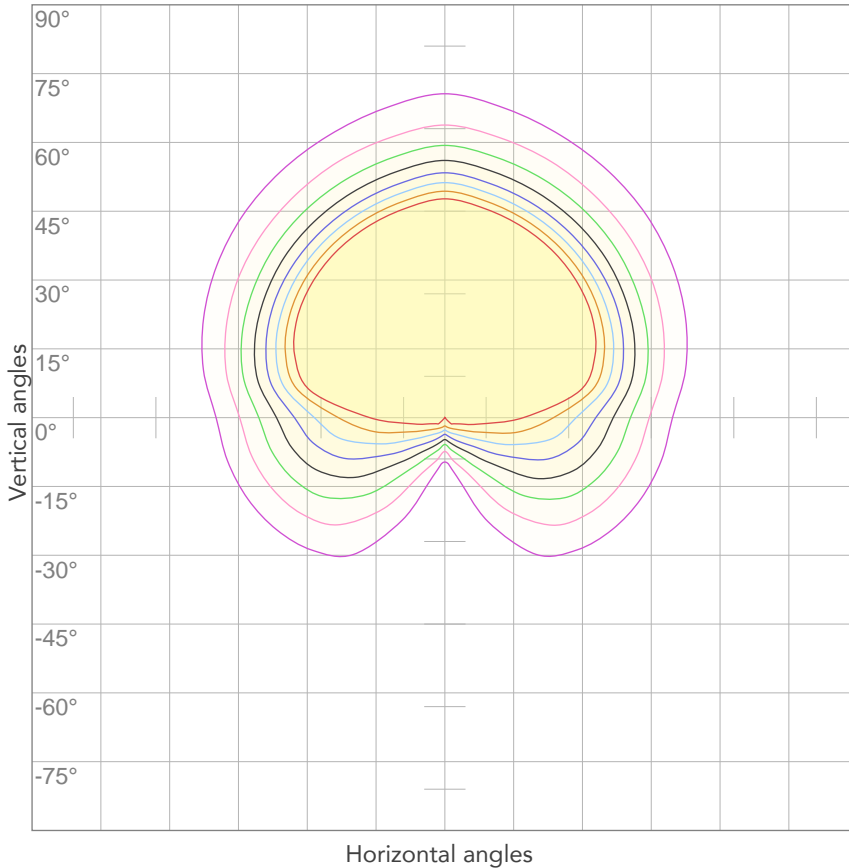
#### LINEAR DISTRIBUTION DIAGRAM



#### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>225V</b>	<b>0,957A</b>	<b>178,9W</b>	<b>81lm/W</b>
<b>Power FC</b>			
<b>0,94</b>			

## ISO CANDELA DIAGRAM



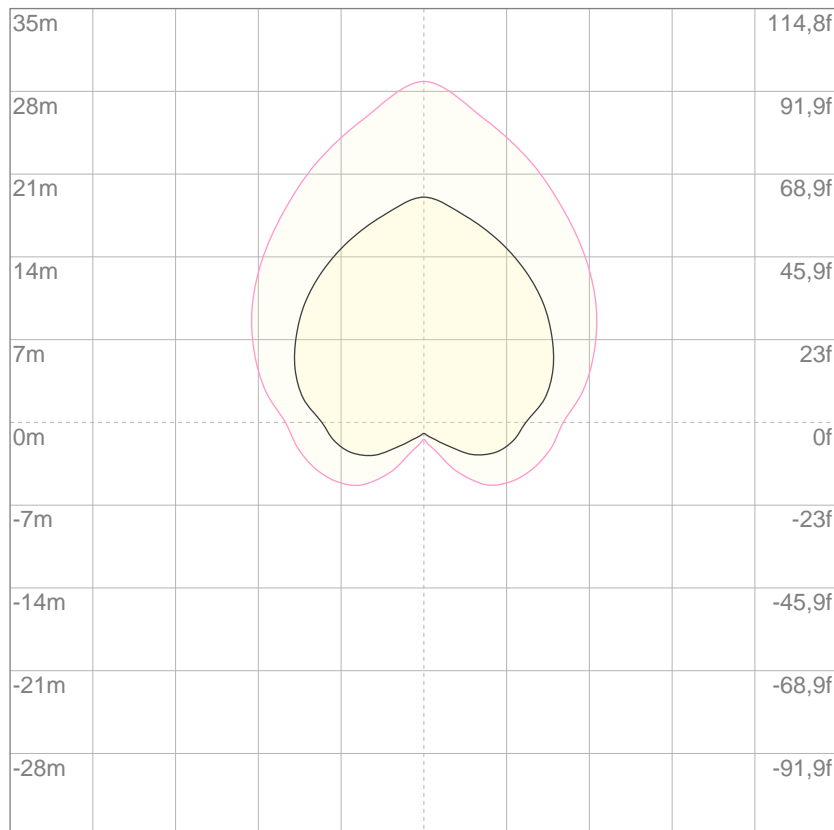
10%	579 cd
20%	1157 cd
30%	1736 cd
40%	2314 cd
50%	2893 cd
60%	3471 cd
70%	4050 cd
80%	4628 cd

Conditions:

Number of c-planes: 4

Candela at center: 5785 cd

## ISO LUX DIAGRAM



3%	1,74 lx
5%	2,89 lx
10%	5,79 lx
30%	17,4 lx
50%	28,9 lx

Conditions:

Number of c-planes: 4

Lux at center: 57,9 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:

14757 lm

Peak candela output:

16264 cd

Light quality:

CRI: 93,3

Color temperature:

3285 K



PRODUCT NAME:

ECL CYC100

MEASUREMENT CONDITIONS:

Beam angle:

Filter Native

Target:

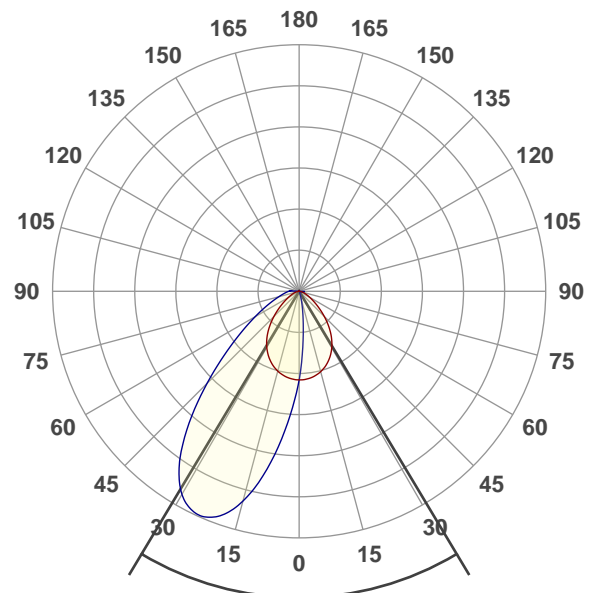
3200K

Operator:

Paolo Carvone

Date and time:

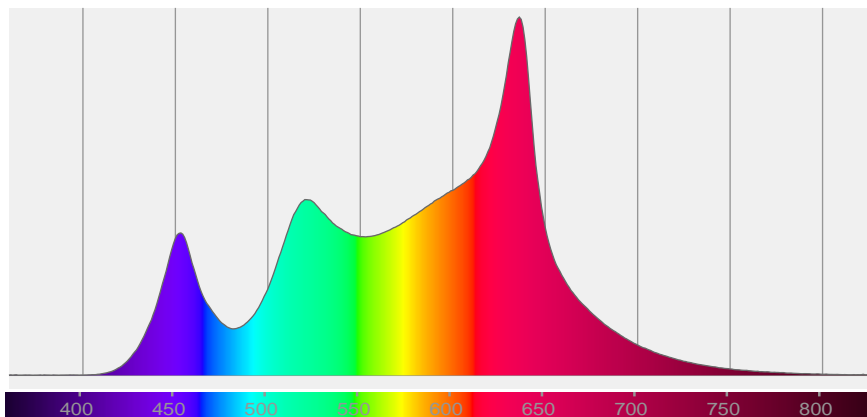
26/05/2020 12:21:58



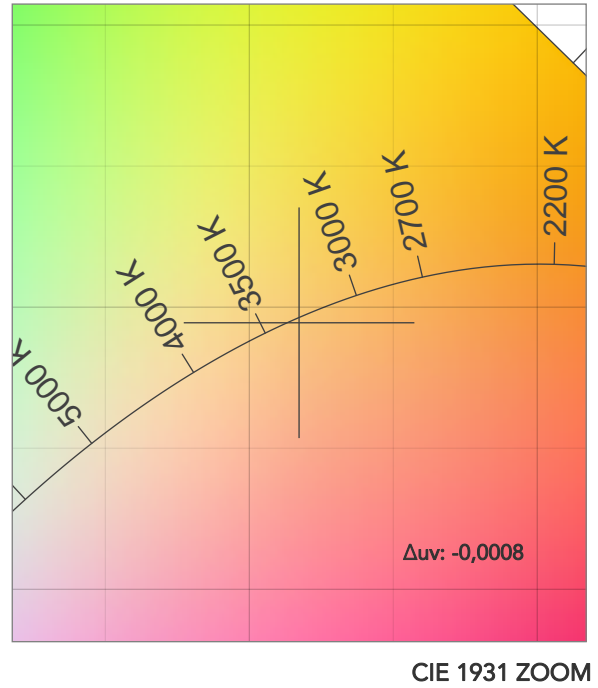
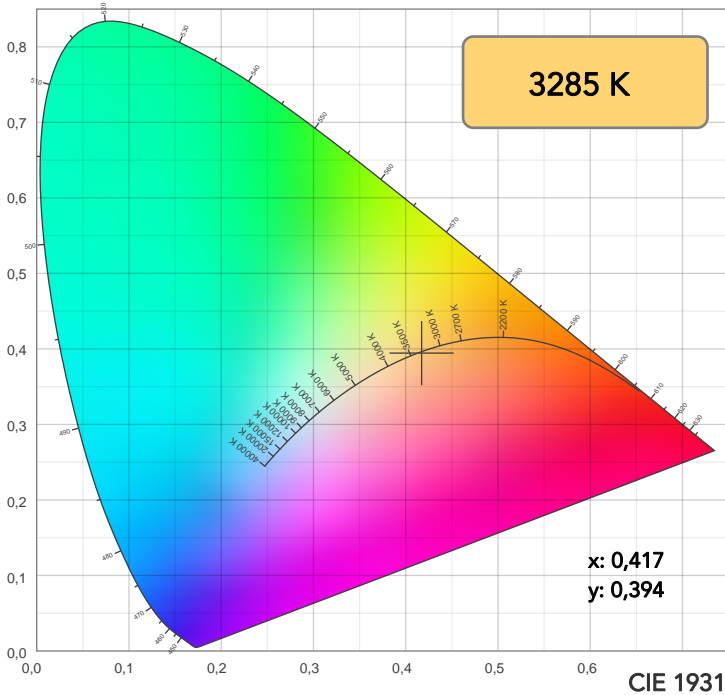
x(red curve) Beam angle 50%:82,9°

x(blue curve) Beam angle 50%:42°

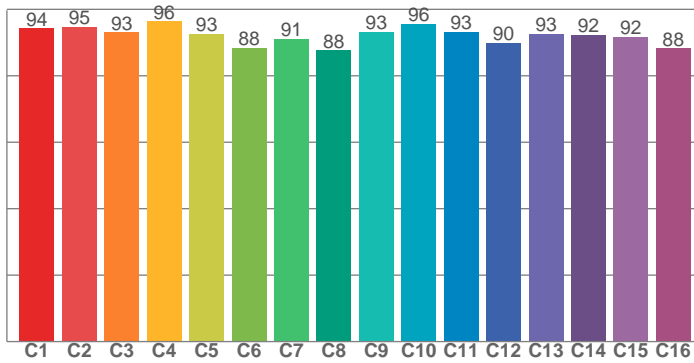
Spectra



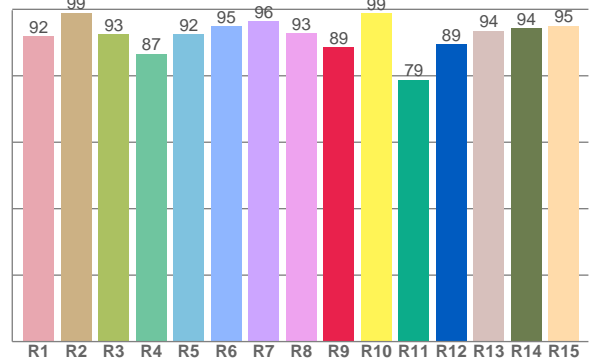




TM30: 92,7



CRI: 93,3 (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
92,0	99,0	92,5	86,7	92,4	94,9	96,3	92,9	88,7	98,9	78,9	89,4	93,5	94,3	95,1

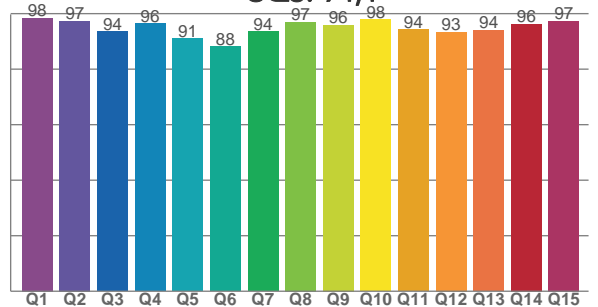
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,3	94,7	93,0	96,4	92,6	88,4	91,1	87,6	93,1	95,6	93,2	89,9	92,6	92,3	91,6	88,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,4	97,4	93,6	96,4	91,1	88,1	93,5	97,1	95,9	97,9	94,3	93,3	94,0	96,3	97,4

CQS: 94,1



COLOR PARAMETERS

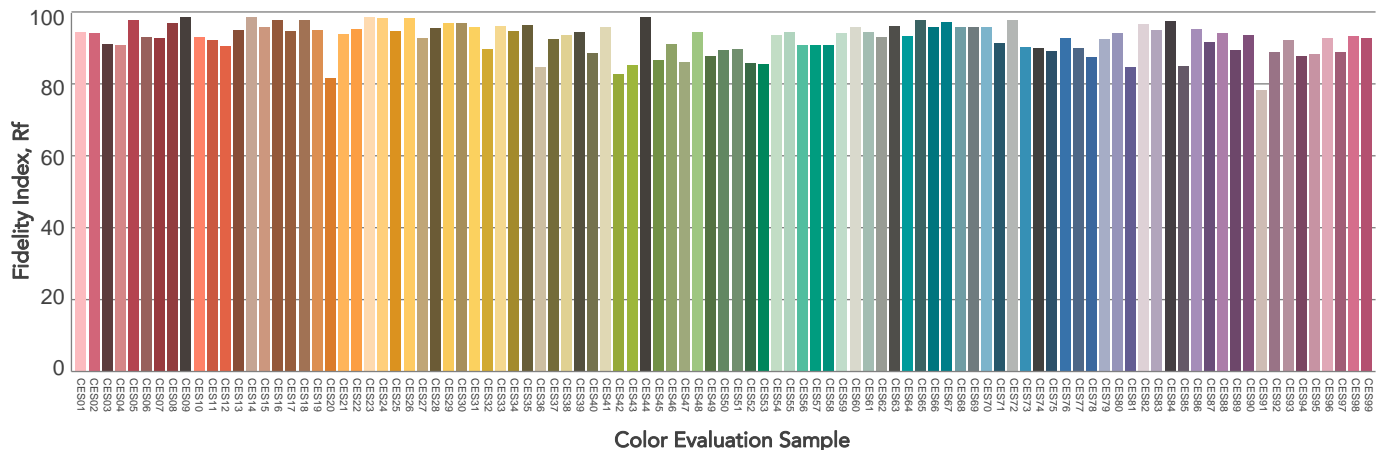
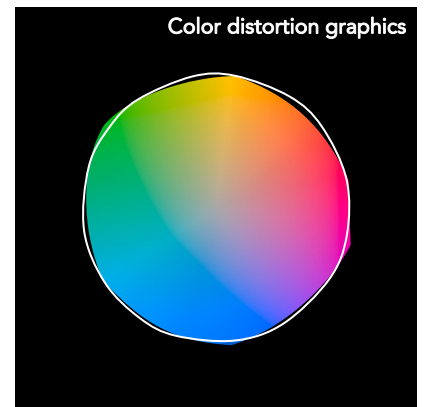
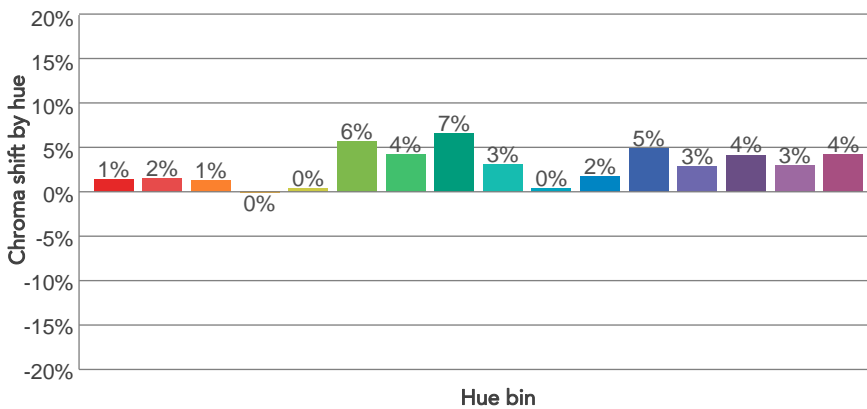
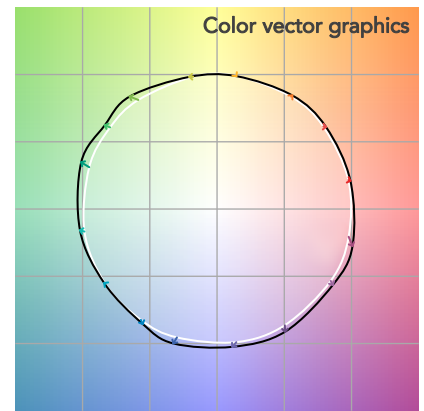
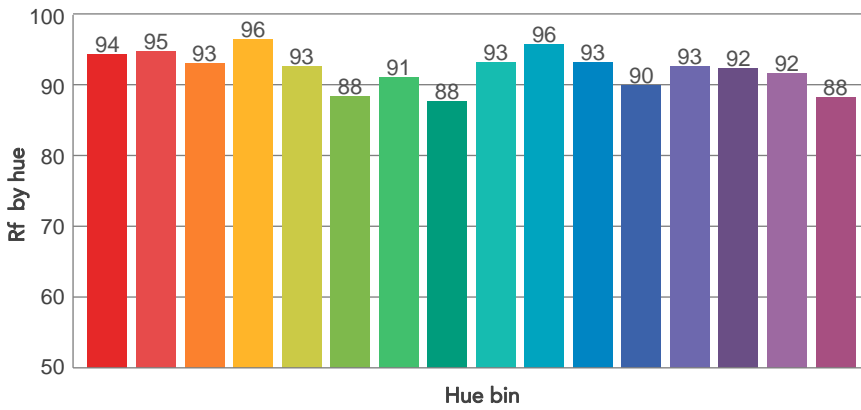
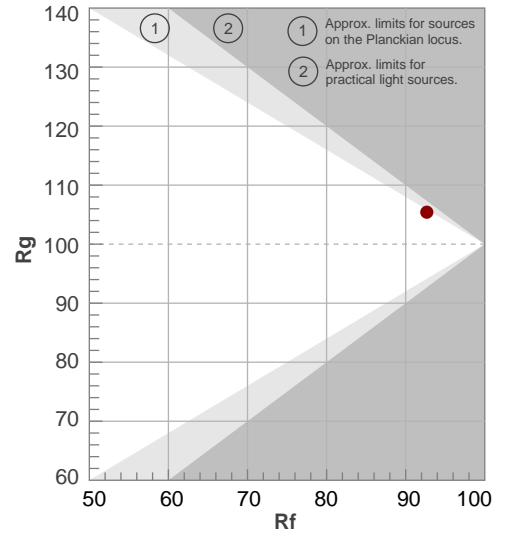
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3285 K	93,3	88,7	92,7	105,4	94,1	89	0,417	0,394	-0,0008

# TM30 DETAILS

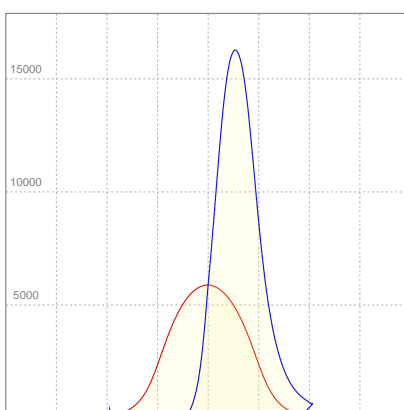
**Rf 92,7**  
Fidelity index Rf

**Rg 105,4**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	-1%
2	95	2%	-1%
3	93	1%	0%
4	96	0%	0%
5	93	0%	3%
6	88	6%	4%
7	91	4%	1%
8	88	7%	-2%
9	93	3%	-2%
10	96	0%	-1%
11	93	2%	3%
12	90	5%	-2%
13	93	3%	-4%
14	92	4%	-2%
15	92	3%	-2%
16	88	4%	-6%



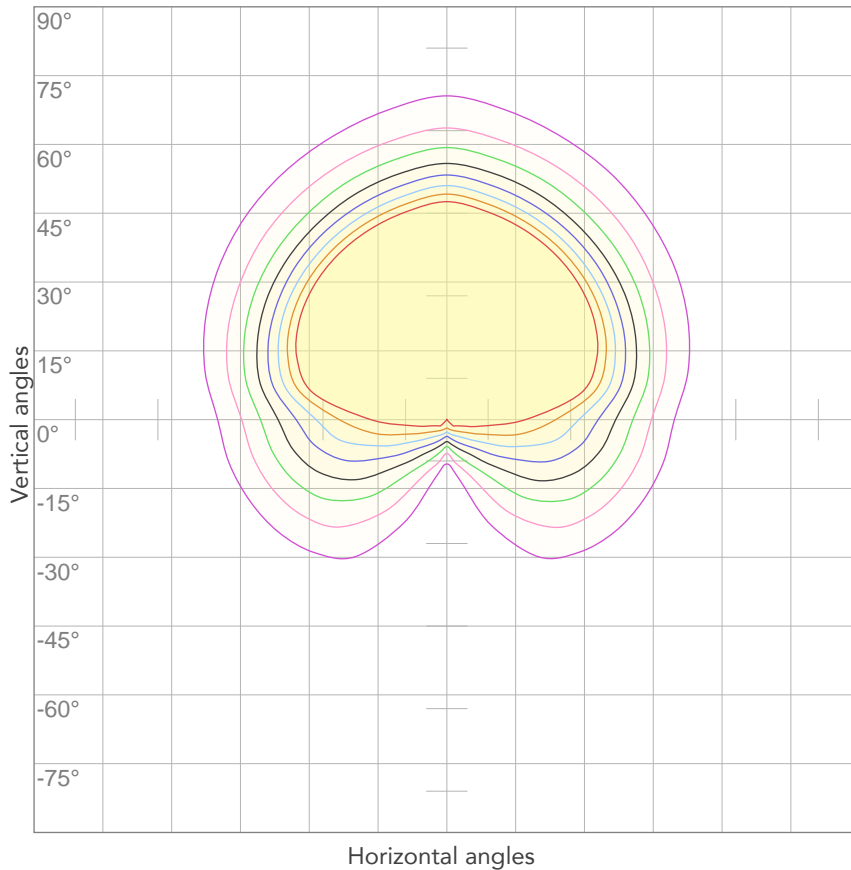
#### LINEAR DISTRIBUTION DIAGRAM



#### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>225V</b>	<b>0,974A</b>	<b>183,5W</b>	<b>80lm/W</b>
<b>Power FC</b>			
<b>0,94</b>			

## ISO CANDELA DIAGRAM



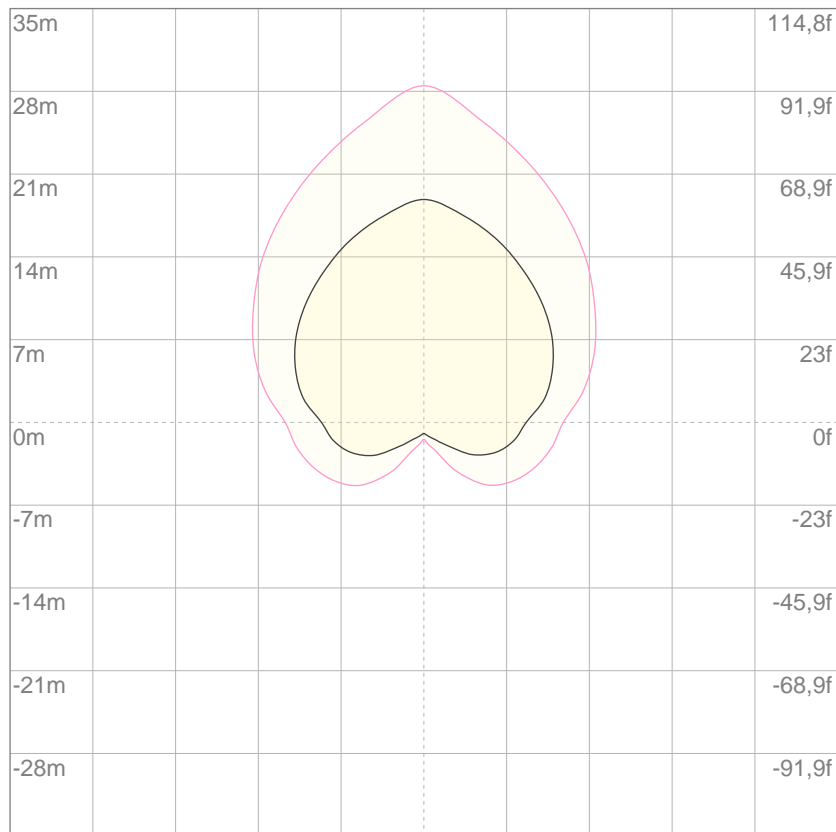
10%	588 cd
20%	1175 cd
30%	1763 cd
40%	2351 cd
50%	2939 cd
60%	3526 cd
70%	4114 cd
80%	4702 cd

Conditions:

Number of c-planes: 4

Candela at center: 5877 cd

## ISO LUX DIAGRAM



3%	1,76 lx
5%	2,94 lx
10%	5,88 lx
30%	17,6 lx
50%	29,4 lx

Conditions:

Number of c-planes: 4

Lux at center: 58,8 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:

15021 lm

Peak candela output:

16490 cd

Light quality:

CRI: 93,7

Color temperature:

4155 K



**PRODUCT NAME:**

ECL CYC100

**MEASUREMENT CONDITIONS:**

Beam angle:

Filter Native

Target:

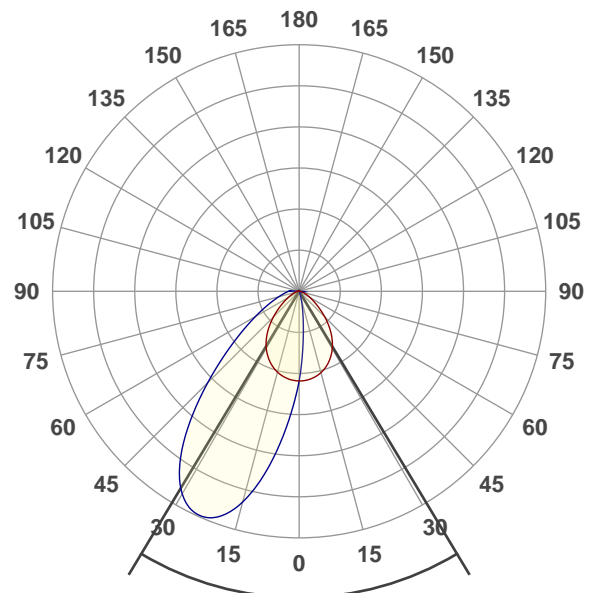
4000K

Operator:

Paolo Carvone

Date and time:

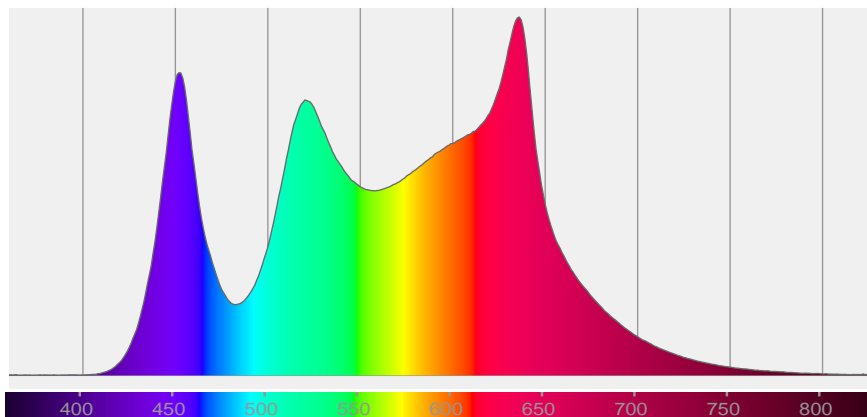
26/05/2020 12:28:02

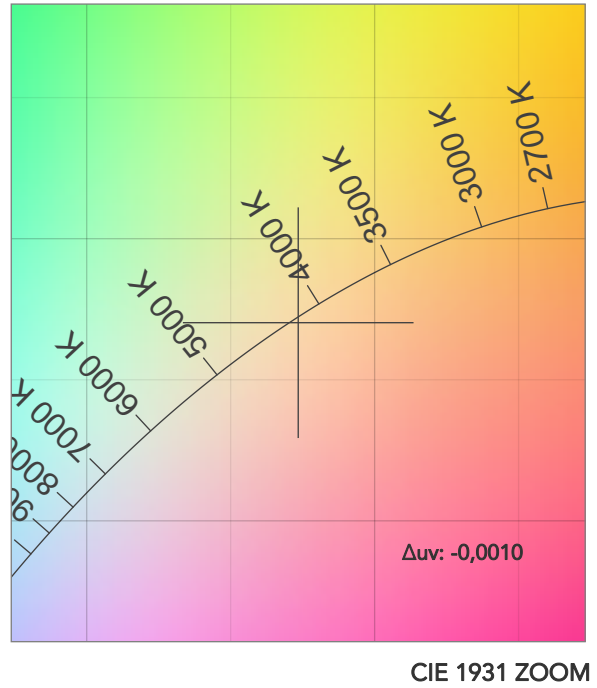
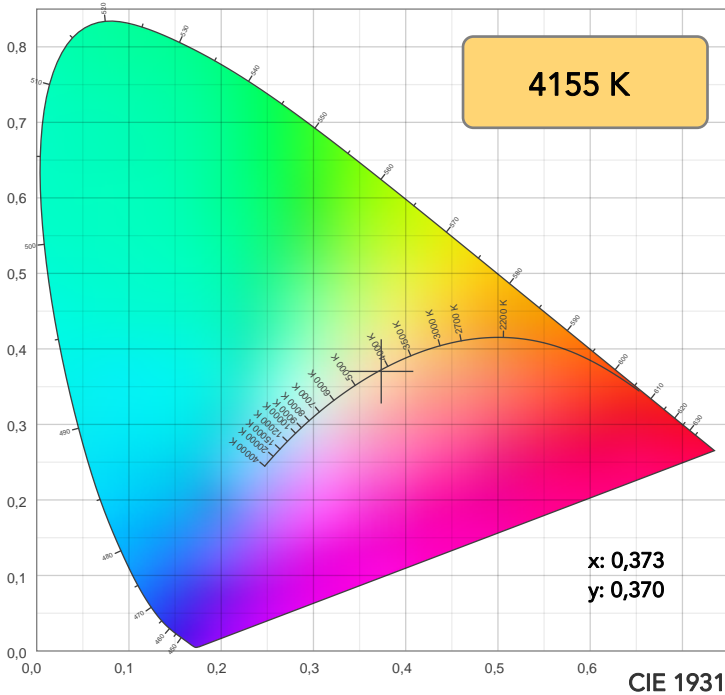


x(red curve) Beam angle 50%:82,9°

x(blue curve) Beam angle 50%:42°

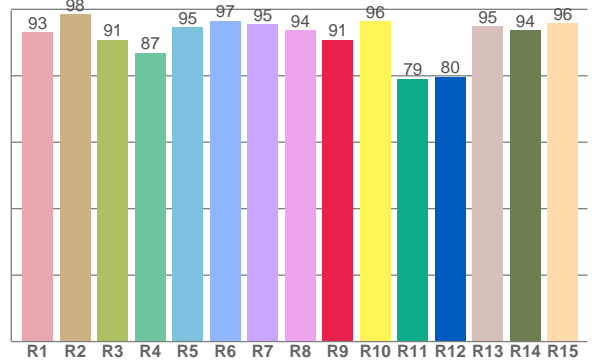
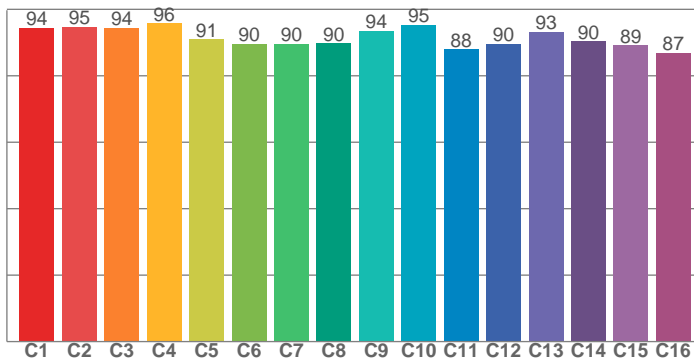
Spectra





TM30: 91,9

CRI: 93,7 (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
93,1	98,5	90,8	86,9	94,6	96,6	95,5	93,8	90,9	96,5	79,1	79,7	94,8	93,6	95,8

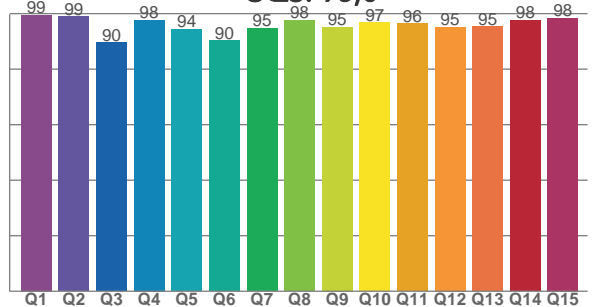
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,5	94,7	94,4	95,7	91,0	89,5	89,7	89,7	93,6	95,3	88,0	89,6	93,3	90,4	89,2	86,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,4	98,9	89,6	97,6	94,4	90,3	94,7	97,6	95,2	96,8	96,4	95,1	95,4	97,6	98,4

CQS: 95,0



COLOR PARAMETERS

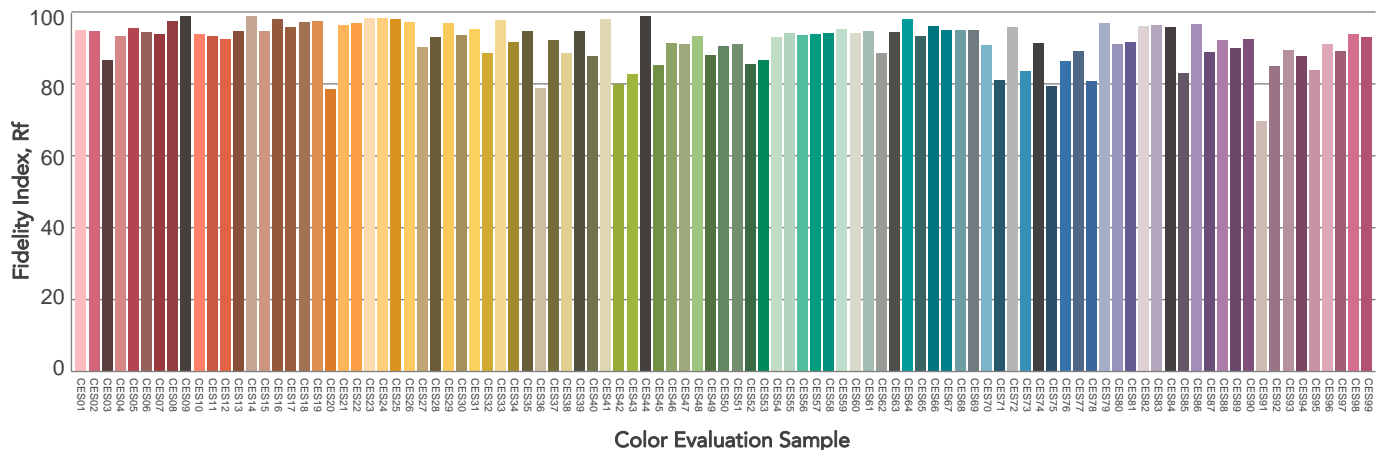
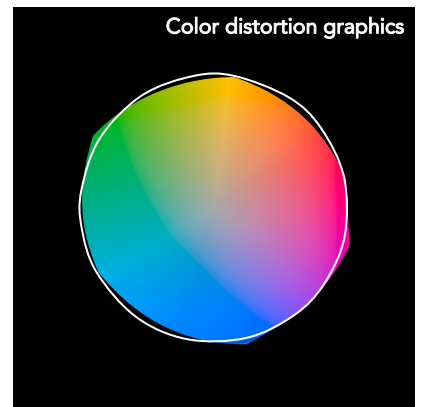
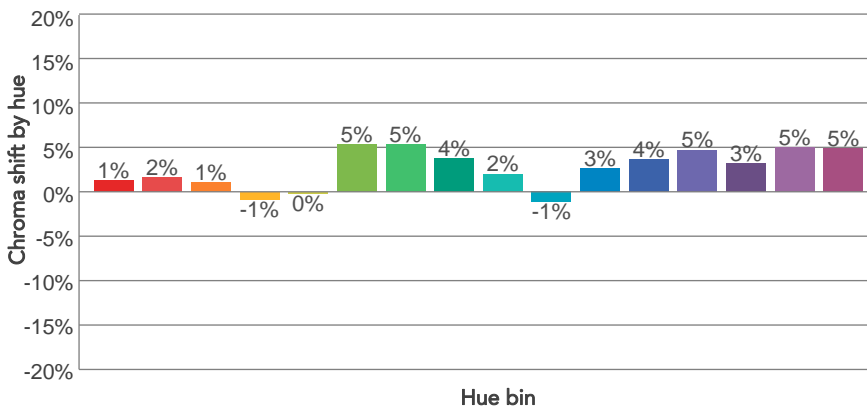
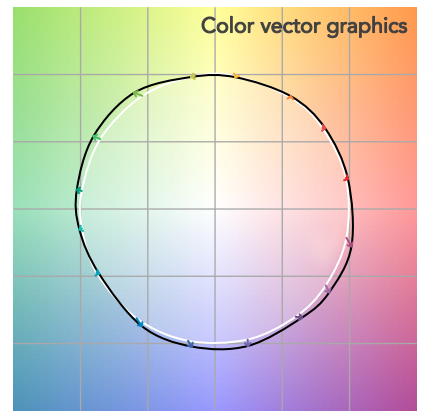
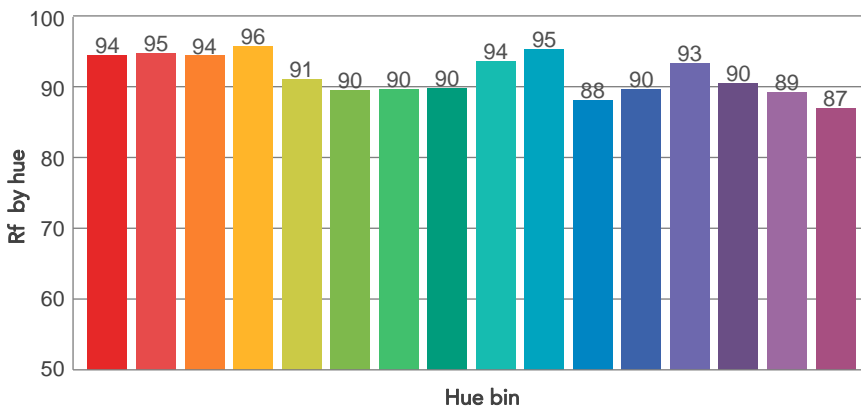
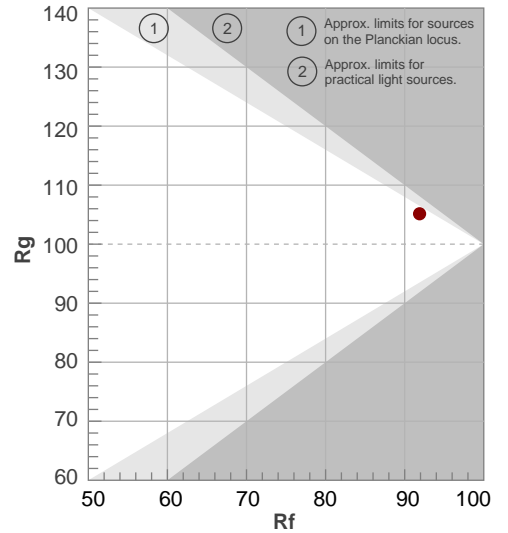
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4155 K	93,7	90,9	91,9	105,1	95,0	88	0,373	0,370	-0,0010

# TM30 DETAILS

**Rf 91,9**  
Fidelity index Rf

**Rg 105,1**  
Gammut index

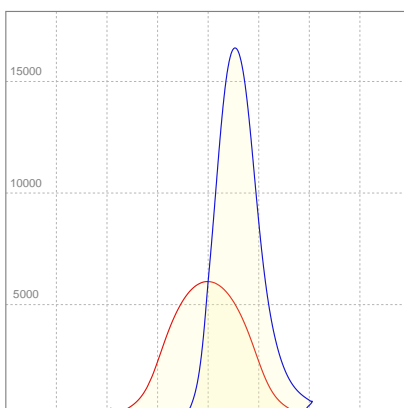
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	-1%
2	95	2%	-1%
3	94	1%	0%
4	96	-1%	0%
5	91	0%	3%
6	90	5%	4%
7	90	5%	1%
8	90	4%	0%
9	94	2%	0%
10	95	-1%	1%
11	88	3%	6%
12	90	4%	4%
13	93	5%	-1%
14	90	3%	4%
15	89	5%	-3%
16	87	5%	-5%



### 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	6031lx	1508lx	670lx	377lx	241lx	107lx	60lx	27lx	15lx	10lx	7lx	4lx	2lx
Footcand.	560fcd	140fcd	62fcd	35fcd	22fcd	10fcd	6fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	1,2m	2,4m	3,6m	4,8m	6m	9m	12m	18m	24,1m	30,1m	36,1m	48,1m	60,1m
Beam wid.	4ft	7,9ft	11,8ft	15,8ft	19,7ft	29,6ft	39,4ft	59,2ft	78,9ft	98,6ft	118,3ft	157,8ft	197,2ft

### LINEAR DISTRIBUTION DIAGRAM



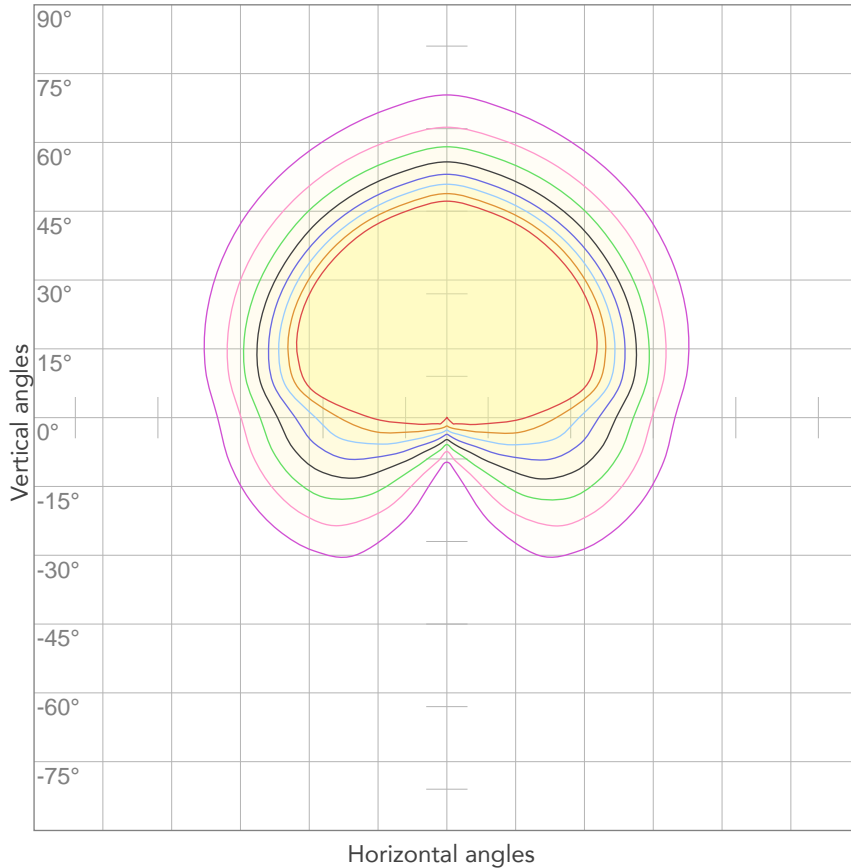
### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>225V</b>	<b>1,01A</b>	<b>192,5W</b>	<b>78lm/W</b>

Power FC
<b>0,94</b>



## ISO CANDELA DIAGRAM



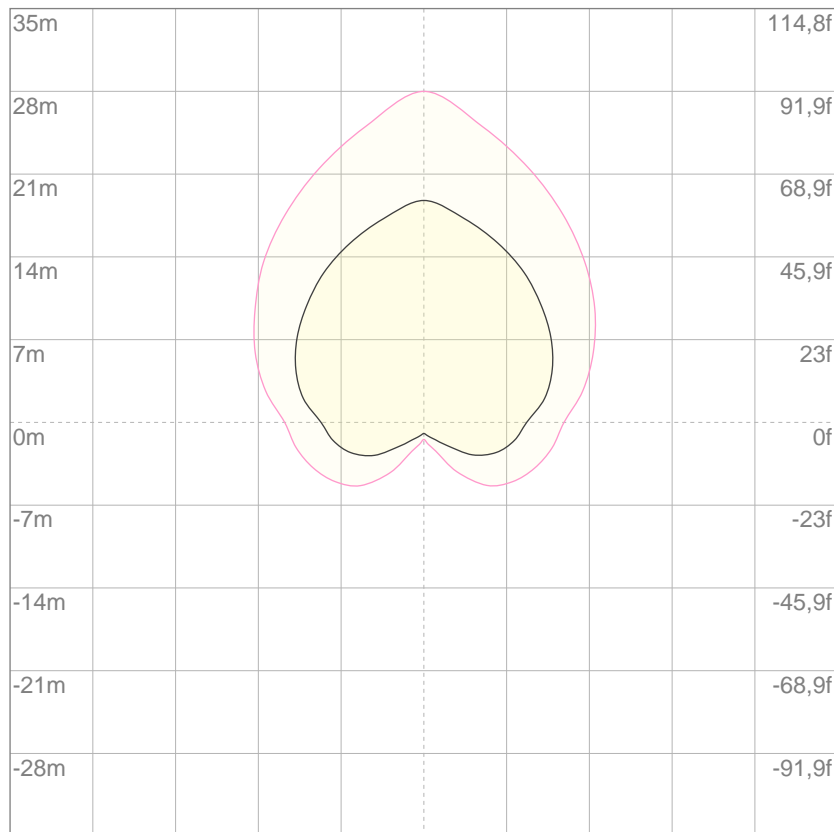
10%	603 cd
20%	1206 cd
30%	1809 cd
40%	2412 cd
50%	3016 cd
60%	3619 cd
70%	4222 cd
80%	4825 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 6031 cd

## ISO LUX DIAGRAM



3%	1,81 lx
5%	3,02 lx
10%	6,03 lx
30%	18,1 lx
50%	30,2 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 60,3 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:

15859 lm

Peak candela output:

17370 cd

Light quality:

CRI: 92,6

Color temperature:

6082 K



**PRODUCT NAME:**

ECL CYC100

**MEASURAMENT CONDITIONS:**

Beam angle:

Filter Native

Target:

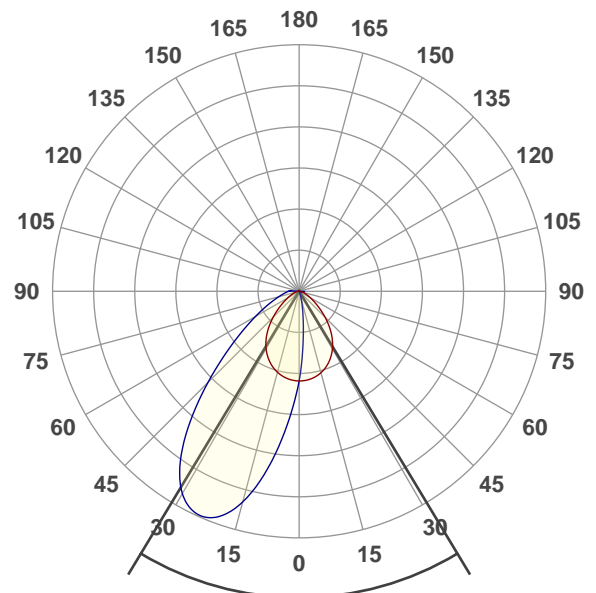
5600K

Operator:

Paolo Carvone

Date and time:

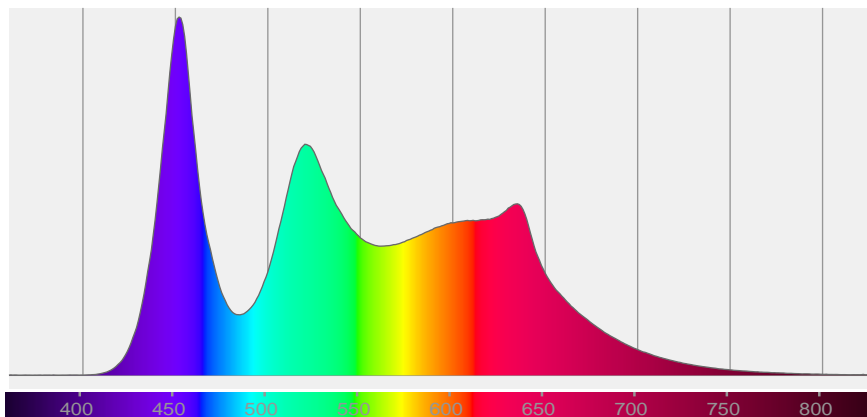
26/05/2020 12:31:03

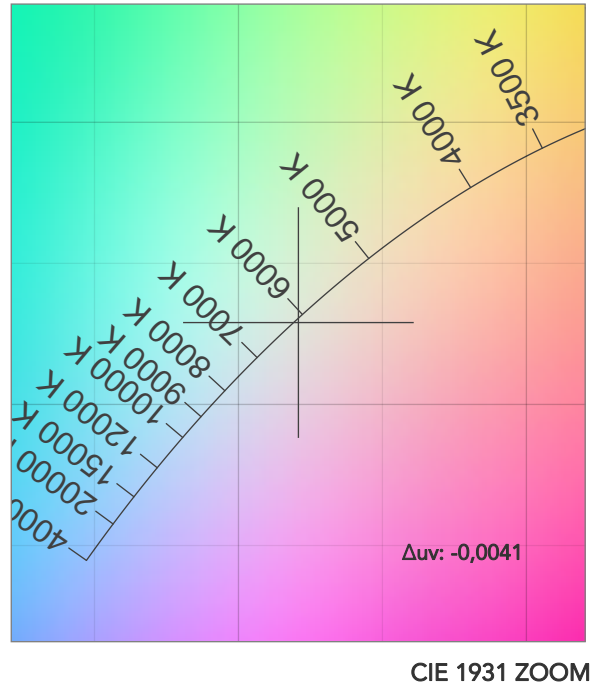
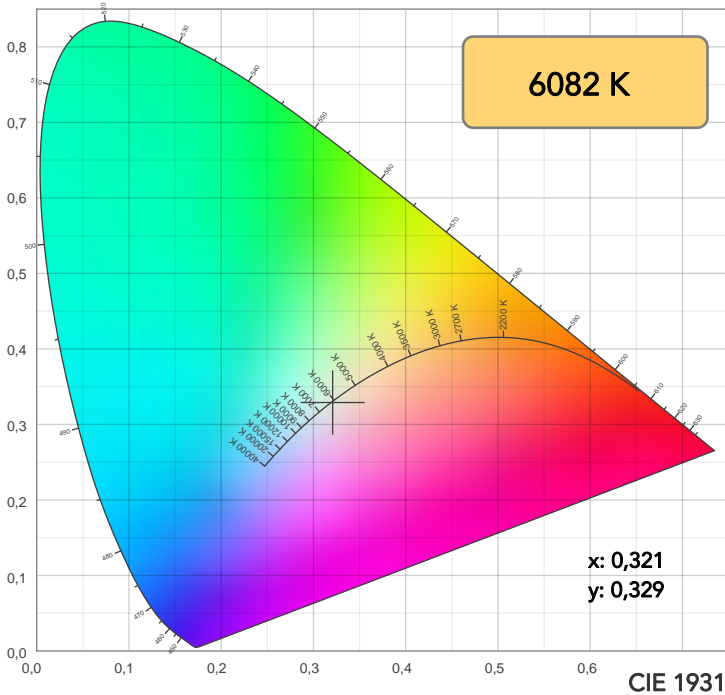


x(red curve) Beam angle 50%:82,9°

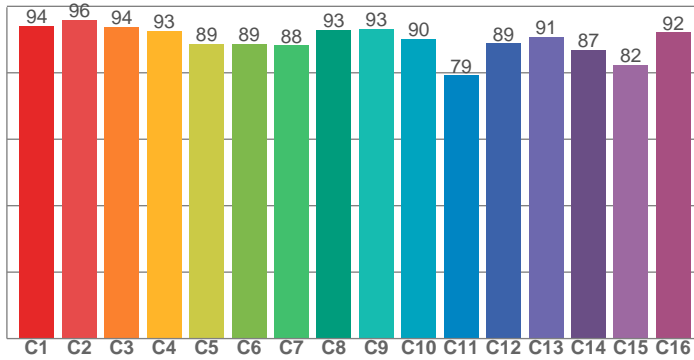
x(blue curve) Beam angle 50%:42°

Spectra

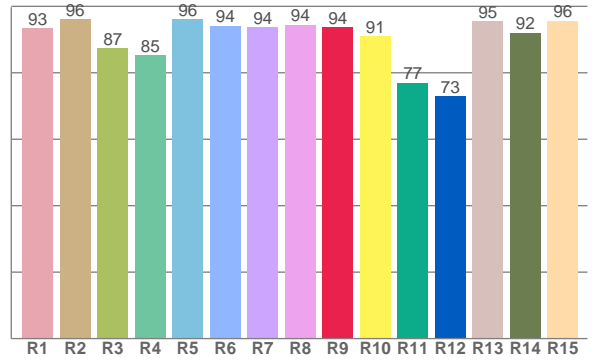




TM30: 89,8



CRI: 92,6 (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
93,5	96,0	87,5	85,2	96,1	94,2	93,7	94,4	93,7	90,9	77,0	72,9	95,5	92,1	95,7

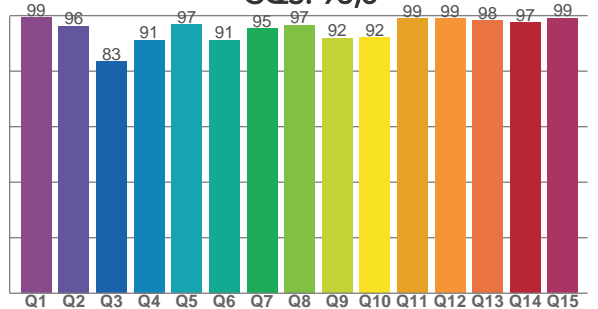
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,1	95,9	93,8	92,7	88,6	88,7	88,3	92,8	93,3	90,1	79,2	88,9	90,9	86,9	82,4	92,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,3	96,3	83,4	91,3	96,8	91,2	95,3	96,7	91,8	92,1	99,0	99,0	98,2	97,4	99,1

CQS: 93,5



COLOR PARAMETERS

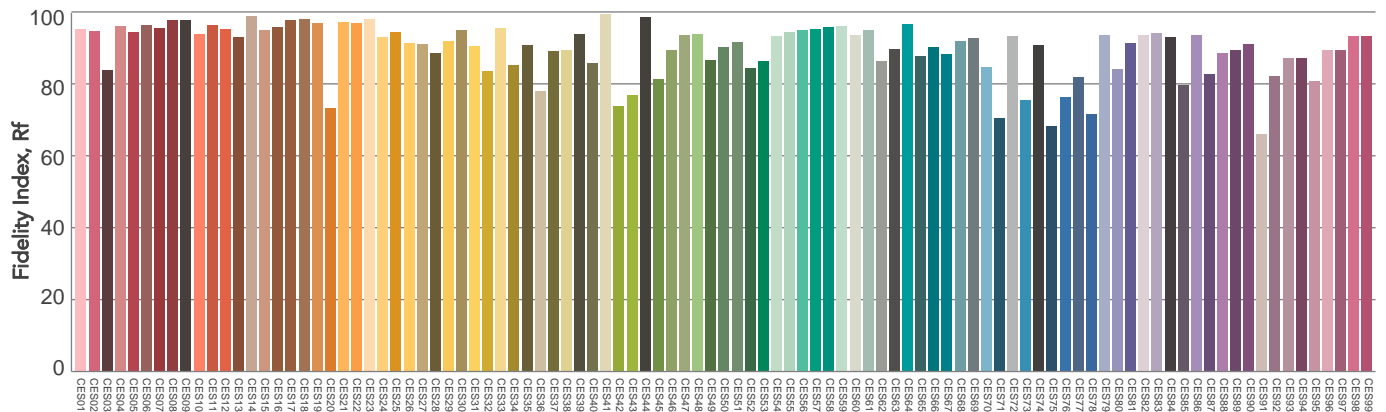
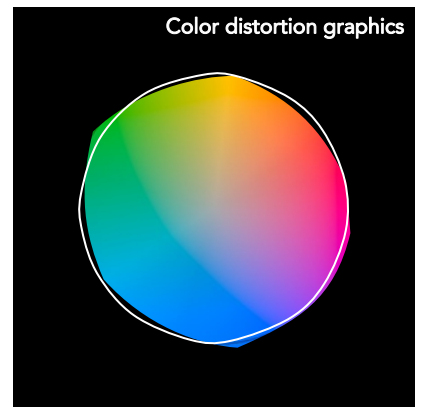
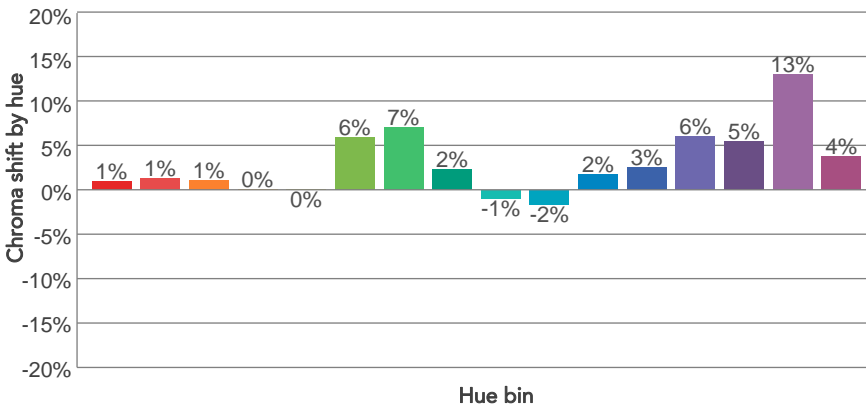
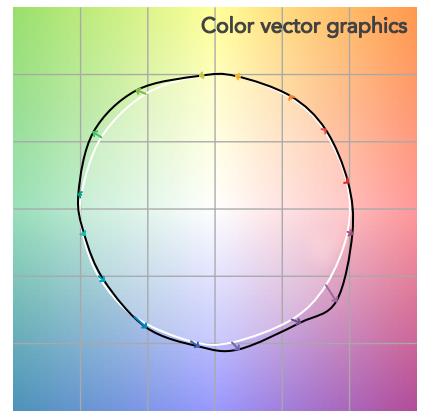
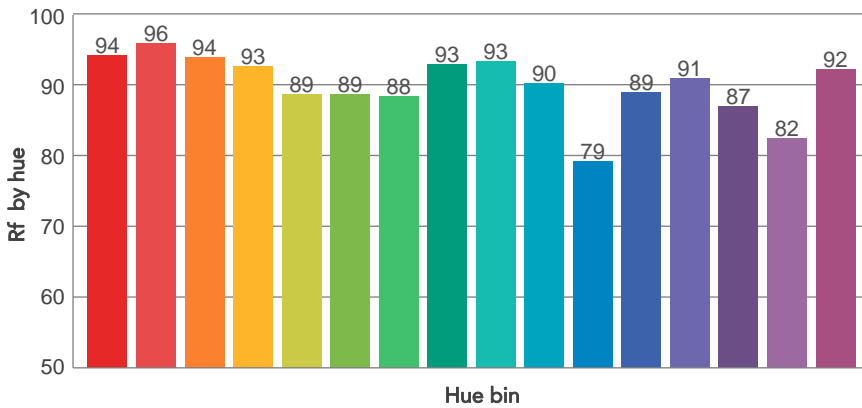
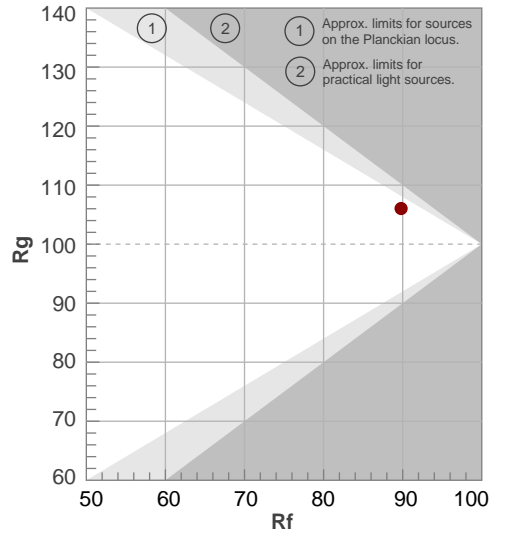
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6082 K	92,6	93,7	89,8	106,0	93,5	91	0,321	0,329	-0,0041

# TM30 DETAILS

**Rf 89,8**  
Fidelity index Rf

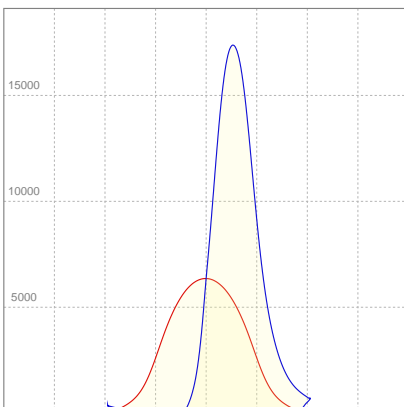
**Rg 106,0**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	-1%
2	96	1%	0%
3	94	1%	2%
4	93	0%	3%
5	89	0%	3%
6	89	6%	4%
7	88	7%	0%
8	93	2%	0%
9	93	-1%	2%
10	90	-2%	5%
11	79	2%	12%
12	89	3%	6%
13	91	6%	4%
14	87	5%	4%
15	82	13%	-6%
16	92	4%	-1%



Color Evaluation Sample

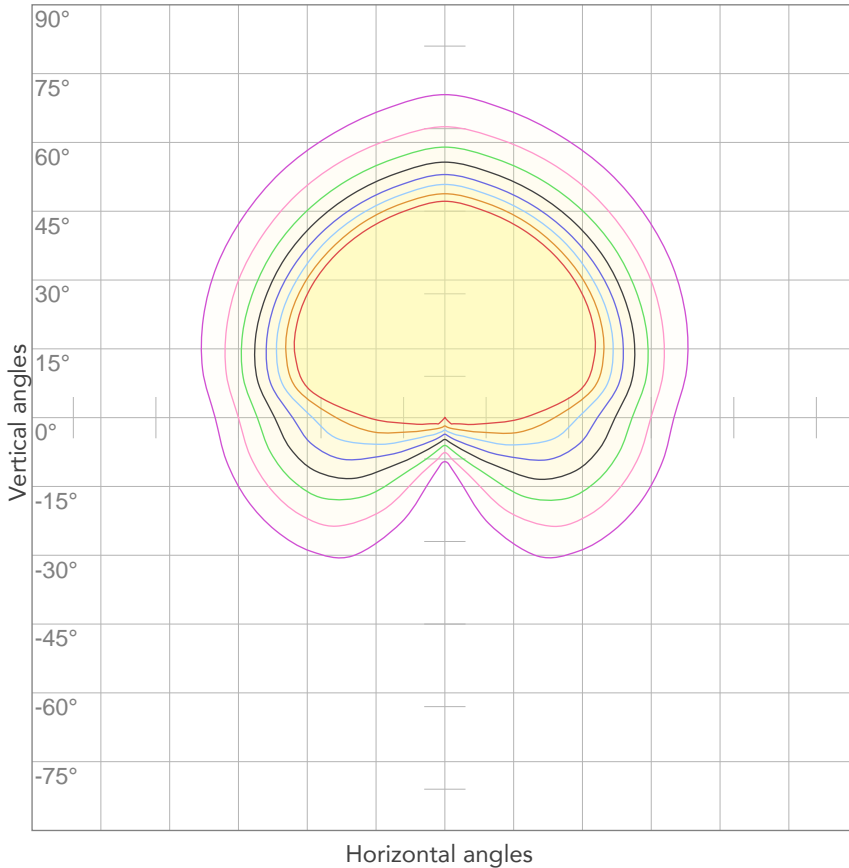
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>225V</b>	<b>1,07A</b>	<b>207,5W</b>	<b>76lm/W</b>
<b>Power FC</b>			
<b>0,94</b>			

## ISO CANDELA DIAGRAM



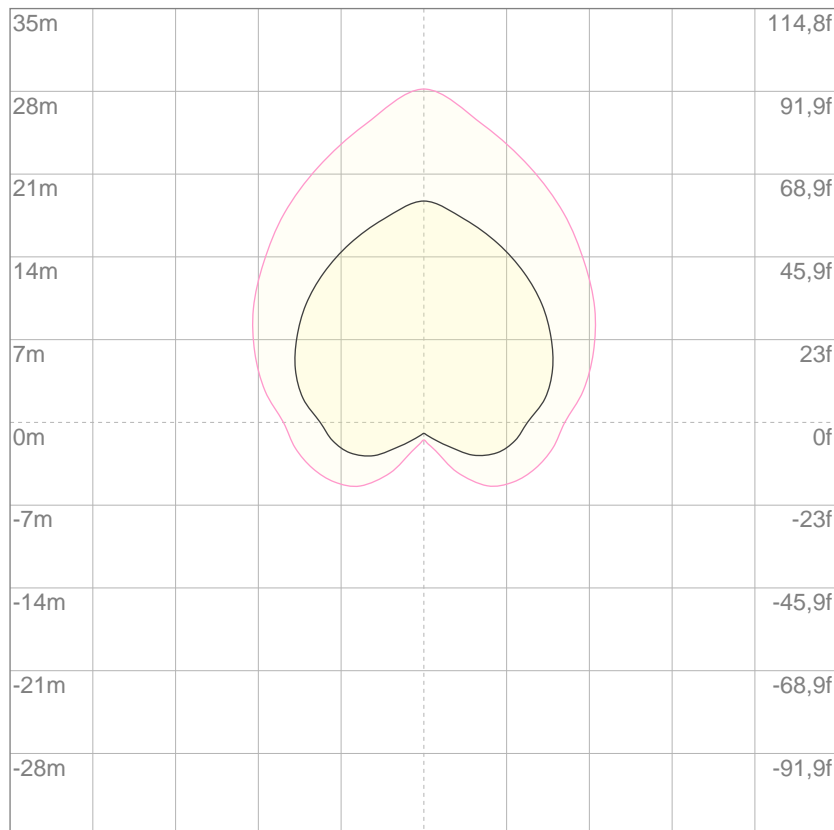
10%	635 cd
20%	1271 cd
30%	1906 cd
40%	2542 cd
50%	3177 cd
60%	3813 cd
70%	4448 cd
80%	5084 cd

Conditions:

Number of c-planes: 4

Candela at center: 6354 cd

## ISO LUX DIAGRAM



3%	1,91 lx
5%	3,18 lx
10%	6,35 lx
30%	19,1 lx
50%	31,8 lx

Conditions:

Number of c-planes: 4

Lux at center: 63,5 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:

15914 lm

Peak candela output:

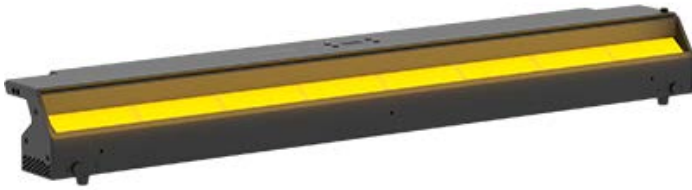
17443 cd

Light quality:

CRI: 92,5

Color temperature:

6601 K



PRODUCT NAME:

ECL CYC100

MEASUREMENT CONDITIONS:

Beam angle:

Filter Native

Target:

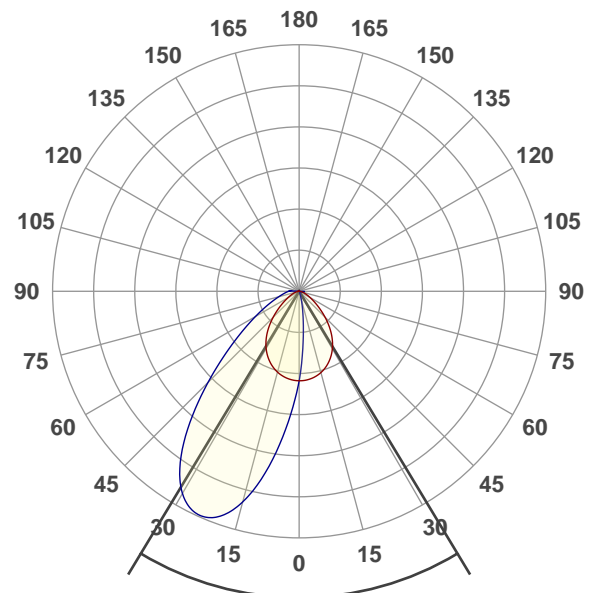
6000K

Operator:

Paolo Carvone

Date and time:

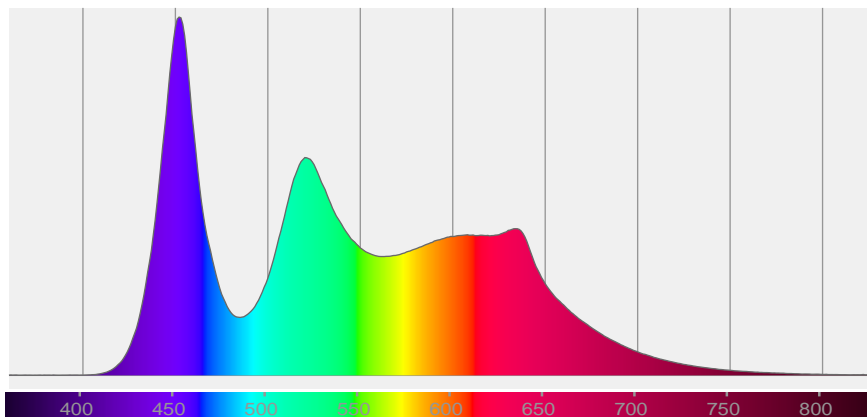
26/05/2020 12:33:53

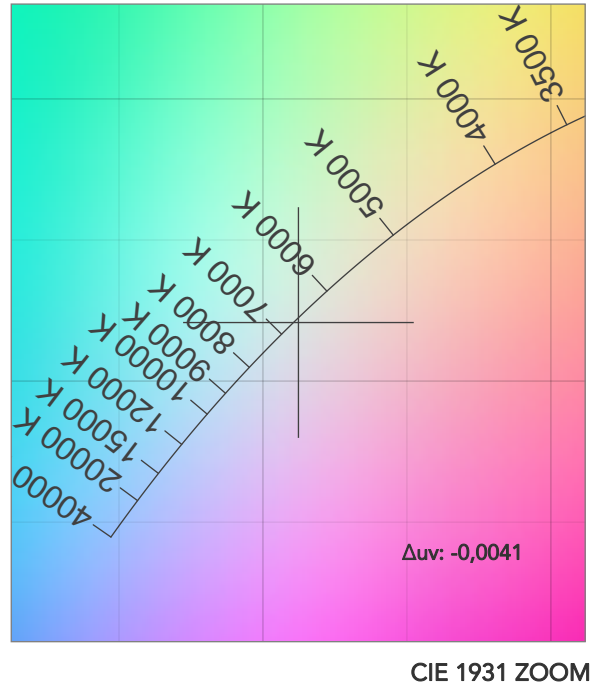
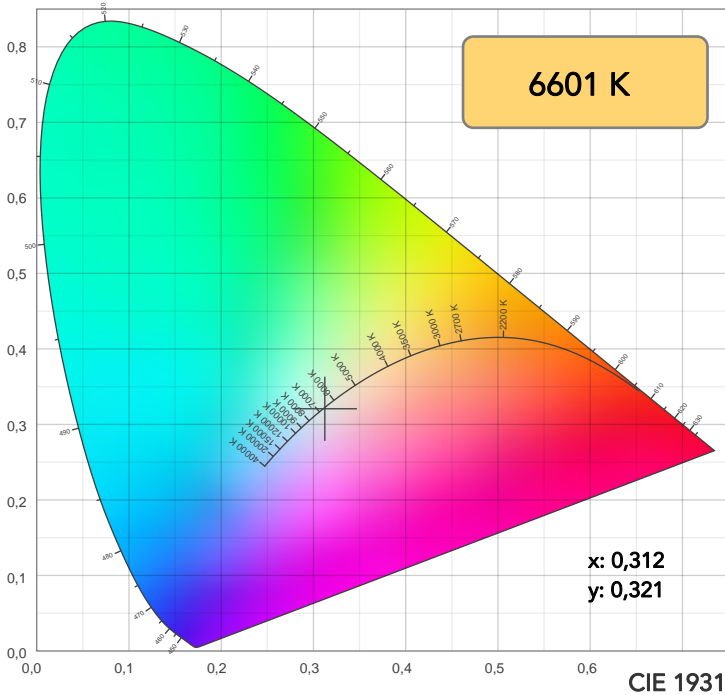


x(red curve) Beam angle 50%:82,9°

x(blue curve) Beam angle 50%:42°

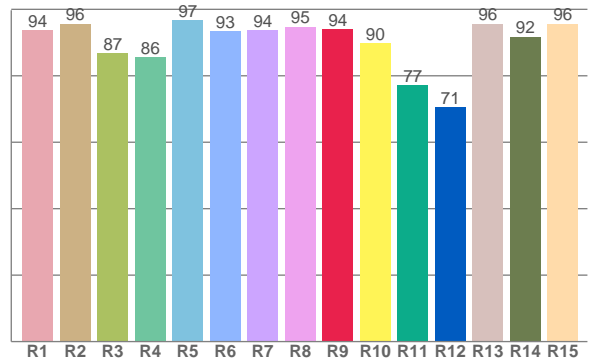
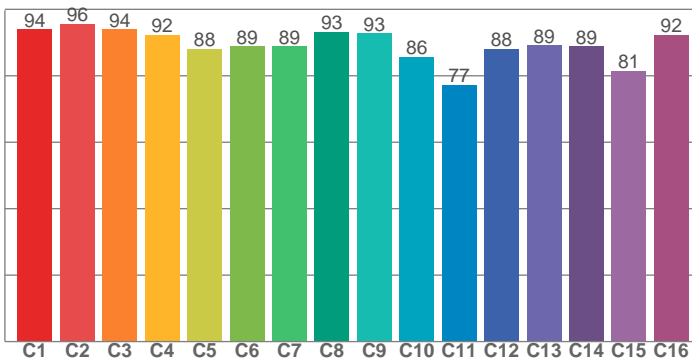
Spectra





TM30: 89,4

CRI: 92,5 (R1-R8)



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

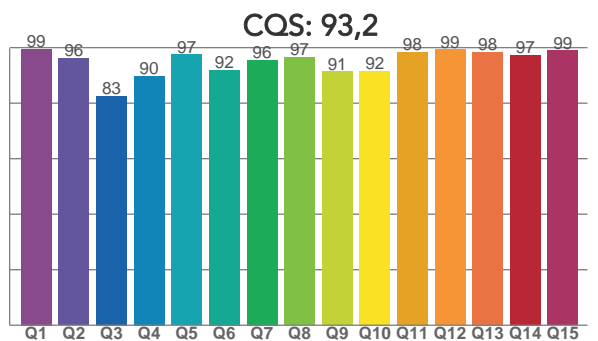
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93,6	95,7	86,8	85,6	96,6	93,5	93,8	94,7	94,1	89,8	77,2	70,6	95,6	91,8	95,7

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	95,6	94,0	92,3	88,1	88,8	88,9	93,2	92,7	85,7	77,2	88,0	89,1	88,9	81,4	92,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,5	96,1	82,7	89,7	97,5	92,0	95,6	96,5	91,3	91,5	98,4	99,4	98,3	97,4	99,0



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
6601 K	92,5	94,1	89,4	105,2	93,2	92	0,312	0,321	-0,0041

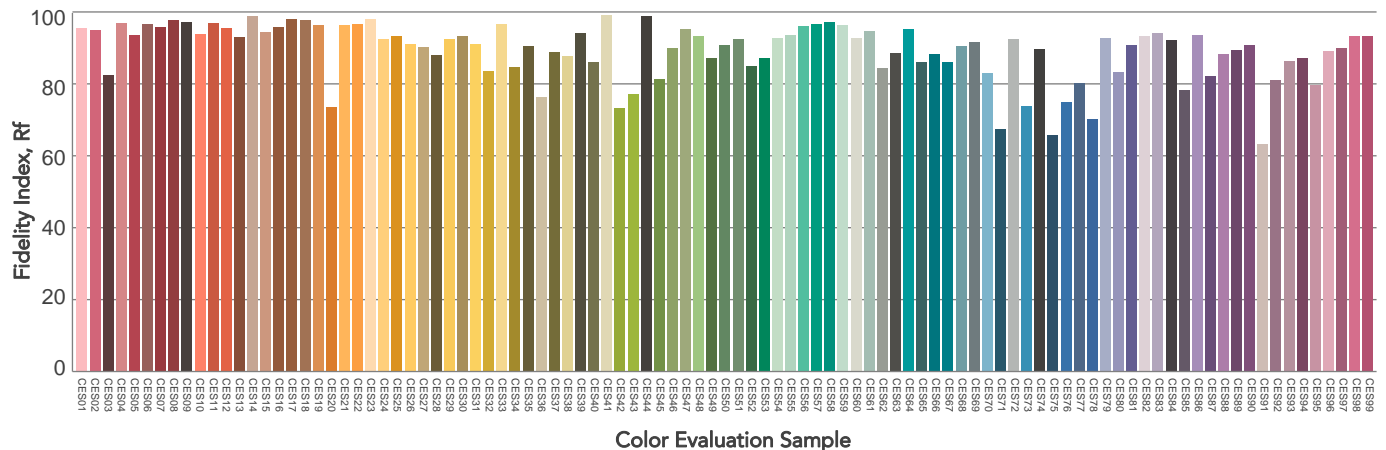
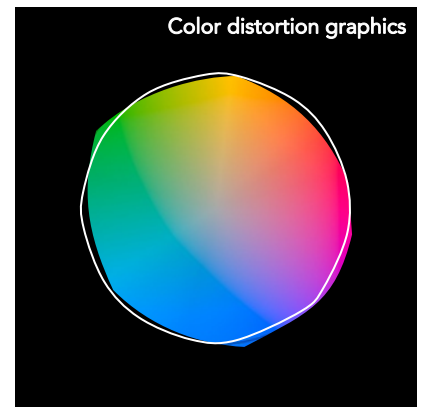
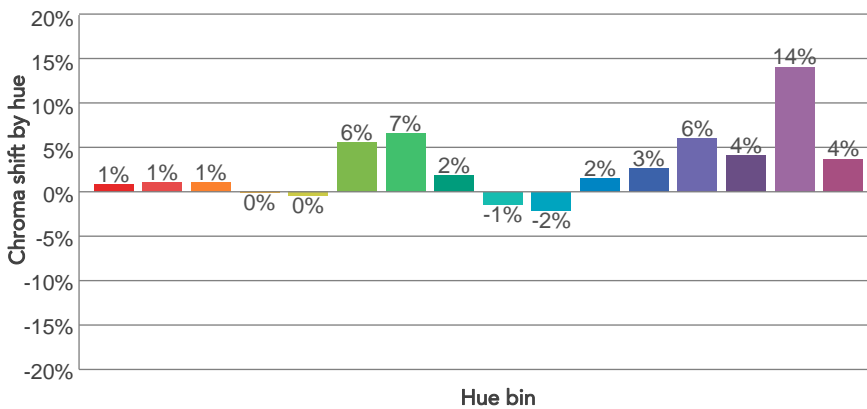
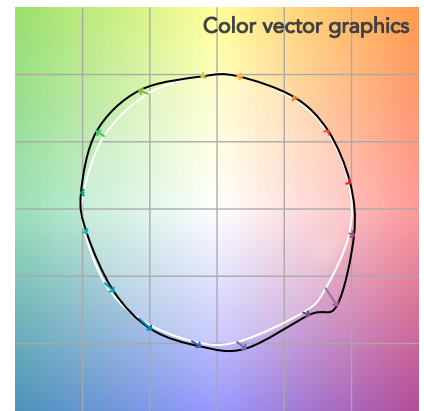
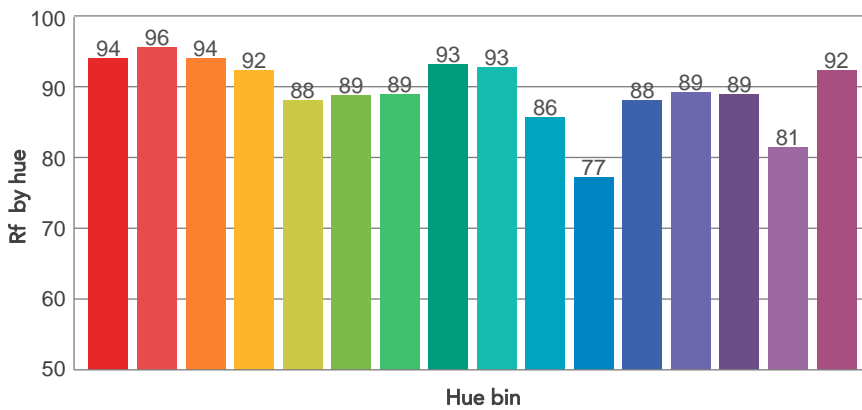
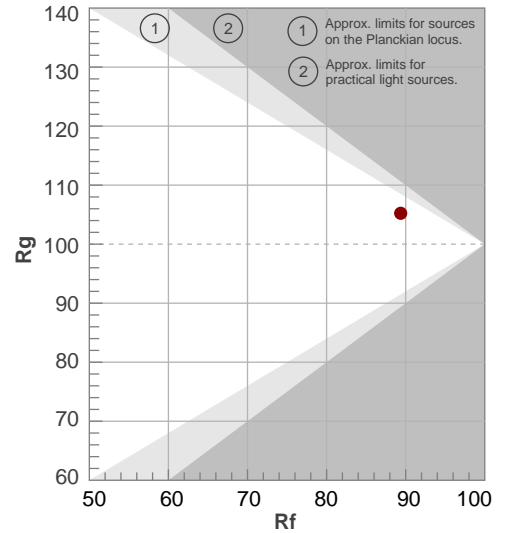


# TM30 DETAILS

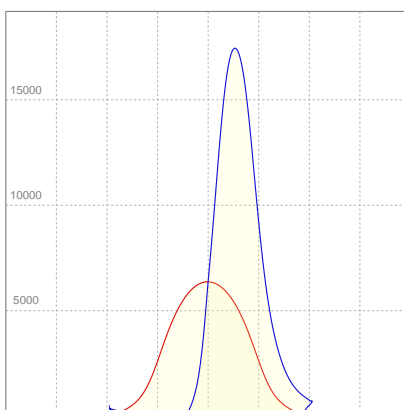
**Rf 89,4**  
Fidelity index Rf

**Rg 105,2**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	-1%
2	96	1%	0%
3	94	1%	2%
4	92	0%	3%
5	88	0%	3%
6	89	6%	4%
7	89	7%	0%
8	93	2%	0%
9	93	-1%	3%
10	86	-2%	9%
11	77	2%	12%
12	88	3%	7%
13	89	6%	5%
14	89	4%	3%
15	81	14%	-6%
16	92	4%	-1%



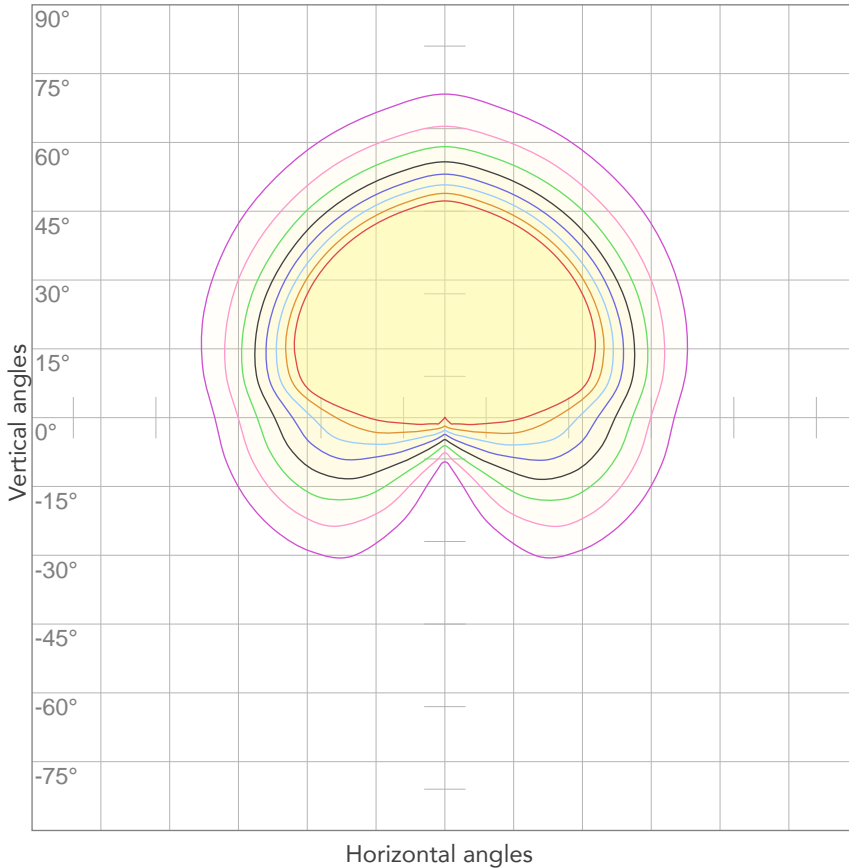
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>225V</b>	<b>1,07A</b>	<b>208,3W</b>	<b>76lm/W</b>
<b>Power FC</b>			
<b>0,94</b>			

## ISO CANDELA DIAGRAM



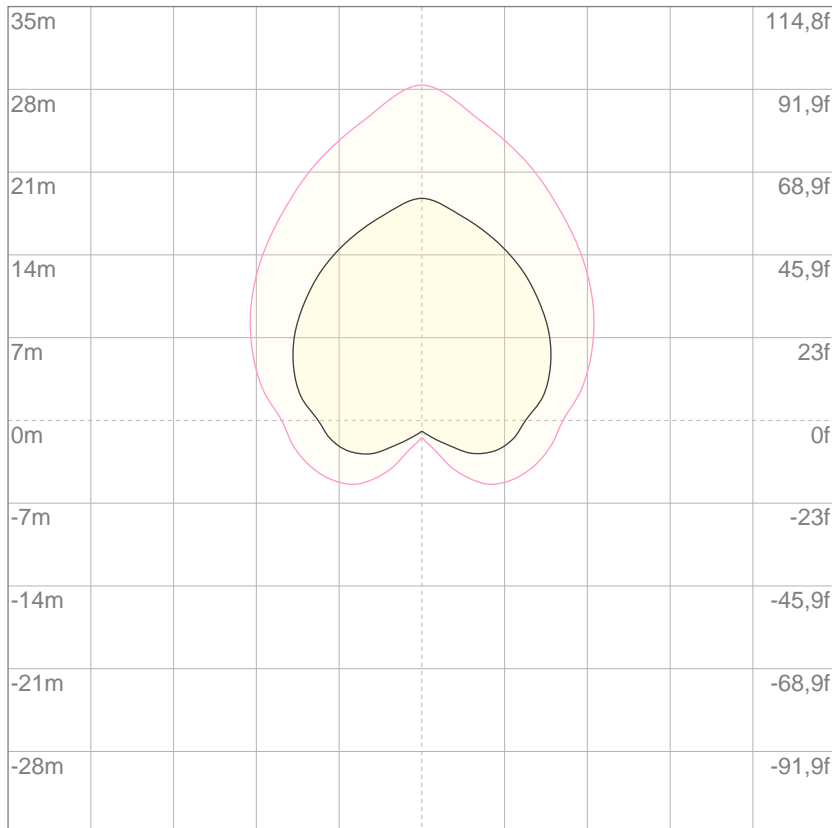
10%	637 cd
20%	1274 cd
30%	1910 cd
40%	2547 cd
50%	3184 cd
60%	3821 cd
70%	4457 cd
80%	5094 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 6368 cd

## ISO LUX DIAGRAM



3%	1,91 lx
5%	3,18 lx
10%	6,37 lx
30%	19,1 lx
50%	31,8 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 63,7 lx

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

Mounting height: 10 meters (33 feet)