



Photometric Test Report



EclDisplay CRMXFC

PROFILE LENS 8°

40 RGB+WW LED Spotlight with Wireless CRMX and wired control, without lens

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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:

242 lm

Peak candela output:

26095 cd

Light quality:

CRI: 91,6

Color temperature:

6259 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8°

Target:

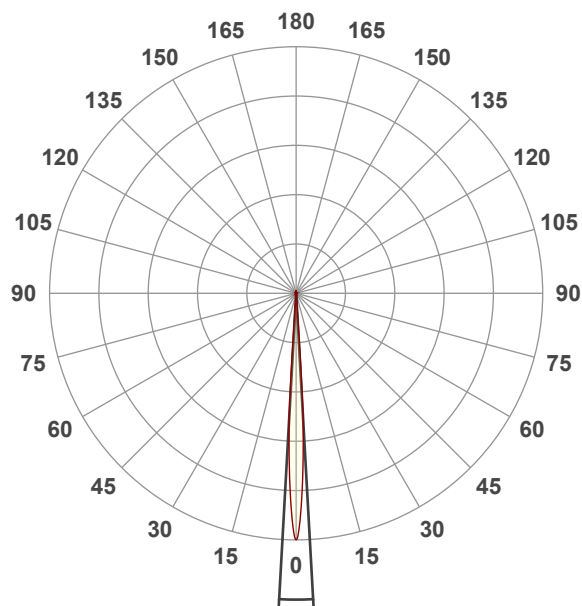
Full On

Operator:

Giacomo Matteo

Date and time:

12/06/2024 10:19:12

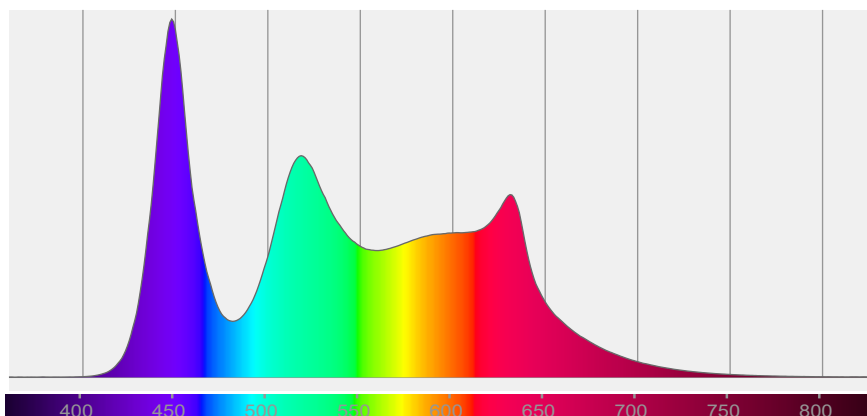


Beam angle 50%: 6,4°

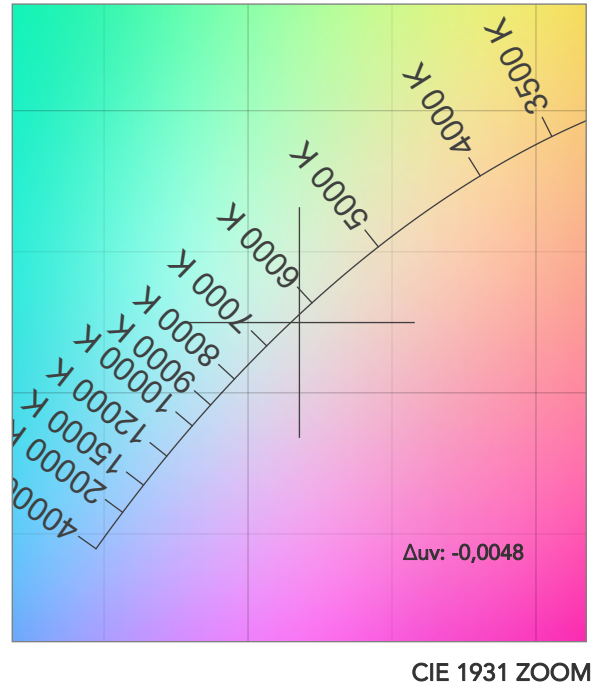
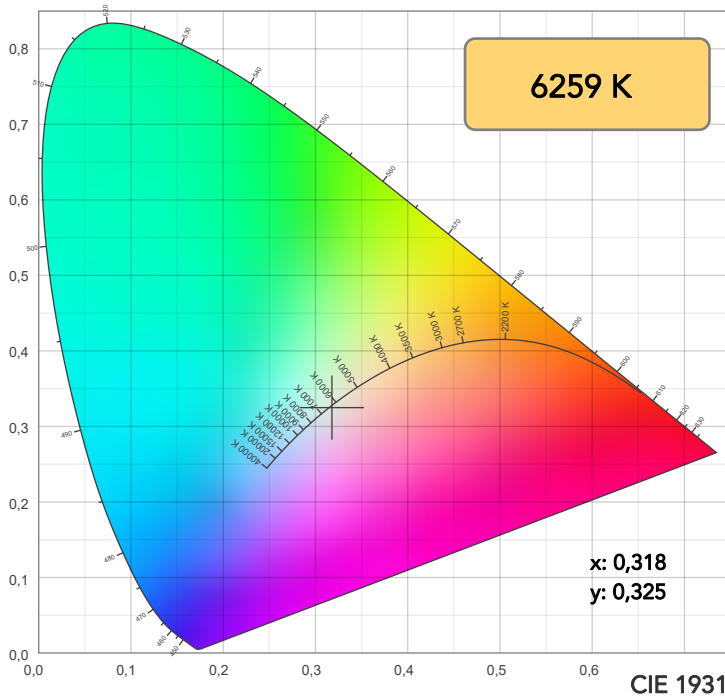
Field angle 10%: 8,1°

Cut off angle 2.5%: 8,5°

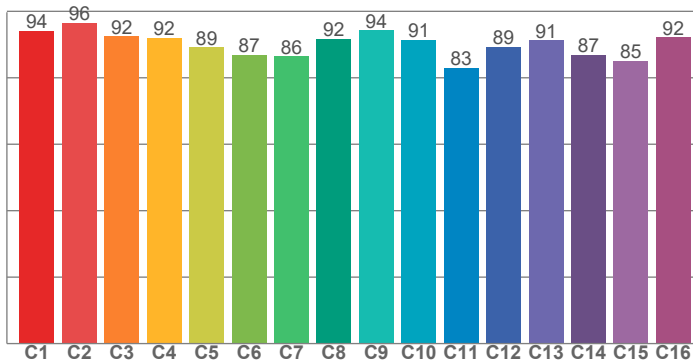
Spectra



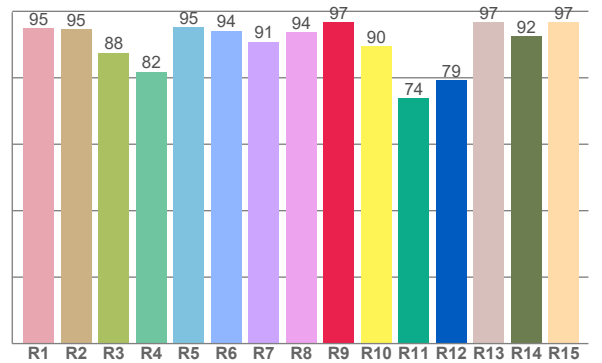
COLOR DETAILS



TM30: 90,2



CRI: 91,6 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
94,8	94,6	87,6	81,8	95,2	94,2	90,9	93,7	96,7	89,5	73,9	79,3	96,7	92,5	96,7

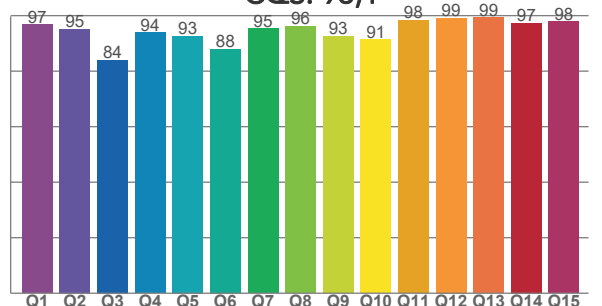
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,0	96,5	92,4	92,0	89,1	87,0	86,4	91,8	94,3	91,4	83,1	89,2	91,2	86,9	85,1	92,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,7	95,3	84,1	93,9	92,6	87,9	95,4	96,2	92,6	91,4	98,3	99,2	99,3	97,4	97,9

CQS: 93,1



COLOR PARAMETERS

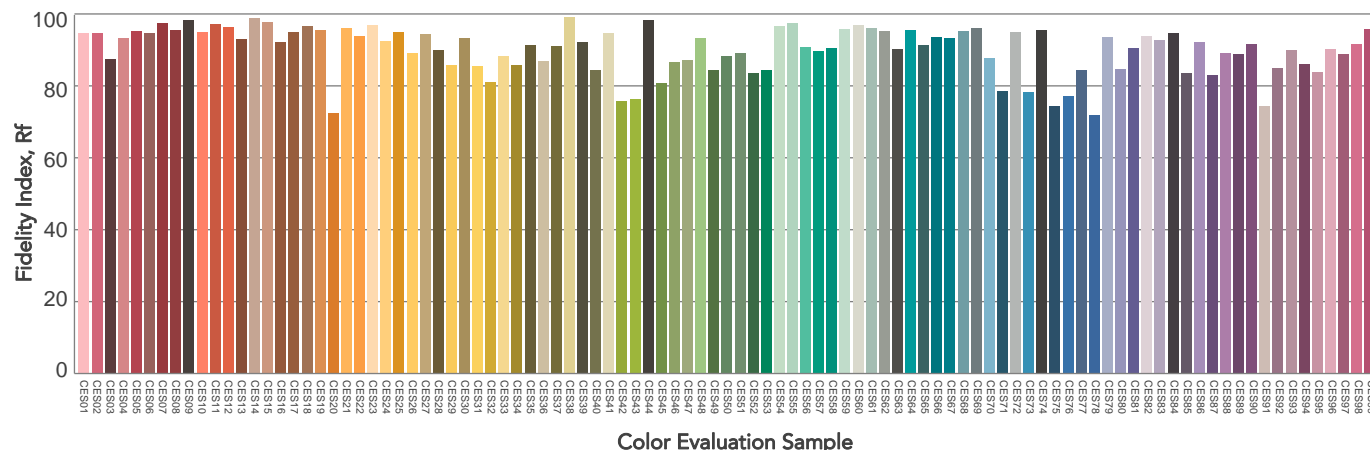
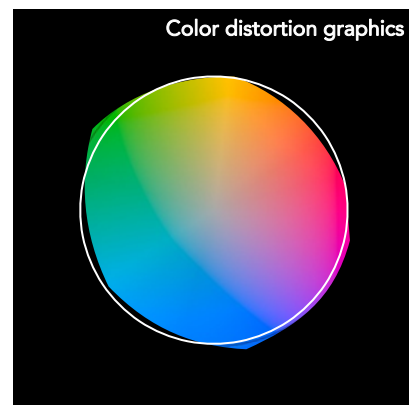
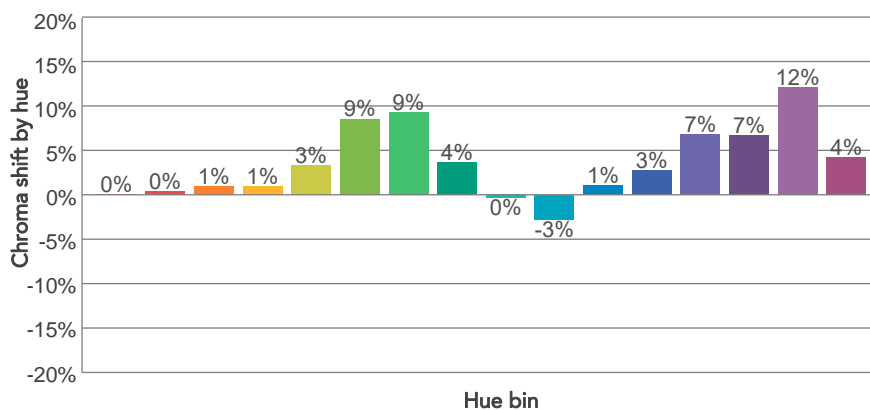
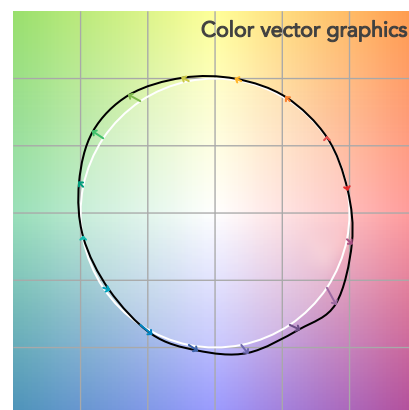
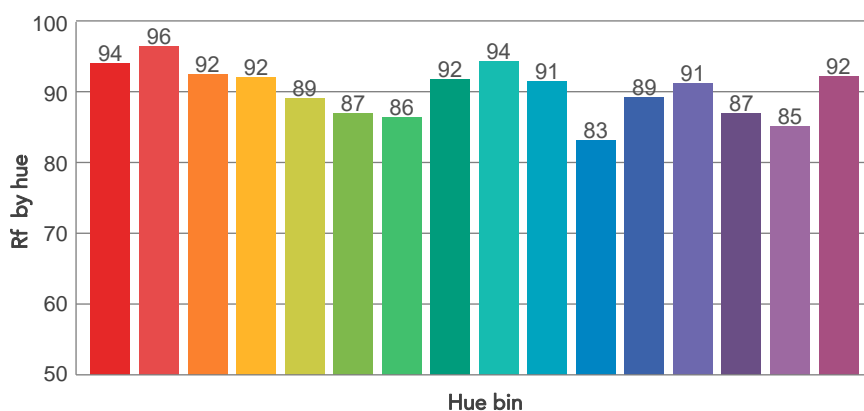
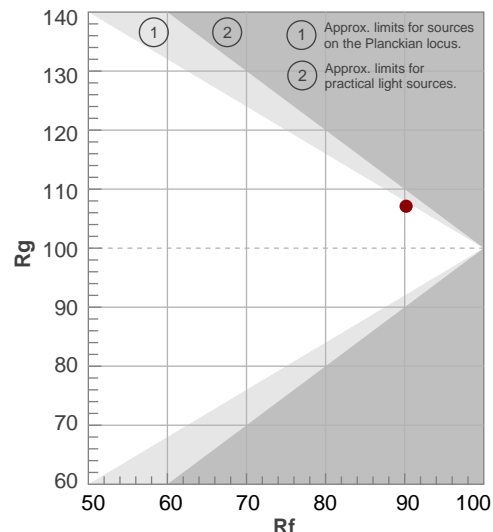
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6259 K	91,6	96,7	90,2	107,1	93,1	86	0,318	0,325	-0,0048

TM30 DETAILS

Rf 90,2
Fidelity index Rf

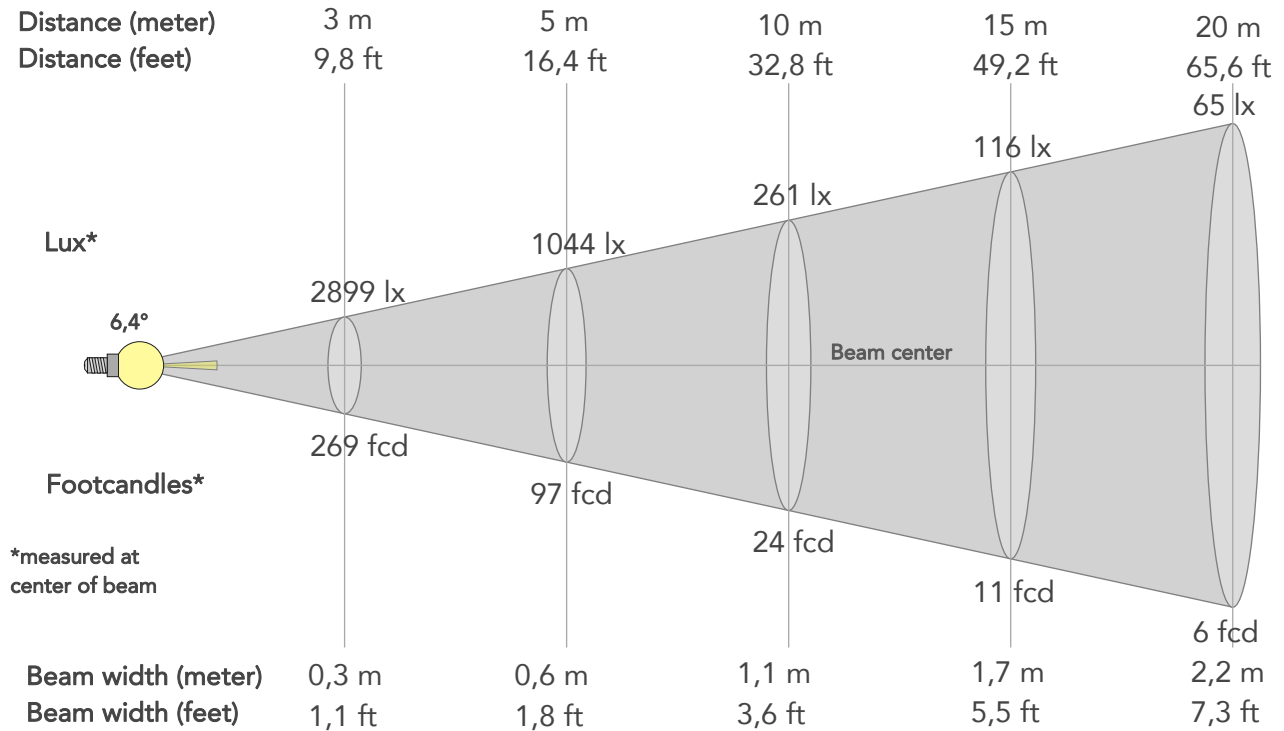
Rg 107,1
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	0%	-2%
2	96	0%	1%
3	92	1%	4%
4	92	1%	4%
5	89	3%	4%
6	87	9%	4%
7	86	9%	0%
8	92	4%	-3%
9	94	0%	-2%
10	91	-3%	4%
11	83	1%	11%
12	89	3%	7%
13	91	7%	3%
14	87	7%	4%
15	85	12%	-6%
16	92	4%	-2%



BEAM DETAILS

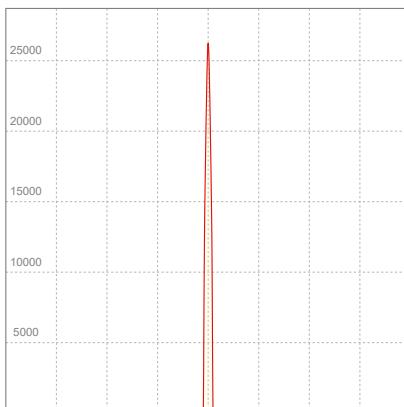
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,4°	8,1°	8,5°	98,3%	97,6%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	26095lx	6524lx	2899lx	1631lx	1044lx	464lx	261lx	116lx	65lx	42lx	29lx	16lx	10lx
Footcand.	2424fcd	606fcd	269fcd	152fcd	97fcd	43fcd	24fcd	11fcd	6fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,6m	0,8m	1,1m	1,7m	2,2m	2,8m	3,3m	4,4m	5,6m
Beam wid.	0,4ft	0,7ft	1,1ft	1,5ft	1,8ft	2,7ft	3,6ft	5,5ft	7,3ft	9,1ft	10,9ft	14,6ft	18,2ft

LINEAR DISTRIBUTION DIAGRAM

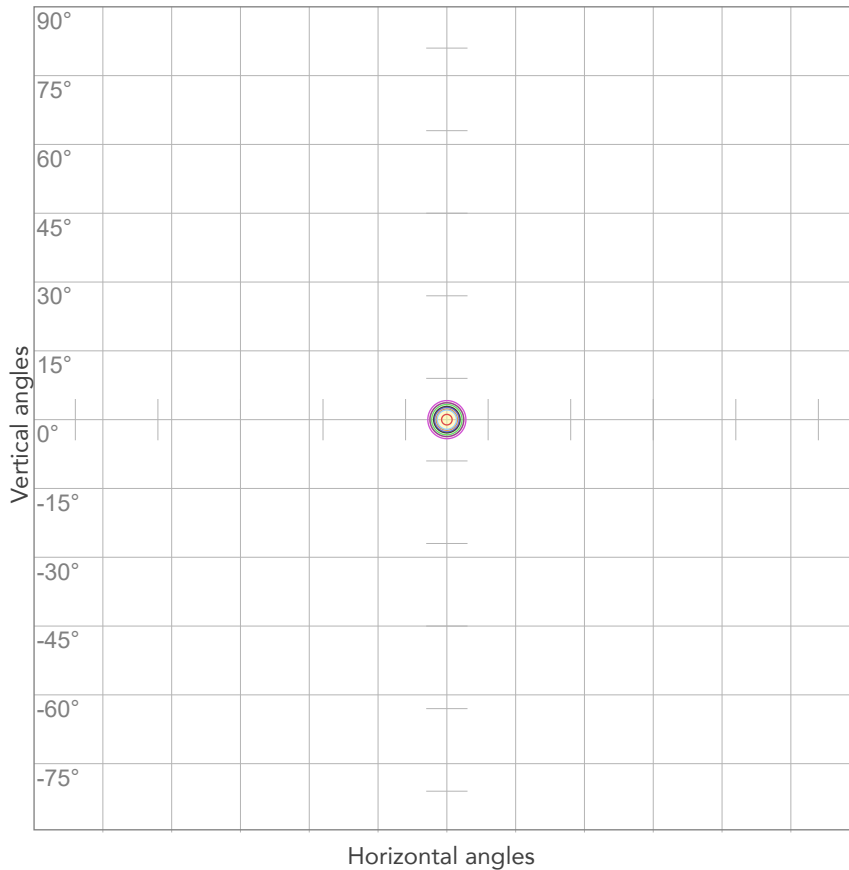


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,135A	28,7W	0,94	8lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



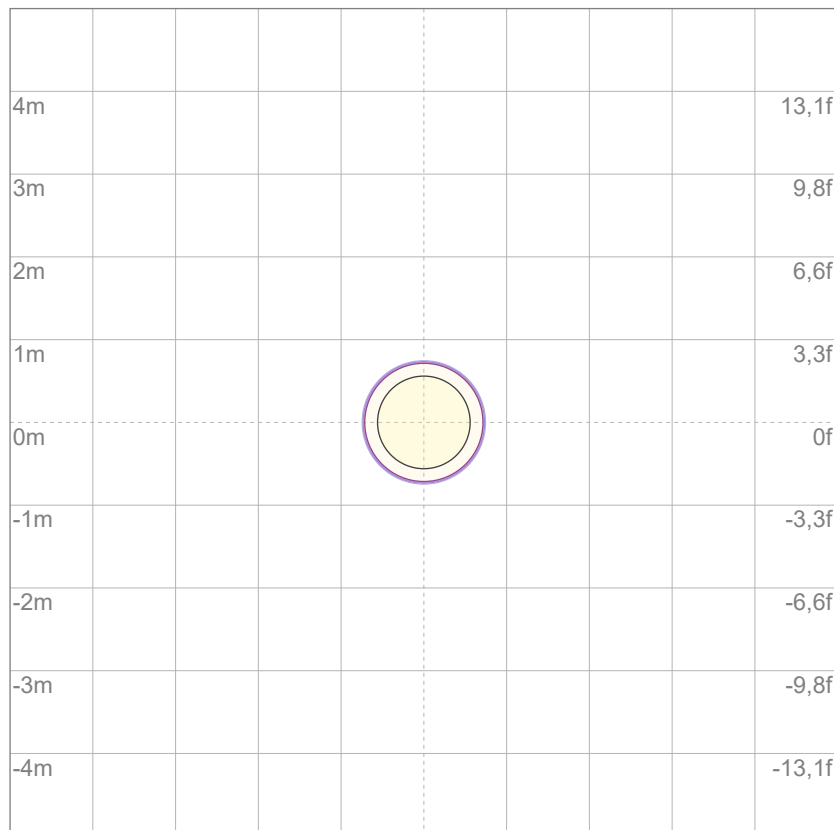
10%	2609 cd
20%	5219 cd
30%	7828 cd
40%	10438 cd
50%	13047 cd
60%	15657 cd
70%	18266 cd
80%	20876 cd

Conditions:

Number of c-planes: 2

Candela at center: 26095 cd

ISO LUX DIAGRAM



3%	7,83 lx
5%	13,0 lx
10%	26,1 lx
30%	78,3 lx
50%	130 lx

Conditions:

Number of c-planes: 2

Lux at center: 261 lx

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



Total lumen output:

74,3 lm

Peak candela output:

7822 cd

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8°

Target:

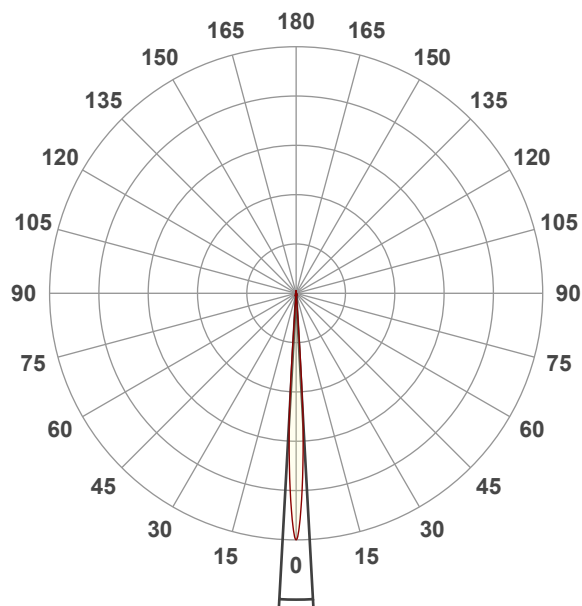
Red

Operator:

Giacomo Matteo

Date and time:

12/06/2024 10:20:39

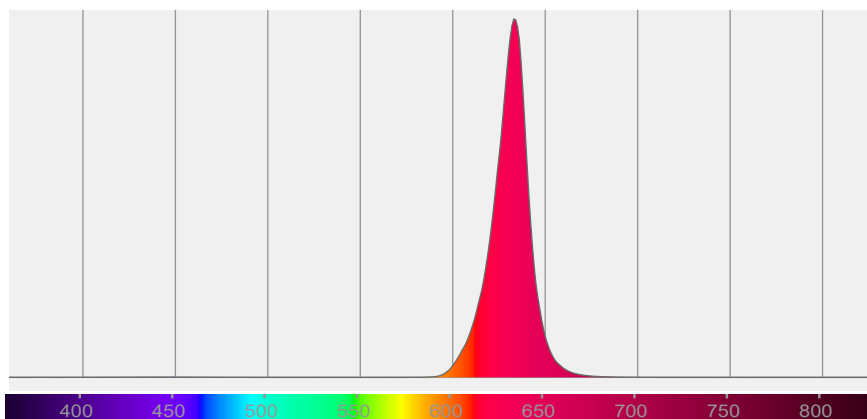


Beam angle 50%: 6,3°

Field angle 10%: 8,1°

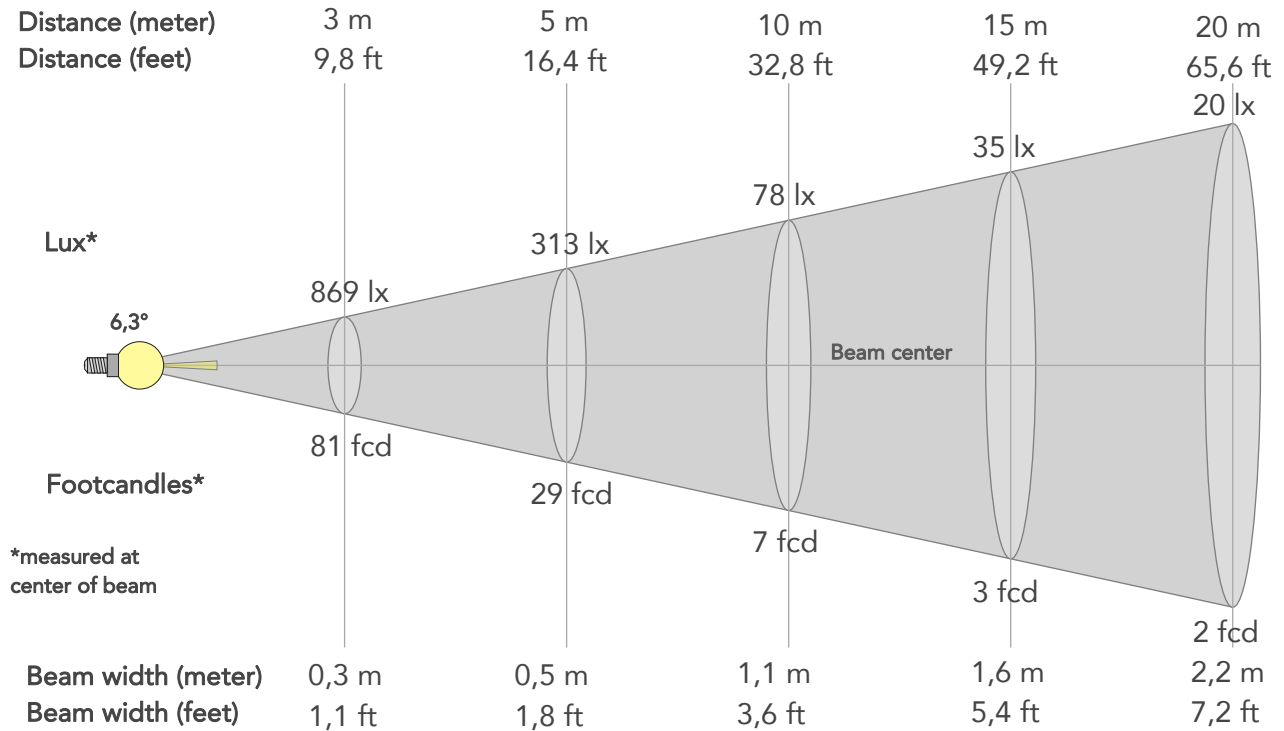
Cut off angle 2.5%: 8,5°

Spectra



BEAM DETAILS

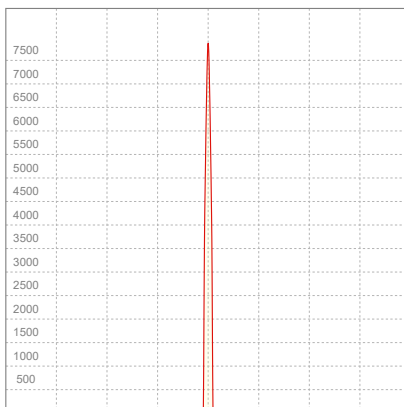
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,3°	8,1°	8,5°	96,9%	95,2%



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	7822lx	1955lx	869lx	489lx	313lx	139lx	78lx	35lx	20lx	13lx	9lx	5lx	3lx
Footcand.	727fcd	182fcd	81fcd	45fcd	29fcd	13fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,5m	0,8m	1,1m	1,6m	2,2m	2,7m	3,3m	4,4m	5,5m
Beam wid.	0,4ft	0,7ft	1,1ft	1,4ft	1,8ft	2,7ft	3,6ft	5,4ft	7,2ft	9ft	10,8ft	14,4ft	18ft

LINEAR DISTRIBUTION DIAGRAM

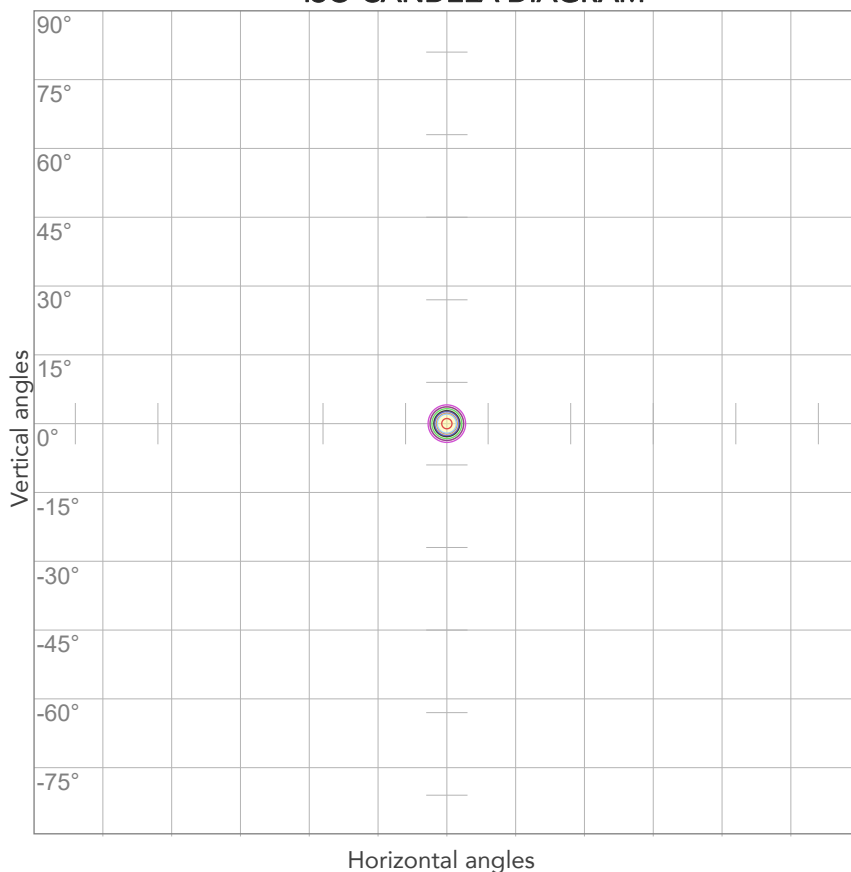


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	0,072A	12,2W	0,75	6lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



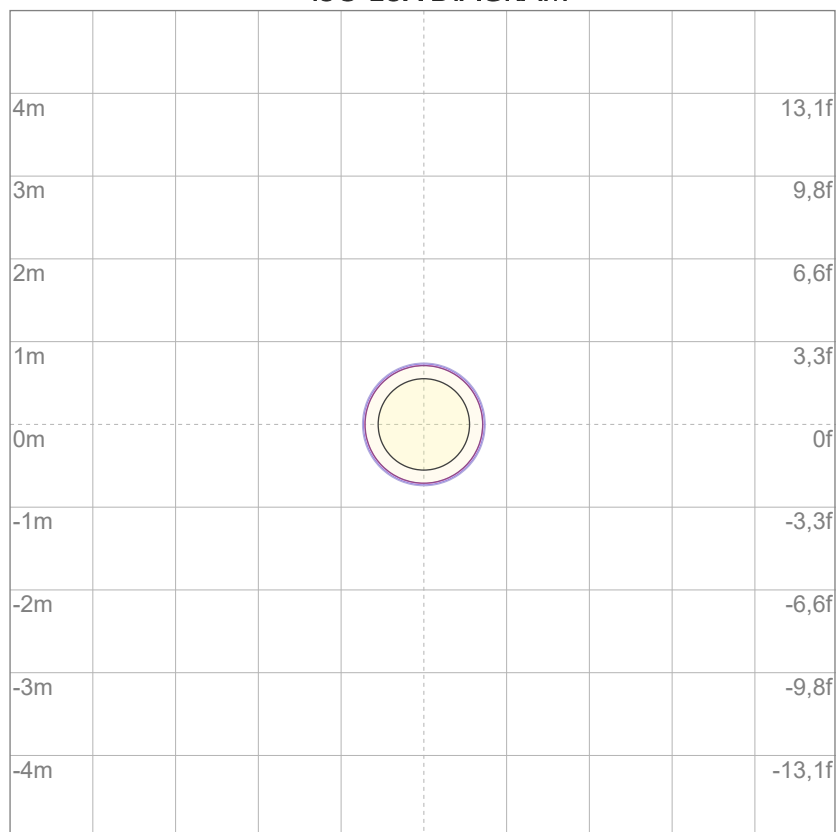
10%	782 cd
20%	1564 cd
30%	2347 cd
40%	3129 cd
50%	3911 cd
60%	4693 cd
70%	5475 cd
80%	6258 cd

Conditions:

Number of c-planes: 2

Candela at center: 7822 cd

ISO LUX DIAGRAM



3%	2,35 lx
5%	3,91 lx
10%	7,82 lx
30%	23,5 lx
50%	39,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 78,2 lx

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



Total lumen output:

131 lm

Peak candela output:

13732 cd

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8°

Target:

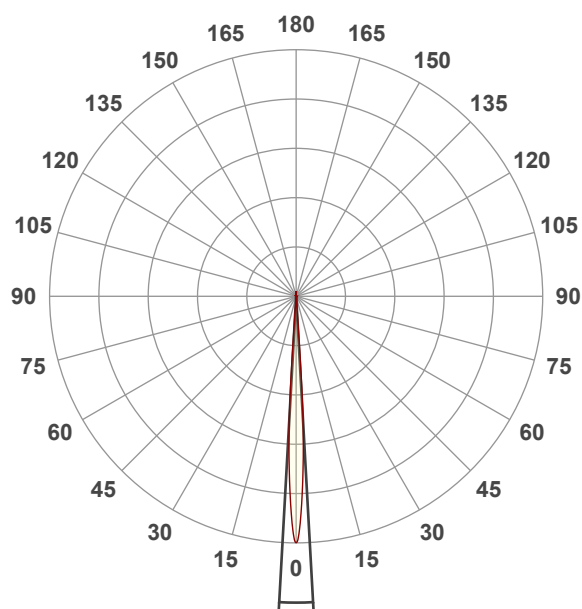
Green

Operator:

Giacomo Matteo

Date and time:

12/06/2024 10:24:05

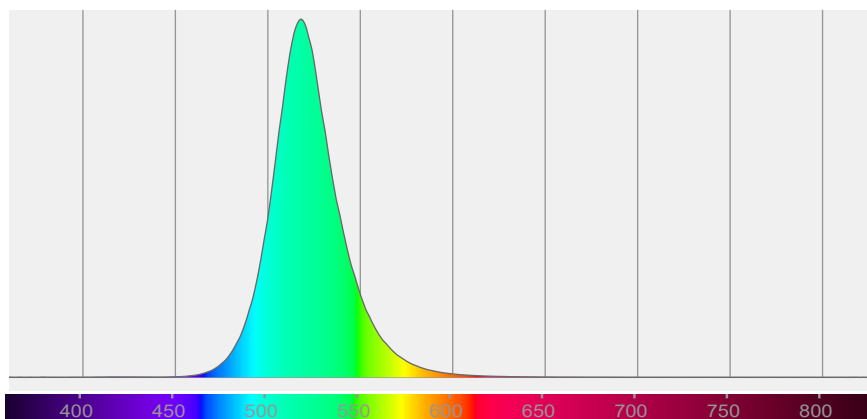


Beam angle 50%: 6,3°

Field angle 10%: 8,2°

Cut off angle 2.5%: 8,5°

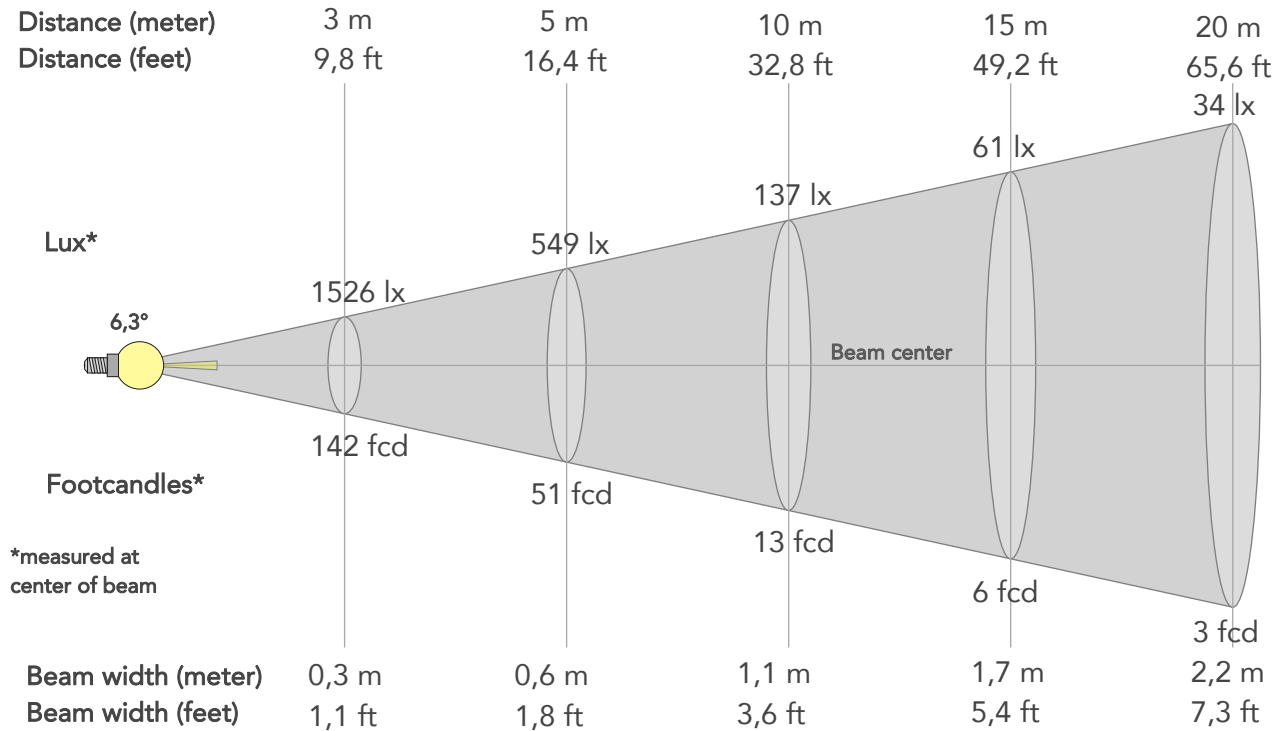
Spectra



BEAM DETAILS



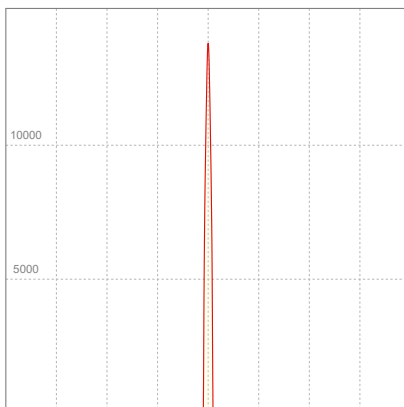
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,3°	8,2°	8,5°	97,3%	96,1%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	13732lx	3433lx	1526lx	858lx	549lx	244lx	137lx	61lx	34lx	22lx	15lx	9lx	5lx
Footcand.	1276fcd	319fcd	142fcd	80fcd	51fcd	23fcd	13fcd	6fcd	3fcd	2fcd	1fcd	1fcd	1fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,6m	0,8m	1,1m	1,7m	2,2m	2,8m	3,3m	4,4m	5,5m
Beam wid.	0,4ft	0,7ft	1,1ft	1,5ft	1,8ft	2,7ft	3,6ft	5,4ft	7,3ft	9,1ft	10,9ft	14,5ft	18,2ft

LINEAR DISTRIBUTION DIAGRAM

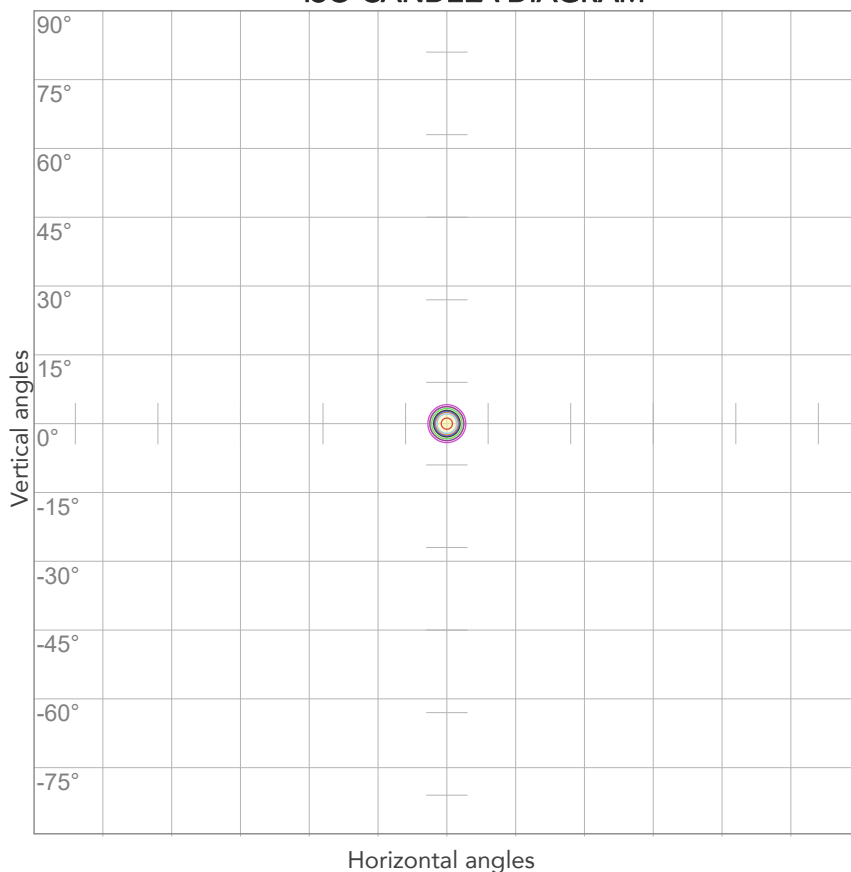


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,089A	17,3W	0,85	8lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



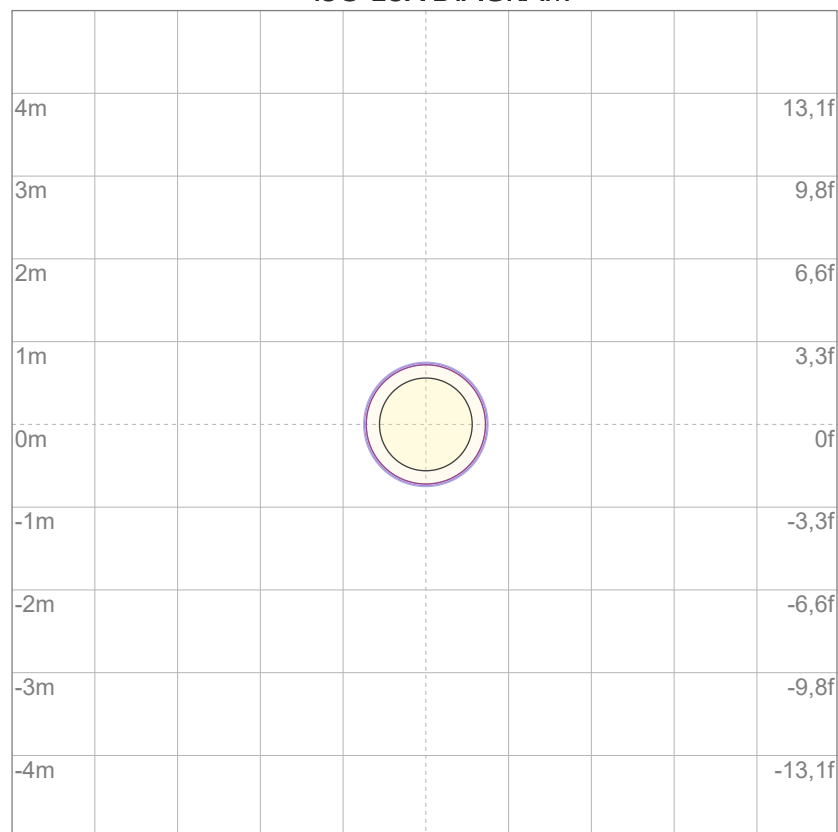
10%	1373 cd
20%	2746 cd
30%	4120 cd
40%	5493 cd
50%	6866 cd
60%	8239 cd
70%	9613 cd
80%	10986 cd

Conditions:

Number of c-planes: 2

Candela at center: 13732 cd

ISO LUX DIAGRAM



3%	4,12 lx
5%	6,87 lx
10%	13,7 lx
30%	41,2 lx
50%	68,7 lx

Conditions:

Number of c-planes: 2

Lux at center: 137 lx

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



Total lumen output:

36,5 lm

Peak candela output:

3397 cd

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8°

Target:

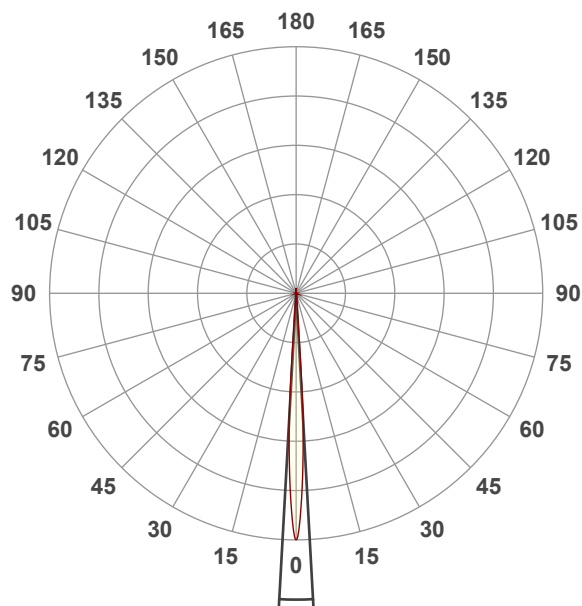
Blue

Operator:

Giacomo Matteo

Date and time:

12/06/2024 10:25:34

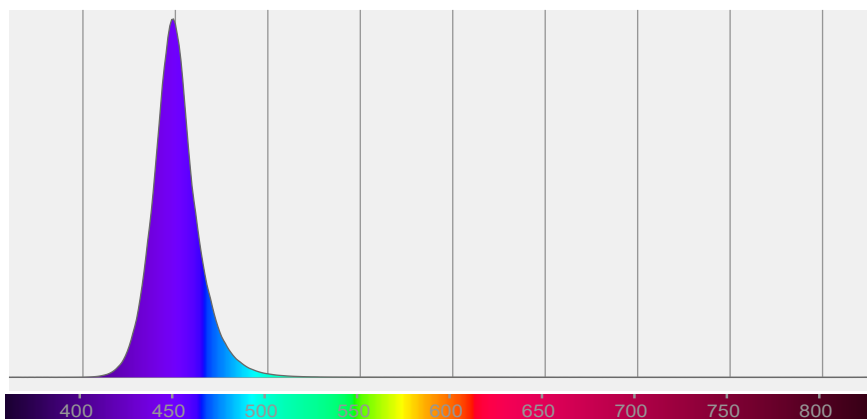


Beam angle 50%: 6,3°

Field angle 10%: 8,1°

Cut off angle 2.5%: 8,4°

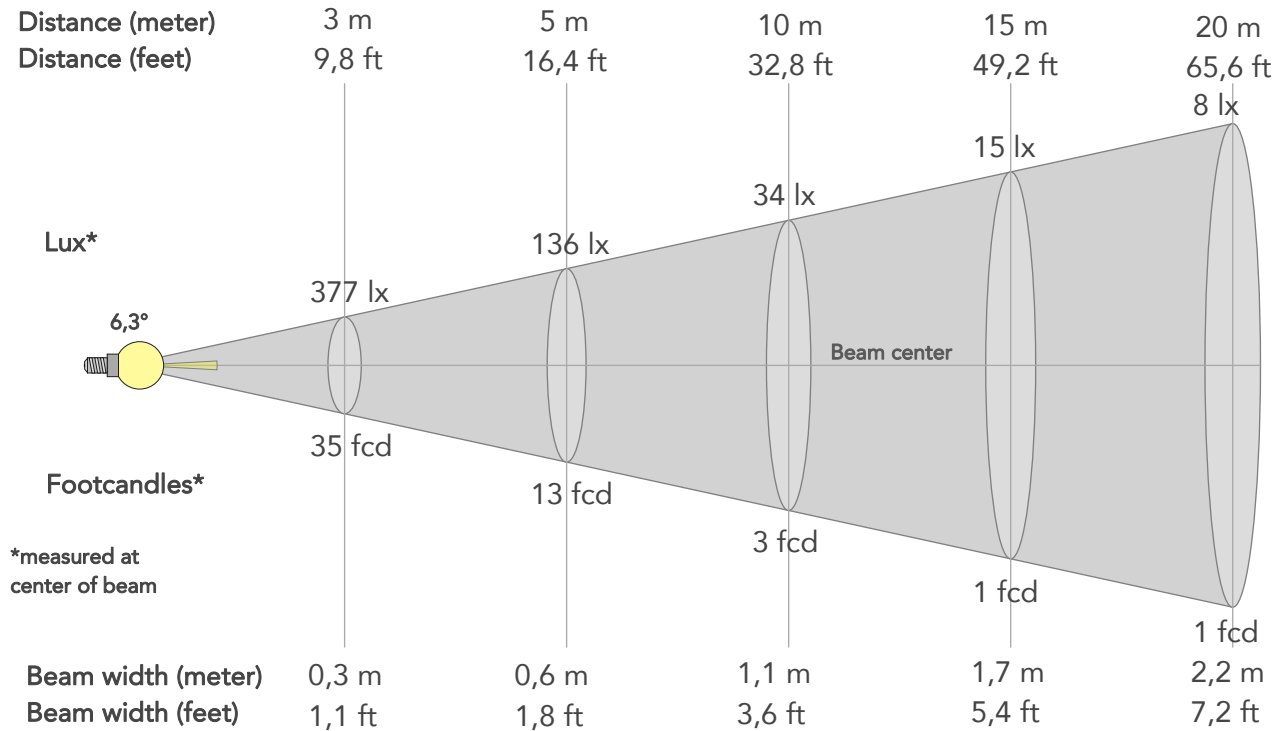
Spectra



BEAM DETAILS



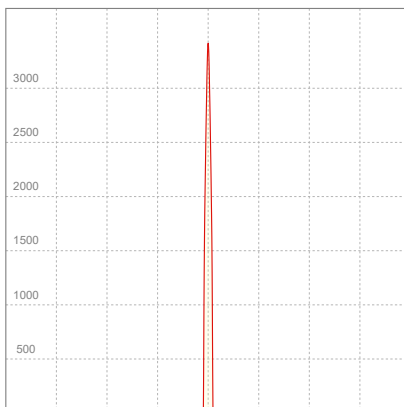
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,3°	8,1°	8,4°	90,9%	87,8%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	3397lx	849lx	377lx	212lx	136lx	60lx	34lx	15lx	8lx	5lx	4lx	2lx	1lx
Footcand.	316fcd	79fcd	35fcd	20fcd	13fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,6m	0,8m	1,1m	1,7m	2,2m	2,8m	3,3m	4,4m	5,5m
Beam wid.	0,4ft	0,7ft	1,1ft	1,4ft	1,8ft	2,7ft	3,6ft	5,4ft	7,2ft	9ft	10,9ft	14,5ft	18,1ft

LINEAR DISTRIBUTION DIAGRAM

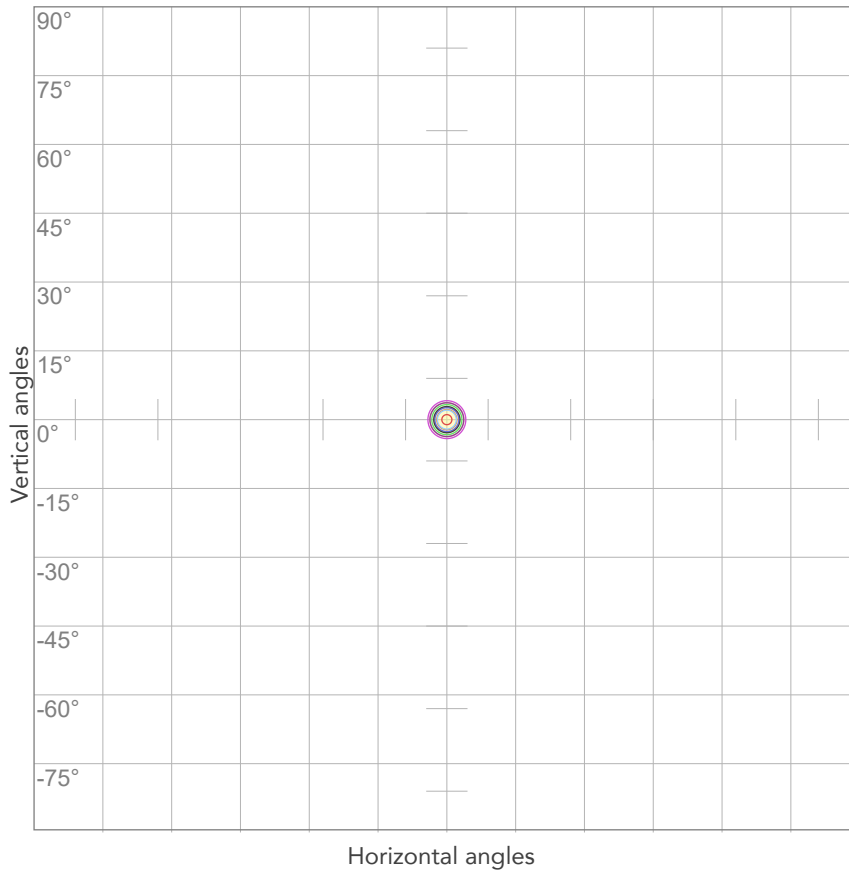


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	0,085A	15,9W	0,82	2lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



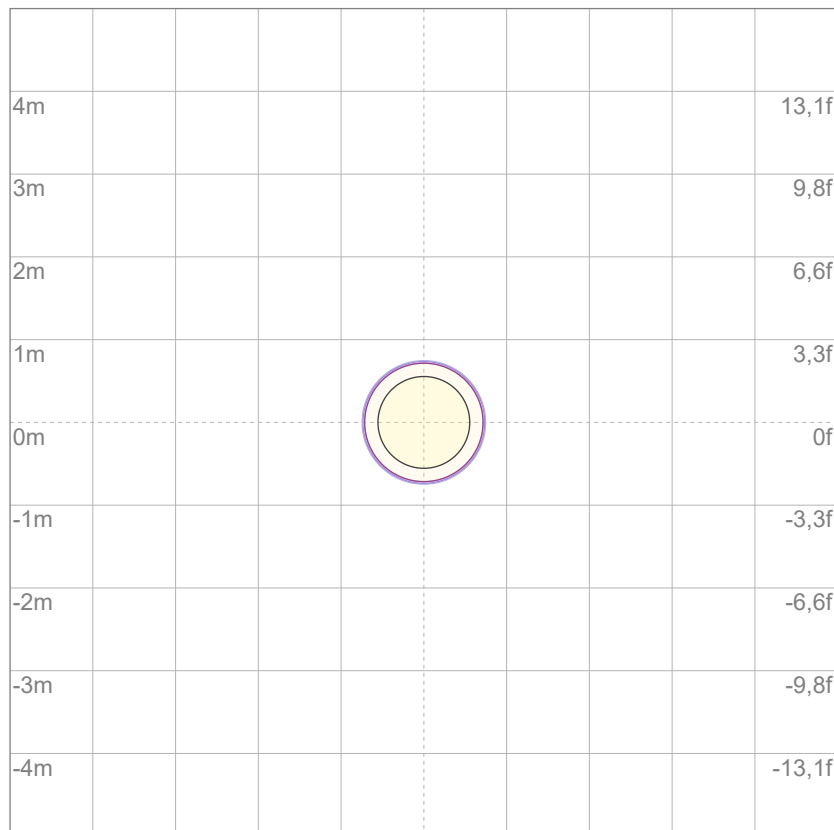
10%	340 cd
20%	679 cd
30%	1019 cd
40%	1359 cd
50%	1699 cd
60%	2038 cd
70%	2378 cd
80%	2718 cd

Conditions:

Number of c-planes: 2

Candela at center: 3397 cd

ISO LUX DIAGRAM



3%	1,02 lx
5%	1,70 lx
10%	3,40 lx
30%	10,2 lx
50%	17,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 34,0 lx

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



Total lumen output:

171 lm

Peak candela output:

17586 cd

Light quality:

CRI: 77,7

Color temperature:

3354 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8°

Target:

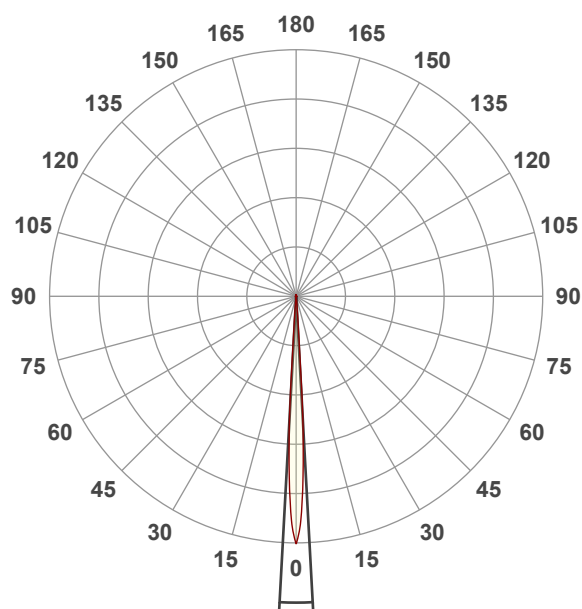
White

Operator:

Giacomo Matteo

Date and time:

12/06/2024 10:27:01

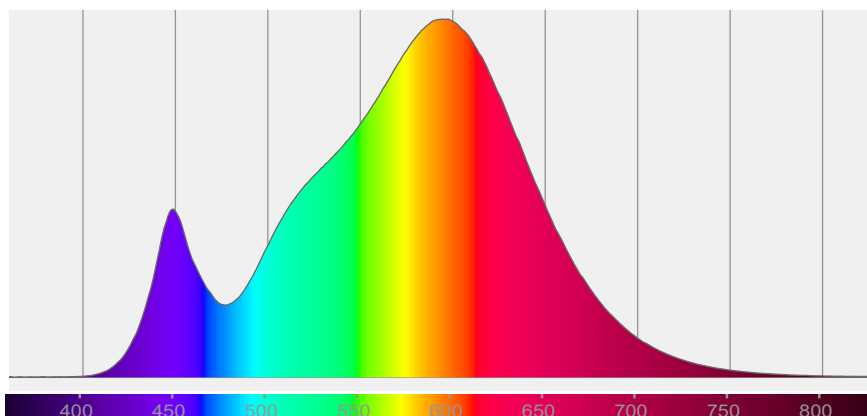


Beam angle 50%: 6,2°

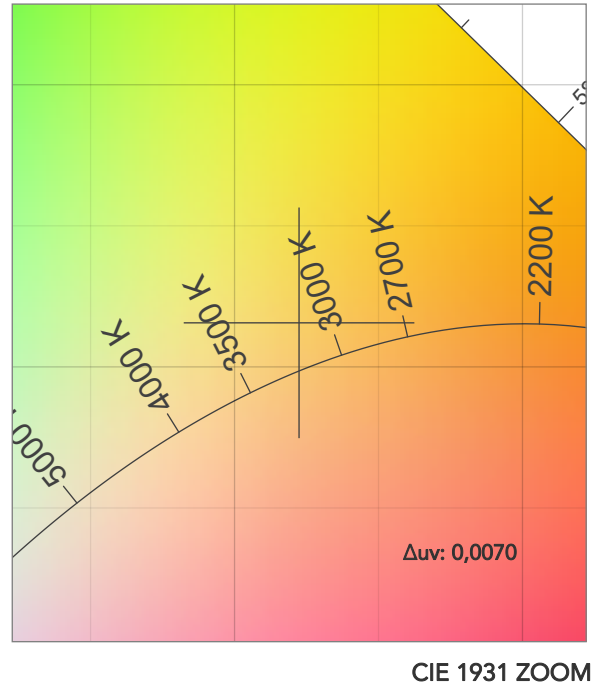
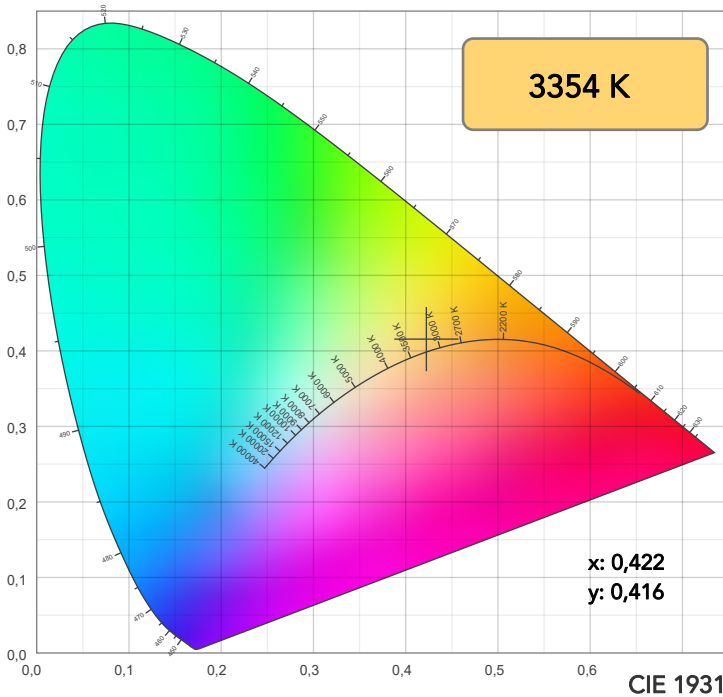
Field angle 10%: 8,4°

Cut off angle 2.5%: 9,9°

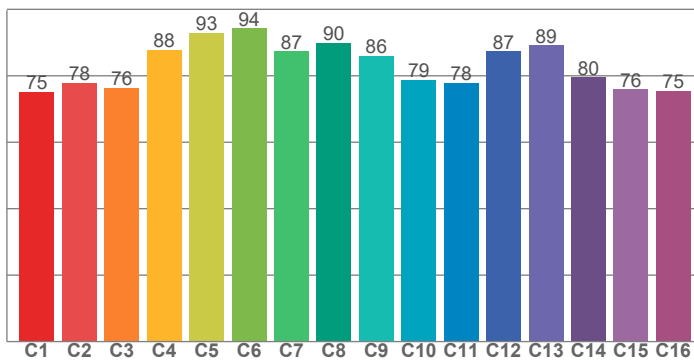
Spectra



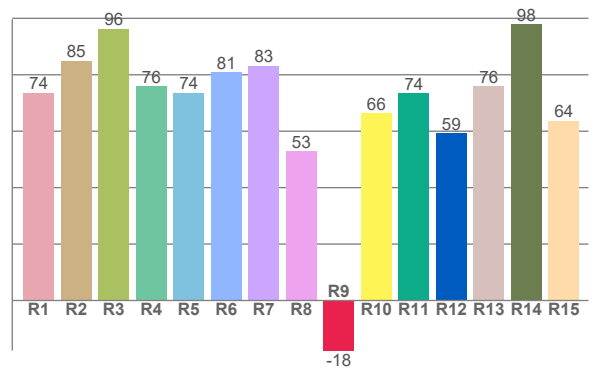
COLOR DETAILS



TM30: 82,9



CRI: 77,7 (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
73,7	84,9	96,3	76,0	73,7	80,8	83,3	52,8	-17,8	66,3	73,5	59,3	75,9	97,9	63,7

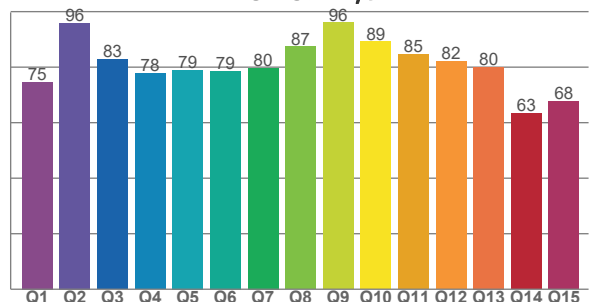
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75,2	77,9	76,3	87,7	92,9	94,3	87,3	89,8	86,1	78,7	77,8	87,4	89,1	79,5	75,9	75,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,6	95,8	82,8	77,8	79,0	78,6	79,7	87,4	96,0	89,1	84,6	82,1	80,0	63,4	67,7

CQS: 79,3



COLOR PARAMETERS

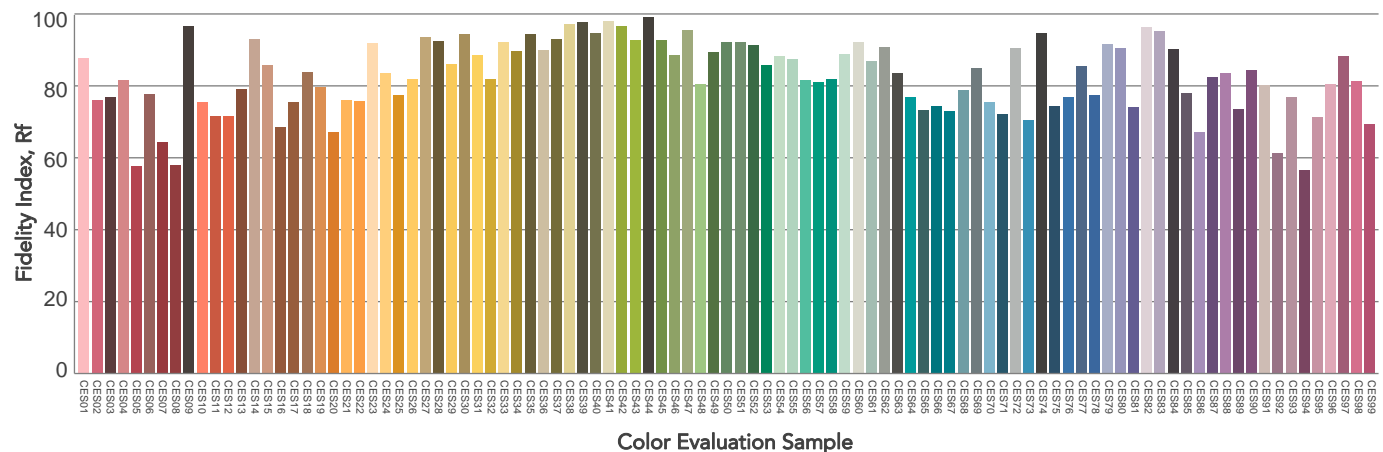
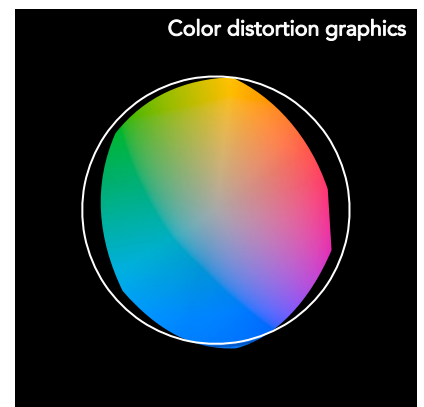
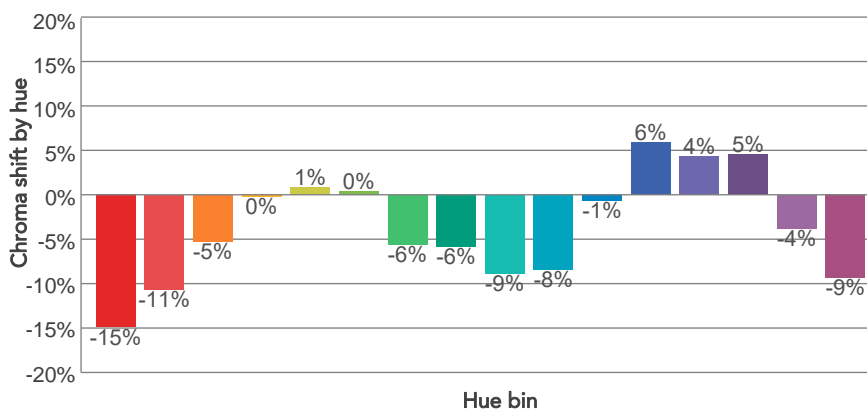
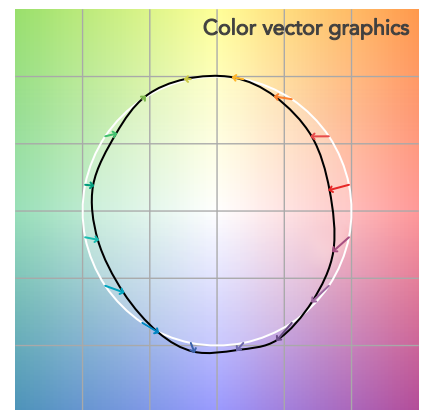
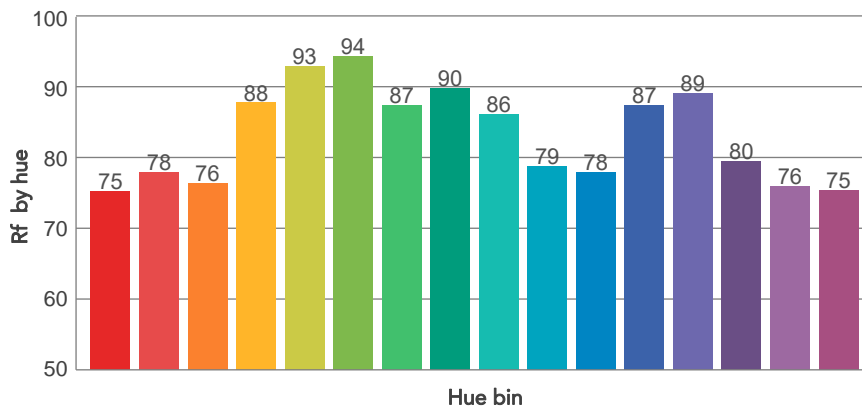
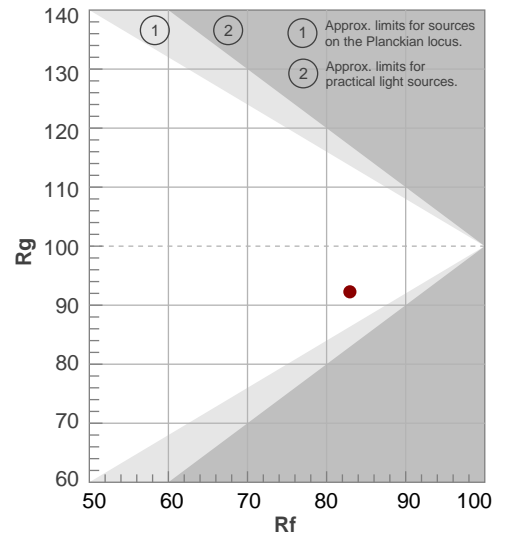
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3354 K	77,7	-17,8	82,9	92,3	79,3	61	0,422	0,416	0,0070

TM30 DETAILS

Rf 82,9
Fidelity index Rf

Rg 92,3
Gammut index

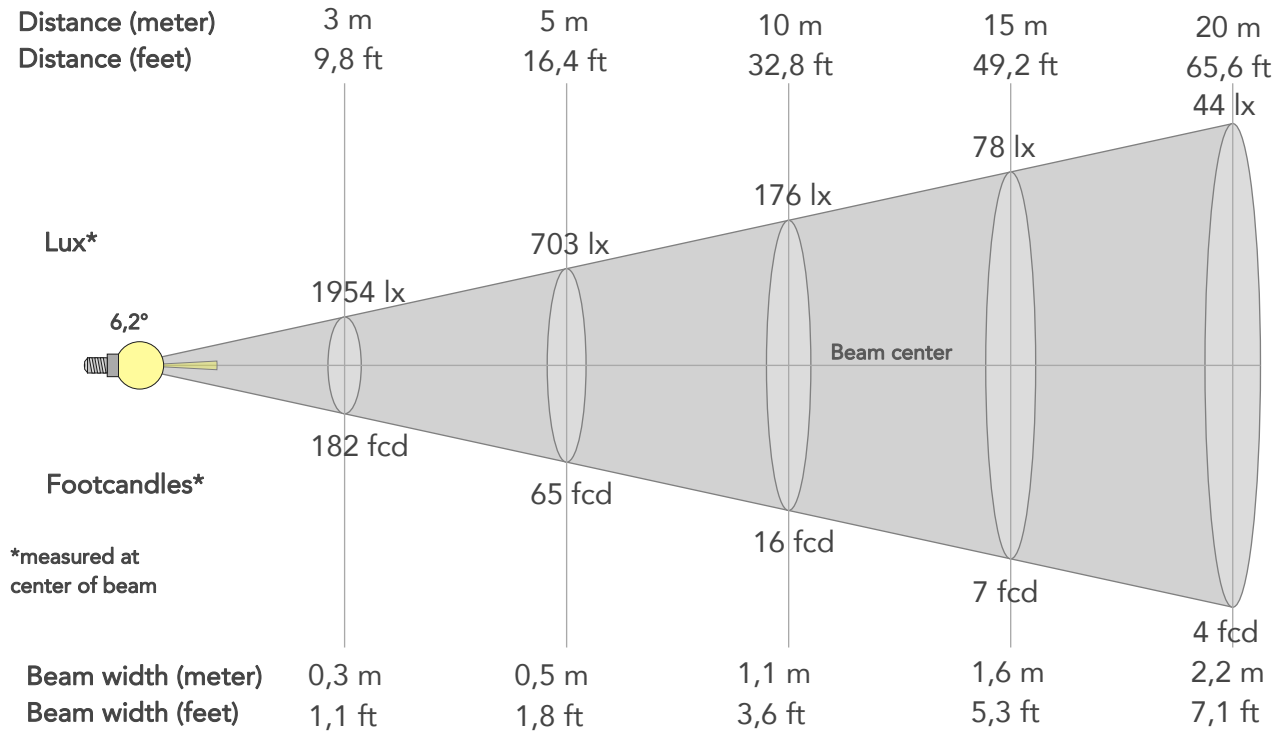
		Graphic shifts (%)	
Hue Bin	R _f	Chroma	Hue
1	75	-15%	-1%
2	78	-11%	7%
3	76	-5%	11%
4	88	0%	8%
5	93	1%	4%
6	94	0%	-3%
7	87	-6%	-6%
8	90	-6%	-1%
9	86	-9%	4%
10	79	-8%	11%
11	78	-1%	14%
12	87	6%	4%
13	89	4%	-6%
14	80	5%	-16%
15	76	-4%	-17%
16	75	-9%	-12%



BEAM DETAILS



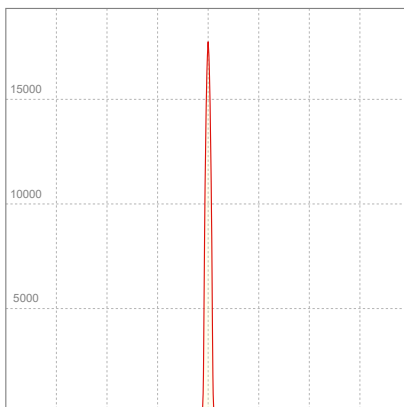
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,2°	8,4°	9,9°	98,3%	97,4%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	17586lx	4397lx	1954lx	1099lx	703lx	313lx	176lx	78lx	44lx	28lx	20lx	11lx	7lx
Footcand.	1634fcd	408fcd	182fcd	102fcd	65fcd	29fcd	16fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,5m	0,8m	1,1m	1,6m	2,2m	2,7m	3,2m	4,3m	5,4m
Beam wid.	0,4ft	0,7ft	1,1ft	1,4ft	1,8ft	2,7ft	3,6ft	5,3ft	7,1ft	8,9ft	10,7ft	14,2ft	17,8ft

LINEAR DISTRIBUTION DIAGRAM

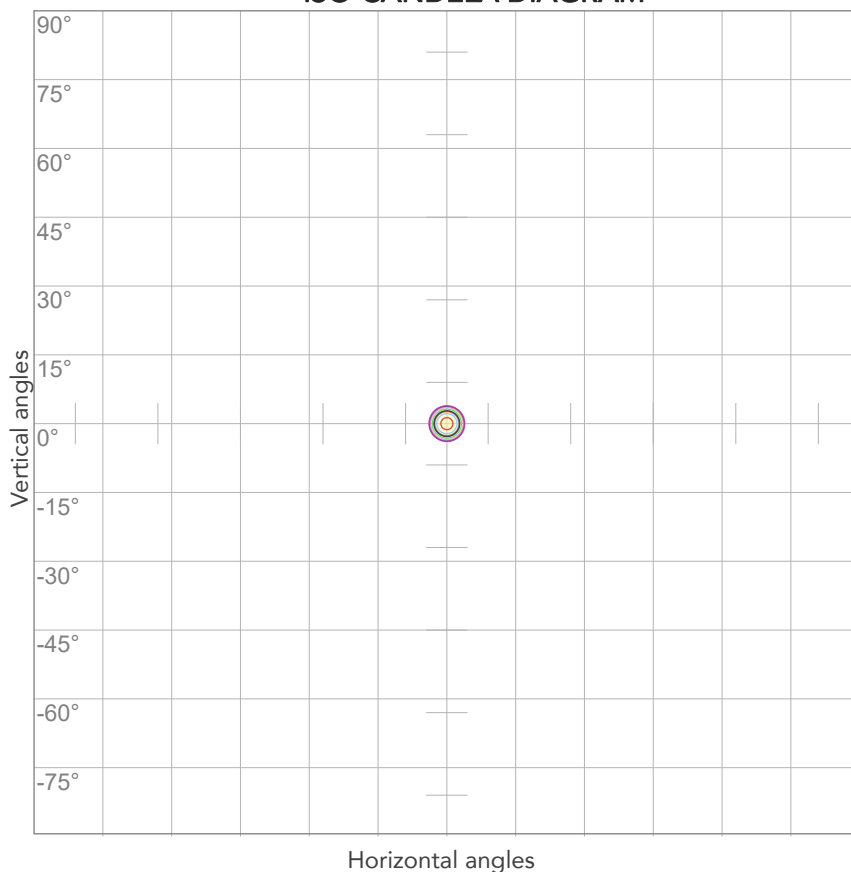


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,091A	17,9W	0,87	10lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



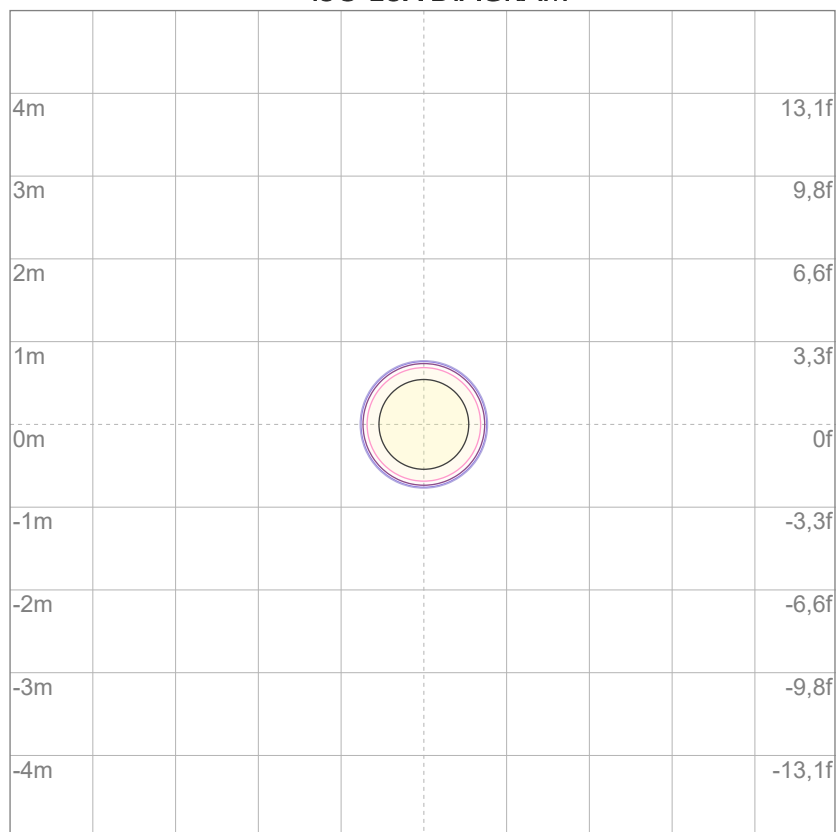
10%	1759 cd
20%	3517 cd
30%	5276 cd
40%	7035 cd
50%	8793 cd
60%	10552 cd
70%	12310 cd
80%	14069 cd

Conditions:

Number of c-planes: 2

Candela at center: 17586 cd

ISO LUX DIAGRAM



3%	5,28 lx
5%	8,79 lx
10%	17,6 lx
30%	52,8 lx
50%	87,9 lx

Conditions:

Number of c-planes: 2

Lux at center: 176 lx

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



Total lumen output:

203 lm

Peak candela output:

22102 cd

Light quality:

CRI: 92,1

Color temperature:

2748 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8°

Target:

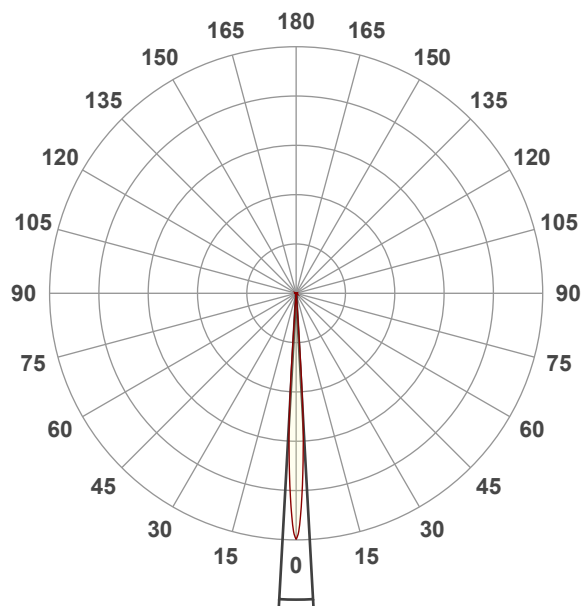
2800K

Operator:

Giacomo Matteo

Date and time:

12/06/2024 10:29:54

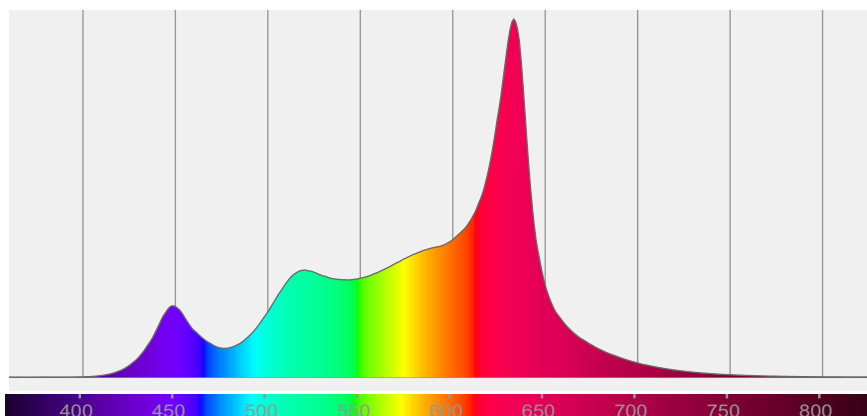


Beam angle 50%: 6,3°

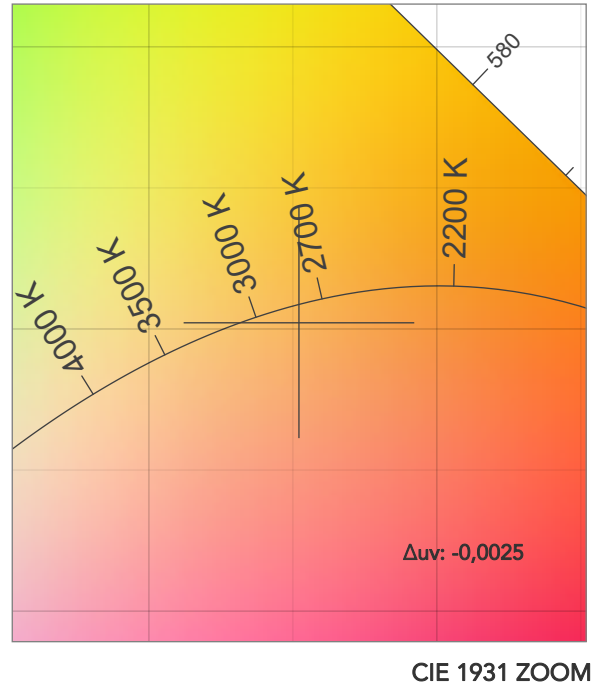
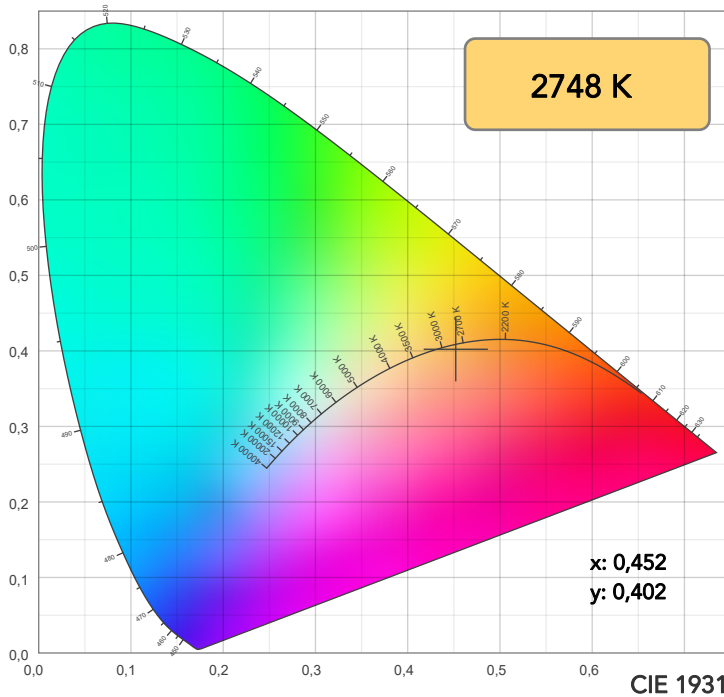
Field angle 10%: 8,1°

Cut off angle 2.5%: 8,8°

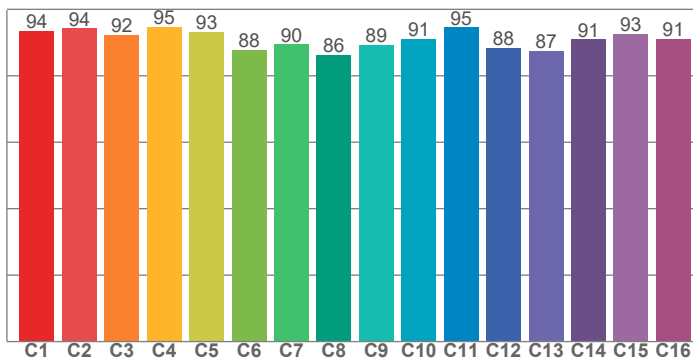
Spectra



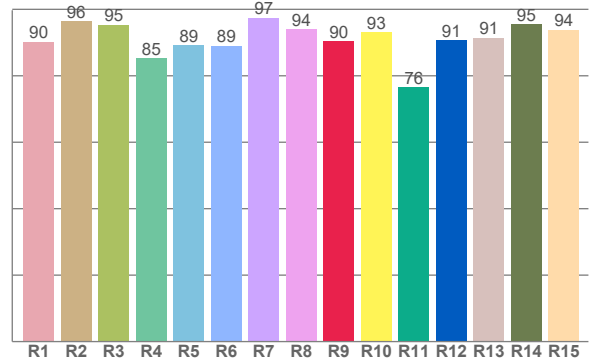
COLOR DETAILS



TM30: 91,7



CRI: 92,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
90,2	96,4	95,3	85,3	89,2	89,0	97,4	94,1	90,4	93,2	76,5	90,7	91,5	95,4	93,8

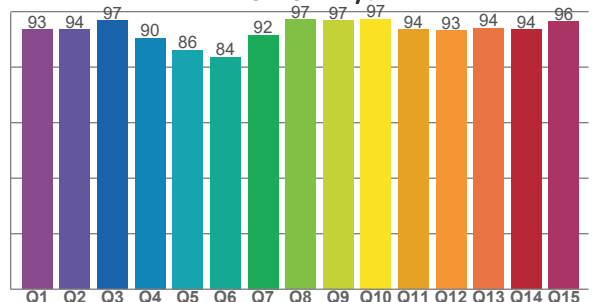
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,5	93,5	96,8	90,5	86,1	83,7	91,5	97,1	96,7	97,3	93,5	93,2	94,1	93,6	96,5

CQS: 91,8



COLOR PARAMETERS

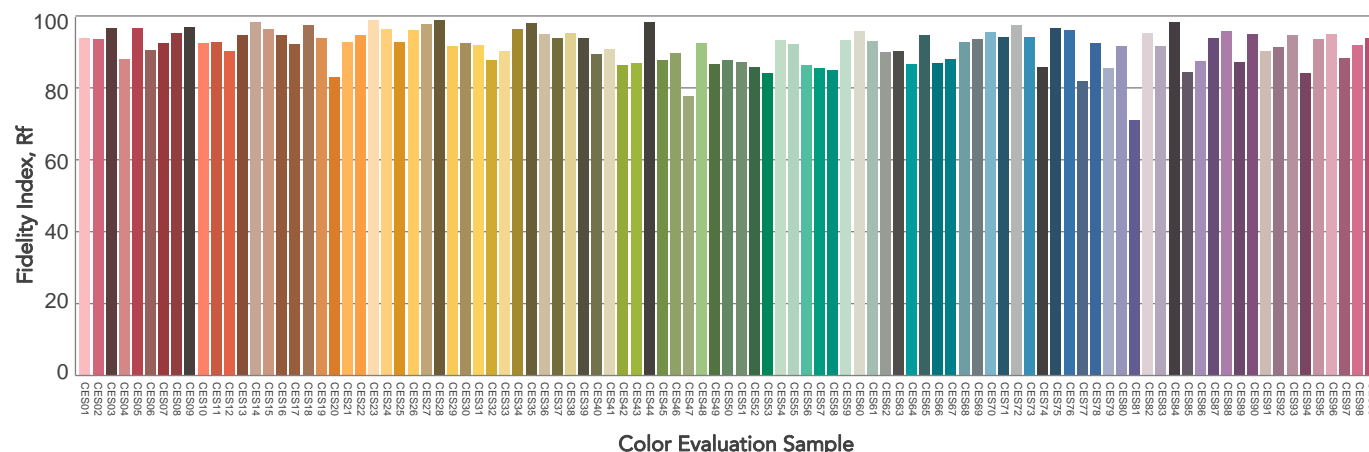
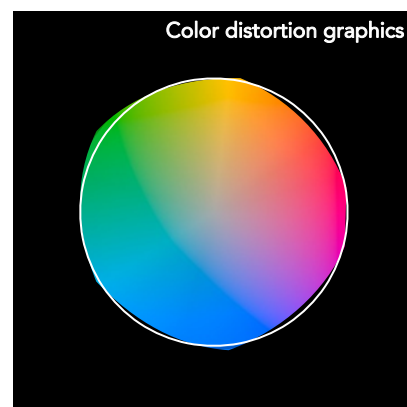
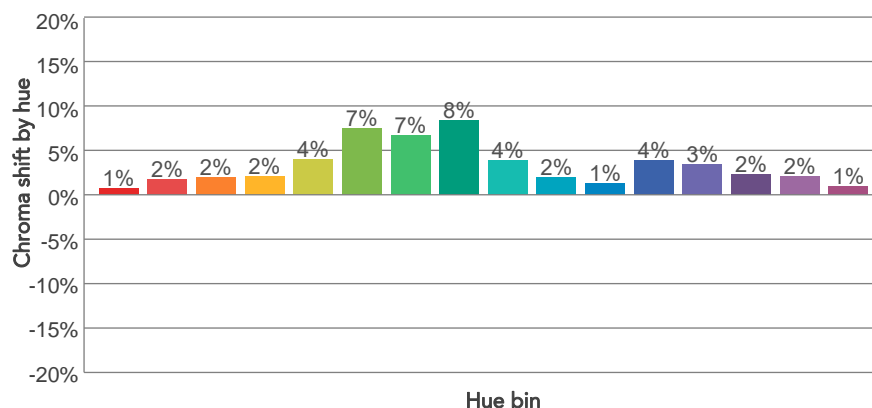
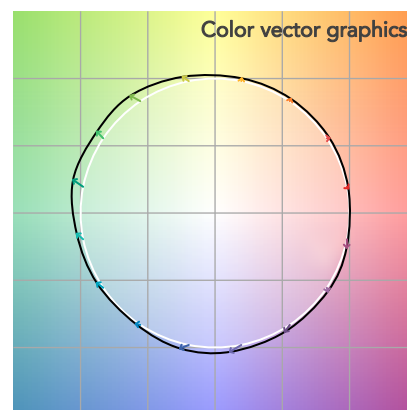
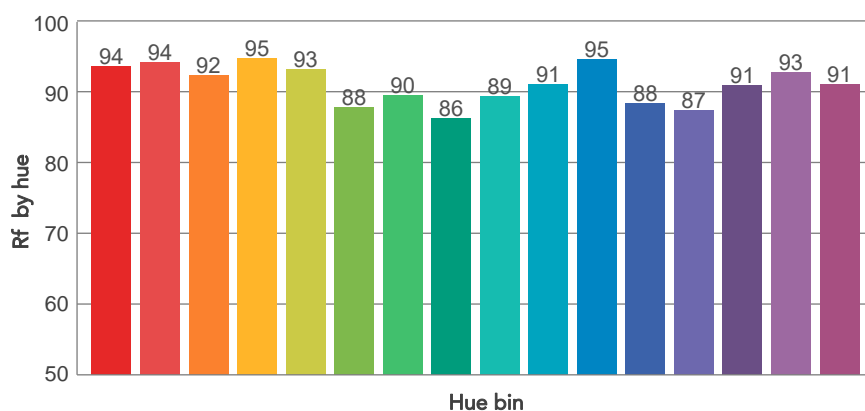
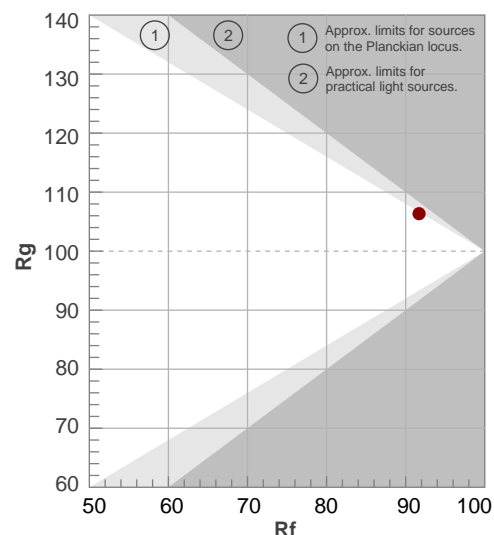
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2748 K	92,1	90,4	91,7	106,3	91,8	81	0,452	0,402	-0,0025

TM30 DETAILS

Rf 91,7
Fidelity index Rf

Rg 106,3
Gammut index

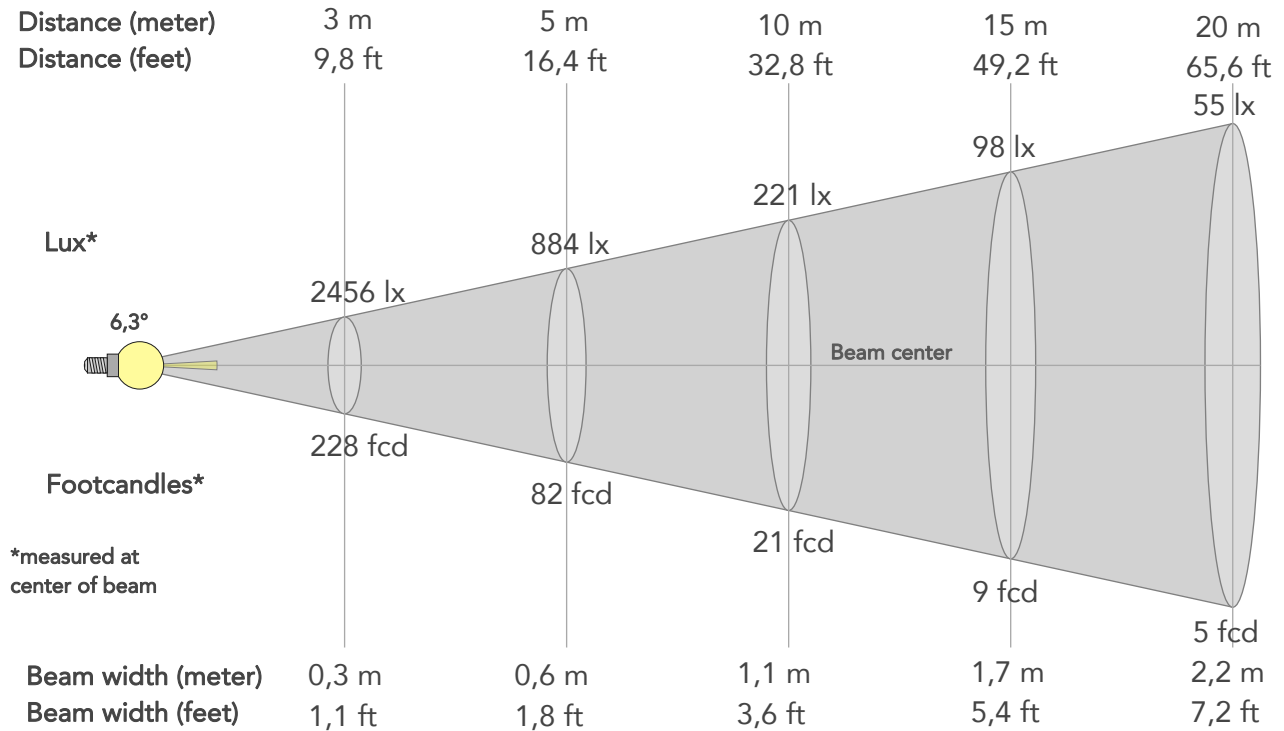
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	-1%
2	94	2%	-1%
3	92	2%	0%
4	95	2%	0%
5	93	4%	4%
6	88	7%	4%
7	90	7%	-2%
8	86	8%	-4%
9	89	4%	-5%
10	91	2%	-6%
11	95	1%	-3%
12	88	4%	-6%
13	87	3%	-9%
14	91	2%	-6%
15	93	2%	-2%
16	91	1%	-6%



BEAM DETAILS



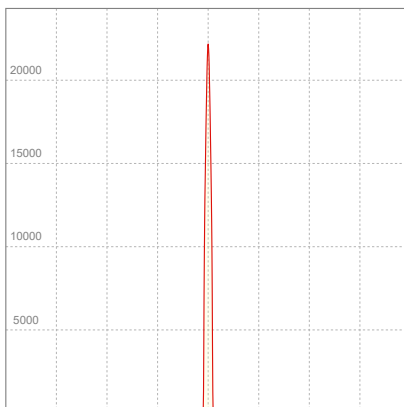
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,3°	8,1°	8,8°	98,7%	98,2%



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	22102lx	5526lx	2456lx	1381lx	884lx	393lx	221lx	98lx	55lx	35lx	25lx	14lx	9lx
Footcand.	2053fcd	513fcd	228fcd	128fcd	82fcd	37fcd	21fcd	9fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,6m	0,8m	1,1m	1,7m	2,2m	2,8m	3,3m	4,4m	5,5m
Beam wid.	0,4ft	0,7ft	1,1ft	1,4ft	1,8ft	2,7ft	3,6ft	5,4ft	7,2ft	9,1ft	10,9ft	14,5ft	18,1ft

LINEAR DISTRIBUTION DIAGRAM

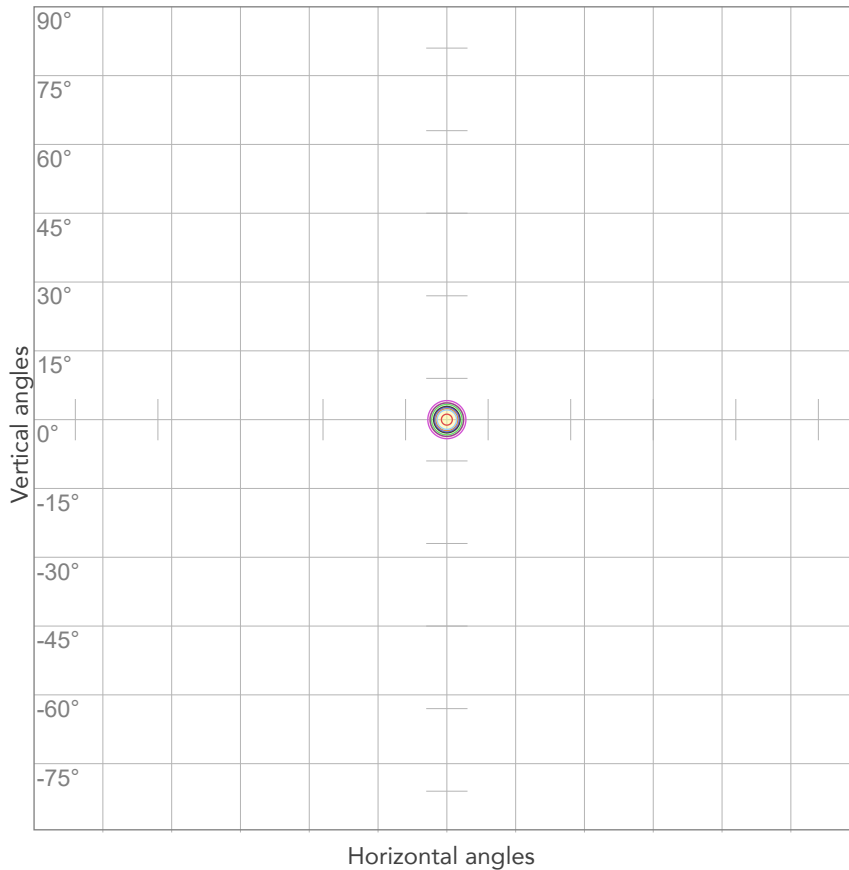


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
227V	0,114A	23,7W	0,91	9lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



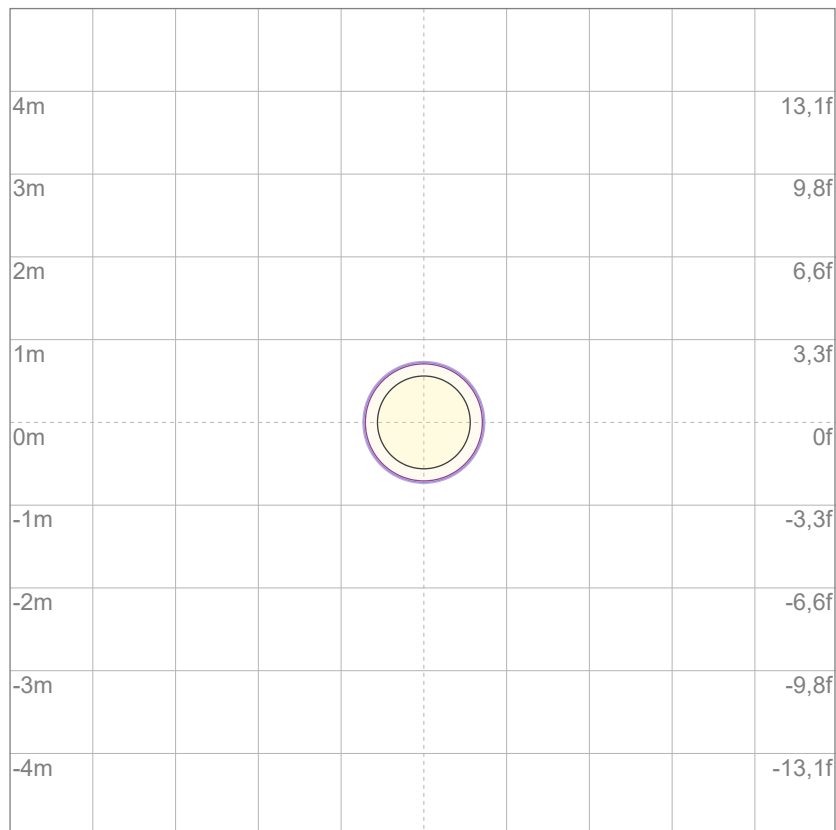
10%	2210 cd
20%	4420 cd
30%	6631 cd
40%	8841 cd
50%	11051 cd
60%	13261 cd
70%	15472 cd
80%	17682 cd

Conditions:

Number of c-planes: 2

Candela at center: 22102 cd

ISO LUX DIAGRAM



3%	6,63 lx
5%	11,1 lx
10%	22,1 lx
30%	66,3 lx
50%	111 lx

Conditions:

Number of c-planes: 2

Lux at center: 221 lx

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



Total lumen output:

183 lm

Peak candela output:

19724 cd

Light quality:

CRI: 92,4

Color temperature:

3188 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8°

Target:

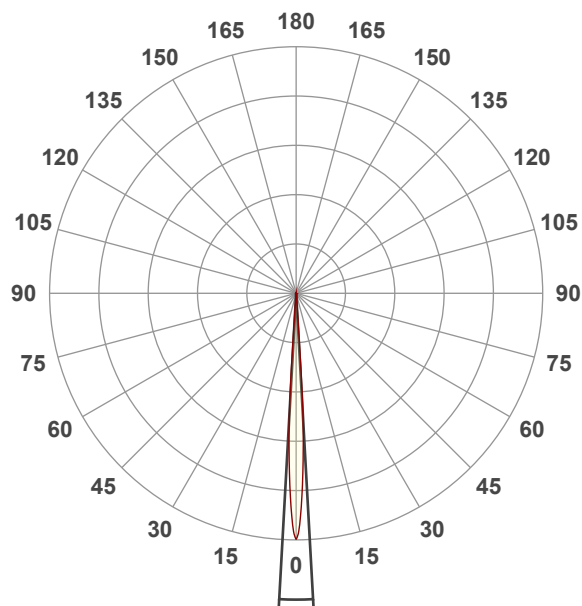
3200K

Operator:

Giacomo Matteo

Date and time:

12/06/2024 10:33:16

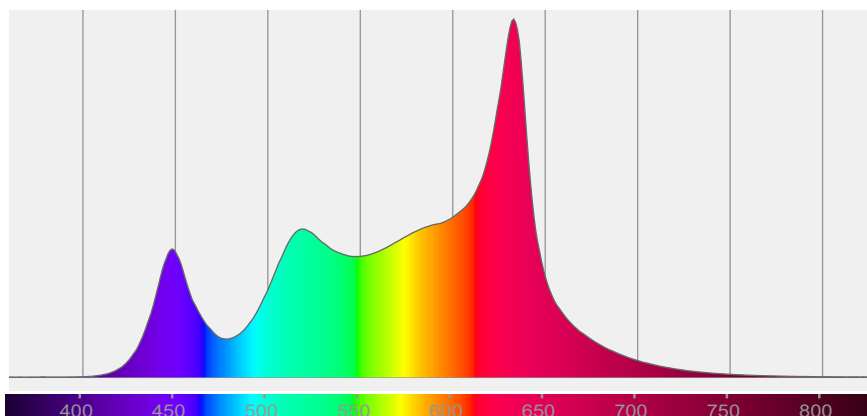


Beam angle 50%: 6,3°

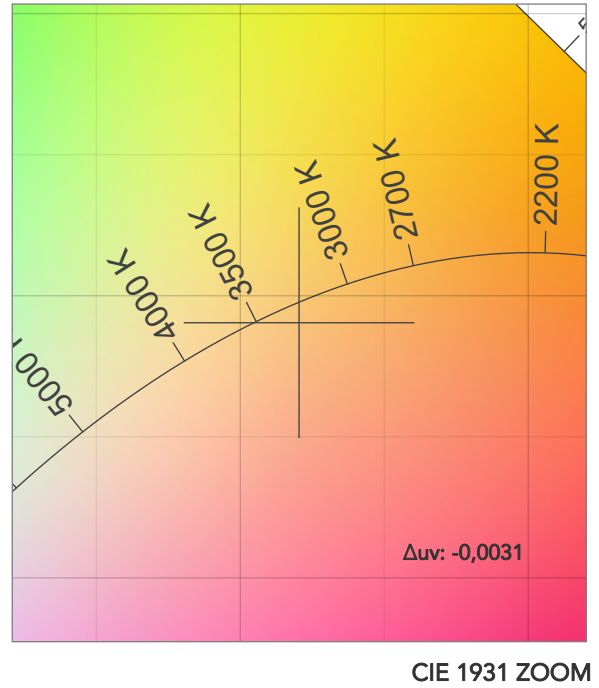
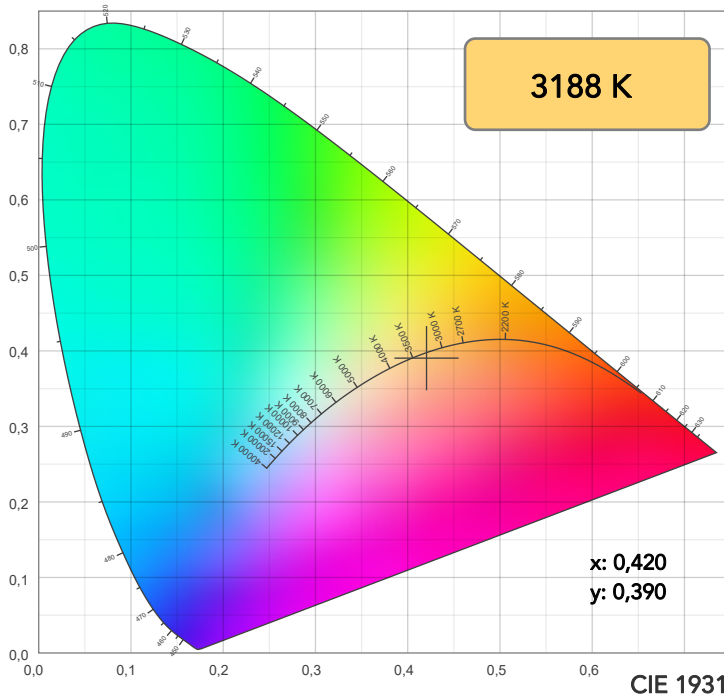
Field angle 10%: 8,1°

Cut off angle 2.5%: 8,8°

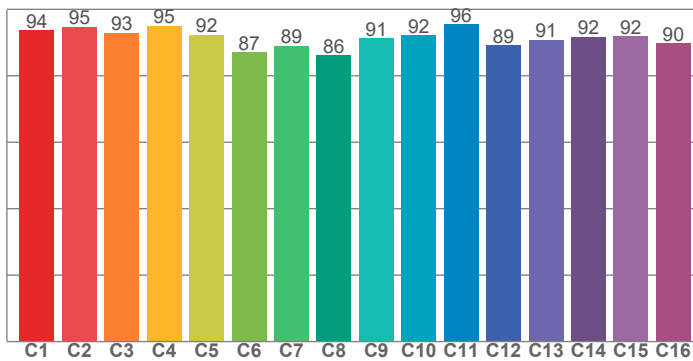
Spectra



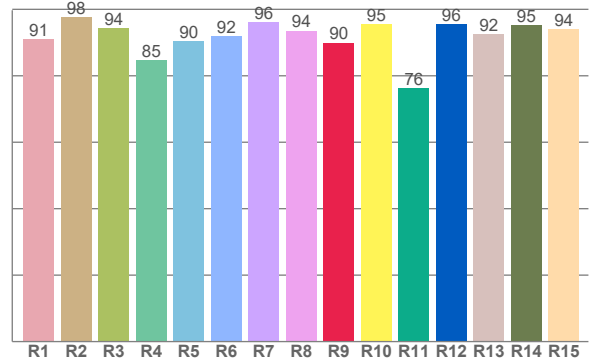
COLOR DETAILS



TM30: 92,1



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
90,9	97,7	94,4	84,7	90,3	91,8	96,0	93,5	89,9	95,4	76,2	95,5	92,5	95,2	94,0

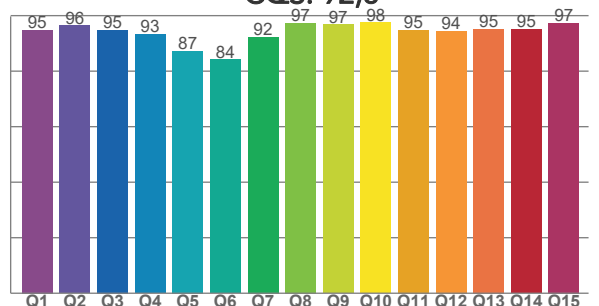
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,7	94,7	92,9	95,0	92,4	87,0	89,0	86,1	91,3	92,1	95,5	89,2	90,7	91,7	91,9	89,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,8	96,5	94,7	93,3	87,2	84,2	92,3	97,4	96,7	97,5	94,7	94,5	95,2	95,1	97,4

CQS: 92,8



COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3188 K	92,4	89,9	92,1	107,0	92,8	82	0,420	0,390	-0,0031

TM30 DETAILS

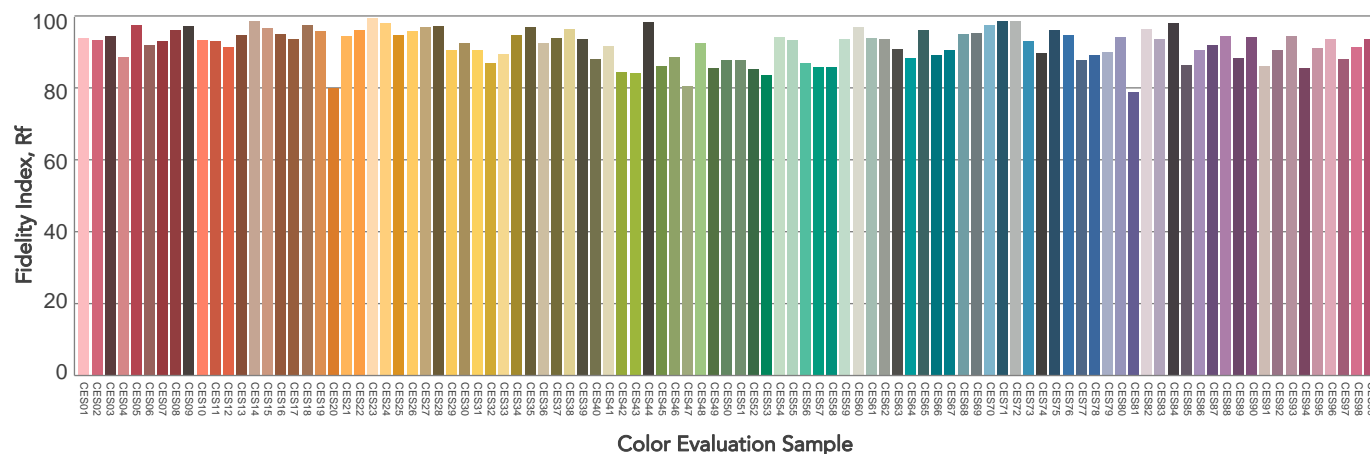
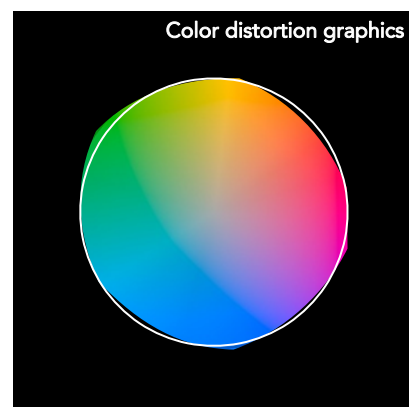
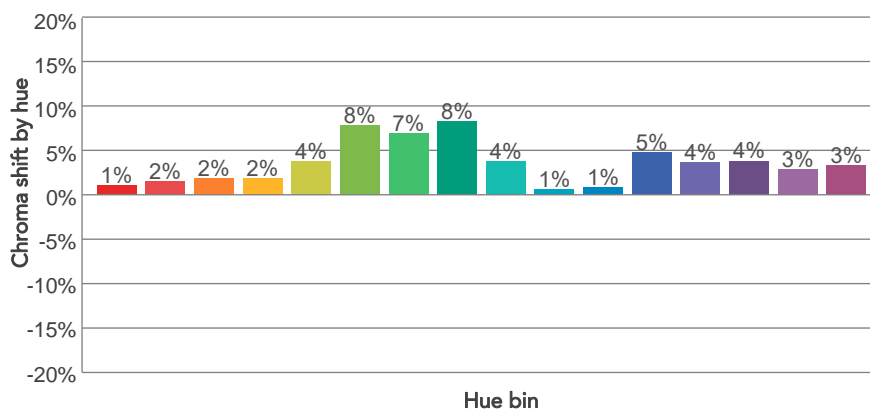
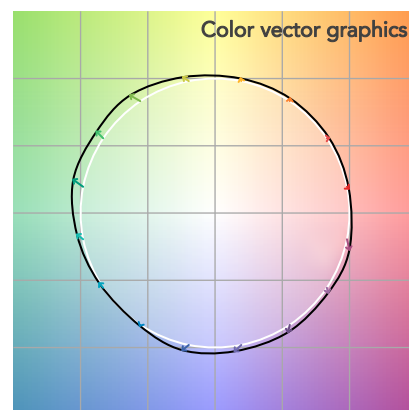
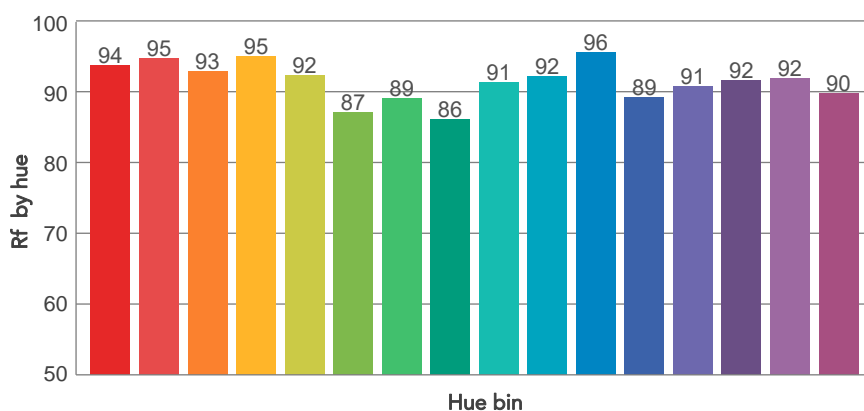
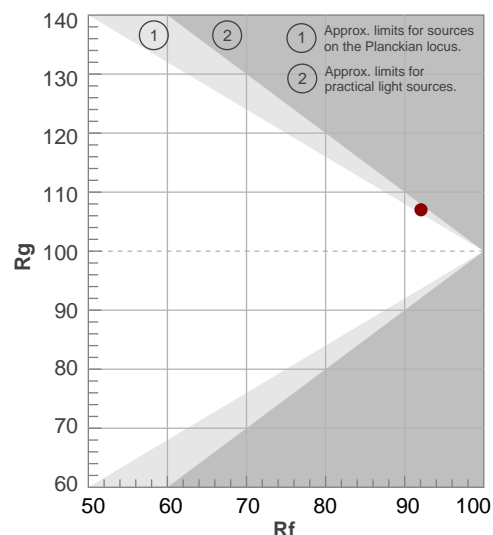
Rf 92,1

Fidelity index Rf

Rg 107,0

Gammut index

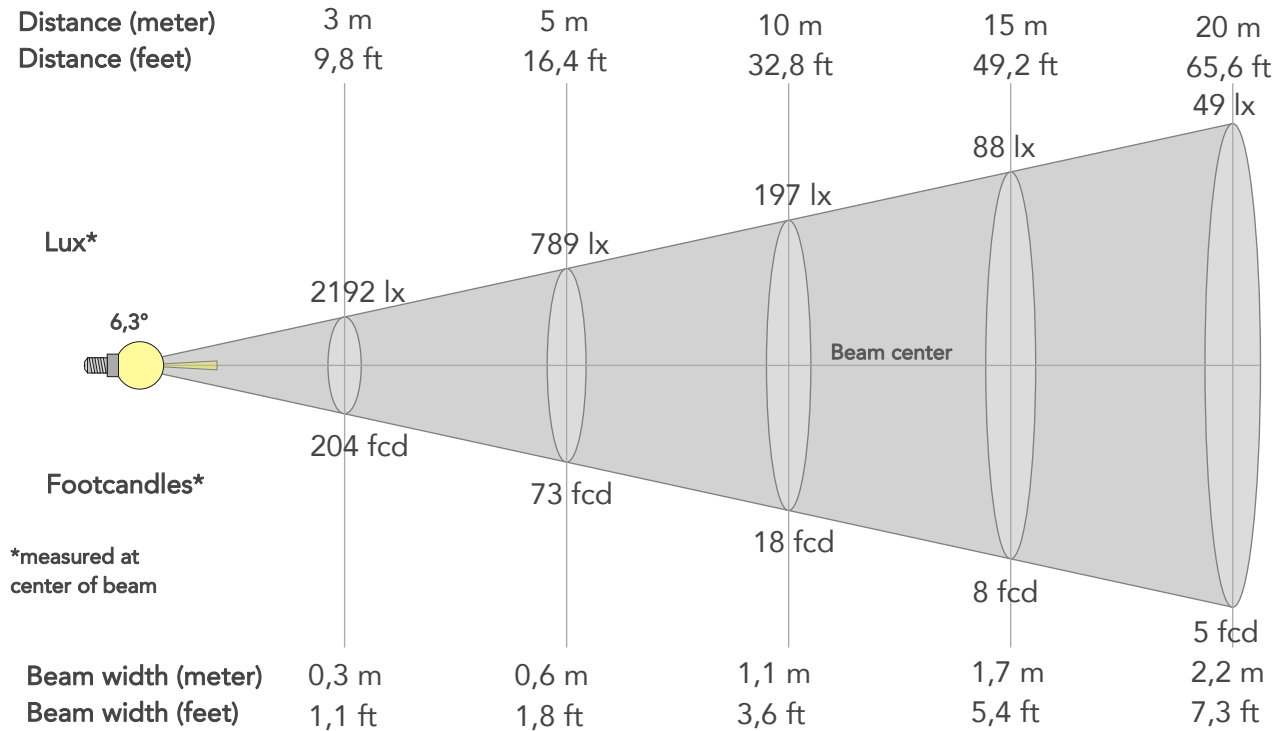
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	-2%
2	95	2%	-1%
3	93	2%	1%
4	95	2%	1%
5	92	4%	4%
6	87	8%	4%
7	89	7%	-1%
8	86	8%	-4%
9	91	4%	-4%
10	92	1%	-4%
11	96	1%	0%
12	89	5%	-4%
13	91	4%	-6%
14	92	4%	-4%
15	92	3%	-2%
16	90	3%	-7%



BEAM DETAILS



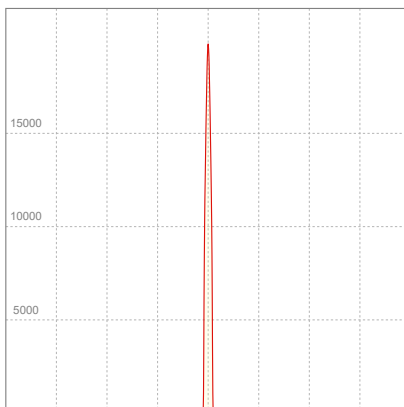
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,3°	8,1°	8,8°	98,2%	97,5%



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	19724lx	4931lx	2192lx	1233lx	789lx	351lx	197lx	88lx	49lx	32lx	22lx	12lx	8lx
Footcand.	1832fcd	458fcd	204fcd	115fcd	73fcd	33fcd	18fcd	8fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,6m	0,8m	1,1m	1,7m	2,2m	2,8m	3,3m	4,4m	5,5m
Beam wid.	0,4ft	0,7ft	1,1ft	1,4ft	1,8ft	2,7ft	3,6ft	5,4ft	7,3ft	9,1ft	10,9ft	14,5ft	18,2ft

LINEAR DISTRIBUTION DIAGRAM

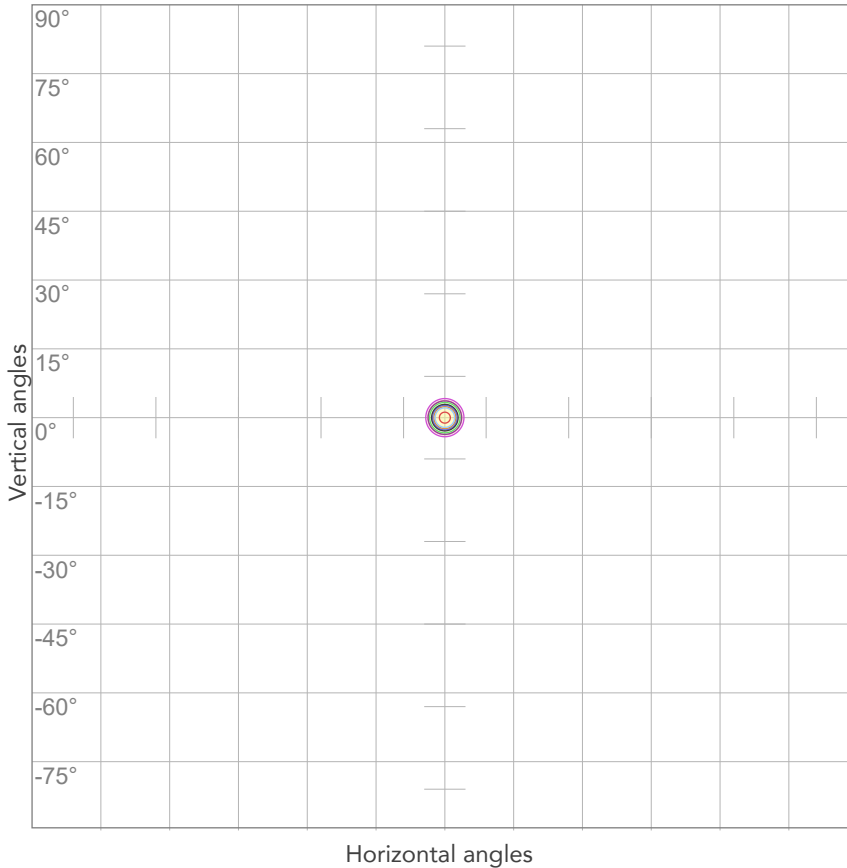


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
227V	0,107A	21,9W	0,9	8lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



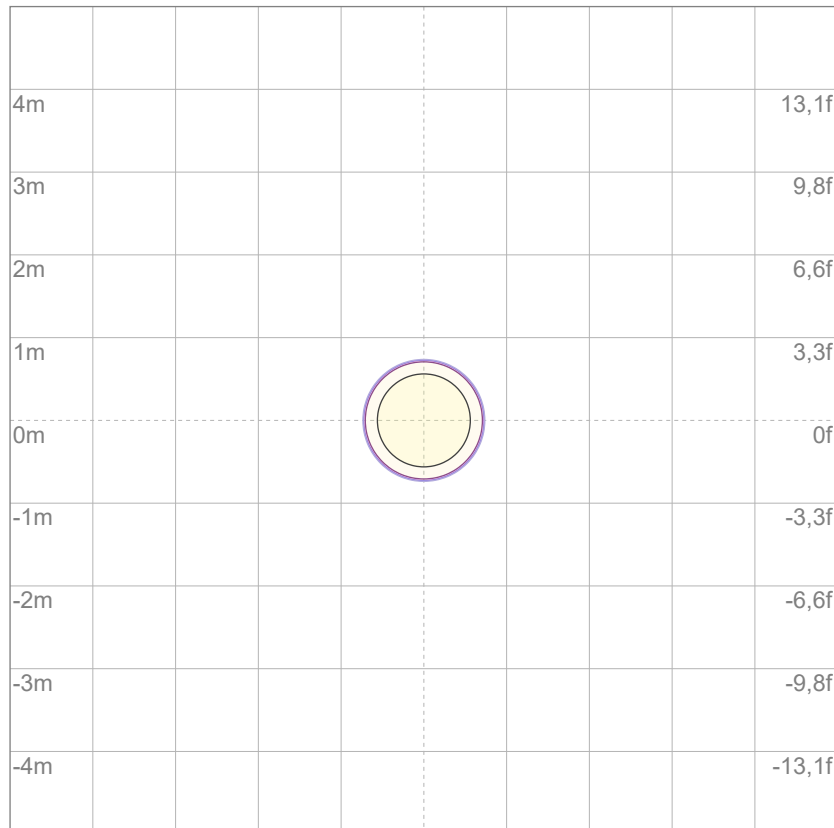
10%	1972 cd
20%	3945 cd
30%	5917 cd
40%	7890 cd
50%	9862 cd
60%	11835 cd
70%	13807 cd
80%	15779 cd

Conditions:

Number of c-planes: 2

Candela at center: 19724 cd

ISO LUX DIAGRAM



3%	5,92 lx
5%	9,86 lx
10%	19,7 lx
30%	59,2 lx
50%	98,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 197 lx

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



Total lumen output:

137 lm

Peak candela output:

14519 cd

Light quality:

CRI: 92,7

Color temperature:

4006 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8°

Target:

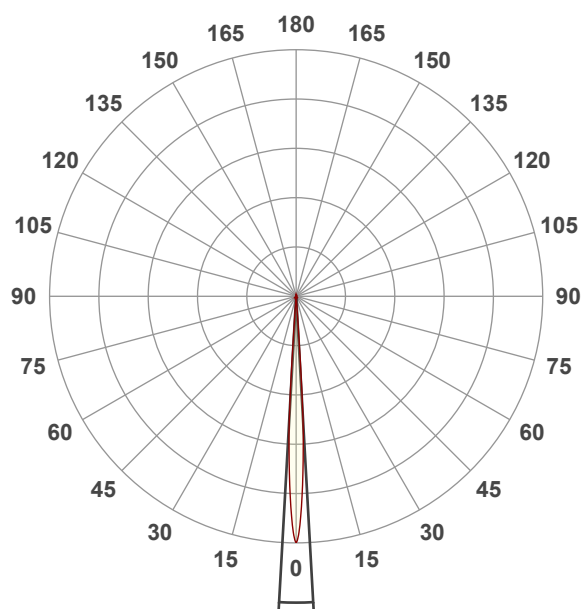
4000K

Operator:

Giacomo Matteo

Date and time:

12/06/2024 10:35:03

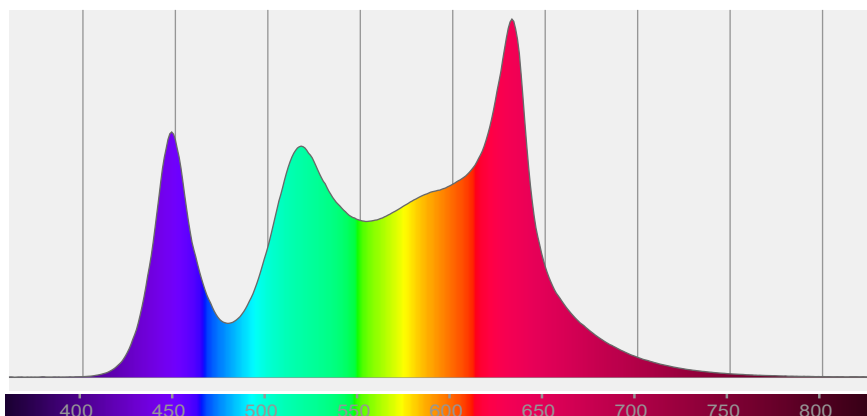


Beam angle 50%: 6,4°

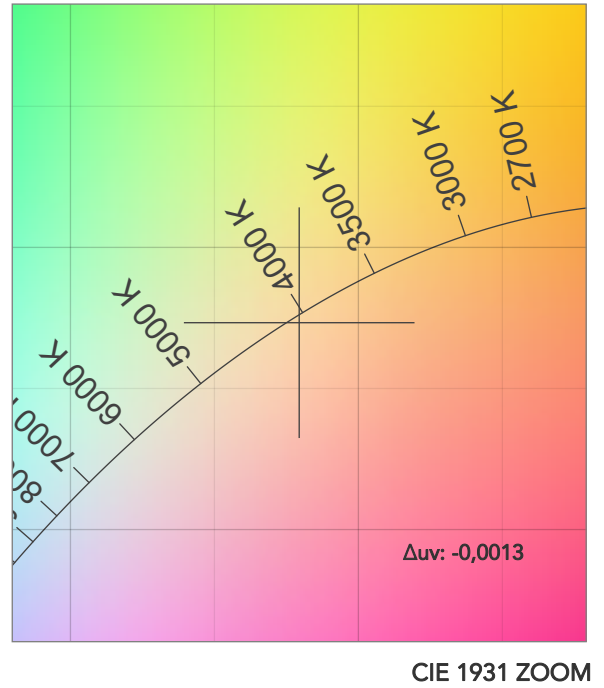
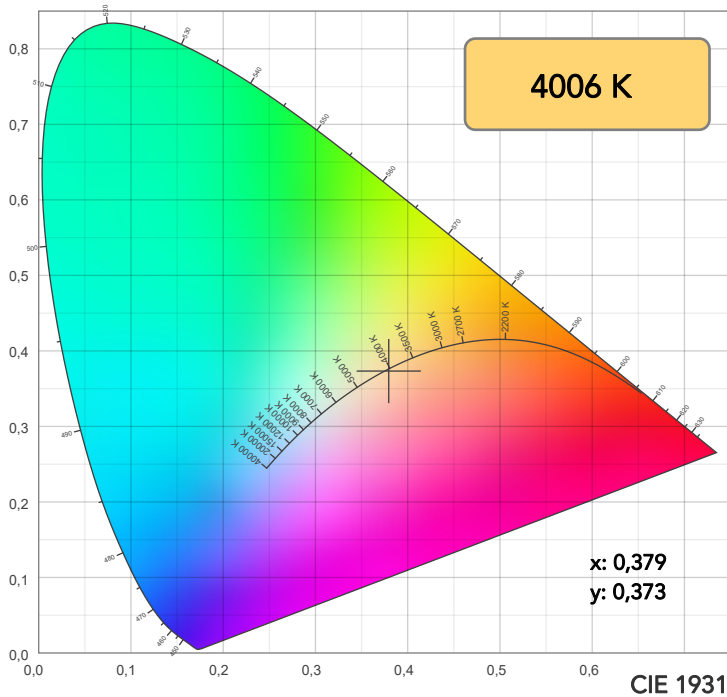
Field angle 10%: 8,1°

Cut off angle 2.5%: 8,7°

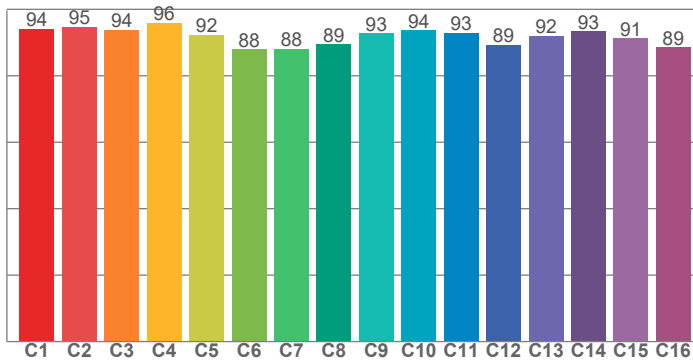
Spectra



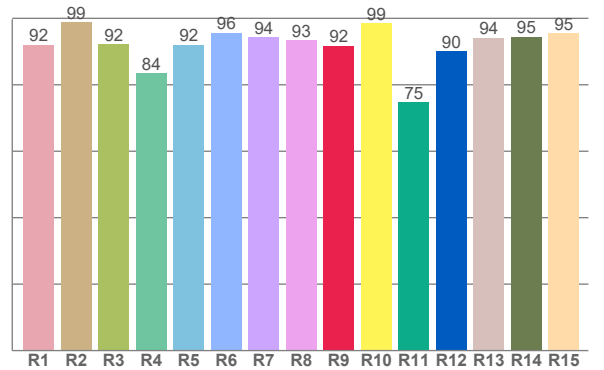
COLOR DETAILS



TM30: 92,3



CRI: 92,7 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,0	98,8	92,3	83,5	92,1	95,7	94,3	93,4	91,7	98,6	74,8	90,1	94,2	94,5	95,4

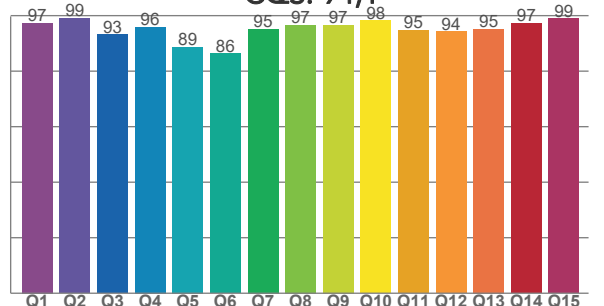
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,1	94,7	93,9	95,9	92,3	88,0	88,1	89,4	92,8	93,7	92,9	89,3	92,0	93,4	91,2	88,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,3	99,0	93,1	95,9	88,8	86,3	95,2	96,6	96,7	98,2	94,7	94,3	95,2	97,3	99,0

CQS: 94,1



COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4006 K	92,7	91,7	92,3	106,6	94,1	81	0,379	0,373	-0,0013

TM30 DETAILS

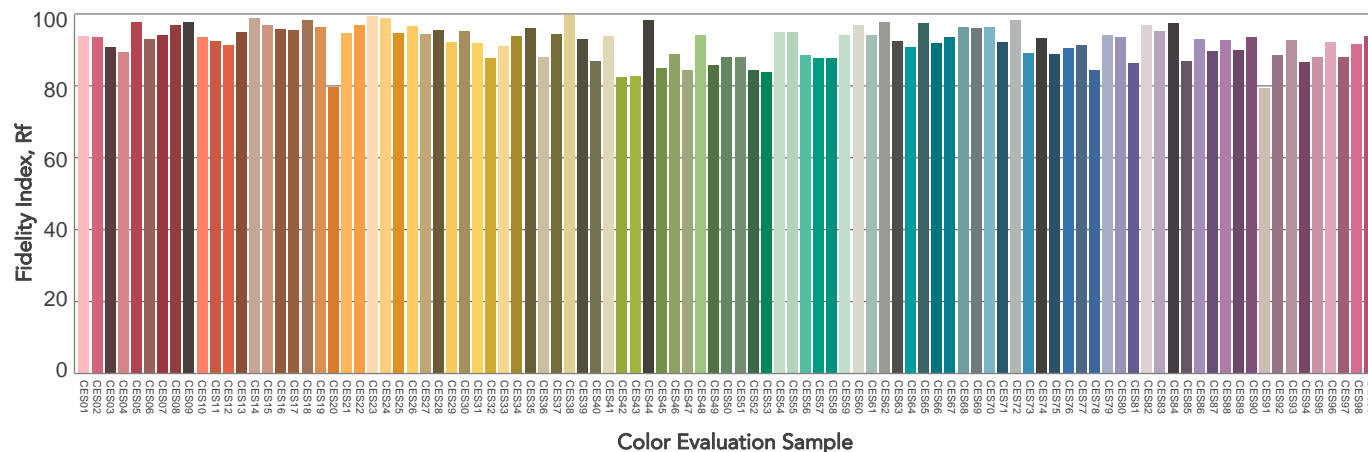
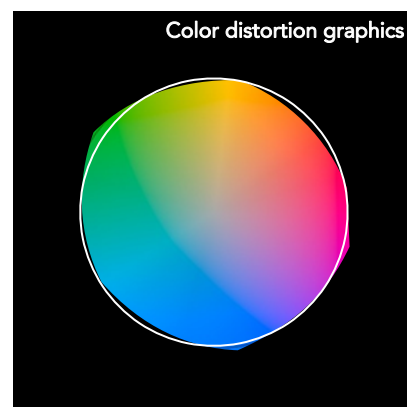
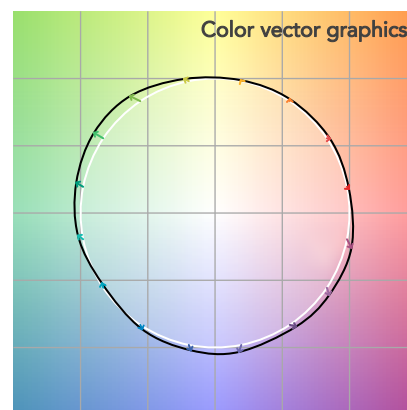
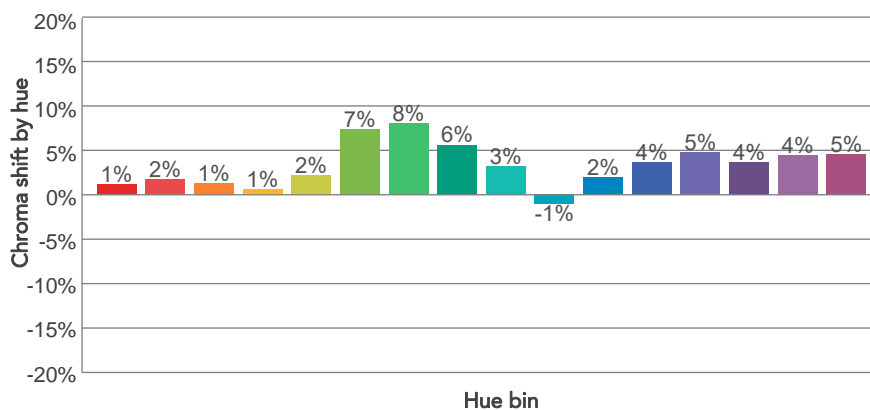
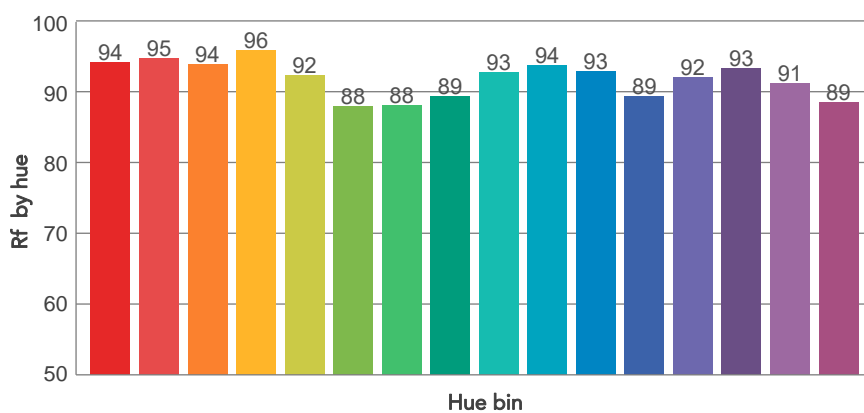
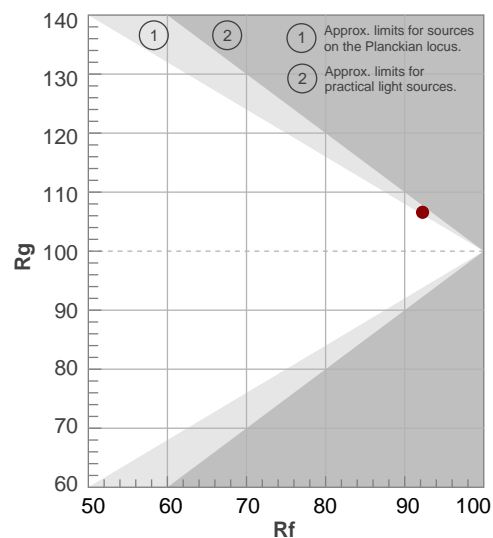
Rf 92,3

Fidelity index R_f

Rg 106,6

Gammut index

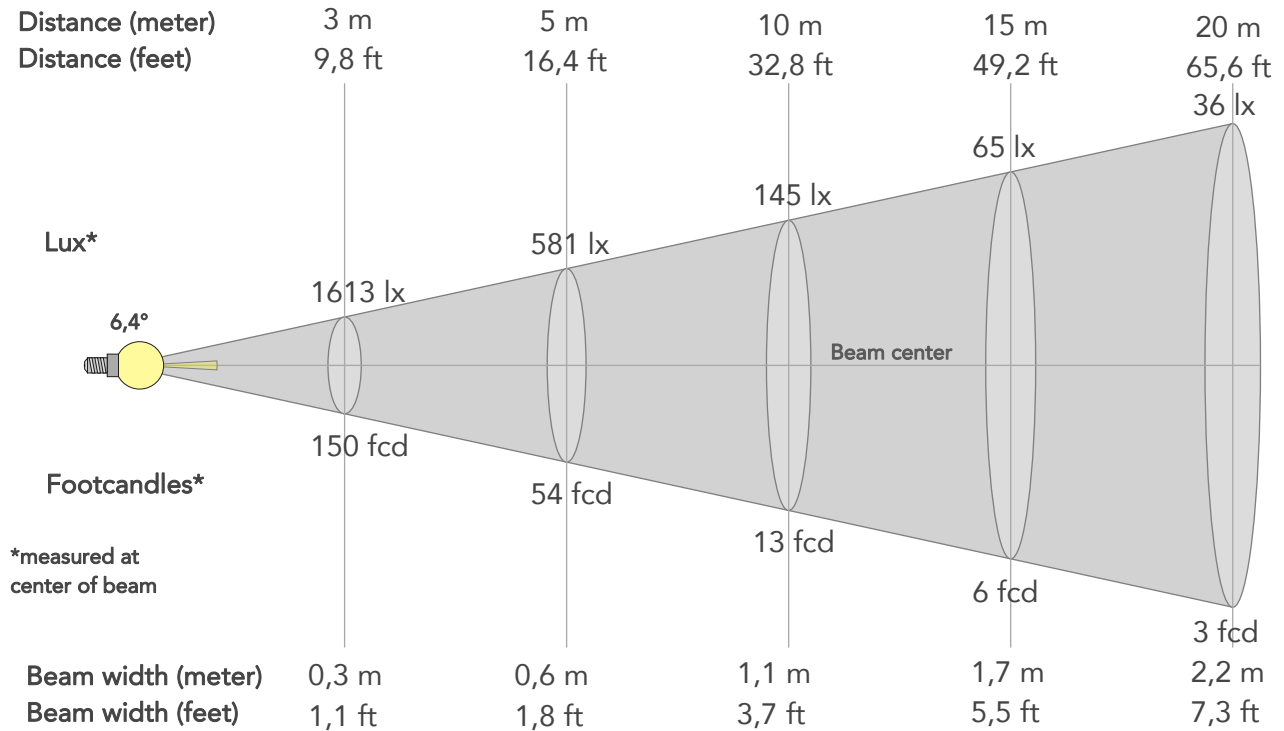
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	94	1%	-2%
2	95	2%	-1%
3	94	1%	1%
4	96	1%	1%
5	92	2%	3%
6	88	7%	4%
7	88	8%	0%
8	89	6%	-2%
9	93	3%	-3%
10	94	-1%	-3%
11	93	2%	3%
12	89	4%	2%
13	92	5%	-3%
14	93	4%	3%
15	91	4%	-4%
16	89	5%	-5%



BEAM DETAILS



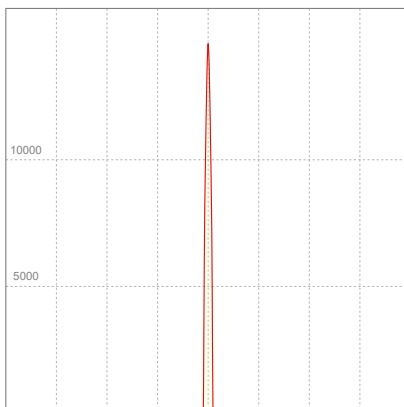
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,4°	8,1°	8,7°	97,4%	96,4%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	14519lx	3630lx	1613lx	907lx	581lx	258lx	145lx	65lx	36lx	23lx	16lx	9lx	6lx
Footcand.	1349fcd	337fcd	150fcd	84fcd	54fcd	24fcd	13fcd	6fcd	3fcd	2fcd	1fcd	1fcd	1fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,6m	0,8m	1,1m	1,7m	2,2m	2,8m	3,3m	4,5m	5,6m
Beam wid.	0,4ft	0,7ft	1,1ft	1,5ft	1,8ft	2,7ft	3,7ft	5,5ft	7,3ft	9,1ft	11ft	14,6ft	18,3ft

LINEAR DISTRIBUTION DIAGRAM

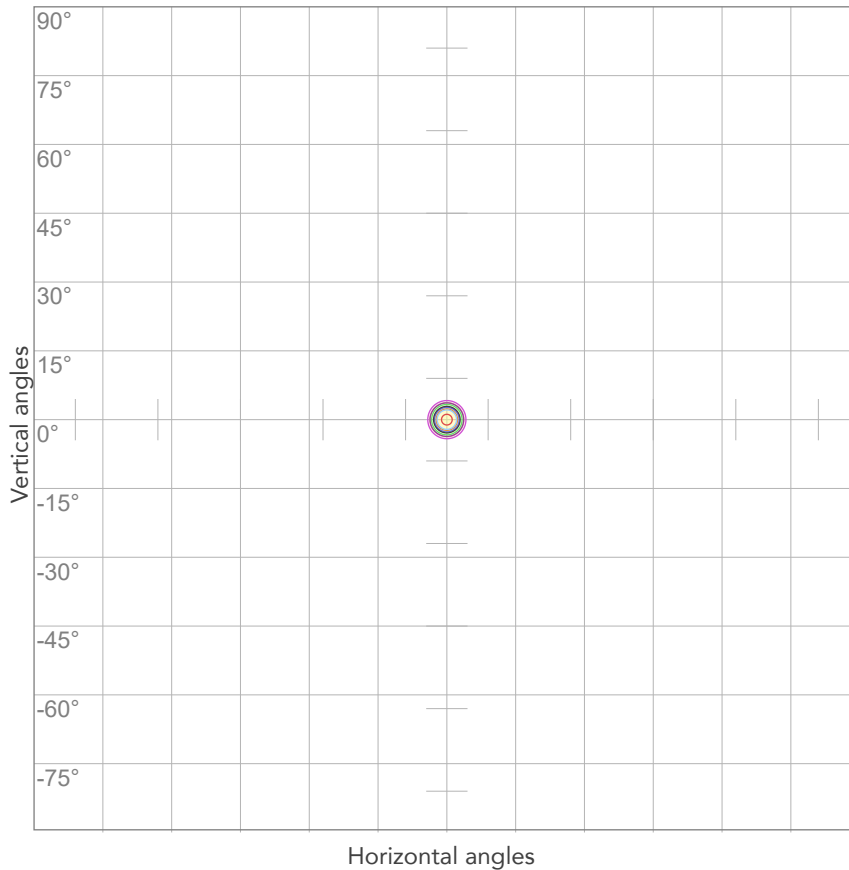


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
227V	0,089A	17,2W	0,86	8lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



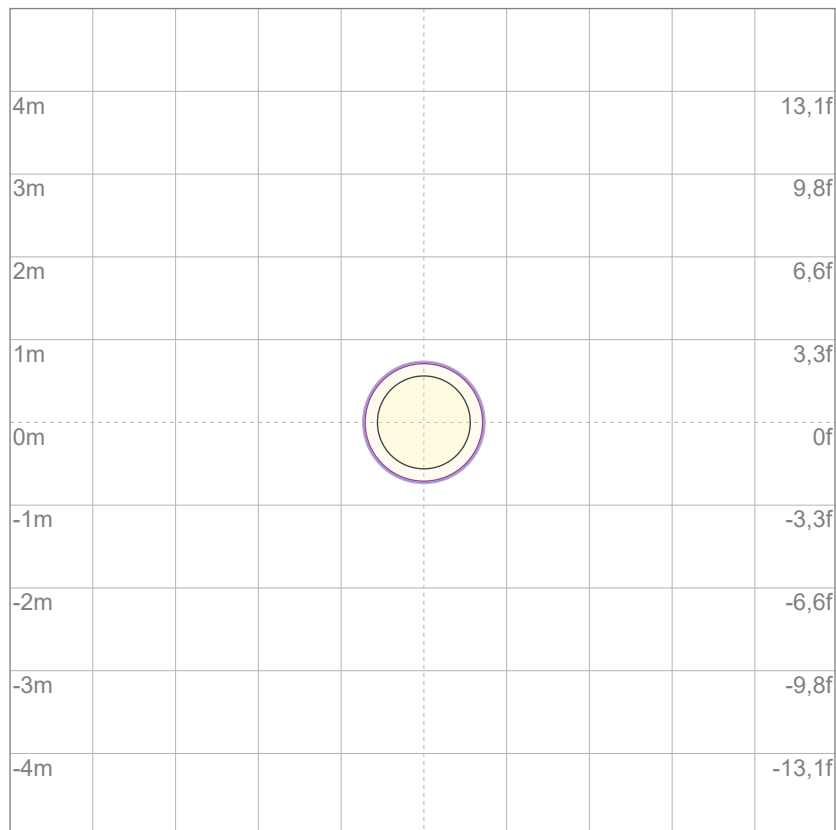
10%	1452 cd
20%	2904 cd
30%	4356 cd
40%	5808 cd
50%	7260 cd
60%	8712 cd
70%	10163 cd
80%	11615 cd

Conditions:

Number of c-planes: 2

Candela at center: 14519 cd

ISO LUX DIAGRAM



3%	4,36 lx
5%	7,26 lx
10%	14,5 lx
30%	43,6 lx
50%	72,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 145 lx

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



Total lumen output:

54,4 lm

Peak candela output:

5762 cd

Light quality:

CRI: 90,5

Color temperature:

5510 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8°

Target:

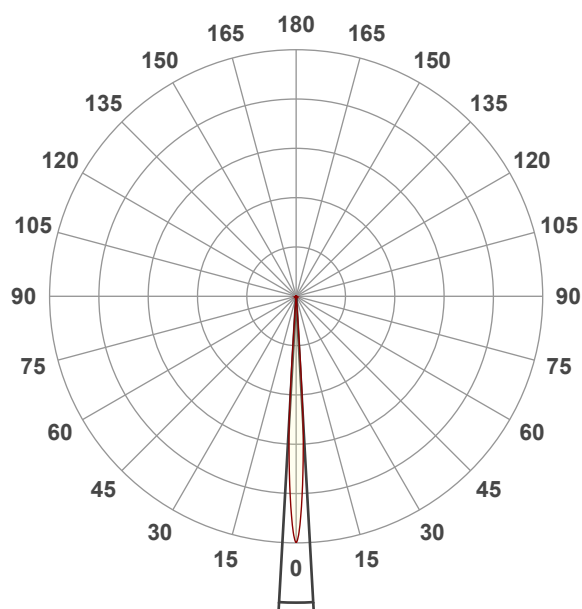
5600K

Operator:

Giacomo Matteo

Date and time:

12/06/2024 10:37:10

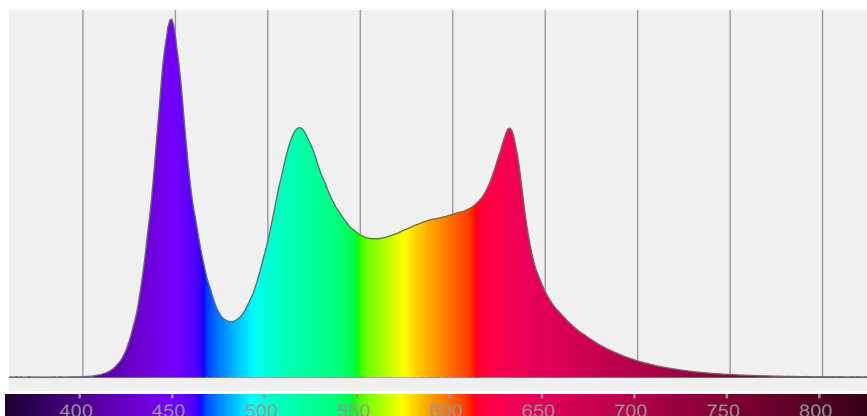


Beam angle 50%: 6,4°

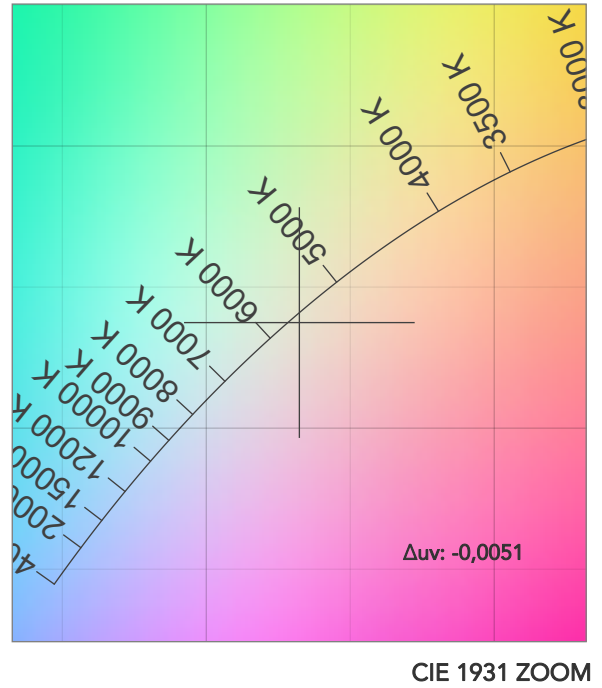
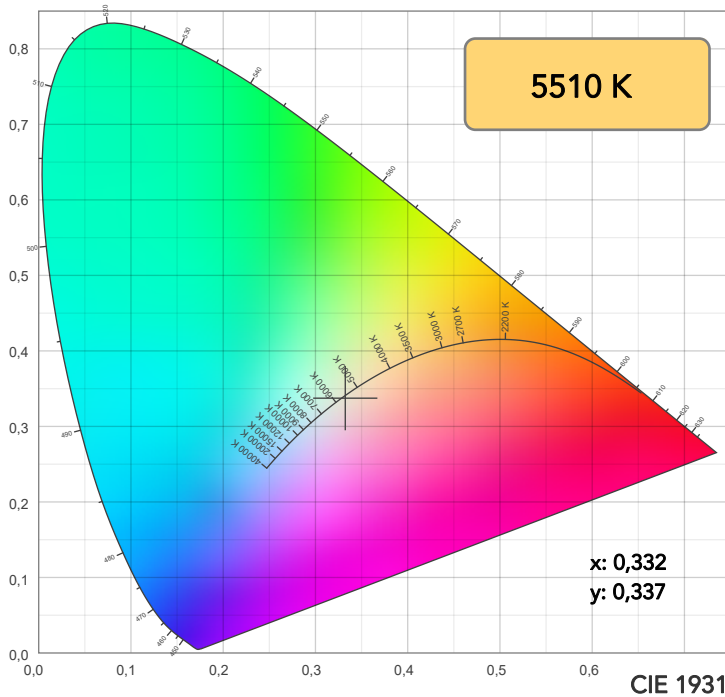
Field angle 10%: 8,1°

Cut off angle 2.5%: 8,7°

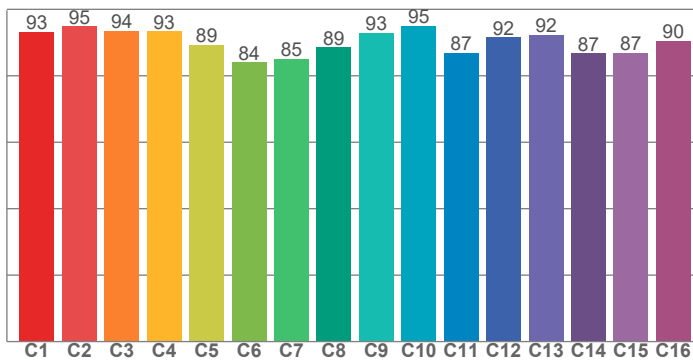
Spectra



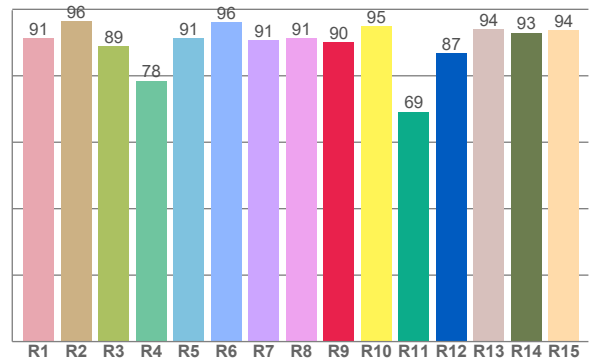
COLOR DETAILS



TM30: 90,3



CRI: 90,5 (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
91,3	96,5	88,9	78,5	91,3	96,0	90,6	91,2	90,2	94,9	69,2	86,8	93,9	92,9	93,7

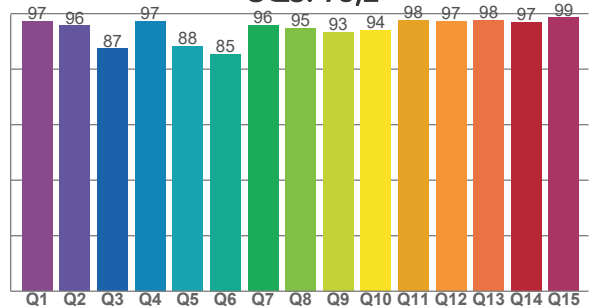
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,3	94,9	93,6	93,4	89,3	84,0	85,0	88,6	93,0	95,1	87,0	91,6	92,4	86,7	86,9	90,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,3	95,7	87,4	97,3	88,2	85,4	95,8	94,9	93,5	94,0	97,6	97,4	97,6	97,0	98,5

CQS: 93,2



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
5510 K	90,5	90,2	90,3	108,7	93,2	81	0,332	0,337	-0,0051

TM30 DETAILS

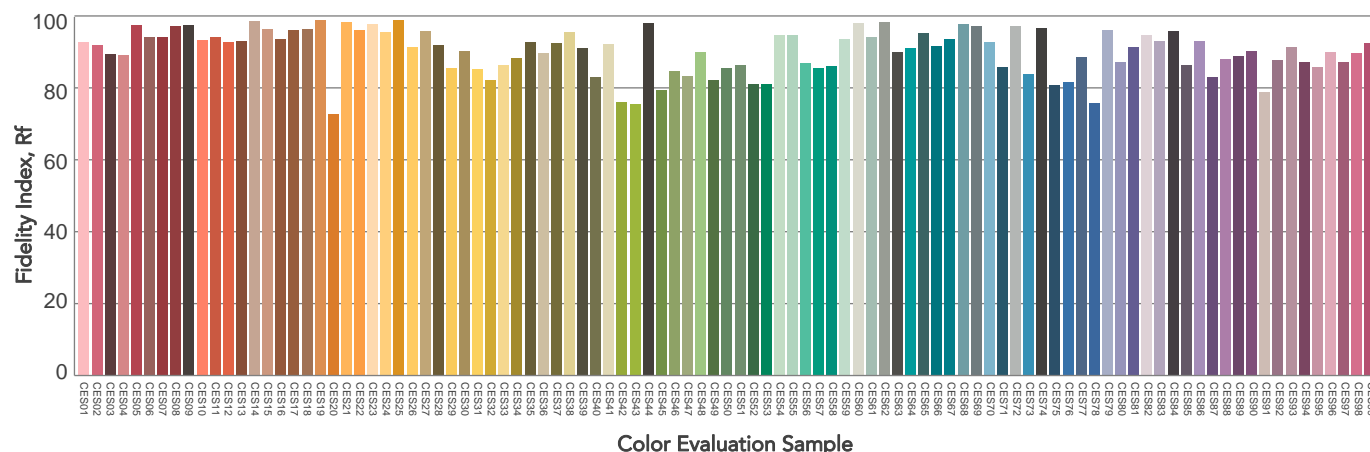
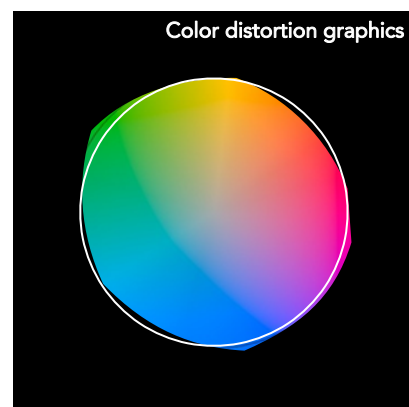
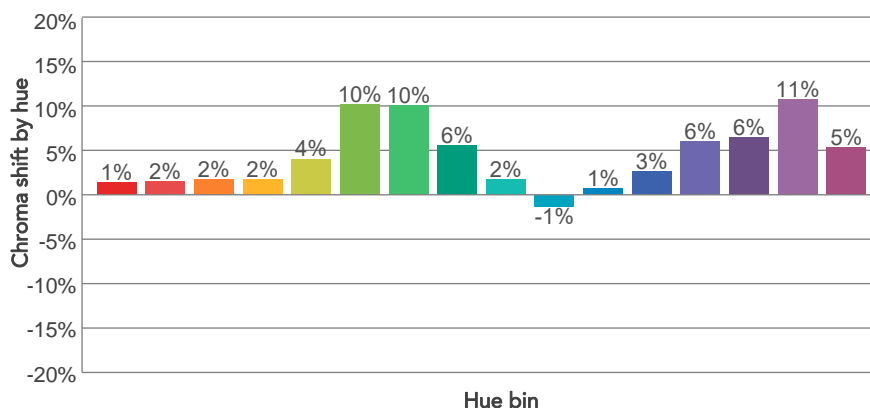
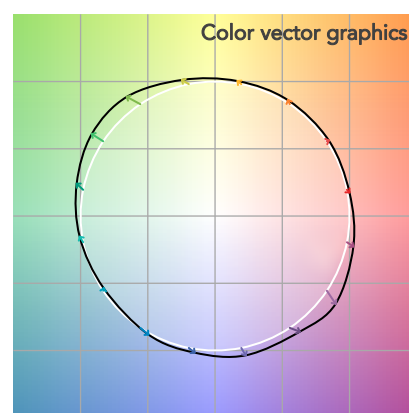
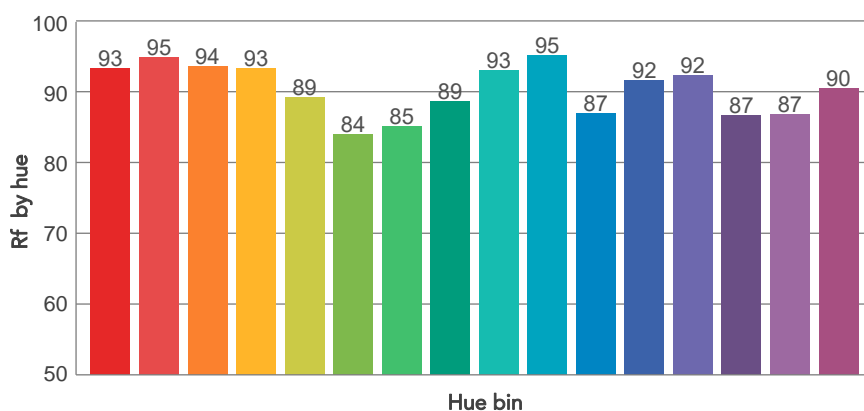
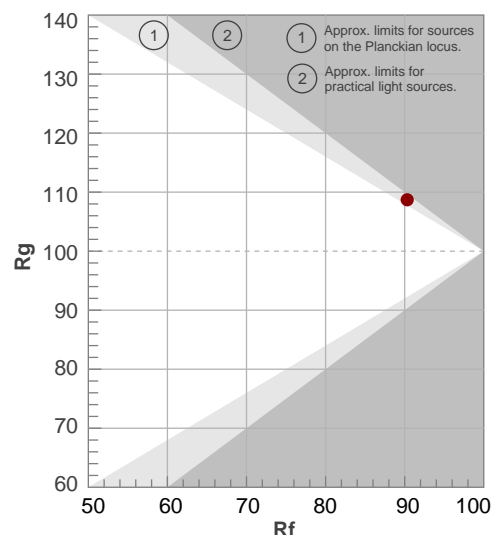
Rf 90,3

Fidelity index Rf

Rg 108,7

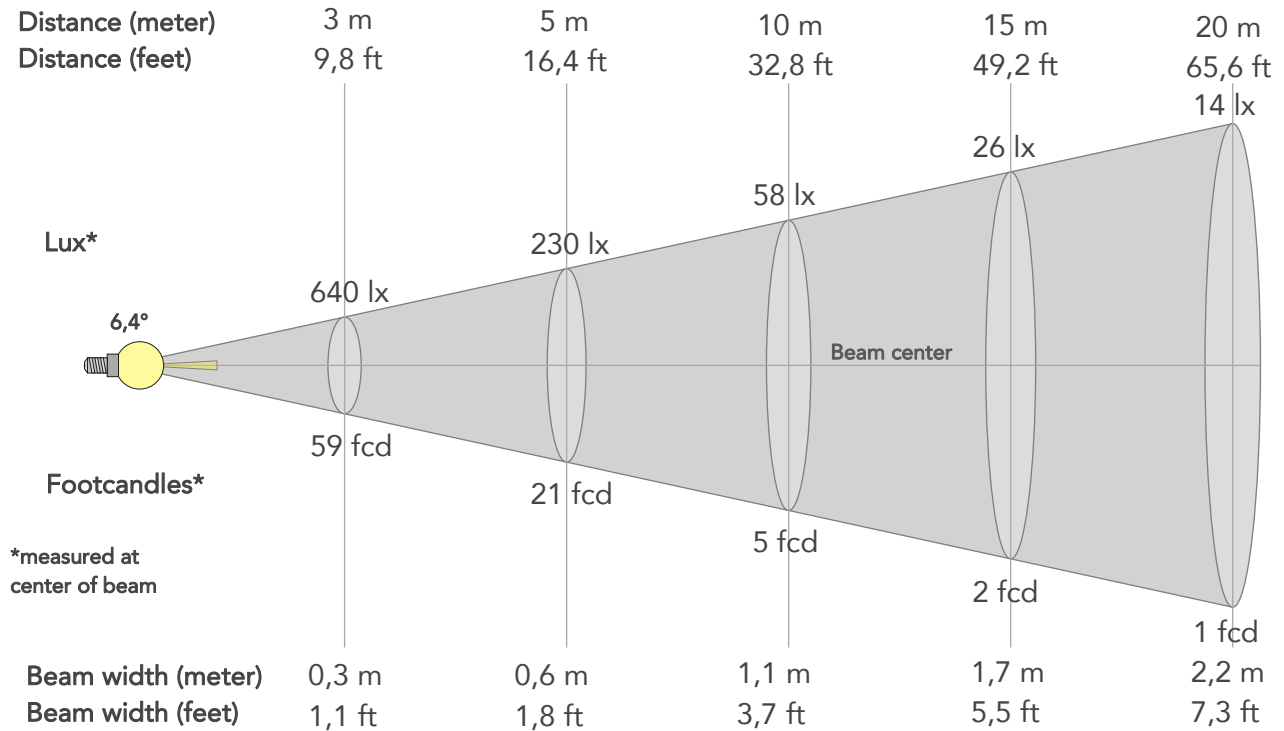
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	1%	-2%
2	95	2%	0%
3	94	2%	3%
4	93	2%	3%
5	89	4%	4%
6	84	10%	5%
7	85	10%	0%
8	89	6%	-3%
9	93	2%	-5%
10	95	-1%	-1%
11	87	1%	8%
12	92	3%	5%
13	92	6%	2%
14	87	6%	5%
15	87	11%	-4%
16	90	5%	-2%



BEAM DETAILS

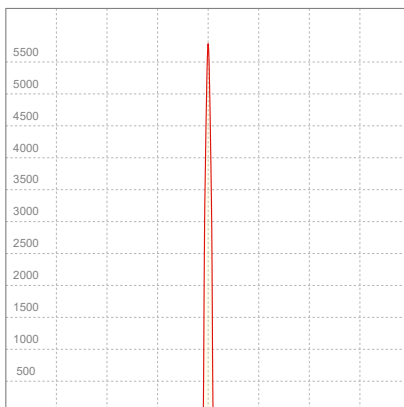
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,4°	8,1°	8,7°	97,5%	96,2%



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	5762lx	1441lx	640lx	360lx	230lx	102lx	58lx	26lx	14lx	9lx	6lx	4lx	2lx
Footcand.	535fcd	134fcd	59fcd	33fcd	21fcd	10fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,6m	0,8m	1,1m	1,7m	2,2m	2,8m	3,4m	4,5m	5,6m
Beam wid.	0,4ft	0,7ft	1,1ft	1,5ft	1,8ft	2,7ft	3,7ft	5,5ft	7,3ft	9,2ft	11ft	14,7ft	18,3ft

LINEAR DISTRIBUTION DIAGRAM

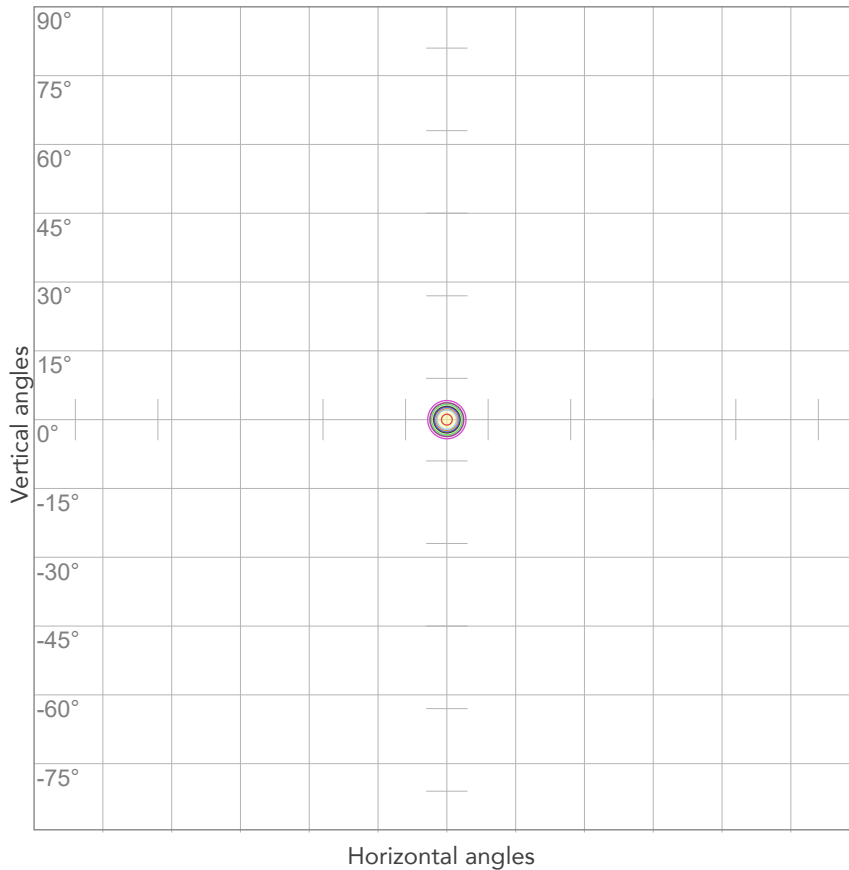


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
227V	0,070A	9,7W	0,61	6lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



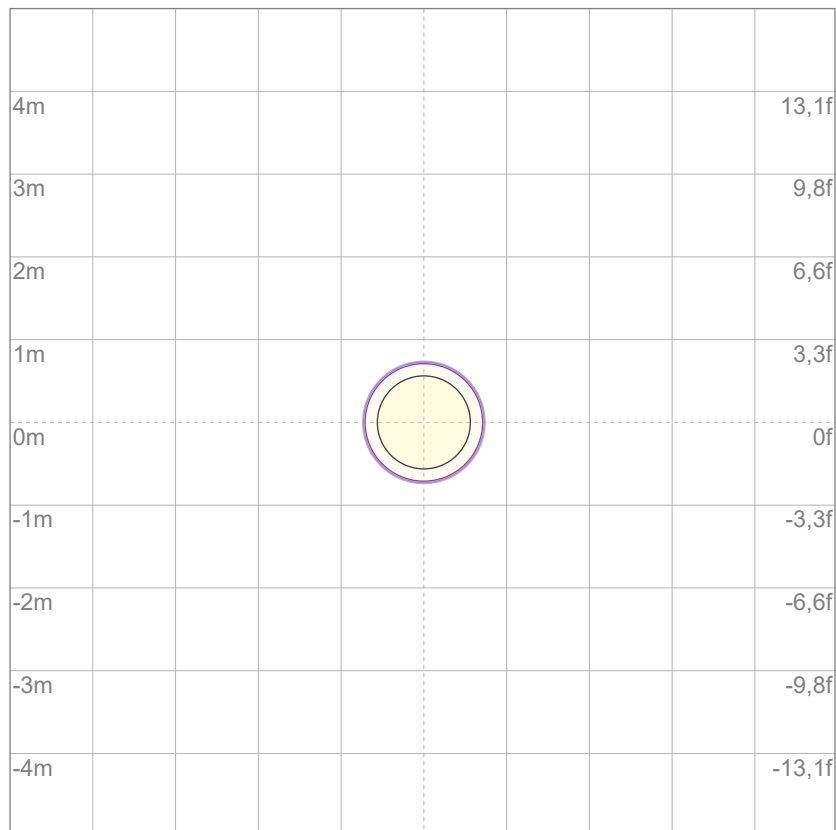
10%	576 cd
20%	1152 cd
30%	1729 cd
40%	2305 cd
50%	2881 cd
60%	3457 cd
70%	4034 cd
80%	4610 cd

Conditions:

Number of c-planes: 2

Candela at center: 5762 cd

ISO LUX DIAGRAM



3%	1,73 lx
5%	2,88 lx
10%	5,76 lx
30%	17,3 lx
50%	28,8 lx

Conditions:

Number of c-planes: 2

Lux at center: 57,6 lx

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



Total lumen output:

62,4 lm

Peak candela output:

6535 cd

Light quality:

CRI: 90,1

Color temperature:

6054 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 8°

Target:

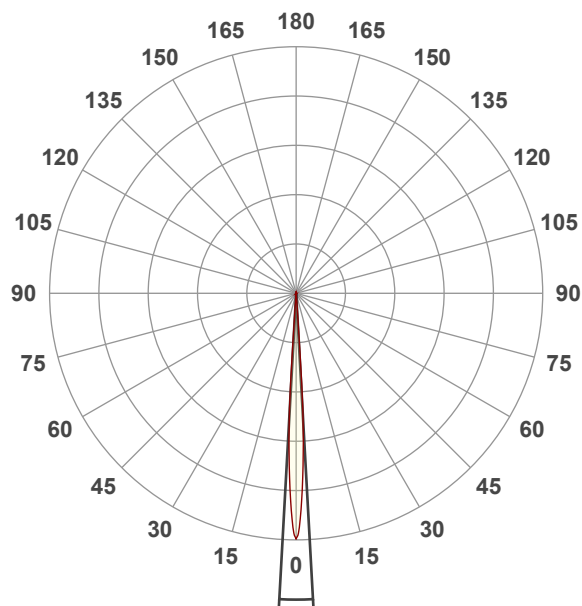
6000K

Operator:

Giacomo Matteo

Date and time:

12/06/2024 10:39:18

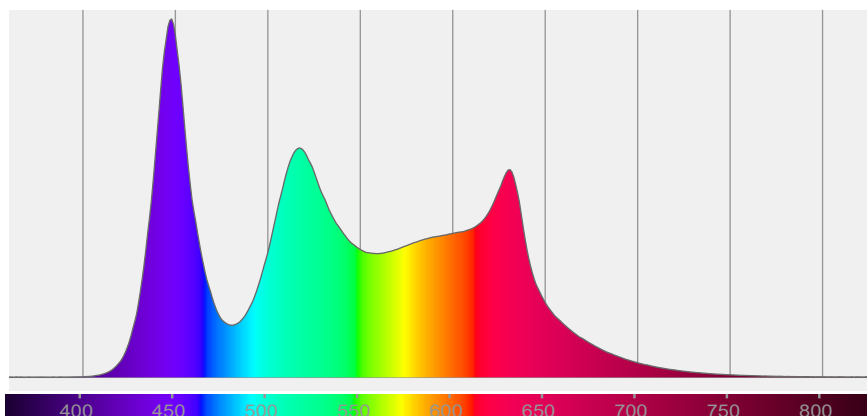


Beam angle 50%: 6,3°

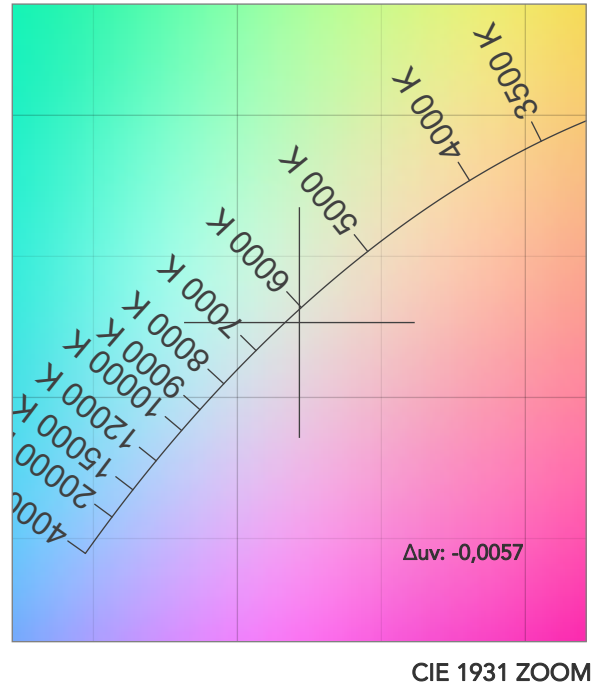
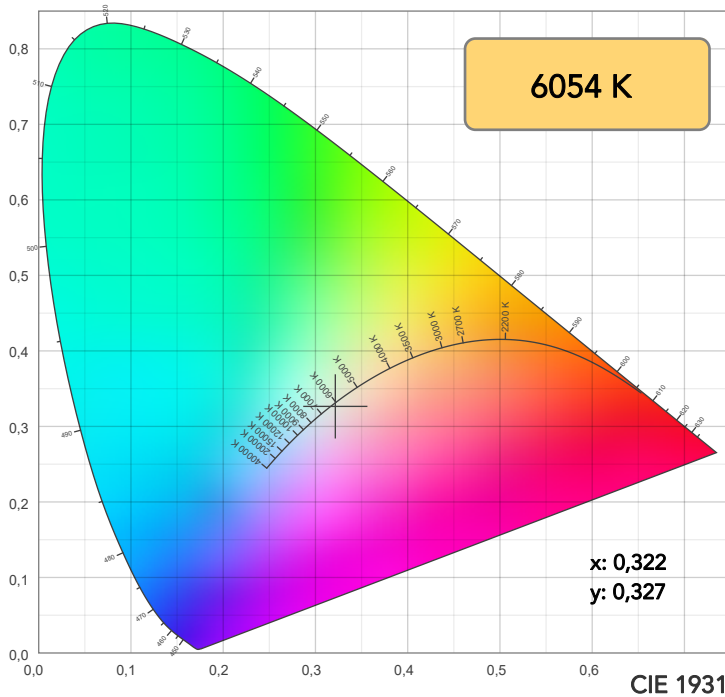
Field angle 10%: 8°

Cut off angle 2.5%: 8,8°

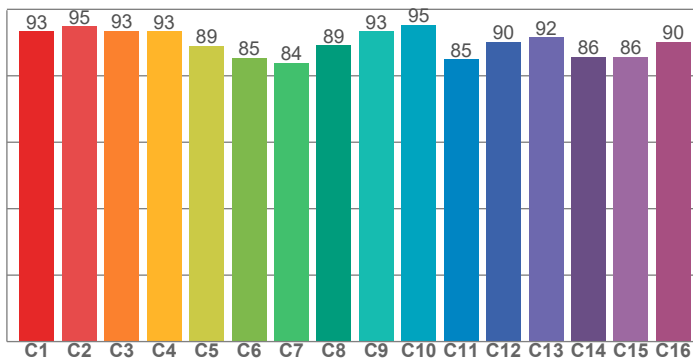
Spectra



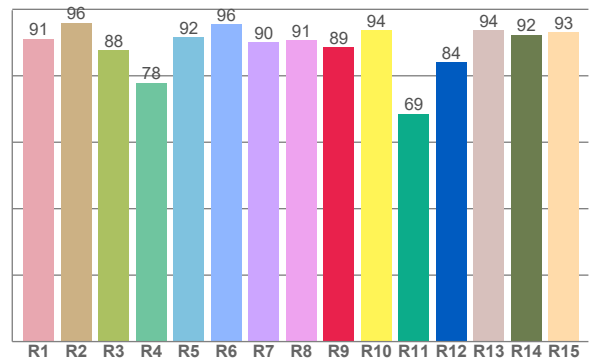
COLOR DETAILS



TM30: 90,0



CRI: 90,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91,1	96,0	87,6	77,9	91,6	95,5	90,2	90,6	88,5	93,7	68,5	84,1	93,8	92,3	93,1

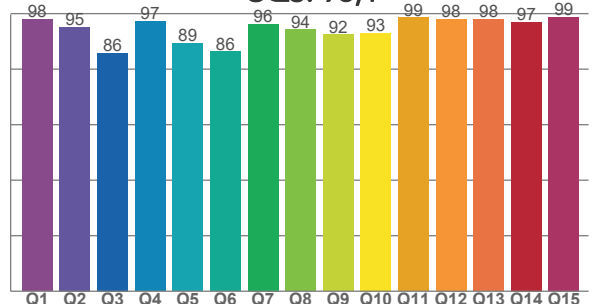
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,3	94,9	93,5	93,3	89,0	85,3	84,0	89,2	93,3	95,4	84,9	90,2	91,6	85,7	85,7	90,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,9	95,1	85,9	97,2	89,3	86,4	96,3	94,3	92,5	93,0	98,5	98,1	97,9	96,9	98,7

CQS: 93,1



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	Δuv
6054 K	90,1	88,5	90,0	108,9	93,1	82	0,322	0,327	-0,0057

TM30 DETAILS

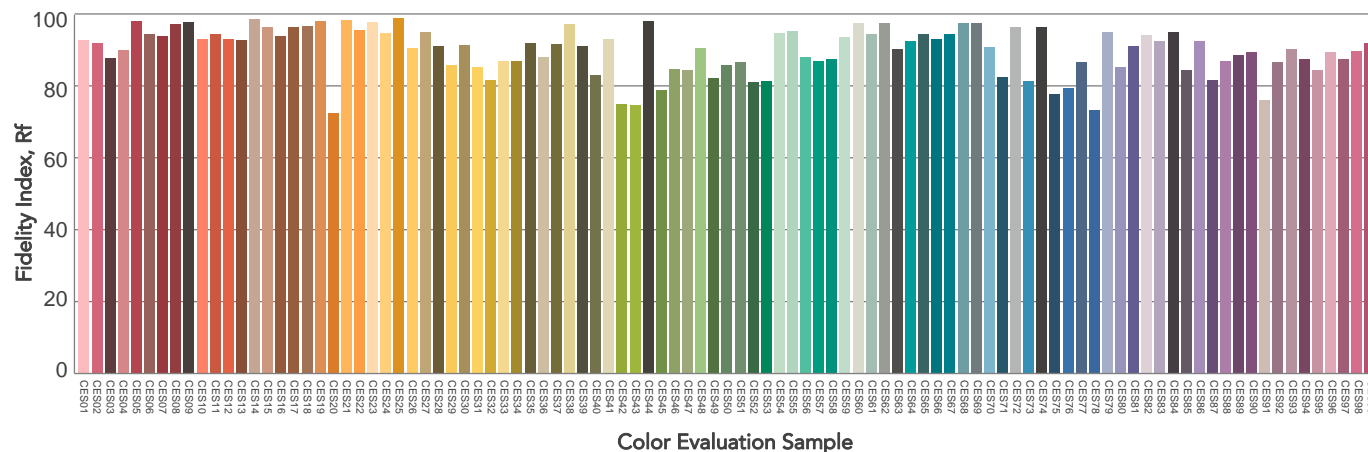
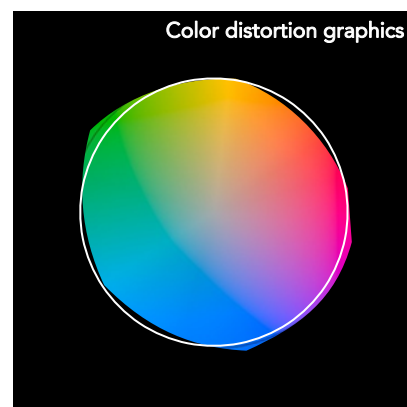
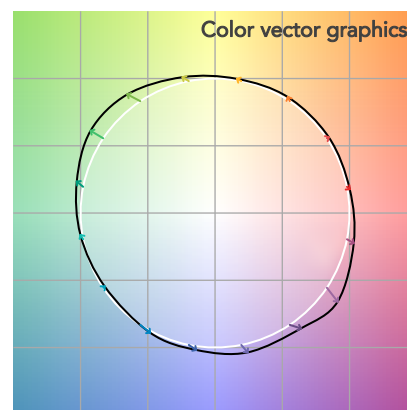
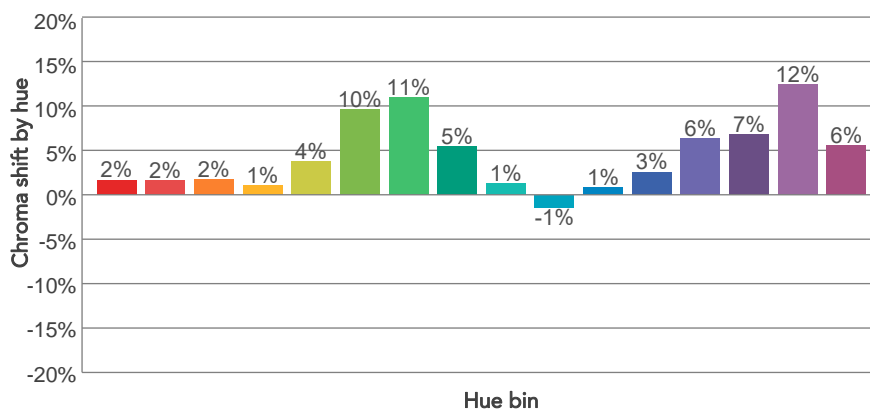
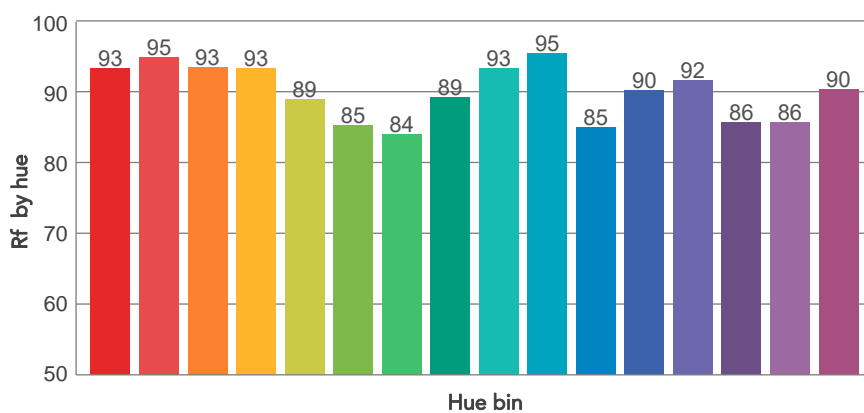
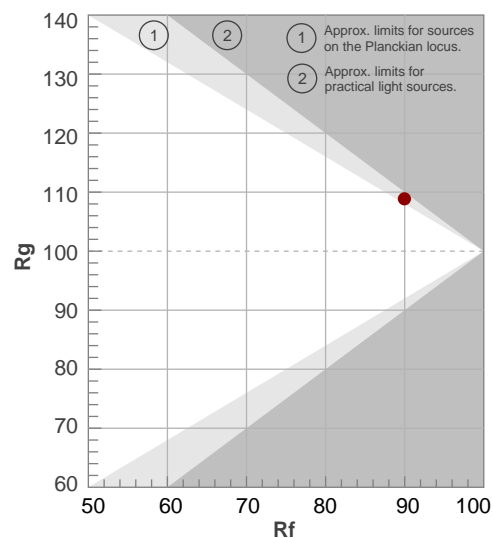
Rf 90,0

Fidelity index R_f

Rg 108,9

Gammut index

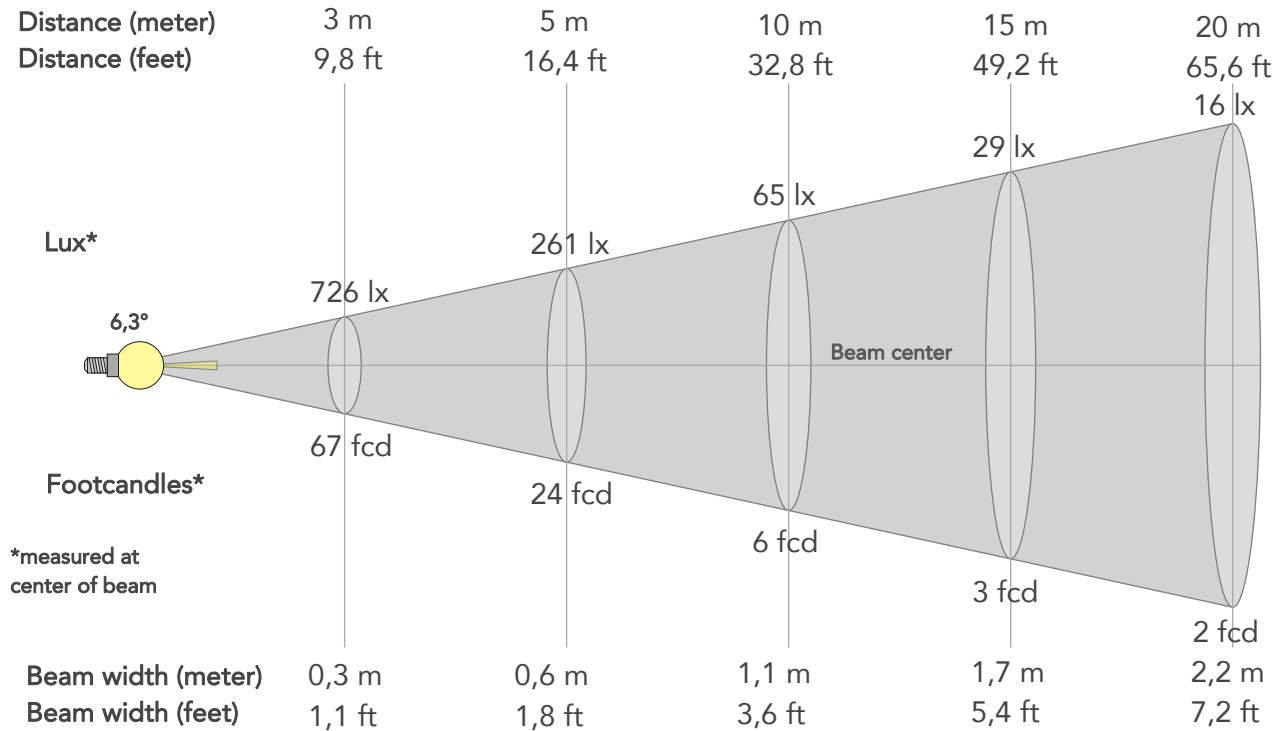
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	93	2%	-2%
2	95	2%	0%
3	93	2%	3%
4	93	1%	3%
5	89	4%	4%
6	85	10%	5%
7	84	11%	1%
8	89	5%	-3%
9	93	1%	-4%
10	95	-1%	0%
11	85	1%	9%
12	90	3%	6%
13	92	6%	4%
14	86	7%	5%
15	86	12%	-4%
16	90	6%	-2%



BEAM DETAILS



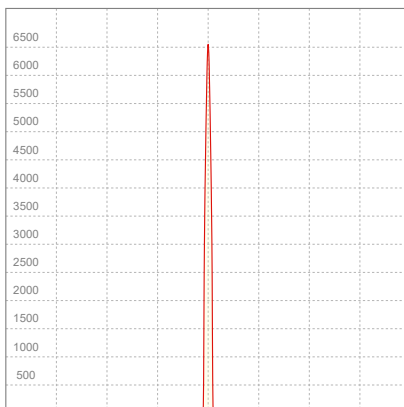
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,3°	8°	8,8°	96,0%	95,1%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	6535lx	1634lx	726lx	408lx	261lx	116lx	65lx	29lx	16lx	10lx	7lx	4lx	3lx
Footcand.	607fcd	152fcd	67fcd	38fcd	24fcd	11fcd	6fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,6m	0,8m	1,1m	1,7m	2,2m	2,8m	3,3m	4,4m	5,5m
Beam wid.	0,4ft	0,7ft	1,1ft	1,4ft	1,8ft	2,7ft	3,6ft	5,4ft	7,2ft	9ft	10,8ft	14,4ft	18,1ft

LINEAR DISTRIBUTION DIAGRAM

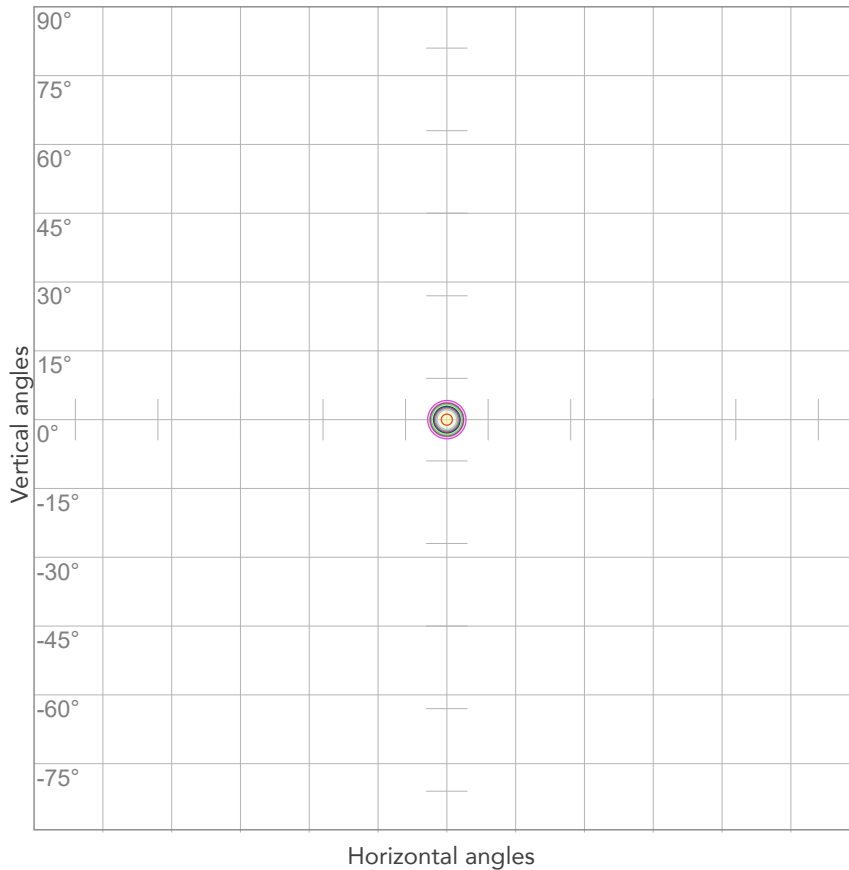


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
227V	0,062A	10,5W	0,74	6lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



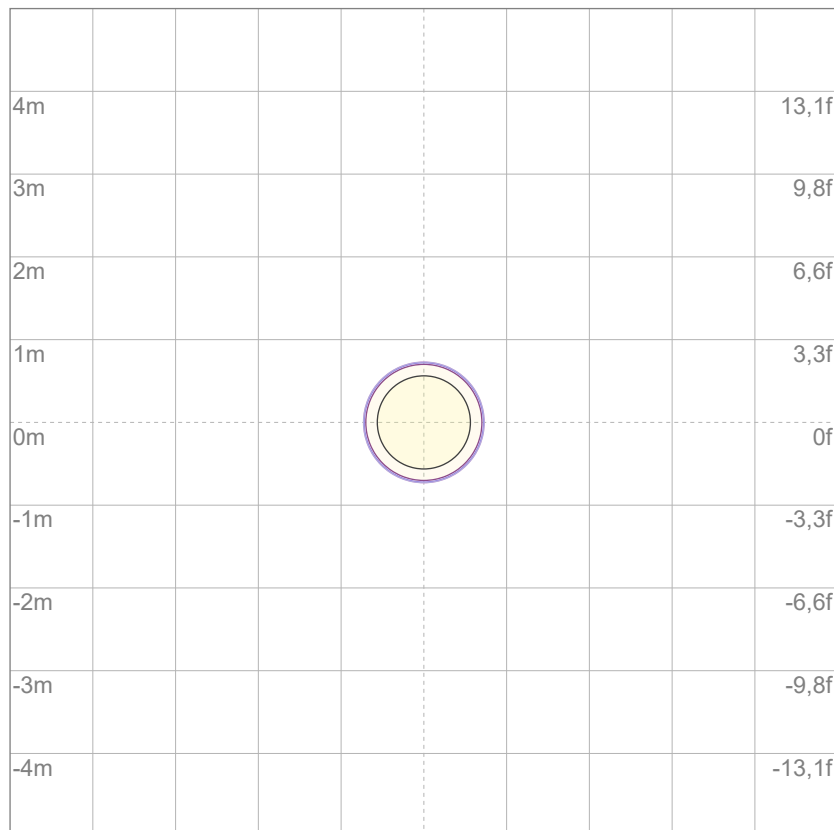
10%	654 cd
20%	1307 cd
30%	1961 cd
40%	2614 cd
50%	3268 cd
60%	3921 cd
70%	4575 cd
80%	5228 cd

Conditions:

Number of c-planes: 2

Candela at center: 6535 cd

ISO LUX DIAGRAM



3%	1,96 lx
5%	3,27 lx
10%	6,54 lx
30%	19,6 lx
50%	32,7 lx

Conditions:

Number of c-planes: 2

Lux at center: 65,4 lx

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