

# Photometric Test Report



## ECLFRESNELVW

250W Variable White LED Fresnel  
(2.700K – 5.600K) with manual zoom 17° - 64°

## CONTENTS

Table of contents	2
Testing process	3
Color preset Full on	
Beam angle Max Zoom	4
Beam angle Med Zoom	9
Beam angle Min Zoom	14
Color temperature Cold White	
Beam angle Max Zoom	19
Beam angle Med Zoom	24
Beam angle Min Zoom	29
Color temperature Warm White	
Beam angle Max Zoom	34
Beam angle Med Zoom	39
Beam angle Min Zoom	44

## 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 25°C without any external light sources following the requirements of the standard LM79-08. This photometric report is obtained through the data measured by a high precision measurement system and analyzed by a dedicated 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 significant 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:

10955 lm

Peak candela output:

23017 cd

Light quality:

CRI: 94,2

Color temperature:

3986 K

**PRODUCT NAME:**

ECLFRESNELVW

**MEASURAMENT CONDITIONS:**

Beam angle:

Max Zoom

Target:

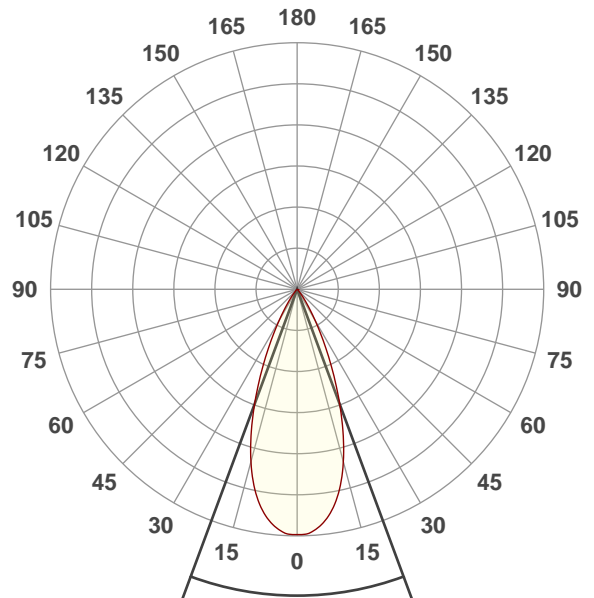
Full On

Operator:

Paolo Carvone

Date and time:

11/06/2021 16:19:13

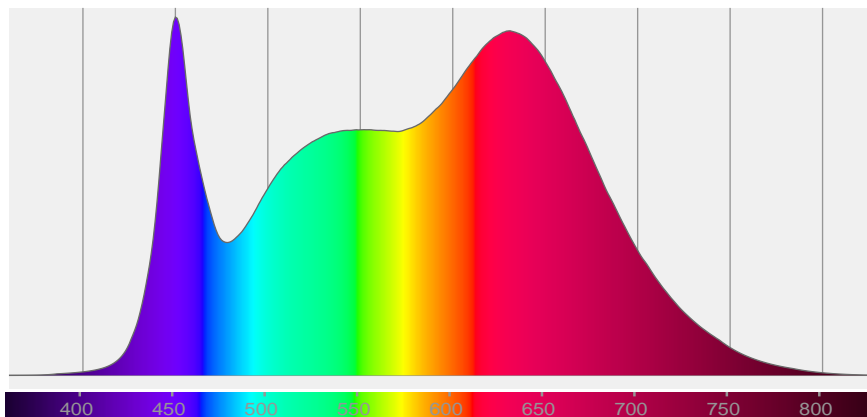


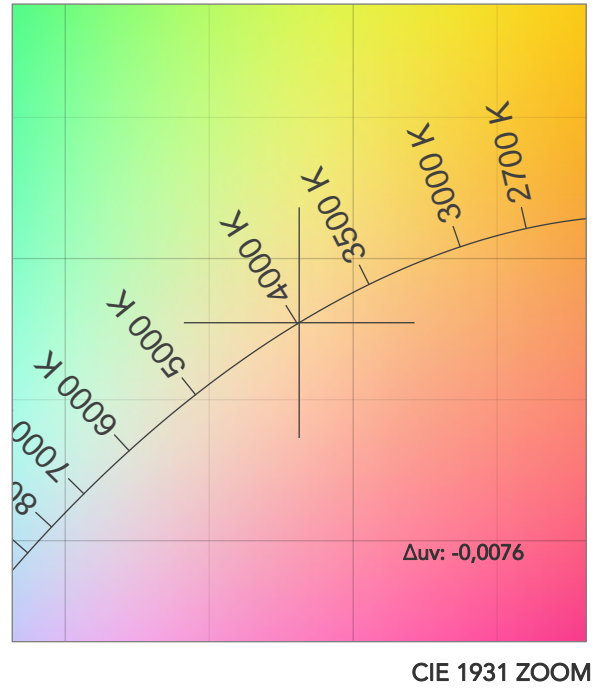
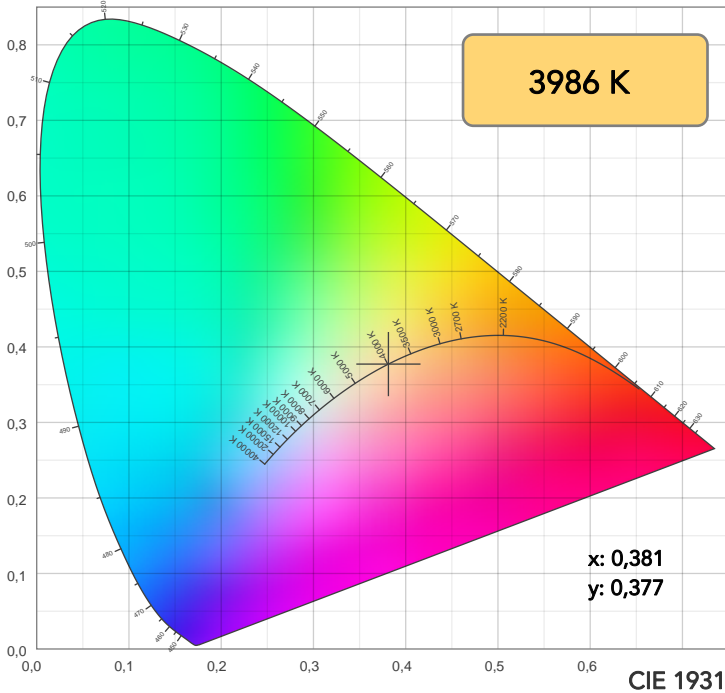
Beam angle 50%: 40,7°

Field angle 10%: 64,4°

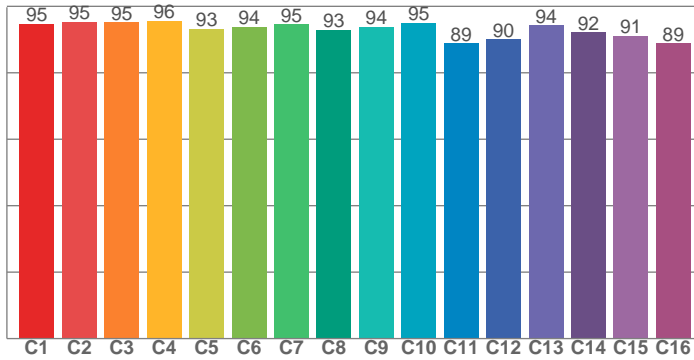
Cut off angle 2.5%: 77,8°

**Spectra**

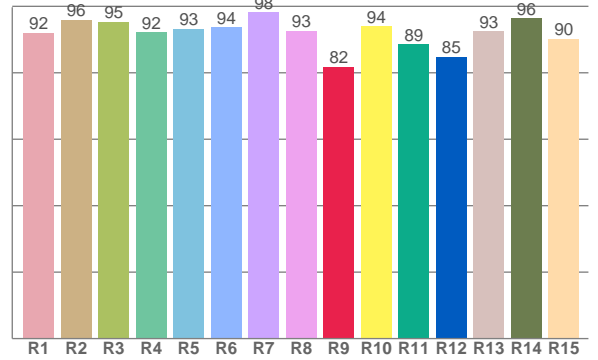




TM30: 93,3



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
92,0	95,9	95,4	92,2	93,2	93,8	98,2	92,7	81,8	94,0	88,7	84,8	92,6	96,3	90,2

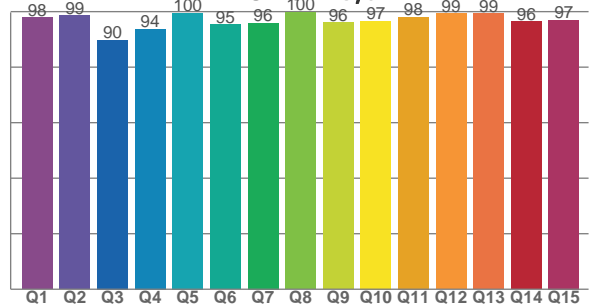
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,7	95,4	95,2	95,7	93,3	93,9	94,5	92,9	93,9	95,0	88,8	90,1	94,2	92,2	91,1	88,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,8	98,6	89,7	93,7	99,5	95,3	95,9	99,7	96,1	96,6	98,1	99,4	99,4	96,4	97,0

CQS: 96,0



COLOR PARAMETERS

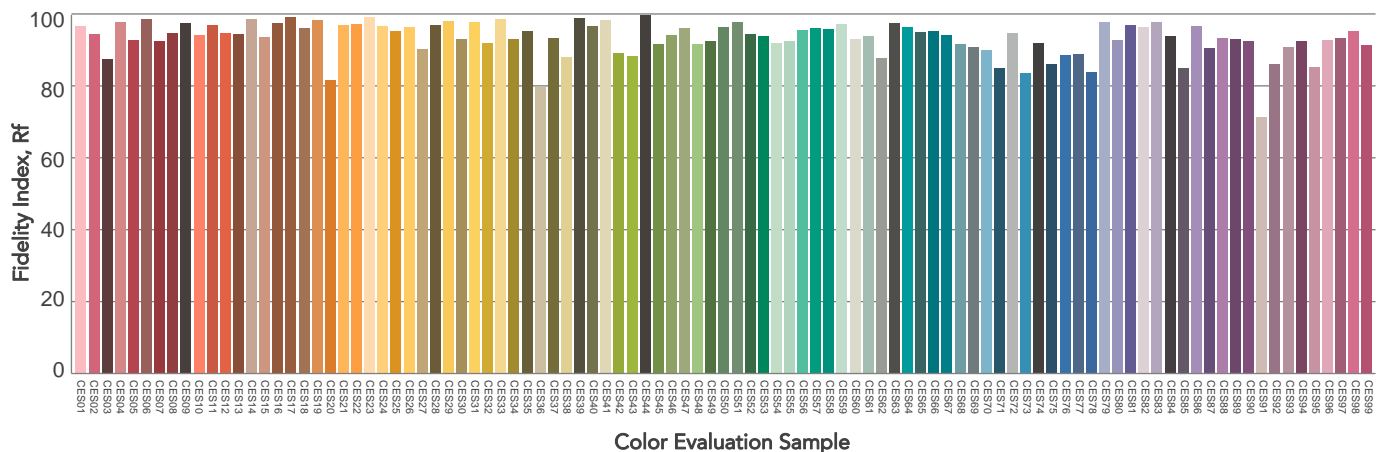
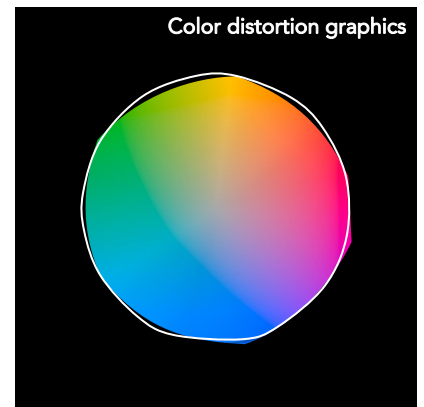
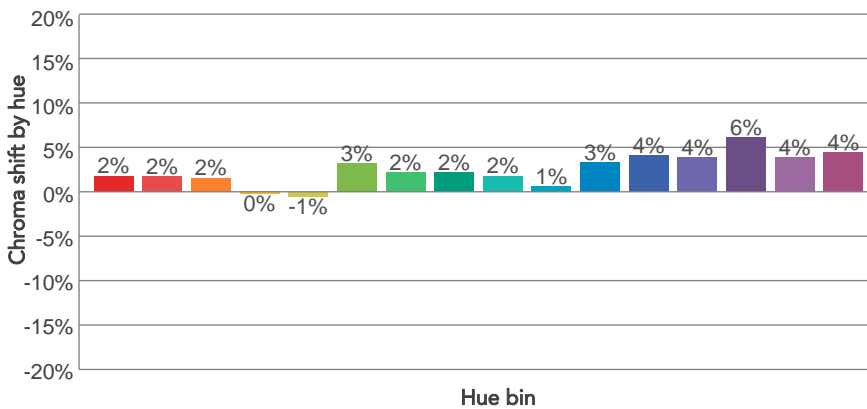
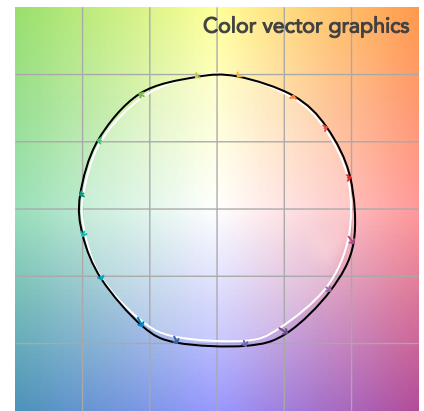
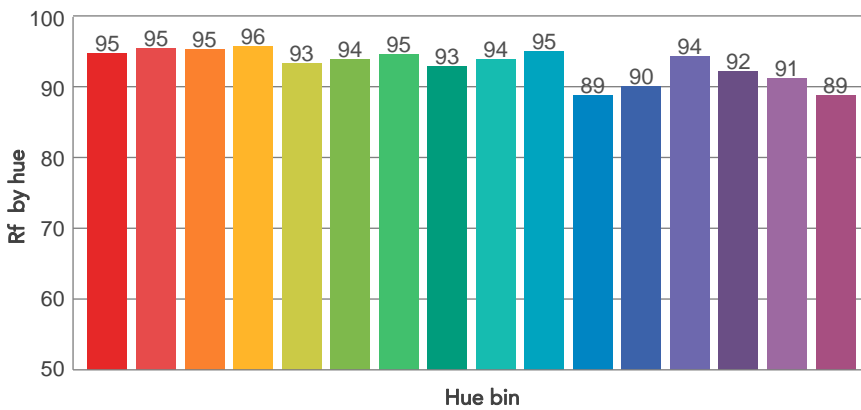
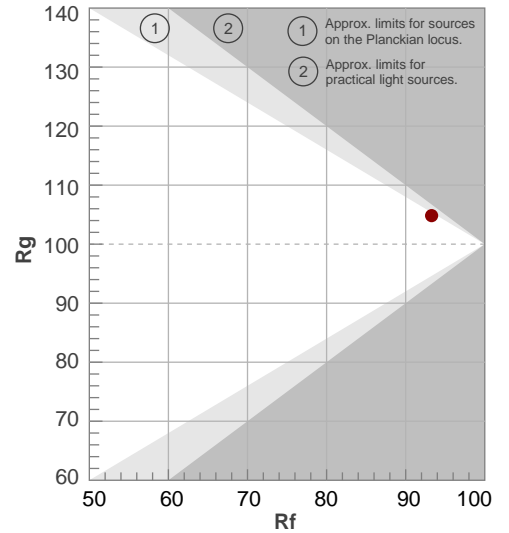
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3986 K	94,2	81,8	93,3	104,8	96,0	98	0,381	0,377	-0,0076

# TM30 DETAILS

**Rf 93,3**  
Fidelity index Rf

**Rg 104,8**  
Gammut index

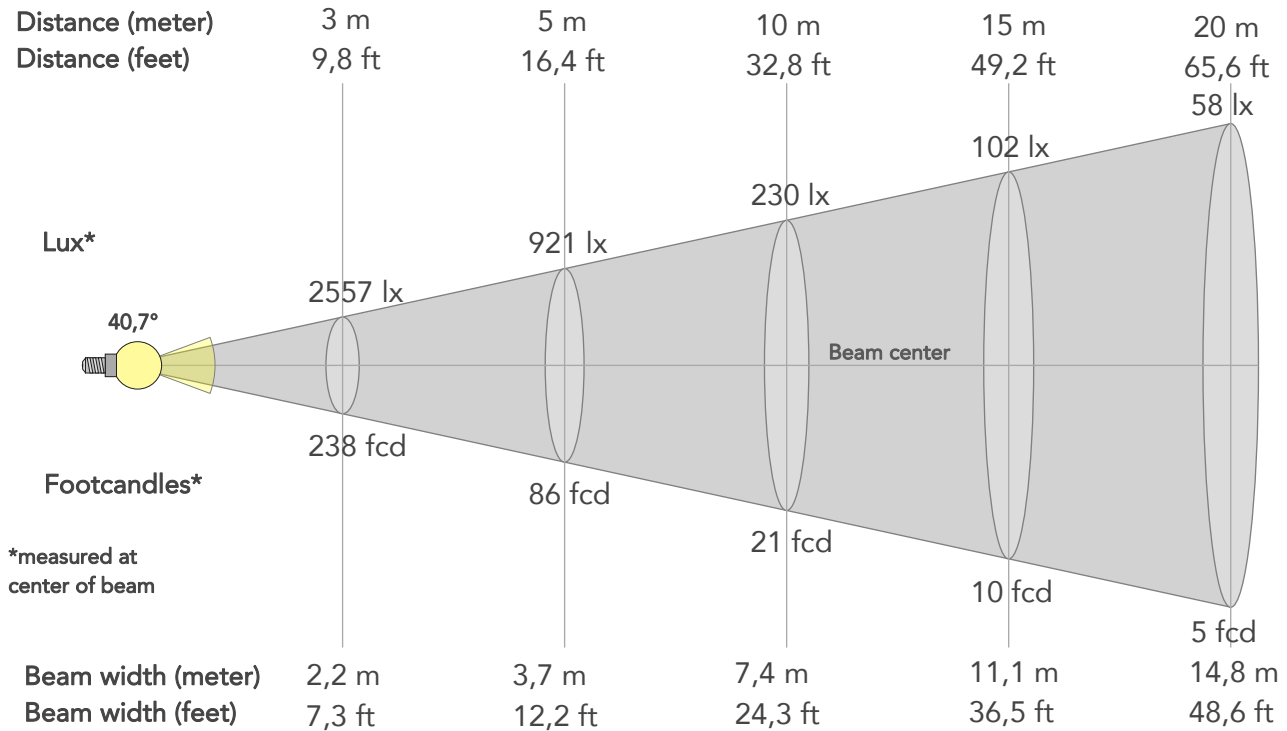
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	2%	0%
2	95	2%	0%
3	95	2%	1%
4	96	0%	0%
5	93	-1%	1%
6	94	3%	2%
7	95	2%	1%
8	93	2%	2%
9	94	2%	3%
10	95	1%	2%
11	89	3%	6%
12	90	4%	3%
13	94	4%	1%
14	92	6%	3%
15	91	4%	0%
16	89	4%	-4%



# BEAM DETAILS



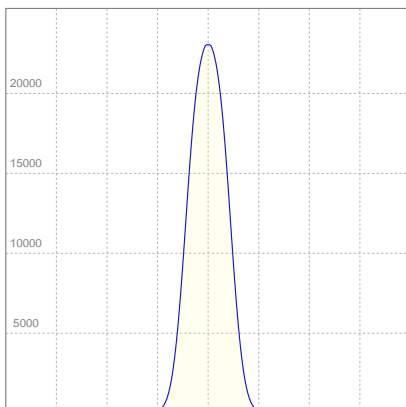
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
40,7°	64,4°	77,8°	99,9%	99,2%



## 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	23017lx	5754lx	2557lx	1439lx	921lx	409lx	230lx	102lx	58lx	37lx	26lx	14lx	9lx
Footcand.	2138fcd	535fcd	238fcd	134fcd	86fcd	38fcd	21fcd	10fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,7m	1,5m	2,2m	3m	3,7m	5,6m	7,4m	11,1m	14,8m	18,5m	22,2m	29,6m	37,1m
Beam wid.	2,4ft	4,9ft	7,3ft	9,7ft	12,2ft	18,2ft	24,3ft	36,5ft	48,6ft	60,8ft	72,9ft	97,2ft	121,5ft

## LINEAR DISTRIBUTION DIAGRAM

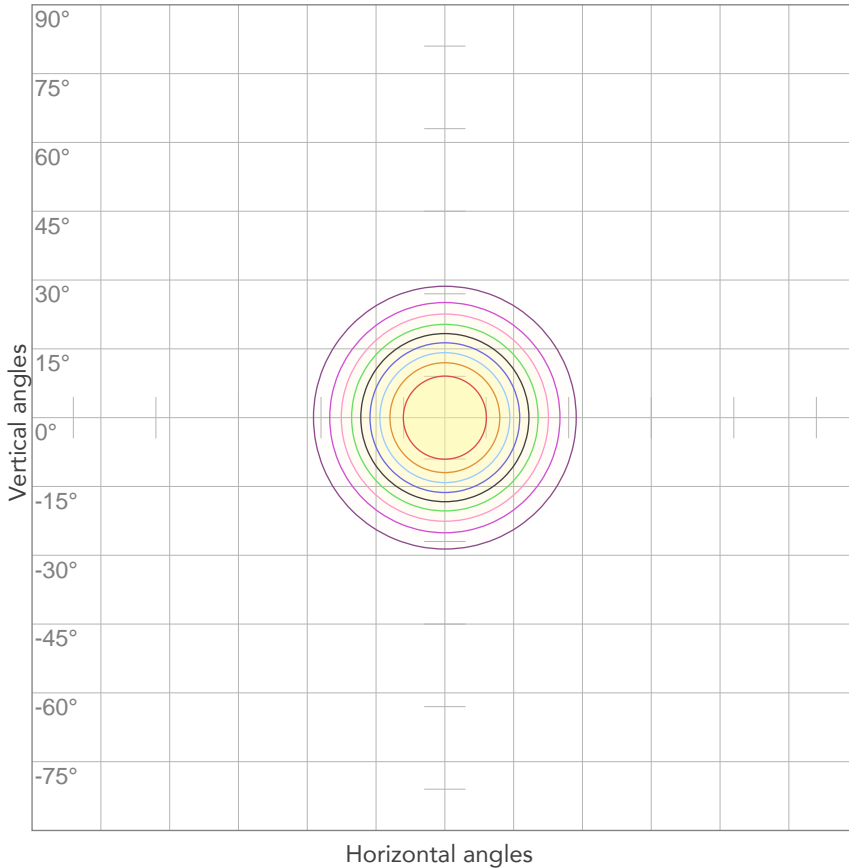


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	1,10A	232,5W	47lm/W

Power Fc
0,93

## ISO CANDELA DIAGRAM



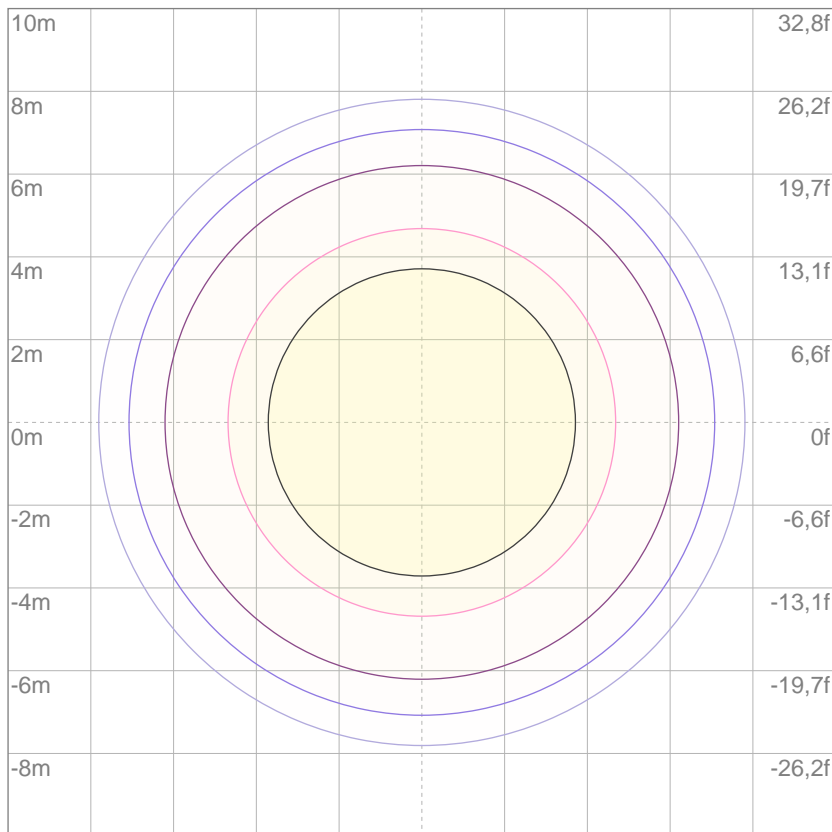
10%	2302 cd
20%	4603 cd
30%	6905 cd
40%	9207 cd
50%	11509 cd
60%	13810 cd
70%	16112 cd
80%	18414 cd

Conditions:

Number of c-planes: 2

Candela at center: 23017 cd

## ISO LUX DIAGRAM



3%	6,91 lx
5%	11,5 lx
10%	23,0 lx
30%	69,1 lx
50%	115 lx

Conditions:

Number of c-planes: 2

Lux at center: 230 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:

10553 lm

Peak candela output:

59318 cd

Light quality:

CRI: 94,2

Color temperature:

3994 K

**PRODUCT NAME:**

ECLFRESNELVW

**MEASURAMENT CONDITIONS:**

Beam angle:

Med Zoom

Target:

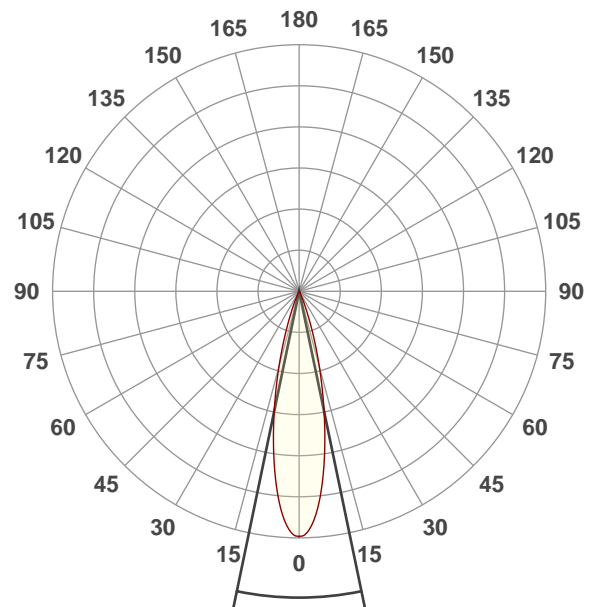
Full On

Operator:

Paolo Carvone

Date and time:

11/06/2021 16:07:56

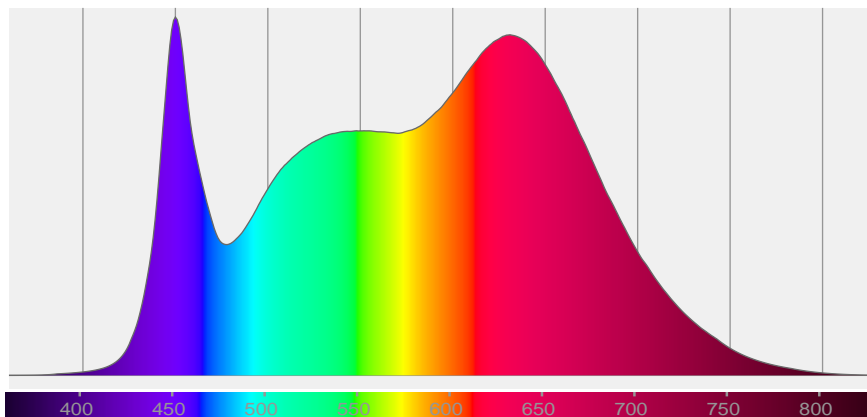


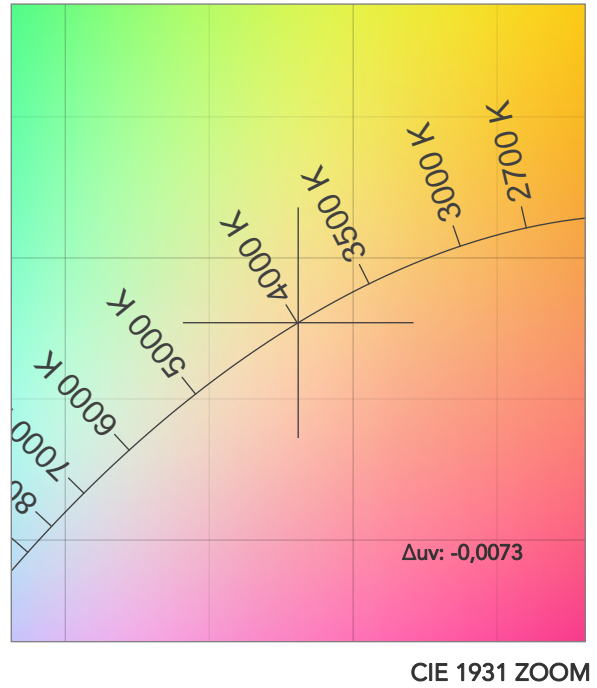
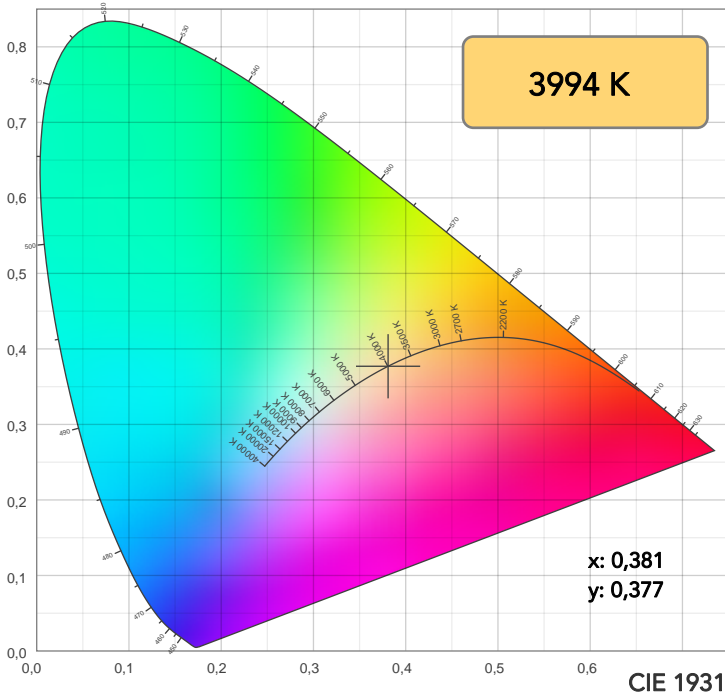
Beam angle 50%: 23,5°

Field angle 10%: 40,7°

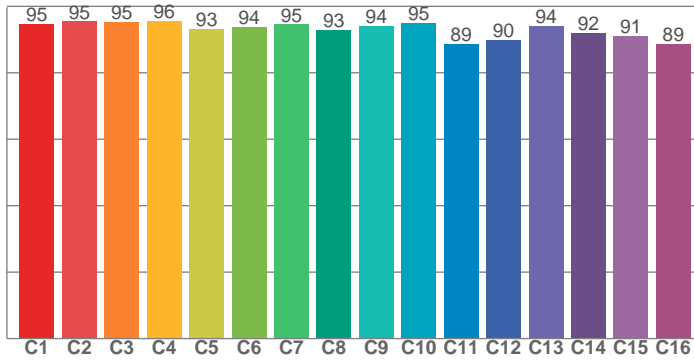
Cut off angle 2.5%: 49°

Spectra

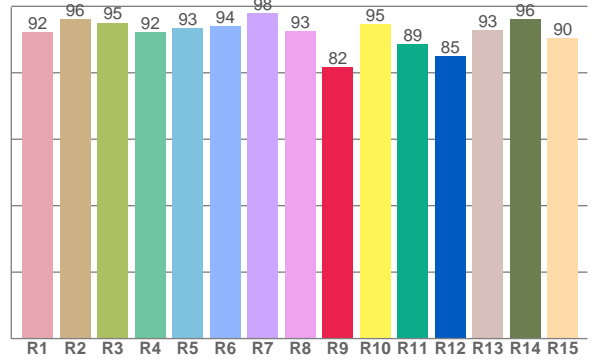




TM30: 93,3



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
92,2	96,2	95,1	92,1	93,4	94,1	98,0	92,6	81,7	94,6	88,6	84,9	92,8	96,2	90,4

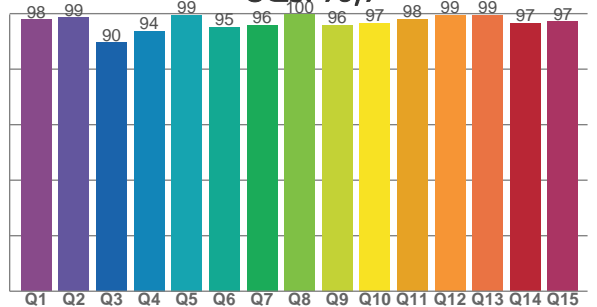
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,7	95,4	95,3	95,7	93,2	93,8	94,5	93,0	94,1	95,1	88,7	89,9	94,1	92,0	91,1	88,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,8	98,6	89,6	93,7	99,4	95,2	95,9	99,7	96,0	96,6	98,1	99,5	99,4	96,5	97,1

CQS: 95,9



COLOR PARAMETERS

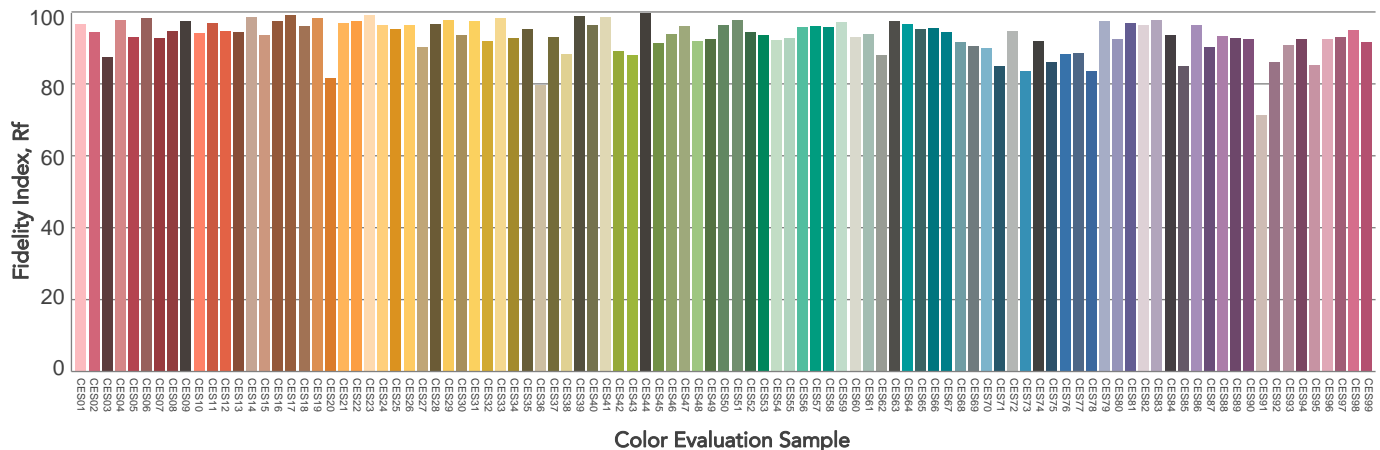
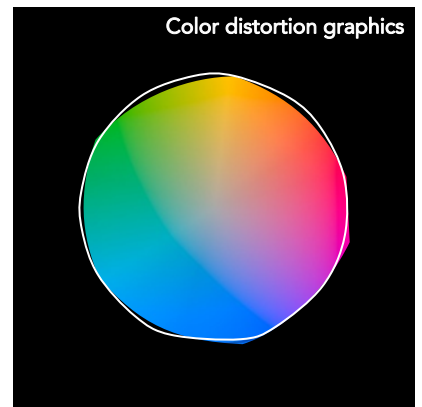
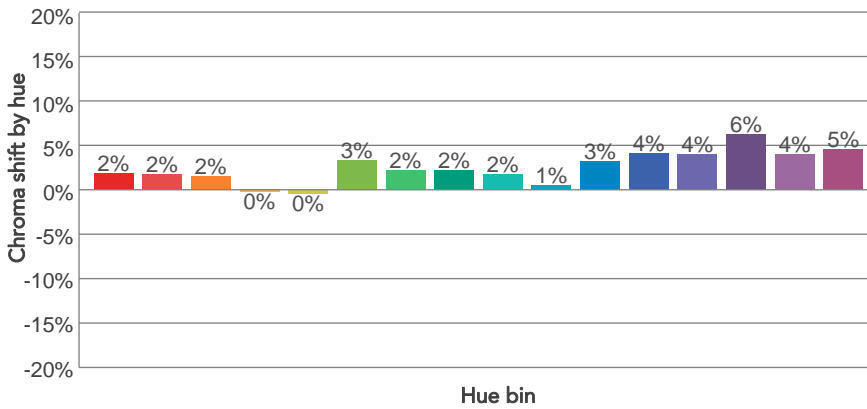
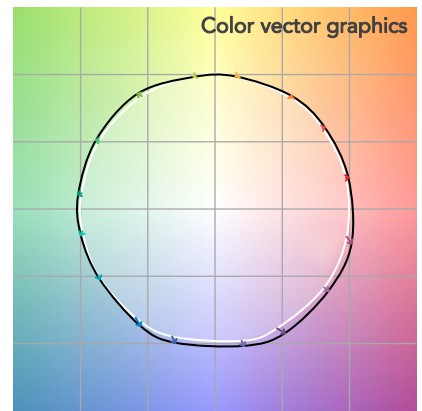
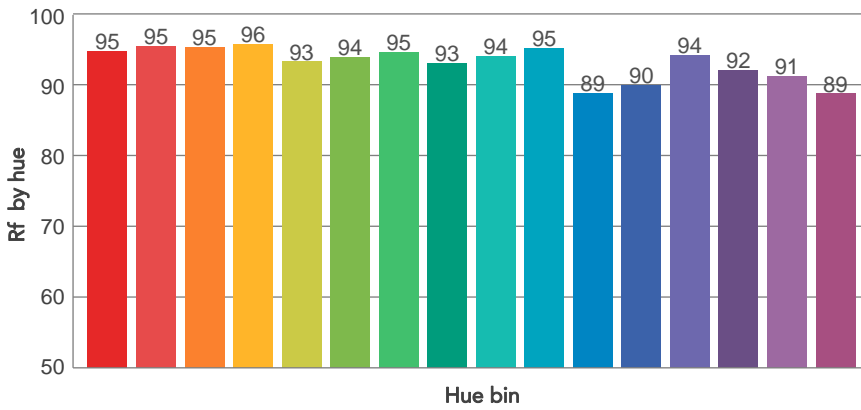
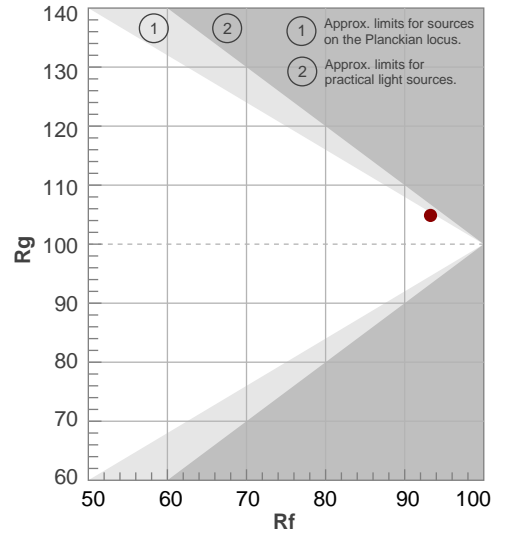
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3994 K	94,2	81,7	93,3	104,9	95,9	97	0,381	0,377	-0,0073

# TM30 DETAILS

**Rf 93,3**  
Fidelity index Rf

**Rg 104,9**  
Gammut index

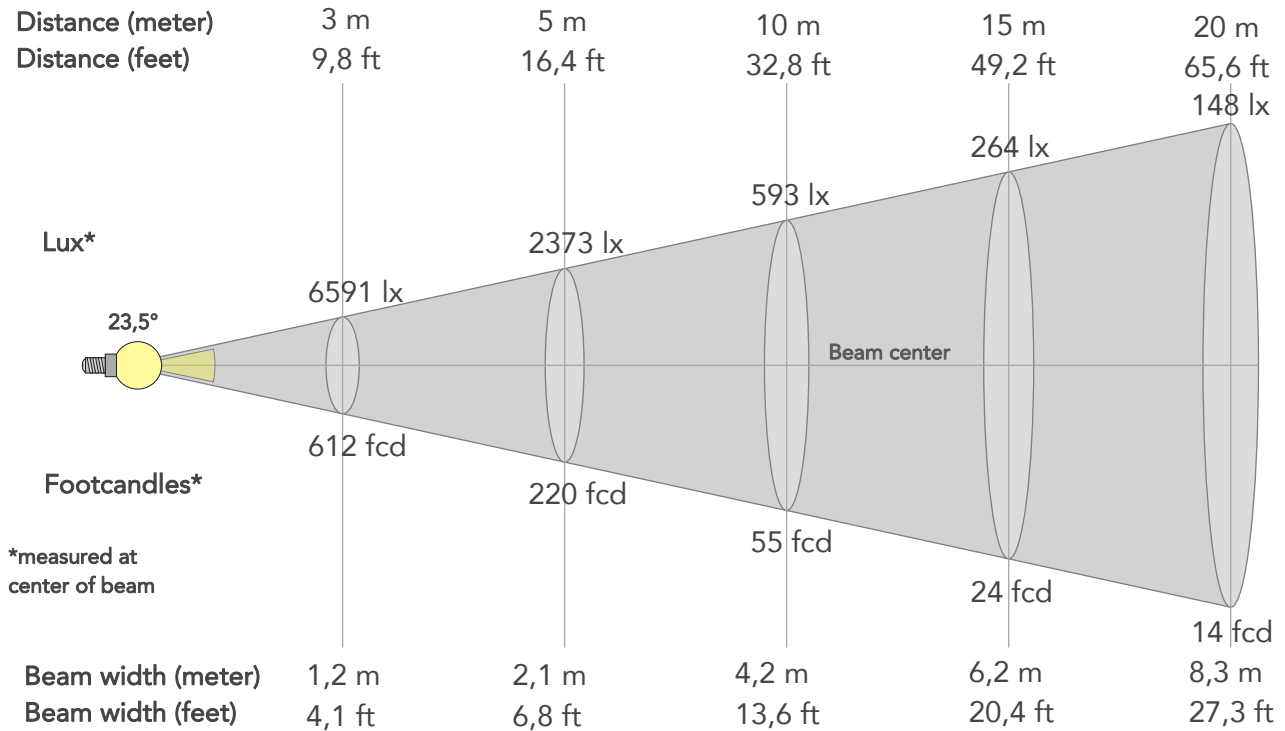
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	2%	0%
2	95	2%	-1%
3	95	2%	1%
4	96	0%	0%
5	93	0%	1%
6	94	3%	2%
7	95	2%	1%
8	93	2%	1%
9	94	2%	3%
10	95	1%	2%
11	89	3%	6%
12	90	4%	3%
13	94	4%	1%
14	92	6%	3%
15	91	4%	0%
16	89	5%	-4%



# BEAM DETAILS



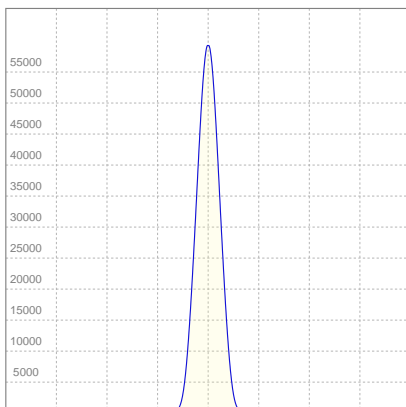
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,5°	40,7°	49°	100,0%	99,7%



## 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	59318lx	14830lx	6591lx	3707lx	2373lx	1055lx	593lx	264lx	148lx	95lx	66lx	37lx	24lx
Footcand.	5511fcd	1378fcd	612fcd	344fcd	220fcd	98fcd	55fcd	24fcd	14fcd	9fcd	6fcd	3fcd	2fcd
Beam wid.	0,4m	0,8m	1,2m	1,7m	2,1m	3,1m	4,2m	6,2m	8,3m	10,4m	12,5m	16,6m	20,8m
Beam wid.	1,4ft	2,7ft	4,1ft	5,4ft	6,8ft	10,2ft	13,6ft	20,4ft	27,3ft	34,1ft	40,9ft	54,5ft	68,1ft

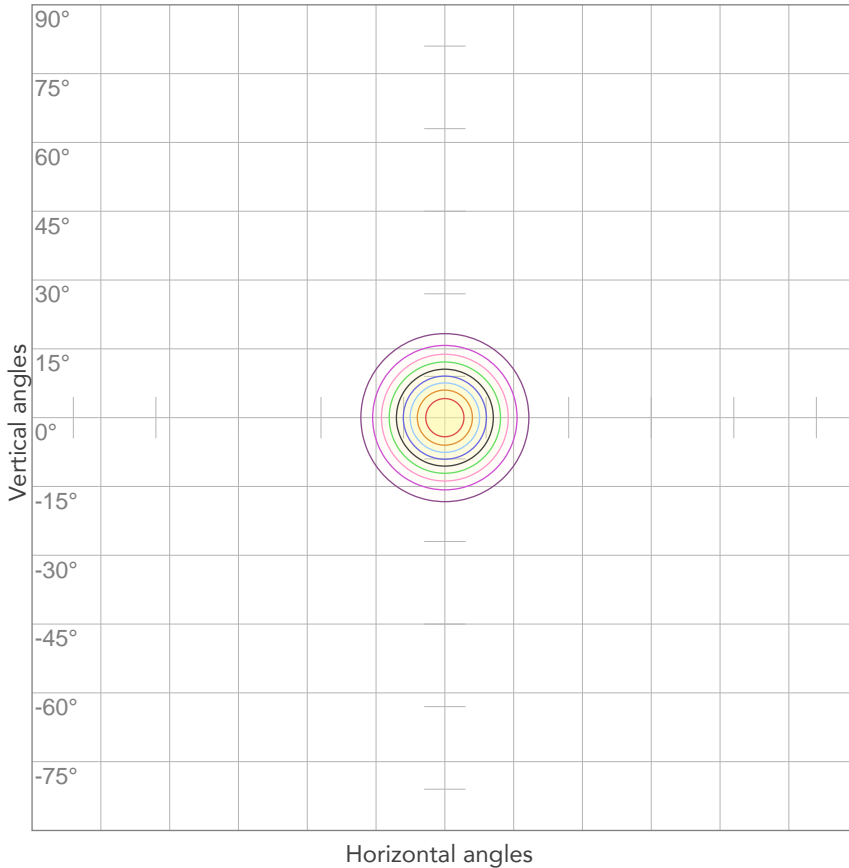
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	1,11A	234,1W	45lm/W
Power Fc			
0,93			

## ISO CANDELA DIAGRAM



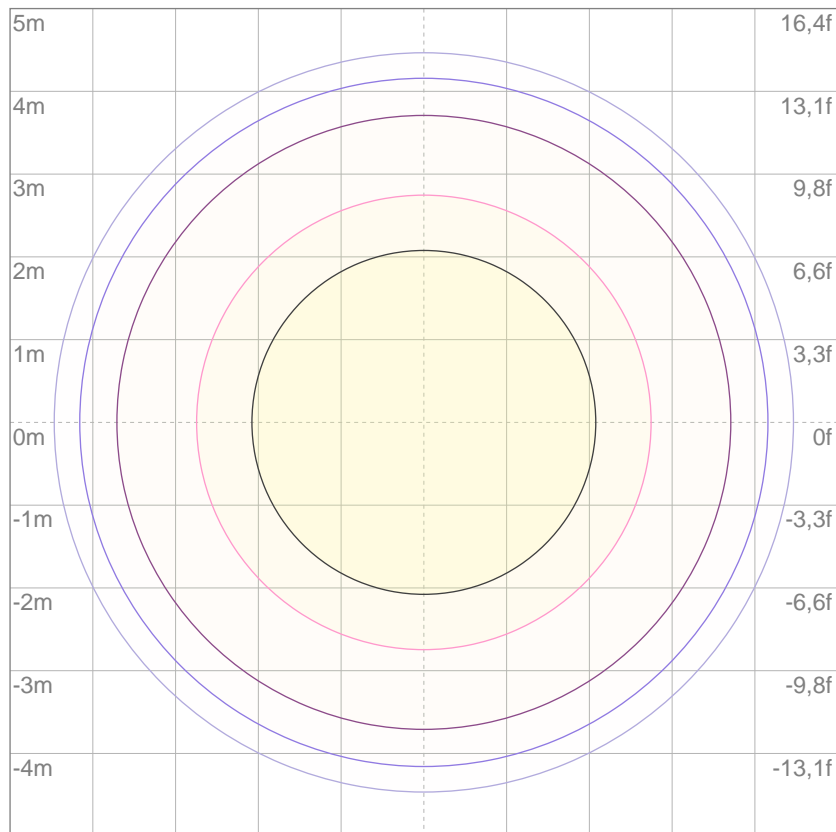
10%	5932 cd
20%	11864 cd
30%	17796 cd
40%	23727 cd
50%	29659 cd
60%	35591 cd
70%	41523 cd
80%	47455 cd

Conditions:

Number of c-planes: 2

Candela at center: 59318 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	17,8 lx
5%	29,7 lx
10%	59,3 lx
30%	178 lx
50%	297 lx

Conditions:

Number of c-planes: 2

Lux at center: 593 lx

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



Total lumen output:

8693 lm

Peak candela output:

85432 cd

Light quality:

CRI: 94,1

Color temperature:

3995 K

**PRODUCT NAME:**

ECLFRESNELVW

**MEASURAMENT CONDITIONS:**

Beam angle:

Min Zoom

Target:

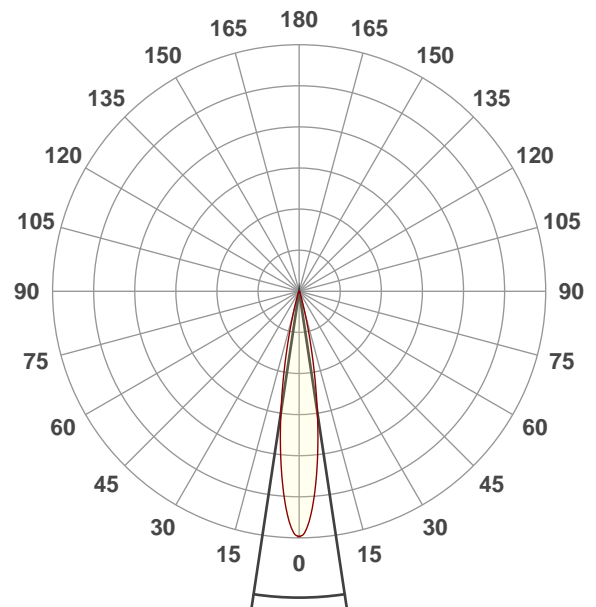
Full On

Operator:

Paolo Carvone

Date and time:

11/06/2021 15:49:21

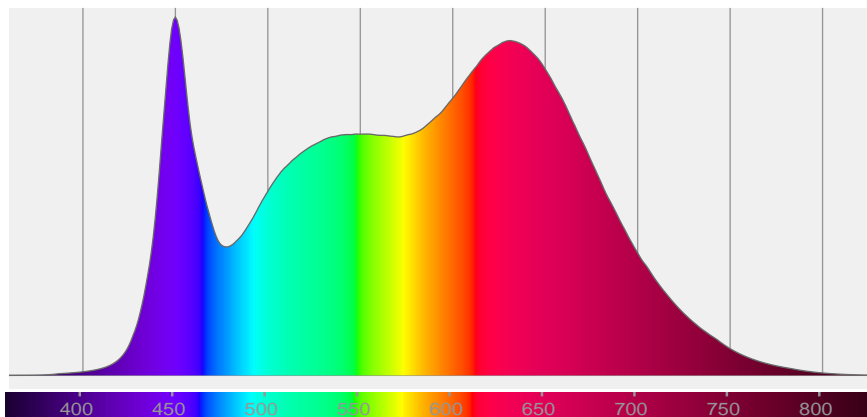


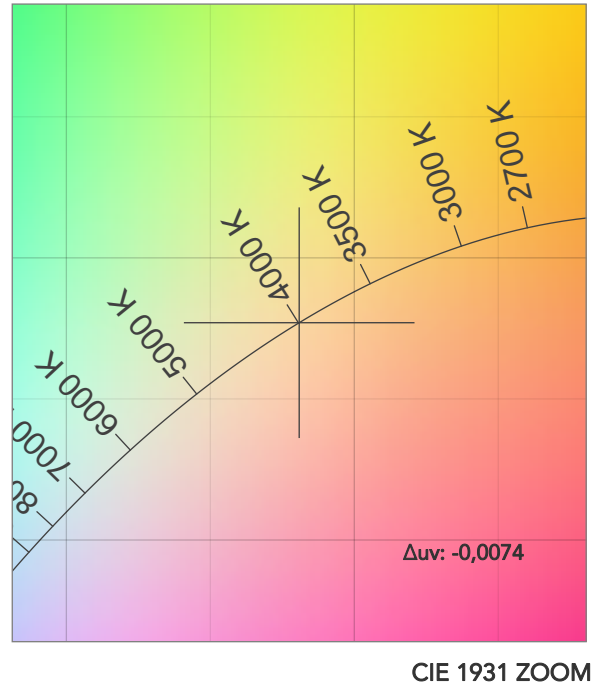
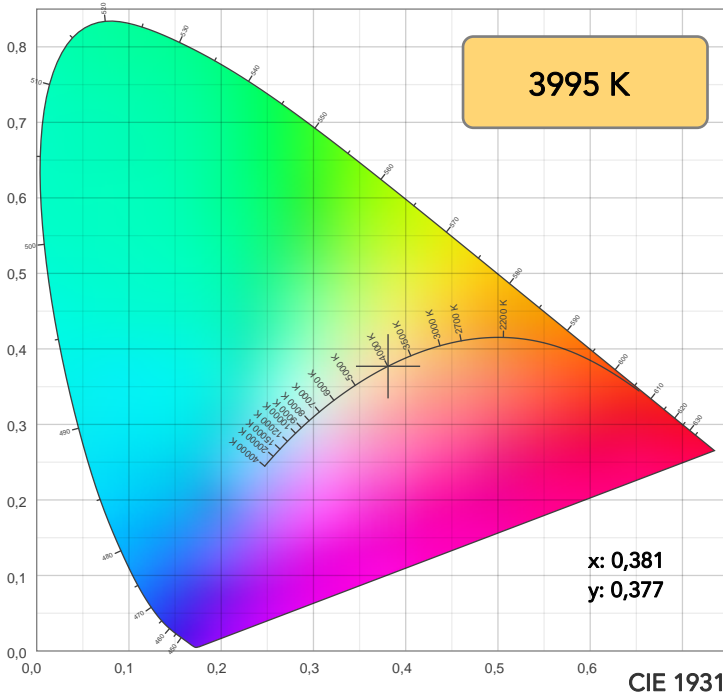
Beam angle 50%: 17,1°

Field angle 10%: 29,5°

Cut off angle 2.5%: 38,8°

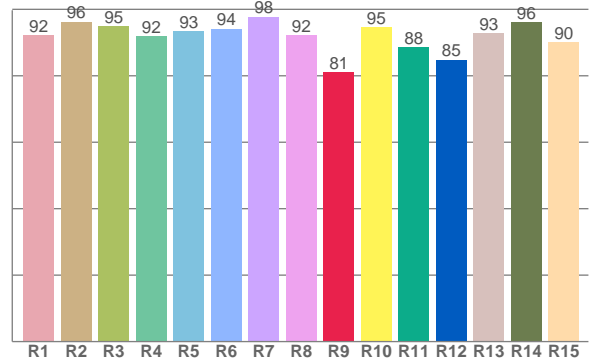
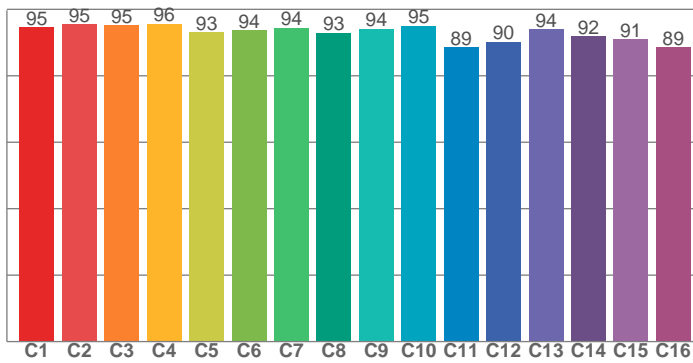
Spectra





TM30: 93,2

CRI: 94,1 (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
92,1	96,2	94,9	92,0	93,4	94,1	97,8	92,2	81,0	94,7	88,5	84,9	92,8	96,1	90,2

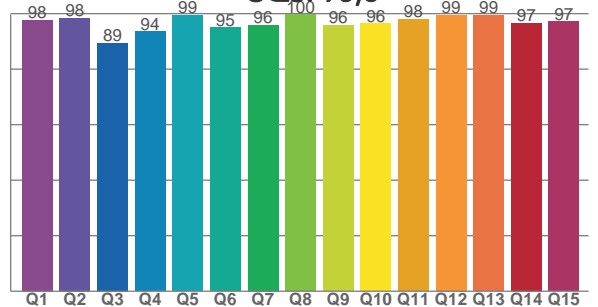
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,6	95,4	95,2	95,6	93,1	93,7	94,5	92,9	94,1	95,1	88,5	90,3	94,0	91,8	91,0	88,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,8	98,4	89,4	93,6	99,4	95,0	95,9	99,6	95,8	96,4	98,0	99,4	99,4	96,5	97,1

CQS: 95,8



COLOR PARAMETERS

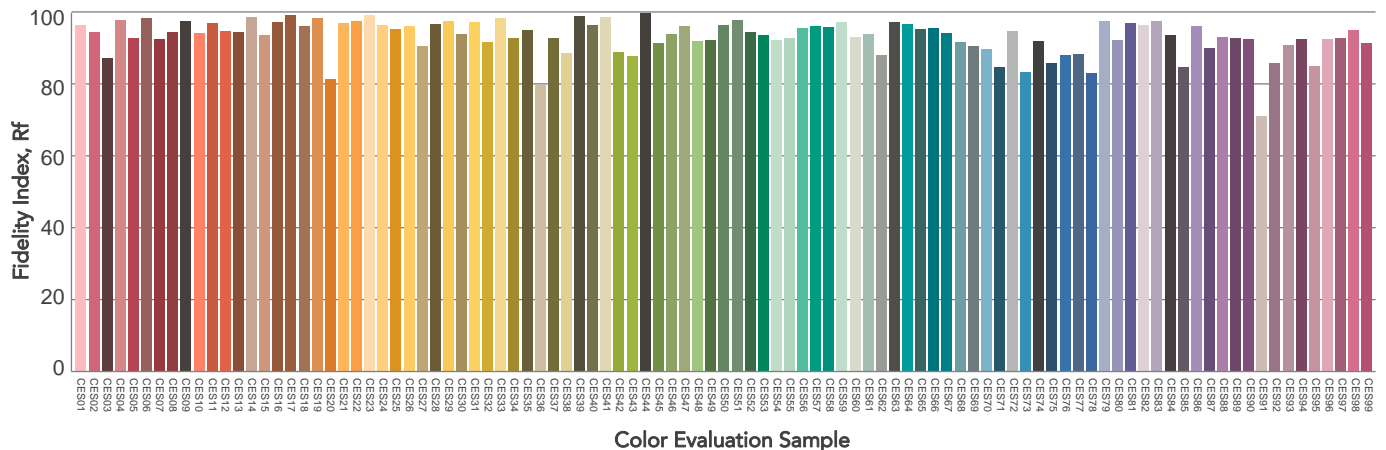
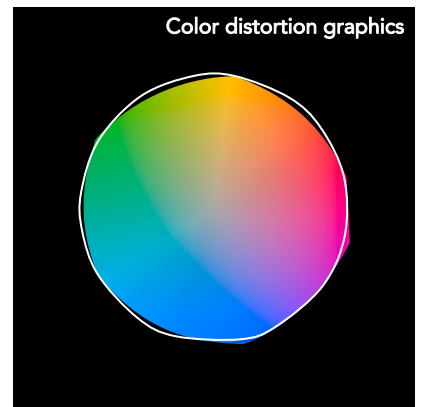
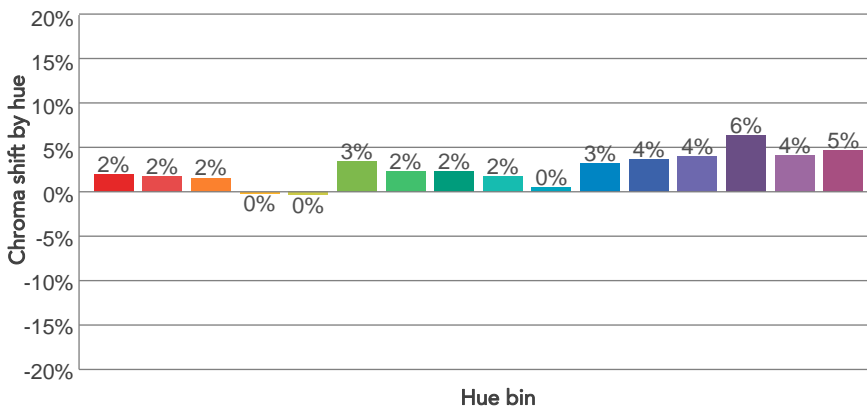
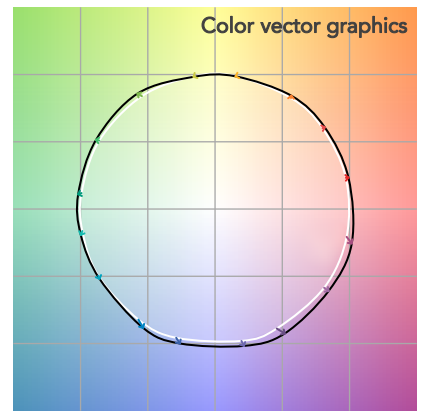
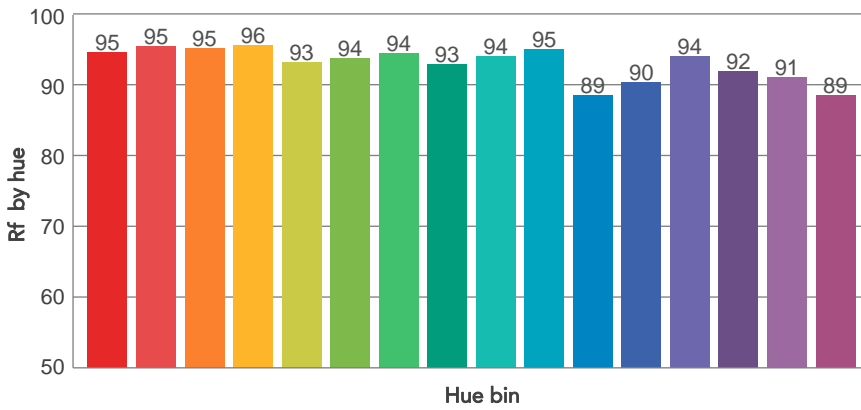
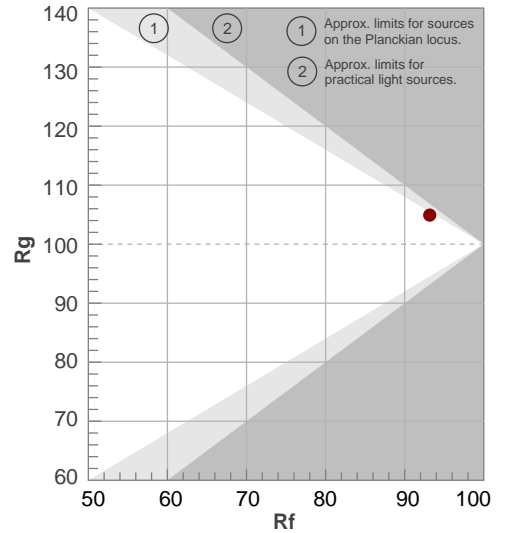
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3995 K	94,1	81,0	93,2	104,9	95,8	97	0,381	0,377	-0,0074

# TM30 DETAILS

**Rf 93,2**  
Fidelity index Rf

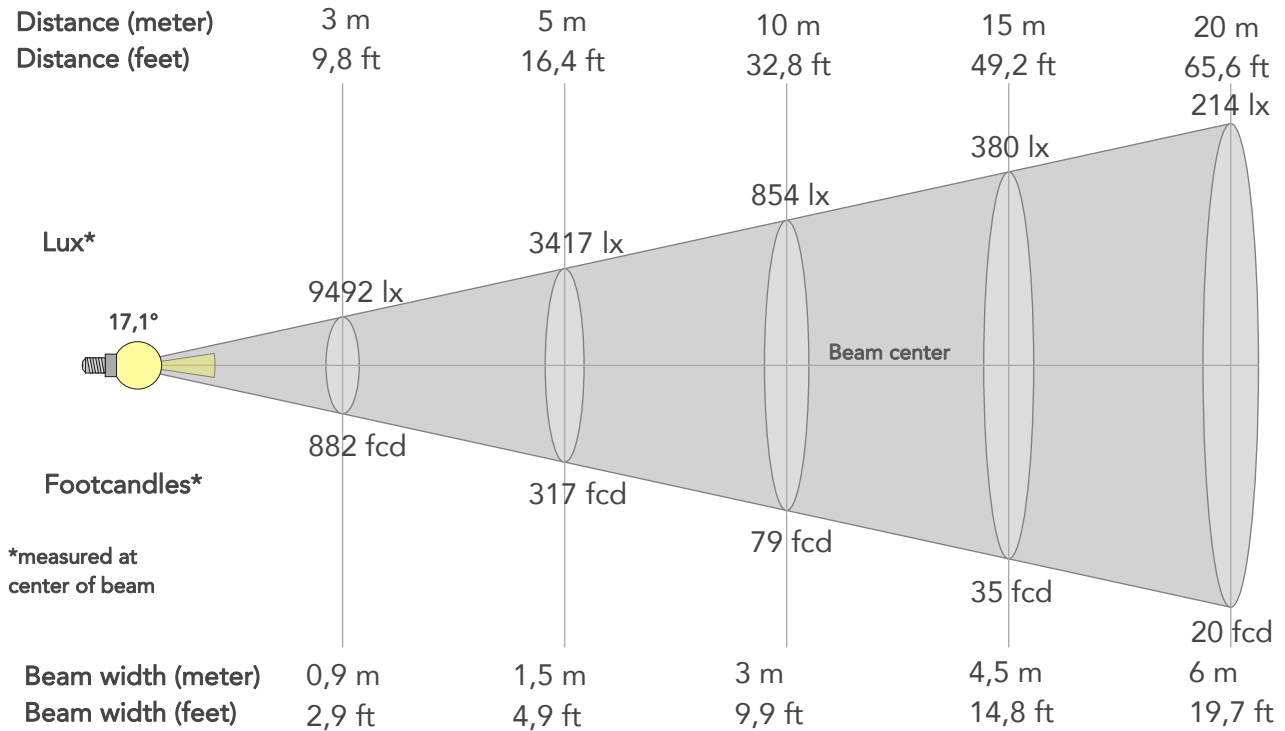
**Rg 104,9**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	2%	0%
2	95	2%	-1%
3	95	2%	1%
4	96	0%	0%
5	93	0%	1%
6	94	3%	2%
7	94	2%	1%
8	93	2%	1%
9	94	2%	3%
10	95	0%	2%
11	89	3%	6%
12	90	4%	3%
13	94	4%	1%
14	92	6%	3%
15	91	4%	0%
16	89	5%	-4%





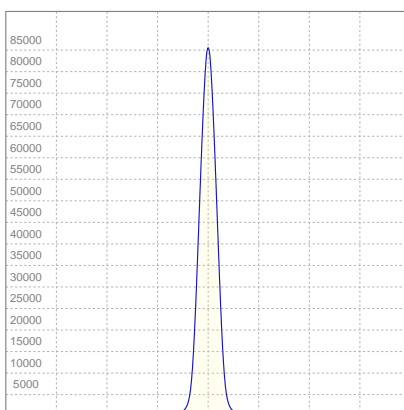
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,1°	29,5°	38,8°	100,0%	99,5%



## 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	85432lx	21358lx	9492lx	5339lx	3417lx	1519lx	854lx	380lx	214lx	137lx	95lx	53lx	34lx
Footcand.	7937fcd	1984fcd	882fcd	496fcd	317fcd	141fcd	79fcd	35fcd	20fcd	13fcd	9fcd	5fcd	3fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3m	4,5m	6m	7,5m	9m	12m	15m
Beam wid.	1ft	2ft	2,9ft	3,9ft	4,9ft	7,4ft	9,9ft	14,8ft	19,7ft	24,7ft	29,6ft	39,5ft	49,3ft

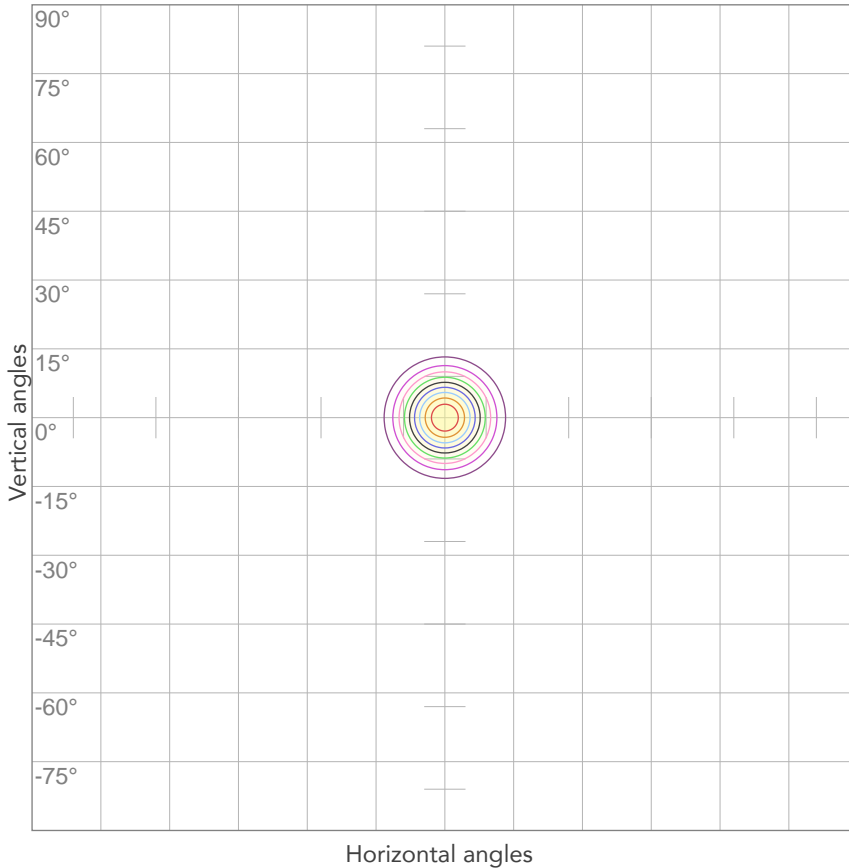
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	1,13A	237,1W	37lm/W
Power Fc			
0,93			

## ISO CANDELA DIAGRAM



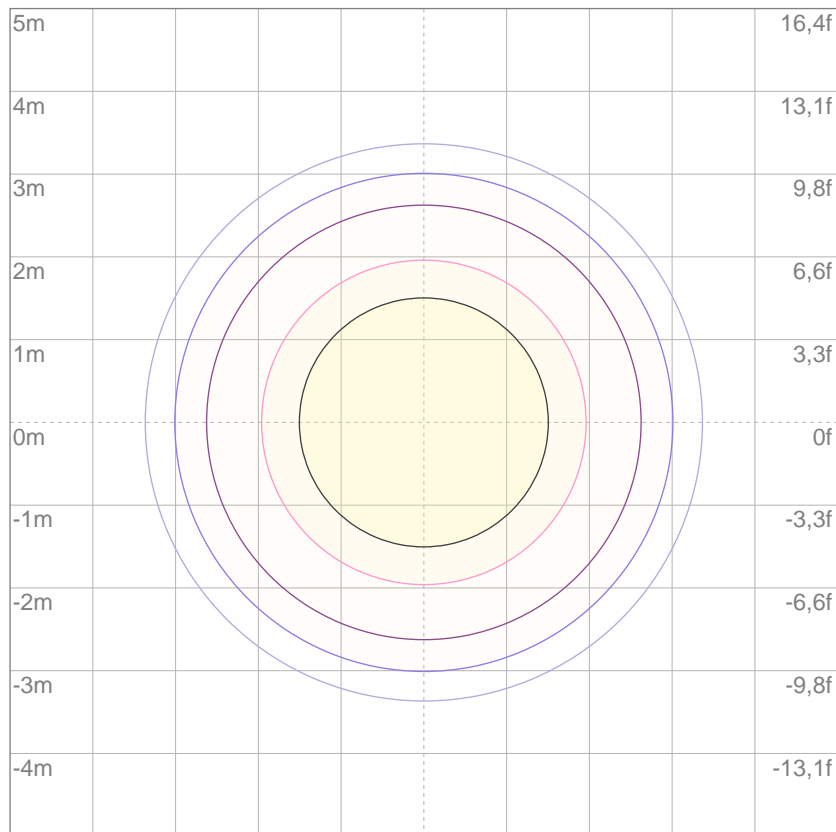
10%	8543 cd
20%	17086 cd
30%	25630 cd
40%	34173 cd
50%	42716 cd
60%	51259 cd
70%	59802 cd
80%	68346 cd

Conditions:

Number of c-planes: 2

Candela at center: 85432 cd

## ISO LUX DIAGRAM



3%	25,6 lx
5%	42,7 lx
10%	85,4 lx
30%	256 lx
50%	427 lx

Conditions:

Number of c-planes: 2

Lux at center: 854 lx

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



Total lumen output:

6673 lm

Peak candela output:

14580 cd

Light quality:

CRI: 95,4

Color temperature:

5612 K

**PRODUCT NAME:**

ECLFRESNELVW

**MEASURAMENT CONDITIONS:**

Beam angle:

Max Zoom

Target:

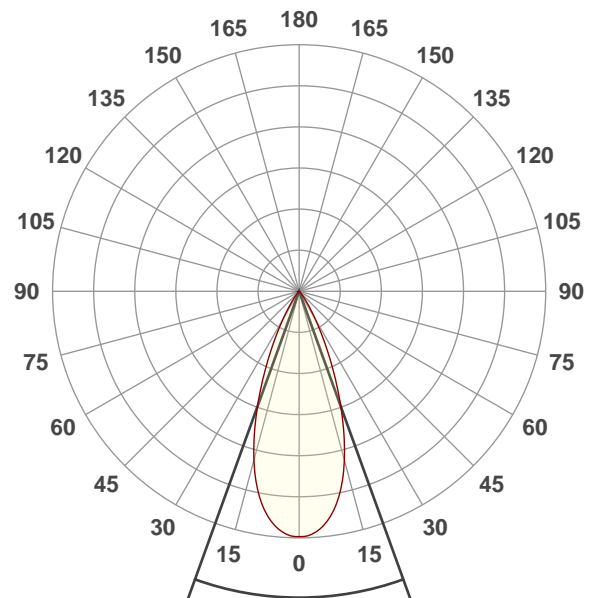
Cold White

Operator:

Paolo Carvone

Date and time:

11/06/2021 16:23:16

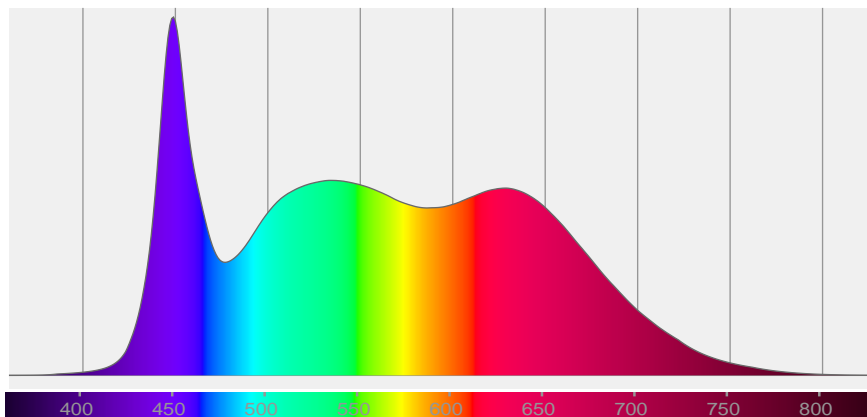


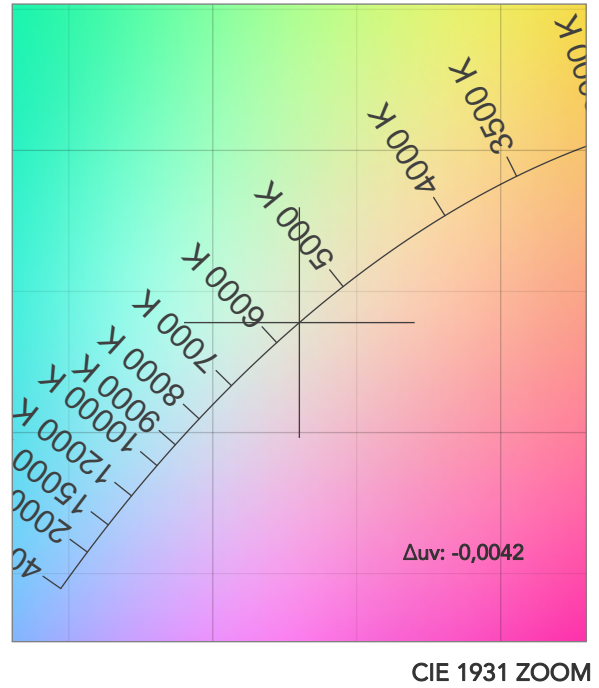
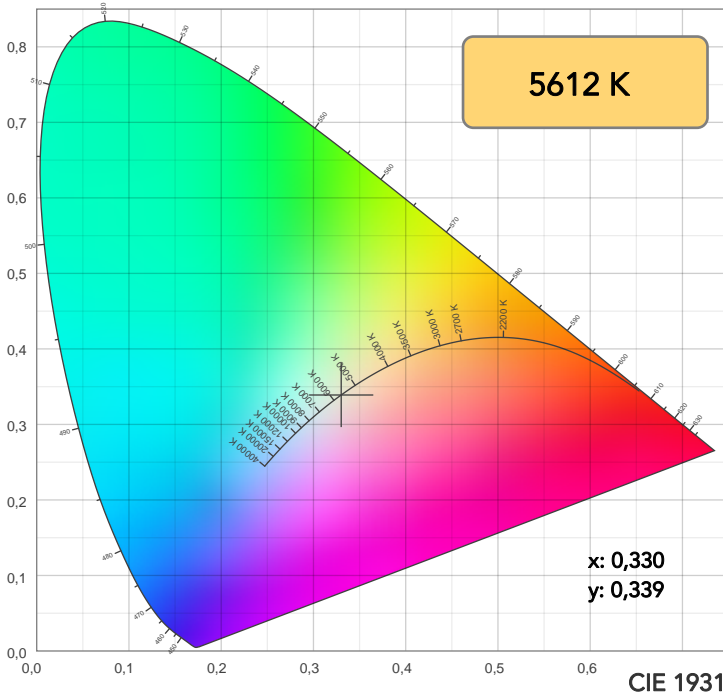
Beam angle 50%: 39,8°

Field angle 10%: 63,3°

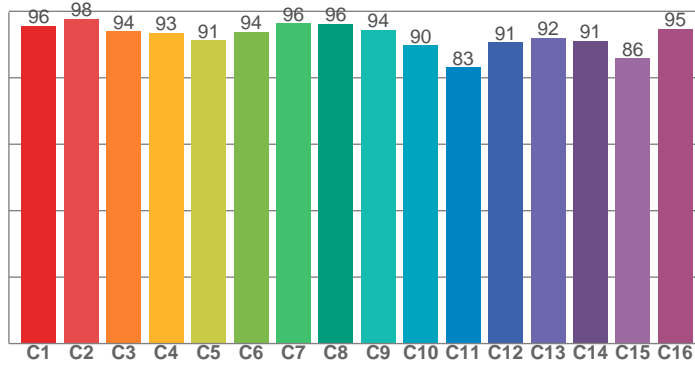
Cut off angle 2.5%: 76,6°

Spectra

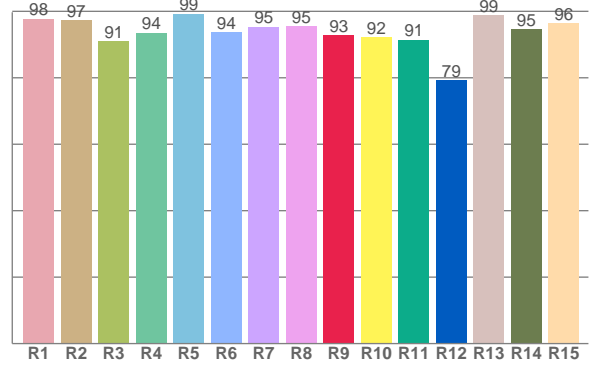




TM30: 92,4



CRI: 95,4 (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
97,8	97,2	91,1	93,6	99,3	93,8	95,4	95,5	92,8	92,2	91,5	79,3	98,8	94,6	96,3

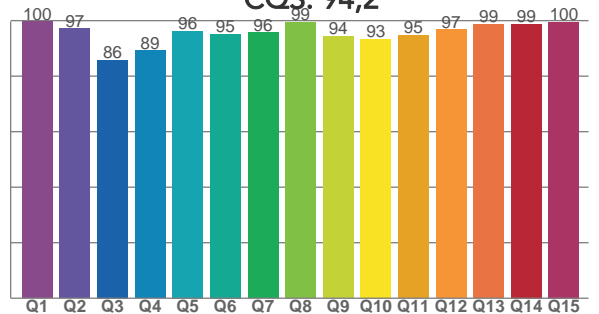
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,6	97,8	93,9	93,5	91,3	93,9	96,4	96,3	94,4	89,8	83,1	90,7	92,0	91,2	85,9	94,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,7	97,1	85,8	89,2	96,2	95,2	95,7	99,4	94,3	93,4	94,7	96,8	98,7	98,8	99,6

CQS: 94,2



COLOR PARAMETERS

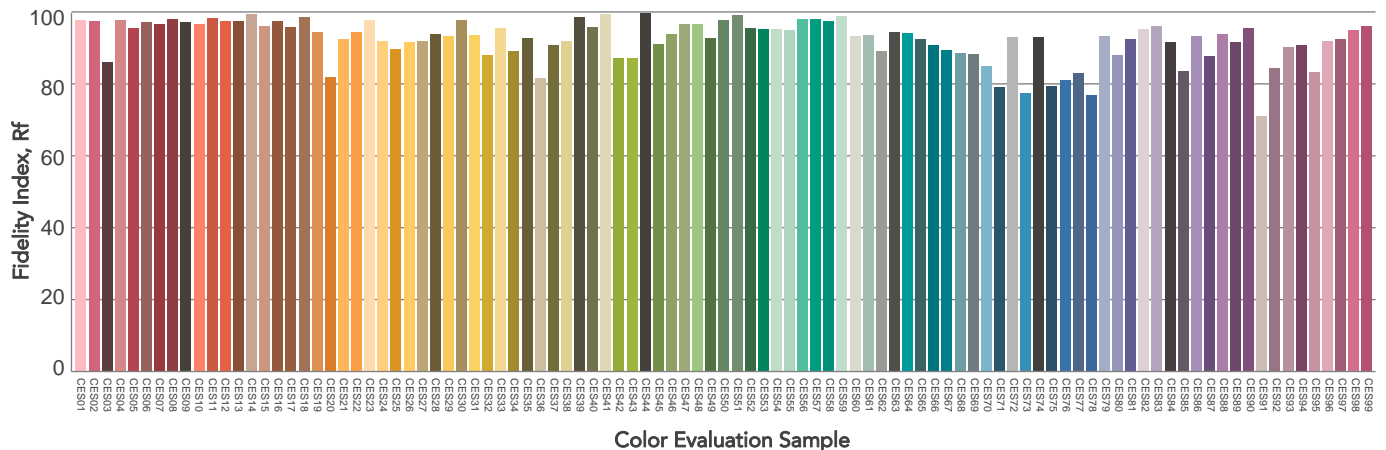
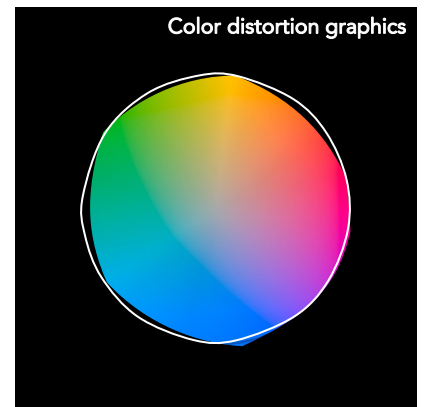
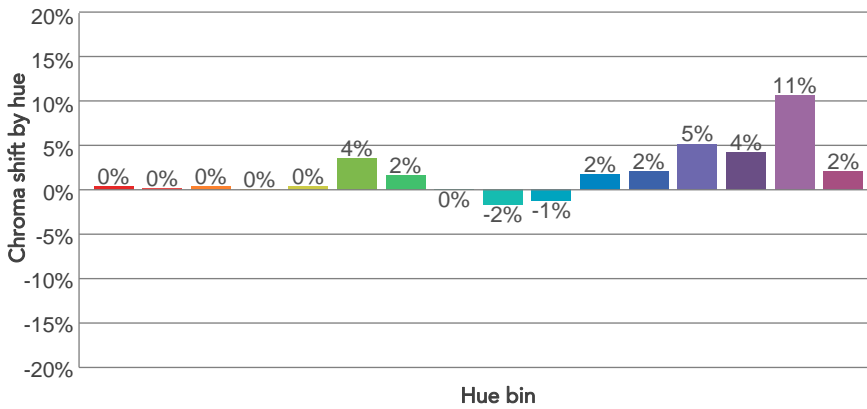
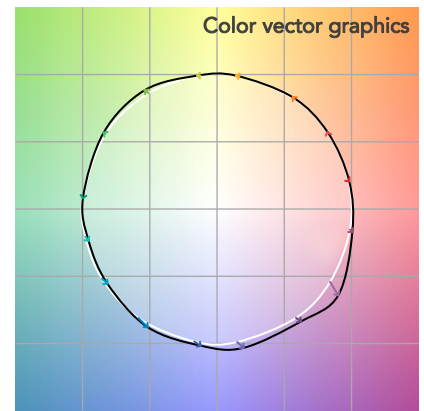
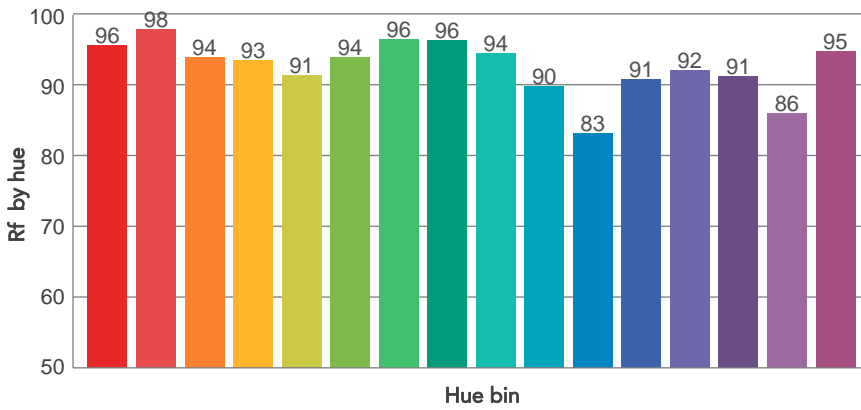
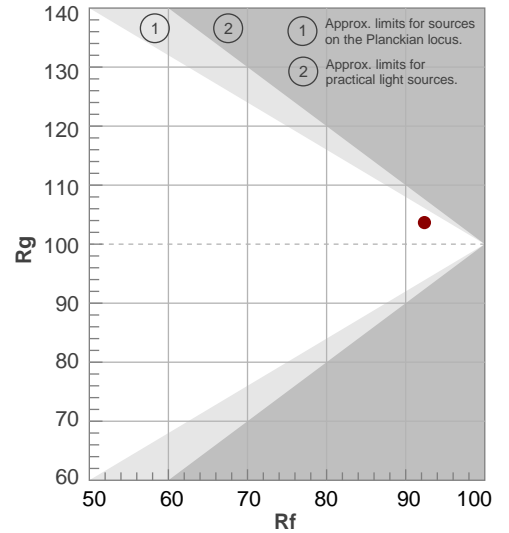
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5612 K	95,4	92,8	92,4	103,7	94,2	98	0,330	0,339	-0,0042

# TM30 DETAILS

**Rf 92,4**  
Fidelity index Rf

**Rg 103,7**  
Gammut index

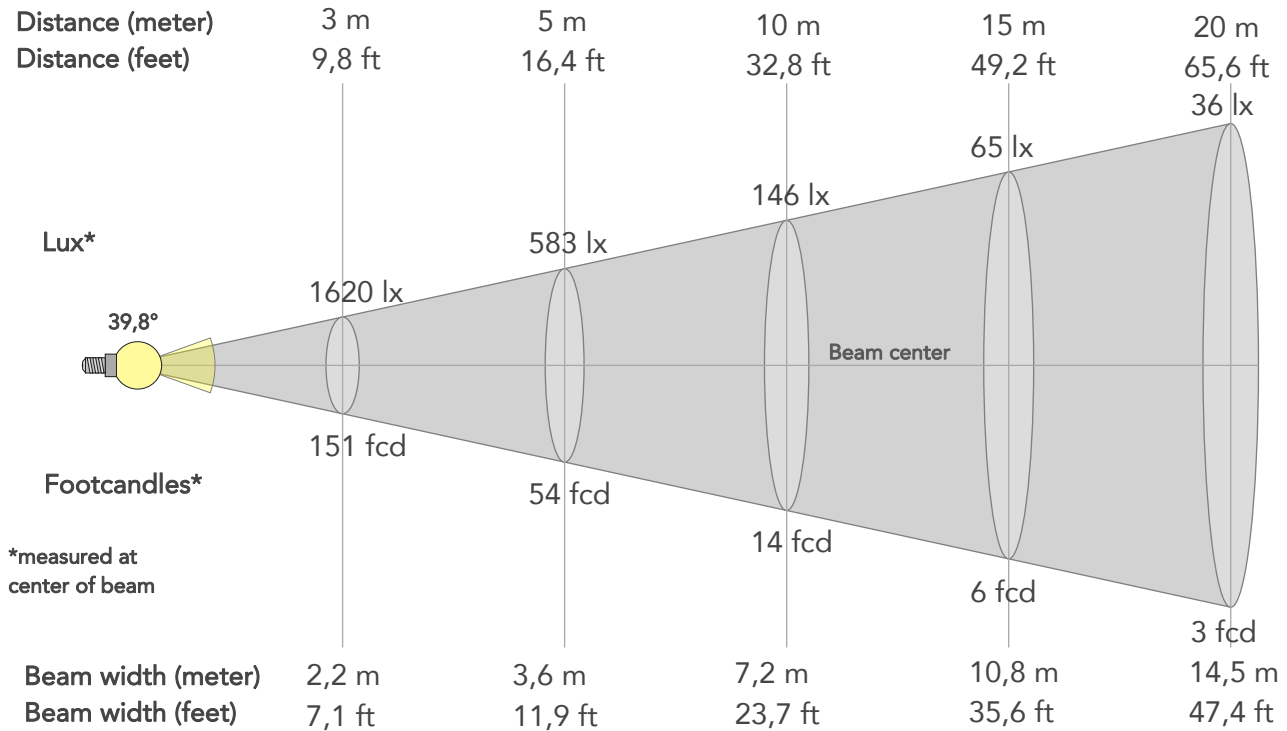
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	-1%
2	98	0%	0%
3	94	0%	2%
4	93	0%	3%
5	91	0%	2%
6	94	4%	1%
7	96	2%	0%
8	96	0%	0%
9	94	-2%	3%
10	90	-1%	5%
11	83	2%	9%
12	91	2%	5%
13	92	5%	4%
14	91	4%	2%
15	86	11%	-5%
16	95	2%	-2%



# BEAM DETAILS



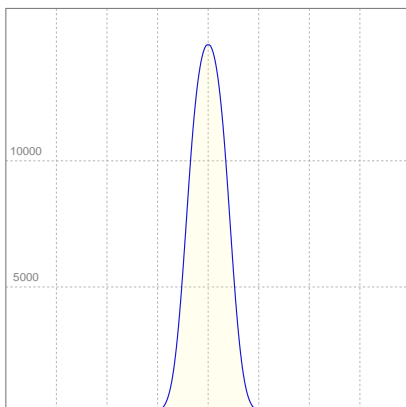
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
39,8°	63,3°	76,6°	99,9%	99,2%



## 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	14580lx	3645lx	1620lx	911lx	583lx	259lx	146lx	65lx	36lx	23lx	16lx	9lx	6lx
Footcand.	1355fcd	339fcd	151fcd	85fcd	54fcd	24fcd	14fcd	6fcd	3fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	0,7m	1,4m	2,2m	2,9m	3,6m	5,4m	7,2m	10,8m	14,5m	18,1m	21,7m	28,9m	36,2m
Beam wid.	2,4ft	4,8ft	7,1ft	9,5ft	11,9ft	17,8ft	23,7ft	35,6ft	47,4ft	59,3ft	71,2ft	94,9ft	118,6ft

## LINEAR DISTRIBUTION DIAGRAM

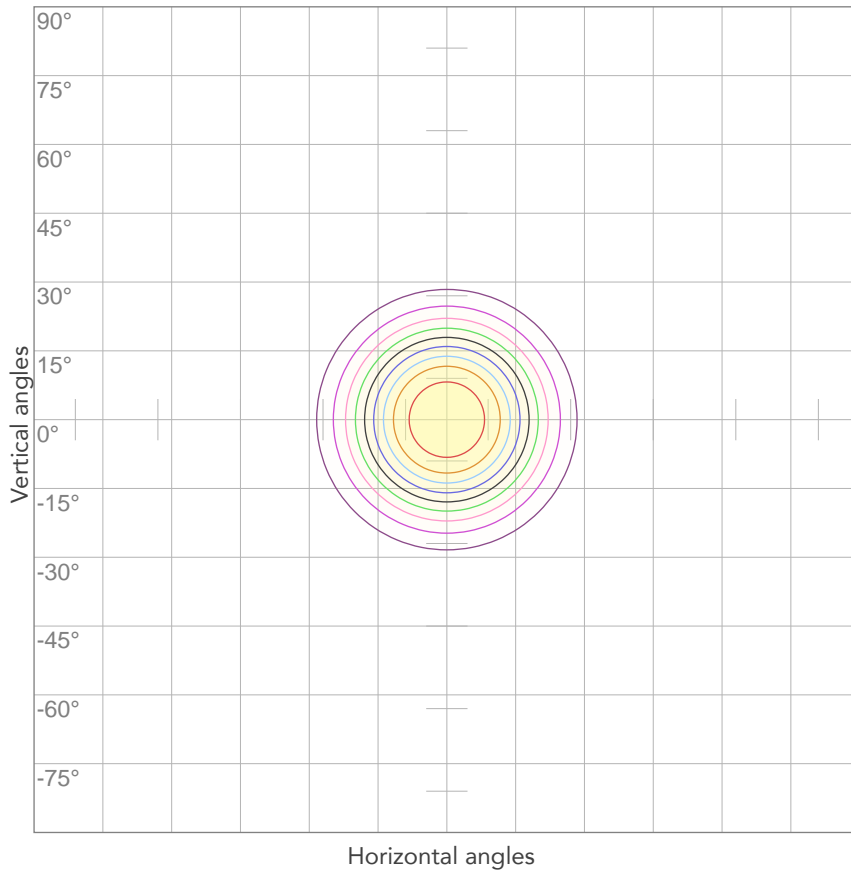


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,609A	119,5W	56lm/W

Power Fc
0,93

## ISO CANDELA DIAGRAM



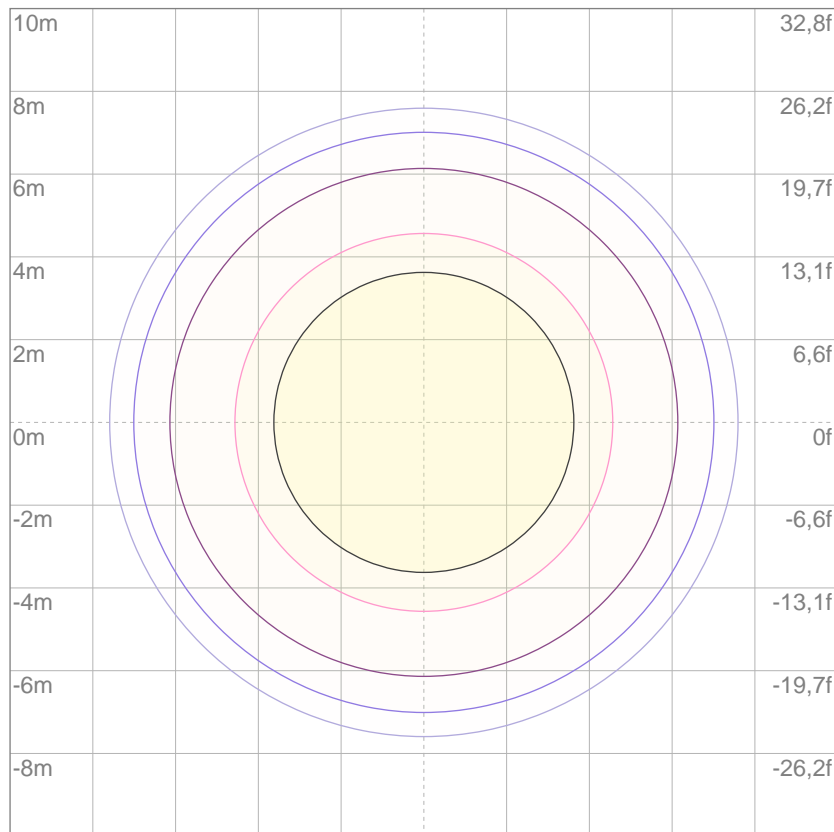
10%	1458 cd
20%	2916 cd
30%	4374 cd
40%	5832 cd
50%	7290 cd
60%	8748 cd
70%	10206 cd
80%	11664 cd

Conditions:

Number of c-planes: 2

Candela at center: 14580 cd

## ISO LUX DIAGRAM



3%	4,37 lx
5%	7,29 lx
10%	14,6 lx
30%	43,7 lx
50%	72,9 lx

Conditions:

Number of c-planes: 2

Lux at center: 146 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:

6380 lm

Peak candela output:

37077 cd

Light quality:

CRI: 95,5

Color temperature:

5615 K

**PRODUCT NAME:**

ECLFRESNELVW

**MEASURAMENT CONDITIONS:**

Beam angle:

Med Zoom

Target:

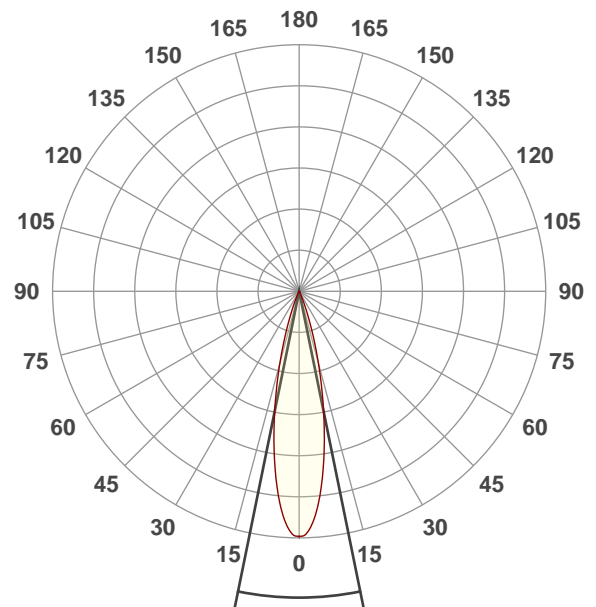
Cold White

Operator:

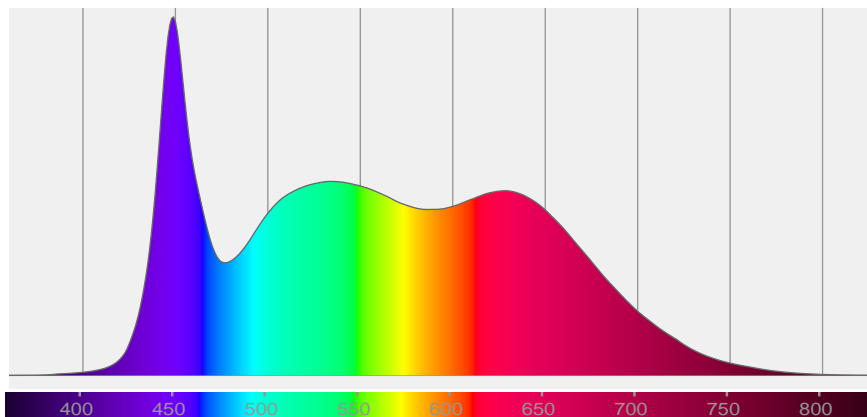
Paolo Carvone

Date and time:

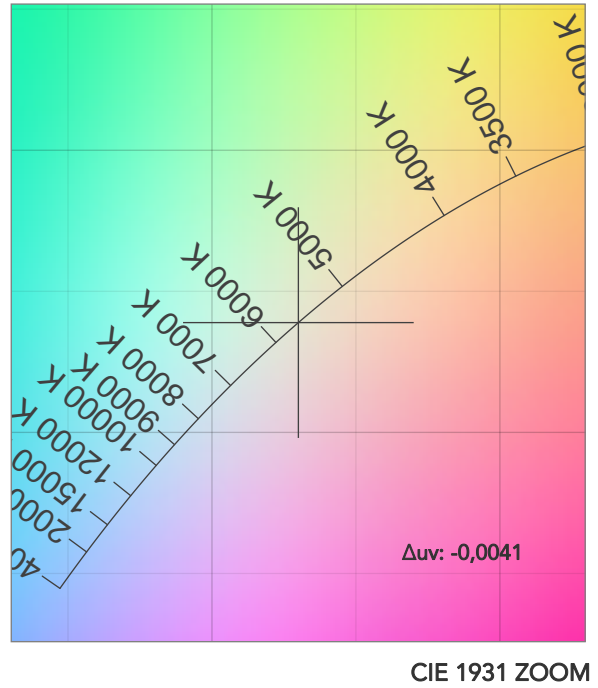
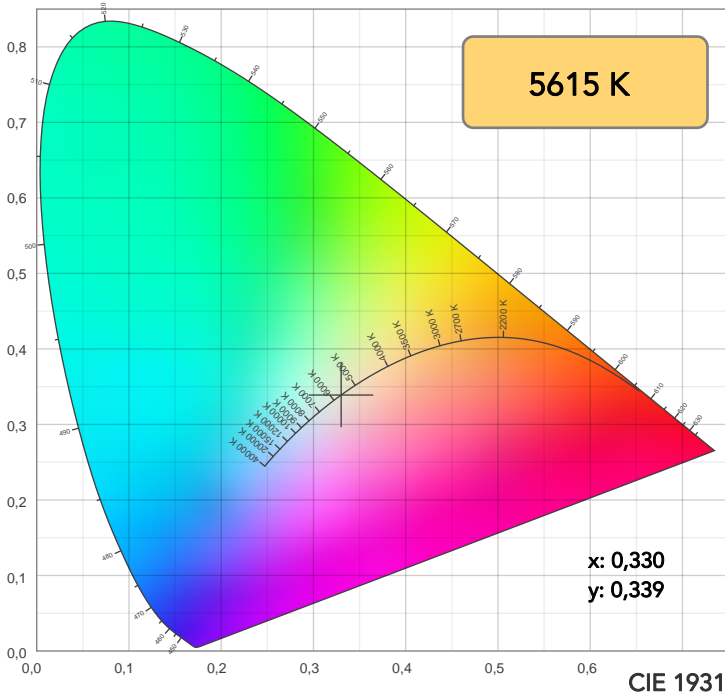
11/06/2021 16:11:56



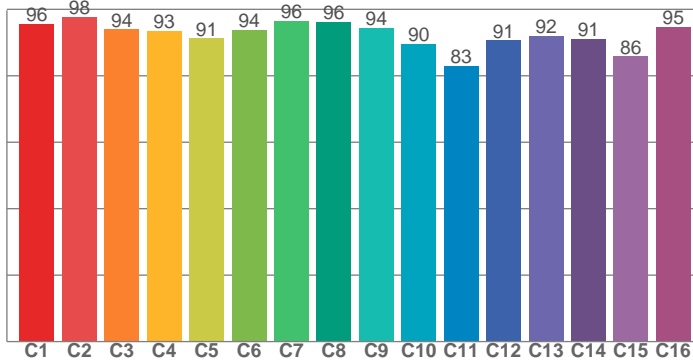
Spectra



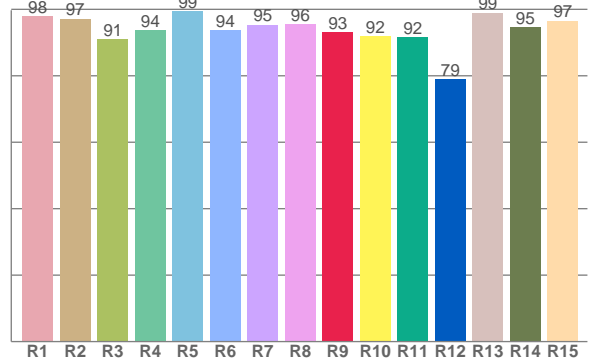




TM30: 92,3



CRI: 95,5 (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
98,0	97,1	91,0	93,7	99,4	93,7	95,3	95,6	93,2	92,0	91,6	79,0	99,0	94,6	96,6

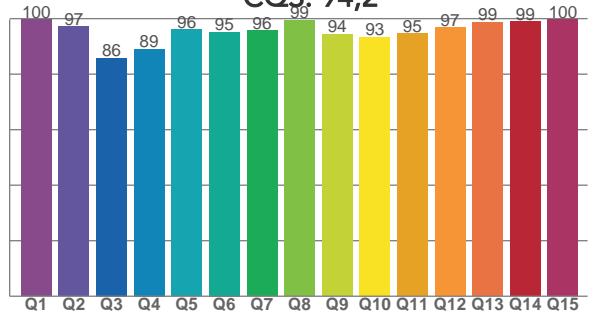
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,6	97,8	93,9	93,4	91,3	93,9	96,5	96,3	94,4	89,7	83,0	90,6	92,0	91,2	85,8	94,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,7	97,1	85,7	89,1	96,1	95,2	95,7	99,4	94,3	93,4	94,7	96,8	98,7	98,9	99,6

CQS: 94,2



COLOR PARAMETERS

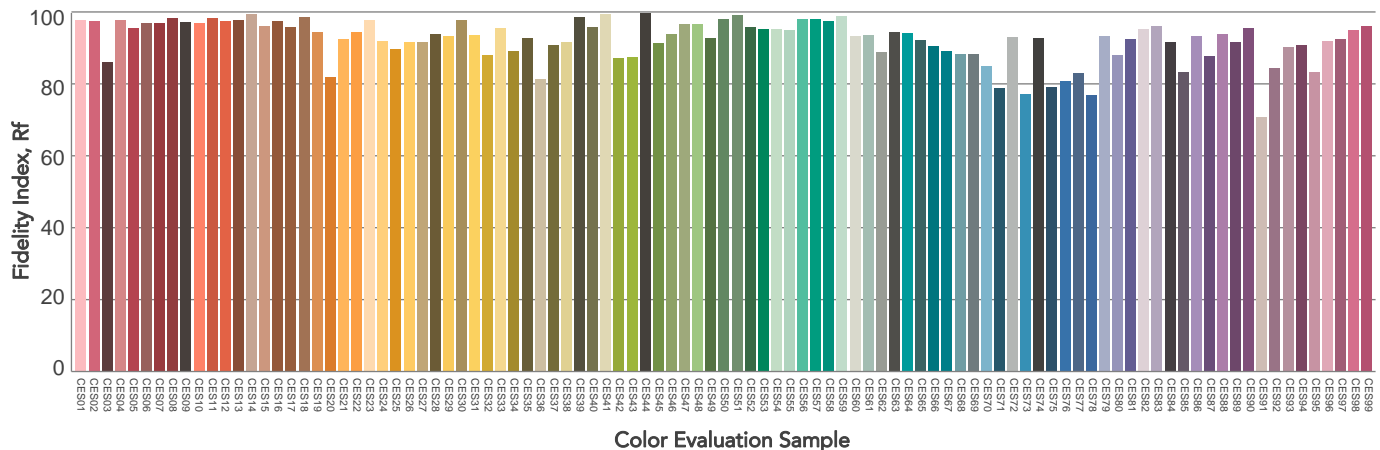
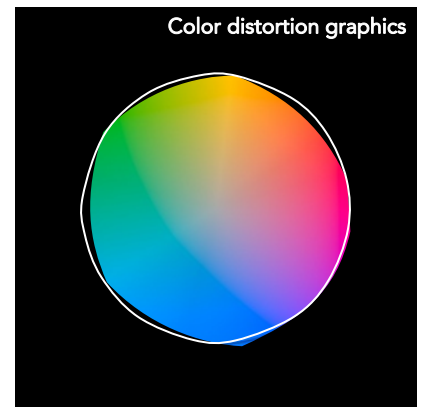
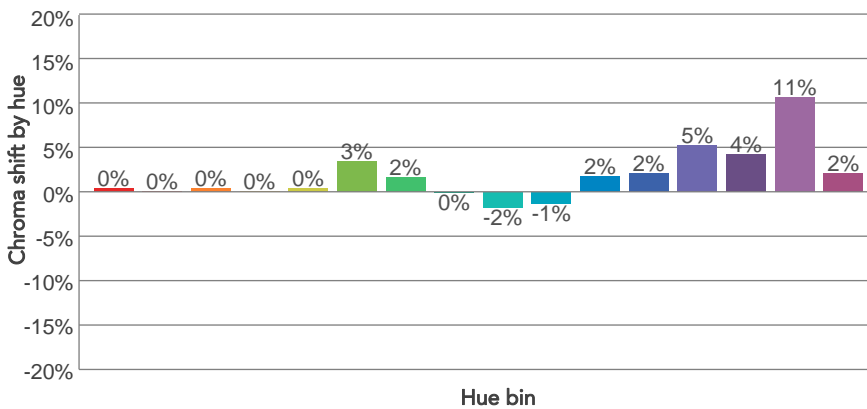
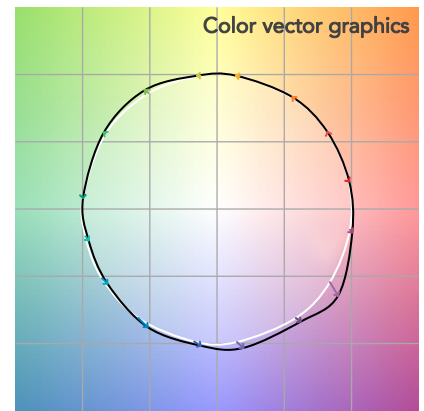
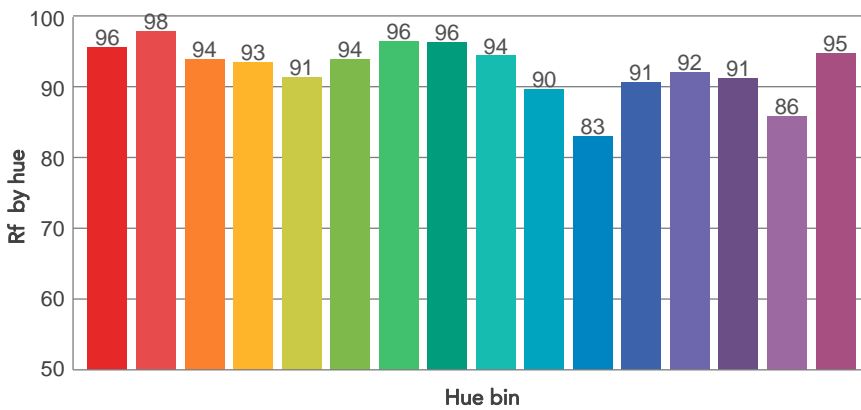
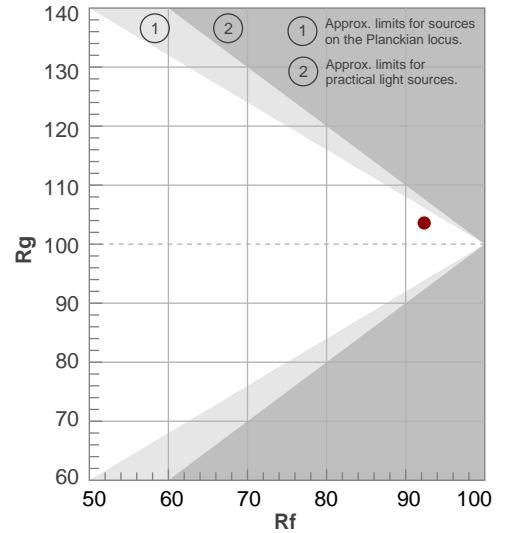
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5615 K	95,5	93,2	92,3	103,6	94,2	98	0,330	0,339	-0,0041

# TM30 DETAILS

**Rf 92,3**  
Fidelity index Rf

**Rg 103,6**  
Gammut index

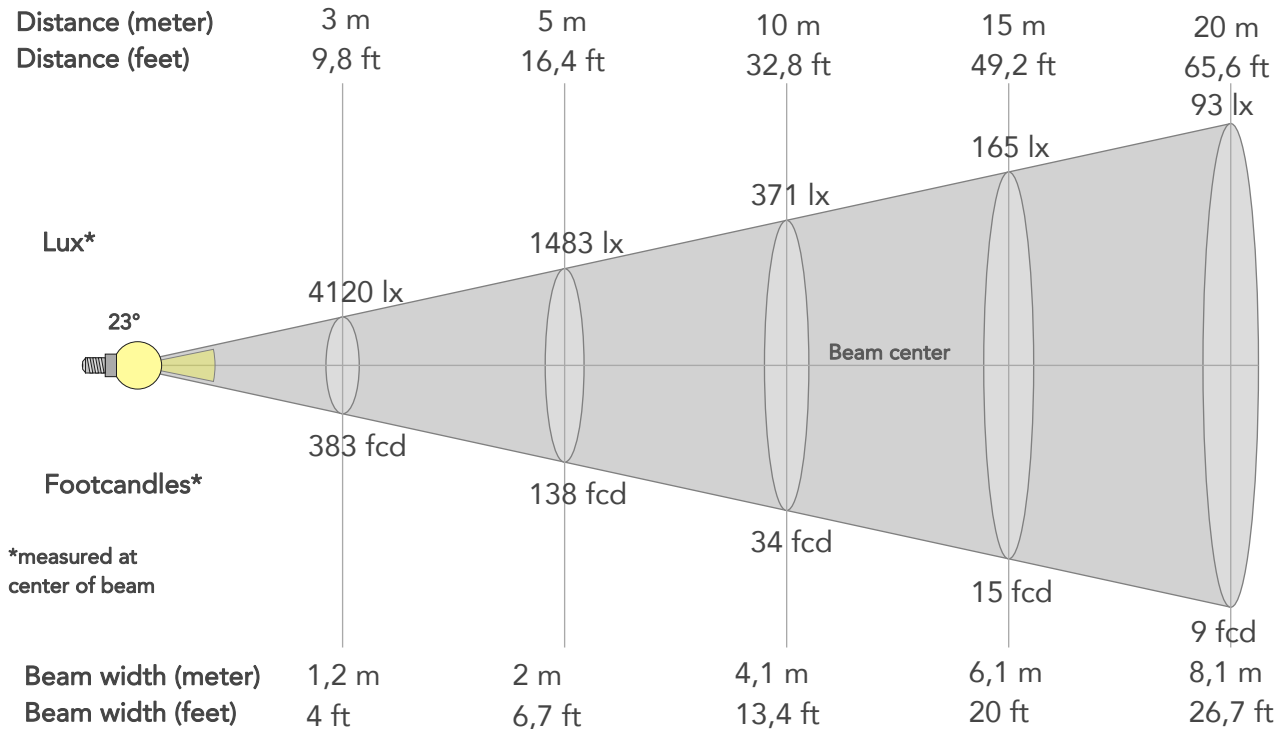
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	-1%
2	98	0%	0%
3	94	0%	2%
4	93	0%	3%
5	91	0%	2%
6	94	3%	1%
7	96	2%	0%
8	96	0%	0%
9	94	-2%	3%
10	90	-1%	6%
11	83	2%	9%
12	91	2%	5%
13	92	5%	4%
14	91	4%	2%
15	86	11%	-5%
16	95	2%	-2%



# BEAM DETAILS



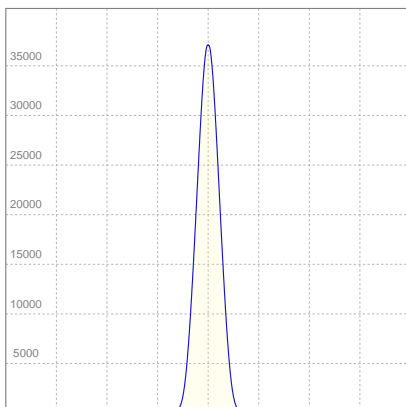
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23°	40,1°	48,4°	100,0%	99,6%



## 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	37077lx	9269lx	4120lx	2317lx	1483lx	659lx	371lx	165lx	93lx	59lx	41lx	23lx	15lx
Footcand.	3445fcd	861fcd	383fcd	215fcd	138fcd	61fcd	34fcd	15fcd	9fcd	6fcd	4fcd	2fcd	1fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3,1m	4,1m	6,1m	8,1m	10,2m	12,2m	16,3m	20,4m
Beam wid.	1,3ft	2,7ft	4ft	5,3ft	6,7ft	10ft	13,4ft	20ft	26,7ft	33,4ft	40,1ft	53,4ft	66,8ft

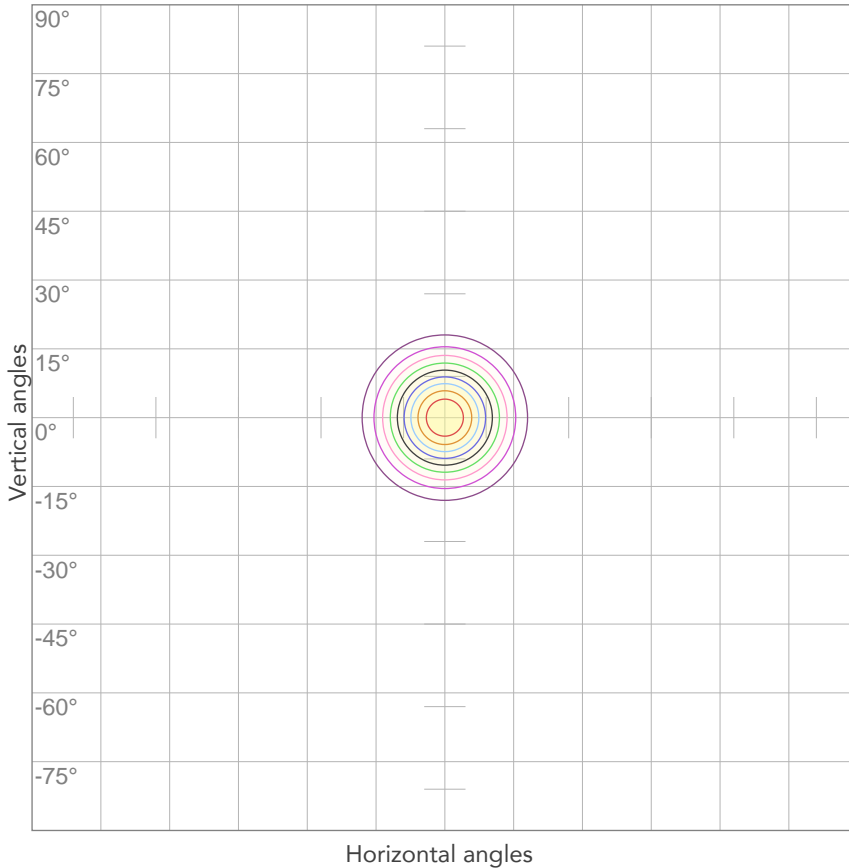
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,610A	119,8W	53lm/W
Power Fc			
0,93			

## ISO CANDELA DIAGRAM



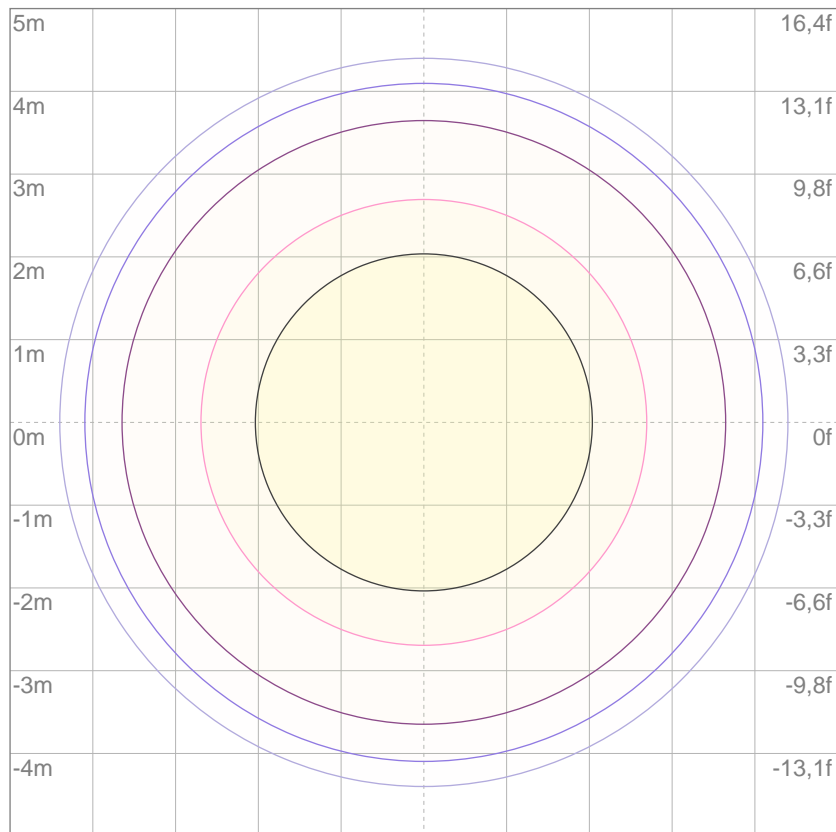
10%	3708 cd
20%	7415 cd
30%	11123 cd
40%	14831 cd
50%	18538 cd
60%	22246 cd
70%	25954 cd
80%	29661 cd

Conditions:

Number of c-planes: 2

Candela at center: 37077 cd

## ISO LUX DIAGRAM



3%	11,1 lx
5%	18,5 lx
10%	37,1 lx
30%	111 lx
50%	185 lx

Conditions:

Number of c-planes: 2

Lux at center: 371 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:

5278 lm

Peak candela output:

52460 cd

Light quality:

CRI: 95,3

Color temperature:

5610 K

**PRODUCT NAME:**

ECLFRESNELVW

**MEASURAMENT CONDITIONS:**

Beam angle:

Min Zoom

Target:

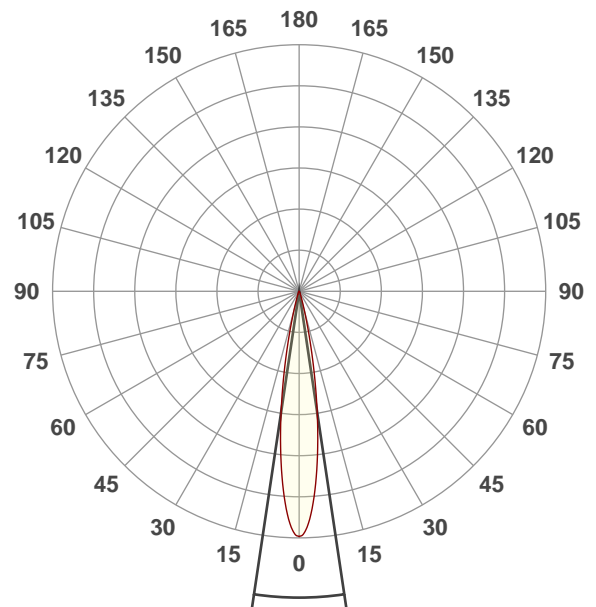
Cold White

Operator:

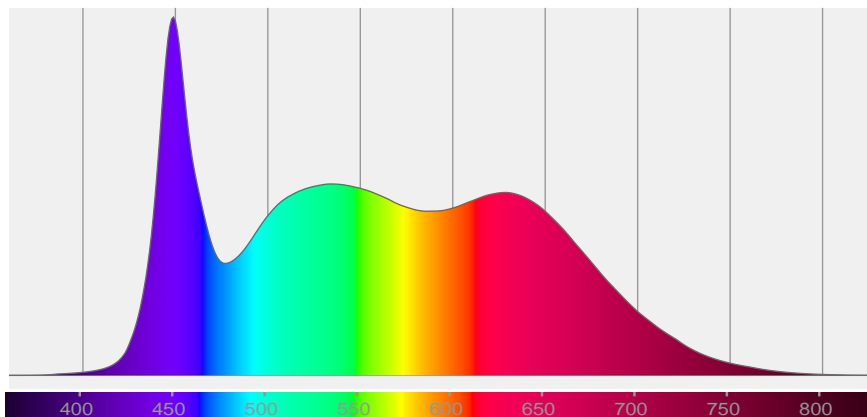
Paolo Carvone

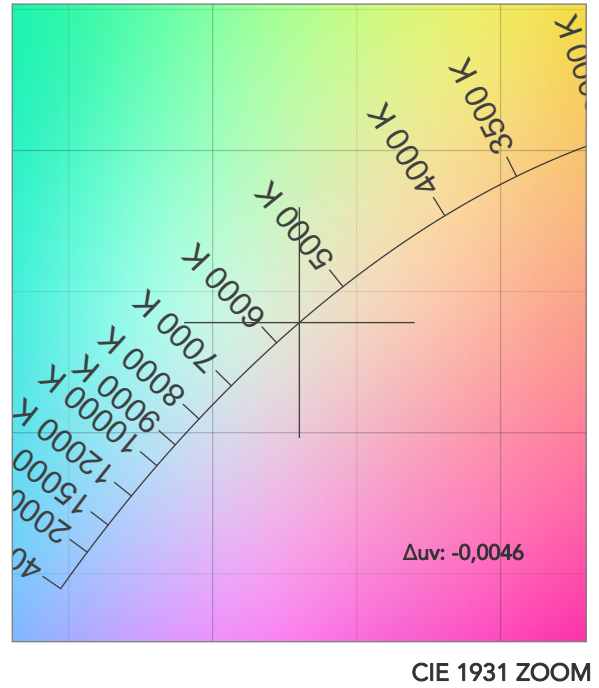
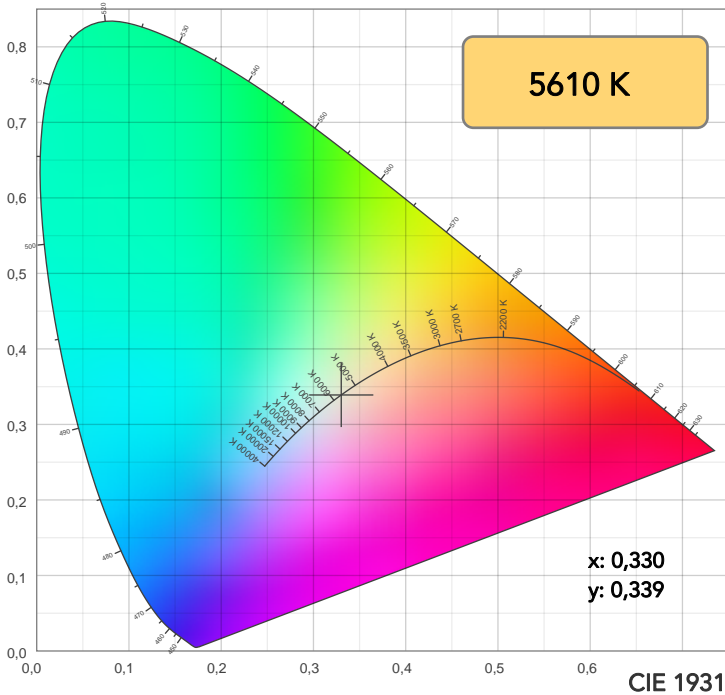
Date and time:

11/06/2021 16:04:31

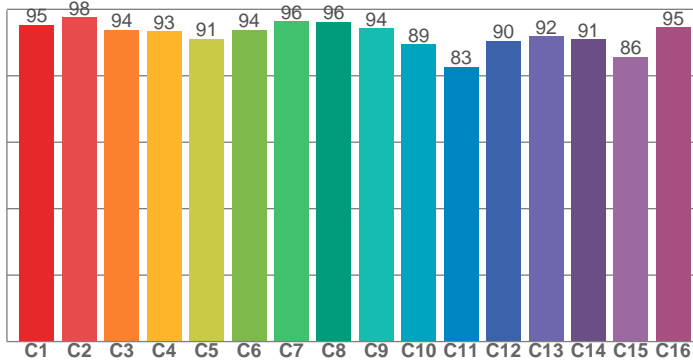


Spectra

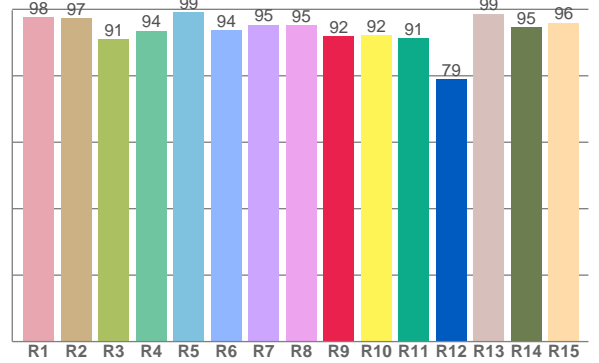




TM30: 92,2



CRI: 95,3 (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
97,6	97,3	91,0	93,5	99,1	93,7	95,4	95,2	91,8	92,3	91,4	79,0	98,6	94,5	96,0

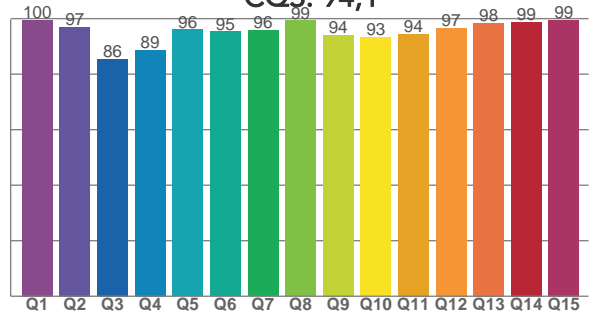
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,4	97,6	93,8	93,3	91,2	93,8	96,4	96,2	94,2	89,5	82,8	90,5	91,8	91,0	85,7	94,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,5	97,1	85,5	88,8	96,0	95,3	95,8	99,4	94,2	93,3	94,5	96,6	98,5	98,7	99,4

CQS: 94,1



COLOR PARAMETERS

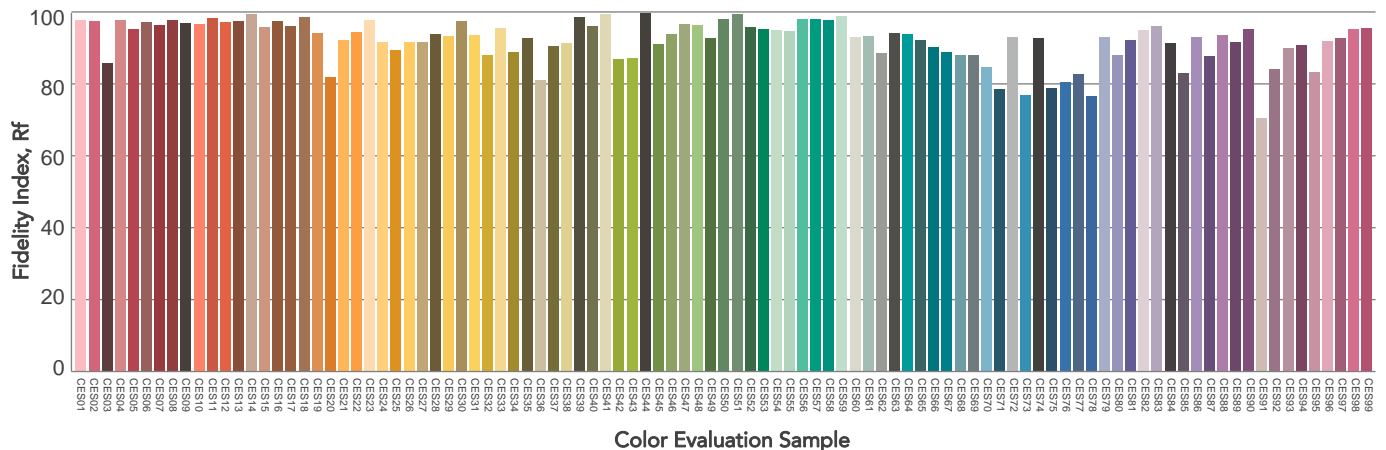
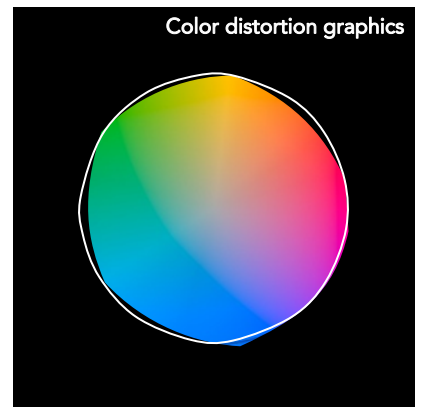
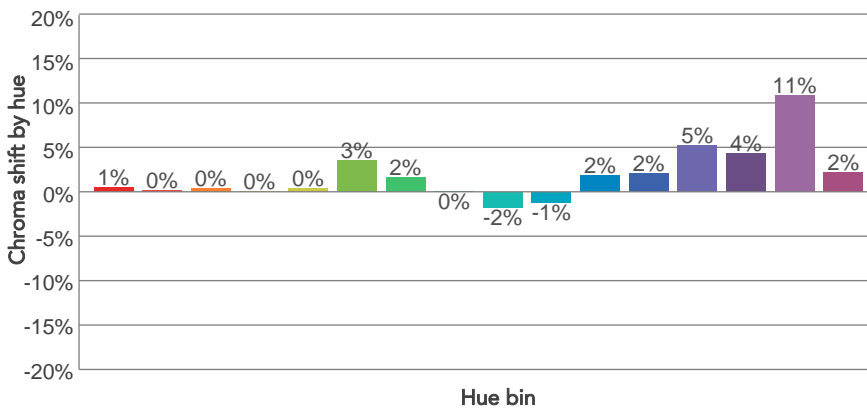
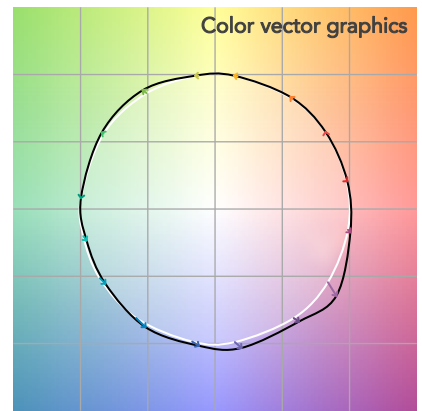
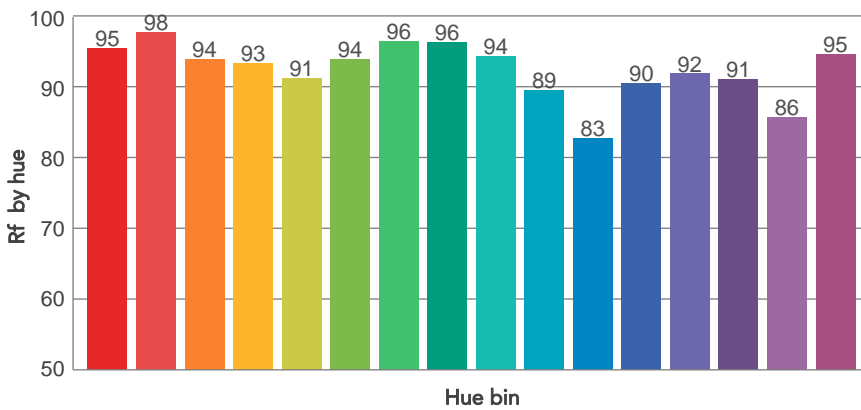
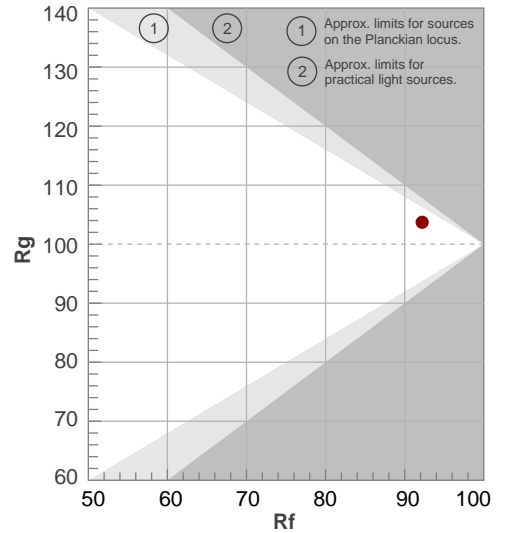
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5610 K	95,3	91,8	92,2	103,7	94,1	98	0,330	0,339	-0,0046

# TM30 DETAILS

**Rf 92,2**  
Fidelity index Rf

**Rg 103,7**  
Gammut index

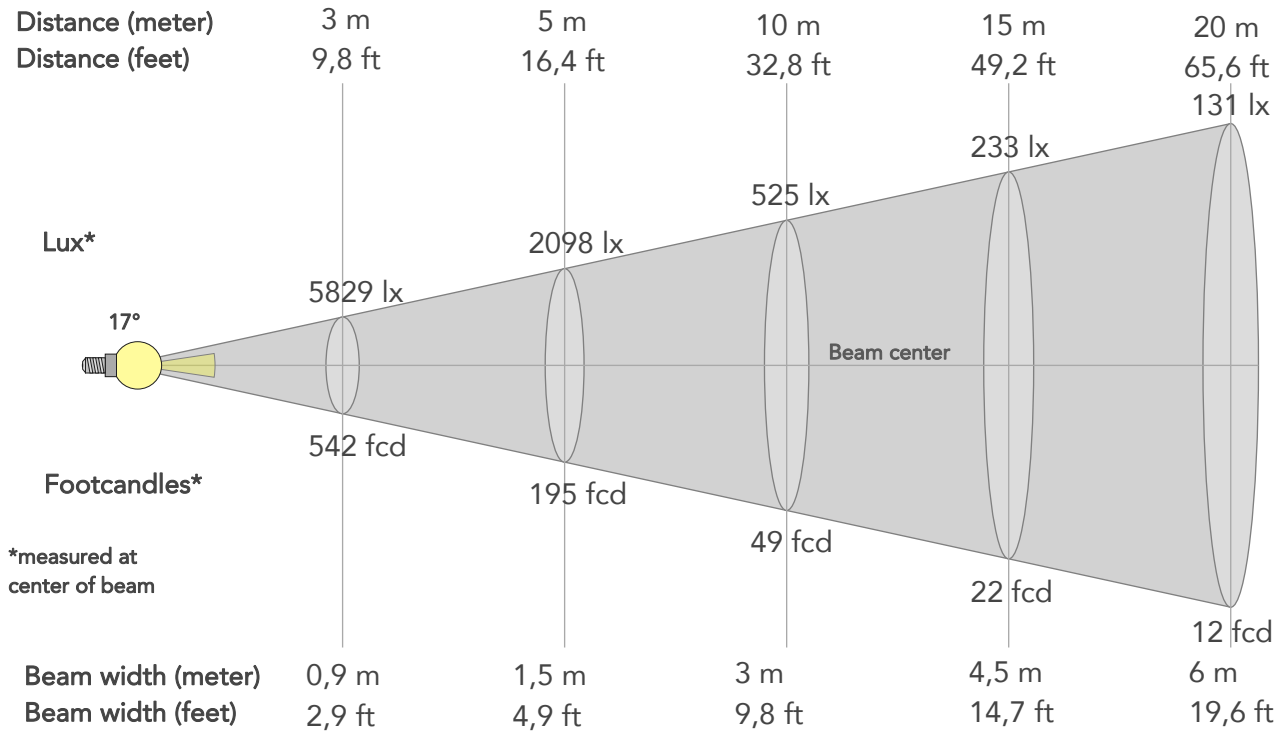
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	1%	-1%
2	98	0%	0%
3	94	0%	2%
4	93	0%	3%
5	91	0%	2%
6	94	3%	1%
7	96	2%	0%
8	96	0%	0%
9	94	-2%	4%
10	89	-1%	6%
11	83	2%	10%
12	90	2%	6%
13	92	5%	4%
14	91	4%	2%
15	86	11%	-5%
16	95	2%	-1%



# BEAM DETAILS



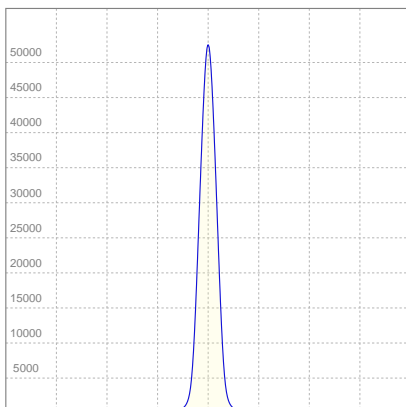
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17°	29,3°	38,7°	100,0%	99,4%



## 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	52460lx	13115lx	5829lx	3279lx	2098lx	933lx	525lx	233lx	131lx	84lx	58lx	33lx	21lx
Footcand.	4874fcd	1218fcd	542fcd	305fcd	195fcd	87fcd	49fcd	22fcd	12fcd	8fcd	5fcd	3fcd	2fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,2m	3m	4,5m	6m	7,5m	8,9m	11,9m	14,9m
Beam wid.	1ft	2ft	2,9ft	3,9ft	4,9ft	7,3ft	9,8ft	14,7ft	19,6ft	24,4ft	29,3ft	39,1ft	48,9ft

## LINEAR DISTRIBUTION DIAGRAM

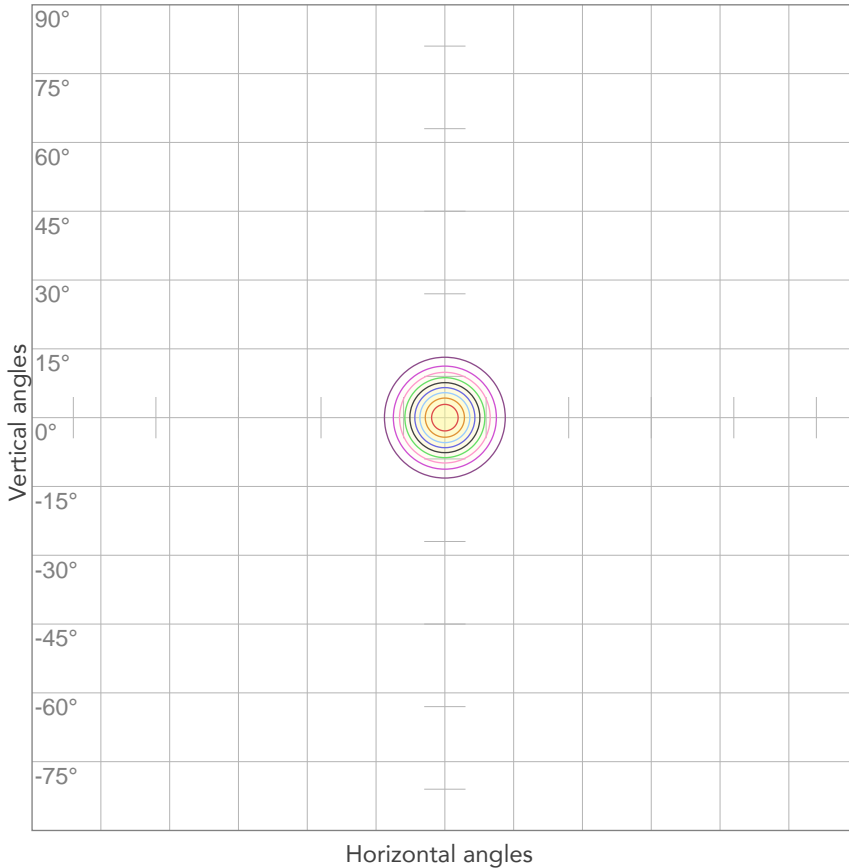


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,610A	119,8W	44lm/W
Power Fc			
0,93			



## ISO CANDELA DIAGRAM



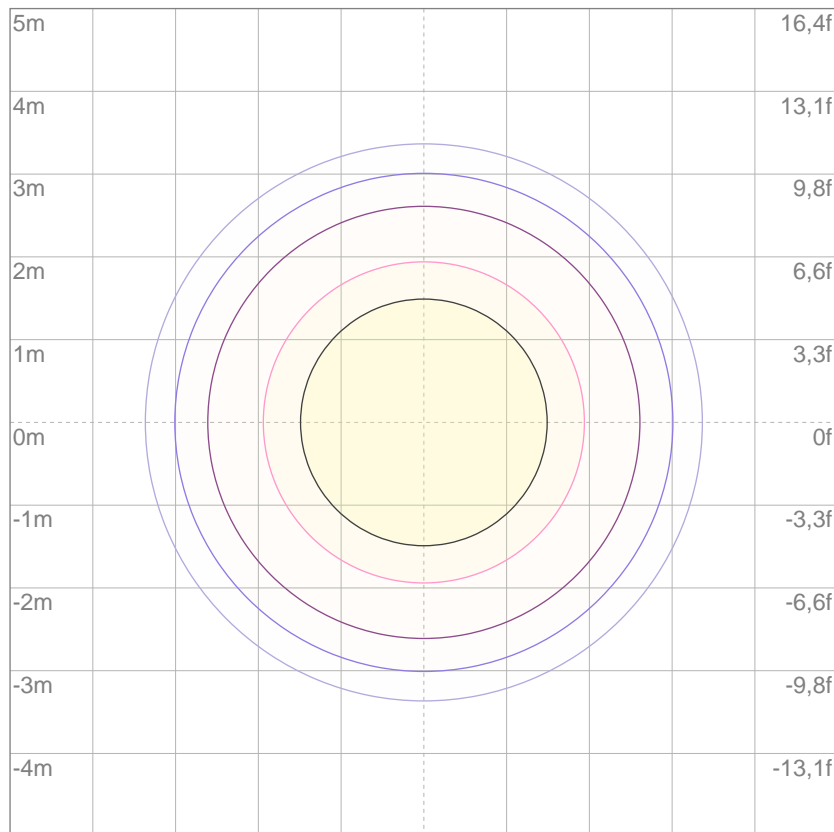
10%	5246 cd
20%	10492 cd
30%	15738 cd
40%	20984 cd
50%	26230 cd
60%	31476 cd
70%	36722 cd
80%	41968 cd

Conditions:

Number of c-planes: 2

Candela at center: 52460 cd

## ISO LUX DIAGRAM



3%	15,7 lx
5%	26,2 lx
10%	52,5 lx
30%	157 lx
50%	262 lx

Conditions:

Number of c-planes: 2

Lux at center: 525 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:

5000 lm

Peak candela output:

10076 cd

Light quality:

CRI: 95,5

Color temperature:

2721 K

**PRODUCT NAME:**

ECLFRESNELVW

**MEASURAMENT CONDITIONS:**

Beam angle:

Max Zoom

Target:

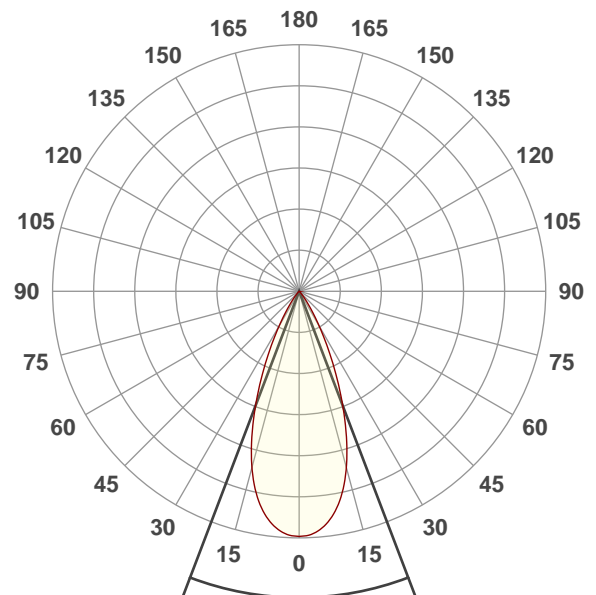
Warm White

Operator:

Paolo Carvone

Date and time:

11/06/2021 16:21:07

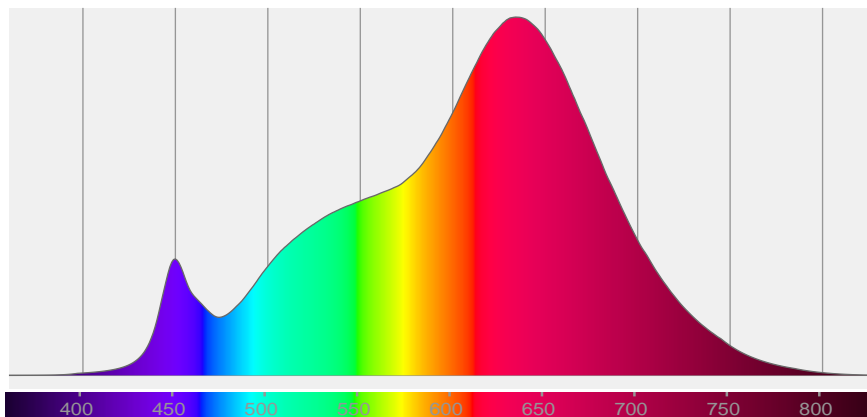


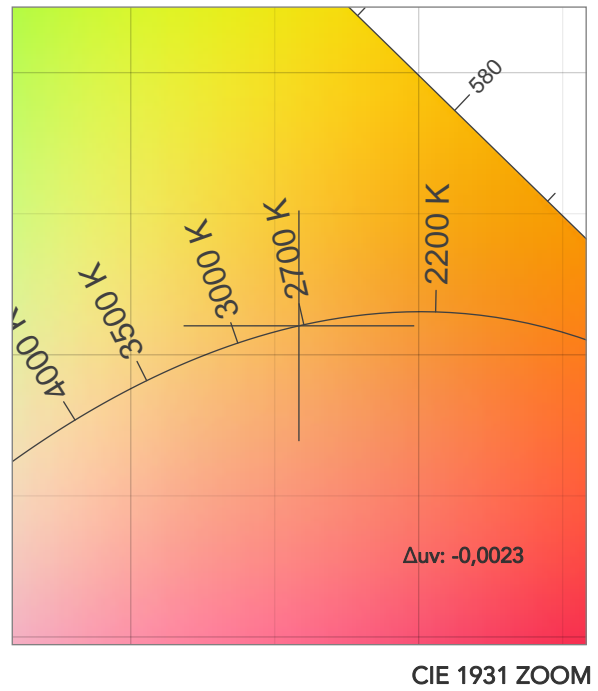
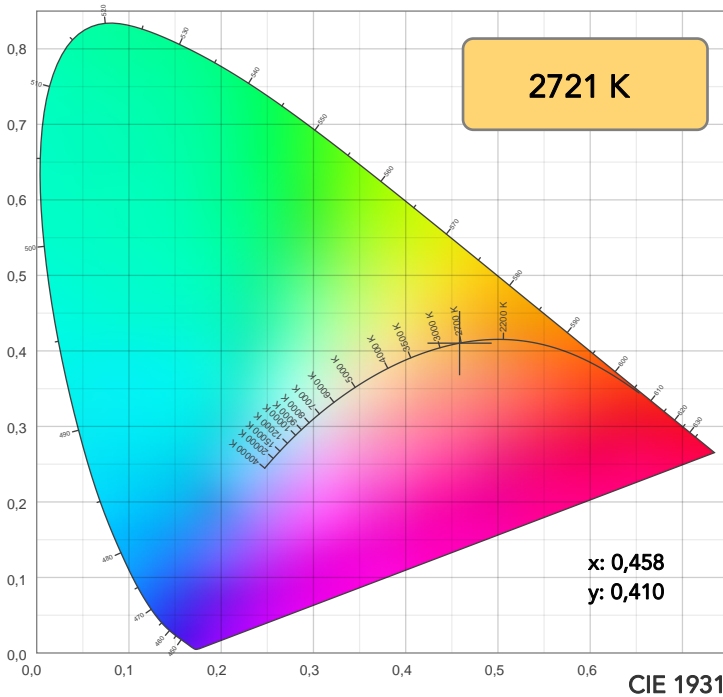
Beam angle 50%: 41,7°

Field angle 10%: 65,7°

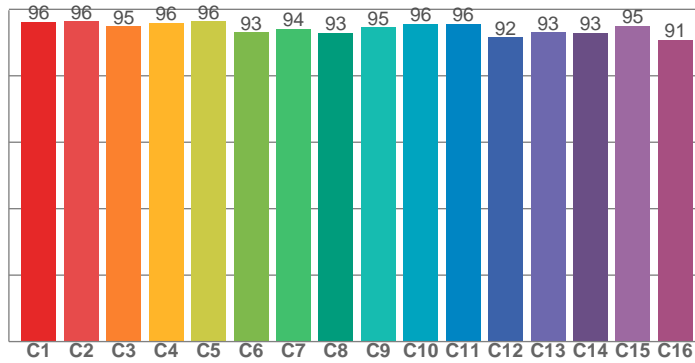
Cut off angle 2.5%: 78,9°

Spectra

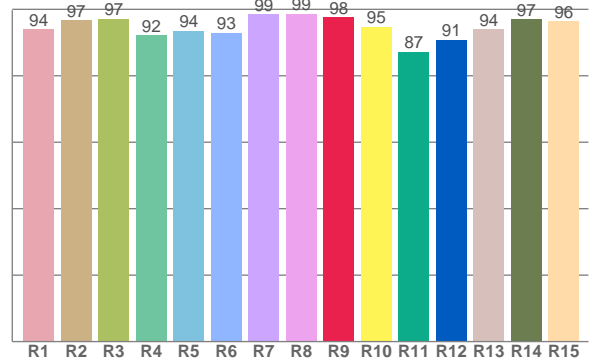




TM30: 94,7



CRI: 95,5 (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
94,0	96,8	97,2	92,3	93,6	92,9	98,6	98,7	97,7	94,7	87,3	90,8	94,0	97,0	96,4

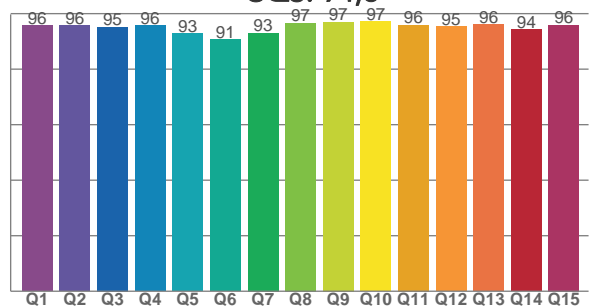
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,2	96,4	94,8	96,0	96,3	93,1	94,1	93,0	94,6	95,7	95,7	91,6	93,1	92,8	95,0	90,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,7	95,7	95,2	95,7	92,8	90,6	93,0	96,6	96,9	97,1	95,9	95,4	96,1	94,2	95,9

CQS: 94,6



COLOR PARAMETERS

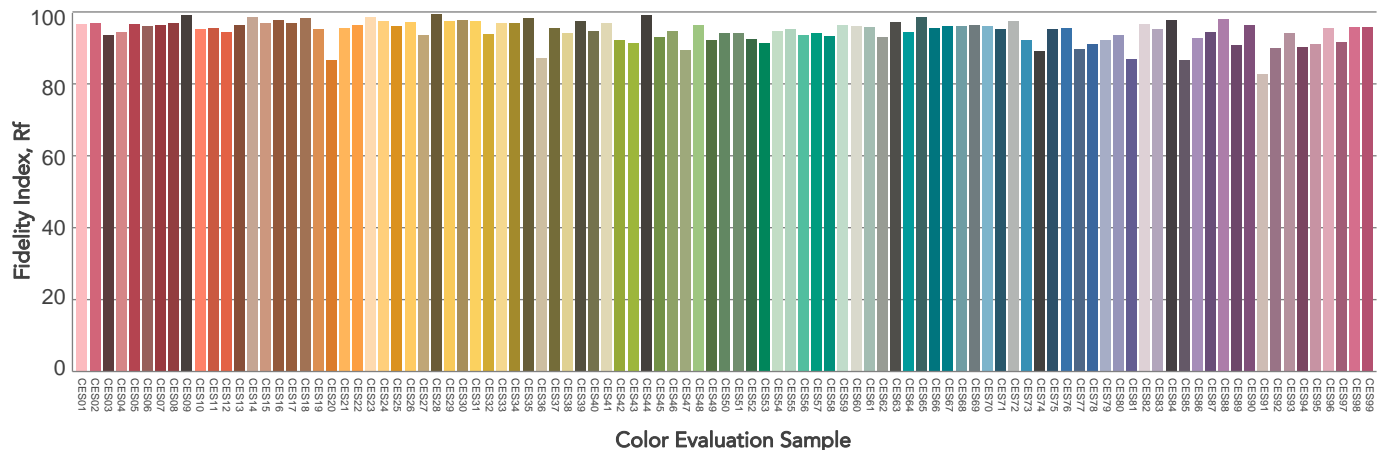
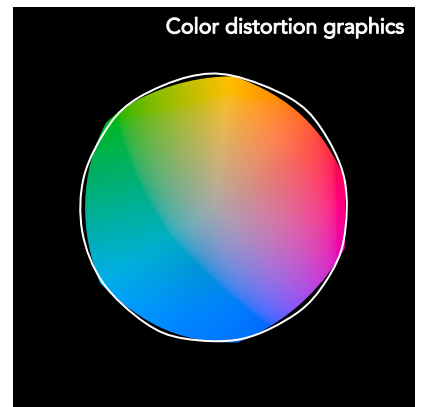
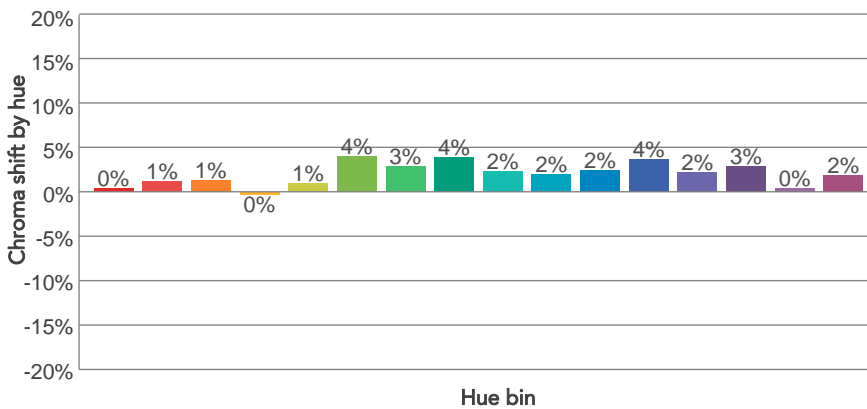
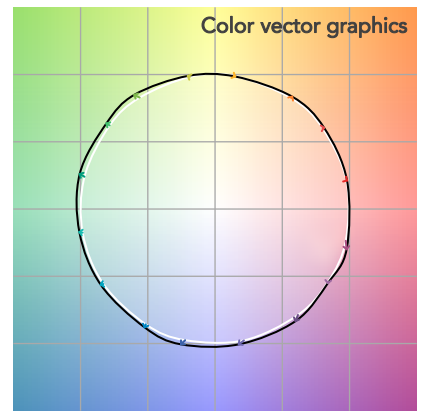
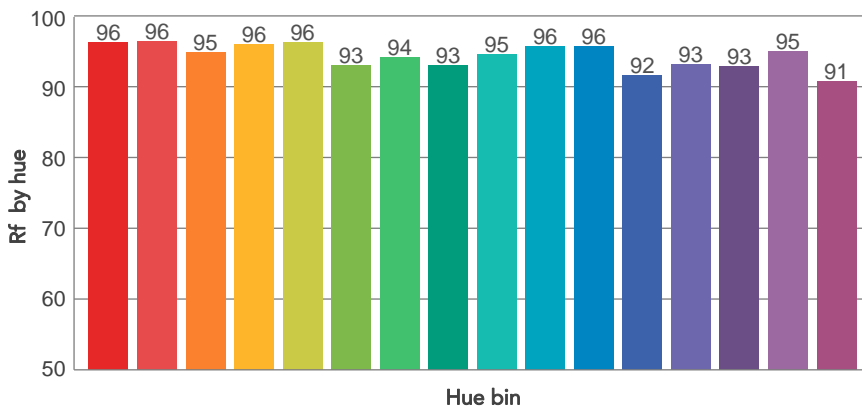
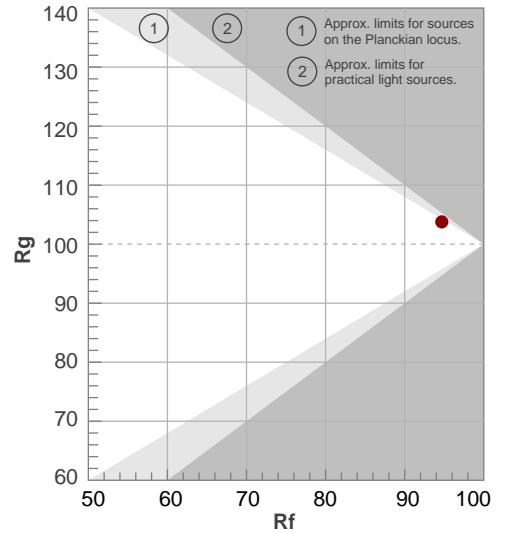
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2721 K	95,5	97,7	94,7	103,8	94,6	97	0,458	0,410	-0,0023

# TM30 DETAILS

**Rf 94,7**  
Fidelity index Rf

**Rg 103,8**  
Gammut index

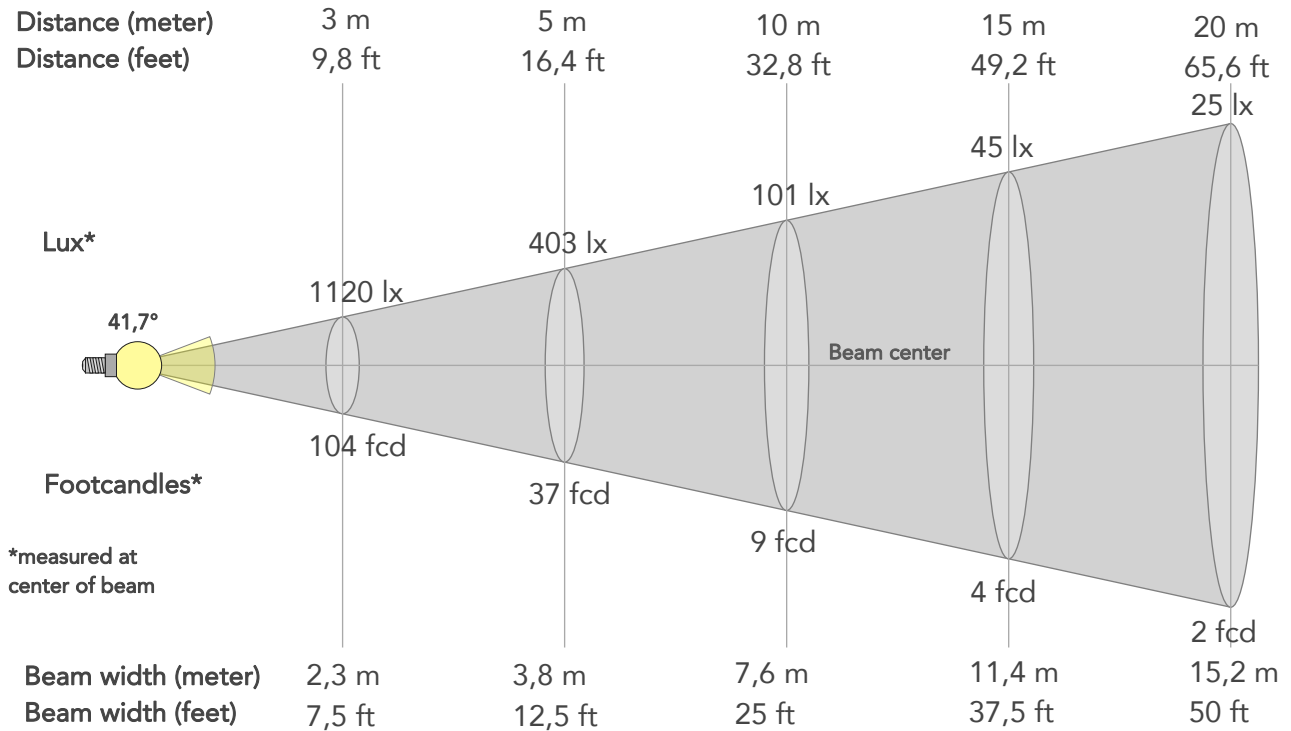
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	0%
2	96	1%	0%
3	95	1%	0%
4	96	0%	-1%
5	96	1%	1%
6	93	4%	2%
7	94	3%	0%
8	93	4%	-1%
9	95	2%	-1%
10	96	2%	-1%
11	96	2%	0%
12	92	4%	-2%
13	93	2%	-4%
14	93	3%	-4%
15	95	0%	-1%
16	91	2%	-6%



# BEAM DETAILS



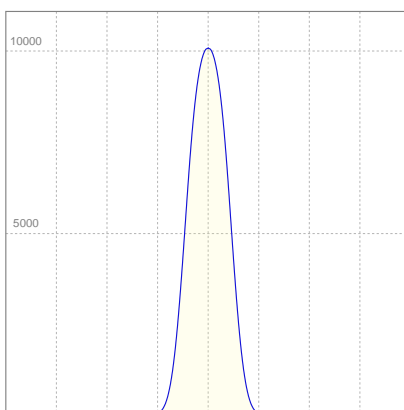
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
41,7°	65,7°	78,9°	99,9%	99,3%



## 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	10076lx	2519lx	1120lx	630lx	403lx	179lx	101lx	45lx	25lx	16lx	11lx	6lx	4lx
Footcand.	936fcd	234fcd	104fcd	59fcd	37fcd	17fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,8m	1,5m	2,3m	3m	3,8m	5,7m	7,6m	11,4m	15,2m	19,1m	22,9m	30,5m	38,1m
Beam wid.	2,5ft	5ft	7,5ft	10ft	12,5ft	18,7ft	25ft	37,5ft	50ft	62,5ft	75ft	100ft	125ft

## LINEAR DISTRIBUTION DIAGRAM

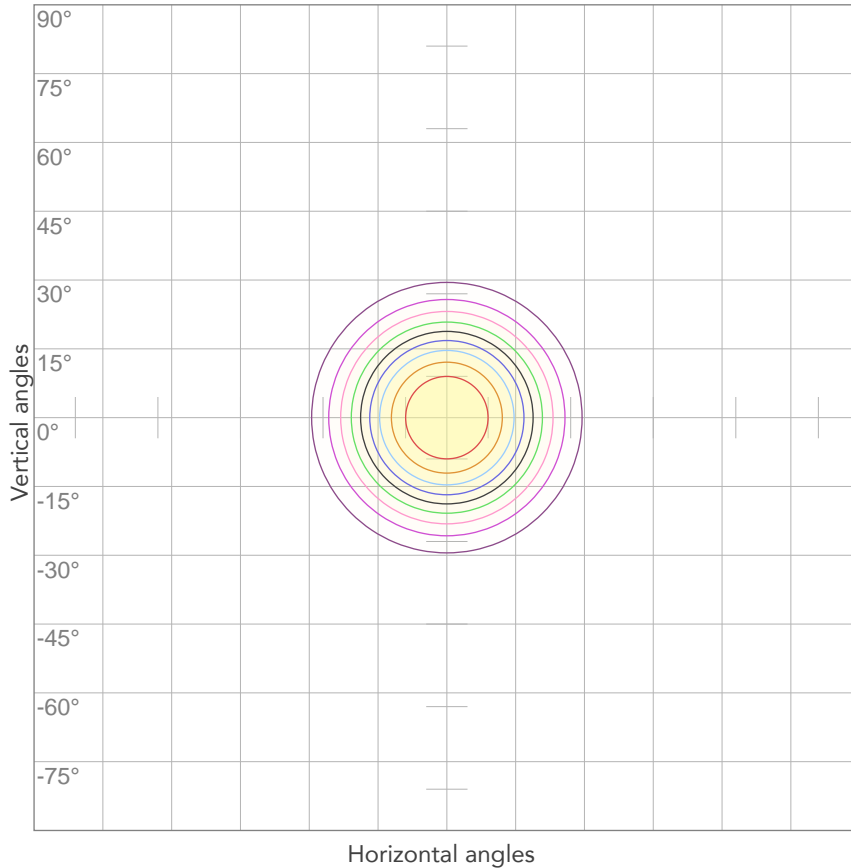


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,600A	117,3W	43lm/W

Power Fc
0,93

## ISO CANDELA DIAGRAM



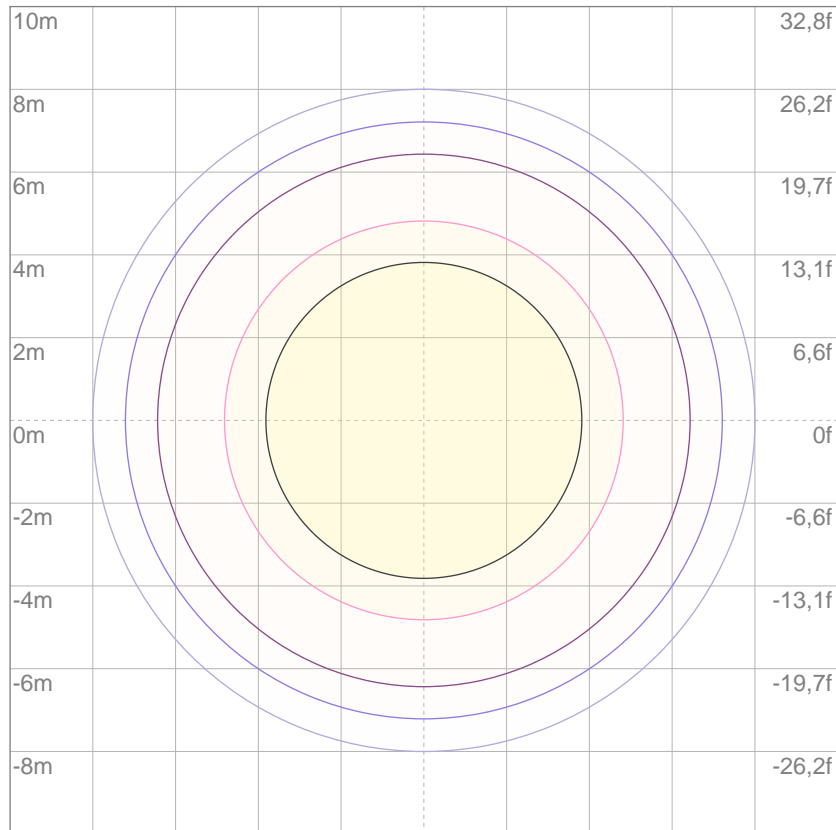
10%	1008 cd
20%	2015 cd
30%	3023 cd
40%	4030 cd
50%	5038 cd
60%	6045 cd
70%	7053 cd
80%	8061 cd

Conditions:

Number of c-planes: 2

Candela at center: 10076 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	3,02 lx
5%	5,04 lx
10%	10,1 lx
30%	30,2 lx
50%	50,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 101 lx

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



Total lumen output:

4779 lm

Peak candela output:

25734 cd

Light quality:

CRI: 95,5

Color temperature:

2710 K

**PRODUCT NAME:**

ECLFRESNELVW

**MEASURAMENT CONDITIONS:**

Beam angle:

Med Zoom

Target:

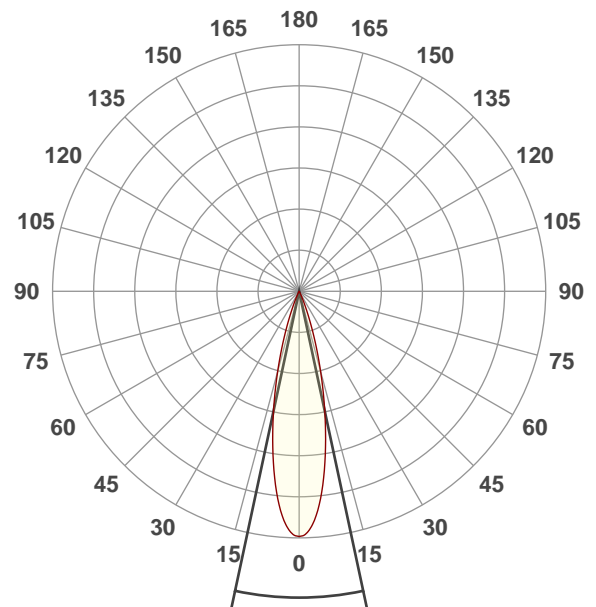
Warm White

Operator:

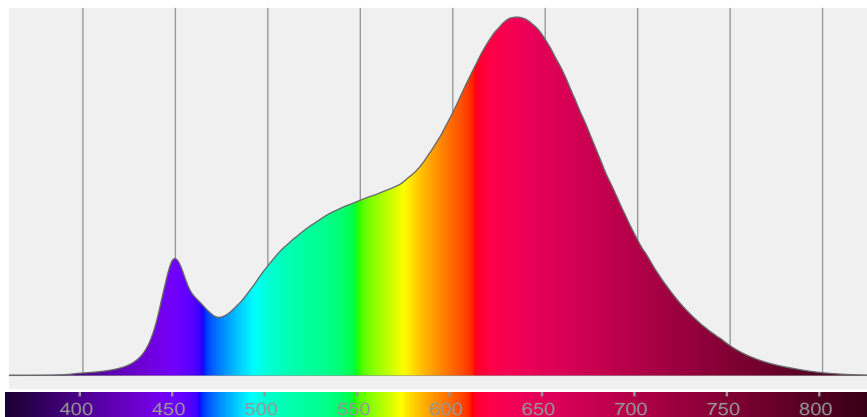
Paolo Carvone

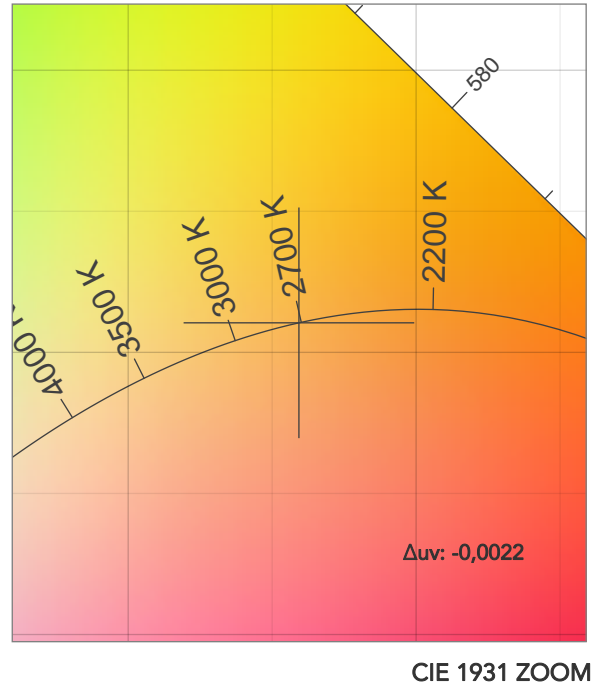
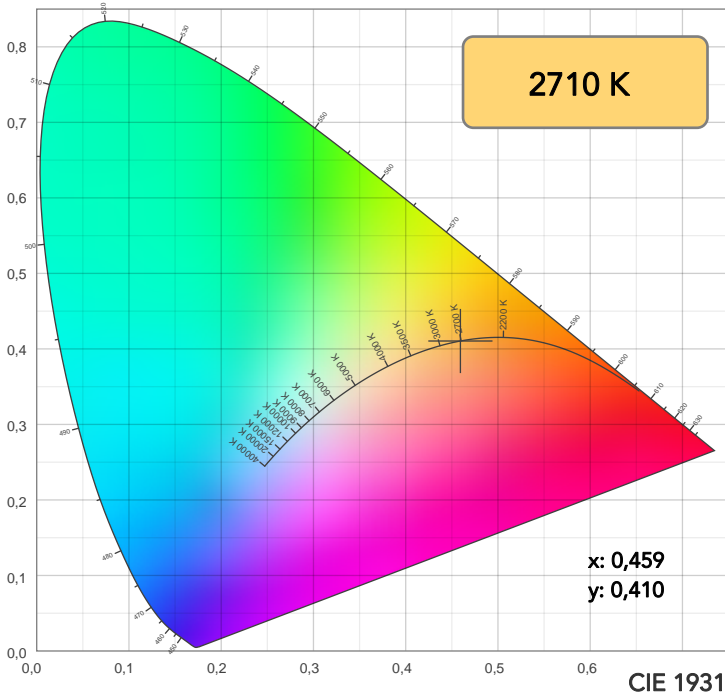
Date and time:

11/06/2021 16:10:02

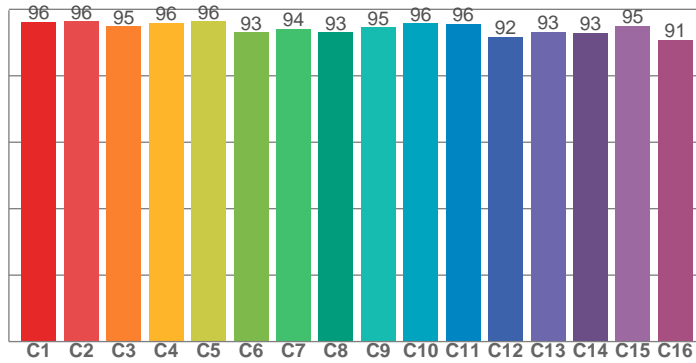


Spectra

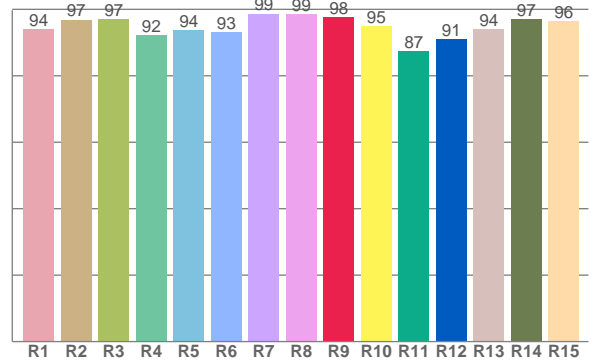




TM30: 94,7



CRI: 95,5 (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
94,0	96,8	97,1	92,3	93,6	93,1	98,7	98,6	97,6	94,9	87,3	91,0	94,0	97,0	96,4

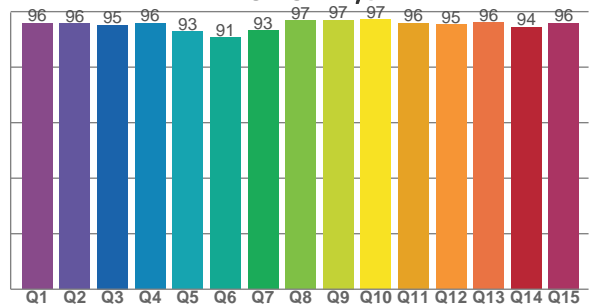
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,2	96,4	94,9	96,0	96,4	93,1	94,2	93,0	94,6	95,7	95,7	91,6	93,2	92,9	95,0	90,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,8	95,7	95,2	95,8	92,8	90,7	93,1	96,7	96,9	97,1	95,8	95,3	96,0	94,3	95,9

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
2710 K	95,5	97,6	94,7	103,7	94,6	97	0,459	0,410	-0,0022

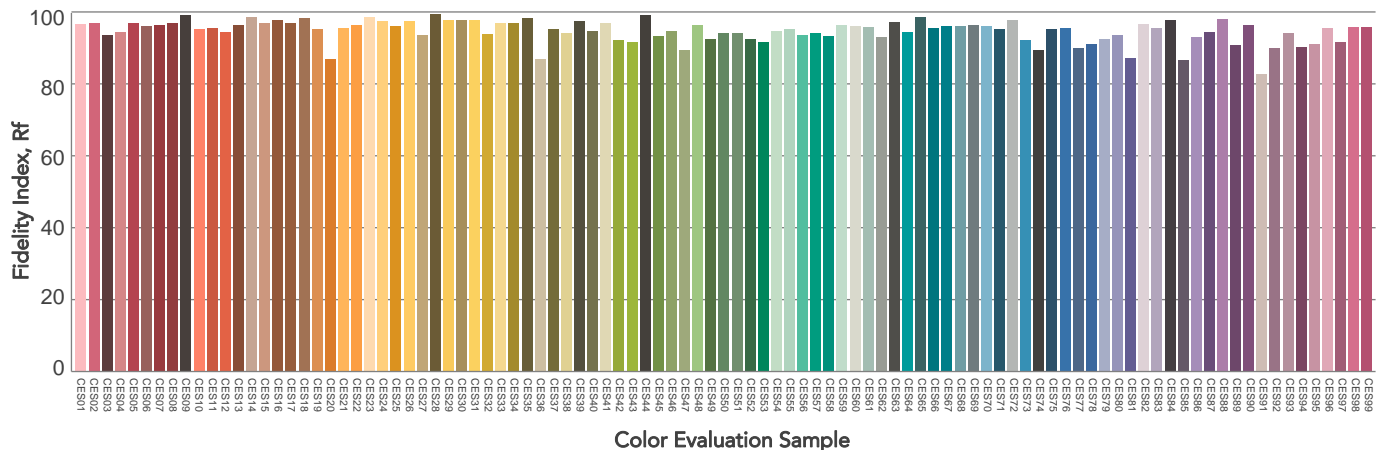
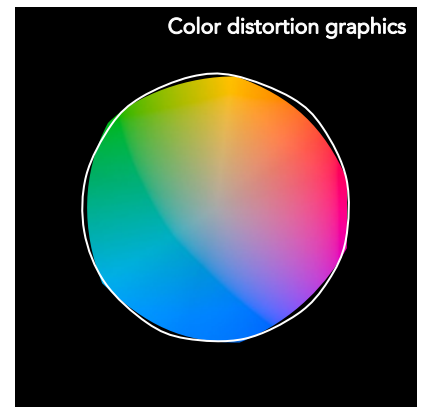
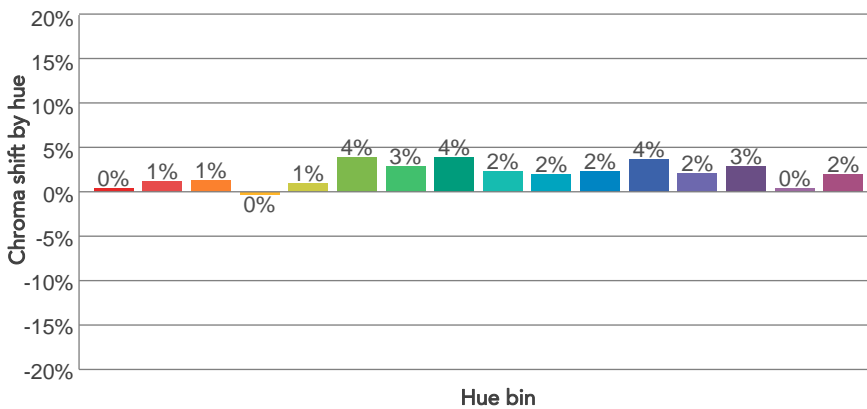
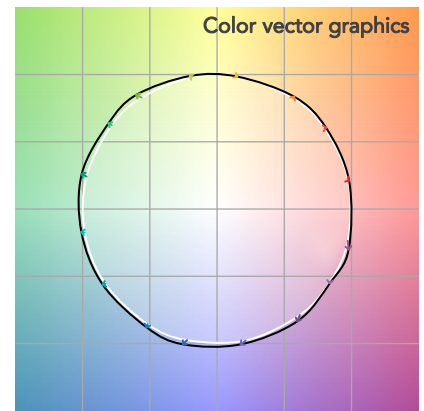
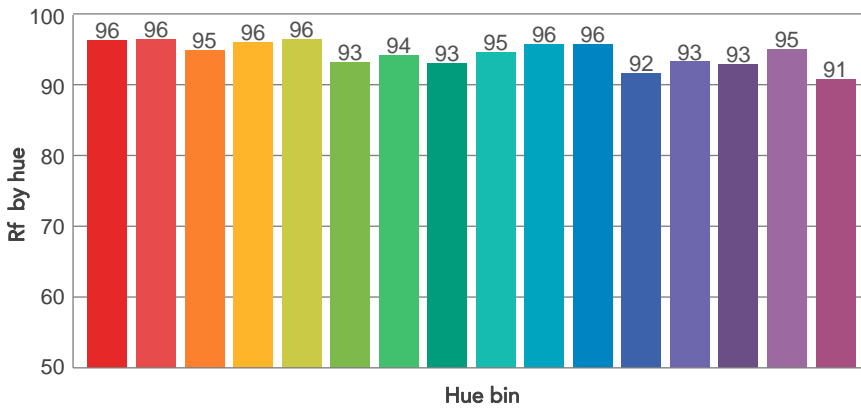
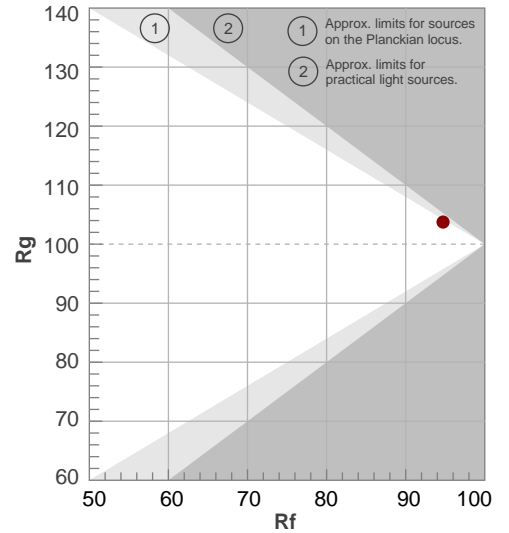


# TM30 DETAILS

**Rf 94,7**  
Fidelity index Rf

**Rg 103,7**  
Gammut index

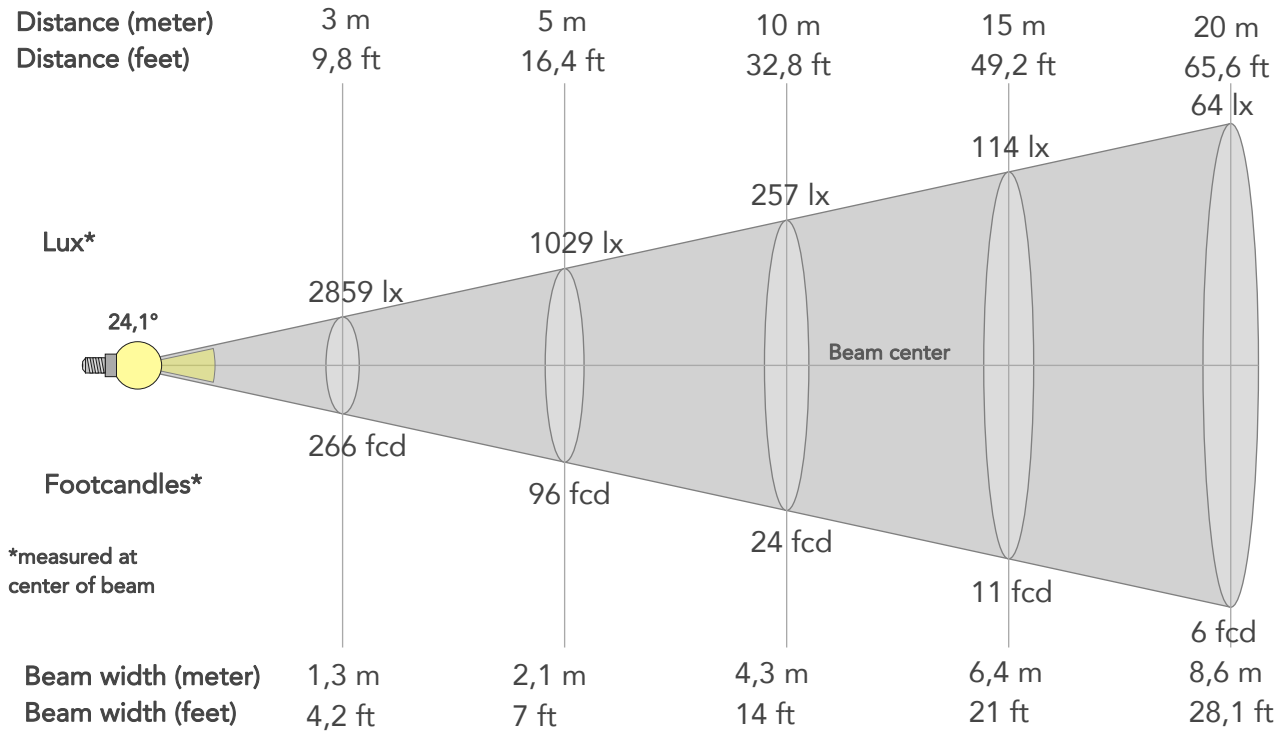
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	0%
2	96	1%	-1%
3	95	1%	0%
4	96	0%	-1%
5	96	1%	1%
6	93	4%	2%
7	94	3%	0%
8	93	4%	-1%
9	95	2%	-1%
10	96	2%	-1%
11	96	2%	1%
12	92	4%	-2%
13	93	2%	-4%
14	93	3%	-4%
15	95	0%	-1%
16	91	2%	-6%



# BEAM DETAILS



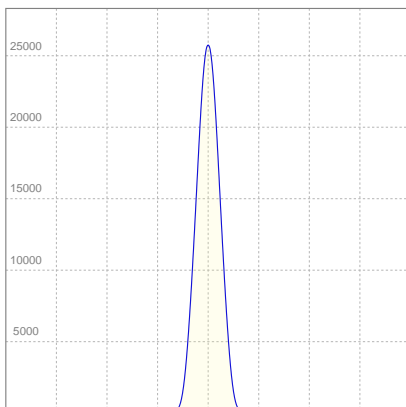
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
24,1°	41,7°	49,9°	100,0%	99,8%



## 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	25734lx	6434lx	2859lx	1608lx	1029lx	457lx	257lx	114lx	64lx	41lx	29lx	16lx	10lx
Footcand.	2391fcd	598fcd	266fcd	149fcd	96fcd	43fcd	24fcd	11fcd	6fcd	4fcd	3fcd	1fcd	1fcd
Beam wid.	0,4m	0,9m	1,3m	1,7m	2,1m	3,2m	4,3m	6,4m	8,6m	10,7m	12,8m	17,1m	21,4m
Beam wid.	1,4ft	2,8ft	4,2ft	5,6ft	7ft	10,5ft	14ft	21ft	28,1ft	35,1ft	42,1ft	56,1ft	70,1ft

## LINEAR DISTRIBUTION DIAGRAM

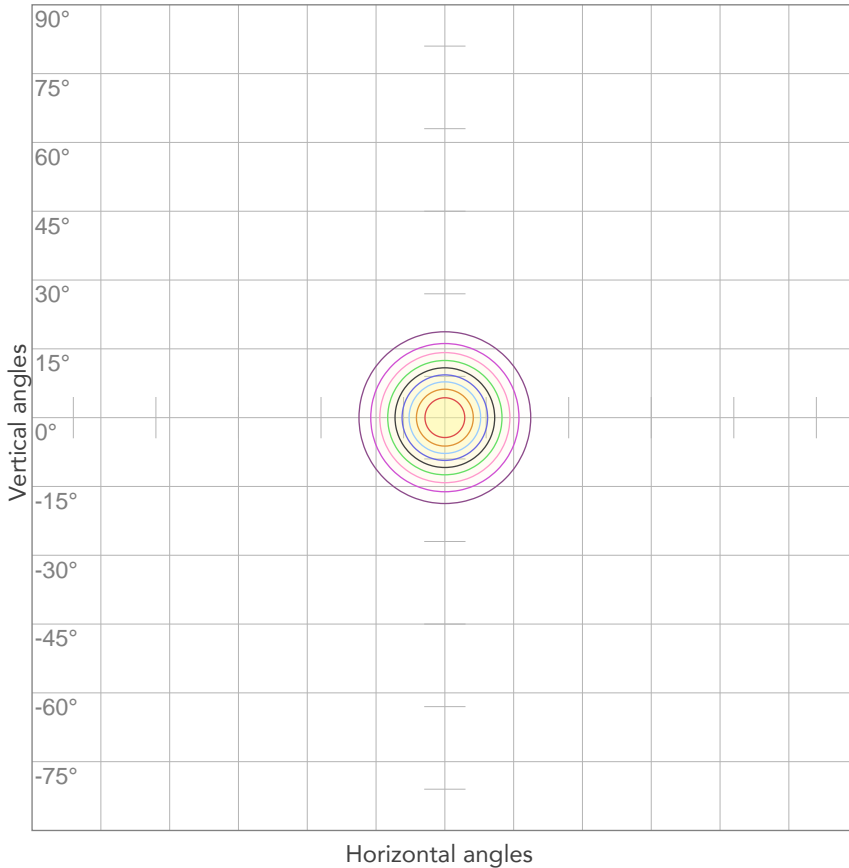


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Efficiency
227V	0,600A	117,5W	41lm/W

Power Fc
0,93

## ISO CANDELA DIAGRAM



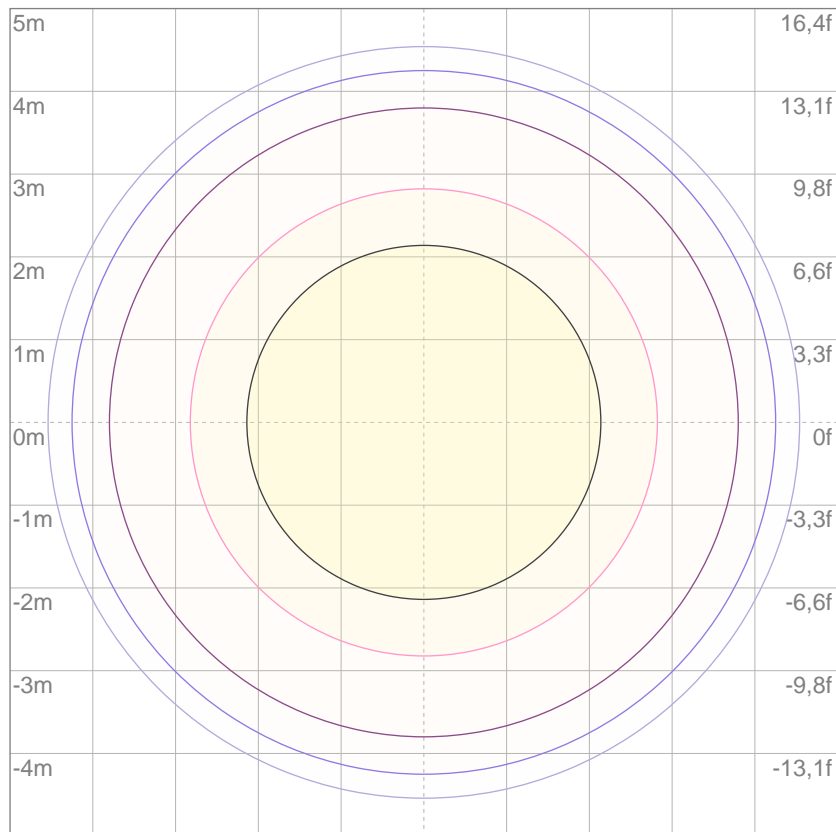
10%	2573 cd
20%	5147 cd
30%	7720 cd
40%	10294 cd
50%	12867 cd
60%	15441 cd
70%	18014 cd
80%	20587 cd

Conditions:

Number of c-planes: 2

Candela at center: 25734 cd

## ISO LUX DIAGRAM



3%	7,72 lx
5%	12,9 lx
10%	25,7 lx
30%	77,2 lx
50%	129 lx

Conditions:

Number of c-planes: 2

Lux at center: 257 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:

3746 lm

Peak candela output:

36674 cd

Light quality:

CRI: 95,5

Color temperature:

2709 K

**PRODUCT NAME:**

ECLFRESNELVW

**MEASURAMENT CONDITIONS:**

Beam angle:

Min Zoom

Target:

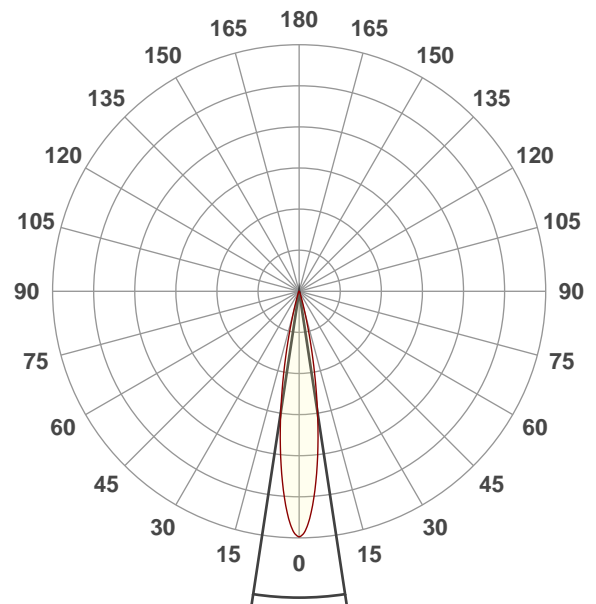
Warm White

Operator:

Paolo Carvone

Date and time:

11/06/2021 16:02:55

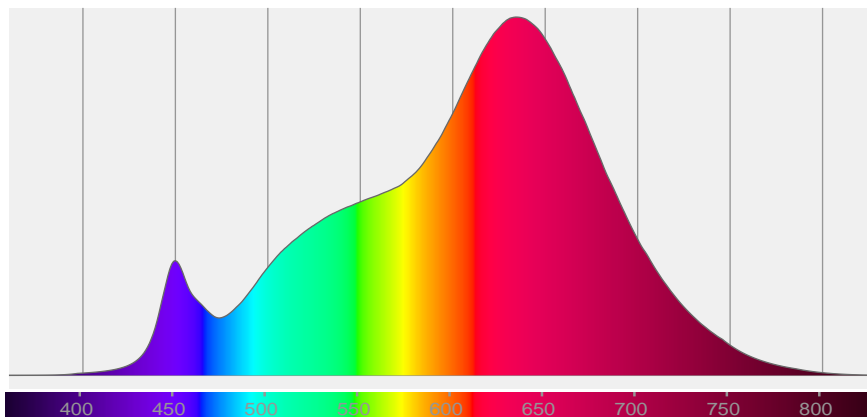


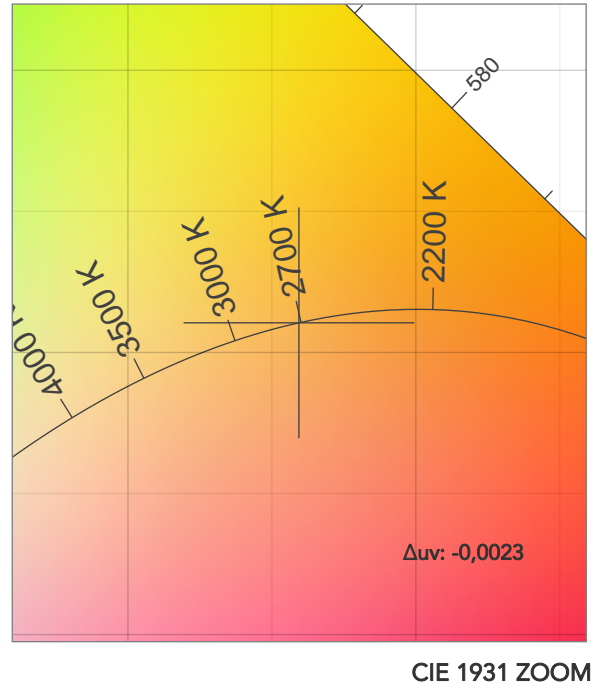
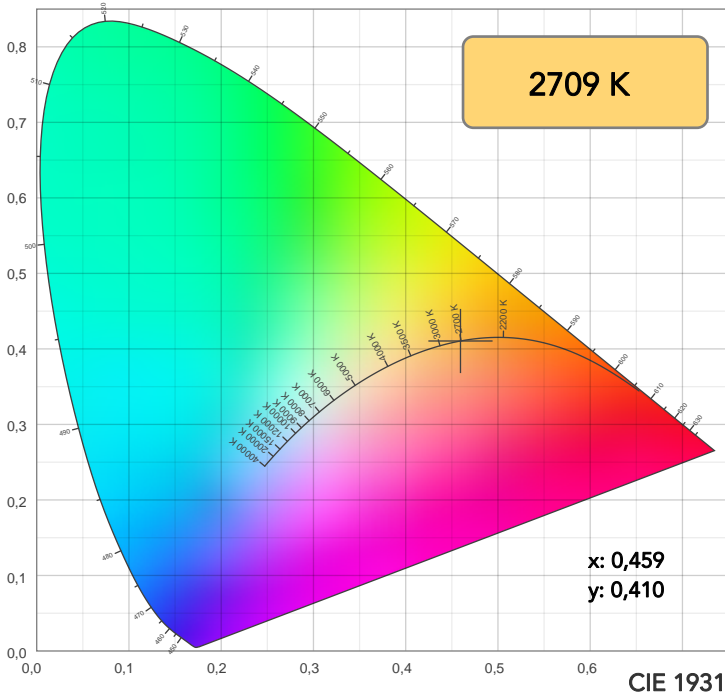
Beam angle 50%: 17,3°

Field angle 10%: 29,7°

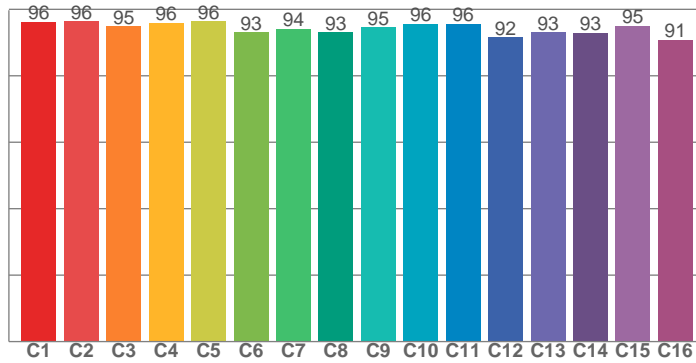
Cut off angle 2.5%: 38,7°

Spectra

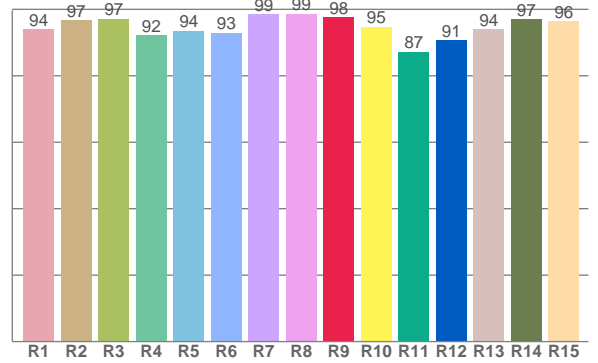




TM30: 94,7



CRI: 95,5 (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
94,0	96,8	97,2	92,3	93,6	92,9	98,6	98,7	97,6	94,7	87,3	90,8	94,0	97,0	96,4

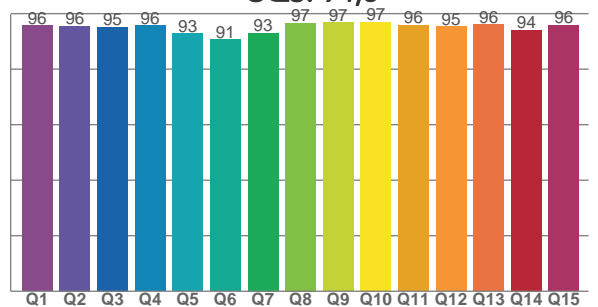
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,2	96,4	94,8	96,0	96,3	93,1	94,1	93,0	94,6	95,7	95,7	91,5	93,1	92,9	95,0	90,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,7	95,6	95,2	95,7	92,8	90,6	93,0	96,5	96,9	97,0	95,8	95,3	96,0	94,2	95,8

CQS: 94,5



COLOR PARAMETERS

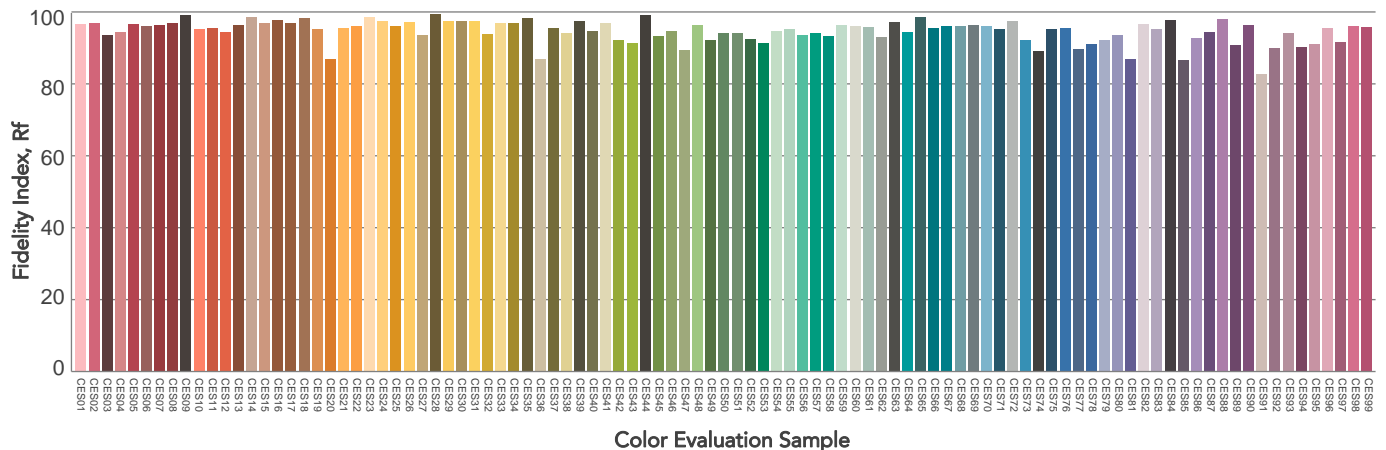
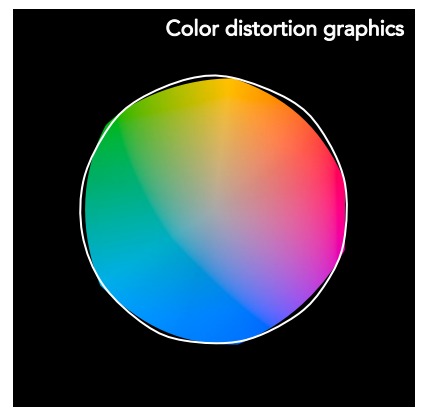
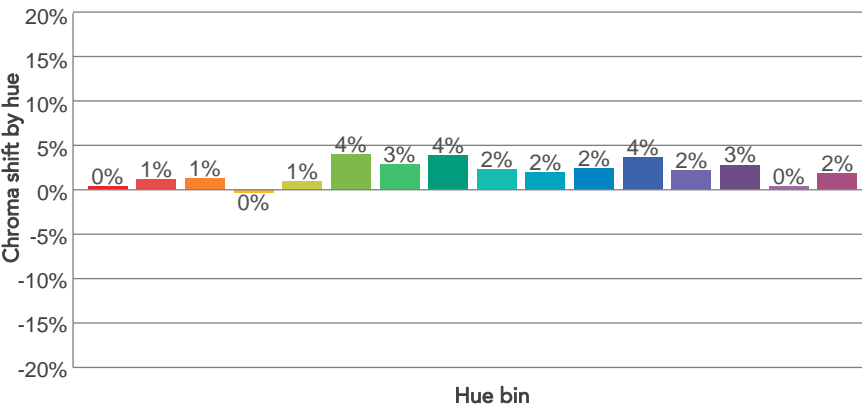
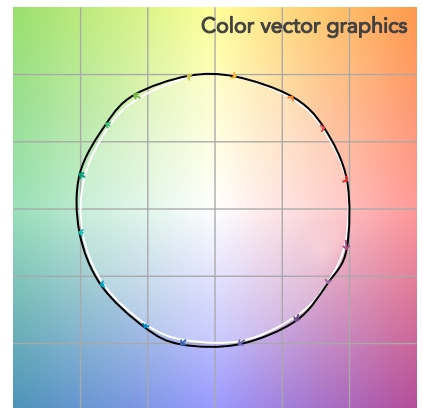
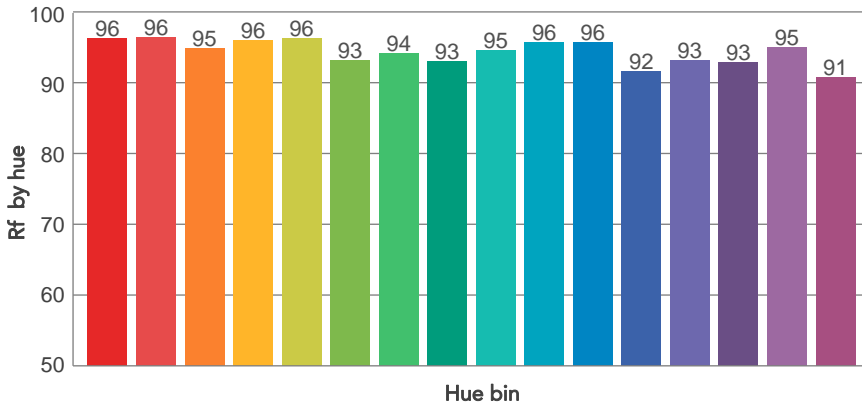
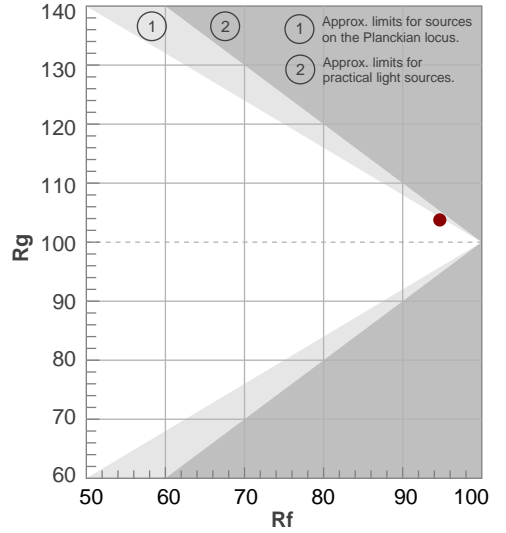
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2709 K	95,5	97,6	94,7	103,8	94,5	97	0,459	0,410	-0,0023

# TM30 DETAILS

**Rf 94,7**  
Fidelity index Rf

**Rg 103,8**  
Gammut index

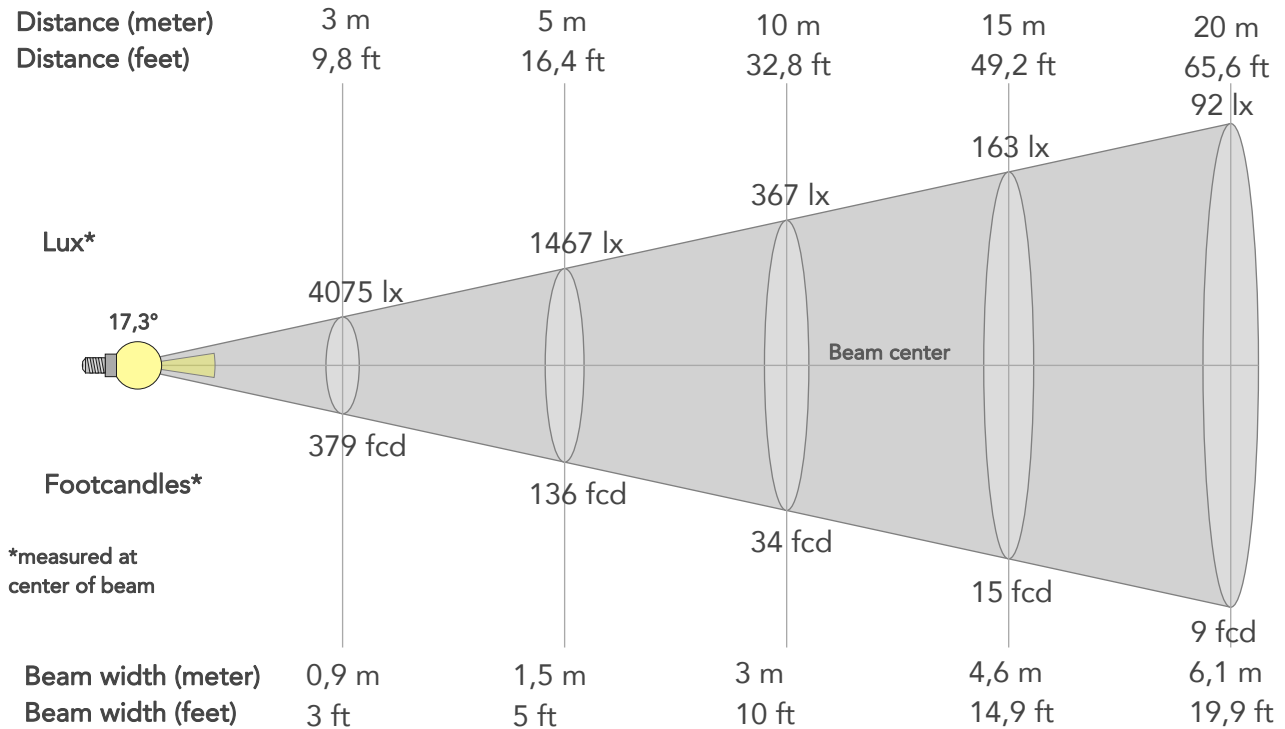
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	0%
2	96	1%	0%
3	95	1%	0%
4	96	0%	-1%
5	96	1%	1%
6	93	4%	2%
7	94	3%	0%
8	93	4%	-1%
9	95	2%	-1%
10	96	2%	-1%
11	96	2%	0%
12	92	4%	-2%
13	93	2%	-4%
14	93	3%	-4%
15	95	0%	-1%
16	91	2%	-6%



# BEAM DETAILS



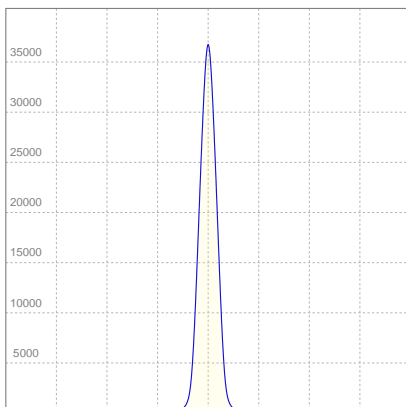
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,3°	29,7°	38,7°	100,0%	99,6%



## 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	36674lx	9169lx	4075lx	2292lx	1467lx	652lx	367lx	163lx	92lx	59lx	41lx	23lx	15lx
Footcand.	3407fcd	852fcd	379fcd	213fcd	136fcd	61fcd	34fcd	15fcd	9fcd	5fcd	4fcd	2fcd	1fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3m	4,6m	6,1m	7,6m	9,1m	12,1m	15,2m
Beam wid.	1ft	2ft	3ft	4ft	5ft	7,5ft	10ft	14,9ft	19,9ft	24,9ft	29,9ft	39,8ft	49,8ft

## LINEAR DISTRIBUTION DIAGRAM

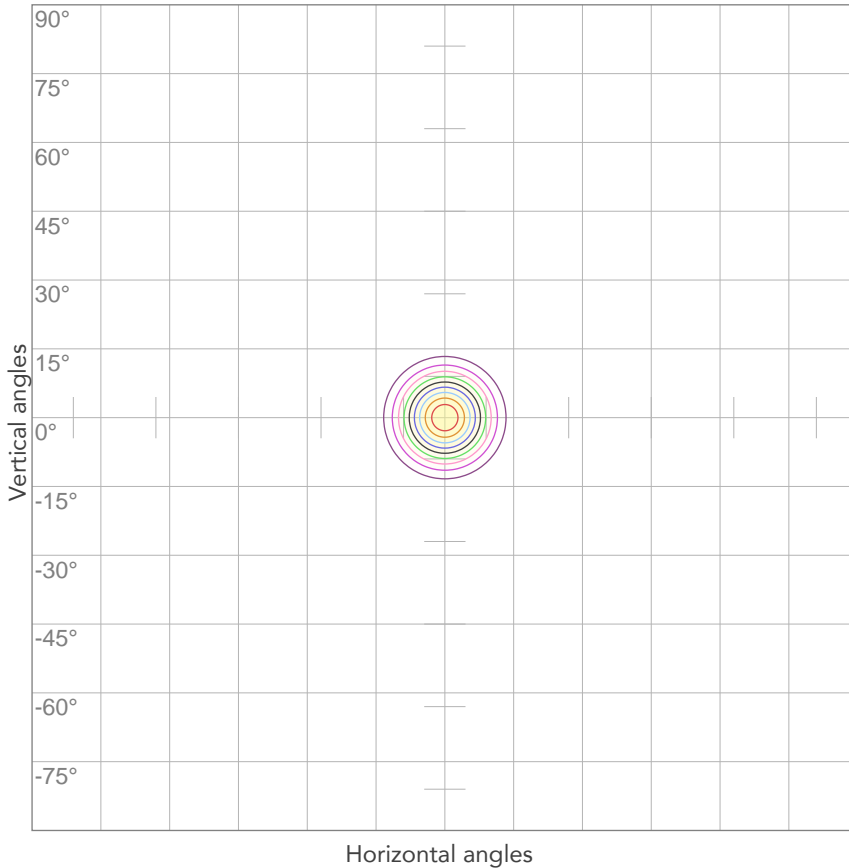


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,600A	117,4W	32lm/W

Power Fc
0,93

## ISO CANDELA DIAGRAM



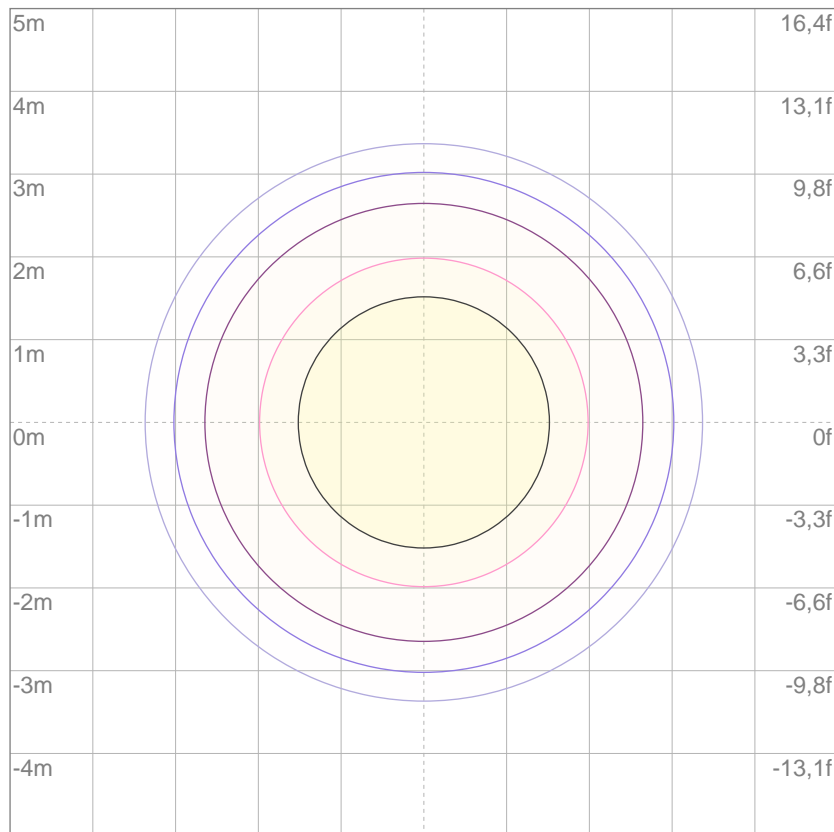
10%	3667 cd
20%	7335 cd
30%	11002 cd
40%	14670 cd
50%	18337 cd
60%	22005 cd
70%	25672 cd
80%	29340 cd

Conditions:

Number of c-planes: 2

Candela at center: 36674 cd

## ISO LUX DIAGRAM



3%	11,0 lx
5%	18,3 lx
10%	36,7 lx
30%	110 lx
50%	183 lx

Conditions:

Number of c-planes: 2

Lux at center: 367 lx

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

Mounting height: 10 meters (33 feet)