

# Photometric Test Report



## **EclDisplay DATFC**

### **PROFILE LENS 18°**

40W RGB+WW LED gallery light, Tunable  
White and Full Colour with data control  
(DMX, Dali T8, knob-dimming)

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## TESTING PROCESS

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

### **Prolights measurement instrument**

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

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

### **Prolights measurement software**

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

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



Total lumen output:

307 lm

Peak candela output:

5345 cd

Light quality:

CRI: 91,6

Color temperature:

6367 K

**PRODUCT NAME:**

ECLDISPLAY FC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

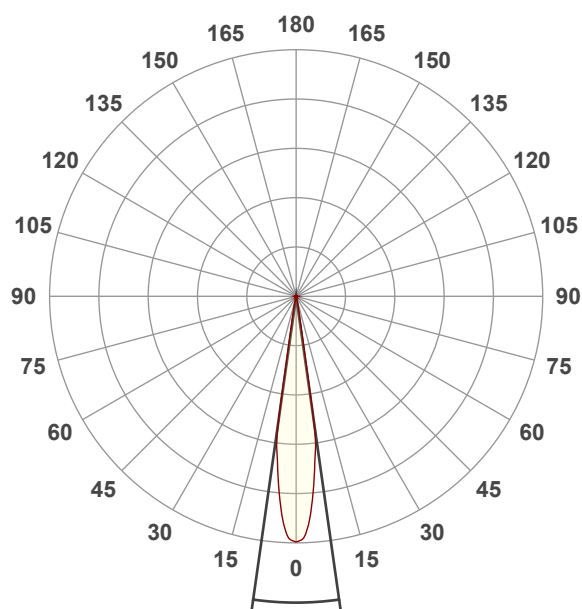
Full On

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:34:22

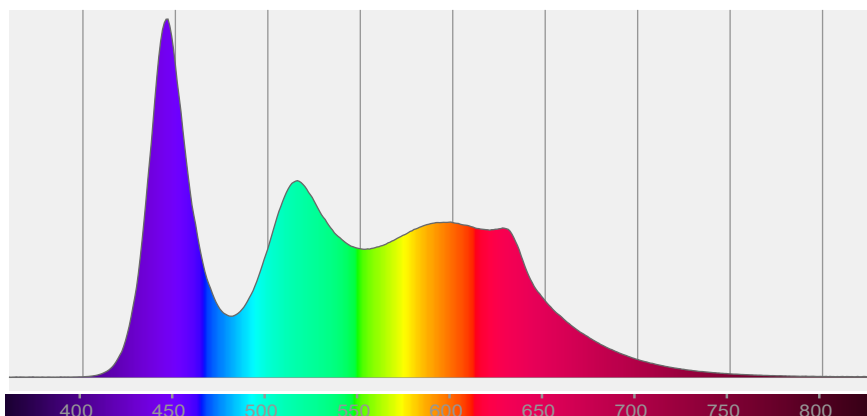


Beam angle 50%: 16,1°

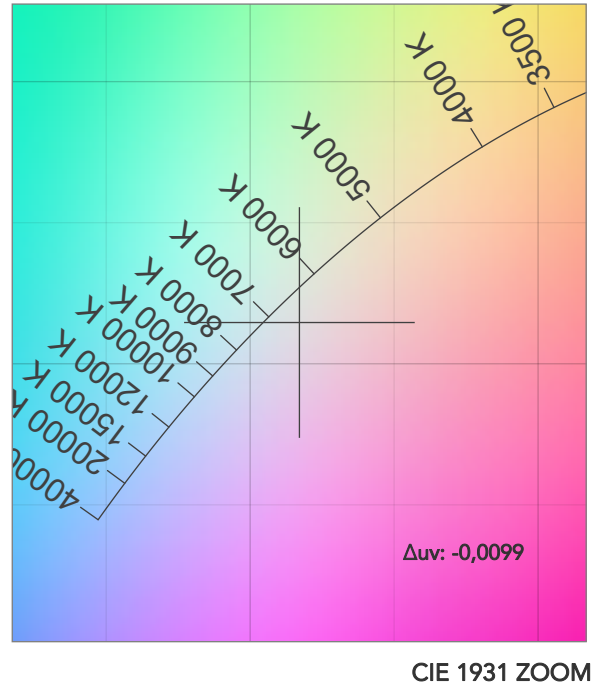
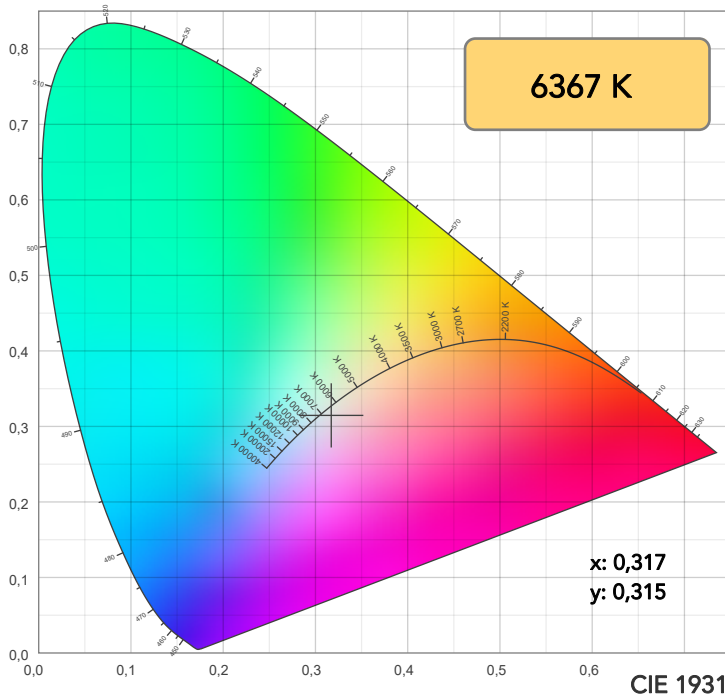
Field angle 10%: 18,9°

Cut off angle 2.5%: 21,2°

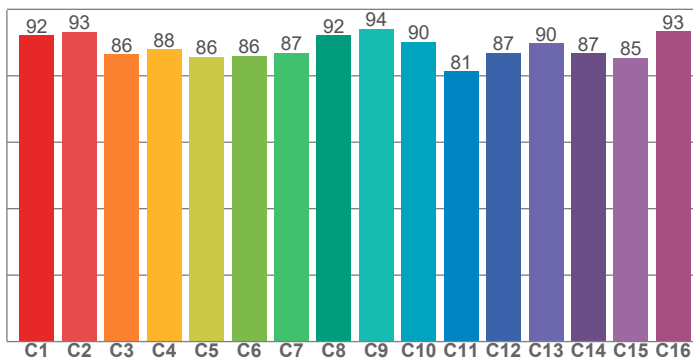
**Spectra**



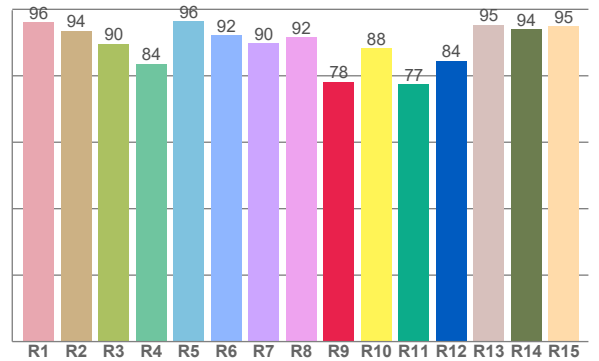
# COLOR DETAILS



**TM30: 88,4**



**CRI: 91,6 (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
96,2	93,6	89,7	83,6	96,4	92,2	89,9	91,5	78,2	88,3	77,5	84,5	95,4	93,9	94,9

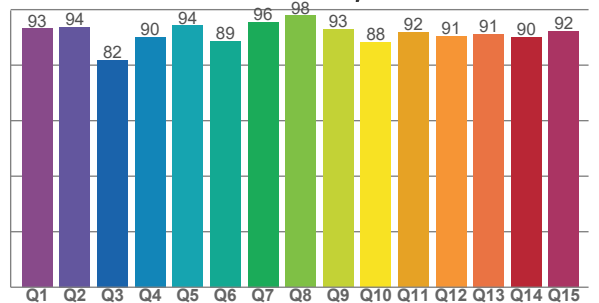
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,2	93,2	86,4	88,0	85,8	86,0	87,0	92,1	94,2	90,2	81,3	86,9	89,8	86,7	85,3	93,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,2	93,8	81,9	90,2	94,2	88,7	95,5	97,8	92,9	88,4	91,8	90,5	91,2	90,0	92,2

**CQS: 90,8**



## COLOR PARAMETERS

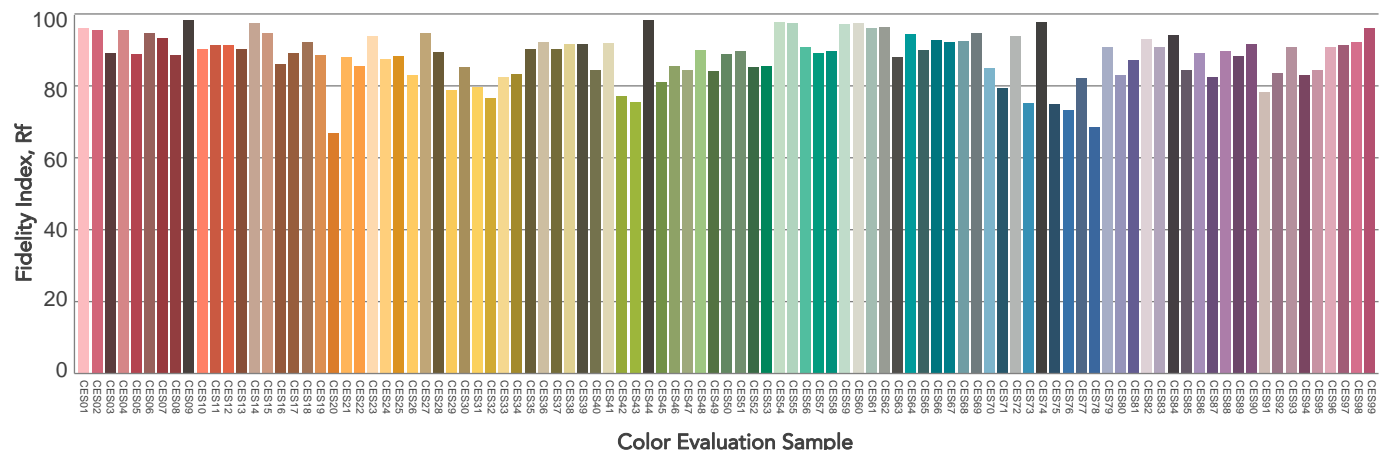
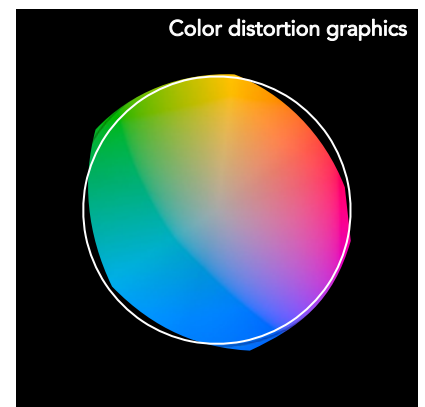
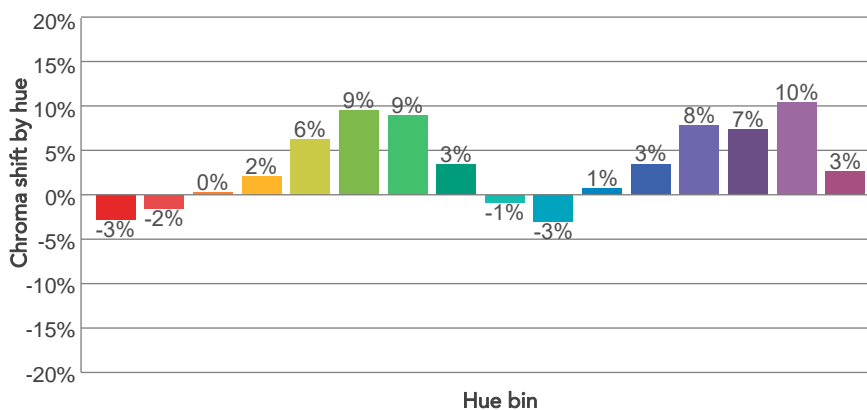
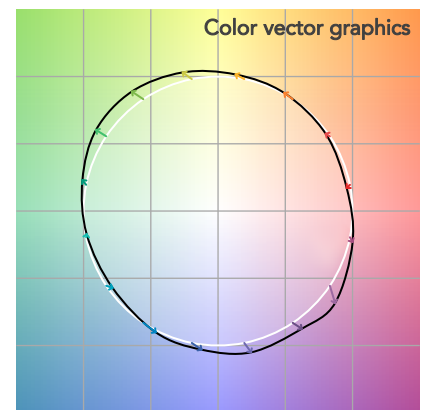
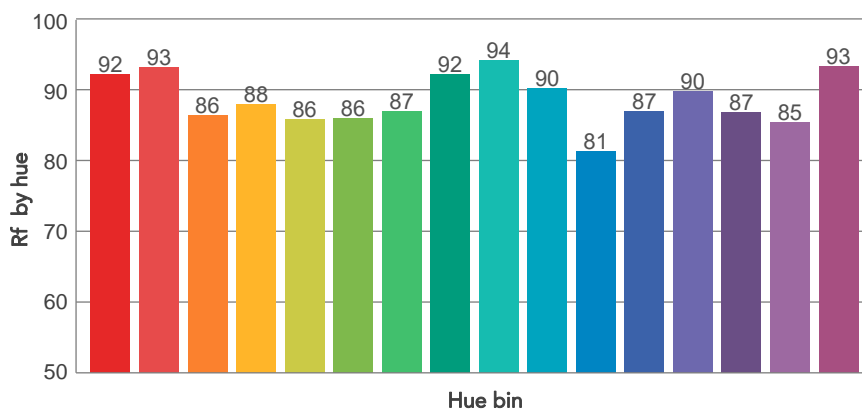
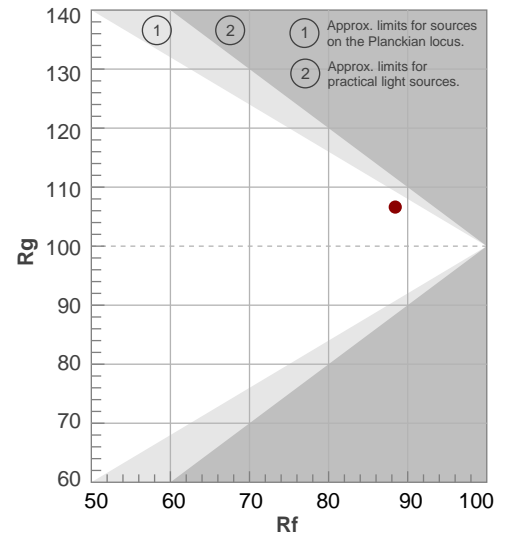
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6367 K	91,6	78,2	88,4	106,6	90,8	84	0,317	0,315	-0,0099

# TM30 DETAILS

**Rf 88,4**  
Fidelity index Rf

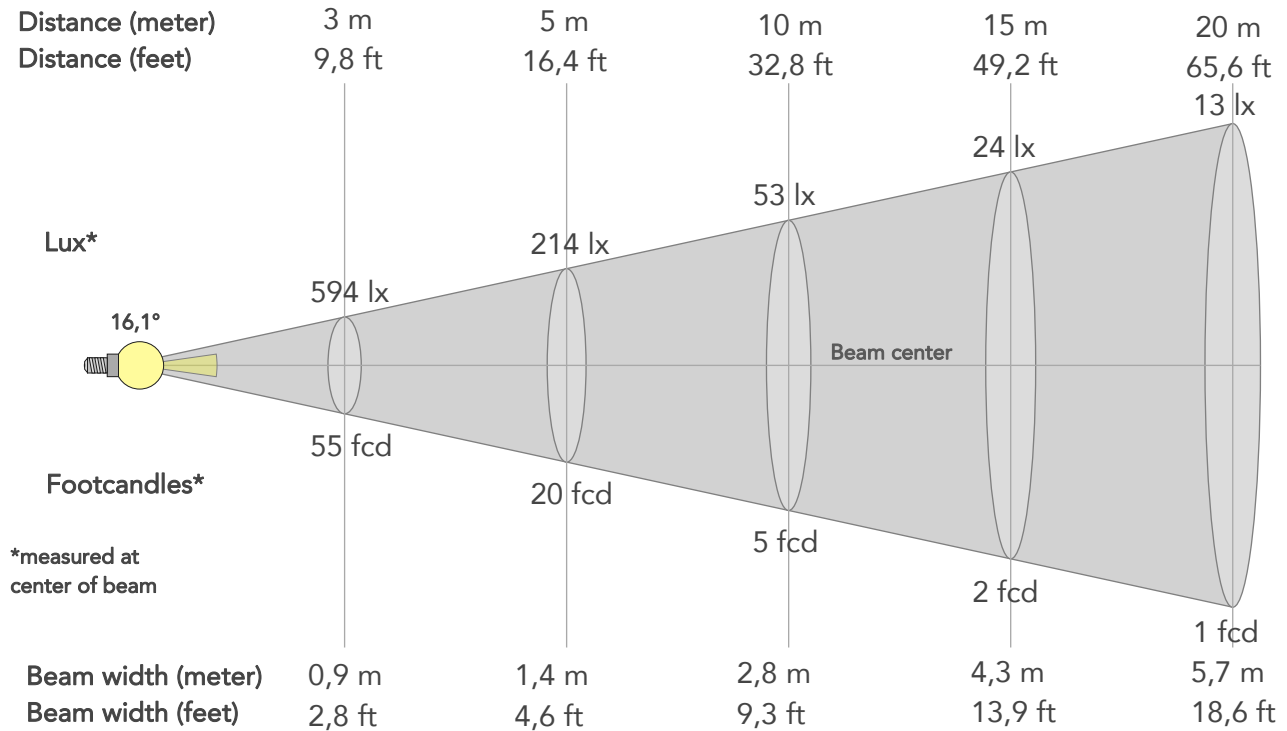
**Rg 106,6**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	-3%	-2%
2	93	-2%	3%
3	86	0%	8%
4	88	2%	7%
5	86	6%	6%
6	86	9%	4%
7	87	9%	0%
8	92	3%	-3%
9	94	-1%	-2%
10	90	-3%	4%
11	81	1%	12%
12	87	3%	8%
13	90	8%	4%
14	87	7%	3%
15	85	10%	-9%
16	93	3%	-3%



# BEAM DETAILS

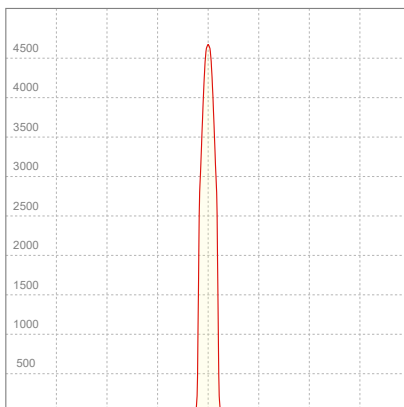
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,1°	18,9°	21,2°	97,3%	96,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	5345lx	1336lx	594lx	334lx	214lx	95lx	53lx	24lx	13lx	9lx	6lx	3lx	2lx
Footcand.	497fcd	124fcd	55fcd	31fcd	20fcd	9fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,1m	1,4m	2,1m	2,8m	4,3m	5,7m	7,1m	8,5m	11,3m	14,2m
Beam wid.	0,9ft	1,9ft	2,8ft	3,7ft	4,6ft	7ft	9,3ft	13,9ft	18,6ft	23,2ft	27,9ft	37,2ft	46,5ft

## LINEAR DISTRIBUTION DIAGRAM

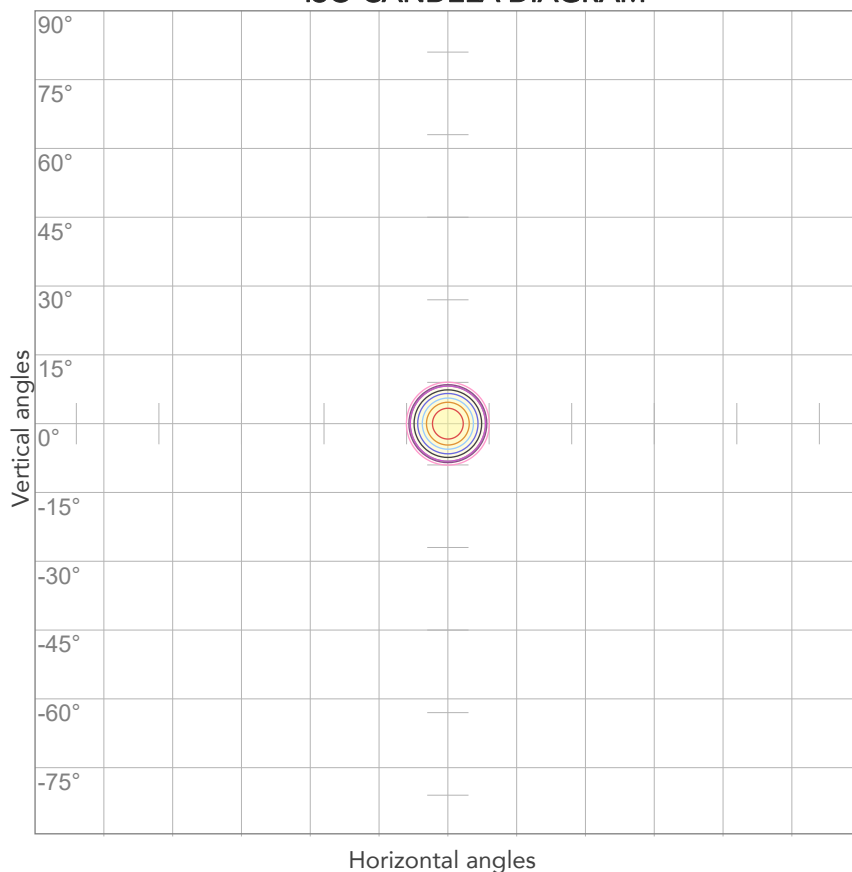


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,294A	29,6W	0,45	10lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



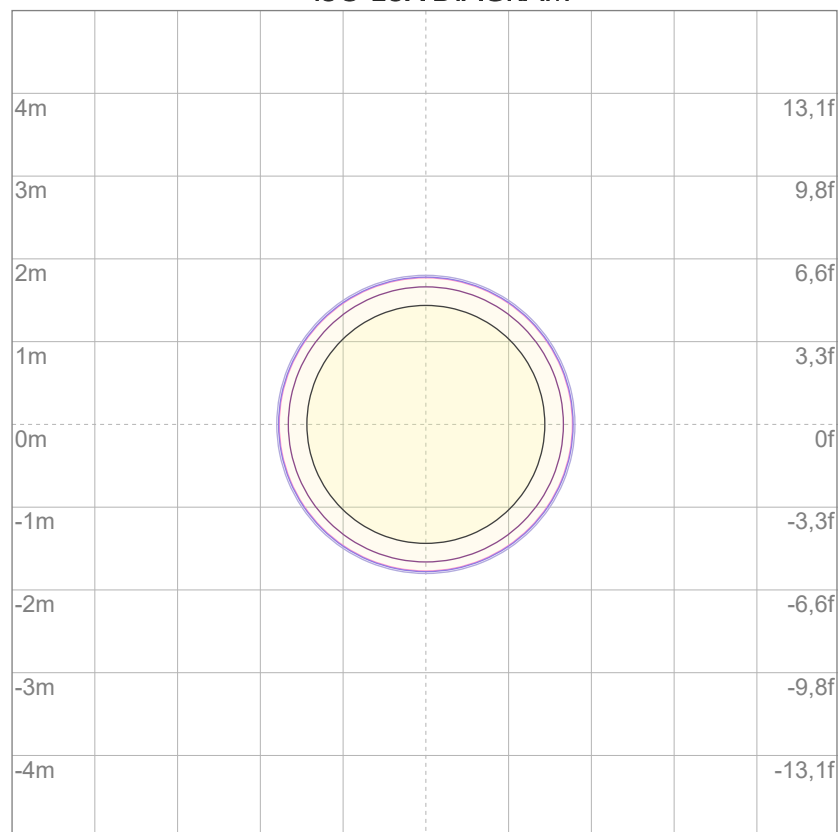
10%	534 cd
20%	1069 cd
30%	1603 cd
40%	2138 cd
50%	2672 cd
60%	3207 cd
70%	3741 cd
80%	4276 cd

### Conditions:

Number of c-planes: 2

Candela at center: 5345 cd

## ISO LUX DIAGRAM



3%	1,60 lx
5%	2,67 lx
10%	5,34 lx
30%	16,0 lx
50%	26,7 lx

### Conditions:

Number of c-planes: 2

Lux at center: 53,4 lx

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





Total lumen output:

84,1 lm

Peak candela output:

1395 cd

**PRODUCT NAME:**

ECLDISPLAY FC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

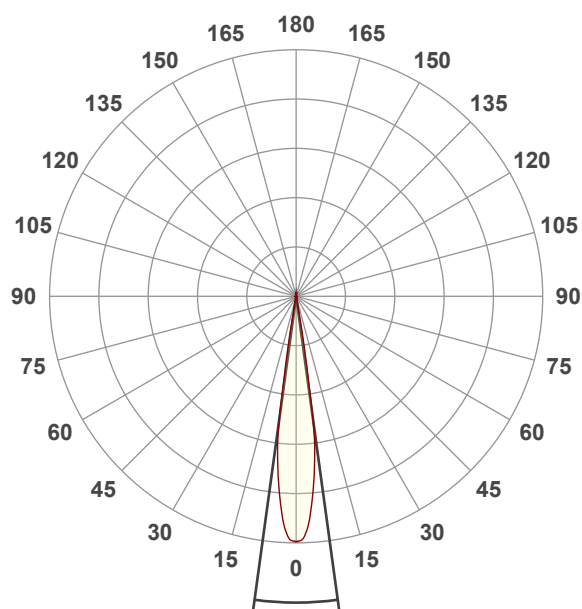
Red

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:35:59

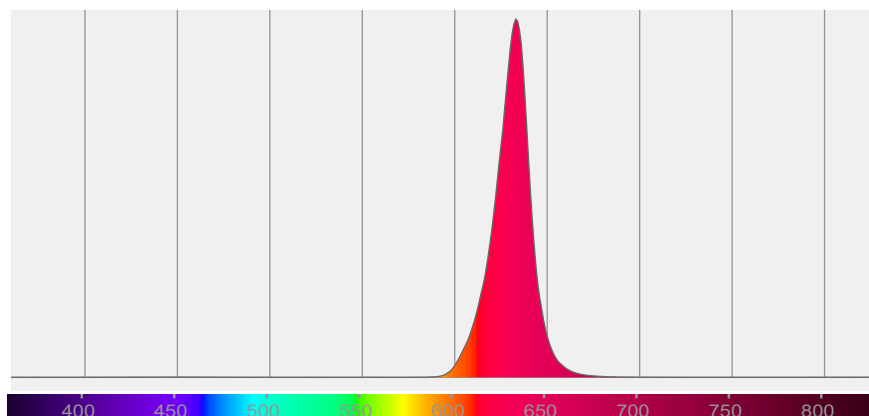


Beam angle 50%: 15,6°

Field angle 10%: 19,8°

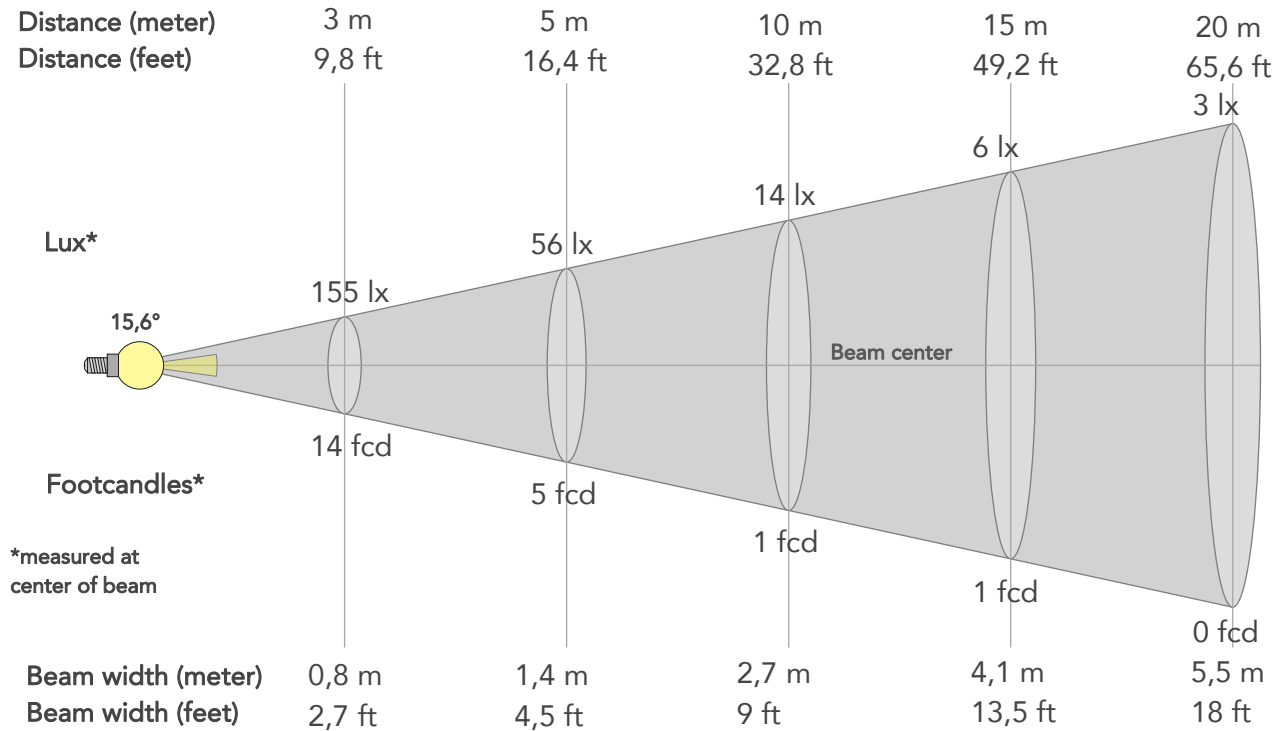
Cut off angle 2.5%: 20,9°

**Spectra**



# BEAM DETAILS

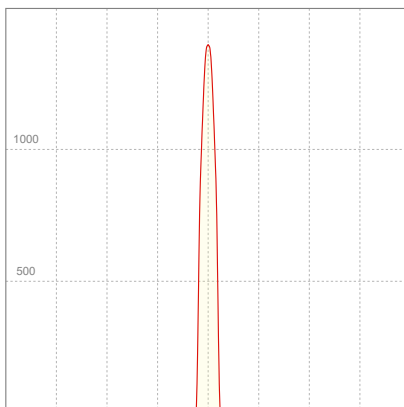
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,6°	19,8°	20,9°	94,8%	93,1%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1395lx	349lx	155lx	87lx	56lx	25lx	14lx	6lx	3lx	2lx	2lx	1lx	1lx
Footcand.	130fcd	32fcd	14fcd	8fcd	5fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,5m	0,8m	1,1m	1,4m	2,1m	2,7m	4,1m	5,5m	6,9m	8,2m	11m	13,7m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,7ft	9ft	13,5ft	18ft	22,5ft	27ft	36ft	45ft

## LINEAR DISTRIBUTION DIAGRAM

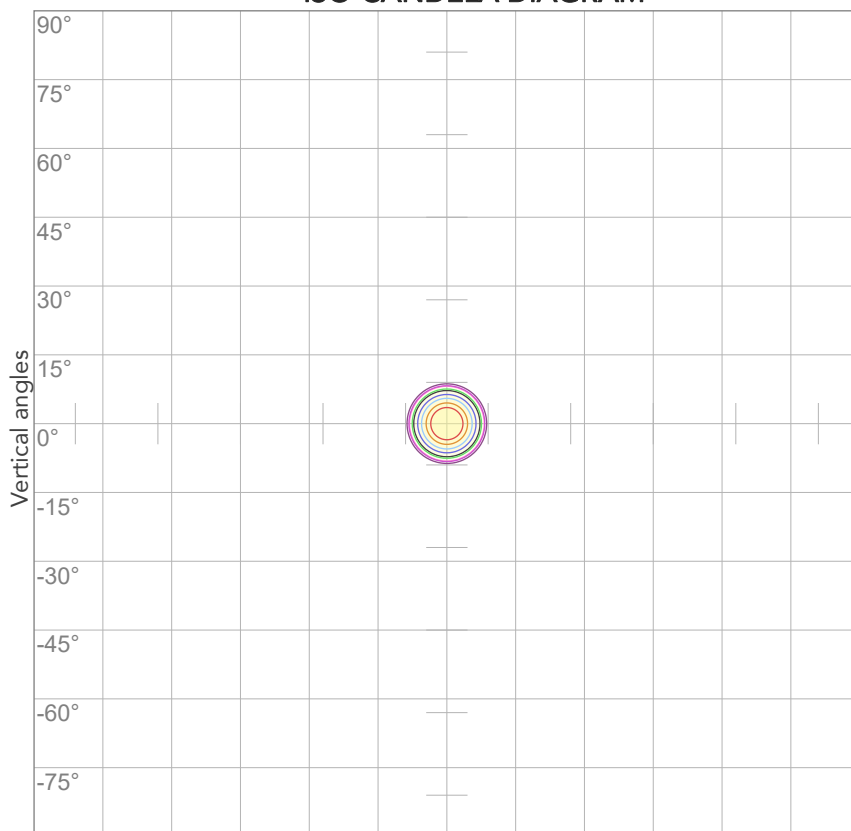


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,154A	13,3W	0,38	6lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



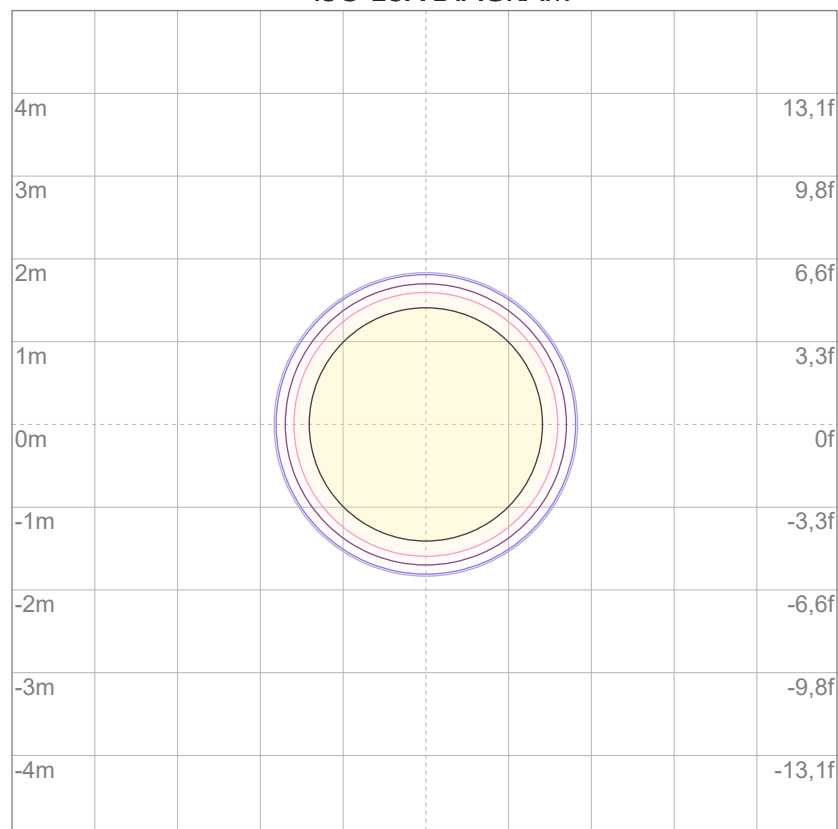
10%	140 cd
20%	279 cd
30%	419 cd
40%	558 cd
50%	698 cd
60%	837 cd
70%	977 cd
80%	1116 cd

### Conditions:

Number of c-planes: 2

Candela at center: 1395 cd

## ISO LUX DIAGRAM



3%	0,419 lx
5%	0,698 lx
10%	1,40 lx
30%	4,19 lx
50%	6,98 lx

### Conditions:

Number of c-planes: 2

Lux at center: 14,0 lx

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



Total lumen output:

106 lm

Peak candela output:

1831 cd

**PRODUCT NAME:**

ECLDISPLAY FC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

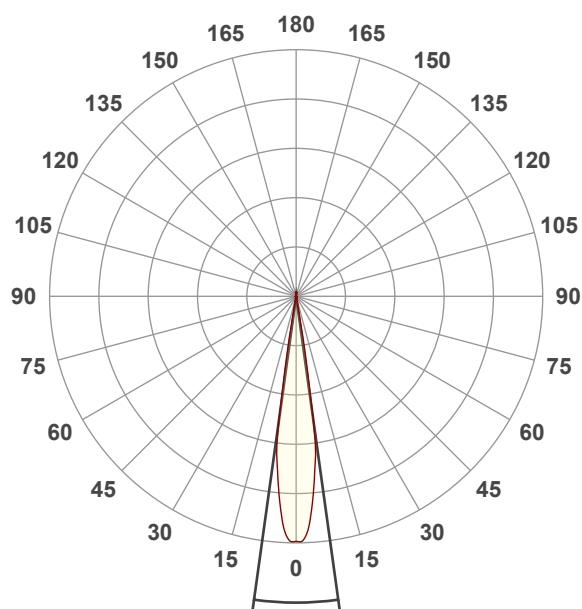
Green

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:37:25

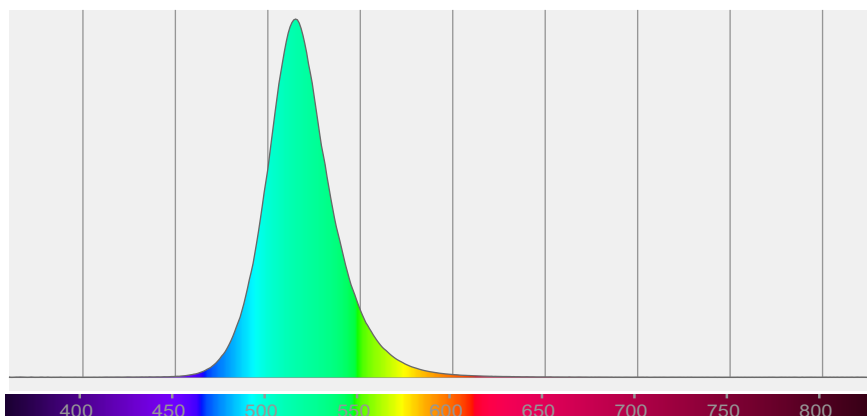


Beam angle 50%: 15,8°

Field angle 10%: 19,8°

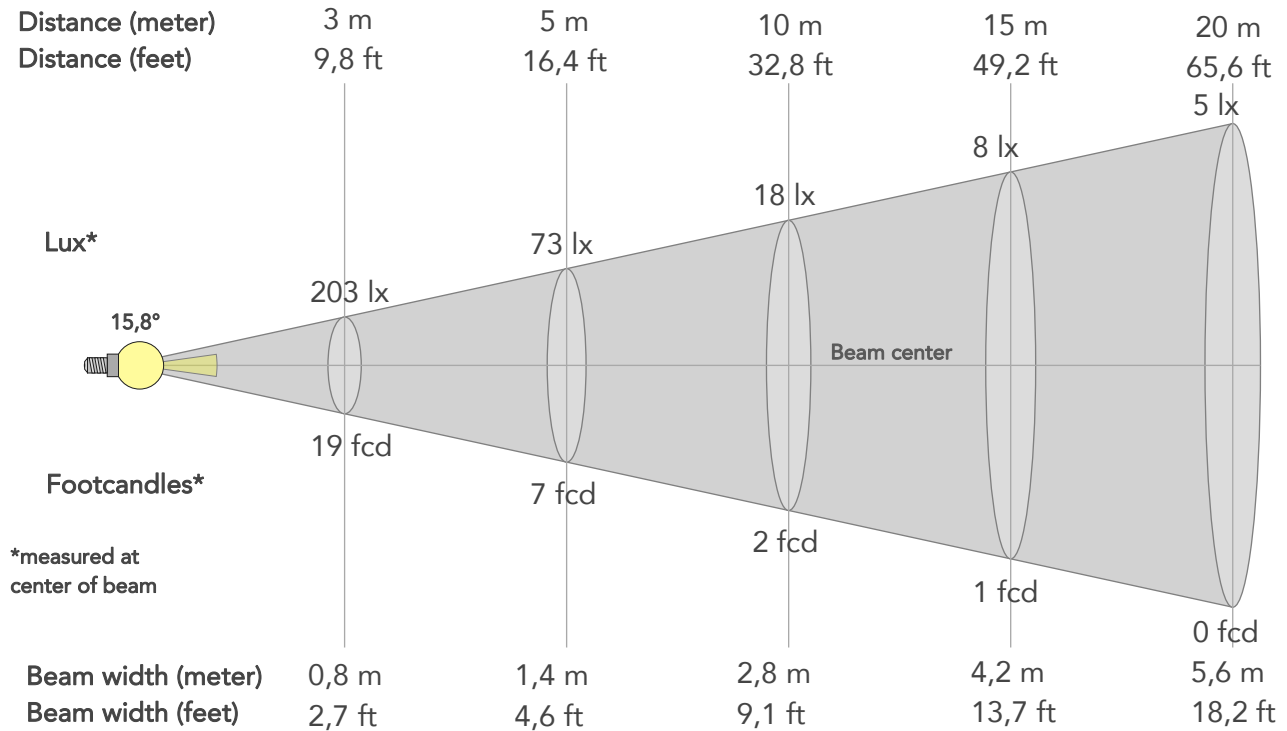
Cut off angle 2.5%: 20,8°

**Spectra**



# BEAM DETAILS

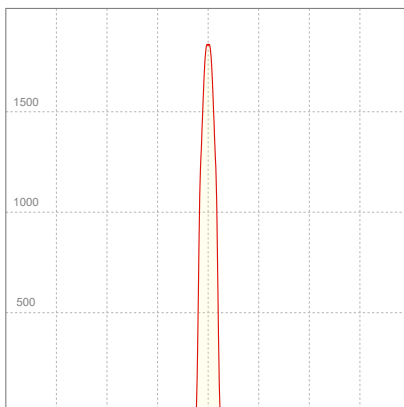
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,8°	19,8°	20,8°	98,0%	97,3%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1831lx	458lx	203lx	114lx	73lx	33lx	18lx	8lx	5lx	3lx	2lx	1lx	1lx
Footcand.	170fcd	43fcd	19fcd	11fcd	7fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,8m	1,1m	1,4m	2,1m	2,8m	4,2m	5,6m	6,9m	8,3m	11,1m	13,9m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,6ft	6,8ft	9,1ft	13,7ft	18,2ft	22,8ft	27,3ft	36,4ft	45,5ft

## LINEAR DISTRIBUTION DIAGRAM

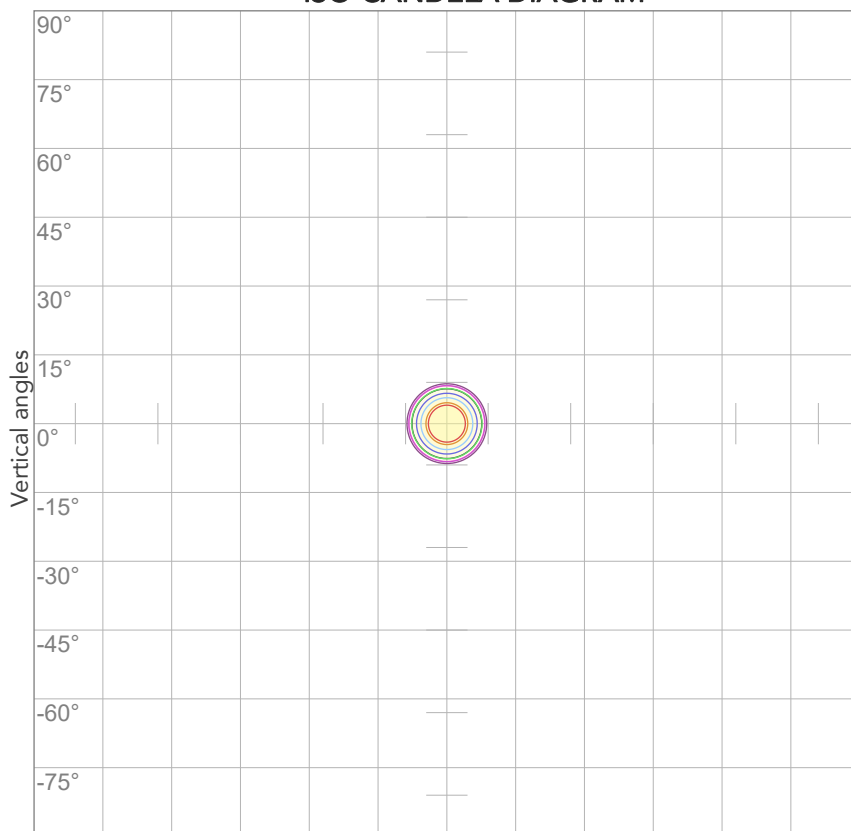


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,168A	14,6W	0,39	7lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



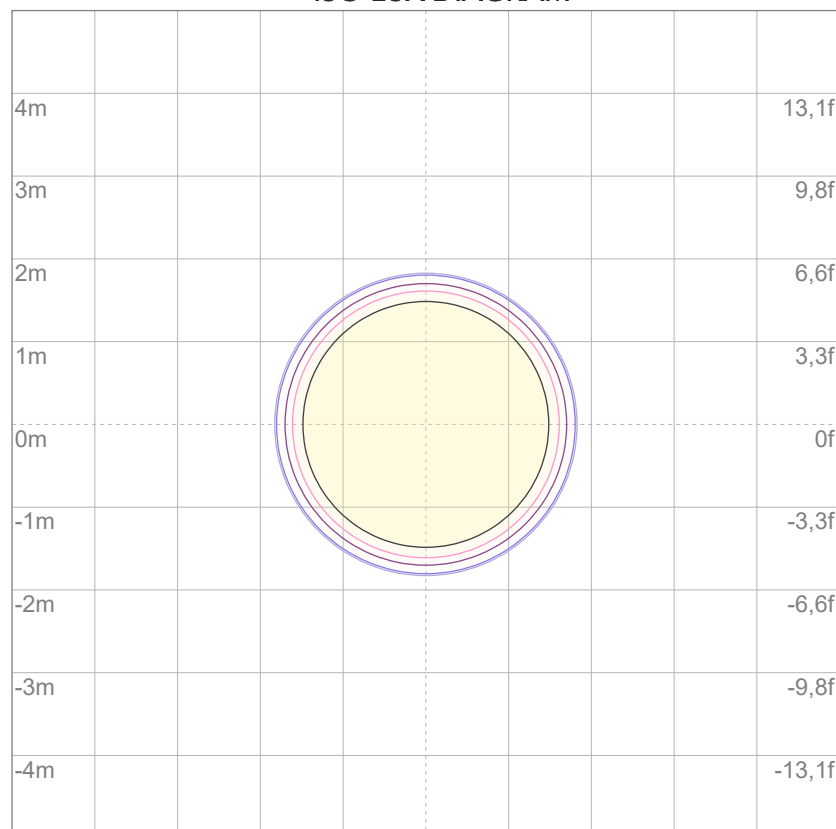
10%	183 cd
20%	366 cd
30%	549 cd
40%	732 cd
50%	916 cd
60%	1099 cd
70%	1282 cd
80%	1465 cd

### Conditions:

Number of c-planes: 2

Candela at center: 1831 cd

## ISO LUX DIAGRAM



3%	0,549 lx
5%	0,916 lx
10%	1,83 lx
30%	5,49 lx
50%	9,16 lx

### Conditions:

Number of c-planes: 2

Lux at center: 18,3 lx

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



Total lumen output:

46,5 lm

Peak candela output:

591 cd

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

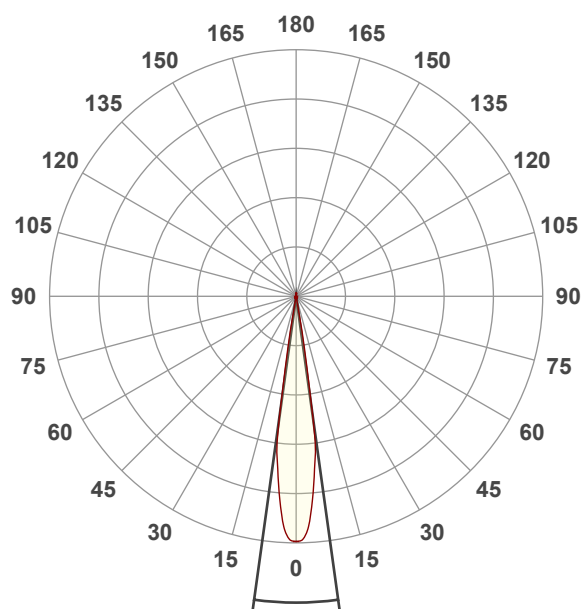
Blue

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:38:50

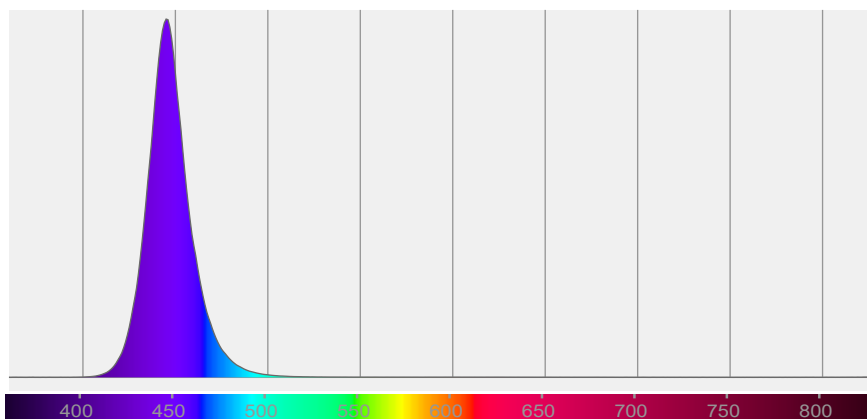


Beam angle 50%: 15,8°

Field angle 10%: 19,8°

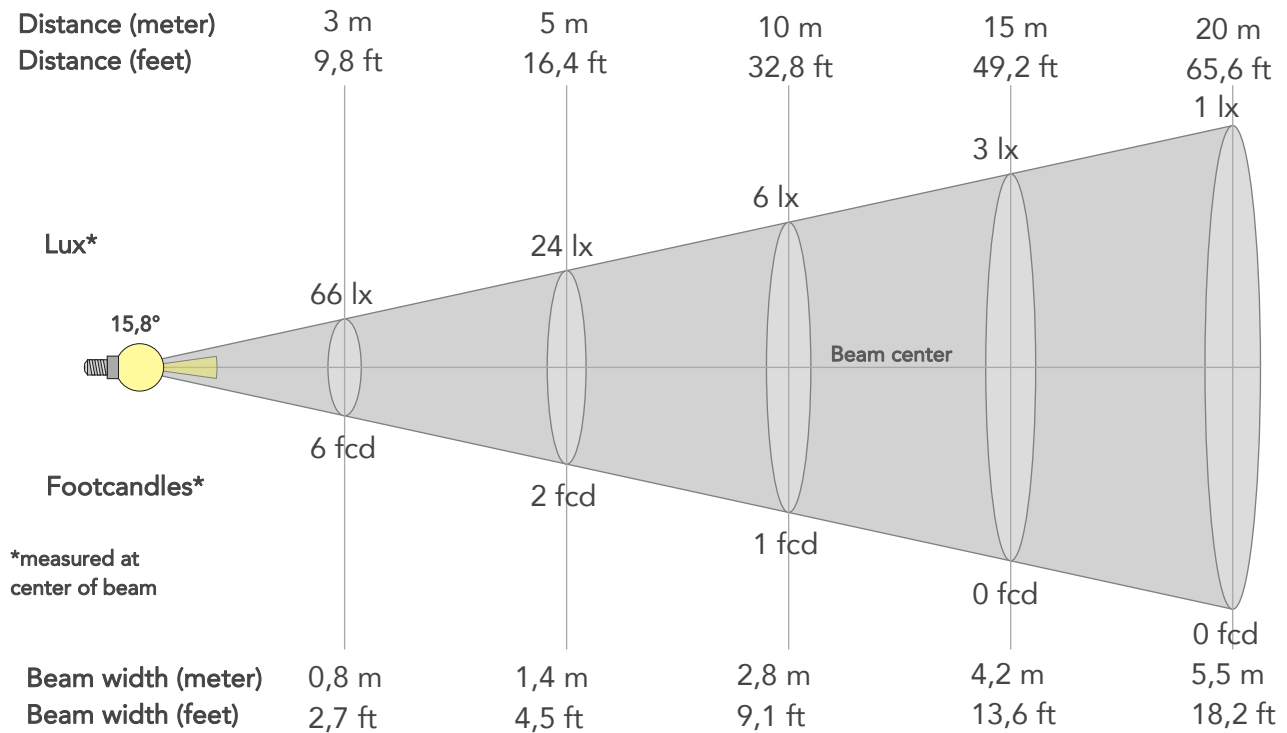
Cut off angle 2.5%: 20,8°

Spectra



# BEAM DETAILS

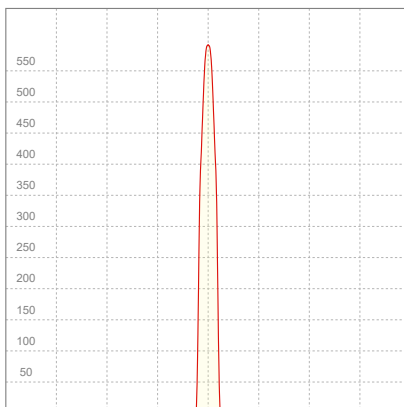
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,8°	19,8°	20,8°	80,8%	75,8%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	591lx	148lx	66lx	37lx	24lx	11lx	6lx	3lx	1lx	1lx	1lx	0lx	0lx
Footcand.	55fcd	14fcd	6fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,8m	1,1m	1,4m	2,1m	2,8m	4,2m	5,5m	6,9m	8,3m	11,1m	13,8m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,8ft	9,1ft	13,6ft	18,2ft	22,7ft	27,3ft	36,3ft	45,4ft

## LINEAR DISTRIBUTION DIAGRAM



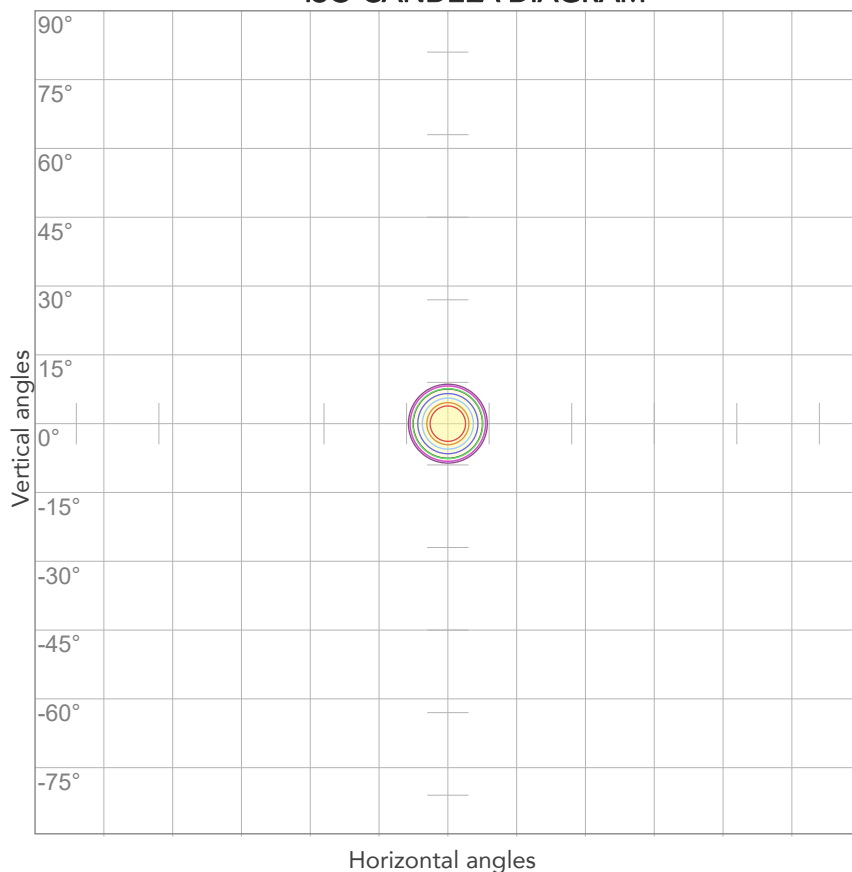
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,187A	16,3W	0,39	3lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



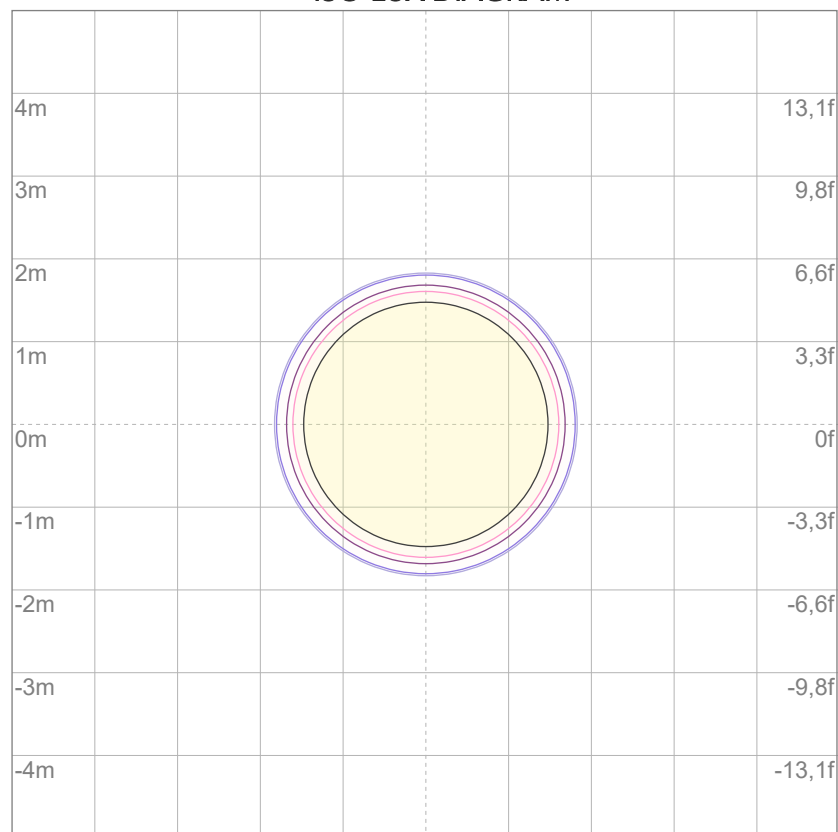
10%	59 cd
20%	118 cd
30%	177 cd
40%	236 cd
50%	296 cd
60%	355 cd
70%	414 cd
80%	473 cd

### Conditions:

Number of c-planes: 2

Candela at center: 591 cd

## ISO LUX DIAGRAM



3%	0,177 lx
5%	0,296 lx
10%	0,591 lx
30%	1,77 lx
50%	2,96 lx

### Conditions:

Number of c-planes: 2

Lux at center: 5,91 lx

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



Total lumen output:

204 lm

Peak candela output:

3589 cd

Light quality:

CRI: 78,0

Color temperature:

3361 K

**PRODUCT NAME:**

ECLDISPLAY FC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

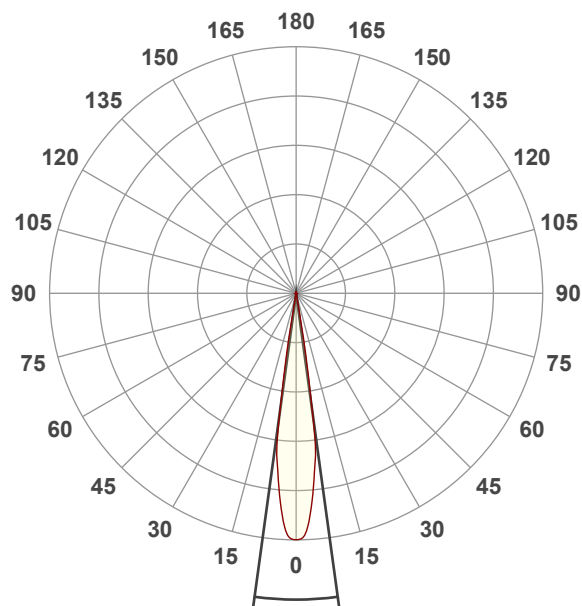
White

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:40:19

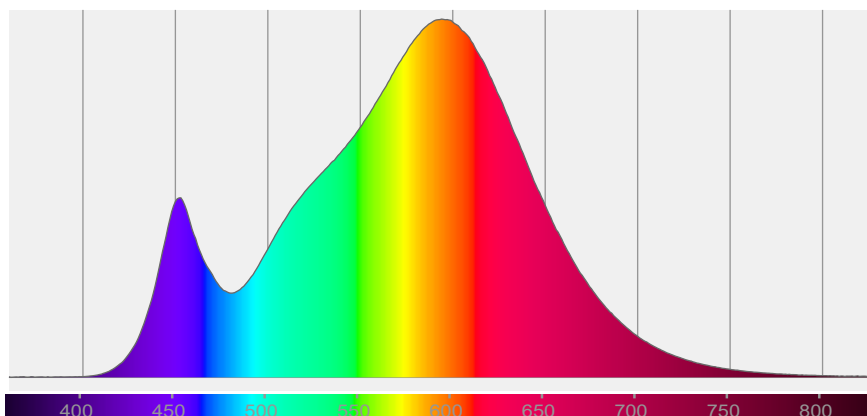


Beam angle 50%: 15,6°

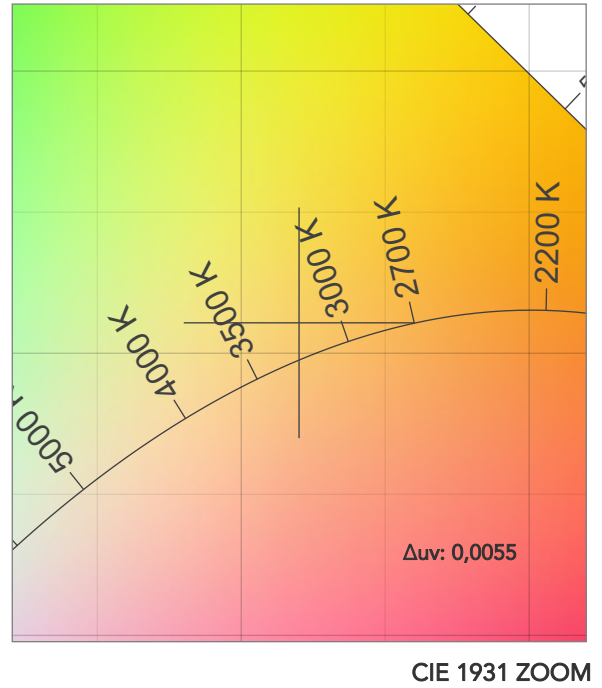
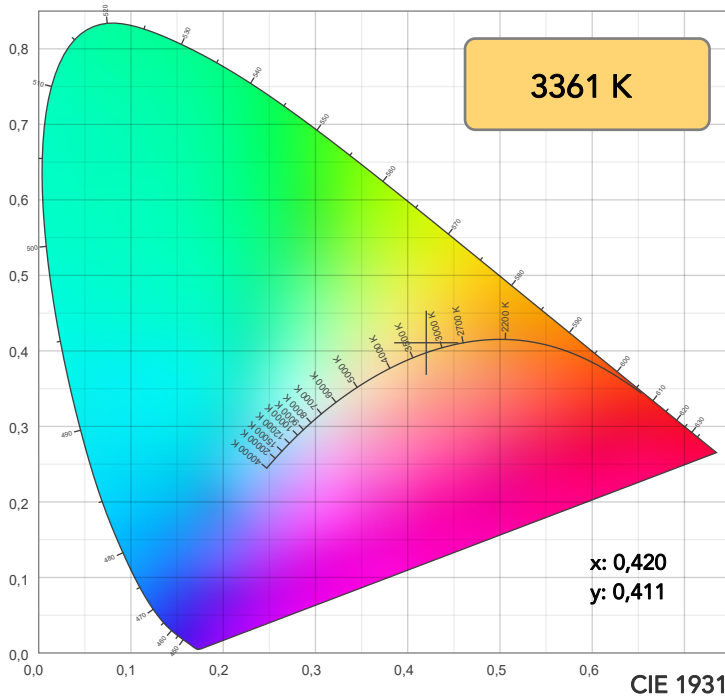
Field angle 10%: 19,8°

Cut off angle 2.5%: 20,8°

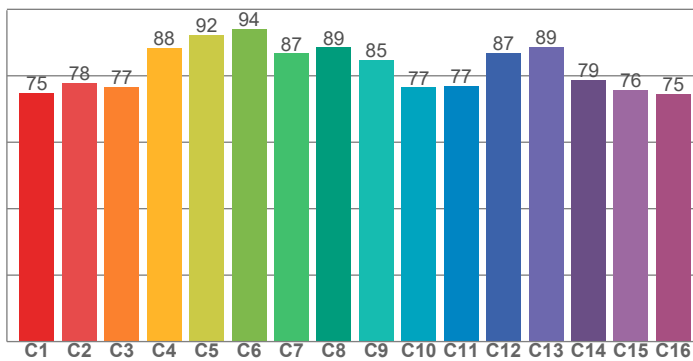
**Spectra**



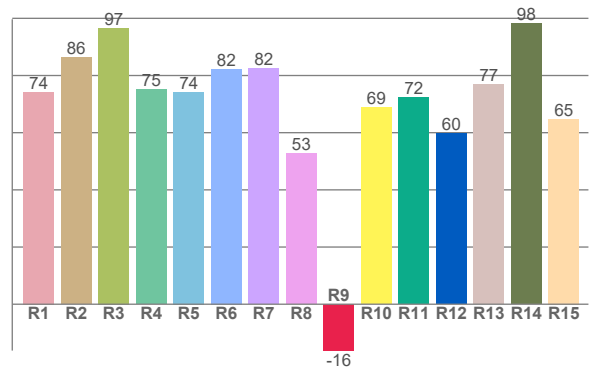
# COLOR DETAILS



**TM30: 82,4**



**CRI: 78,0 (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
74,3	86,2	96,6	75,1	74,2	82,2	82,5	52,7	-16,2	68,8	72,3	59,7	76,9	98,2	64,7

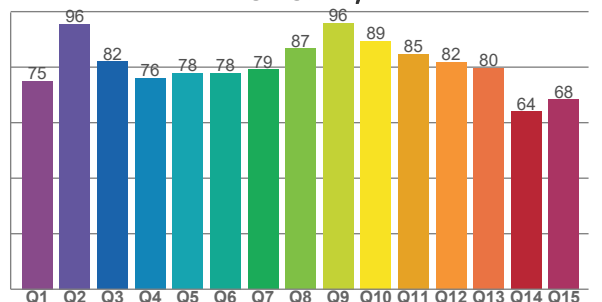
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74,8	77,8	76,7	88,4	92,4	94,1	86,8	88,5	84,8	76,5	77,0	86,8	88,8	78,8	75,7	74,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
75,0	95,5	82,1	76,0	77,8	77,8	79,1	86,7	95,9	89,5	84,8	81,8	79,7	64,0	68,3

**CQS: 79,1**



## COLOR PARAMETERS

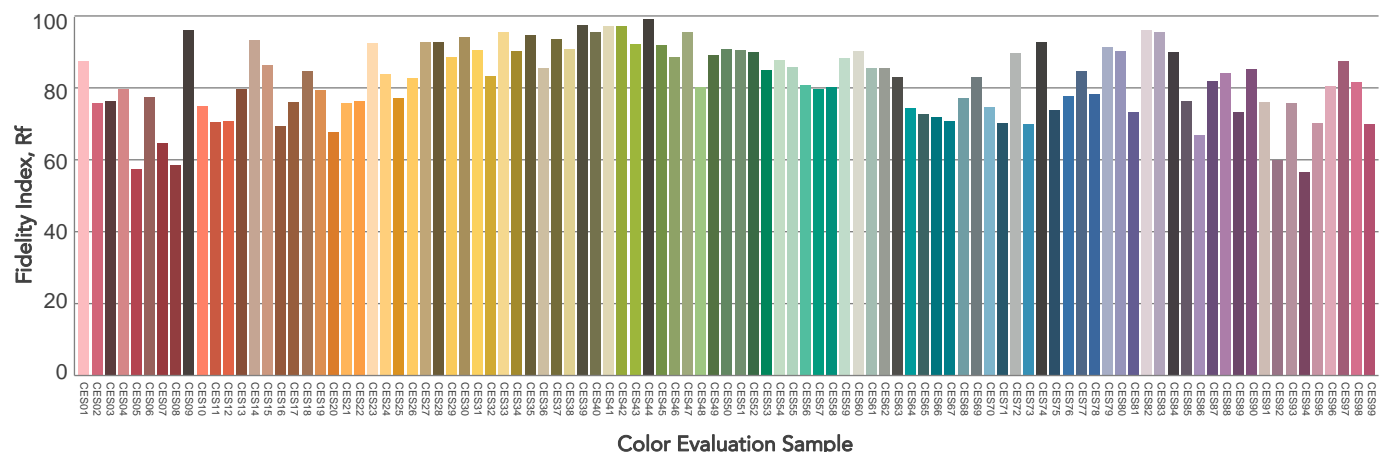
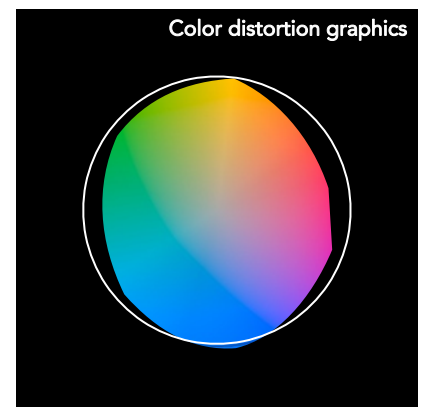
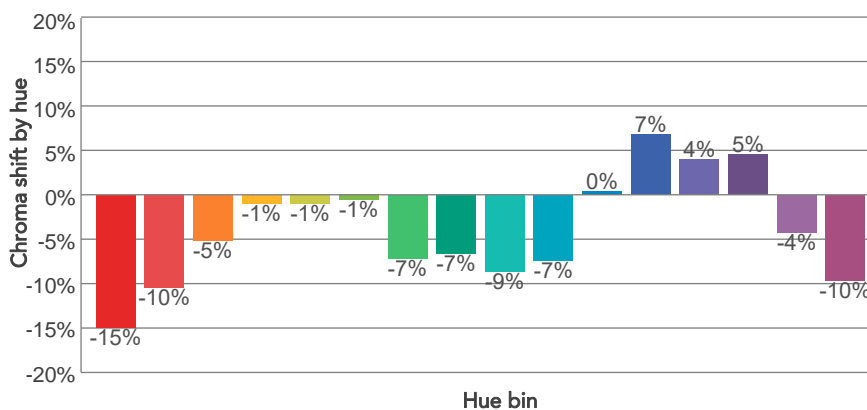
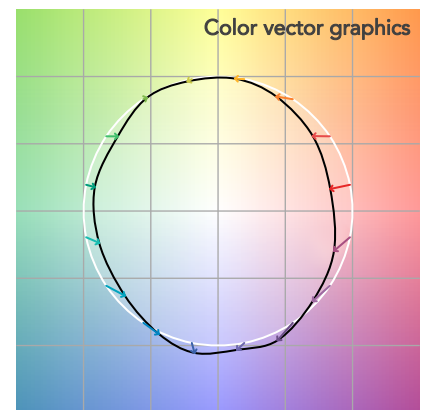
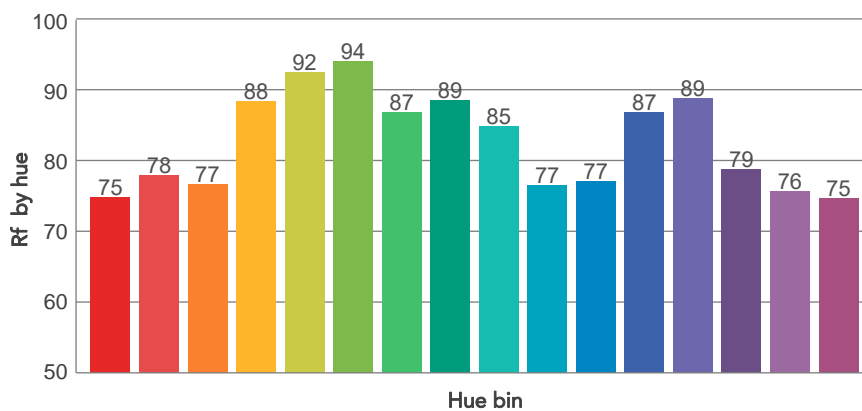
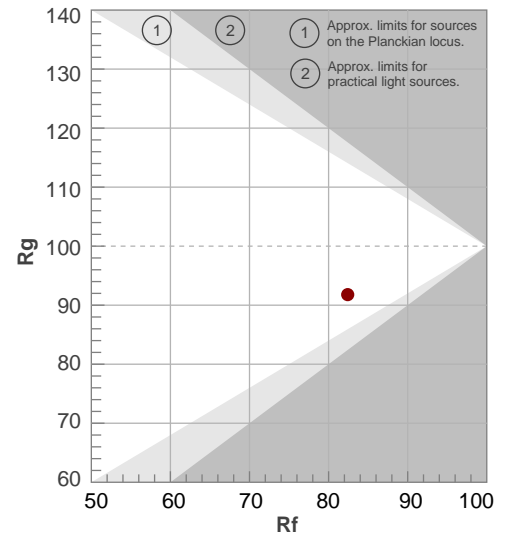
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3361 K	78,0	-16,2	82,4	91,8	79,1	62	0,420	0,411	0,0055

# TM30 DETAILS

**Rf 82,4**  
Fidelity index Rf

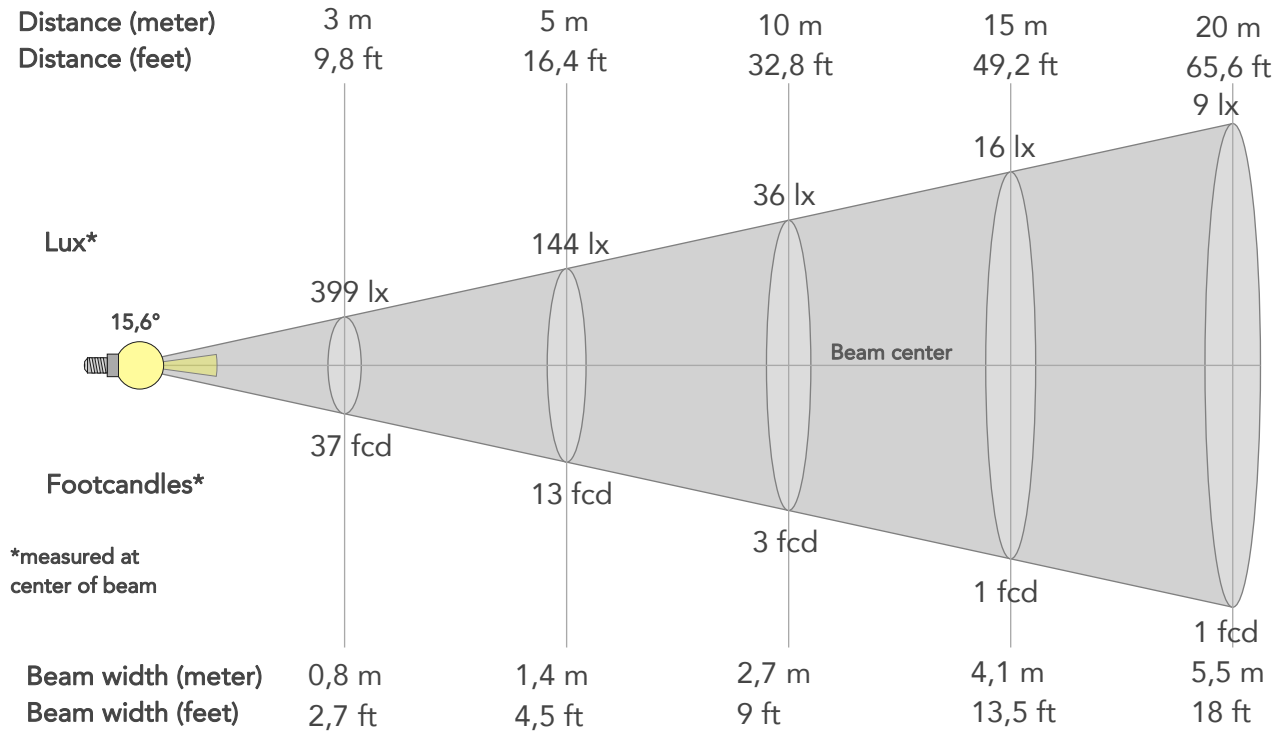
**Rg 91,8**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-15%	0%
2	78	-10%	7%
3	77	-5%	11%
4	88	-1%	7%
5	92	-1%	3%
6	94	-1%	-3%
7	87	-7%	-5%
8	89	-7%	0%
9	85	-9%	6%
10	77	-7%	14%
11	77	0%	14%
12	87	7%	3%
13	89	4%	-6%
14	79	5%	-17%
15	76	-4%	-17%
16	75	-10%	-12%



# BEAM DETAILS

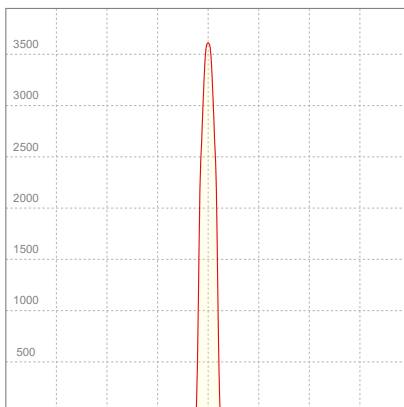
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,6°	19,8°	20,8°	98,1%	97,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	3589lx	897lx	399lx	224lx	144lx	64lx	36lx	16lx	9lx	6lx	4lx	2lx	1lx
Footcand.	333fcd	83fcd	37fcd	21fcd	13fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,5m	0,8m	1,1m	1,4m	2,1m	2,7m	4,1m	5,5m	6,9m	8,2m	11m	13,7m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,7ft	9ft	13,5ft	18ft	22,5ft	27ft	36ft	44,9ft

## LINEAR DISTRIBUTION DIAGRAM

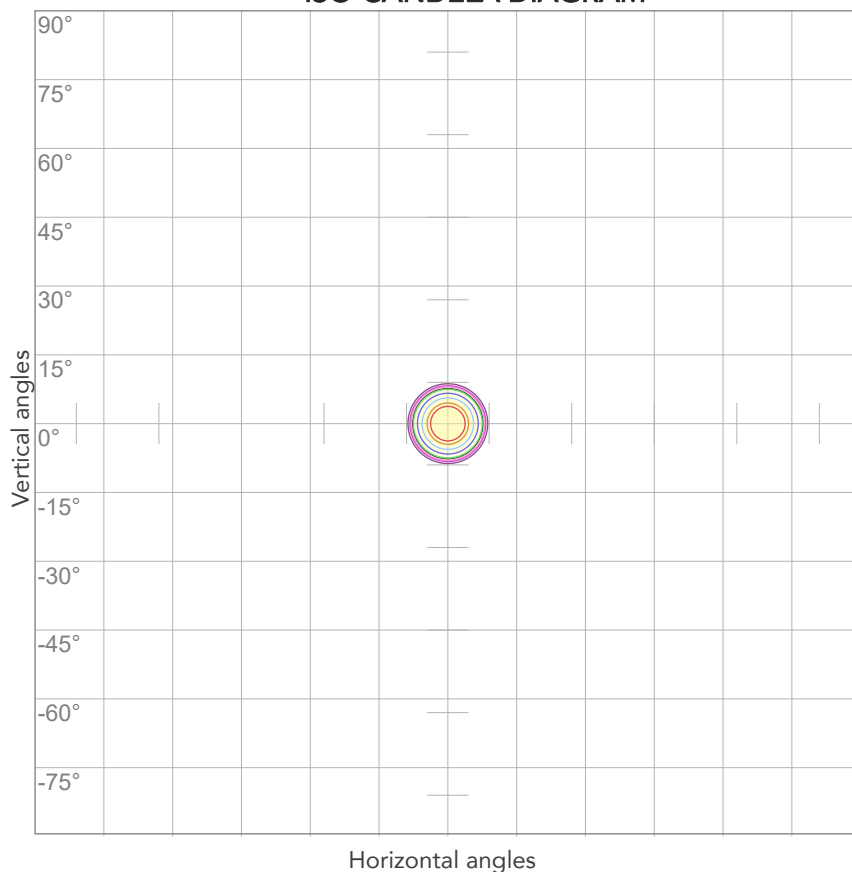


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,218A	19,7W	0,4	10lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



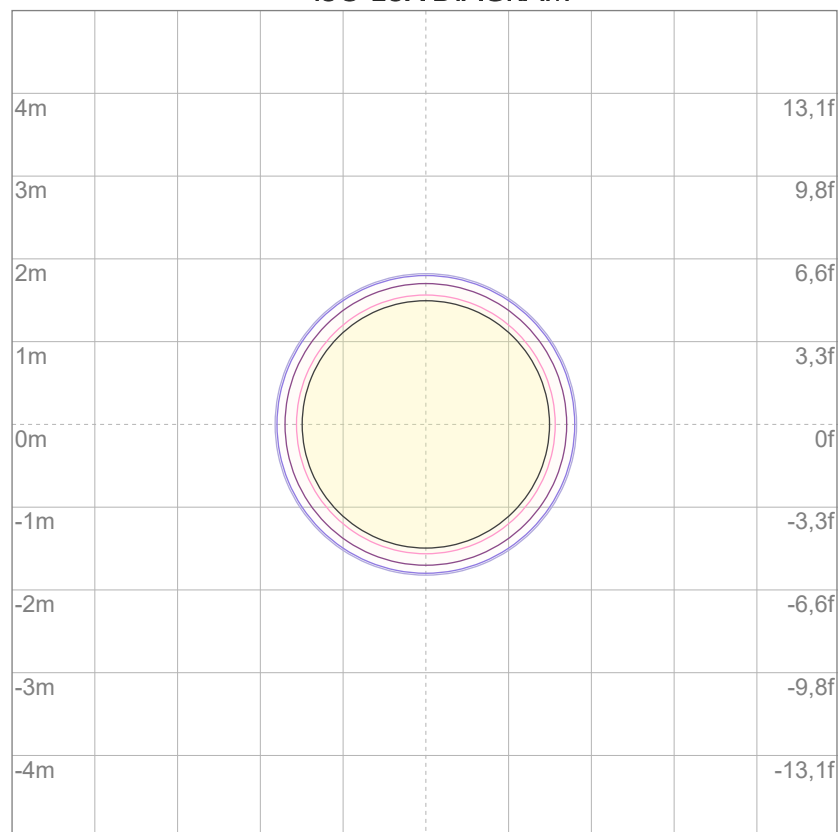
10%	359 cd
20%	718 cd
30%	1077 cd
40%	1435 cd
50%	1794 cd
60%	2153 cd
70%	2512 cd
80%	2871 cd

### Conditions:

Number of c-planes: 2

Candela at center: 3589 cd

## ISO LUX DIAGRAM



3%	1,08 lx
5%	1,79 lx
10%	3,59 lx
30%	10,8 lx
50%	17,9 lx

### Conditions:

Number of c-planes: 2

Lux at center: 35,9 lx

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



Total lumen output:

241 lm

Peak candela output:

4273 cd

Light quality:

CRI: 95,5

Color temperature:

2884 K

**PRODUCT NAME:**

ECLDISPLAY FC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

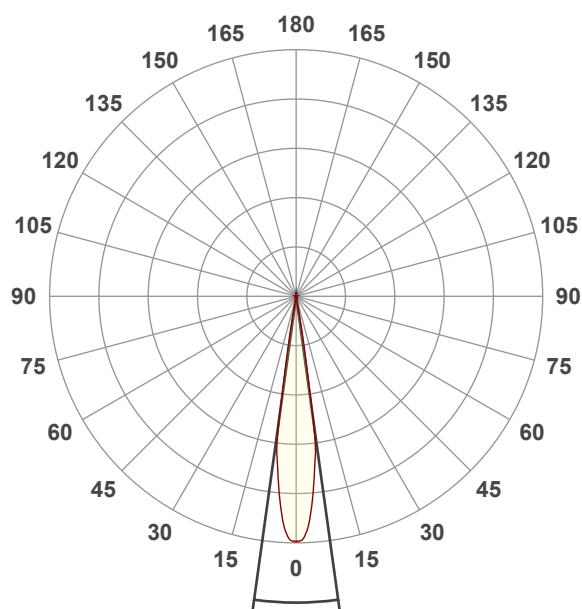
2800K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:41:43

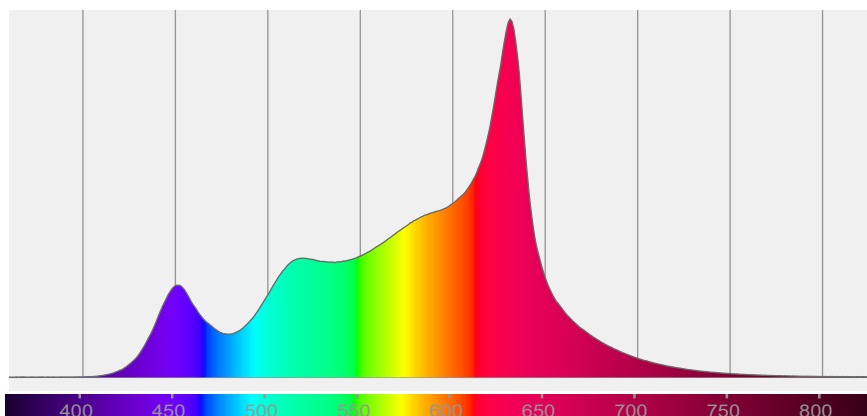


Beam angle 50%: 15,8°

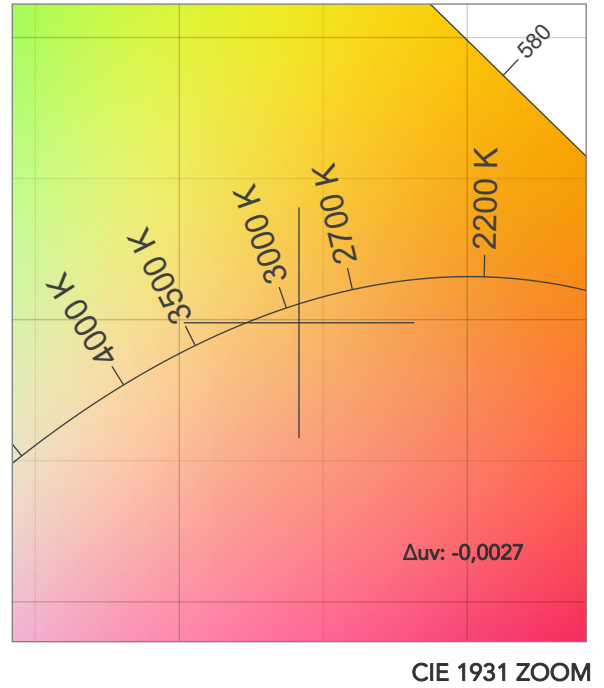
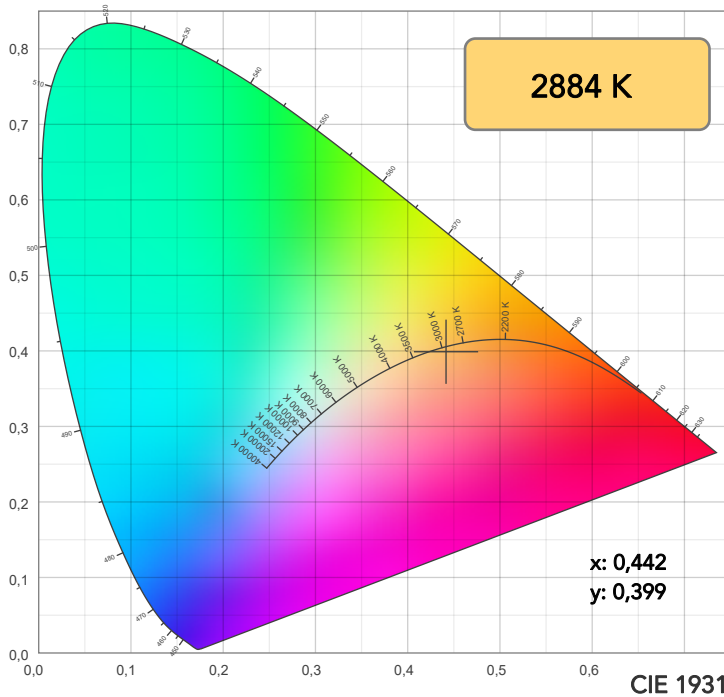
Field angle 10%: 19,7°

Cut off angle 2.5%: 20,8°

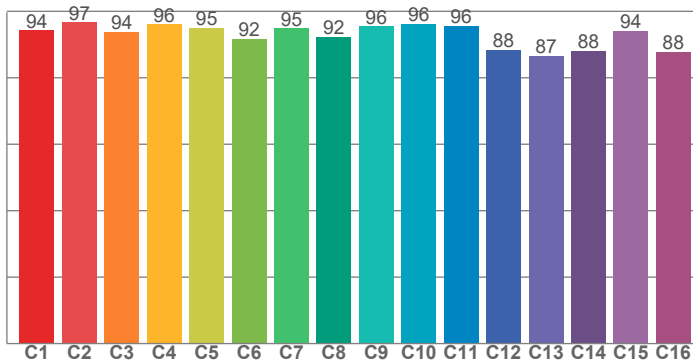
**Spectra**



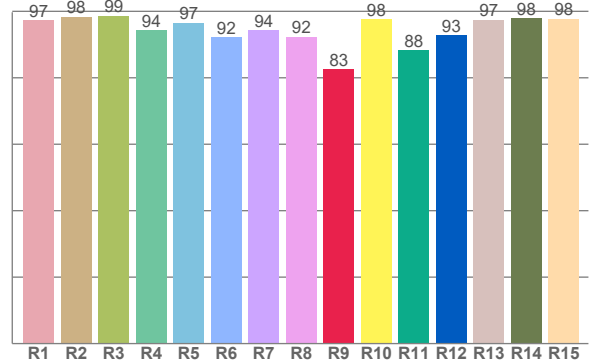
# COLOR DETAILS



**TM30: 93,4**



**CRI: 95,5 (R1-R8)**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
97,3	98,4	98,7	94,4	96,6	92,3	94,3	92,4	82,6	97,6	88,4	92,9	97,4	97,9	97,7

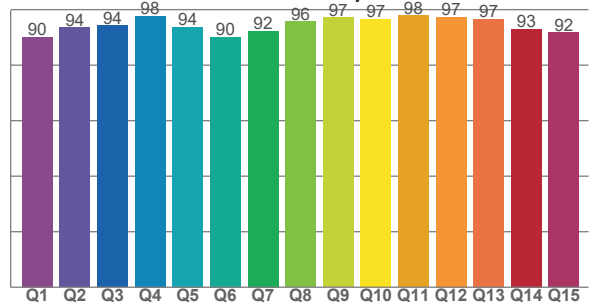
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,2	96,6	93,9	96,1	95,0	91,7	94,9	92,2	95,5	96,1	95,6	88,4	86,5	88,1	94,2	87,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90,2	93,6	94,3	97,7	93,7	90,1	92,3	95,7	97,2	96,7	97,9	97,3	96,6	93,0	91,8

**CQS: 93,7**



## 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
2884 K	95,5	82,6	93,4	103,0	93,7	84	0,442	0,399	-0,0027

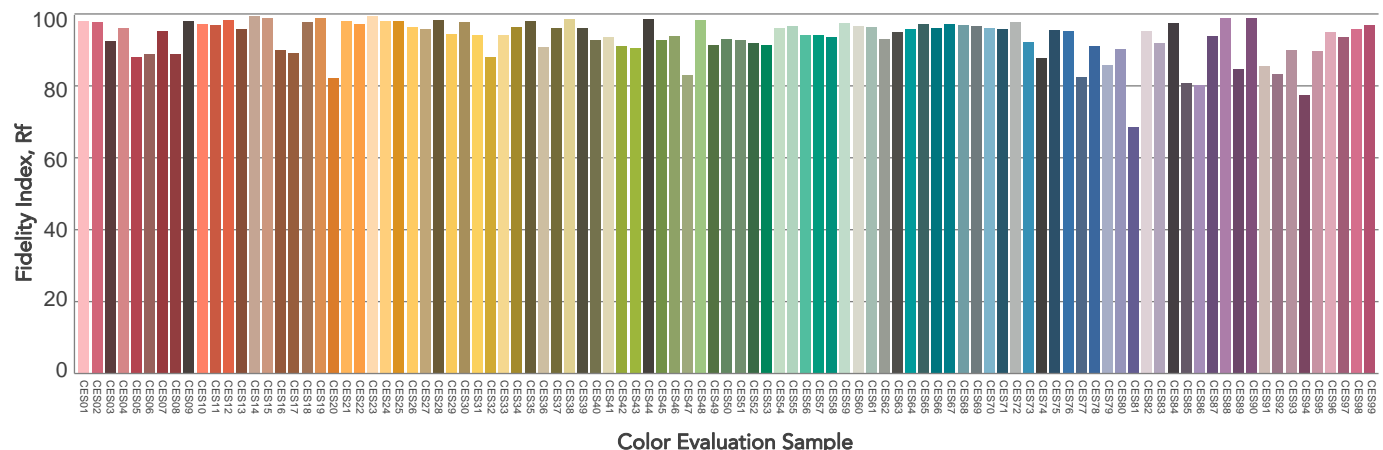
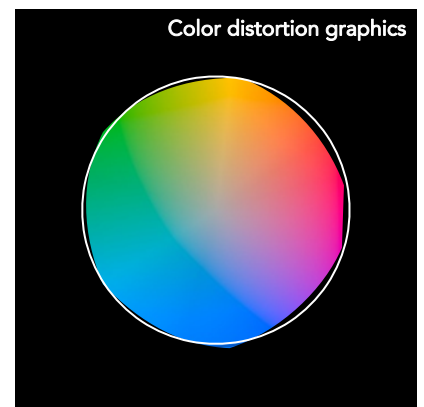
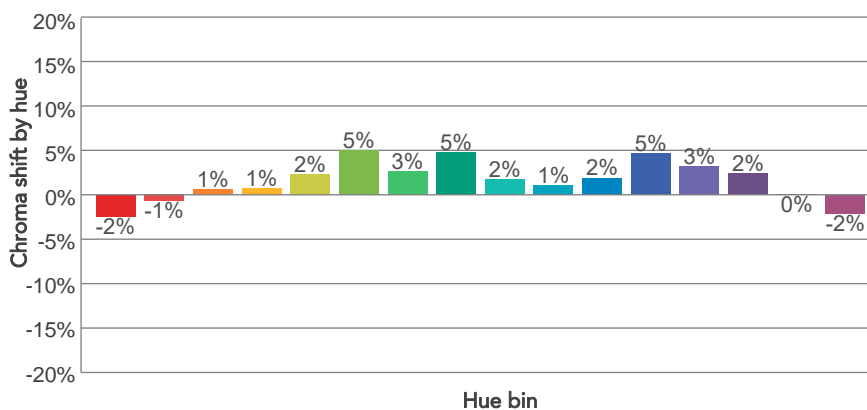
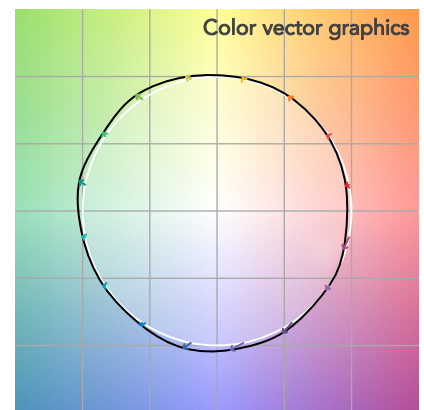
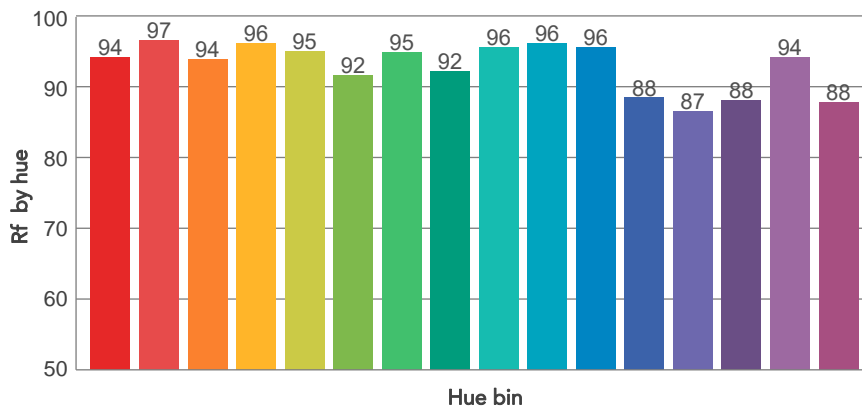
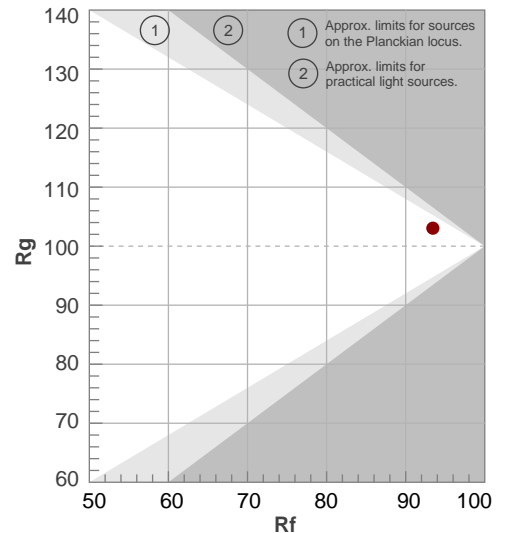


# TM30 DETAILS

**Rf 93,4**  
Fidelity index Rf

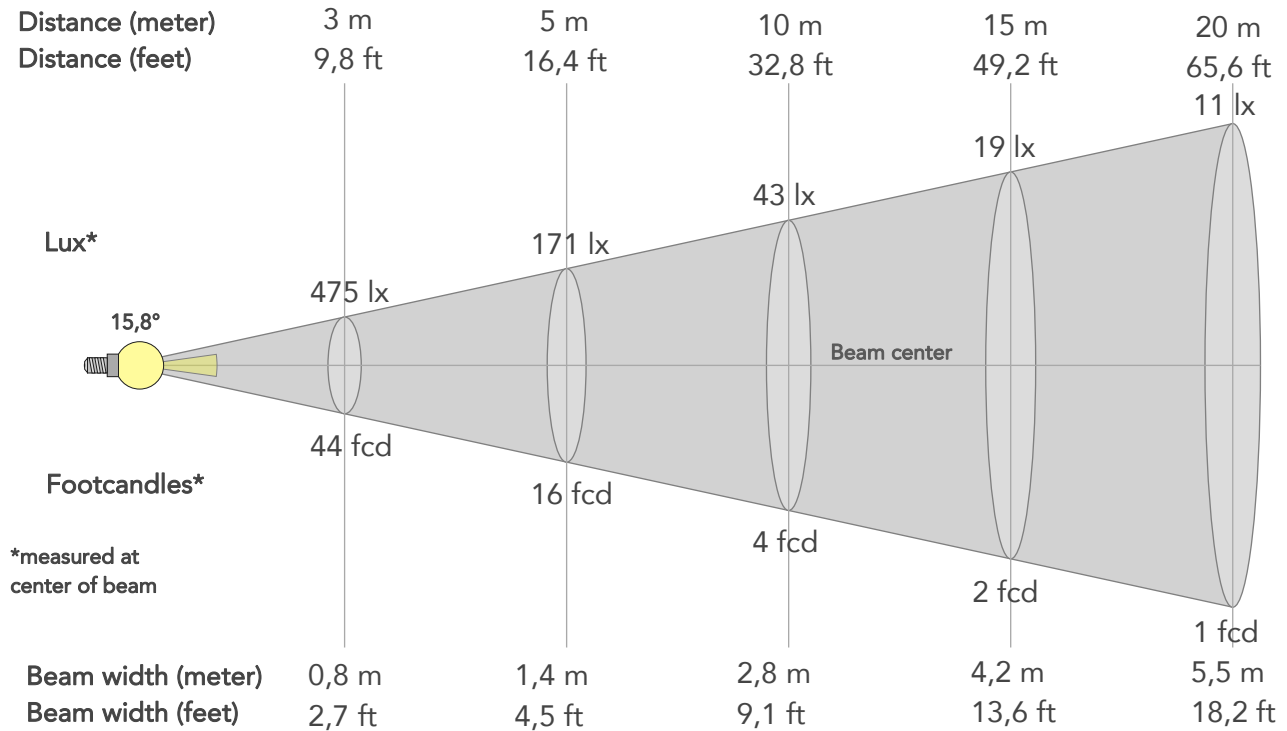
**Rg 103,0**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-2%	0%
2	97	-1%	1%
3	94	1%	3%
4	96	1%	1%
5	95	2%	3%
6	92	5%	2%
7	95	3%	-2%
8	92	5%	-2%
9	96	2%	-1%
10	96	1%	-1%
11	96	2%	1%
12	88	5%	-4%
13	87	3%	-10%
14	88	2%	-9%
15	94	0%	-3%
16	88	-2%	-9%



# BEAM DETAILS

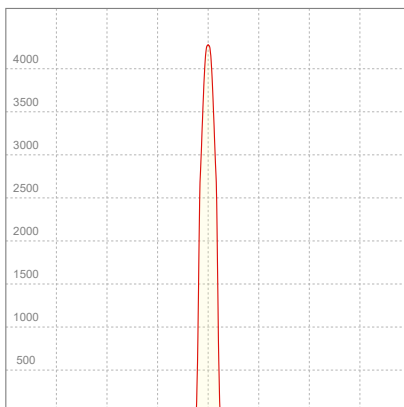
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,8°	19,7°	20,8°	98,1%	97,7%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4273lx	1068lx	475lx	267lx	171lx	76lx	43lx	19lx	11lx	7lx	5lx	3lx	2lx
Footcand.	397fcd	99fcd	44fcd	25fcd	16fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,8m	1,1m	1,4m	2,1m	2,8m	4,2m	5,5m	6,9m	8,3m	11,1m	13,9m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,8ft	9,1ft	13,6ft	18,2ft	22,7ft	27,3ft	36,3ft	45,4ft

## LINEAR DISTRIBUTION DIAGRAM

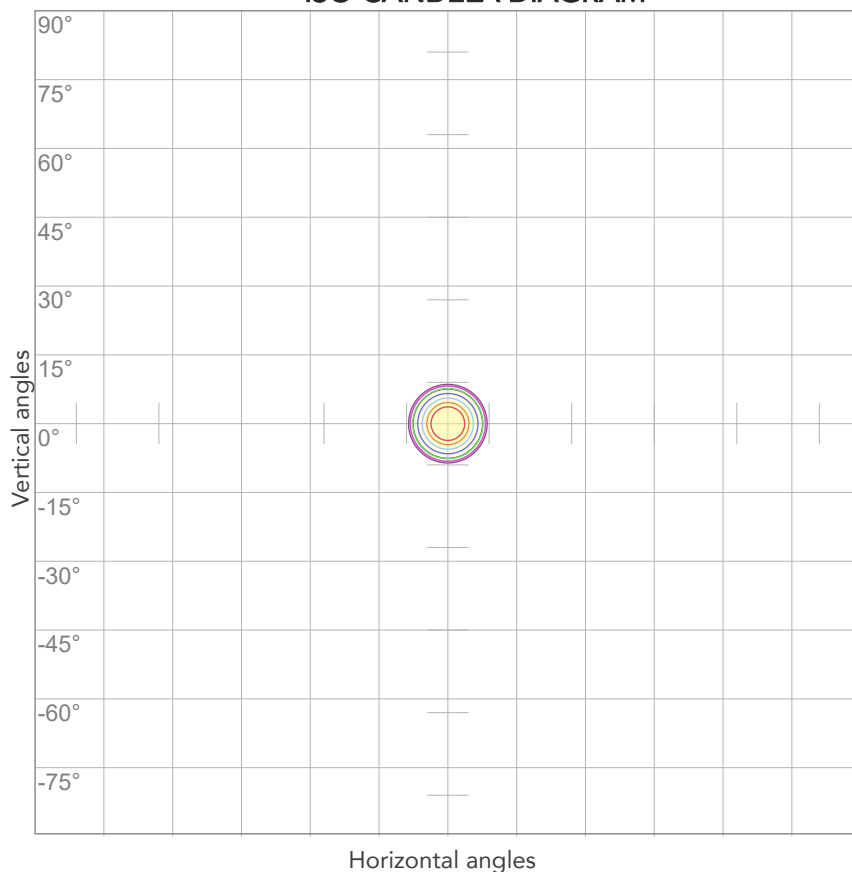


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,256A	25,3W	0,44	10lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



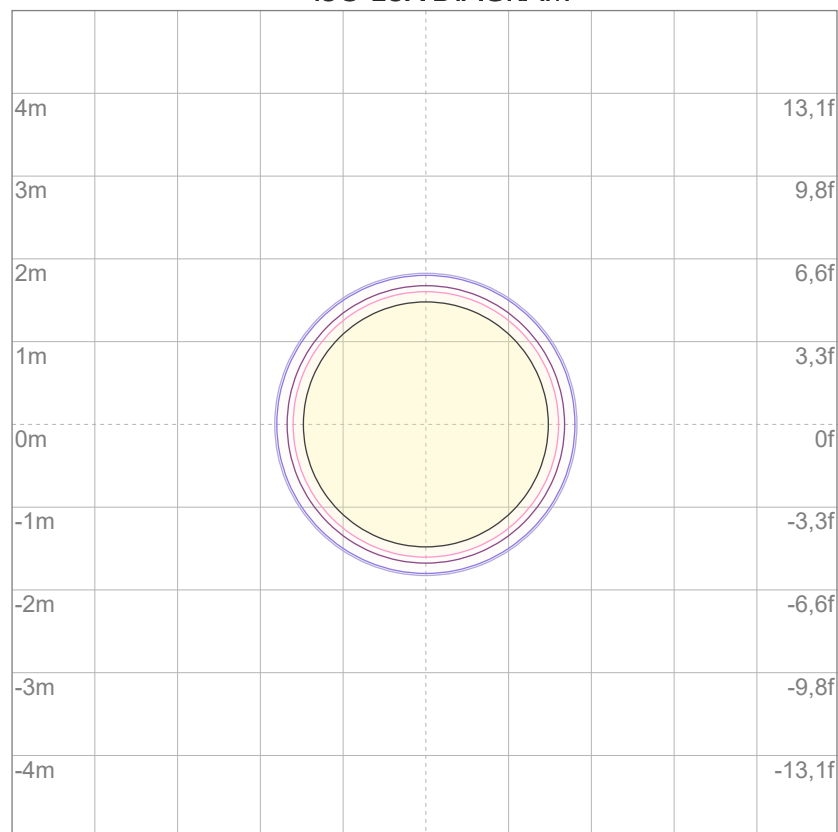
10%	427 cd
20%	855 cd
30%	1282 cd
40%	1709 cd
50%	2136 cd
60%	2564 cd
70%	2991 cd
80%	3418 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4273 cd

## ISO LUX DIAGRAM



3%	1,28 lx
5%	2,14 lx
10%	4,27 lx
30%	12,8 lx
50%	21,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 42,7 lx

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



Total lumen output:

250 lm

Peak candela output:

4411 cd

Light quality:

CRI: 95,5

Color temperature:

3222 K

**PRODUCT NAME:**

ECLDISPLAY FC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

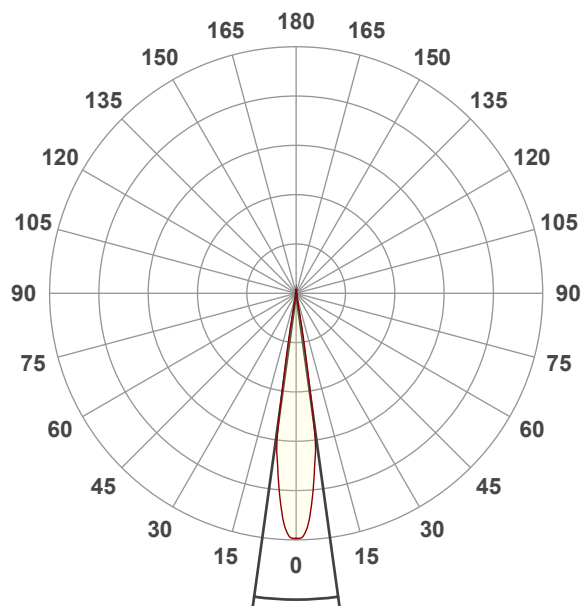
3200K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:56:38

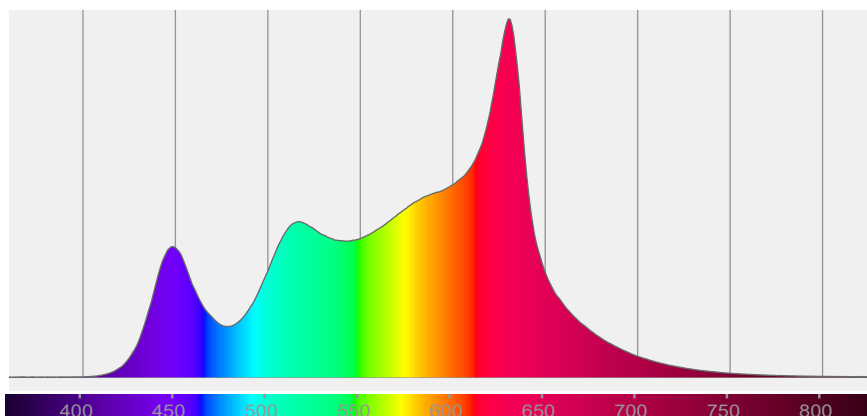


Beam angle 50%: 15,8°

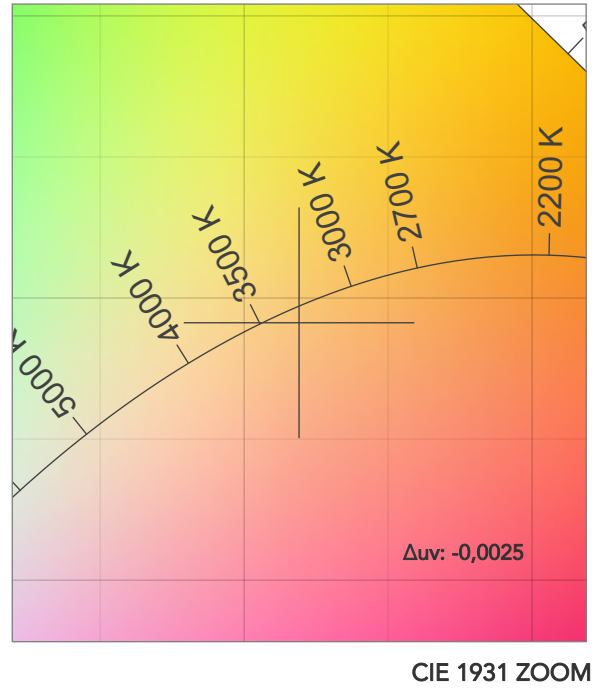
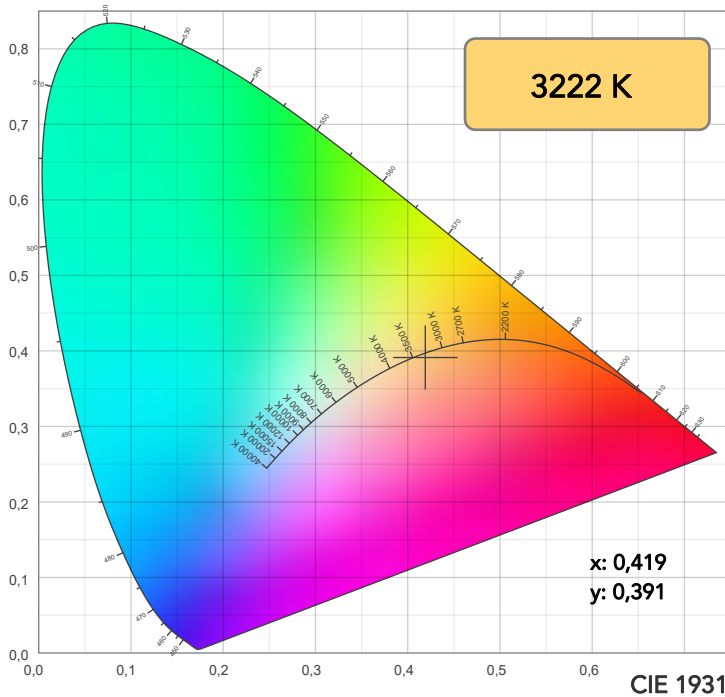
Field angle 10%: 19,7°

Cut off angle 2.5%: 20,8°

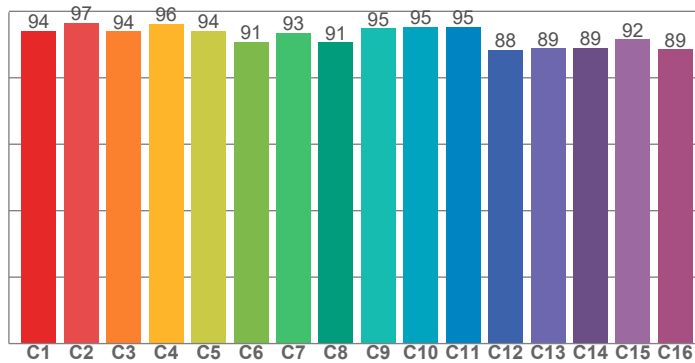
**Spectra**



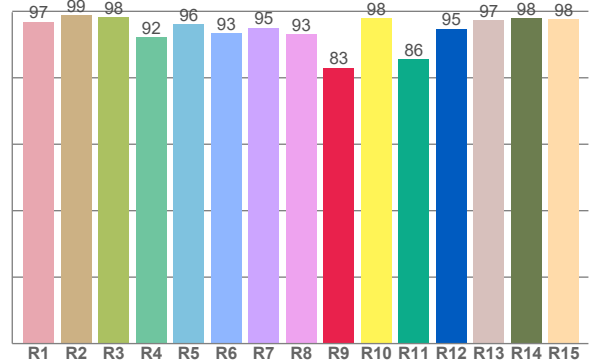
# COLOR DETAILS



TM30: 93,3



CRI: 95,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96,9	98,8	98,2	92,2	96,0	93,3	95,1	93,2	83,0	98,0	85,5	94,8	97,3	97,8	97,6

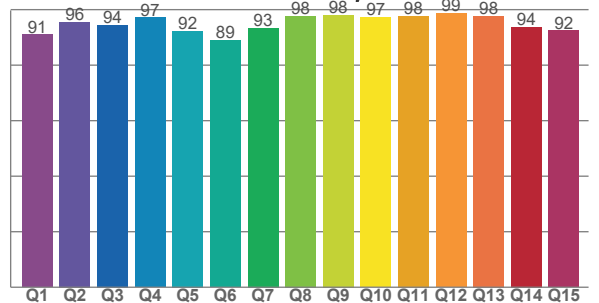
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,2	96,6	94,0	96,3	94,1	90,8	93,5	90,7	94,9	95,3	95,3	88,3	88,9	89,1	91,6	88,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91,0	95,6	94,4	97,2	92,2	88,9	93,4	97,6	98,1	97,2	97,7	98,7	97,8	93,8	92,4

CQS: 94,1



## COLOR PARAMETERS

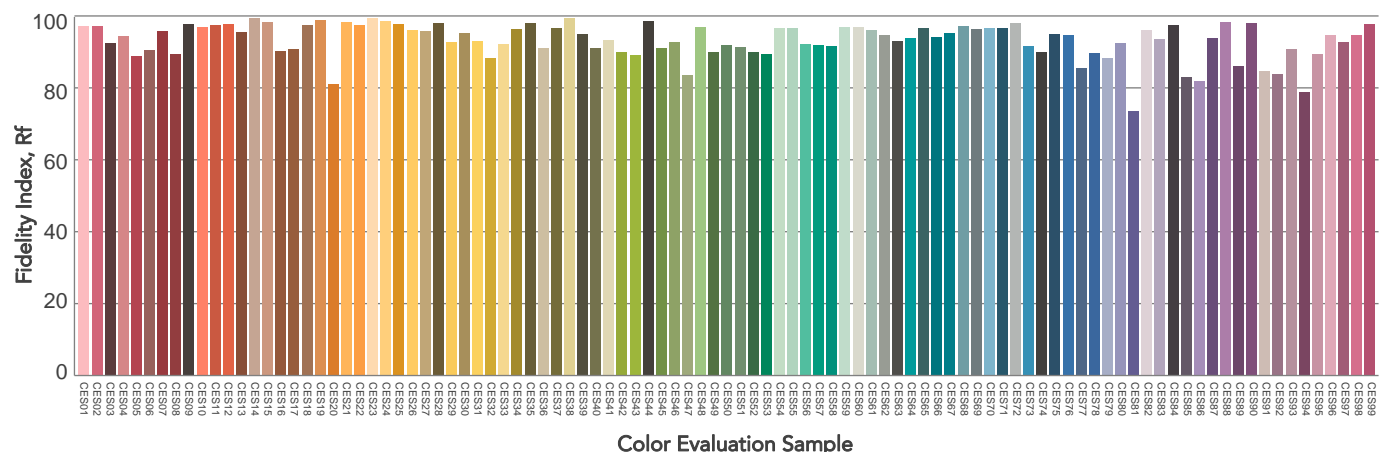
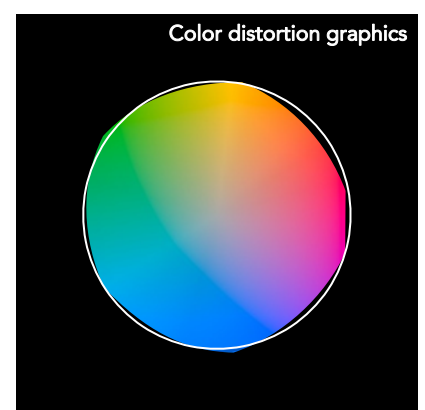
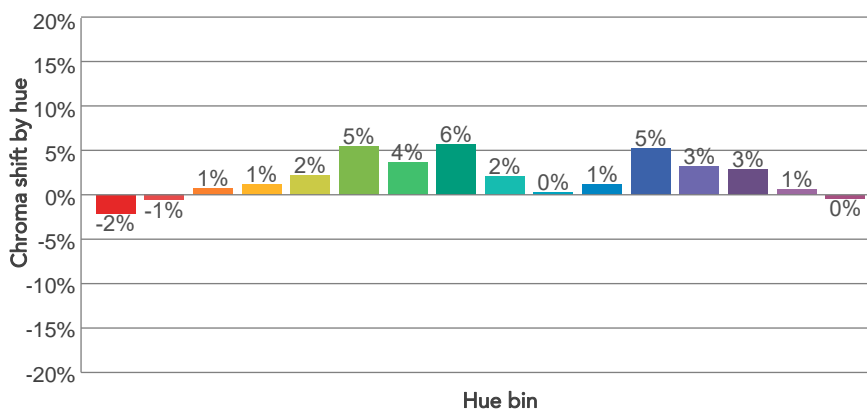
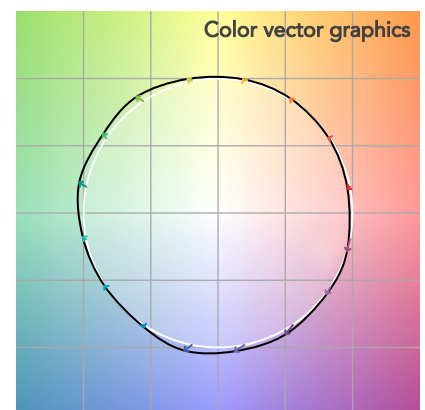
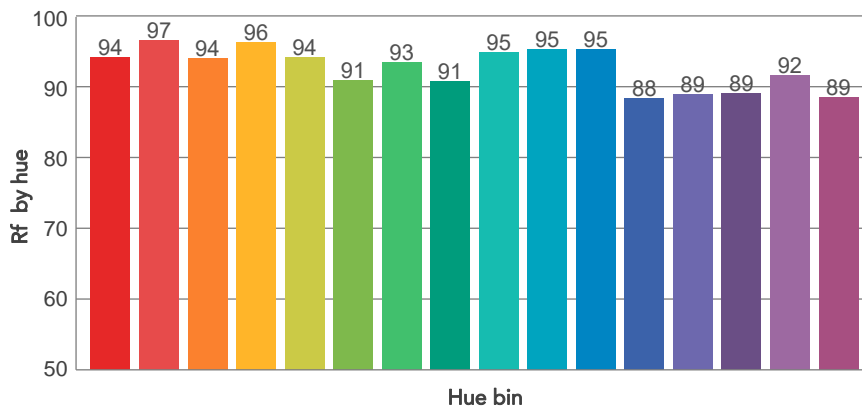
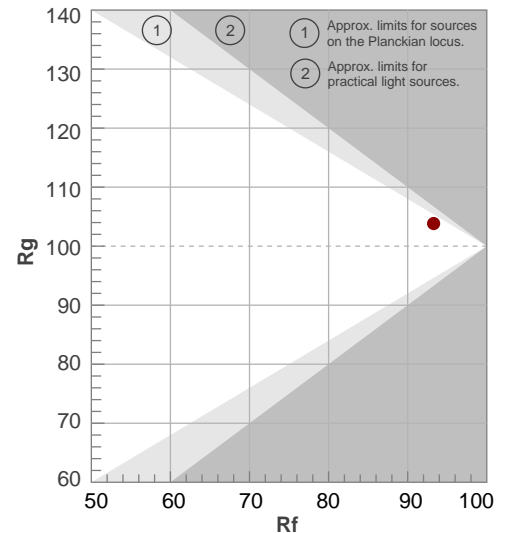
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3222 K	95,5	83,0	93,3	103,8	94,1	84	0,419	0,391	-0,0025

# TM30 DETAILS

**Rf 93,3**  
Fidelity index Rf

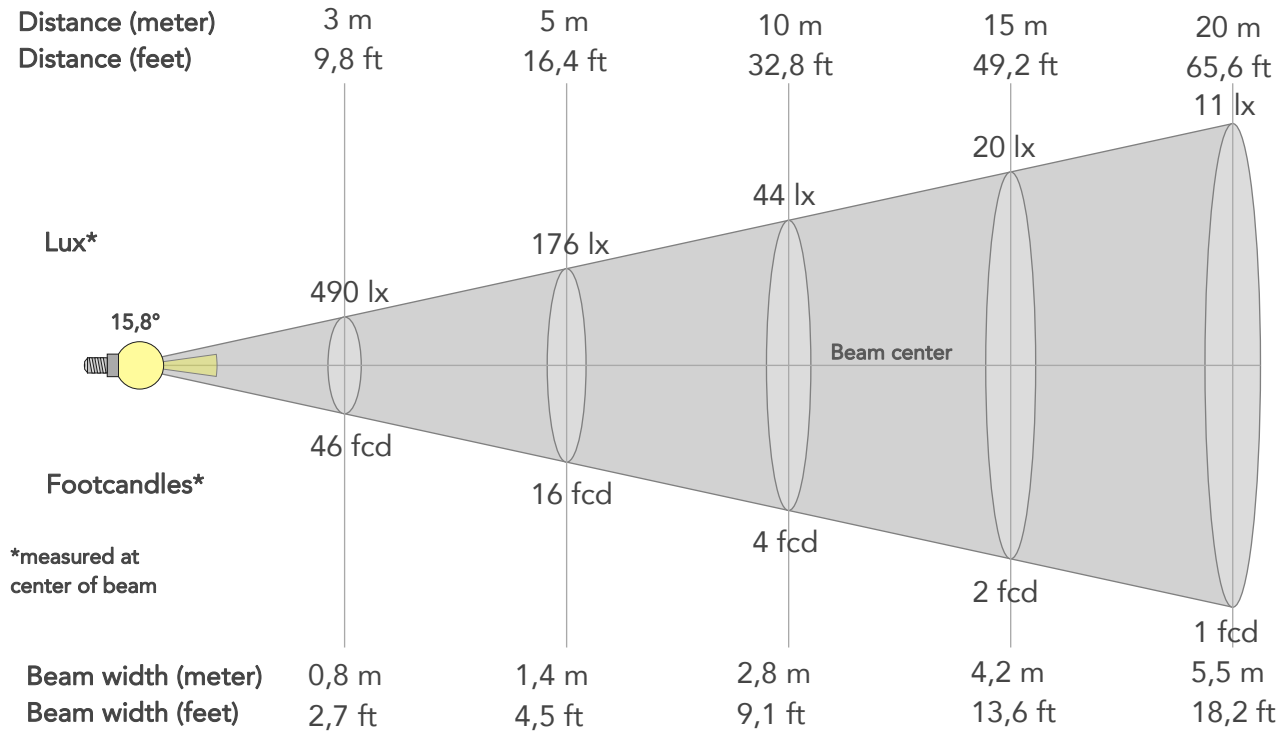
**Rg 103,8**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-2%	-1%
2	97	-1%	1%
3	94	1%	3%
4	96	1%	1%
5	94	2%	3%
6	91	5%	2%
7	93	4%	-2%
8	91	6%	-2%
9	95	2%	-2%
10	95	0%	-2%
11	95	1%	1%
12	88	5%	-4%
13	89	3%	-8%
14	89	3%	-8%
15	92	1%	-5%
16	89	0%	-9%



# BEAM DETAILS

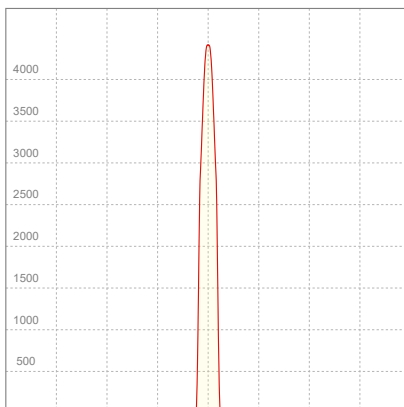
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,8°	19,7°	20,8°	97,9%	97,4%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4411lx	1103lx	490lx	276lx	176lx	78lx	44lx	20lx	11lx	7lx	5lx	3lx	2lx
Footcand.	410fcd	102fcd	46fcd	26fcd	16fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,8m	1,1m	1,4m	2,1m	2,8m	4,2m	5,5m	6,9m	8,3m	11,1m	13,8m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,8ft	9,1ft	13,6ft	18,2ft	22,7ft	27,2ft	36,3ft	45,4ft

## LINEAR DISTRIBUTION DIAGRAM

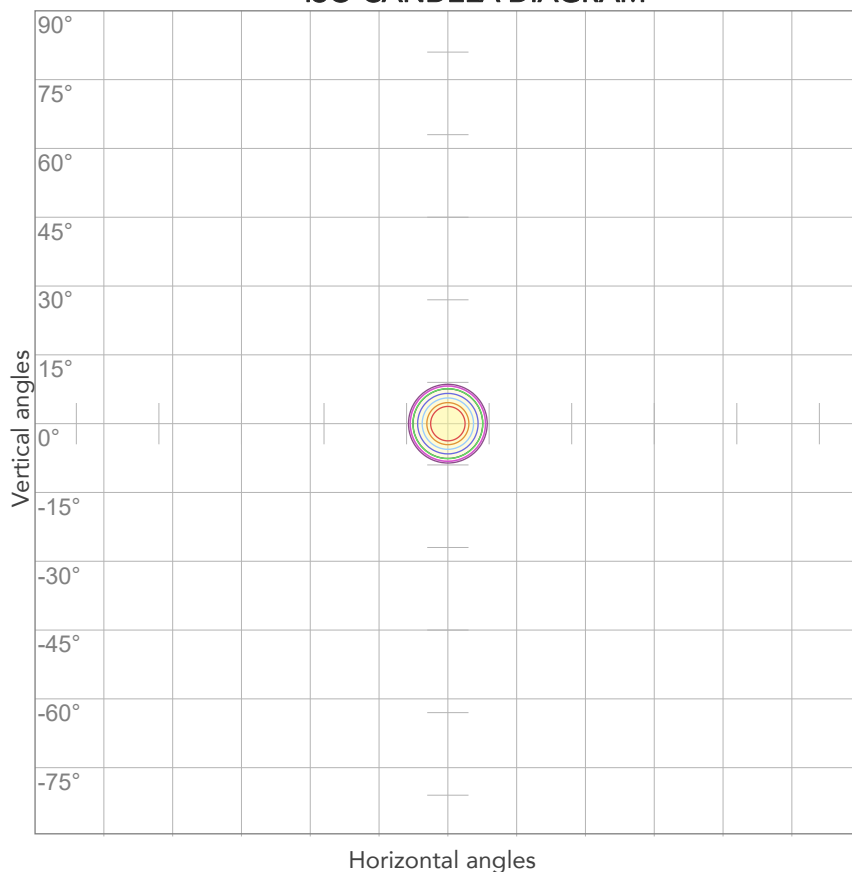


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
227V	0,246A	25,7W	0,46	10lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



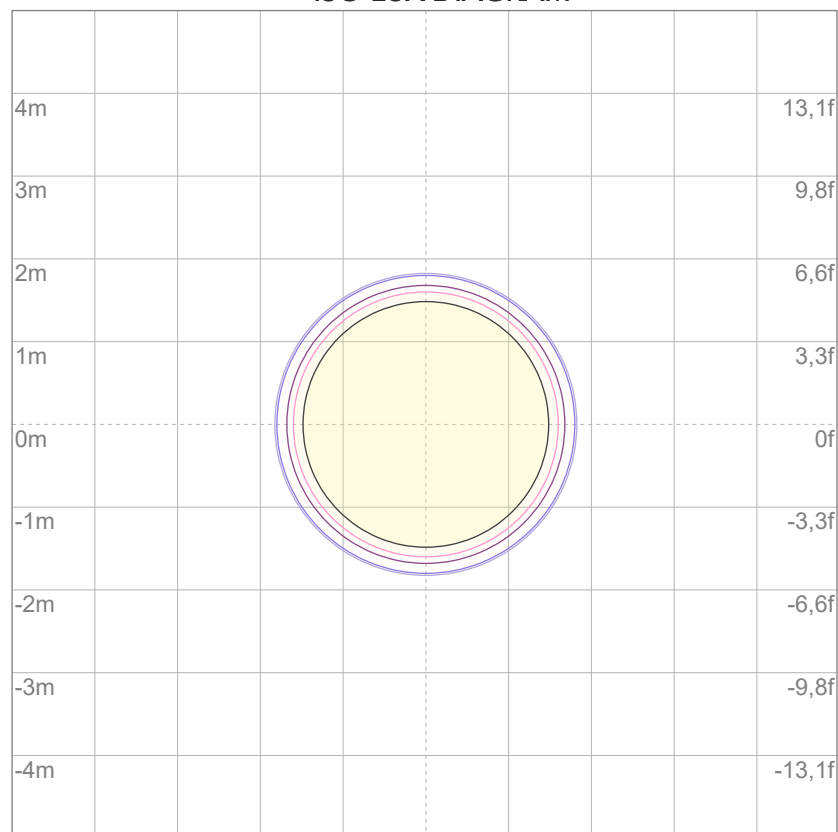
10%	441 cd
20%	882 cd
30%	1323 cd
40%	1764 cd
50%	2205 cd
60%	2646 cd
70%	3087 cd
80%	3528 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4411 cd

## ISO LUX DIAGRAM



3%	1,32 lx
5%	2,21 lx
10%	4,41 lx
30%	13,2 lx
50%	22,1 lx

### Conditions:

Number of c-planes: 2

Lux at center: 44,1 lx

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





Total lumen output:

264 lm

Peak candela output:

4548 cd

Light quality:

CRI: 94,7

Color temperature:

4038 K

**PRODUCT NAME:**

ECLDISPLAY FC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

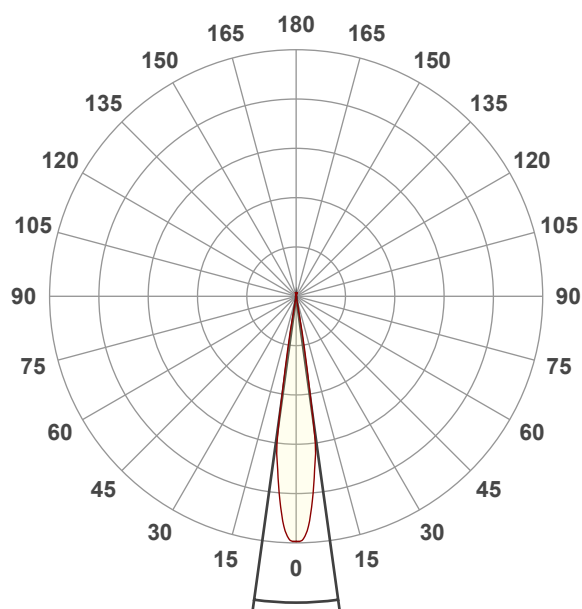
4000K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:07:55

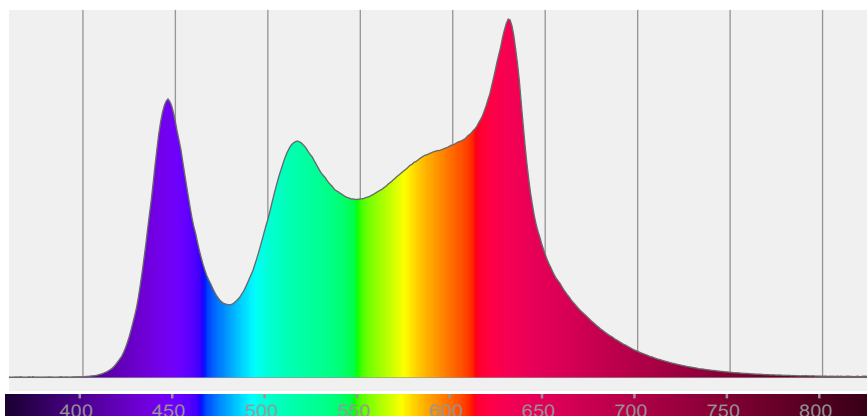


Beam angle 50%: 15,8°

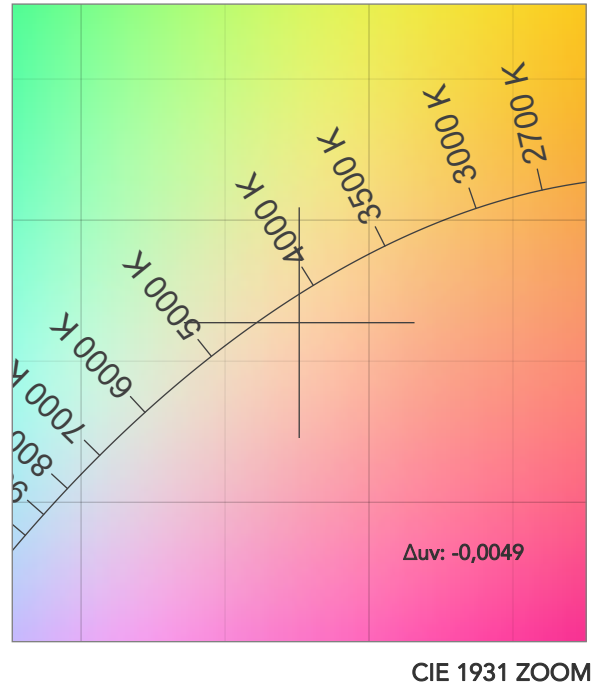
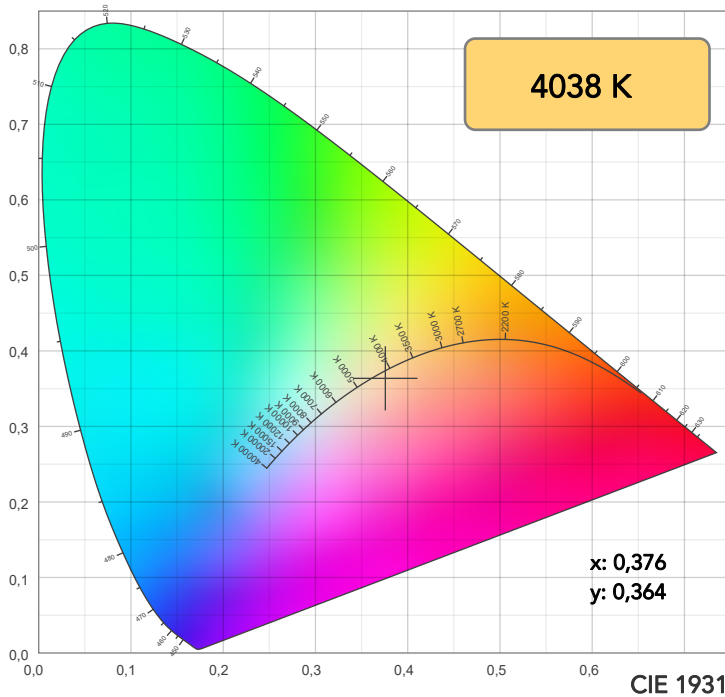
Field angle 10%: 19,7°

Cut off angle 2.5%: 20,8°

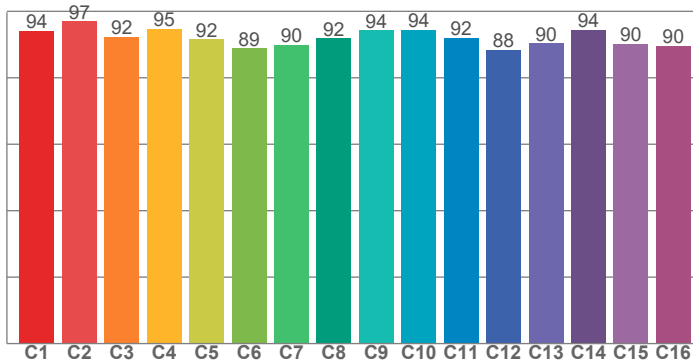
**Spectra**



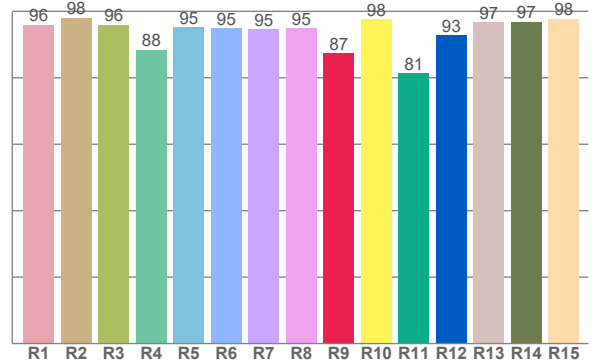
# COLOR DETAILS



TM30: 92,3



CRI: 94,7 (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
96,0	98,1	96,0	88,5	95,2	94,8	94,5	95,0	87,4	97,5	81,4	92,8	96,7	96,9	97,8

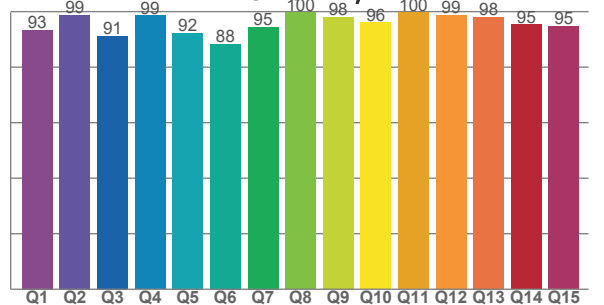
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,1	96,9	92,2	94,7	91,6	88,8	89,9	91,8	94,3	94,4	92,1	88,4	90,4	94,5	90,3	89,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,4	98,9	91,1	98,6	92,3	88,3	94,5	99,6	98,1	96,1	99,6	98,8	98,0	95,3	94,7

CQS: 94,7



## 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	$\Delta uv$
4038 K	94,7	87,4	92,3	105,4	94,7	82	0,376	0,364	-0,0049

## TM30 DETAILS

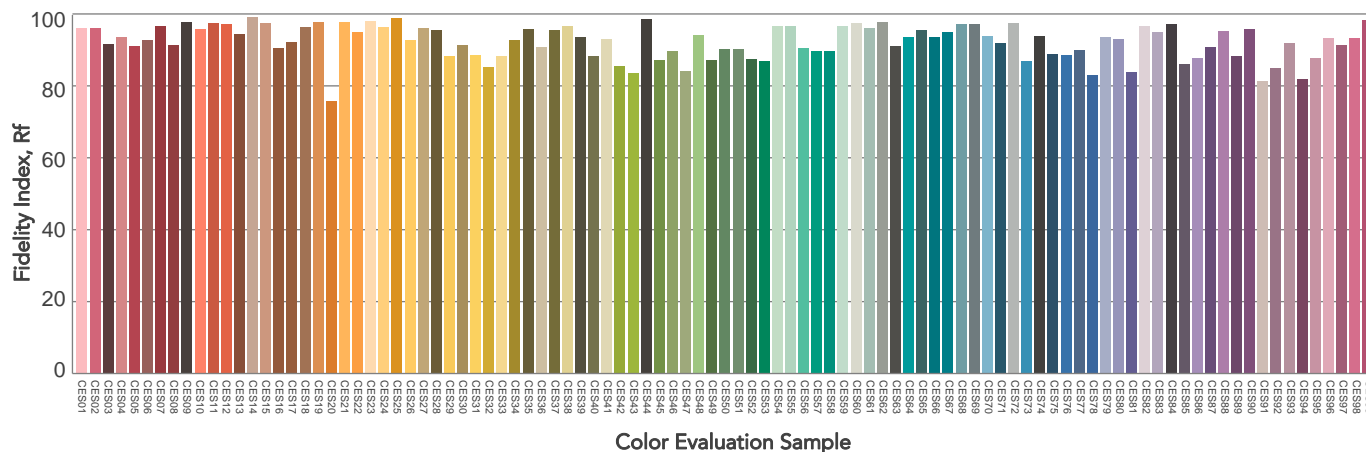
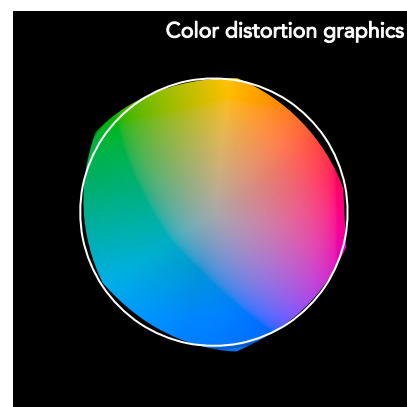
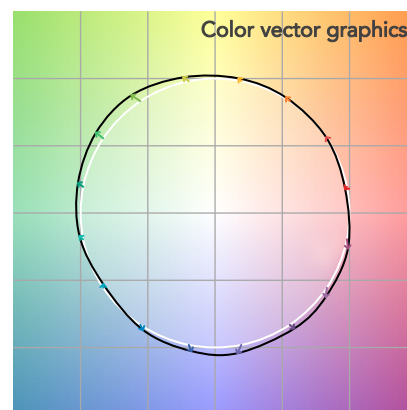
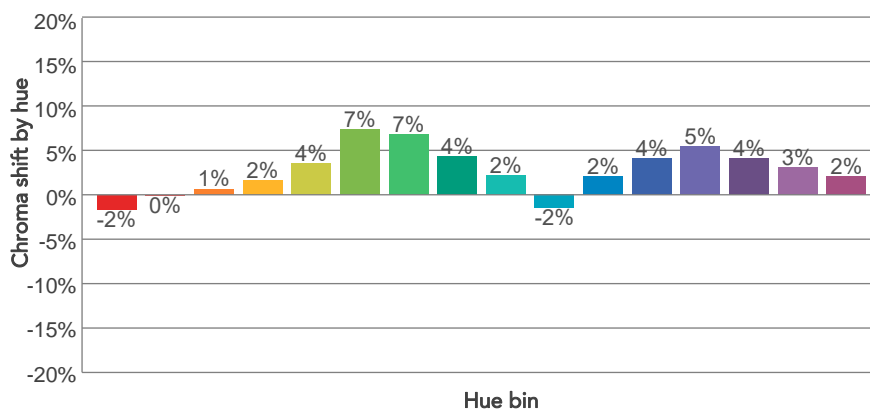
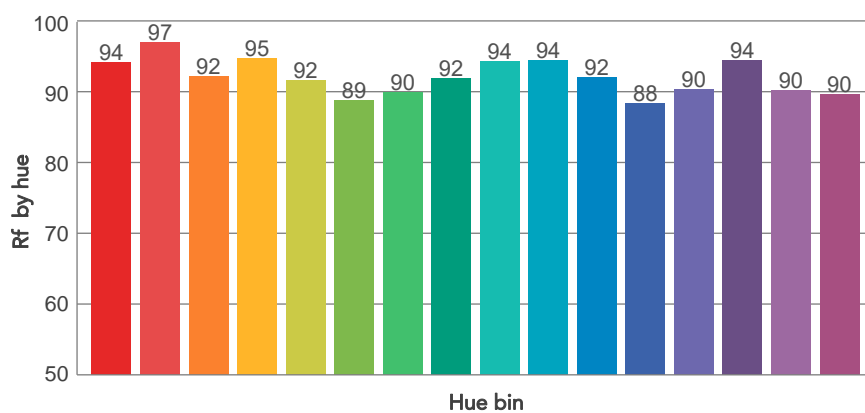
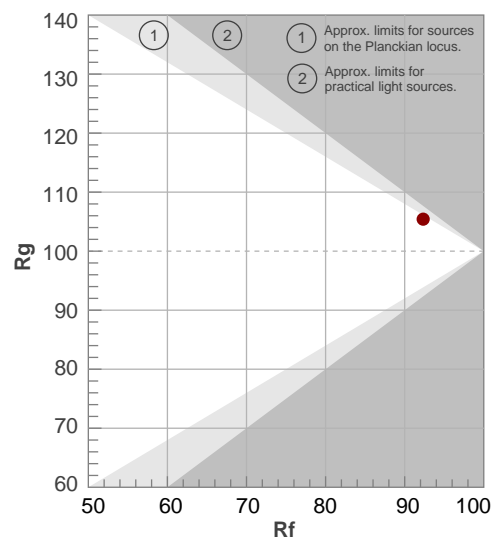
Rf 92,3

Fidelity index  $R_f$

Rg 105,4

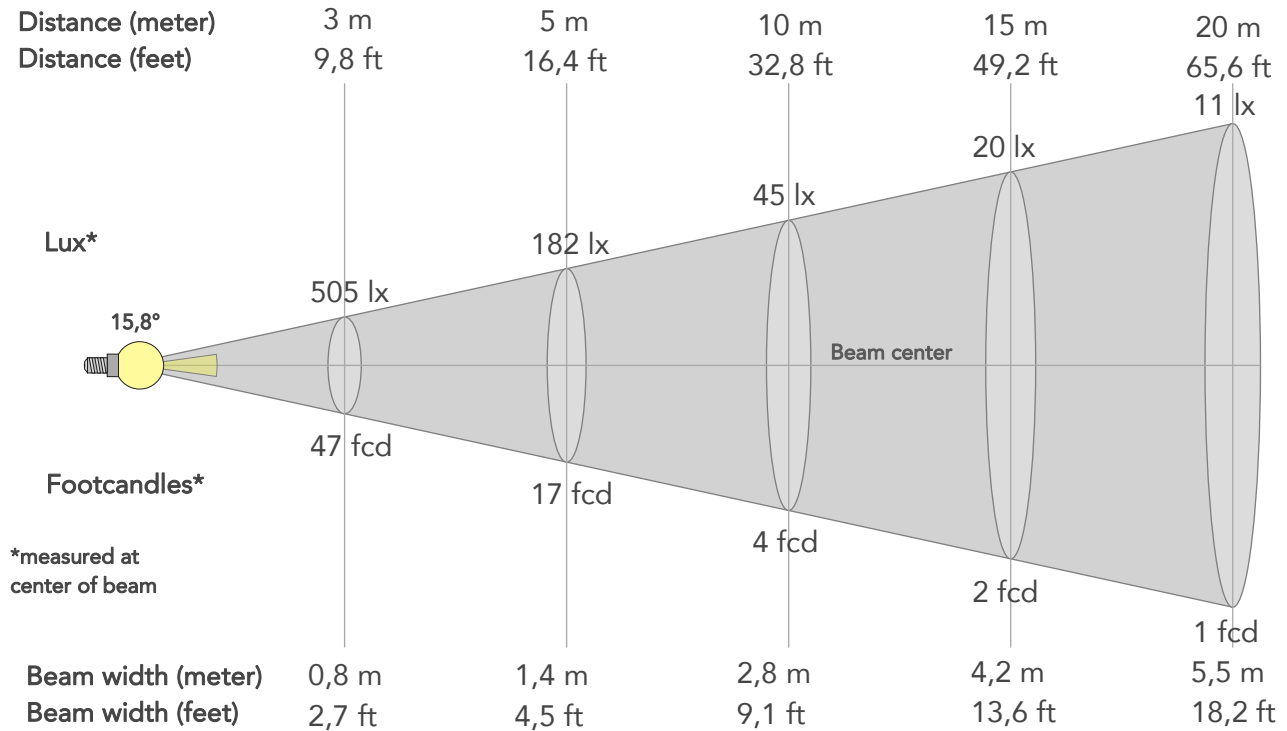
## Gammut index

		Graphic shifts (%)	
Hue Bin	$R_f$	Chroma	Hue
1	94	-2%	-2%
2	97	0%	1%
3	92	1%	4%
4	95	2%	2%
5	92	4%	3%
6	89	7%	3%
7	90	7%	0%
8	92	4%	-2%
9	94	2%	-3%
10	94	-2%	-2%
11	92	2%	4%
12	88	4%	3%
13	90	5%	-4%
14	94	4%	1%
15	90	3%	-6%
16	90	2%	-6%



# BEAM DETAILS

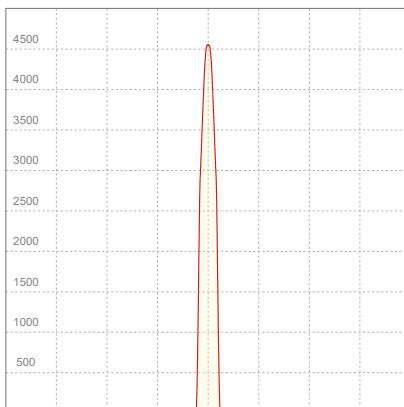
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,8°	19,7°	20,8°	96,6%	95,7%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4548lx	1137lx	505lx	284lx	182lx	81lx	45lx	20lx	11lx	7lx	5lx	3lx	2lx
Footcand.	423fcd	106fcd	47fcd	26fcd	17fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,8m	1,1m	1,4m	2,1m	2,8m	4,2m	5,5m	6,9m	8,3m	11,1m	13,8m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,8ft	9,1ft	13,6ft	18,2ft	22,7ft	27,2ft	36,3ft	45,4ft

## LINEAR DISTRIBUTION DIAGRAM

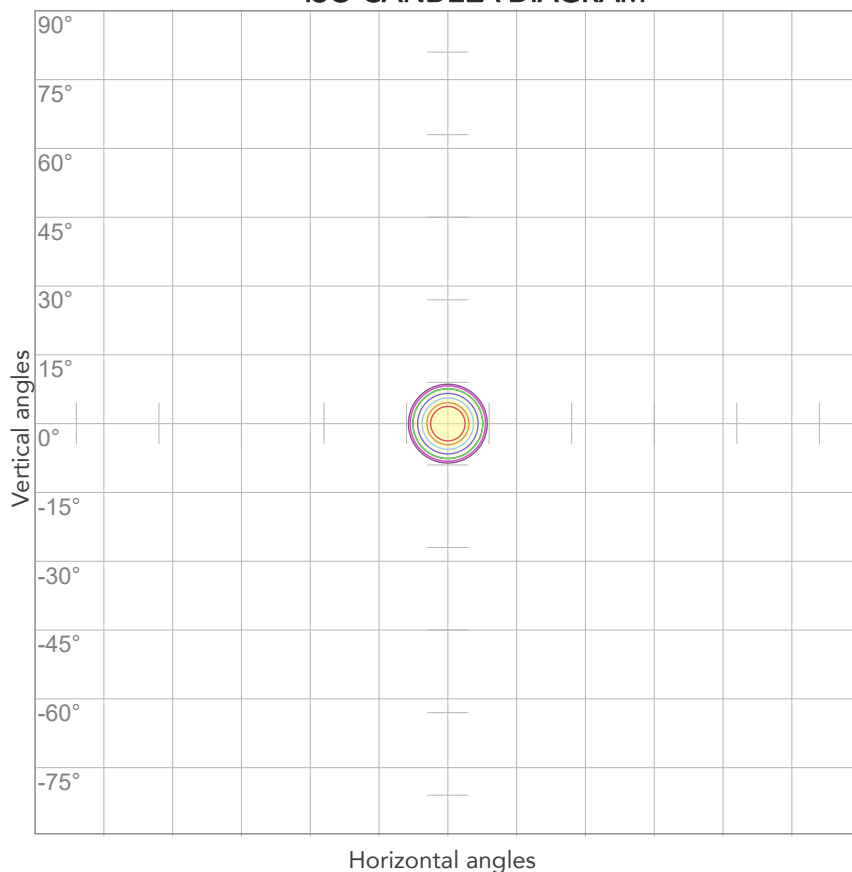


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,293A	27,5W	0,41	10lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



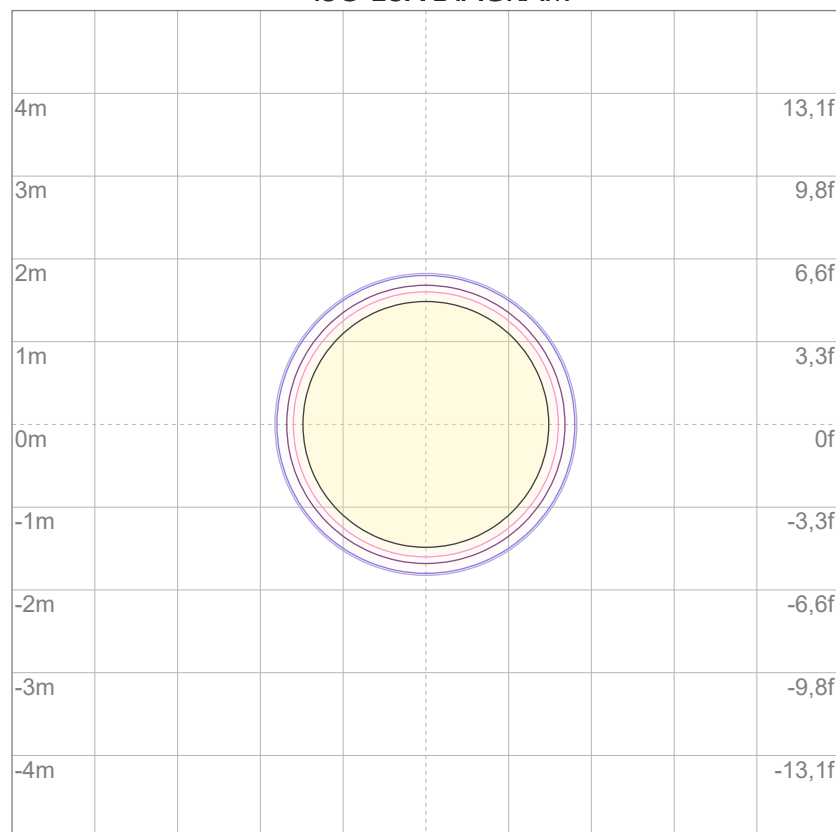
10%	455 cd
20%	910 cd
30%	1364 cd
40%	1819 cd
50%	2274 cd
60%	2729 cd
70%	3184 cd
80%	3639 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4548 cd

## ISO LUX DIAGRAM



3%	1,36 lx
5%	2,27 lx
10%	4,55 lx
30%	13,6 lx
50%	22,7 lx

### Conditions:

Number of c-planes: 2

Lux at center: 45,5 lx

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



Total lumen output:

265 lm

Peak candela output:

4675 cd

Light quality:

CRI: 91,2

Color temperature:

5610 K

**PRODUCT NAME:**

ECLDISPLAY FC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

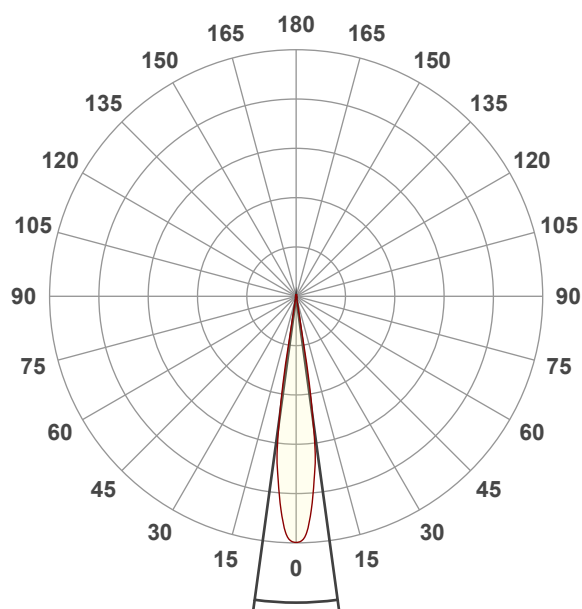
5600K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:11:00

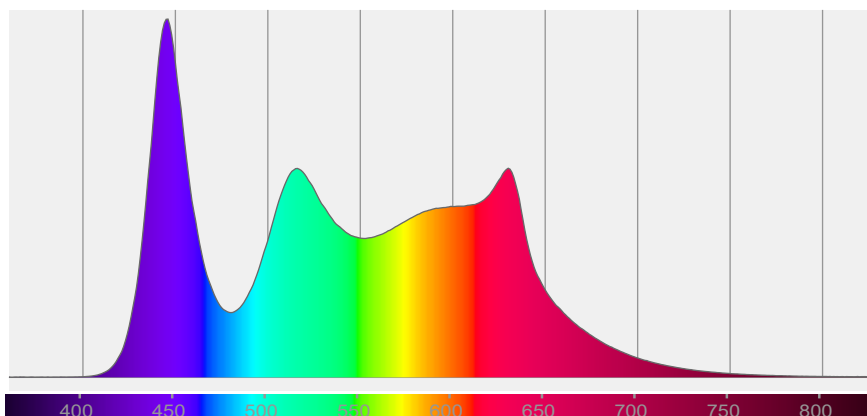


Beam angle 50%: 15,6°

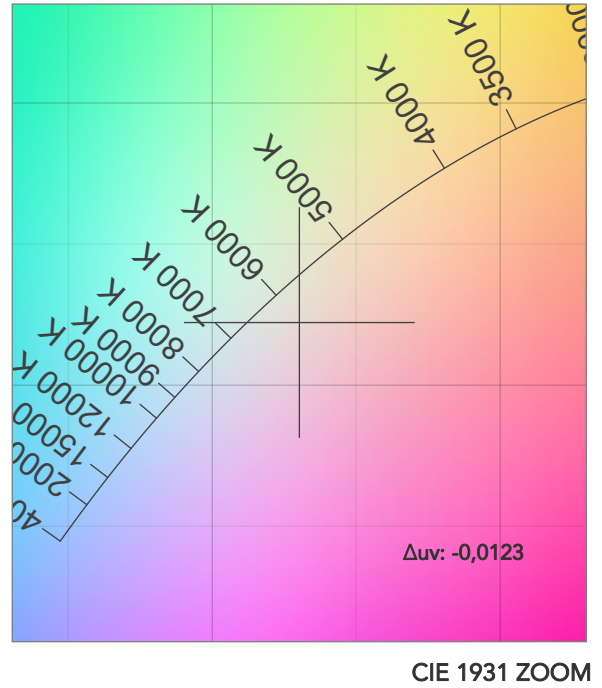
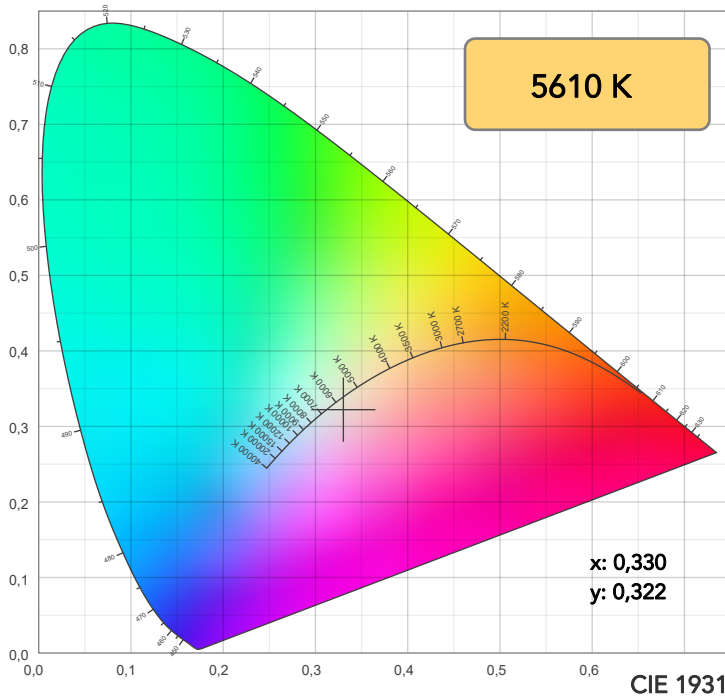
Field angle 10%: 19,6°

Cut off angle 2.5%: 21,2°

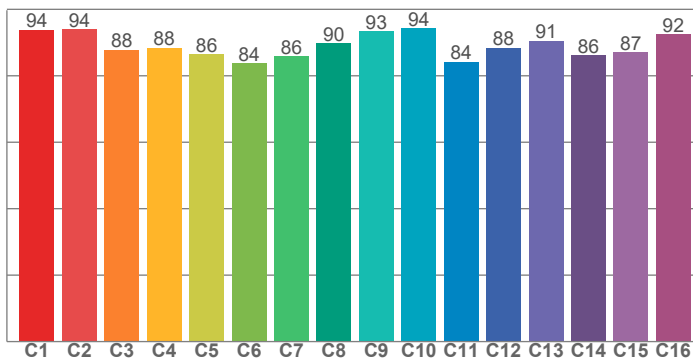
**Spectra**



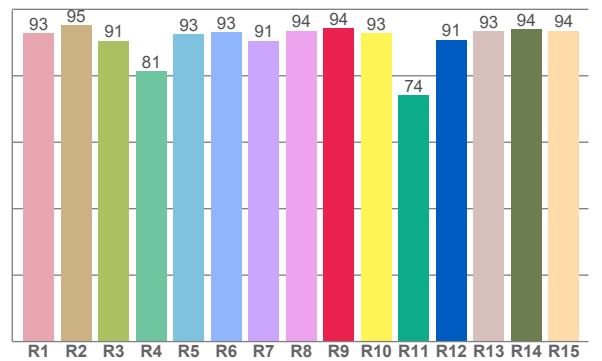
## COLOR DETAILS



TM30: 88,9



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
92,7	95,2	90,5	81,3	92,6	93,1	90,6	93,5	94,3	92,9	74,1	90,9	93,5	93,9	93,5

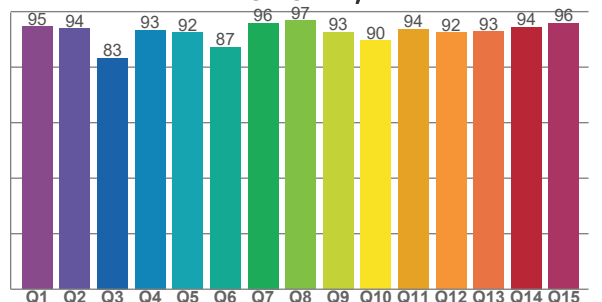
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,8	93,9	87,7	88,3	86,4	83,7	85,8	89,8	93,4	94,3	84,1	88,4	90,5	86,1	87,1	92,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,6	93,9	83,2	93,3	92,4	87,3	95,8	96,8	92,6	89,6	93,7	92,5	92,8	94,5	95,8

CQS: 91,9



## 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	$\Delta uv$
5610 K	91,2	94,3	88,9	108,5	91,9	84	0,330	0,322	-0,0123

## TM30 DETAILS

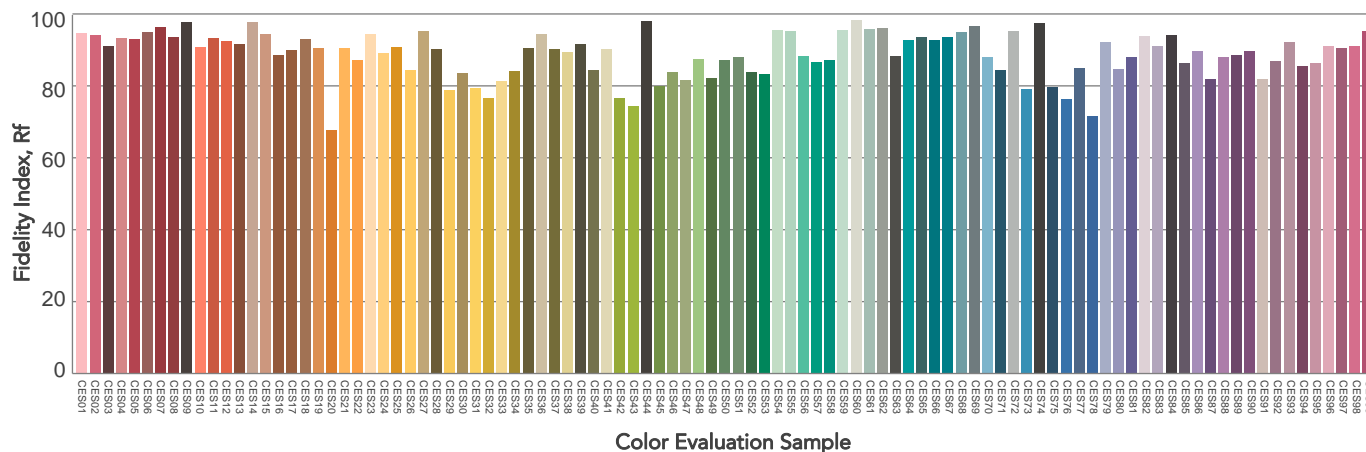
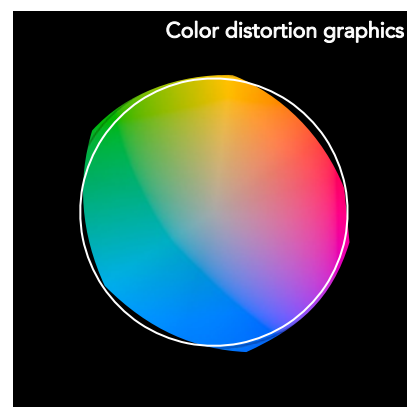
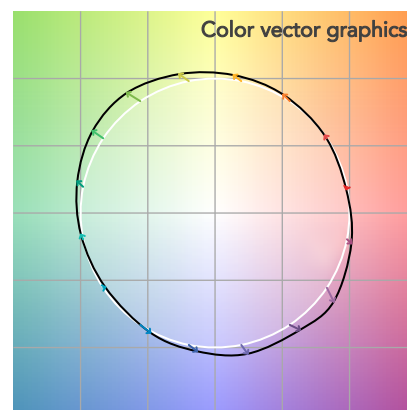
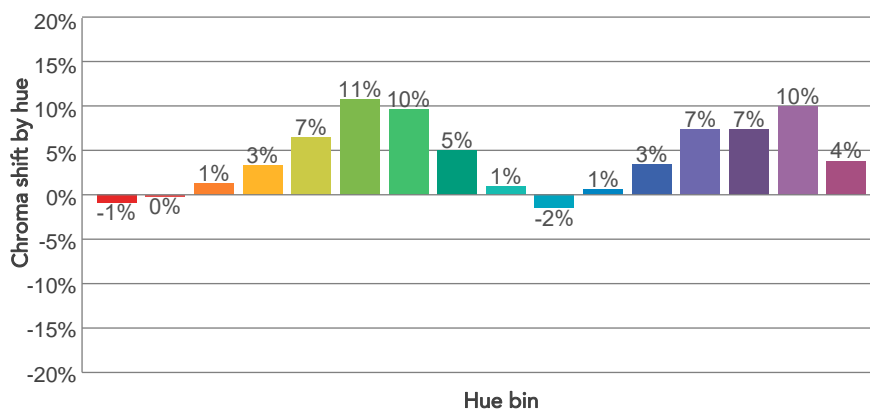
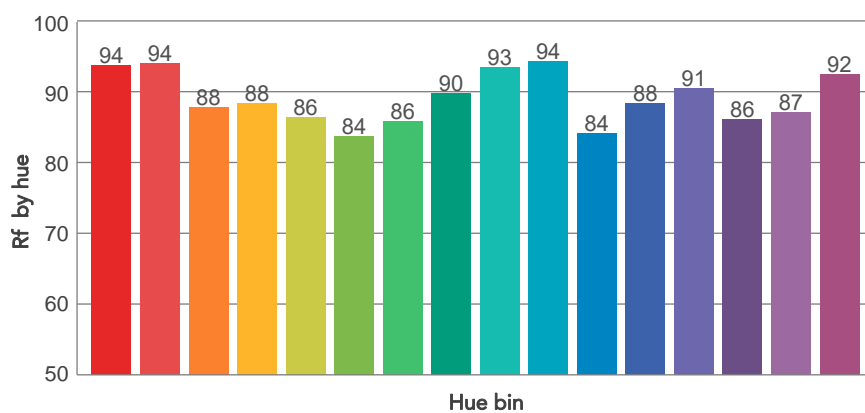
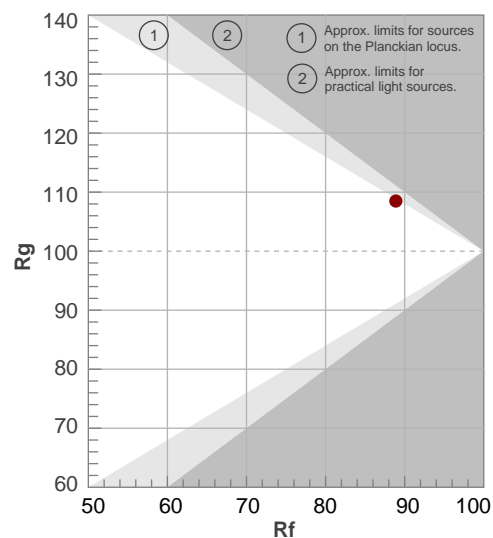
**Rf 88,9**

Fidelity index  $R_f$

Rg 108,5

## Gammut index

		Graphic shifts (%)	
Hue Bin	$R_f$	Chroma	Hue
1	94	-1%	-2%
2	94	0%	3%
3	88	1%	7%
4	88	3%	6%
5	86	7%	6%
6	84	11%	5%
7	86	10%	0%
8	90	5%	-3%
9	93	1%	-4%
10	94	-2%	0%
11	84	1%	9%
12	88	3%	7%
13	91	7%	3%
14	86	7%	4%
15	87	10%	-6%
16	92	4%	-2%

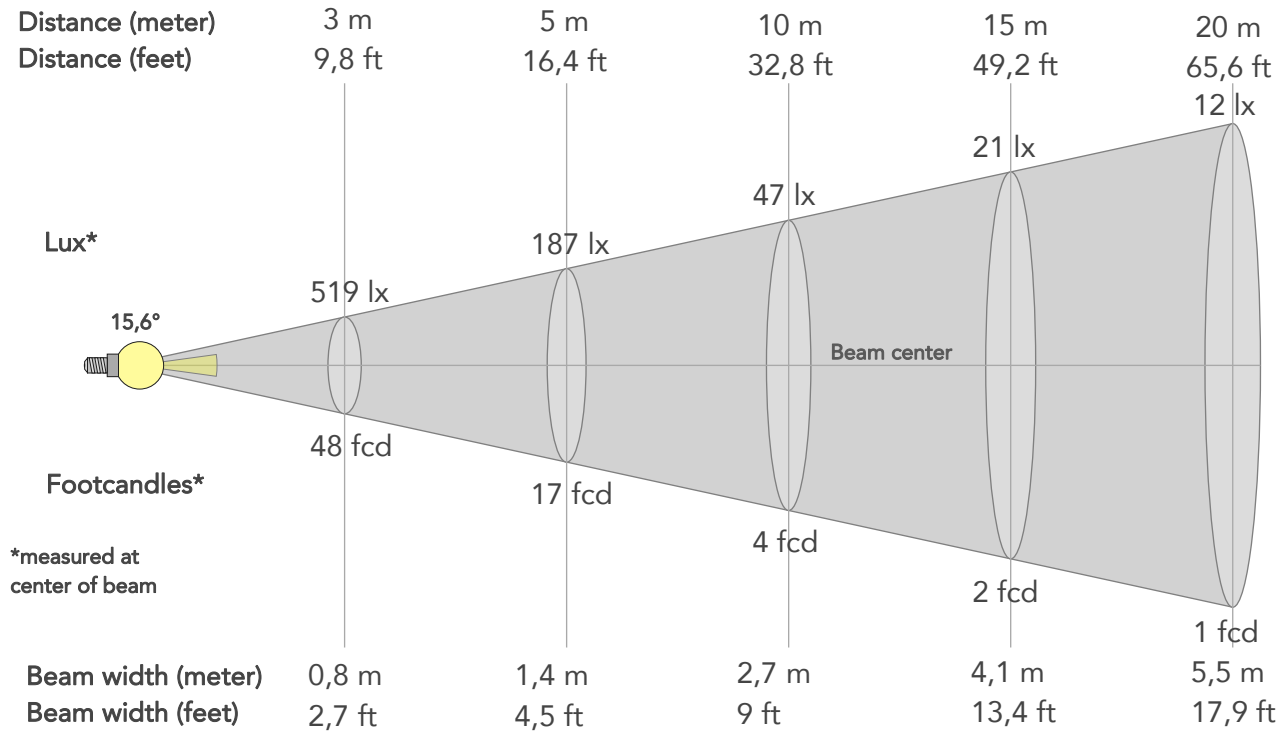




# BEAM DETAILS



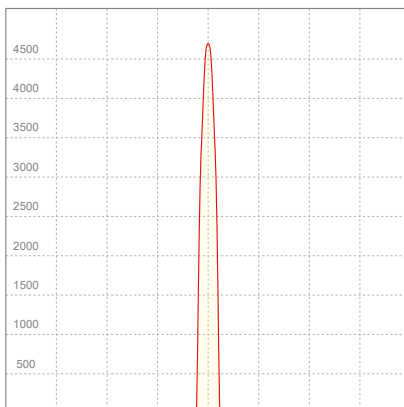
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,6°	19,6°	21,2°	98,5%	98,1%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4675lx	1169lx	519lx	292lx	187lx	83lx	47lx	21lx	12lx	7lx	5lx	3lx	2lx
Footcand.	434fcd	109fcd	48fcd	27fcd	17fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,5m	0,8m	1,1m	1,4m	2,1m	2,7m	4,1m	5,5m	6,8m	8,2m	10,9m	13,7m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,7ft	9ft	13,4ft	17,9ft	22,4ft	26,9ft	35,9ft	44,8ft

## LINEAR DISTRIBUTION DIAGRAM

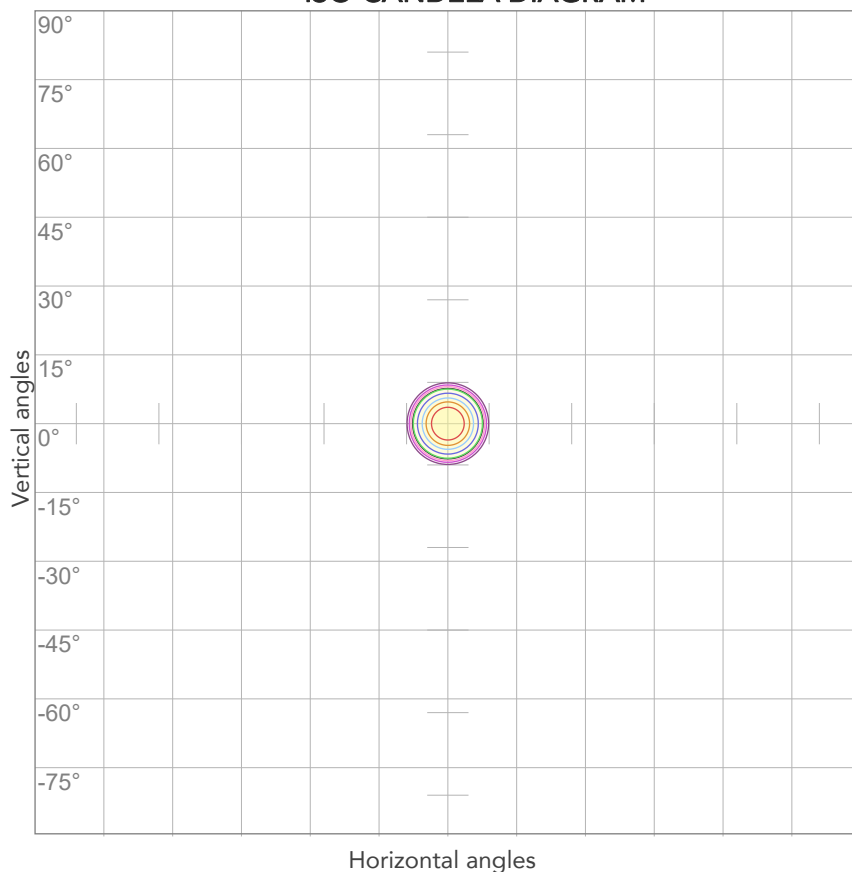


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,302A	29,8W	0,44	9lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



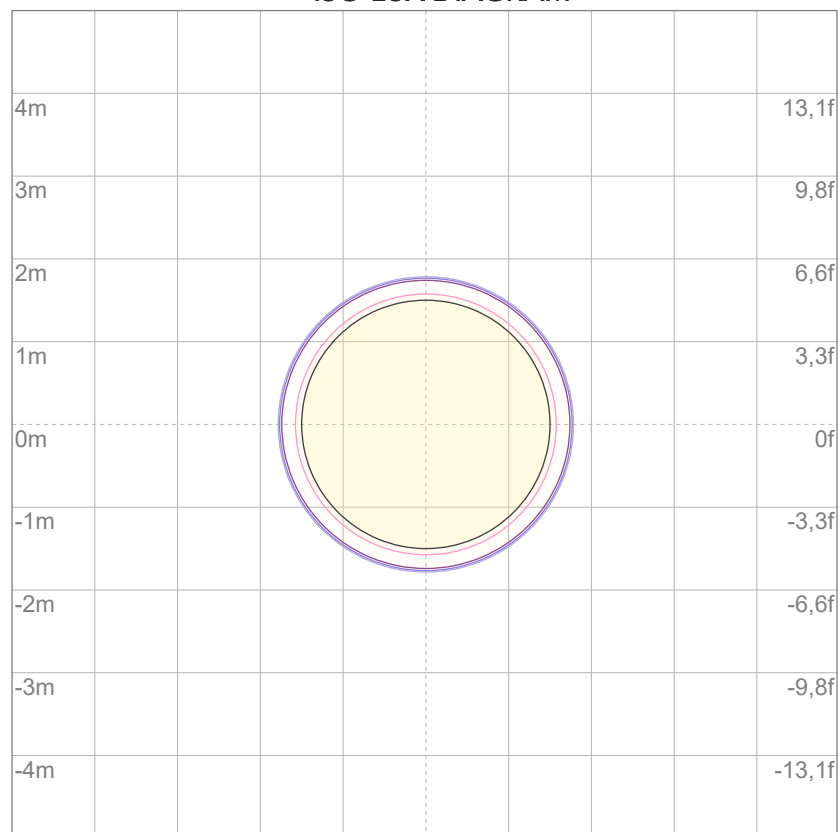
10%	468 cd
20%	935 cd
30%	1403 cd
40%	1870 cd
50%	2338 cd
60%	2805 cd
70%	3273 cd
80%	3740 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4675 cd

## ISO LUX DIAGRAM



3%	1,40 lx
5%	2,34 lx
10%	4,68 lx
30%	14,0 lx
50%	23,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 46,8 lx

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



Total lumen output:

264 lm

Peak candela output:

4724 cd

Light quality:

CRI: 90,7

Color temperature:

6075 K

**PRODUCT NAME:**

ECLDISPLAY FC

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

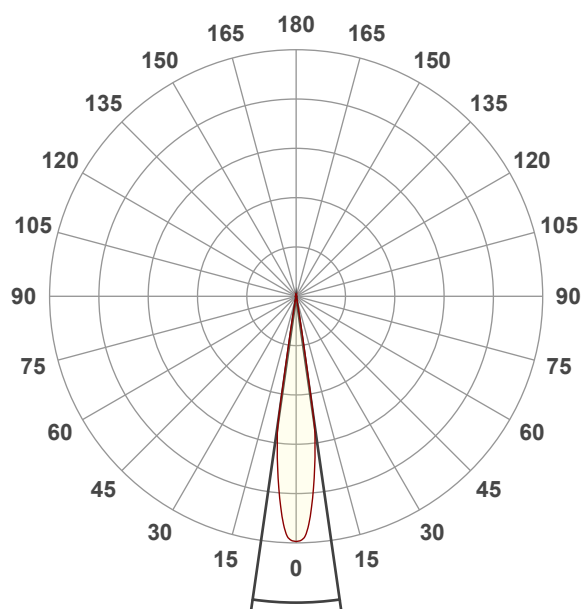
6000K

Operator:

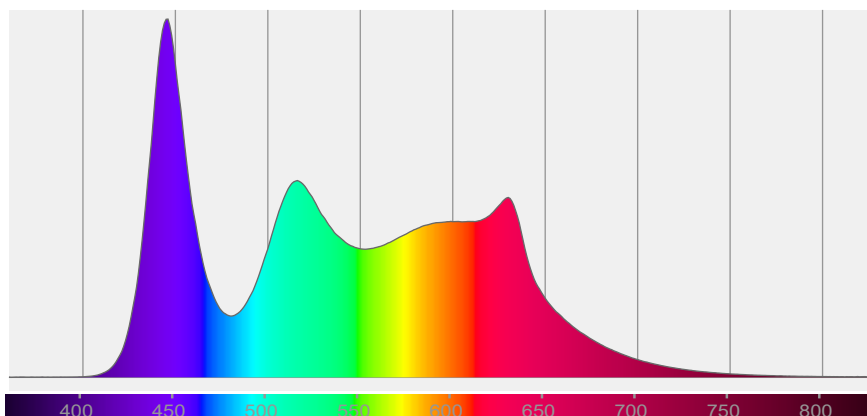
Salvatore Giglio

Date and time:

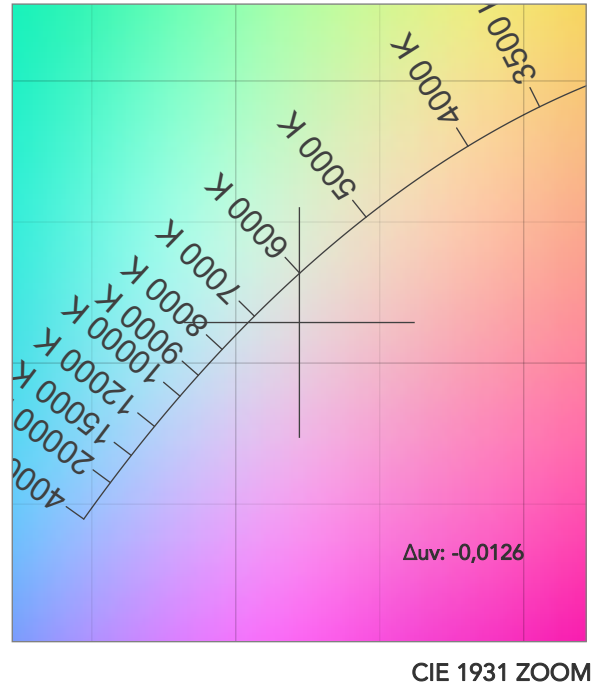
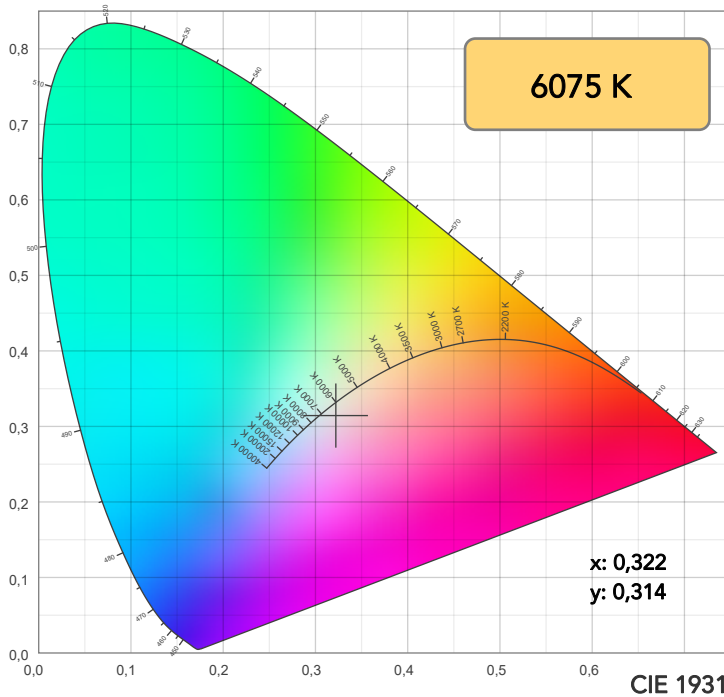
07/02/2024 11:12:31



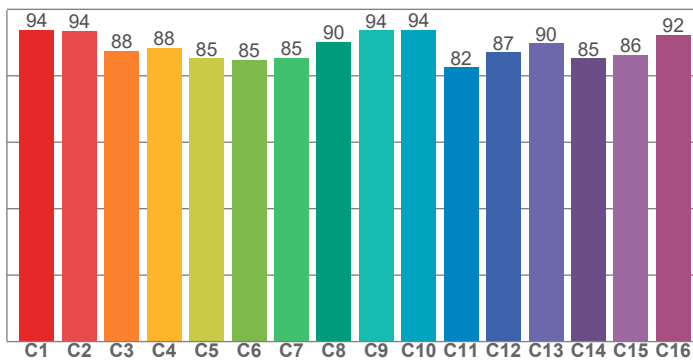
**Spectra**



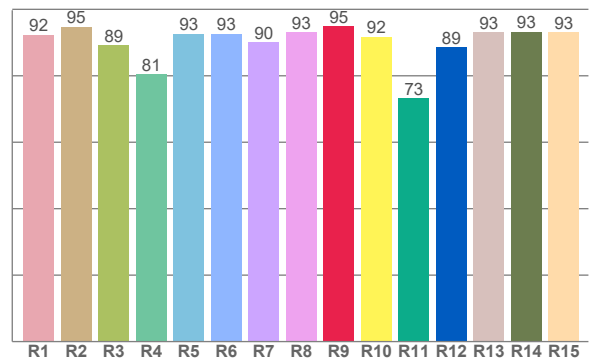
# COLOR DETAILS



**TM30: 88,5**



**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
92,3	94,7	89,2	80,6	92,7	92,7	90,2	93,2	94,8	91,7	73,3	88,6	93,1	93,2	93,1

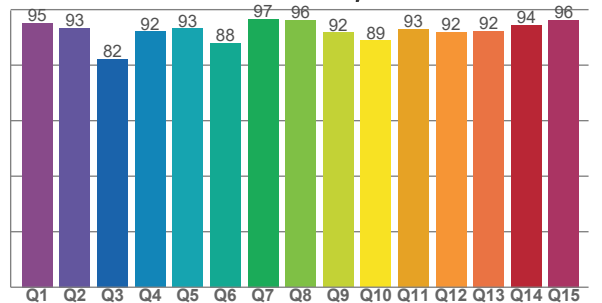
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,9	93,6	87,5	88,5	85,3	84,8	85,4	90,1	93,6	93,8	82,5	87,1	89,7	85,2	86,3	92,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,2	93,4	82,2	92,1	93,2	88,1	96,6	96,2	91,7	88,9	93,0	91,9	92,4	94,4	96,2

**CQS: 91,5**



## COLOR PARAMETERS

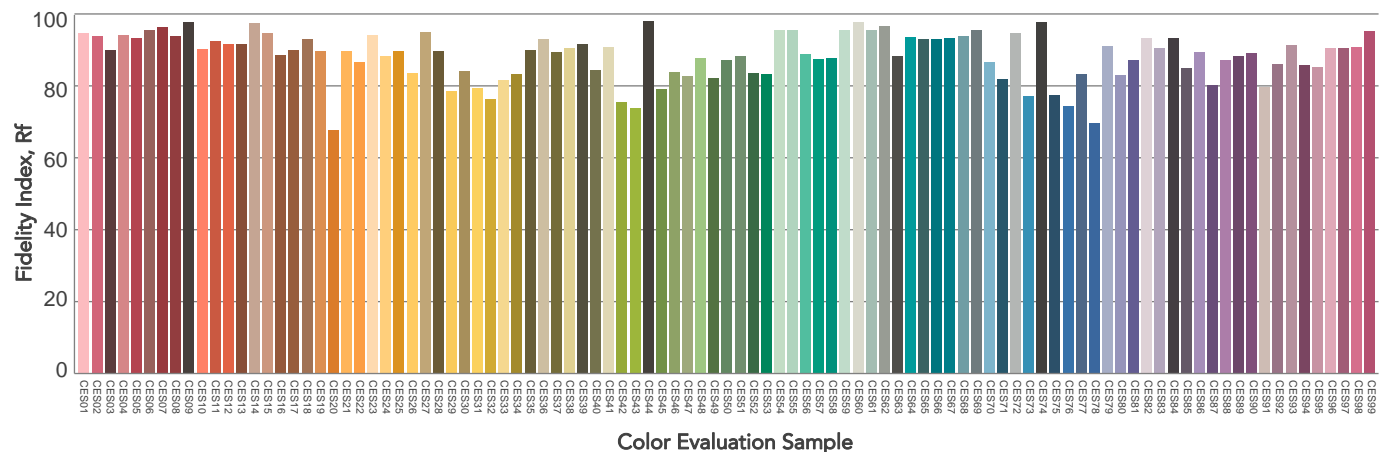
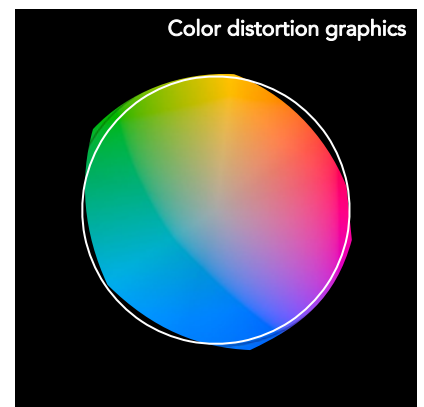
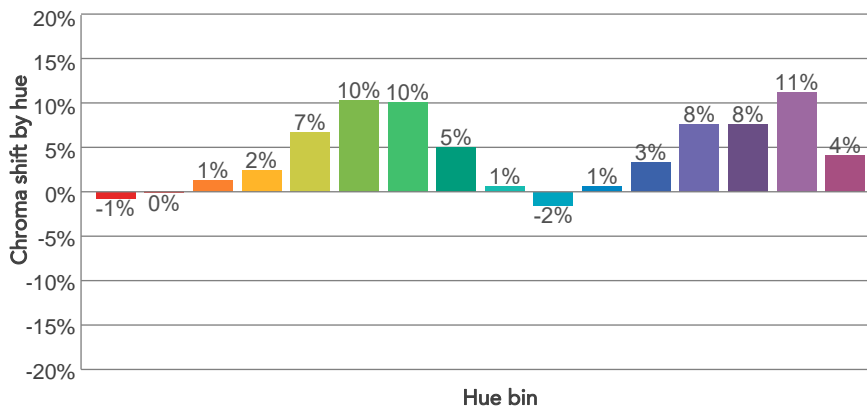
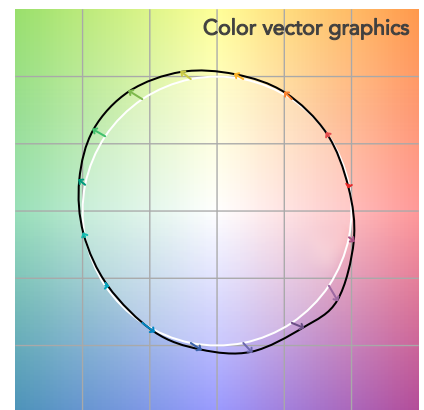
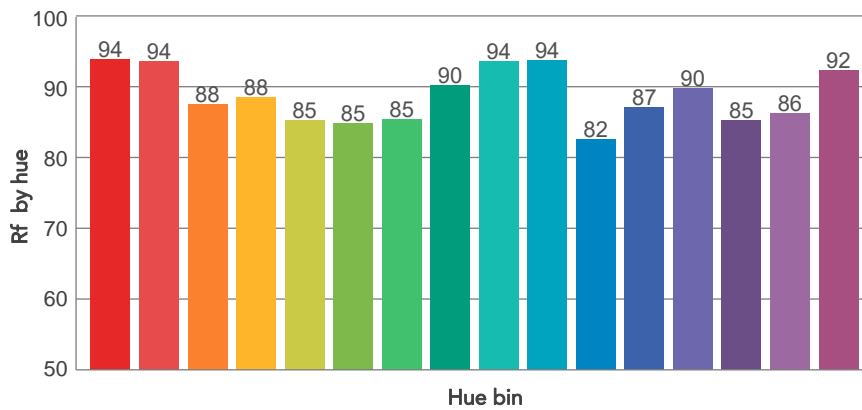
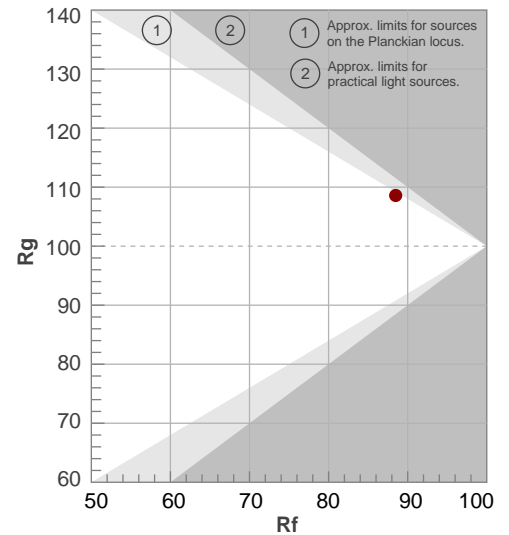
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6075 K	90,7	94,8	88,5	108,6	91,5	85	0,322	0,314	-0,0126

# TM30 DETAILS

**Rf 88,5**  
Fidelity index Rf

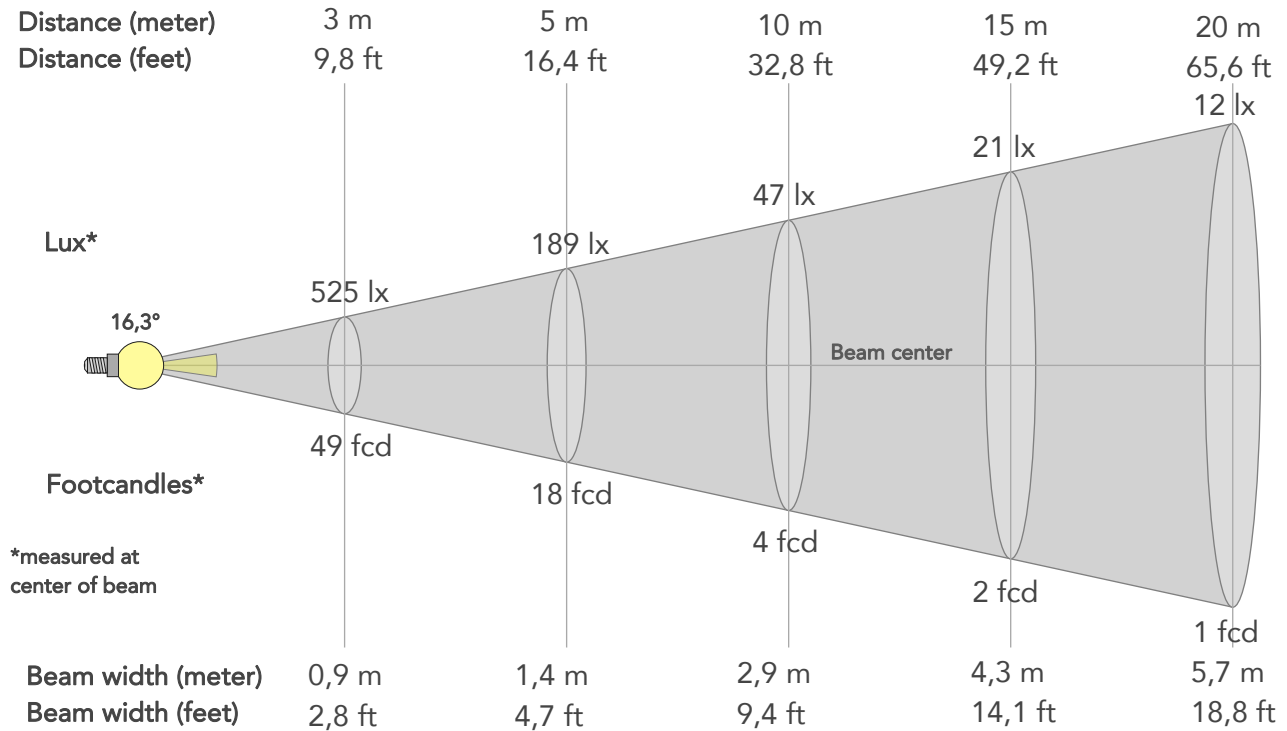
**Rg 108,6**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-1%	-2%
2	94	0%	3%
3	88	1%	7%
4	88	2%	7%
5	85	7%	6%
6	85	10%	5%
7	85	10%	1%
8	90	5%	-3%
9	94	1%	-3%
10	94	-2%	1%
11	82	1%	11%
12	87	3%	8%
13	90	8%	5%
14	85	8%	5%
15	86	11%	-5%
16	92	4%	-2%



# BEAM DETAILS

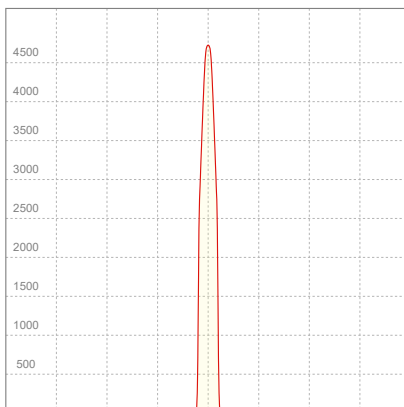
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,3°	19,1°	20,2°	98,4%	98,0%



## 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	4724lx	1181lx	525lx	295lx	189lx	84lx	47lx	21lx	12lx	8lx	5lx	3lx	2lx
Footcand.	439fcd	110fcd	49fcd	27fcd	18fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,1m	1,4m	2,2m	2,9m	4,3m	5,7m	7,2m	8,6m	11,5m	14,4m
Beam wid.	0,9ft	1,9ft	2,8ft	3,8ft	4,7ft	7,1ft	9,4ft	14,1ft	18,8ft	23,5ft	28,2ft	37,7ft	47,1ft

## LINEAR DISTRIBUTION DIAGRAM

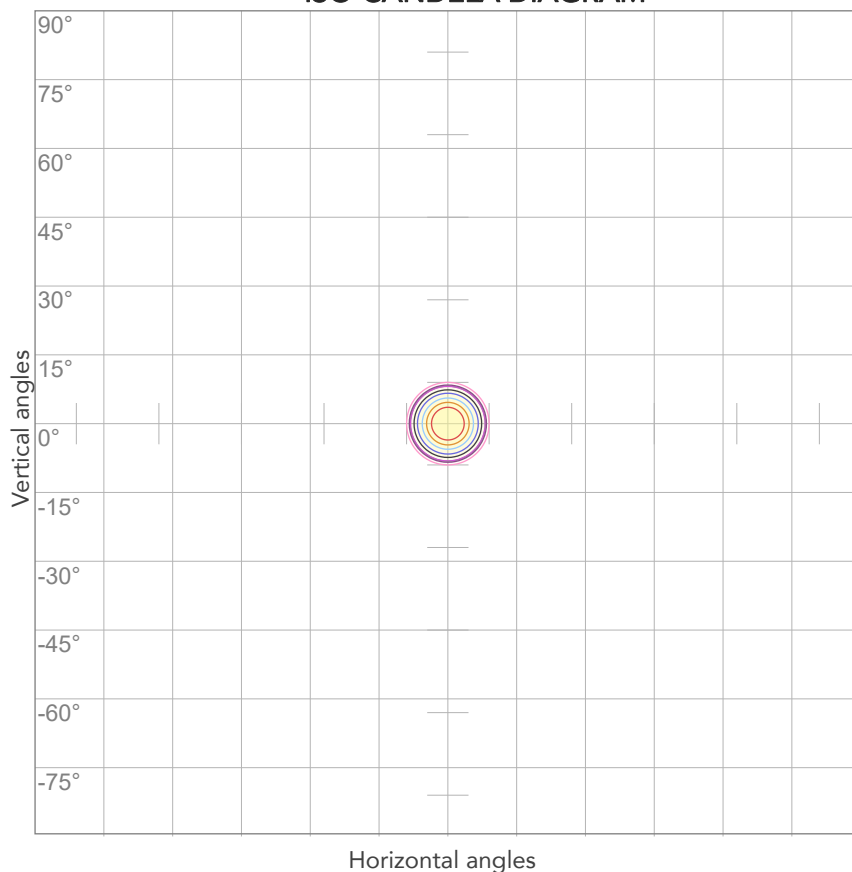


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,302A	30,3W	0,44	9lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



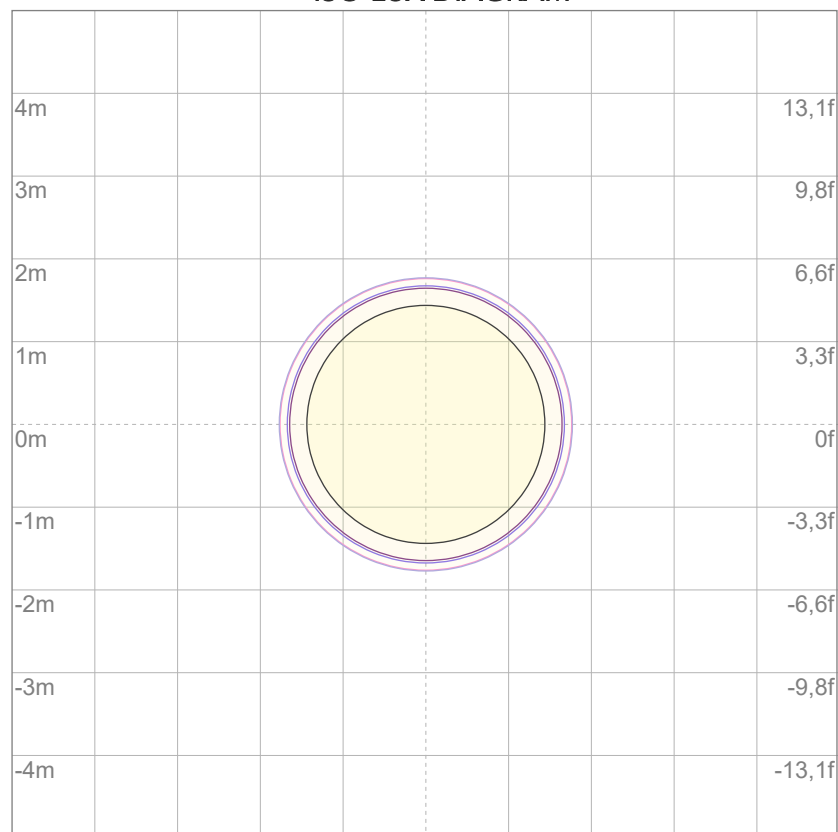
10%	472 cd
20%	945 cd
30%	1417 cd
40%	1890 cd
50%	2362 cd
60%	2834 cd
70%	3307 cd
80%	3779 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4724 cd

## ISO LUX DIAGRAM



3%	1,42 lx
5%	2,36 lx
10%	4,72 lx
30%	14,2 lx
50%	23,6 lx

### Conditions:

Number of c-planes: 2

Lux at center: 47,2 lx

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