

# Photometric Test Report



**ECLDISPLAYCC**

**PROFILE LENS 50°**

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

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Color temperature 2700K	4
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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:

1541 lm

Peak candela output:

2918 cd

Light quality:

CRI: 91,0

Color temperature:

2640 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 50°

Target:

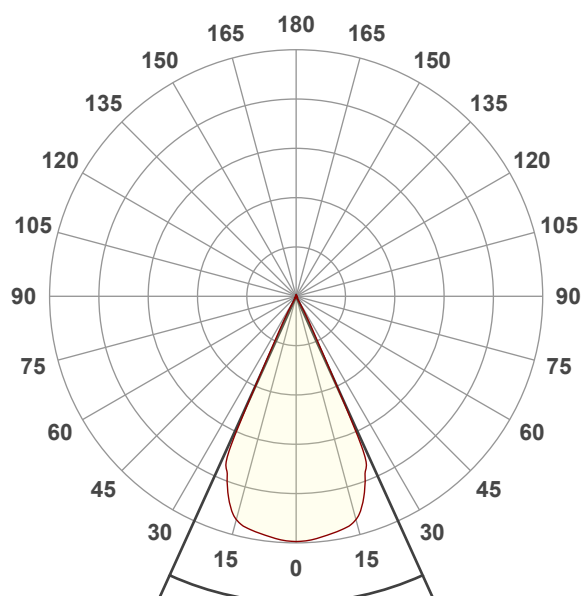
2700K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 16:01:56

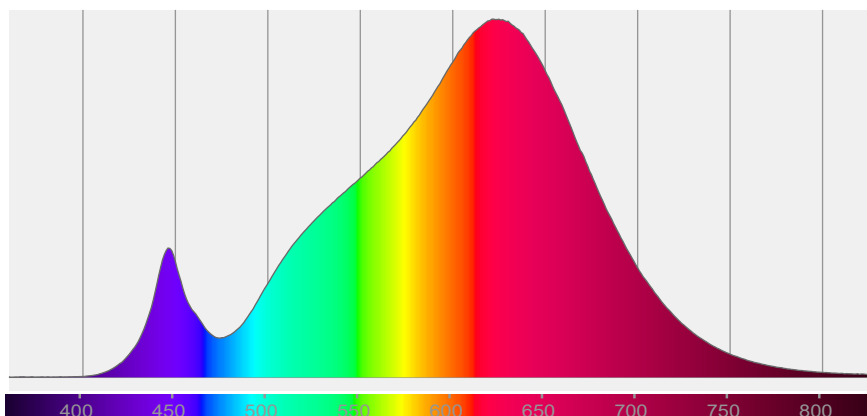


Beam angle 50%: 48,8°

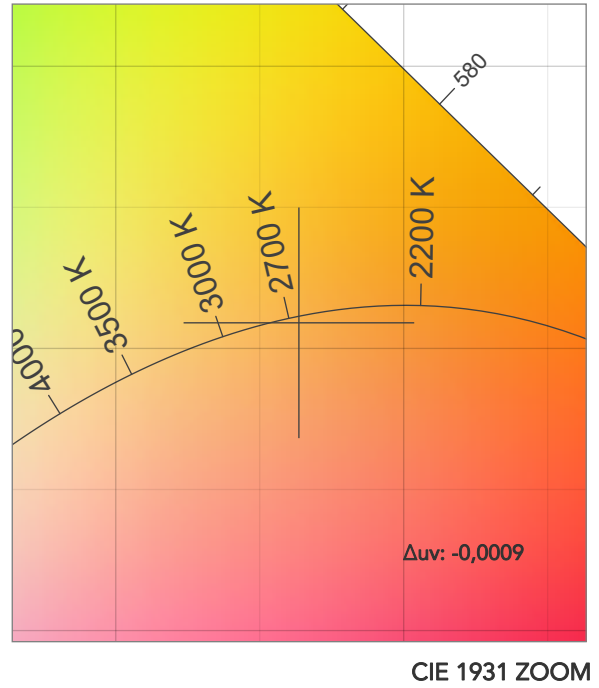
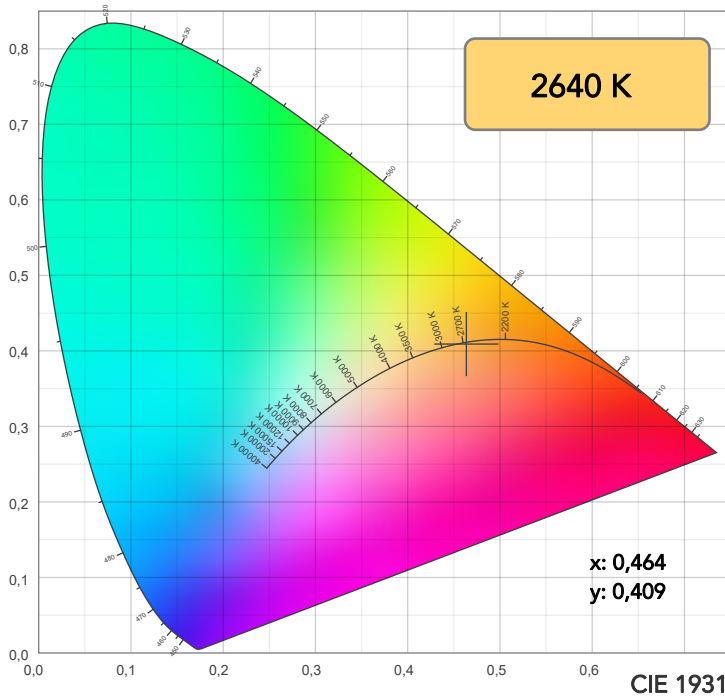
Field angle 10%: 54,1°

Cut off angle 2.5%: 56,6°

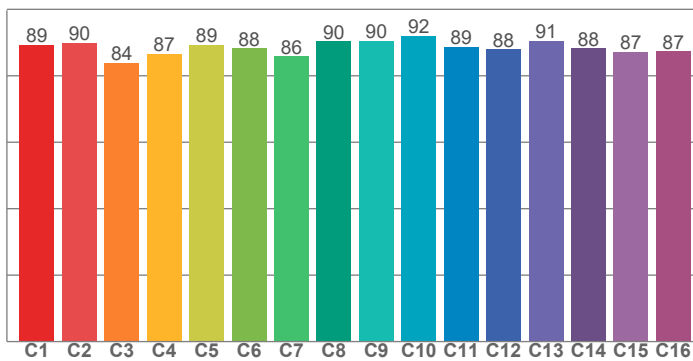
Spectra



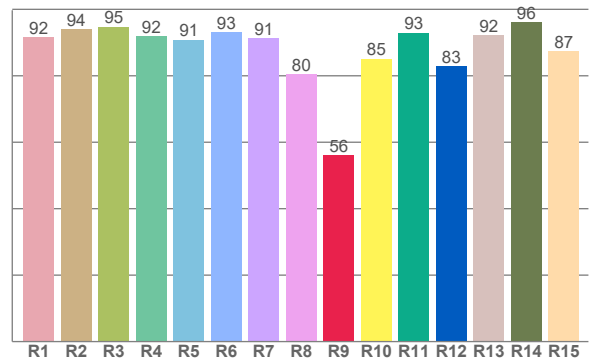
## COLOR DETAILS



TM30: 88,6



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
91,7	94,1	94,7	91,9	90,9	93,0	91,3	80,5	56,1	85,2	93,0	82,8	92,1	96,0	87,3

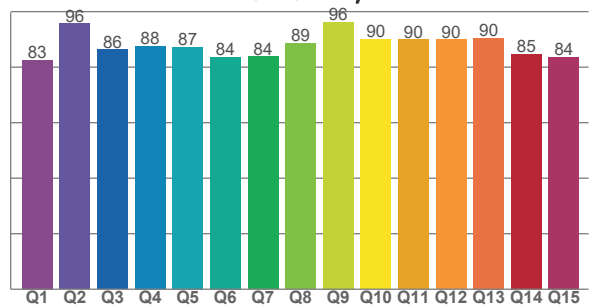
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,4	89,9	83,8	86,5	89,3	88,2	85,8	90,4	90,5	91,9	88,6	87,9	90,6	88,2	87,2	87,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,6	95,7	86,3	87,6	87,3	83,7	83,8	88,6	96,2	90,0	90,0	89,9	90,5	84,8	83,7

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
2640 K	91,0	56,1	88,6	102,8	87,2	82	0,464	0,409	-0,0009

# TM30 DETAILS

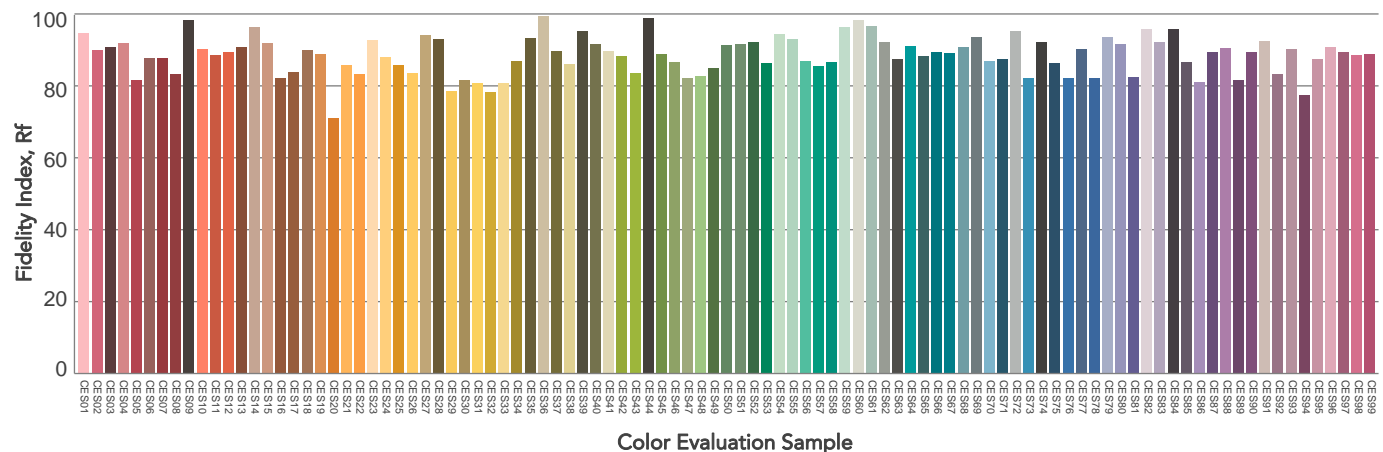
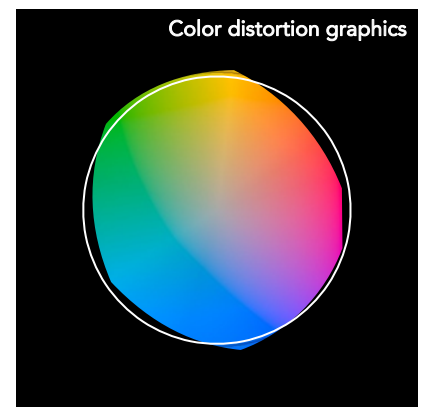
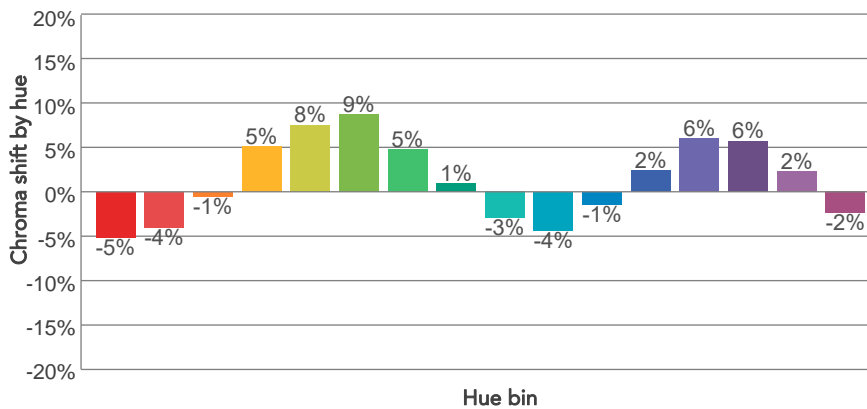
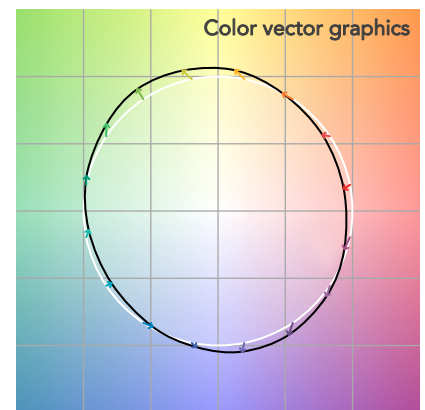
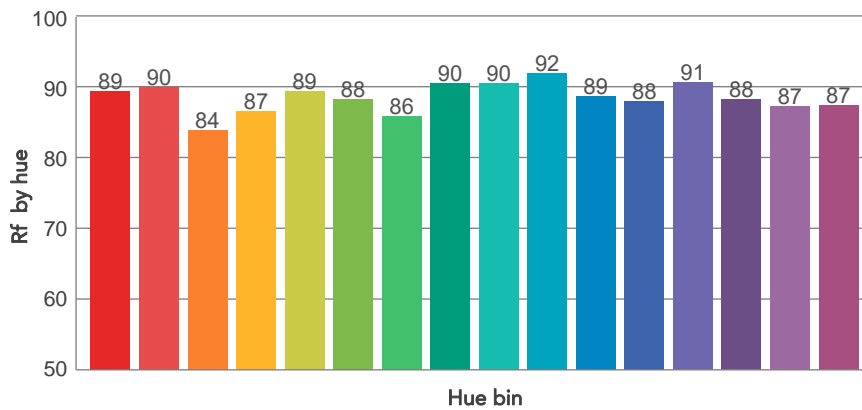
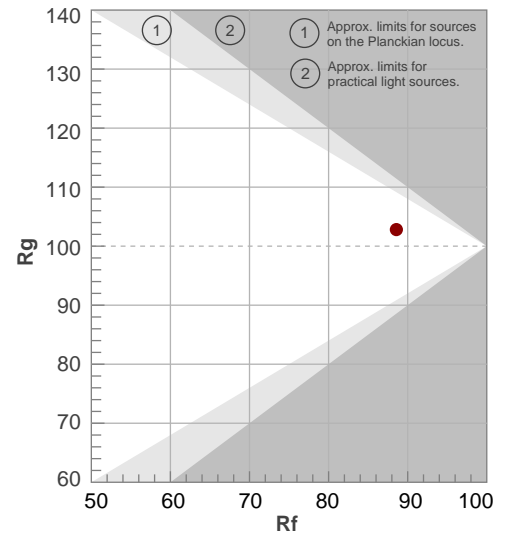
**Rf 88,6**

Fidelity index Rf

**Rg 102,8**

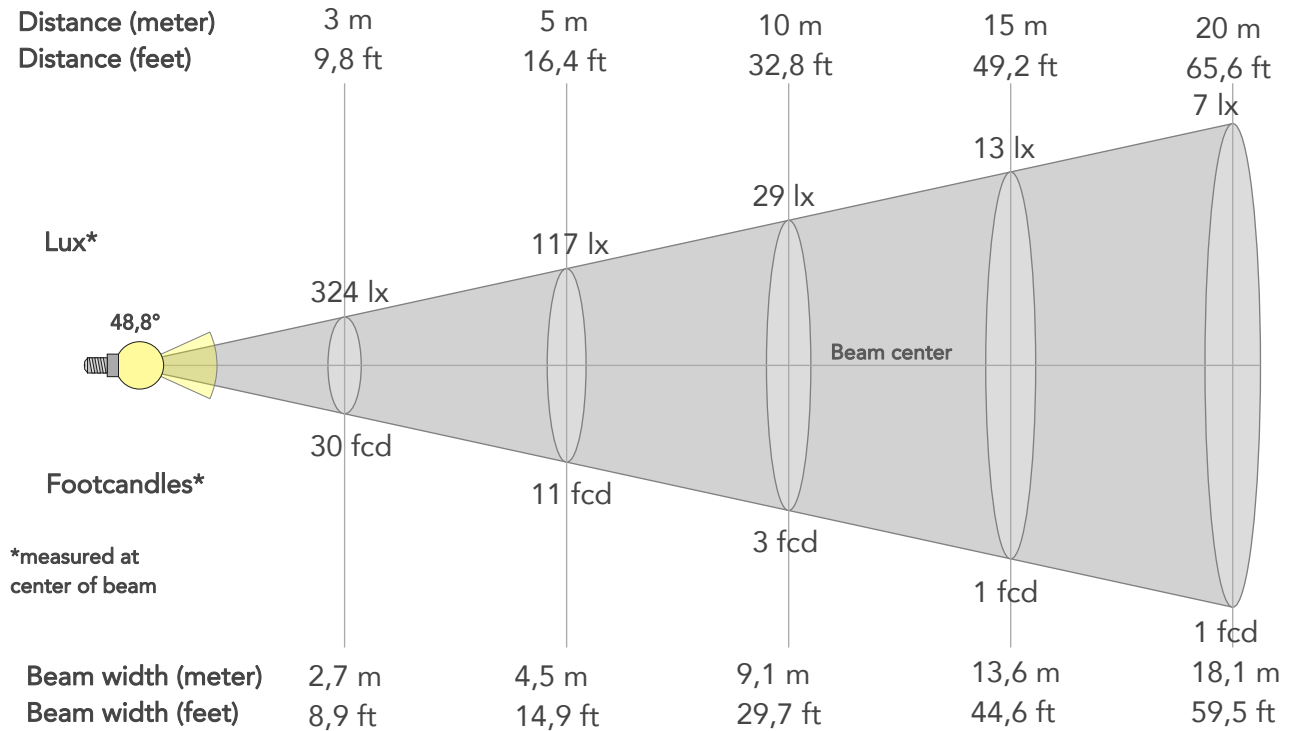
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	-2%
2	90	-4%	4%
3	84	-1%	9%
4	87	5%	8%
5	89	8%	5%
6	88	9%	0%
7	86	5%	-8%
8	90	1%	-6%
9	90	-3%	-5%
10	92	-4%	1%
11	89	-1%	7%
12	88	2%	4%
13	91	6%	-3%
14	88	6%	-7%
15	87	2%	-8%
16	87	-2%	-10%



# BEAM DETAILS

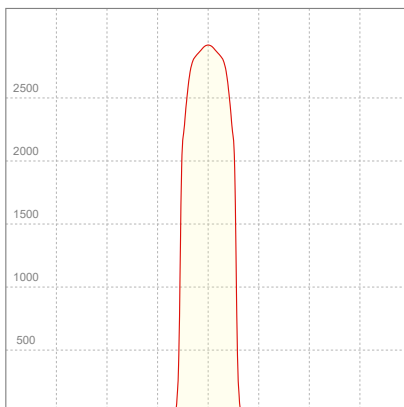
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
<b>48,8°</b>	<b>54,1°</b>	<b>56,6°</b>	<b>99,0%</b>	<b>98,8%</b>



## 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	2918lx	730lx	324lx	182lx	117lx	52lx	29lx	13lx	7lx	5lx	3lx	2lx	1lx
Footcand.	271fcd	68fcd	30fcd	17fcd	11fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,8m	2,7m	3,6m	4,5m	6,8m	9,1m	13,6m	18,1m	22,7m	27,2m	36,3m	45,3m
Beam wid.	3ft	6ft	8,9ft	11,9ft	14,9ft	22,3ft	29,7ft	44,6ft	59,5ft	74,4ft	89,2ft	119ft	148,7ft

## LINEAR DISTRIBUTION DIAGRAM

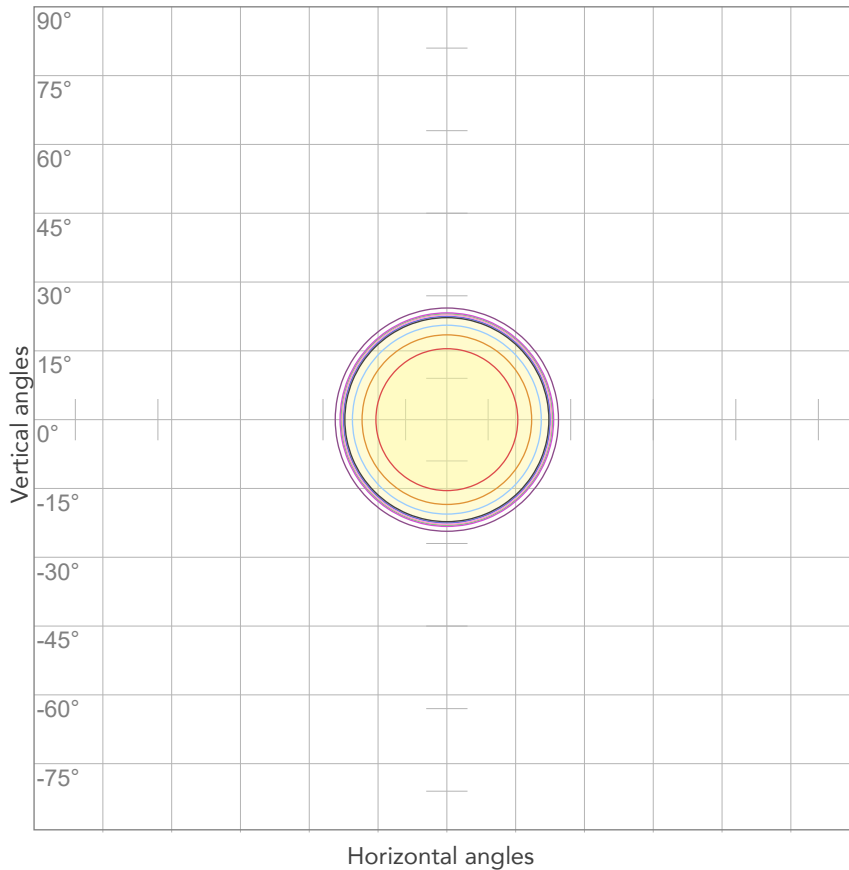


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
<b>224V</b>	<b>0,158A</b>	<b>32,8W</b>	<b>0,93</b>	<b>47lm/W</b>

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



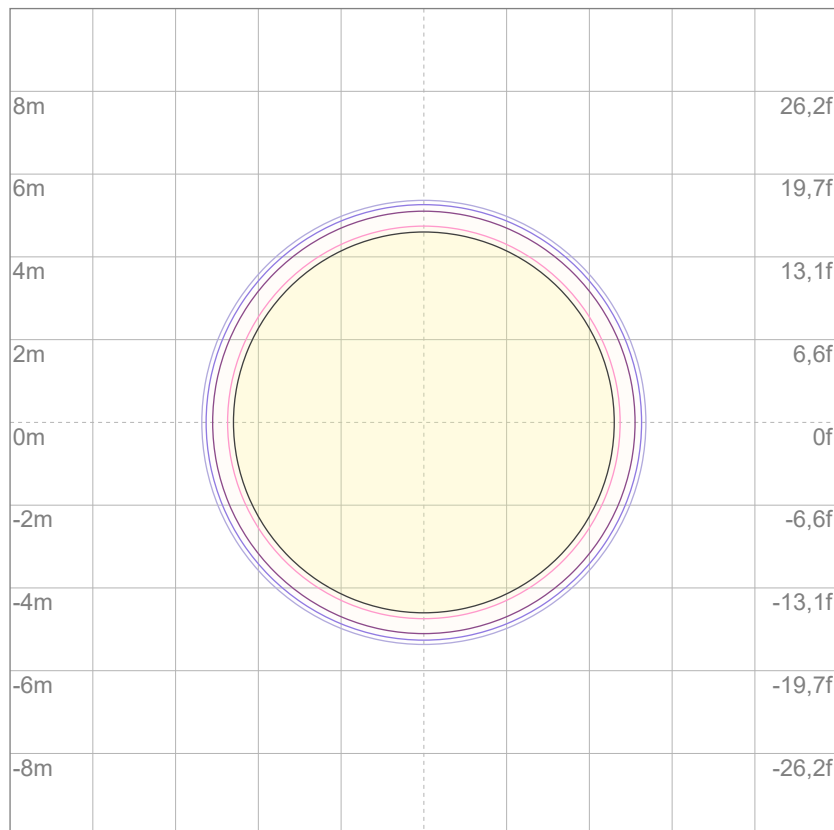
10%	292 cd
20%	584 cd
30%	875 cd
40%	1167 cd
50%	1459 cd
60%	1751 cd
70%	2043 cd
80%	2334 cd

### Conditions:

Number of c-planes: 2

Candela at center: 2918 cd

## ISO LUX DIAGRAM



3%	0,875 lx
5%	1,46 lx
10%	2,92 lx
30%	8,75 lx
50%	14,6 lx

### Conditions:

Number of c-planes: 2

Lux at center: 29,2 lx

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





Total lumen output:

1603 lm

Peak candela output:

3113 cd

Light quality:

CRI: 90,2

Color temperature:

2970 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 50°

Target:

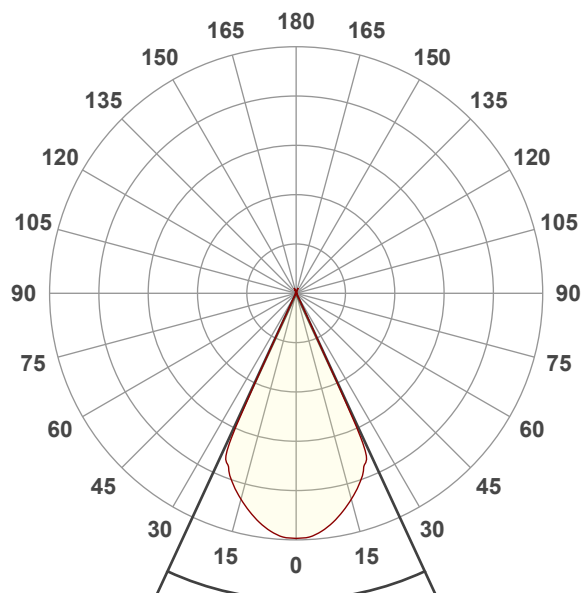
3000K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 13:07:23

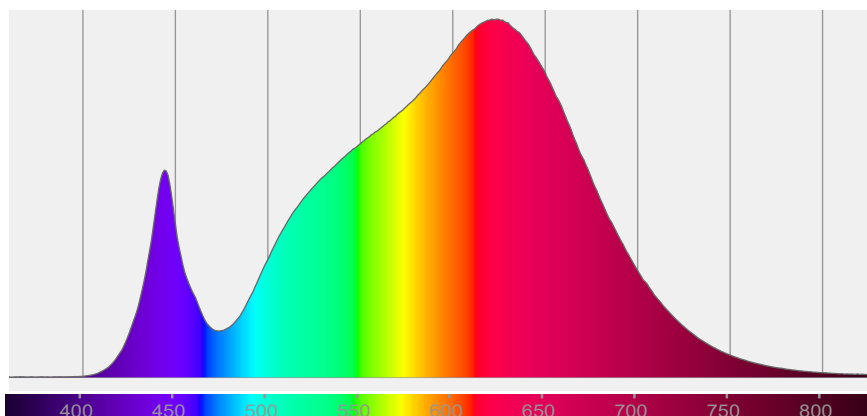


Beam angle 50%: 49,7°

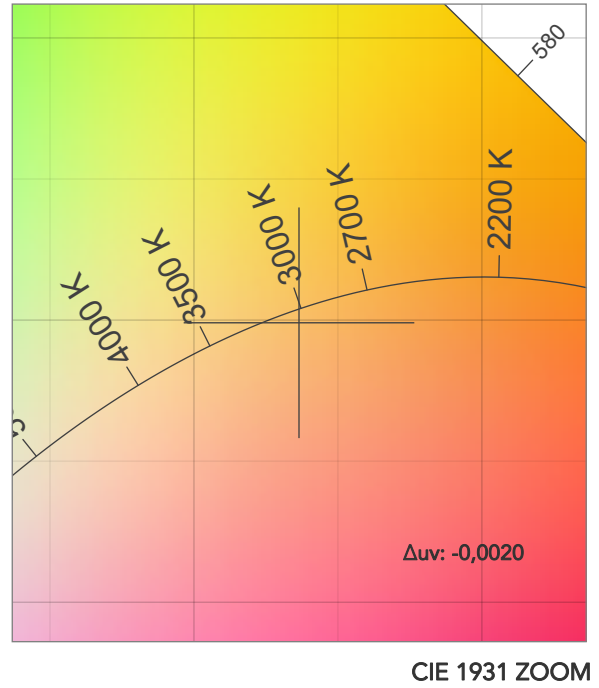
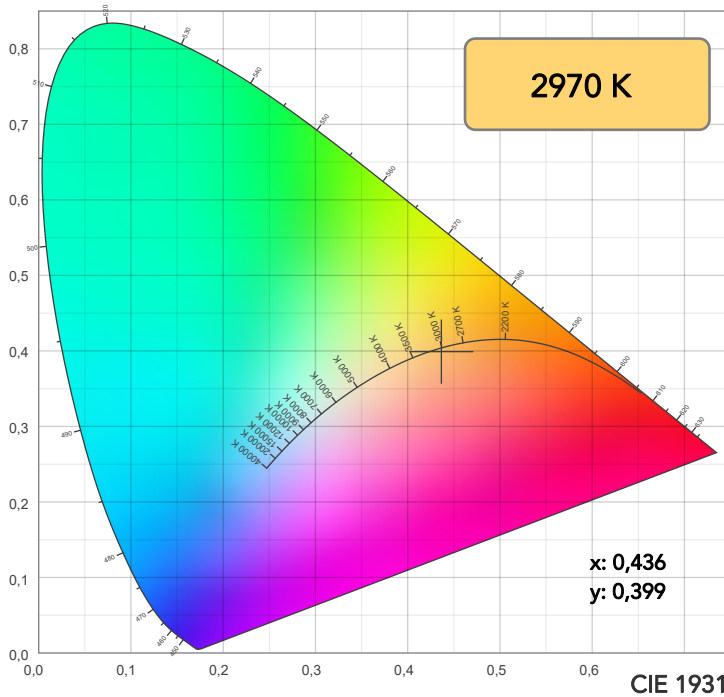
Field angle 10%: 53,6°

Cut off angle 2.5%: 55,9°

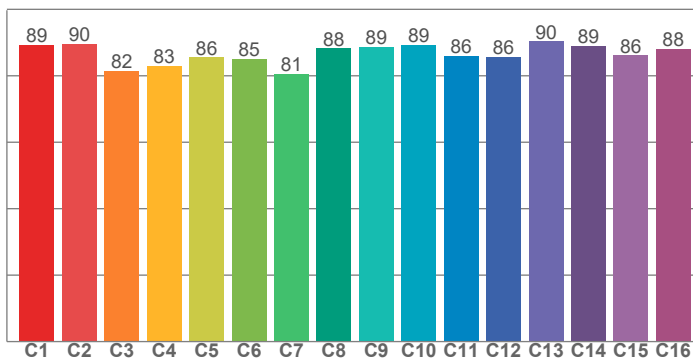
Spectra



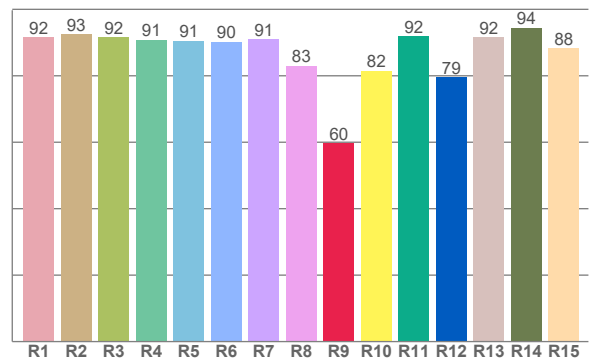
## COLOR DETAILS



TM30: 86,8



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
91,7	92,5	91,6	90,9	90,5	90,3	91,0	83,0	59,6	81,6	91,9	79,5	91,5	94,4	88,3

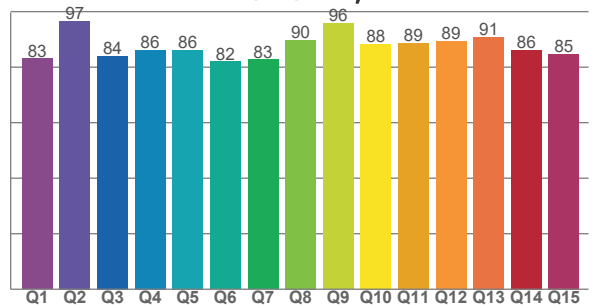
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,3	89,6	81,5	83,0	85,6	85,2	80,5	88,2	88,8	89,3	86,0	85,7	90,3	89,0	86,2	88,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,1	96,7	84,1	86,1	86,2	82,0	82,8	89,7	95,8	88,4	88,7	89,4	90,9	86,1	84,7

CQS: 86,8



## COLOR PARAMETERS

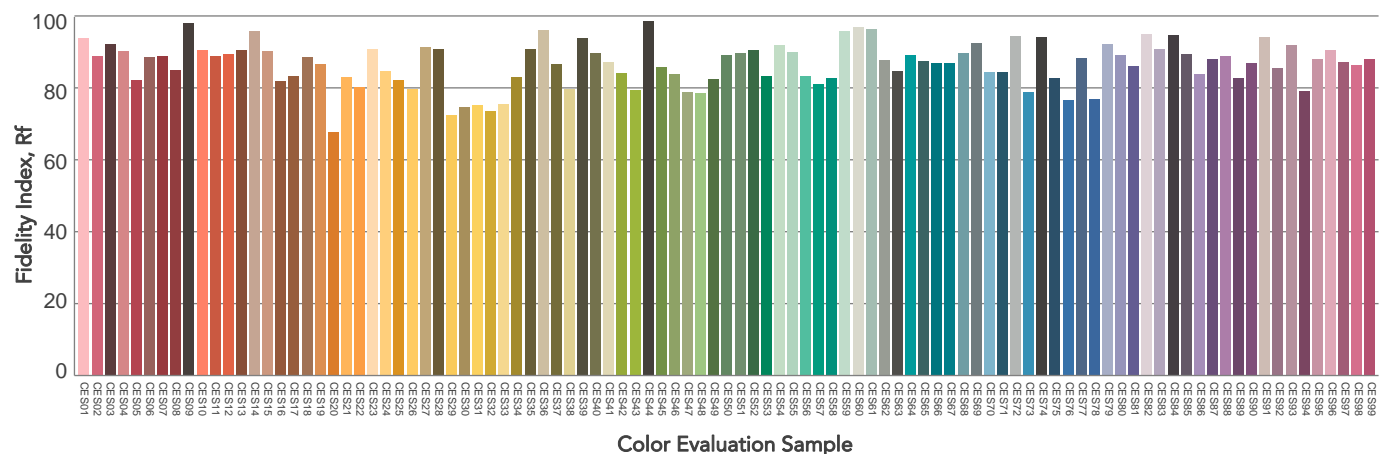
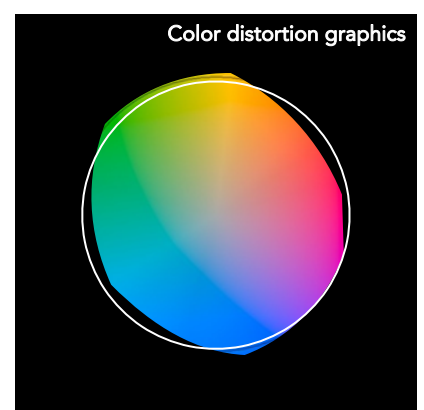
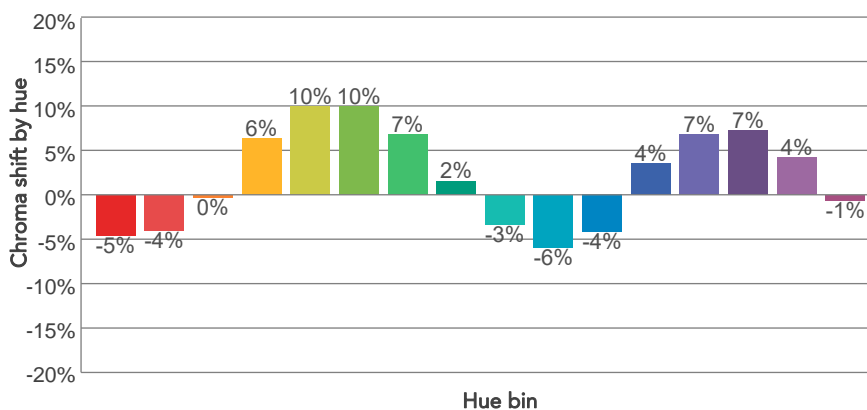
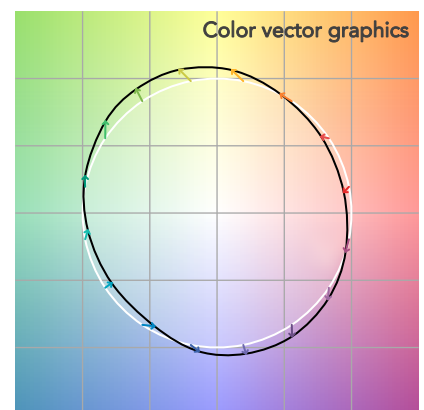
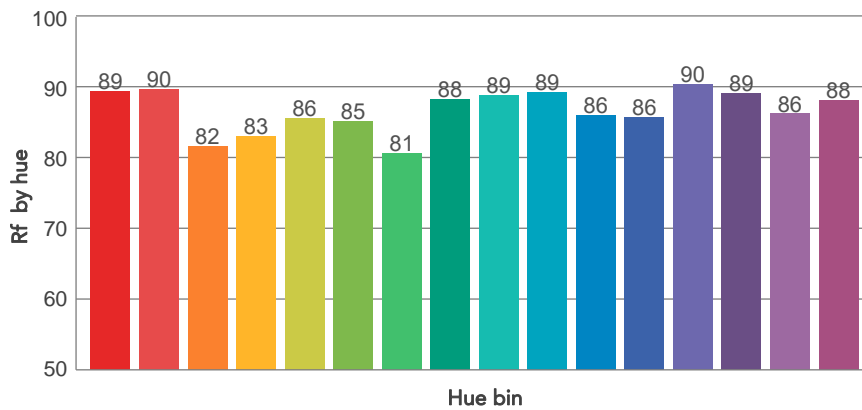
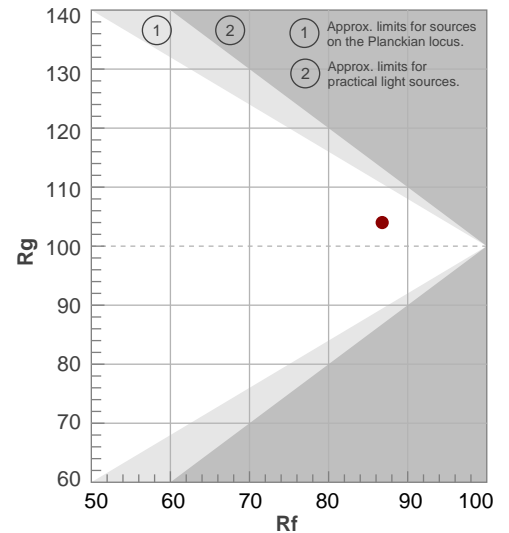
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
2970 K	90,2	59,6	86,8	104,0	86,8	79	0,436	0,399	-0,0020

# TM30 DETAILS

**Rf 86,8**  
Fidelity index Rf

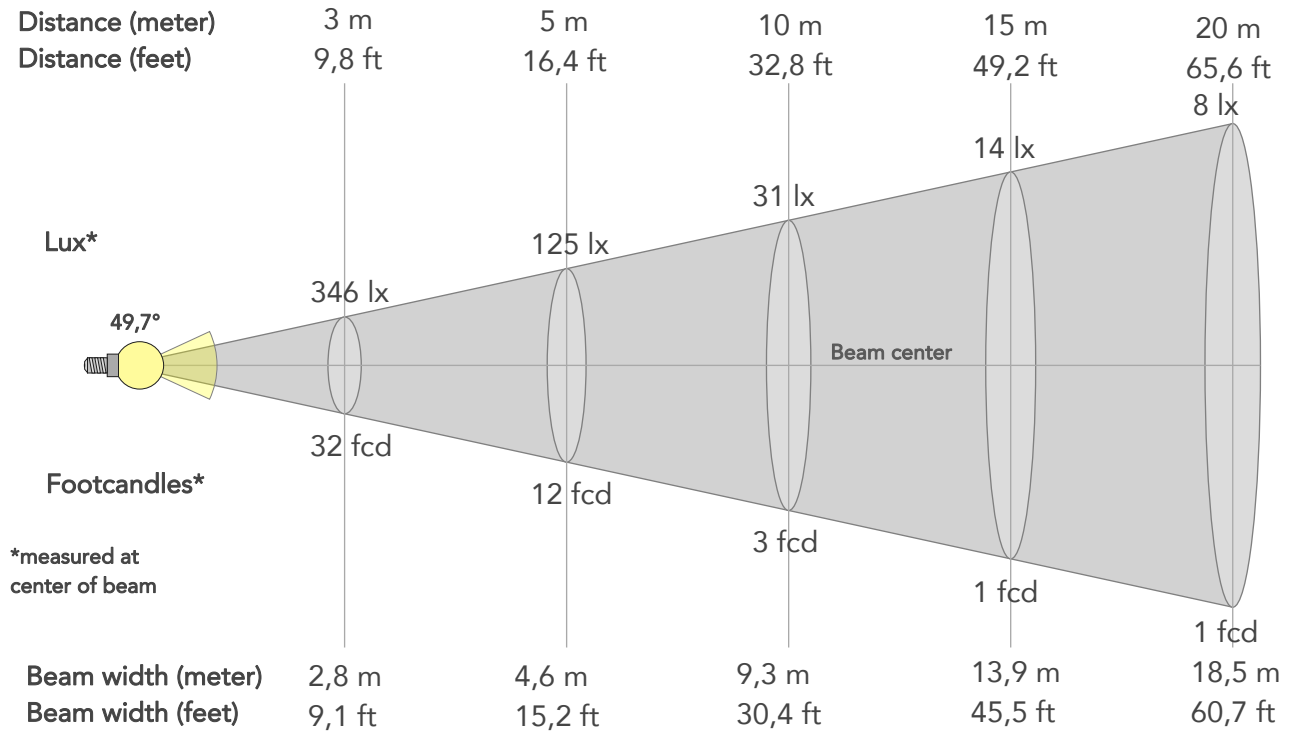
**Rg 104,0**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	-3%
2	90	-4%	4%
3	82	0%	10%
4	83	6%	10%
5	86	10%	7%
6	85	10%	-1%
7	81	7%	-11%
8	88	2%	-8%
9	89	-3%	-6%
10	89	-6%	0%
11	86	-4%	8%
12	86	4%	7%
13	90	7%	1%
14	89	7%	-5%
15	86	4%	-7%
16	88	-1%	-9%



# BEAM DETAILS

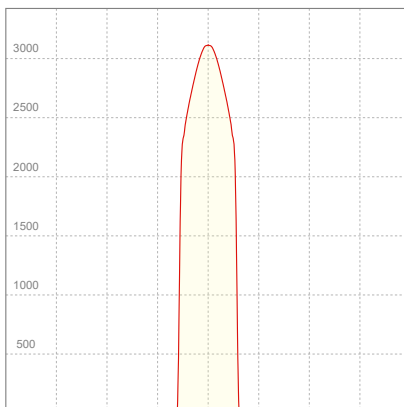
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
49,7°	53,6°	55,9°	99,1%	98,9%



## 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	3113lx	778lx	346lx	195lx	125lx	55lx	31lx	14lx	8lx	5lx	3lx	2lx	1lx
Footcand.	289fcd	72fcd	32fcd	18fcd	12fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,9m	2,8m	3,7m	4,6m	6,9m	9,3m	13,9m	18,5m	23,1m	27,8m	37m	46,3m
Beam wid.	3,1ft	6,1ft	9,1ft	12,1ft	15,2ft	22,8ft	30,4ft	45,5ft	60,7ft	75,9ft	91,1ft	121,4ft	151,8ft

## LINEAR DISTRIBUTION DIAGRAM

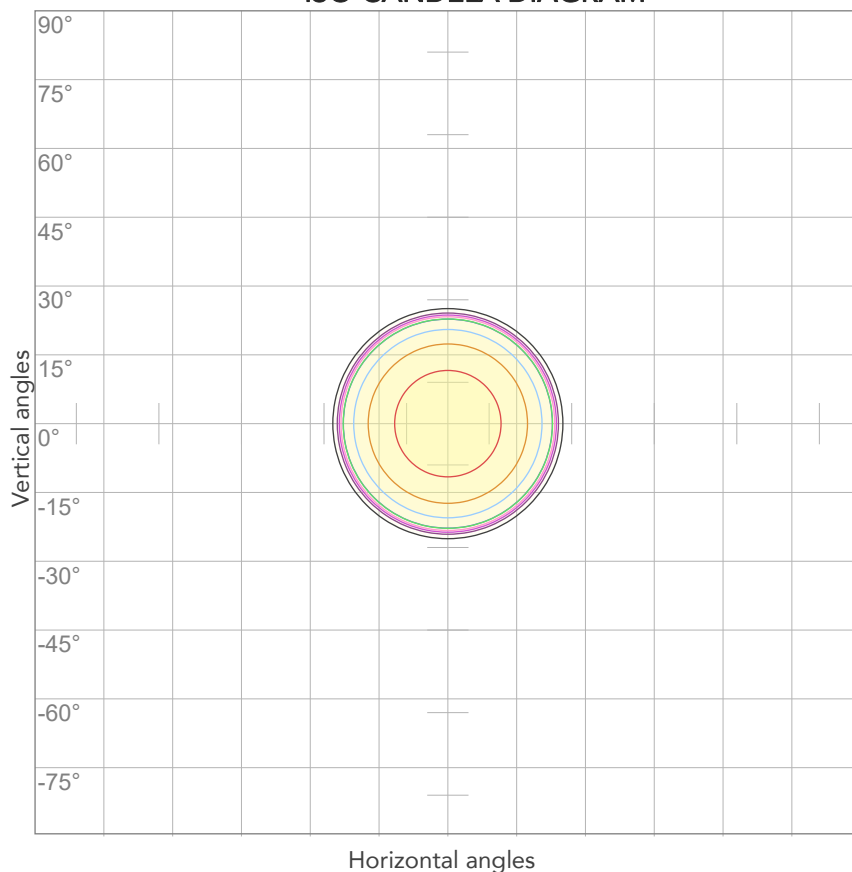


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,159A	33,0W	0,93	49lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



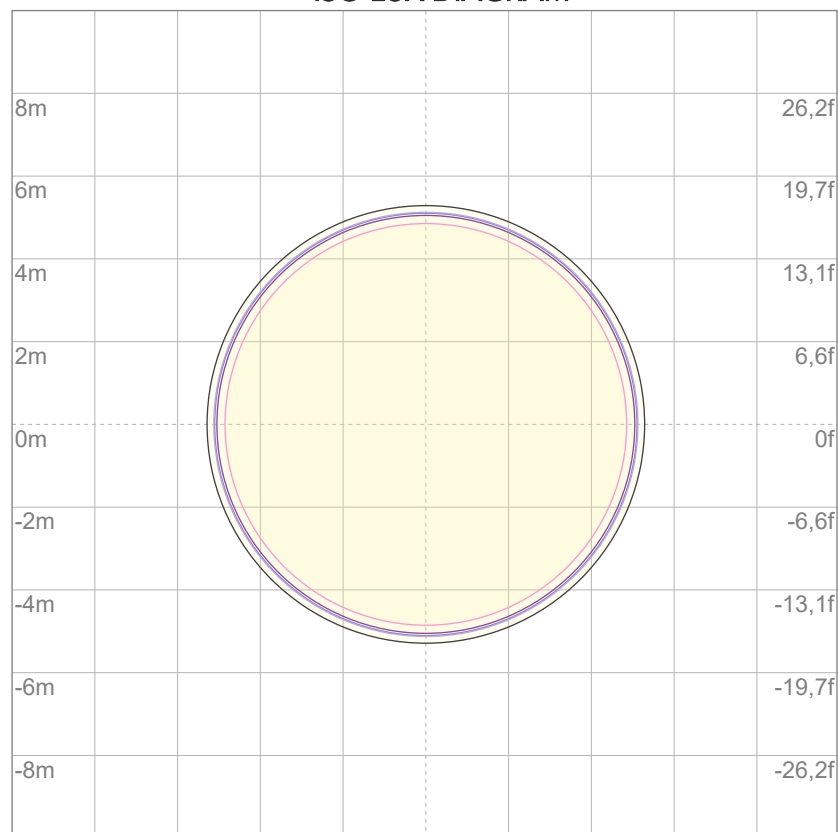
10%	311 cd
20%	623 cd
30%	934 cd
40%	1245 cd
50%	1556 cd
60%	1868 cd
70%	2179 cd
80%	2490 cd

### Conditions:

Number of c-planes: 2

Candela at center: 3113 cd

## ISO LUX DIAGRAM



3%	0,934 lx
5%	1,56 lx
10%	3,11 lx
30%	9,34 lx
50%	15,6 lx

### Conditions:

Number of c-planes: 2

Lux at center: 31,1 lx

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



Total lumen output:

1825 lm

Peak candela output:

3345 cd

Light quality:

CRI: 89,0

Color temperature:

4006 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 50°

Target:

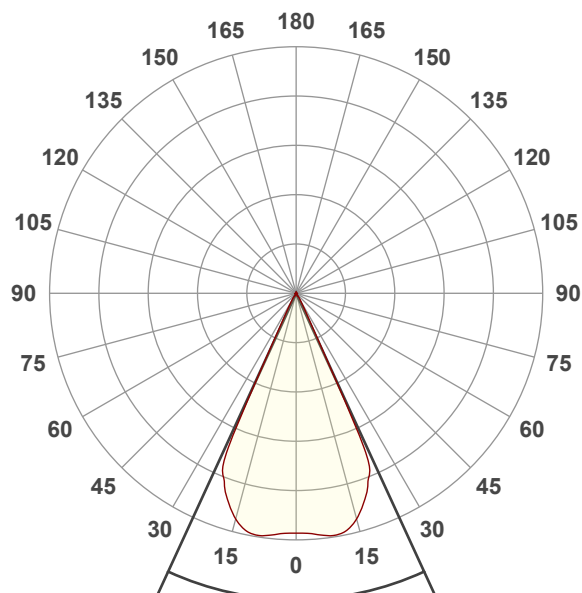
4000K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 12:11:01

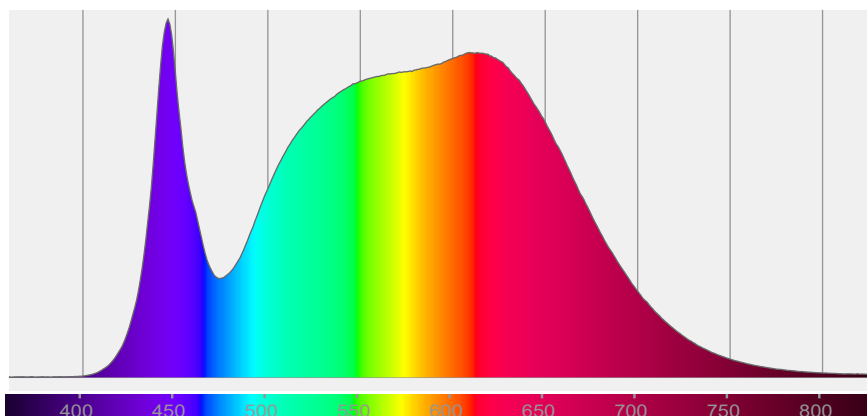


Beam angle 50%: 49,4°

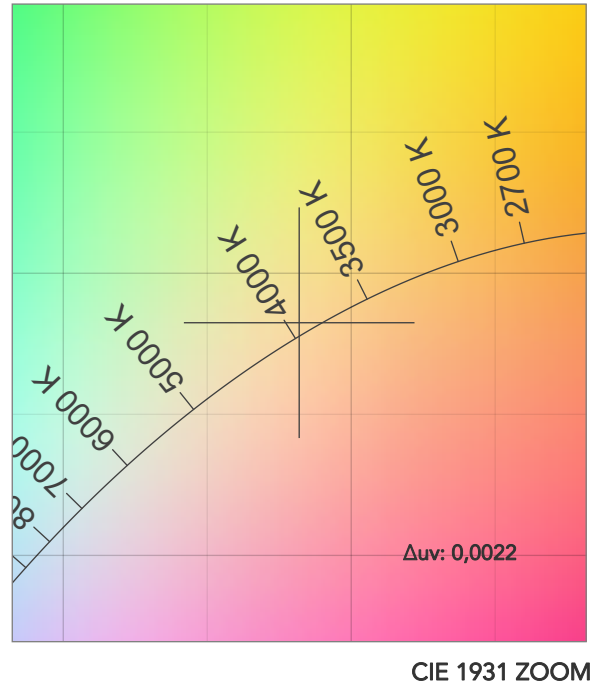
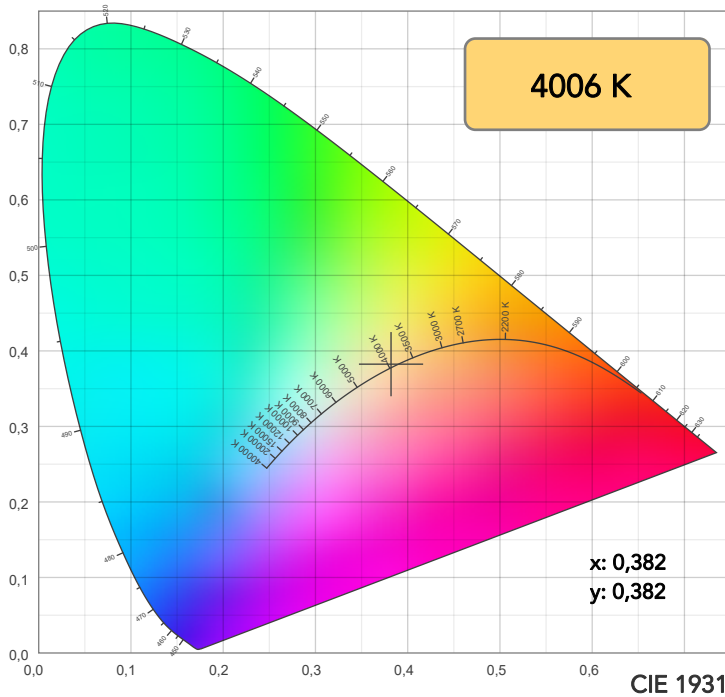
Field angle 10%: 53,6°

Cut off angle 2.5%: 58°

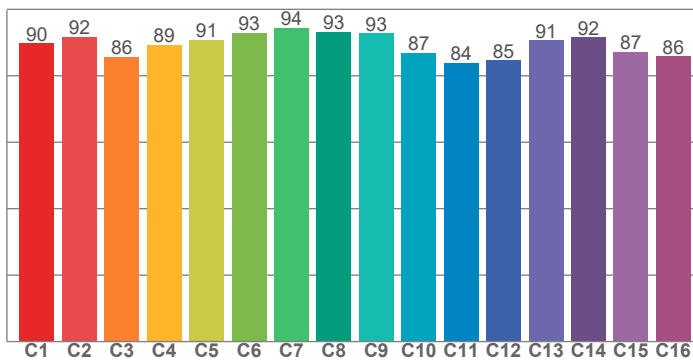
Spectra



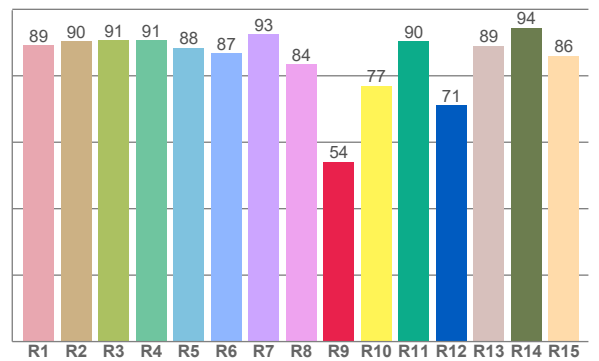
# COLOR DETAILS



TM30: 89,3



CRI: 89,0 (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
89,3	90,5	90,7	90,7	88,5	86,8	92,5	83,5	54,1	77,0	90,5	71,1	89,1	94,5	86,0

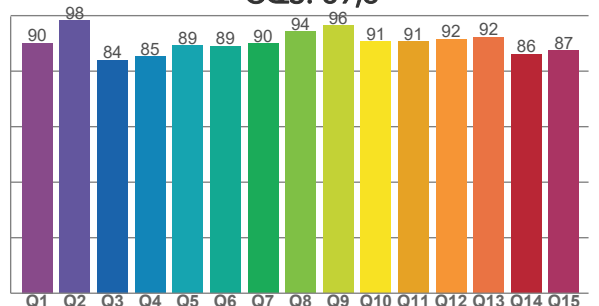
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,8	91,7	85,7	89,4	90,8	92,9	94,4	93,2	92,8	86,9	83,8	84,6	90,6	91,6	87,2	85,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90,1	98,2	84,1	85,2	89,2	88,9	89,9	94,3	96,5	90,7	90,7	91,5	92,2	86,1	87,4

CQS: 89,6



## COLOR PARAMETERS

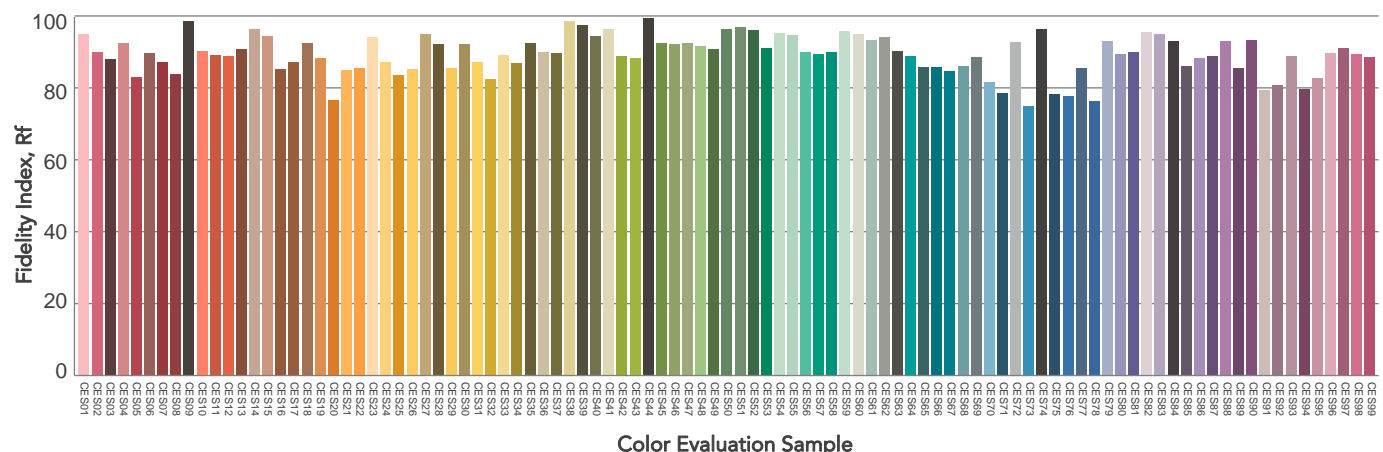
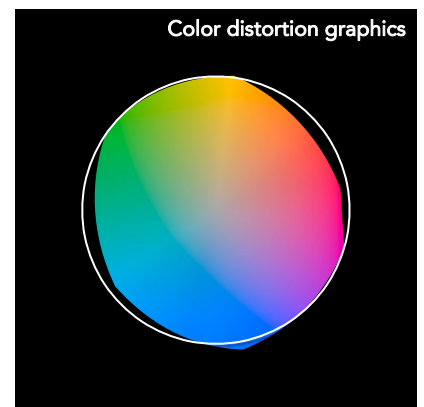
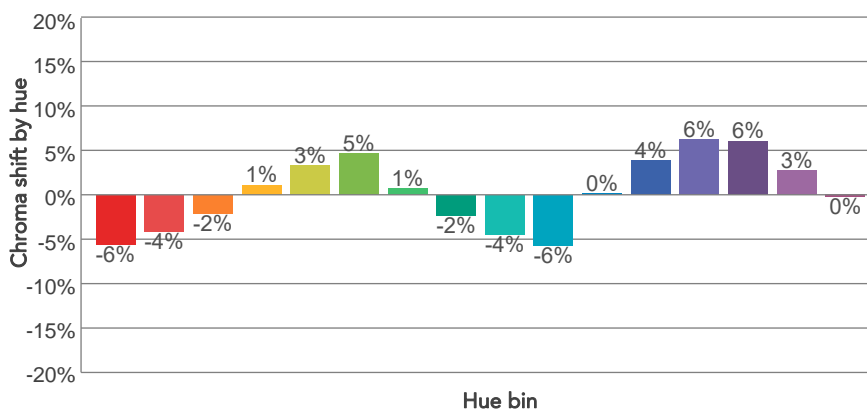
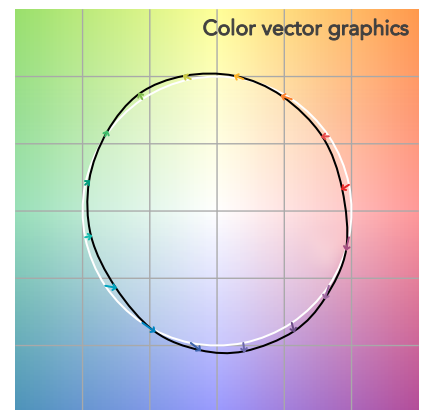
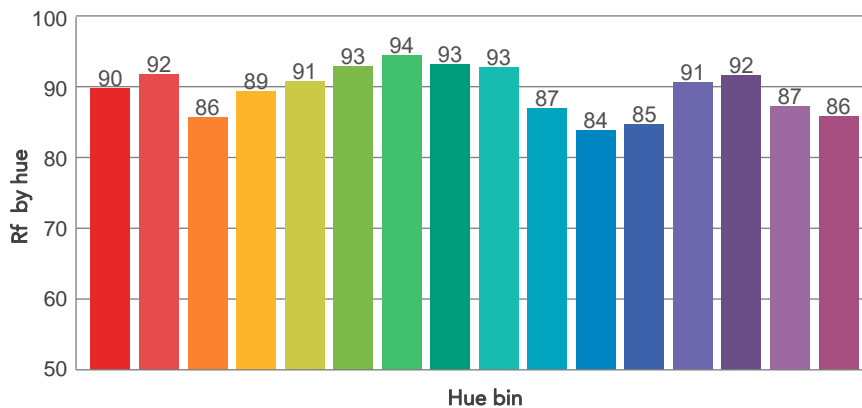
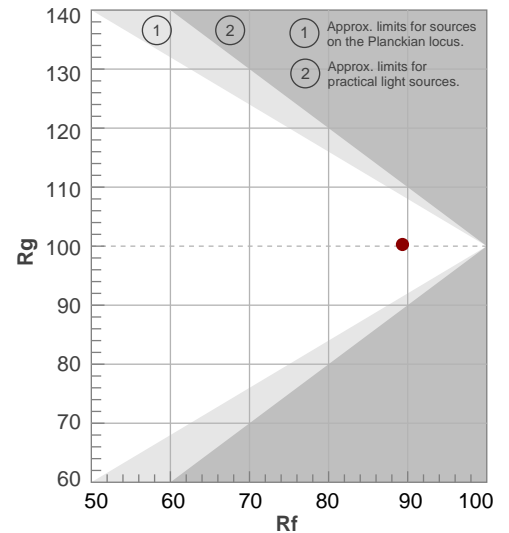
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
4006 K	89,0	54,1	89,3	100,3	89,6	88	0,382	0,382	0,0022

# TM30 DETAILS

**Rf 89,3**  
Fidelity index Rf

**Rg 100,3**  
Gammut index

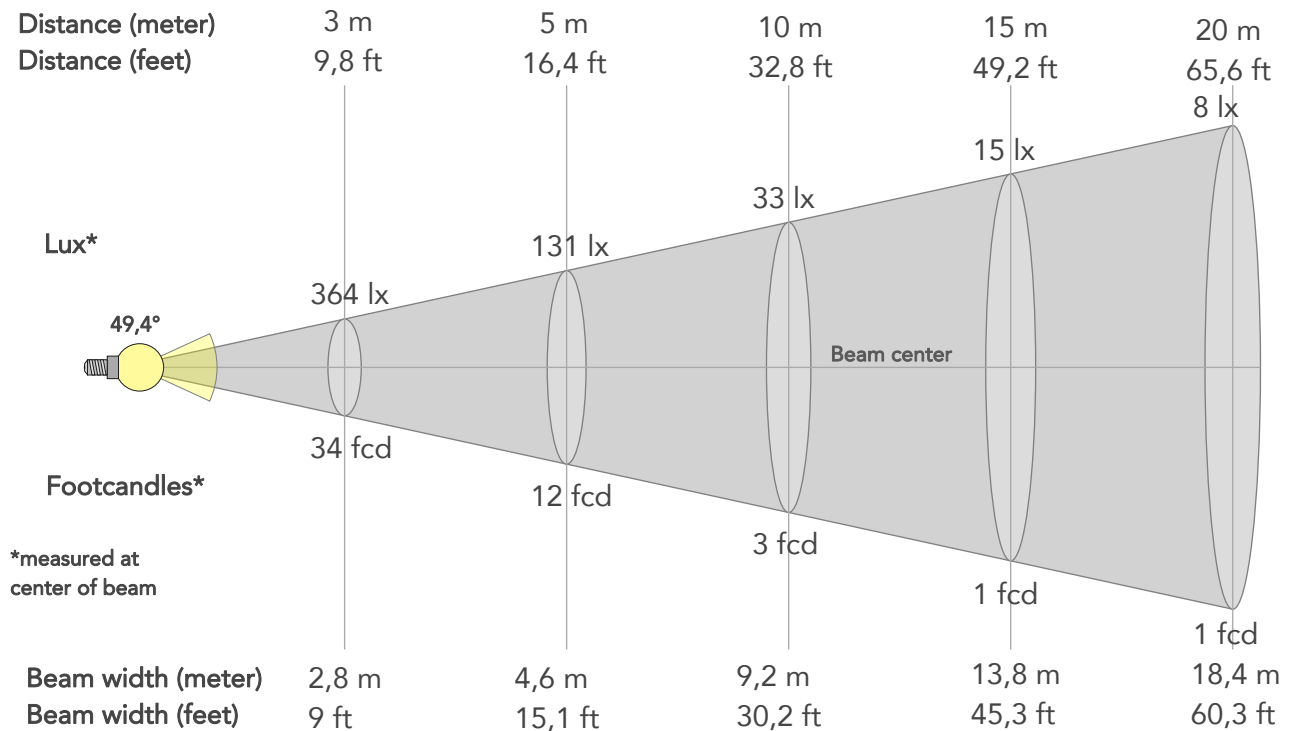
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	90	-6%	-2%
2	92	-4%	2%
3	86	-2%	7%
4	89	1%	6%
5	91	3%	4%
6	93	5%	0%
7	94	1%	-4%
8	93	-2%	-3%
9	93	-4%	0%
10	87	-6%	6%
11	84	0%	11%
12	85	4%	8%
13	91	6%	0%
14	92	6%	-2%
15	87	3%	-9%
16	86	0%	-9%





# BEAM DETAILS

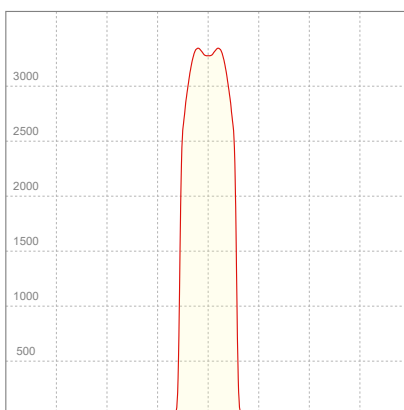
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
49,4°	53,6°	58°	99,2%	99,0%



## 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	3280lx	820lx	364lx	205lx	131lx	58lx	33lx	15lx	8lx	5lx	4lx	2lx	1lx
Footcand.	305fcd	76fcd	34fcd	19fcd	12fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,8m	2,8m	3,7m	4,6m	6,9m	9,2m	13,8m	18,4m	23m	27,6m	36,8m	46m
Beam wid.	3ft	6,1ft	9ft	12ft	15,1ft	22,6ft	30,2ft	45,3ft	60,3ft	75,4ft	90,5ft	120,7ft	150,8ft

## LINEAR DISTRIBUTION DIAGRAM

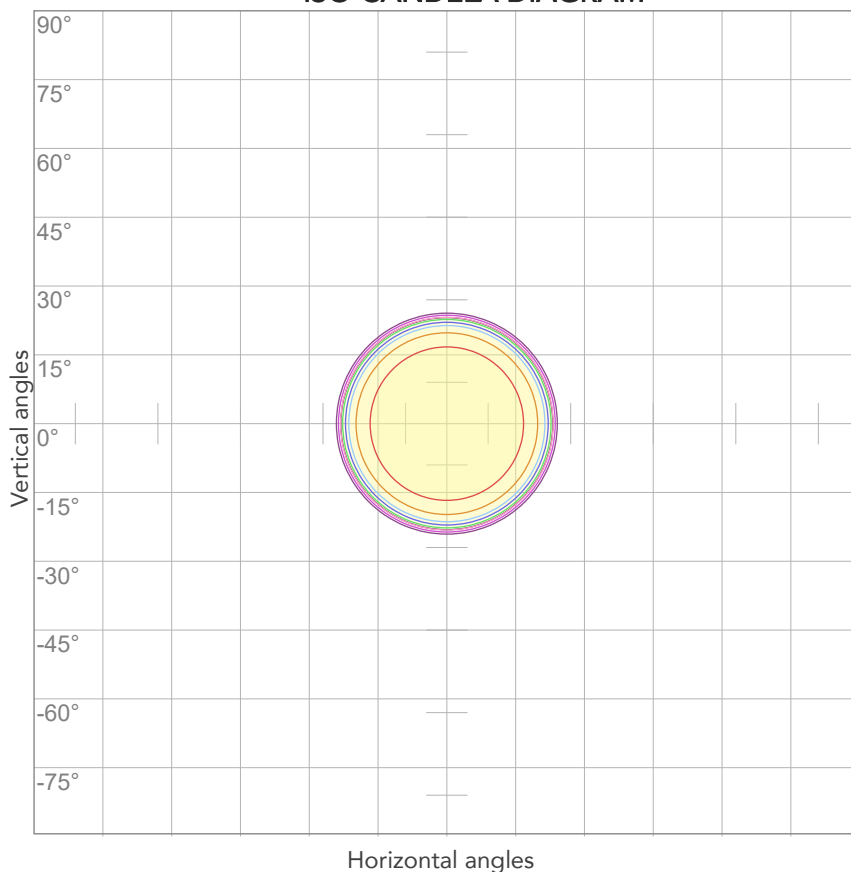


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
222V	0,164A	33,9W	0,94	54lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



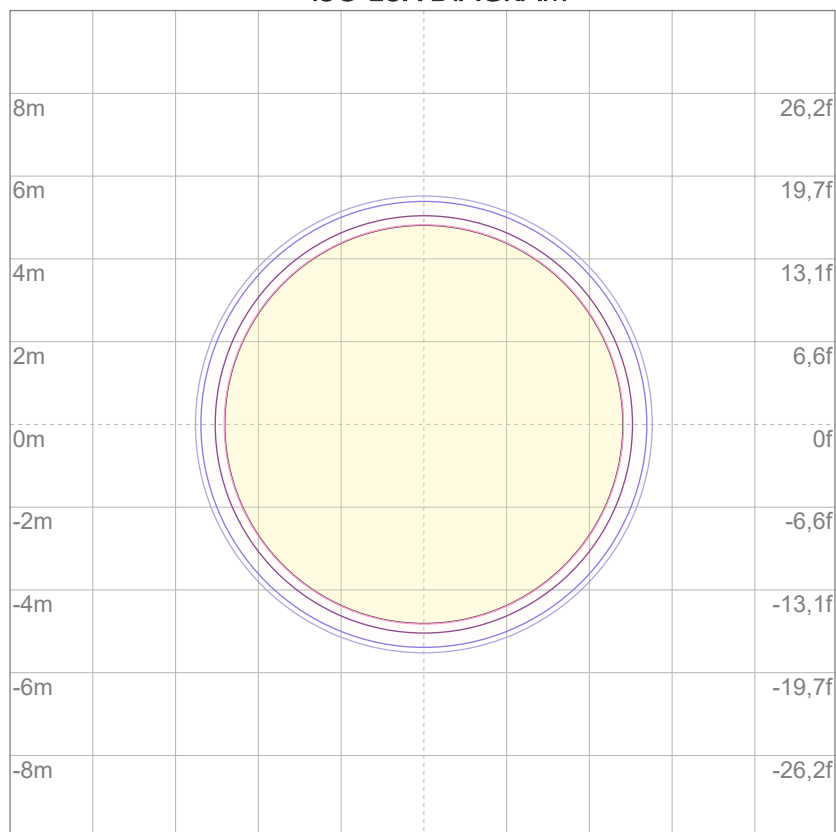
10%	328 cd
20%	656 cd
30%	984 cd
40%	1312 cd
50%	1640 cd
60%	1968 cd
70%	2296 cd
80%	2624 cd

### Conditions:

Number of c-planes: 2

Candela at center: 3280 cd

## ISO LUX DIAGRAM



3%	0,984 lx
5%	1,64 lx
10%	3,28 lx
30%	9,84 lx
50%	16,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 32,8 lx

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



Total lumen output:

1852 lm

Peak candela output:

3547 cd

Light quality:

CRI: 90,9

Color temperature:

5350 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 50°

Target:

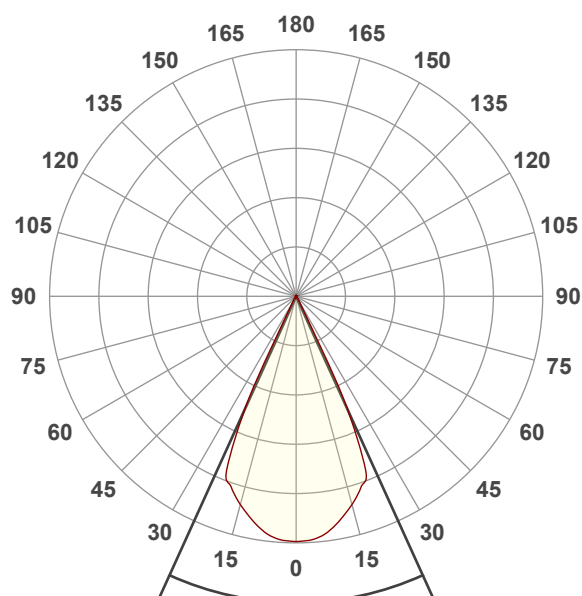
5600K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 12:35:22

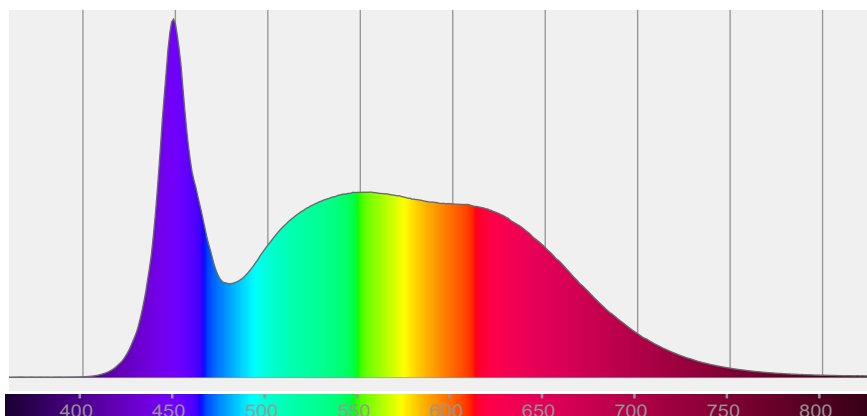


Beam angle 50%: 48,8°

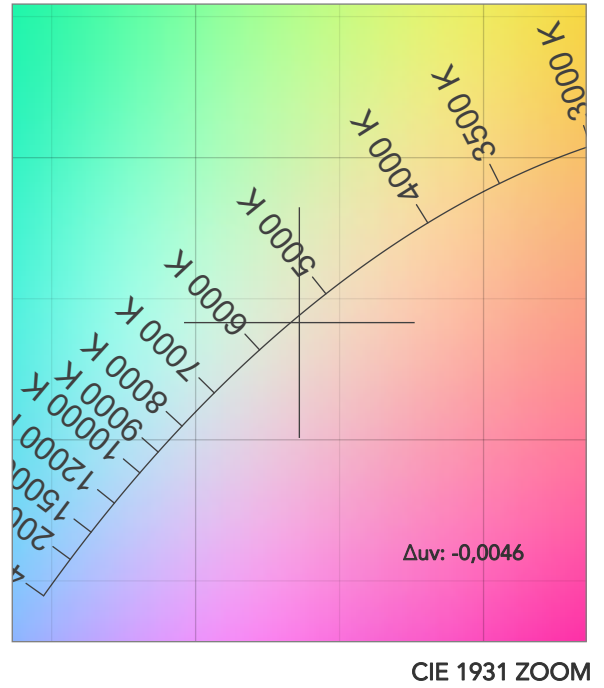
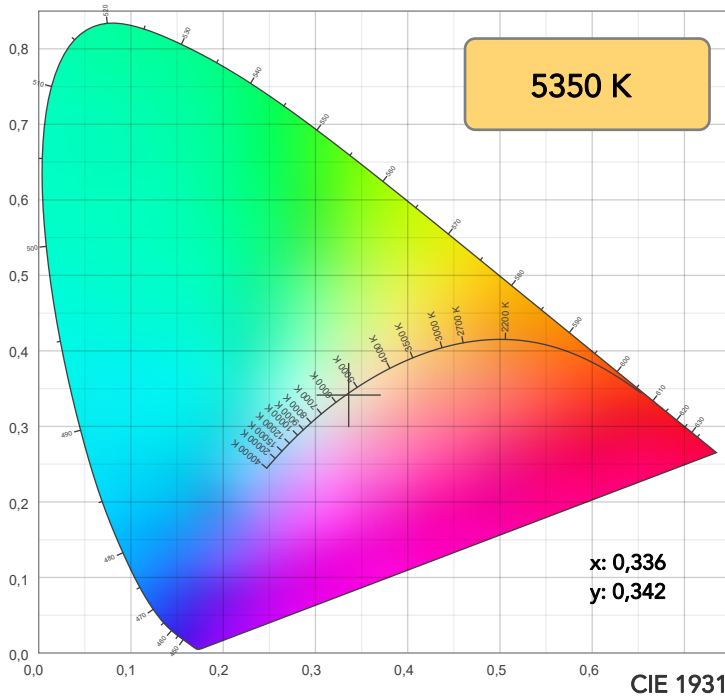
Field angle 10%: 55°

Cut off angle 2.5%: 59°

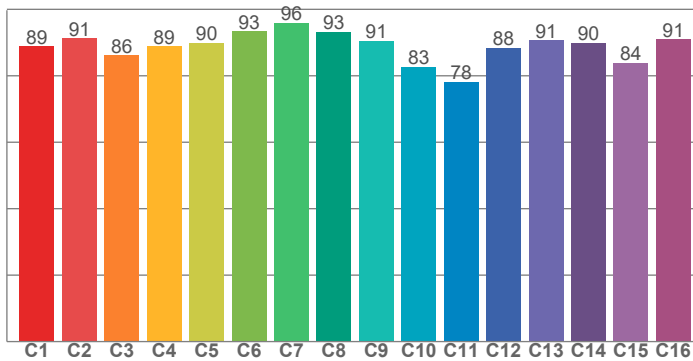
Spectra



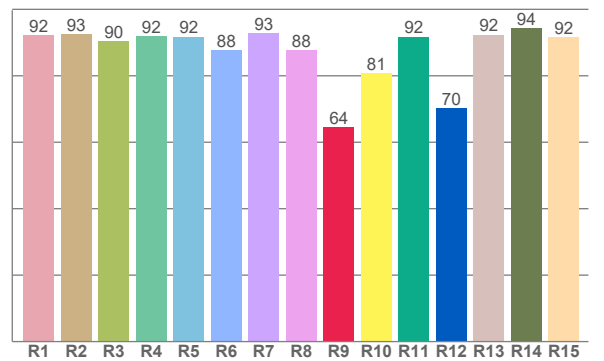
# COLOR DETAILS



TM30: 88,6



CRI: 90,9 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,2	92,6	90,4	92,0	91,7	87,8	92,8	87,7	64,4	80,7	91,8	70,2	92,4	94,4	91,7

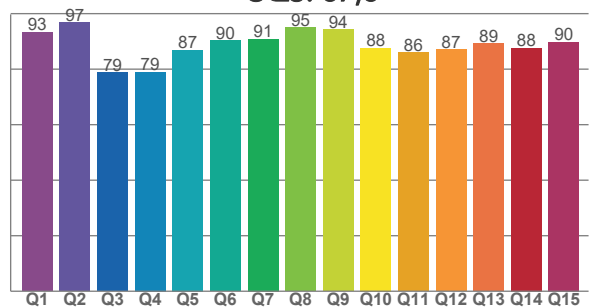
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
88,9	91,3	86,1	88,9	89,8	93,4	96,0	93,2	90,5	82,6	78,2	88,4	90,7	90,0	84,0	91,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,3	96,8	78,8	79,0	86,9	90,3	90,9	94,9	94,2	87,7	86,0	87,1	89,2	87,6	89,8

CQS: 87,8



## COLOR PARAMETERS

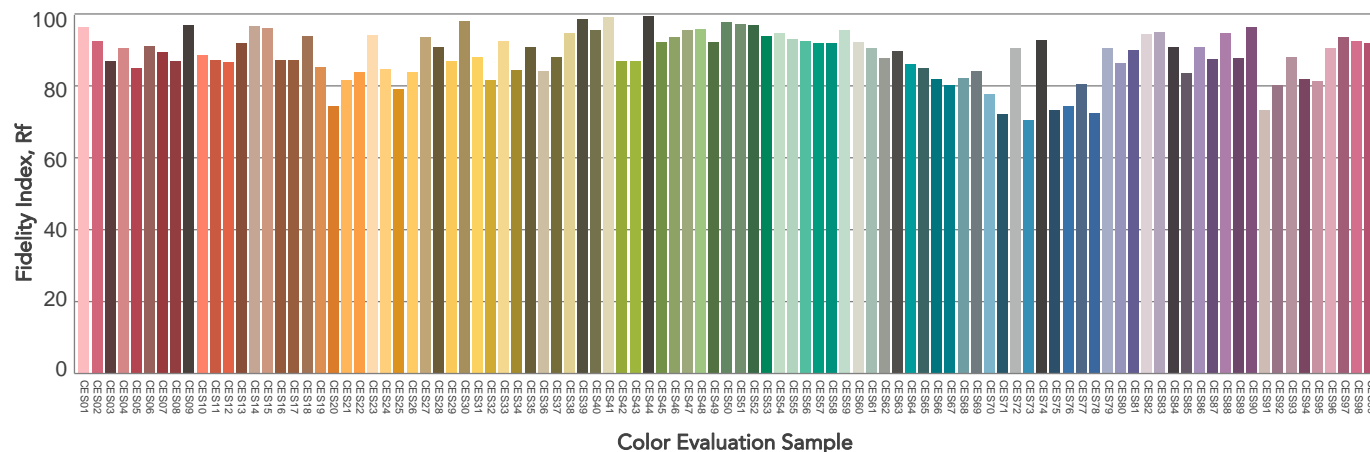
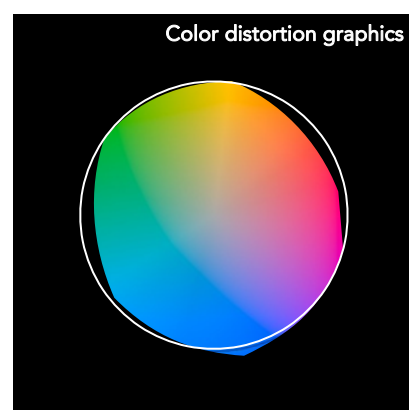
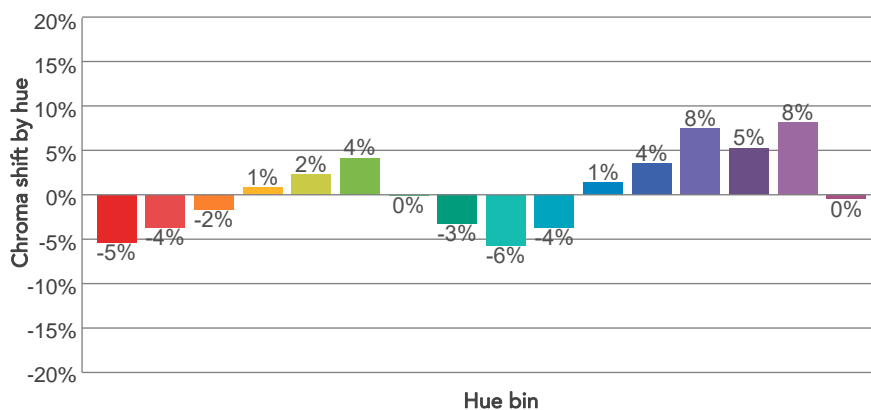
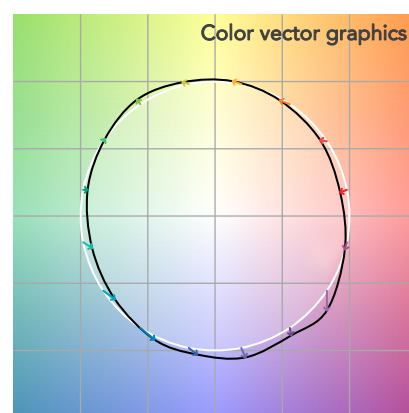
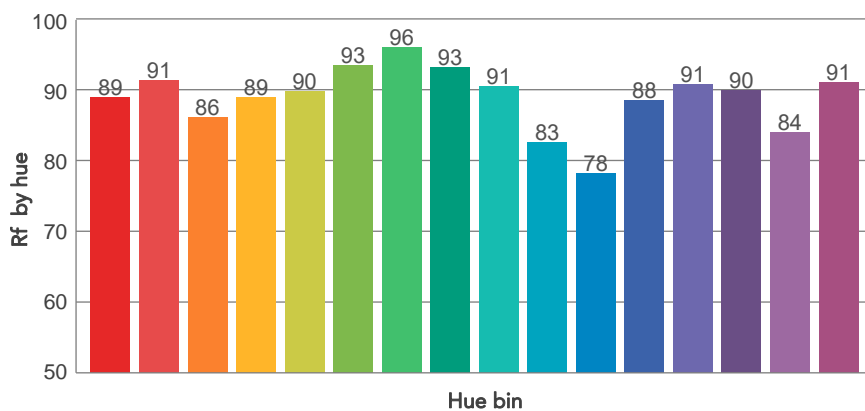
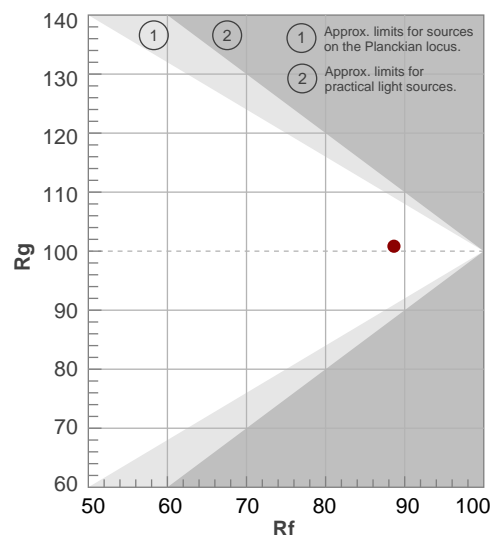
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
5350 K	90,9	64,4	88,6	100,8	87,8	92	0,336	0,342	-0,0046

# TM30 DETAILS

**Rf 88,6**  
Fidelity index Rf

**Rg 100,8**  
Gammut index

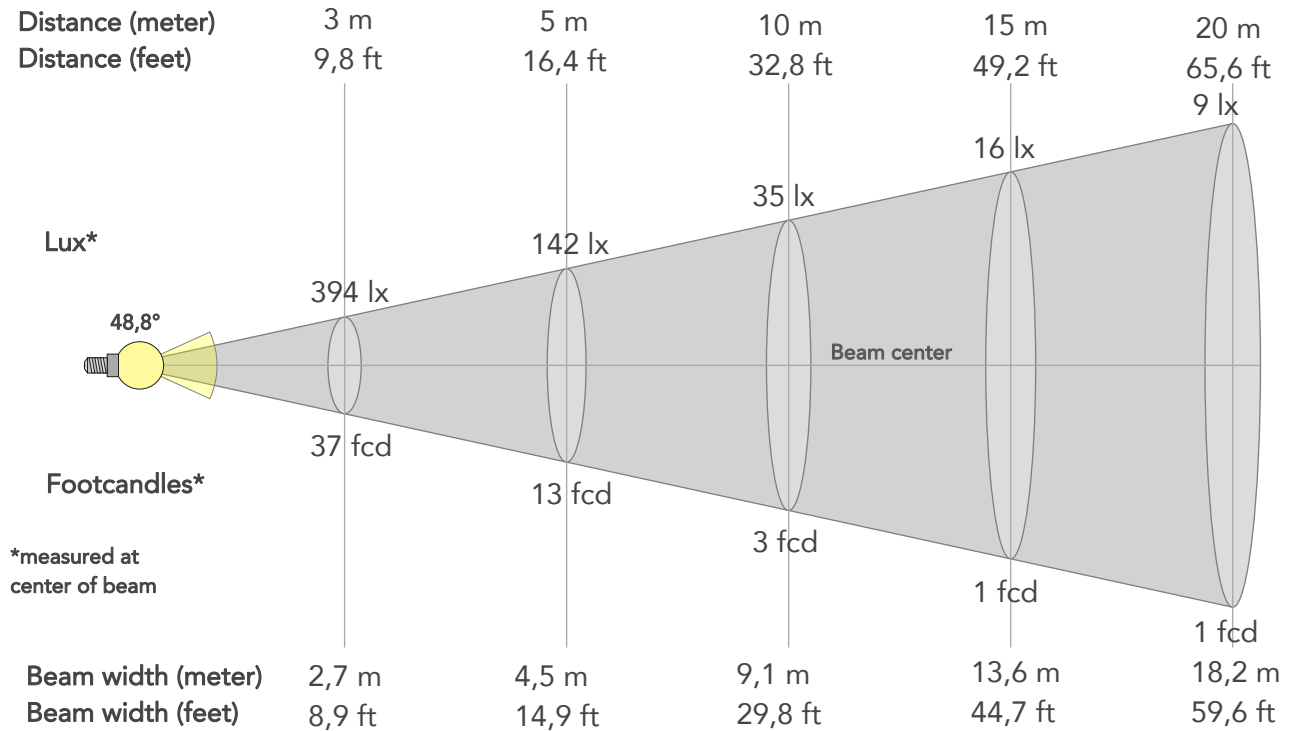
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	-1%
2	91	-4%	3%
3	86	-2%	8%
4	89	1%	7%
5	90	2%	4%
6	93	4%	0%
7	96	0%	-2%
8	93	-3%	-1%
9	91	-6%	5%
10	83	-4%	10%
11	78	1%	14%
12	88	4%	7%
13	91	8%	2%
14	90	5%	-2%
15	84	8%	-12%
16	91	0%	-5%



# BEAM DETAILS



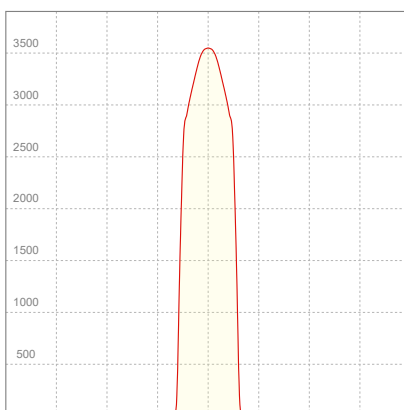
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
48,8°	55°	59°	99,1%	98,9%



## 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	3547lx	887lx	394lx	222lx	142lx	63lx	35lx	16lx	9lx	6lx	4lx	2lx	1lx
Footcand.	329fcd	82fcd	37fcd	21fcd	13fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,8m	2,7m	3,6m	4,5m	6,8m	9,1m	13,6m	18,2m	22,7m	27,2m	36,3m	45,4m
Beam wid.	3ft	6ft	8,9ft	11,9ft	14,9ft	22,3ft	29,8ft	44,7ft	59,6ft	74,5ft	89,4ft	119,1ft	148,9ft

## LINEAR DISTRIBUTION DIAGRAM

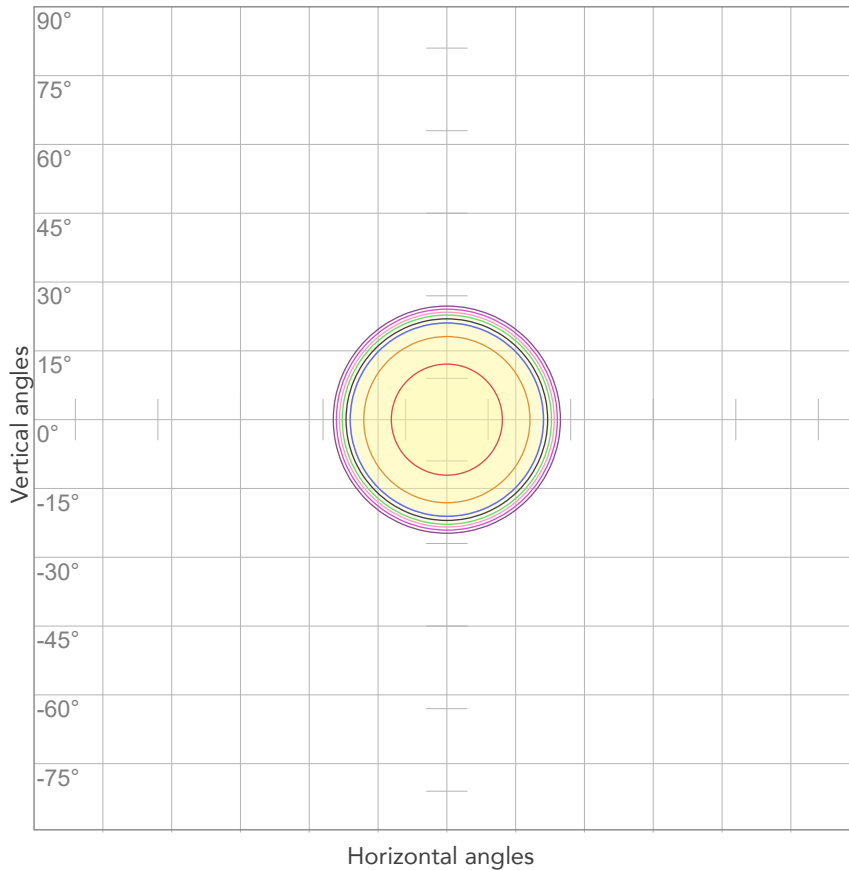


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,160A	33,3W	0,93	56lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



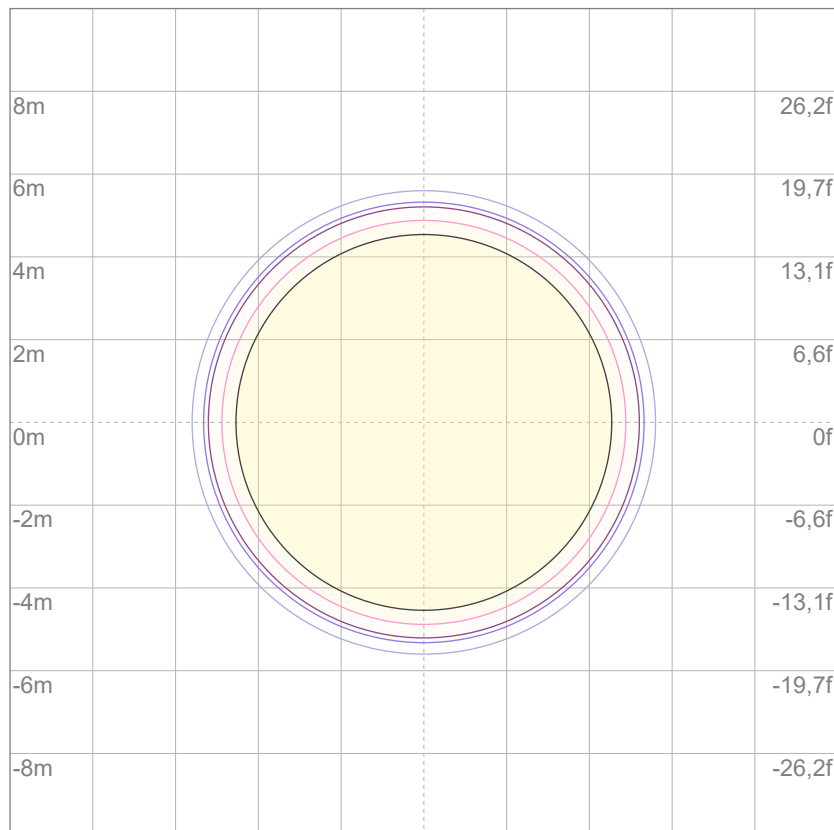
10%	355 cd
20%	709 cd
30%	1064 cd
40%	1419 cd
50%	1773 cd
60%	2128 cd
70%	2483 cd
80%	2837 cd

### Conditions:

Number of c-planes: 2

Candela at center: 3547 cd

## ISO LUX DIAGRAM



3%	1,06 lx
5%	1,77 lx
10%	3,55 lx
30%	10,6 lx
50%	17,7 lx

### Conditions:

Number of c-planes: 2

Lux at center: 35,5 lx

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