

Photometric Test Report



ECLDISPLAYUN

PROFILE LENS 8°

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:

1136 lm

Peak candela output:

53800 cd

Light quality:

CRI: 91,5

Color temperature:

2797 K

PRODUCT NAME:

ECLDISPLAY 2700K

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8 Deg

Target:

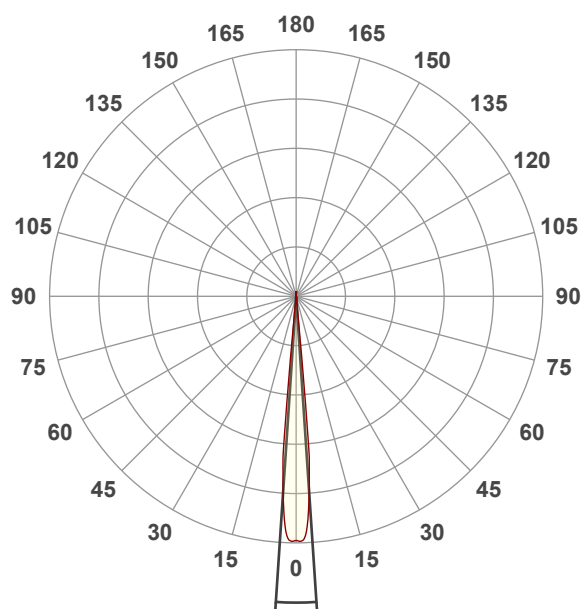
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 10:32:04

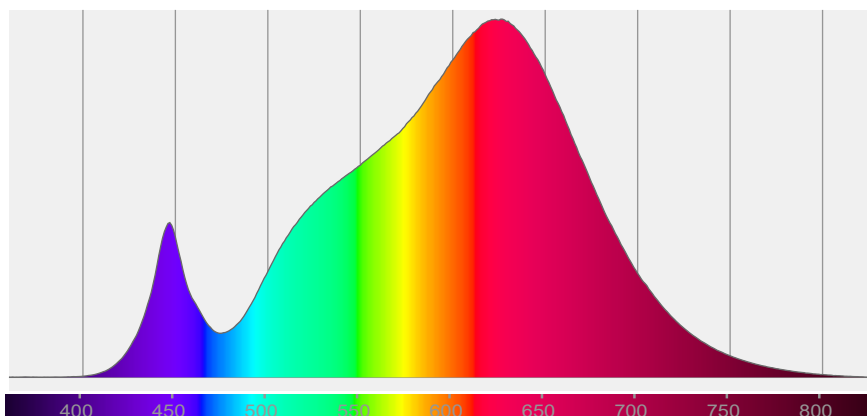


Beam angle 50%: 7,6°

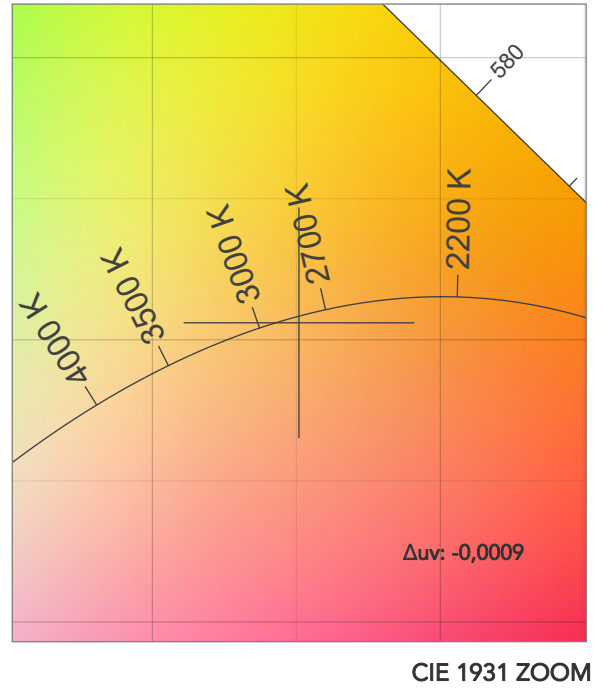
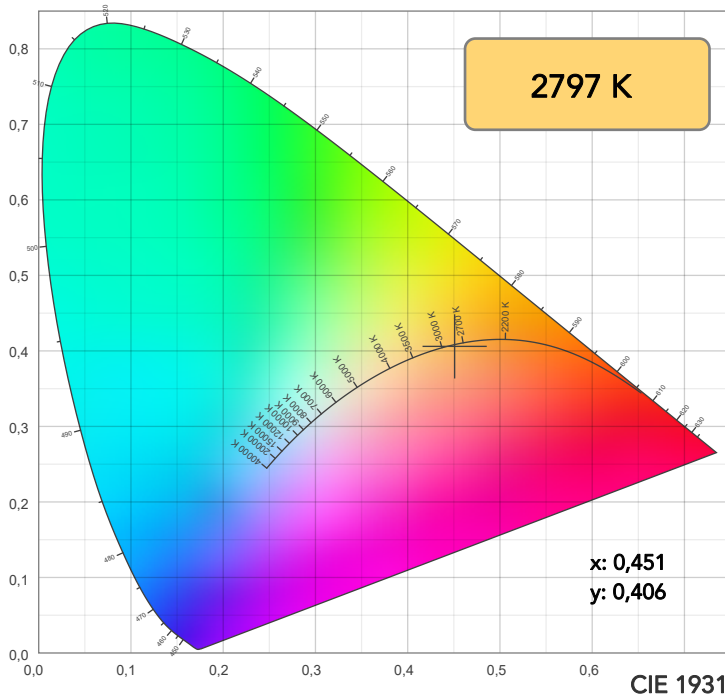
Field angle 10%: 11,1°

Cut off angle 2.5%: 11,4°

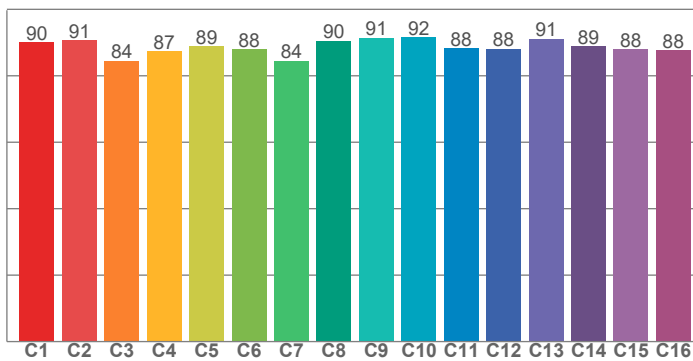
Spectra



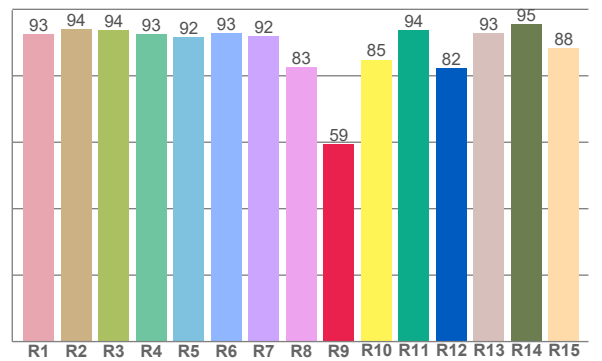
COLOR DETAILS



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	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

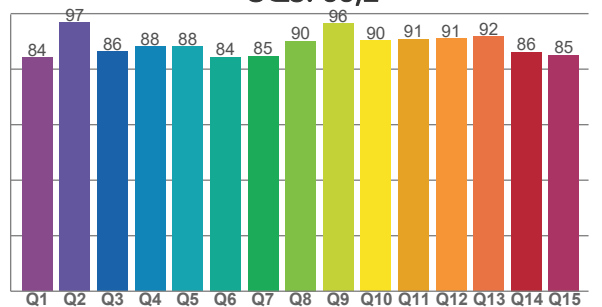
TM30 C values, 16 binned values out of total of 99 C values

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	Δuv
2797 K	91,5	59,3	88,9	103,0	88,2	82	0,451	0,406	-0,0009

TM30 DETAILS

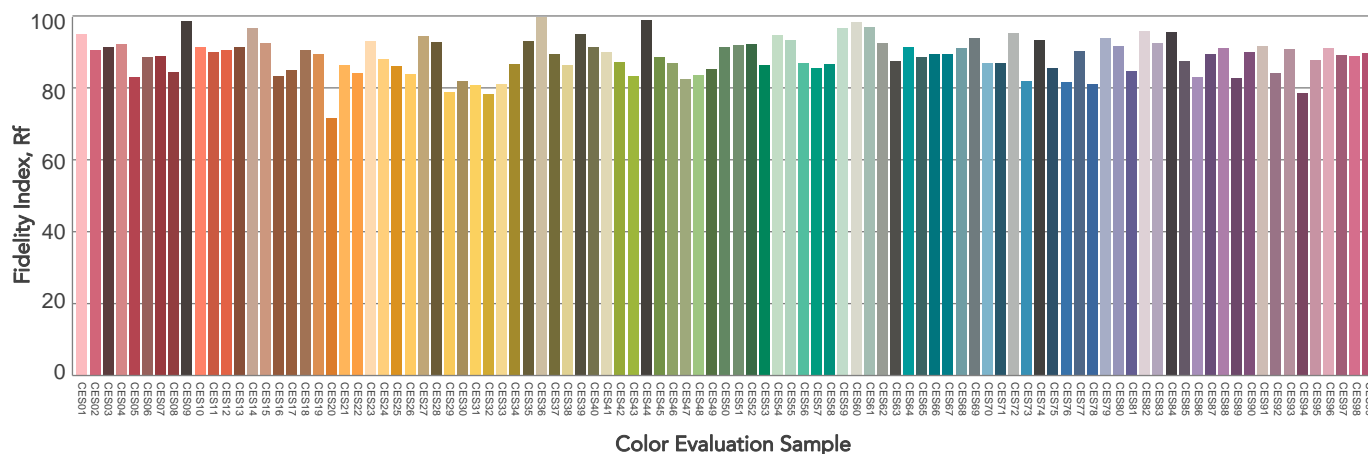
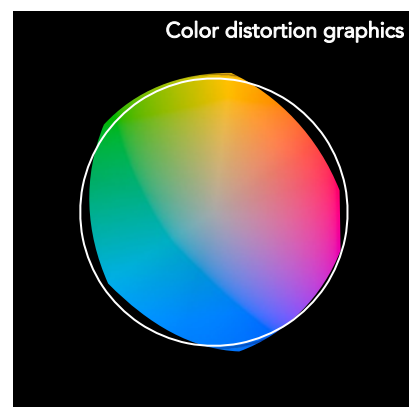
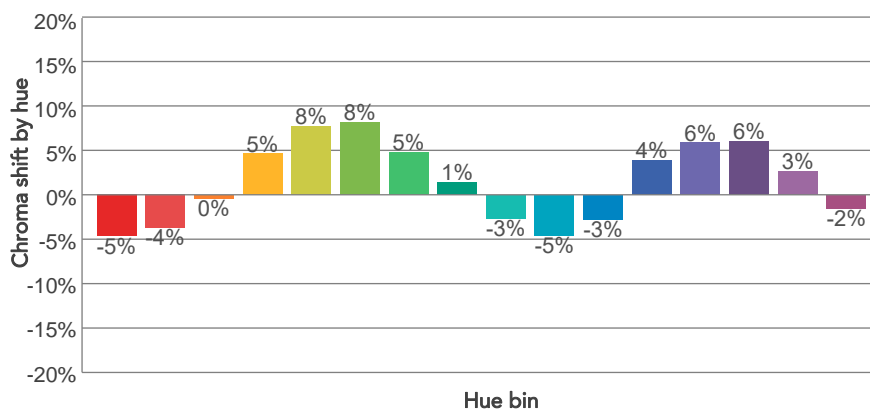
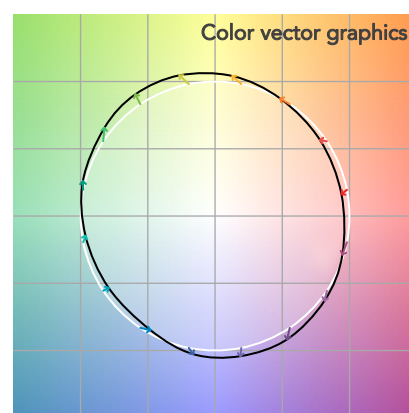
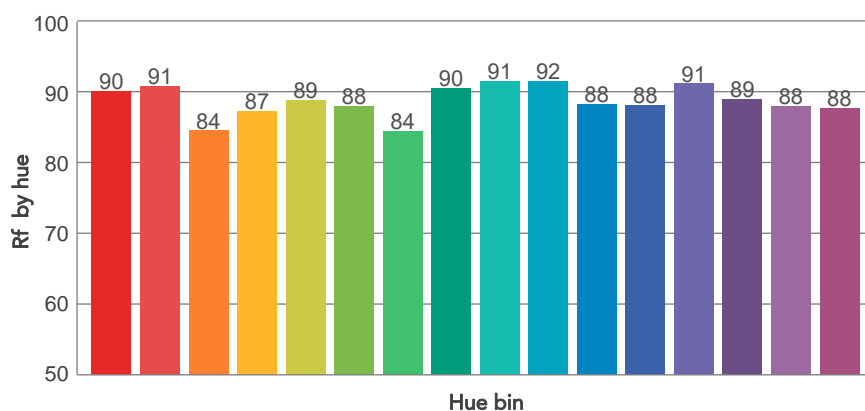
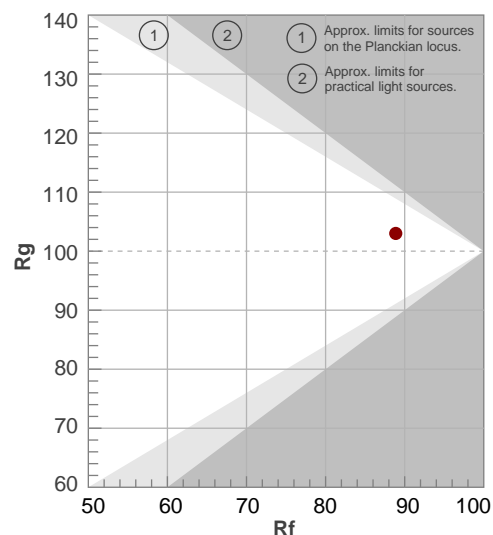
Rf 88,9

Fidelity index Rf

Rg 103,0

Gammut index

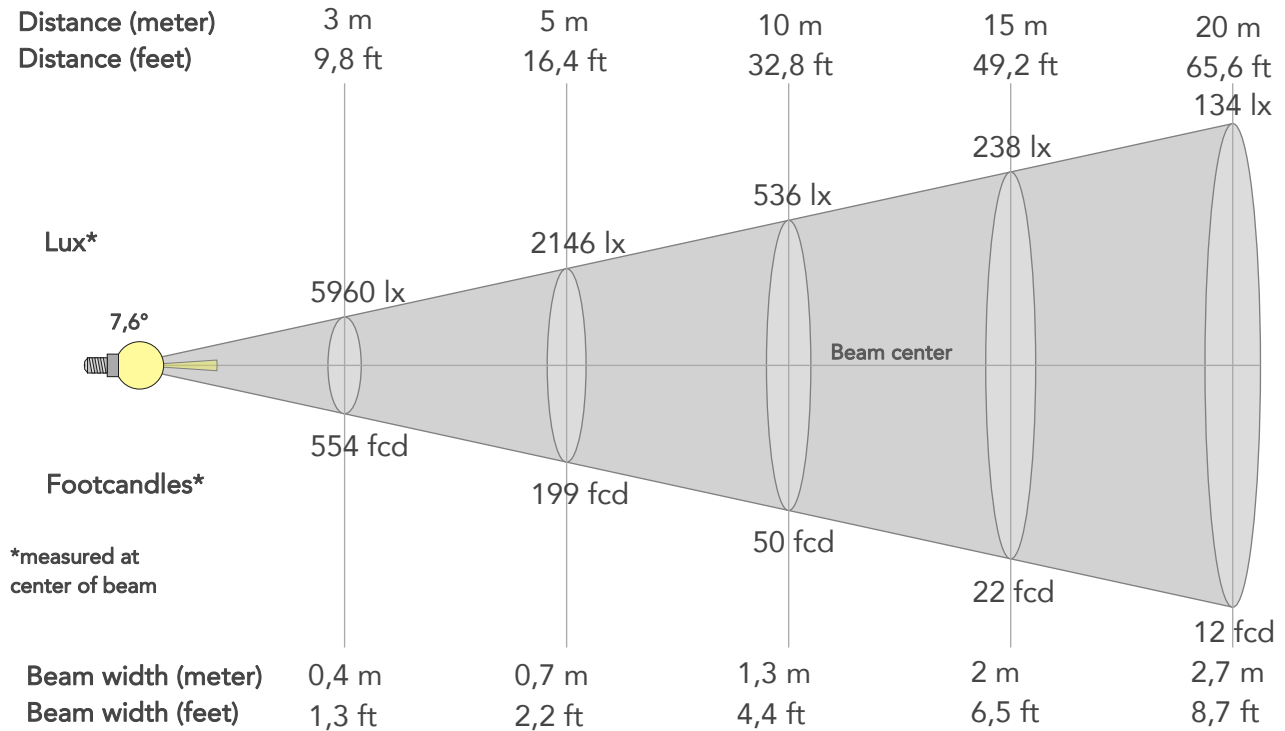
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	-2%
2	91	-4%	4%
3	84	0%	8%
4	87	5%	8%
5	89	8%	6%
6	88	8%	-1%
7	84	5%	-9%
8	90	1%	-6%
9	91	-3%	-4%
10	92	-5%	0%
11	88	-3%	7%
12	88	4%	4%
13	91	6%	-2%
14	89	6%	-6%
15	88	3%	-7%
16	88	-2%	-10%



BEAM DETAILS



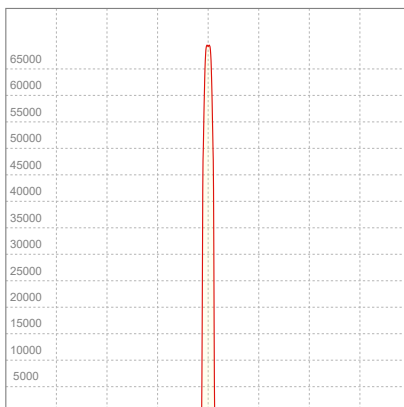
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
7,6°	9,1°	10,4°	98,8%	98,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	53639lx	13410lx	5960lx	3352lx	2146lx	954lx	536lx	238lx	134lx	86lx	60lx	34lx	21lx
Footcand.	4983fcd	1246fcd	554fcd	311fcd	199fcd	89fcd	50fcd	22fcd	12fcd	8fcd	6fcd	3fcd	2fcd
Beam wid.	0,1m	0,3m	0,4m	0,5m	0,7m	1m	1,3m	2m	2,7m	3,3m	4m	5,3m	6,6m
Beam wid.	0,4ft	0,9ft	1,3ft	1,7ft	2,2ft	3,3ft	4,4ft	6,5ft	8,7ft	10,9ft	13,1ft	17,4ft	21,8ft

LINEAR DISTRIBUTION DIAGRAM

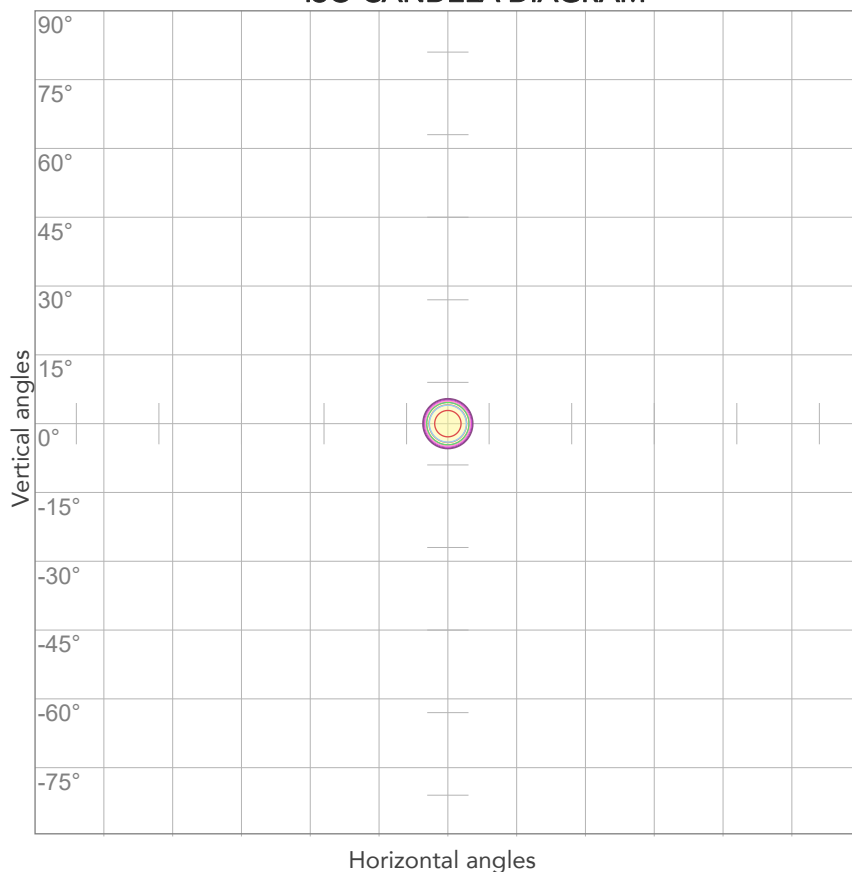


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
222V	0,167A	35,0W	0,94	32lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



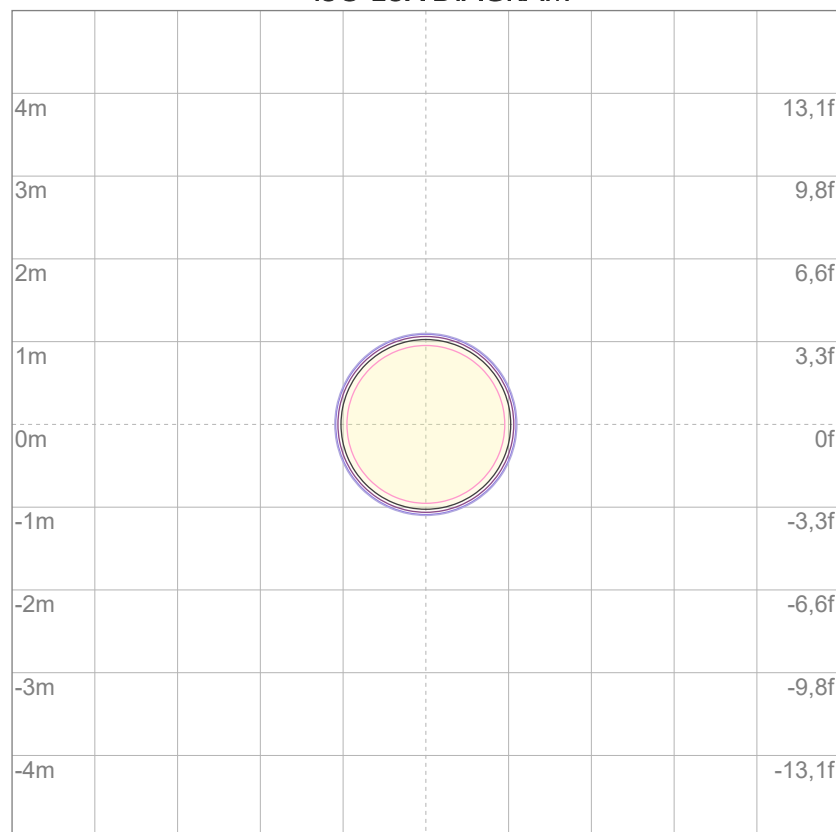
10%	5364 cd
20%	10728 cd
30%	16092 cd
40%	21456 cd
50%	26820 cd
60%	32184 cd
70%	37547 cd
80%	42911 cd

Conditions:

Number of c-planes: 2

Candela at center: 53639 cd

ISO LUX DIAGRAM



3%	16,1 lx
5%	26,8 lx
10%	53,6 lx
30%	161 lx
50%	268 lx

Conditions:

Number of c-planes: 2

Lux at center: 536 lx

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



Total lumen output:

1217 lm

Peak candela output:

59704 cd

Light quality:

CRI: 91,7

Color temperature:

3014 K

PRODUCT NAME:

ECLDISPLAY 3000K

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8 Deg

Target:

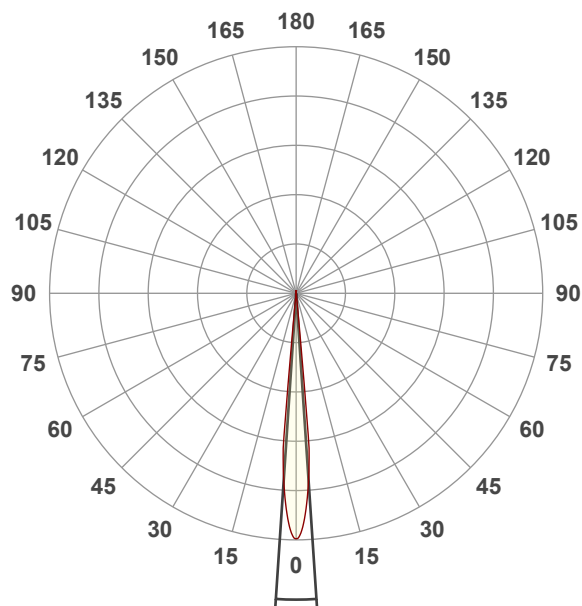
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 10:45:37

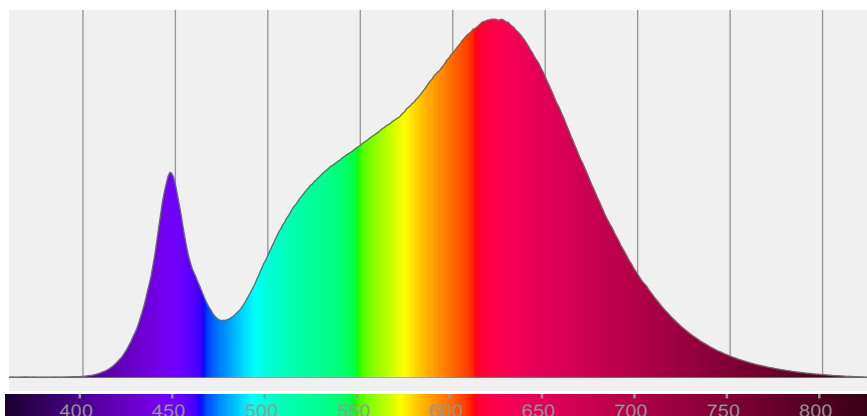


Beam angle 50%: 7,6°

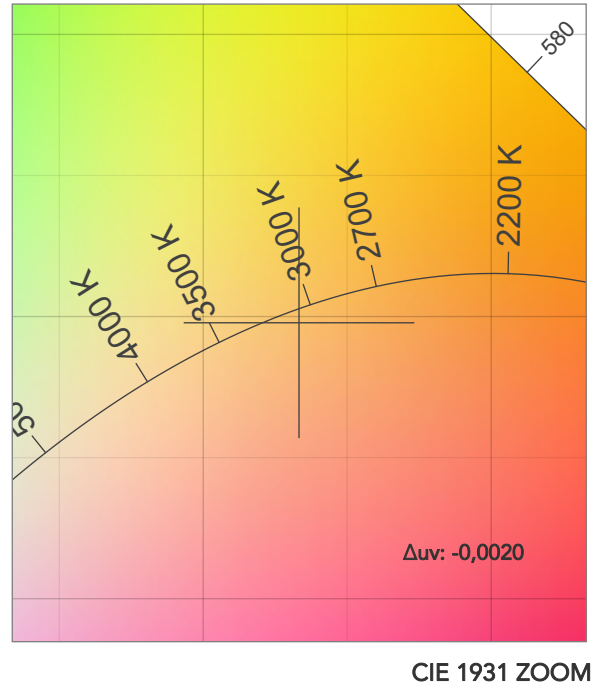
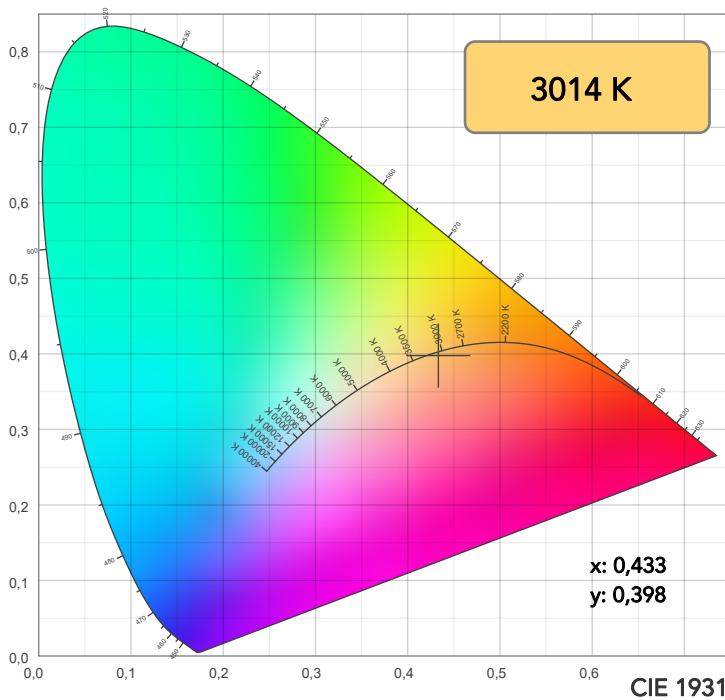
Field angle 10%: 11,1°

Cut off angle 2.5%: 11,6°

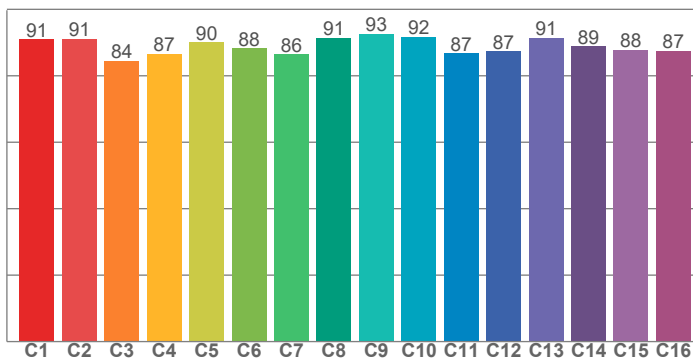
Spectra



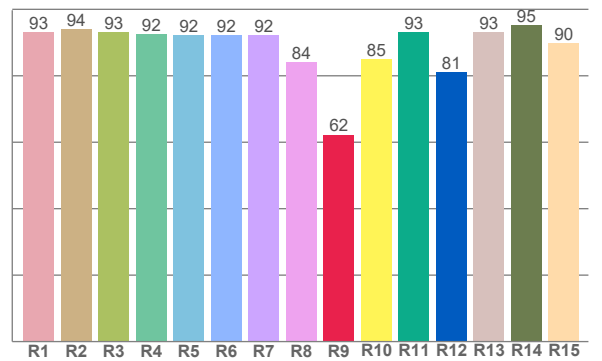
COLOR DETAILS



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

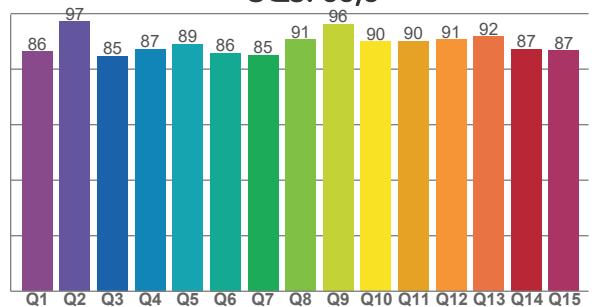
TM30 C values, 16 binned values out of total of 99 C values

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	Δuv
3014 K	91,7	62,3	89,1	103,2	88,6	85	0,433	0,398	-0,0020

TM30 DETAILS

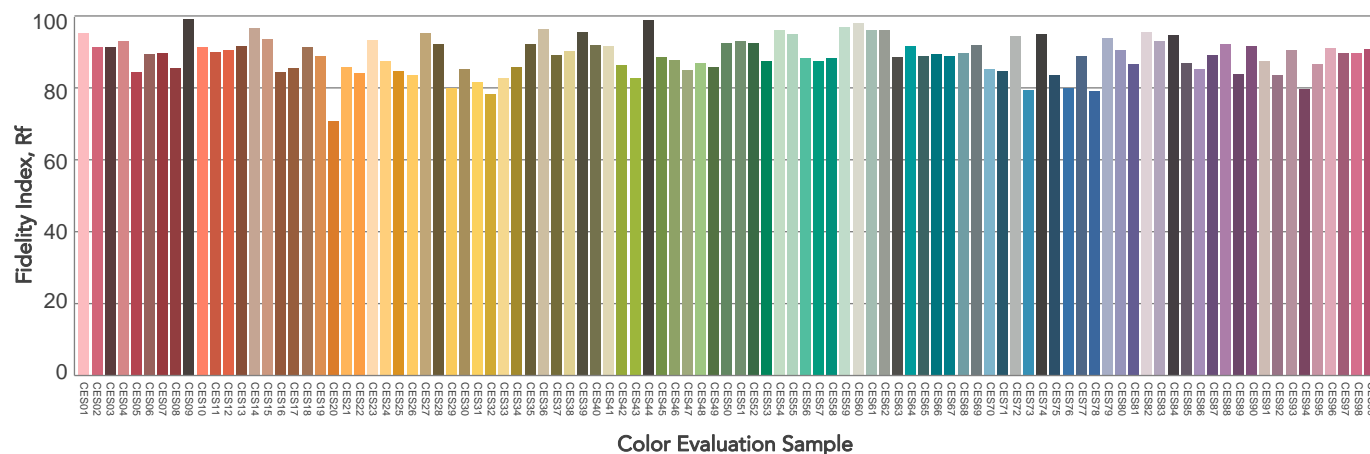
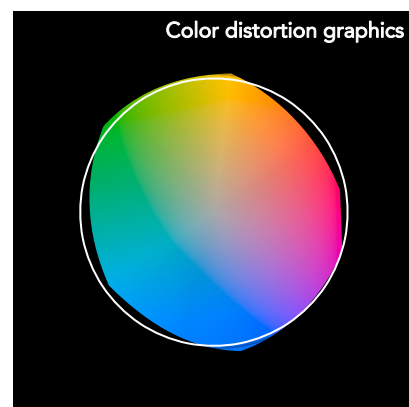
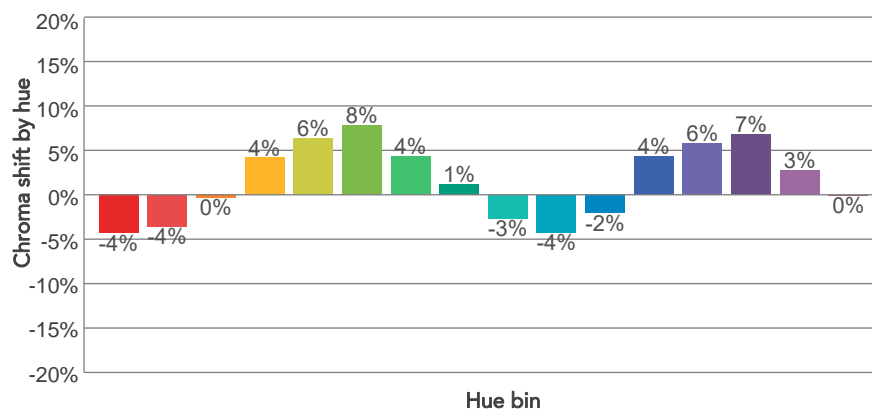
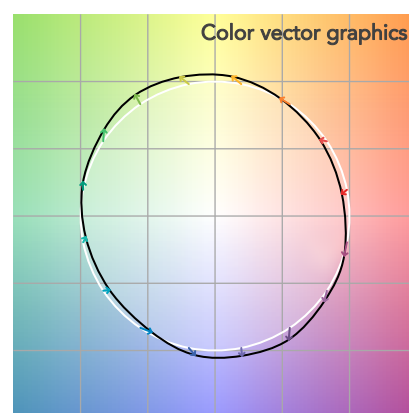
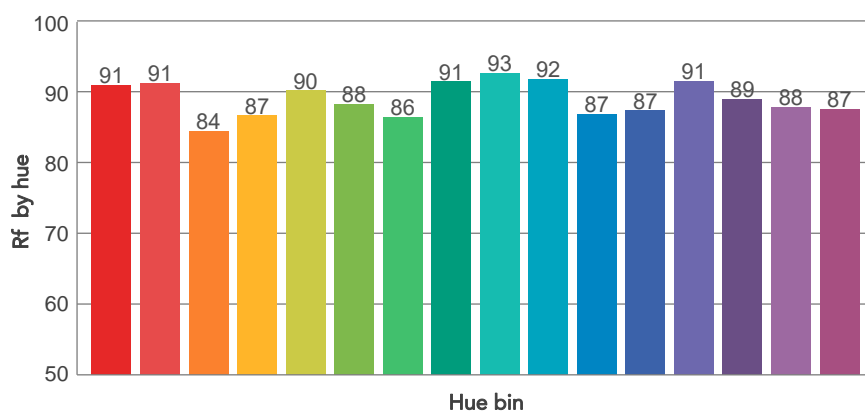
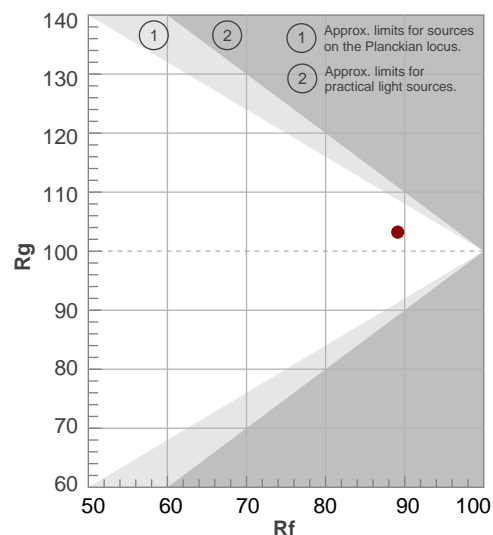
Rf 89,1

Fidelity index Rf

Rg 103,2

Gammut index

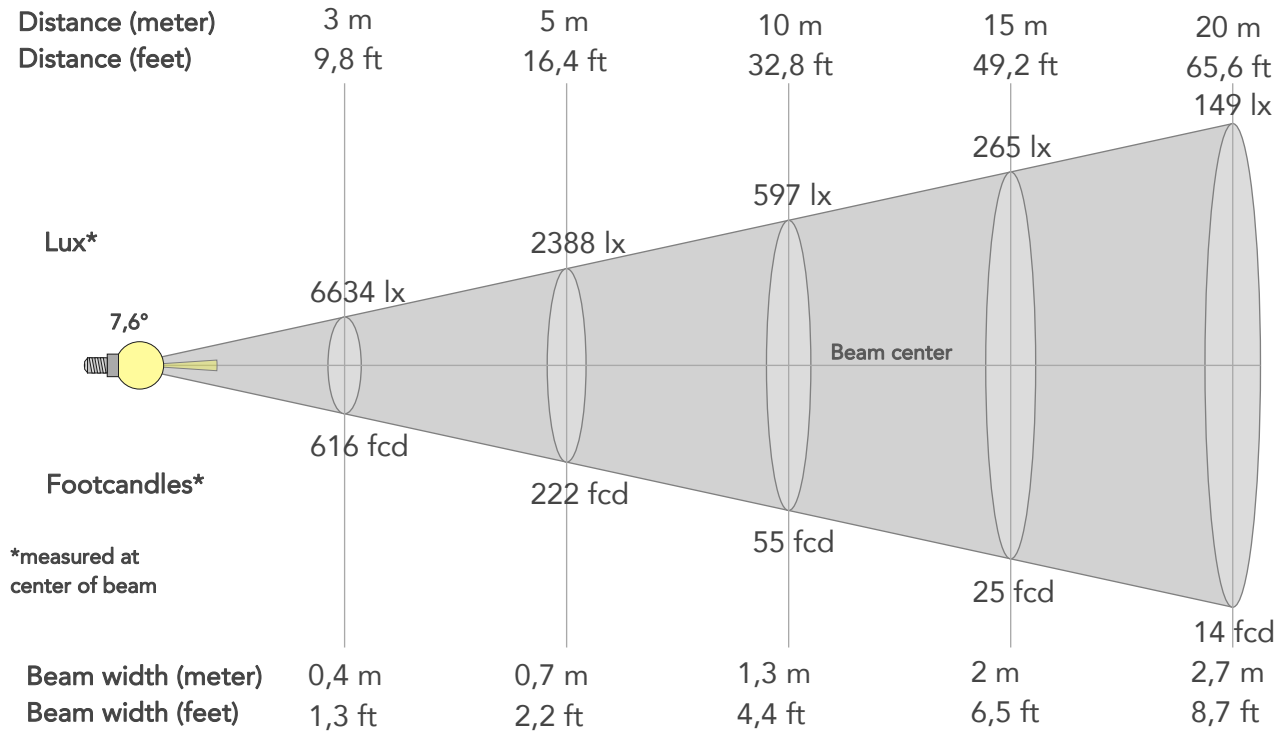
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	91	-4%	-2%
2	91	-4%	4%
3	84	0%	8%
4	87	4%	8%
5	90	6%	5%
6	88	8%	-1%
7	86	4%	-8%
8	91	1%	-6%
9	93	-3%	-3%
10	92	-4%	2%
11	87	-2%	9%
12	87	4%	5%
13	91	6%	-1%
14	89	7%	-5%
15	88	3%	-7%
16	87	0%	-10%



BEAM DETAILS



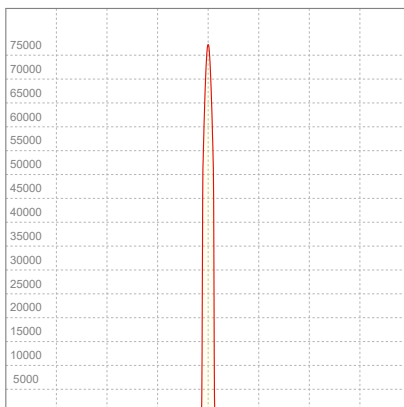
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
7,6°	9,1°	10,6°	98,6%	98,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	59704lx	14926lx	6634lx	3731lx	2388lx	1061lx	597lx	265lx	149lx	96lx	66lx	37lx	24lx
Footcand.	5547fcd	1387fcd	616fcd	347fcd	222fcd	99fcd	55fcd	25fcd	14fcd	9fcd	6fcd	3fcd	2fcd
Beam wid.	0,1m	0,3m	0,4m	0,5m	0,7m	1m	1,3m	2m	2,7m	3,3m	4m	5,3m	6,6m
Beam wid.	0,4ft	0,9ft	1,3ft	1,7ft	2,2ft	3,3ft	4,4ft	6,5ft	8,7ft	10,9ft	13,1ft	17,4ft	21,8ft

LINEAR DISTRIBUTION DIAGRAM

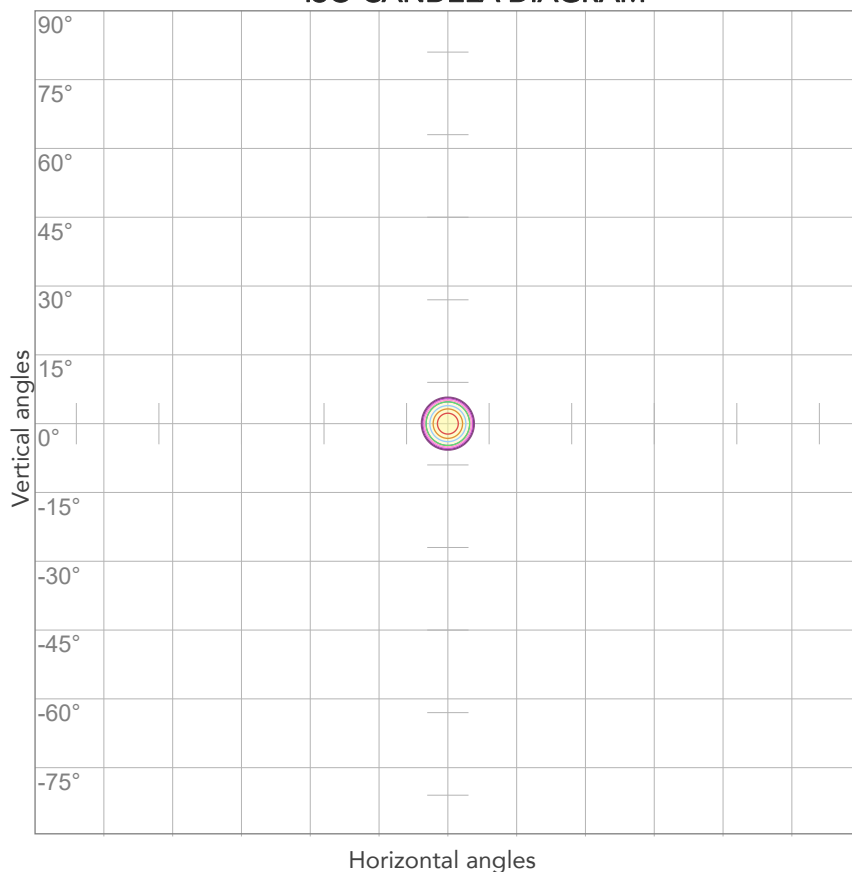


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,164A	34,5W	0,94	35lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



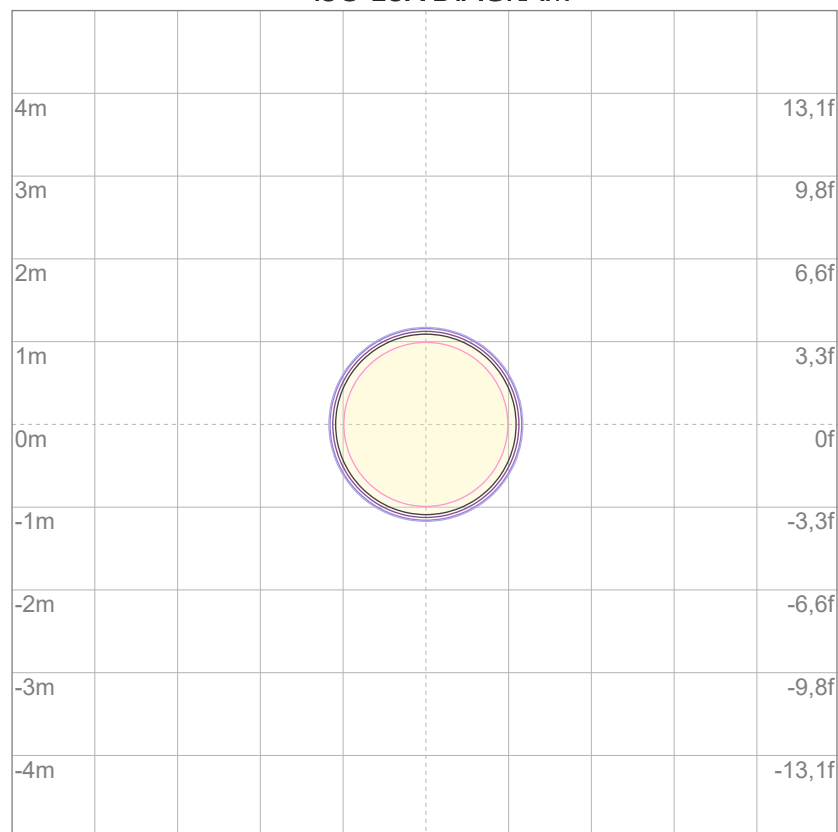
10%	5970 cd
20%	11941 cd
30%	17911 cd
40%	23882 cd
50%	29852 cd
60%	35822 cd
70%	41793 cd
80%	47763 cd

Conditions:

Number of c-planes: 2

Candela at center: 59704 cd

ISO LUX DIAGRAM



3%	17,9 lx
5%	29,9 lx
10%	59,7 lx
30%	179 lx
50%	299 lx

Conditions:

Number of c-planes: 2

Lux at center: 597 lx

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



Total lumen output:

1153 lm

Peak candela output:

56985 cd

Light quality:

CRI: 92,4

Color temperature:

4157 K

PRODUCT NAME:

ECLDISPLAY 4000K

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8 Deg

Target:

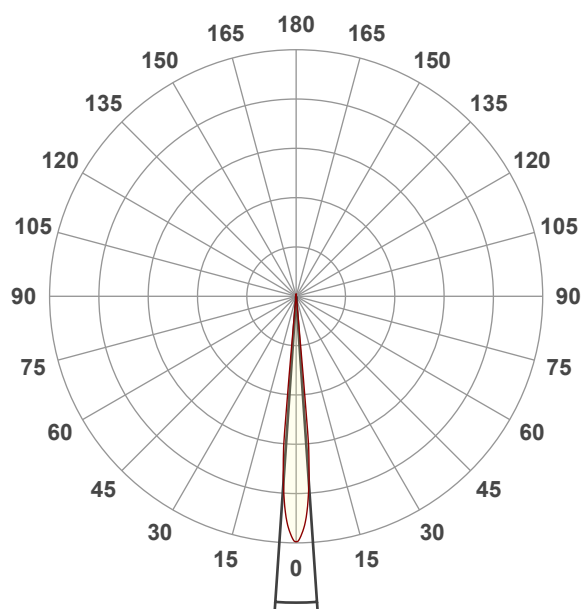
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 11:00:23

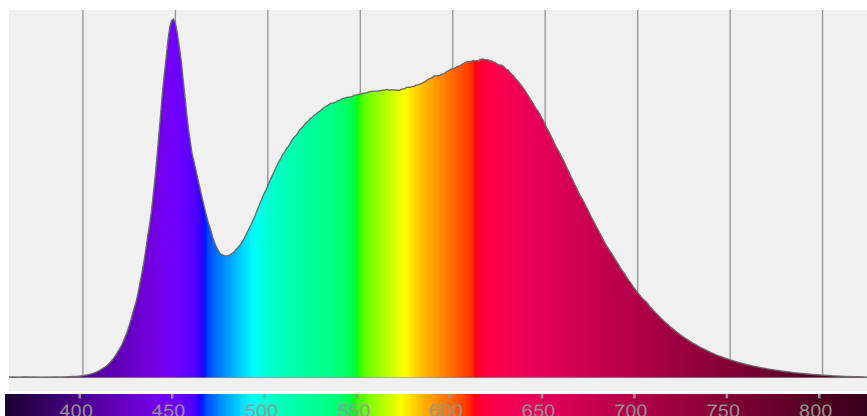


Beam angle 50%: 7,8°

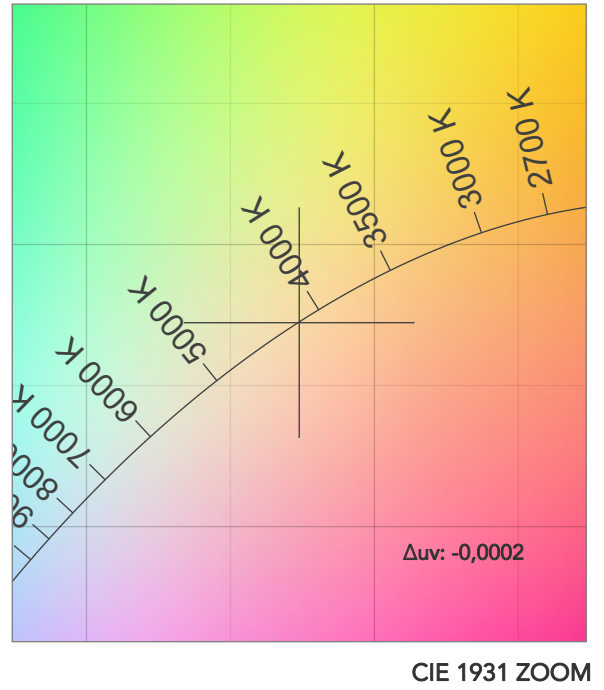
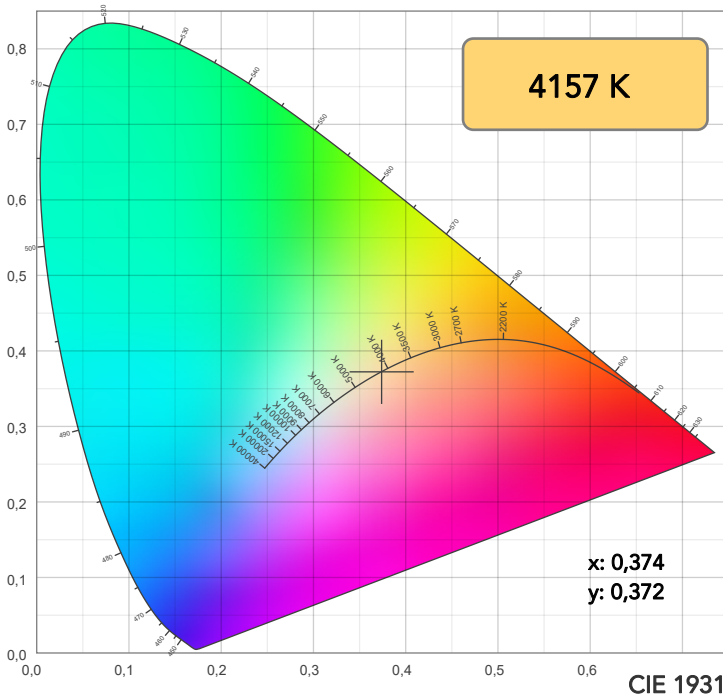
Field angle 10%: 10,9°

Cut off angle 2.5%: 11,5°

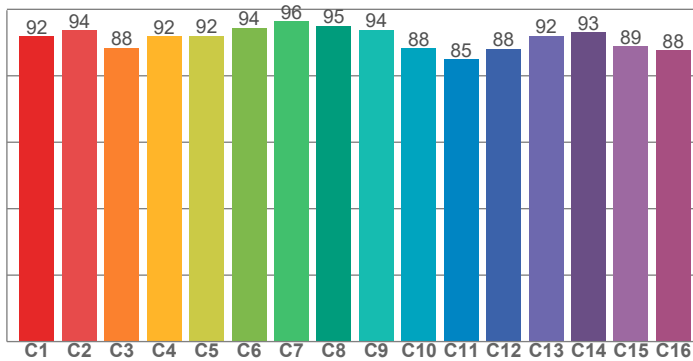
Spectra



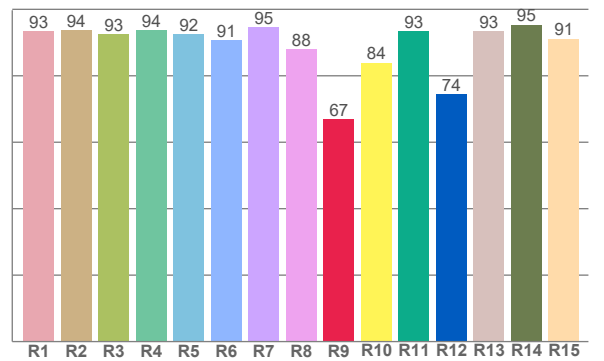
COLOR DETAILS



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

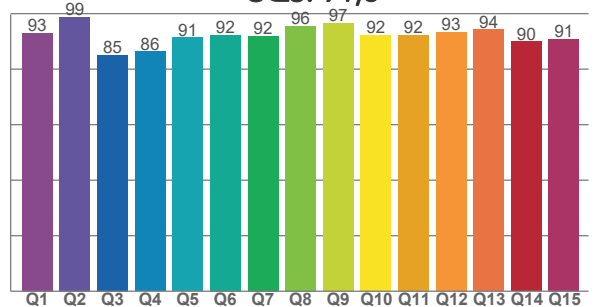
TM30 C values, 16 binned values out of total of 99 C values

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	Δuv
4157 K	92,4	66,9	91,0	100,7	91,6	92	0,374	0,372	-0,0002

TM30 DETAILS

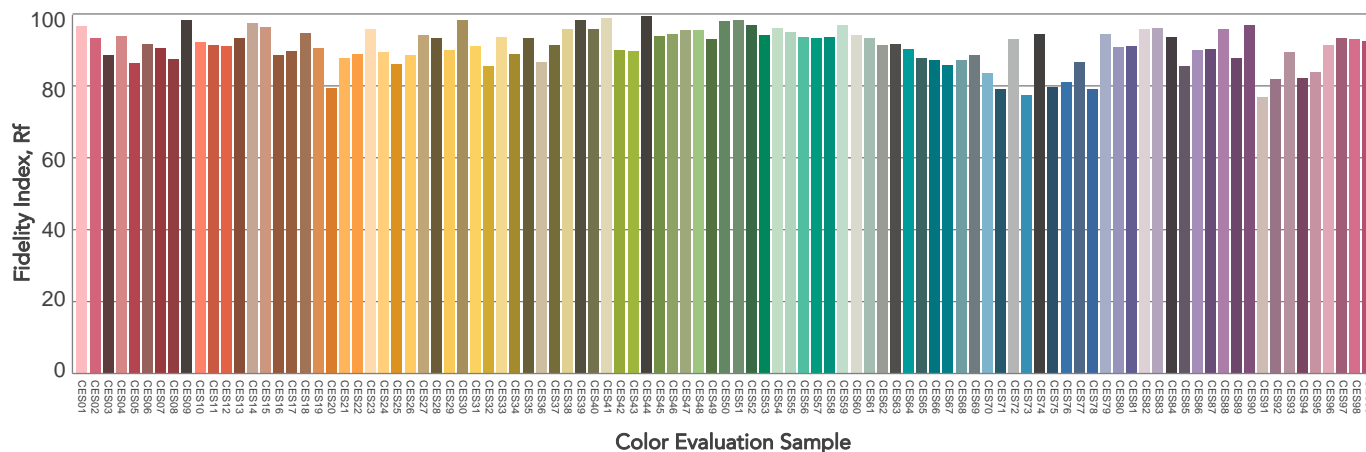
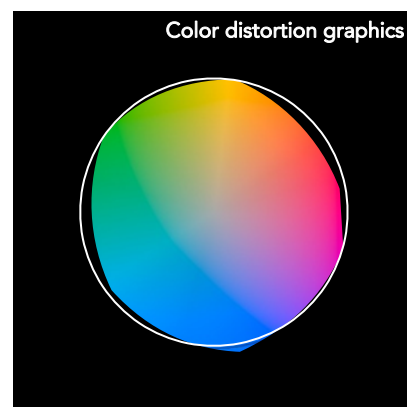
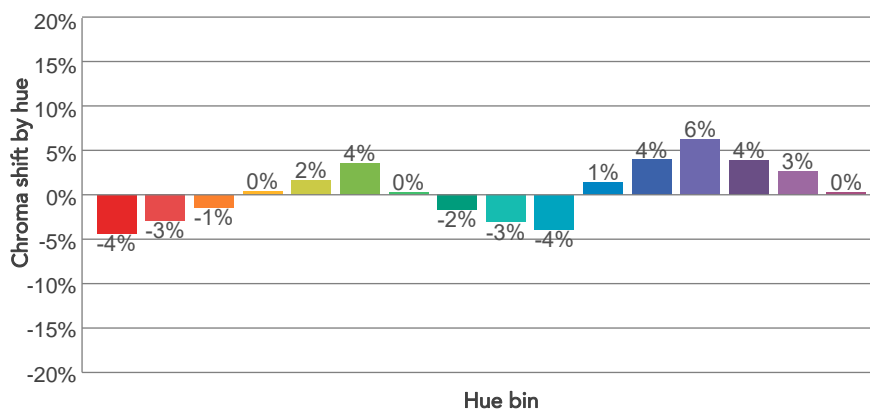
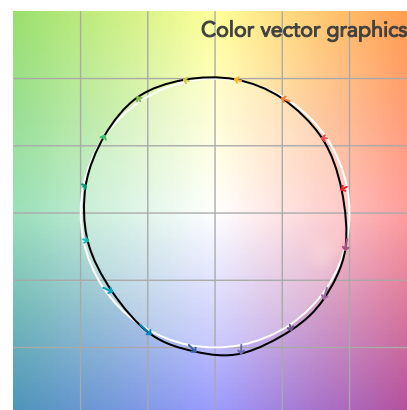
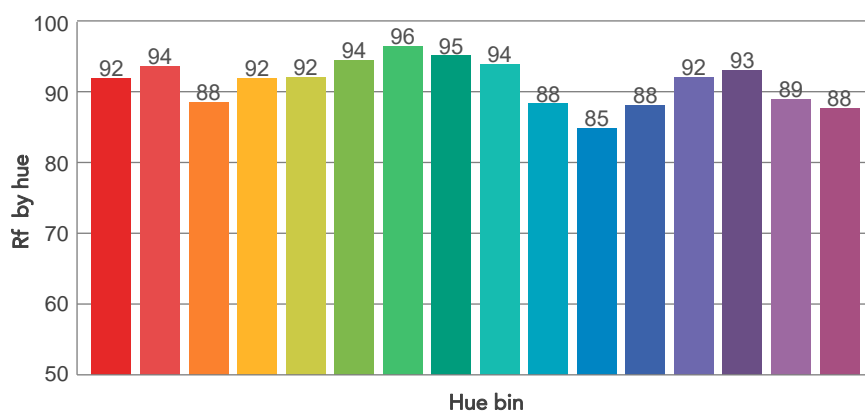
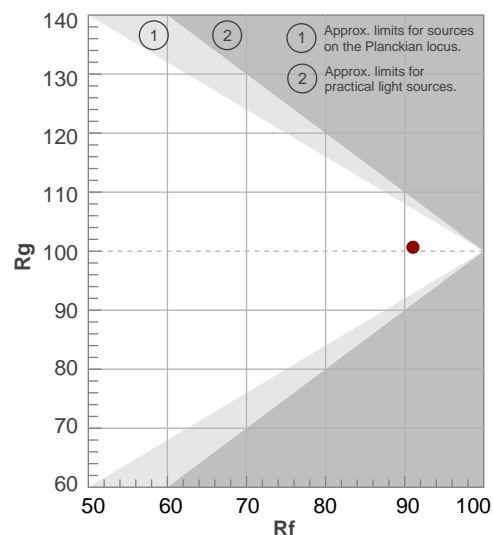
Rf 91,0

Fidelity index Rf

Rg 100,7

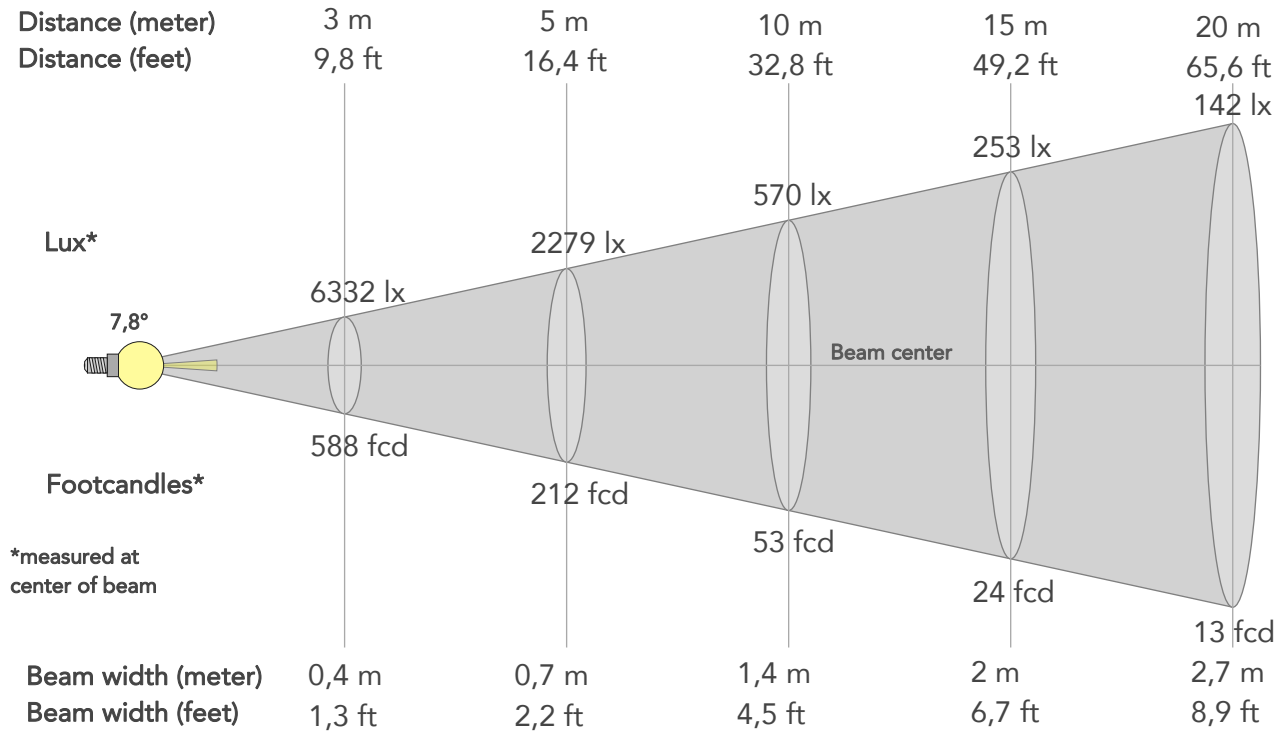
Gammut index

Hue Bin	R _f	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

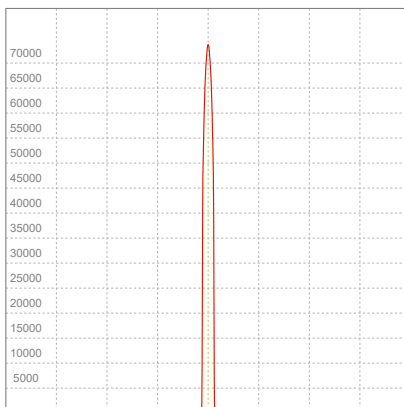
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
7,8°	10,9°	11,5°	100,0%	100,0%



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	56985lx	14246lx	6332lx	3562lx	2279lx	1013lx	570lx	253lx	142lx	91lx	63lx	36lx	23lx
Footcand.	5294fcd	1324fcd	588fcd	331fcd	212fcd	94fcd	53fcd	24fcd	13fcd	8fcd	6fcd	3fcd	2fcd
Beam wid.	0,1m	0,3m	0,4m	0,5m	0,7m	1m	1,4m	2m	2,7m	3,4m	4,1m	5,5m	6,8m
Beam wid.	0,4ft	0,9ft	1,3ft	1,8ft	2,2ft	3,4ft	4,5ft	6,7ft	8,9ft	11,2ft	13,4ft	17,9ft	22,4ft

LINEAR DISTRIBUTION DIAGRAM

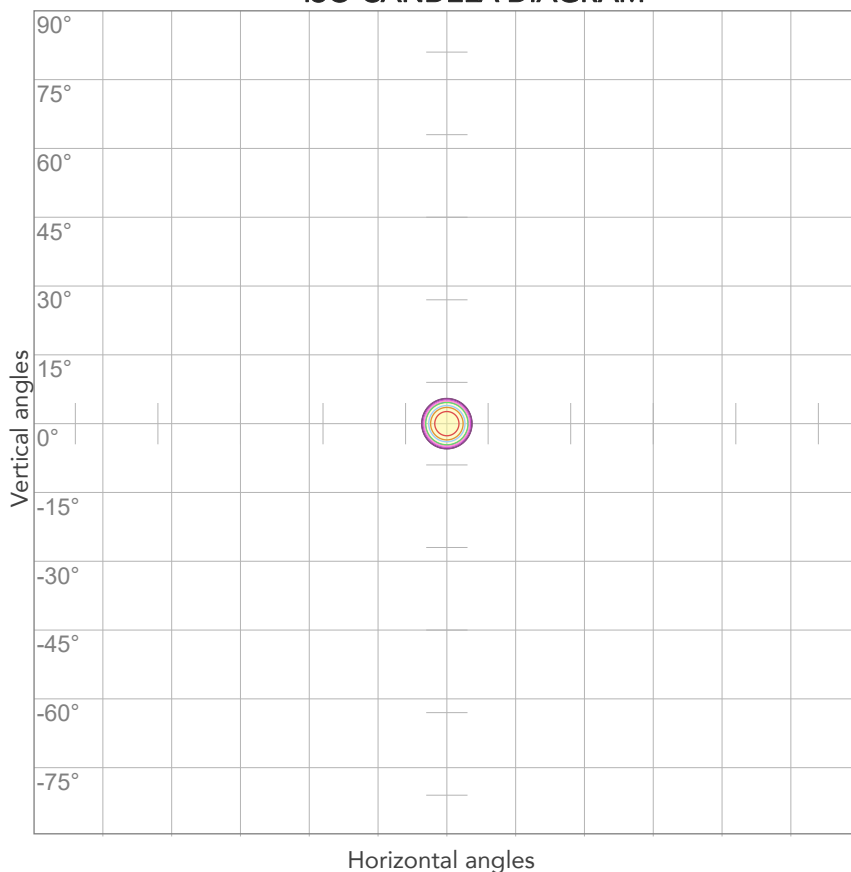


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,154A	32,4W	0,94	36lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



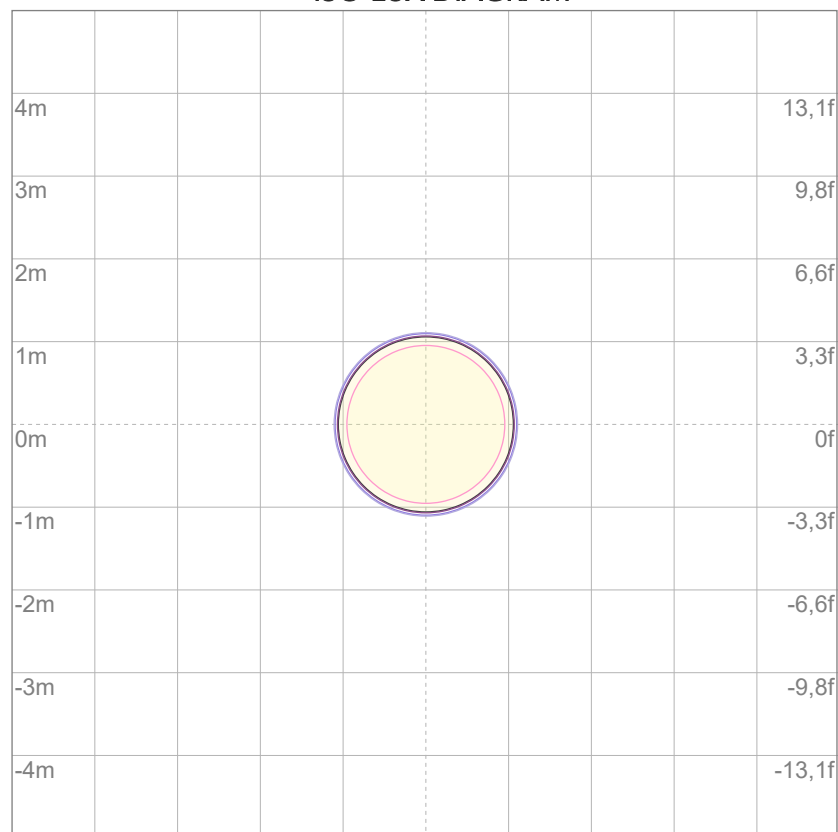
10%	5698 cd
20%	11397 cd
30%	17095 cd
40%	22794 cd
50%	28492 cd
60%	34191 cd
70%	39889 cd
80%	45588 cd

Conditions:

Number of c-planes: 2

Candela at center: 56985 cd

ISO LUX DIAGRAM



3%	17,1 lx
5%	28,5 lx
10%	57,0 lx
30%	171 lx
50%	285 lx

Conditions:

Number of c-planes: 2

Lux at center: 570 lx

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



Total lumen output:

1324 lm

Peak candela output:

65004 cd

Light quality:

CRI: 89,9

Color temperature:

5972 K

PRODUCT NAME:

ECLDISPLAY 5600K

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8 Deg

Target:

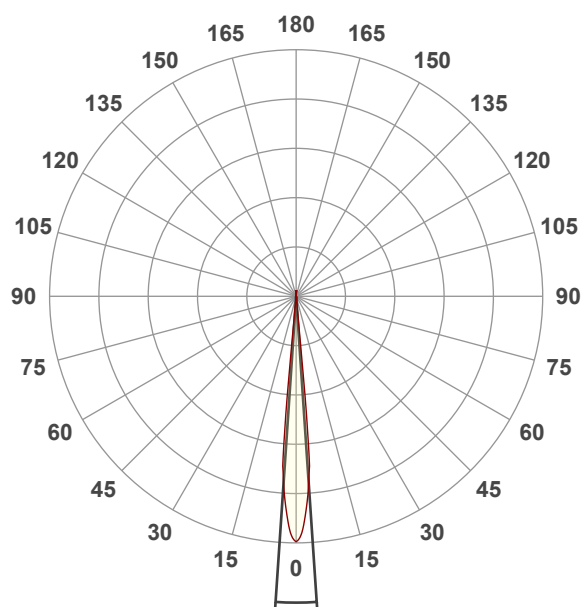
Full On

Operator:

Paolo Carvone

Date and time:

27/07/2022 11:08:00

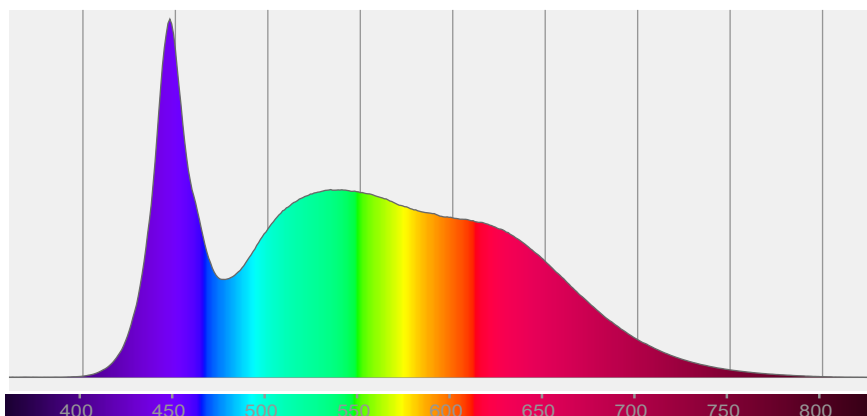


Beam angle 50%: 7,7°

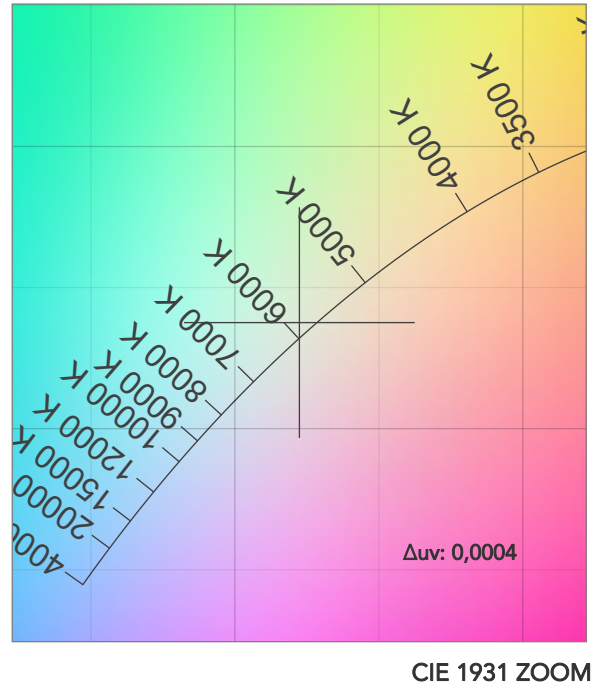
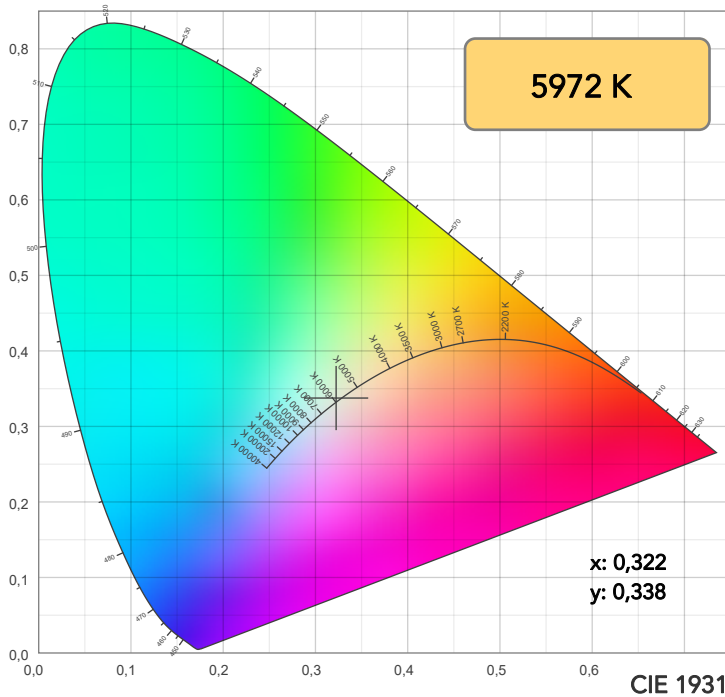
Field angle 10%: 11°

Cut off angle 2.5%: 11,2°

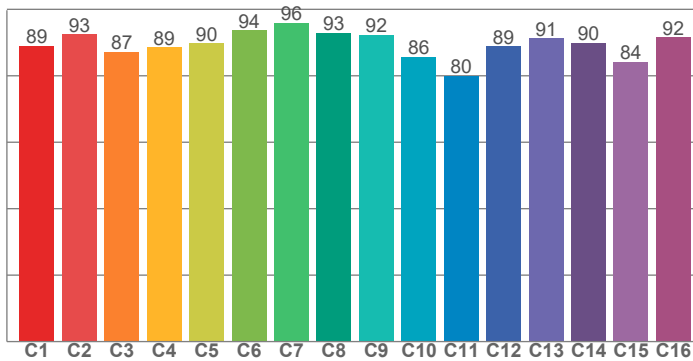
Spectra



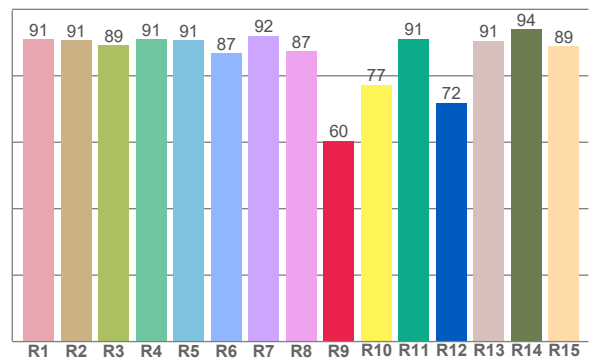
COLOR DETAILS



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

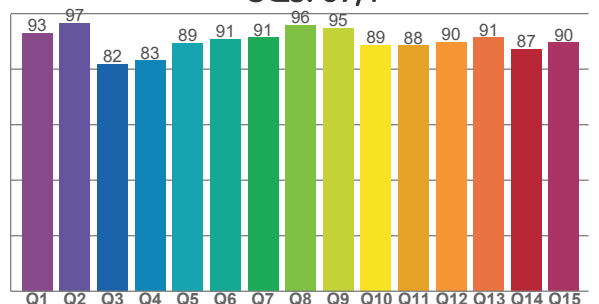
TM30 C values, 16 binned values out of total of 99 C values

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

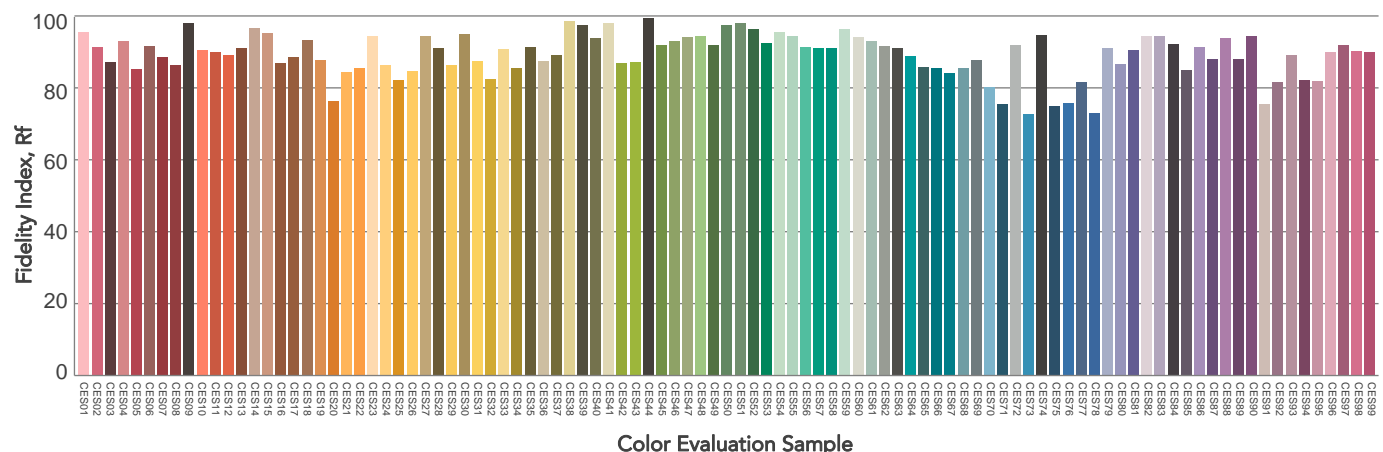
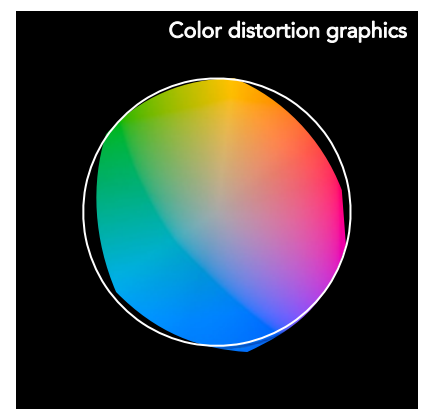
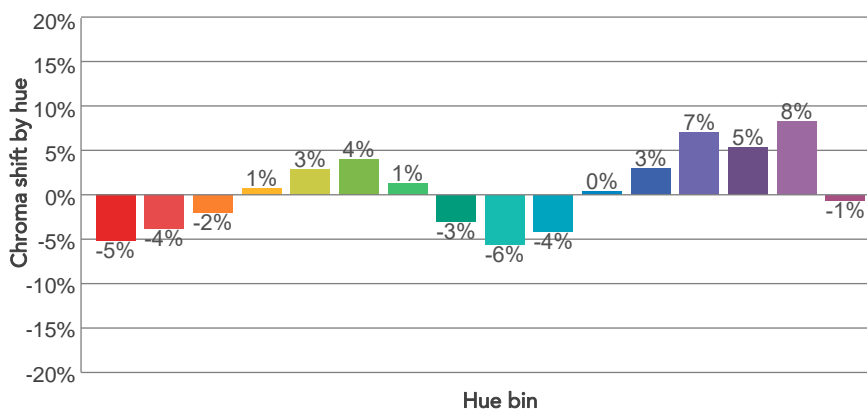
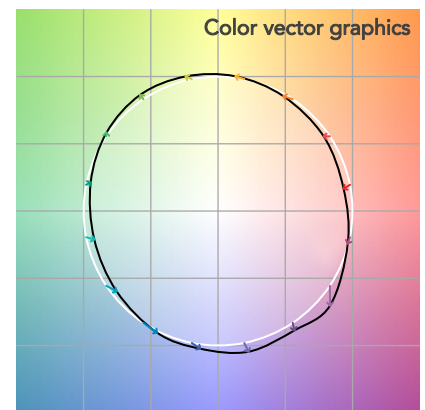
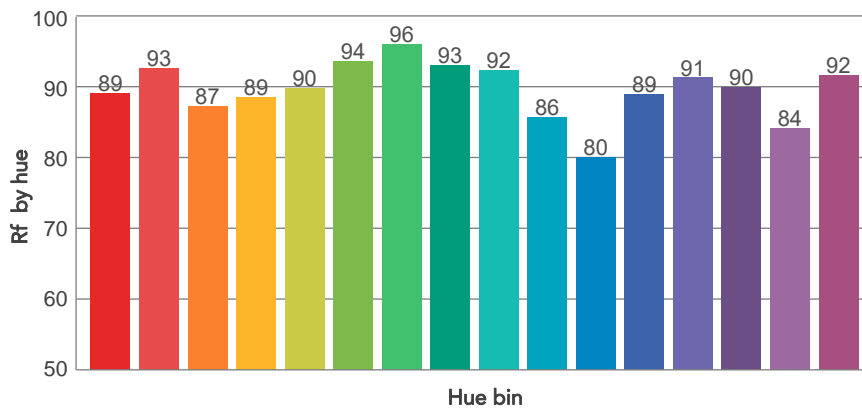
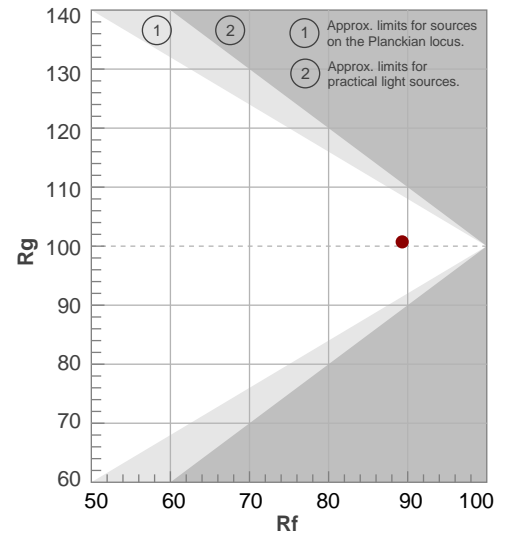
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5972 K	89,9	60,5	89,3	100,7	89,4	94	0,322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

TM30 DETAILS

Rf 89,3
Fidelity index Rf

Rg 100,7
Gammut index

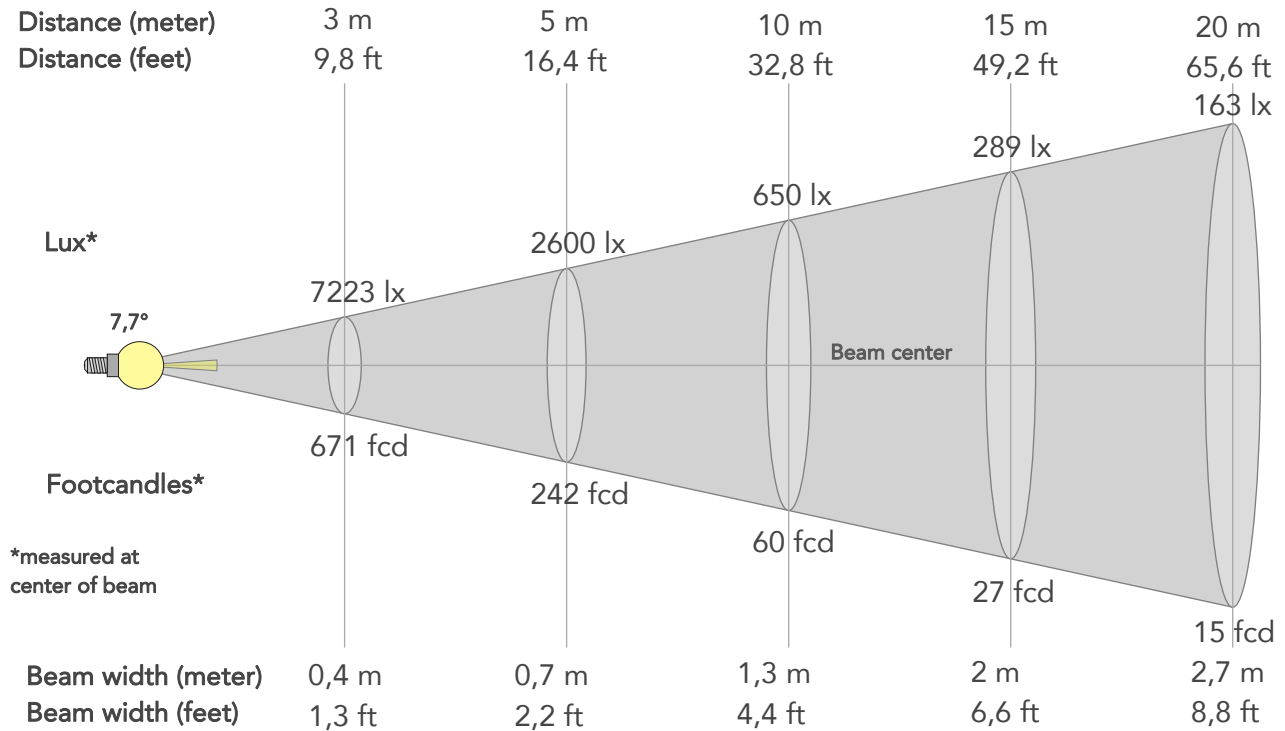
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	-2%
2	93	-4%	3%
3	87	-2%	7%
4	89	1%	7%
5	90	3%	4%
6	94	4%	0%
7	96	1%	-2%
8	93	-3%	-2%
9	92	-6%	3%
10	86	-4%	8%
11	80	0%	13%
12	89	3%	7%
13	91	7%	2%
14	90	5%	-2%
15	84	8%	-12%
16	92	-1%	-5%



BEAM DETAILS



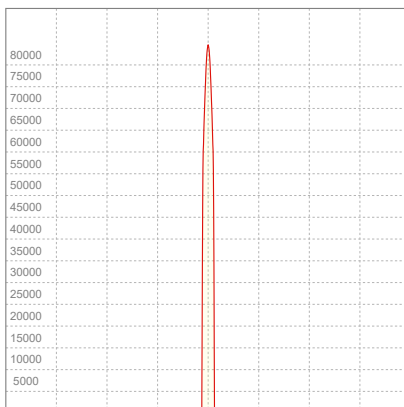
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
7,7°	10°	10,4°	98,8%	98,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	65004lx	16251lx	7223lx	4063lx	2600lx	1156lx	650lx	289lx	163lx	104lx	72lx	41lx	26lx
Footcand.	6039fcd	1510fcd	671fcd	377fcd	242fcd	107fcd	60fcd	27fcd	15fcd	10fcd	7fcd	4fcd	2fcd
Beam wid.	0,1m	0,3m	0,4m	0,5m	0,7m	1m	1,3m	2m	2,7m	3,4m	4m	5,4m	6,7m
Beam wid.	0,4ft	0,9ft	1,3ft	1,8ft	2,2ft	3,3ft	4,4ft	6,6ft	8,8ft	11ft	13,2ft	17,7ft	22,1ft

LINEAR DISTRIBUTION DIAGRAM

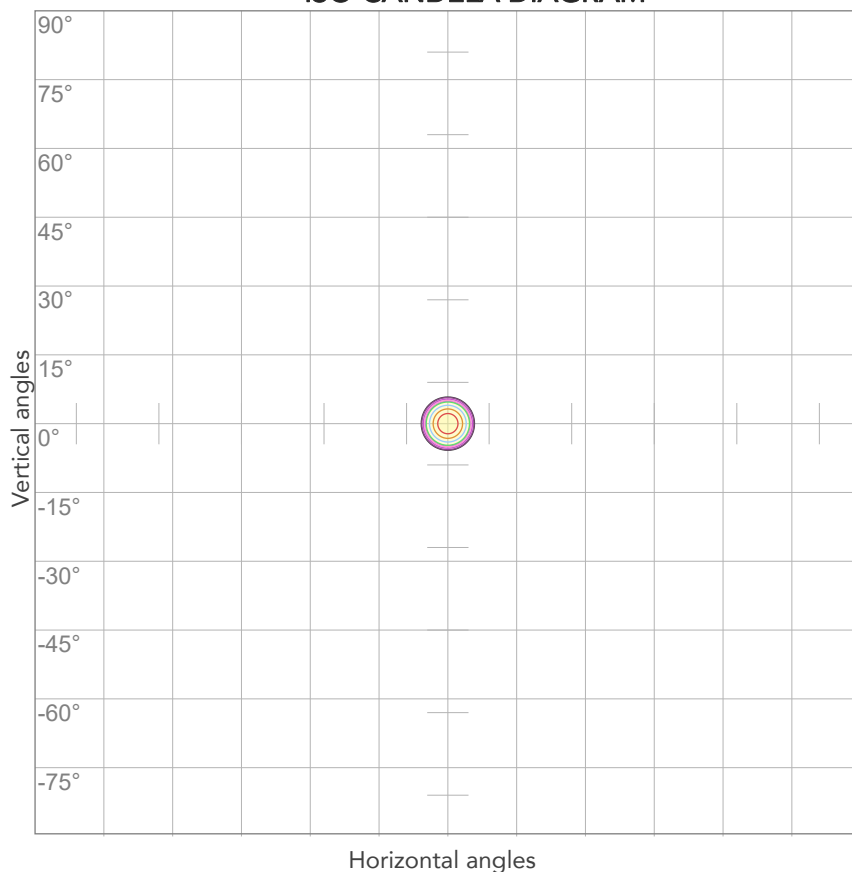


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
224V	0,159A	32,9W	0,92	40lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



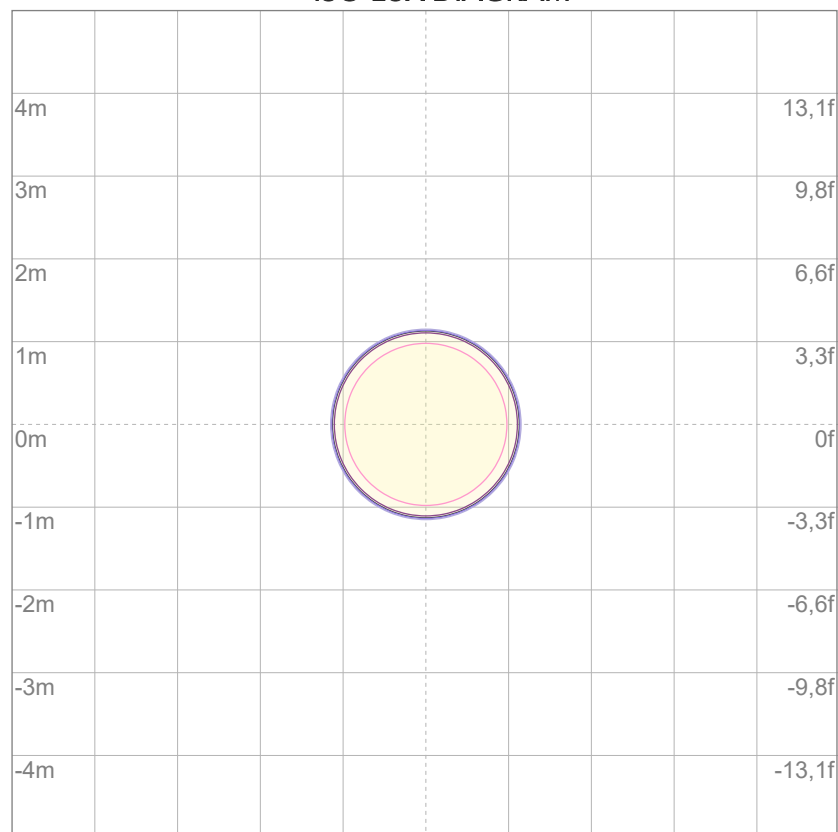
10%	6500 cd
20%	13001 cd
30%	19501 cd
40%	26001 cd
50%	32502 cd
60%	39002 cd
70%	45503 cd
80%	52003 cd

Conditions:

Number of c-planes: 2

Candela at center: 65004 cd

ISO LUX DIAGRAM



3%	19,5 lx
5%	32,5 lx
10%	65,0 lx
30%	195 lx
50%	325 lx

Conditions:

Number of c-planes: 2

Lux at center: 650 lx

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