



# Photometric Test Report



## EclDisplay CRMXFC

**ZOOMABLE 20°-40° PROFILE LENS**

40 RGB+WW LED Spotlight with Wireless CRMX and wired control, without lens

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Min Zoom	74

**Color temperature 6000K**

Max Zoom	79
Min Zoom	84

## 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:

344 lm

Peak candela output:

1108 cd

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Max Zoom

Target:

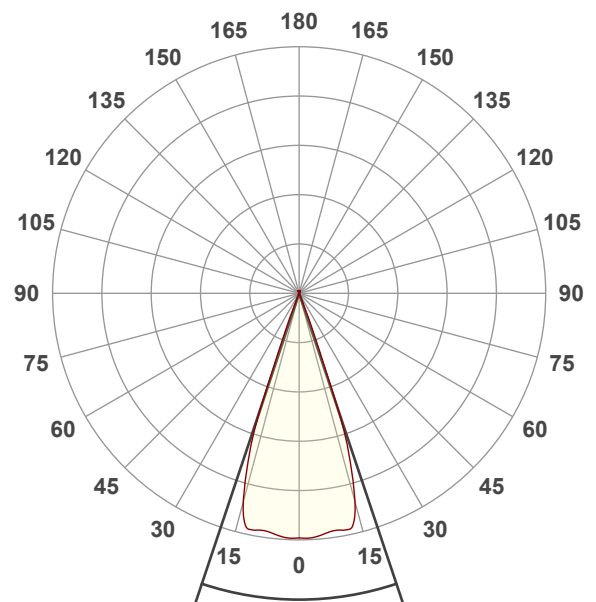
Full On

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:57:35

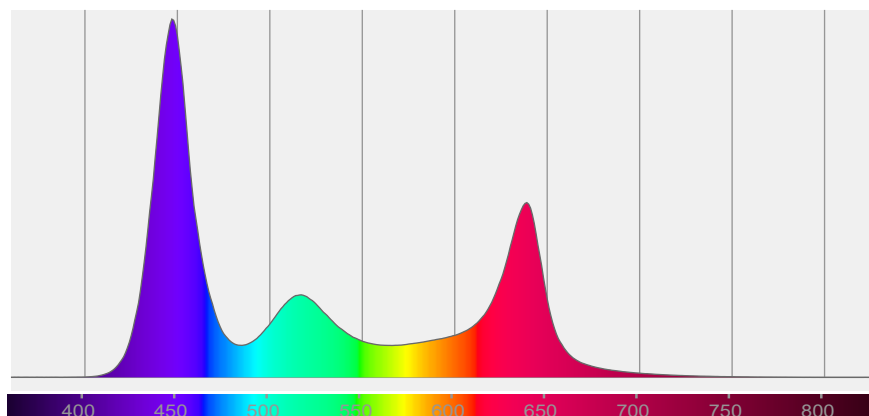


Beam angle 50%: 37°

Field angle 10%: 41,6°

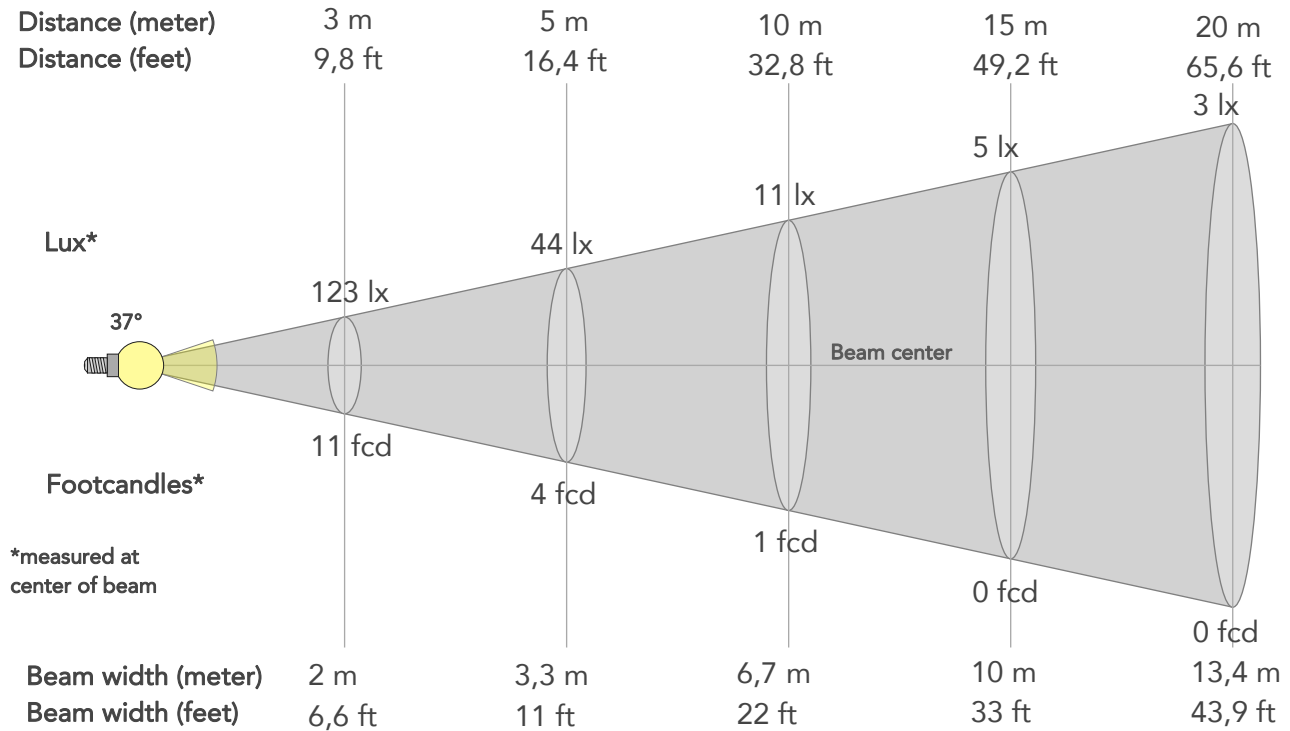
Cut off angle 2.5%: 43,2°

**Spectra**



# BEAM DETAILS

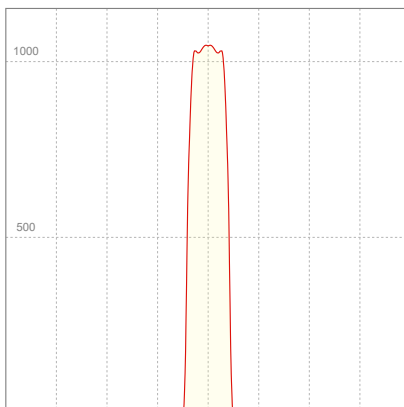
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37°	41,6°	43,2°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1106lx	276lx	123lx	69lx	44lx	20lx	11lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	103fcd	26fcd	11fcd	6fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,3m	5m	6,7m	10m	13,4m	16,7m	20,1m	26,8m	33,5m
Beam wid.	2,2ft	4,4ft	6,6ft	8,8ft	11ft	16,5ft	22ft	33ft	43,9ft	54,9ft	65,9ft	87,9ft	109,9ft

## LINEAR DISTRIBUTION DIAGRAM

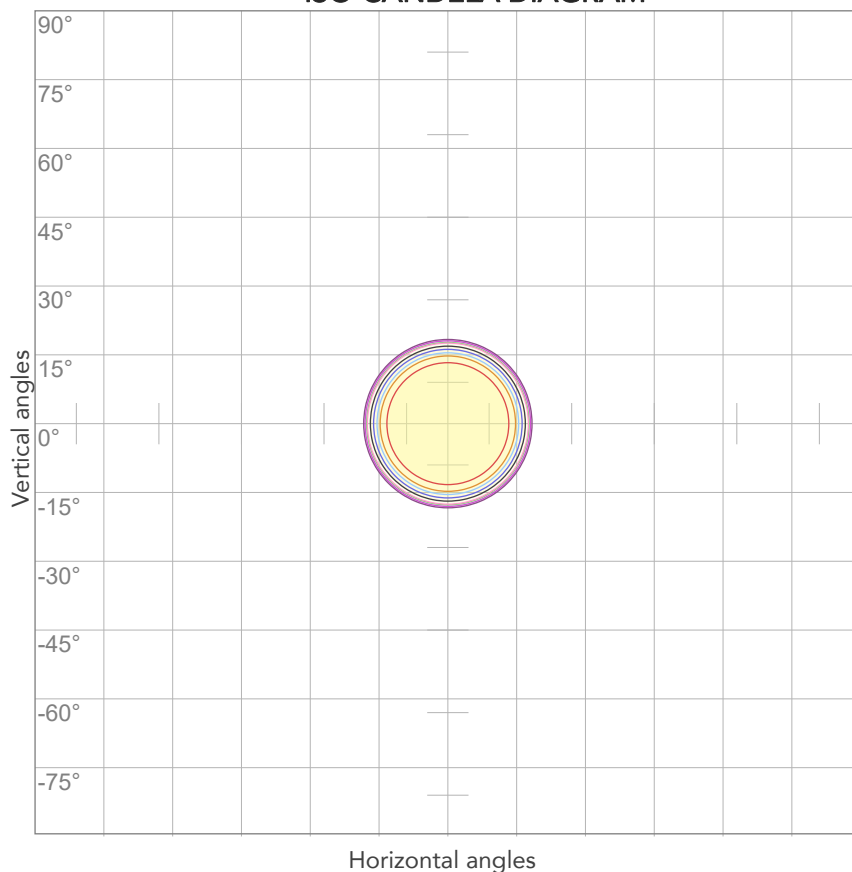


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,166A	34,6W	0,93	10lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



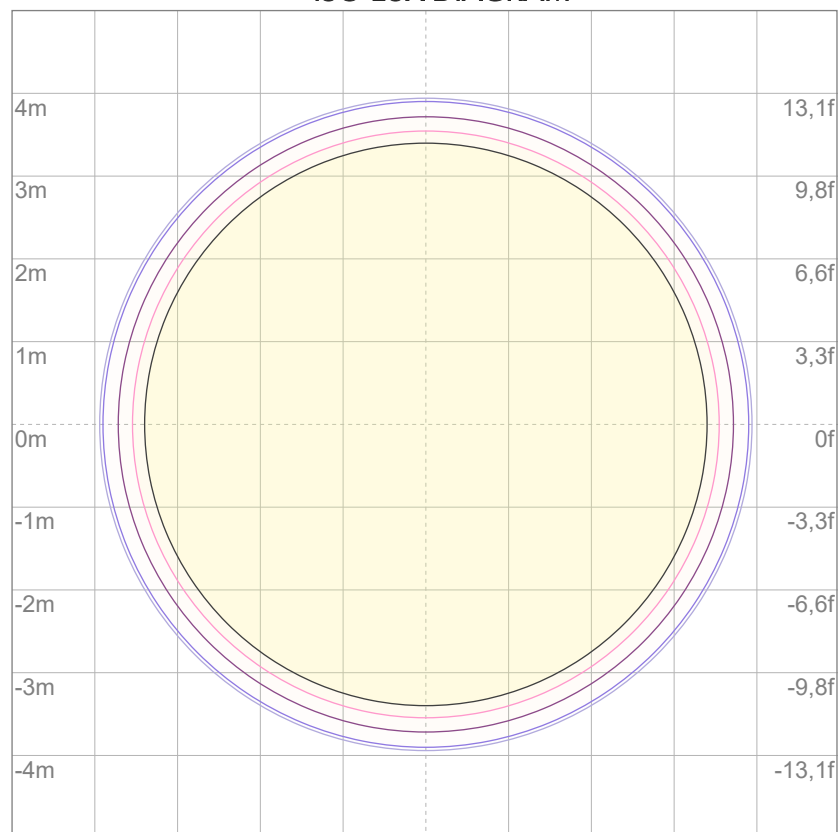
10%	111 cd
20%	221 cd
30%	332 cd
40%	442 cd
50%	553 cd
60%	664 cd
70%	774 cd
80%	885 cd

### Conditions:

Number of c-planes: 2

Candela at center: 1106 cd

## ISO LUX DIAGRAM



3%	0,332 lx
5%	0,553 lx
10%	1,11 lx
30%	3,32 lx
50%	5,53 lx

### Conditions:

Number of c-planes: 2

Lux at center: 11,1 lx

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



Total lumen output:

366 lm

Peak candela output:

4863 cd

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Min Zoom

Target:

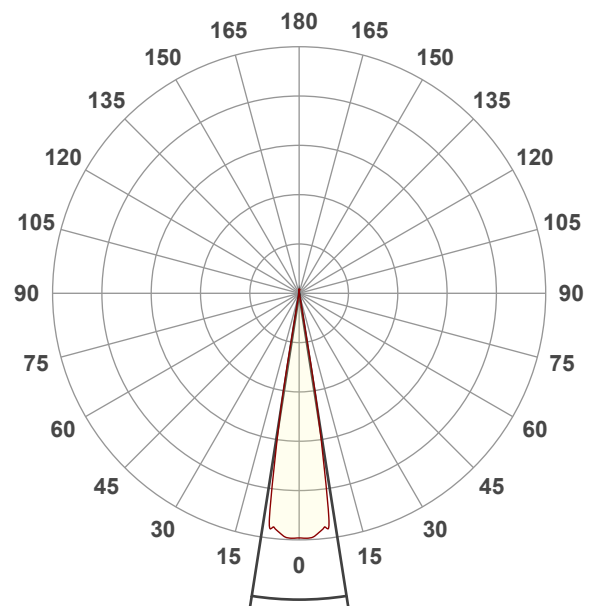
Full On

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:48:16

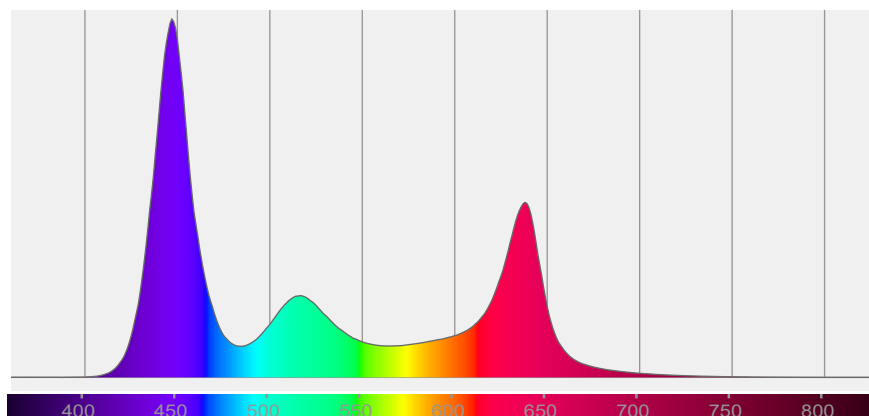


Beam angle 50%: 17,8°

Field angle 10%: 20,4°

Cut off angle 2.5%: 21,7°

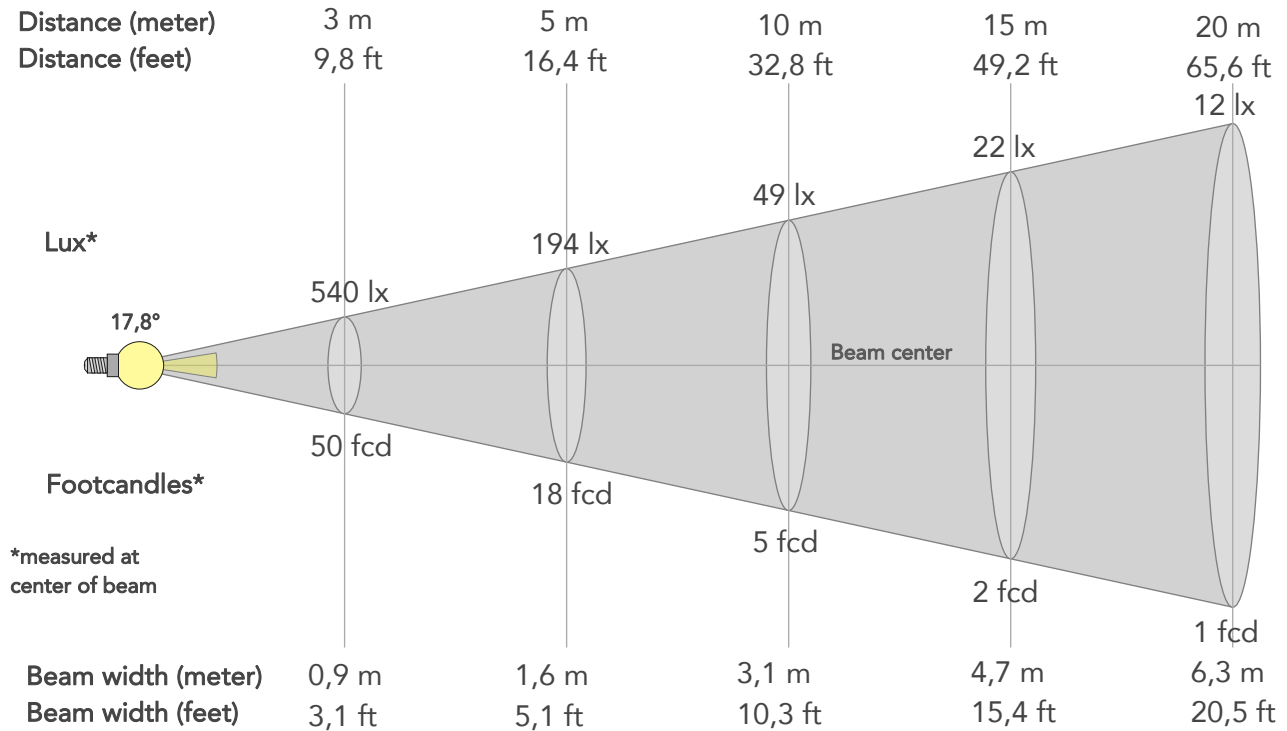
**Spectra**





# BEAM DETAILS

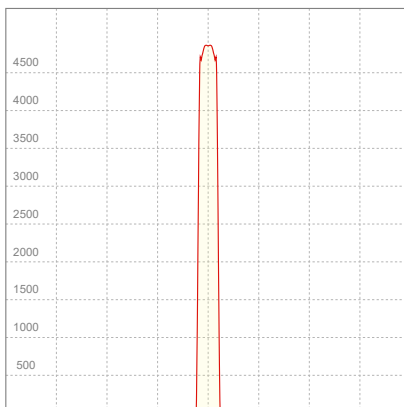
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,8°	20,4°	21,7°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4856lx	1214lx	540lx	303lx	194lx	86lx	49lx	22lx	12lx	8lx	5lx	3lx	2lx
Footcand.	451fcd	113fcd	50fcd	28fcd	18fcd	8fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,3m	1,6m	2,3m	3,1m	4,7m	6,3m	7,8m	9,4m	12,5m	15,7m
Beam wid.	1ft	2,1ft	3,1ft	4,1ft	5,1ft	7,7ft	10,3ft	15,4ft	20,5ft	25,7ft	30,8ft	41,1ft	51,4ft

## LINEAR DISTRIBUTION DIAGRAM

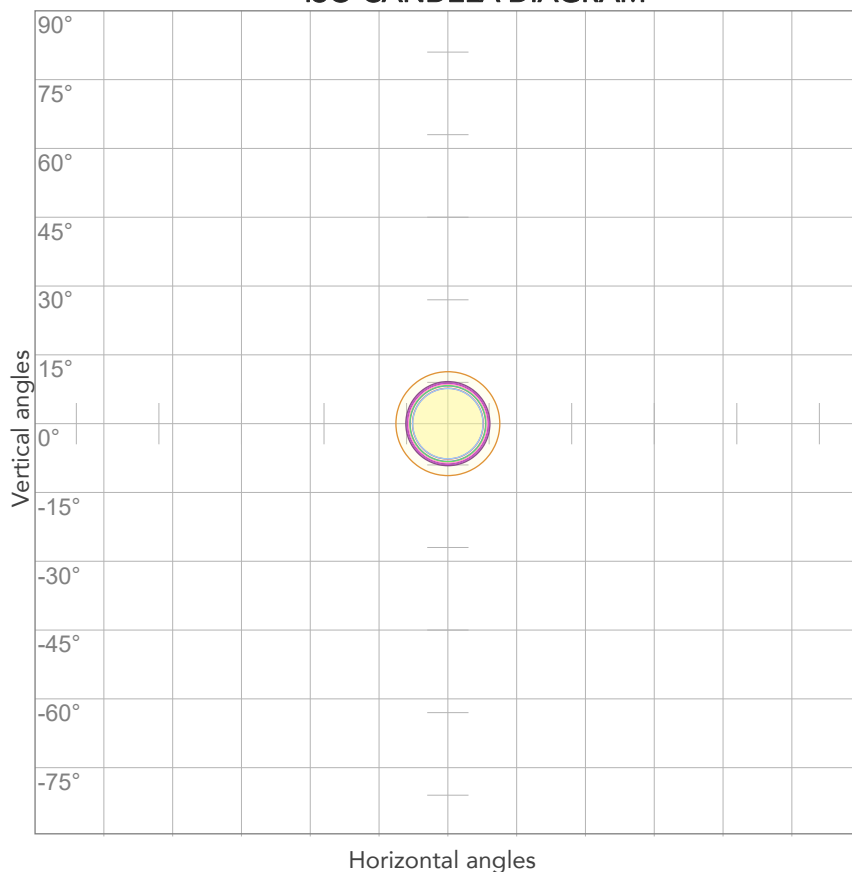


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,168A	35,0W	0,93	10lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



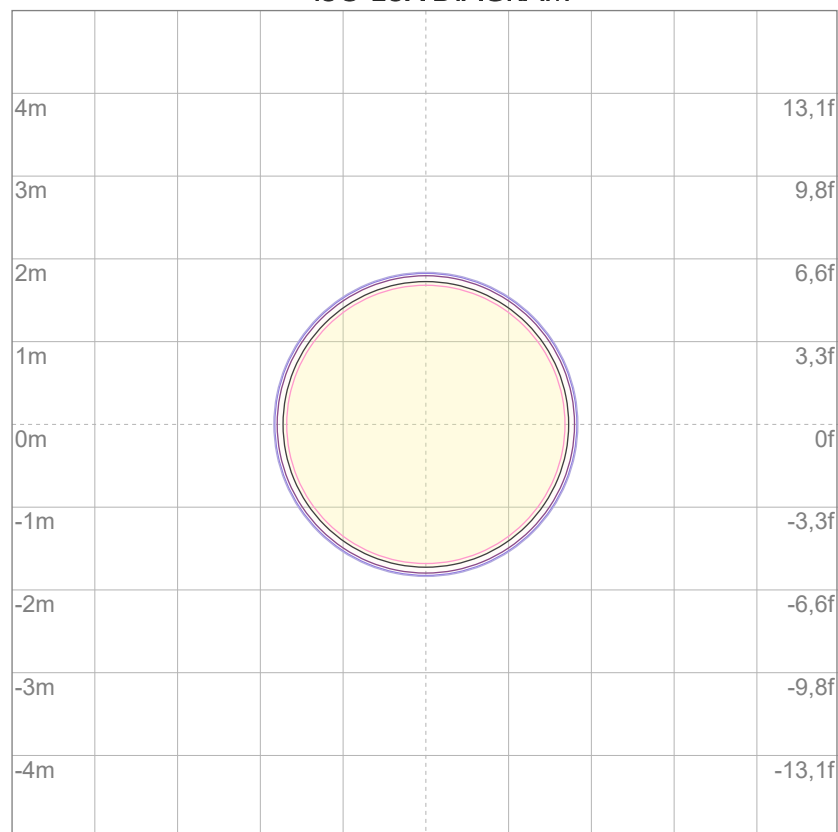
10%	486 cd
20%	971 cd
30%	1457 cd
40%	1942 cd
50%	2428 cd
60%	2914 cd
70%	3399 cd
80%	3885 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4856 cd

## ISO LUX DIAGRAM



3%	1,46 lx
5%	2,43 lx
10%	4,86 lx
30%	14,6 lx
50%	24,3 lx

### Conditions:

Number of c-planes: 2

Lux at center: 48,6 lx

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



Total lumen output:

75,1 lm

Peak candela output:

245 cd

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Max Zoom

Target:

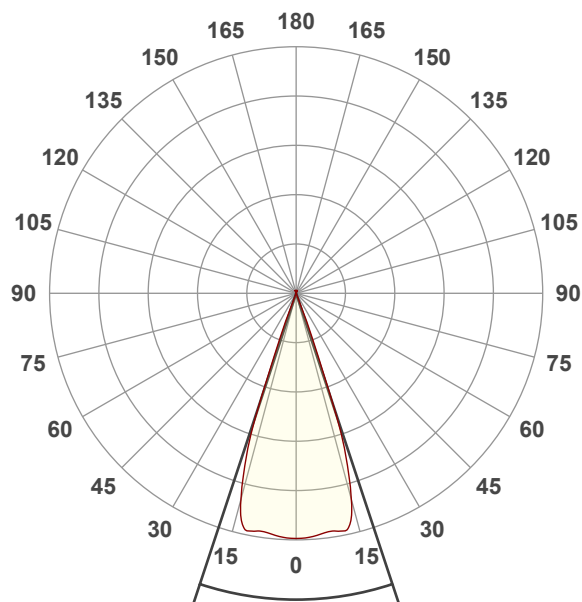
Red

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:59:18

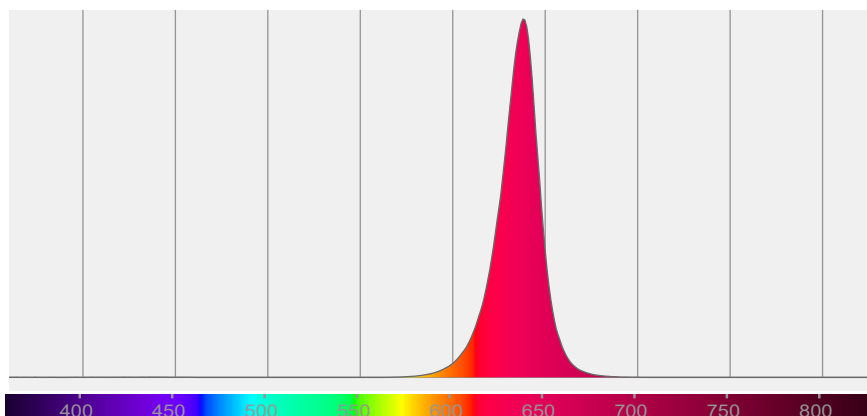


Beam angle 50%: 36,6°

Field angle 10%: 41,5°

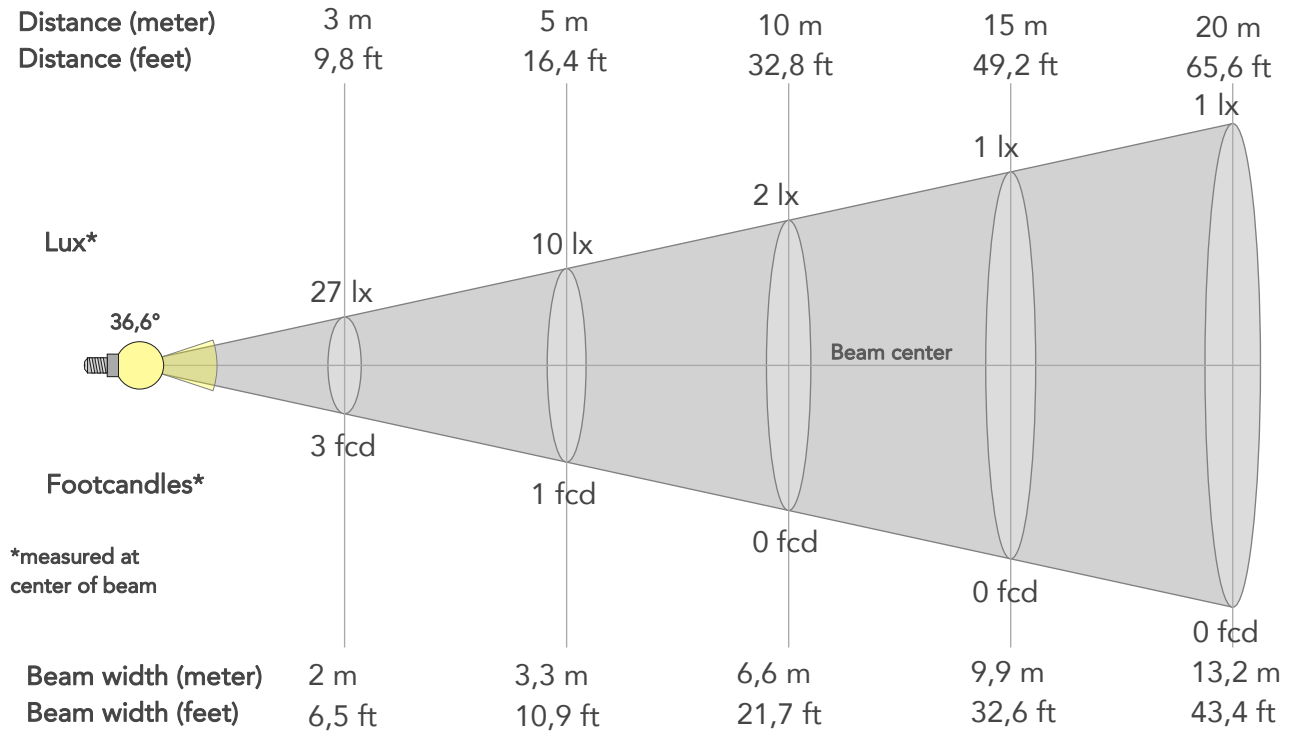
Cut off angle 2.5%: 43°

**Spectra**



# BEAM DETAILS

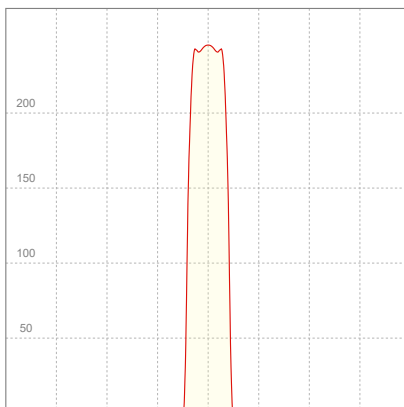
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36,6°	41,5°	43°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	245lx	61lx	27lx	15lx	10lx	4lx	2lx	1lx	1lx	0lx	0lx	0lx	0lx
Footcand.	23fcd	6fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,3m	2m	2,6m	3,3m	5m	6,6m	9,9m	13,2m	16,6m	19,9m	26,5m	33,1m
Beam wid.	2,2ft	4,4ft	6,5ft	8,7ft	10,9ft	16,3ft	21,7ft	32,6ft	43,4ft	54,3ft	65,1ft	86,9ft	108,6ft

## LINEAR DISTRIBUTION DIAGRAM

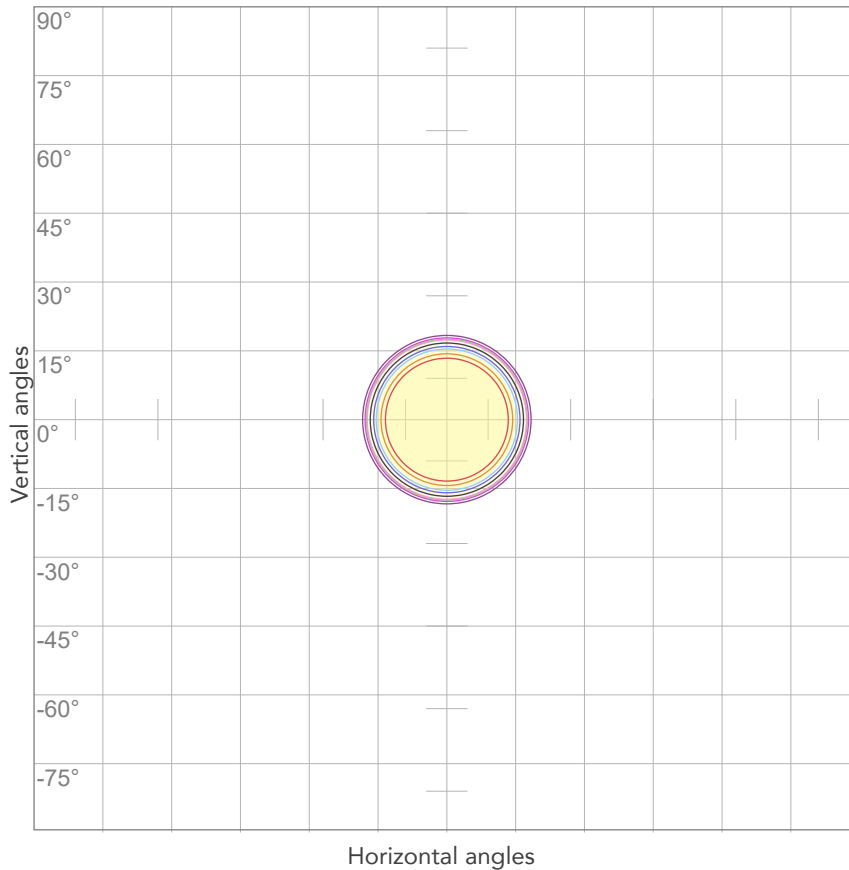


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,073A	14,1W	0,87	5lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



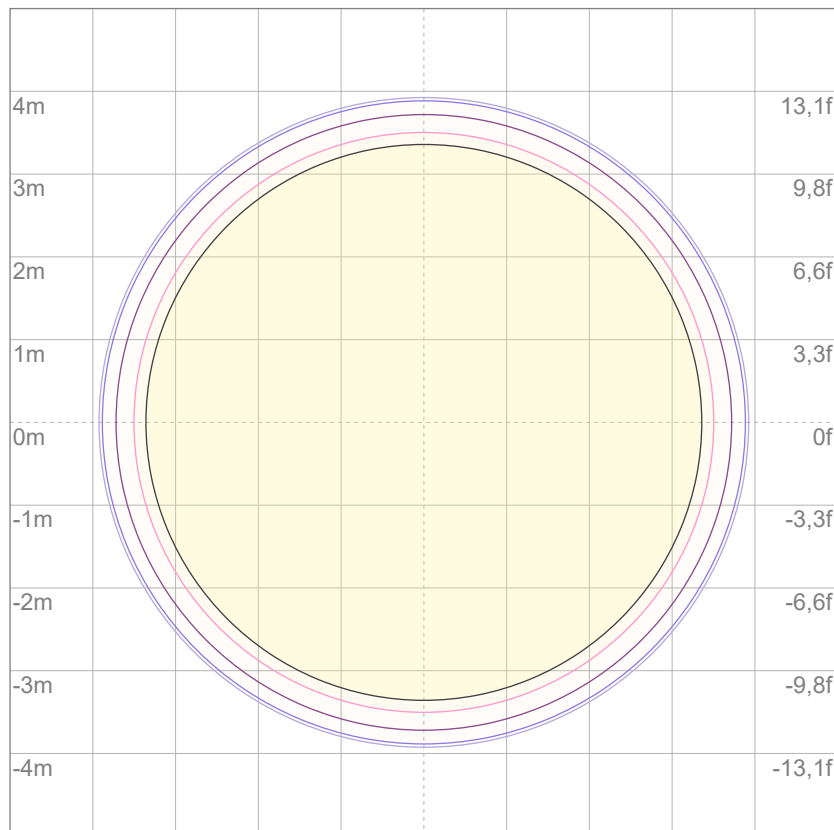
10%	25 cd
20%	49 cd
30%	74 cd
40%	98 cd
50%	123 cd
60%	147 cd
70%	172 cd
80%	196 cd

### Conditions:

Number of c-planes: 2

Candela at center: 245 cd

## ISO LUX DIAGRAM



3%	73,6m lx
5%	0,123 lx
10%	0,245 lx
30%	0,736 lx
50%	1,23 lx

### Conditions:

Number of c-planes: 2

Lux at center: 2,45 lx

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



Total lumen output:

85,4 lm

Peak candela output:

1141 cd

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Min Zoom

Target:

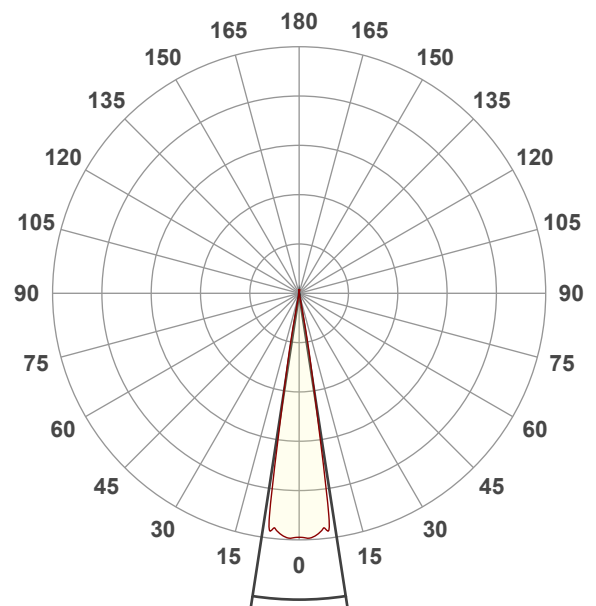
Red

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:50:00

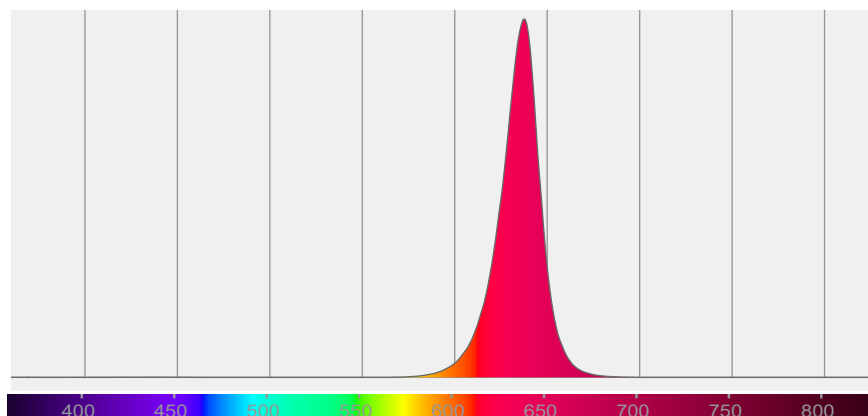


Beam angle 50%: 17,5°

Field angle 10%: 21°

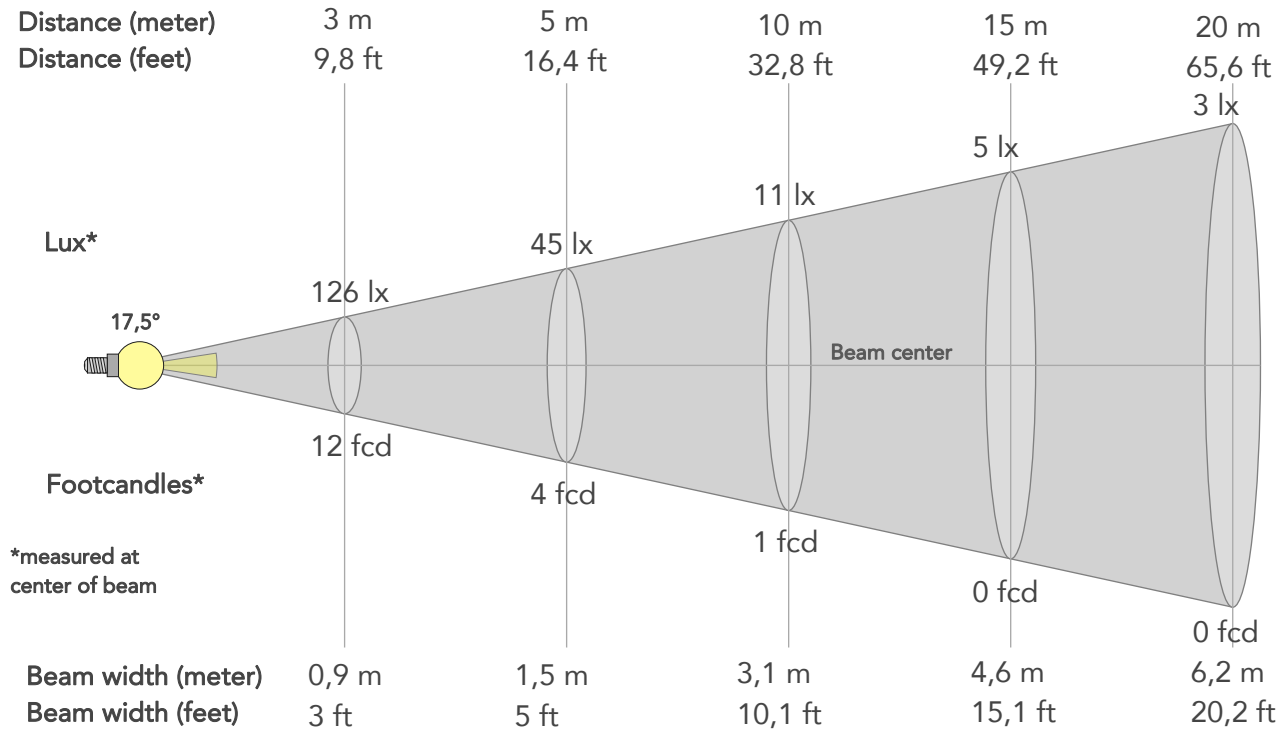
Cut off angle 2.5%: 22°

**Spectra**



# BEAM DETAILS

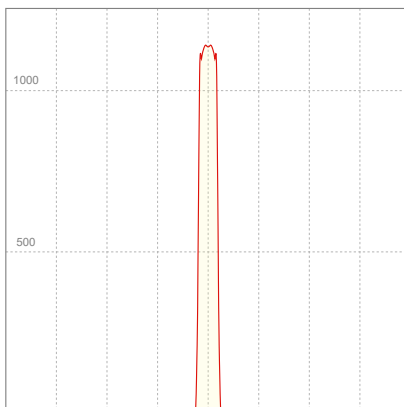
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,5°	21°	22°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1136lx	284lx	126lx	71lx	45lx	20lx	11lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	106fcd	26fcd	12fcd	7fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3,1m	4,6m	6,2m	7,7m	9,2m	12,3m	15,4m
Beam wid.	1ft	2ft	3ft	4ft	5ft	7,6ft	10,1ft	15,1ft	20,2ft	25,2ft	30,3ft	40,4ft	50,5ft

## LINEAR DISTRIBUTION DIAGRAM

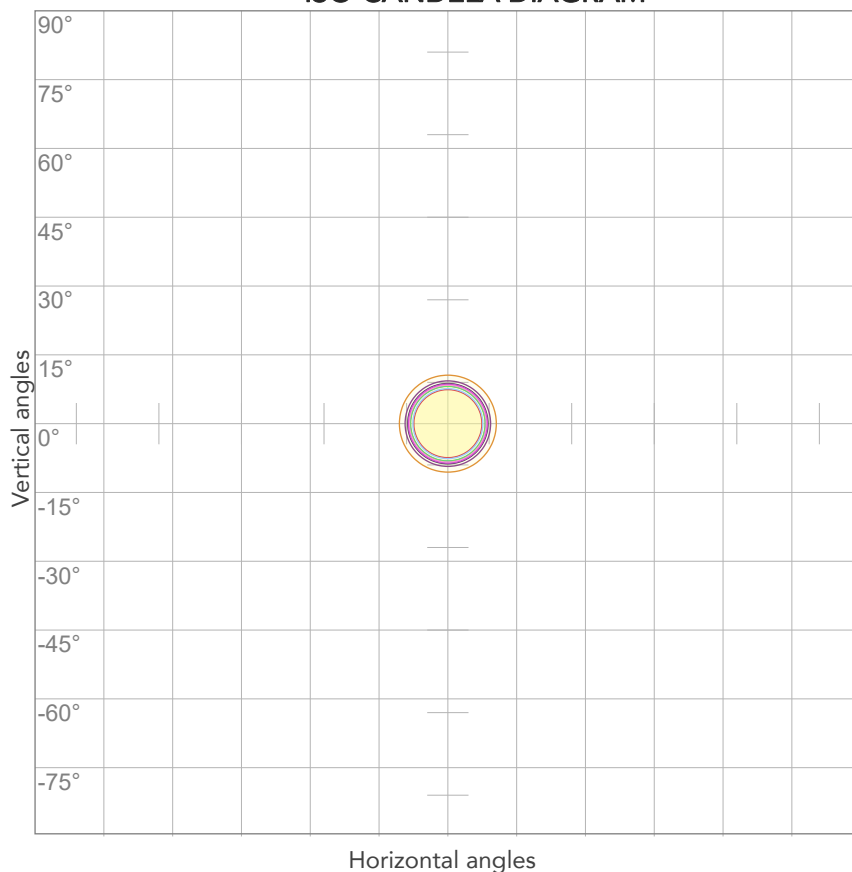


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,072A	13,9W	0,86	6lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



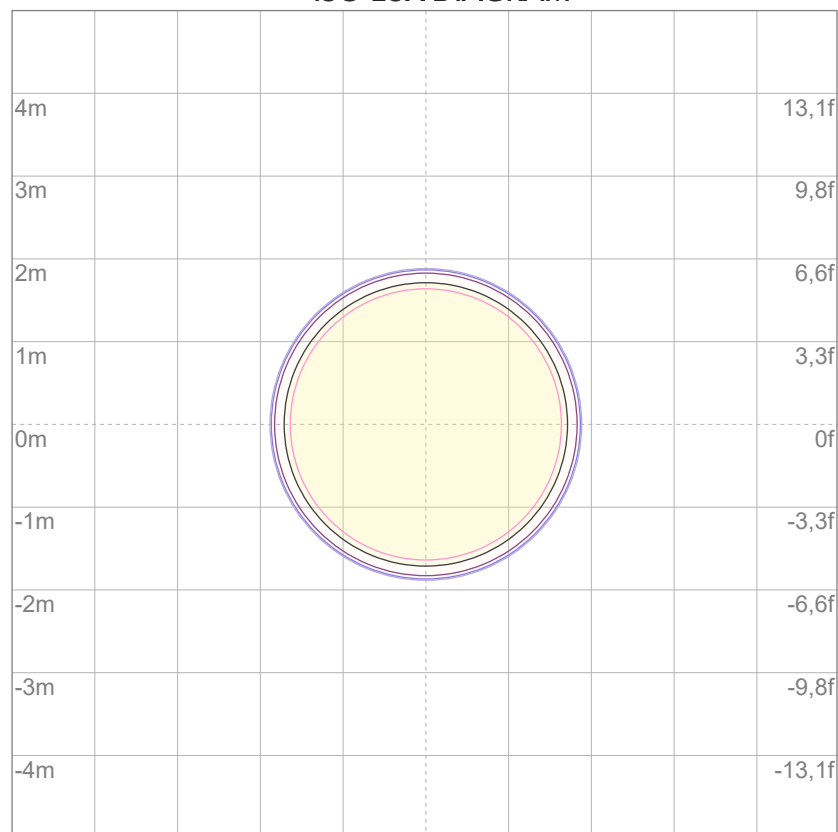
10%	114 cd
20%	227 cd
30%	341 cd
40%	455 cd
50%	568 cd
60%	682 cd
70%	795 cd
80%	909 cd

### Conditions:

Number of c-planes: 2

Candela at center: 1136 cd

## ISO LUX DIAGRAM



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

### Conditions:

Number of c-planes: 2

Lux at center: 11,4 lx

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





Total lumen output:

142 lm

Peak candela output:

455 cd

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Max Zoom

Target:

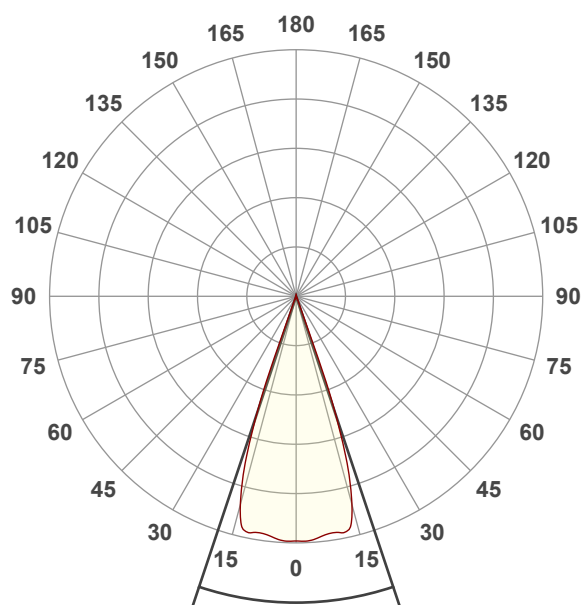
Green

Operator:

Paolo Carvone

Date and time:

03/12/2020 17:00:47

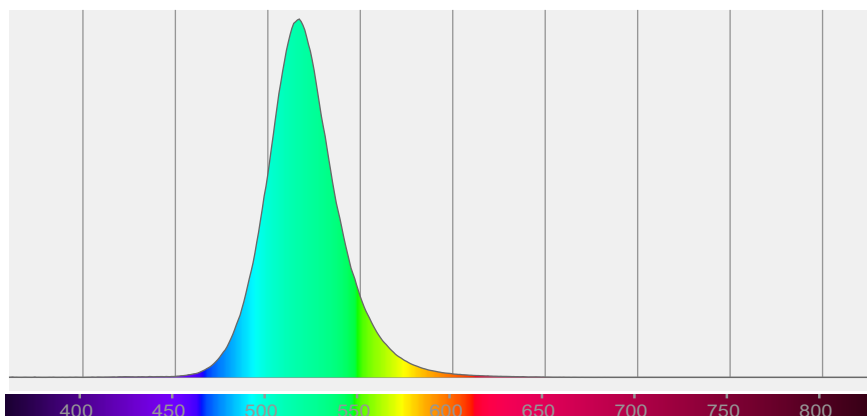


Beam angle 50%: 36,9°

Field angle 10%: 41,3°

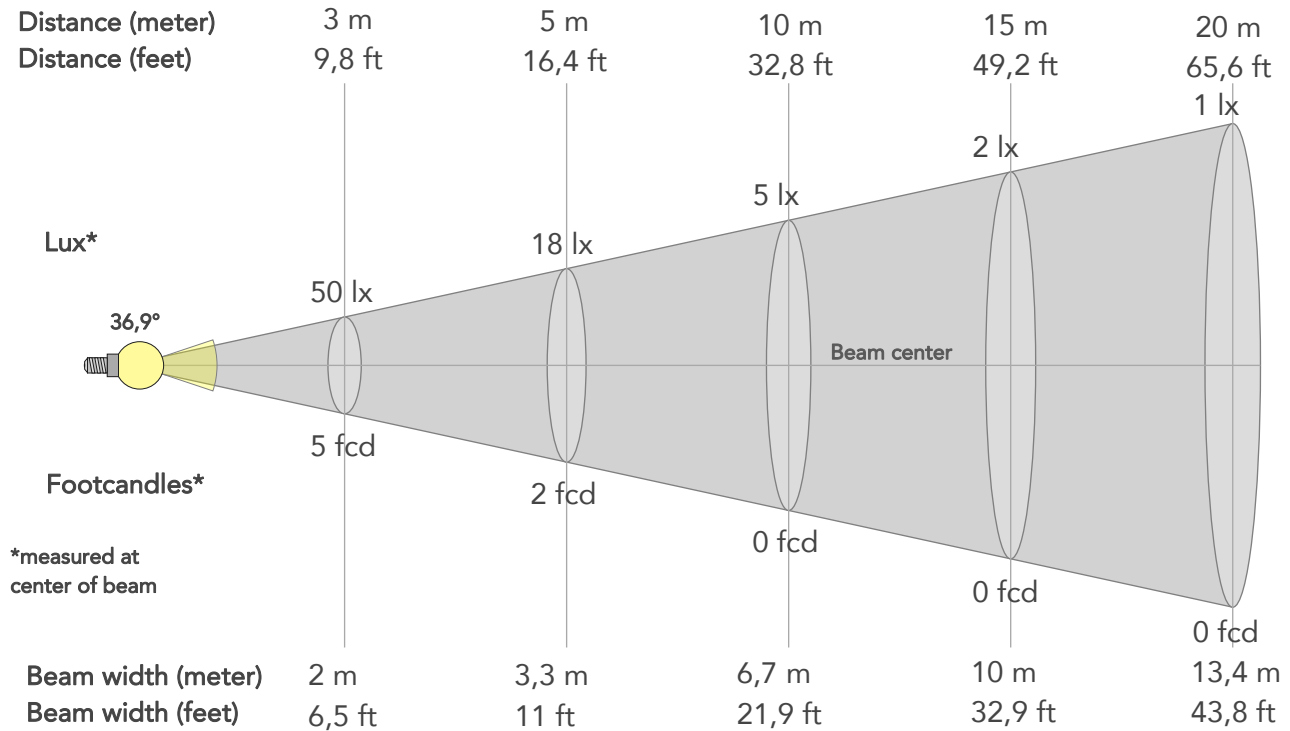
Cut off angle 2.5%: 43,7°

**Spectra**



# BEAM DETAILS

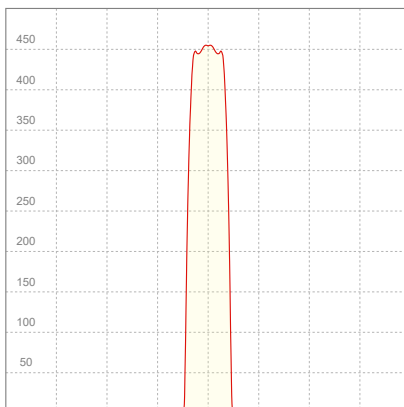
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36,9°	41,3°	43,7°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	454lx	114lx	50lx	28lx	18lx	8lx	5lx	2lx	1lx	1lx	1lx	0lx	0lx
Footcand.	42fcd	11fcd	5fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,3m	5m	6,7m	10m	13,4m	16,7m	20m	26,7m	33,4m
Beam wid.	2,2ft	4,4ft	6,5ft	8,8ft	11ft	16,4ft	21,9ft	32,9ft	43,8ft	54,8ft	65,7ft	87,7ft	109,6ft

## LINEAR DISTRIBUTION DIAGRAM

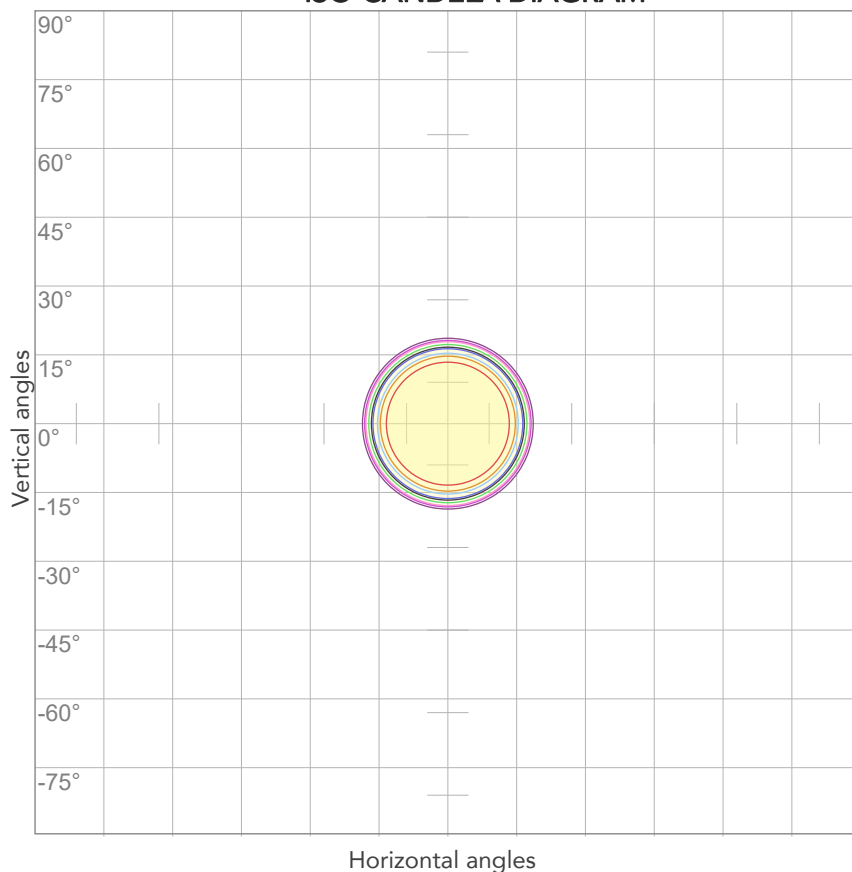


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,097A	19,3W	0,89	7lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



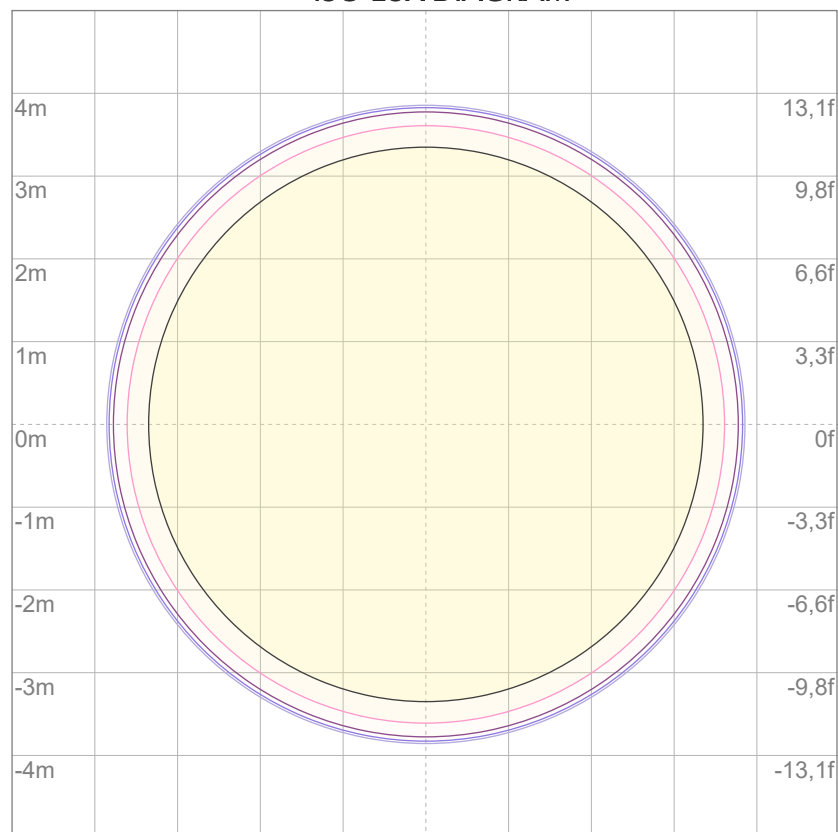
10%	45 cd
20%	91 cd
30%	136 cd
40%	182 cd
50%	227 cd
60%	273 cd
70%	318 cd
80%	364 cd

### Conditions:

Number of c-planes: 2

Candela at center: 454 cd

## ISO LUX DIAGRAM



3%	0,136 lx
5%	0,227 lx
10%	0,454 lx
30%	1,36 lx
50%	2,27 lx

### Conditions:

Number of c-planes: 2

Lux at center: 4,54 lx

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



Total lumen output:

158 lm

Peak candela output:

2101 cd

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Min Zoom

Target:

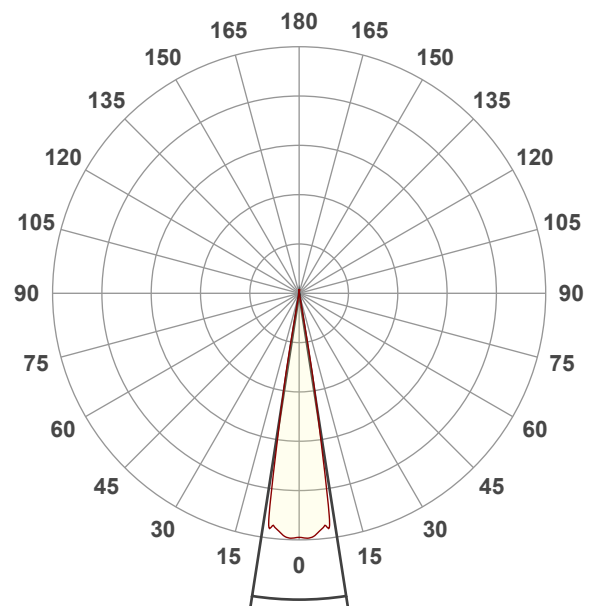
Green

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:52:02

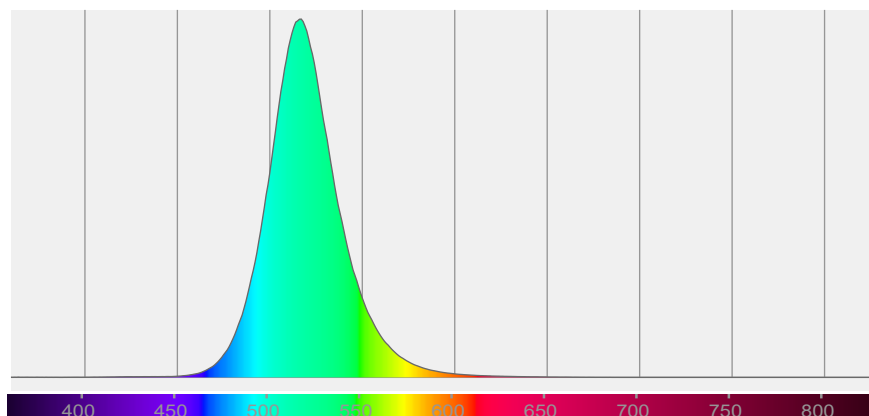


Beam angle 50%: 17,7°

Field angle 10%: 20,6°

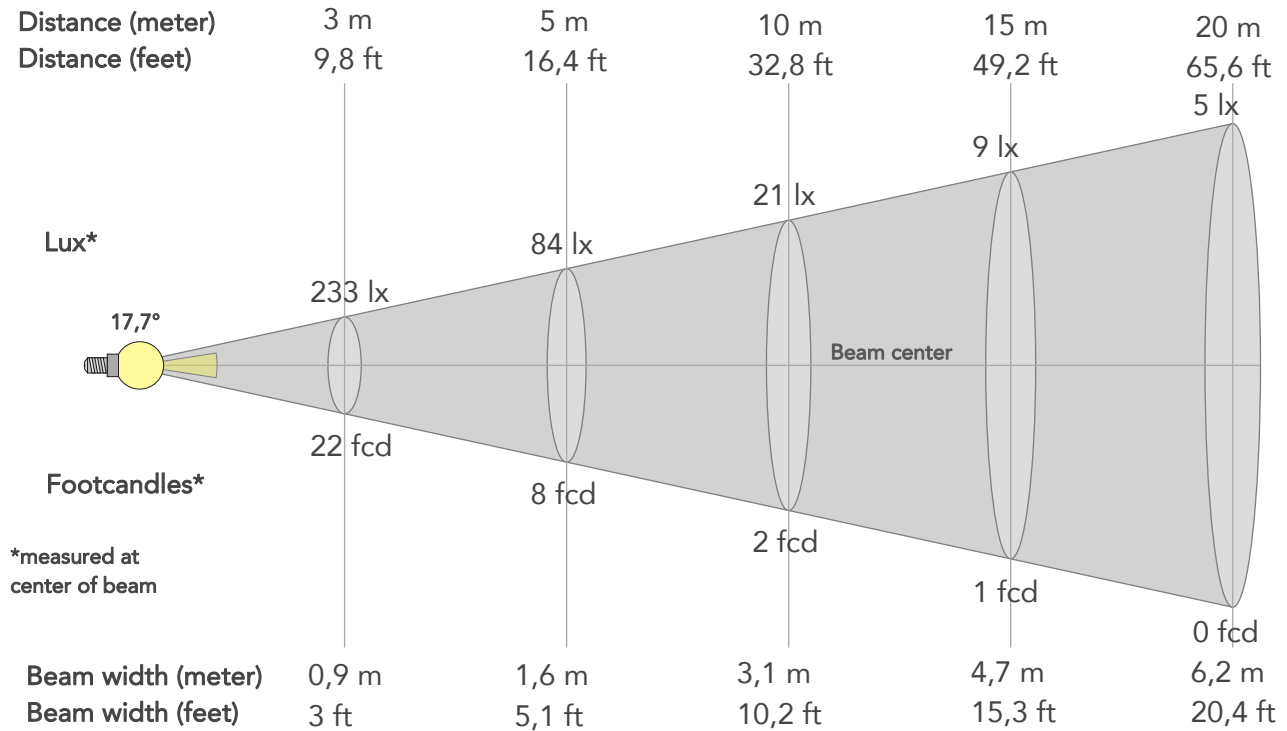
Cut off angle 2.5%: 21,3°

**Spectra**



# BEAM DETAILS

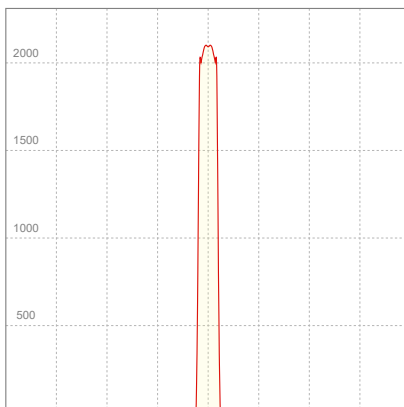
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,7°	20,6°	21,3°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	2093lx	523lx	233lx	131lx	84lx	37lx	21lx	9lx	5lx	3lx	2lx	1lx	1lx
Footcand.	194fcd	49fcd	22fcd	12fcd	8fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,6m	2,3m	3,1m	4,7m	6,2m	7,8m	9,3m	12,4m	15,5m
Beam wid.	1ft	2,1ft	3ft	4,1ft	5,1ft	7,6ft	10,2ft	15,3ft	20,4ft	25,5ft	30,6ft	40,8ft	51ft

## LINEAR DISTRIBUTION DIAGRAM

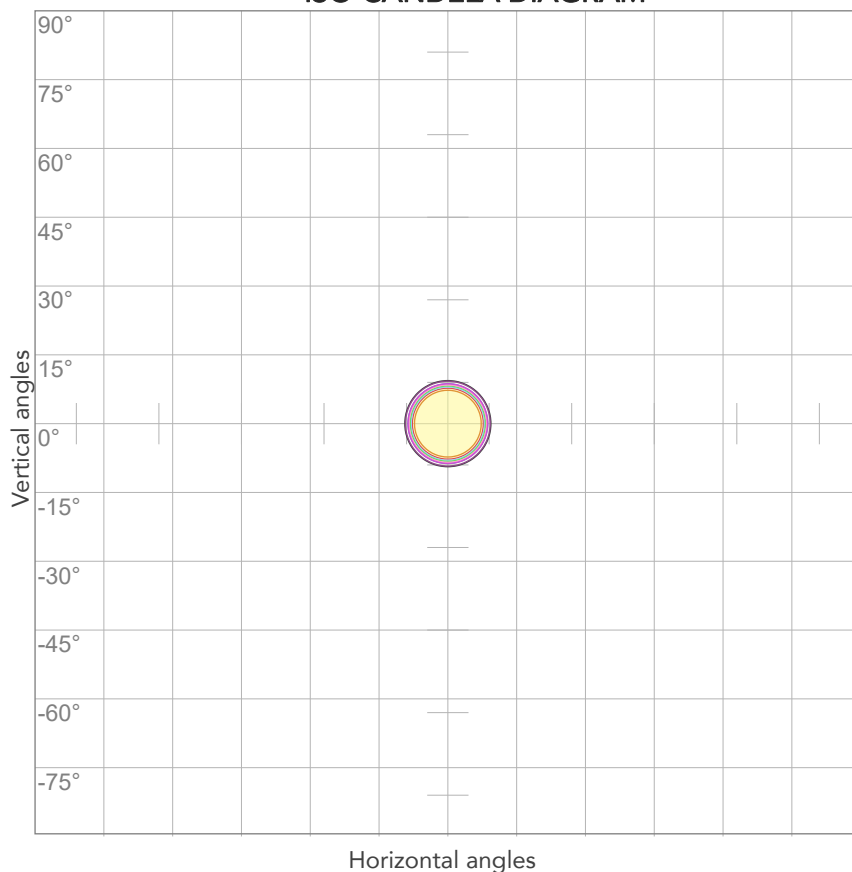


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,097A	19,4W	0,89	8lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



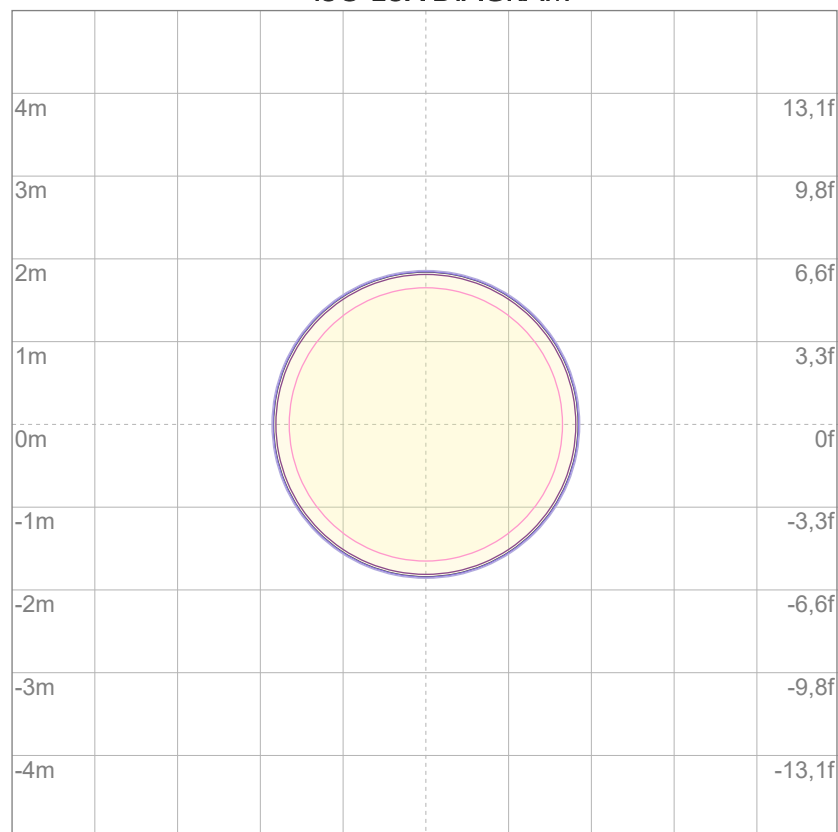
10%	209 cd
20%	419 cd
30%	628 cd
40%	837 cd
50%	1047 cd
60%	1256 cd
70%	1465 cd
80%	1675 cd

### Conditions:

Number of c-planes: 2

Candela at center: 2093 cd

## ISO LUX DIAGRAM



3%	0,628 lx
5%	1,05 lx
10%	2,09 lx
30%	6,28 lx
50%	10,5 lx

### Conditions:

Number of c-planes: 2

Lux at center: 20,9 lx

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



Total lumen output:

37,2 lm

Peak candela output:

117 cd

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Max Zoom

Target:

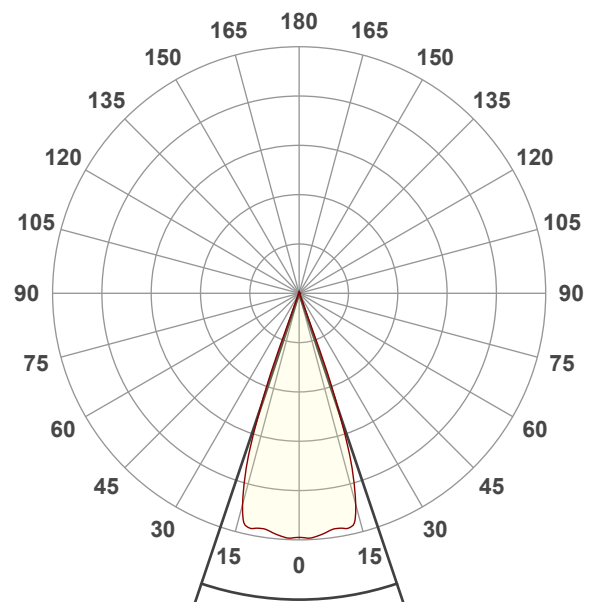
Blue

Operator:

Paolo Carvone

Date and time:

03/12/2020 17:02:40

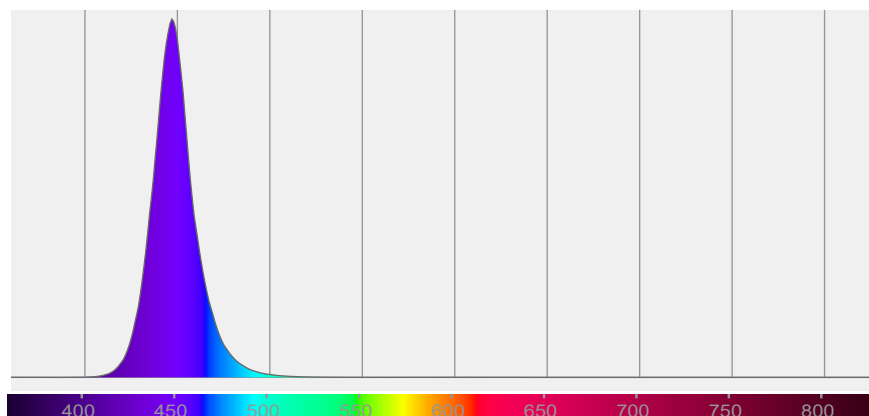


Beam angle 50%: 37,2°

Field angle 10%: 41,9°

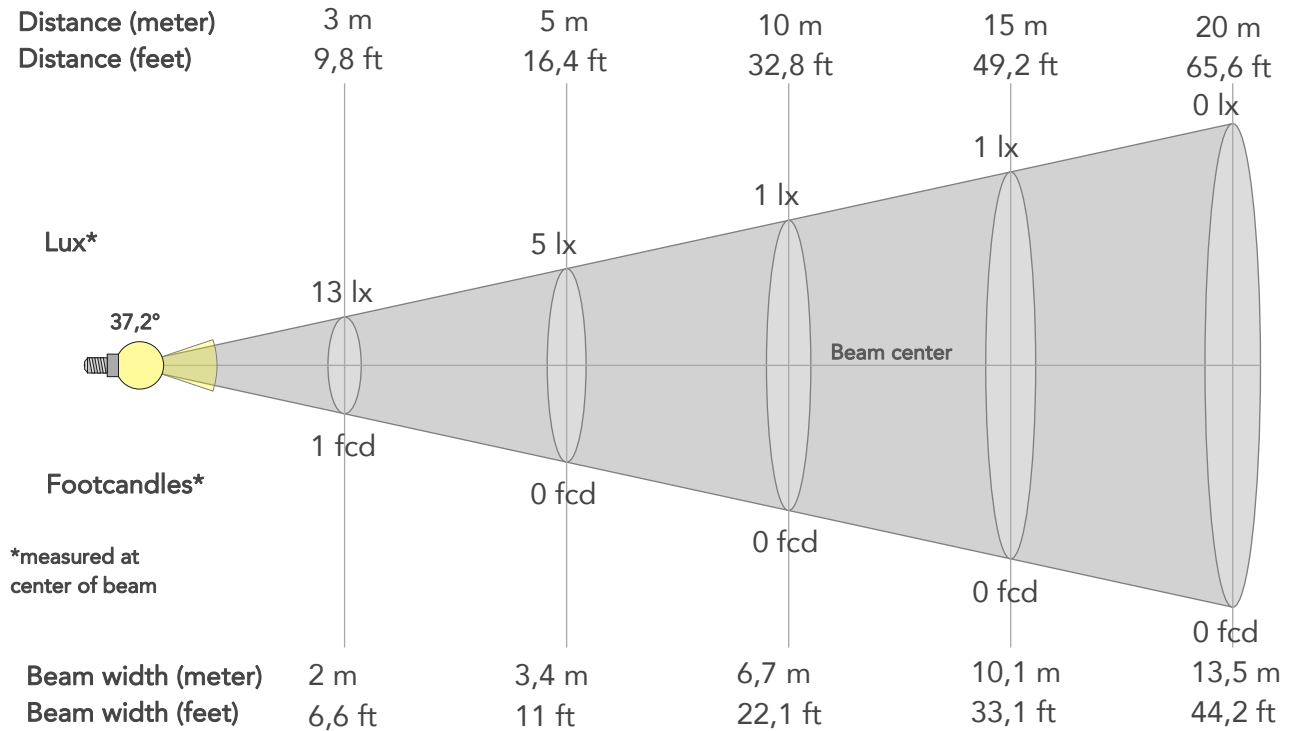
Cut off angle 2.5%: 44,1°

**Spectra**



# BEAM DETAILS

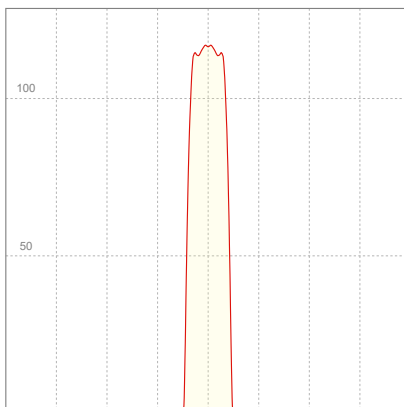
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,2°	41,9°	44,1°	99,9%	99,9%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	117lx	29lx	13lx	7lx	5lx	2lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx
Footcand.	11fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,4m	5,1m	6,7m	10,1m	13,5m	16,8m	20,2m	26,9m	33,7m
Beam wid.	2,2ft	4,4ft	6,6ft	8,8ft	11ft	16,6ft	22,1ft	33,1ft	44,2ft	55,2ft	66,3ft	88,4ft	110,4ft

## LINEAR DISTRIBUTION DIAGRAM



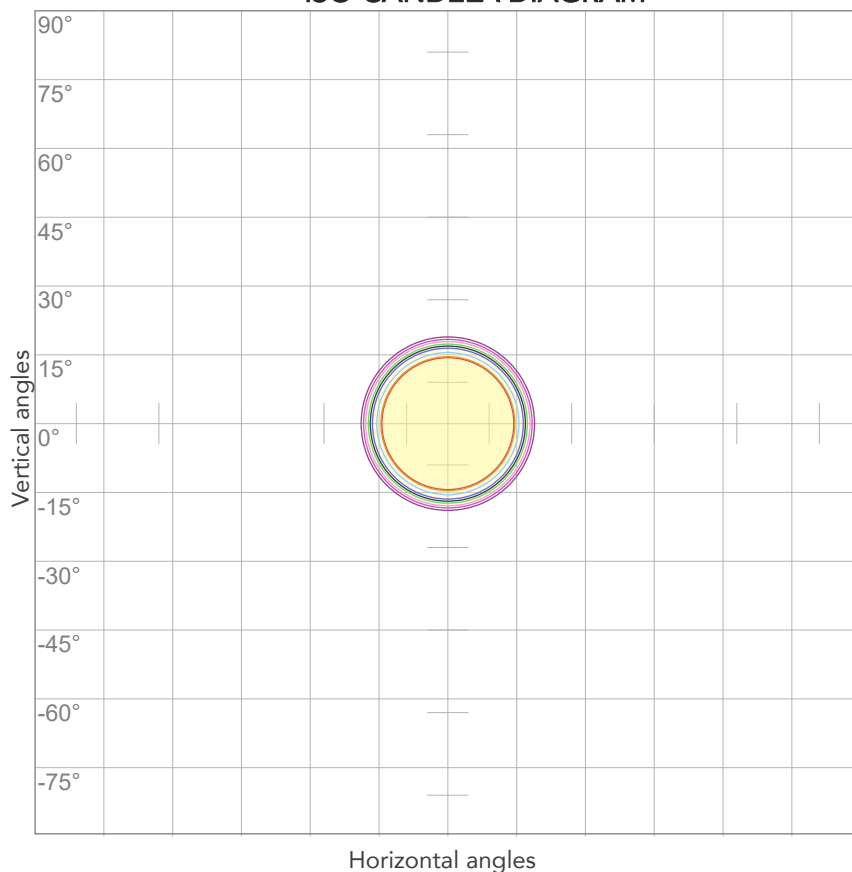
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
225V	0,091A	18,0W	0,88	2lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



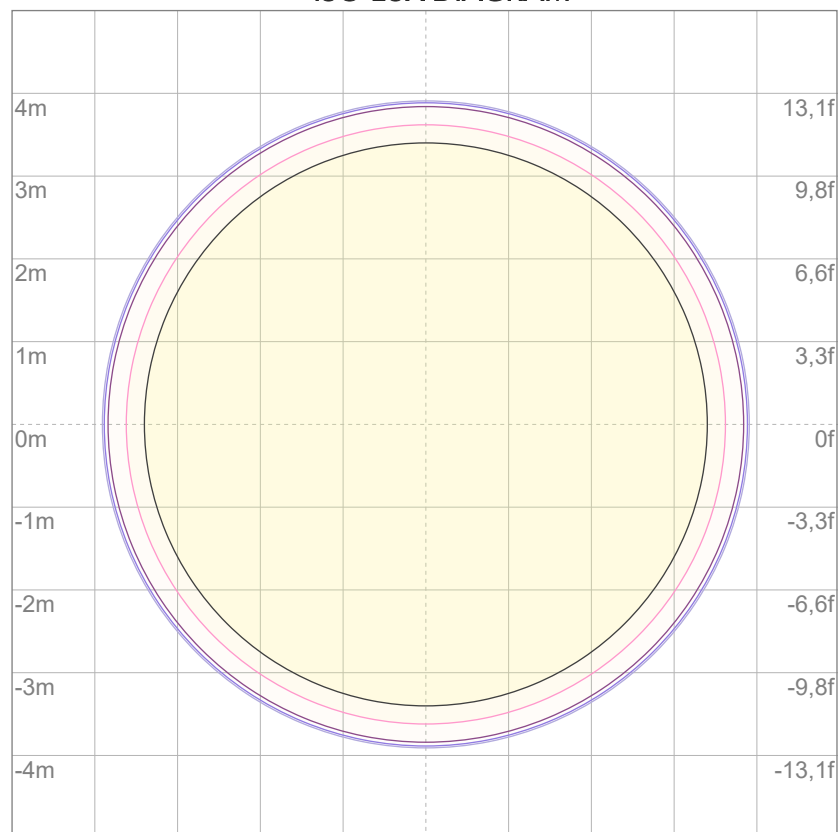
10%	12 cd
20%	23 cd
30%	35 cd
40%	47 cd
50%	58 cd
60%	70 cd
70%	82 cd
80%	93 cd

### Conditions:

Number of c-planes: 2

Candela at center: 117 cd

## ISO LUX DIAGRAM



3%	35,0m lx
5%	58,3m lx
10%	0,117 lx
30%	0,350 lx
50%	0,583 lx

### Conditions:

Number of c-planes: 2

Lux at center: 1,17 lx

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



Total lumen output:

41,2 lm

Peak candela output:

546 cd

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Min Zoom

Target:

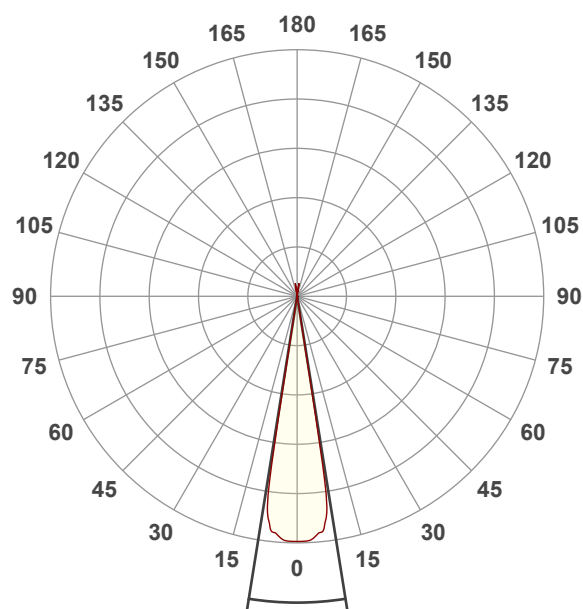
Blue

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:53:29

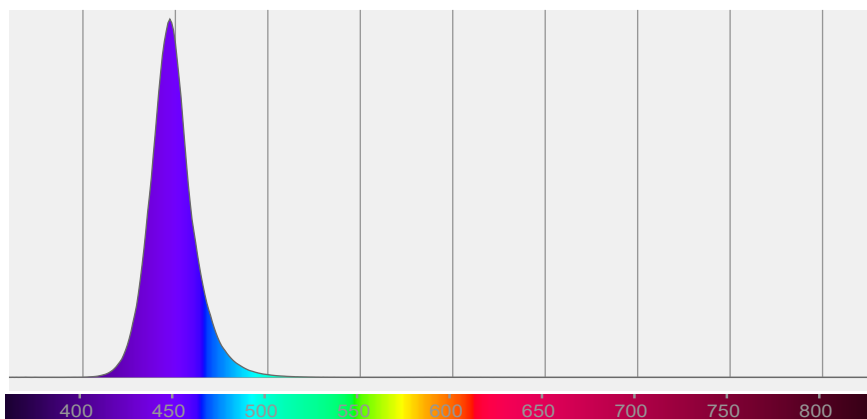


Beam angle 50%: 18,2°

Field angle 10%: 20°

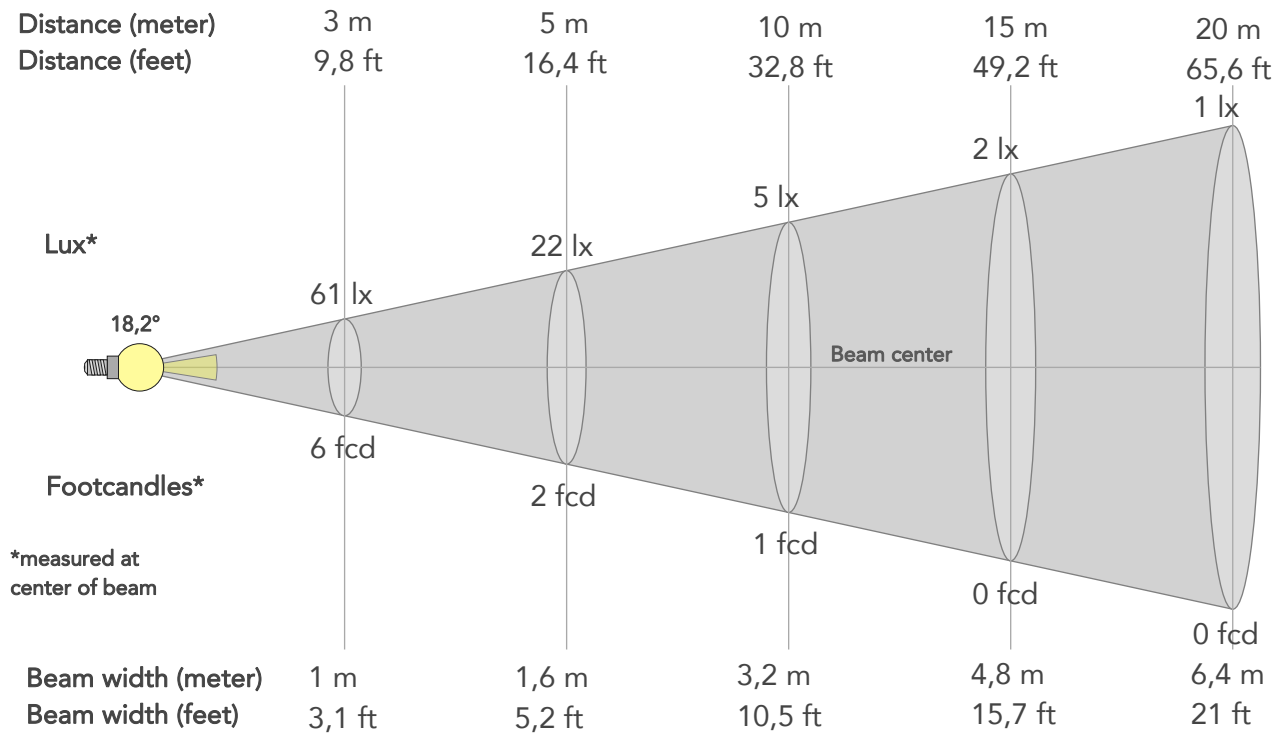
Cut off angle 2.5%: 20,3°

**Spectra**



# BEAM DETAILS

Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,2°	20°	20,3°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	546lx	136lx	61lx	34lx	22lx	10lx	5lx	2lx	1lx	1lx	1lx	0lx	0lx
Footcand.	51fcd	13fcd	6fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8m	9,6m	12,8m	16m
Beam wid.	1,1ft	2,1ft	3,1ft	4,2ft	5,2ft	7,9ft	10,5ft	15,7ft	21ft	26,2ft	31,5ft	41,9ft	52,4ft

## LINEAR DISTRIBUTION DIAGRAM

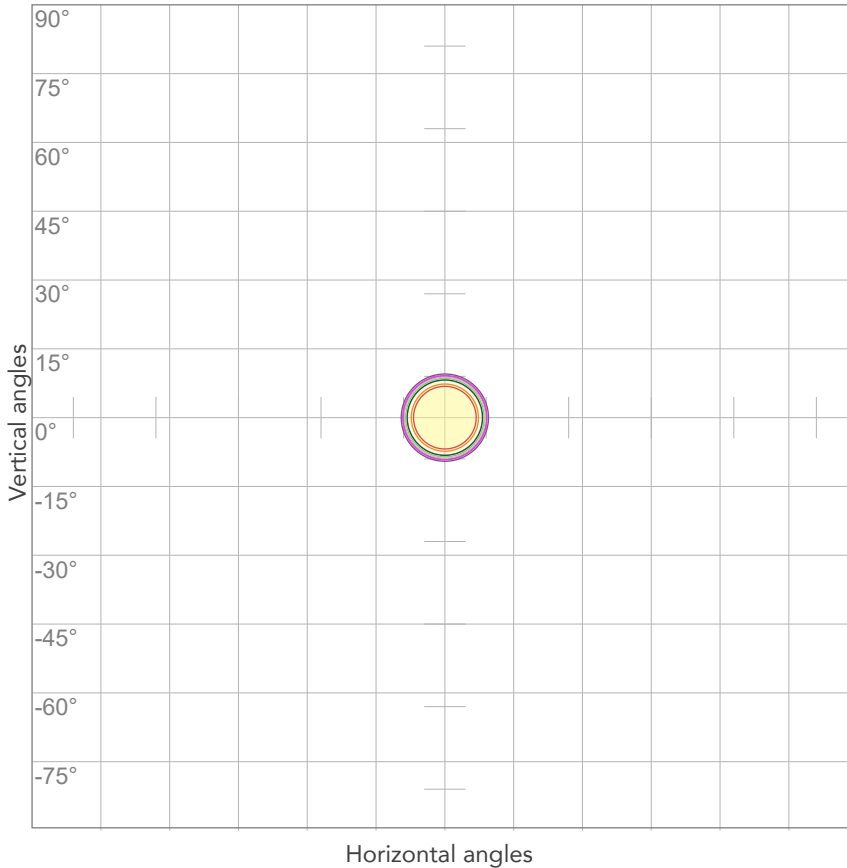


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,091A	18,1W	0,89	2lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



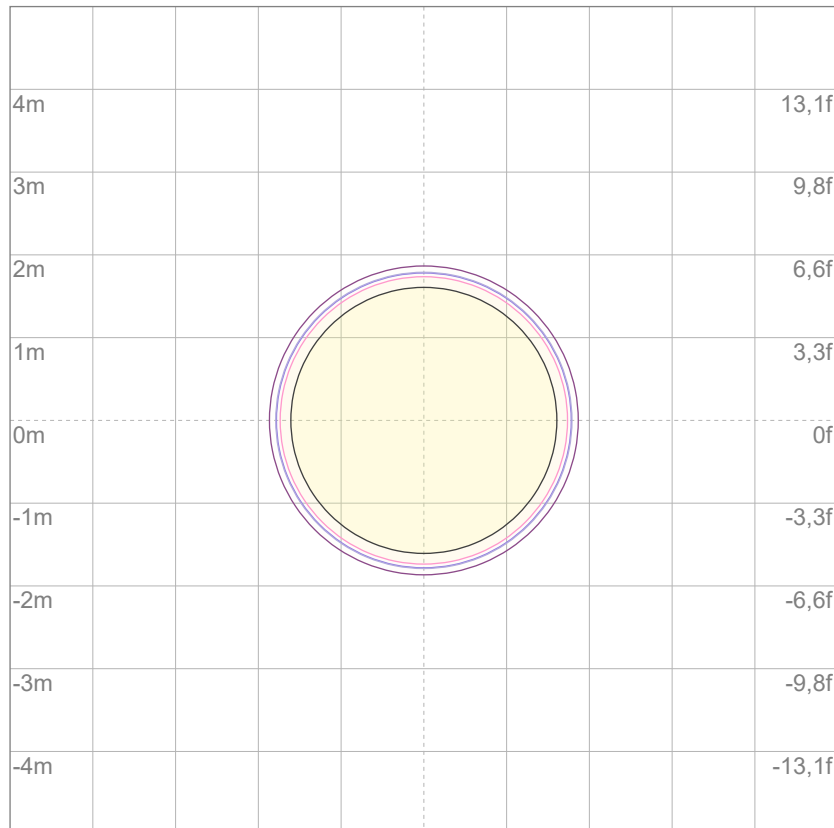
10%	55 cd
20%	109 cd
30%	164 cd
40%	218 cd
50%	273 cd
60%	328 cd
70%	382 cd
80%	437 cd

### Conditions:

Number of c-planes: 2

Candela at center: 546 cd

## ISO LUX DIAGRAM



3%	0,164 lx
5%	0,273 lx
10%	0,546 lx
30%	1,64 lx
50%	2,73 lx

### Conditions:

Number of c-planes: 2

Lux at center: 5,46 lx

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



Total lumen output:

203 lm

Peak candela output:

653 cd

Light quality:

CRI: 80,6

Color temperature:

3172 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Max Zoom

Target:

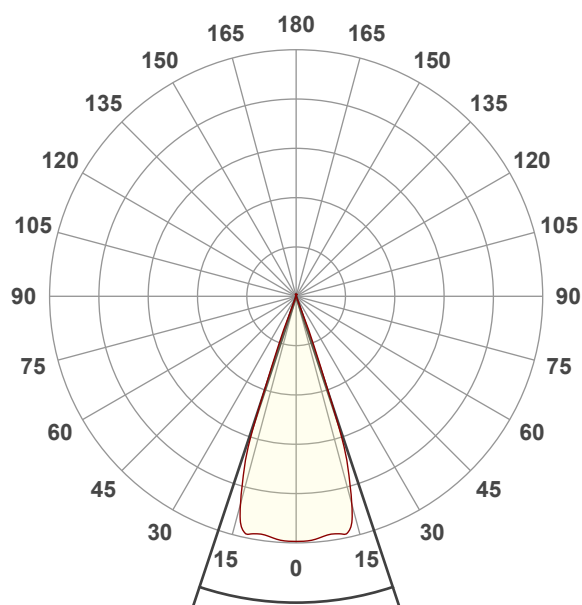
White

Operator:

Paolo Carvone

Date and time:

03/12/2020 17:04:23

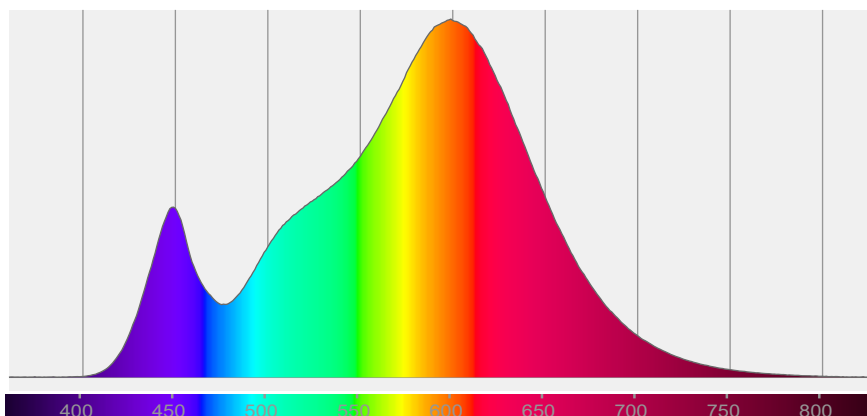


Beam angle 50%: 36,8°

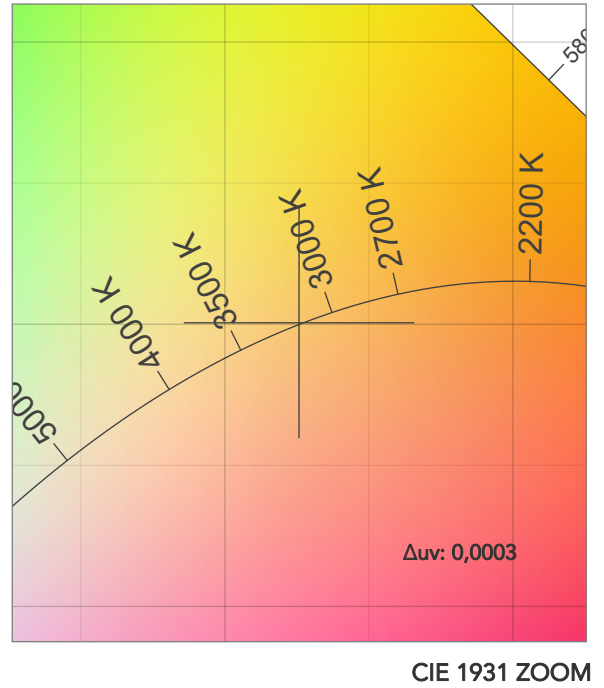
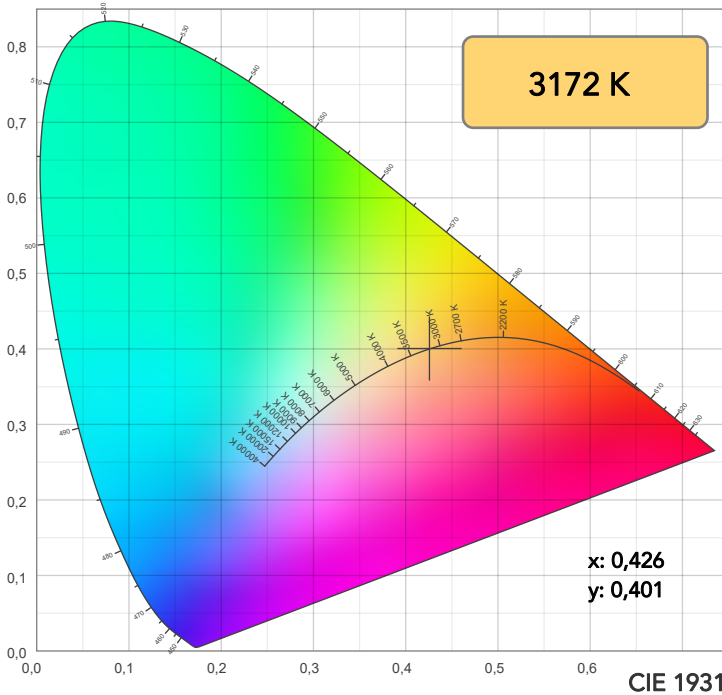
Field angle 10%: 41,7°

Cut off angle 2.5%: 43°

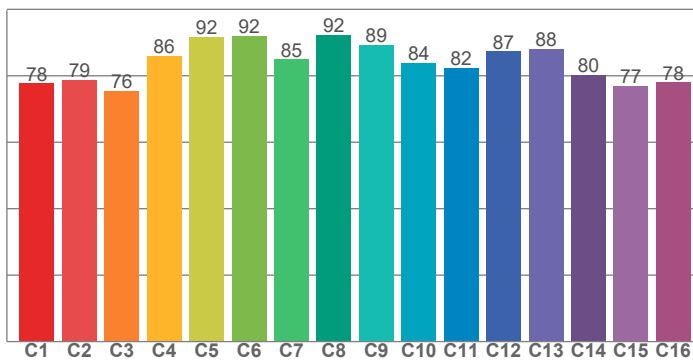
**Spectra**



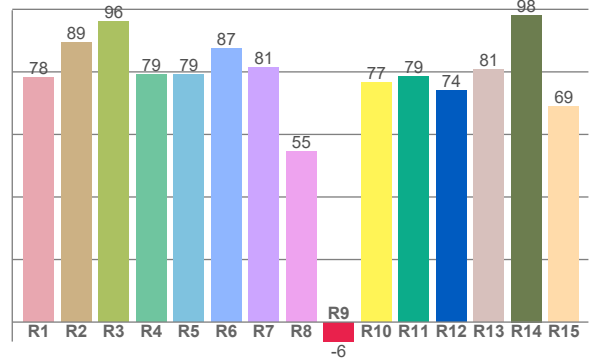
# COLOR DETAILS



TM30: 84,0



CRI: 80,6 (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
78,2	89,3	96,0	79,1	79,1	87,4	81,3	54,6	-6,2	76,6	78,5	74,0	80,8	98,2	69,0

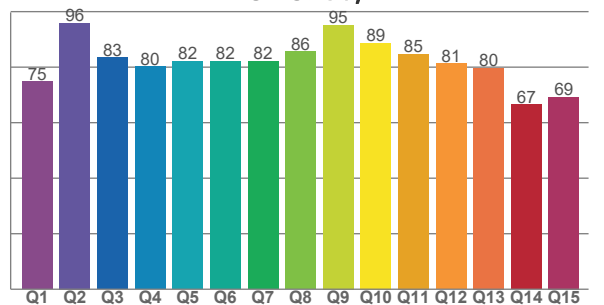
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77,7	78,7	75,5	86,1	91,7	92,0	84,9	92,4	89,2	83,8	82,3	87,4	88,1	80,2	77,0	78,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,8	95,9	83,4	80,2	82,1	82,1	82,1	85,6	95,1	88,7	84,7	81,3	79,8	66,6	69,3

CQS: 80,4



## COLOR PARAMETERS

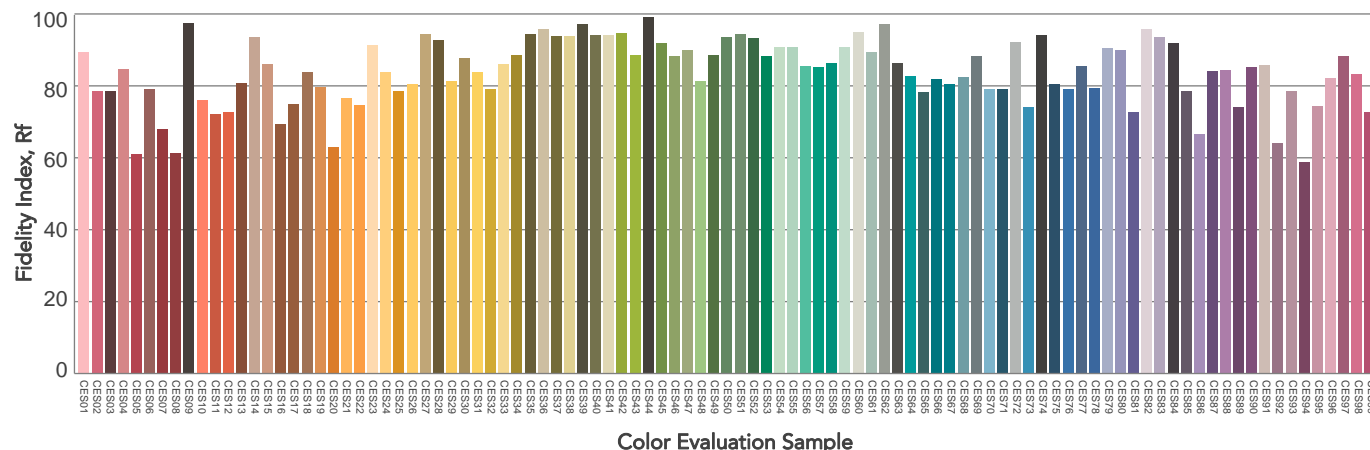
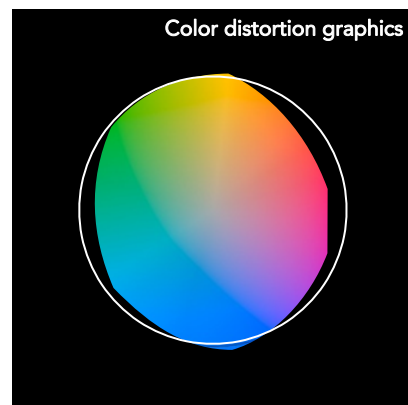
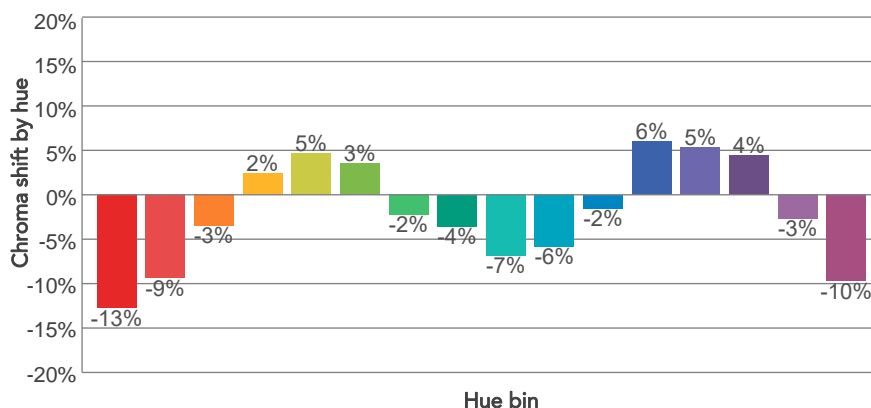
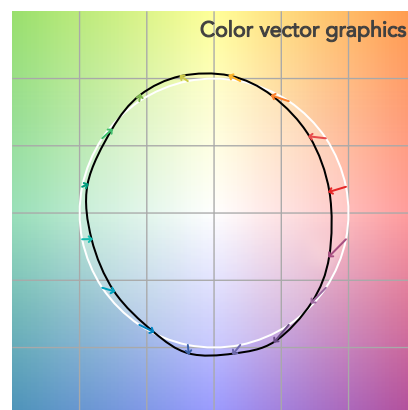
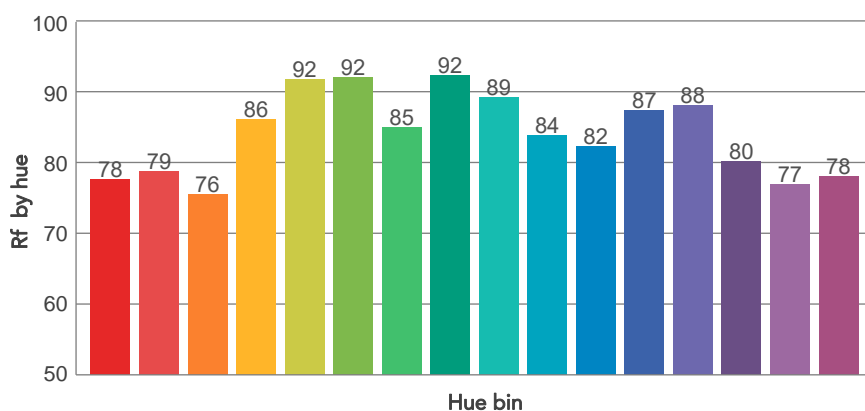
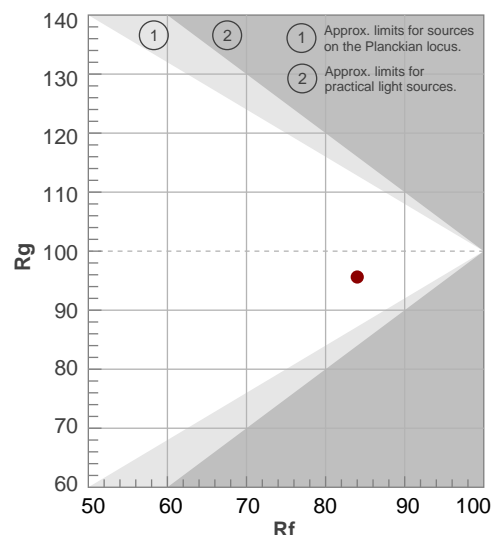
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3172 K	80,6	-6,2	84,0	95,6	80,4	62	0,426	0,401	0,0003

# TM30 DETAILS

**Rf 84,0**  
Fidelity index Rf

**Rg 95,6**  
Gammut index

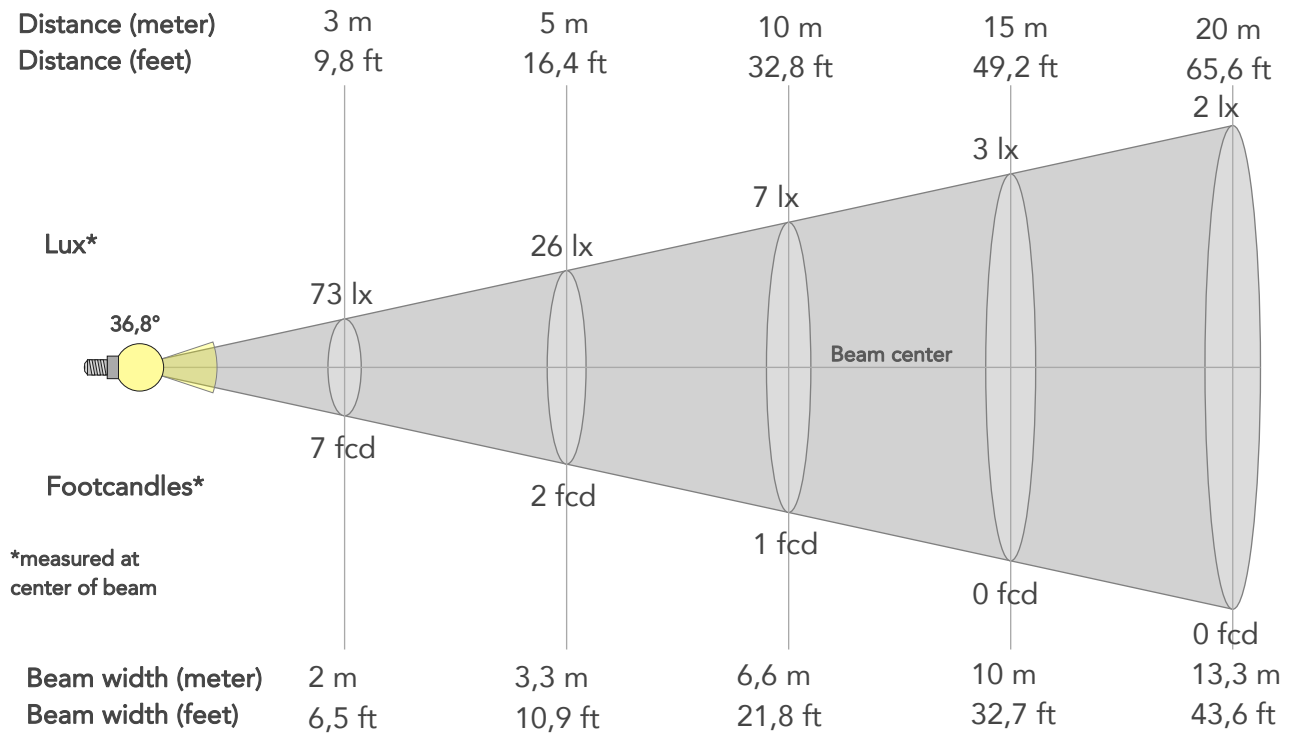
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	78	-13%	-1%
2	79	-9%	8%
3	76	-3%	13%
4	86	2%	9%
5	92	5%	4%
6	92	3%	-3%
7	85	-2%	-9%
8	92	-4%	-2%
9	89	-7%	1%
10	84	-6%	7%
11	82	-2%	11%
12	87	6%	2%
13	88	5%	-6%
14	80	4%	-16%
15	77	-3%	-15%
16	78	-10%	-15%



# BEAM DETAILS



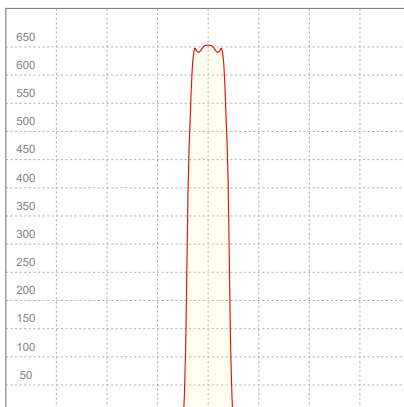
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36,8°	41,7°	43°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	653lx	163lx	73lx	41lx	26lx	12lx	7lx	3lx	2lx	1lx	1lx	0lx	0lx
Footcand.	61fcd	15fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,3m	5m	6,6m	10m	13,3m	16,6m	19,9m	26,6m	33,2m
Beam wid.	2,2ft	4,4ft	6,5ft	8,7ft	10,9ft	16,4ft	21,8ft	32,7ft	43,6ft	54,5ft	65,4ft	87,2ft	109,1ft

## LINEAR DISTRIBUTION DIAGRAM



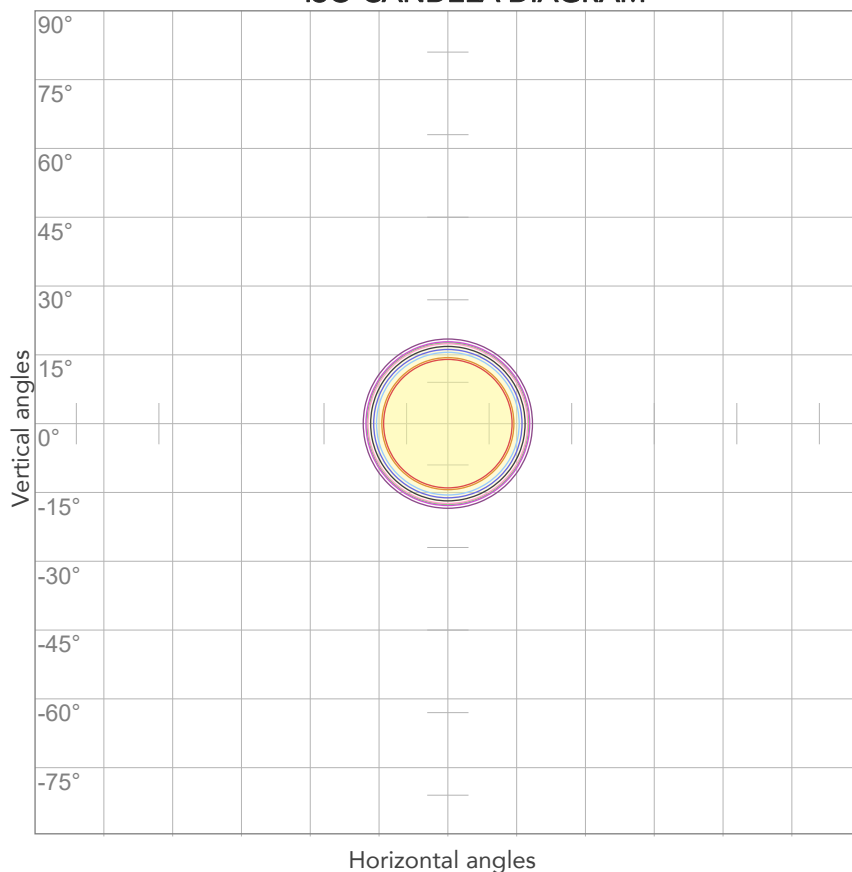
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,096A	19,2W	0,89	11lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



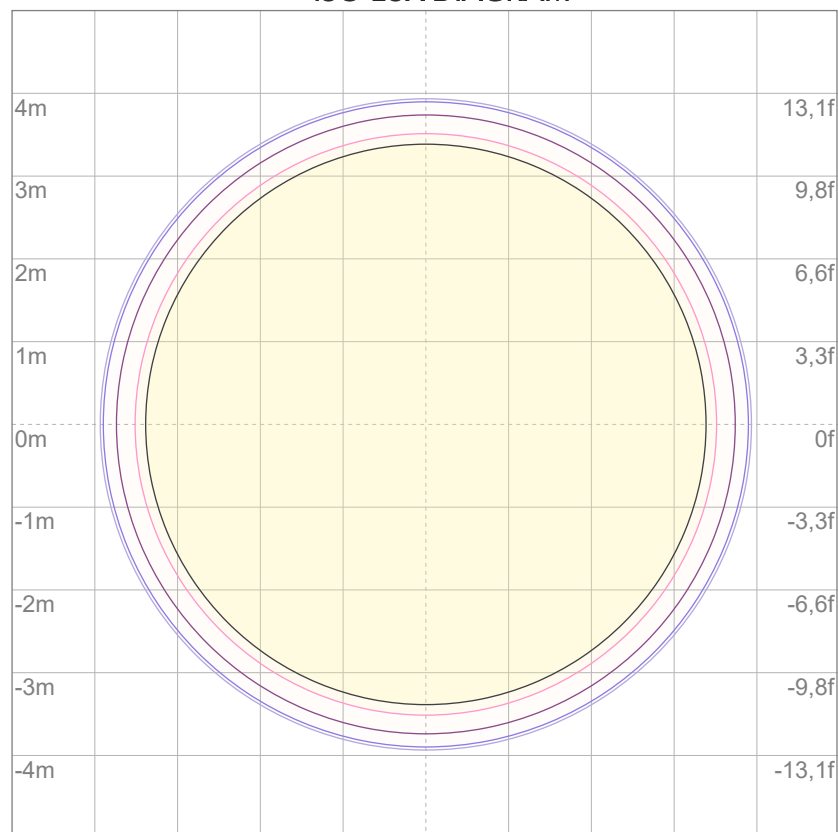
10%	65 cd
20%	131 cd
30%	196 cd
40%	261 cd
50%	326 cd
60%	392 cd
70%	457 cd
80%	522 cd

### Conditions:

Number of c-planes: 2

Candela at center: 653 cd

## ISO LUX DIAGRAM



3%	0,196 lx
5%	0,326 lx
10%	0,653 lx
30%	1,96 lx
50%	3,26 lx

### Conditions:

Number of c-planes: 2

Lux at center: 6,53 lx

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



Total lumen output:

225 lm

Peak candela output:

3004 cd

Light quality:

CRI: 80,7

Color temperature:

3167 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Min Zoom

Target:

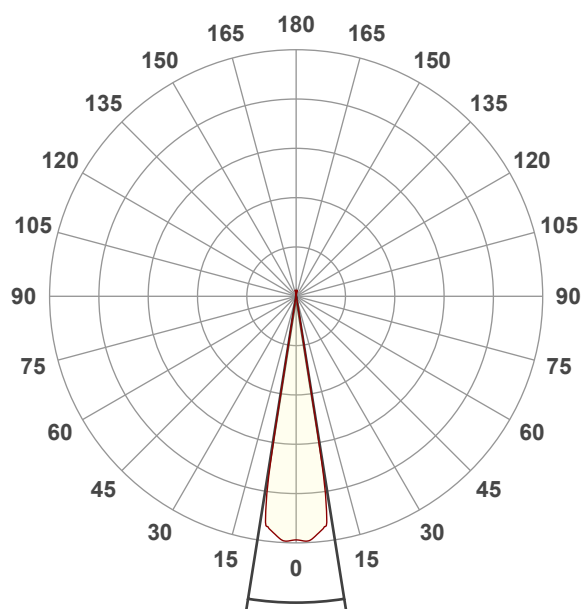
White

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:55:16

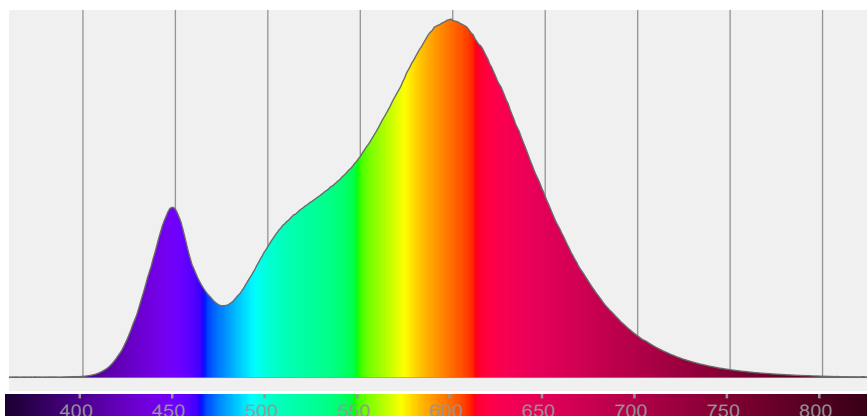


Beam angle 50%: 18,1°

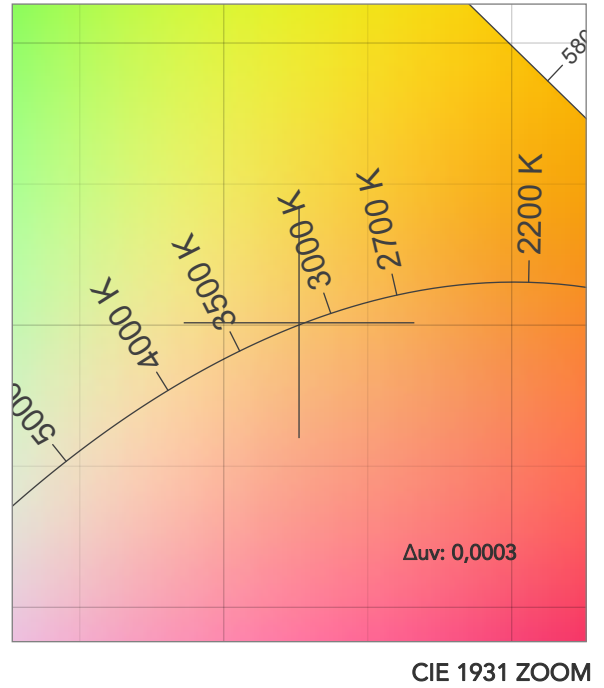
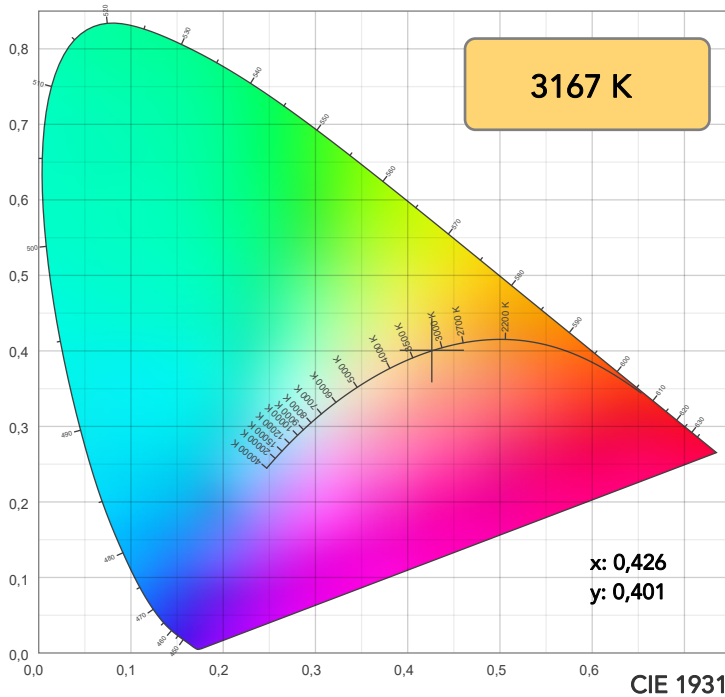
Field angle 10%: 19,2°

Cut off angle 2.5%: 20,4°

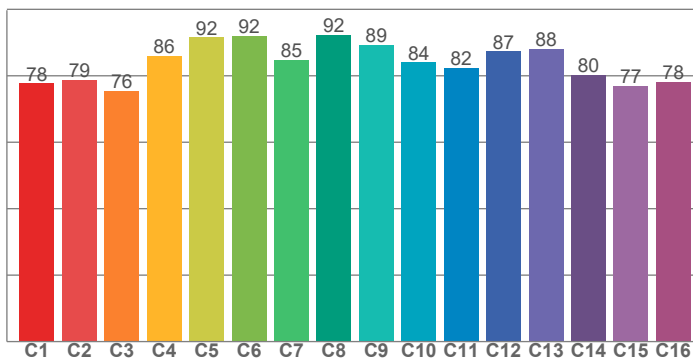
**Spectra**



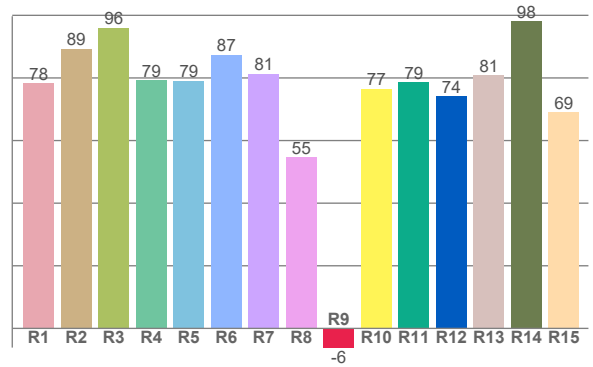
# COLOR DETAILS



TM30: 84,0



CRI: 80,7 (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
78,2	89,3	96,0	79,2	79,1	87,4	81,4	54,6	-6,1	76,5	78,7	74,0	80,8	98,2	69,0

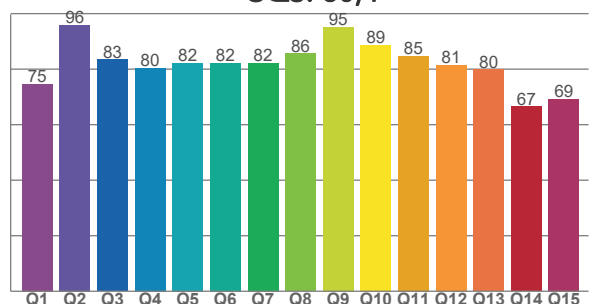
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77,7	78,8	75,5	86,0	91,6	91,9	84,8	92,4	89,3	84,0	82,4	87,4	88,1	80,3	77,0	78,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,7	95,9	83,5	80,4	82,2	82,2	82,2	85,7	95,1	88,7	84,8	81,4	79,8	66,6	69,3

CQS: 80,4



## COLOR PARAMETERS

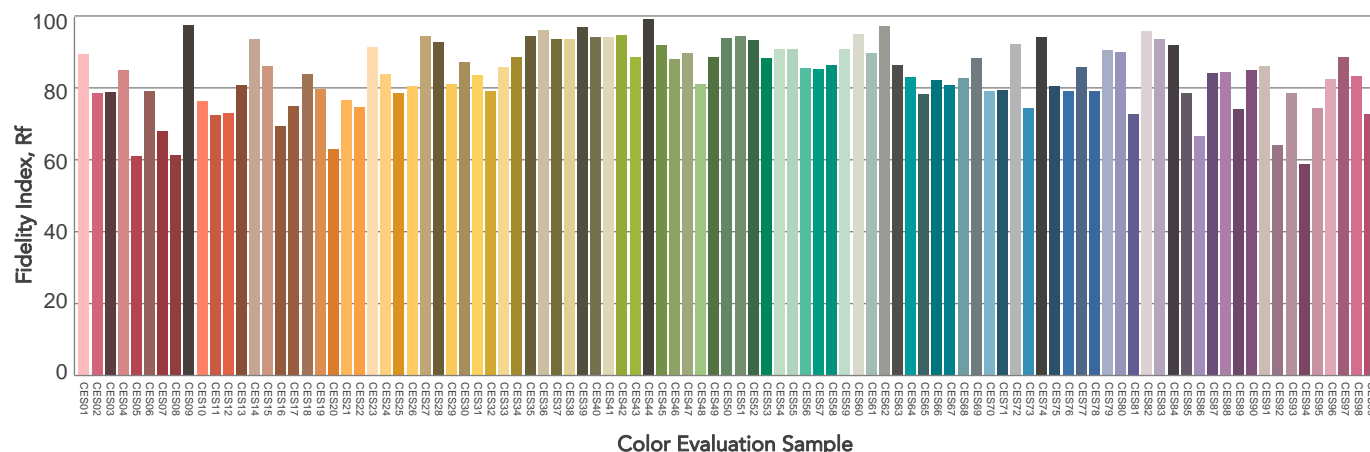
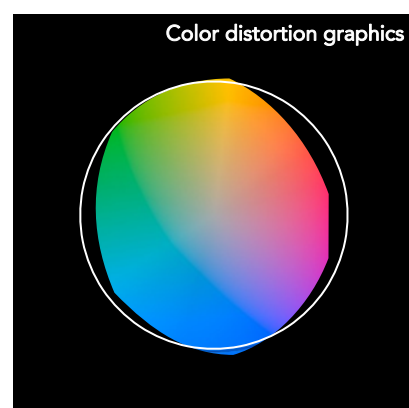
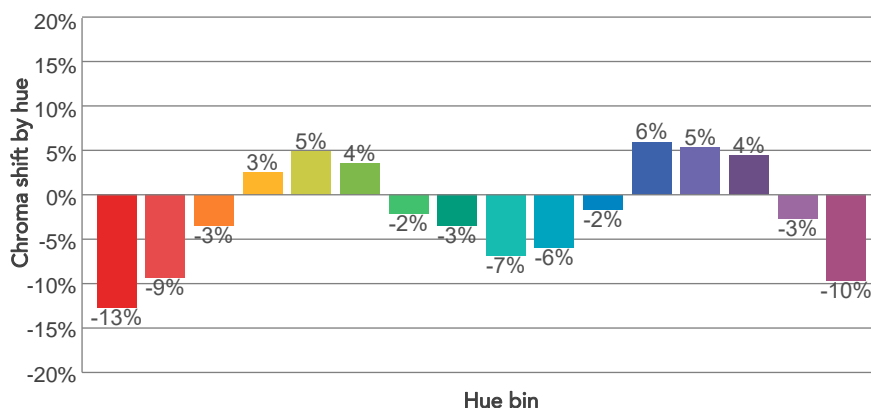
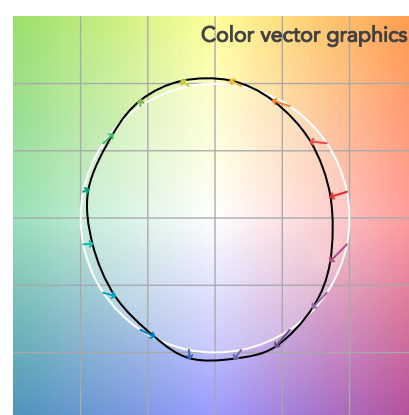
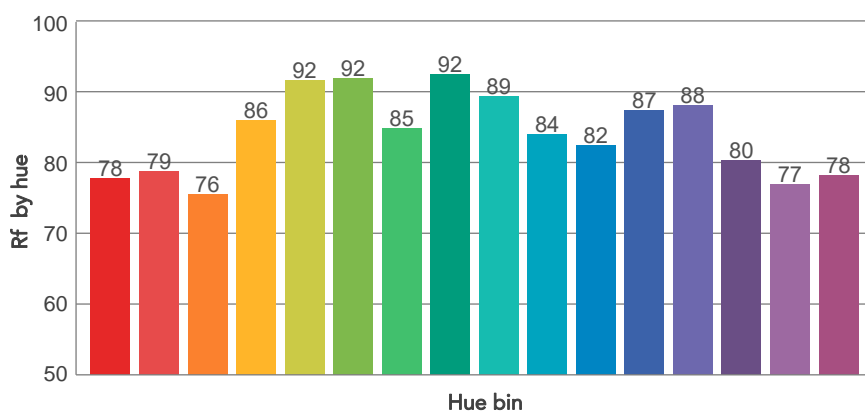
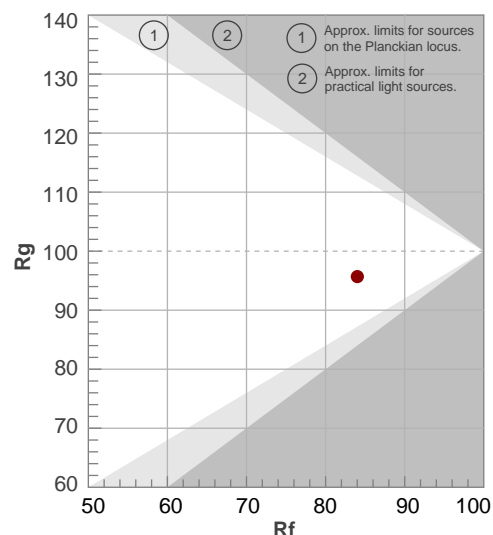
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3167 K	80,7	-6,1	84,0	95,7	80,4	62	0,426	0,401	0,0003

# TM30 DETAILS

**Rf 84,0**  
Fidelity index Rf

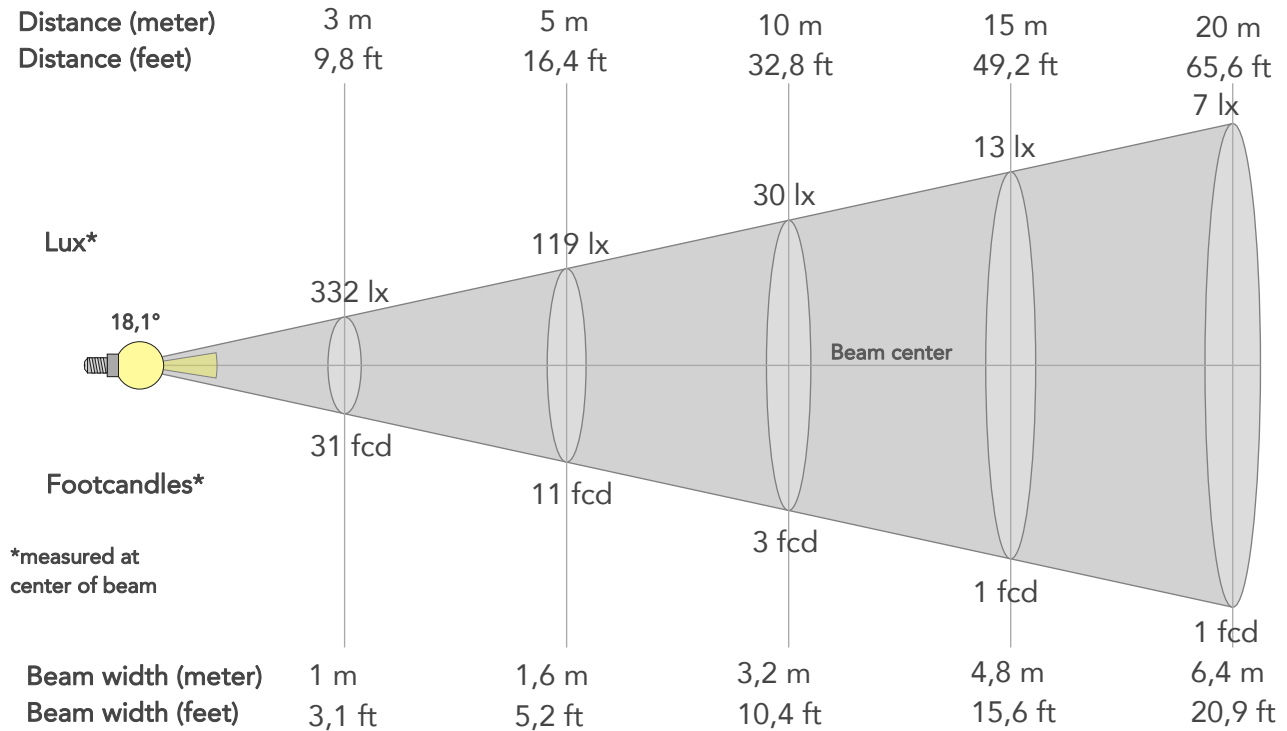
**Rg 95,7**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	78	-13%	-1%
2	79	-9%	8%
3	76	-3%	13%
4	86	3%	9%
5	92	5%	4%
6	92	4%	-3%
7	85	-2%	-9%
8	92	-3%	-3%
9	89	-7%	1%
10	84	-6%	7%
11	82	-2%	11%
12	87	6%	2%
13	88	5%	-6%
14	80	4%	-16%
15	77	-3%	-15%
16	78	-10%	-15%



# BEAM DETAILS

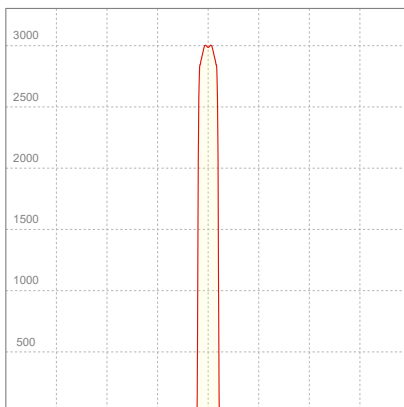
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,1°	19,2°	20,4°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	2987lx	747lx	332lx	187lx	119lx	53lx	30lx	13lx	7lx	5lx	3lx	2lx	1lx
Footcand.	277fcd	69fcd	31fcd	17fcd	11fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	7,9m	9,5m	12,7m	15,9m
Beam wid.	1ft	2,1ft	3,1ft	4,2ft	5,2ft	7,8ft	10,4ft	15,6ft	20,9ft	26,1ft	31,3ft	41,7ft	52,1ft

## LINEAR DISTRIBUTION DIAGRAM

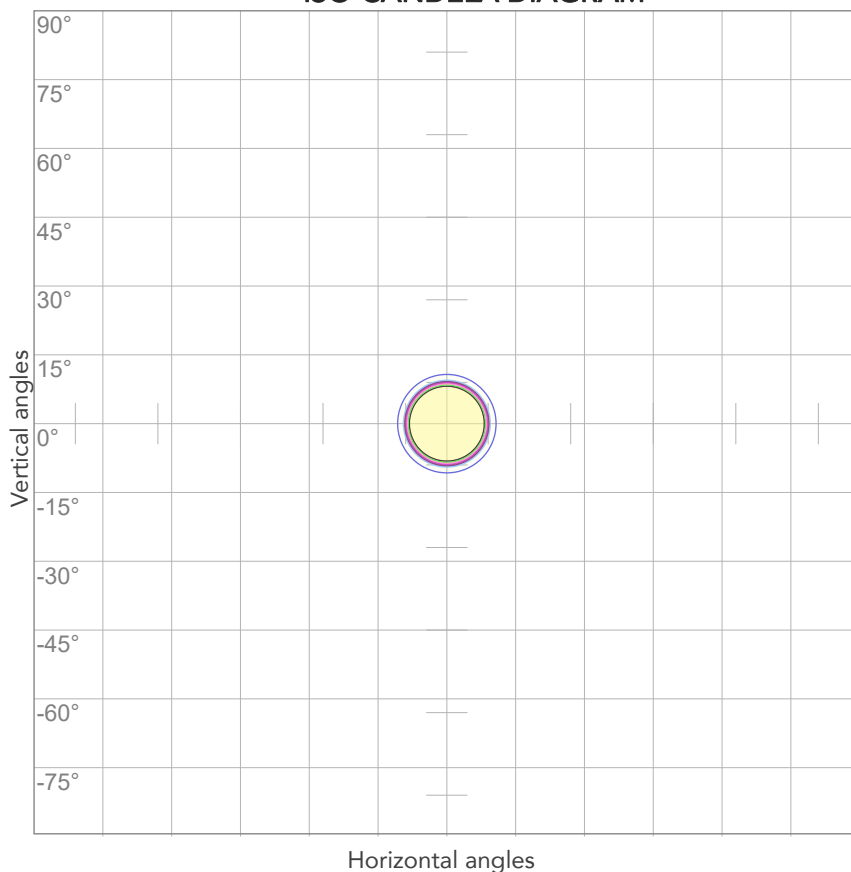


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,097A	19,3W	0,89	12lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



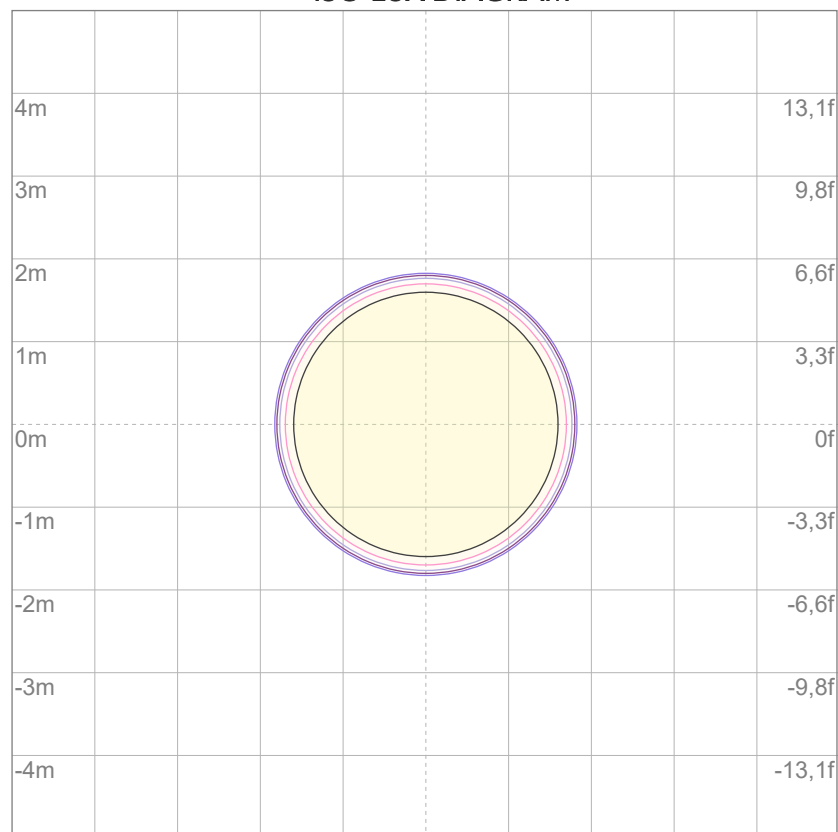
10%	299 cd
20%	597 cd
30%	896 cd
40%	1195 cd
50%	1493 cd
60%	1792 cd
70%	2091 cd
80%	2389 cd

### Conditions:

Number of c-planes: 2

Candela at center: 2987 cd

## ISO LUX DIAGRAM



3%	0,896 lx
5%	1,49 lx
10%	2,99 lx
30%	8,96 lx
50%	14,9 lx

### Conditions:

Number of c-planes: 2

Lux at center: 29,9 lx

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



Total lumen output:

293 lm

Peak candela output:

928 cd

Light quality:

CRI: 92,8

Color temperature:

2842 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Max Zoom

Target:

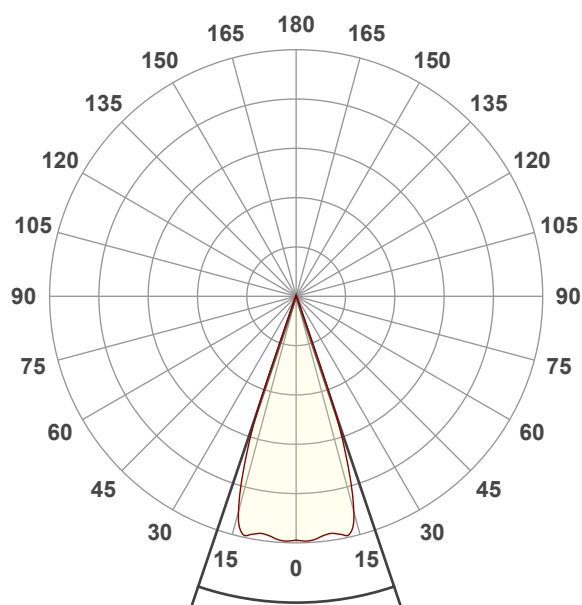
2800K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:29:41

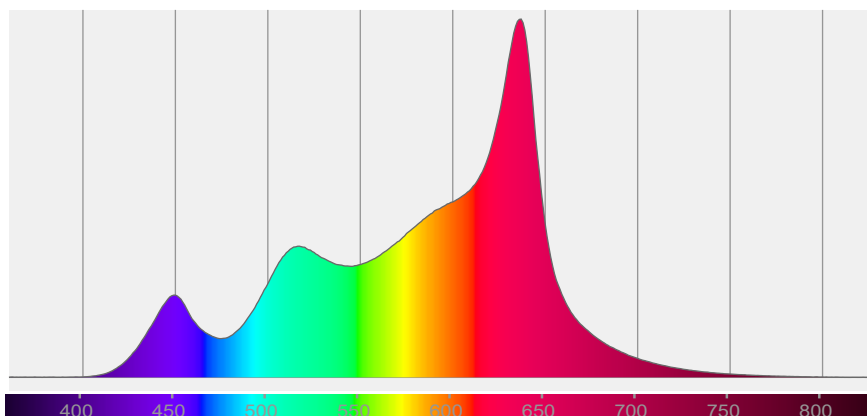


Beam angle 50%: 37,3°

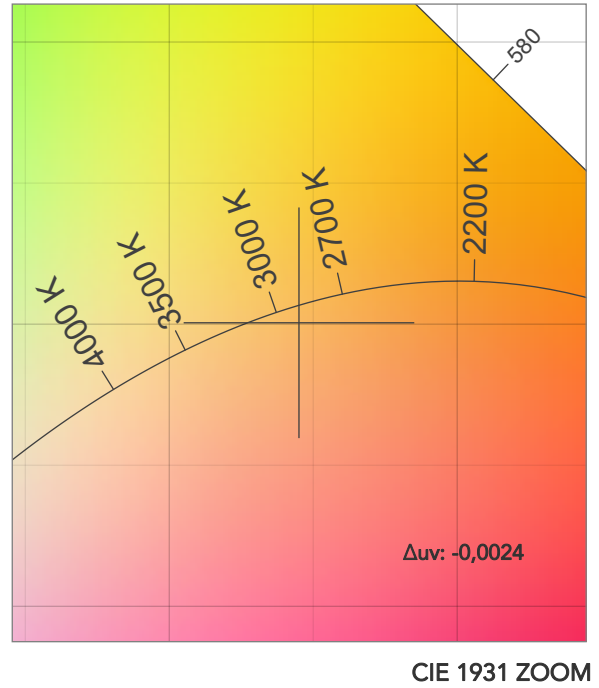
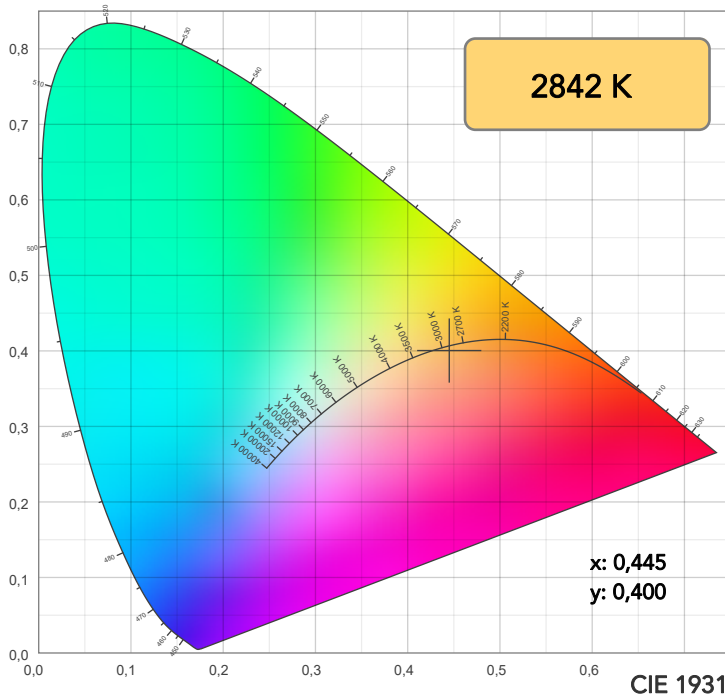
Field angle 10%: 41°

Cut off angle 2.5%: 43,9°

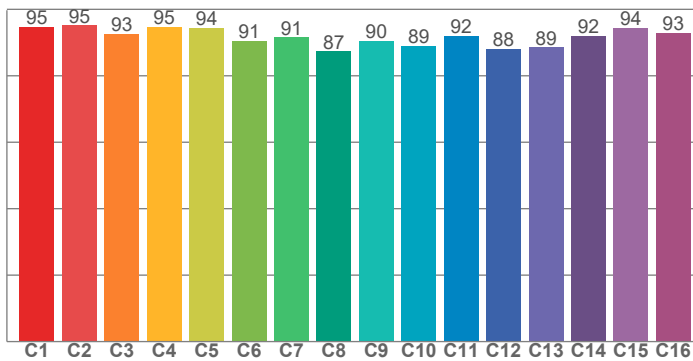
**Spectra**



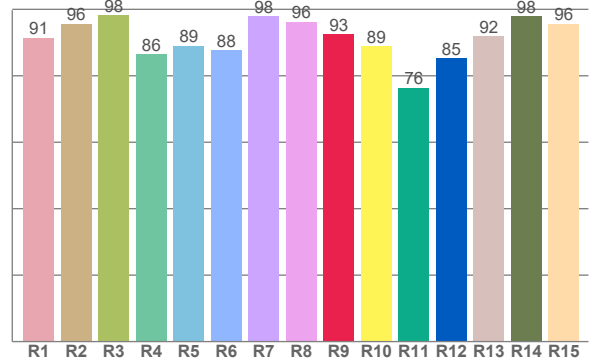
# COLOR DETAILS



TM30: 92,3



CRI: 92,8 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91,4	95,6	98,1	86,4	89,0	87,7	97,9	96,2	92,6	88,9	76,4	85,3	91,9	97,9	95,6

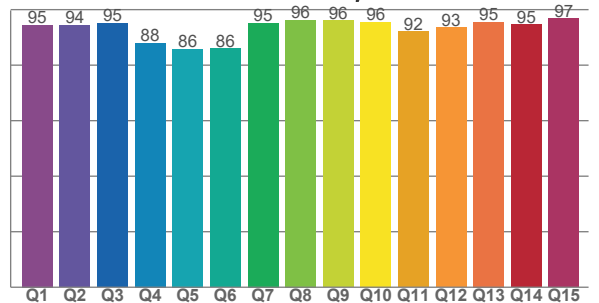
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,7	95,1	92,6	94,7	94,5	90,5	91,5	87,3	90,4	89,1	92,0	88,1	88,6	92,0	94,5	93,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,5	94,4	95,1	88,0	85,9	85,9	95,2	96,2	96,0	95,6	92,1	93,5	95,5	94,7	96,8

CQS: 92,1



## 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
2842 K	92,8	92,6	92,3	105,0	92,1	82	0,445	0,400	-0,0024



## TM30 DETAILS

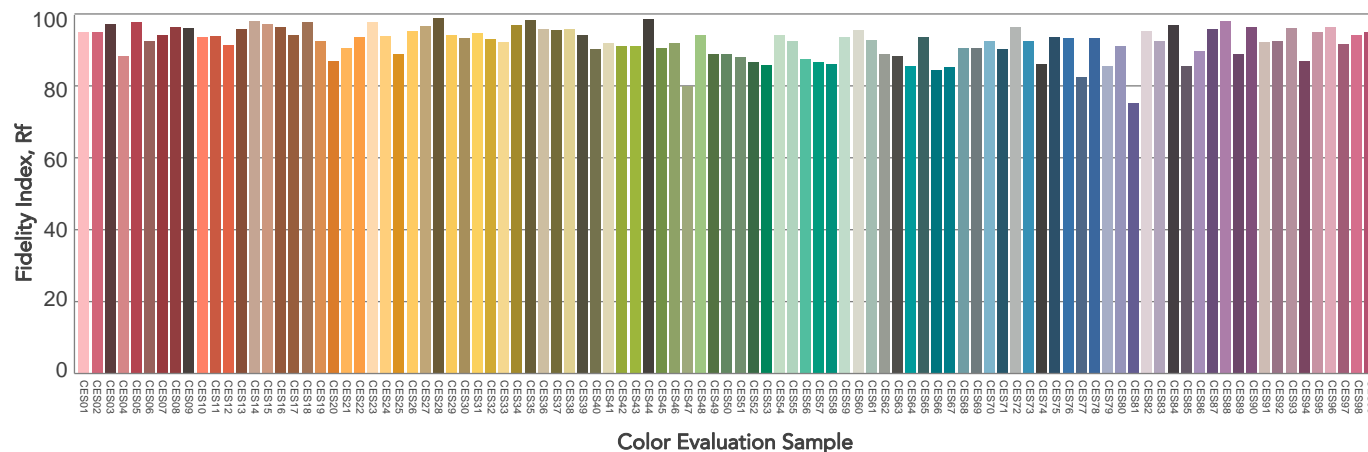
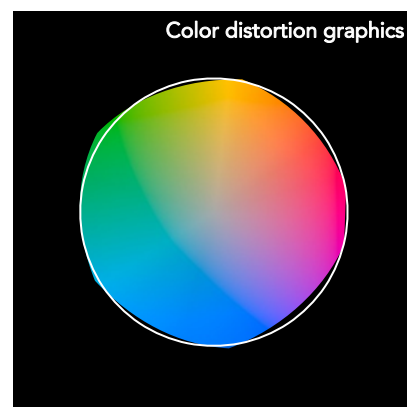
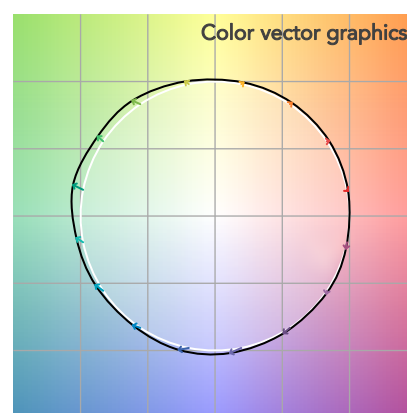
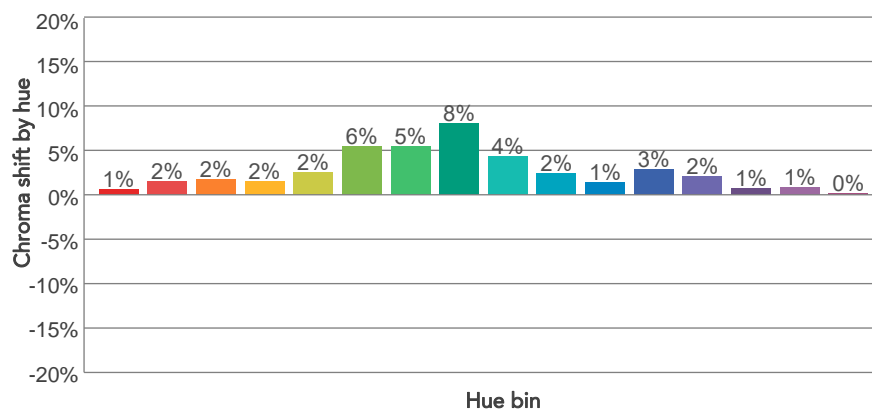
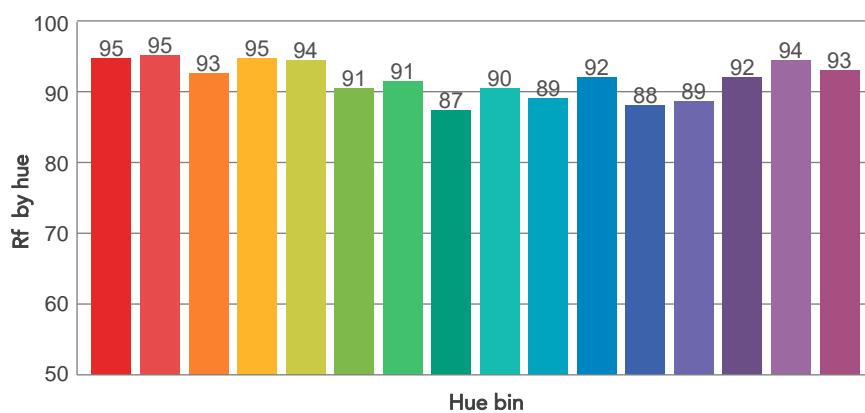
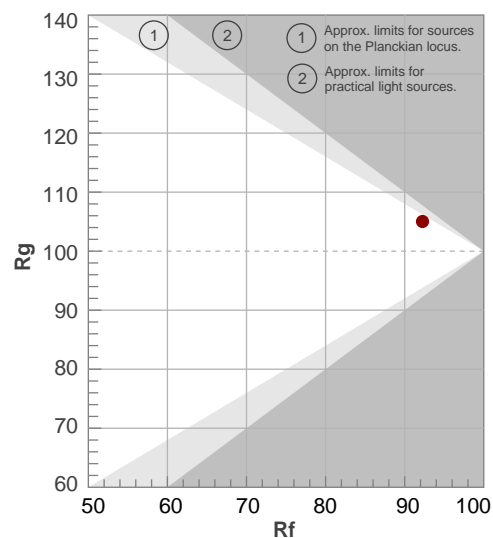
Rf 92,3

Fidelity index  $R_f$

Rg 105,0

## Gammut index

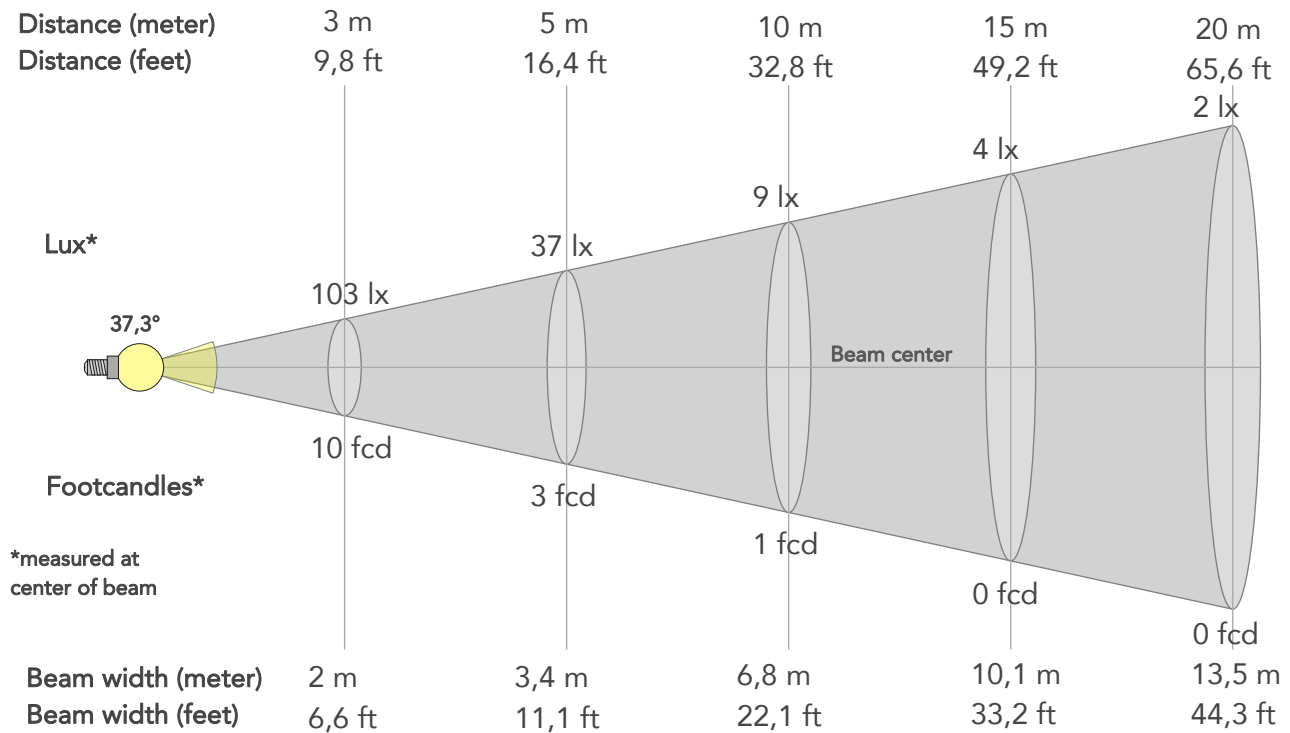
		Graphic shifts (%)	
Hue Bin	$R_f$	Chroma	Hue
1	95	1%	-1%
2	95	2%	-1%
3	93	2%	-1%
4	95	2%	-1%
5	94	2%	2%
6	91	6%	3%
7	91	5%	-1%
8	87	8%	-2%
9	90	4%	-4%
10	89	2%	-7%
11	92	1%	-6%
12	88	3%	-7%
13	89	2%	-9%
14	92	1%	-6%
15	94	1%	-2%
16	93	0%	-5%



# BEAM DETAILS



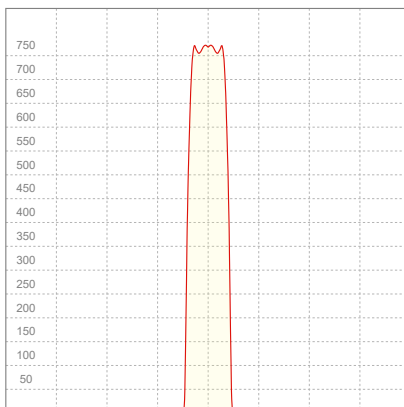
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,3°	41°	43,9°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	924lx	231lx	103lx	58lx	37lx	16lx	9lx	4lx	2lx	1lx	1lx	1lx	0lx
Footcand.	86fcd	21fcd	10fcd	5fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,4m	2m	2,7m	3,4m	5,1m	6,8m	10,1m	13,5m	16,9m	20,3m	27m	33,8m
Beam wid.	2,2ft	4,5ft	6,6ft	8,8ft	11,1ft	16,6ft	22,1ft	33,2ft	44,3ft	55,4ft	66,4ft	88,6ft	110,7ft

## LINEAR DISTRIBUTION DIAGRAM

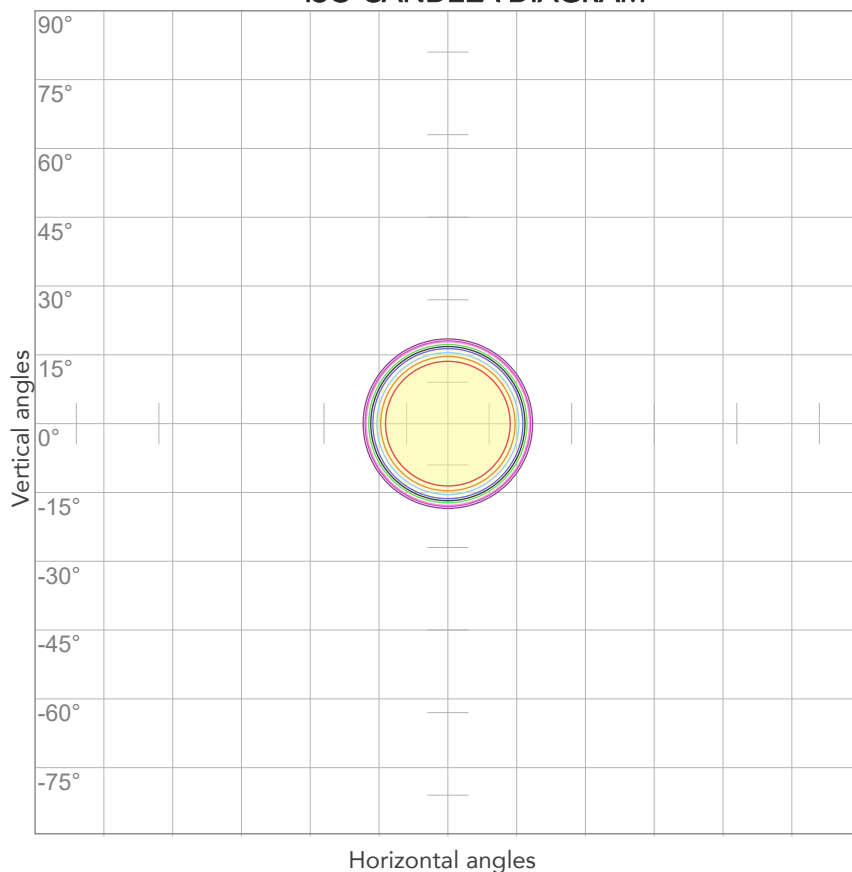


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,110A	22,4W	0,91	13lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



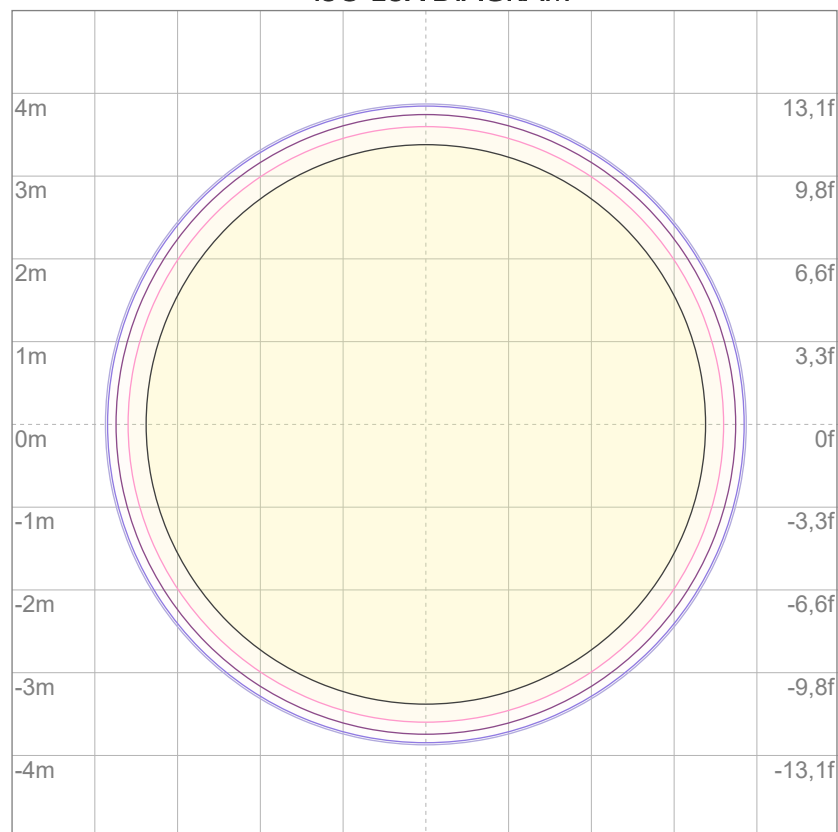
10%	92 cd
20%	185 cd
30%	277 cd
40%	369 cd
50%	462 cd
60%	554 cd
70%	647 cd
80%	739 cd

### Conditions:

Number of c-planes: 2

Candela at center: 924 cd

## ISO LUX DIAGRAM



3%	0,277 lx
5%	0,462 lx
10%	0,924 lx
30%	2,77 lx
50%	4,62 lx

### Conditions:

Number of c-planes: 2

Lux at center: 9,24 lx

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



Total lumen output:

329 lm

Peak candela output:

4478 cd

Light quality:

CRI: 93,1

Color temperature:

2842 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Min Zoom

Target:

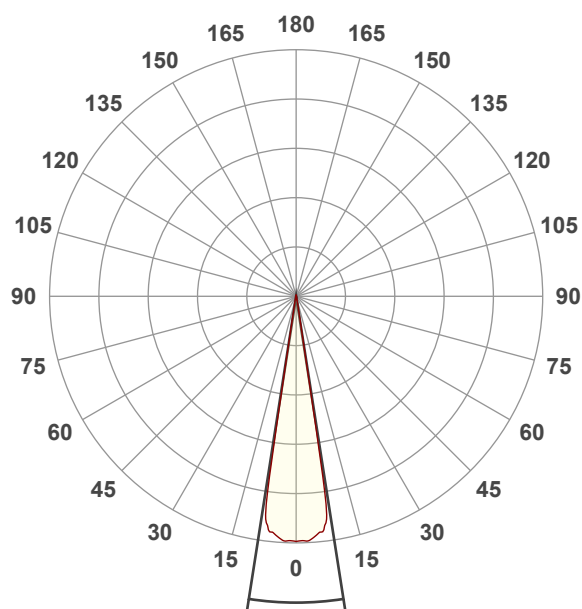
2800K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:15:02

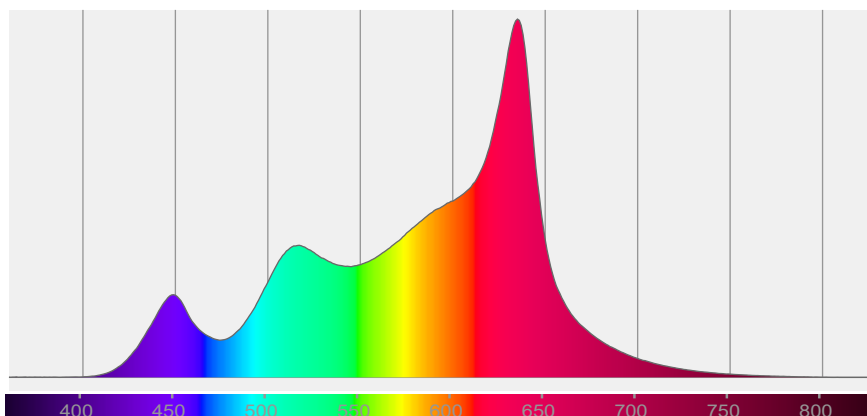


Beam angle 50%: 17,8°

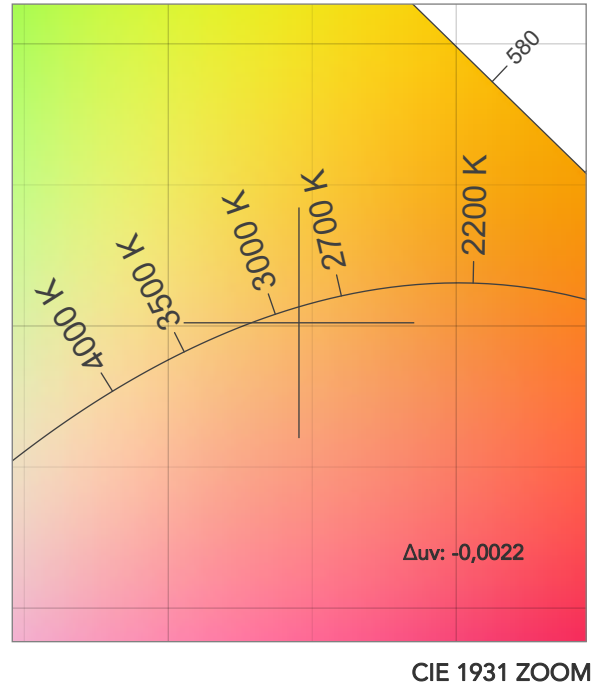
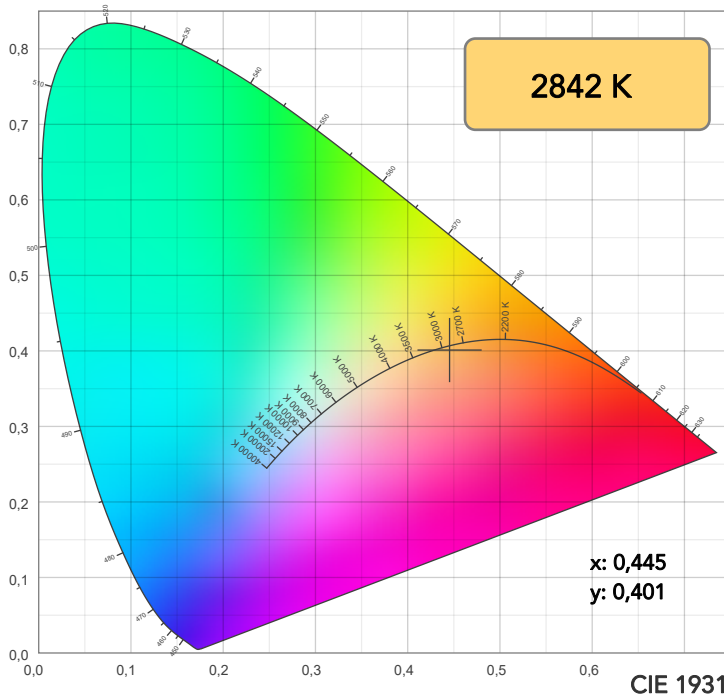
Field angle 10%: 19,3°

Cut off angle 2.5%: 21,2°

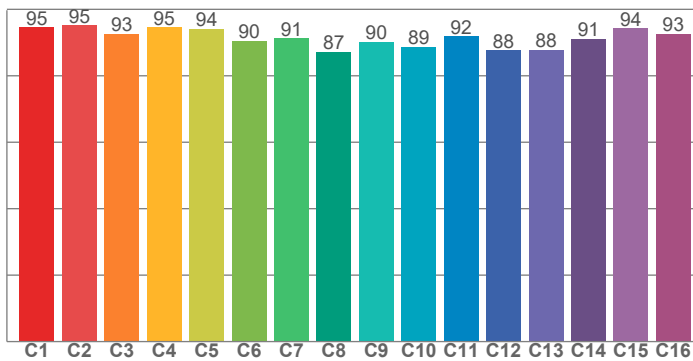
**Spectra**



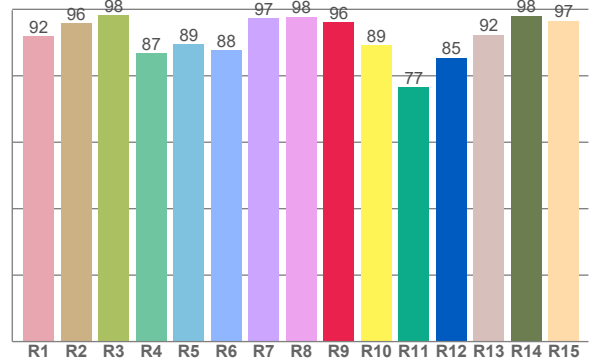
# COLOR DETAILS



TM30: 92,0



CRI: 93,1 (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
91,9	95,8	98,2	86,7	89,4	87,6	97,4	97,8	96,1	89,3	76,6	85,5	92,4	98,0	96,6

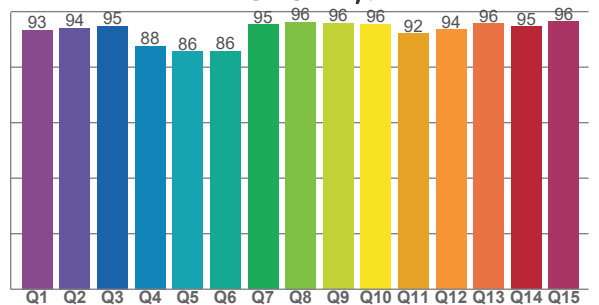
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,5	95,1	92,6	94,5	94,2	90,4	91,3	87,1	90,3	88,7	91,8	87,7	87,8	91,2	94,3	92,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,5	94,1	94,9	87,7	85,6	85,7	95,3	96,2	95,8	95,6	92,1	93,6	95,7	94,7	96,4

CQS: 92,0



## COLOR PARAMETERS

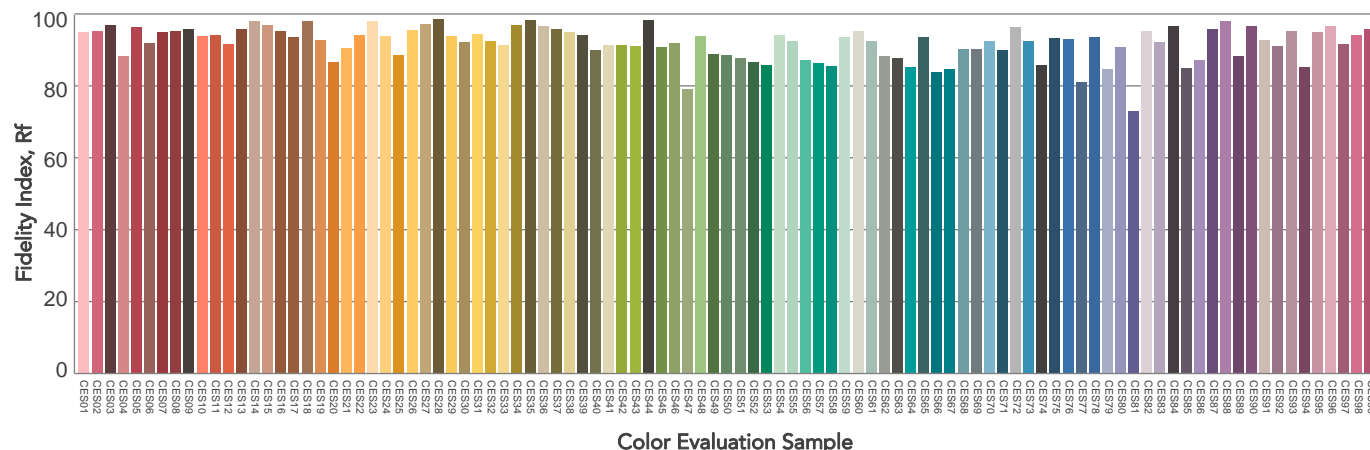
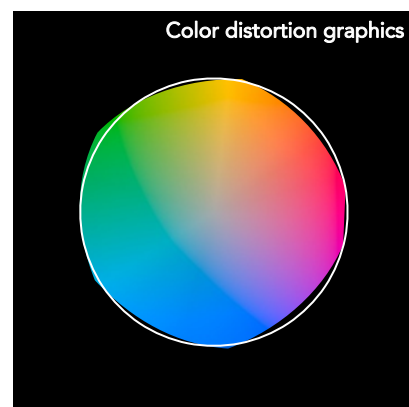
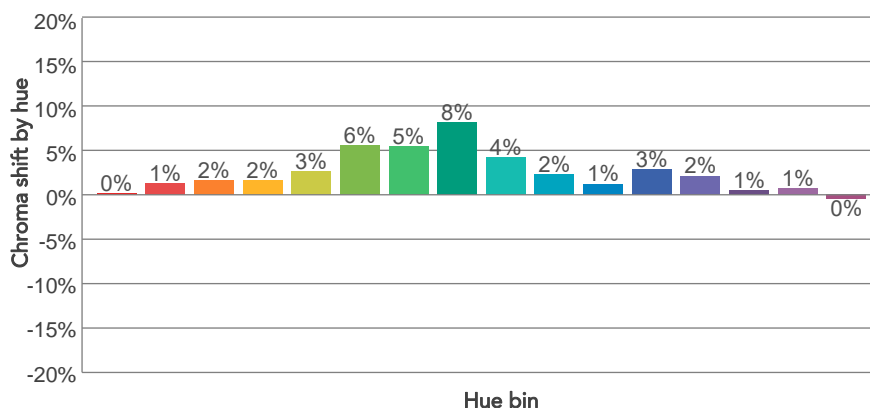
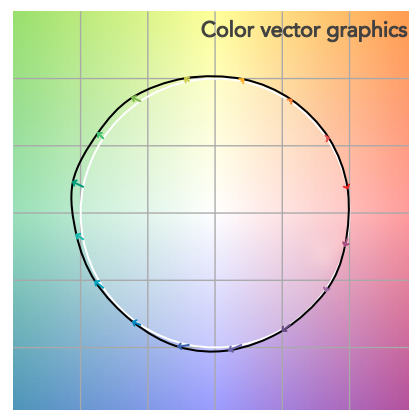
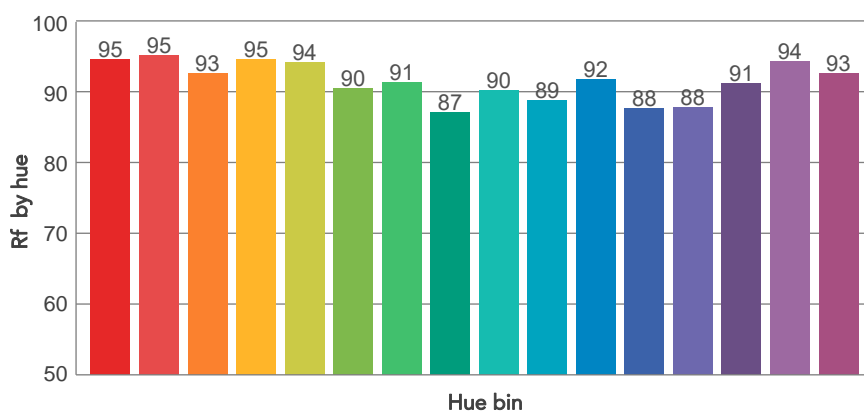
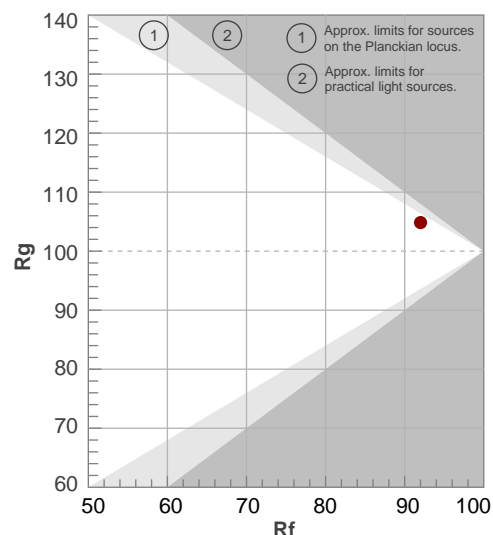
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
2842 K	93,1	96,1	92,0	104,8	92,0	81	0,445	0,401	-0,0022

## TM30 DETAILS

**Rf 92,0**  
Fidelity index Rf

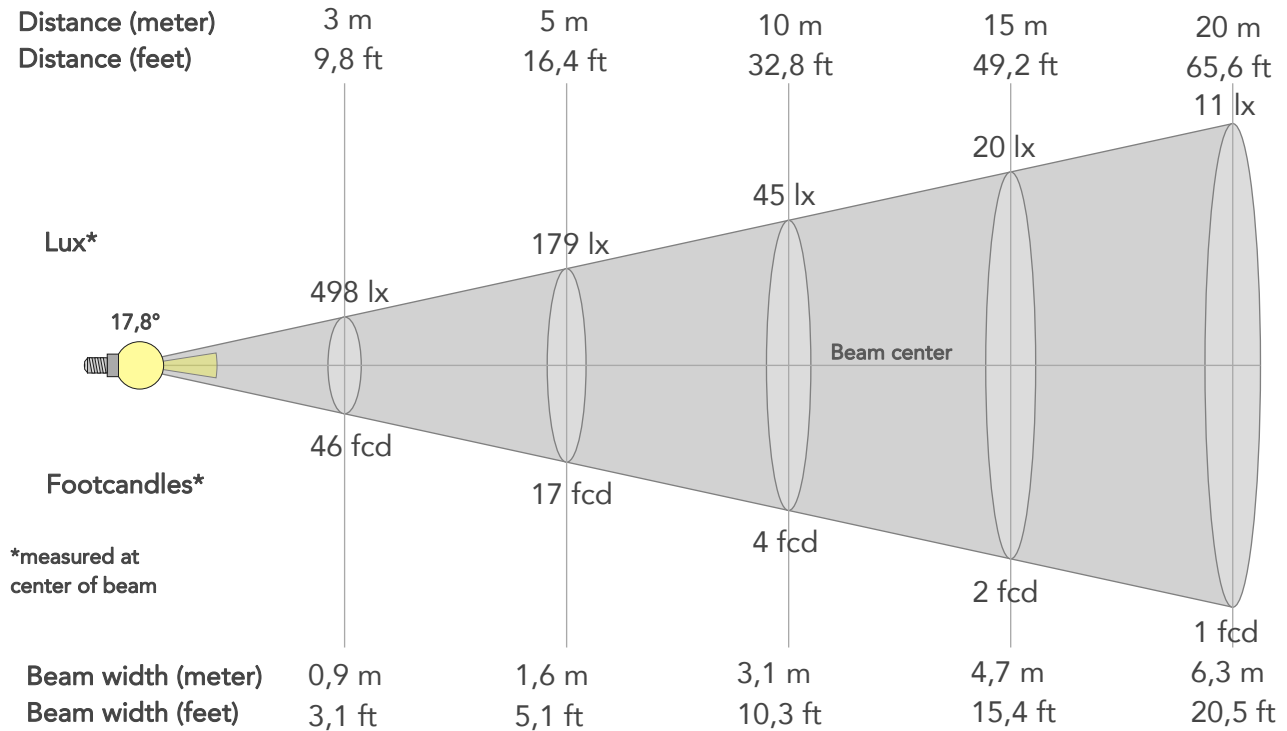
**Rg 104,8**  
Gammut index

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



# BEAM DETAILS

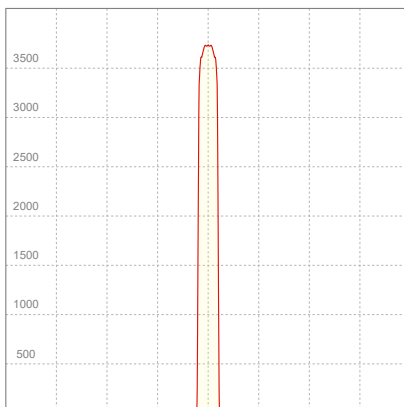
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,8°	19,3°	21,2°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4478lx	1119lx	498lx	280lx	179lx	80lx	45lx	20lx	11lx	7lx	5lx	3lx	2lx
Footcand.	416fcd	104fcd	46fcd	26fcd	17fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,3m	1,6m	2,3m	3,1m	4,7m	6,3m	7,8m	9,4m	12,5m	15,6m
Beam wid.	1ft	2,1ft	3,1ft	4,1ft	5,1ft	7,7ft	10,3ft	15,4ft	20,5ft	25,6ft	30,8ft	41ft	51,3ft

## LINEAR DISTRIBUTION DIAGRAM

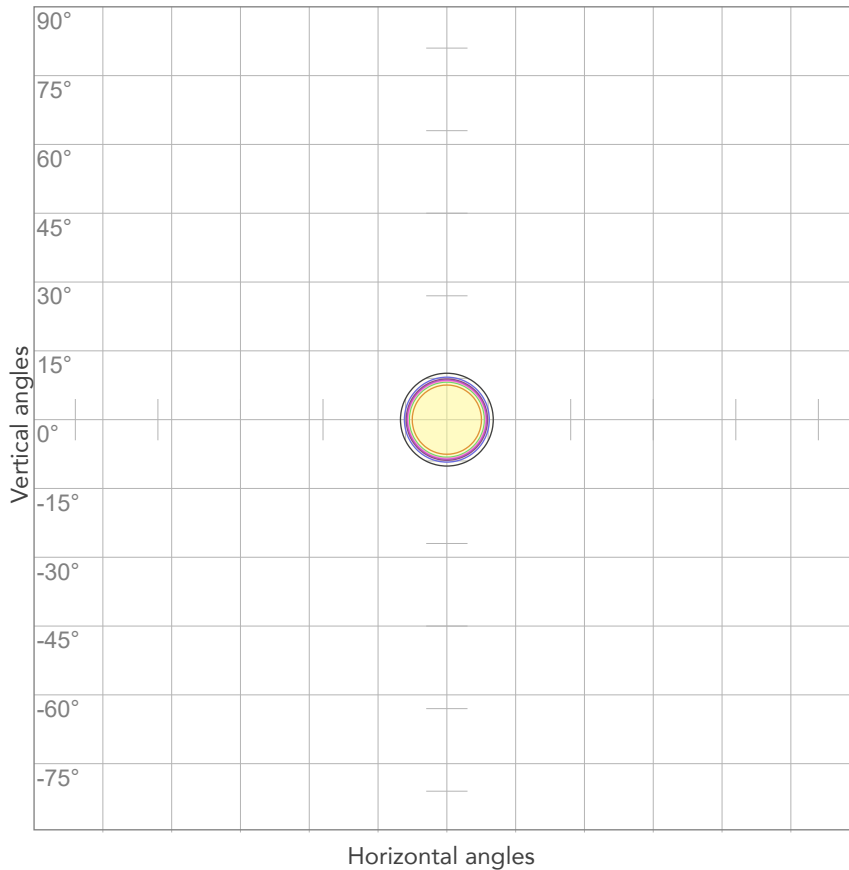


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,111A	22,5W	0,91	15lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



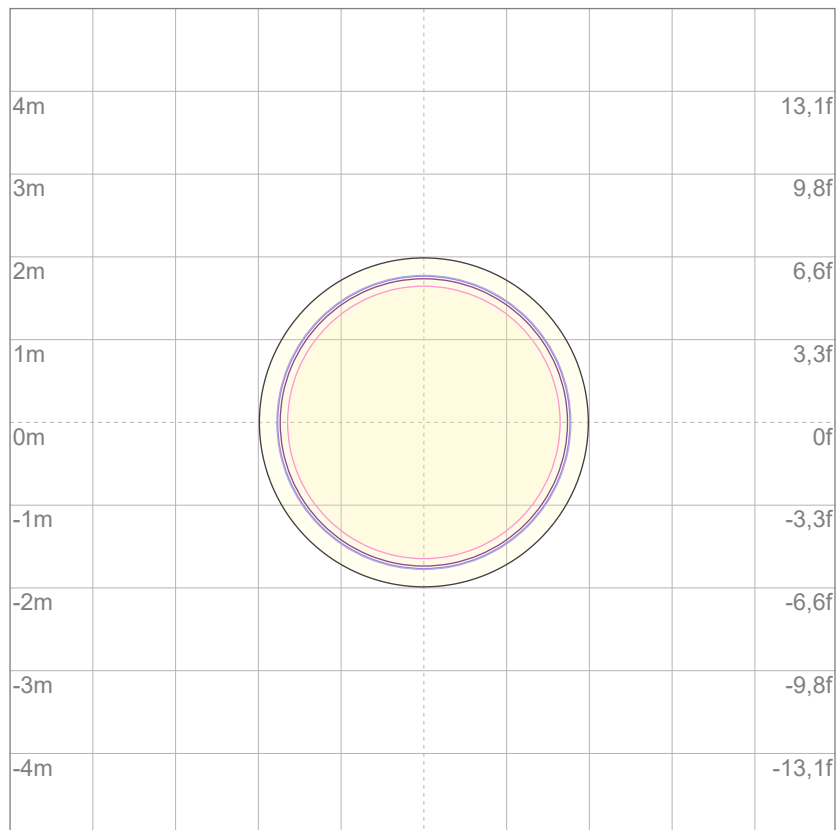
10%	448 cd
20%	896 cd
30%	1343 cd
40%	1791 cd
50%	2239 cd
60%	2687 cd
70%	3134 cd
80%	3582 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4478 cd

## ISO LUX DIAGRAM



3%	1,34 lx
5%	2,24 lx
10%	4,48 lx
30%	13,4 lx
50%	22,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 44,8 lx

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





Total lumen output:

298 lm

Peak candela output:

942 cd

Light quality:

CRI: 93,5

Color temperature:

3219 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Max Zoom

Target:

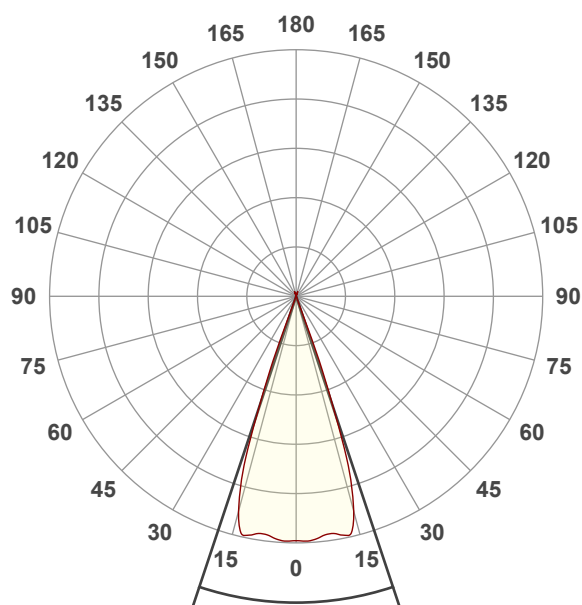
3200K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:31:21

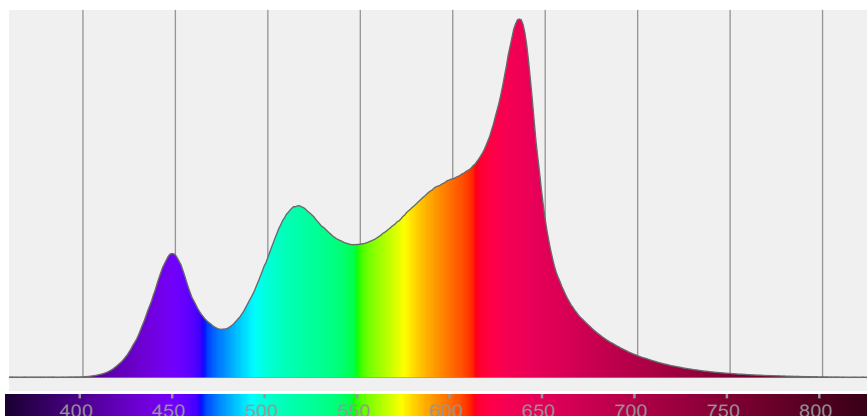


Beam angle 50%: 36,9°

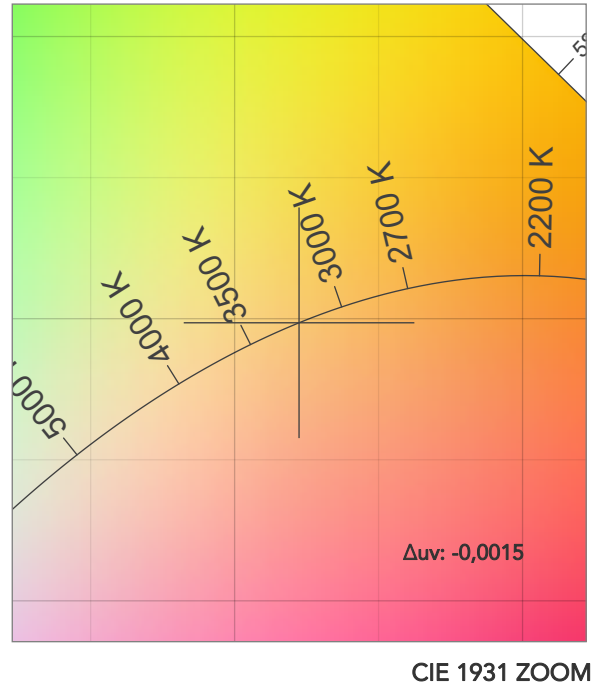
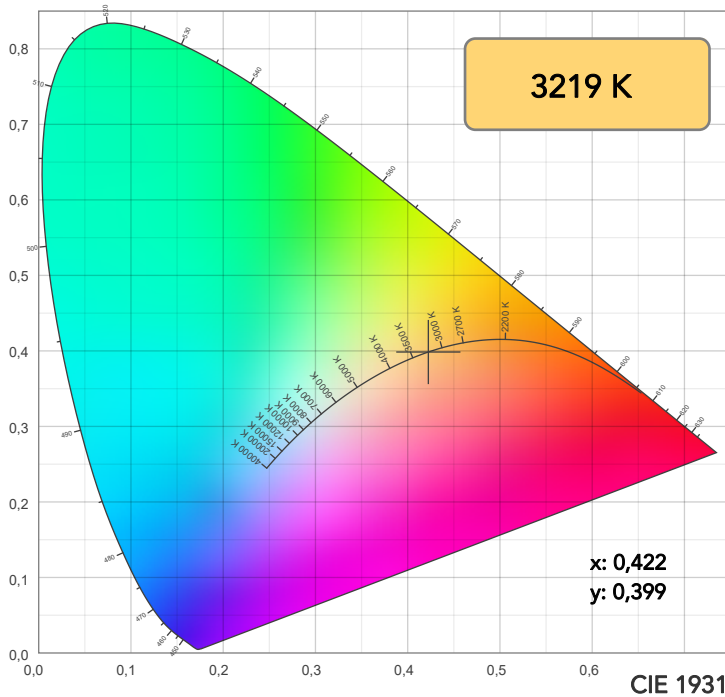
Field angle 10%: 41,8°

Cut off angle 2.5%: 42,8°

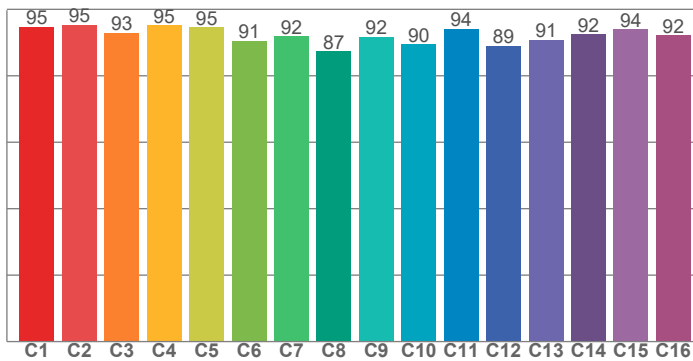
**Spectra**



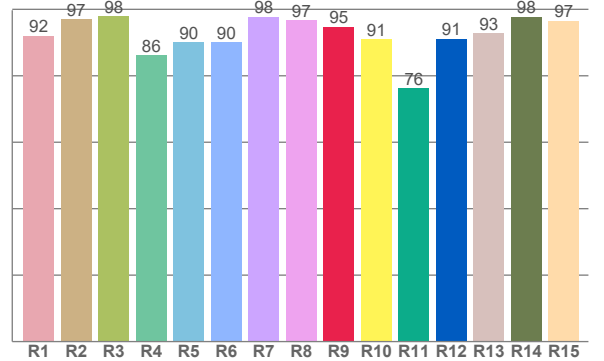
# COLOR DETAILS



TM30: 92,8



CRI: 93,5 (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
92,1	96,9	97,9	86,1	90,1	90,0	97,8	96,7	94,7	91,1	76,2	91,2	92,9	97,8	96,6

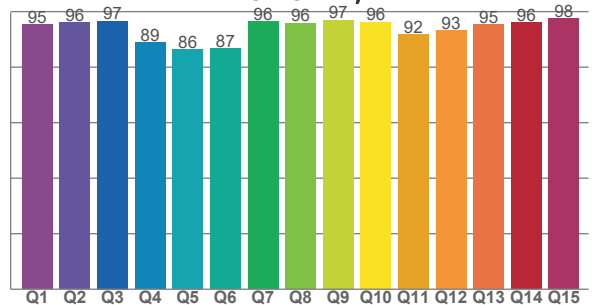
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,3	96,0	96,7	88,9	86,3	86,7	96,4	95,8	97,0	96,2	91,7	93,1	95,4	96,0	97,5

CQS: 92,7



## COLOR PARAMETERS

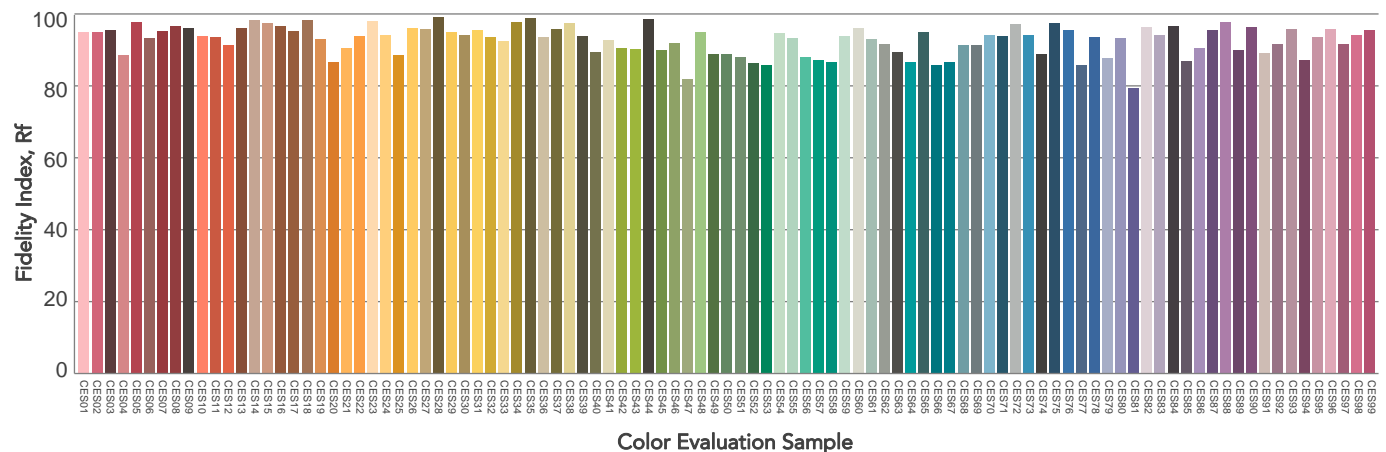
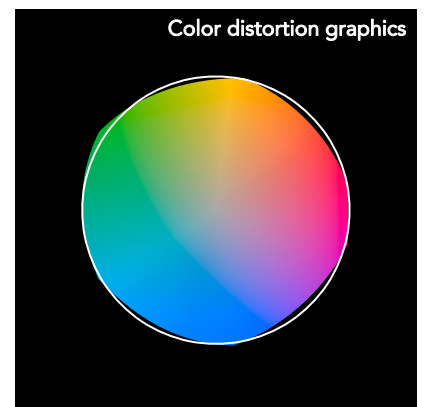
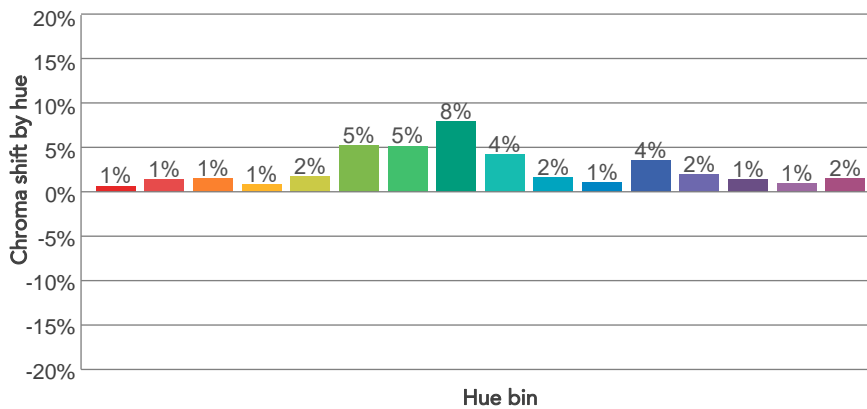
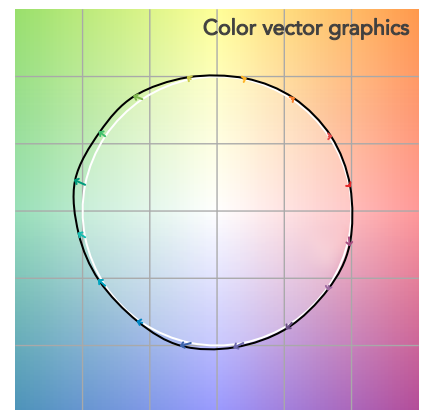
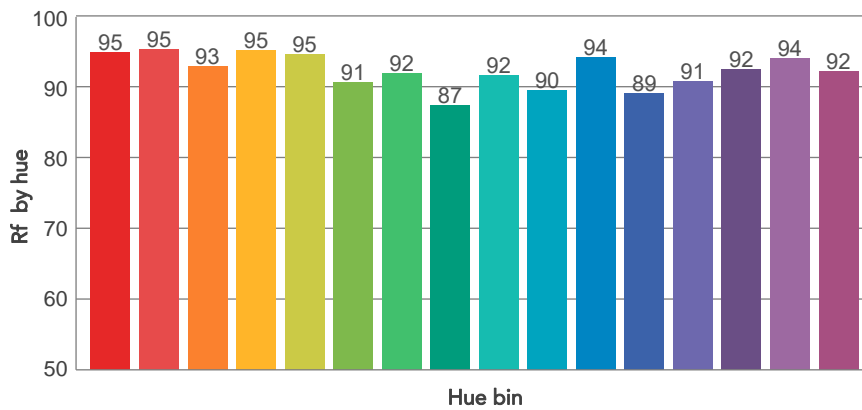
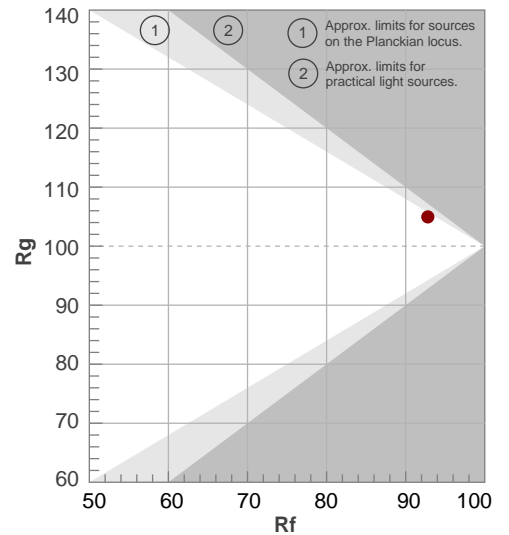
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3219 K	93,5	94,7	92,8	105,0	92,7	83	0,422	0,399	-0,0015

# TM30 DETAILS

**Rf 92,8**  
Fidelity index Rf

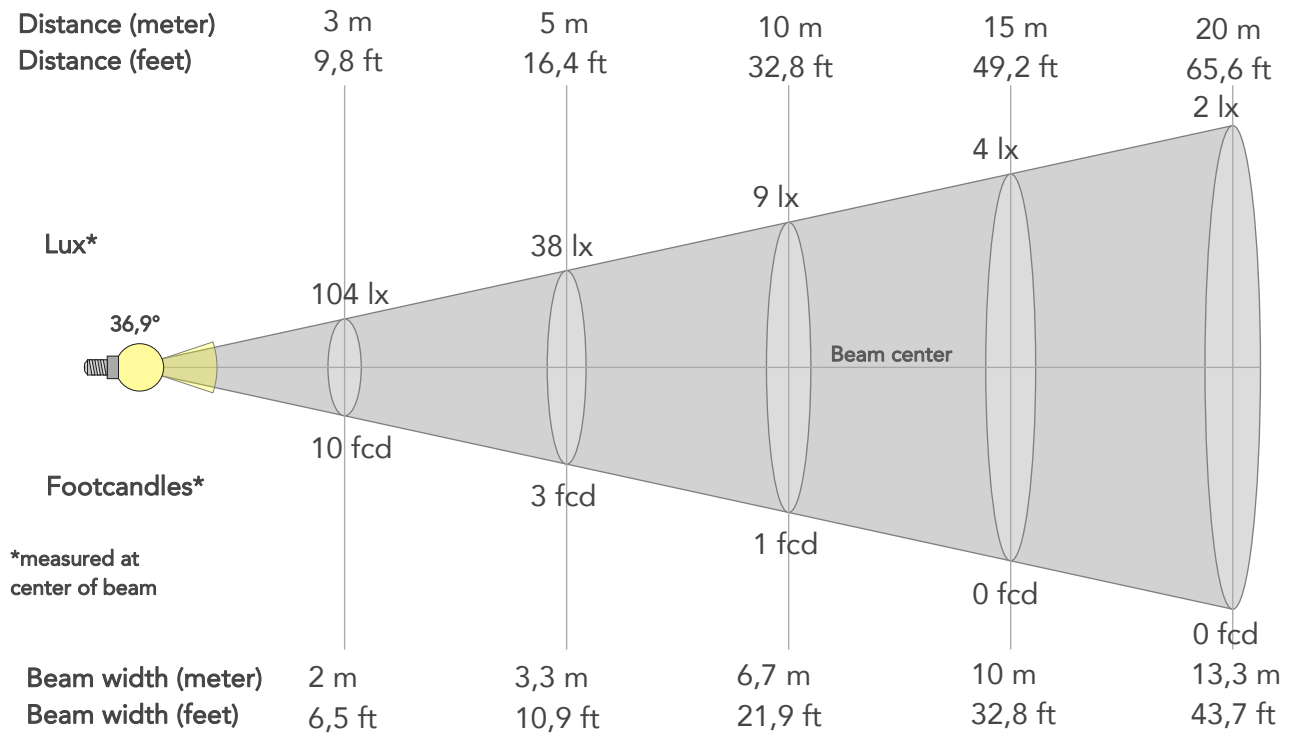
**Rg 105,0**  
Gammut index

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



# BEAM DETAILS

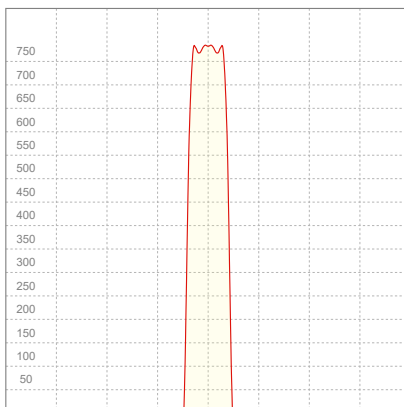
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36,9°	41,8°	42,8°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	940lx	235lx	104lx	59lx	38lx	17lx	9lx	4lx	2lx	2lx	1lx	1lx	0lx
Footcand.	87fcd	22fcd	10fcd	5fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,3m	5m	6,7m	10m	13,3m	16,7m	20m	26,7m	33,3m
Beam wid.	2,2ft	4,4ft	6,5ft	8,7ft	10,9ft	16,4ft	21,9ft	32,8ft	43,7ft	54,6ft	65,6ft	87,4ft	109,3ft

## LINEAR DISTRIBUTION DIAGRAM

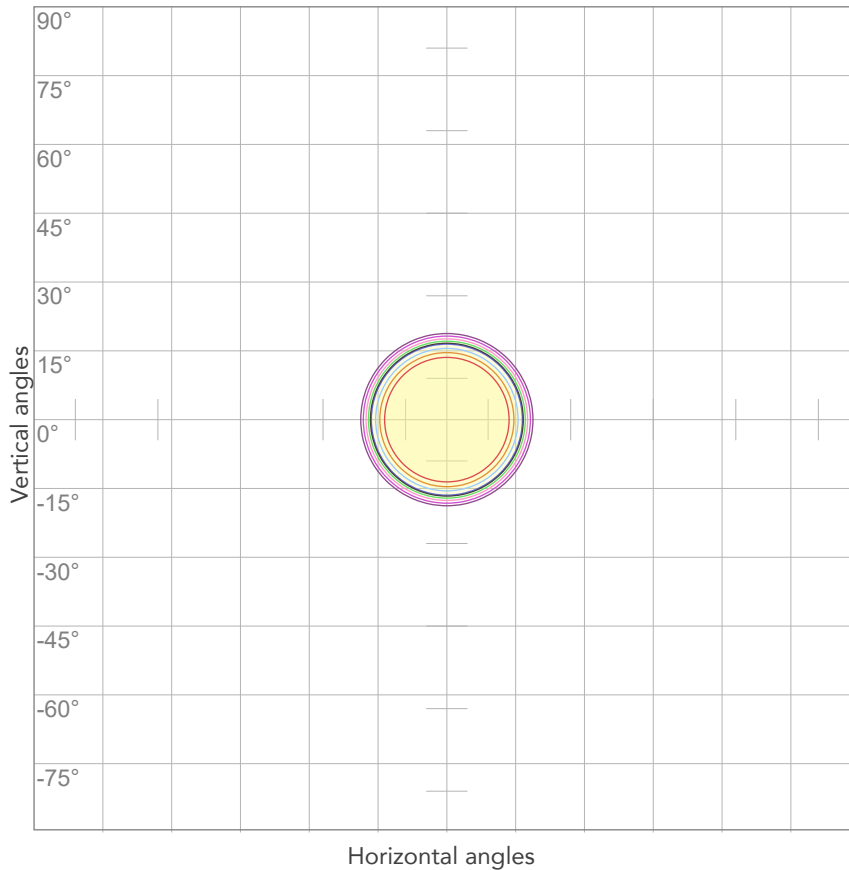


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,112A	22,8W	0,91	13lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



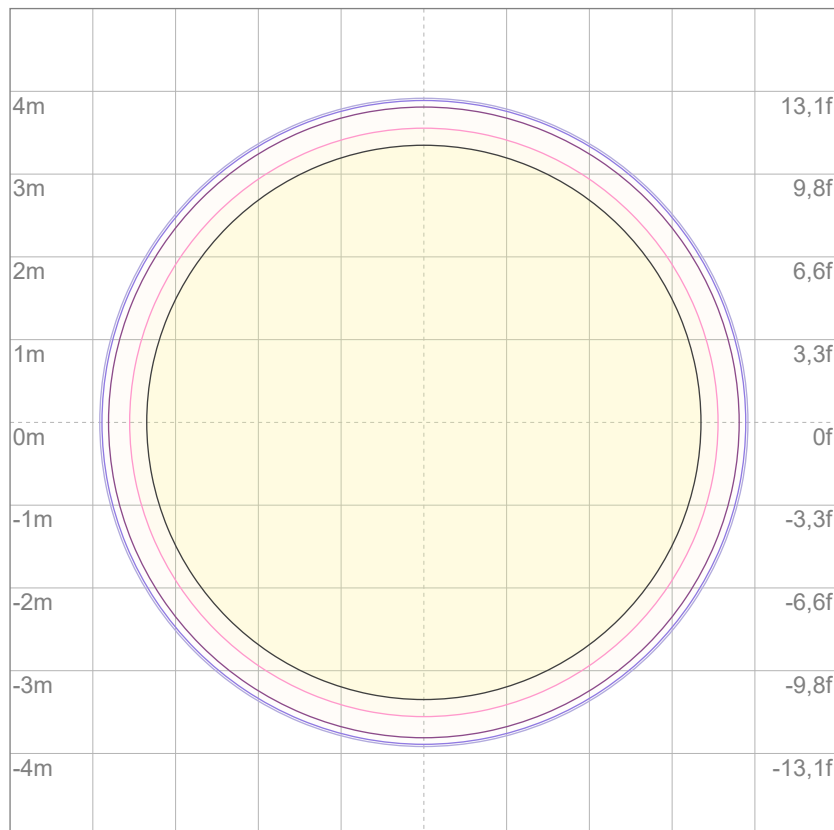
10%	94 cd
20%	188 cd
30%	282 cd
40%	376 cd
50%	470 cd
60%	564 cd
70%	658 cd
80%	752 cd

### Conditions:

Number of c-planes: 2

Candela at center: 940 cd

## ISO LUX DIAGRAM



3%	0,282 lx
5%	0,470 lx
10%	0,940 lx
30%	2,82 lx
50%	4,70 lx

### Conditions:

Number of c-planes: 2

Lux at center: 9,40 lx

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



Total lumen output:

331 lm

Peak candela output:

4488 cd

Light quality:

CRI: 93,7

Color temperature:

3218 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Min Zoom

Target:

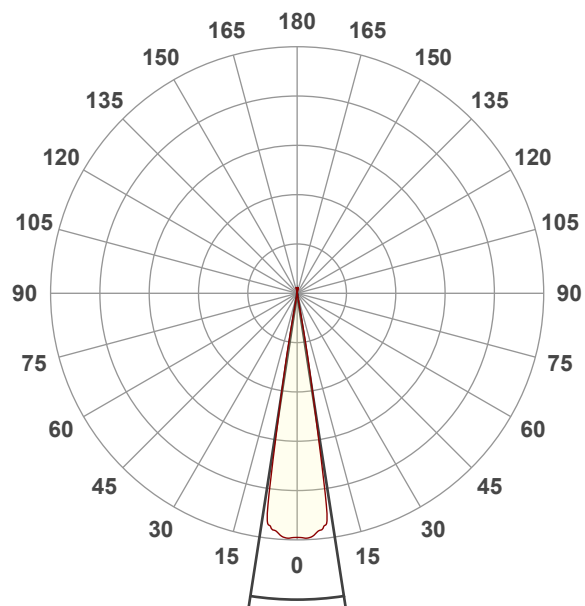
3200K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:19:56

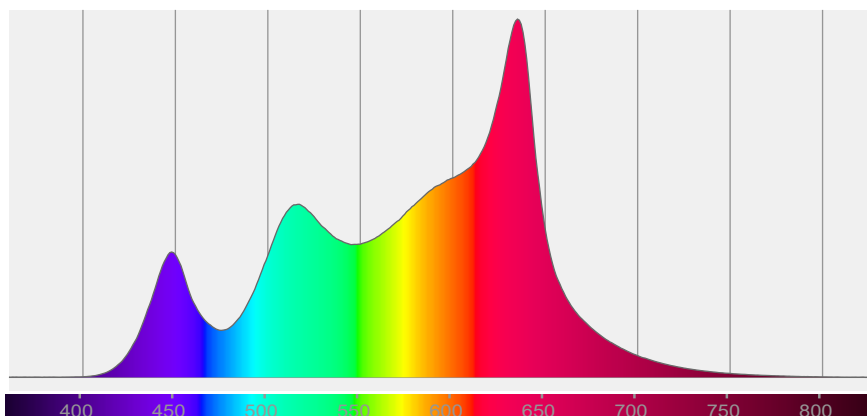


Beam angle 50%: 17,6°

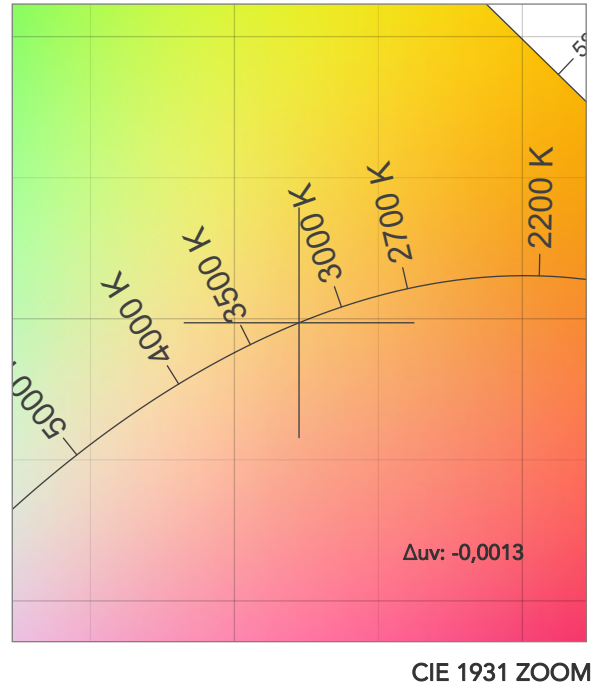
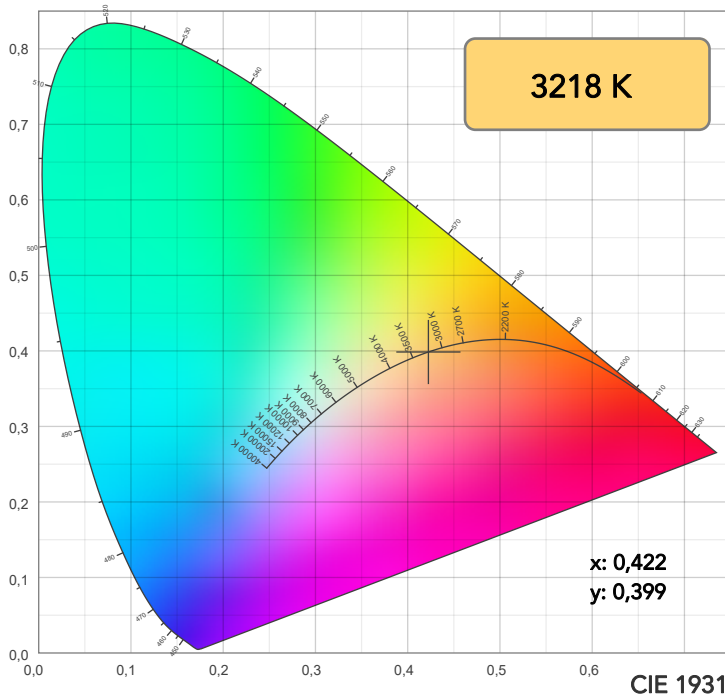
Field angle 10%: 20,4°

Cut off angle 2.5%: 21,1°

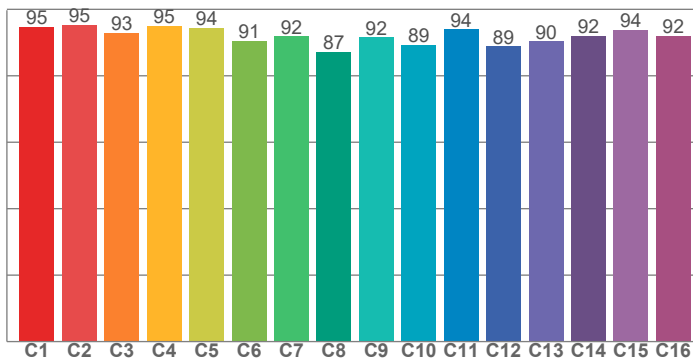
**Spectra**



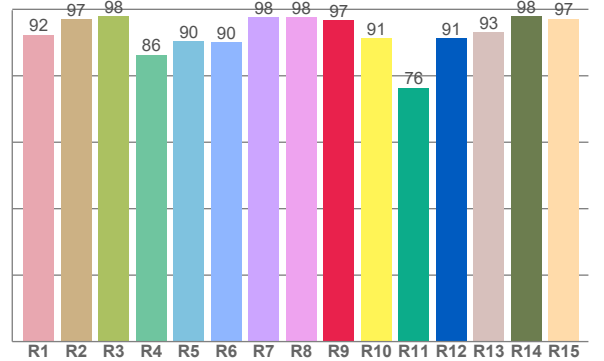
# COLOR DETAILS



**TM30: 92,7**



**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
92,4	97,1	98,0	86,3	90,4	90,1	97,6	97,6	96,8	91,3	76,4	91,4	93,2	97,9	97,2

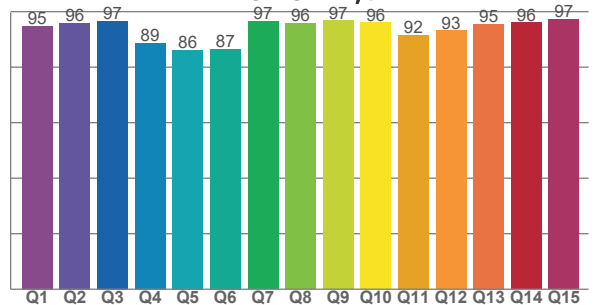
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,7	95,3	92,9	95,0	94,4	90,6	91,8	87,2	91,6	89,3	94,0	88,8	90,4	92,0	93,8	92,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,7	95,9	96,6	88,6	86,1	86,5	96,5	95,8	96,8	96,1	91,7	93,1	95,5	96,1	97,2

**CQS: 92,6**



## COLOR PARAMETERS

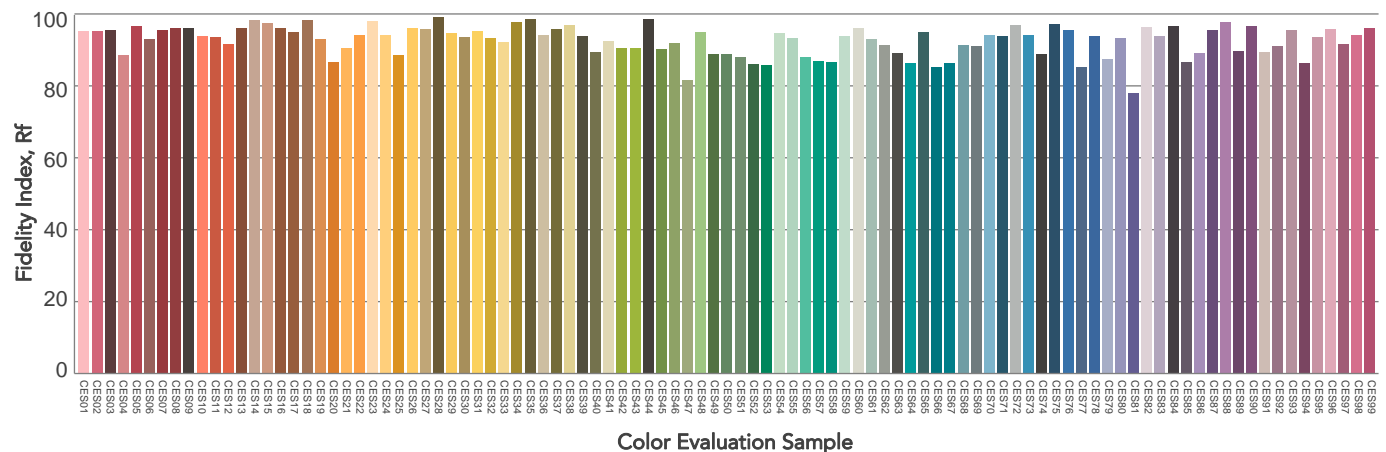
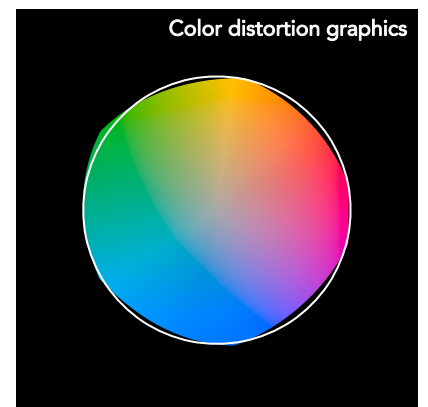
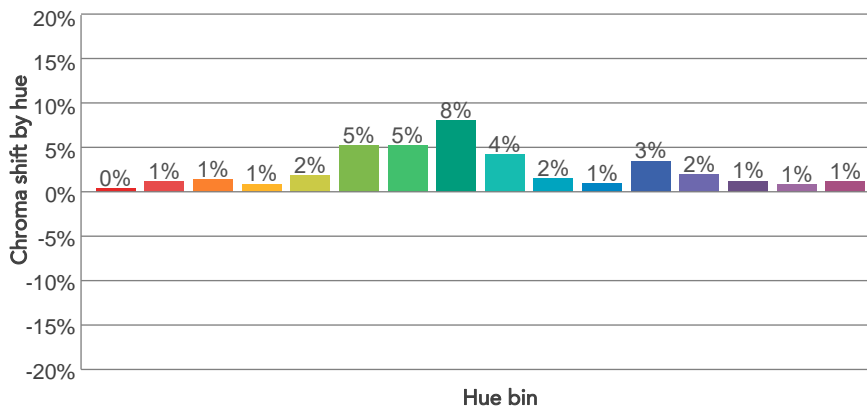
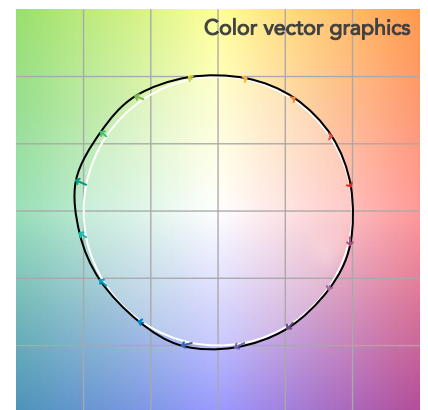
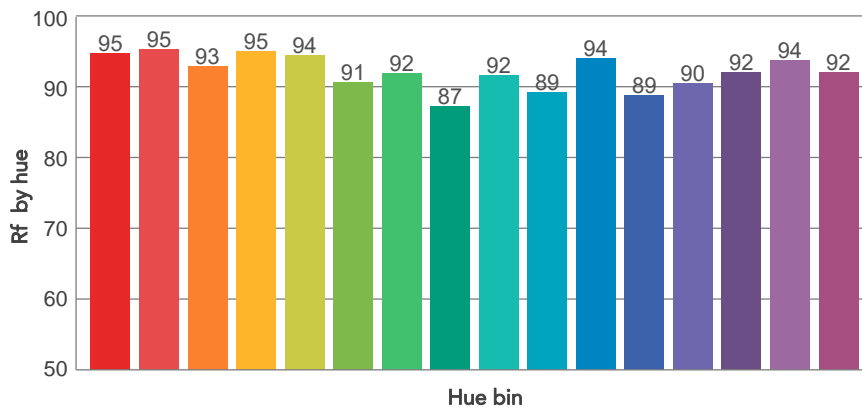
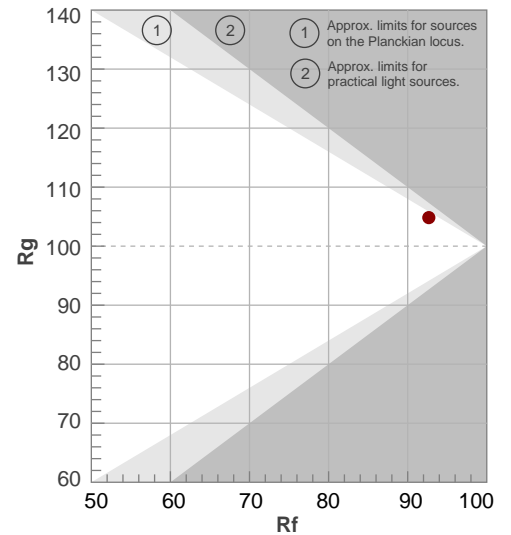
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3218 K	93,7	96,8	92,7	104,8	92,6	82	0,422	0,399	-0,0013

# TM30 DETAILS

**Rf 92,7**  
Fidelity index Rf

**Rg 104,8**  
Gammut index

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

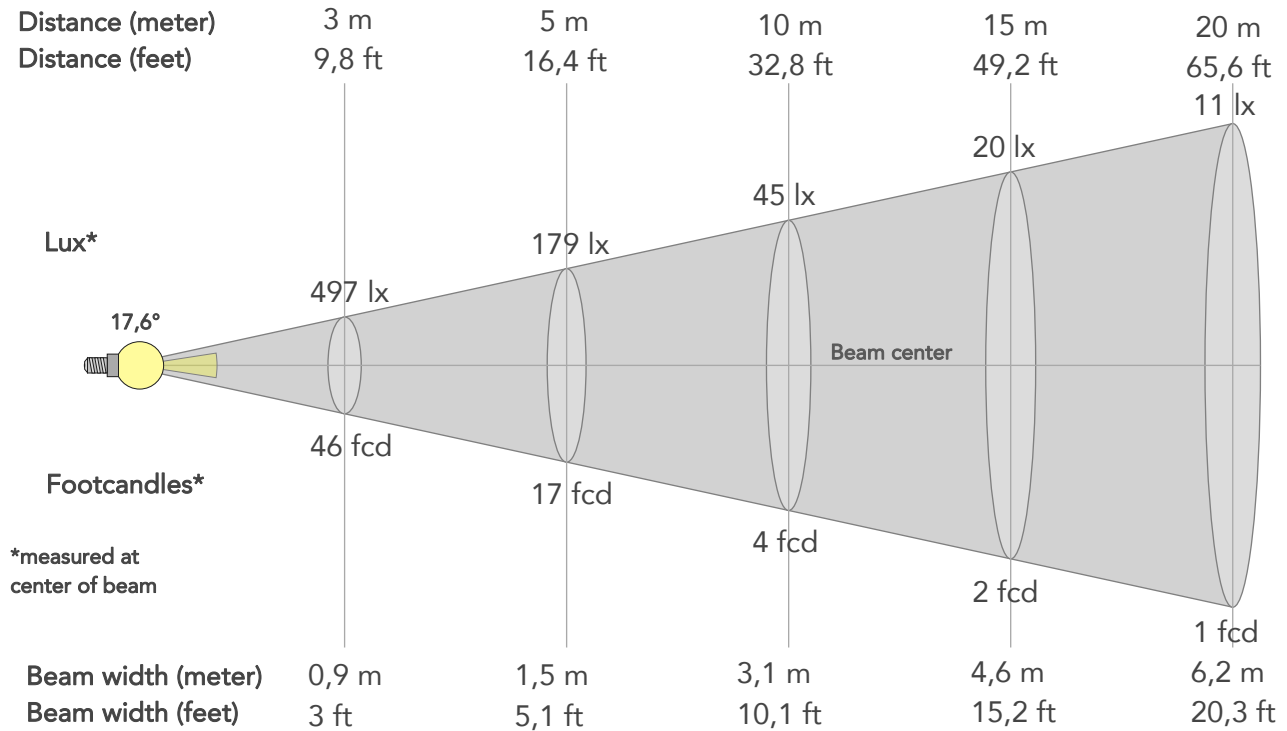




# BEAM DETAILS



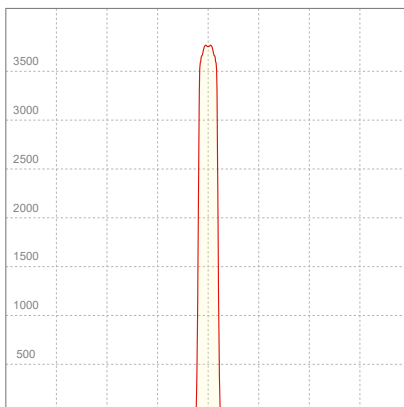
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,6°	20,4°	21,1°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4474lx	1118lx	497lx	280lx	179lx	80lx	45lx	20lx	11lx	7lx	5lx	3lx	2lx
Footcand.	416fcd	104fcd	46fcd	26fcd	17fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3,1m	4,6m	6,2m	7,7m	9,3m	12,4m	15,4m
Beam wid.	1ft	2ft	3ft	4ft	5,1ft	7,6ft	10,1ft	15,2ft	20,3ft	25,3ft	30,4ft	40,5ft	50,7ft

## LINEAR DISTRIBUTION DIAGRAM

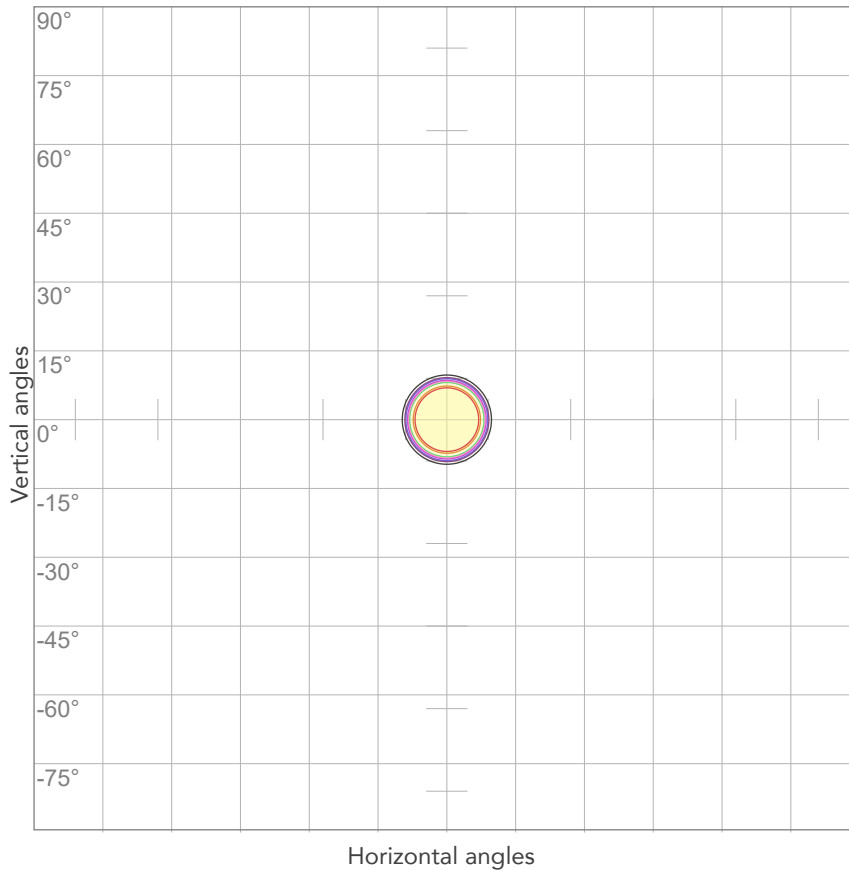


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,112A	22,9W	0,91	14lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



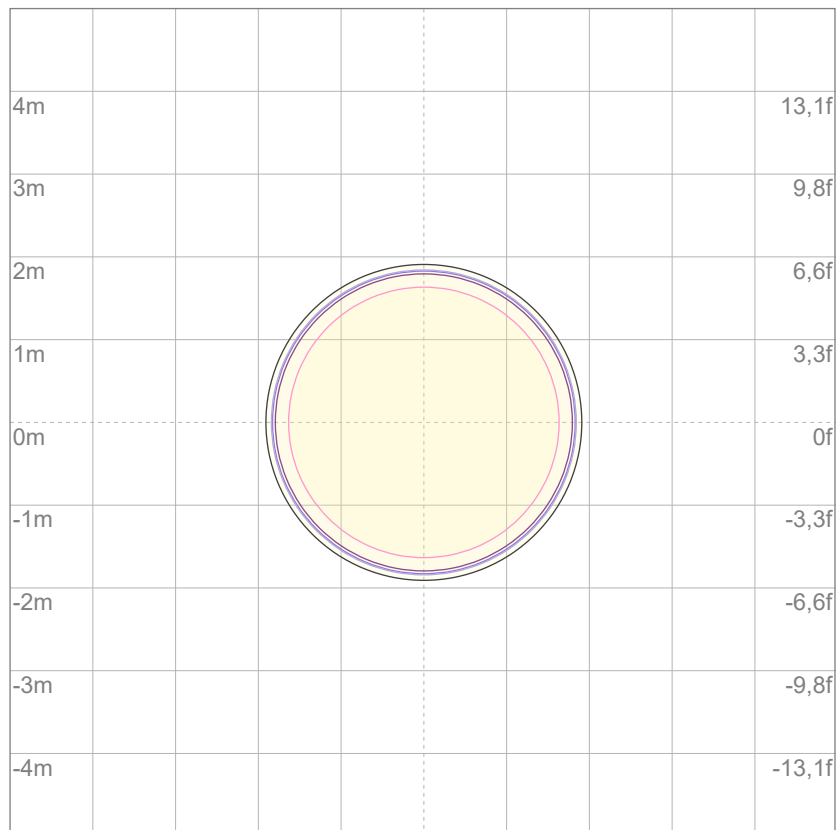
10%	447 cd
20%	895 cd
30%	1342 cd
40%	1789 cd
50%	2237 cd
60%	2684 cd
70%	3132 cd
80%	3579 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4474 cd

## ISO LUX DIAGRAM



3%	1,34 lx
5%	2,24 lx
10%	4,47 lx
30%	13,4 lx
50%	22,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 44,7 lx

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



Total lumen output:

314 lm

Peak candela output:

991 cd

Light quality:

CRI: 93,4

Color temperature:

4084 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Max Zoom

Target:

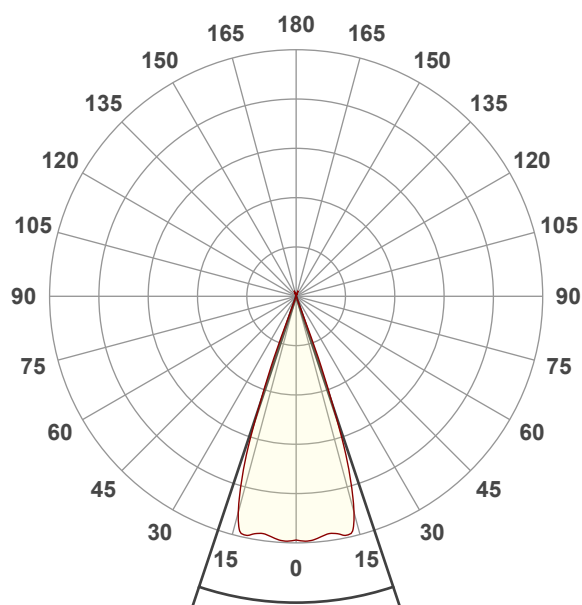
4000K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:33:40

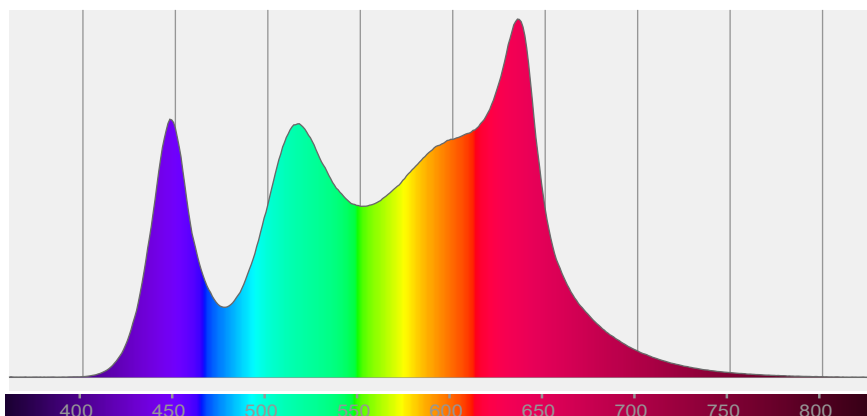


Beam angle 50%: 37°

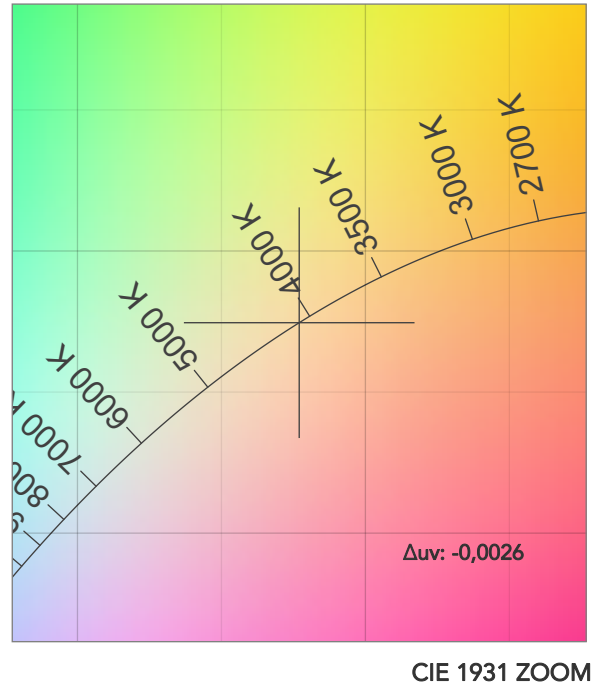
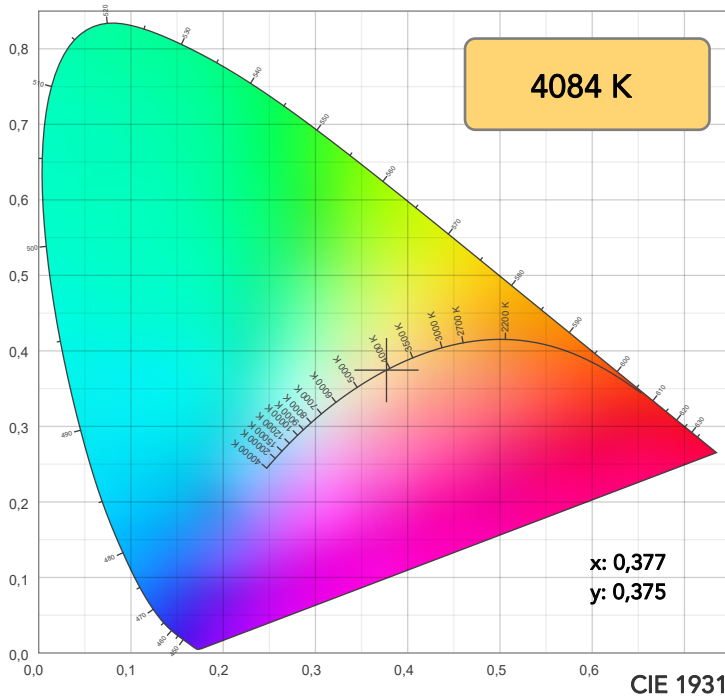
Field angle 10%: 41,8°

Cut off angle 2.5%: 42,8°

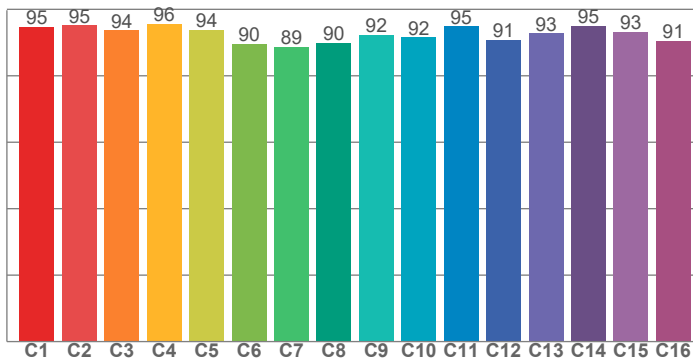
**Spectra**



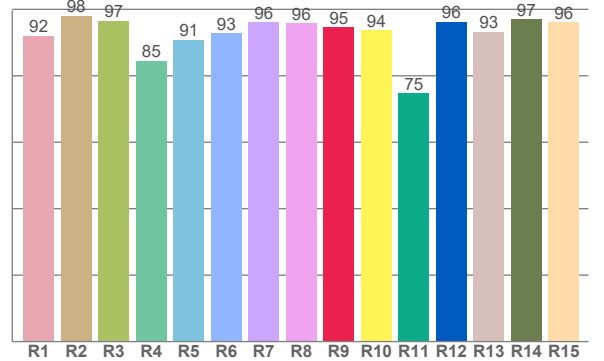
# COLOR DETAILS



**TM30: 93,0**



**CRI: 93,4 (R1-R8)**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,1	98,0	96,6	84,6	90,9	92,8	96,2	95,8	94,7	93,7	74,8	96,2	93,3	97,1	96,2

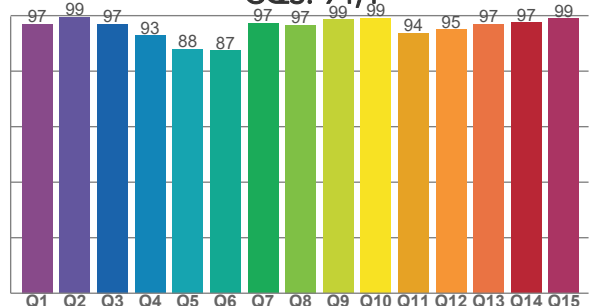
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,0	99,4	97,1	92,8	87,9	87,5	97,2	96,7	98,6	99,2	93,6	95,0	97,1	97,4	99,0

**CQS: 94,4**



## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
4084 K	93,4	94,7	93,0	106,0	94,4	82	0,377	0,375	-0,0026

## TM30 DETAILS

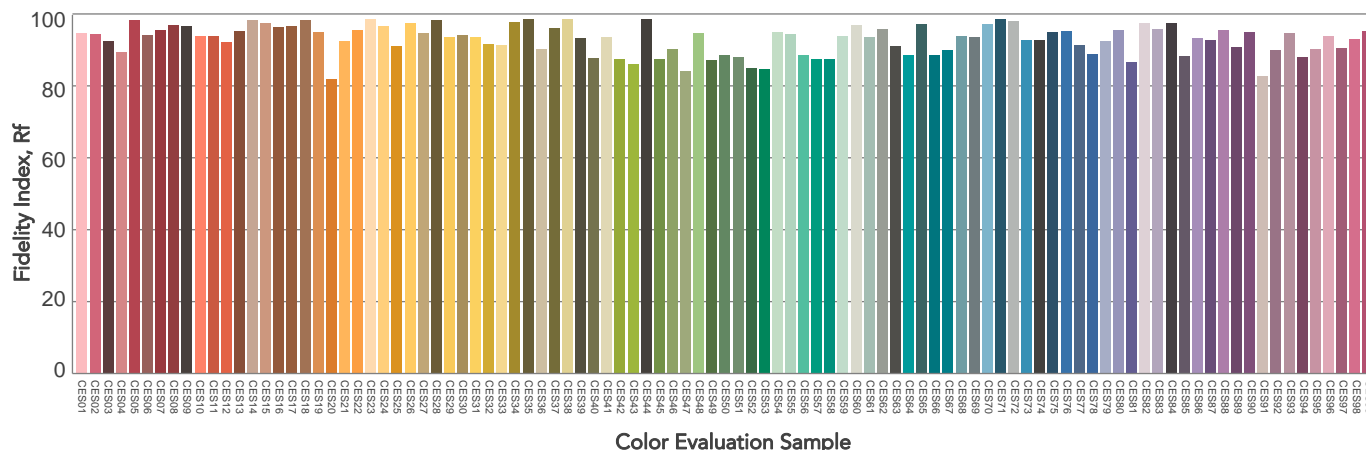
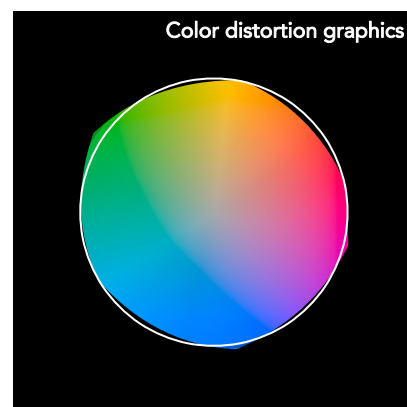
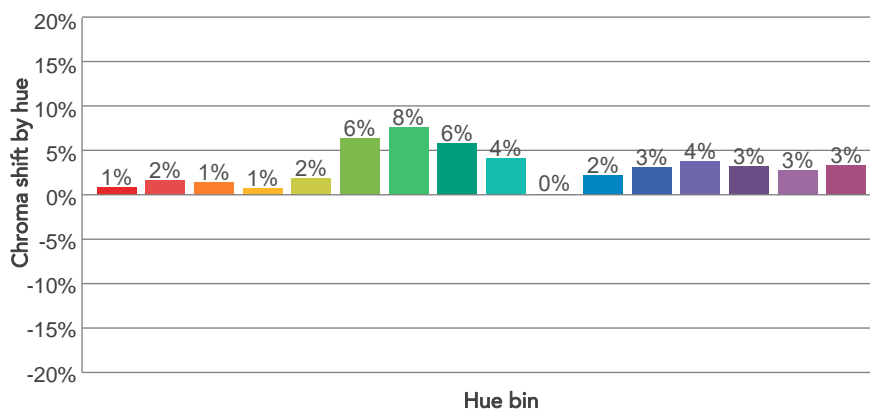
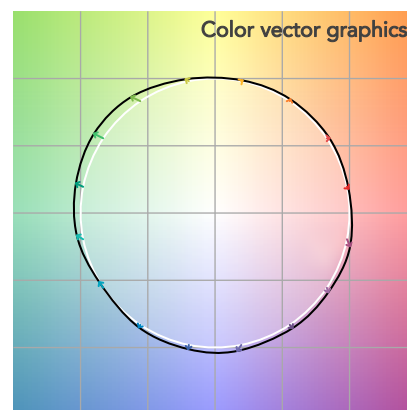
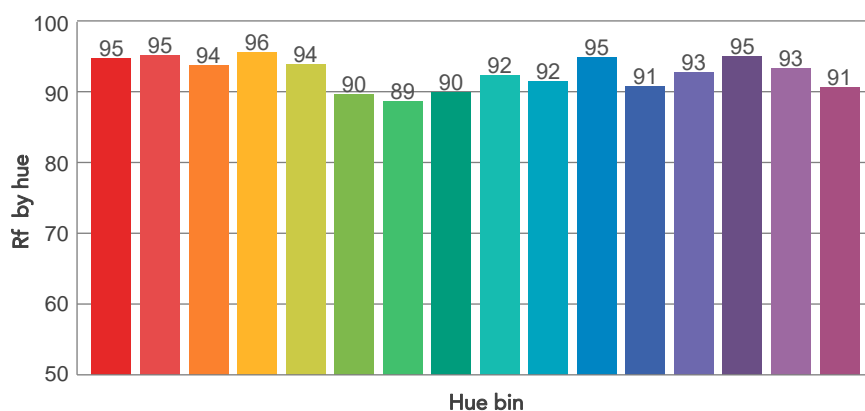
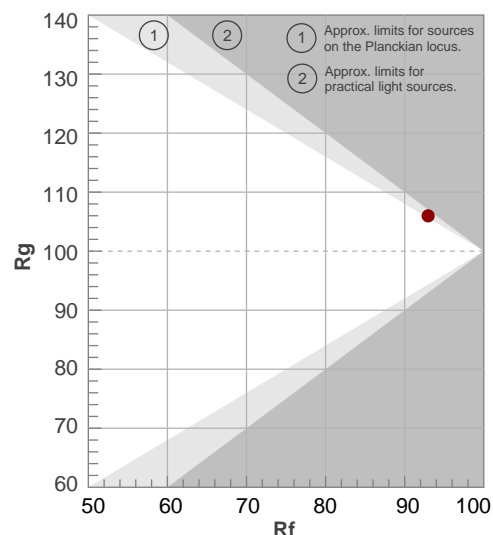
**Rf 93,0**

Fidelity index Rf

**Rg 106,0**

Gammut index

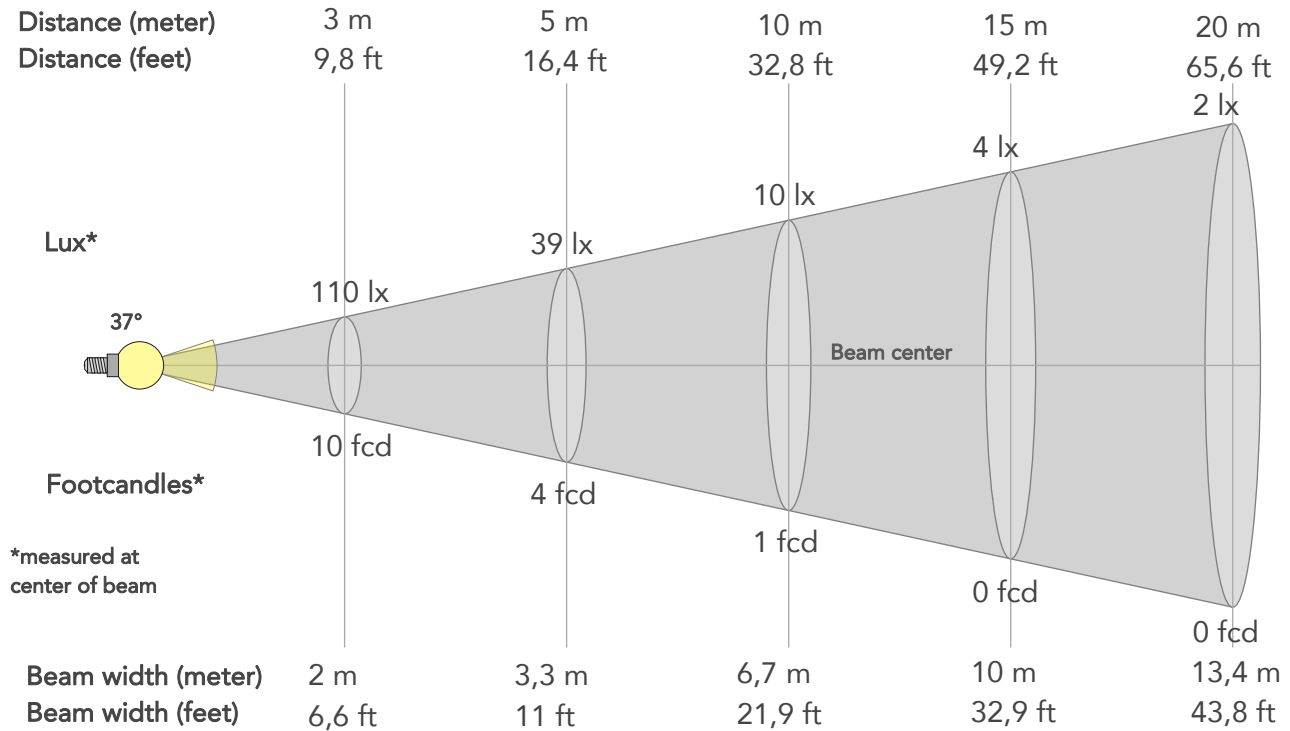
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	1%	-2%
2	95	2%	-1%
3	94	1%	0%
4	96	1%	-1%
5	94	2%	2%
6	90	6%	4%
7	89	8%	1%
8	90	6%	-1%
9	92	4%	-4%
10	92	0%	-5%
11	95	2%	0%
12	91	3%	0%
13	93	4%	-4%
14	95	3%	0%
15	93	3%	-2%
16	91	3%	-5%



# BEAM DETAILS



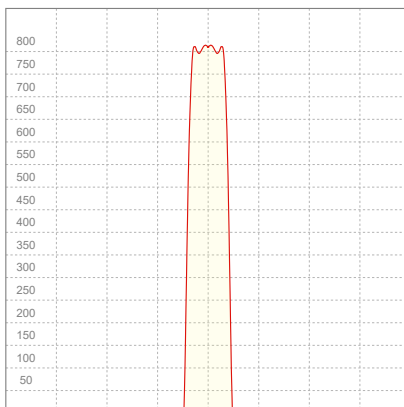
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37°	41,8°	42,8°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	986lx	246lx	110lx	62lx	39lx	18lx	10lx	4lx	2lx	2lx	1lx	1lx	0lx
Footcand.	92fcd	23fcd	10fcd	6fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,3m	5m	6,7m	10m	13,4m	16,7m	20,1m	26,7m	33,4m
Beam wid.	2,2ft	4,4ft	6,6ft	8,8ft	11ft	16,4ft	21,9ft	32,9ft	43,8ft	54,8ft	65,8ft	87,7ft	109,6ft

## LINEAR DISTRIBUTION DIAGRAM

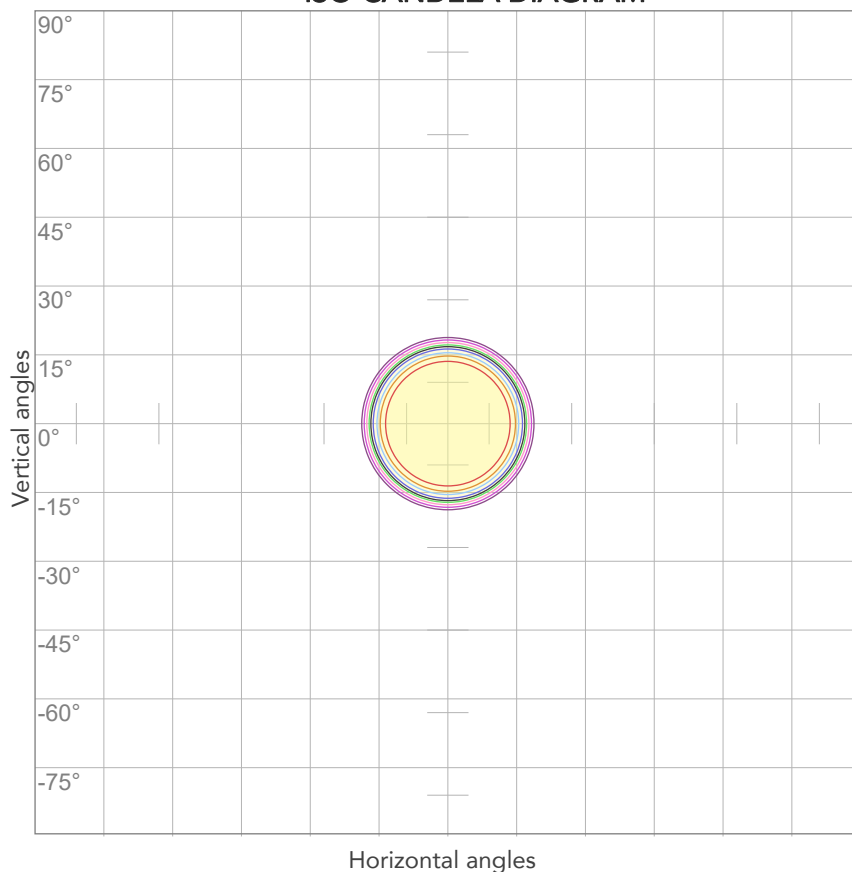


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,116A	23,8W	0,91	13lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



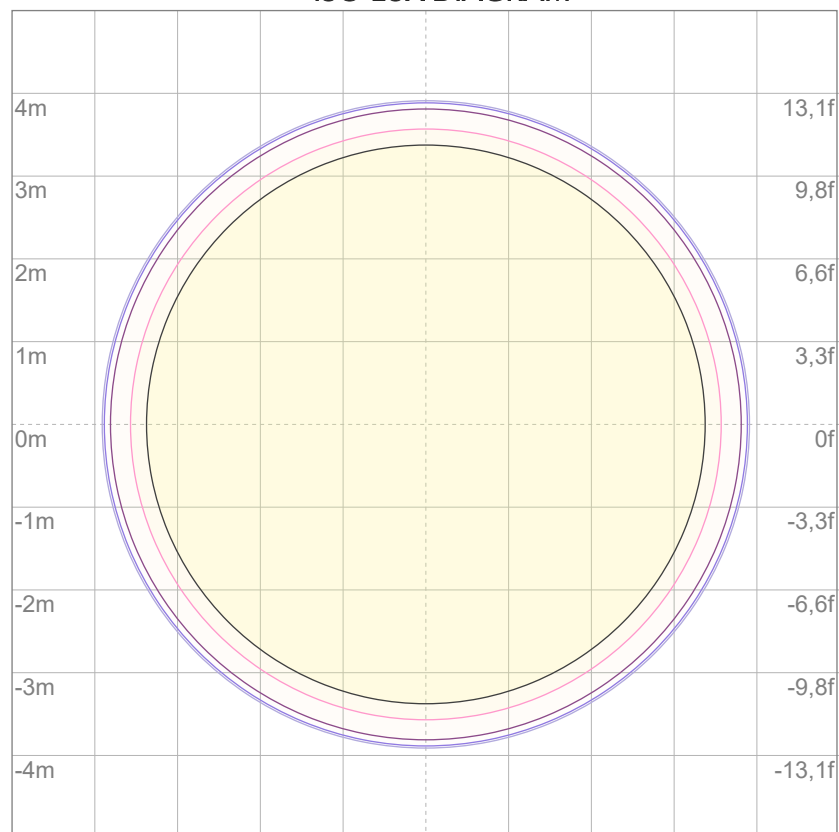
10%	99 cd
20%	197 cd
30%	296 cd
40%	394 cd
50%	493 cd
60%	592 cd
70%	690 cd
80%	789 cd

### Conditions:

Number of c-planes: 2

Candela at center: 986 cd

## ISO LUX DIAGRAM



3%	0,296 lx
5%	0,493 lx
10%	0,986 lx
30%	2,96 lx
50%	4,93 lx

### Conditions:

Number of c-planes: 2

Lux at center: 9,86 lx

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



Total lumen output:

348 lm

Peak candela output:

4728 cd

Light quality:

CRI: 93,5

Color temperature:

4054 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Min Zoom

Target:

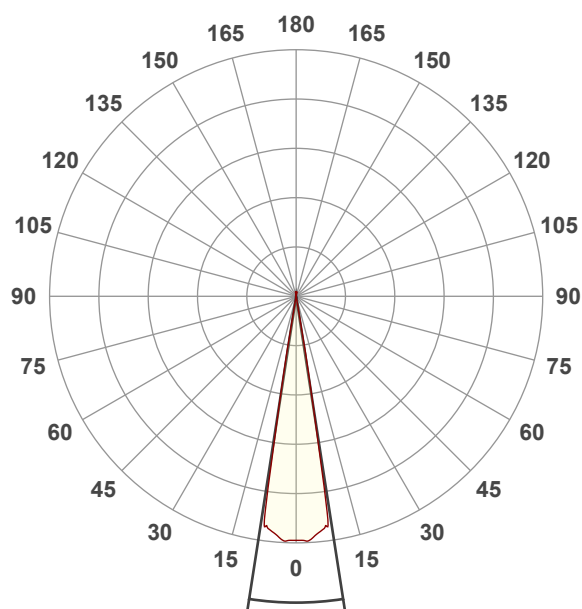
4000K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:21:26

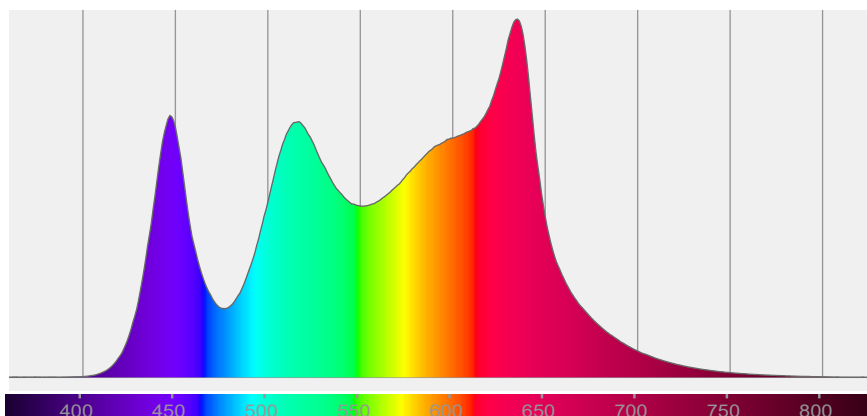


Beam angle 50%: 17,6°

Field angle 10%: 19,5°

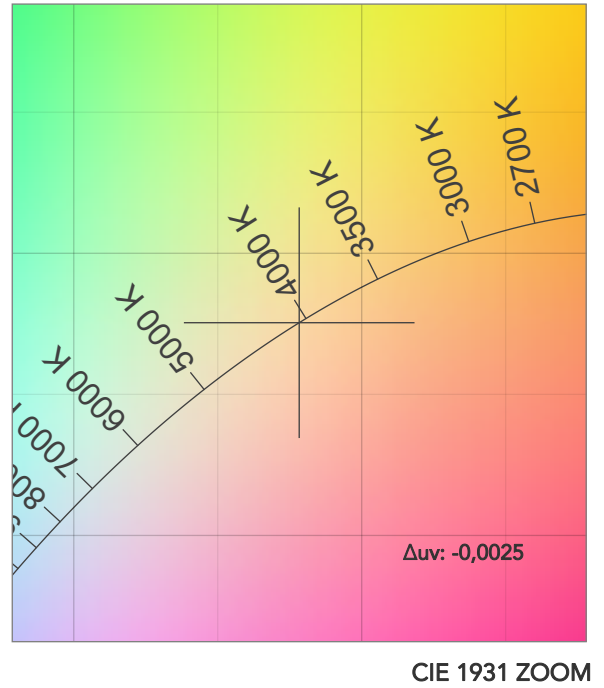
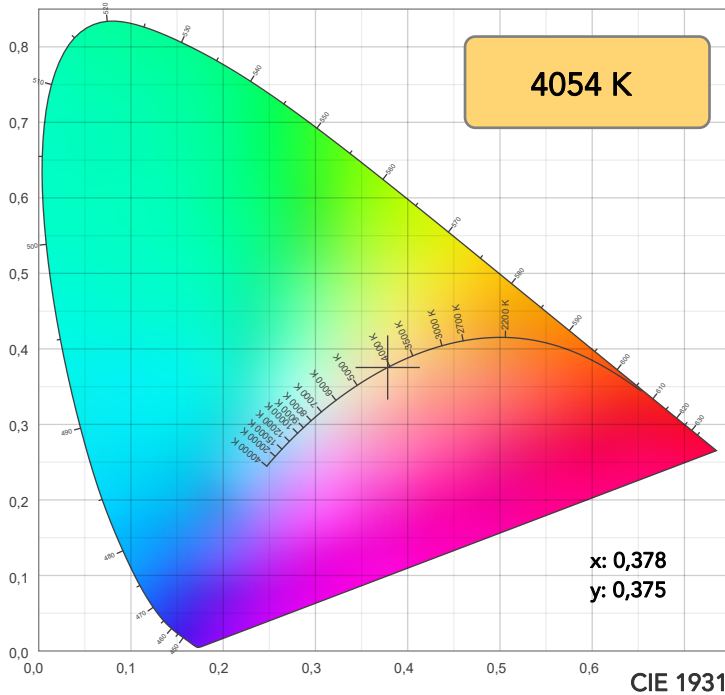
Cut off angle 2.5%: 20°

**Spectra**

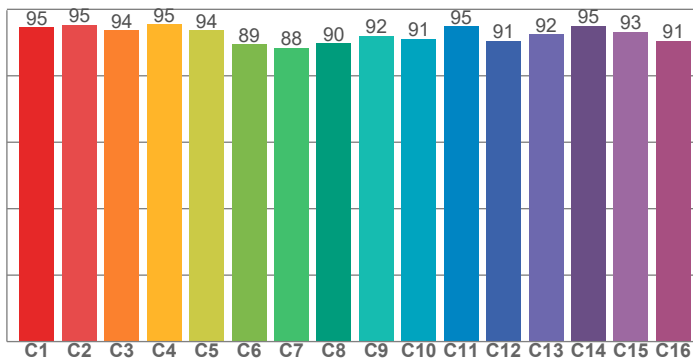




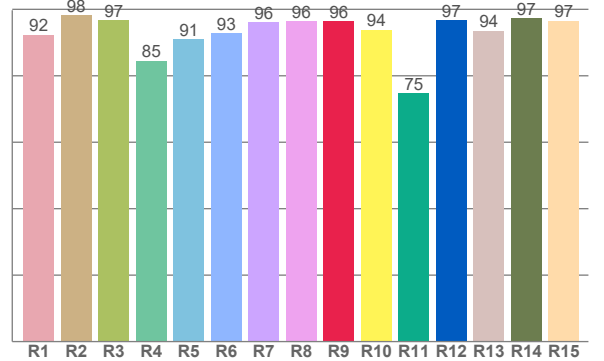
# COLOR DETAILS



**TM30: 92,8**



**CRI: 93,5 (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
92,3	98,1	96,7	84,5	91,0	92,8	96,1	96,4	96,4	93,8	74,8	96,7	93,5	97,2	96,6

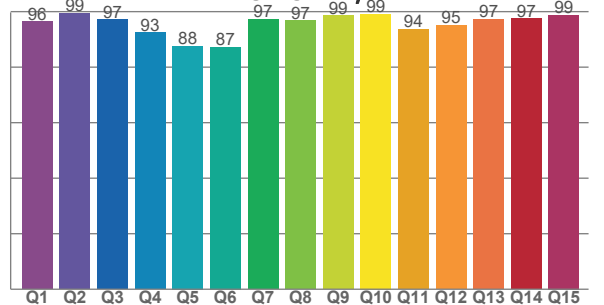
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,6	95,3	93,6	95,4	93,7	89,5	88,5	89,8	92,1	91,2	94,9	90,5	92,5	95,0	93,2	90,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,5	99,4	97,2	92,5	87,6	87,2	97,2	96,7	98,6	99,1	93,6	95,1	97,2	97,5	98,7

**CQS: 94,3**



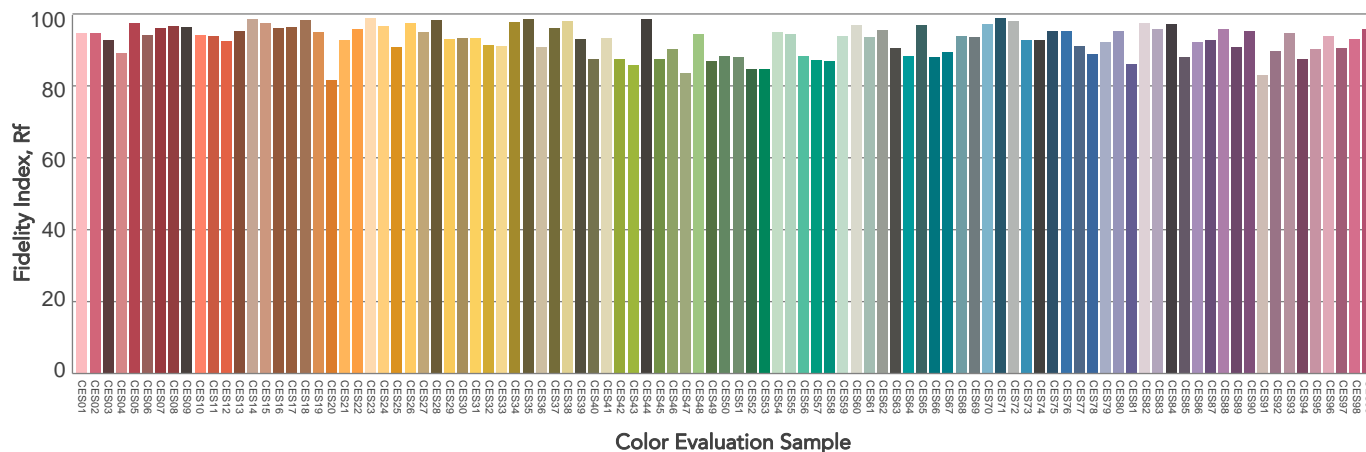
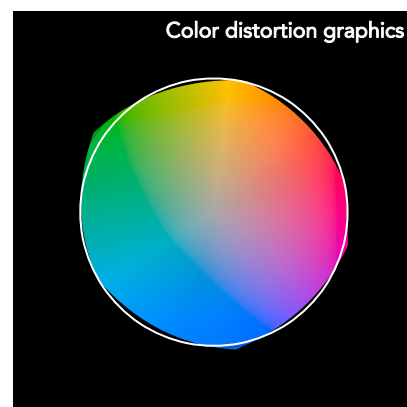
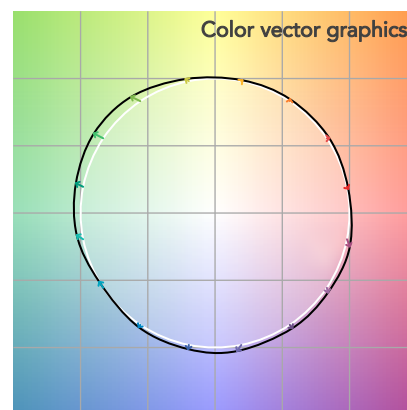
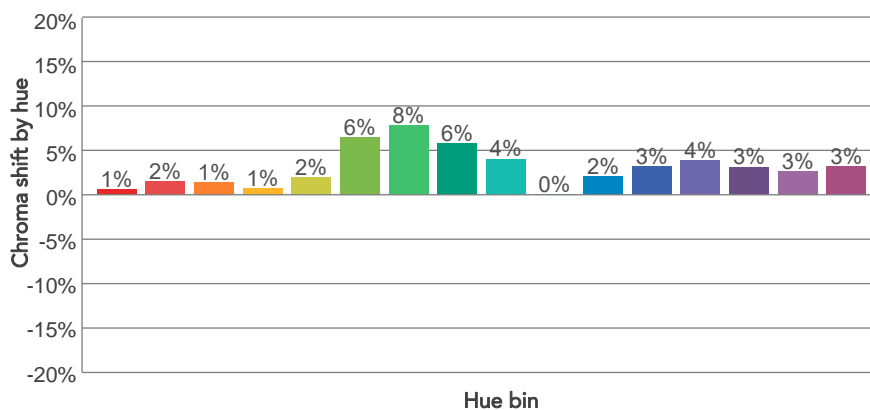
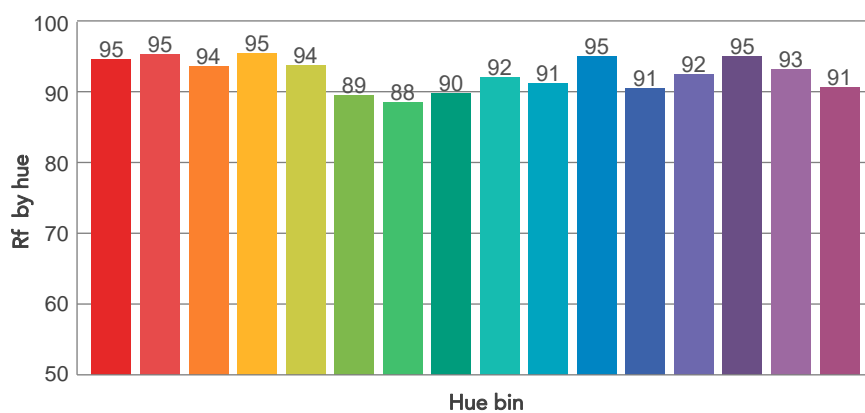
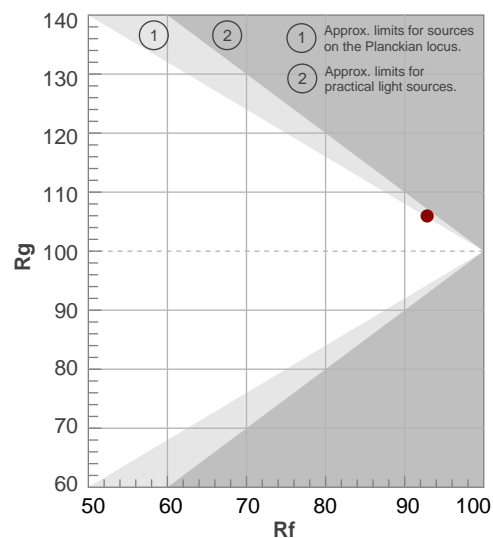
## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4054 K	93,5	96,4	92,8	106,0	94,3	81	0,378	0,375	-0,0025

Fidelity index  $R_f$

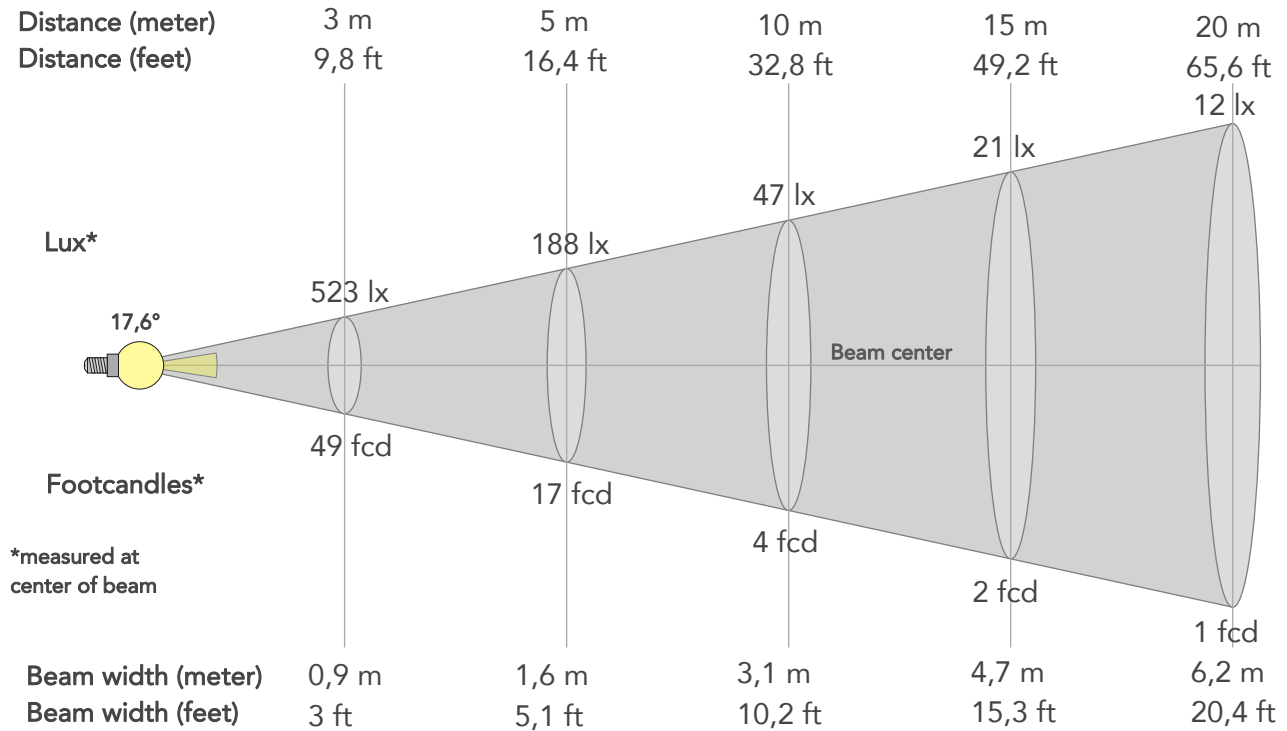
## Gammut index

		Graphic shifts (%)	
Hue Bin	$R_f$	Chroma	Hue
1	95	1%	-2%
2	95	2%	-1%
3	94	1%	1%
4	95	1%	-1%
5	94	2%	2%
6	89	6%	4%
7	88	8%	1%
8	90	6%	-2%
9	92	4%	-4%
10	91	0%	-5%
11	95	2%	0%
12	91	3%	0%
13	92	4%	-4%
14	95	3%	0%
15	93	3%	-2%
16	91	3%	-5%



# BEAM DETAILS

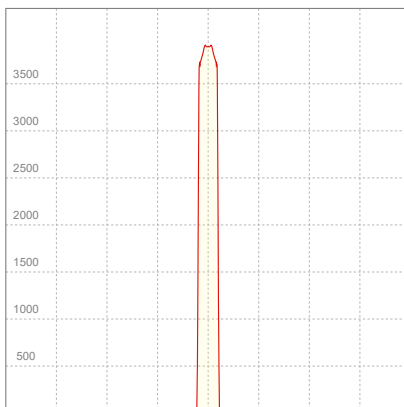
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,6°	19,5°	20°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4709lx	1177lx	523lx	294lx	188lx	84lx	47lx	21lx	12lx	8lx	5lx	3lx	2lx
Footcand.	437fcd	109fcd	49fcd	27fcd	17fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,6m	2,3m	3,1m	4,7m	6,2m	7,8m	9,3m	12,4m	15,5m
Beam wid.	1ft	2ft	3ft	4,1ft	5,1ft	7,6ft	10,2ft	15,3ft	20,4ft	25,5ft	30,6ft	40,7ft	50,9ft

## LINEAR DISTRIBUTION DIAGRAM

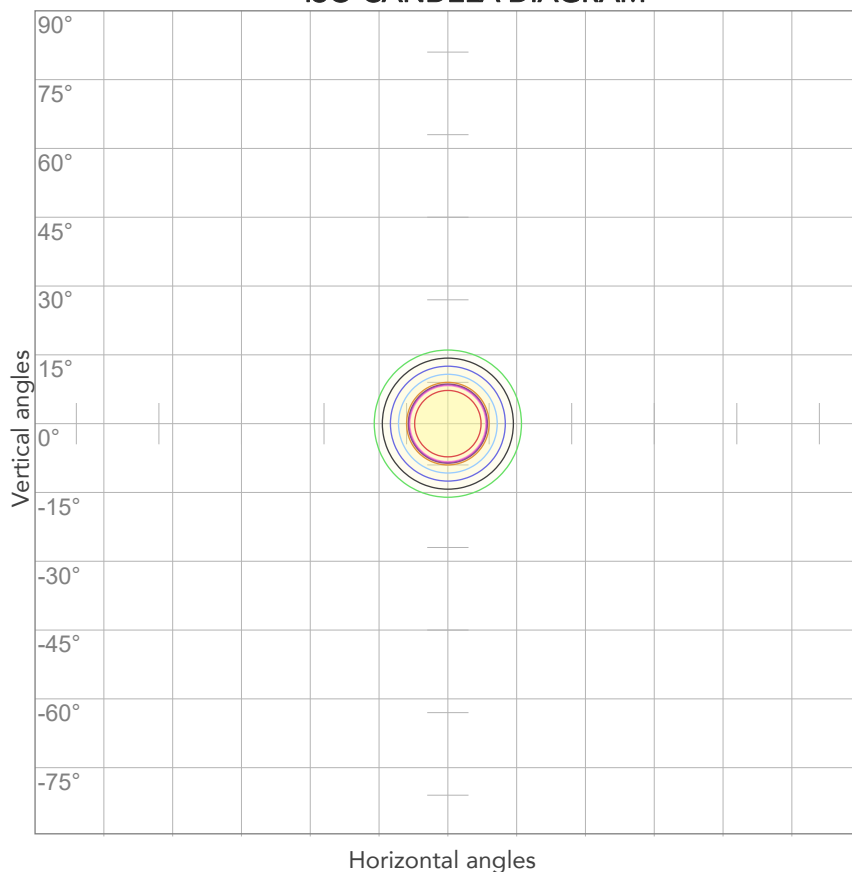


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,117A	23,9W	0,92	15lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



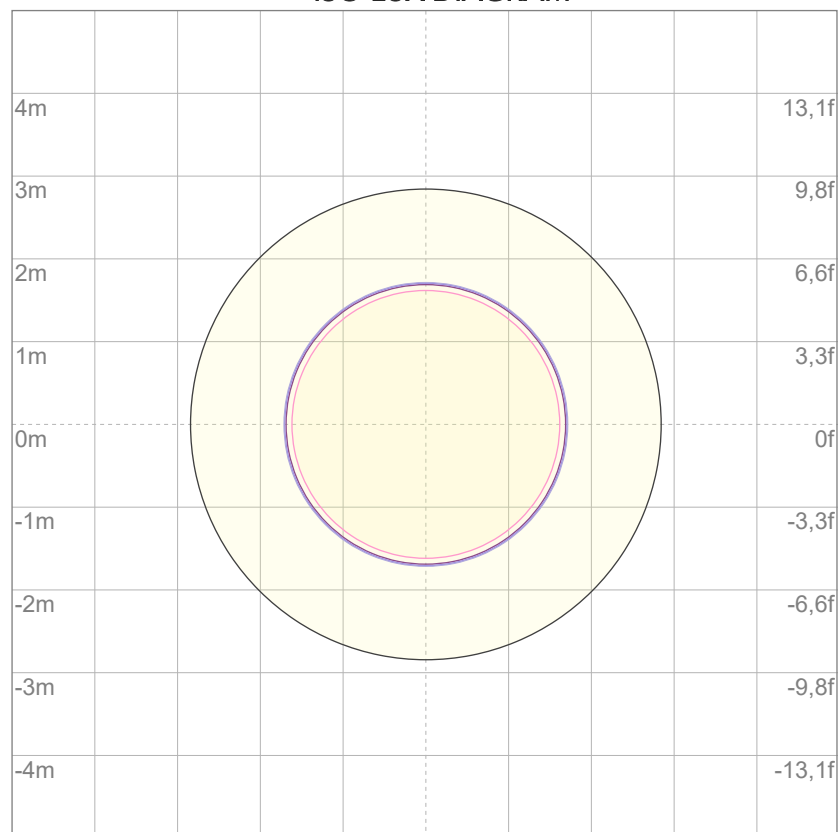
10%	471 cd
20%	942 cd
30%	1413 cd
40%	1884 cd
50%	2354 cd
60%	2825 cd
70%	3296 cd
80%	3767 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4709 cd

## ISO LUX DIAGRAM



3%	1,41 lx
5%	2,35 lx
10%	4,71 lx
30%	14,1 lx
50%	23,5 lx

### Conditions:

Number of c-planes: 2

Lux at center: 47,1 lx

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



Total lumen output:

339 lm

Peak candela output:

1065 cd

Light quality:

CRI: 91,2

Color temperature:

5620 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Max Zoom

Target:

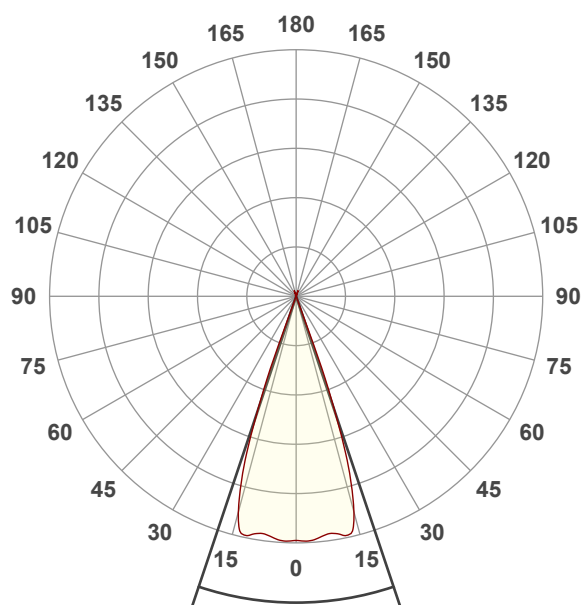
5600K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:36:00

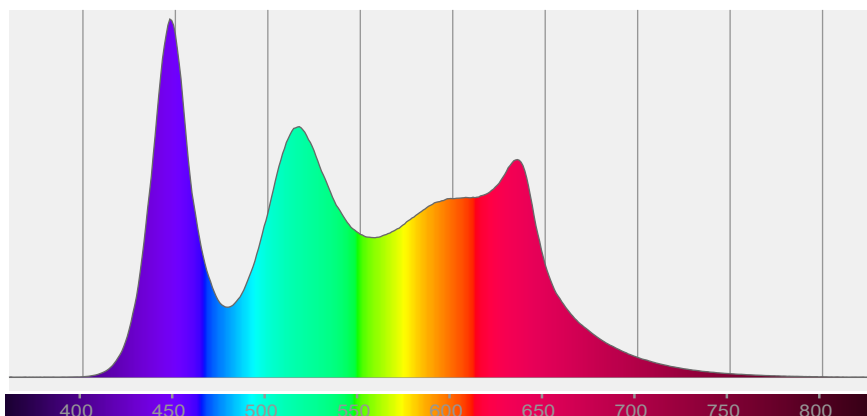


Beam angle 50%: 37,1°

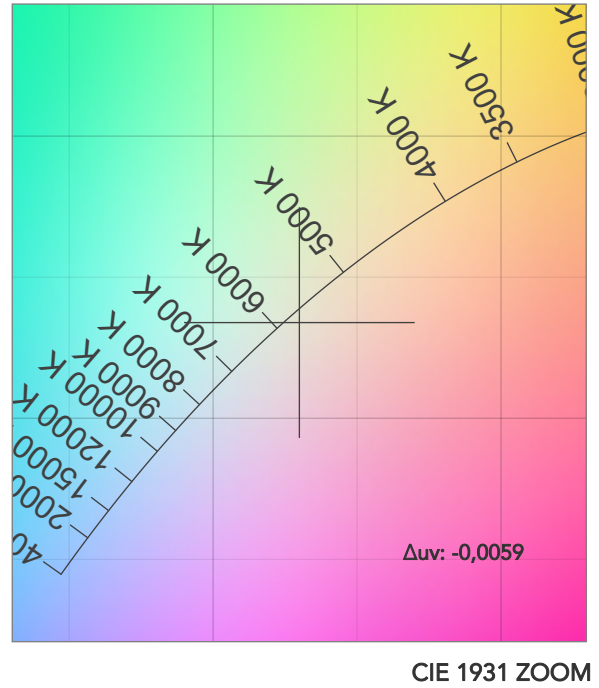
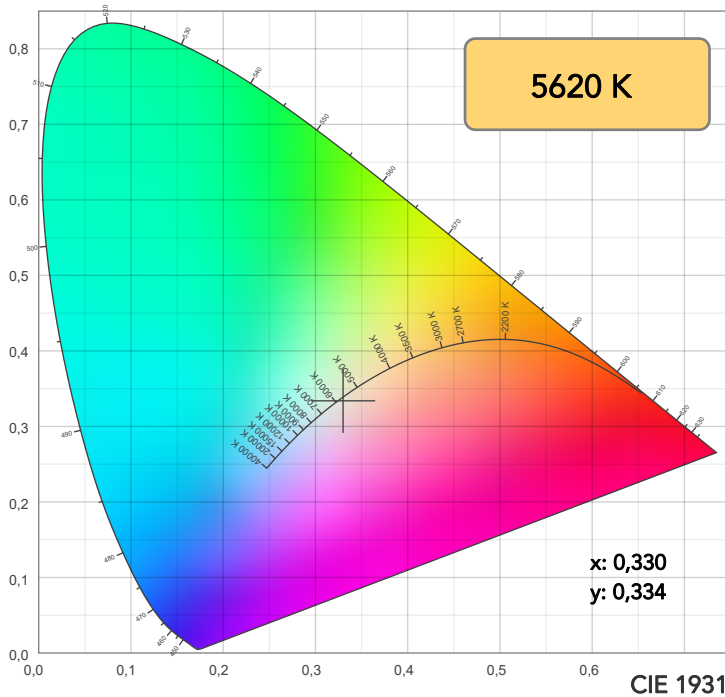
Field angle 10%: 41,6°

Cut off angle 2.5%: 42,4°

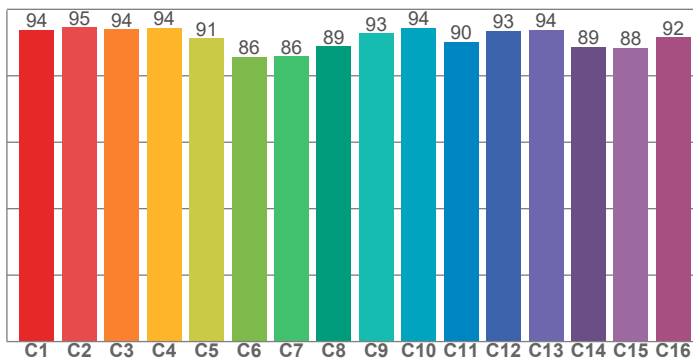
**Spectra**



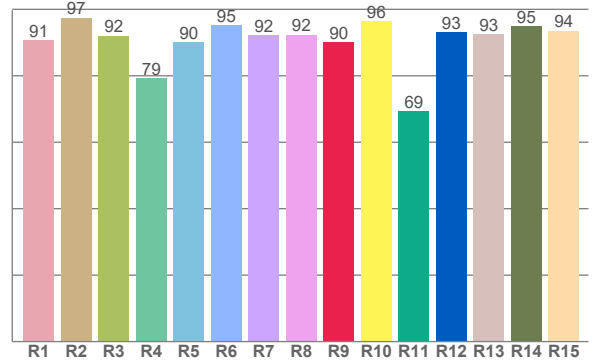
## COLOR DETAILS



TM30: 91,4



CRI: 91,2 (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
90,6	97,4	92,1	79,3	90,1	95,2	92,2	92,3	90,1	96,5	69,4	93,0	92,5	94,8	93,5

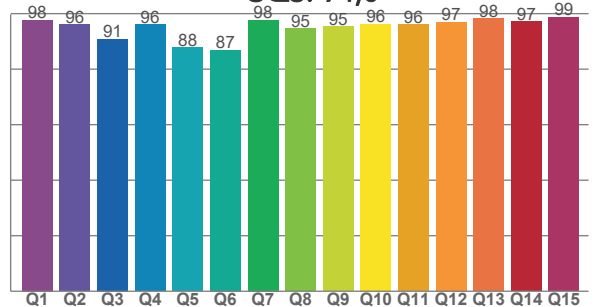
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,9	94,6	94,0	94,5	91,2	85,7	85,8	88,8	92,7	94,4	90,2	93,5	93,8	88,8	88,5	91,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,7	96,0	90,8	96,1	87,8	86,9	97,7	94,6	95,3	96,3	96,1	97,1	98,2	97,1	98,7

CQS: 94,0



## 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
5620 K	91,2	90,1	91,4	108,2	94,0	82	0,330	0,334	-0,0059

## TM30 DETAILS

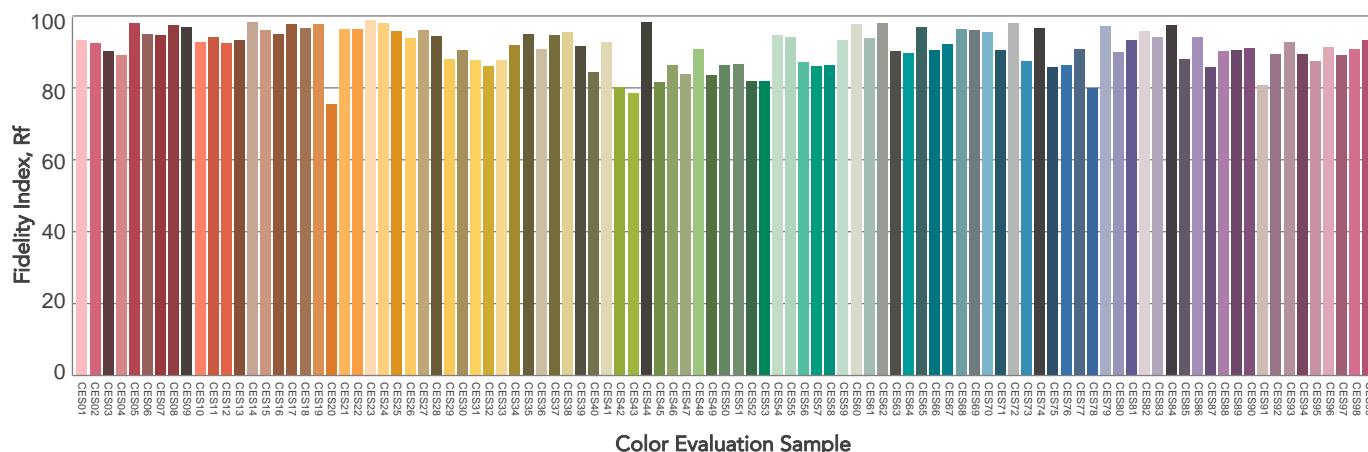
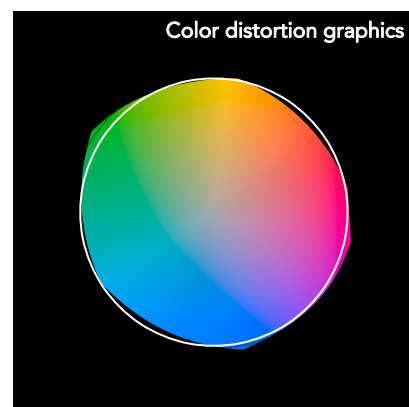
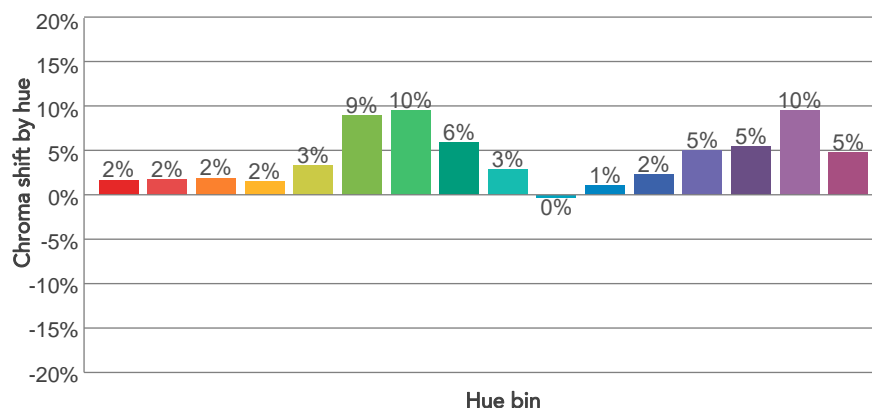
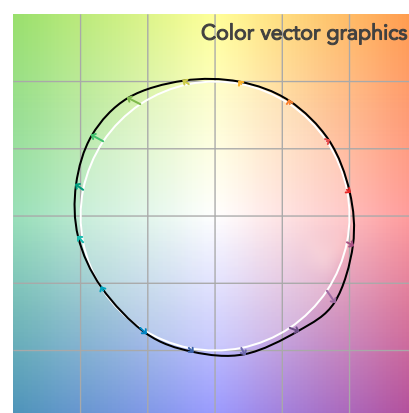
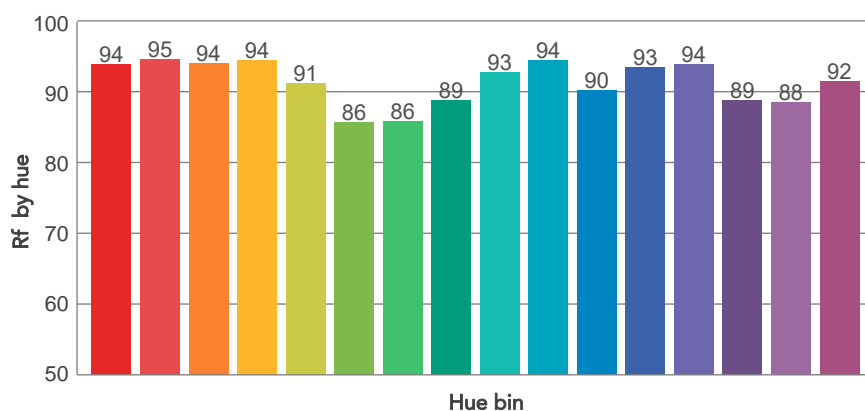
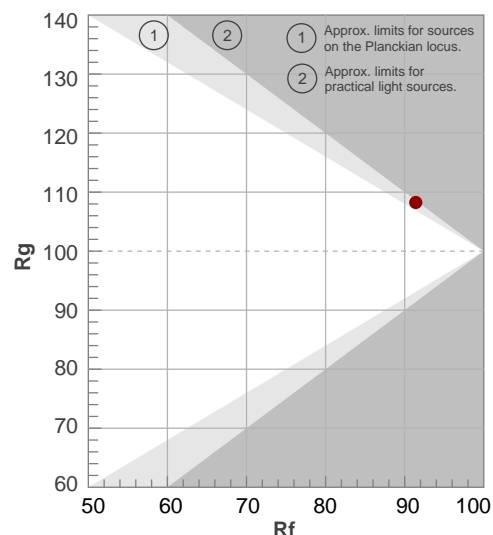
**Rf 91,4**

Fidelity index Rf

**Rg 108,2**

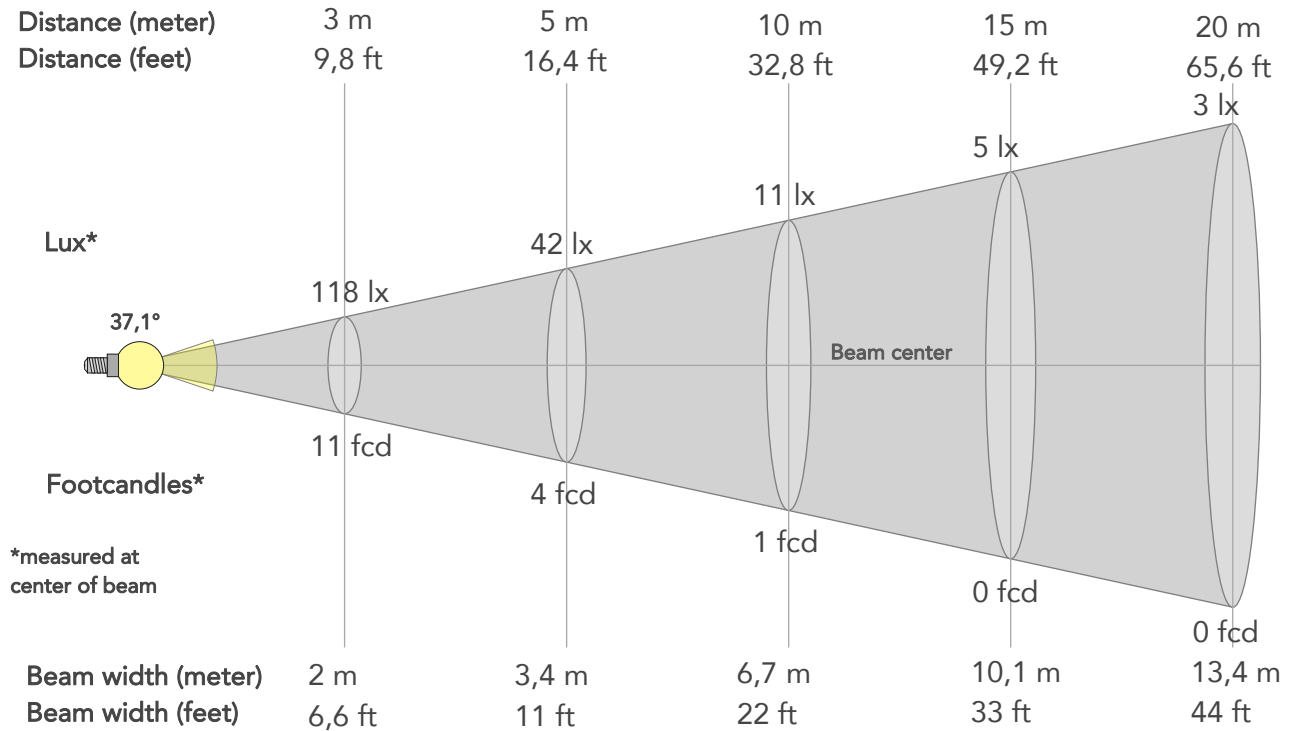
Gammut index

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



# BEAM DETAILS

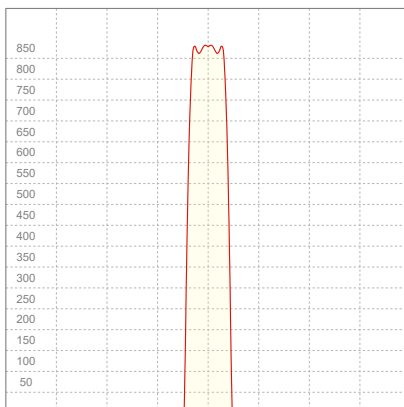
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,1°	41,6°	42,4°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1062lx	265lx	118lx	66lx	42lx	19lx	11lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	99fcd	25fcd	11fcd	6fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,4m	5m	6,7m	10,1m	13,4m	16,8m	20,1m	26,8m	33,6m
Beam wid.	2,2ft	4,4ft	6,6ft	8,8ft	11ft	16,5ft	22ft	33ft	44ft	55ft	66ft	88ft	110ft

## LINEAR DISTRIBUTION DIAGRAM



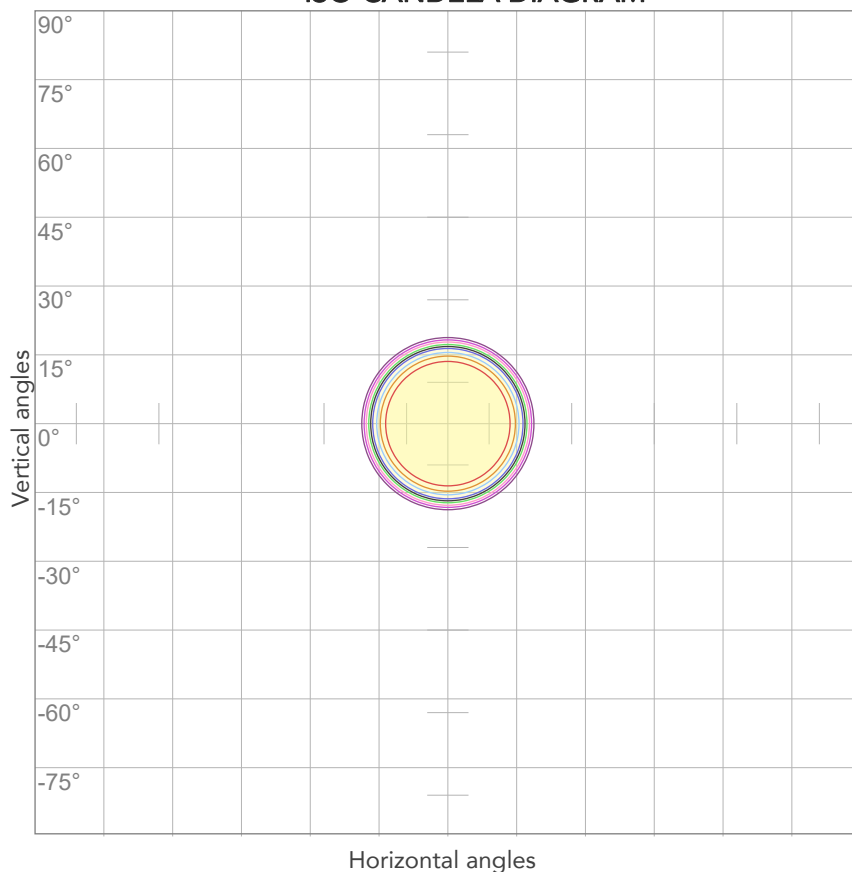
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	0,127A	26,2W	0,92	13lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



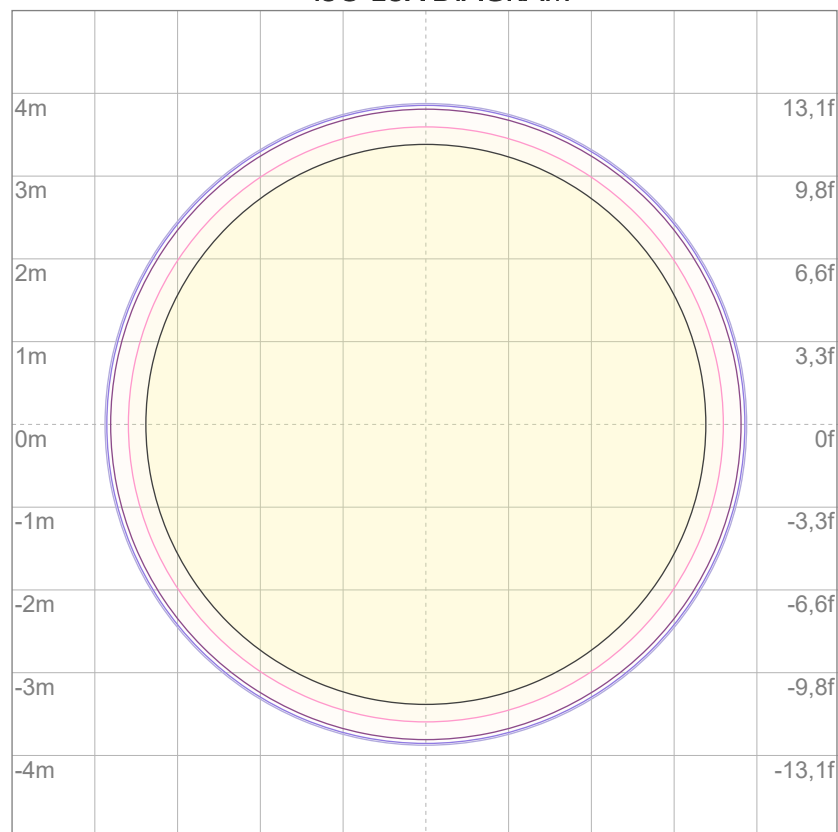
10%	106 cd
20%	212 cd
30%	319 cd
40%	425 cd
50%	531 cd
60%	637 cd
70%	743 cd
80%	849 cd

### Conditions:

Number of c-planes: 2

Candela at center: 1062 cd

## ISO LUX DIAGRAM



3%	0,319 lx
5%	0,531 lx
10%	1,06 lx
30%	3,19 lx
50%	5,31 lx

### Conditions:

Number of c-planes: 2

Lux at center: 10,6 lx

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



Total lumen output:

374 lm

Peak candela output:

5022 cd

Light quality:

CRI: 91,0

Color temperature:

5650 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Min Zoom

Target:

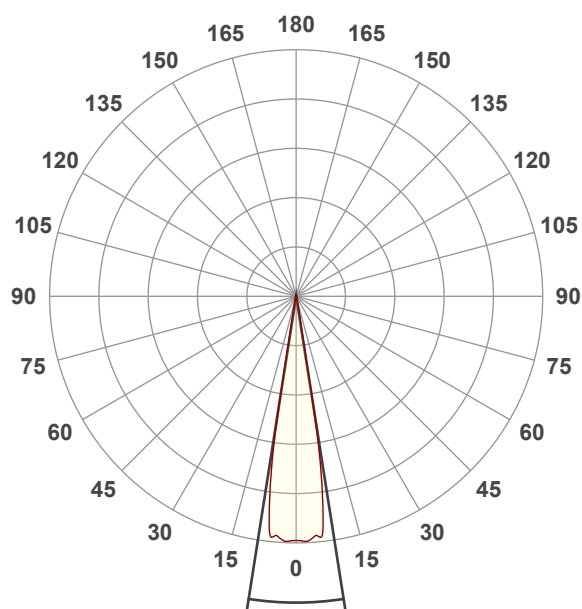
5600K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:25:05

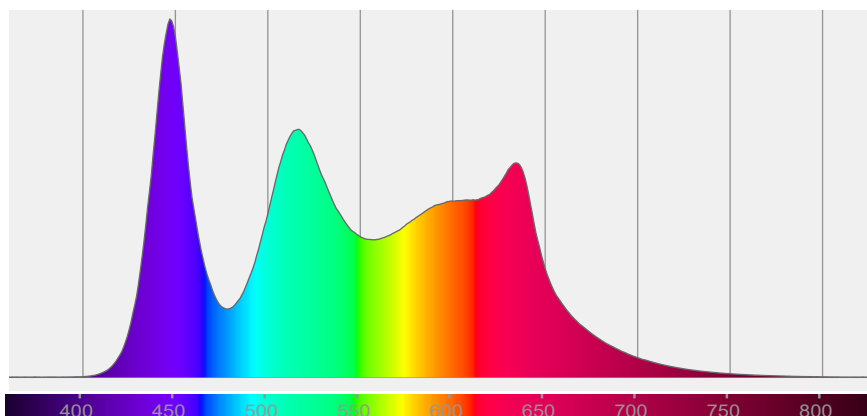


Beam angle 50%: 17,8°

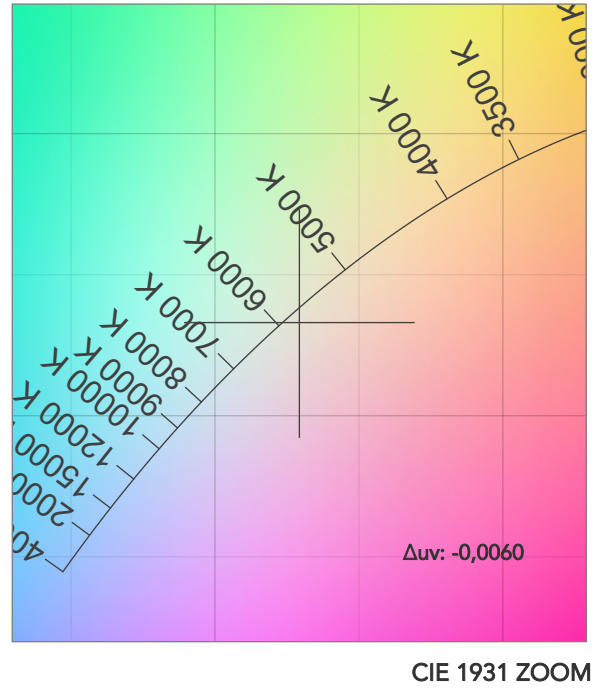
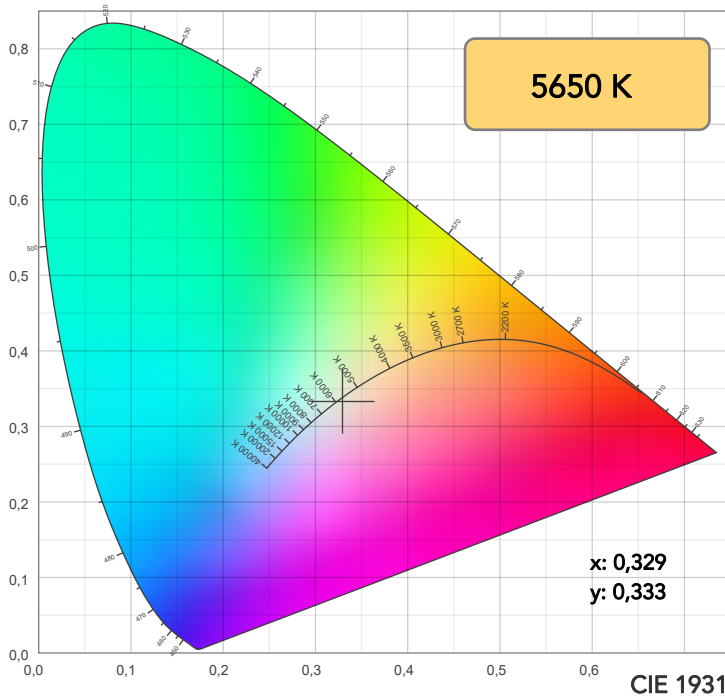
Field angle 10%: 20,5°

Cut off angle 2.5%: 22,9°

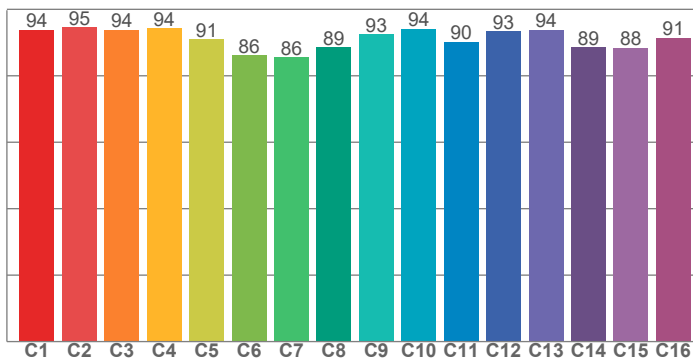
**Spectra**



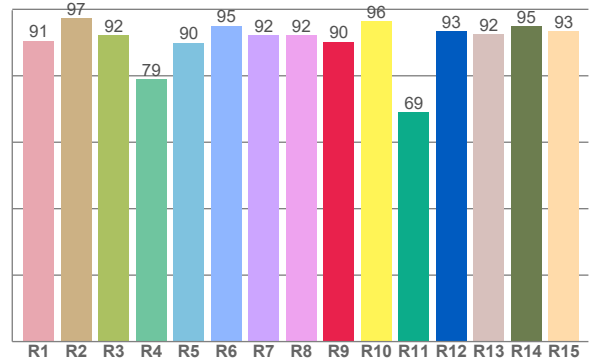
## COLOR DETAILS



TM30: 91,3



CRI: 91,0 (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
90,5	97,4	92,1	78,9	90,0	95,1	92,1	92,3	90,2	96,3	69,0	93,4	92,5	94,9	93,4

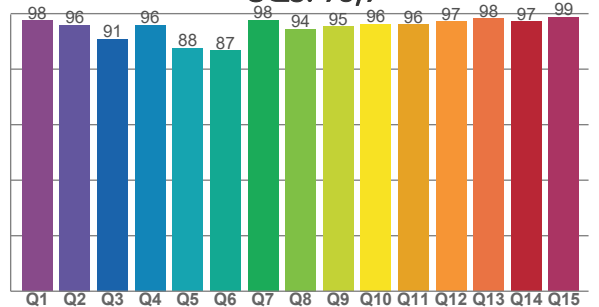
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,8	94,5	93,8	94,3	91,0	86,1	85,5	88,6	92,5	94,2	90,1	93,4	93,7	88,6	88,5	91,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,6	95,9	90,8	95,9	87,5	86,8	97,8	94,5	95,3	96,3	96,1	97,1	98,3	97,1	98,7

CQS: 93,9



## 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
5650 K	91,0	90,2	91,3	108,4	93,9	81	0,329	0,333	-0,0060

## TM30 DETAILS

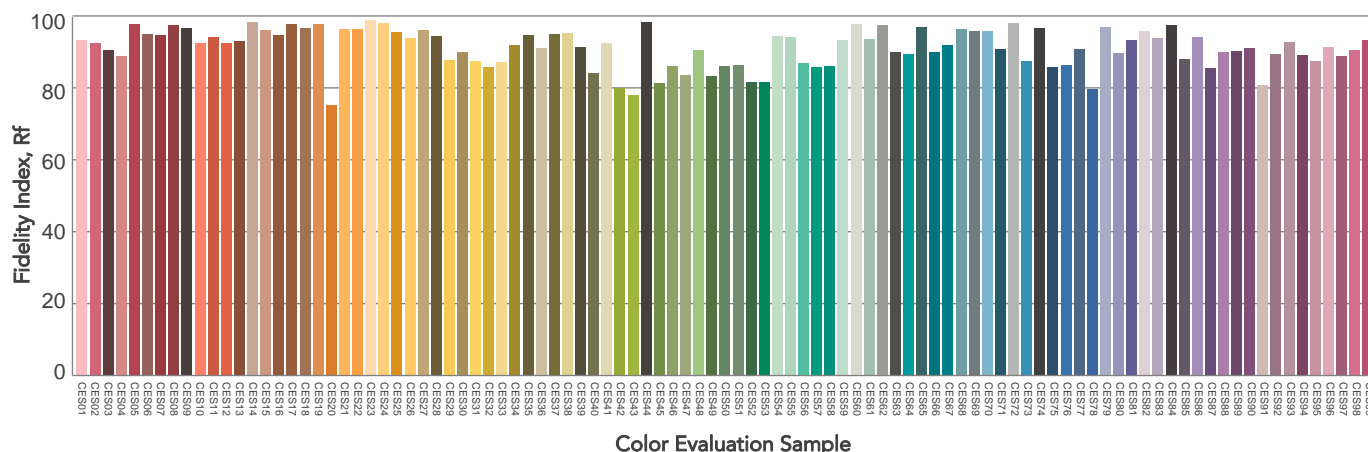
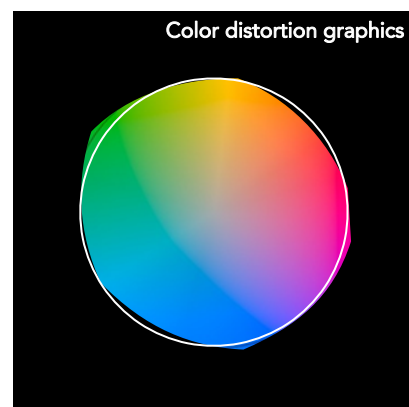
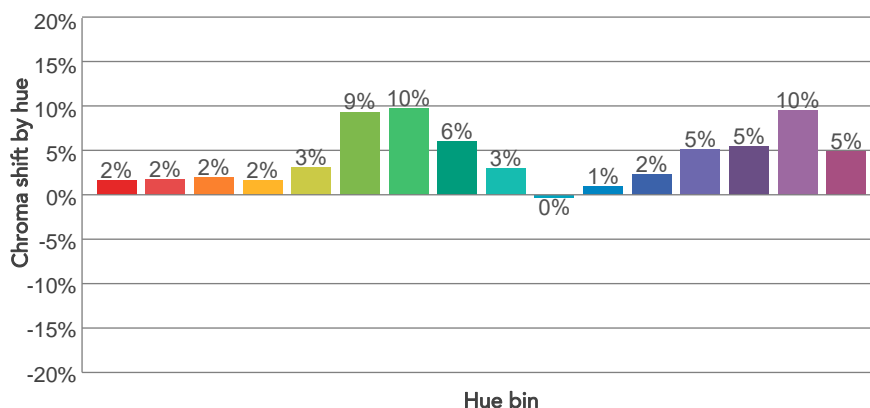
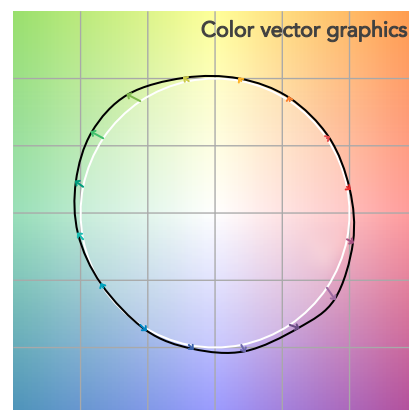
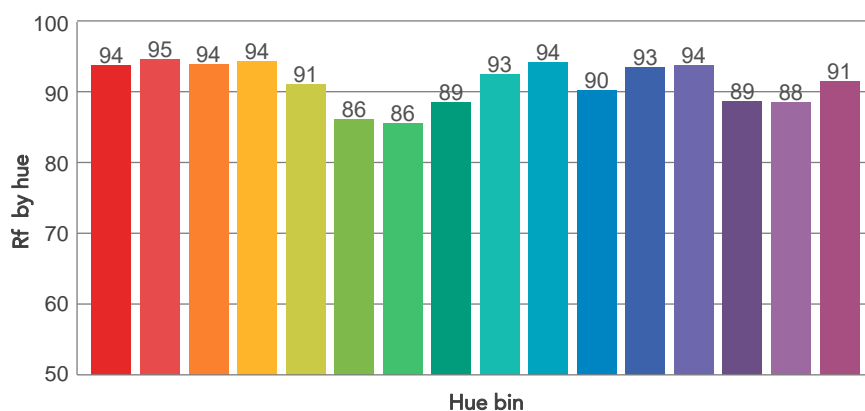
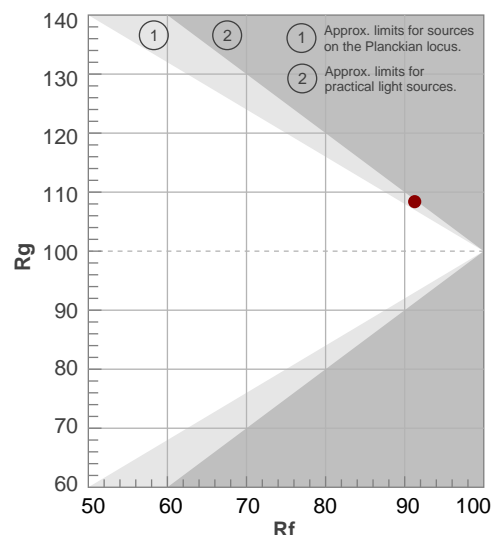
**Rf 91,3**

Fidelity index Rf

**Rg 108,4**

Gammut index

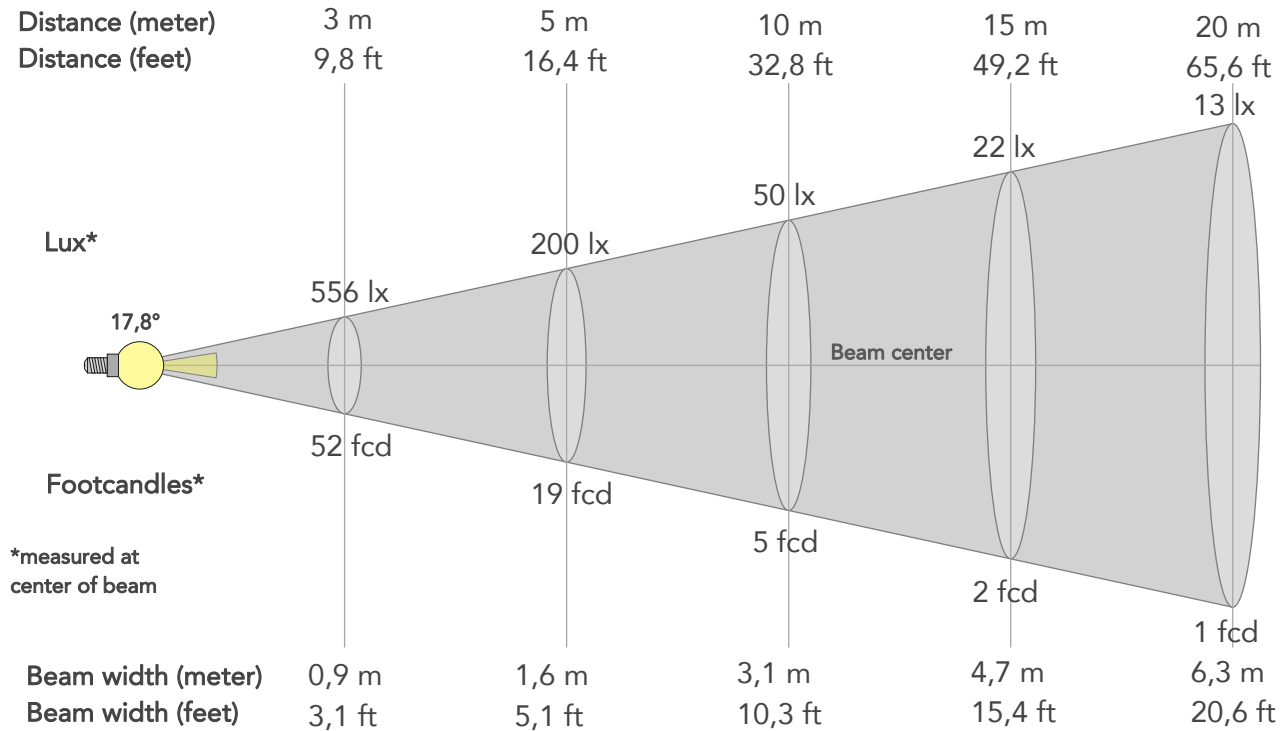
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	2%	-2%
2	95	2%	0%
3	94	2%	2%
4	94	2%	2%
5	91	3%	3%
6	86	9%	5%
7	86	10%	1%
8	89	6%	-3%
9	93	3%	-5%
10	94	0%	-3%
11	90	1%	6%
12	93	2%	3%
13	94	5%	2%
14	89	5%	4%
15	88	10%	-4%
16	91	5%	-1%



# BEAM DETAILS



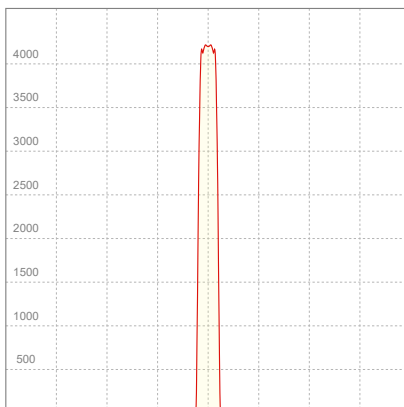
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,8°	20,5°	22,9°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	5007lx	1252lx	556lx	313lx	200lx	89lx	50lx	22lx	13lx	8lx	6lx	3lx	2lx
Footcand.	465fcd	116fcd	52fcd	29fcd	19fcd	8fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,3m	1,6m	2,4m	3,1m	4,7m	6,3m	7,8m	9,4m	12,6m	15,7m
Beam wid.	1ft	2,1ft	3,1ft	4,1ft	5,1ft	7,7ft	10,3ft	15,4ft	20,6ft	25,7ft	30,9ft	41,2ft	51,5ft

## LINEAR DISTRIBUTION DIAGRAM

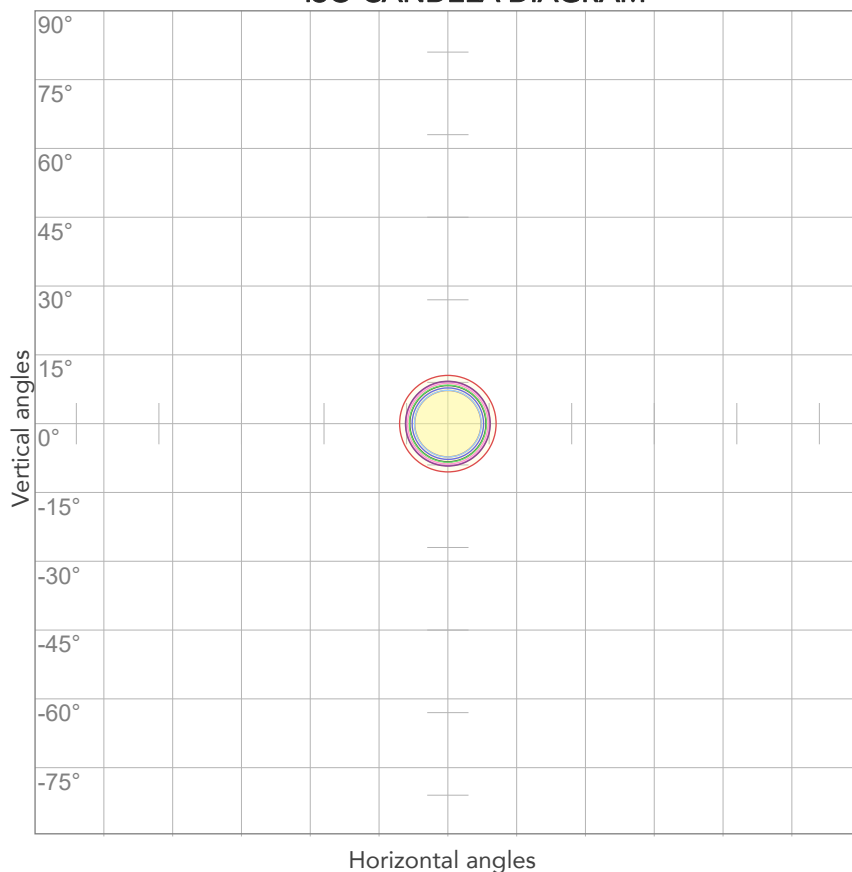


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,127A	26,3W	0,92	14lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



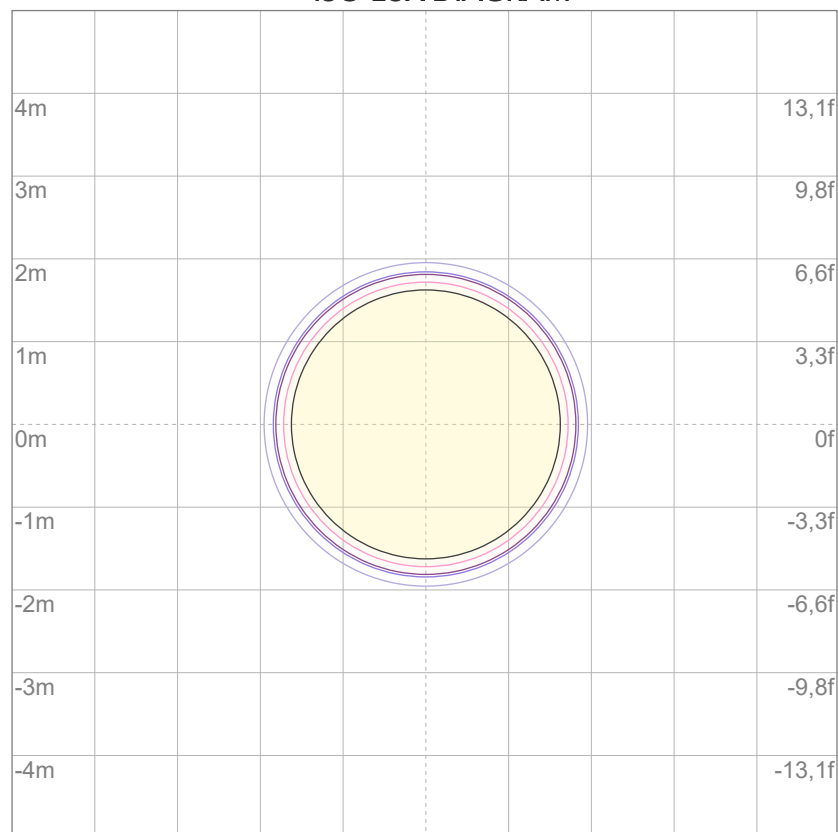
10%	501 cd
20%	1001 cd
30%	1502 cd
40%	2003 cd
50%	2503 cd
60%	3004 cd
70%	3505 cd
80%	4006 cd

### Conditions:

Number of c-planes: 2

Candela at center: 5007 cd

## ISO LUX DIAGRAM



3%	1,50 lx
5%	2,50 lx
10%	5,01 lx
30%	15,0 lx
50%	25,0 lx

### Conditions:

Number of c-planes: 2

Lux at center: 50,1 lx

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



Total lumen output:

344 lm

Peak candela output:

1084 cd

Light quality:

CRI: 90,7

Color temperature:

6009 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Max Zoom

Target:

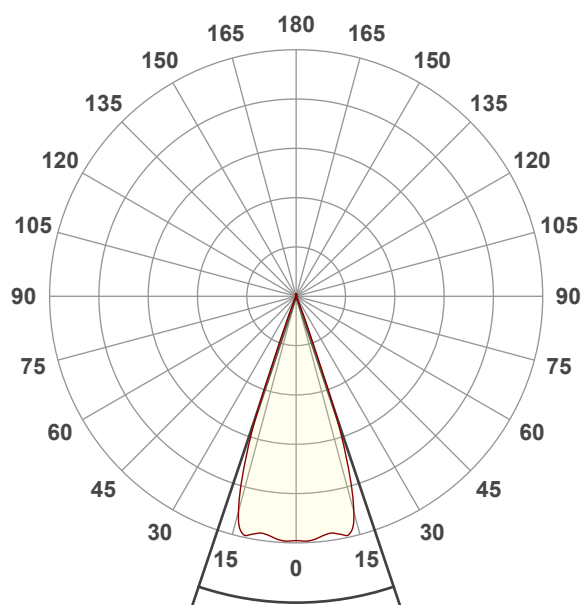
6000K

Operator:

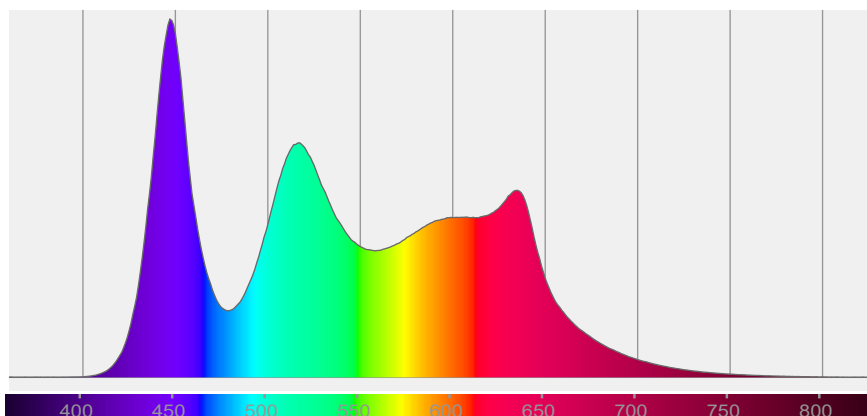
Paolo Carvone

Date and time:

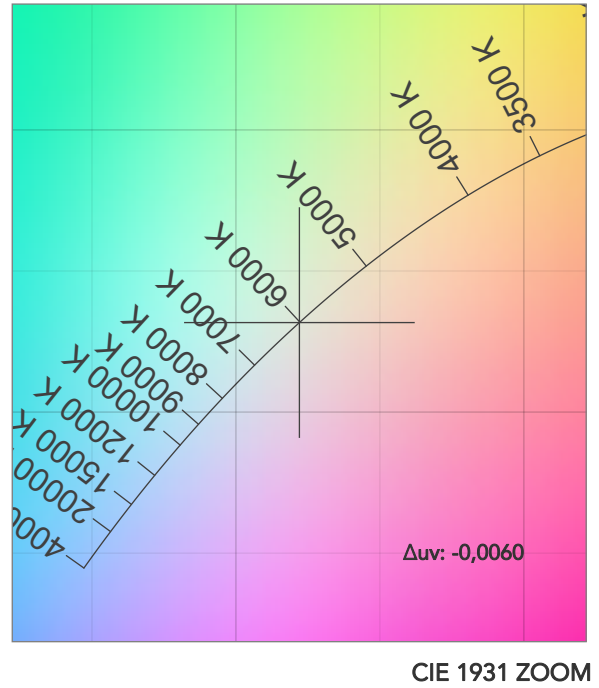
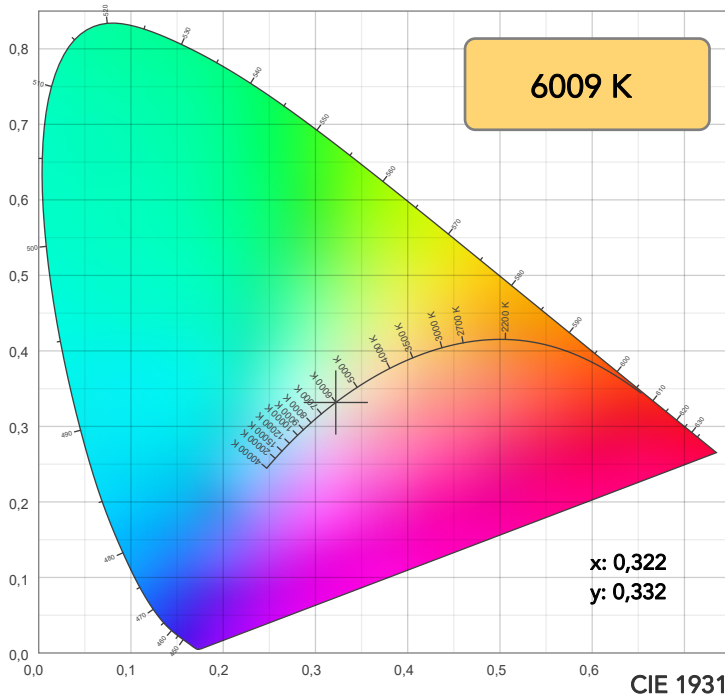
14/01/2021 11:37:35



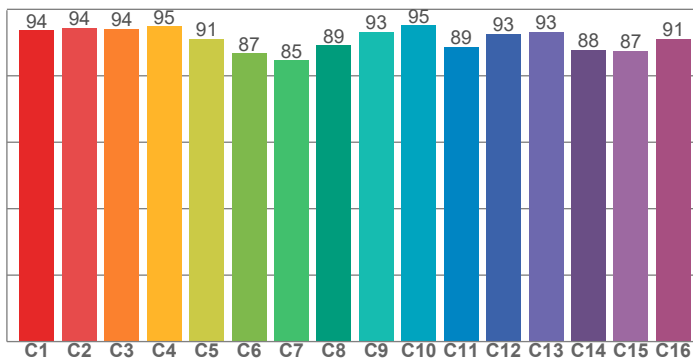
**Spectra**



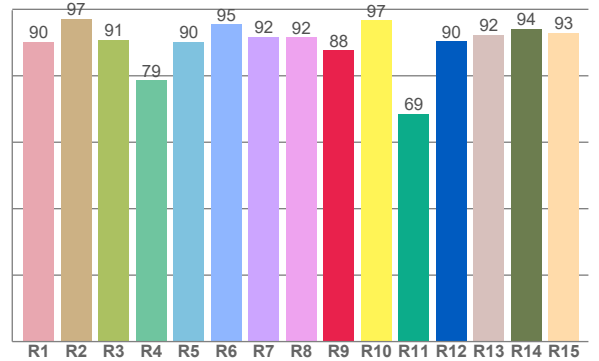
## COLOR DETAILS



TM30: 91,2



CRI: 90,7 (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
90,3	97,2	90,9	78,6	90,3	95,4	91,8	91,5	87,8	96,7	68,6	90,4	92,4	94,2	92,9

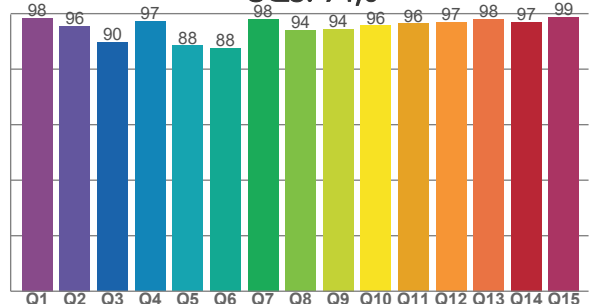
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,6	94,5	94,1	94,9	91,1	86,8	84,6	89,1	93,2	95,2	88,7	92,6	93,2	87,8	87,4	91,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,4	95,6	89,7	97,2	88,5	87,6	98,0	94,0	94,5	95,7	96,4	97,0	98,0	97,0	98,7

CQS: 94,0



## 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	$\Delta uv$
6009 K	90,7	87,8	91,2	108,5	94,0	82	0,322	0,332	-0,0060

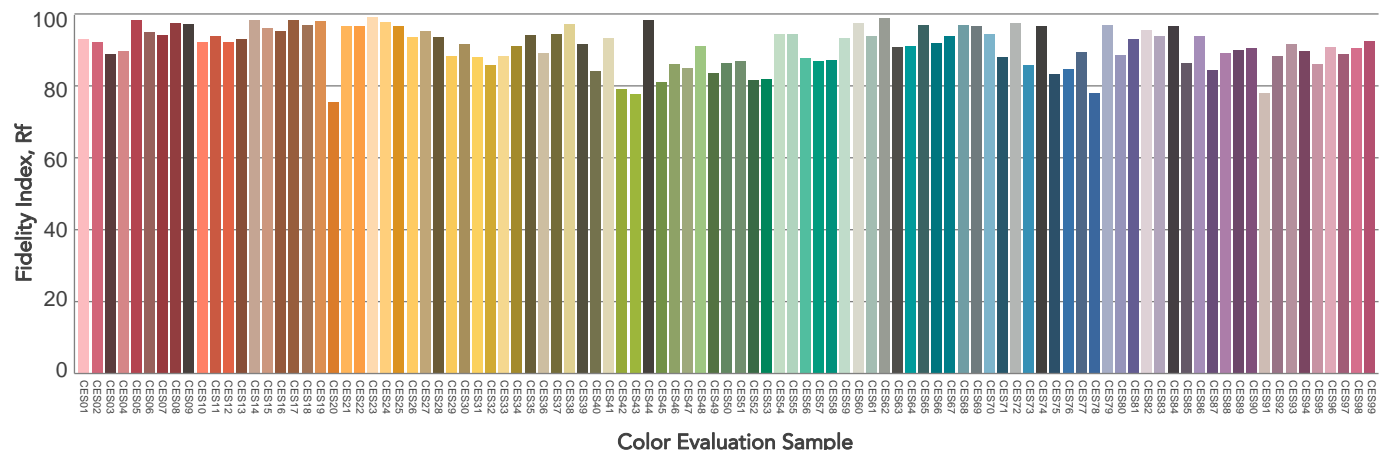
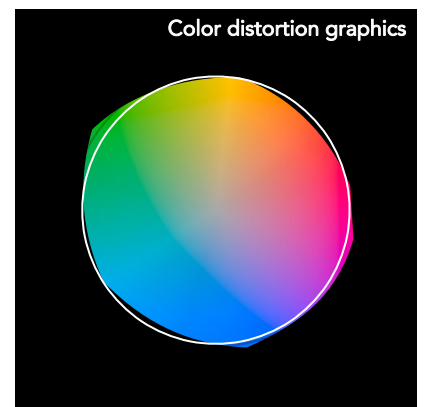
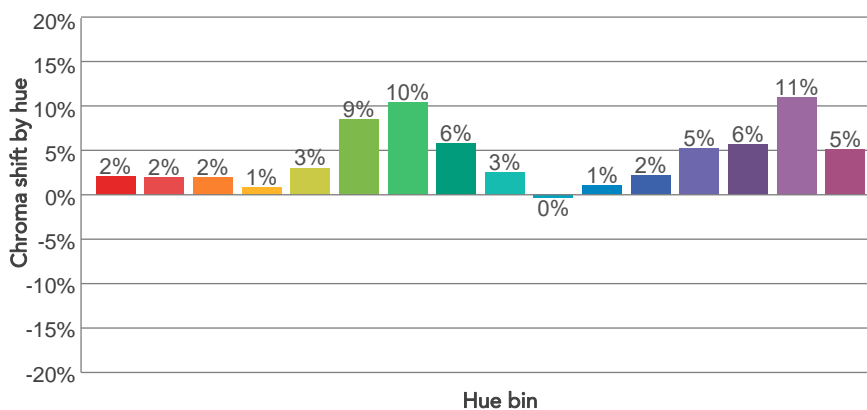
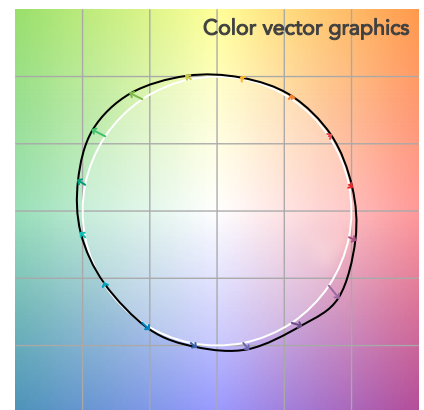
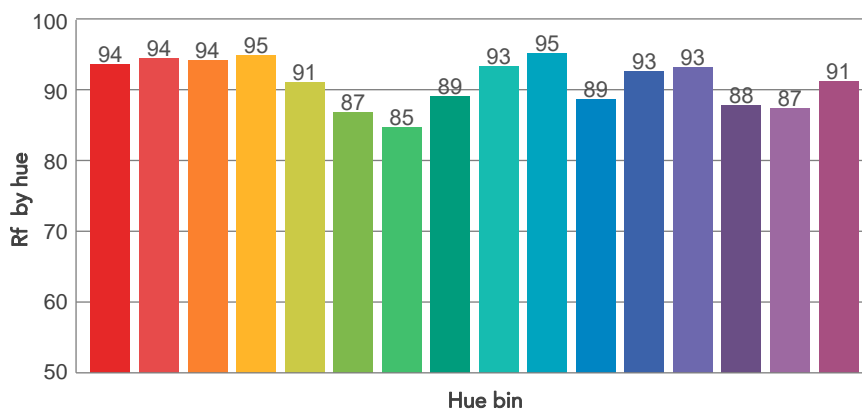
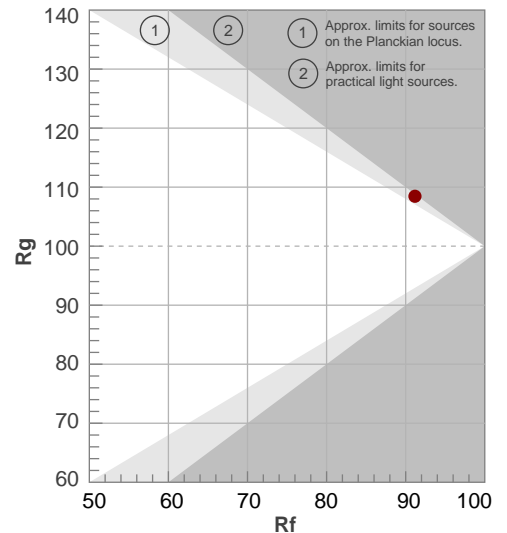


# TM30 DETAILS

**Rf 91,2**  
Fidelity index Rf

**Rg 108,5**  
Gammut index

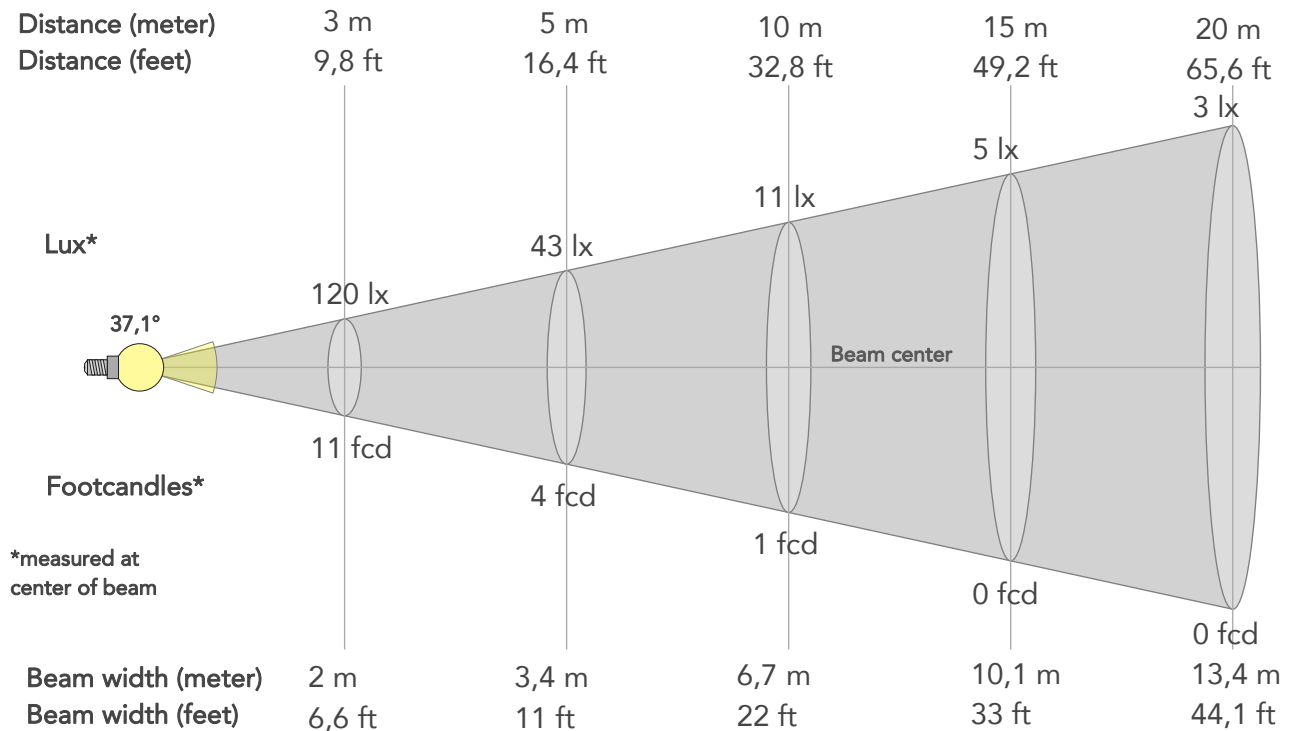
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	2%	-2%
2	94	2%	0%
3	94	2%	2%
4	95	1%	2%
5	91	3%	3%
6	87	9%	5%
7	85	10%	1%
8	89	6%	-2%
9	93	3%	-4%
10	95	0%	-2%
11	89	1%	7%
12	93	2%	4%
13	93	5%	3%
14	88	6%	5%
15	87	11%	-3%
16	91	5%	-1%



# BEAM DETAILS



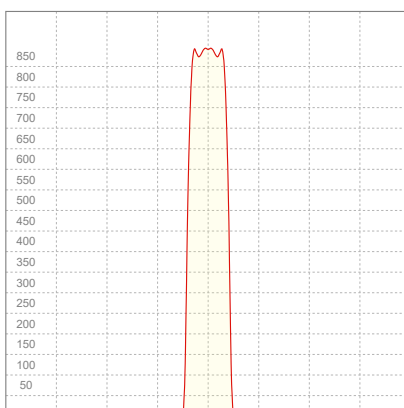
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,1°	42°	44,1°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1081lx	270lx	120lx	68lx	43lx	19lx	11lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	100fcd	25fcd	11fcd	6fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,4m	5m	6,7m	10,1m	13,4m	16,8m	20,2m	26,9m	33,6m
Beam wid.	2,2ft	4,4ft	6,6ft	8,8ft	11ft	16,5ft	22ft	33ft	44,1ft	55,1ft	66,1ft	88,1ft	110,2ft

## LINEAR DISTRIBUTION DIAGRAM

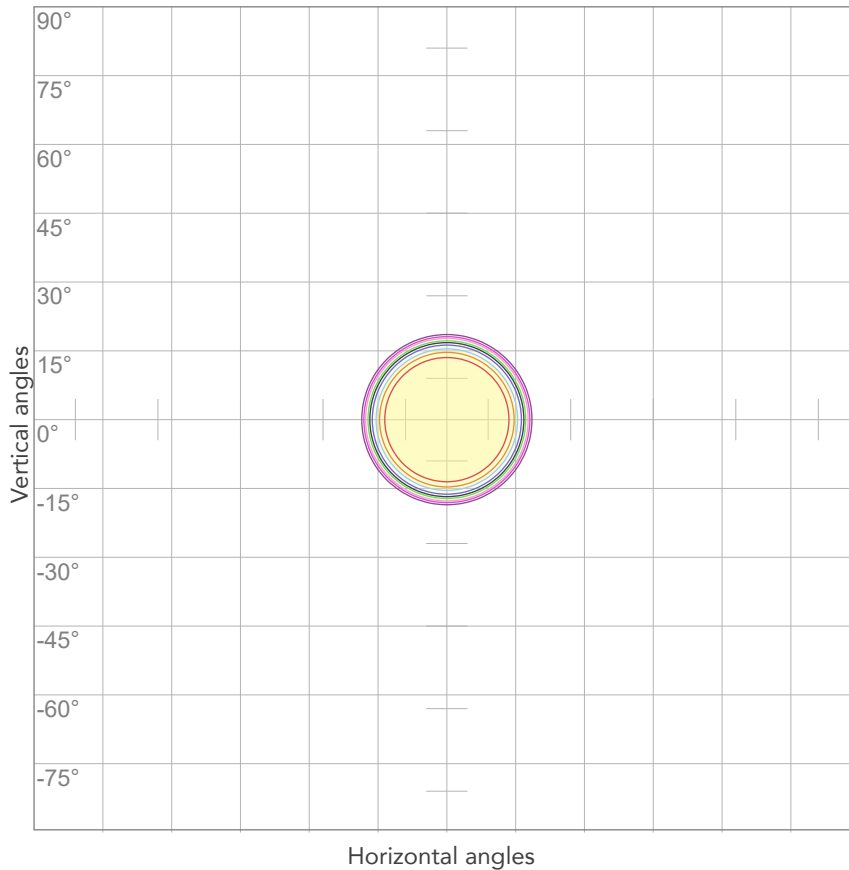


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,129A	26,7W	0,93	13lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



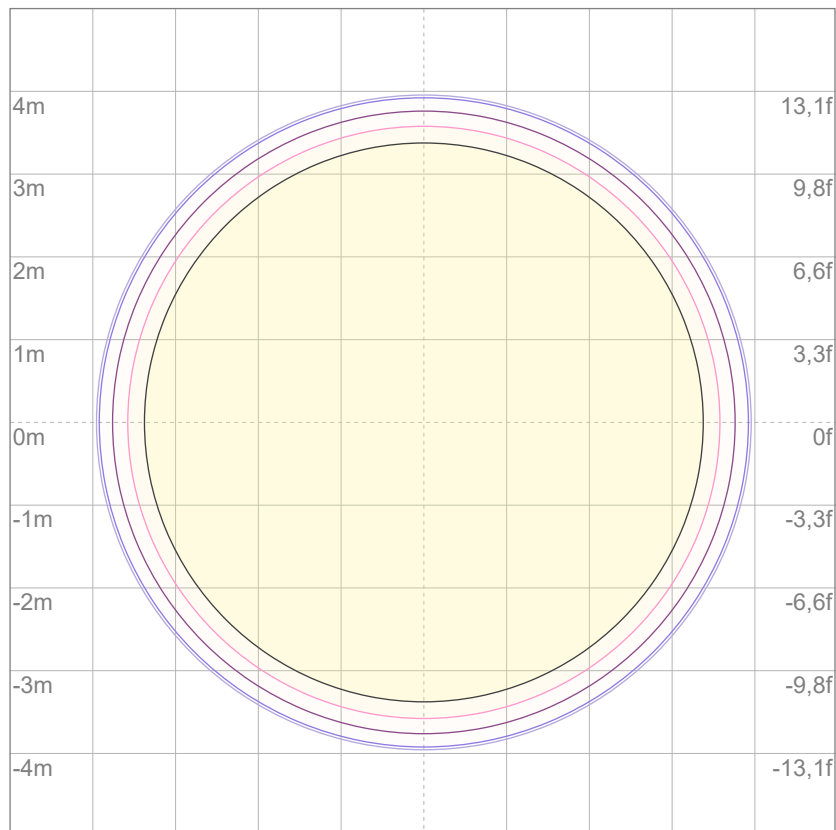
10%	108 cd
20%	216 cd
30%	324 cd
40%	432 cd
50%	540 cd
60%	648 cd
70%	757 cd
80%	865 cd

### Conditions:

Number of c-planes: 2

Candela at center: 1081 cd

## ISO LUX DIAGRAM



3%	0,324 lx
5%	0,540 lx
10%	1,08 lx
30%	3,24 lx
50%	5,40 lx

### Conditions:

Number of c-planes: 2

Lux at center: 10,8 lx

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



Total lumen output:

376 lm

Peak candela output:

5106 cd

Light quality:

CRI: 90,7

Color temperature:

6028 K

**PRODUCT NAME:**

ECLDISPLAYFC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 20-40 Min Zoom

Target:

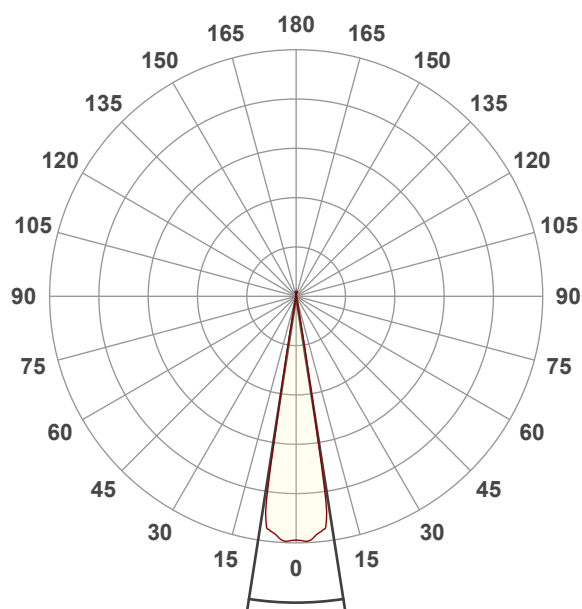
6000K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:26:49

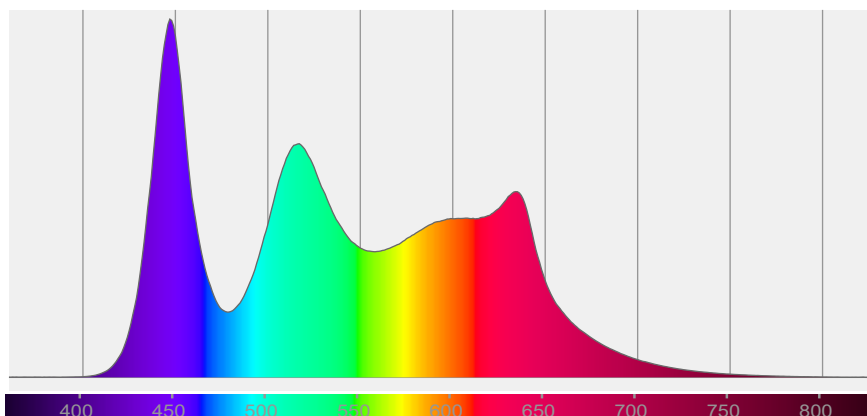


Beam angle 50%: 17,7°

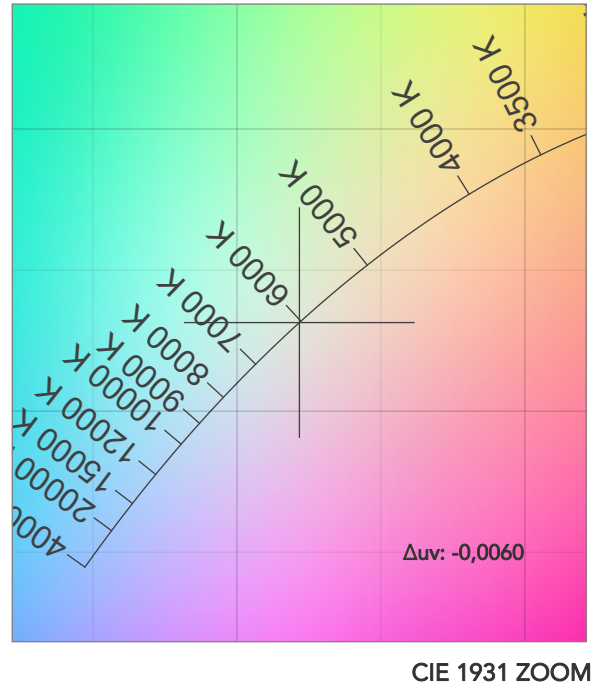
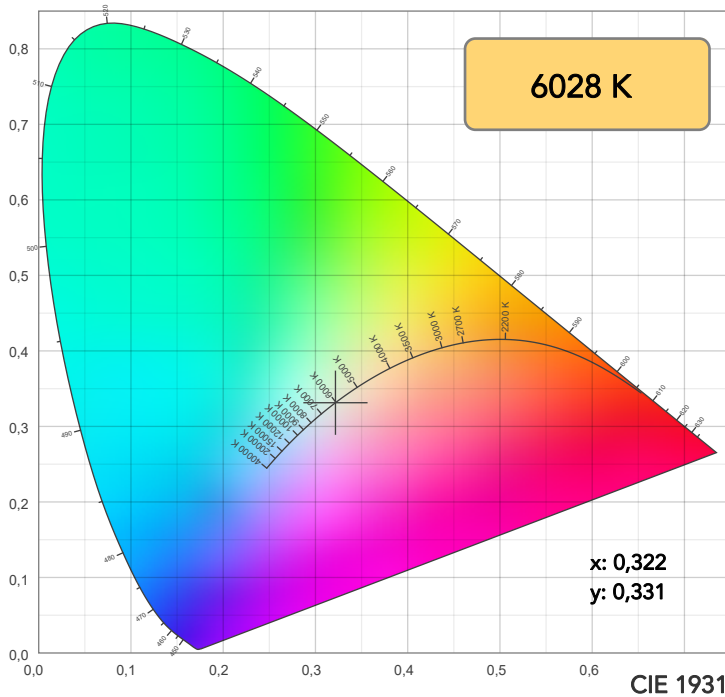
Field angle 10%: 19,6°

Cut off angle 2.5%: 20,2°

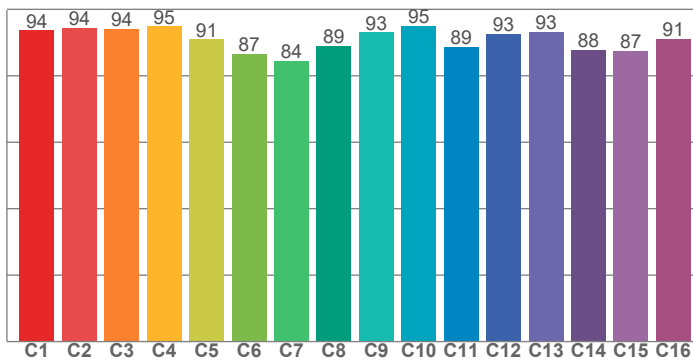
**Spectra**



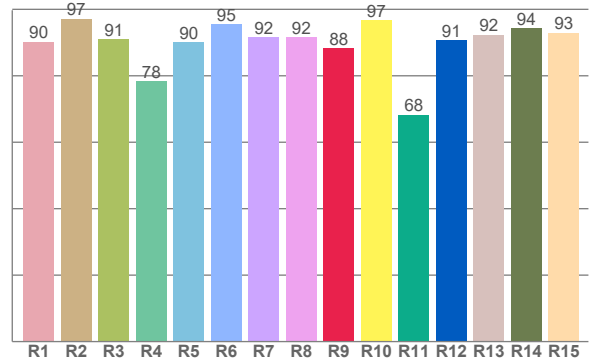
# COLOR DETAILS



TM30: 91,1



CRI: 90,7 (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
90,3	97,2	91,0	78,4	90,2	95,4	91,7	91,6	88,3	96,7	68,3	90,8	92,4	94,3	93,0

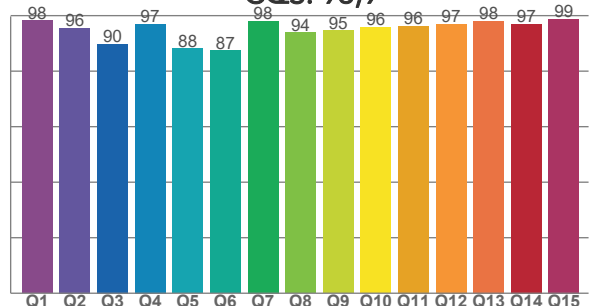
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,6	94,4	94,1	94,9	91,0	86,6	84,4	88,9	93,1	95,0	88,8	92,6	93,2	87,8	87,5	91,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,2	95,6	89,8	97,0	88,2	87,5	98,0	93,9	94,6	95,8	96,3	97,0	98,1	97,0	98,7

CQS: 93,9



## 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	$\Delta uv$
6028 K	90,7	88,3	91,1	108,5	93,9	81	0,322	0,331	-0,0060

## TM30 DETAILS

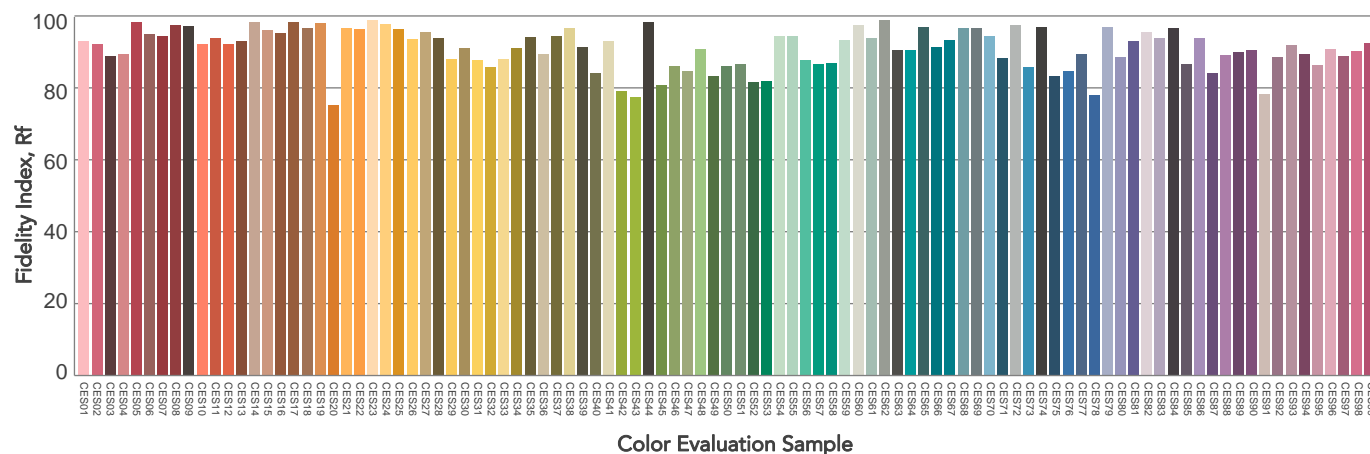
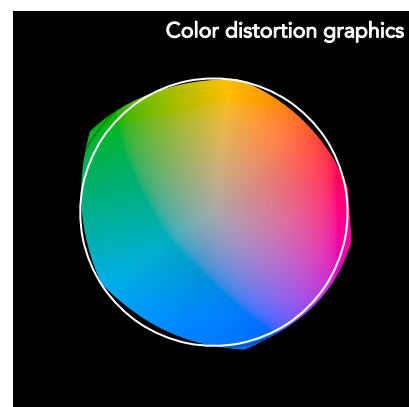
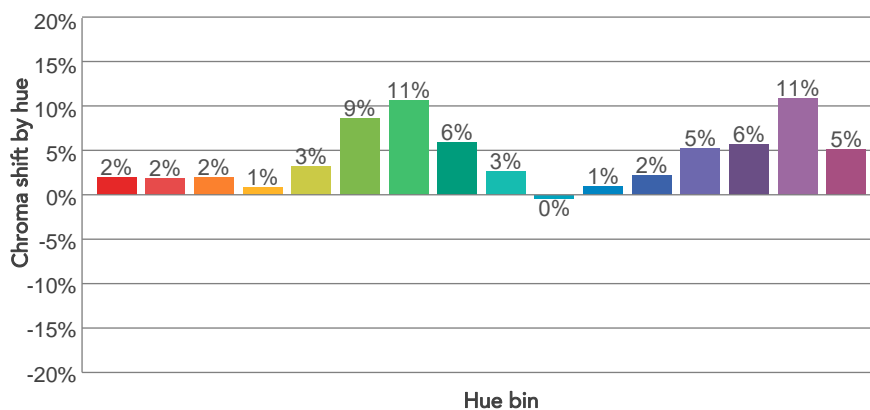
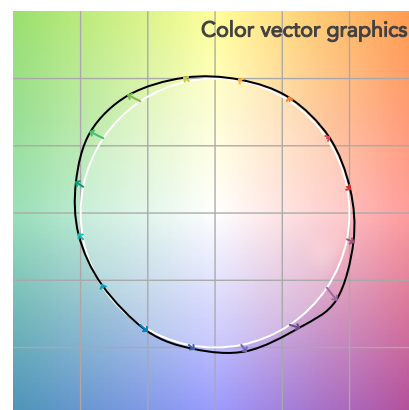
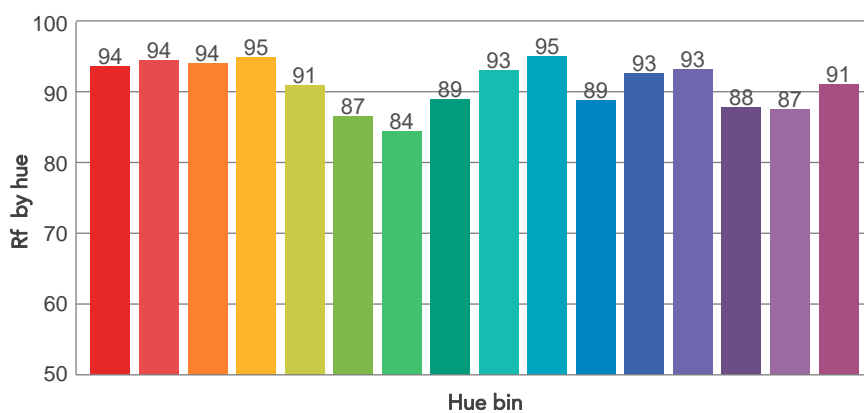
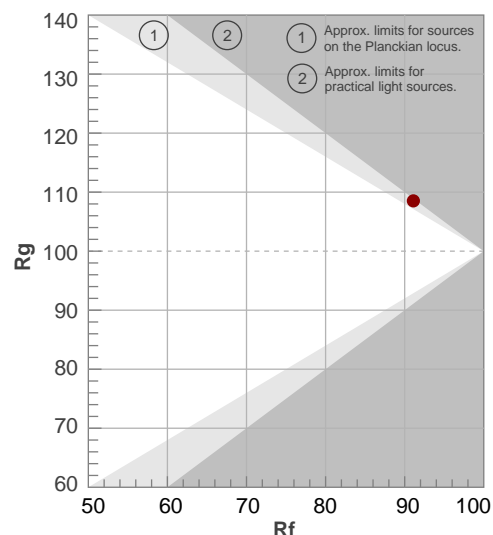
**Rf 91,1**

Fidelity index Rf

**Rg 108,5**

Gammut index

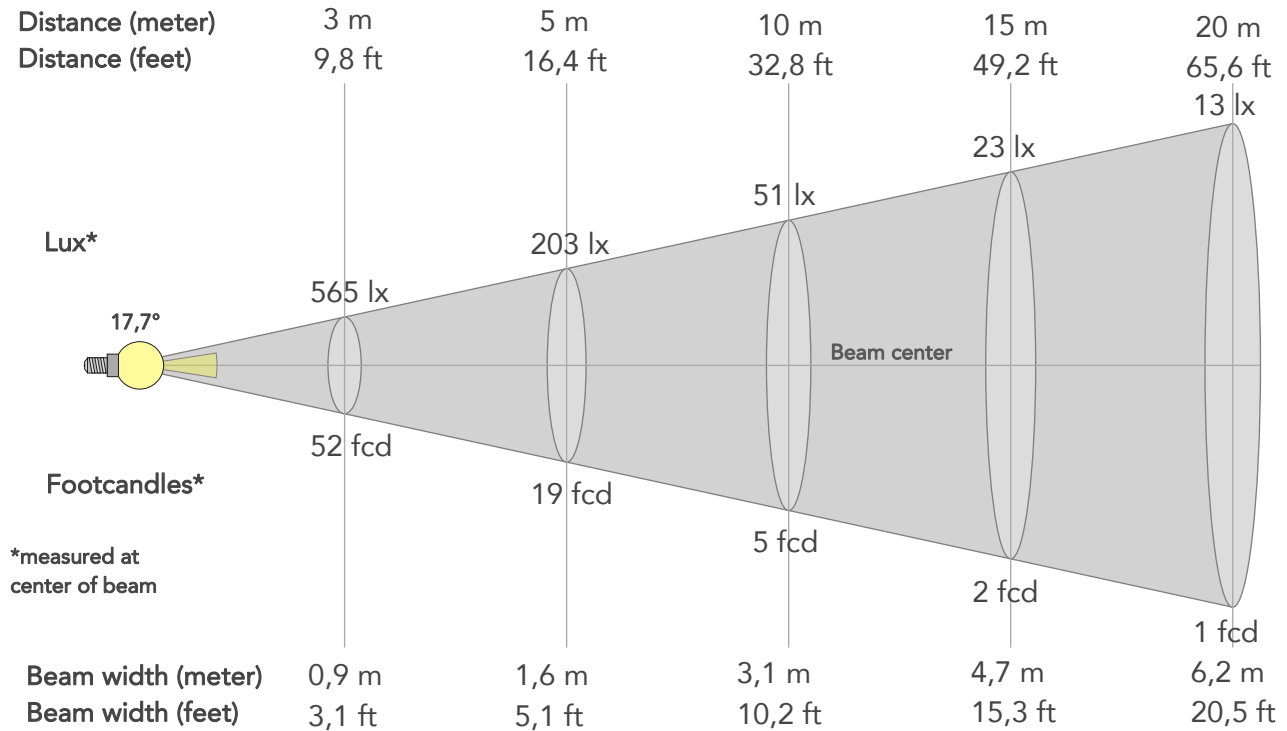
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	2%	-2%
2	94	2%	0%
3	94	2%	2%
4	95	1%	2%
5	91	3%	3%
6	87	9%	5%
7	84	11%	1%
8	89	6%	-2%
9	93	3%	-4%
10	95	0%	-2%
11	89	1%	7%
12	93	2%	4%
13	93	5%	3%
14	88	6%	5%
15	87	11%	-3%
16	91	5%	-1%



# BEAM DETAILS



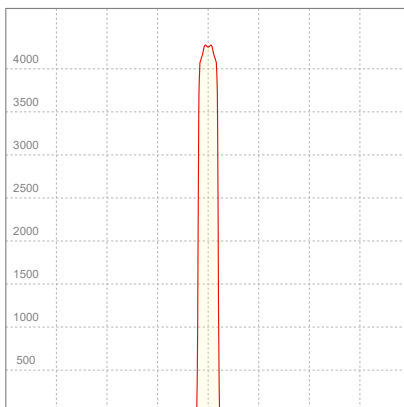
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,7°	19,6°	20,2°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	5081lx	1270lx	565lx	318lx	203lx	90lx	51lx	23lx	13lx	8lx	6lx	3lx	2lx
Footcand.	472fcd	118fcd	52fcd	30fcd	19fcd	8fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,6m	2,3m	3,1m	4,7m	6,2m	7,8m	9,4m	12,5m	15,6m
Beam wid.	1ft	2,1ft	3,1ft	4,1ft	5,1ft	7,7ft	10,2ft	15,3ft	20,5ft	25,6ft	30,7ft	40,9ft	51,2ft

## LINEAR DISTRIBUTION DIAGRAM

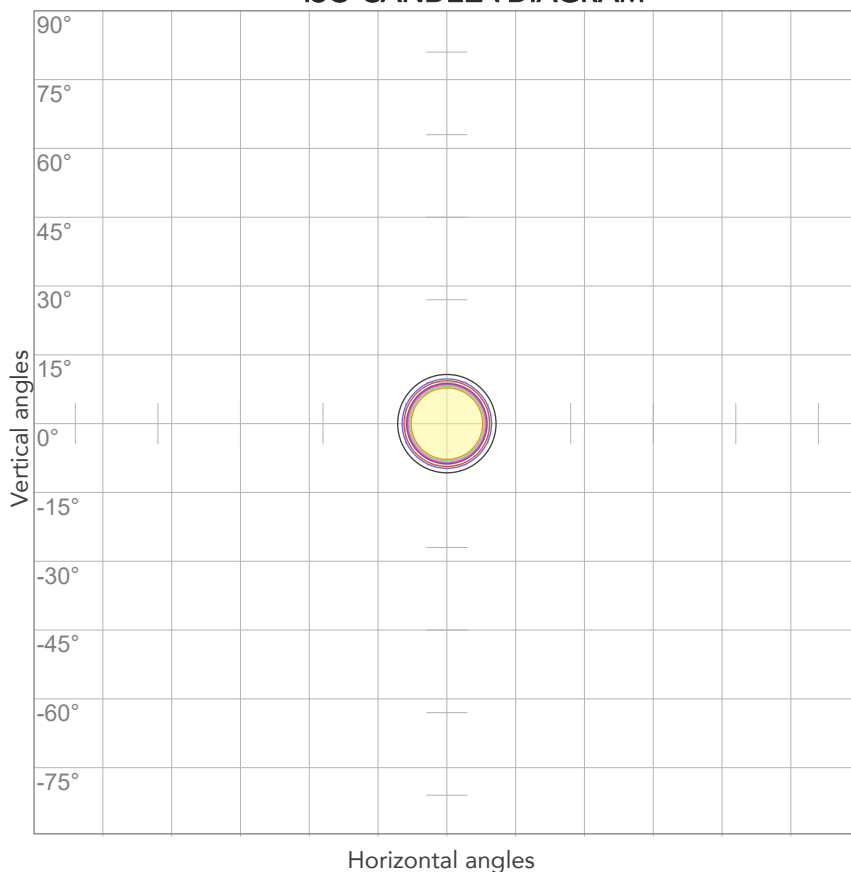


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,130A	26,8W	0,92	14lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



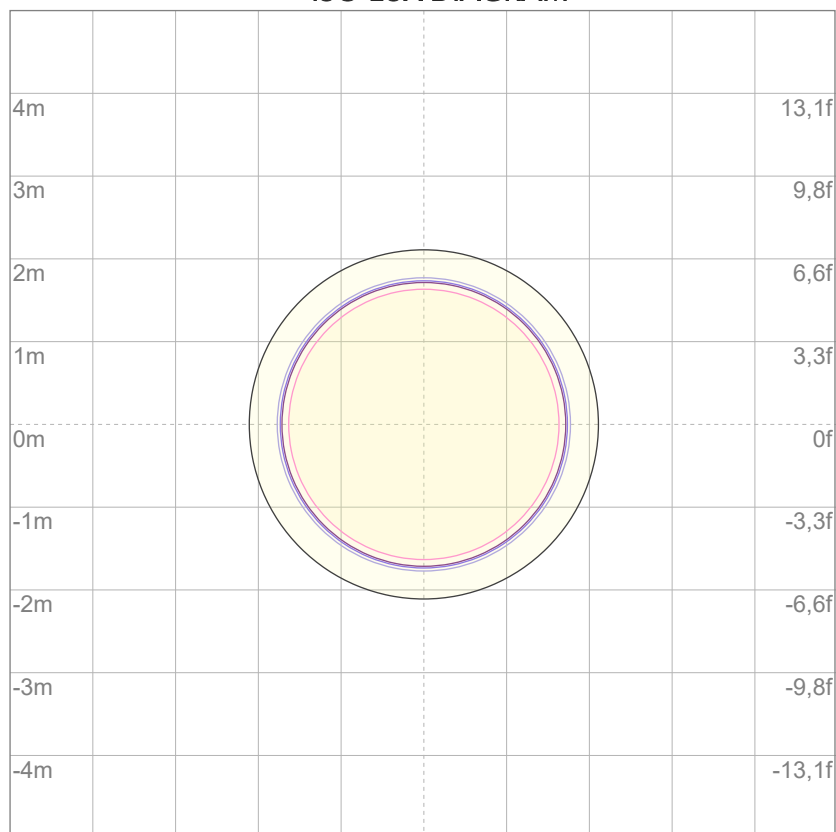
10%	508 cd
20%	1016 cd
30%	1524 cd
40%	2032 cd
50%	2541 cd
60%	3049 cd
70%	3557 cd
80%	4065 cd

### Conditions:

Number of c-planes: 2

Candela at center: 5081 cd

## ISO LUX DIAGRAM



3%	1,52 lx
5%	2,54 lx
10%	5,08 lx
30%	15,2 lx
50%	25,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 50,8 lx

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