

# Photometric Test Report



## ECLDISPLAYUN

ZOOMABLE PROFILE LENS 10°-20°

25W White LED gallery light, with universal  
control DMX / Dali / Knob-dimming /

Phase-cut 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:

1510 lm

Peak candela output:

19051 cd

Light quality:

CRI: 91,5

Color temperature:

2794 K

**PRODUCT NAME:**

ECLDISPLAY 2700K

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Max Zoom

Target:

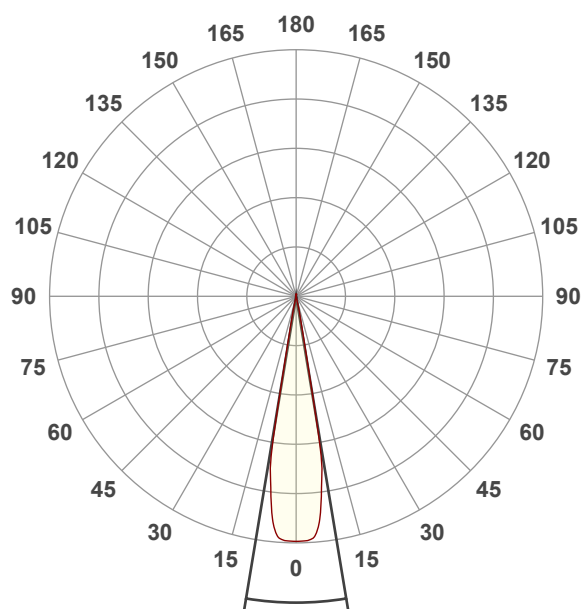
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 10:34:19

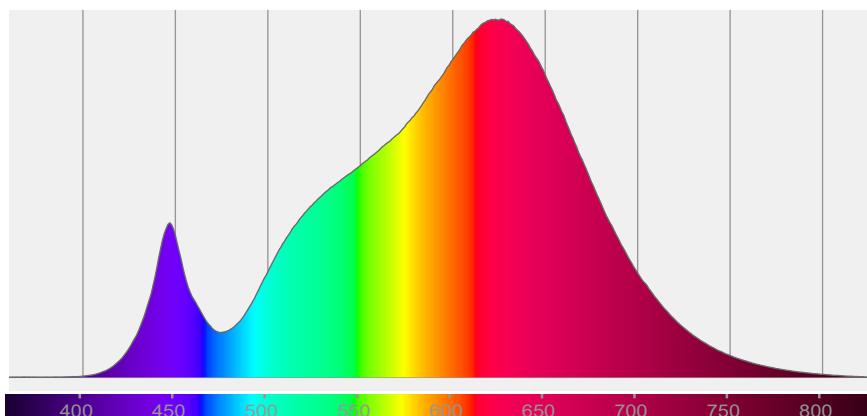


Beam angle 50%: 18,8°

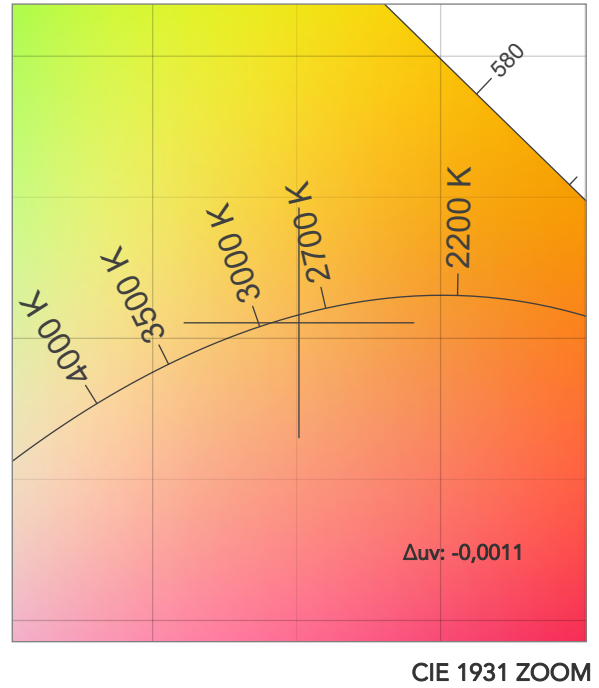
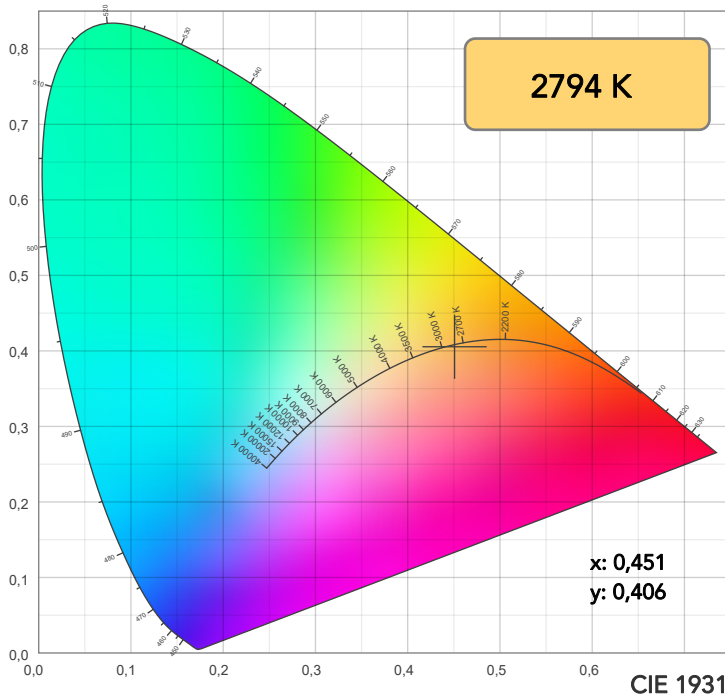
Field angle 10%: 21,7°

Cut off angle 2.5%: 23,5°

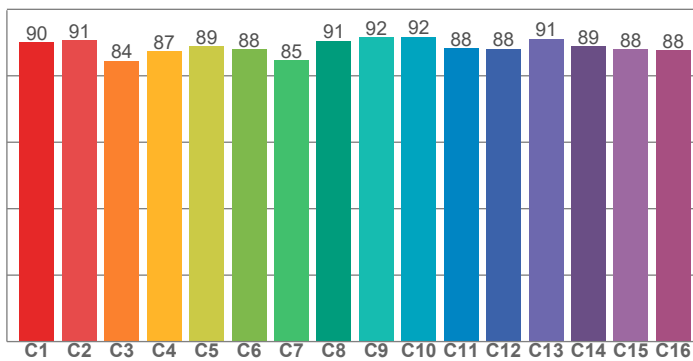
**Spectra**



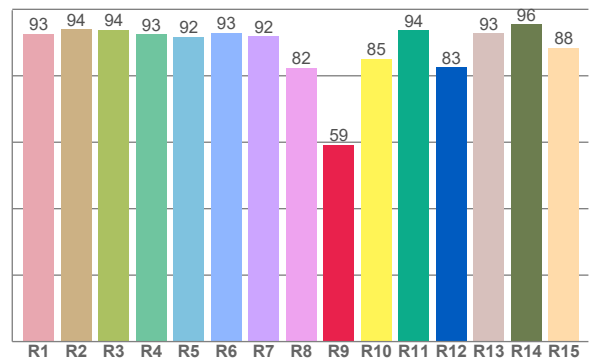
## COLOR DETAILS



TM30: 88,9



CRI: 91,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,6	94,1	93,9	92,6	91,8	92,9	91,9	82,4	59,3	85,2	93,7	82,6	92,9	95,6	88,5

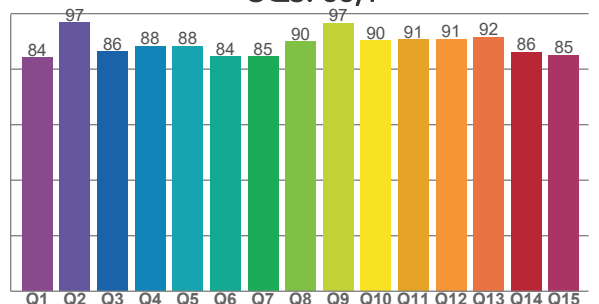
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90,1	90,7	84,5	87,4	88,9	87,9	84,6	90,5	91,6	91,6	88,3	88,1	91,1	88,9	88,0	87,6

CQS Q values

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

CQS: 88,1



## COLOR PARAMETERS

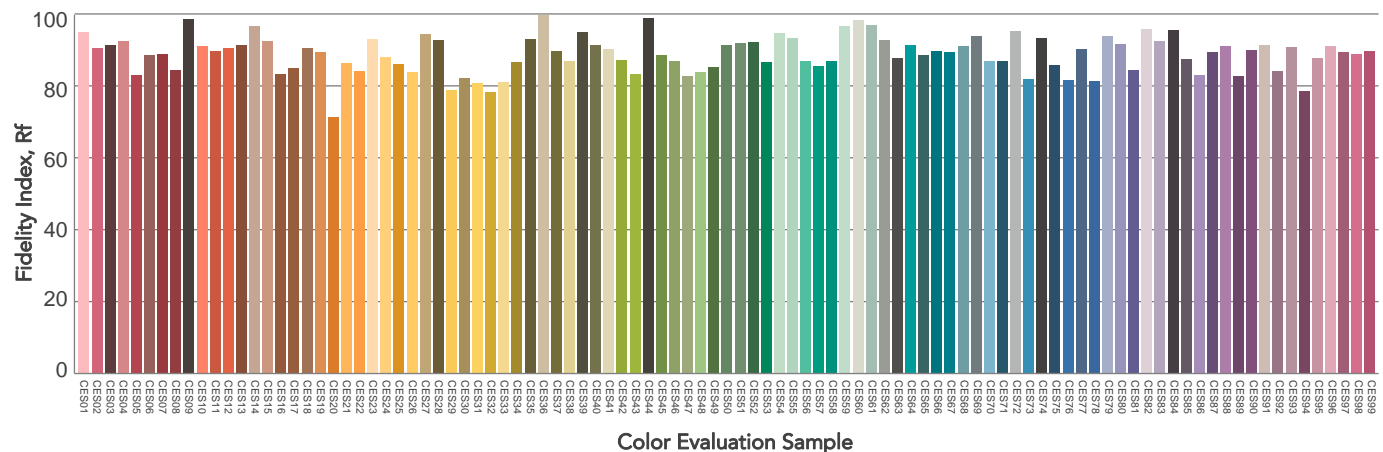
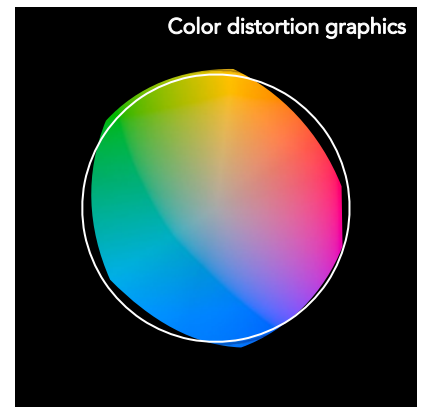
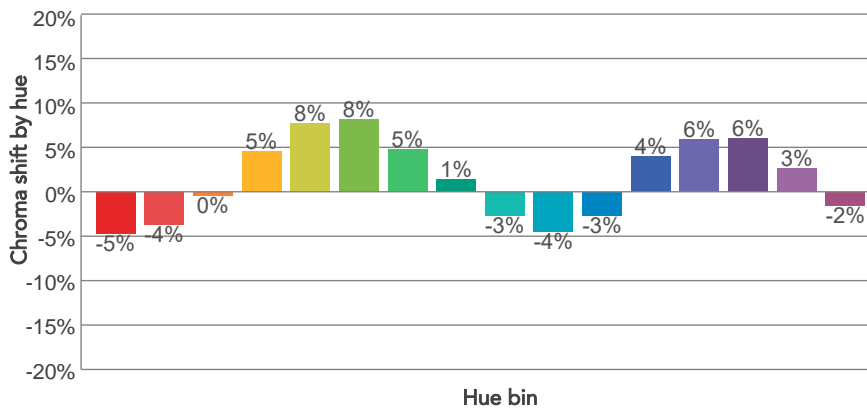
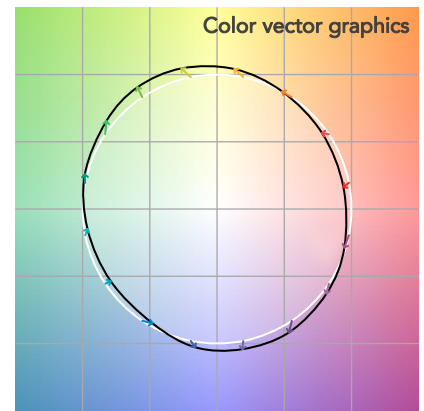
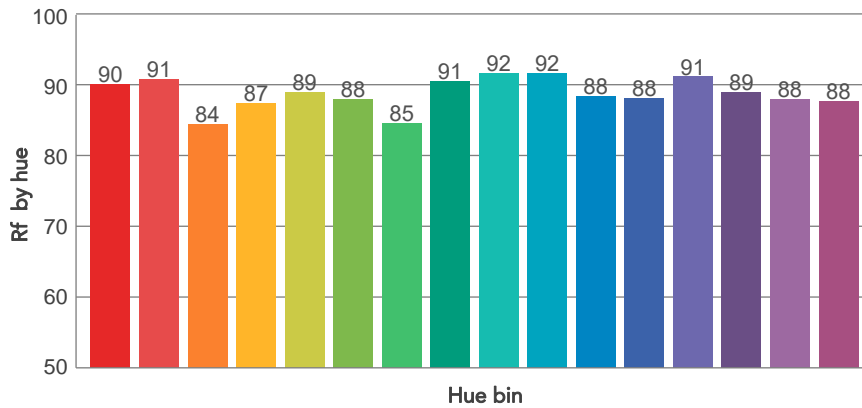
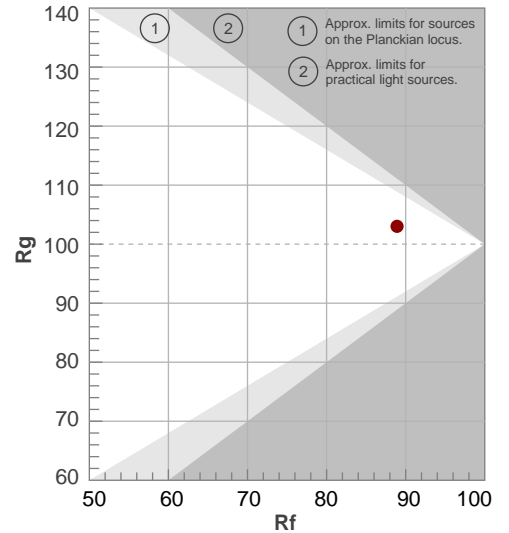
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
2794 K	91,5	59,3	88,9	103,0	88,1	82	0,451	0,406	-0,0011

# TM30 DETAILS

**Rf 88,9**  
Fidelity index Rf

**Rg 103,0**  
Gammut index

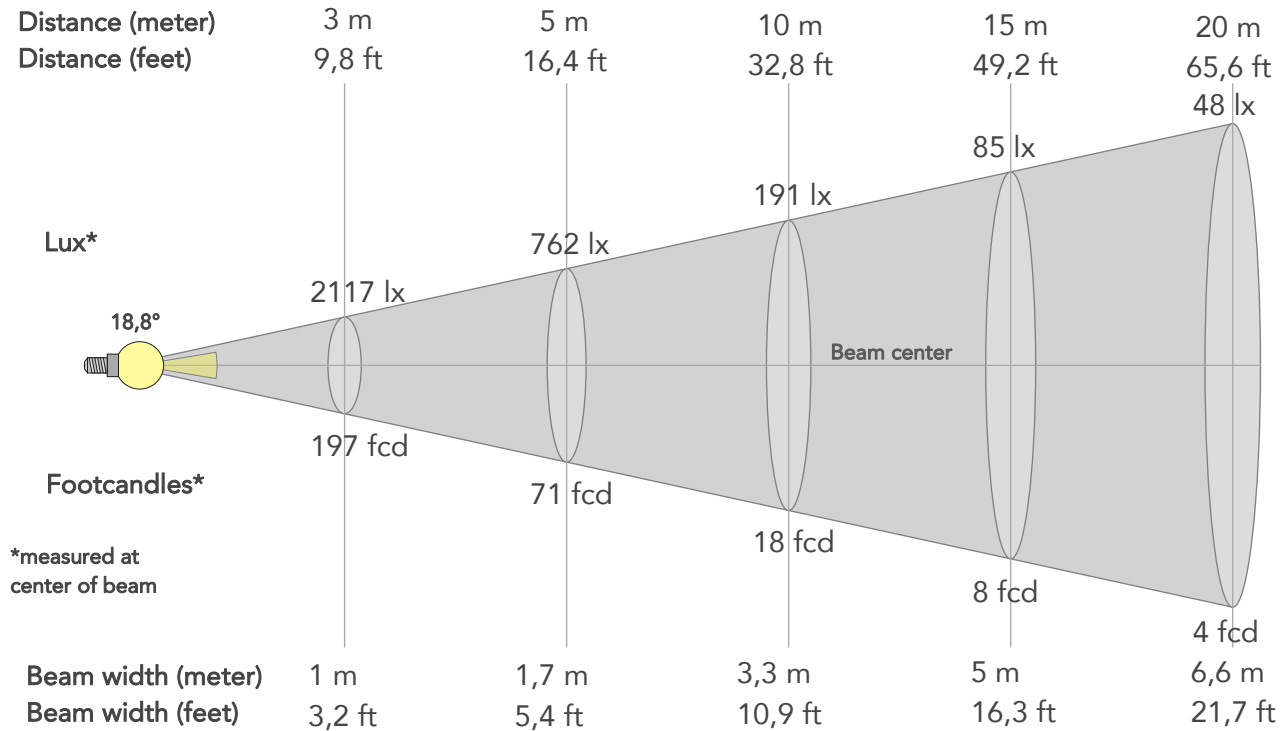
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	-2%
2	91	-4%	4%
3	84	0%	8%
4	87	5%	8%
5	89	8%	6%
6	88	8%	-1%
7	85	5%	-9%
8	91	1%	-6%
9	92	-3%	-4%
10	92	-4%	1%
11	88	-3%	7%
12	88	4%	4%
13	91	6%	-2%
14	89	6%	-6%
15	88	3%	-7%
16	88	-2%	-10%



## BEAM DETAILS



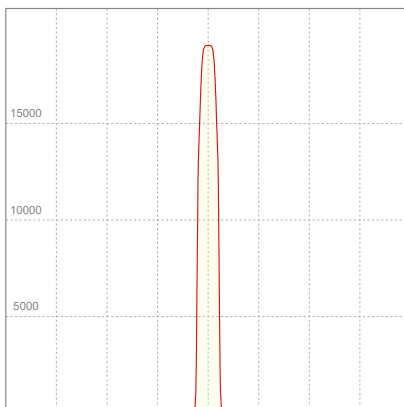
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,8°	21,7°	23,5°	100,0%	100,0%



### BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	19051lx	4763lx	2117lx	1191lx	762lx	339lx	191lx	85lx	48lx	30lx	21lx	12lx	8lx
Footcand.	1770fcd	442fcd	197fcd	111fcd	71fcd	31fcd	18fcd	8fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,7m	1m	1,3m	1,7m	2,5m	3,3m	5m	6,6m	8,3m	9,9m	13,3m	16,6m
Beam wid.	1,1ft	2,2ft	3,2ft	4,3ft	5,4ft	8,2ft	10,9ft	16,3ft	21,7ft	27,2ft	32,6ft	43,5ft	54,4ft

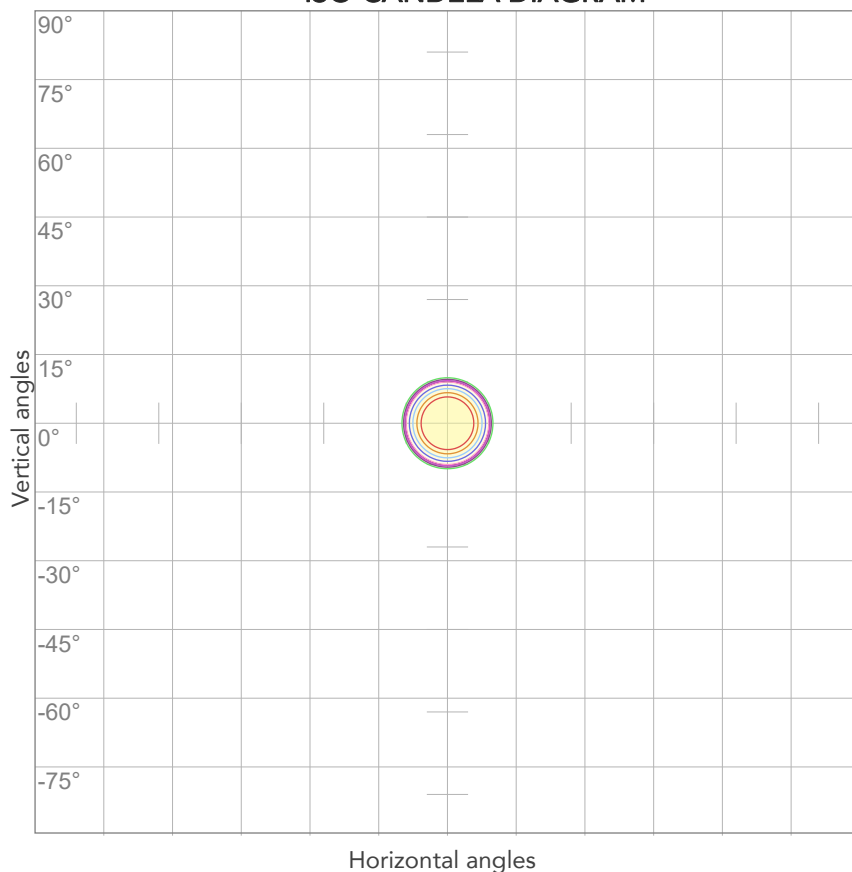
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,166A	34,9W	43lm/W
Power Fc			
0,94			

## ISO CANDELA DIAGRAM



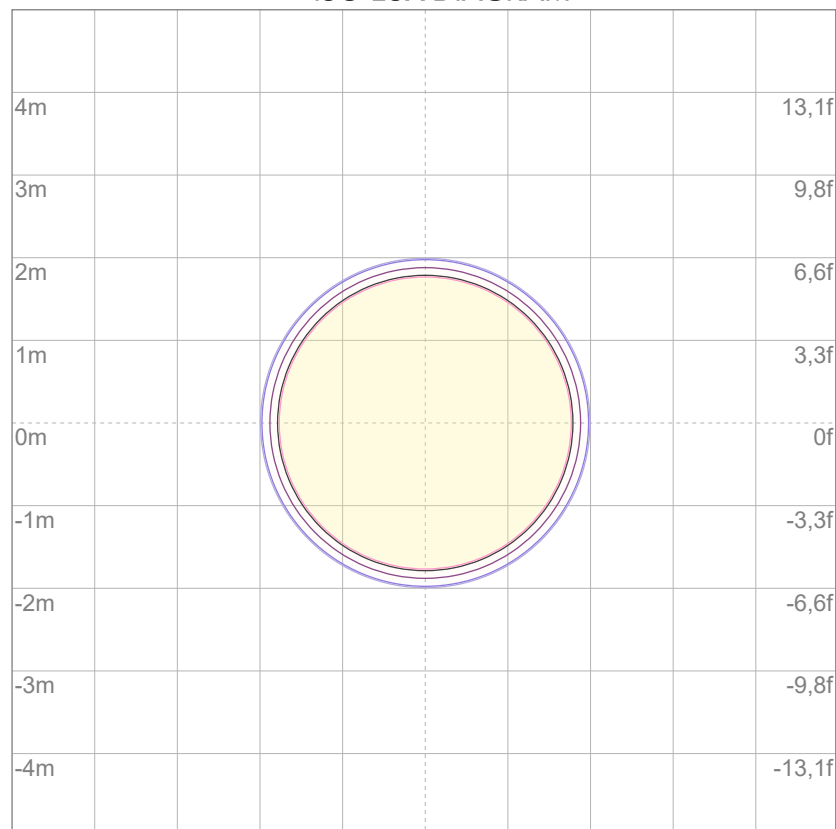
10%	1905 cd
20%	3810 cd
30%	5715 cd
40%	7620 cd
50%	9525 cd
60%	11431 cd
70%	13336 cd
80%	15241 cd

### Conditions:

Number of c-planes: 2

Candela at center: 19051 cd

## ISO LUX DIAGRAM



3%	5,72 lx
5%	9,53 lx
10%	19,1 lx
30%	57,2 lx
50%	95,3 lx

### Conditions:

Number of c-planes: 2

Lux at center: 191 lx

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





Total lumen output:

1467 lm

Peak candela output:

69472 cd

Light quality:

CRI: 91,5

Color temperature:

2797 K

**PRODUCT NAME:**

ECLDISPLAY 2700K

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Min Zoom

Target:

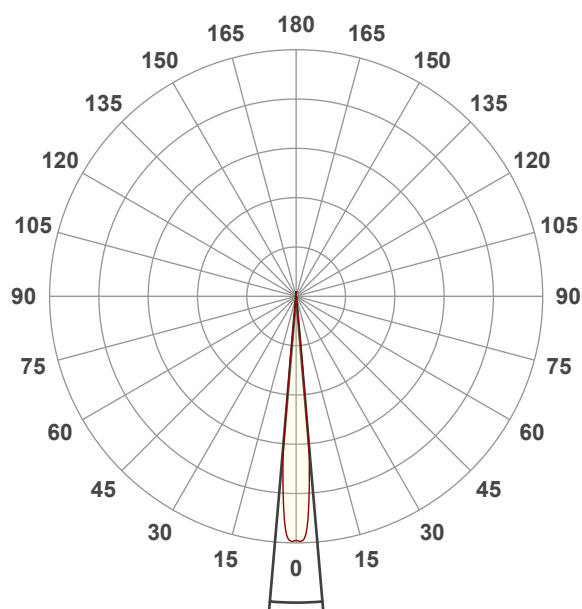
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 10:32:04

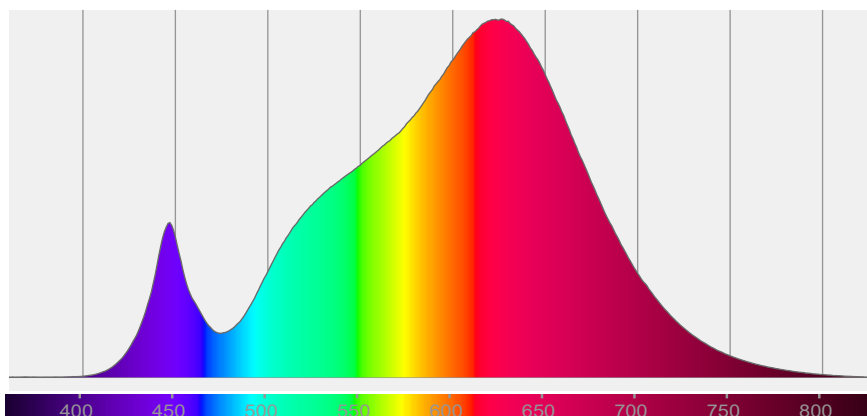


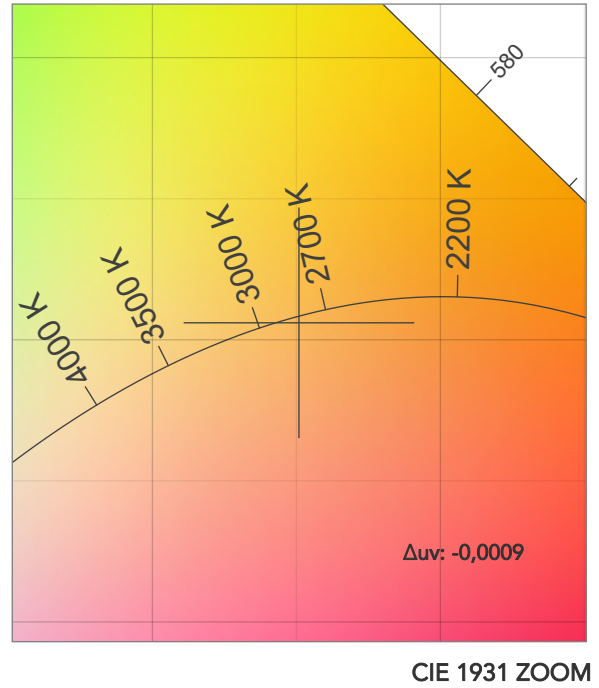
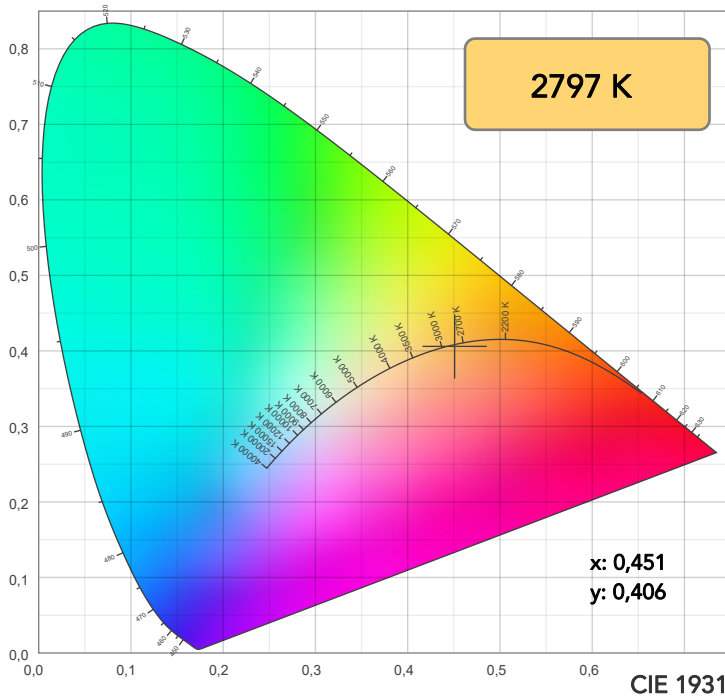
Beam angle 50%: 9,8°

Field angle 10%: 11,1°

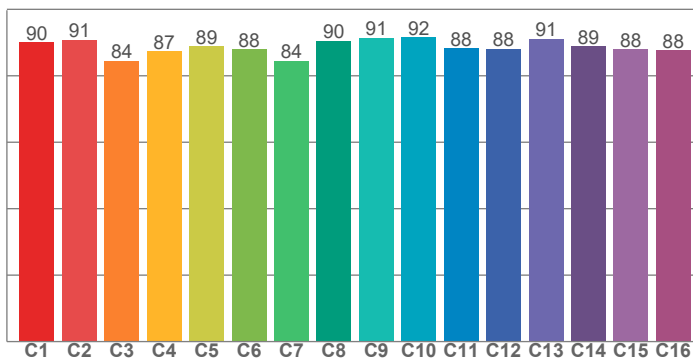
Cut off angle 2.5%: 11,4°

**Spectra**

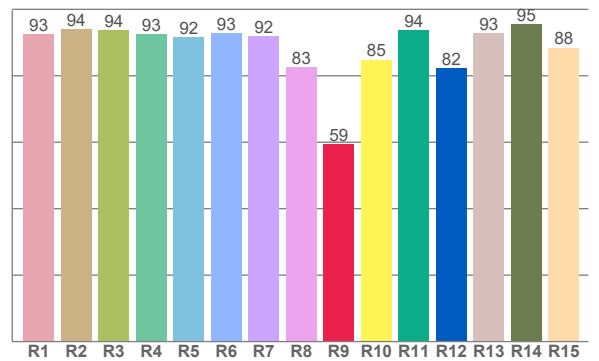




TM30: 88,9



CRI: 91,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,6	93,9	93,7	92,6	91,7	92,7	92,0	82,5	59,3	84,8	93,7	82,2	92,7	95,5	88,4

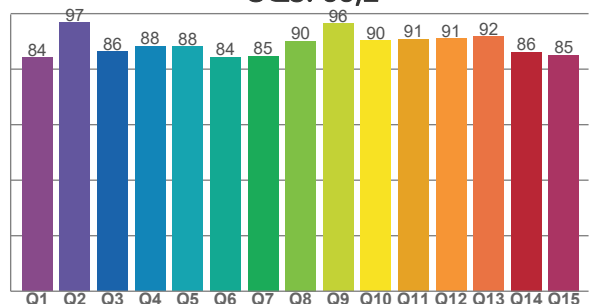
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90,1	90,7	84,5	87,3	88,8	87,9	84,5	90,5	91,5	91,5	88,3	88,1	91,1	88,9	87,9	87,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,2	96,7	86,3	88,2	88,1	84,4	84,7	90,1	96,5	90,3	90,8	91,1	91,8	86,2	85,2

CQS: 88,2



## COLOR PARAMETERS

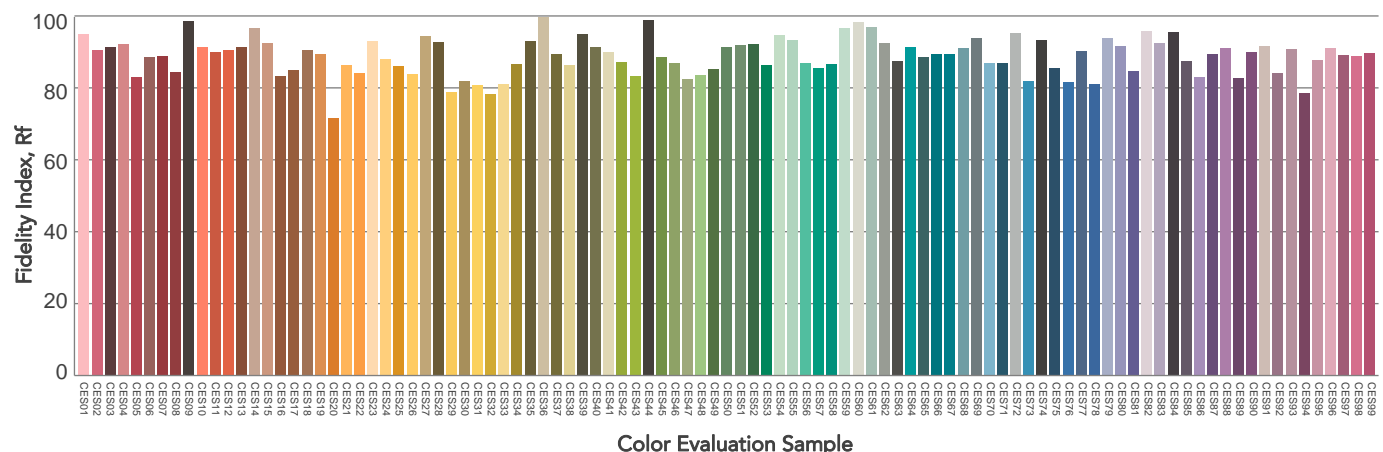
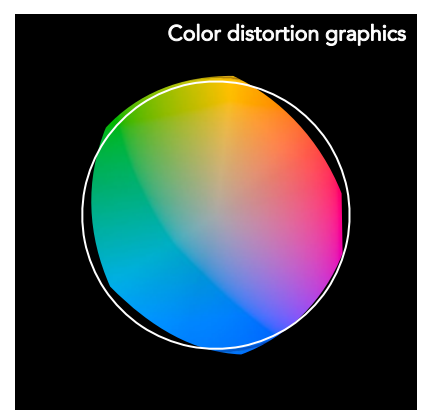
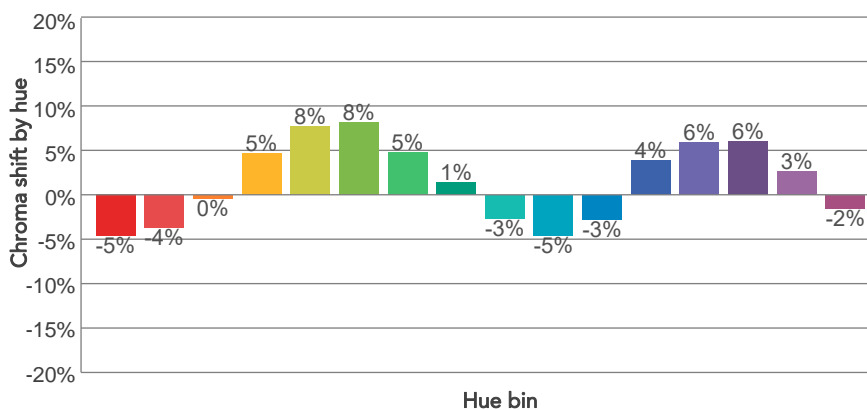
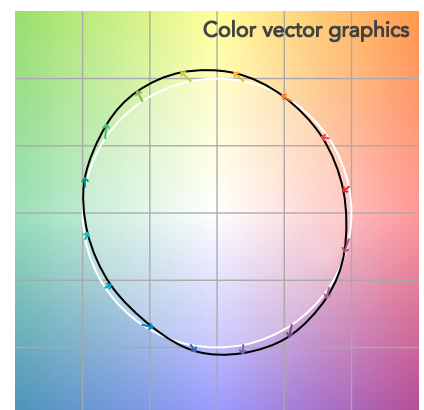
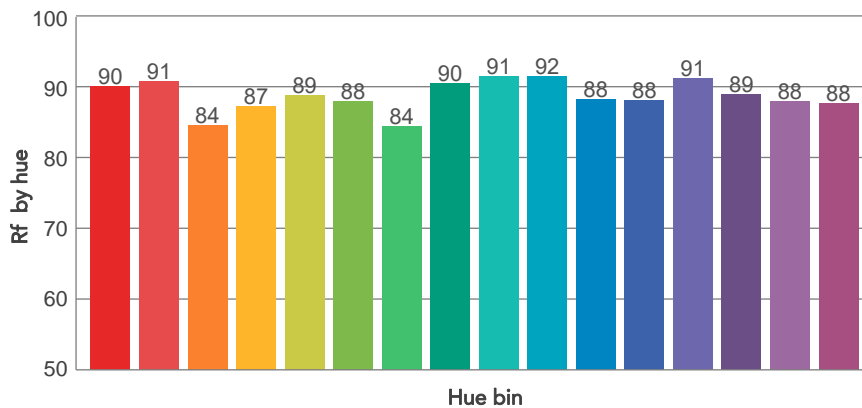
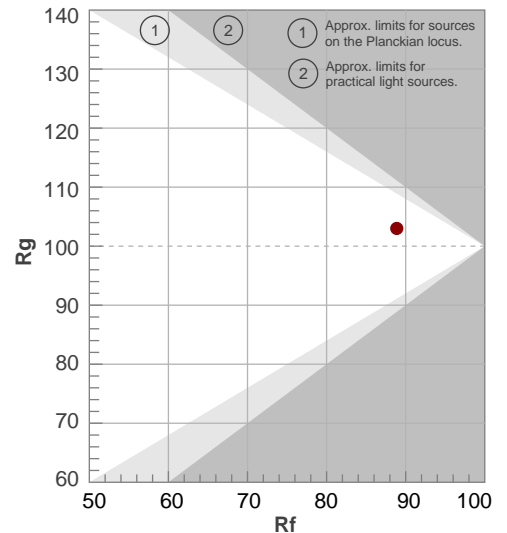
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
2797 K	91,5	59,3	88,9	103,0	88,2	82	0,451	0,406	-0,0009

# TM30 DETAILS

**Rf 88,9**  
Fidelity index Rf

**Rg 103,0**  
Gammut index

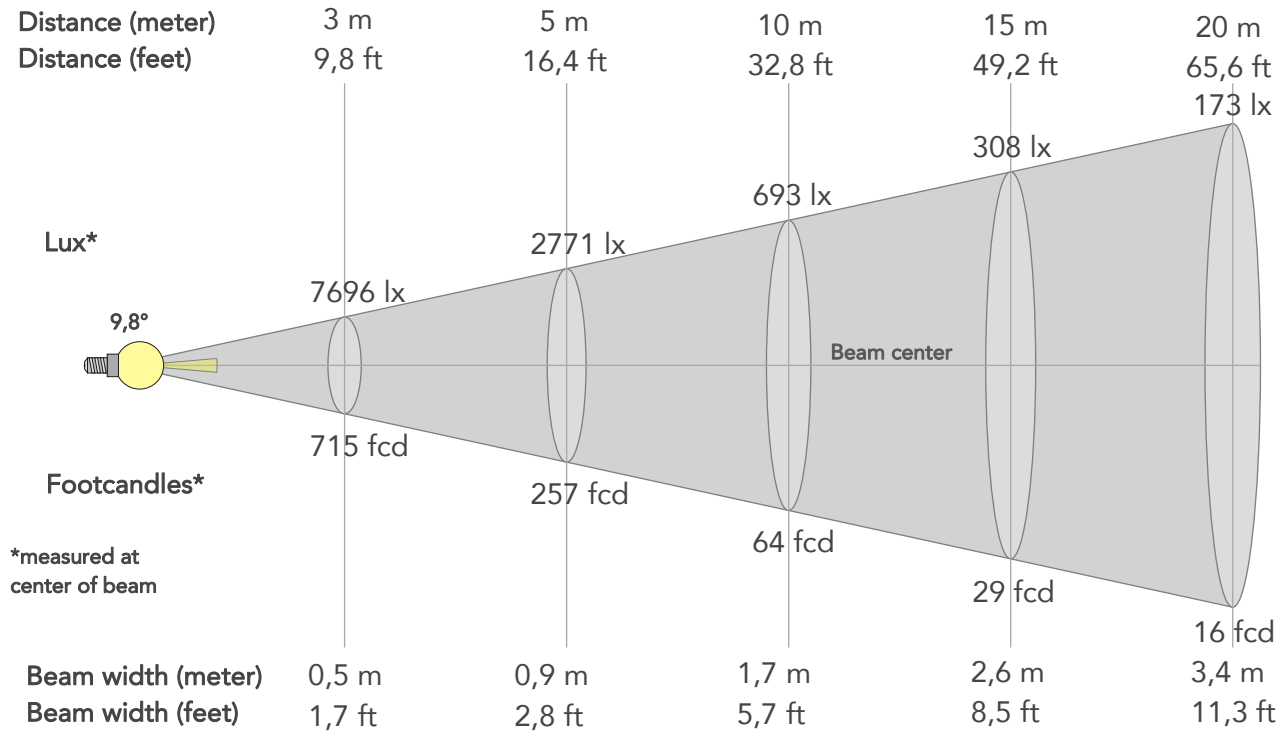
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	-2%
2	91	-4%	4%
3	84	0%	8%
4	87	5%	8%
5	89	8%	6%
6	88	8%	-1%
7	84	5%	-9%
8	90	1%	-6%
9	91	-3%	-4%
10	92	-5%	0%
11	88	-3%	7%
12	88	4%	4%
13	91	6%	-2%
14	89	6%	-6%
15	88	3%	-7%
16	88	-2%	-10%



## BEAM DETAILS



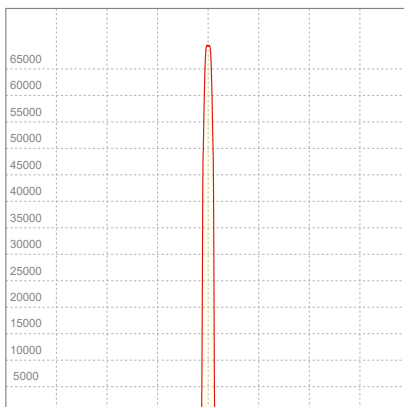
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,8°	11,1°	11,4°	100,0%	100,0%



### BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	69265lx	17316lx	7696lx	4329lx	2771lx	1231lx	693lx	308lx	173lx	111lx	77lx	43lx	28lx
Footcand.	6435fcd	1609fcd	715fcd	402fcd	257fcd	114fcd	64fcd	29fcd	16fcd	10fcd	7fcd	4fcd	3fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,9m	1,3m	1,7m	2,6m	3,4m	4,3m	5,2m	6,9m	8,6m
Beam wid.	0,6ft	1,1ft	1,7ft	2,3ft	2,8ft	4,2ft	5,7ft	8,5ft	11,3ft	14,1ft	17ft	22,6ft	28,3ft

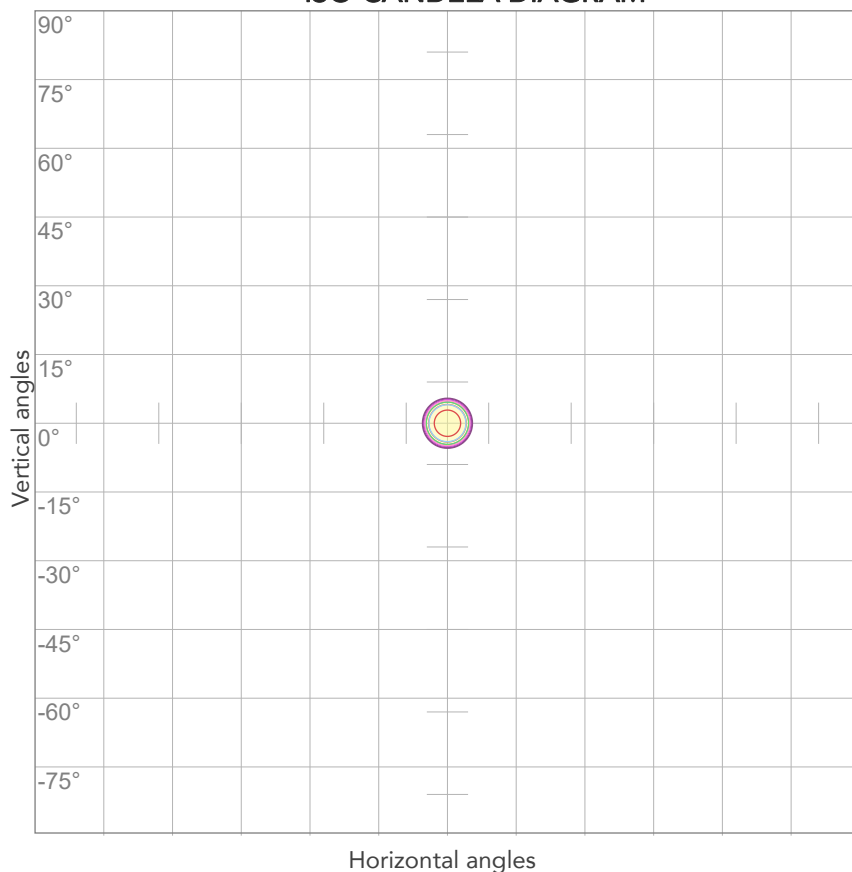
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	0,167A	35,0W	42lm/W
Power Fc			
0,94			

## ISO CANDELA DIAGRAM



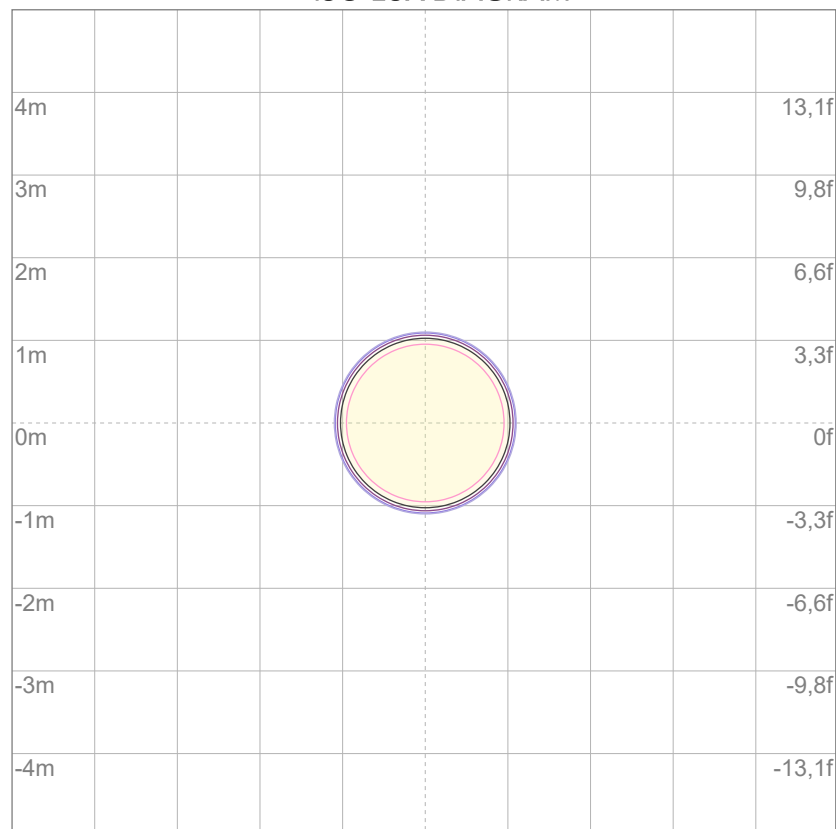
10%	6927 cd
20%	13853 cd
30%	20780 cd
40%	27706 cd
50%	34633 cd
60%	41559 cd
70%	48486 cd
80%	55412 cd

### Conditions:

Number of c-planes: 2

Candela at center: 69265 cd

## ISO LUX DIAGRAM



3%	20,8 lx
5%	34,6 lx
10%	69,3 lx
30%	208 lx
50%	346 lx

### Conditions:

Number of c-planes: 2

Lux at center: 693 lx

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



Total lumen output:

1623 lm

Peak candela output:

21116 cd

Light quality:

CRI: 91,7

Color temperature:

3014 K

**PRODUCT NAME:**

ECLDISPLAY 3000K

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Max Zoom

Target:

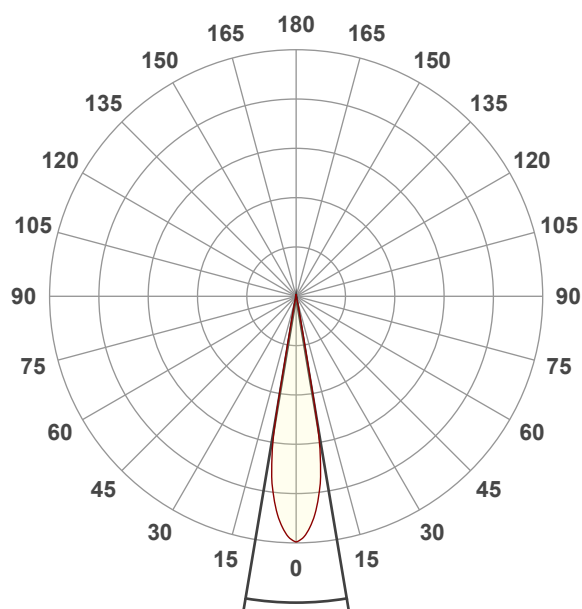
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 10:47:49

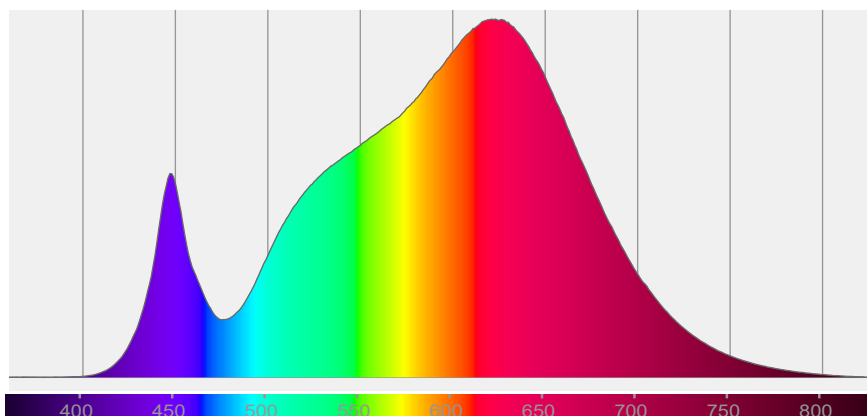


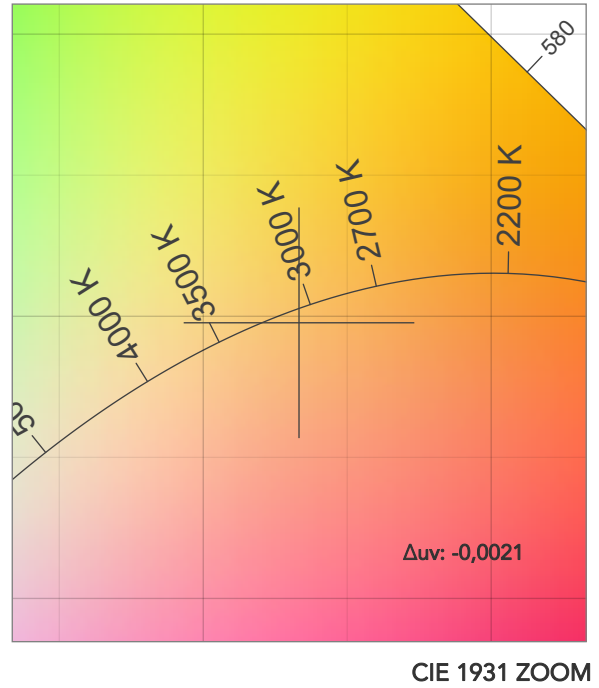
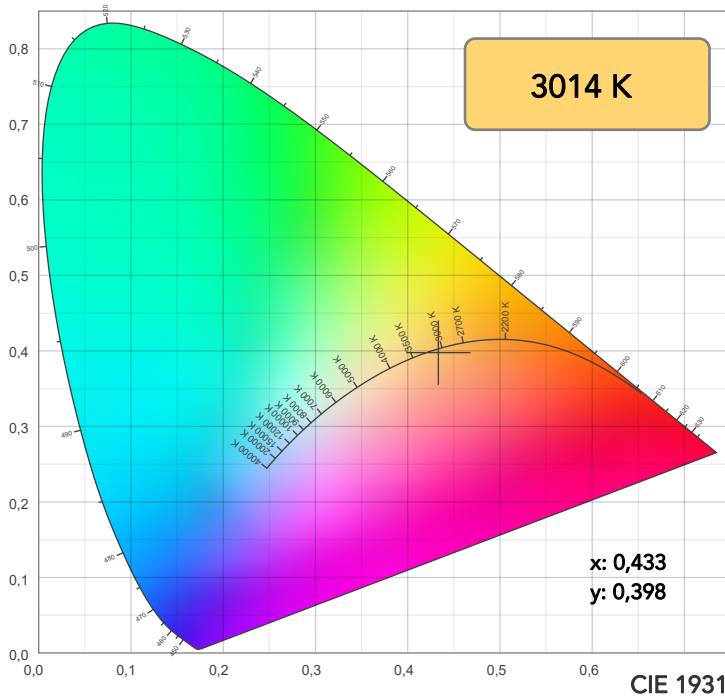
Beam angle 50%: 19°

Field angle 10%: 21,7°

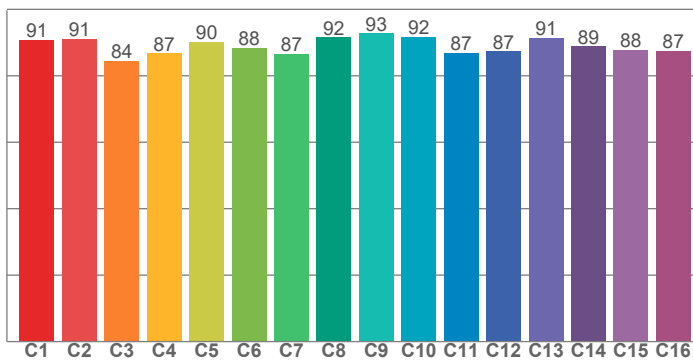
Cut off angle 2.5%: 23,9°

**Spectra**

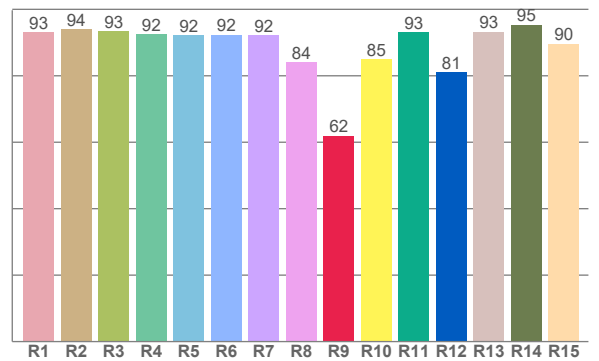




TM30: 89,2



CRI: 91,7 (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
93,1	94,1	93,3	92,5	92,2	92,4	92,1	84,0	62,0	85,0	93,2	81,0	93,2	95,4	89,7

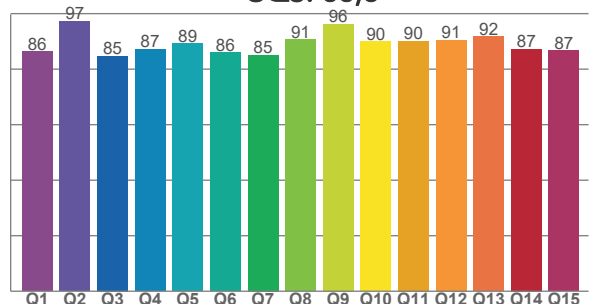
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90,9	91,1	84,4	86,7	90,2	88,4	86,6	91,5	92,7	91,8	86,8	87,3	91,5	88,9	87,8	87,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86,3	97,2	84,7	87,2	89,2	85,9	85,1	90,7	96,3	89,9	90,1	90,5	91,7	87,2	86,6

CQS: 88,6



## COLOR PARAMETERS

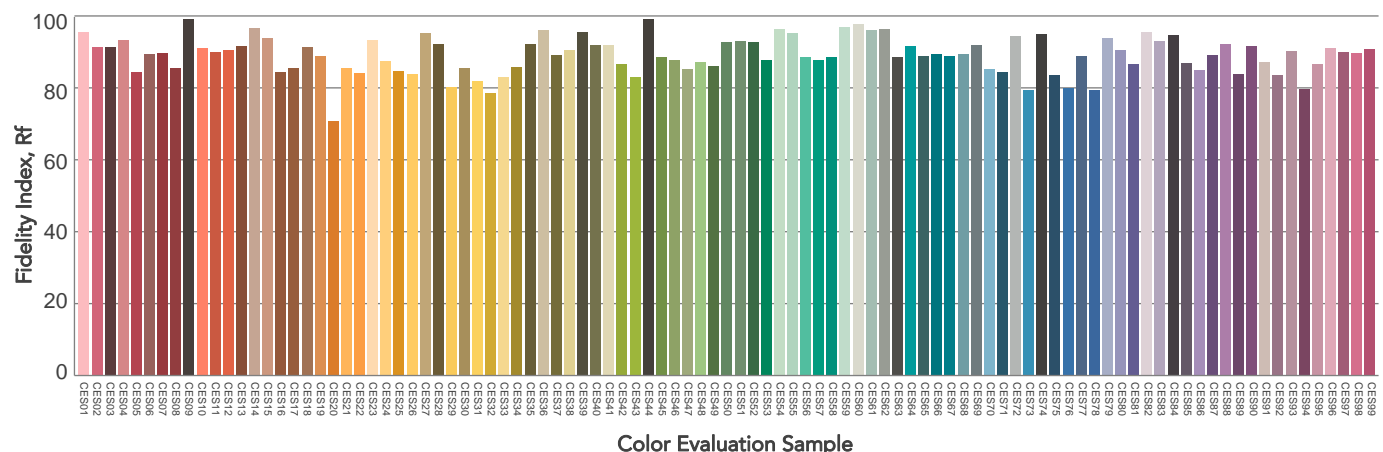
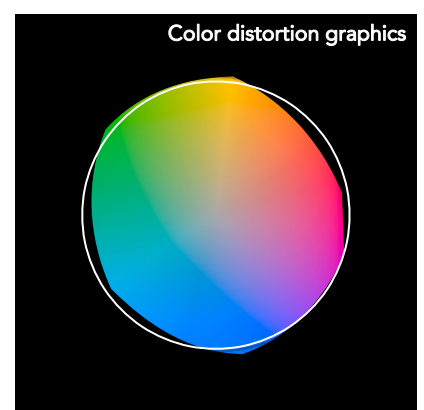
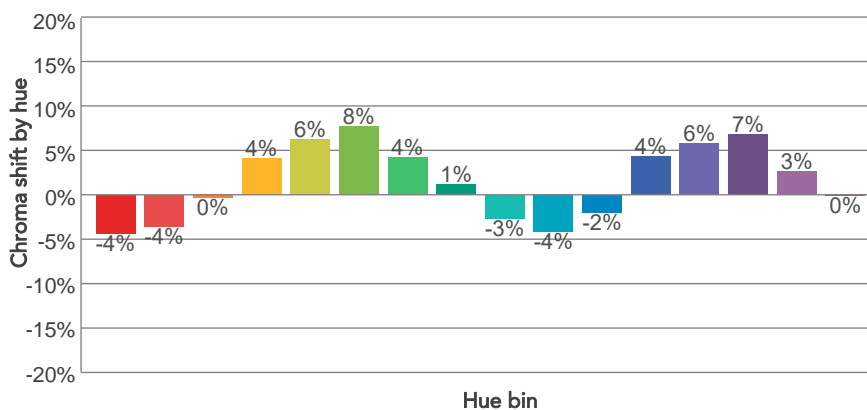
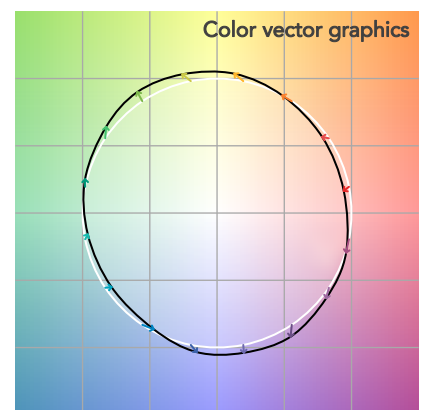
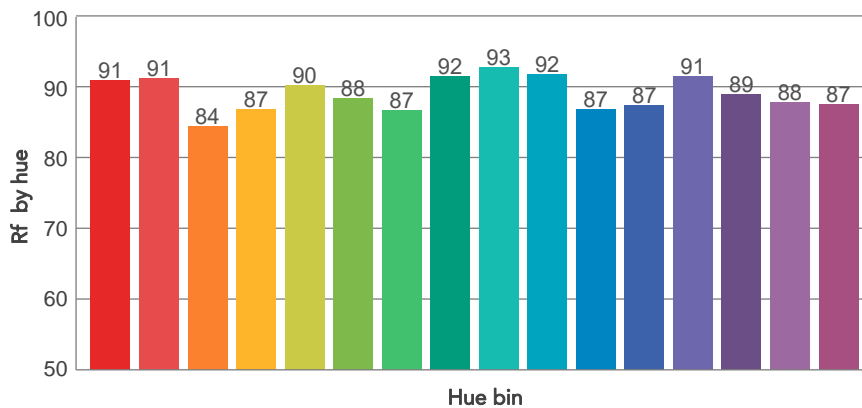
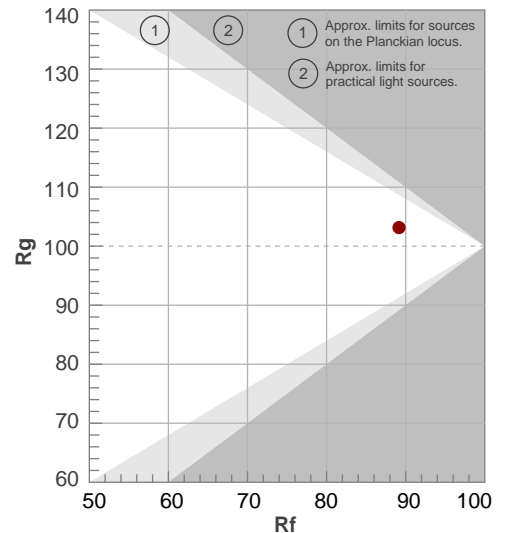
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3014 K	91,7	62,0	89,2	103,1	88,6	85	0,433	0,398	-0,0021

# TM30 DETAILS

**Rf 89,2**  
Fidelity index Rf

**Rg 103,1**  
Gammut index

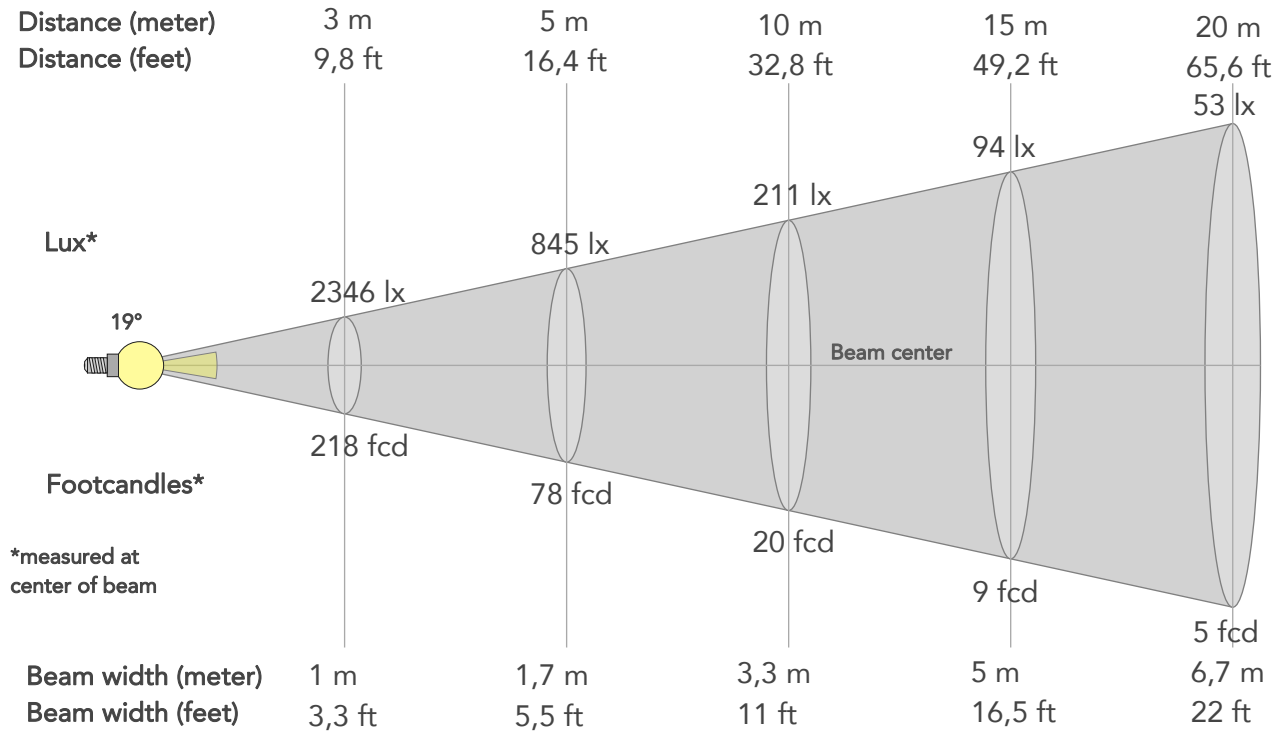
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	91	-4%	-2%
2	91	-4%	4%
3	84	0%	8%
4	87	4%	8%
5	90	6%	5%
6	88	8%	-1%
7	87	4%	-7%
8	92	1%	-5%
9	93	-3%	-3%
10	92	-4%	2%
11	87	-2%	9%
12	87	4%	5%
13	91	6%	-1%
14	89	7%	-6%
15	88	3%	-7%
16	87	0%	-10%





## BEAM DETAILS

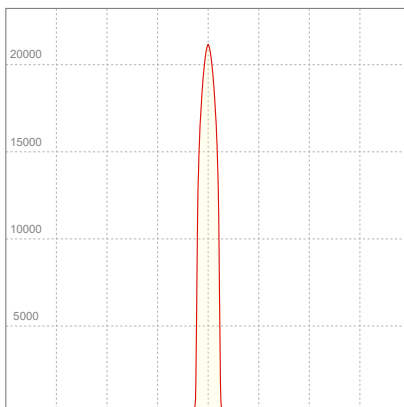
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
19°	21,7°	23,9°	100,0%	100,0%



### BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	21116lx	5279lx	2346lx	1320lx	845lx	375lx	211lx	94lx	53lx	34lx	23lx	13lx	8lx
Footcand.	1962fcd	490fcd	218fcd	123fcd	78fcd	35fcd	20fcd	9fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,7m	1m	1,3m	1,7m	2,5m	3,3m	5m	6,7m	8,4m	10m	13,4m	16,7m
Beam wid.	1,1ft	2,2ft	3,3ft	4,4ft	5,5ft	8,2ft	11ft	16,5ft	22ft	27,5ft	33ft	44ft	54,9ft

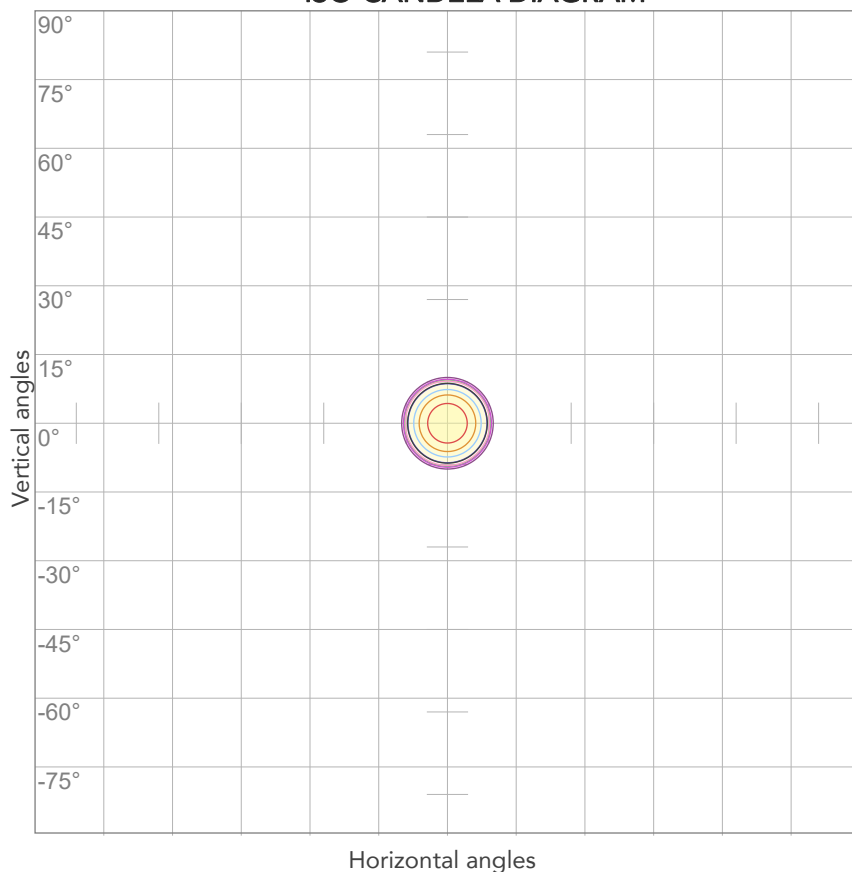
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,164A	34,4W	47lm/W
Power Fc			
0,94			

## ISO CANDELA DIAGRAM



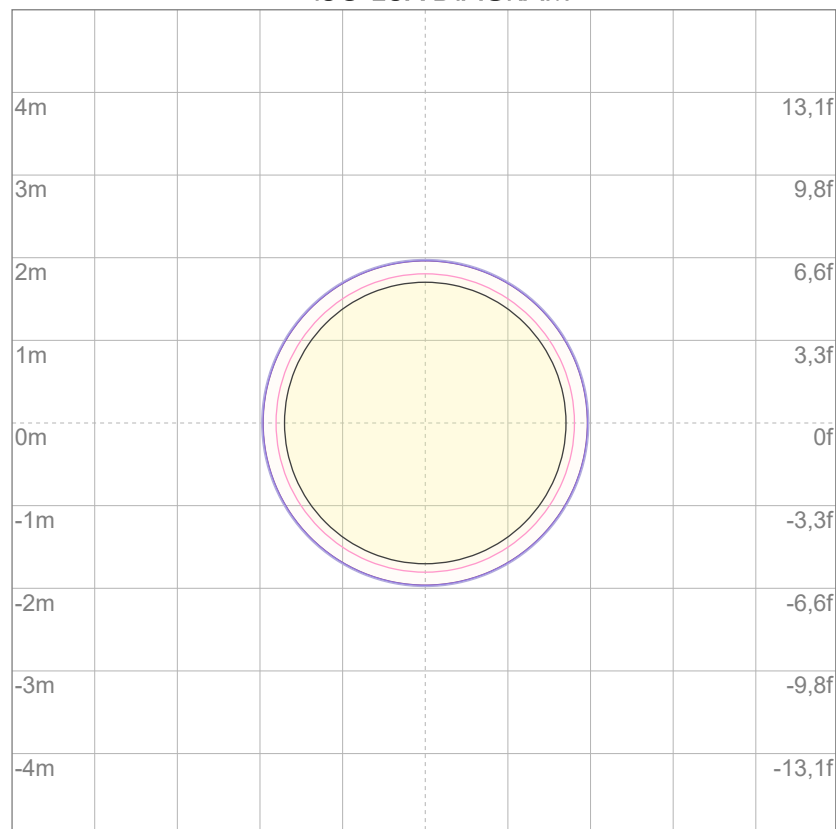
10%	2112 cd
20%	4223 cd
30%	6335 cd
40%	8446 cd
50%	10558 cd
60%	12669 cd
70%	14781 cd
80%	16893 cd

### Conditions:

Number of c-planes: 2

Candela at center: 21116 cd

## ISO LUX DIAGRAM



3%	6,33 lx
5%	10,6 lx
10%	21,1 lx
30%	63,3 lx
50%	106 lx

### Conditions:

Number of c-planes: 2

Lux at center: 211 lx

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



Total lumen output:

1571 lm

Peak candela output:

77088 cd

Light quality:

CRI: 91,7

Color temperature:

3014 K

**PRODUCT NAME:**

ECLDISPLAY 3000K

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Min Zoom

Target:

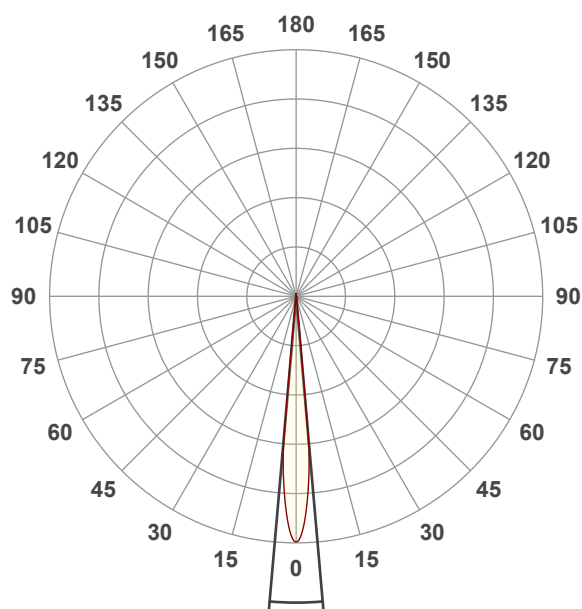
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 10:45:37

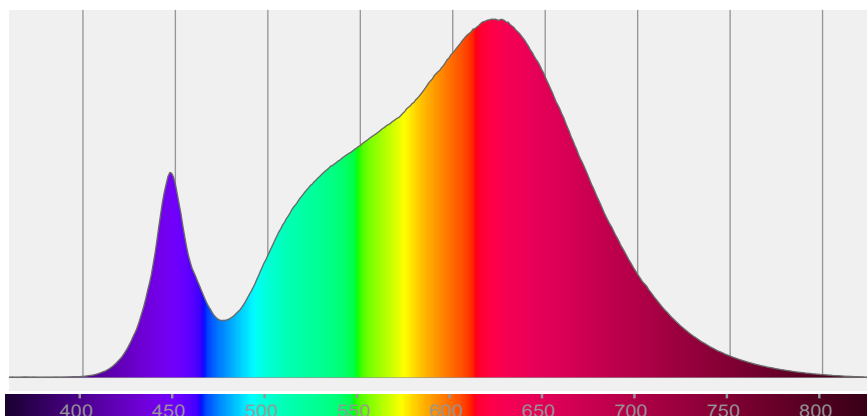


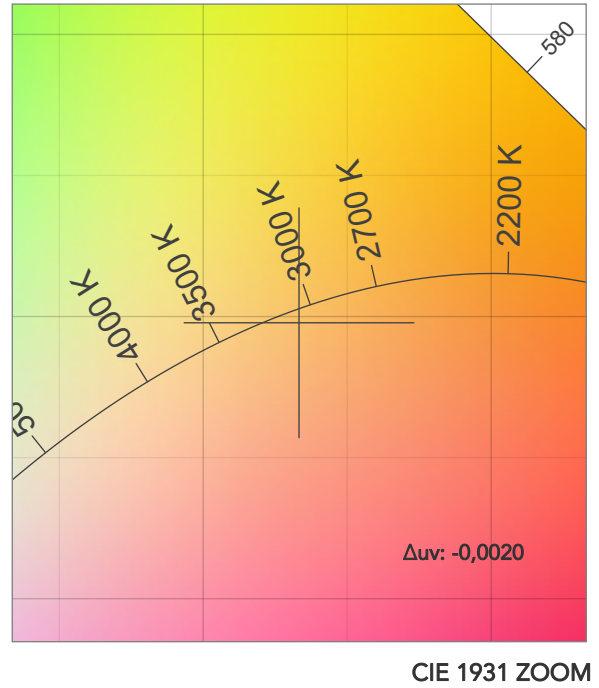
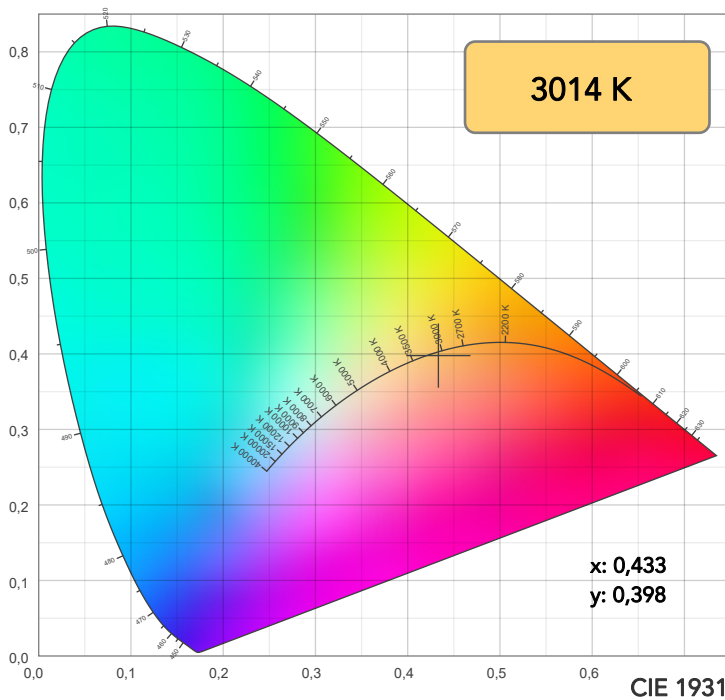
Beam angle 50%: 9,9°

Field angle 10%: 11,1°

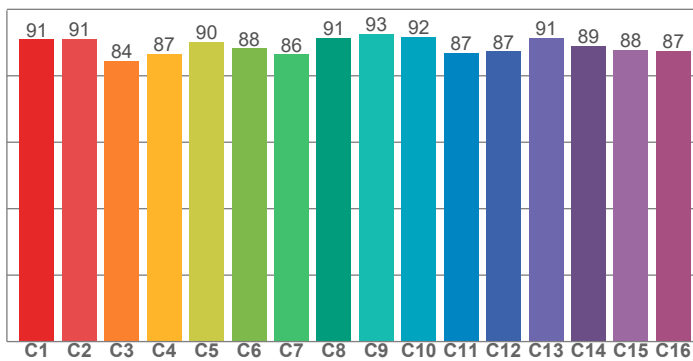
Cut off angle 2.5%: 11,6°

**Spectra**

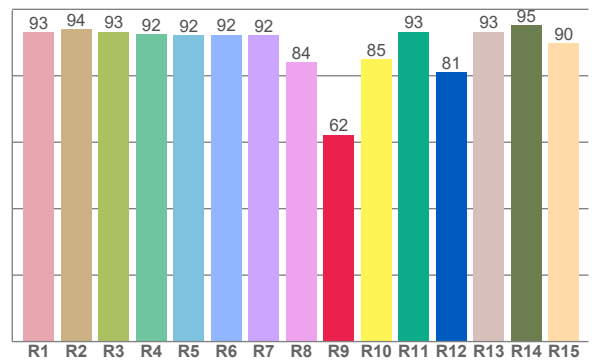




TM30: 89,1



CRI: 91,7 (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
93,1	94,1	93,2	92,5	92,2	92,3	92,2	84,1	62,3	84,9	93,2	81,1	93,2	95,3	89,7

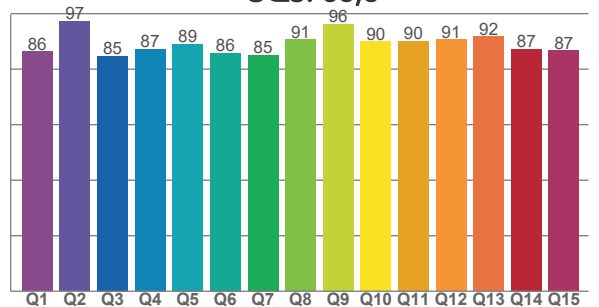
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90,9	91,2	84,4	86,6	90,1	88,2	86,4	91,4	92,6	91,8	86,8	87,3	91,5	88,9	87,8	87,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86,3	97,2	84,7	87,2	89,1	85,8	85,1	90,7	96,3	89,9	90,1	90,6	91,8	87,3	86,7

CQS: 88,6



## COLOR PARAMETERS

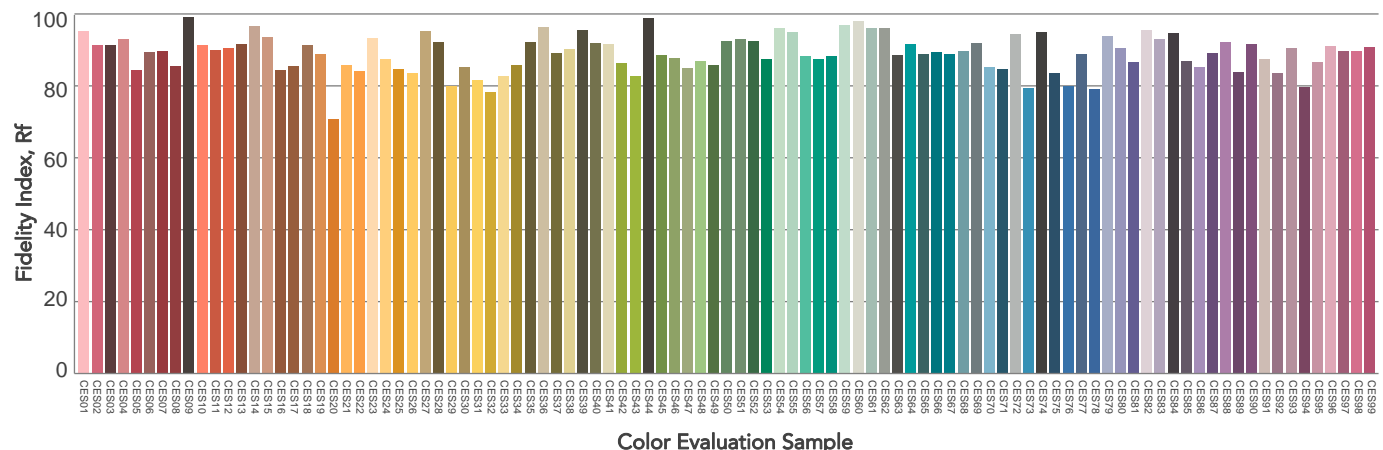
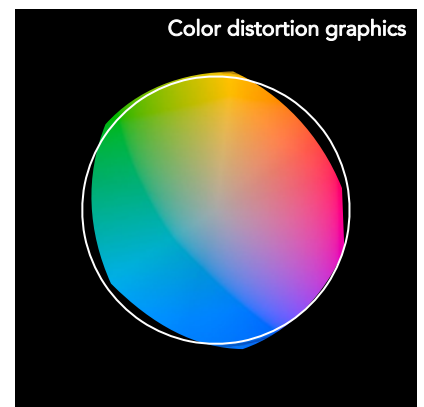
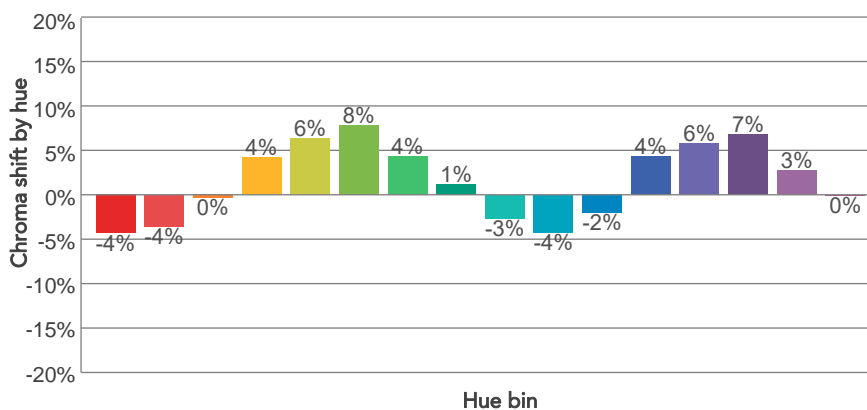
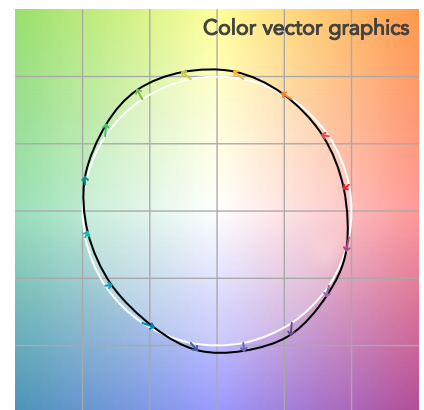
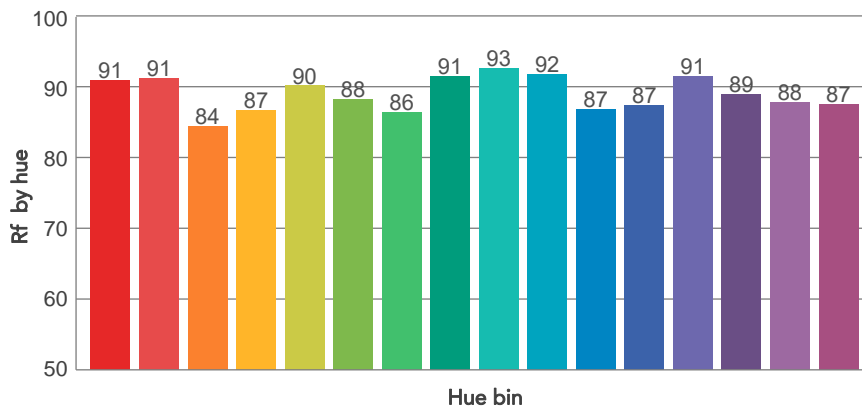
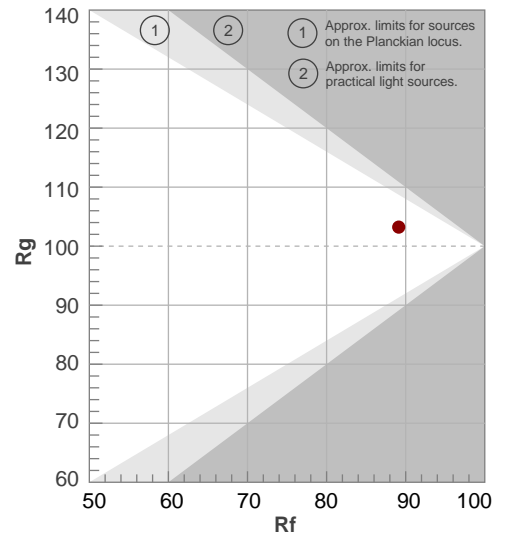
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3014 K	91,7	62,3	89,1	103,2	88,6	85	0,433	0,398	-0,0020

# TM30 DETAILS

**Rf 89,1**  
Fidelity index Rf

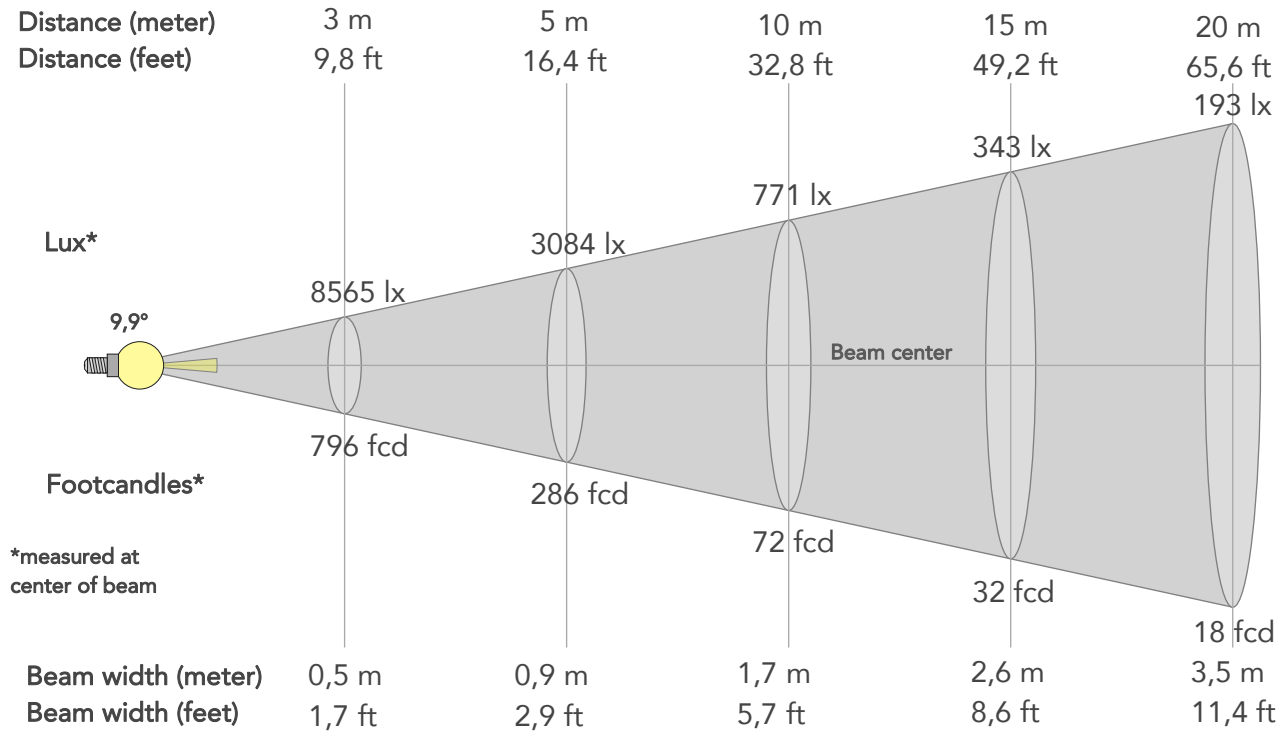
**Rg 103,2**  
Gammut index

		Graphic shifts (%)	
Hue Bin	R <sub>f</sub>	Chroma	Hue
1	91	-4%	-2%
2	91	-4%	4%
3	84	0%	8%
4	87	4%	8%
5	90	6%	5%
6	88	8%	-1%
7	86	4%	-8%
8	91	1%	-6%
9	93	-3%	-3%
10	92	-4%	2%
11	87	-2%	9%
12	87	4%	5%
13	91	6%	-1%
14	89	7%	-5%
15	88	3%	-7%
16	87	0%	-10%



## BEAM DETAILS

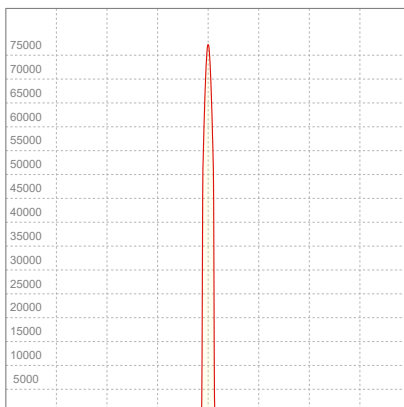
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,9°	11,1°	11,6°	100,0%	100,0%



### BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	77088lx	19272lx	8565lx	4818lx	3084lx	1370lx	771lx	343lx	193lx	123lx	86lx	48lx	31lx
Footcand.	7162fcd	1790fcd	796fcd	448fcd	286fcd	127fcd	72fcd	32fcd	18fcd	11fcd	8fcd	4fcd	3fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,9m	1,3m	1,7m	2,6m	3,5m	4,3m	5,2m	7m	8,7m
Beam wid.	0,6ft	1,1ft	1,7ft	2,3ft	2,9ft	4,3ft	5,7ft	8,6ft	11,4ft	14,3ft	17,1ft	22,8ft	28,5ft

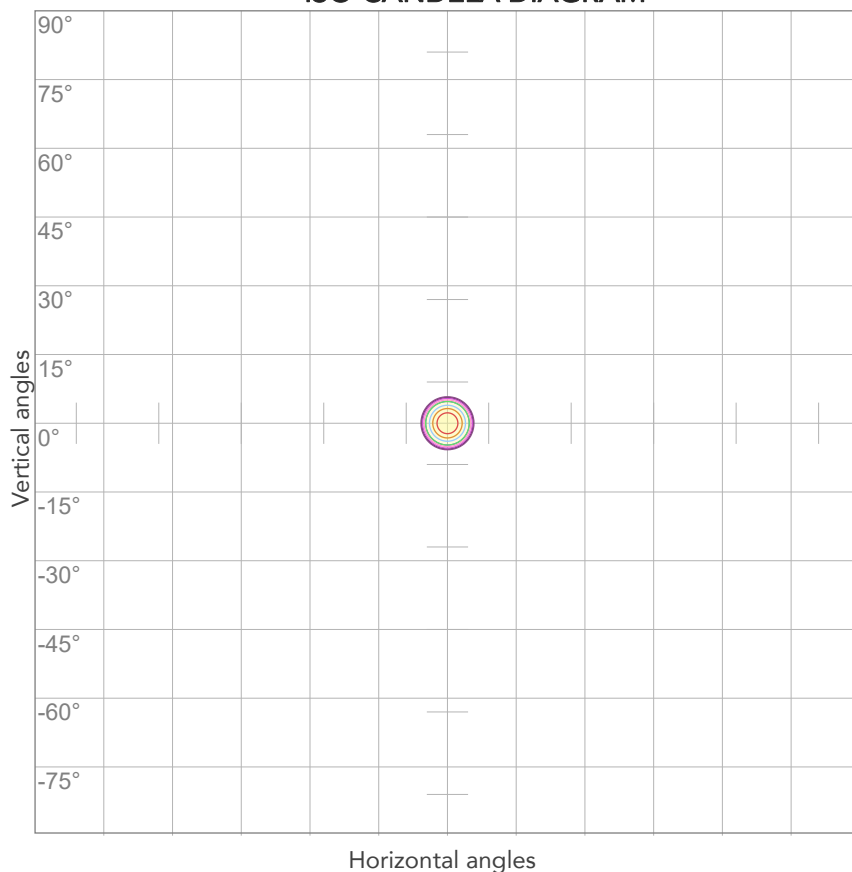
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,164A	34,5W	46lm/W
Power Fc			
0,94			

## ISO CANDELA DIAGRAM



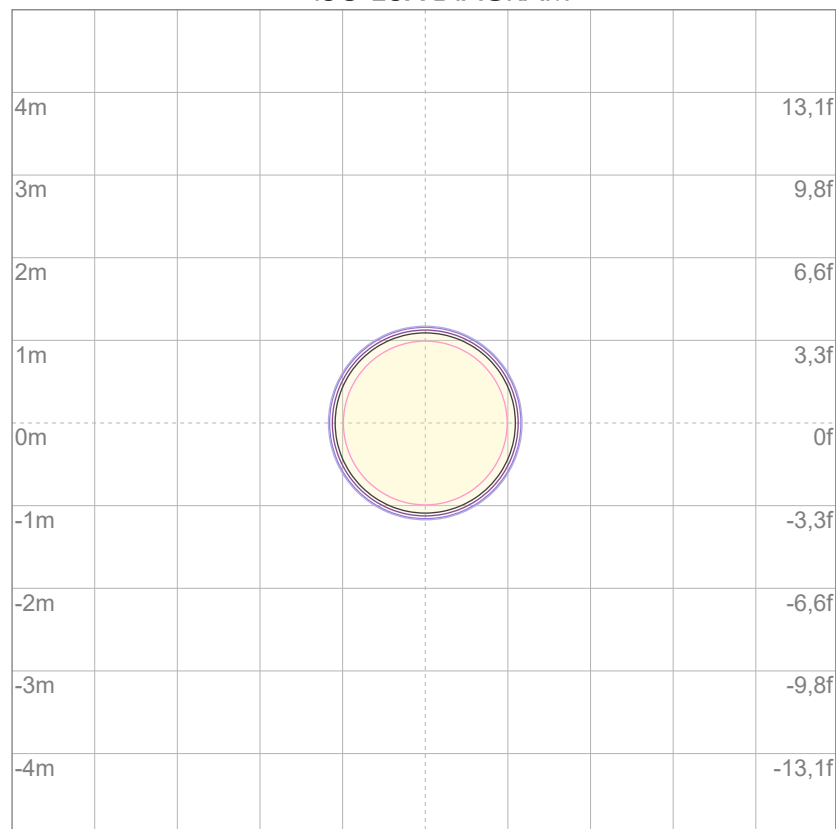
10%	7709 cd
20%	15418 cd
30%	23126 cd
40%	30835 cd
50%	38544 cd
60%	46253 cd
70%	53962 cd
80%	61670 cd

### Conditions:

Number of c-planes: 2

Candela at center: 77088 cd

## ISO LUX DIAGRAM



3%	23,1 lx
5%	38,5 lx
10%	77,1 lx
30%	231 lx
50%	385 lx

### Conditions:

Number of c-planes: 2

Lux at center: 771 lx

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



Total lumen output:

1616 lm

Peak candela output:

19961 cd

Light quality:

CRI: 92,2

Color temperature:

4157 K

**PRODUCT NAME:**

ECLDISPLAY 4000K

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Max Zoom

Target:

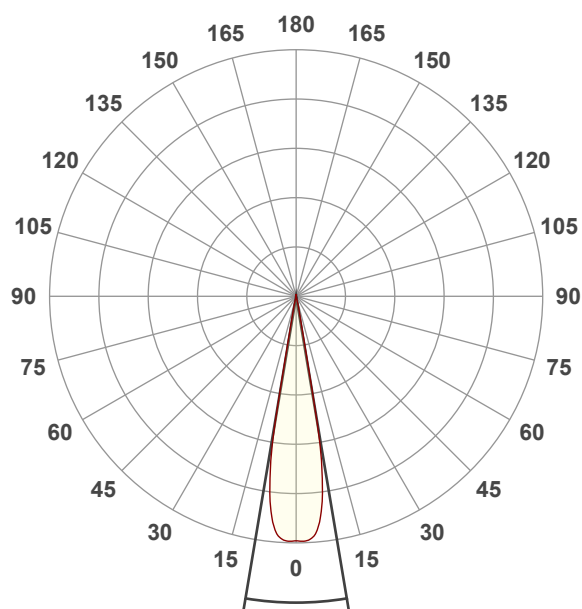
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 10:57:23

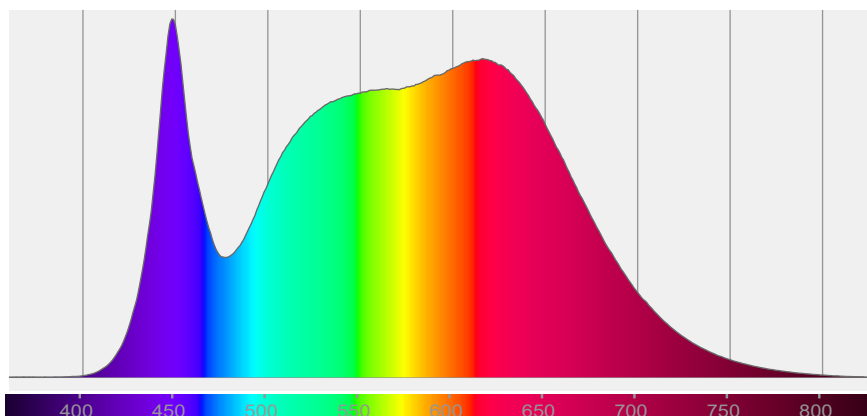


Beam angle 50%: 19°

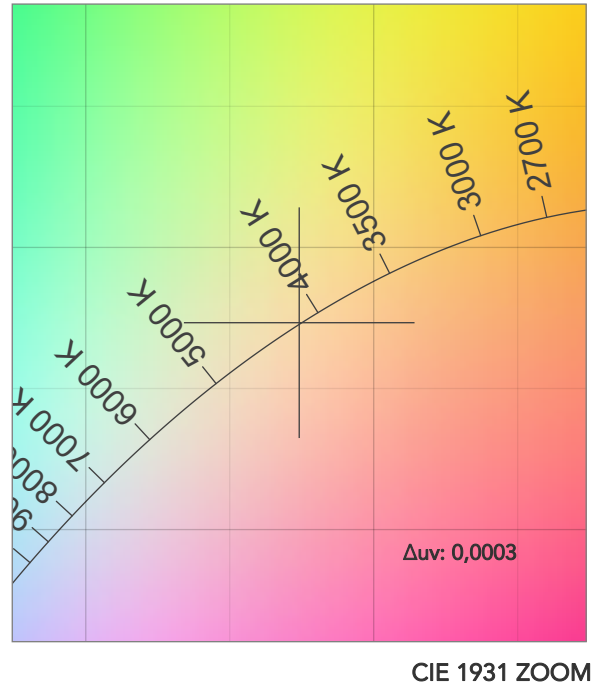
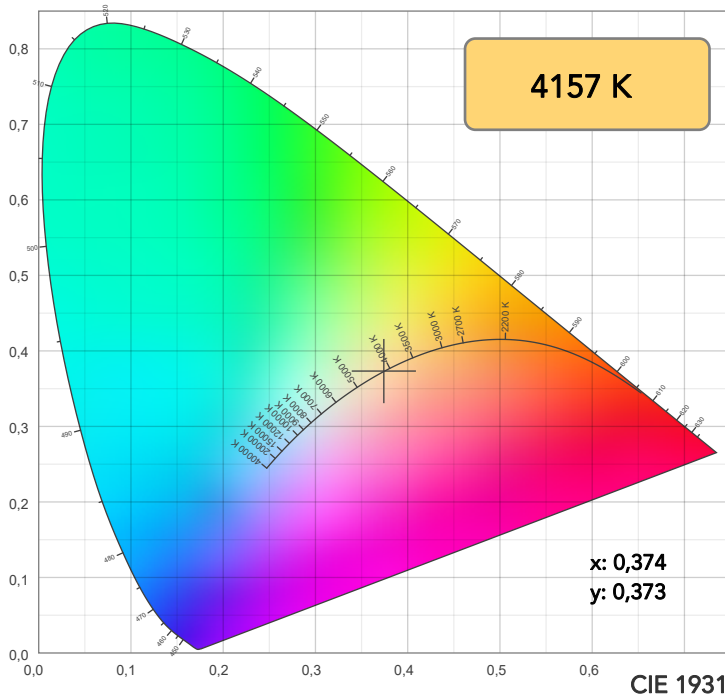
Field angle 10%: 21,6°

Cut off angle 2.5%: 23,8°

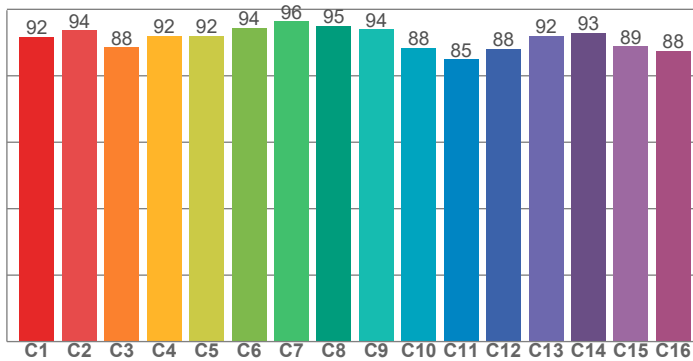
**Spectra**



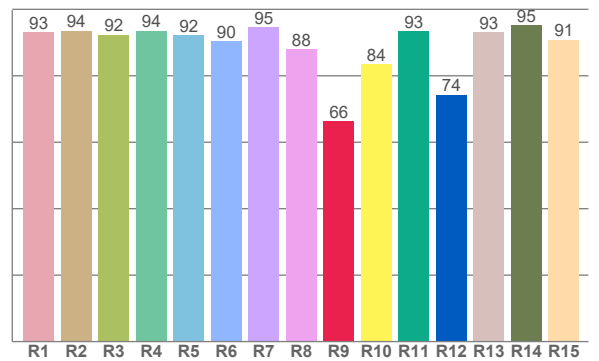




TM30: 91,0



CRI: 92,2 (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
93,2	93,5	92,4	93,6	92,3	90,5	94,5	87,9	66,3	83,5	93,3	74,3	93,1	95,3	90,8

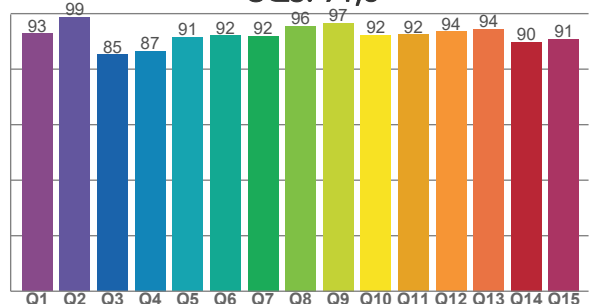
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91,8	93,7	88,5	91,9	92,0	94,4	96,3	95,0	93,9	88,4	85,0	88,1	92,1	93,0	88,9	87,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,9	98,7	85,2	86,6	91,5	92,2	92,0	95,6	96,7	92,3	92,5	93,6	94,4	89,8	90,8

CQS: 91,6



## COLOR PARAMETERS

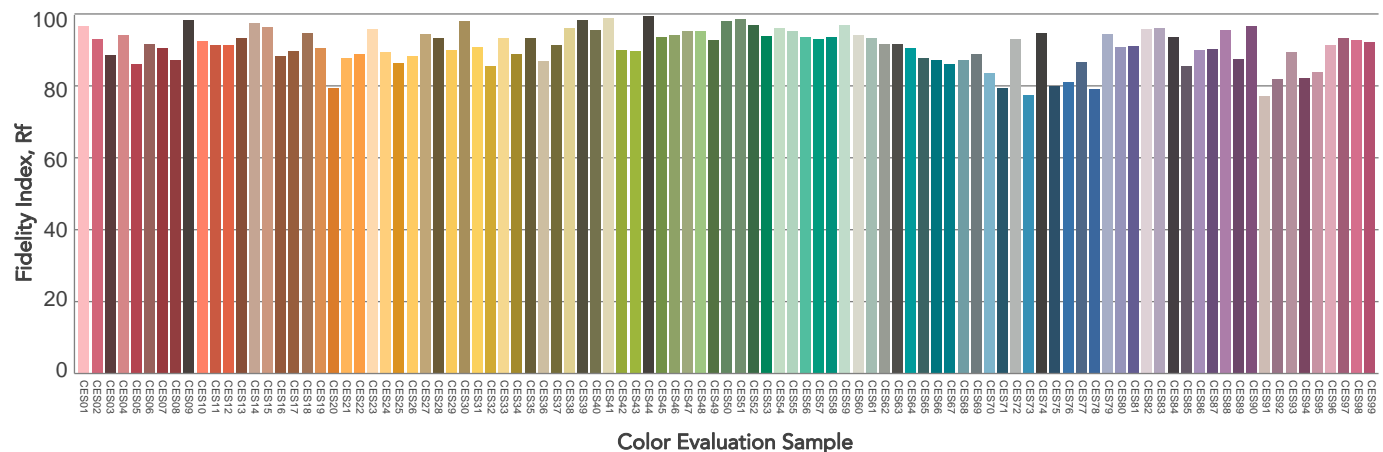
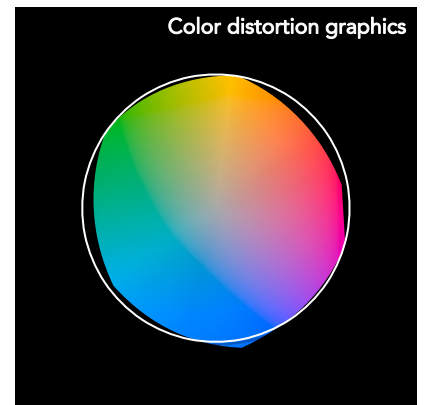
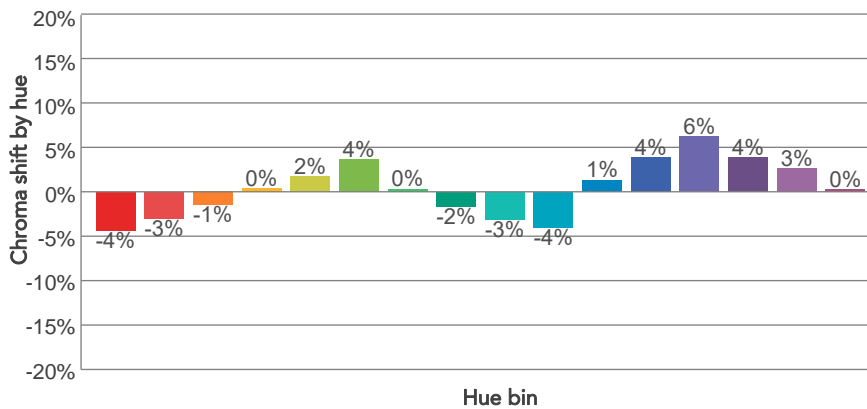
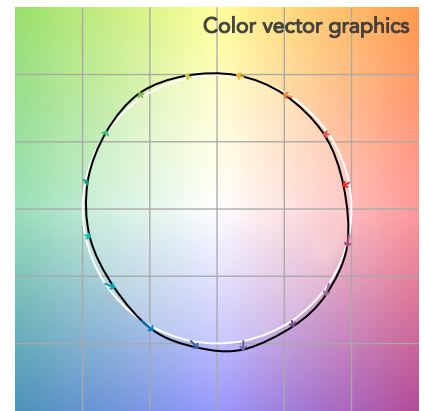
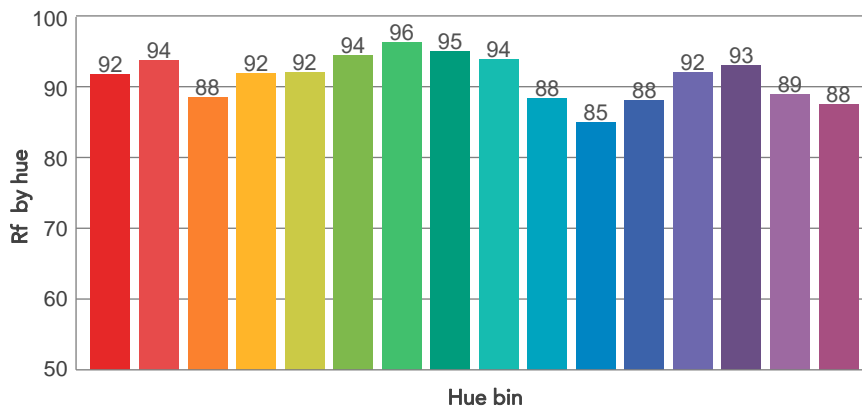
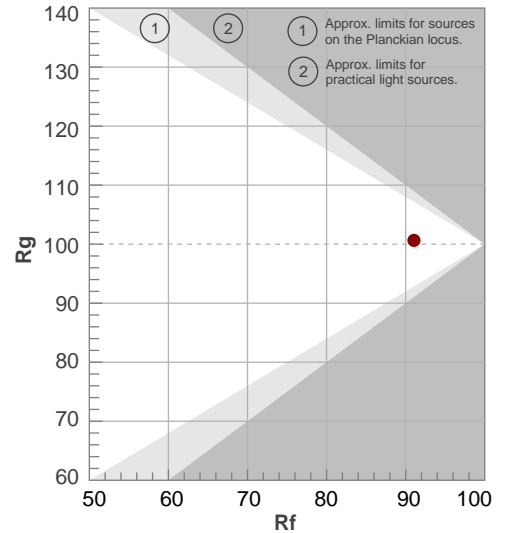
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4157 K	92,2	66,3	91,0	100,6	91,6	92	0,374	0,373	0,0003

# TM30 DETAILS

**Rf 91,0**  
Fidelity index Rf

**Rg 100,6**  
Gammut index

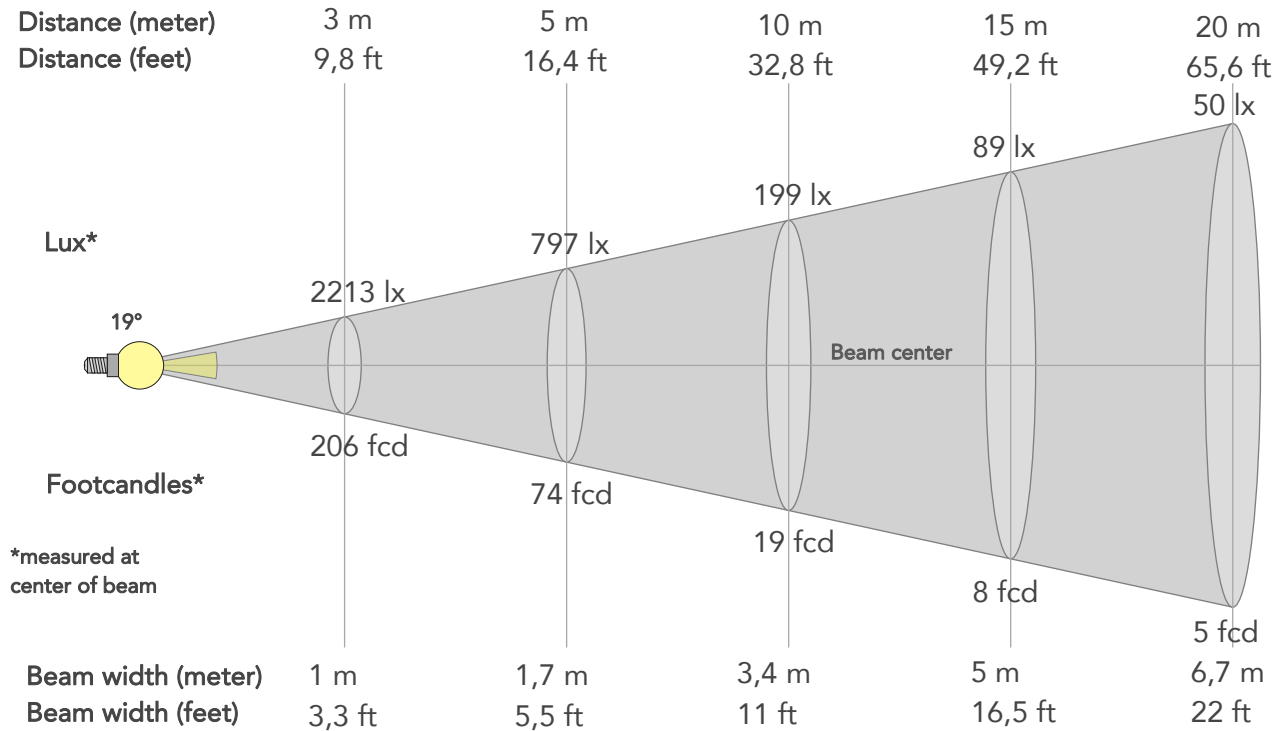
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	-1%
2	94	-3%	2%
3	88	-1%	6%
4	92	0%	5%
5	92	2%	3%
6	94	4%	0%
7	96	0%	-2%
8	95	-2%	-1%
9	94	-3%	2%
10	88	-4%	6%
11	85	1%	10%
12	88	4%	6%
13	92	6%	-1%
14	93	4%	-1%
15	89	3%	-8%
16	88	0%	-8%



# BEAM DETAILS



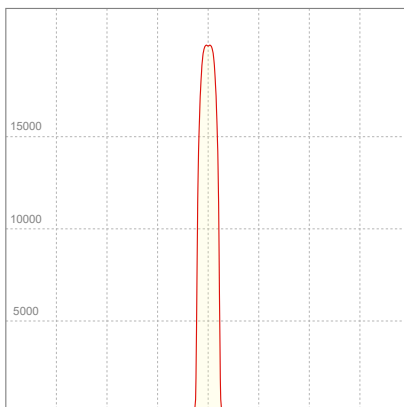
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
19°	21,6°	23,8°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	19921lx	4980lx	2213lx	1245lx	797lx	354lx	199lx	89lx	50lx	32lx	22lx	12lx	8lx
Footcand.	1851fcd	463fcd	206fcd	116fcd	74fcd	33fcd	19fcd	8fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,7m	1m	1,3m	1,7m	2,5m	3,4m	5m	6,7m	8,4m	10,1m	13,4m	16,8m
Beam wid.	1,1ft	2,2ft	3,3ft	4,4ft	5,5ft	8,3ft	11ft	16,5ft	22ft	27,5ft	33ft	44ft	55ft

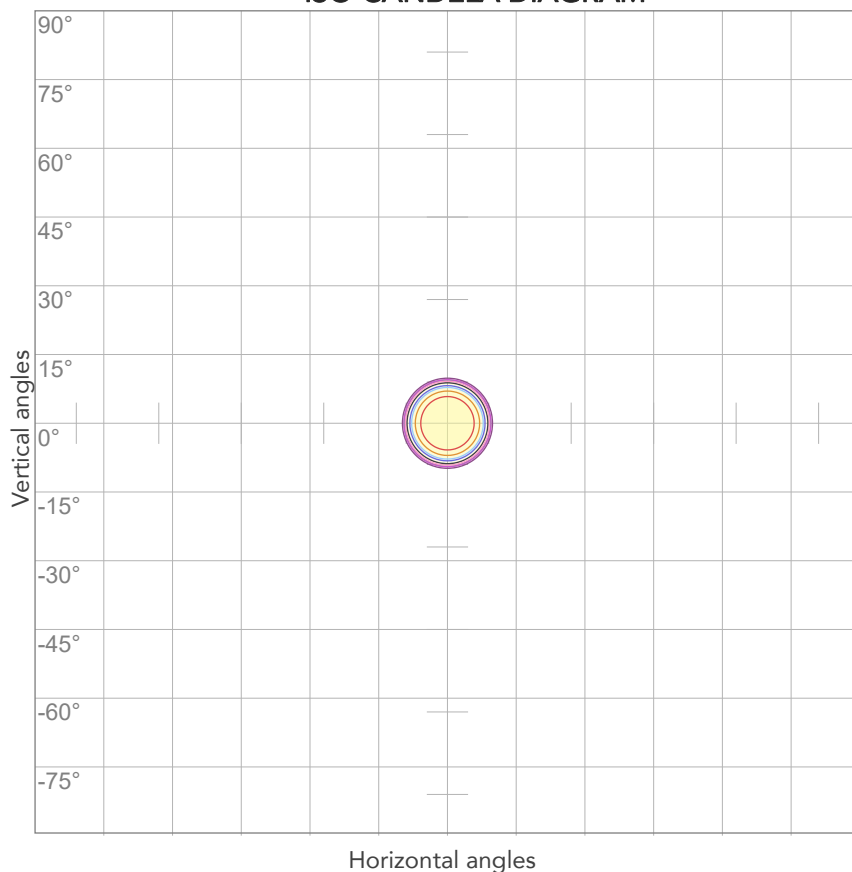
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,155A	32,6W	50lm/W
Power Fc			
0,94			

## ISO CANDELA DIAGRAM



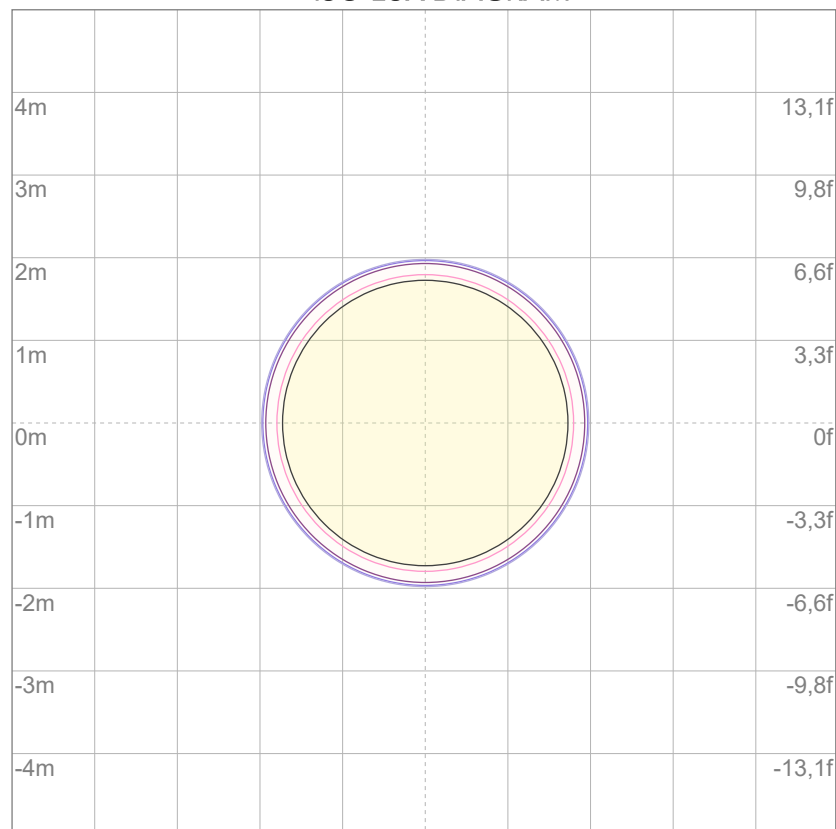
10%	1992 cd
20%	3984 cd
30%	5976 cd
40%	7968 cd
50%	9960 cd
60%	11952 cd
70%	13945 cd
80%	15937 cd

### Conditions:

Number of c-planes: 2

Candela at center: 19921 cd

## ISO LUX DIAGRAM



3%	5,98 lx
5%	9,96 lx
10%	19,9 lx
30%	59,8 lx
50%	99,6 lx

### Conditions:

Number of c-planes: 2

Lux at center: 199 lx

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



Total lumen output:

1488 lm

Peak candela output:

73564 cd

Light quality:

CRI: 92,4

Color temperature:

4157 K

**PRODUCT NAME:**

ECLDISPLAY 4000K

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Min Zoom

Target:

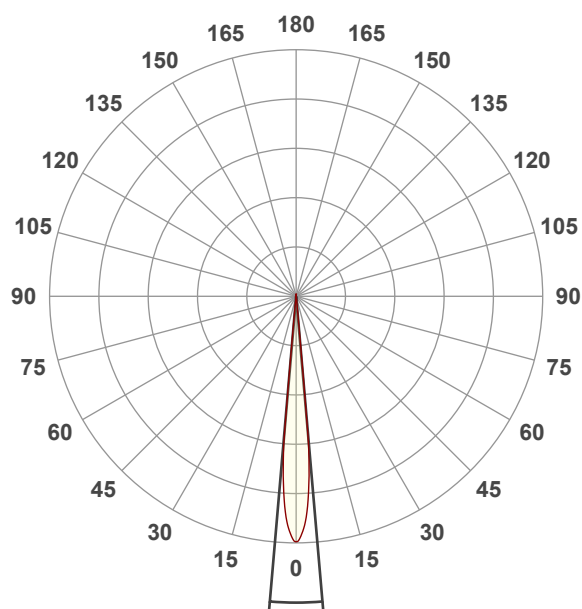
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 11:00:23

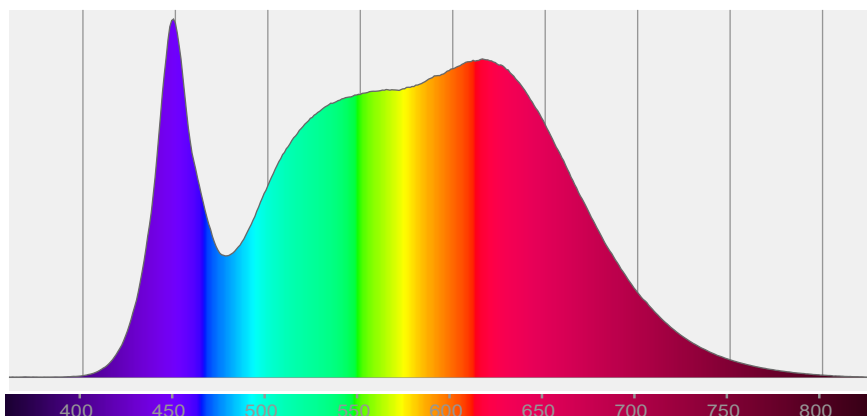


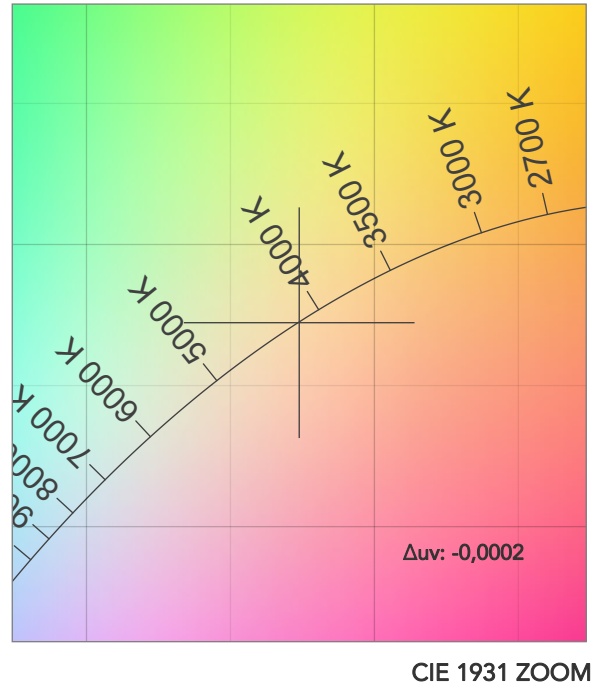
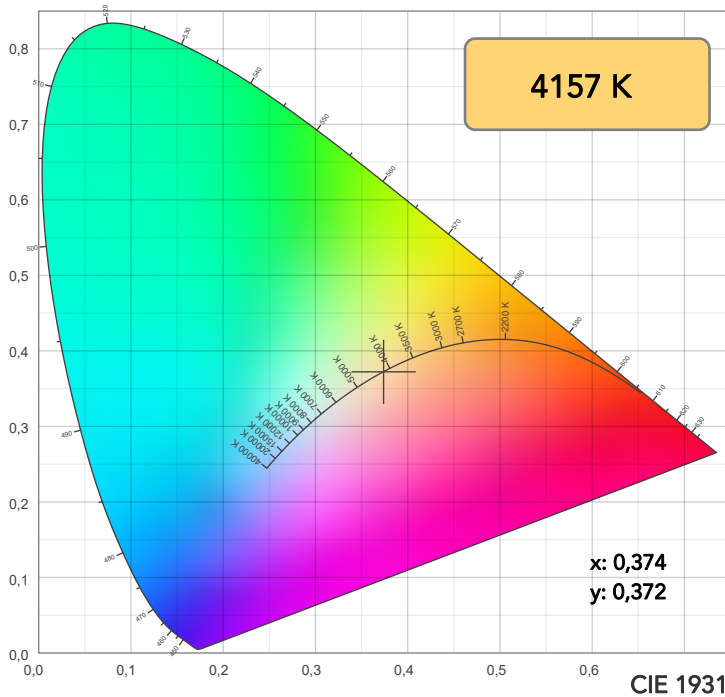
Beam angle 50%: 9,9°

Field angle 10%: 10,9°

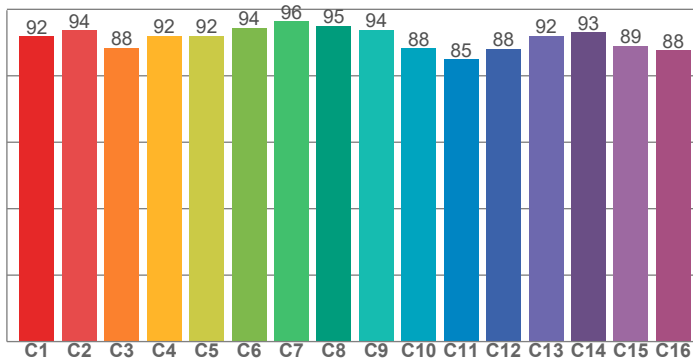
Cut off angle 2.5%: 11,5°

**Spectra**

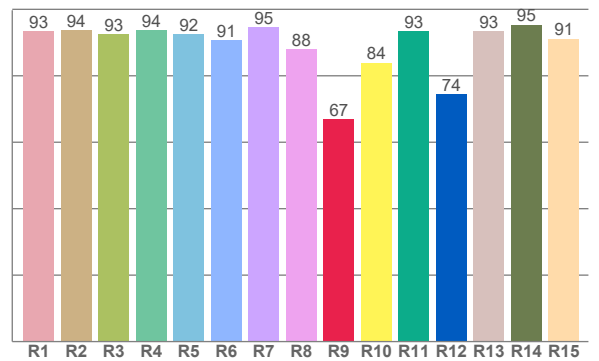




TM30: 91,0



CRI: 92,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93,4	93,8	92,5	93,6	92,5	90,7	94,6	88,1	66,9	84,0	93,4	74,4	93,4	95,4	91,1

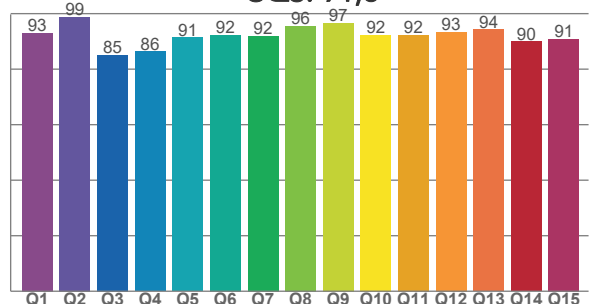
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91,8	93,7	88,5	92,0	92,0	94,5	96,4	95,1	93,9	88,3	84,9	88,1	92,1	93,1	88,9	87,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,0	98,7	85,1	86,3	91,4	92,3	92,0	95,5	96,7	92,2	92,3	93,4	94,3	89,9	90,9

CQS: 91,6



## COLOR PARAMETERS

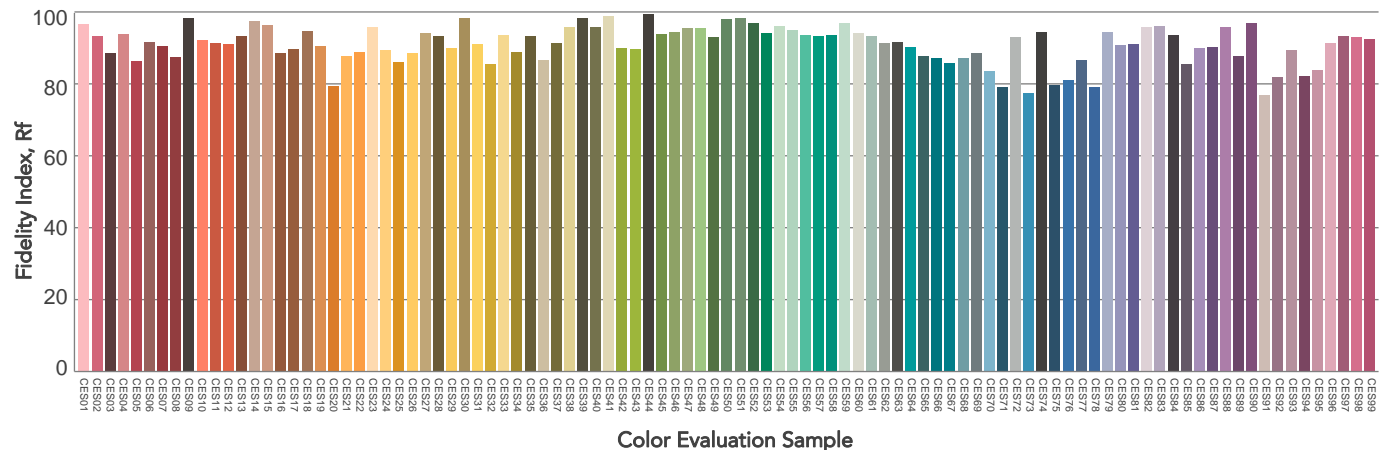
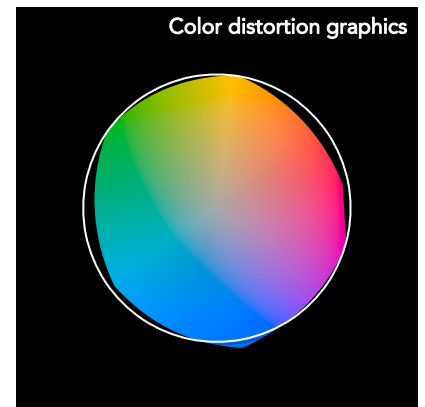
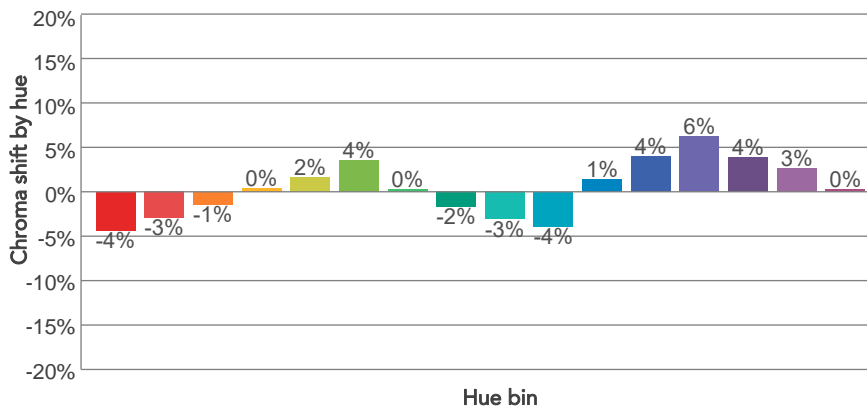
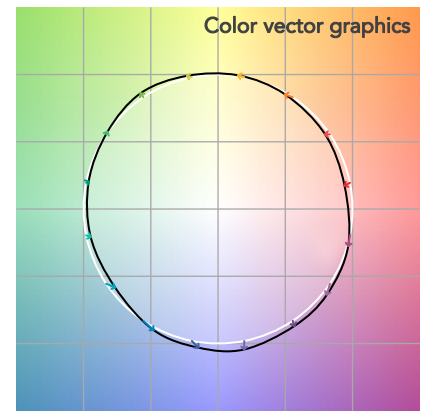
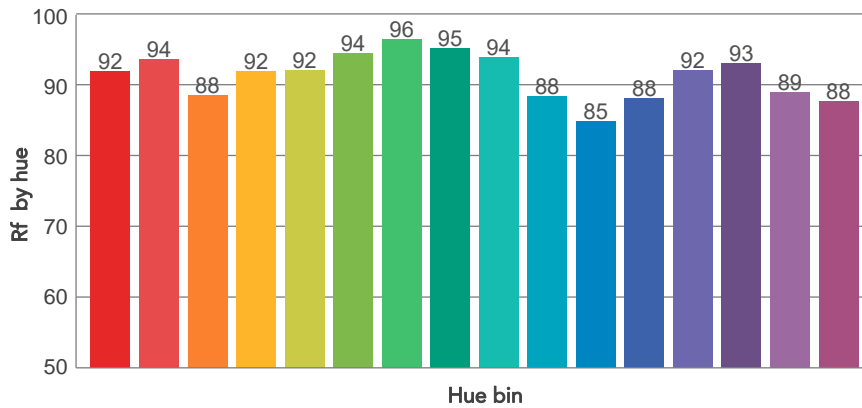
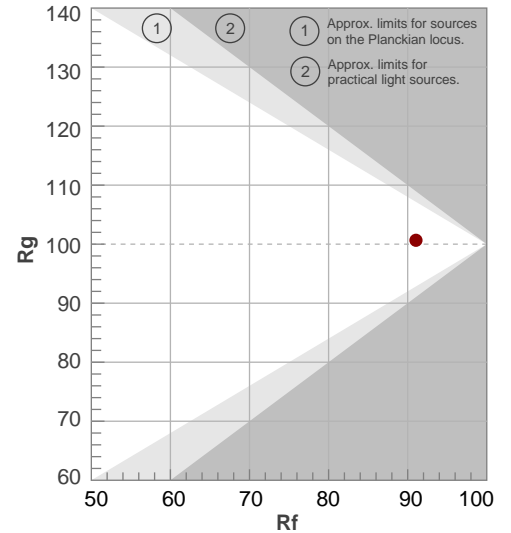
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
4157 K	92,4	66,9	91,0	100,7	91,6	92	0,374	0,372	-0,0002

# TM30 DETAILS

**Rf 91,0**  
Fidelity index Rf

**Rg 100,7**  
Gammut index

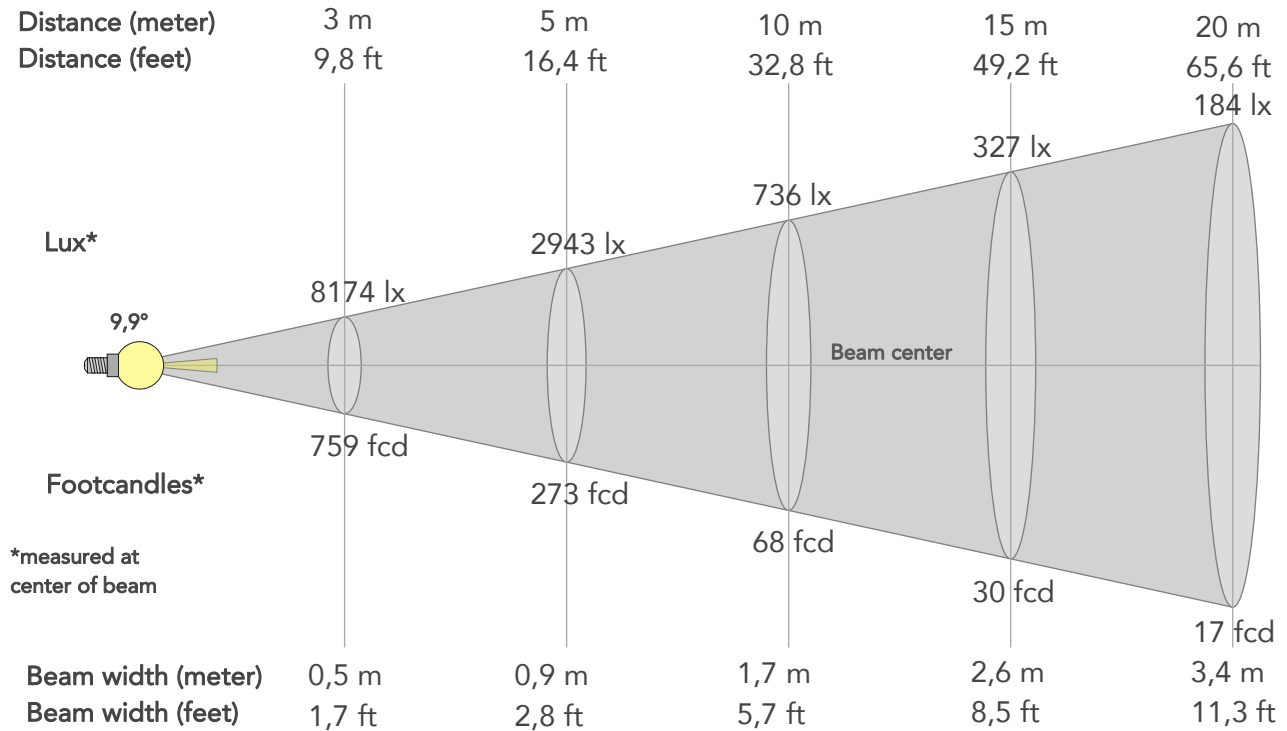
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	-1%
2	94	-3%	2%
3	88	-1%	6%
4	92	0%	5%
5	92	2%	3%
6	94	4%	0%
7	96	0%	-2%
8	95	-2%	-1%
9	94	-3%	2%
10	88	-4%	6%
11	85	1%	10%
12	88	4%	6%
13	92	6%	-1%
14	93	4%	-1%
15	89	3%	-8%
16	88	0%	-8%



# BEAM DETAILS



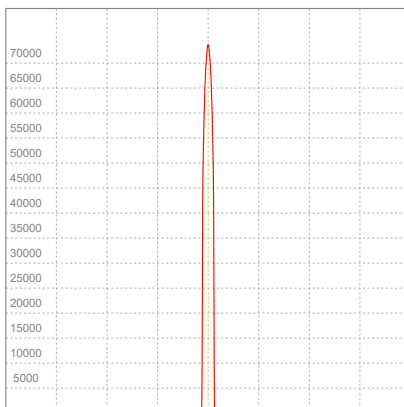
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,9°	10,9°	11,5°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	73564lx	18391lx	8174lx	4598lx	2943lx	1308lx	736lx	327lx	184lx	118lx	82lx	46lx	29lx
Footcand.	6834fcd	1709fcd	759fcd	427fcd	273fcd	121fcd	68fcd	30fcd	17fcd	11fcd	8fcd	4fcd	3fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,9m	1,3m	1,7m	2,6m	3,4m	4,3m	5,2m	6,9m	8,6m
Beam wid.	0,6ft	1,1ft	1,7ft	2,3ft	2,8ft	4,2ft	5,7ft	8,5ft	11,3ft	14,1ft	17ft	22,6ft	28,3ft

## LINEAR DISTRIBUTION DIAGRAM

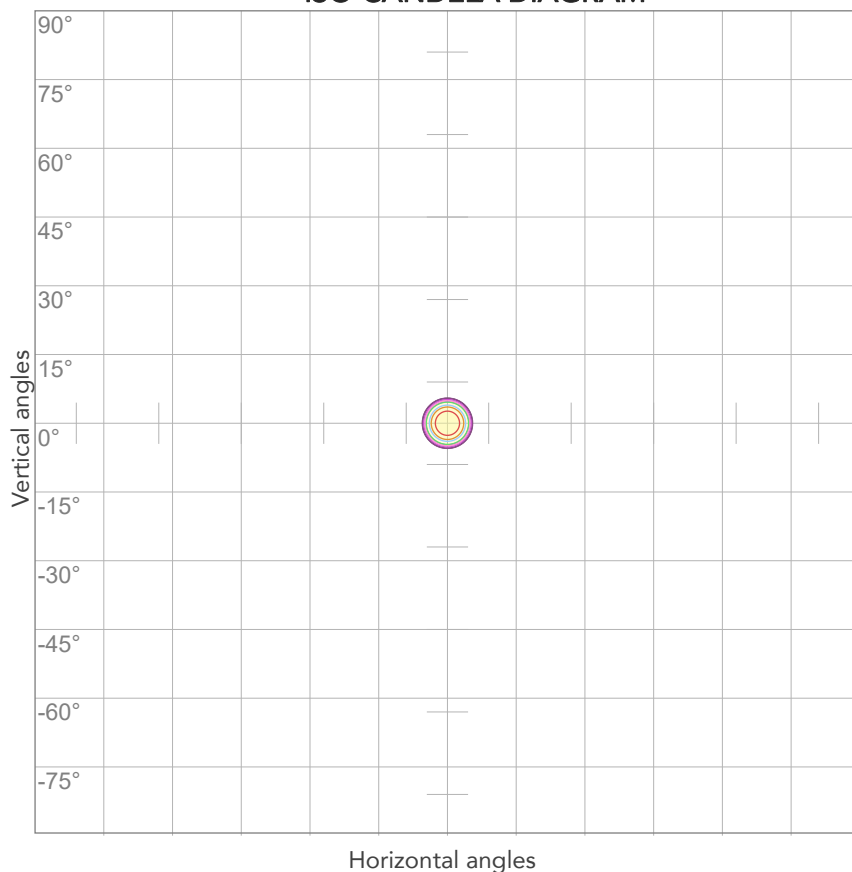


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,154A	32,4W	46lm/W



## ISO CANDELA DIAGRAM



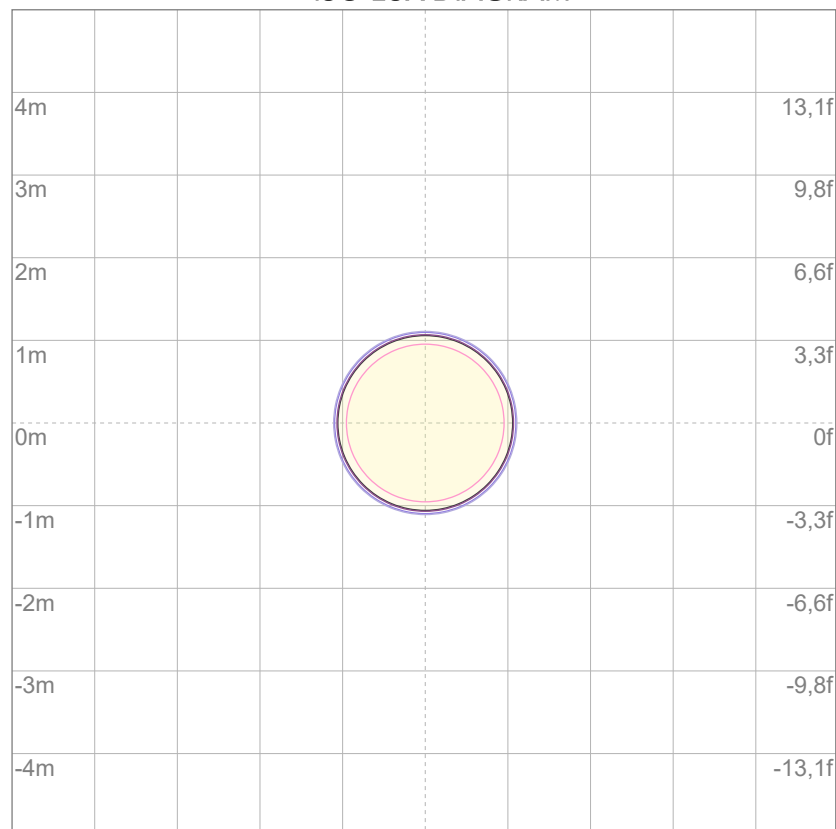
10%	7356 cd
20%	14713 cd
30%	22069 cd
40%	29425 cd
50%	36782 cd
60%	44138 cd
70%	51494 cd
80%	58851 cd

### Conditions:

Number of c-planes: 2

Candela at center: 73564 cd

## ISO LUX DIAGRAM



3%	22,1 lx
5%	36,8 lx
10%	73,6 lx
30%	221 lx
50%	368 lx

### Conditions:

Number of c-planes: 2

Lux at center: 736 lx

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



Total lumen output:

1773 lm

Peak candela output:

22566 cd

Light quality:

CRI: 90,0

Color temperature:

5961 K

**PRODUCT NAME:**

ECLDISPLAY 5600K

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Max Zoom

Target:

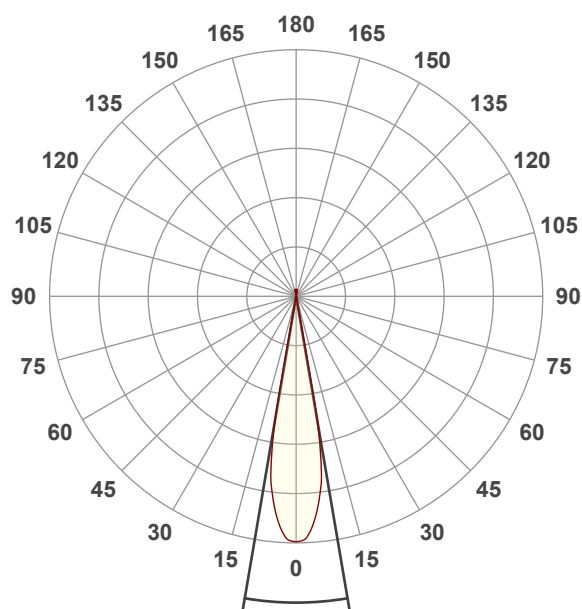
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 11:09:51

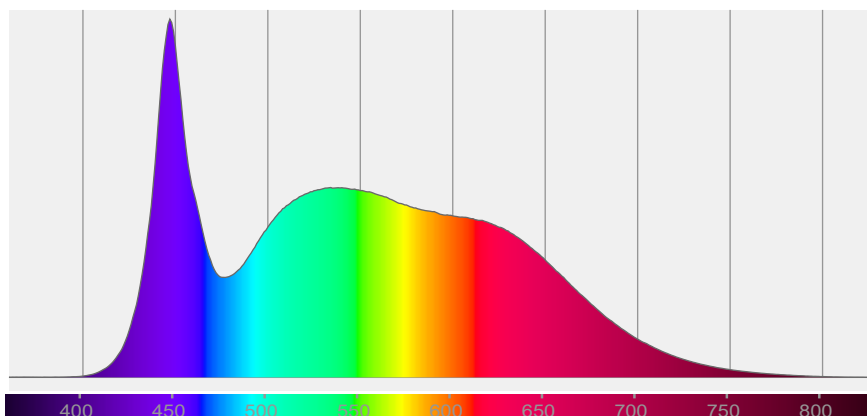


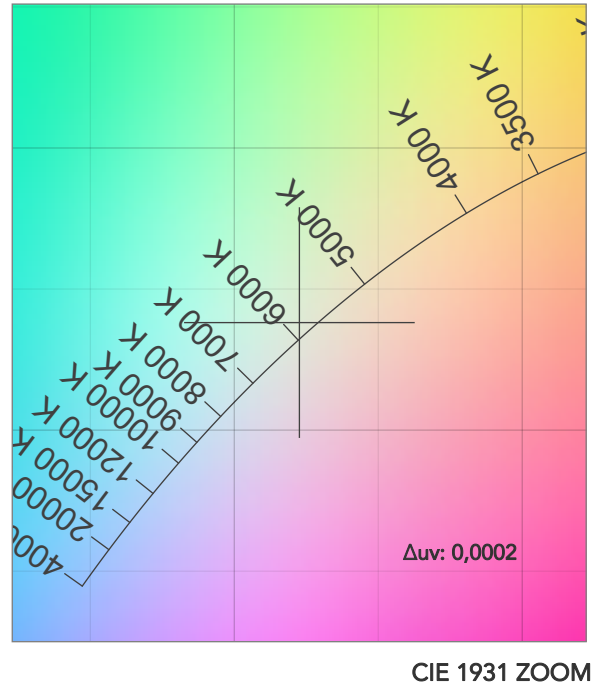
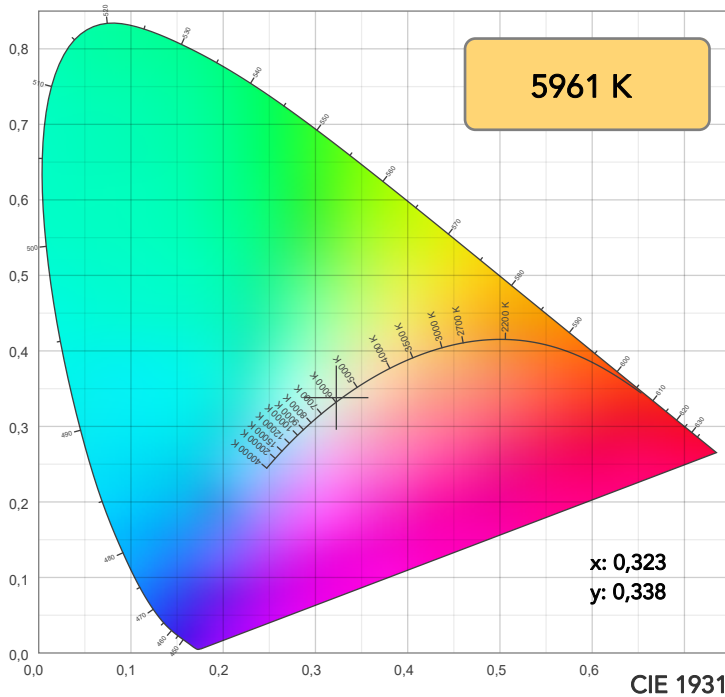
Beam angle 50%: 19,3°

Field angle 10%: 21,9°

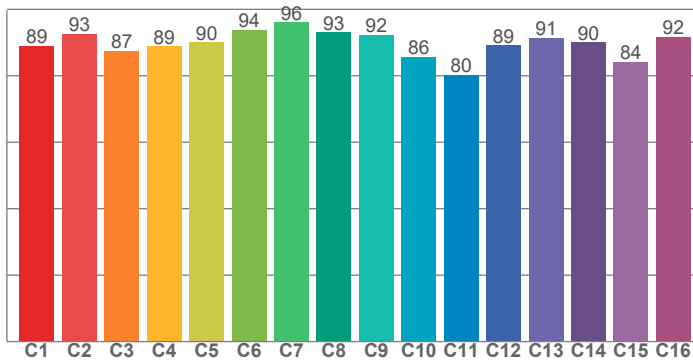
Cut off angle 2.5%: 22,3°

**Spectra**

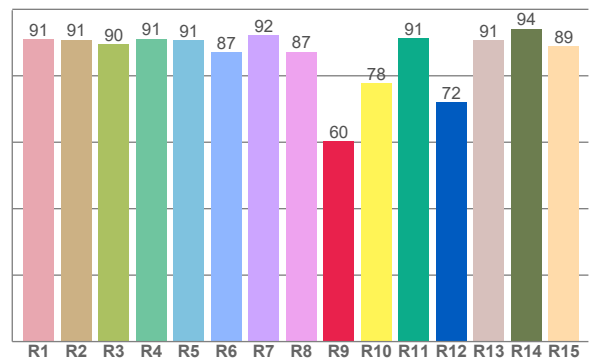




TM30: 89,5



CRI: 90,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
90,9	90,8	89,5	91,2	90,8	87,1	92,3	87,3	60,3	77,7	91,3	72,0	90,6	94,2	88,9

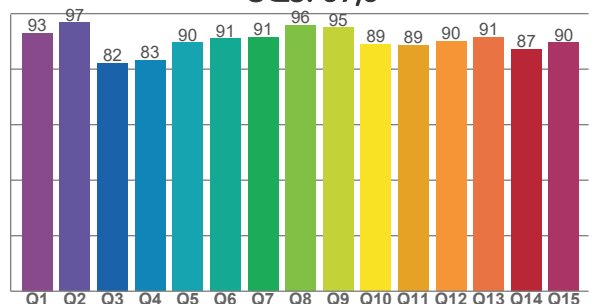
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,0	92,6	87,5	88,8	90,0	93,8	96,1	93,0	92,3	85,7	80,3	89,2	91,4	90,1	84,1	91,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,1	96,8	82,2	83,2	89,6	91,0	91,5	95,8	95,0	89,0	88,7	90,0	91,5	87,3	89,5

CQS: 89,5



## COLOR PARAMETERS

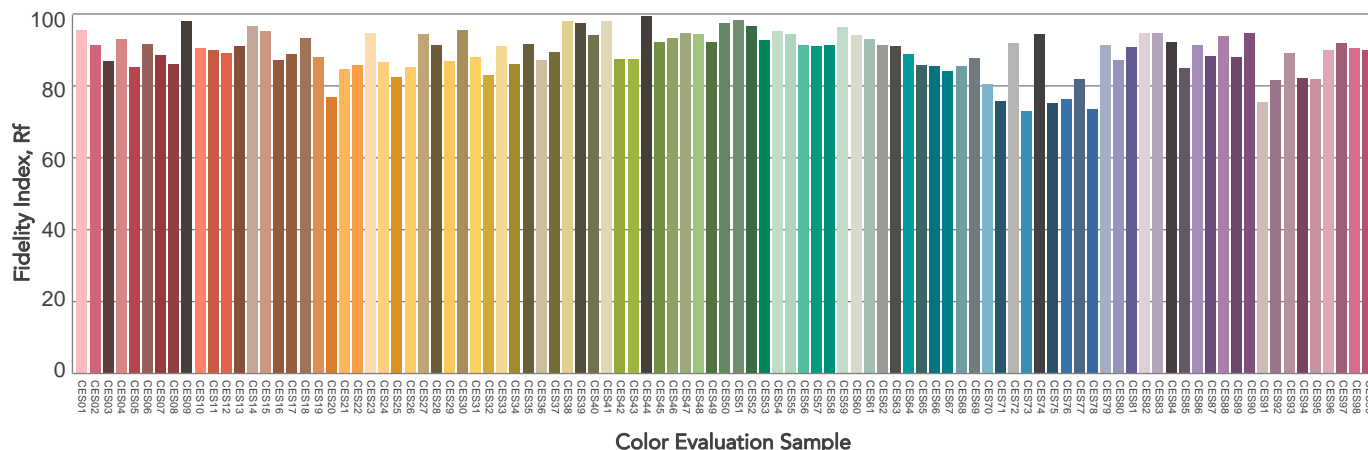
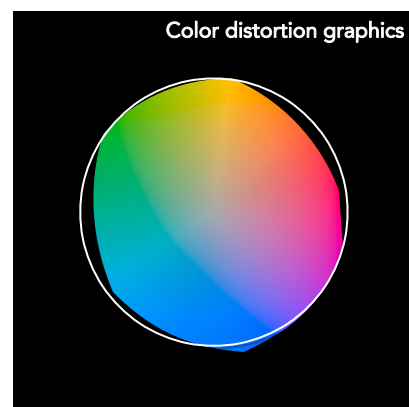
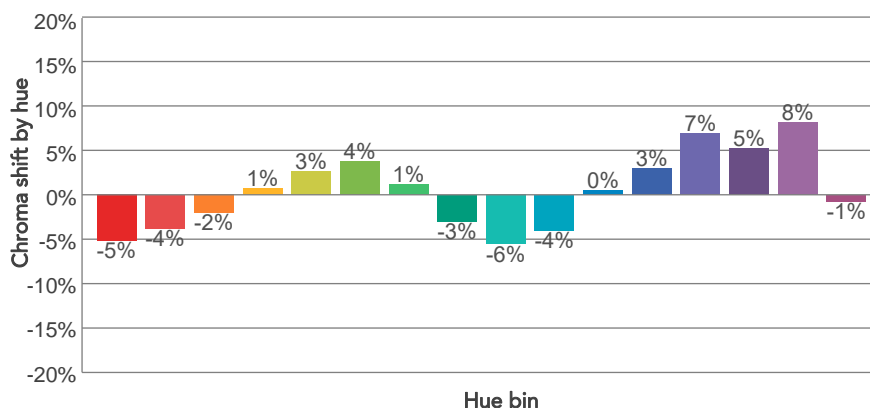
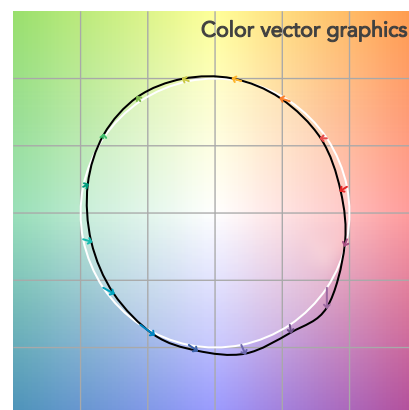
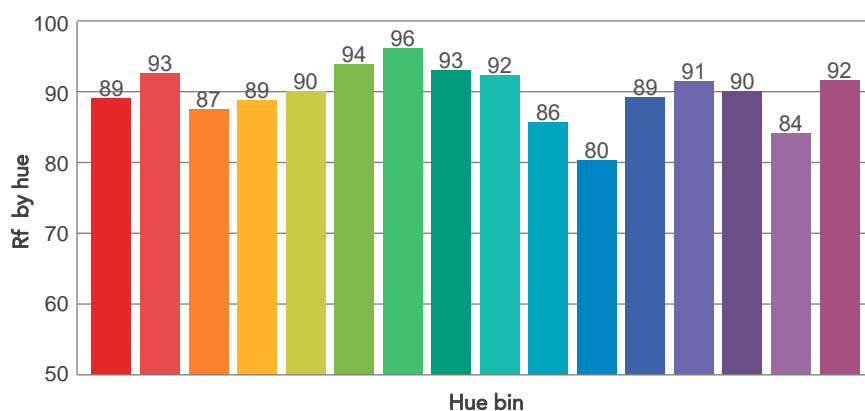
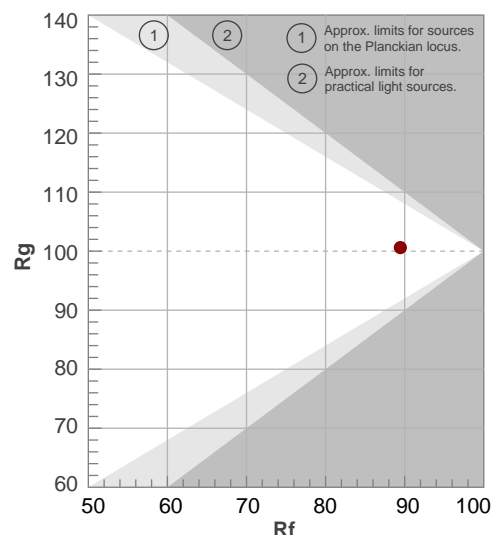
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
5961 K	90,0	60,3	89,5	100,6	89,5	94	0,323	0,338	0,0002

# TM30 DETAILS

**Rf 89,5**  
Fidelity index Rf

**Rg 100,6**  
Gammut index

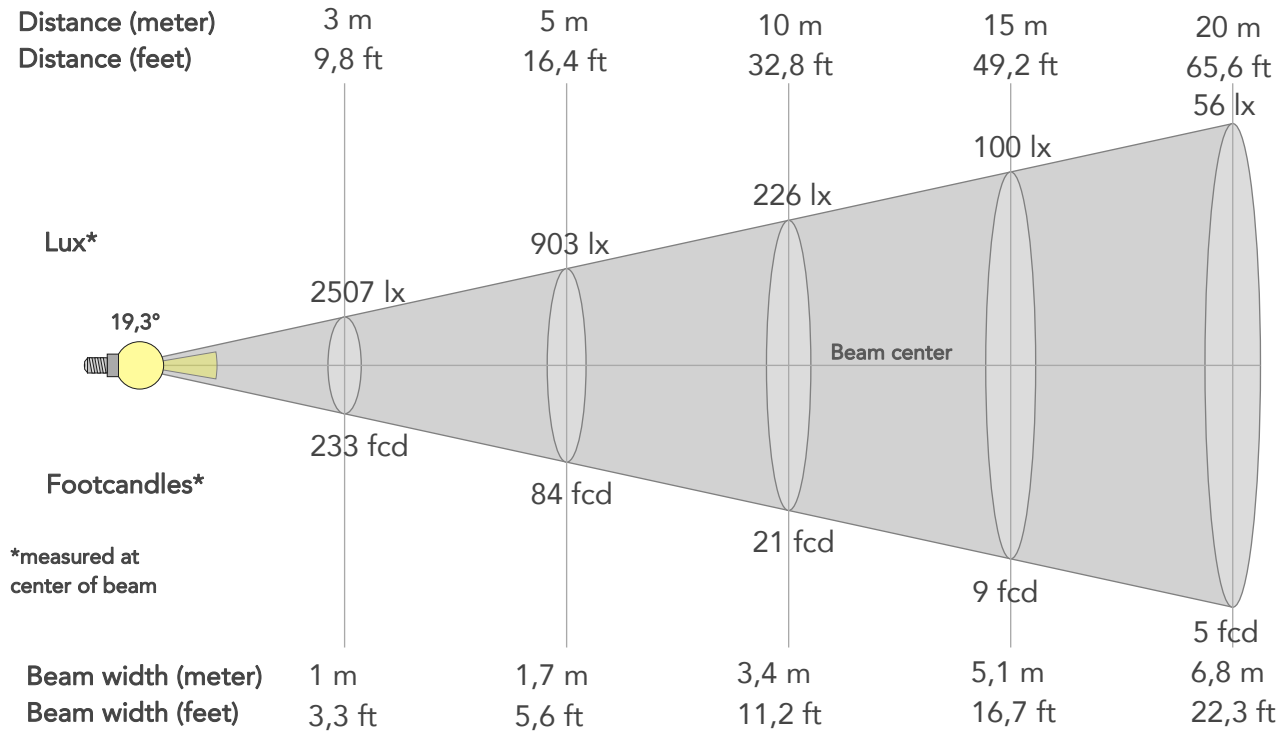
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	-2%
2	93	-4%	2%
3	87	-2%	7%
4	89	1%	7%
5	90	3%	4%
6	94	4%	0%
7	96	1%	-2%
8	93	-3%	-2%
9	92	-6%	3%
10	86	-4%	8%
11	80	0%	12%
12	89	3%	7%
13	91	7%	2%
14	90	5%	-2%
15	84	8%	-12%
16	92	-1%	-5%



## BEAM DETAILS



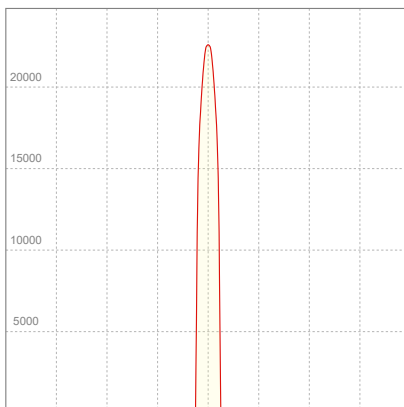
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
19,3°	21,9°	22,3°	100,0%	100,0%



### BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	22566lx	5641lx	2507lx	1410lx	903lx	401lx	226lx	100lx	56lx	36lx	25lx	14lx	9lx
Footcand.	2096fcd	524fcd	233fcd	131fcd	84fcd	37fcd	21fcd	9fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,7m	1m	1,4m	1,7m	2,6m	3,4m	5,1m	6,8m	8,5m	10,2m	13,6m	17m
Beam wid.	1,1ft	2,2ft	3,3ft	4,5ft	5,6ft	8,4ft	11,2ft	16,7ft	22,3ft	27,9ft	33,5ft	44,7ft	55,8ft

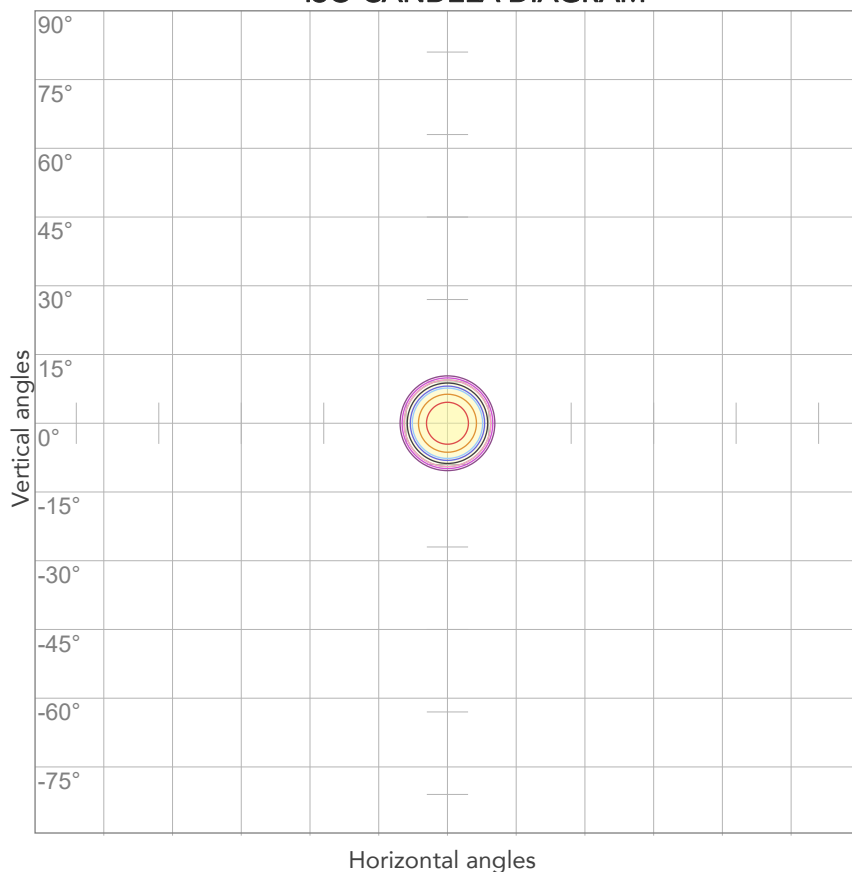
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,158A	32,8W	54lm/W
Power Fc			
0,94			

## ISO CANDELA DIAGRAM



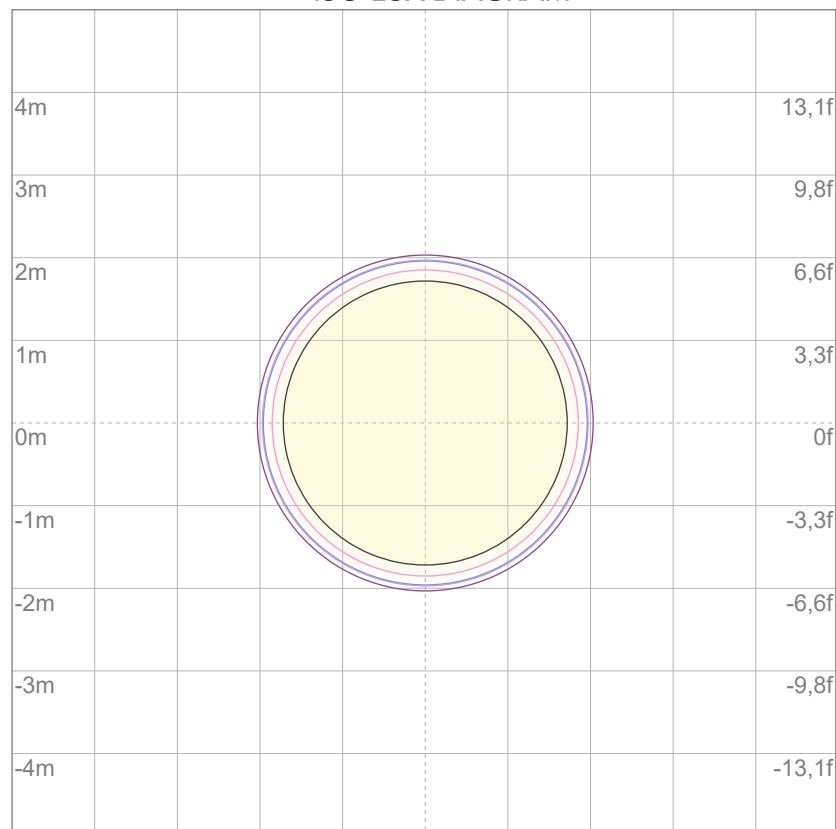
10%	2257 cd
20%	4513 cd
30%	6770 cd
40%	9026 cd
50%	11283 cd
60%	13539 cd
70%	15796 cd
80%	18052 cd

### Conditions:

Number of c-planes: 2

Candela at center: 22566 cd

## ISO LUX DIAGRAM



3%	6,77 lx
5%	11,3 lx
10%	22,6 lx
30%	67,7 lx
50%	113 lx

### Conditions:

Number of c-planes: 2

Lux at center: 226 lx

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



Total lumen output:

1722 lm

Peak candela output:

84521 cd

Light quality:

CRI: 89,9

Color temperature:

5972 K

**PRODUCT NAME:**

ECLDISPLAY 5600K

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Min Zoom

Target:

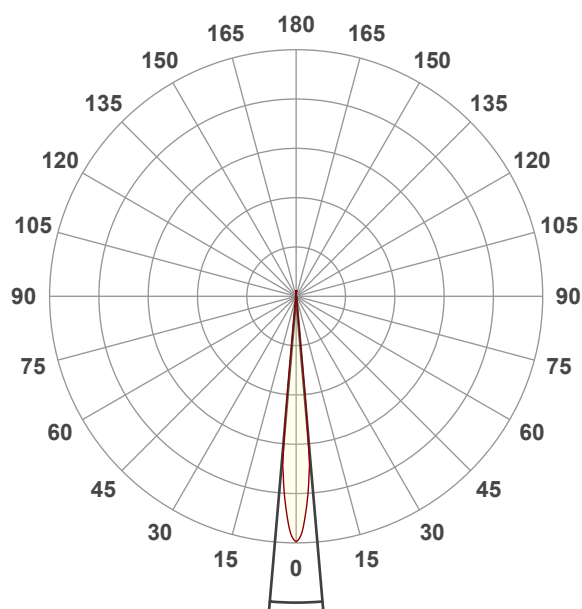
Full On

Operator:

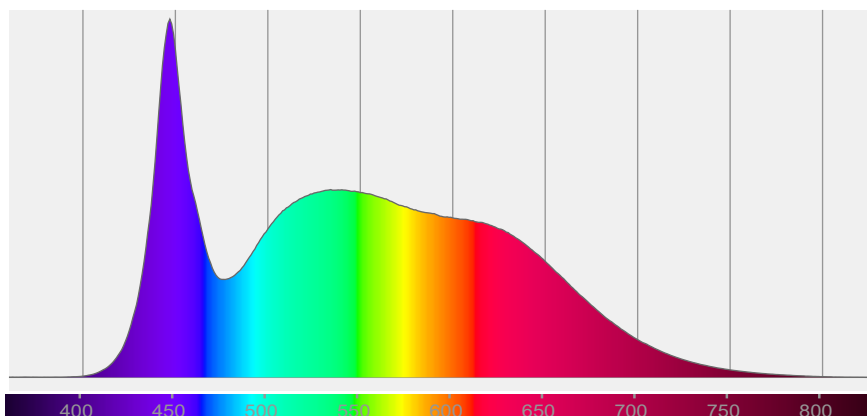
Paolo Carvone

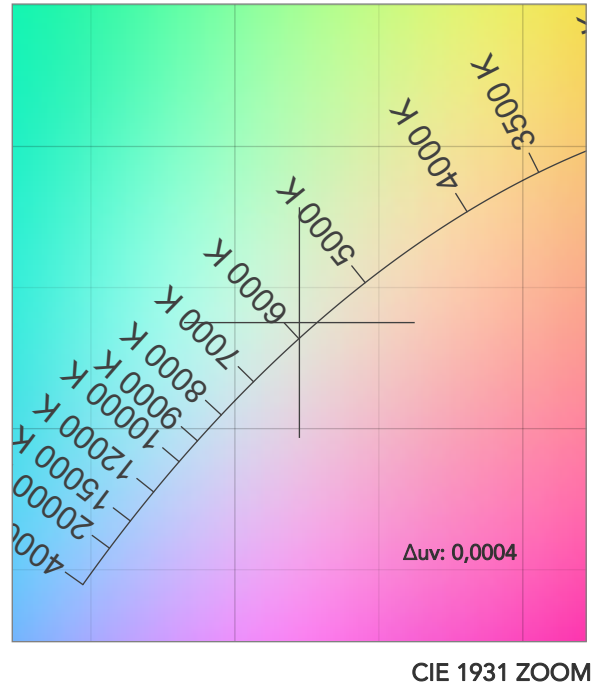
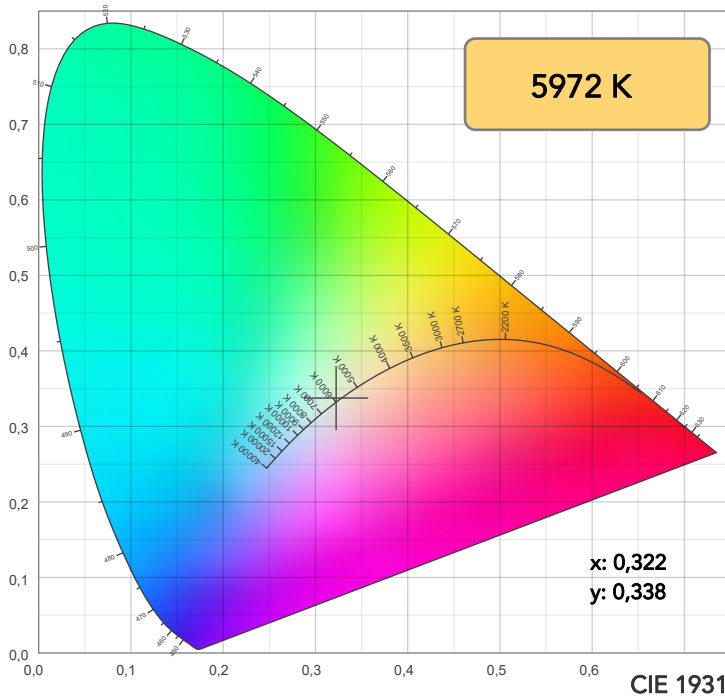
Date and time:

27/07/2022 11:08:00

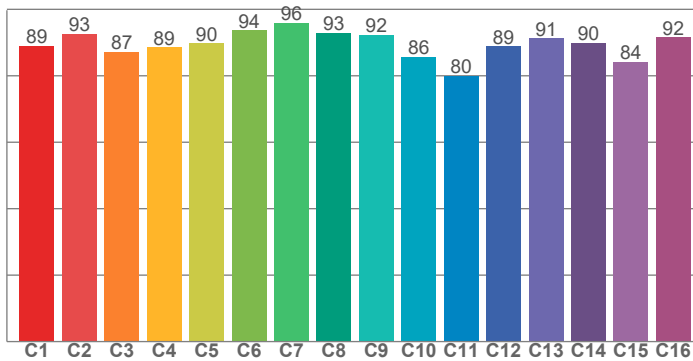


Spectra

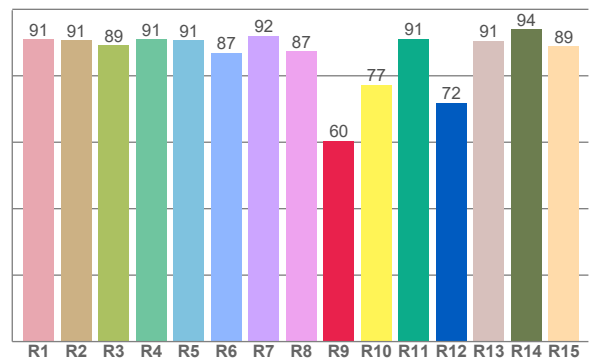




TM30: 89,3



CRI: 89,9 (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
90,9	90,7	89,3	91,0	90,8	86,9	92,1	87,3	60,5	77,3	91,2	71,9	90,6	94,0	89,0

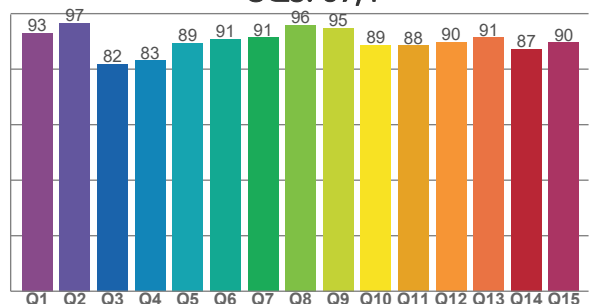
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,0	92,6	87,2	88,5	89,8	93,6	95,9	93,0	92,3	85,7	80,1	88,9	91,3	89,9	84,2	91,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,0	96,7	81,9	83,0	89,5	90,9	91,4	95,8	94,8	88,7	88,4	89,8	91,3	87,3	89,6

CQS: 89,4



## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
5972 K	89,9	60,5	89,3	100,7	89,4	94	0,322	0,338	0,0004

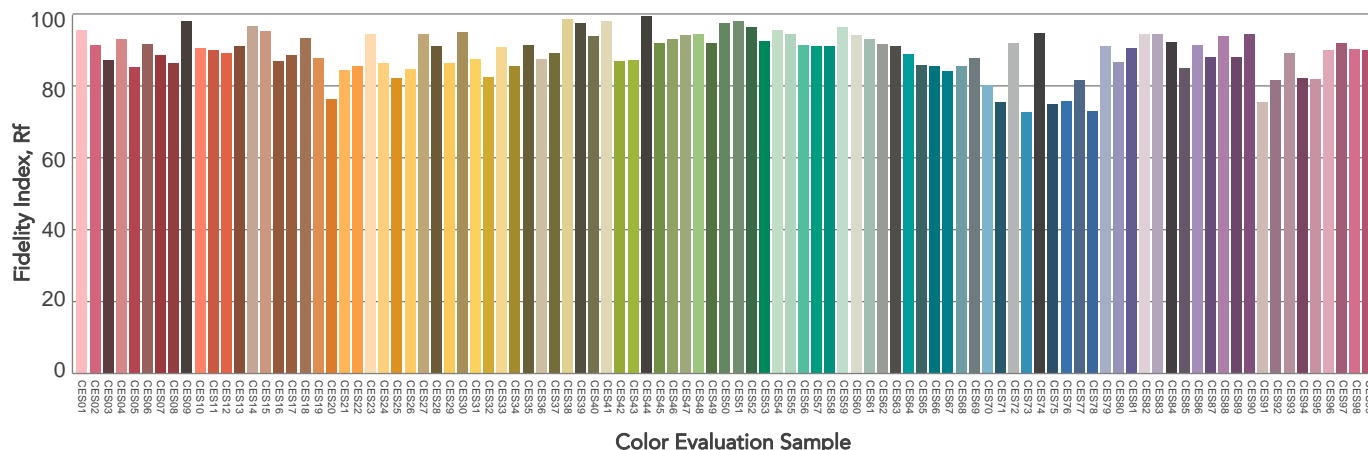
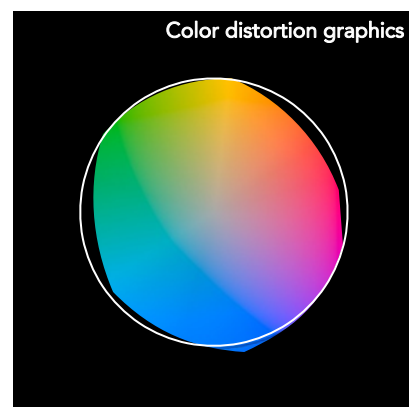
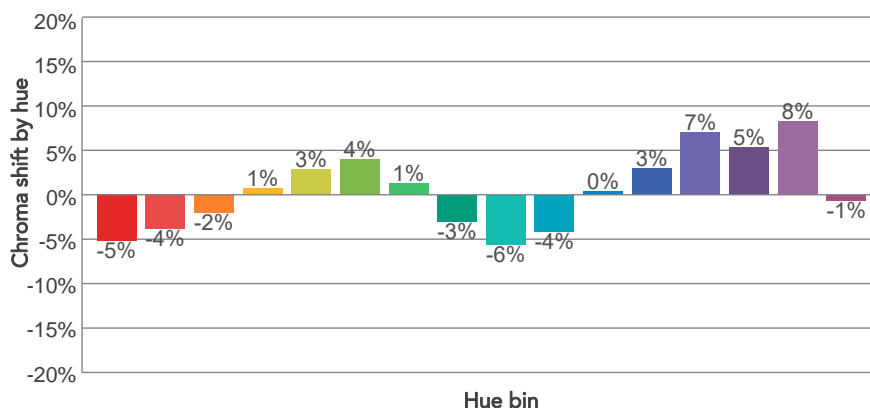
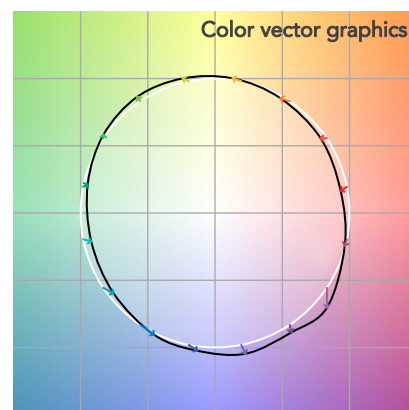
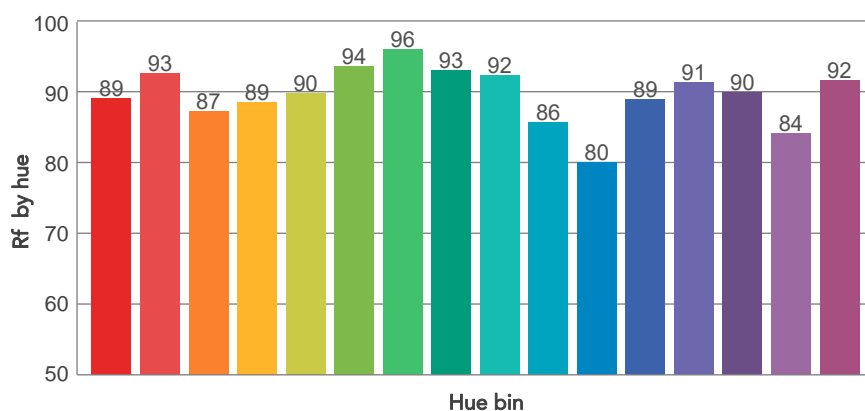
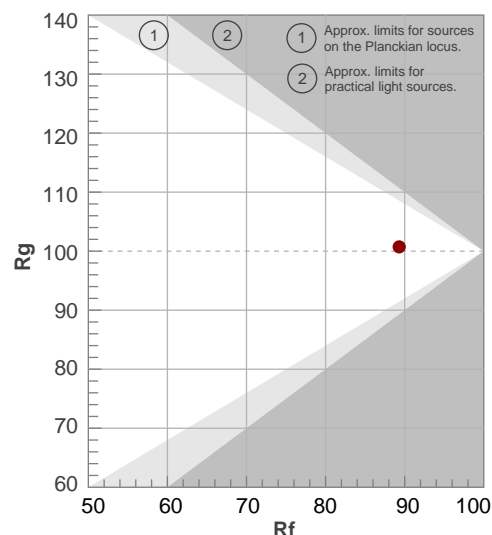


# TM30 DETAILS

**Rf 89,3**  
Fidelity index Rf

**Rg 100,7**  
Gammut index

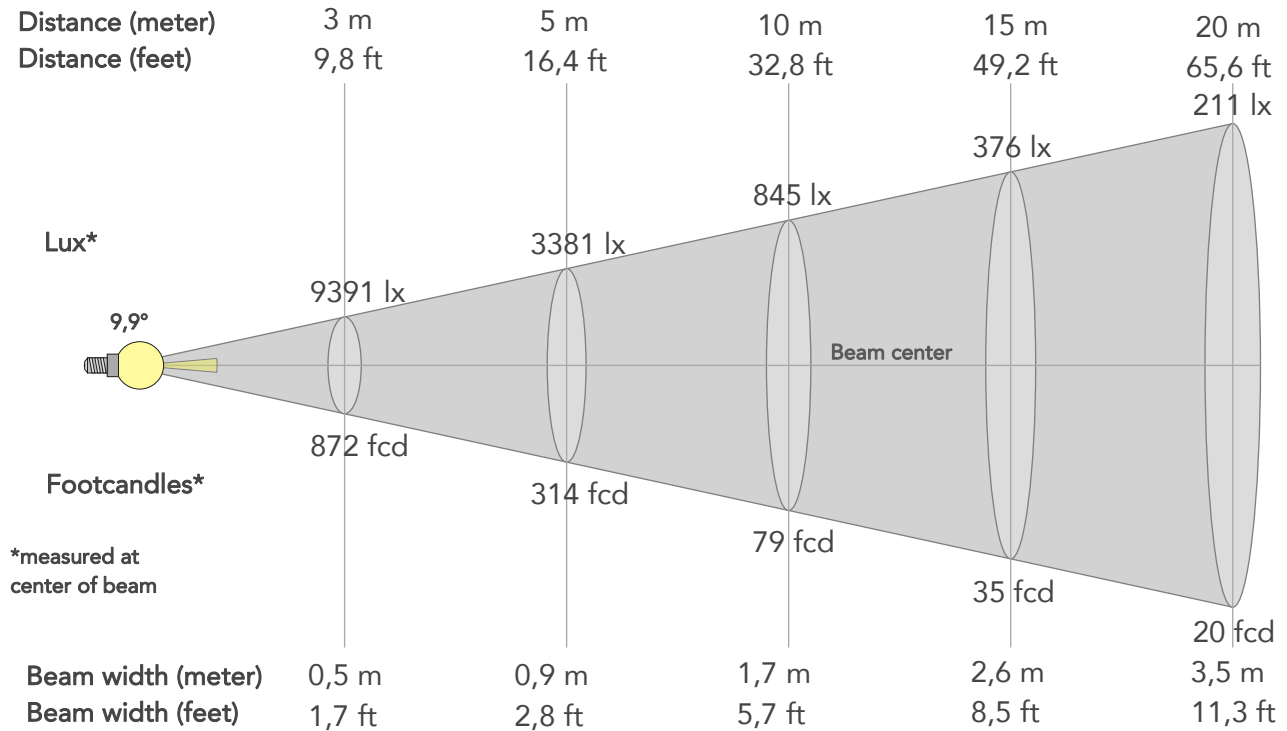
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	-2%
2	93	-4%	3%
3	87	-2%	7%
4	89	1%	7%
5	90	3%	4%
6	94	4%	0%
7	96	1%	-2%
8	93	-3%	-2%
9	92	-6%	3%
10	86	-4%	8%
11	80	0%	13%
12	89	3%	7%
13	91	7%	2%
14	90	5%	-2%
15	84	8%	-12%
16	92	-1%	-5%



## BEAM DETAILS



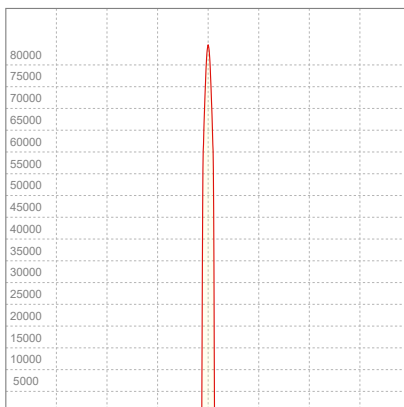
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,9°	11°	11,2°	100,0%	100,0%



### BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	84521lx	21130lx	9391lx	5283lx	3381lx	1503lx	845lx	376lx	211lx	135lx	94lx	53lx	34lx
Footcand.	7852fcd	1963fcd	872fcd	491fcd	314fcd	140fcd	79fcd	35fcd	20fcd	13fcd	9fcd	5fcd	3fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,9m	1,3m	1,7m	2,6m	3,5m	4,3m	5,2m	6,9m	8,6m
Beam wid.	0,6ft	1,1ft	1,7ft	2,3ft	2,8ft	4,2ft	5,7ft	8,5ft	11,3ft	14,2ft	17ft	22,7ft	28,3ft

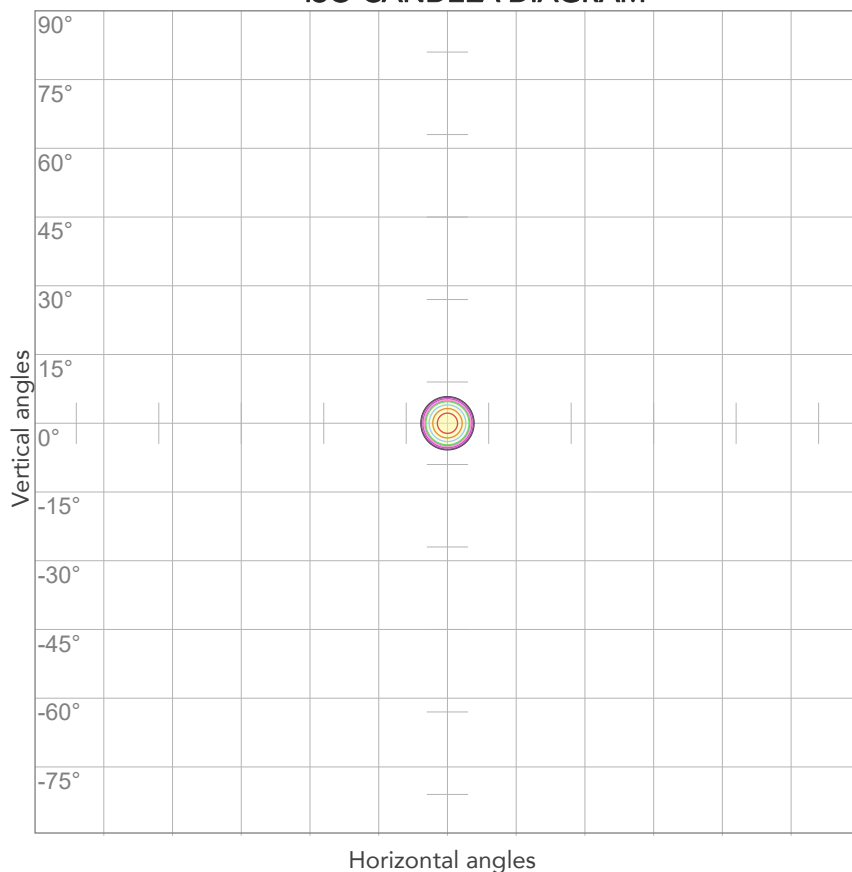
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,159A	32,9W	52lm/W
Power Fc			
0,94			

## ISO CANDELA DIAGRAM



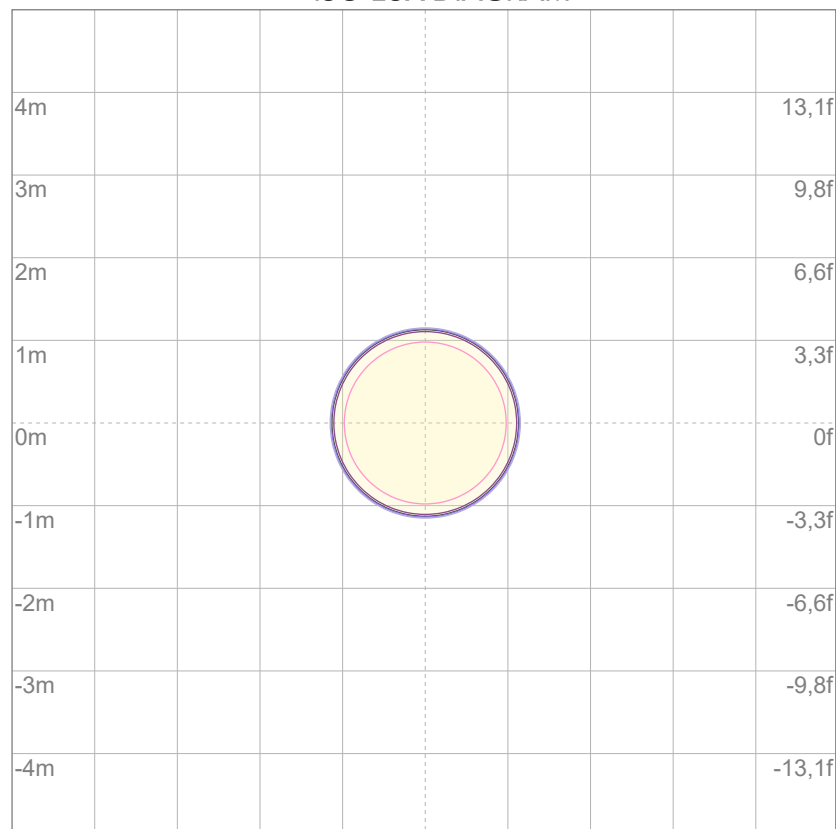
10%	8452 cd
20%	16904 cd
30%	25356 cd
40%	33808 cd
50%	42260 cd
60%	50712 cd
70%	59164 cd
80%	67617 cd

### Conditions:

Number of c-planes: 2

Candela at center: 84521 cd

## ISO LUX DIAGRAM



3%	25,4 lx
5%	42,3 lx
10%	84,5 lx
30%	254 lx
50%	423 lx

### Conditions:

Number of c-planes: 2

Lux at center: 845 lx

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