

# Photometric Test Report



## ECLDISPLAYCC

PROFILE LENS 18°

25W White LED Gallery light,  
constant current to be connected to  
external PSU & Driver

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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:

1631 lm

Peak candela output:

26465 cd

Light quality:

CRI: 91,2

Color temperature:

2726 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

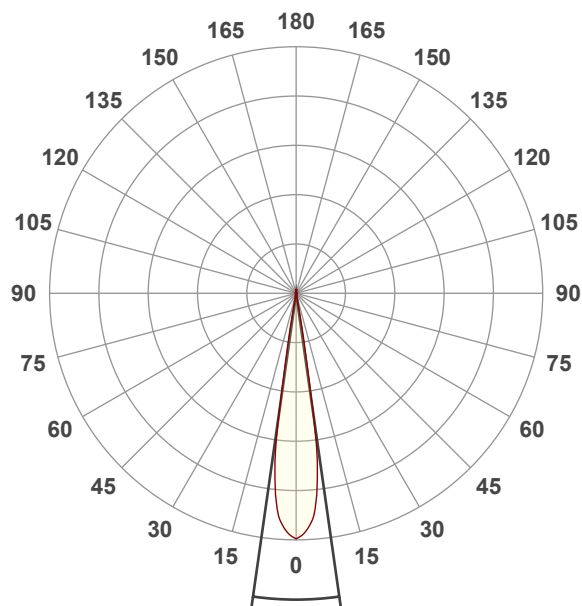
2700K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 15:46:17

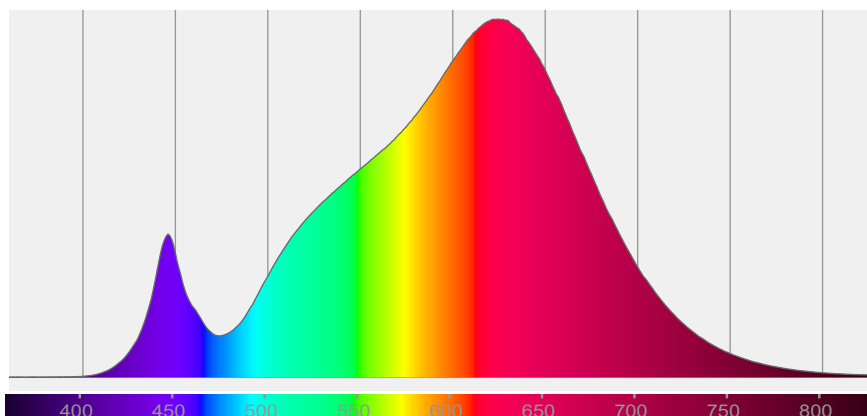


Beam angle 50%: 16,2°

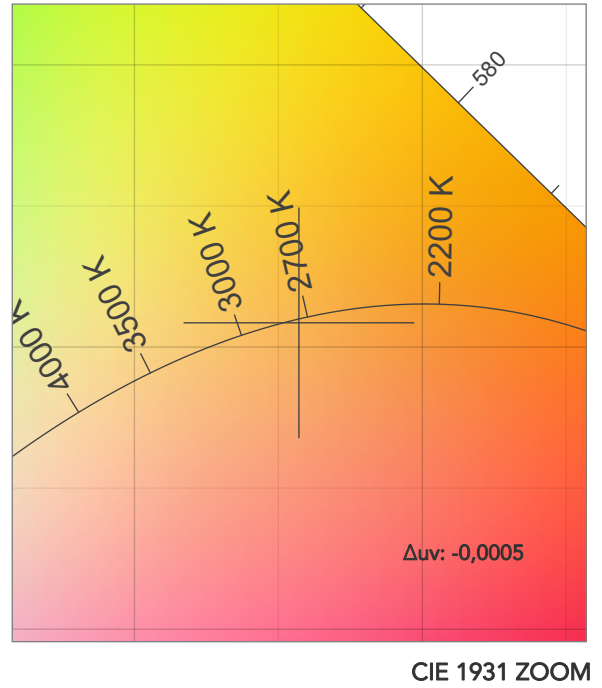
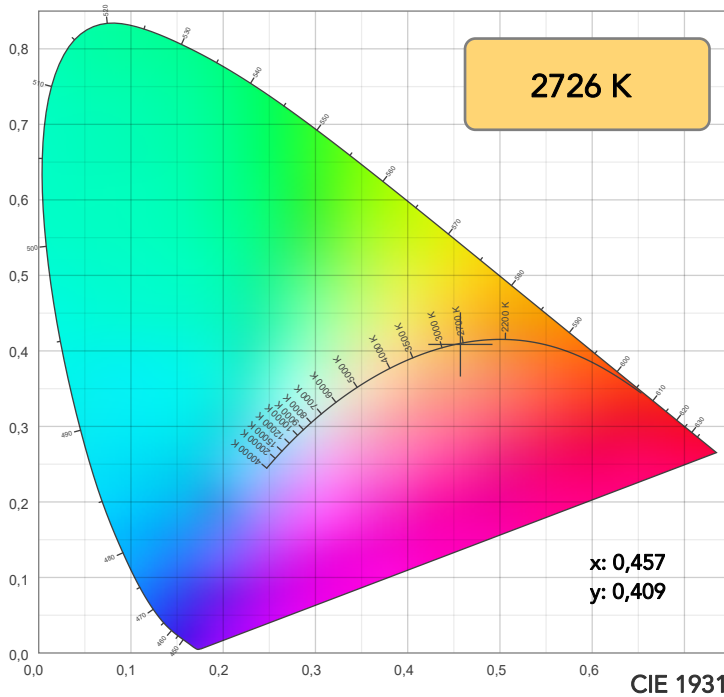
Field angle 10%: 20°

Cut off angle 2.5%: 21,1°

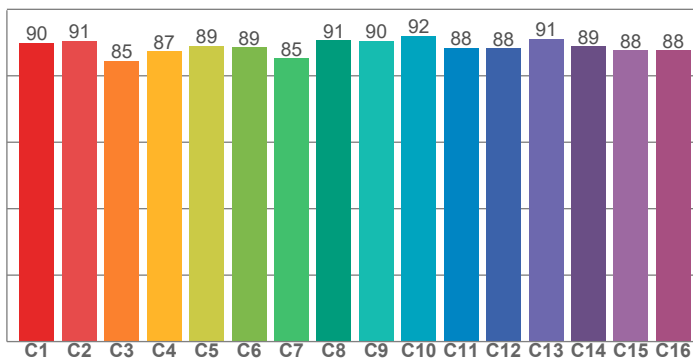
Spectra



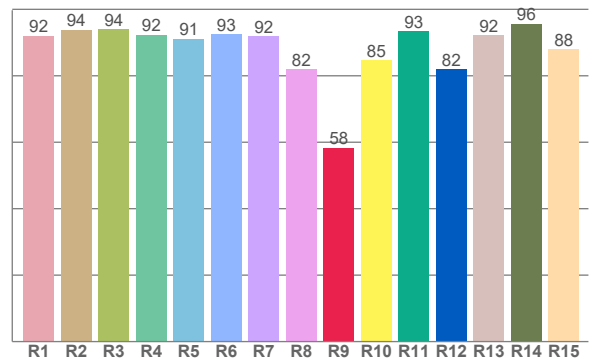
## COLOR DETAILS



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
92,0	93,8	94,0	92,4	91,2	92,6	91,9	81,9	58,3	84,6	93,4	82,0	92,3	95,6	87,9

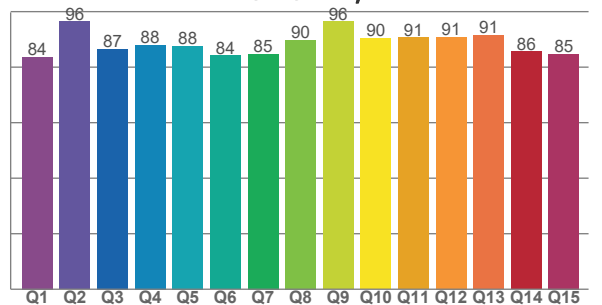
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,8	90,5	84,5	87,4	89,0	88,5	85,3	90,7	90,4	92,0	88,4	88,2	91,1	88,8	87,7	87,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,7	96,4	86,6	88,0	87,7	84,2	84,7	89,8	96,4	90,4	90,7	90,9	91,4	85,6	84,7

CQS: 87,9



## COLOR PARAMETERS

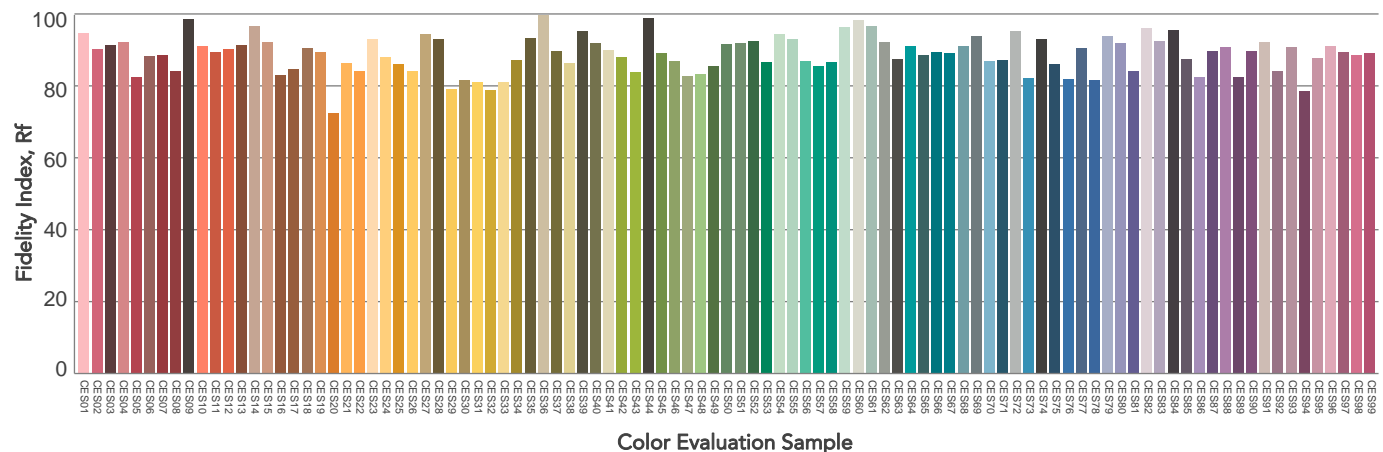
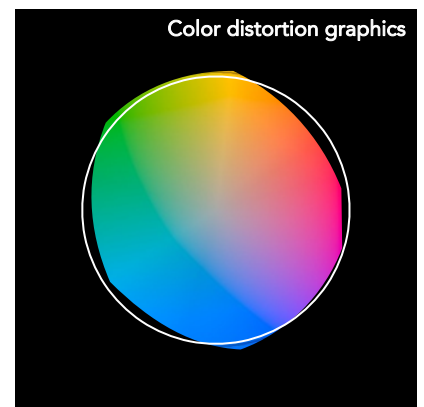
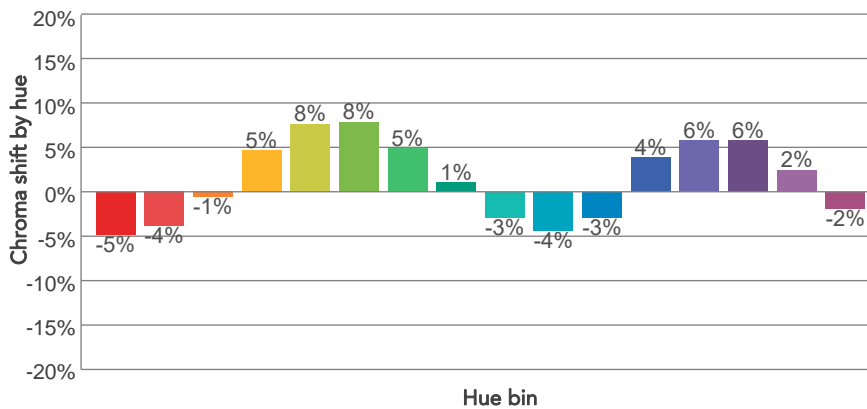
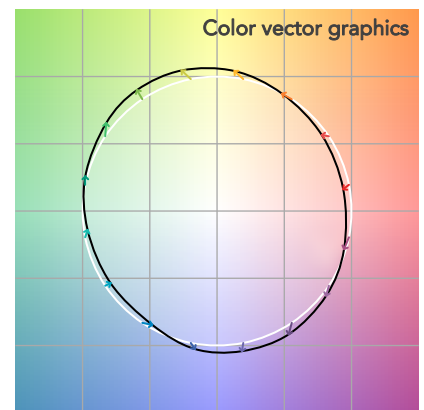
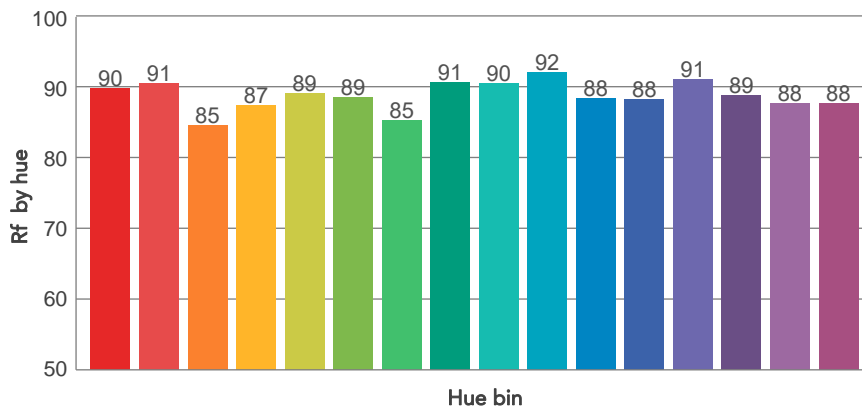
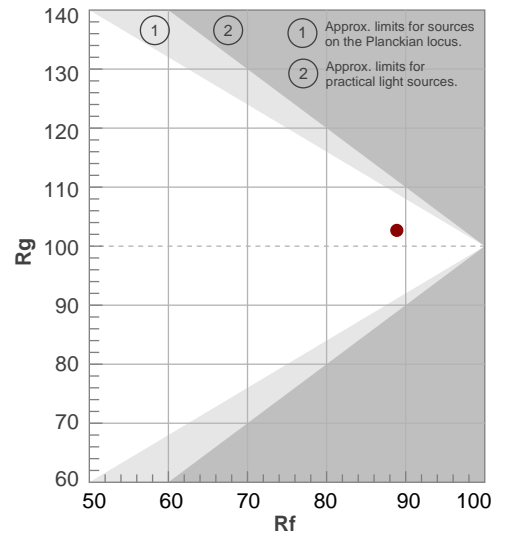
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
2726 K	91,2	58,3	88,9	102,7	87,9	83	0,457	0,409	-0,0005

# TM30 DETAILS

**Rf 88,9**  
Fidelity index Rf

**Rg 102,7**  
Gammut index

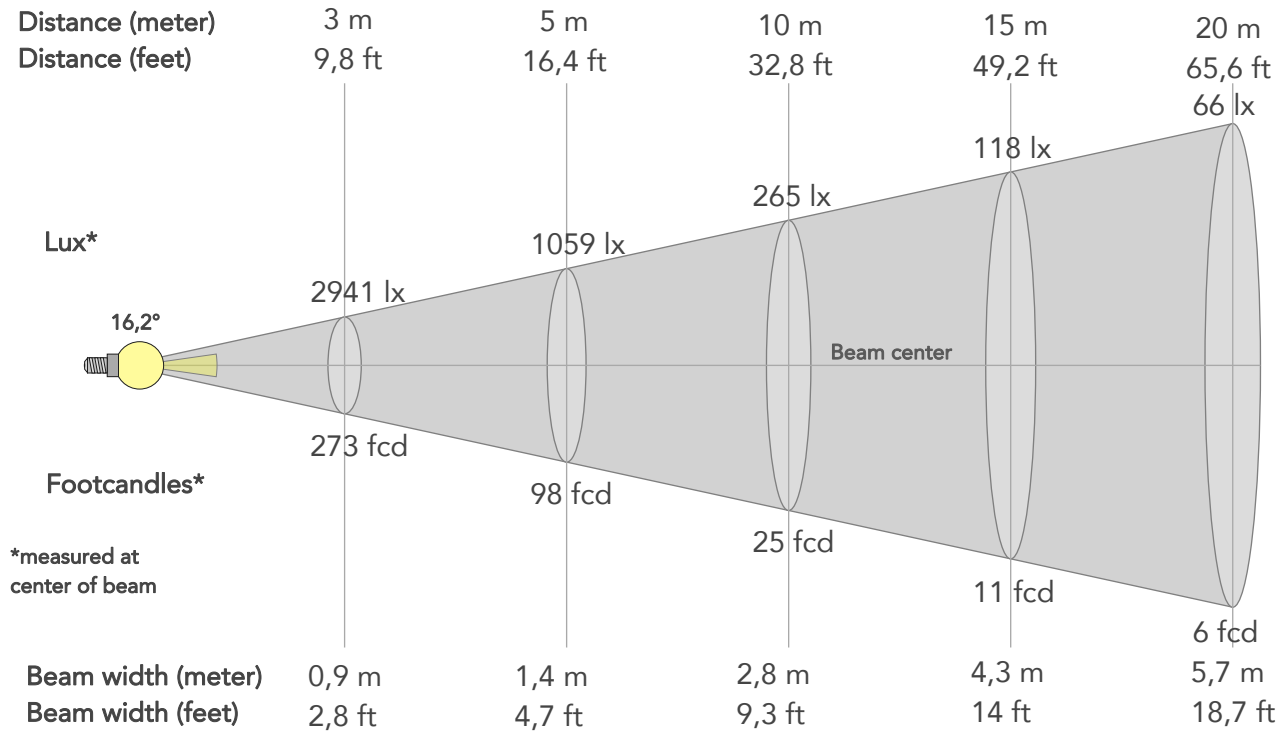
		Graphic shifts (%)	
Hue Bin	R <sub>f</sub>	Chroma	Hue
1	90	-5%	-2%
2	91	-4%	4%
3	85	-1%	8%
4	87	5%	8%
5	89	8%	5%
6	89	8%	0%
7	85	5%	-9%
8	91	1%	-6%
9	90	-3%	-5%
10	92	-4%	1%
11	88	-3%	7%
12	88	4%	4%
13	91	6%	-2%
14	89	6%	-7%
15	88	2%	-7%
16	88	-2%	-9%



# BEAM DETAILS



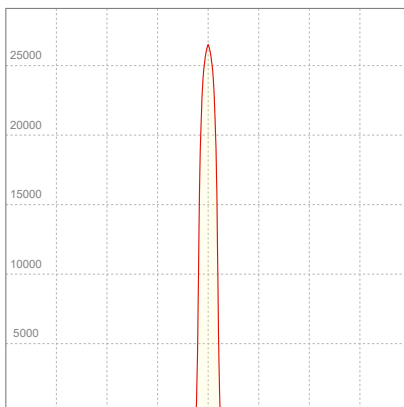
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,2°	20°	21,1°	97,8%	97,4%



## 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	26465lx	6616lx	2941lx	1654lx	1059lx	470lx	265lx	118lx	66lx	42lx	29lx	17lx	11lx
Footcand.	2459fcd	615fcd	273fcd	154fcd	98fcd	44fcd	25fcd	11fcd	6fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,3m	0,6m	0,9m	1,1m	1,4m	2,1m	2,8m	4,3m	5,7m	7,1m	8,5m	11,4m	14,2m
Beam wid.	0,9ft	1,9ft	2,8ft	3,7ft	4,7ft	7ft	9,3ft	14ft	18,7ft	23,3ft	28ft	37,3ft	46,7ft

## LINEAR DISTRIBUTION DIAGRAM

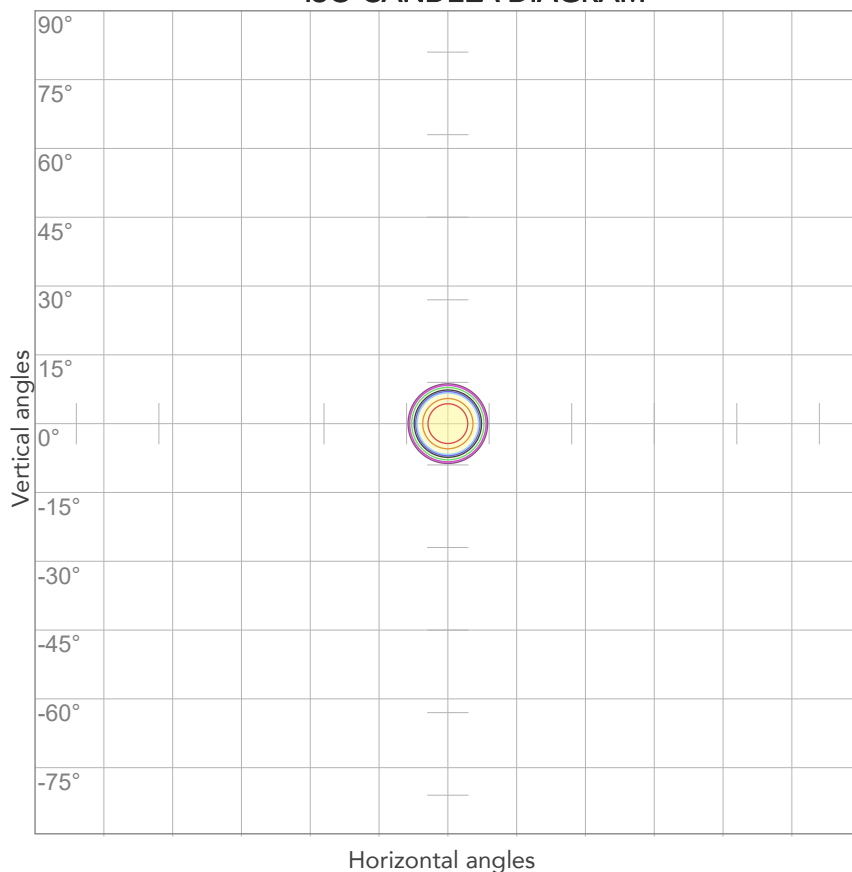


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,160A	33,3W	0,93	49lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



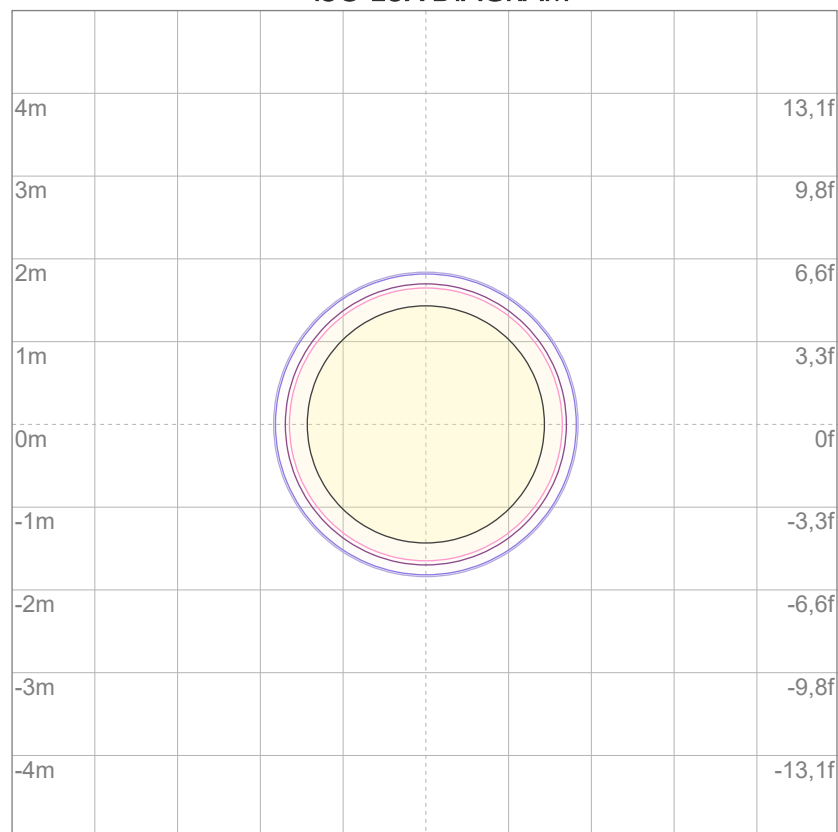
10%	2647 cd
20%	5293 cd
30%	7940 cd
40%	10586 cd
50%	13233 cd
60%	15879 cd
70%	18526 cd
80%	21172 cd

### Conditions:

Number of c-planes: 2

Candela at center: 26465 cd

## ISO LUX DIAGRAM



3%	7,94 lx
5%	13,2 lx
10%	26,5 lx
30%	79,4 lx
50%	132 lx

### Conditions:

Number of c-planes: 2

Lux at center: 265 lx

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





Total lumen output:

1646 lm

Peak candela output:

27499 cd

Light quality:

CRI: 90,2

Color temperature:

3082 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

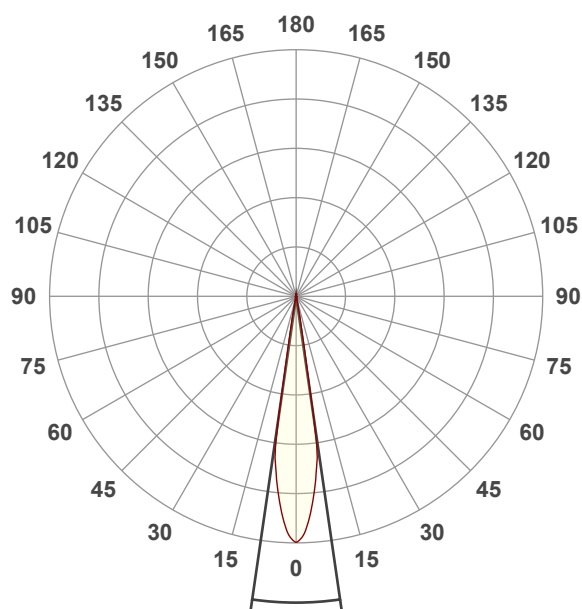
3000K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 13:00:31

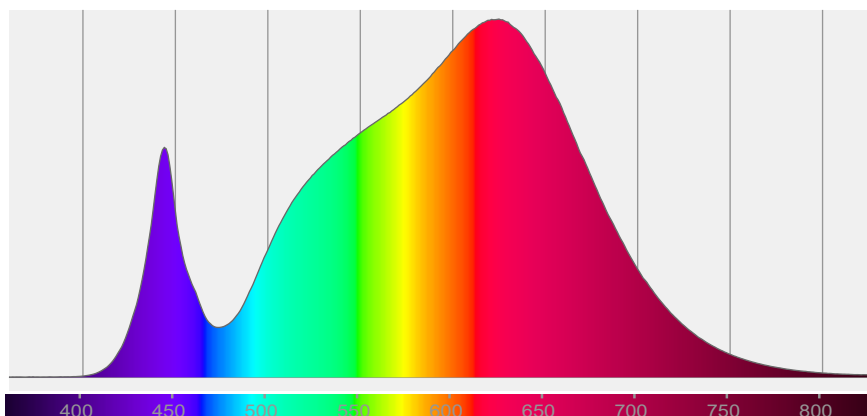


Beam angle 50%: 16,5°

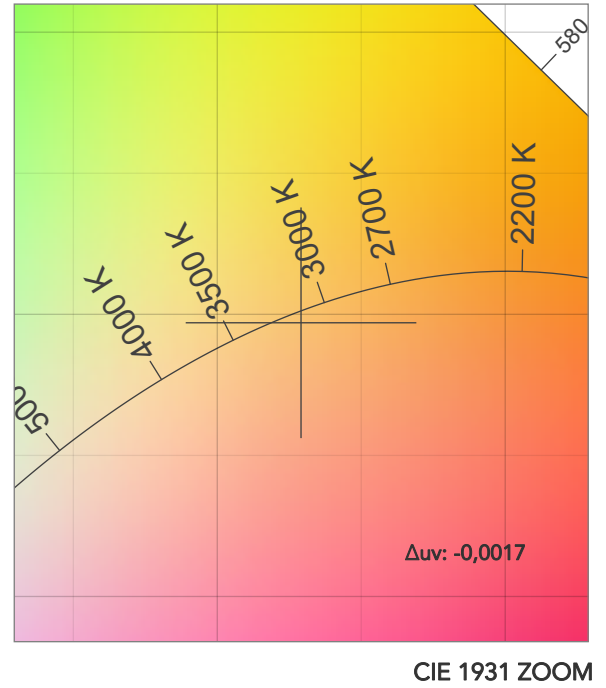
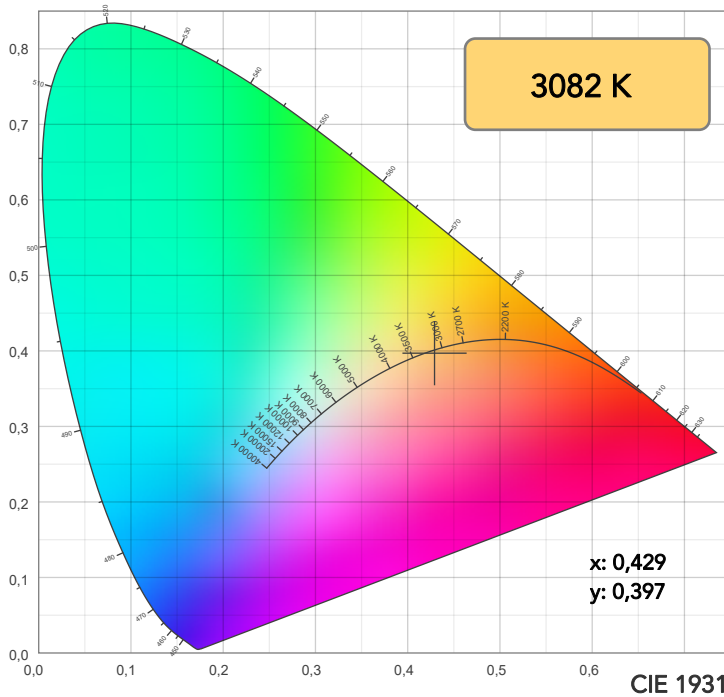
Field angle 10%: 19,9°

Cut off angle 2.5%: 21,4°

Spectra

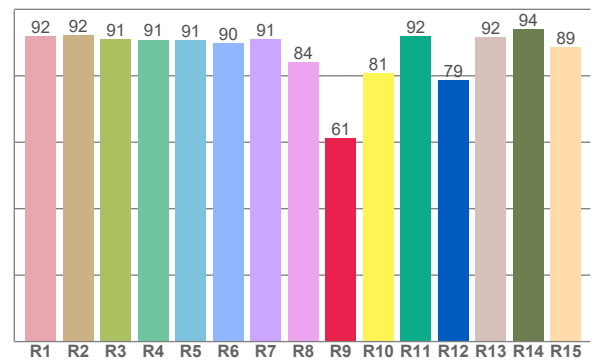
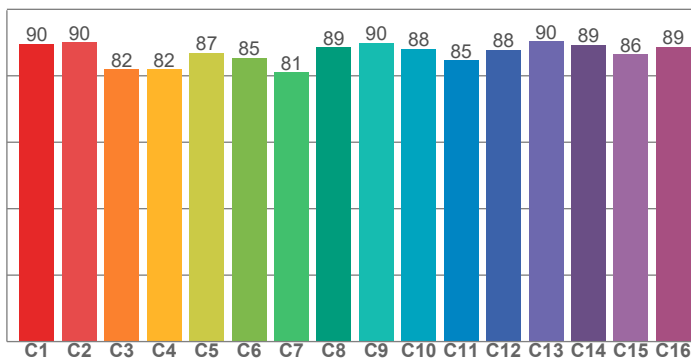


# COLOR DETAILS



TM30: 87,0

CRI: 90,2 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91,9	92,2	90,9	90,8	90,7	89,7	91,1	84,0	61,3	80,9	92,0	78,7	91,5	94,1	88,7

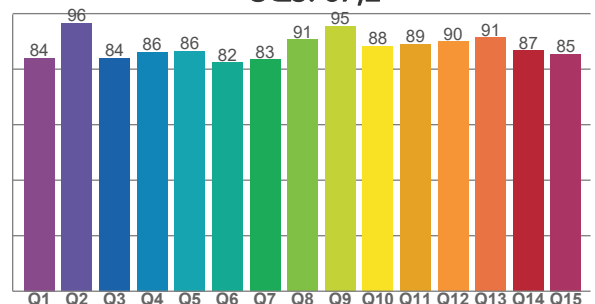
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,6	90,0	82,0	81,9	86,9	85,3	81,0	88,5	89,9	88,0	84,6	87,7	90,4	89,4	86,5	88,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,1	96,5	83,9	86,2	86,5	82,3	83,5	90,6	95,5	88,4	89,0	89,9	91,4	86,7	85,4

CQS: 87,2



## COLOR PARAMETERS

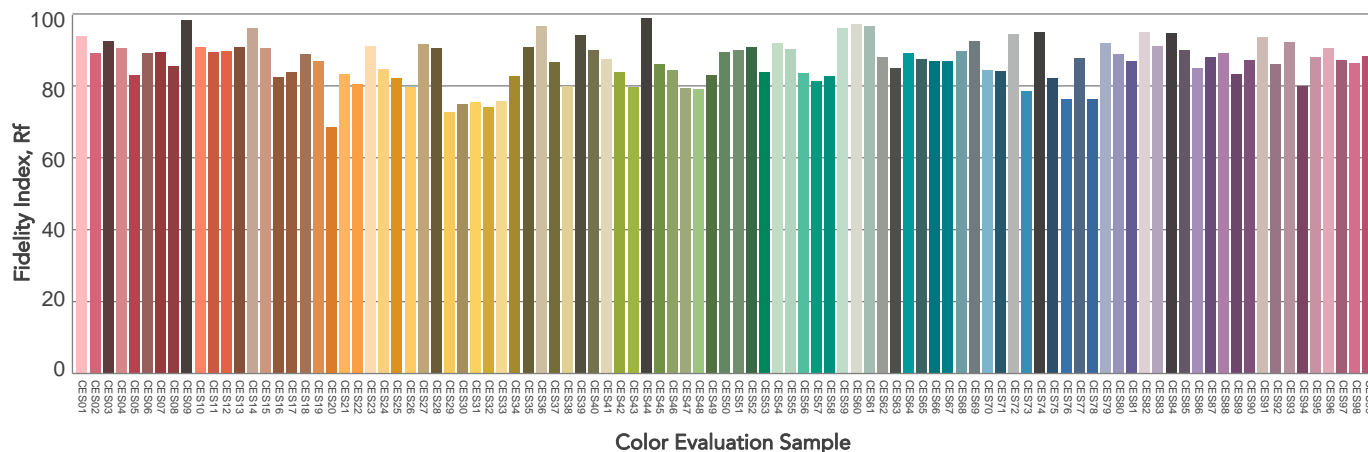
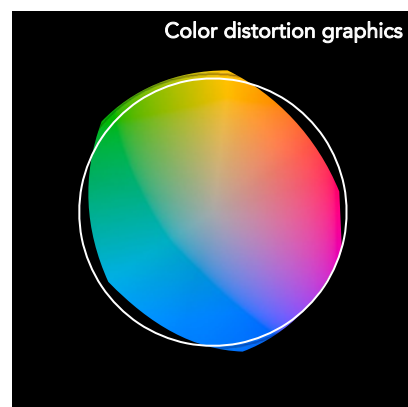
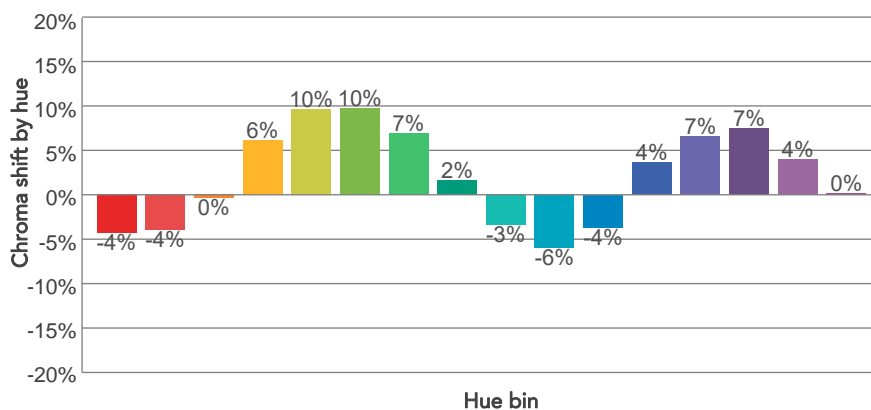
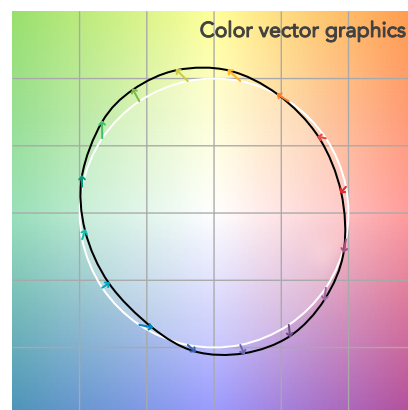
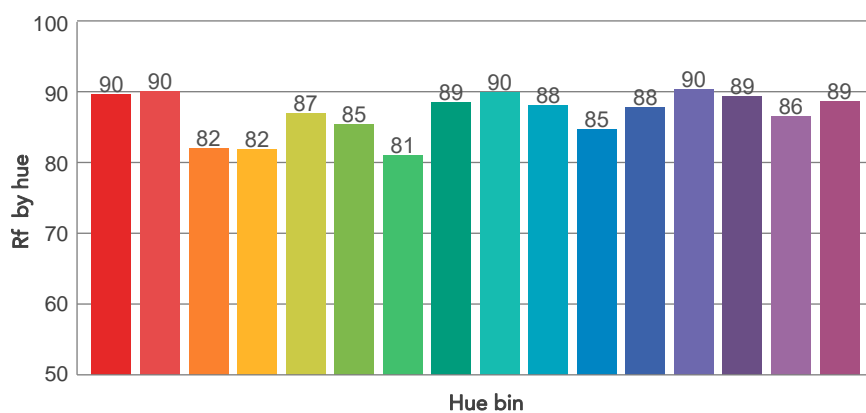
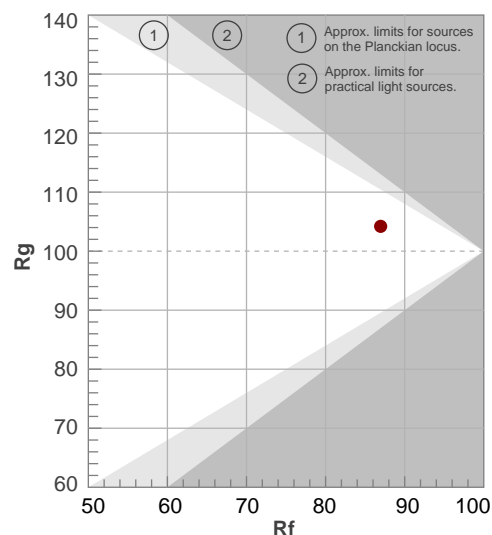
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3082 K	90,2	61,3	87,0	104,2	87,2	80	0,429	0,397	-0,0017

# TM30 DETAILS

**Rf 87,0**  
Fidelity index Rf

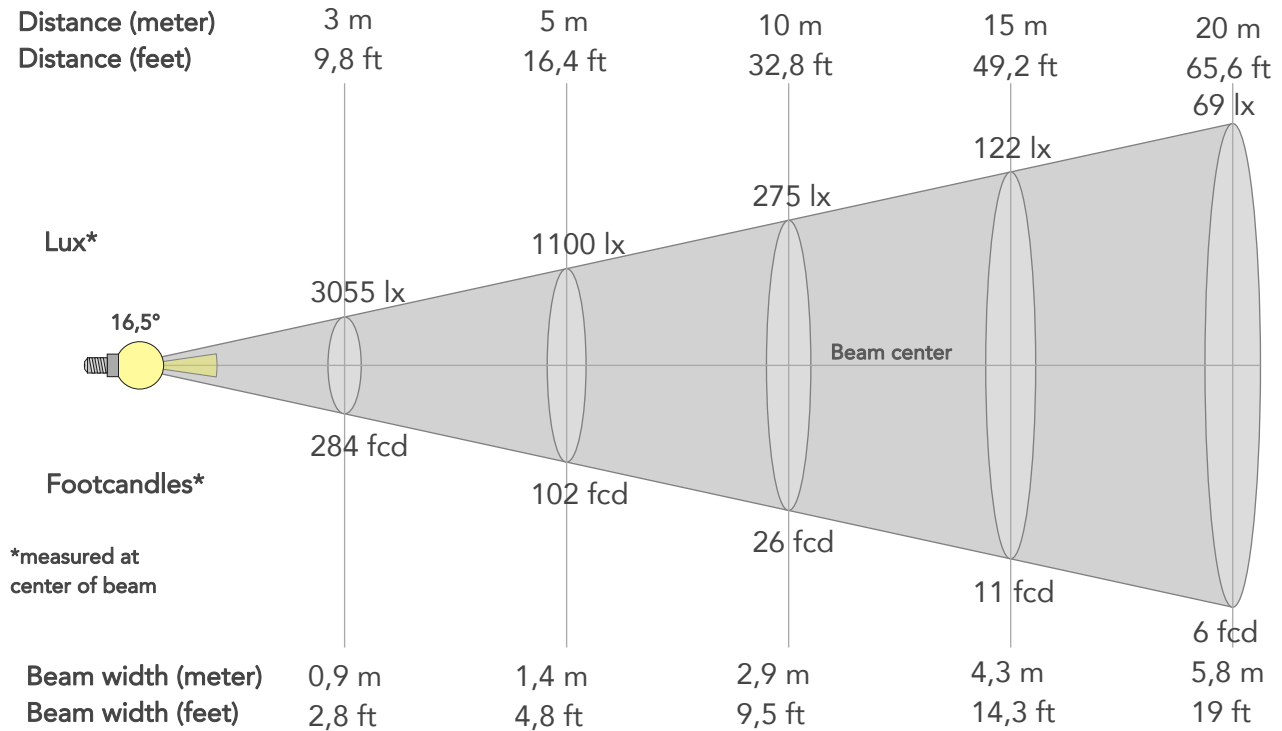
**Rg 104,2**  
Gammut index

		Graphic shifts (%)	
Hue Bin	R <sub>f</sub>	Chroma	Hue
1	90	-4%	-3%
2	90	-4%	4%
3	82	0%	10%
4	82	6%	10%
5	87	10%	6%
6	85	10%	-1%
7	81	7%	-10%
8	89	2%	-7%
9	90	-3%	-6%
10	88	-6%	0%
11	85	-4%	9%
12	88	4%	6%
13	90	7%	1%
14	89	7%	-4%
15	86	4%	-8%
16	89	0%	-9%



# BEAM DETAILS

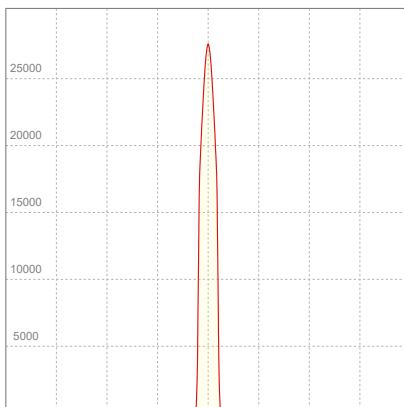
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,5°	19,9°	21,4°	98,1%	97,8%



## 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	27499lx	6875lx	3055lx	1719lx	1100lx	489lx	275lx	122lx	69lx	44lx	31lx	17lx	11lx
Footcand.	2555fcd	639fcd	284fcd	160fcd	102fcd	45fcd	26fcd	11fcd	6fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,4m	2,2m	2,9m	4,3m	5,8m	7,2m	8,7m	11,6m	14,5m
Beam wid.	1ft	1,9ft	2,8ft	3,8ft	4,8ft	7,1ft	9,5ft	14,3ft	19ft	23,8ft	28,5ft	38ft	47,5ft

## LINEAR DISTRIBUTION DIAGRAM

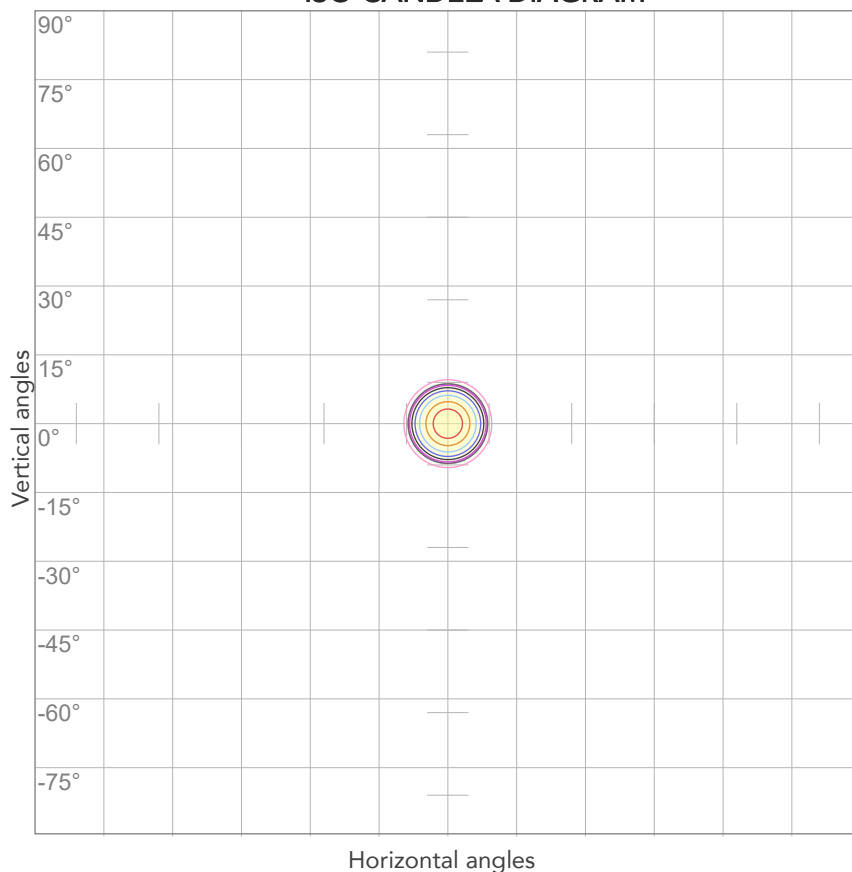


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
222V	0,161A	33,2W	0,93	50lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



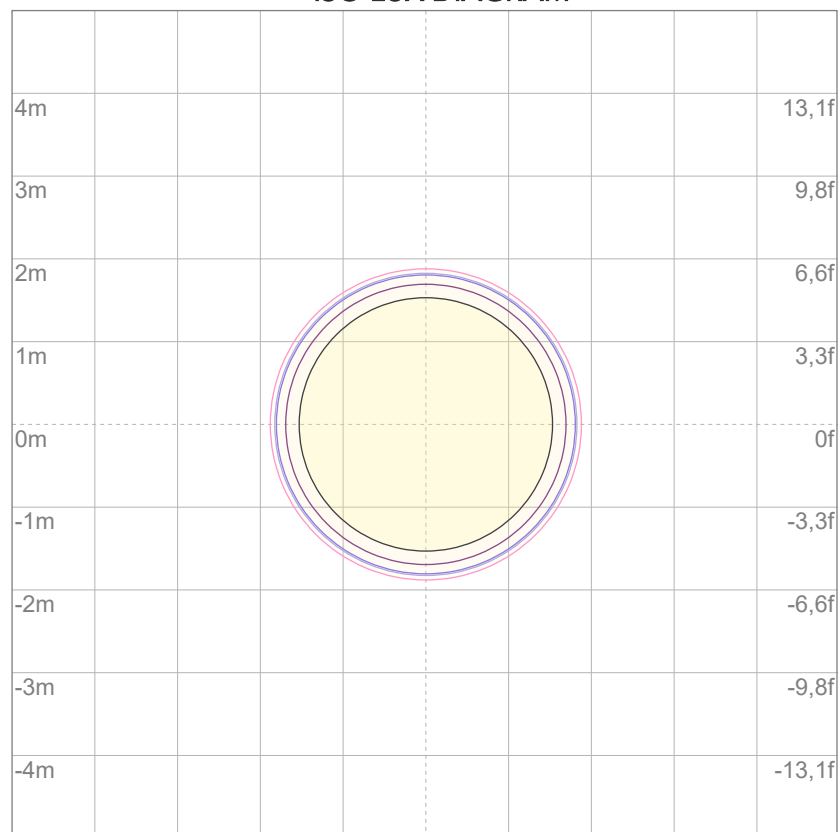
10%	2750 cd
20%	5500 cd
30%	8250 cd
40%	11000 cd
50%	13750 cd
60%	16500 cd
70%	19249 cd
80%	21999 cd

### Conditions:

Number of c-planes: 2

Candela at center: 27499 cd

## ISO LUX DIAGRAM



3%	8,25 lx
5%	13,7 lx
10%	27,5 lx
30%	82,5 lx
50%	137 lx

### Conditions:

Number of c-planes: 2

Lux at center: 275 lx

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



Total lumen output:

1887 lm

Peak candela output:

29300 cd

Light quality:

CRI: 89,1

Color temperature:

4191 K

**PRODUCT NAME:**  
ECLDISPLAY

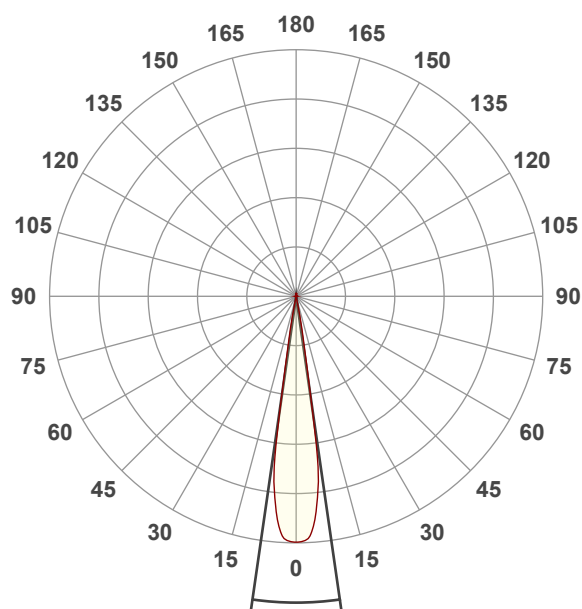
**MEASURAMENT CONDITIONS:**

Beam angle:  
Profile 18°

Target:  
4000K

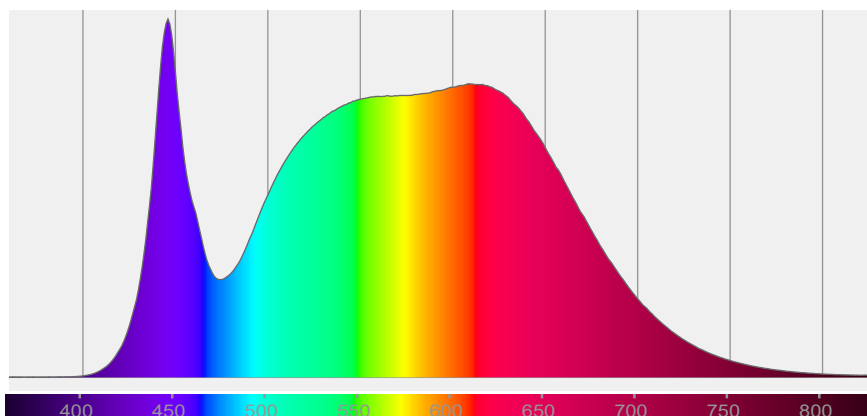
Operator:  
Salvatore Giglio

Date and time:  
07/02/2024 12:16:59

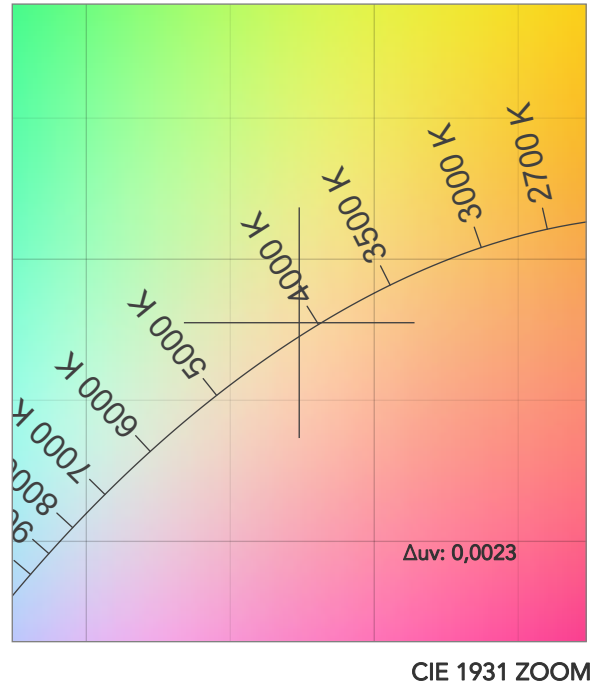
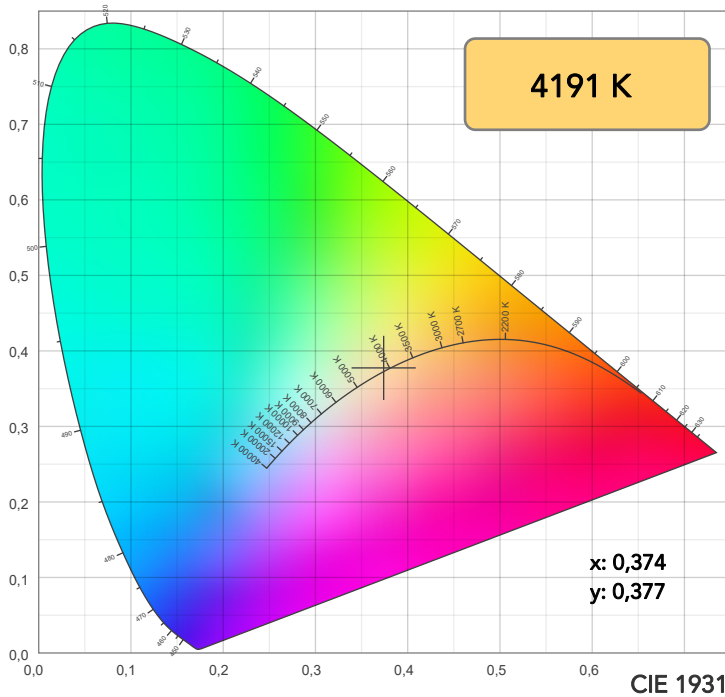


Beam angle 50%: 16,4°  
Field angle 10%: 20,8°  
Cut off angle 2.5%: 22,5°

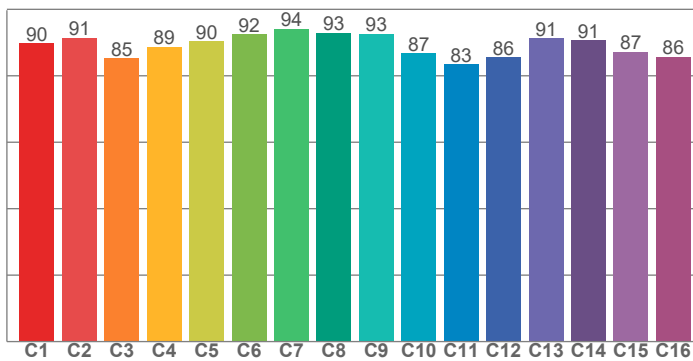
**Spectra**



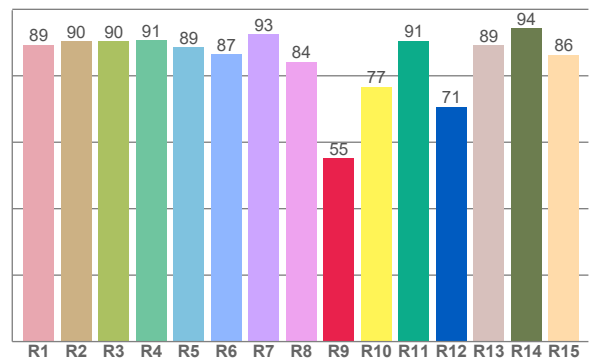
# COLOR DETAILS



**TM30: 89,1**



**CRI: 89,1 (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
89,4	90,3	90,3	90,7	88,6	86,6	92,6	84,2	55,2	76,7	90,5	70,7	89,1	94,3	86,3

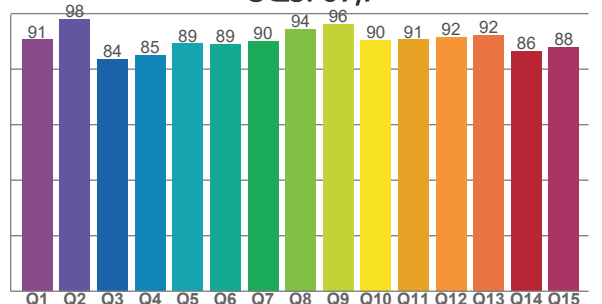
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,7	91,4	85,2	88,8	90,3	92,4	94,1	93,0	92,7	86,8	83,5	85,5	91,2	90,6	87,2	85,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90,6	98,1	83,7	85,0	89,2	89,1	90,1	94,5	96,2	90,5	90,6	91,6	92,3	86,4	87,9

**CQS: 89,7**



## COLOR PARAMETERS

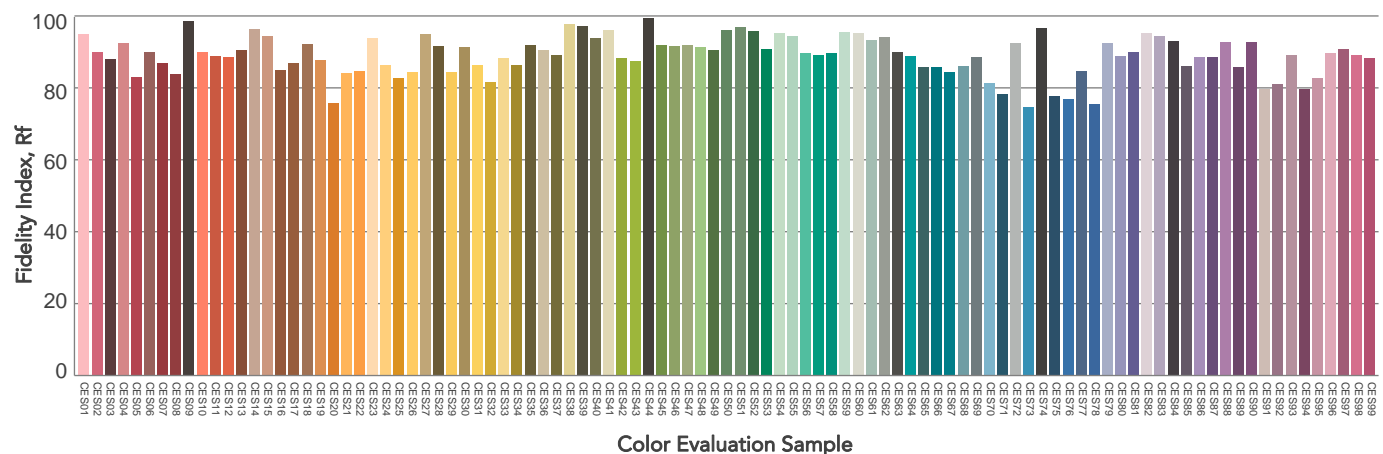
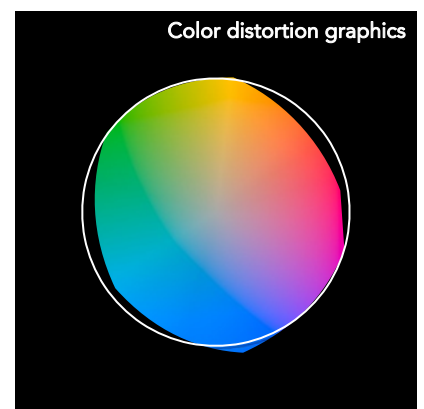
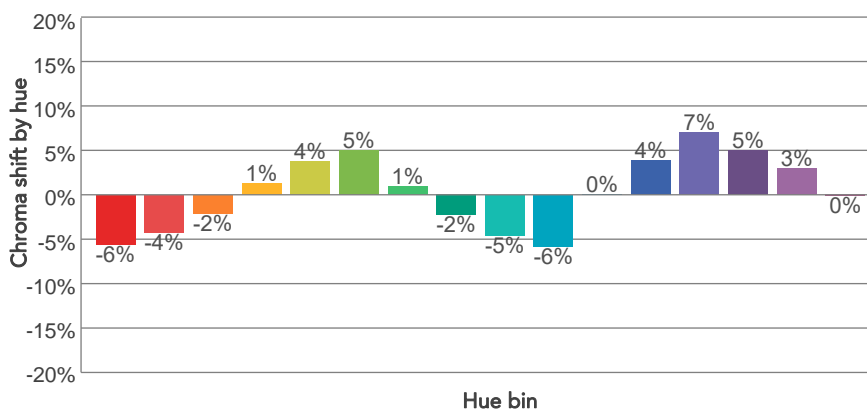
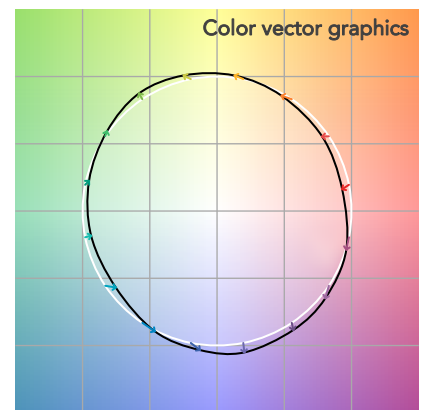
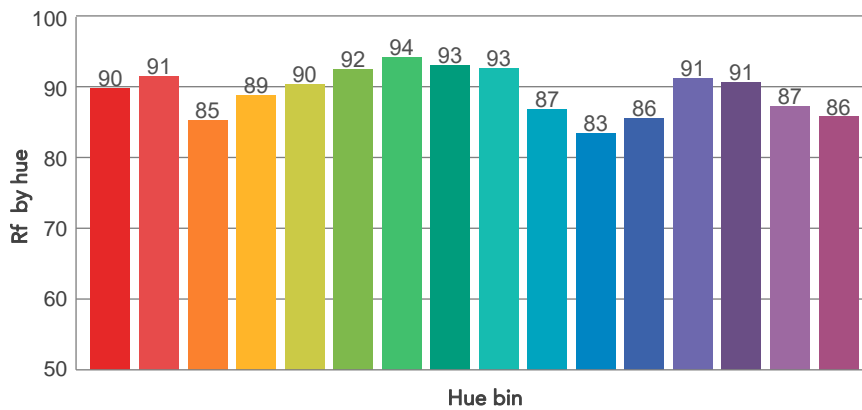
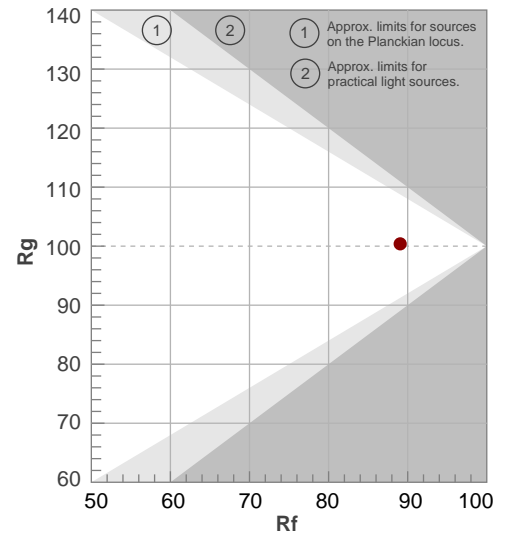
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4191 K	89,1	55,2	89,1	100,4	89,7	88	0,374	0,377	0,0023

# TM30 DETAILS

**Rf 89,1**  
Fidelity index Rf

**Rg 100,4**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	90	-6%	-2%
2	91	-4%	3%
3	85	-2%	8%
4	89	1%	7%
5	90	4%	5%
6	92	5%	0%
7	94	1%	-4%
8	93	-2%	-3%
9	93	-5%	0%
10	87	-6%	5%
11	83	0%	11%
12	86	4%	8%
13	91	7%	-1%
14	91	5%	-2%
15	87	3%	-9%
16	86	0%	-9%

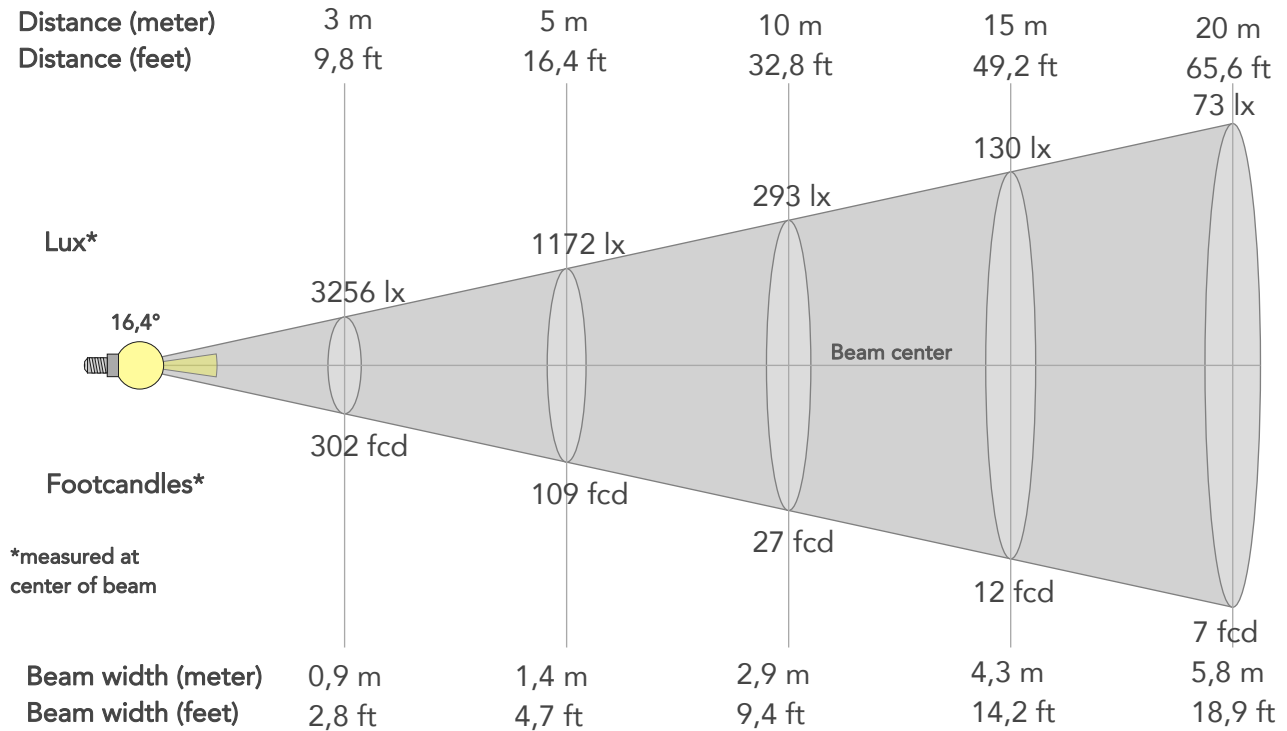




# BEAM DETAILS



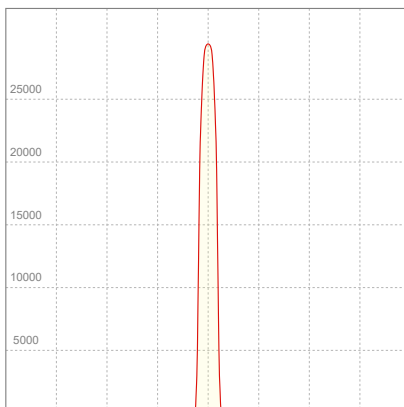
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,4°	20,8°	22,5°	98,5%	98,3%



## 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	29300lx	7325lx	3256lx	1831lx	1172lx	521lx	293lx	130lx	73lx	47lx	33lx	18lx	12lx
Footcand.	2722fcd	681fcd	302fcd	170fcd	109fcd	48fcd	27fcd	12fcd	7fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,4m	2,2m	2,9m	4,3m	5,8m	7,2m	8,6m	11,5m	14,4m
Beam wid.	1ft	1,9ft	2,8ft	3,8ft	4,7ft	7,1ft	9,4ft	14,2ft	18,9ft	23,6ft	28,3ft	37,8ft	47,2ft

## LINEAR DISTRIBUTION DIAGRAM

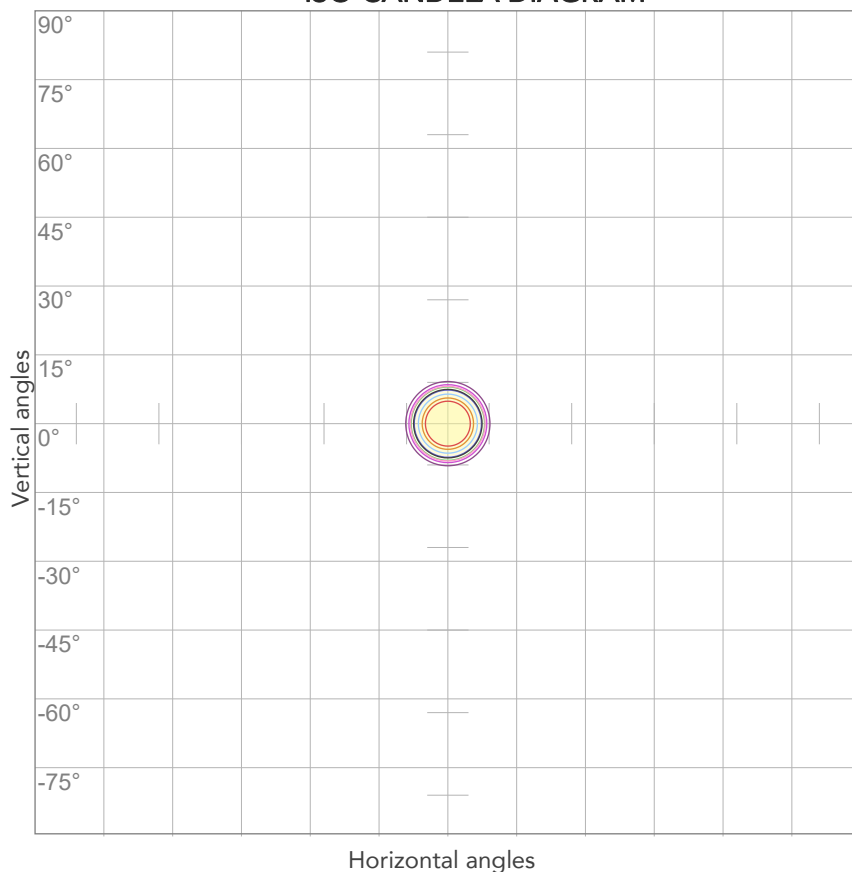


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
221V	0,164A	33,9W	0,94	56lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



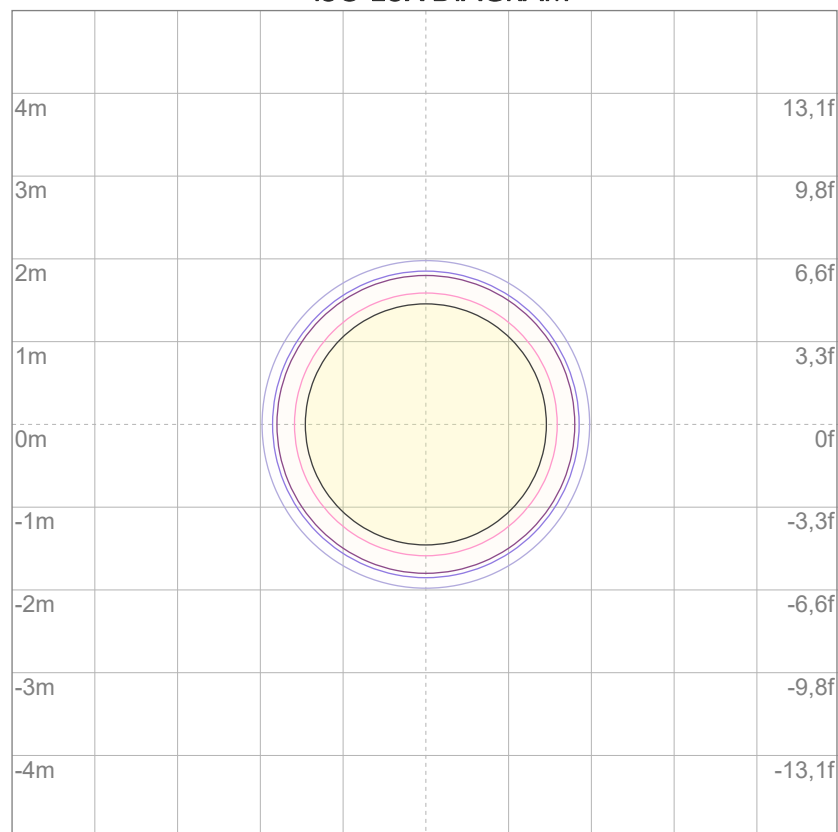
10%	2930 cd
20%	5860 cd
30%	8790 cd
40%	11720 cd
50%	14650 cd
60%	17580 cd
70%	20510 cd
80%	23440 cd

### Conditions:

Number of c-planes: 2

Candela at center: 29300 cd

## ISO LUX DIAGRAM



3%	8,79 lx
5%	14,7 lx
10%	29,3 lx
30%	87,9 lx
50%	147 lx

### Conditions:

Number of c-planes: 2

Lux at center: 293 lx

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



Total lumen output:

1877 lm

Peak candela output:

31230 cd

Light quality:

CRI: 91,1

Color temperature:

5721 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

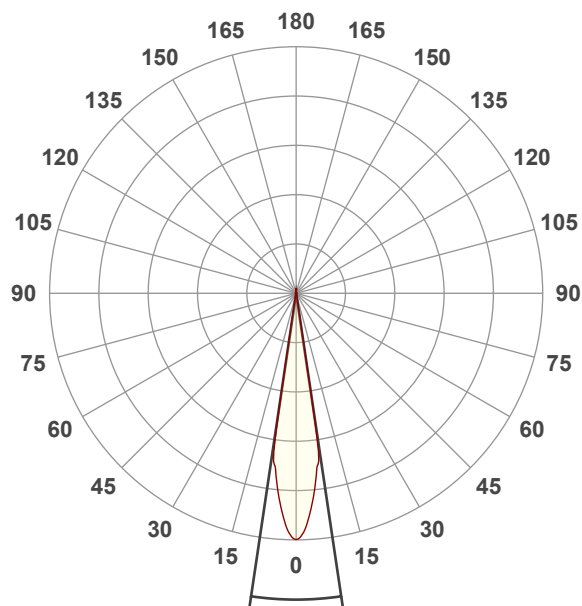
5600K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 12:29:29

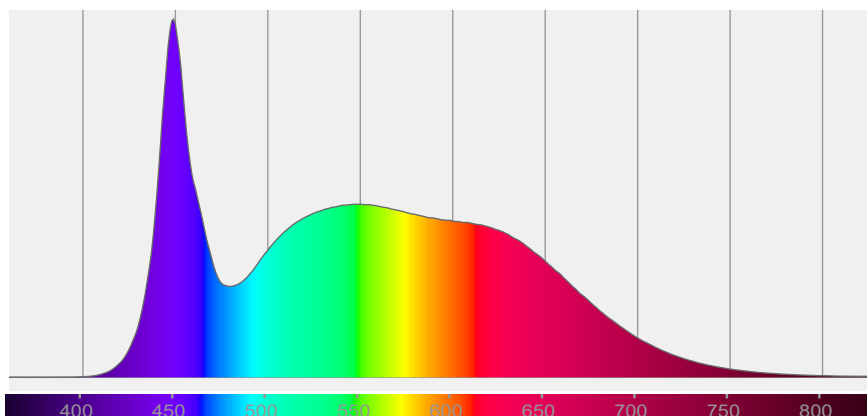


Beam angle 50%: 16,9°

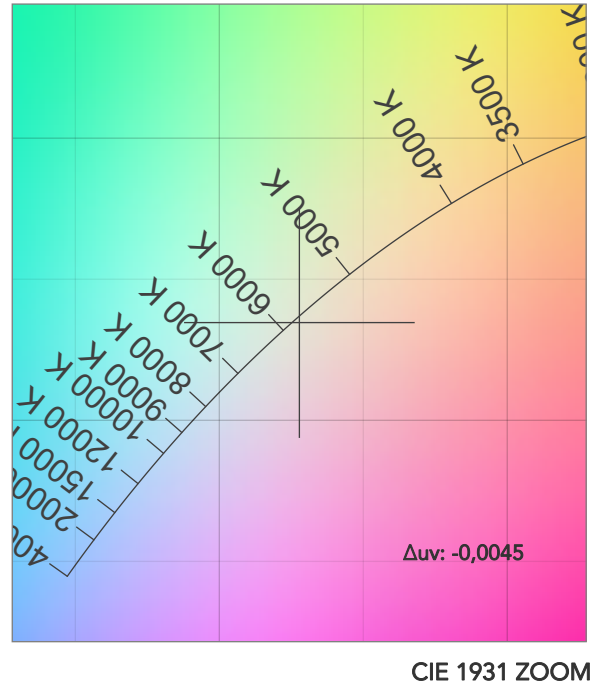
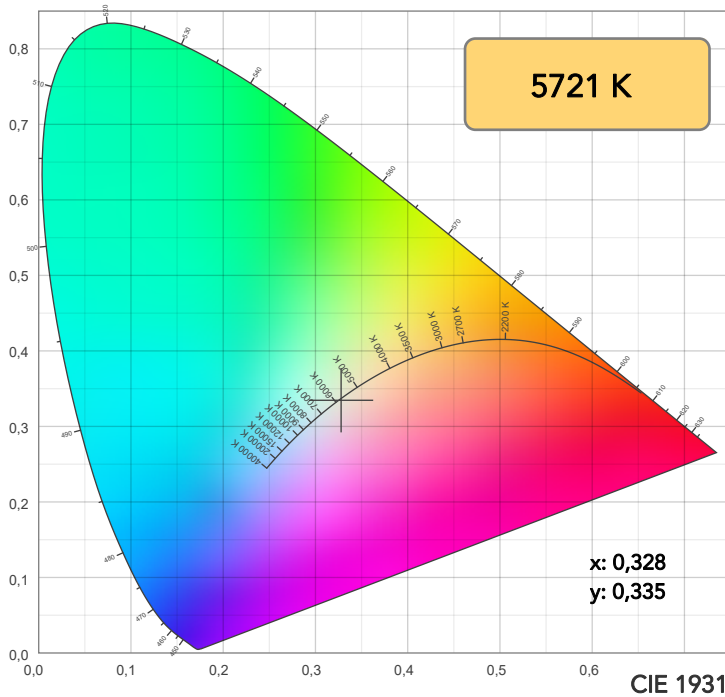
Field angle 10%: 19°

Cut off angle 2.5%: 20,2°

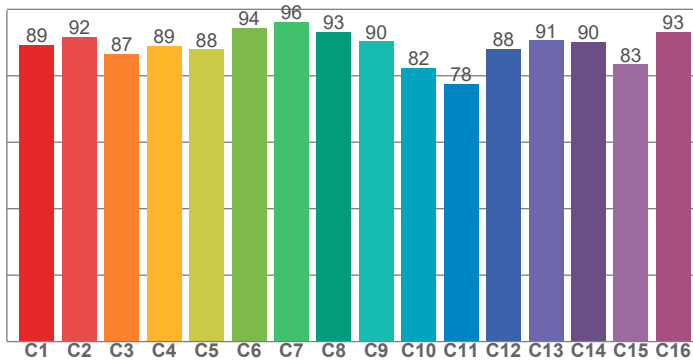
Spectra



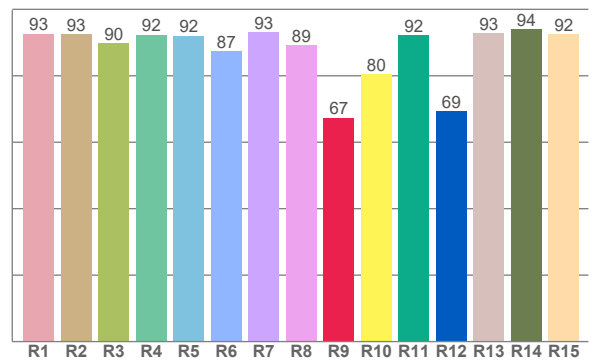
# COLOR DETAILS



TM30: 88,7



CRI: 91,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,7	92,5	89,7	92,4	92,1	87,5	93,1	89,1	67,4	80,4	92,1	69,3	92,7	94,1	92,5

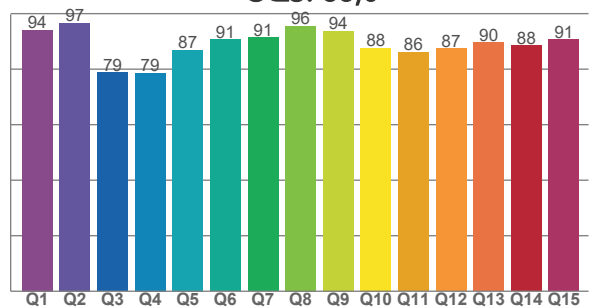
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,3	91,6	86,7	89,1	87,9	94,3	96,2	93,3	90,3	82,3	77,6	88,1	90,6	90,1	83,4	93,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,1	96,7	78,8	78,7	87,0	90,7	91,4	95,5	93,8	87,6	86,1	87,4	89,6	88,5	90,7

CQS: 88,0



## COLOR PARAMETERS

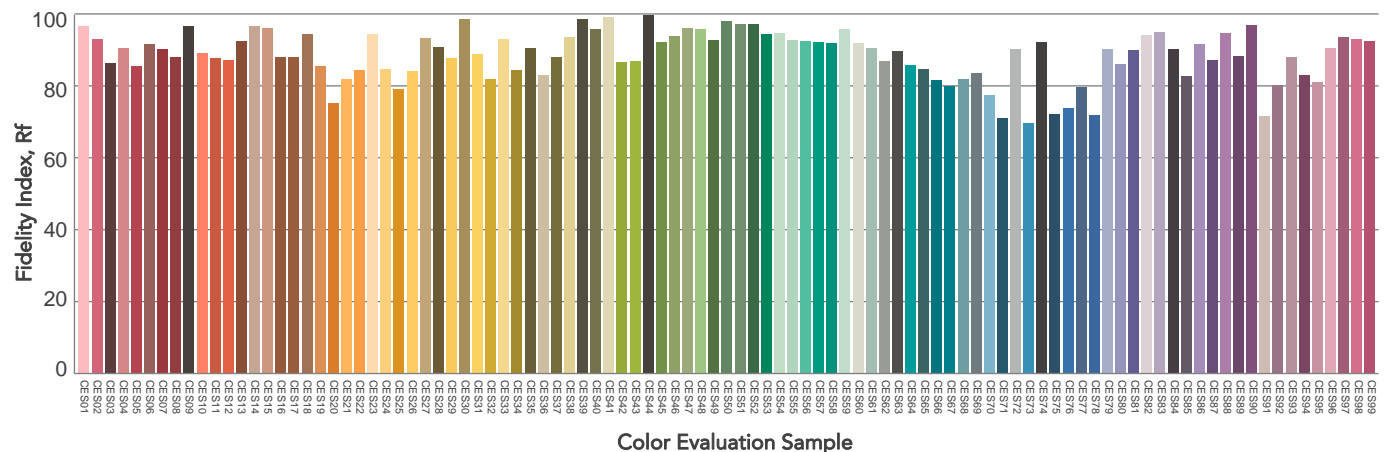
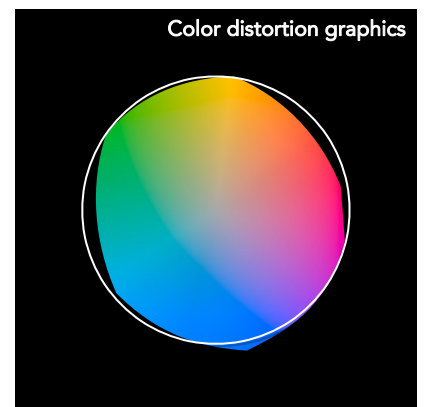
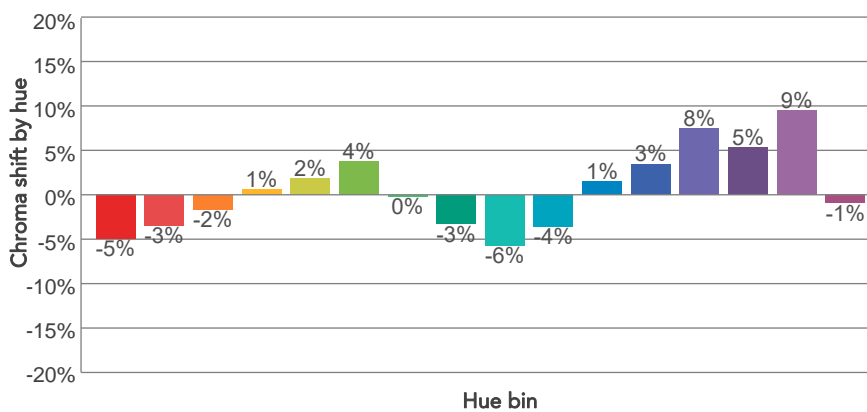
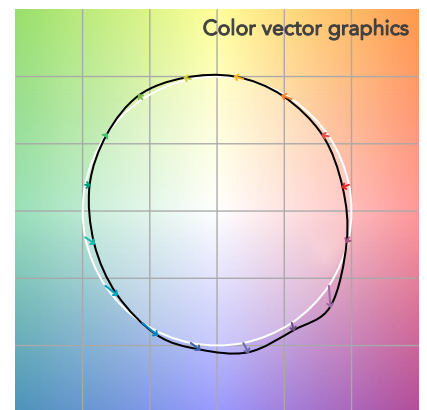
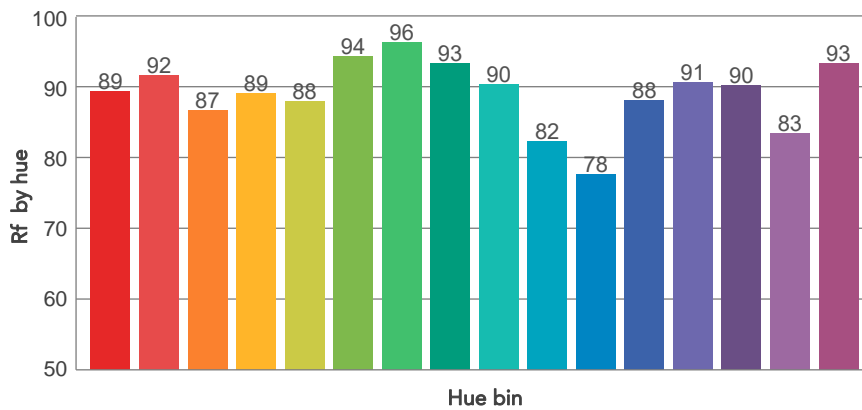
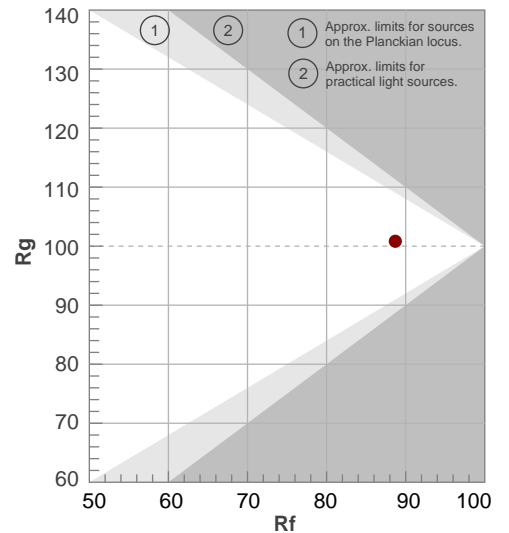
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
5721 K	91,1	67,4	88,7	100,8	88,0	93	0,328	0,335	-0,0045

# TM30 DETAILS

**Rf 88,7**  
Fidelity index Rf

**Rg 100,8**  
Gammut index

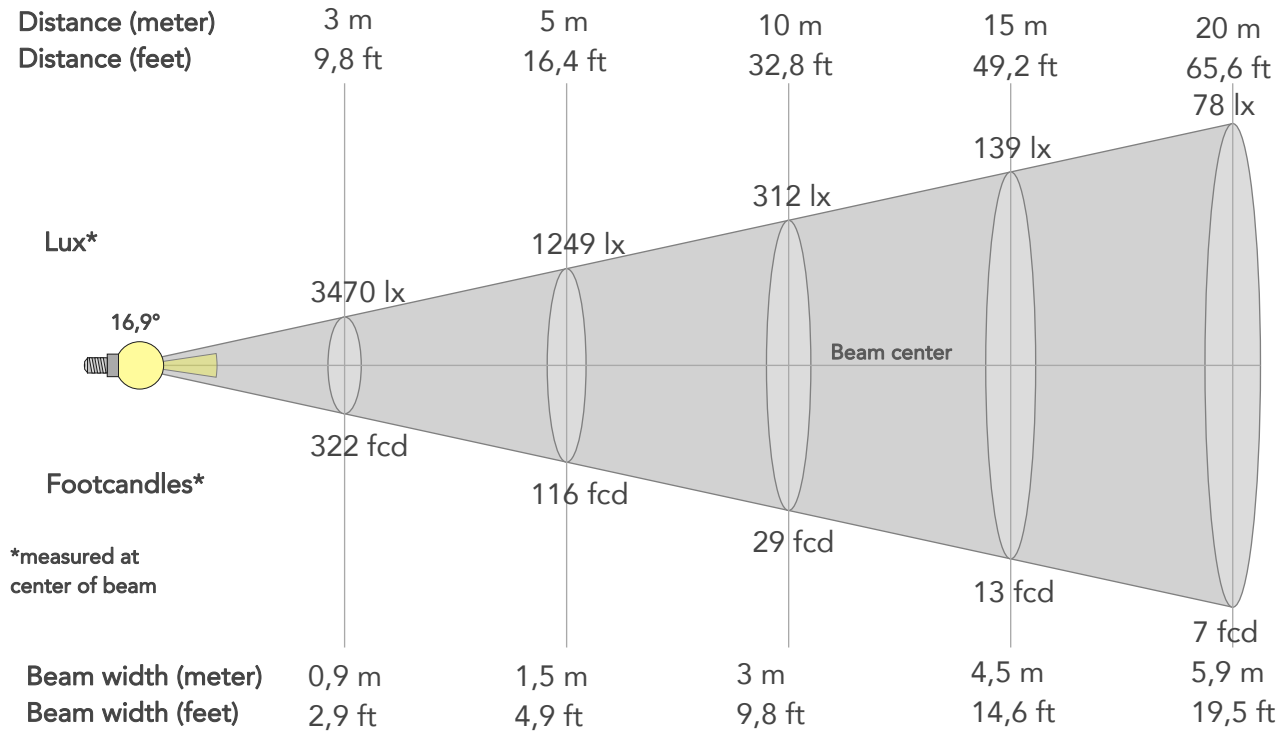
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	-1%
2	92	-3%	3%
3	87	-2%	7%
4	89	1%	6%
5	88	2%	4%
6	94	4%	0%
7	96	0%	-2%
8	93	-3%	0%
9	90	-6%	6%
10	82	-4%	10%
11	78	1%	14%
12	88	3%	7%
13	91	8%	2%
14	90	5%	-2%
15	83	9%	-12%
16	93	-1%	-4%



# BEAM DETAILS



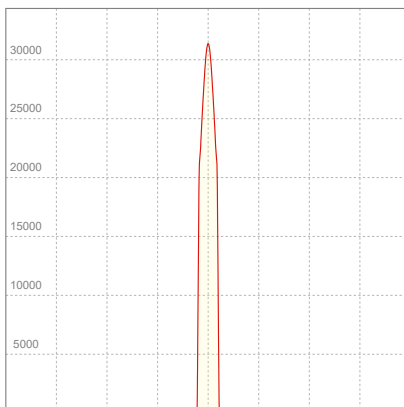
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,9°	19°	20,2°	98,4%	98,1%



## 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	31230lx	7808lx	3470lx	1952lx	1249lx	555lx	312lx	139lx	78lx	50lx	35lx	20lx	12lx
Footcand.	2901fcd	725fcd	322fcd	181fcd	116fcd	52fcd	29fcd	13fcd	7fcd	5fcd	3fcd	2fcd	1fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,2m	3m	4,5m	5,9m	7,4m	8,9m	11,9m	14,9m
Beam wid.	1ft	2ft	2,9ft	3,9ft	4,9ft	7,3ft	9,8ft	14,6ft	19,5ft	24,4ft	29,3ft	39ft	48,8ft

## LINEAR DISTRIBUTION DIAGRAM

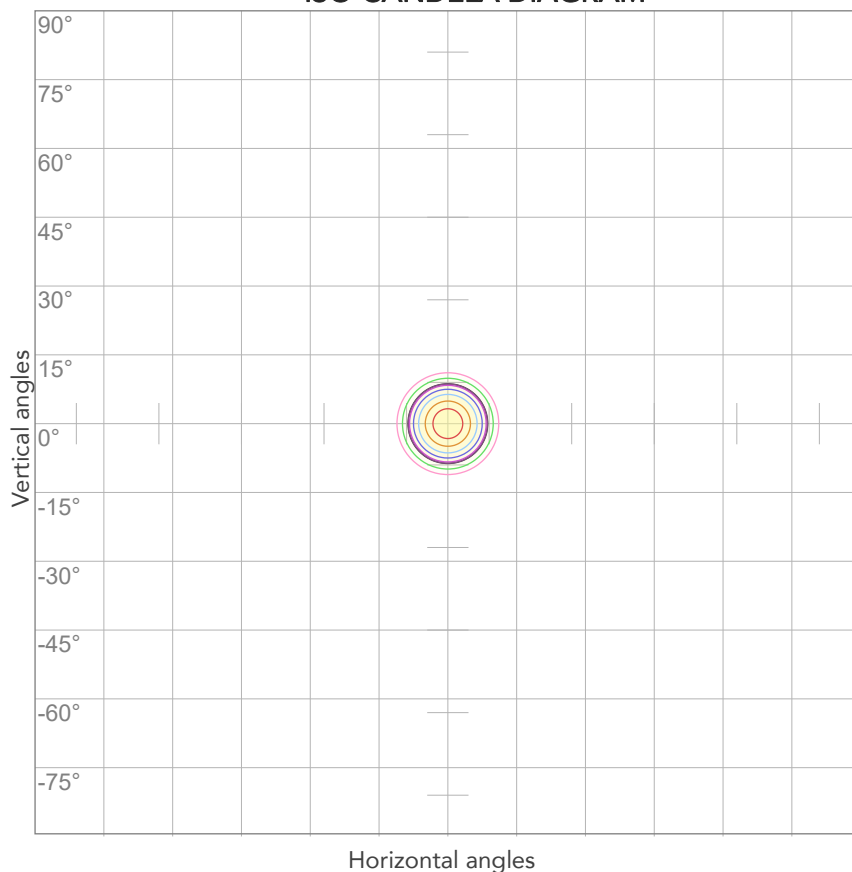


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	0,152A	31,7W	0,94	59lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



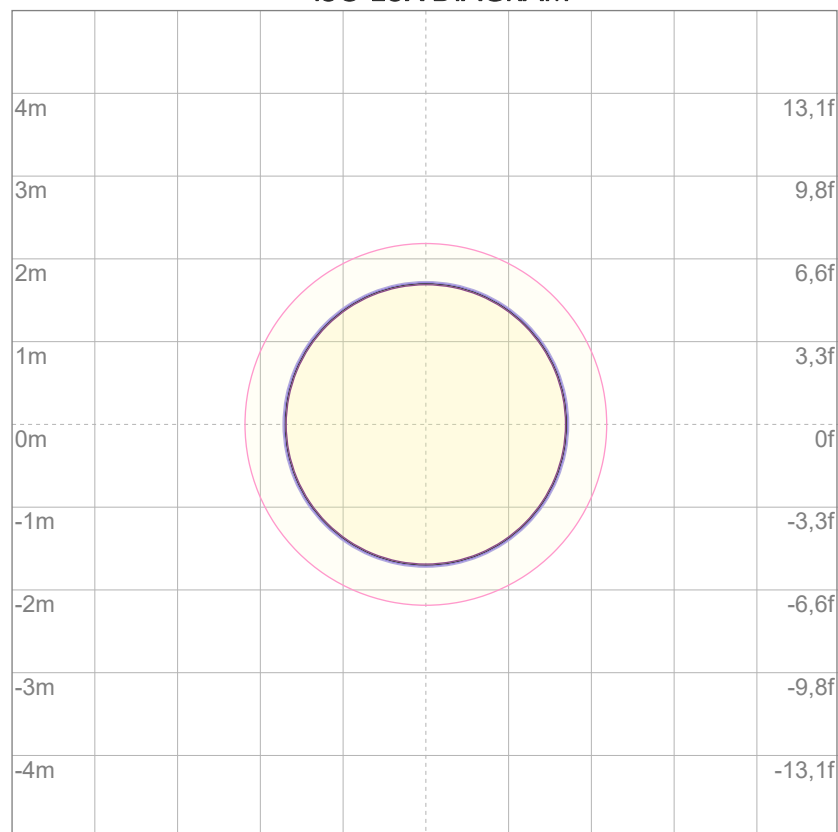
10%	3123 cd
20%	6246 cd
30%	9369 cd
40%	12492 cd
50%	15615 cd
60%	18738 cd
70%	21861 cd
80%	24984 cd

### Conditions:

Number of c-planes: 2

Candela at center: 31230 cd

## ISO LUX DIAGRAM



3%	9,37 lx
5%	15,6 lx
10%	31,2 lx
30%	93,7 lx
50%	156 lx

### Conditions:

Number of c-planes: 2

Lux at center: 312 lx

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