

Photometric Test Report



EclDisplay UNFC

PROFILE LENS 36°

40W RGB+WW LED gallery light, Tunable White
and Full Colour with universal control
(DMX, Dali T8, 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:

303 lm

Peak candela output:

1453 cd

Light quality:

CRI: 91,6

Color temperature:

6255 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

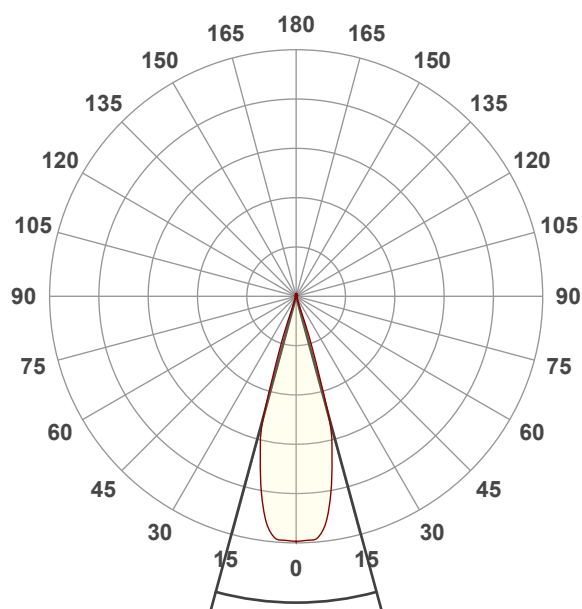
Full On

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:25:23

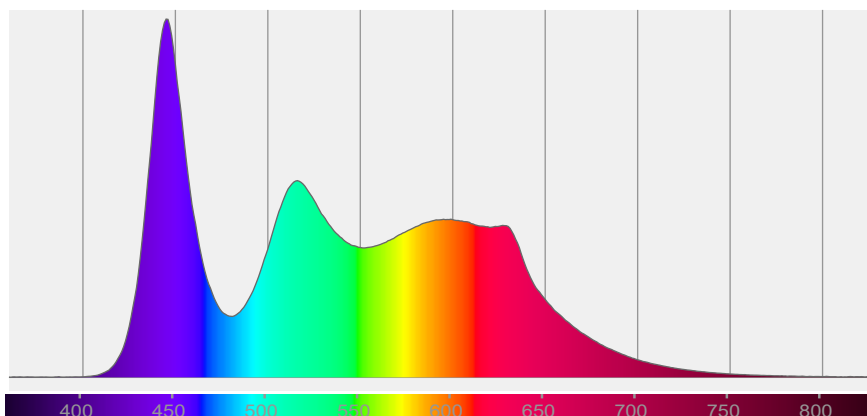


Beam angle 50%: 30,4°

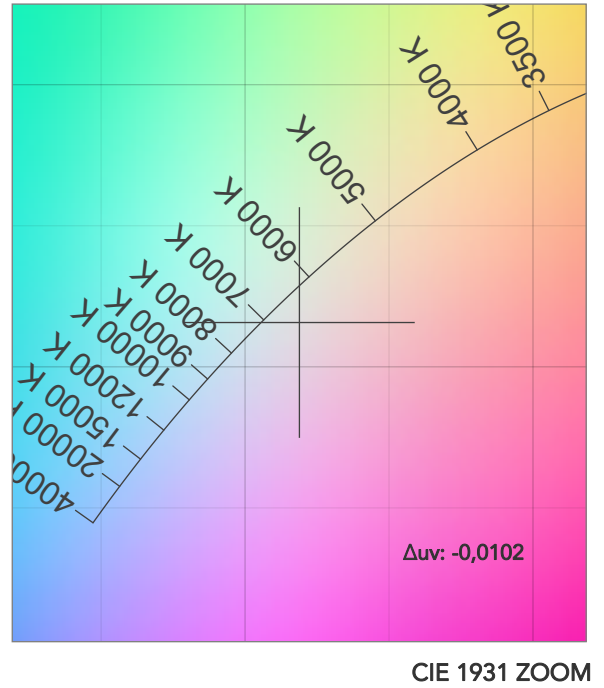
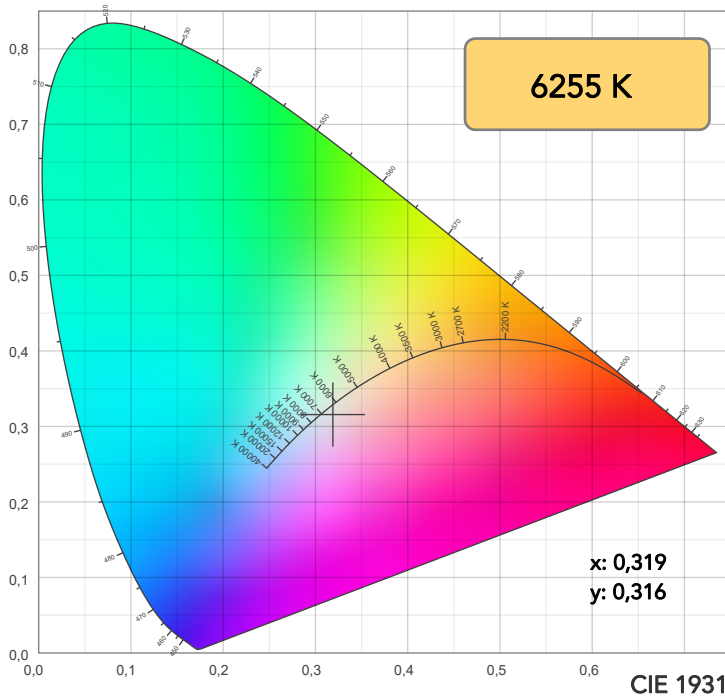
Field angle 10%: 37,6°

Cut off angle 2.5%: 39,5°

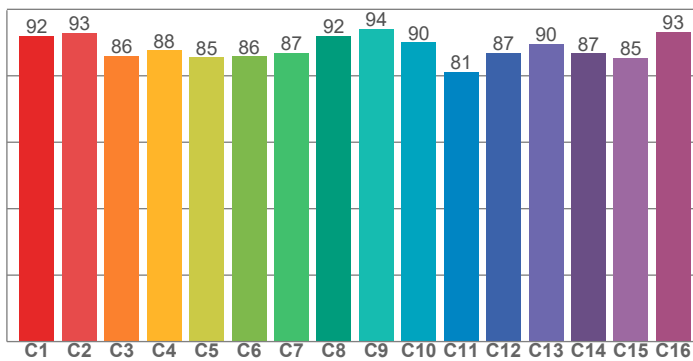
Spectra



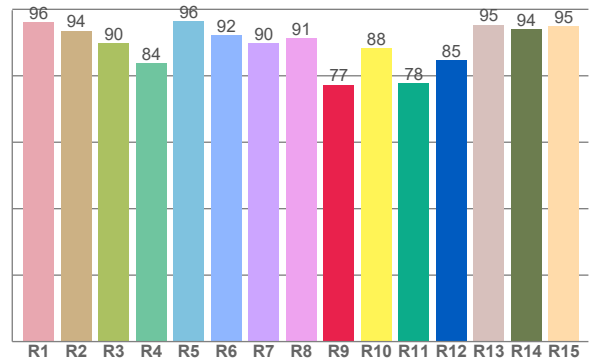
COLOR DETAILS



TM30: 88,3



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
96,2	93,6	89,8	83,8	96,4	92,2	89,8	91,3	77,3	88,3	77,7	84,7	95,3	93,9	94,9

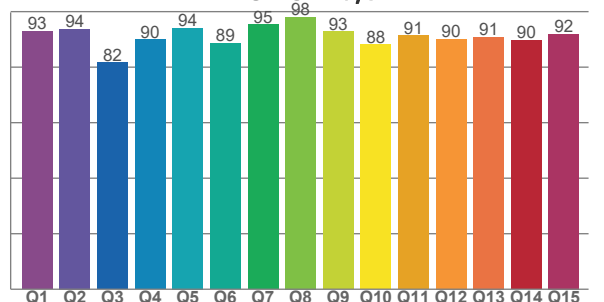
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,0	92,9	86,0	87,7	85,5	85,9	87,0	92,1	94,1	90,1	81,2	86,9	89,7	86,7	85,3	93,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,9	93,7	81,6	89,9	94,2	88,6	95,3	98,0	92,9	88,1	91,4	90,1	90,9	89,7	91,9

CQS: 90,6



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
6255 K	91,6	77,3	88,3	106,6	90,6	83	0,319	0,316	-0,0102

TM30 DETAILS

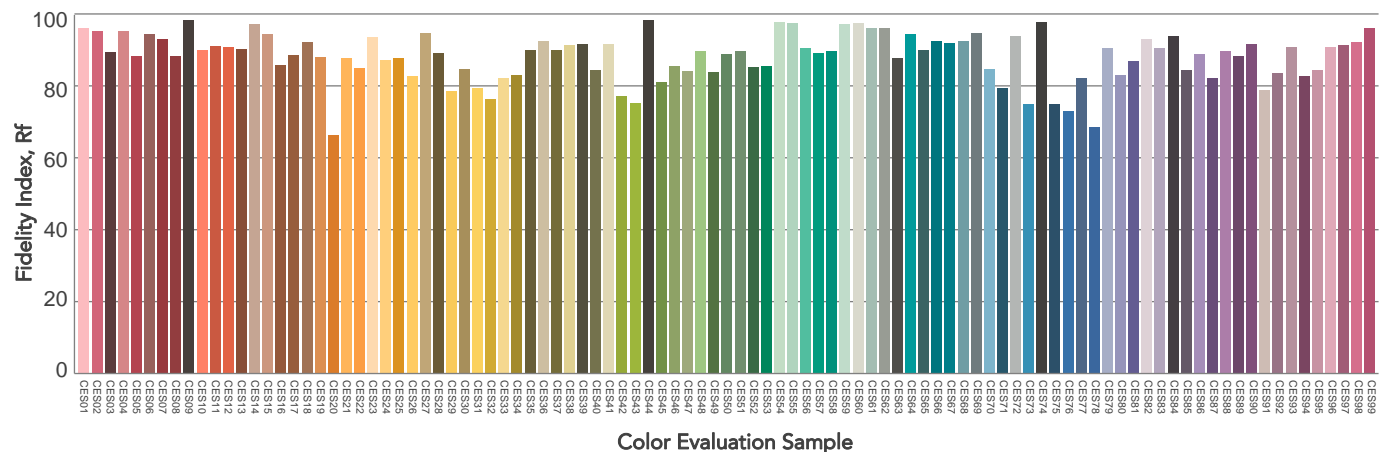
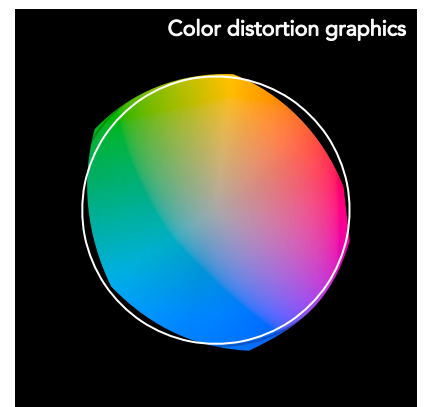
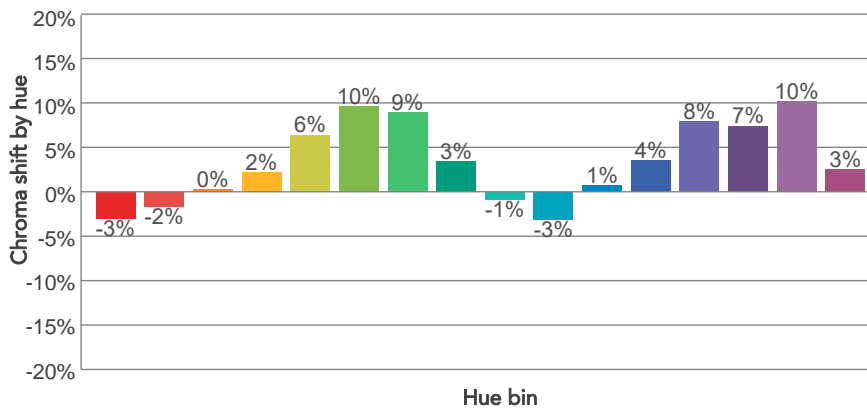
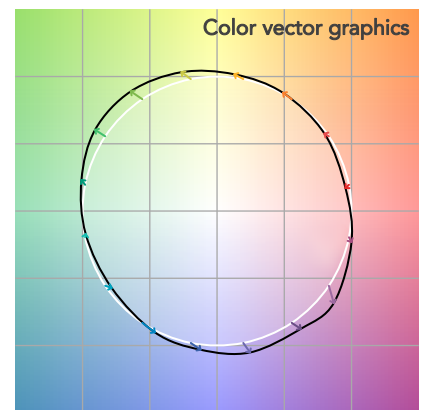
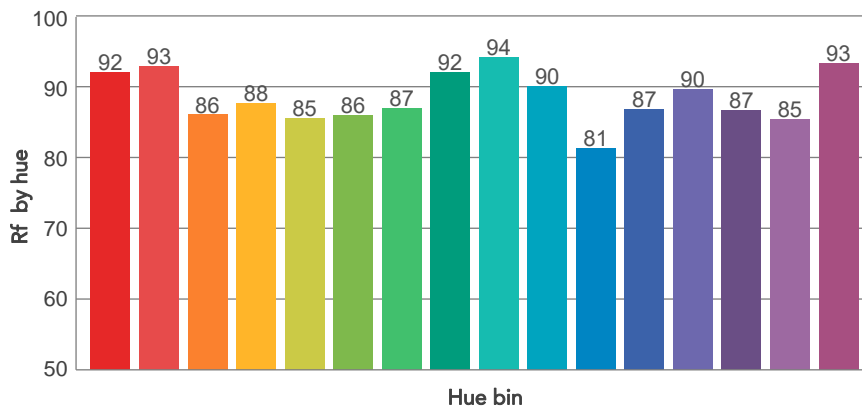
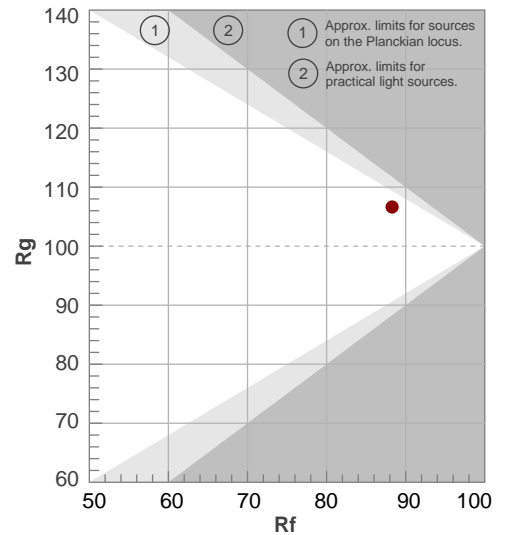
Rf 88,3

Fidelity index Rf

Rg 106,6

Gammut index

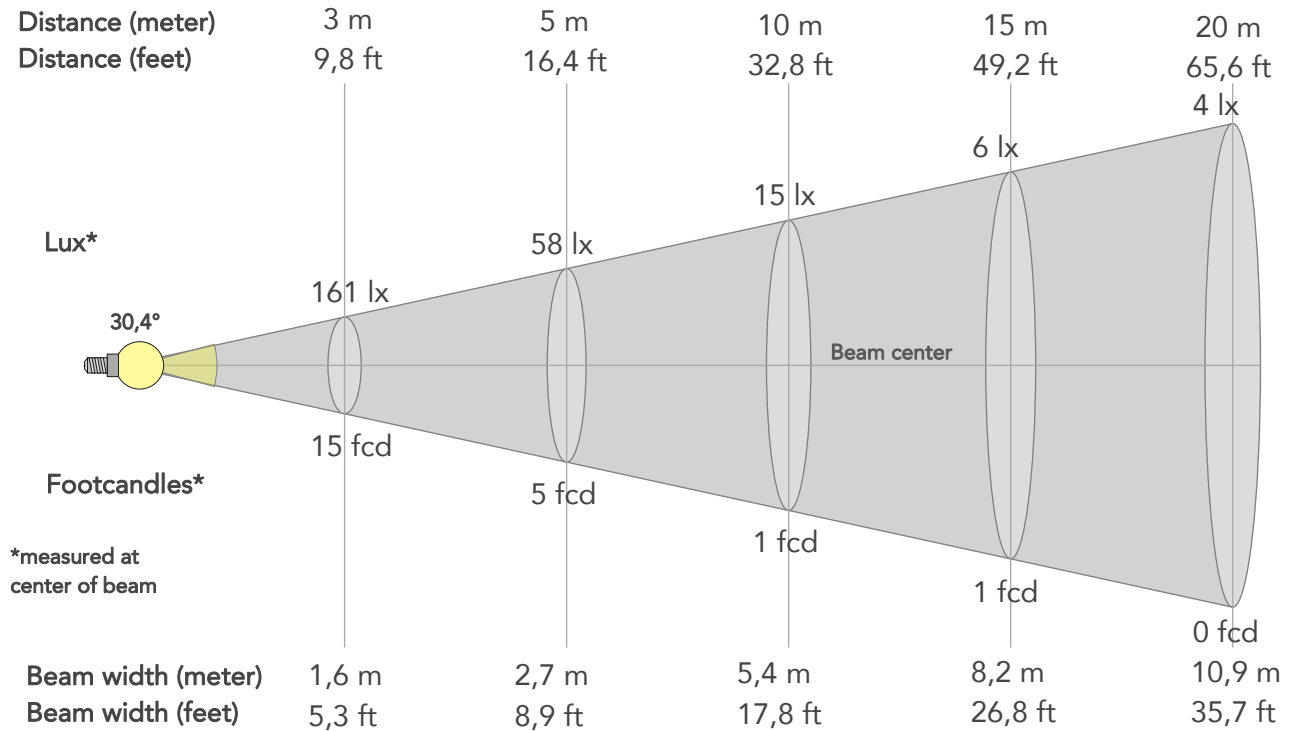
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	92	-3%	-2%
2	93	-2%	3%
3	86	0%	8%
4	88	2%	7%
5	85	6%	6%
6	86	10%	4%
7	87	9%	0%
8	92	3%	-3%
9	94	-1%	-2%
10	90	-3%	4%
11	81	1%	12%
12	87	4%	8%
13	90	8%	4%
14	87	7%	3%
15	85	10%	-9%
16	93	3%	-3%



BEAM DETAILS



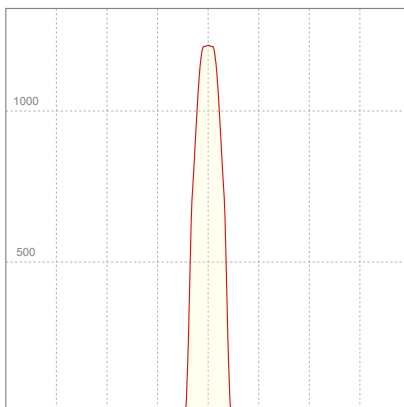
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,4°	37,6°	39,5°	99,3%	99,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1453lx	363lx	161lx	91lx	58lx	26lx	15lx	6lx	4lx	2lx	2lx	1lx	1lx
Footcand.	135fcd	34fcd	15fcd	8fcd	5fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,2m	2,7m	4,1m	5,4m	8,2m	10,9m	13,6m	16,3m	21,8m	27,2m
Beam wid.	1,8ft	3,6ft	5,3ft	7,1ft	8,9ft	13,4ft	17,8ft	26,8ft	35,7ft	44,6ft	53,5ft	71,4ft	89,2ft

LINEAR DISTRIBUTION DIAGRAM

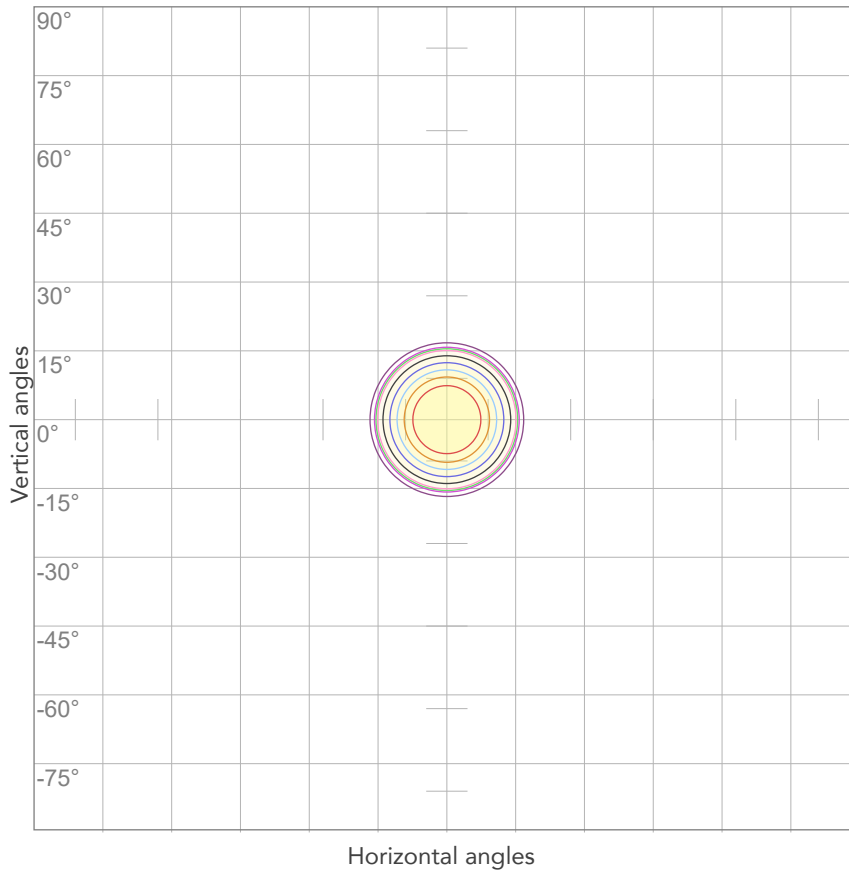


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,313A	29,6W	0,42	10lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



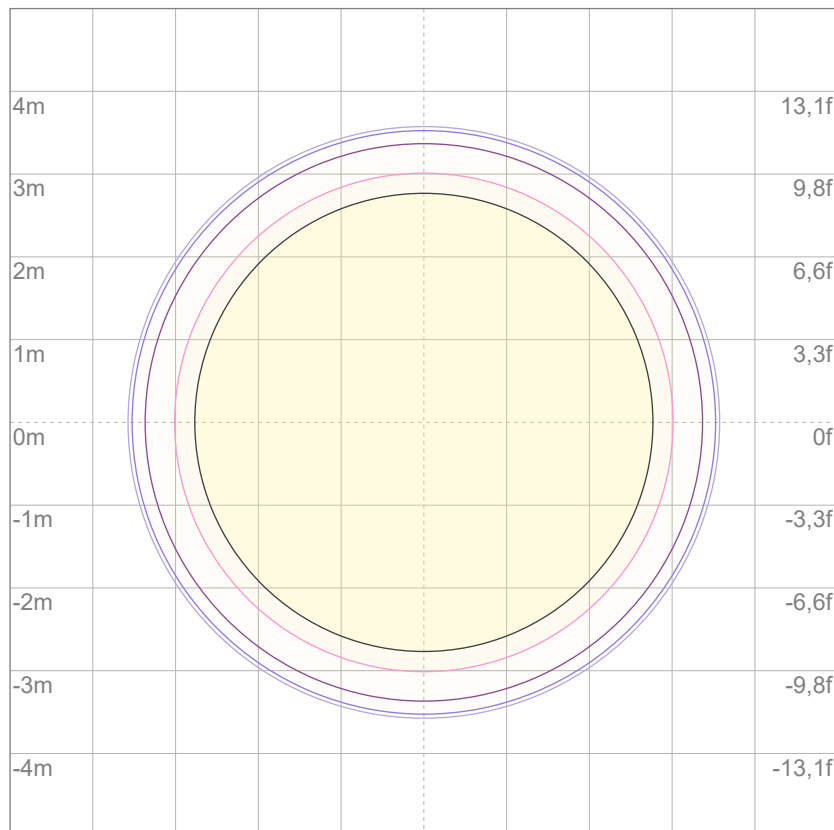
10%	145 cd
20%	291 cd
30%	436 cd
40%	581 cd
50%	727 cd
60%	872 cd
70%	1017 cd
80%	1163 cd

Conditions:

Number of c-planes: 2

Candela at center: 1453 cd

ISO LUX DIAGRAM



3%	0,436 lx
5%	0,727 lx
10%	1,45 lx
30%	4,36 lx
50%	7,27 lx

Conditions:

Number of c-planes: 2

Lux at center: 14,5 lx

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



Total lumen output:

79,5 lm

Peak candela output:

368 cd

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

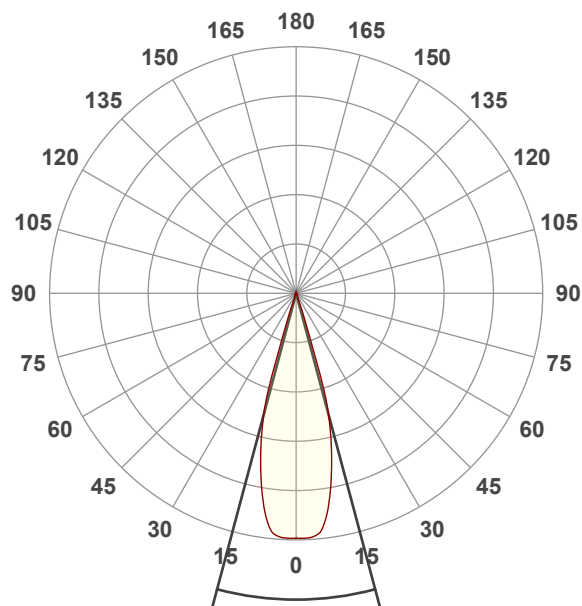
Red

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:26:48

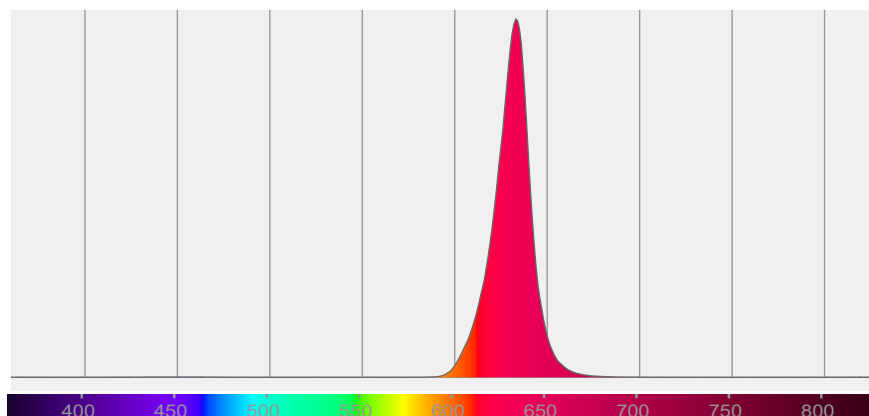


Beam angle 50%: 29,9°

Field angle 10%: 36,7°

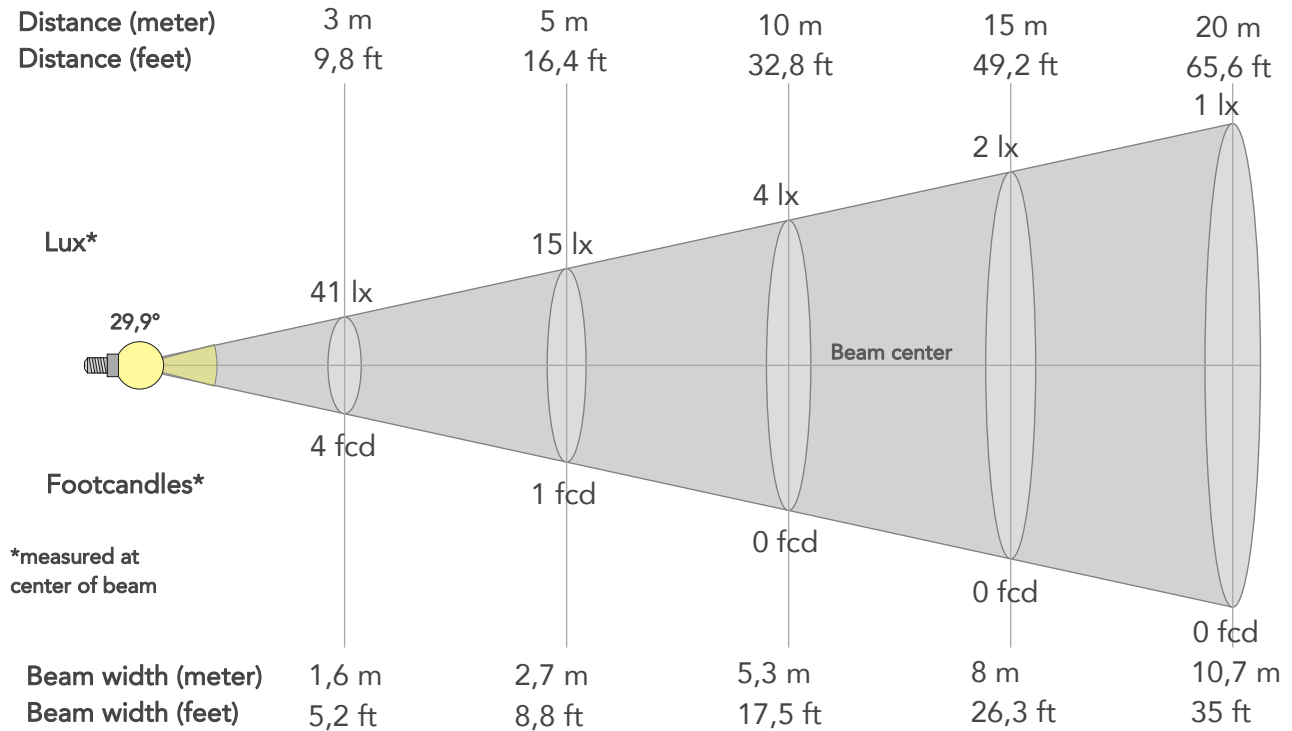
Cut off angle 2.5%: 39,3°

Spectra



BEAM DETAILS

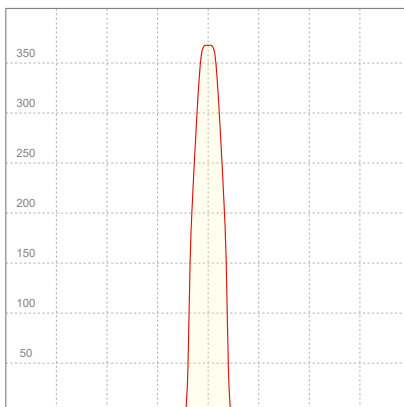
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
29,9°	36,7°	39,3°	95,5%	94,5%



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	367lx	92lx	41lx	23lx	15lx	7lx	4lx	2lx	1lx	1lx	0lx	0lx	0lx
Footcand.	34fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,1m	2,7m	4m	5,3m	8m	10,7m	13,4m	16m	21,4m	26,7m
Beam wid.	1,8ft	3,5ft	5,2ft	7ft	8,8ft	13,1ft	17,5ft	26,3ft	35ft	43,8ft	52,6ft	70,1ft	87,6ft

LINEAR DISTRIBUTION DIAGRAM

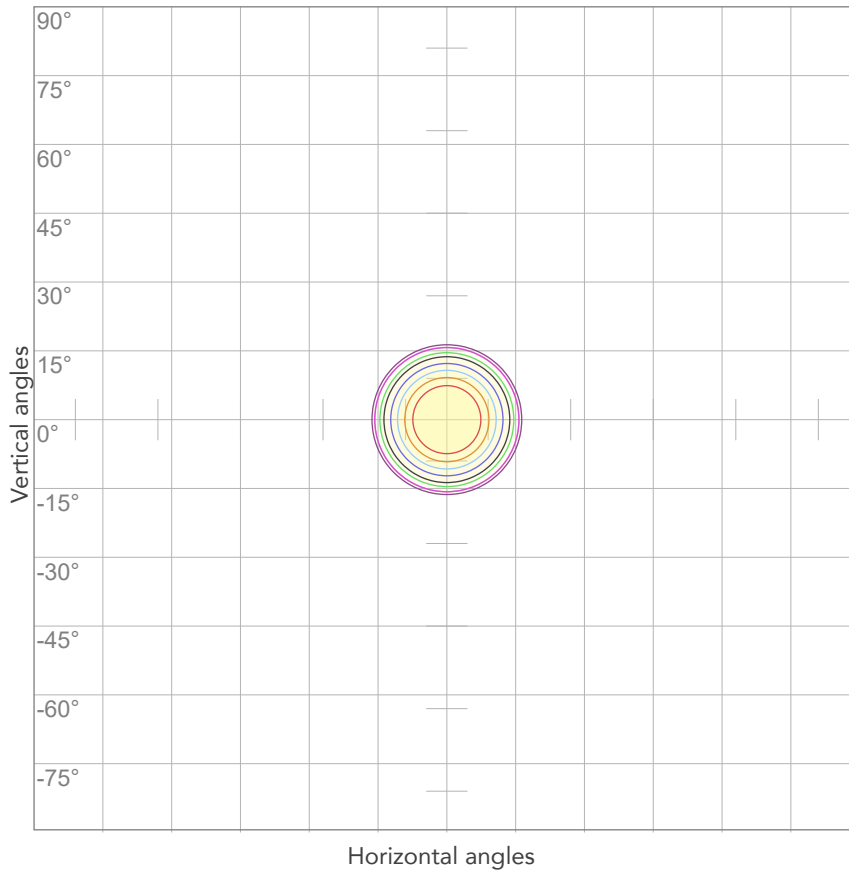


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,158A	13,3W	0,37	6lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



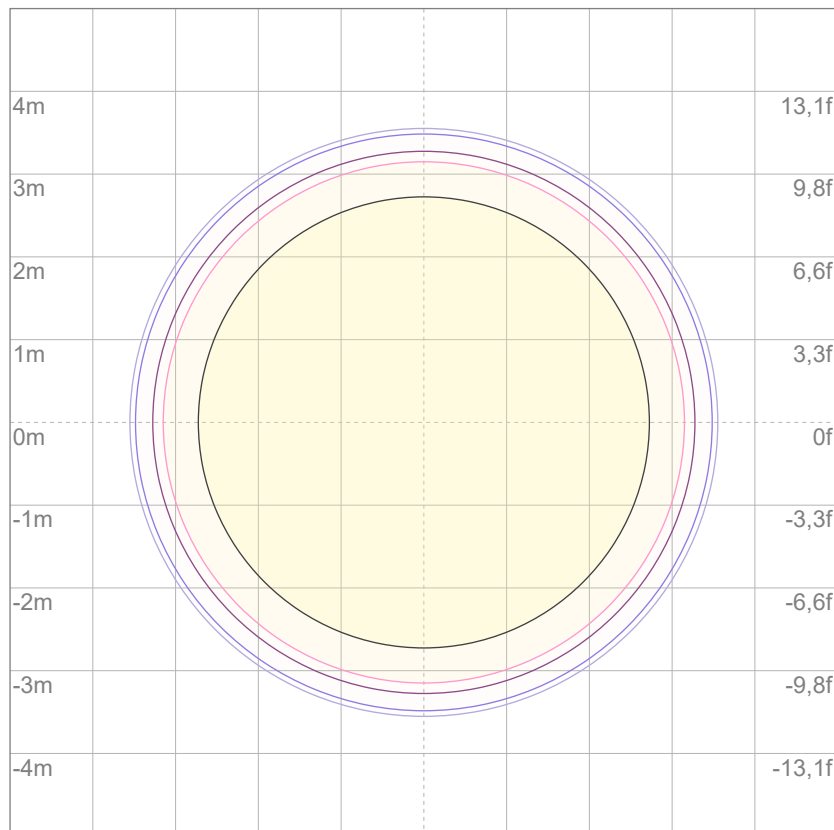
10%	37 cd
20%	73 cd
30%	110 cd
40%	147 cd
50%	184 cd
60%	220 cd
70%	257 cd
80%	294 cd

Conditions:

Number of c-planes: 2

Candela at center: 367 cd

ISO LUX DIAGRAM



3%	0,110 lx
5%	0,184 lx
10%	0,367 lx
30%	1,10 lx
50%	1,84 lx

Conditions:

Number of c-planes: 2

Lux at center: 3,67 lx

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



Total lumen output:

1644 lm

Peak candela output:

7594 cd

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

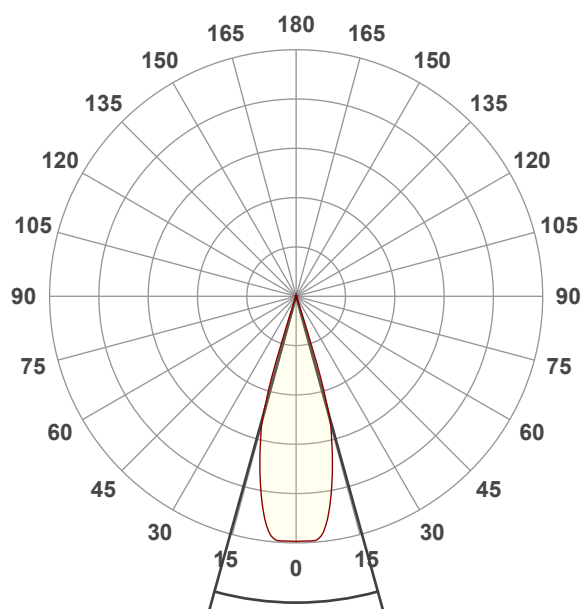
Green

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:28:38

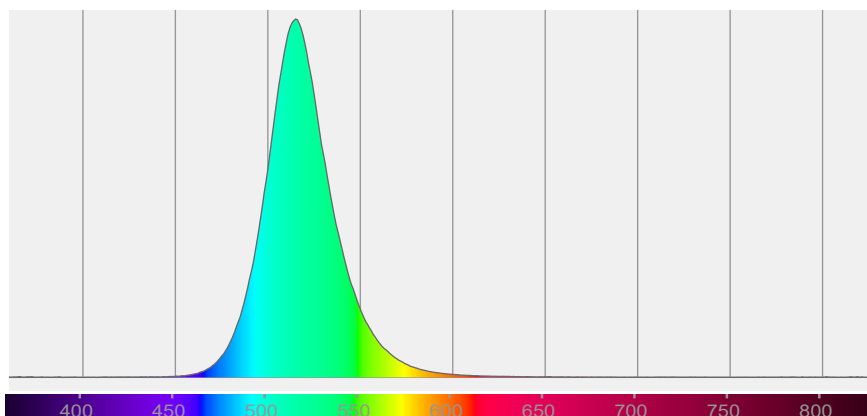


Beam angle 50%: 30,9°

Field angle 10%: 36,5°

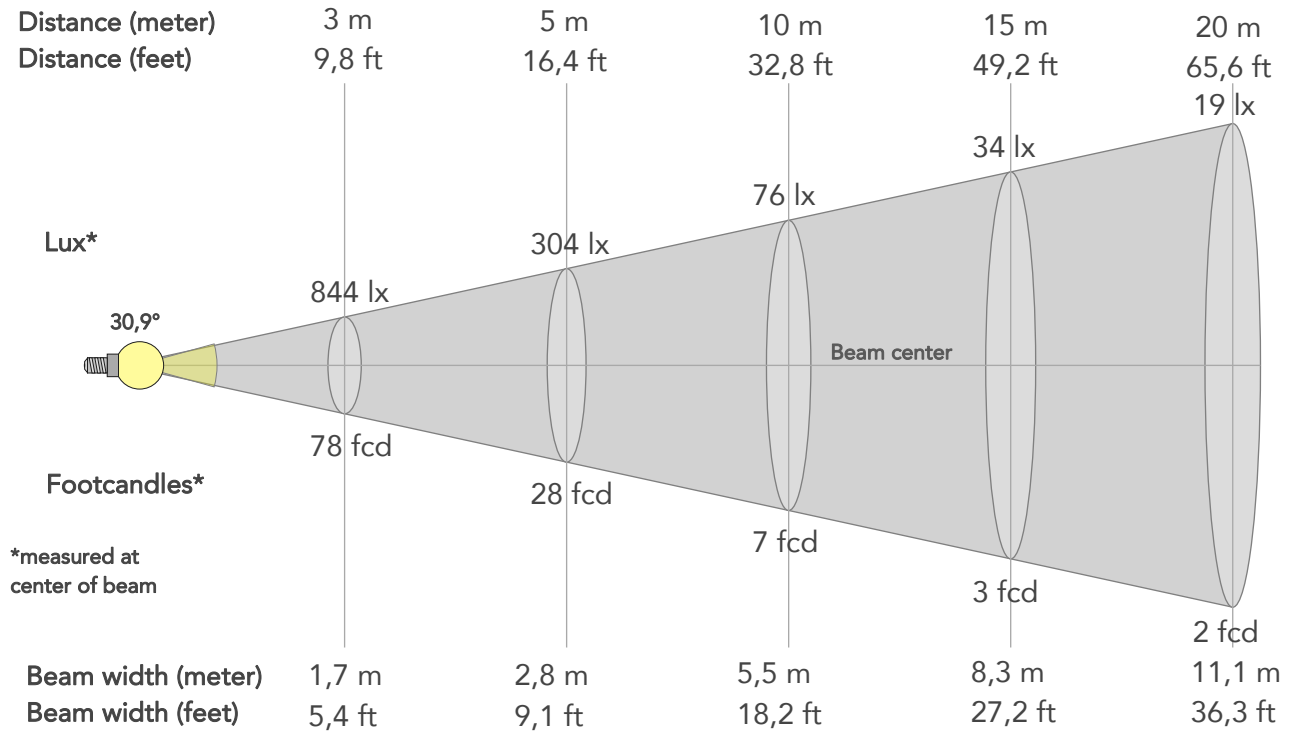
Cut off angle 2.5%: 38,9°

Spectra



BEAM DETAILS

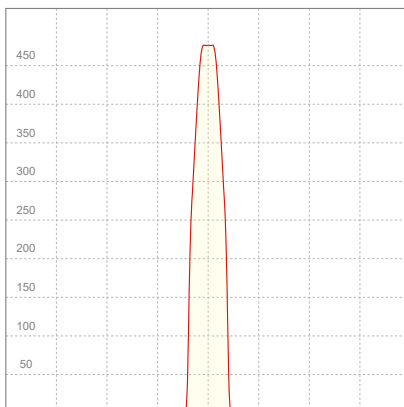
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,9°	36,5°	38,9°	97,8%	97,1%



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	7594lx	1899lx	844lx	475lx	304lx	135lx	76lx	34lx	19lx	12lx	8lx	5lx	3lx
Footcand.	706fcd	176fcd	78fcd	44fcd	28fcd	13fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,1m	1,7m	2,2m	2,8m	4,2m	5,5m	8,3m	11,1m	13,8m	16,6m	22,1m	27,7m
Beam wid.	1,8ft	3,7ft	5,4ft	7,3ft	9,1ft	13,6ft	18,2ft	27,2ft	36,3ft	45,4ft	54,5ft	72,6ft	90,8ft

LINEAR DISTRIBUTION DIAGRAM

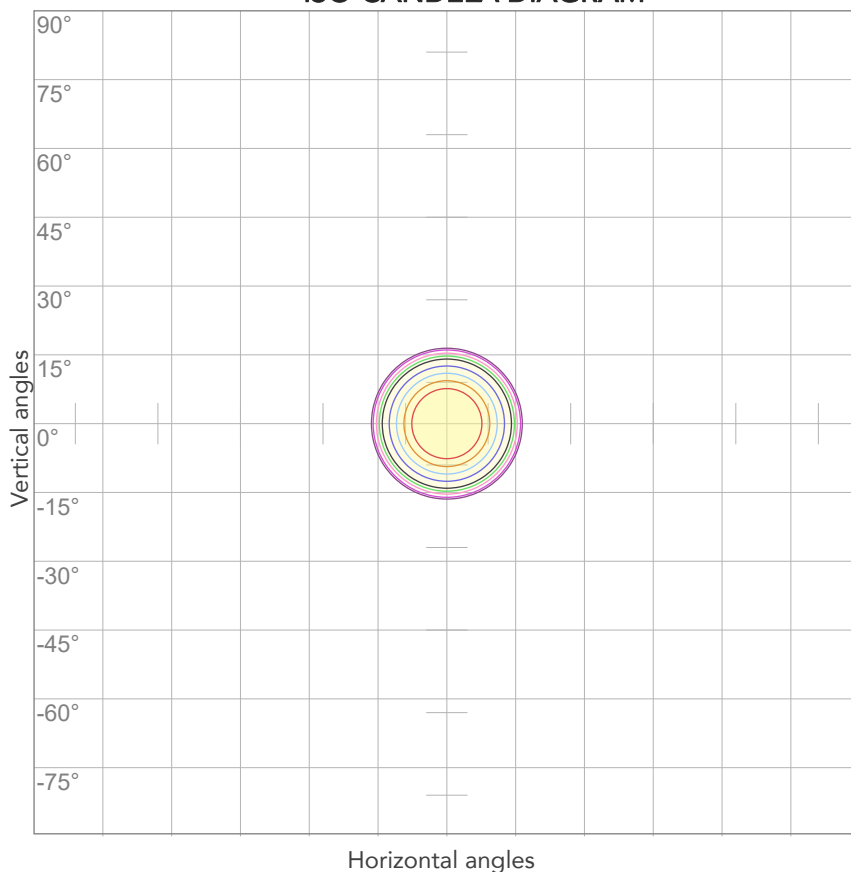


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,172A	14,7W	0,38	112lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



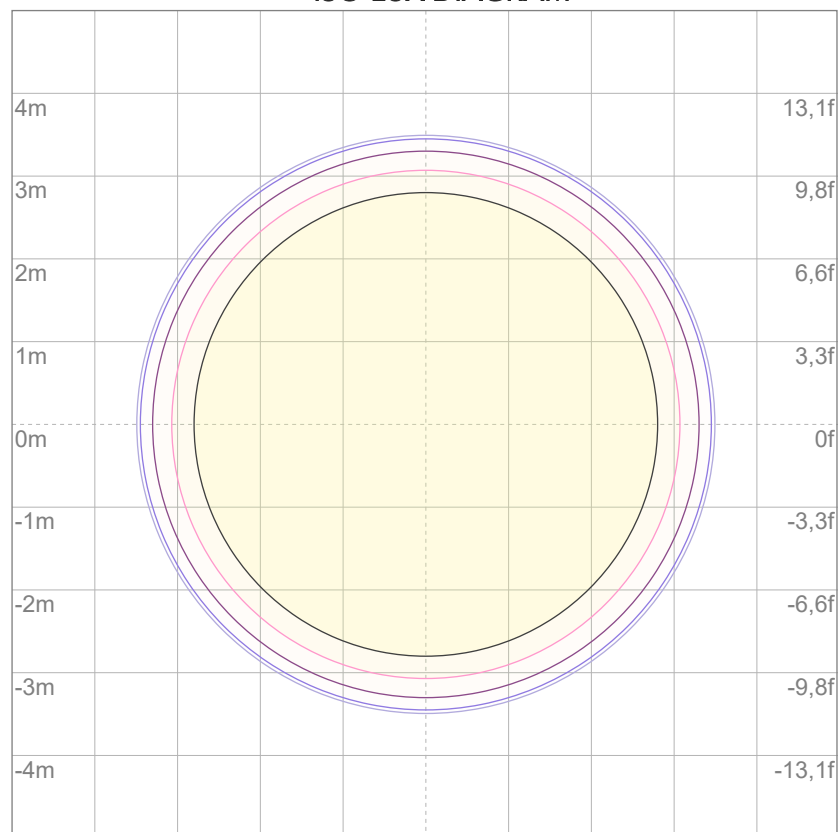
10%	759 cd
20%	1519 cd
30%	2278 cd
40%	3038 cd
50%	3797 cd
60%	4557 cd
70%	5316 cd
80%	6075 cd

Conditions:

Number of c-planes: 2

Candela at center: 7594 cd

ISO LUX DIAGRAM



3%	2,28 lx
5%	3,80 lx
10%	7,59 lx
30%	22,8 lx
50%	38,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 75,9 lx

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



Total lumen output:

39,3 lm

Peak candela output:

152 cd

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

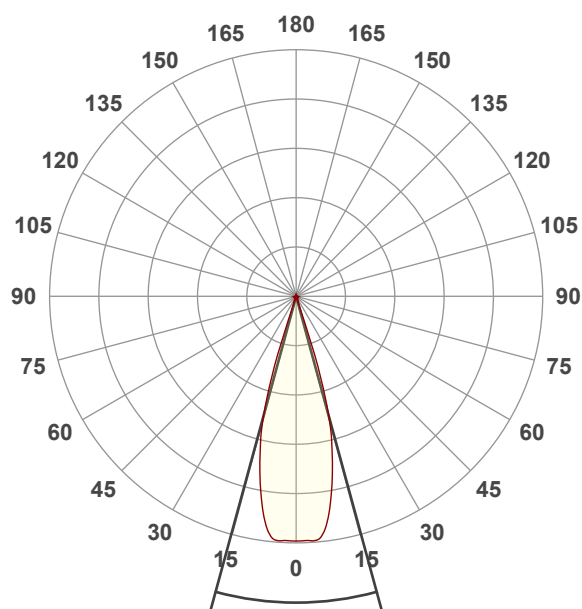
Blue

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:30:18

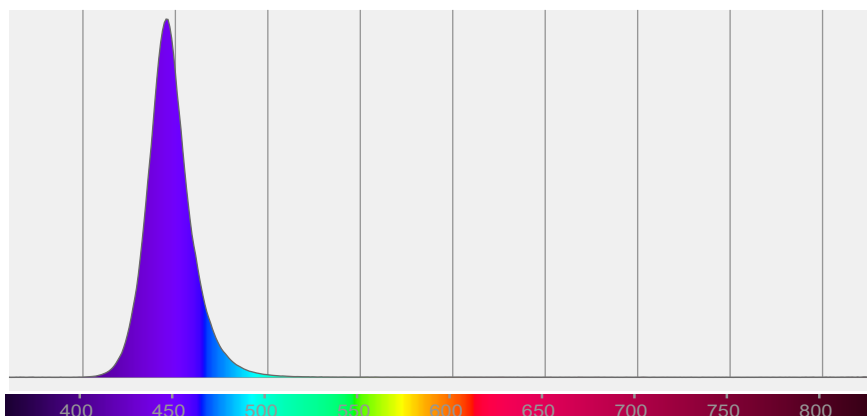


Beam angle 50%: 30,5°

Field angle 10%: 37,1°

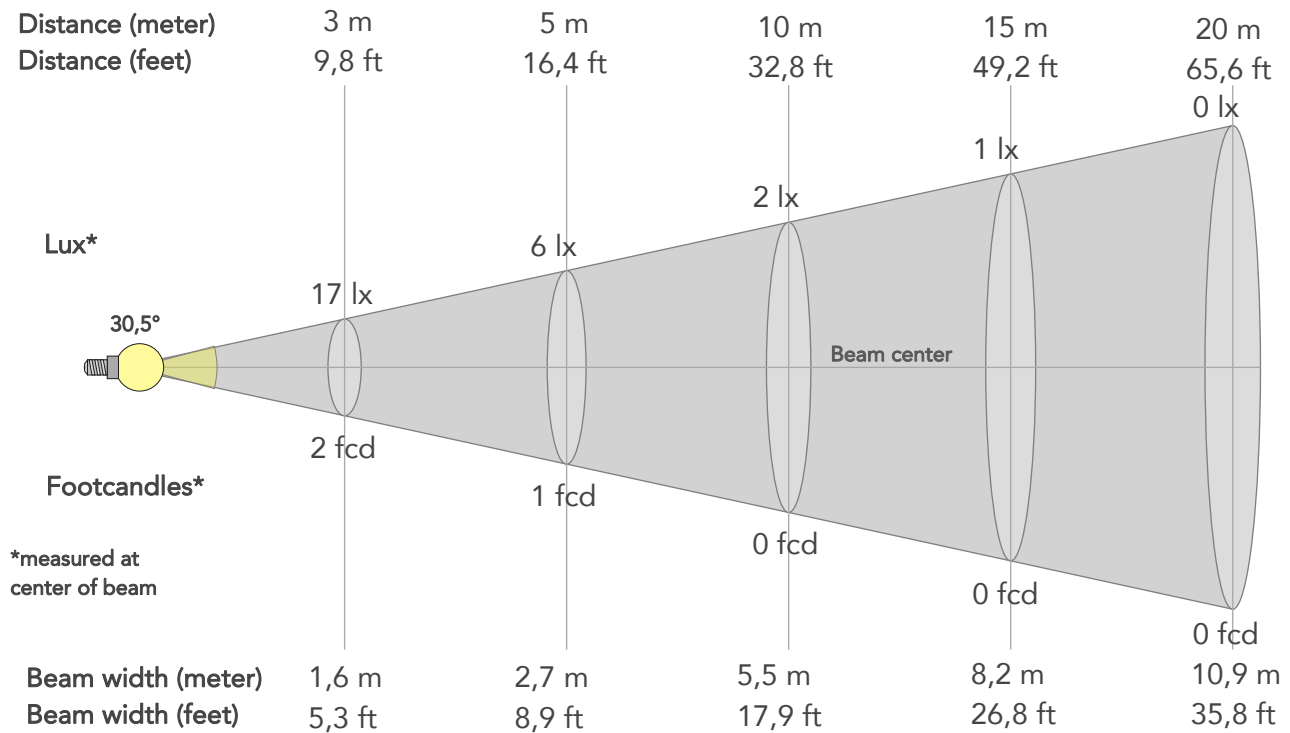
Cut off angle 2.5%: 38°

Spectra



BEAM DETAILS

Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,5°	37,1°	38°	89,7%	85,6%



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	152lx	38lx	17lx	9lx	6lx	3lx	2lx	1lx	0lx	0lx	0lx	0lx	0lx
Footcand.	14fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,2m	2,7m	4,1m	5,5m	8,2m	10,9m	13,6m	16,4m	21,8m	27,3m
Beam wid.	1,8ft	3,6ft	5,3ft	7,1ft	8,9ft	13,4ft	17,9ft	26,8ft	35,8ft	44,7ft	53,6ft	71,5ft	89,4ft

LINEAR DISTRIBUTION DIAGRAM

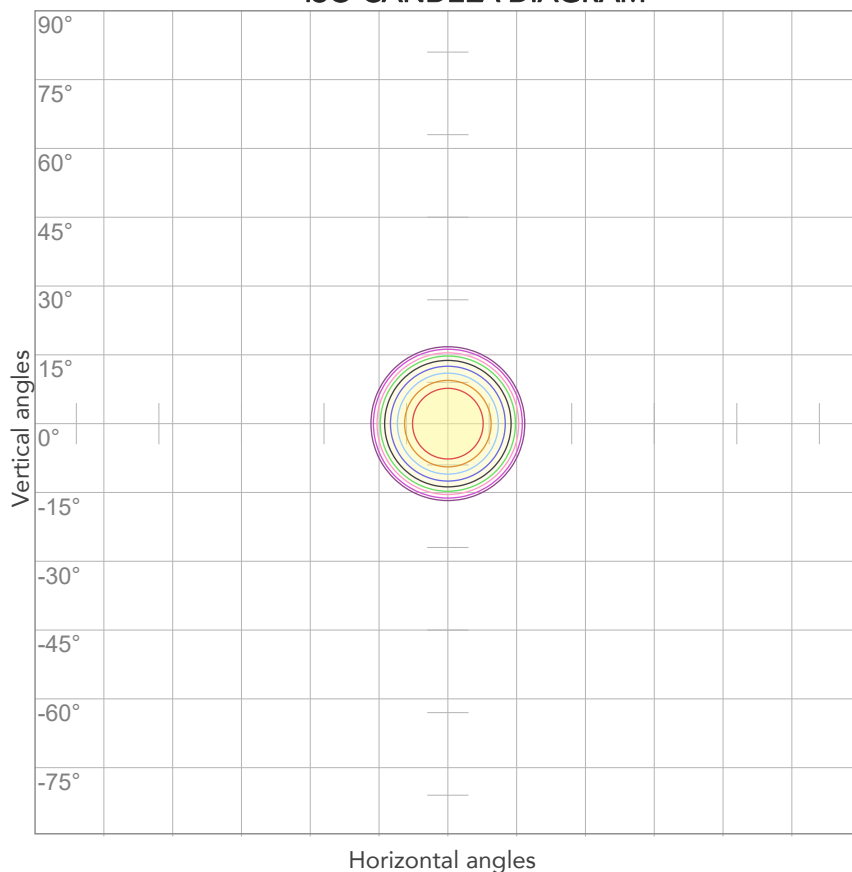


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
227V	0,187A	16,3W	0,38	2lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



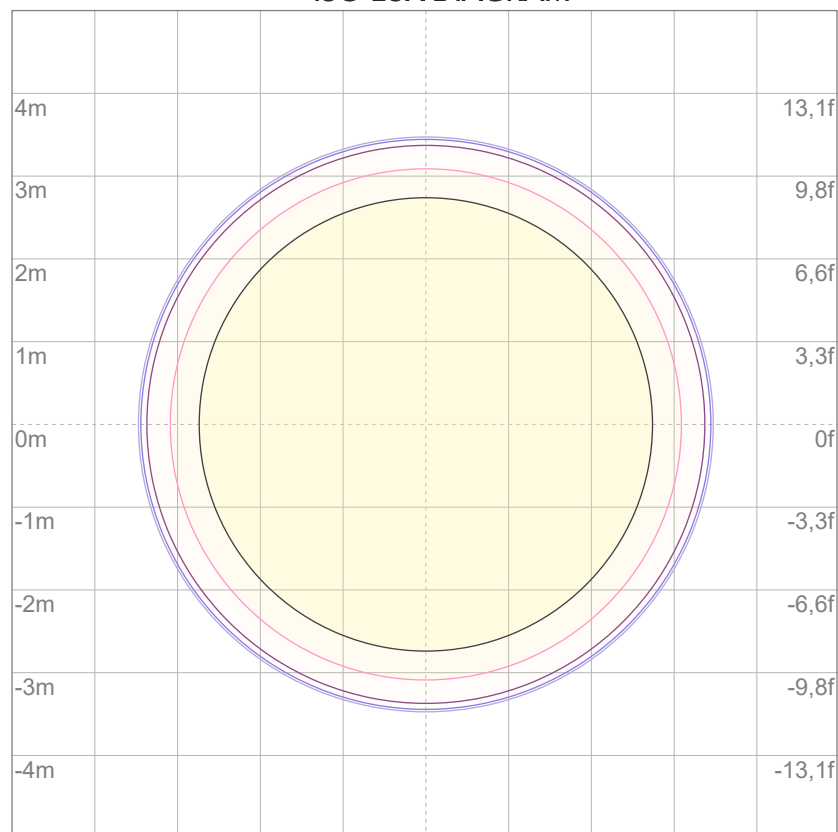
10%	15 cd
20%	30 cd
30%	46 cd
40%	61 cd
50%	76 cd
60%	91 cd
70%	106 cd
80%	121 cd

Conditions:

Number of c-planes: 2

Candela at center: 152 cd

ISO LUX DIAGRAM



3%	45,5m lx
5%	75,9m lx
10%	0,152 lx
30%	0,455 lx
50%	0,759 lx

Conditions:

Number of c-planes: 2

Lux at center: 1,52 lx

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



Total lumen output:

212 lm

Peak candela output:

1010 cd

Light quality:

CRI: 77,8

Color temperature:

3332 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

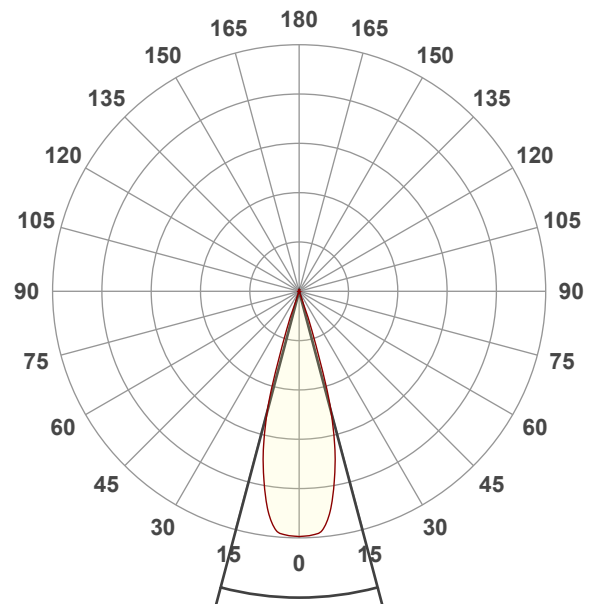
White

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:32:44

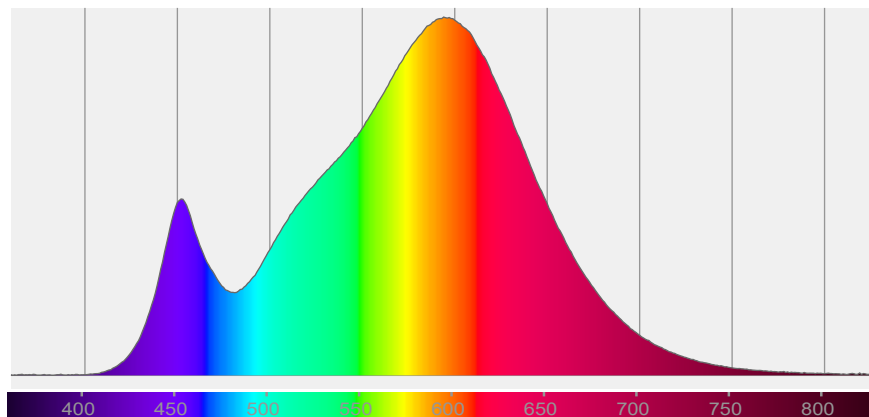


Beam angle 50%: 29,7°

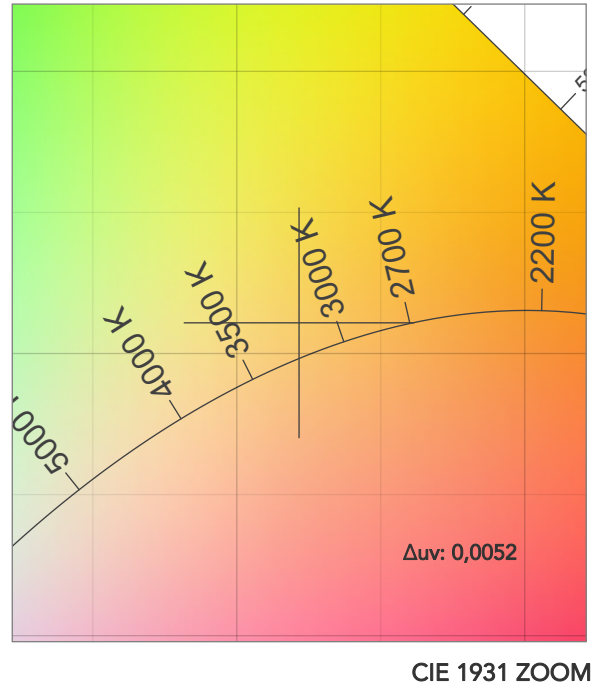
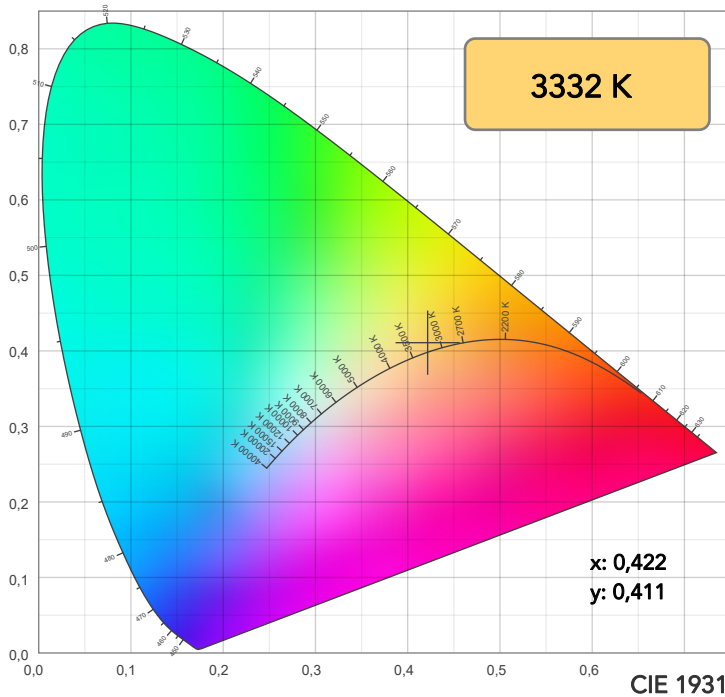
Field angle 10%: 38,1°

Cut off angle 2.5%: 40,4°

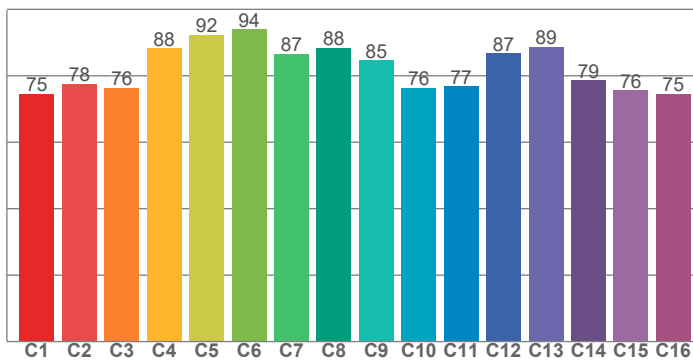
Spectra



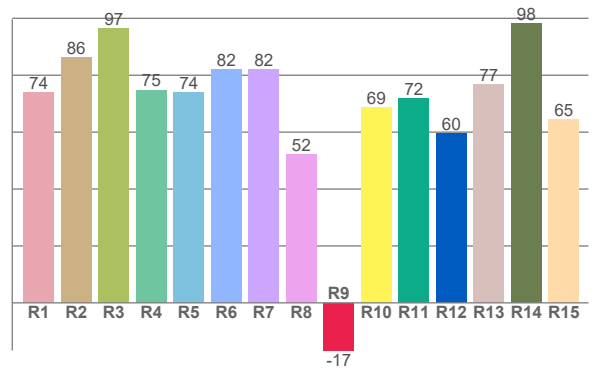
COLOR DETAILS



TM30: 82,3



CRI: 77,8 (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
74,1	86,2	96,5	74,9	74,0	82,2	82,2	52,2	-16,8	68,8	72,0	59,7	76,7	98,2	64,6

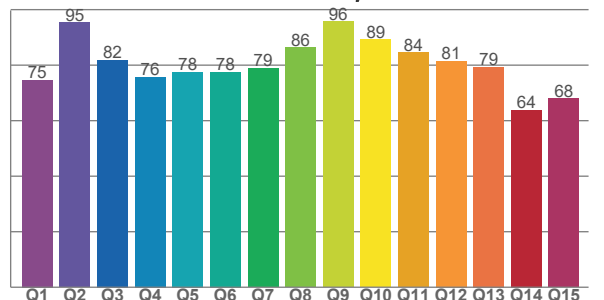
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74,6	77,6	76,3	88,2	92,4	94,0	86,7	88,4	84,7	76,4	76,8	86,7	88,6	78,6	75,6	74,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,7	95,4	81,8	75,7	77,5	77,6	78,9	86,4	95,7	89,2	84,5	81,5	79,4	63,8	68,0

CQS: 78,8



COLOR PARAMETERS

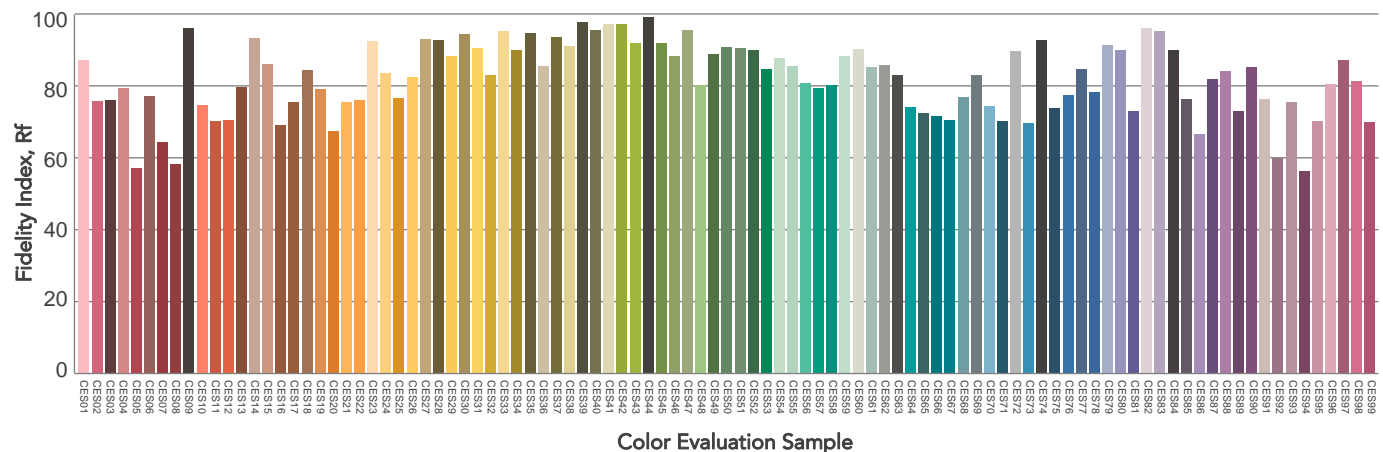
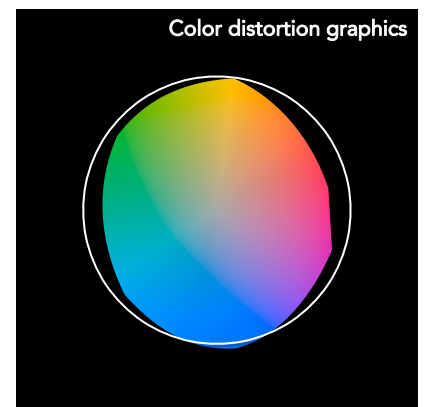
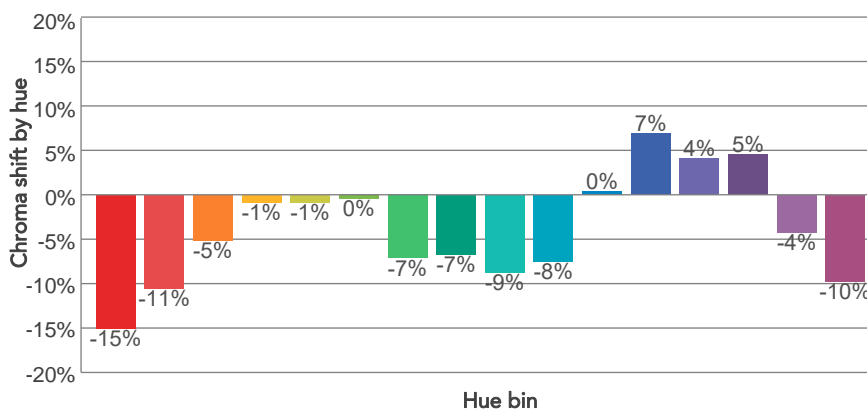
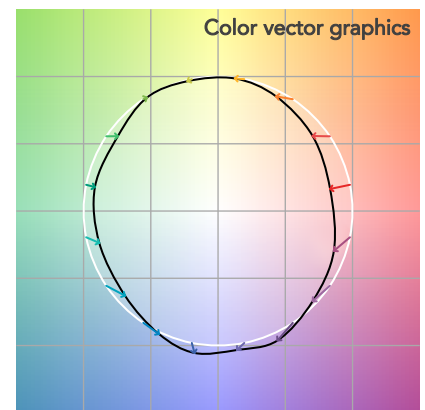
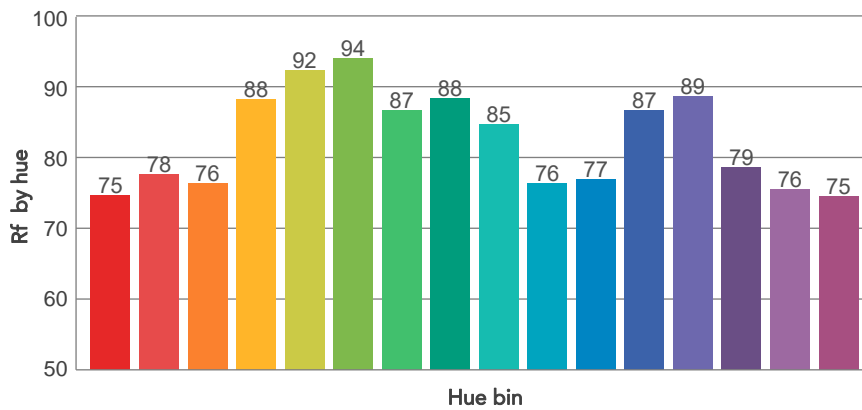
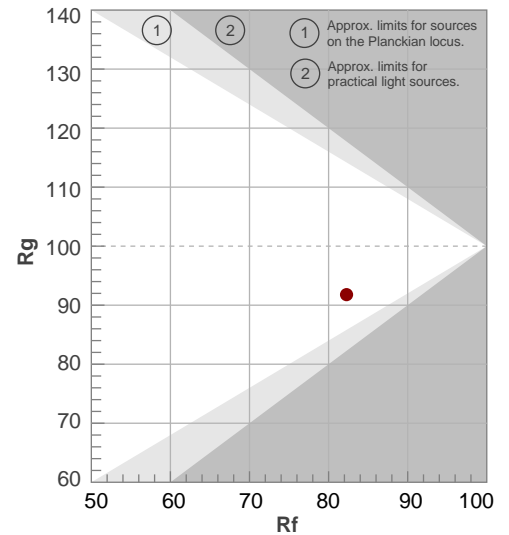
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3332 K	77,8	-16,8	82,3	91,8	78,8	61	0,422	0,411	0,0052

TM30 DETAILS

Rf 82,3
Fidelity index Rf

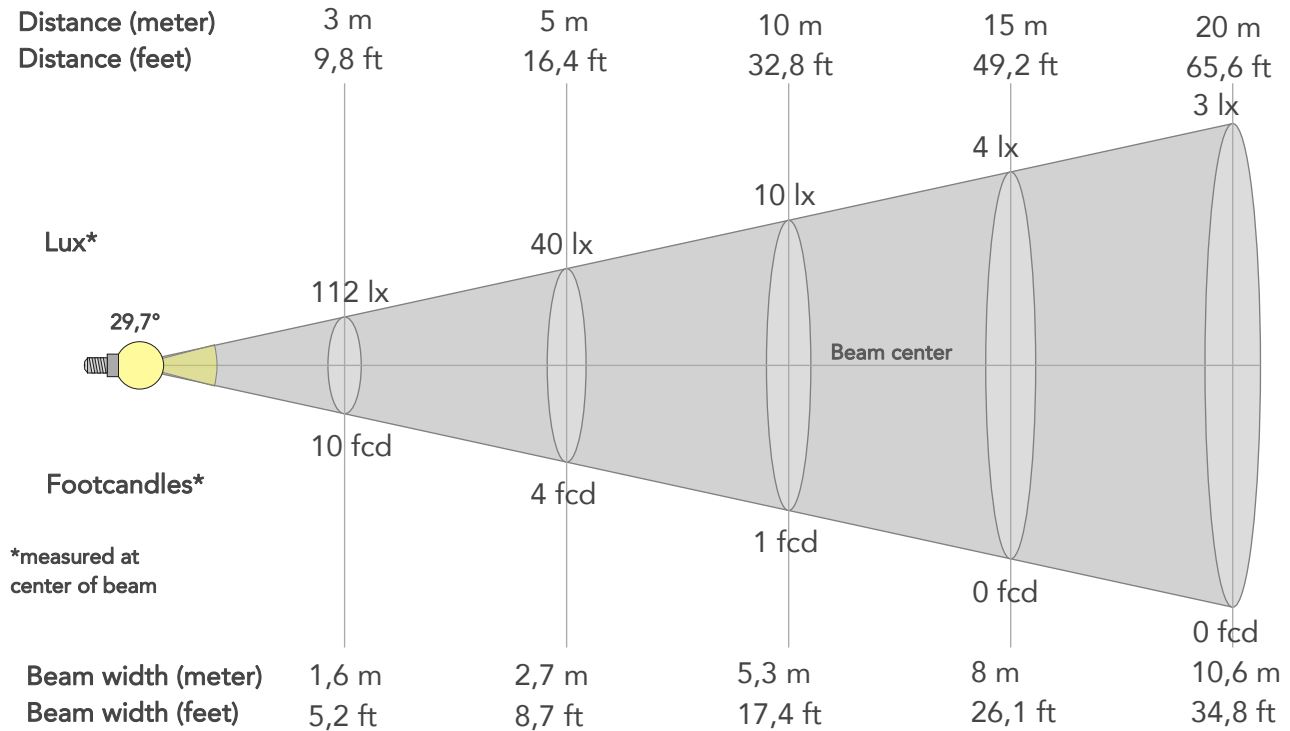
Rg 91,8
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	75	-15%	0%
2	78	-11%	7%
3	76	-5%	11%
4	88	-1%	7%
5	92	-1%	4%
6	94	0%	-3%
7	87	-7%	-5%
8	88	-7%	0%
9	85	-9%	6%
10	76	-8%	14%
11	77	0%	14%
12	87	7%	3%
13	89	4%	-6%
14	79	5%	-17%
15	76	-4%	-17%
16	75	-10%	-12%



BEAM DETAILS

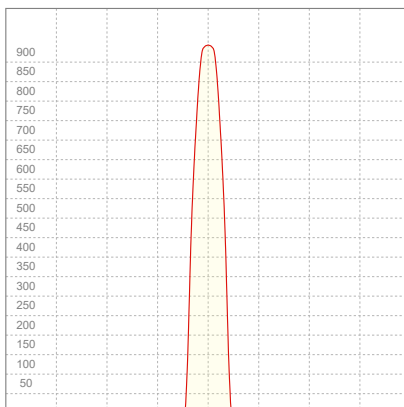
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
29,7°	38,1°	40,4°	99,1%	98,7%



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	1010lx	253lx	112lx	63lx	40lx	18lx	10lx	4lx	3lx	2lx	1lx	1lx	0lx
Footcand.	94fcd	23fcd	10fcd	6fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,1m	2,7m	4m	5,3m	8m	10,6m	13,3m	15,9m	21,2m	26,5m
Beam wid.	1,7ft	3,5ft	5,2ft	6,9ft	8,7ft	13ft	17,4ft	26,1ft	34,8ft	43,5ft	52,2ft	69,6ft	86,9ft

LINEAR DISTRIBUTION DIAGRAM

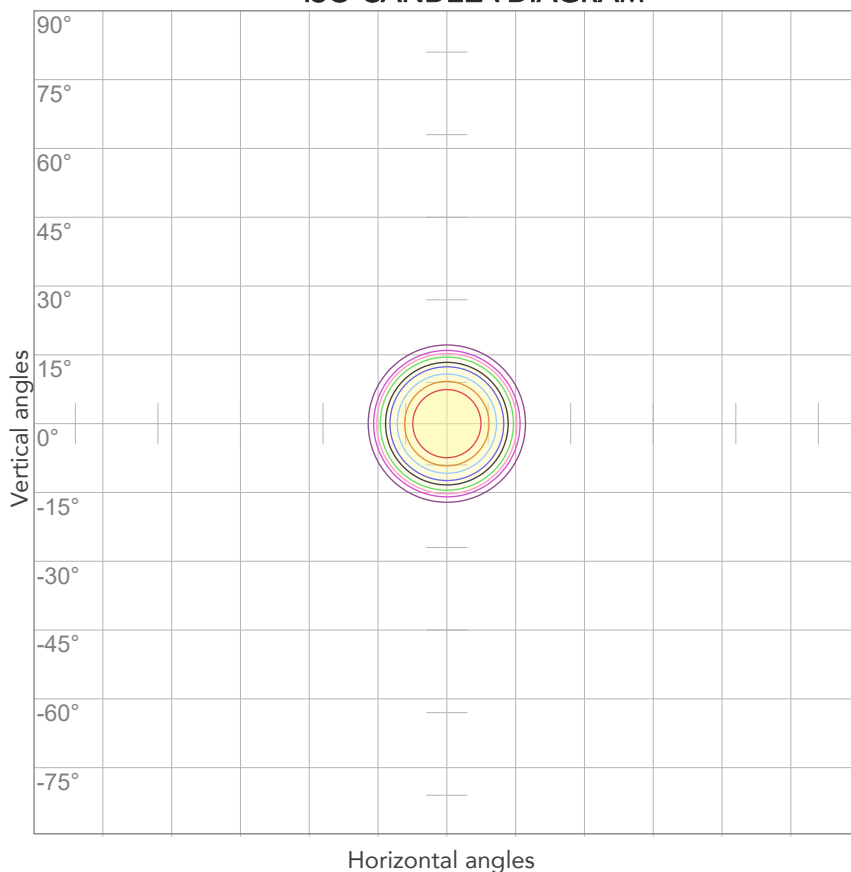


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	0,222A	19,6W	0,39	11lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



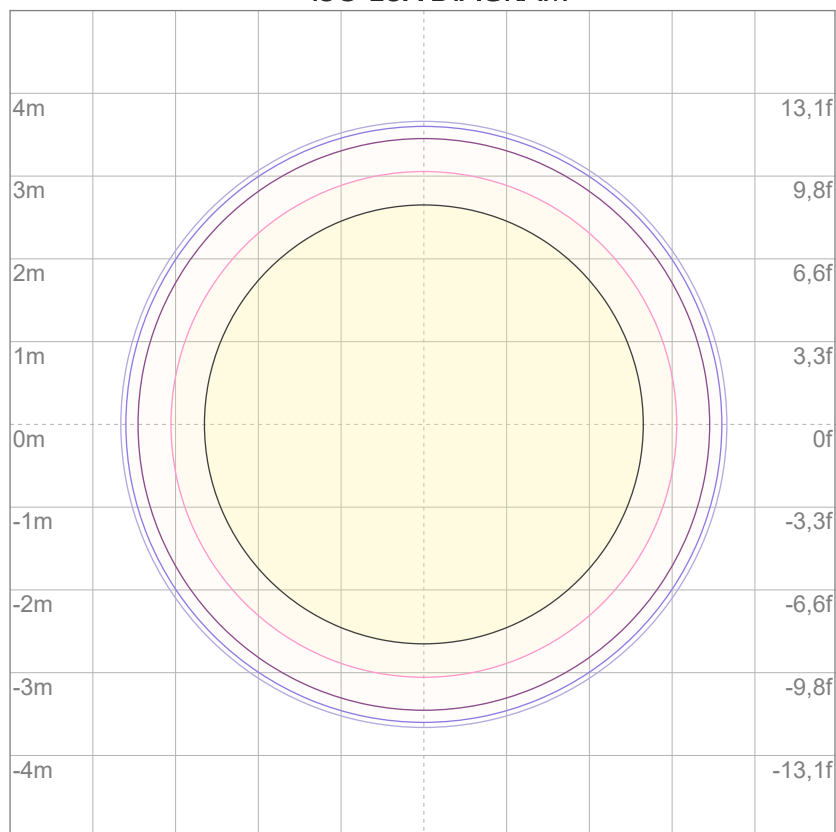
10%	101 cd
20%	202 cd
30%	303 cd
40%	404 cd
50%	505 cd
60%	606 cd
70%	707 cd
80%	808 cd

Conditions:

Number of c-planes: 2

Candela at center: 1010 cd

ISO LUX DIAGRAM



3%	0,303 lx
5%	0,505 lx
10%	1,01 lx
30%	3,03 lx
50%	5,05 lx

Conditions:

Number of c-planes: 2

Lux at center: 10,1 lx

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



Total lumen output:

234 lm

Peak candela output:

1118 cd

Light quality:

CRI: 95,5

Color temperature:

2862 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

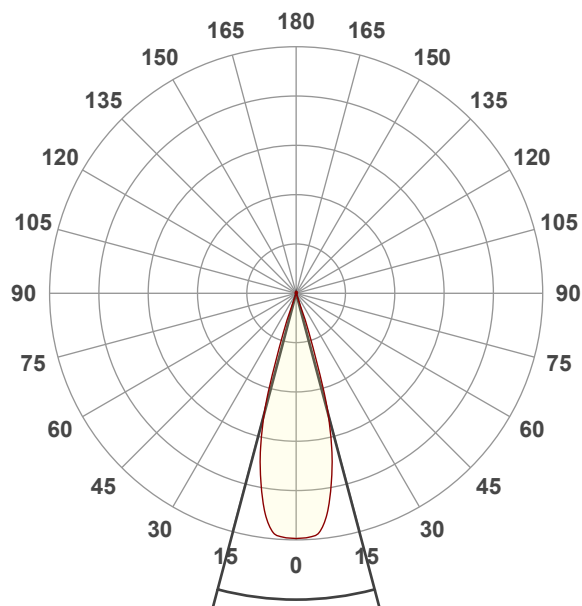
2800K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:34:23

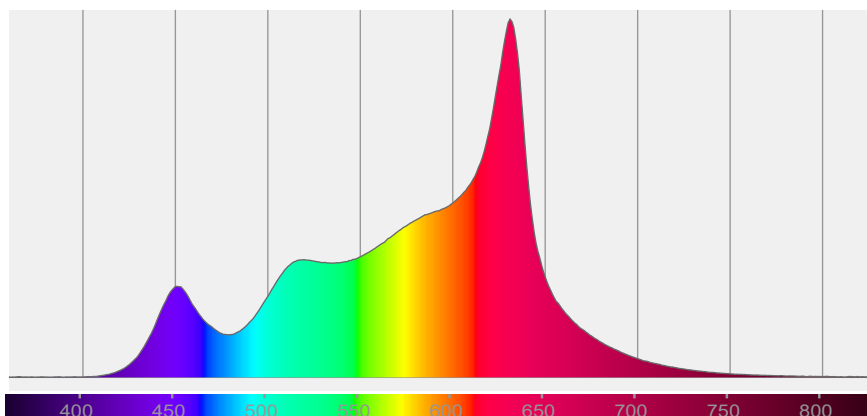


Beam angle 50%: 29,7°

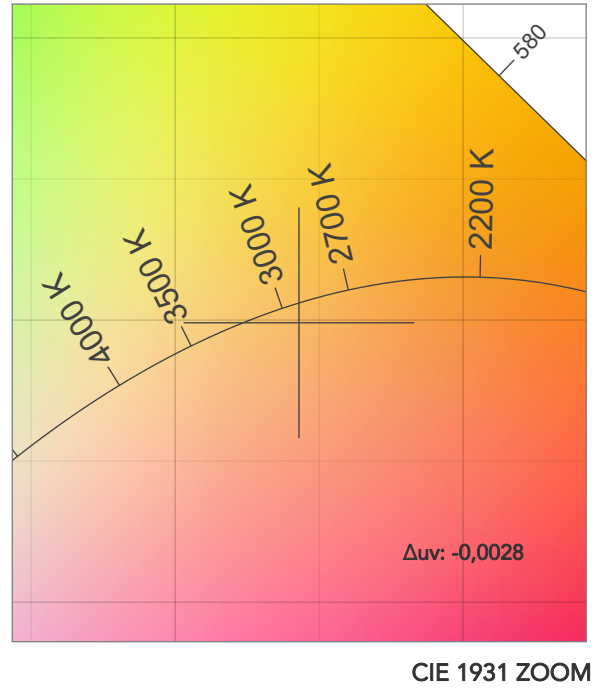
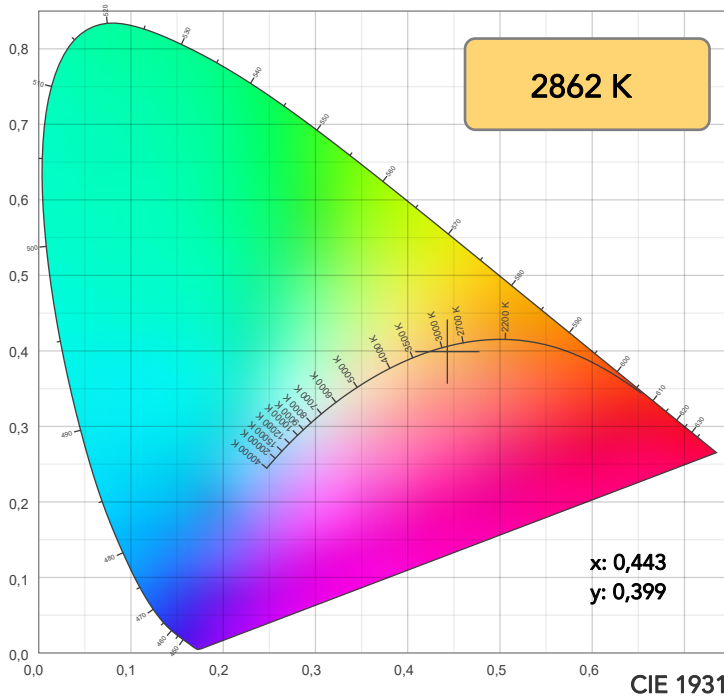
Field angle 10%: 38,1°

Cut off angle 2.5%: 40,3°

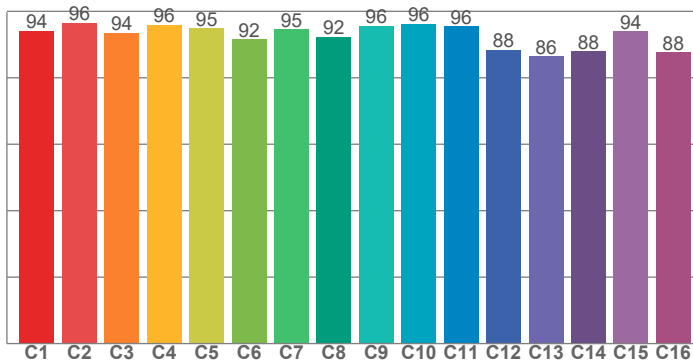
Spectra



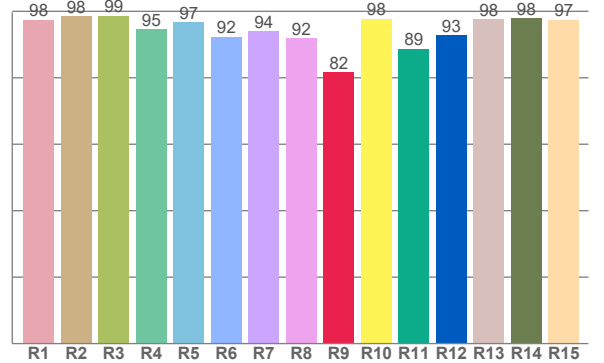
COLOR DETAILS



TM30: 93,3



CRI: 95,5 (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
97,5	98,5	98,7	94,6	96,8	92,3	94,1	91,9	81,7	97,8	88,7	92,9	97,6	97,9	97,5

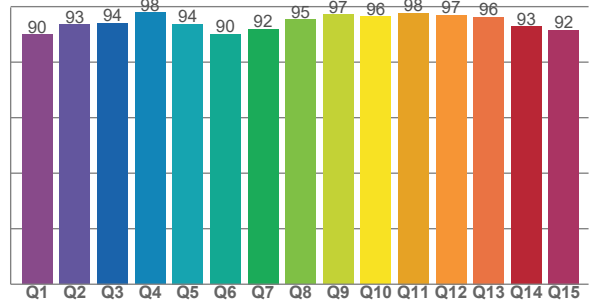
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,1	96,5	93,6	95,9	94,9	91,5	94,6	92,3	95,5	96,2	95,5	88,3	86,4	88,0	94,0	87,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89,9	93,5	94,1	97,9	93,8	90,0	91,9	95,3	97,1	96,4	97,7	96,9	96,2	92,8	91,5

CQS: 93,5



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	Δuv
2862 K	95,5	81,7	93,3	103,1	93,5	83	0,443	0,399	-0,0028

TM30 DETAILS

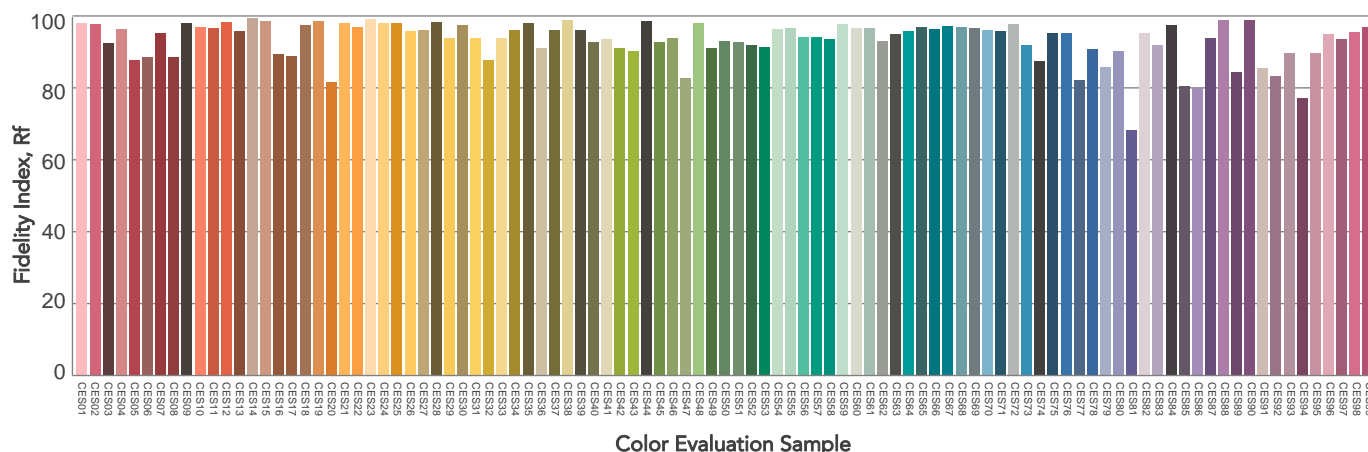
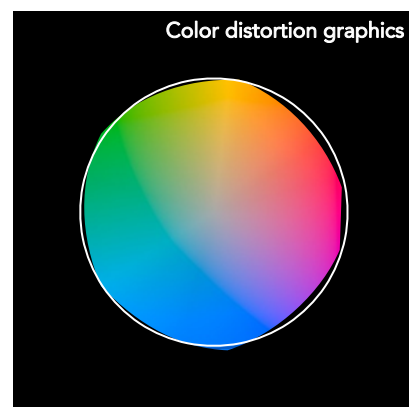
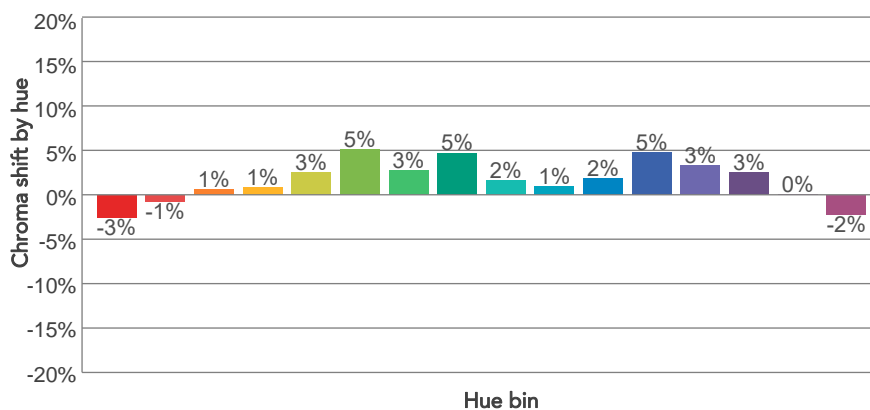
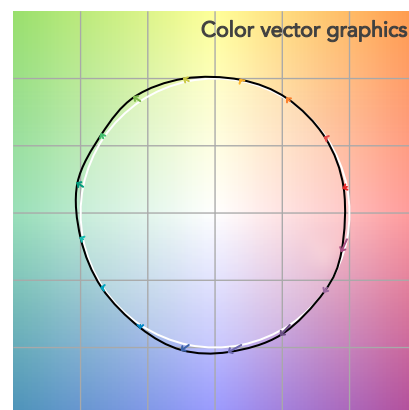
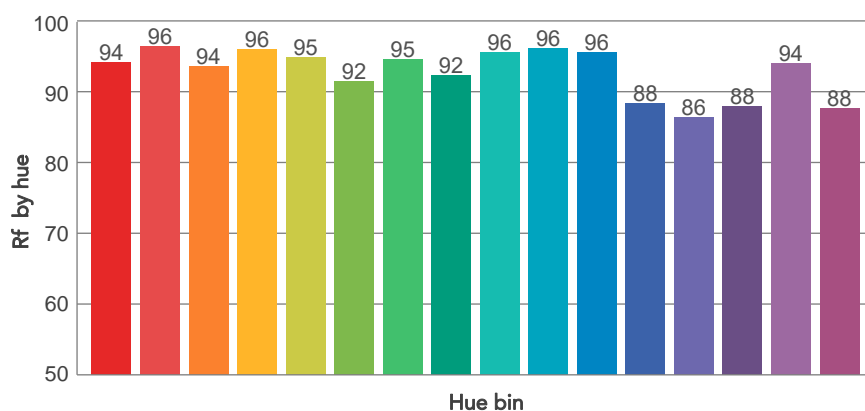
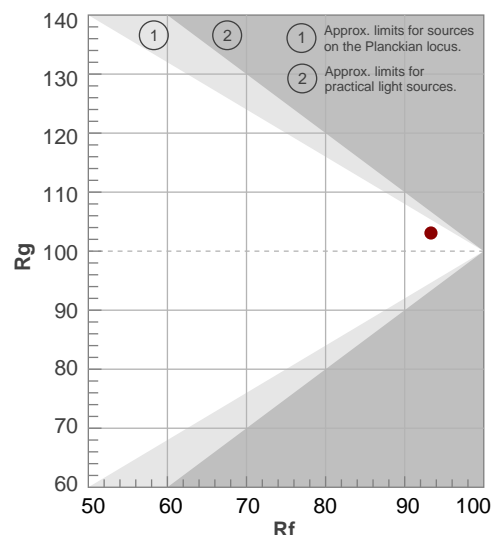
Rf 93,3

Fidelity index Rf

Rg 103,1

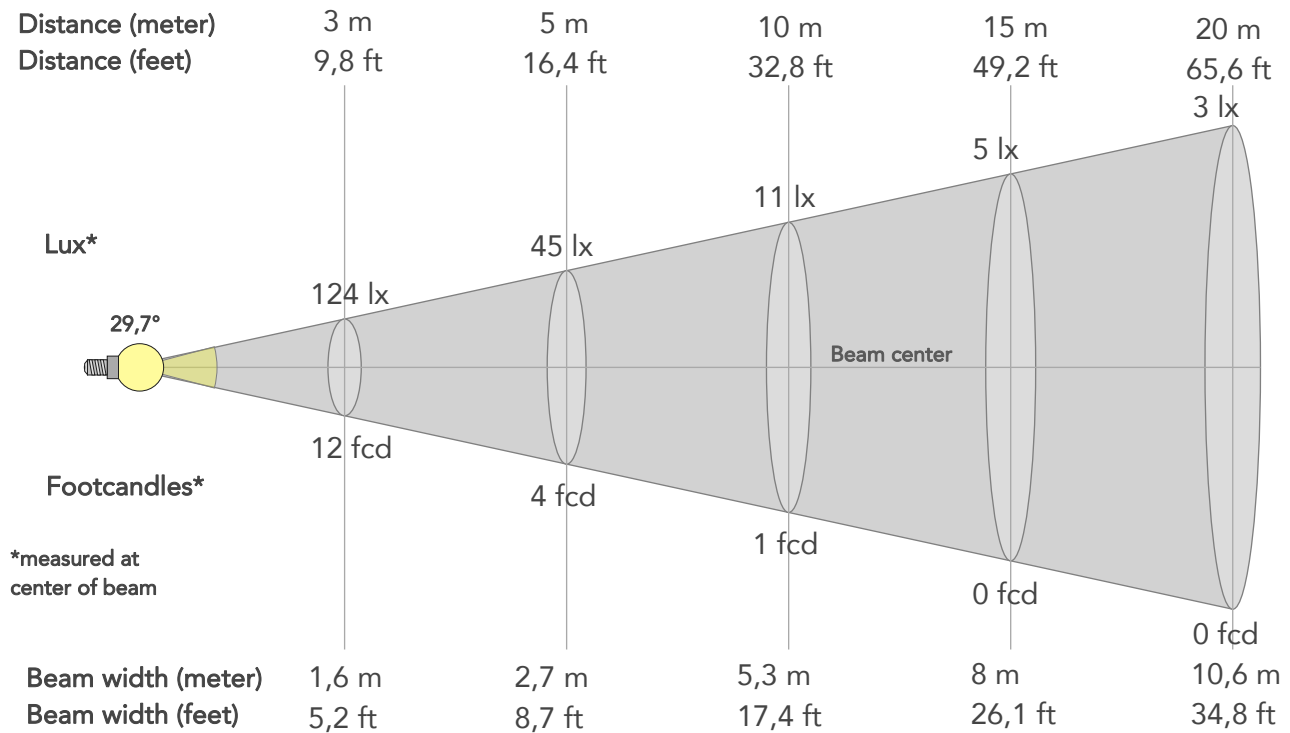
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	-3%	0%
2	96	-1%	1%
3	94	1%	3%
4	96	1%	1%
5	95	3%	3%
6	92	5%	2%
7	95	3%	-2%
8	92	5%	-2%
9	96	2%	-1%
10	96	1%	-1%
11	96	2%	1%
12	88	5%	-4%
13	86	3%	-10%
14	88	3%	-9%
15	94	0%	-4%
16	88	-2%	-9%



BEAM DETAILS

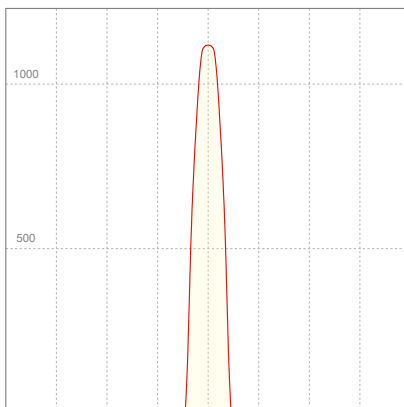
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
29,7°	38,1°	40,3°	99,2%	98,8%



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	1118lx	280lx	124lx	70lx	45lx	20lx	11lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	104fcd	26fcd	12fcd	6fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,1m	2,7m	4m	5,3m	8m	10,6m	13,3m	15,9m	21,2m	26,5m
Beam wid.	1,7ft	3,5ft	5,2ft	6,9ft	8,7ft	13ft	17,4ft	26,1ft	34,8ft	43,5ft	52,2ft	69,6ft	87ft

LINEAR DISTRIBUTION DIAGRAM

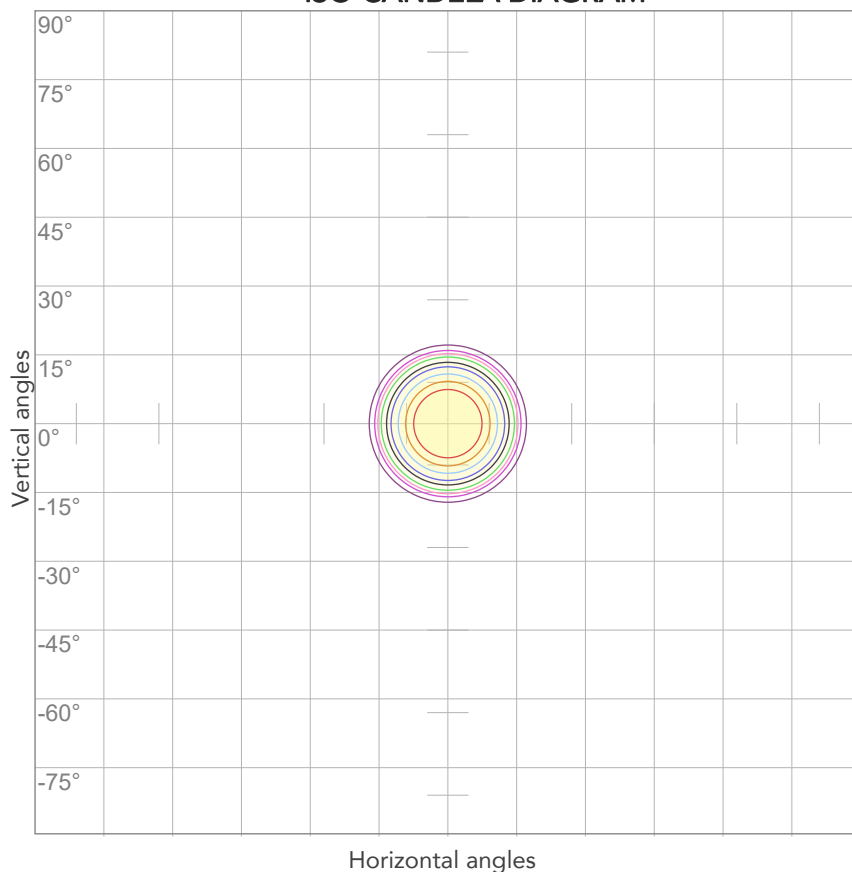


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,274A	25,3W	0,41	9lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



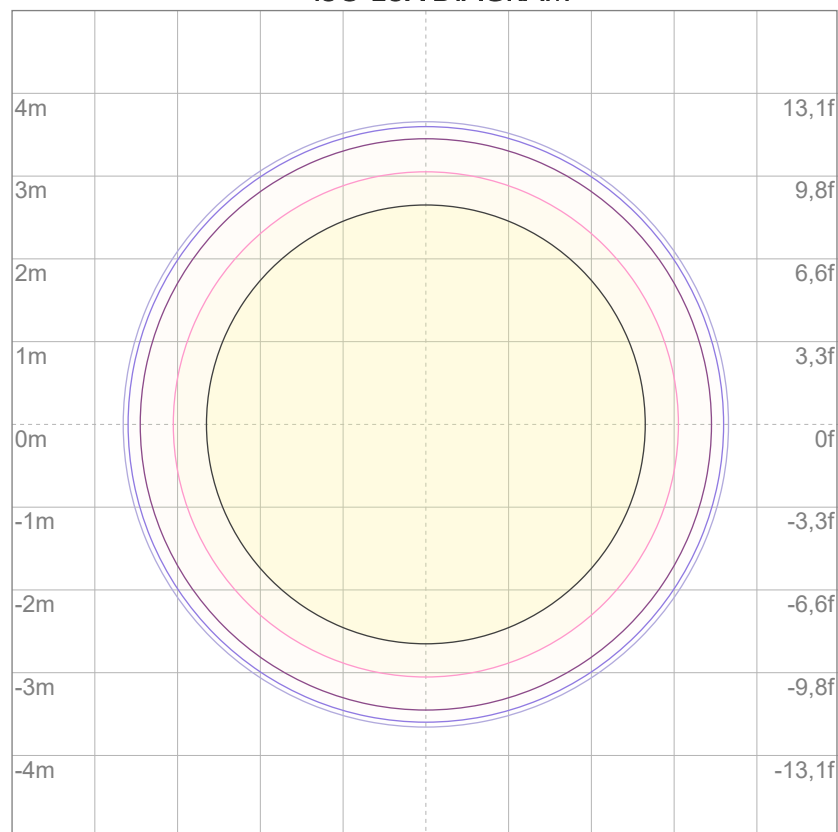
10%	112 cd
20%	224 cd
30%	335 cd
40%	447 cd
50%	559 cd
60%	671 cd
70%	783 cd
80%	895 cd

Conditions:

Number of c-planes: 2

Candela at center: 1118 cd

ISO LUX DIAGRAM



3%	0,335 lx
5%	0,559 lx
10%	1,12 lx
30%	3,35 lx
50%	5,59 lx

Conditions:

Number of c-planes: 2

Lux at center: 11,2 lx

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



Total lumen output:

238 lm

Peak candela output:

1135 cd

Light quality:

CRI: 95,5

Color temperature:

3246 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

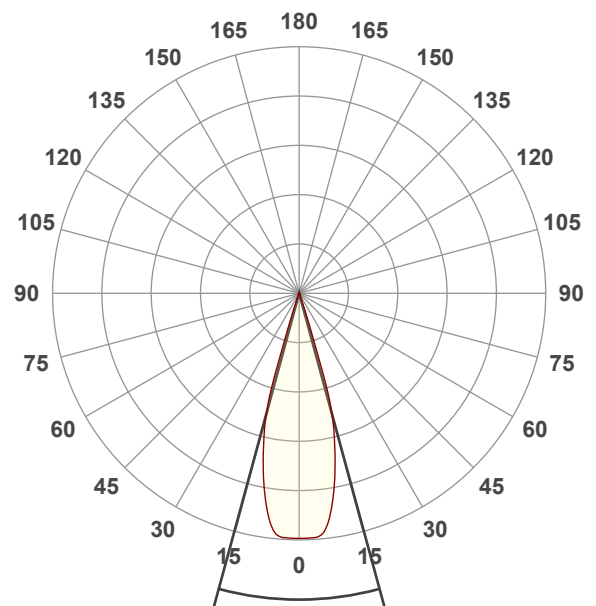
3200K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:36:22

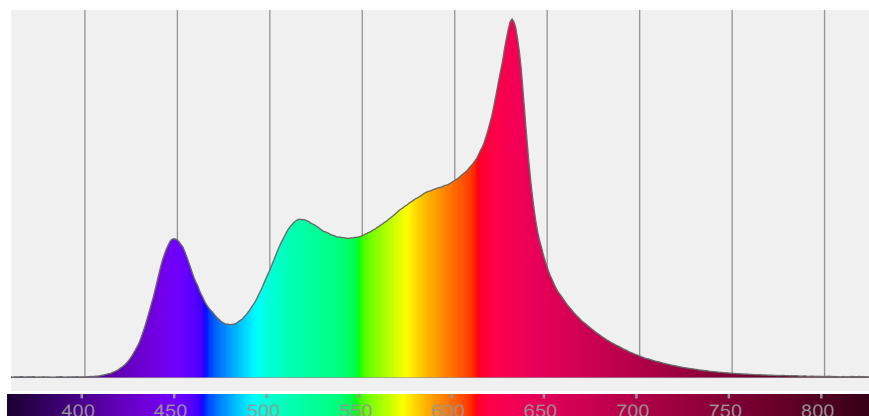


Beam angle 50%: 30,4°

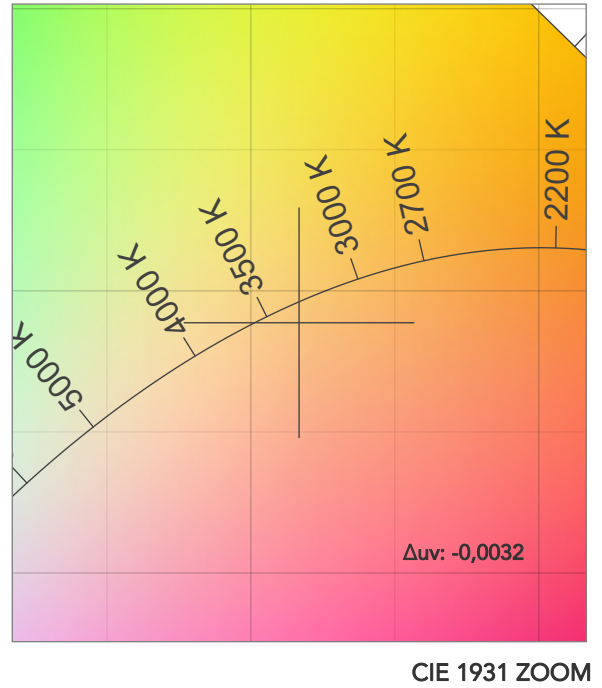
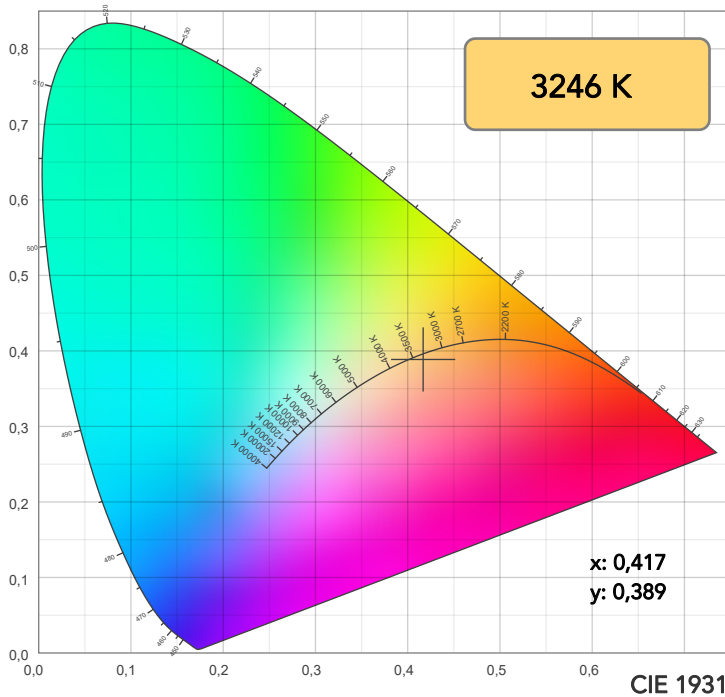
Field angle 10%: 36,7°

Cut off angle 2.5%: 39,5°

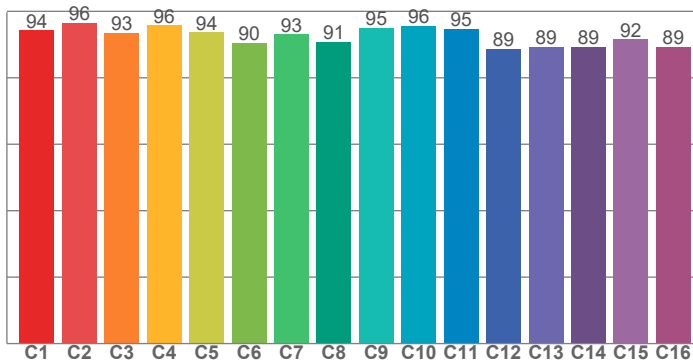
Spectra



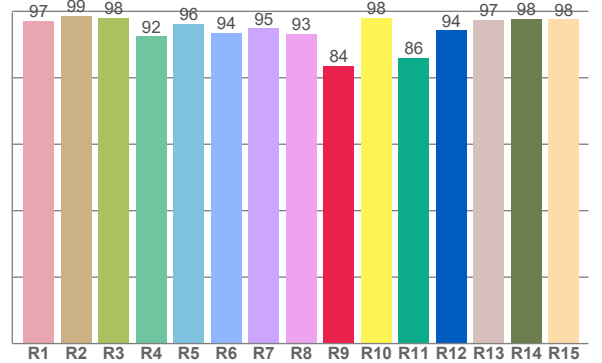
COLOR DETAILS



TM30: 93,2



CRI: 95,5 (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
97,1	98,7	98,0	92,4	96,3	93,6	94,9	93,3	83,6	98,0	86,0	94,4	97,5	97,8	97,7

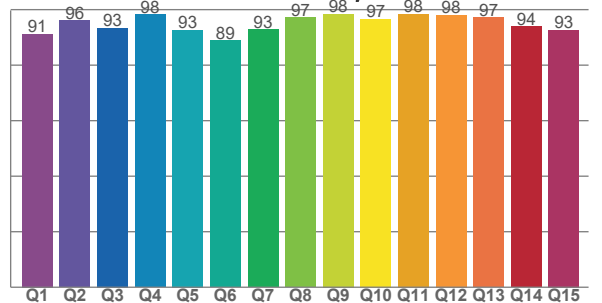
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,3	96,5	93,5	95,8	93,7	90,5	93,0	90,8	95,0	95,6	94,7	88,6	89,3	89,3	91,5	89,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91,2	96,0	93,5	98,2	92,7	88,9	92,8	97,2	98,4	96,7	98,5	98,0	97,2	93,9	92,6

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
3246 K	95,5	83,6	93,2	104,1	94,1	84	0,417	0,389	-0,0032

TM30 DETAILS

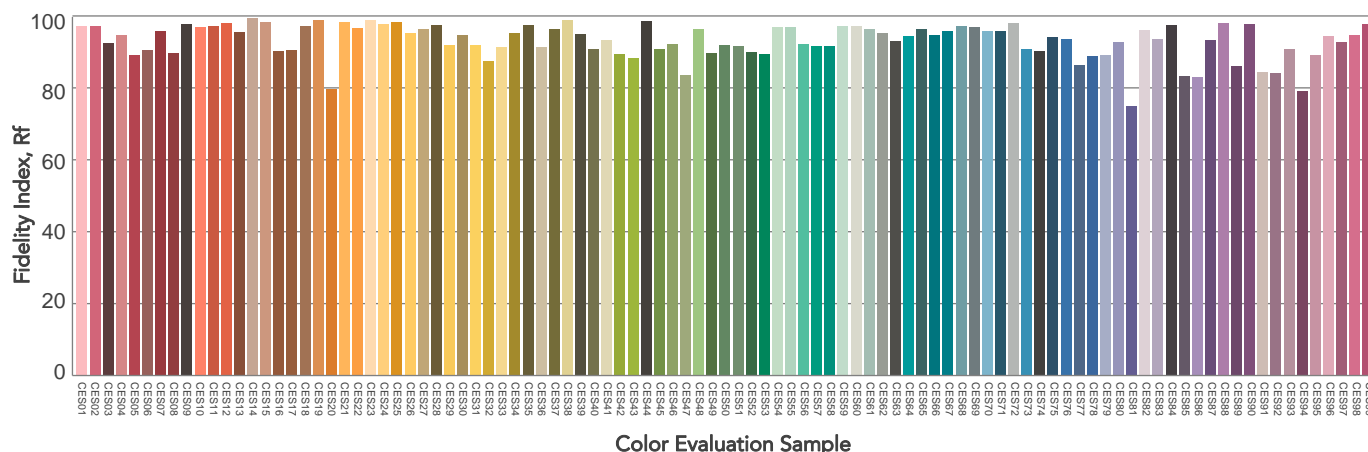
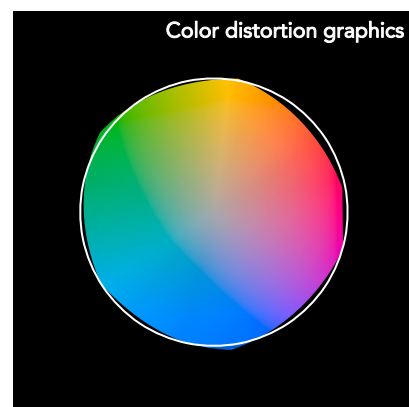
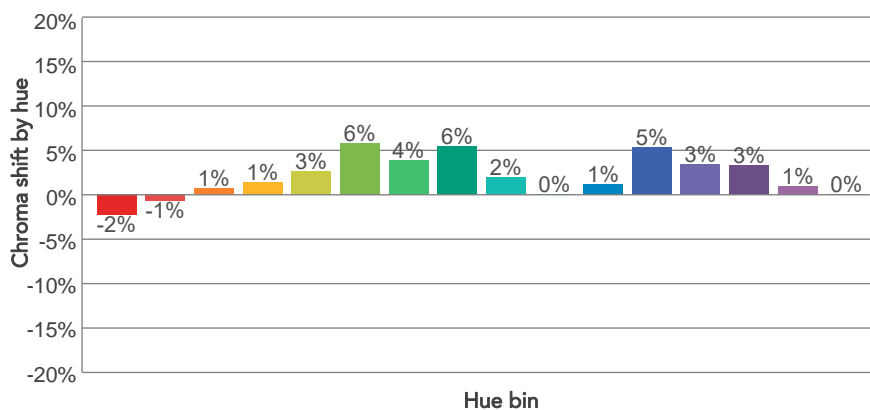
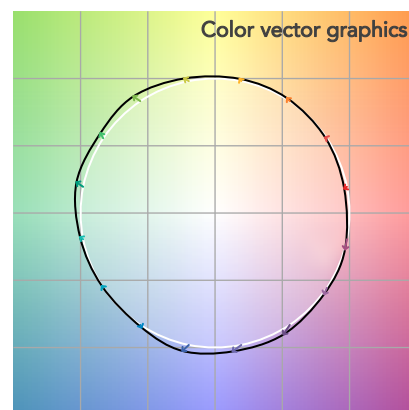
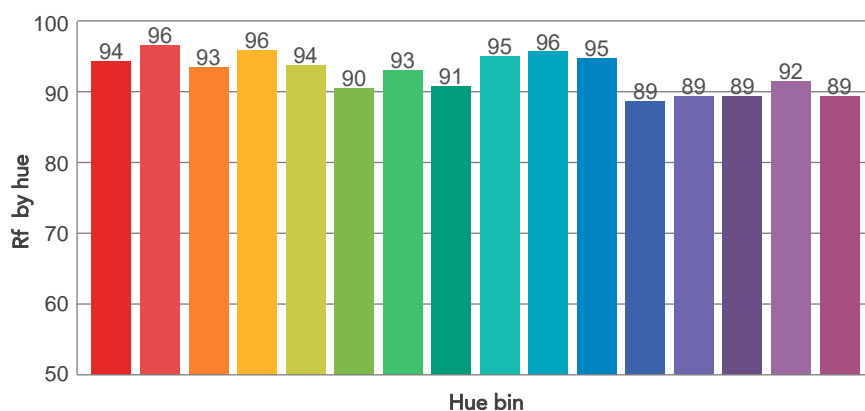
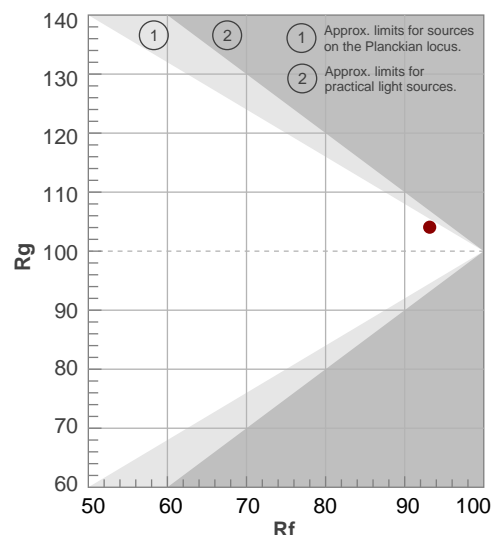
Rf 93,2

Fidelity index Rf

Rg 104,1

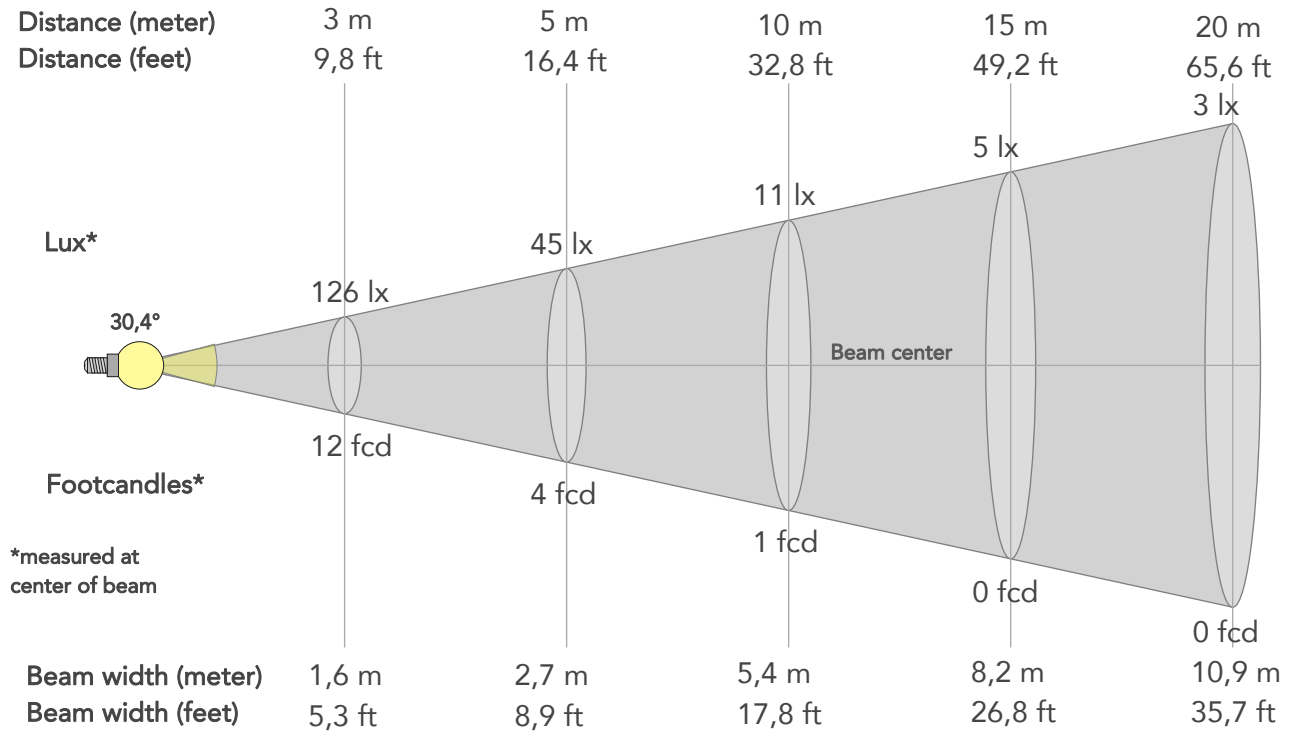
Gammut index

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



BEAM DETAILS

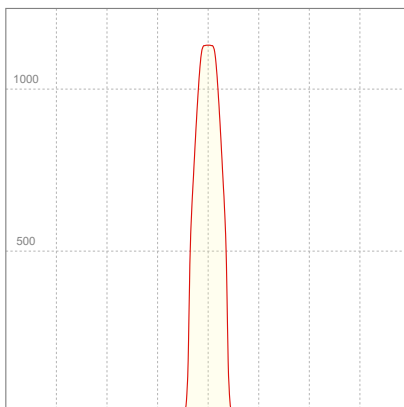
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,4°	36,7°	39,5°	98,7%	98,3%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1135lx	284lx	126lx	71lx	45lx	20lx	11lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	105fcd	26fcd	12fcd	7fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,2m	2,7m	4,1m	5,4m	8,2m	10,9m	13,6m	16,3m	21,8m	27,2m
Beam wid.	1,8ft	3,6ft	5,3ft	7,1ft	8,9ft	13,4ft	17,8ft	26,8ft	35,7ft	44,6ft	53,5ft	71,4ft	89,2ft

LINEAR DISTRIBUTION DIAGRAM

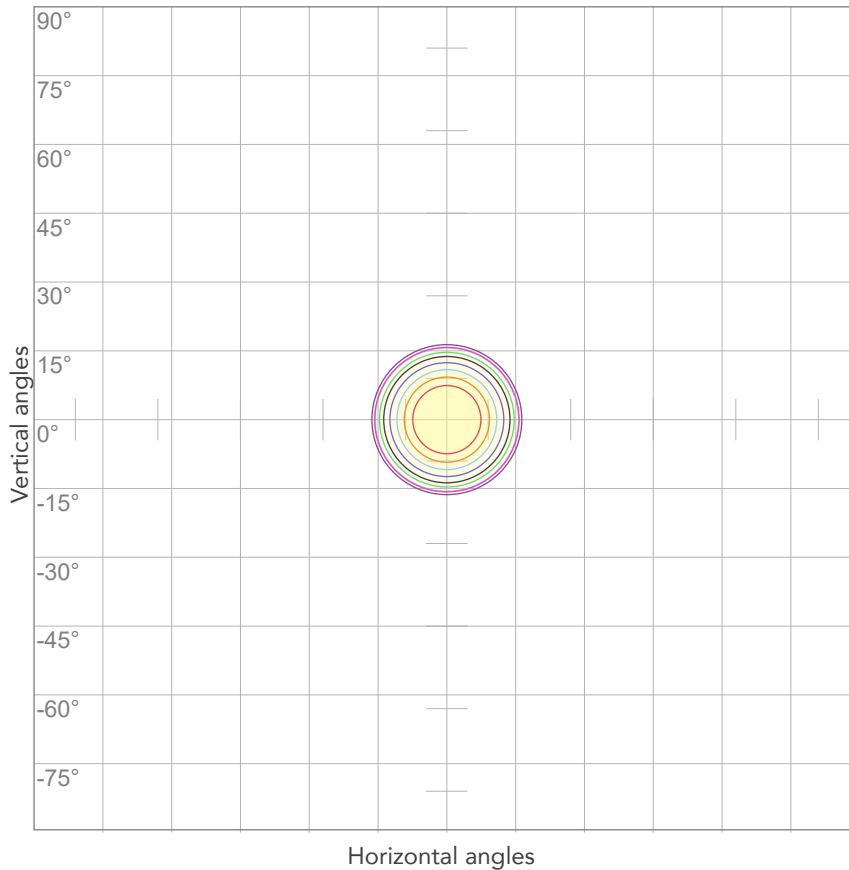


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,264A	26,1W	0,44	9lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



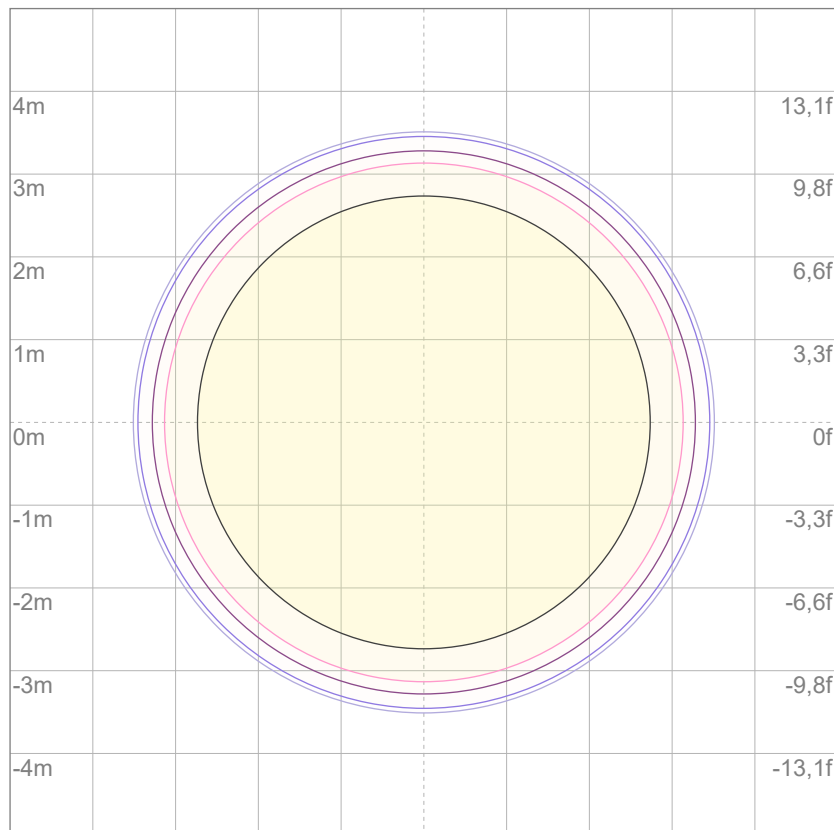
10%	114 cd
20%	227 cd
30%	341 cd
40%	454 cd
50%	568 cd
60%	681 cd
70%	795 cd
80%	908 cd

Conditions:

Number of c-planes: 2

Candela at center: 1135 cd

ISO LUX DIAGRAM



3%	0,341 lx
5%	0,568 lx
10%	1,14 lx
30%	3,41 lx
50%	5,68 lx

Conditions:

Number of c-planes: 2

Lux at center: 11,4 lx

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



Total lumen output:

246 lm

Peak candela output:

1172 cd

Light quality:

CRI: 94,9

Color temperature:

4012 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

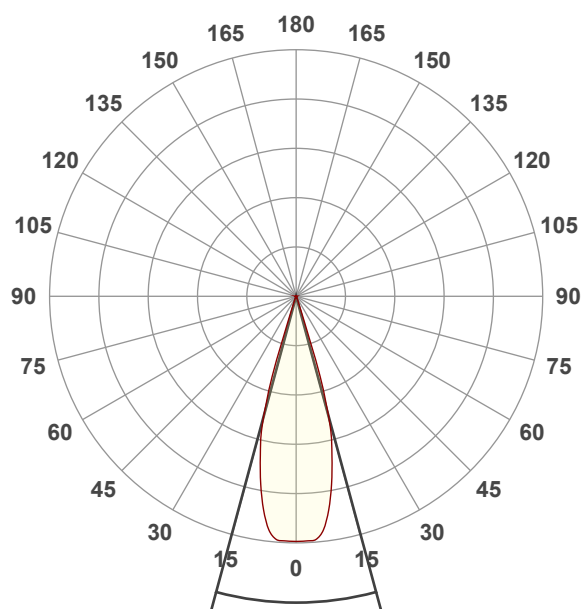
4000K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:38:37

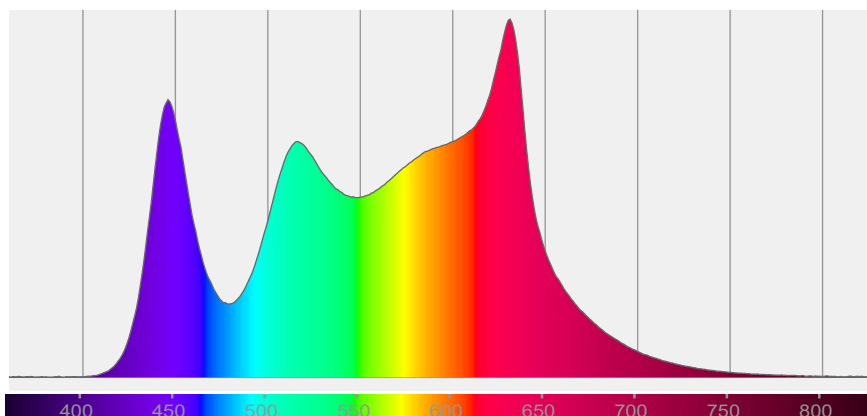


Beam angle 50%: 30,3°

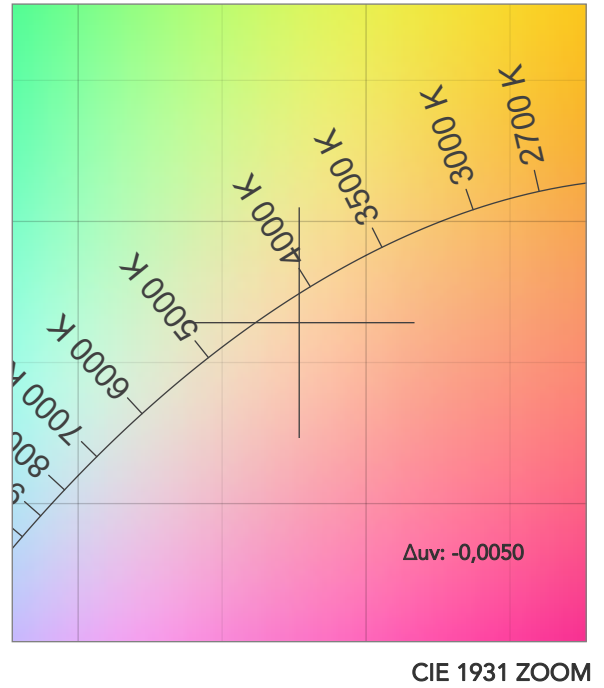
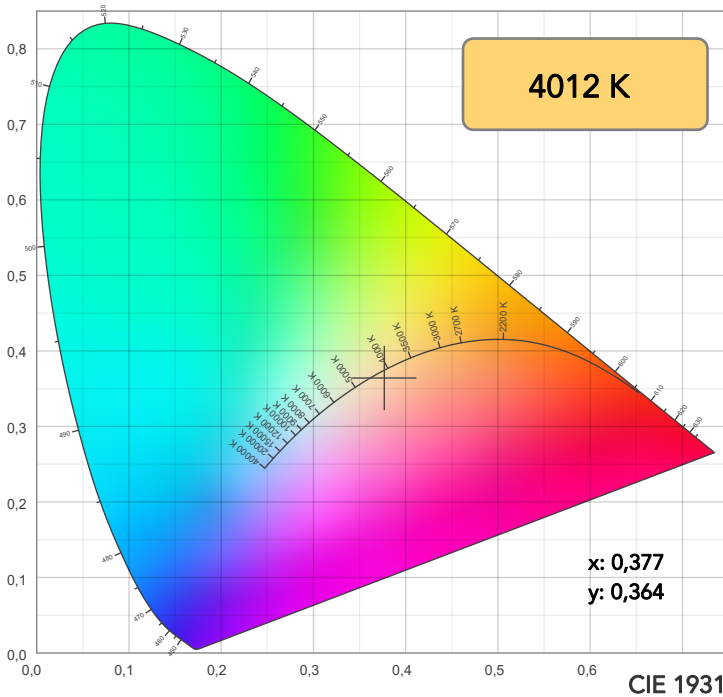
Field angle 10%: 36,8°

Cut off angle 2.5%: 39,9°

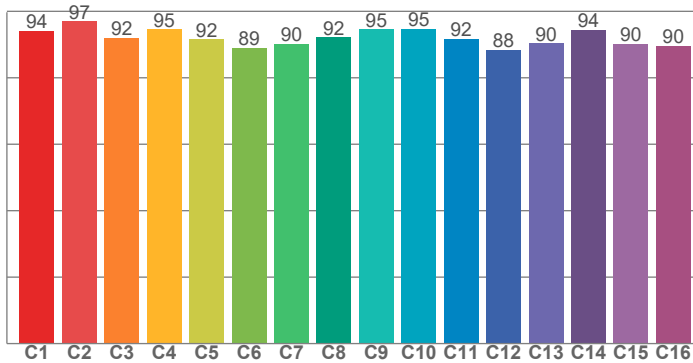
Spectra



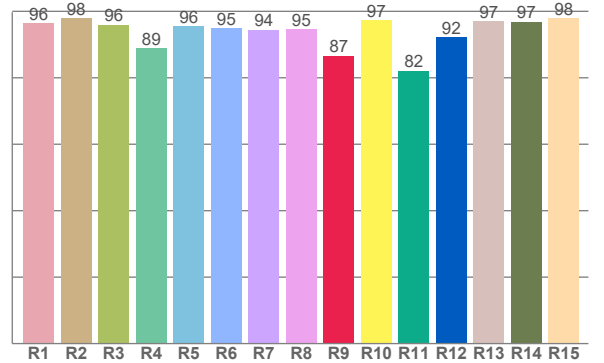
COLOR DETAILS



TM30: 92,4



CRI: 94,9 (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
96,4	98,0	95,9	88,9	95,6	94,9	94,5	94,7	86,7	97,4	82,2	92,2	97,0	96,9	97,8

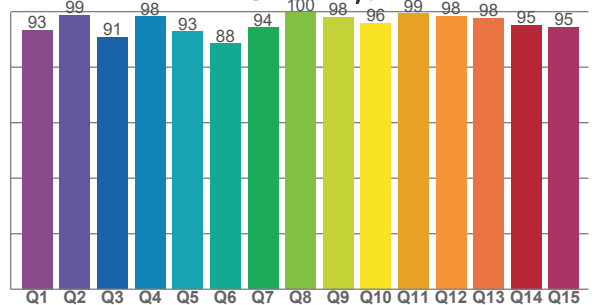
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,2	96,9	92,0	94,6	91,6	89,0	90,2	92,1	94,5	94,6	91,8	88,4	90,4	94,5	90,2	89,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,4	98,8	90,7	98,3	92,8	88,5	94,2	99,7	98,1	95,8	99,3	98,3	97,7	95,1	94,5

CQS: 94,6



COLOR PARAMETERS

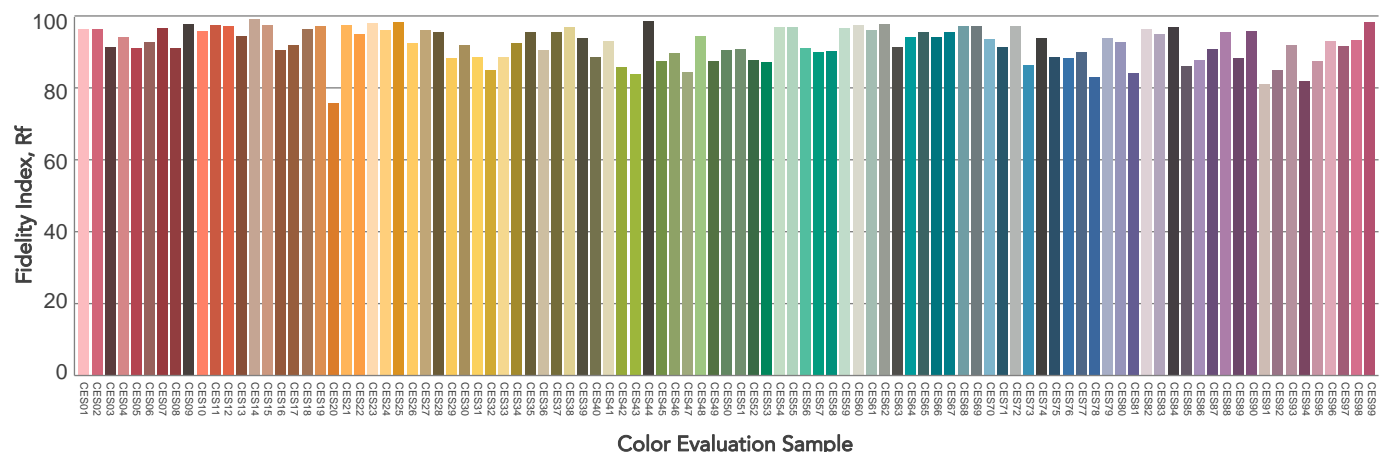
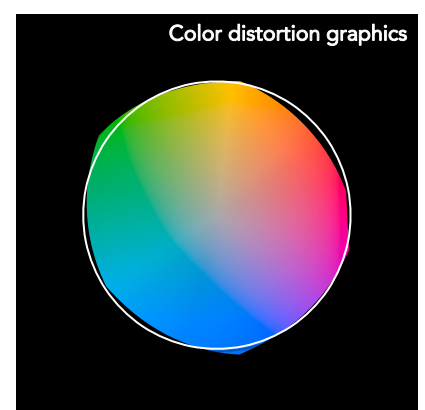
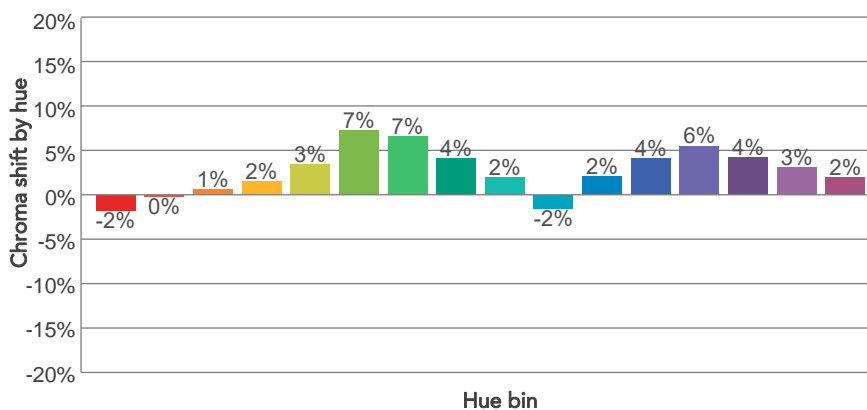
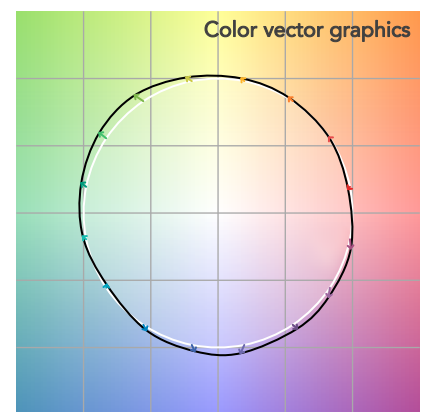
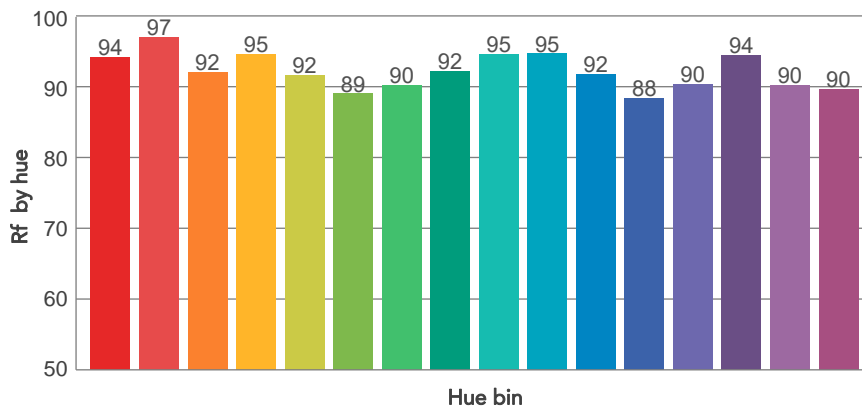
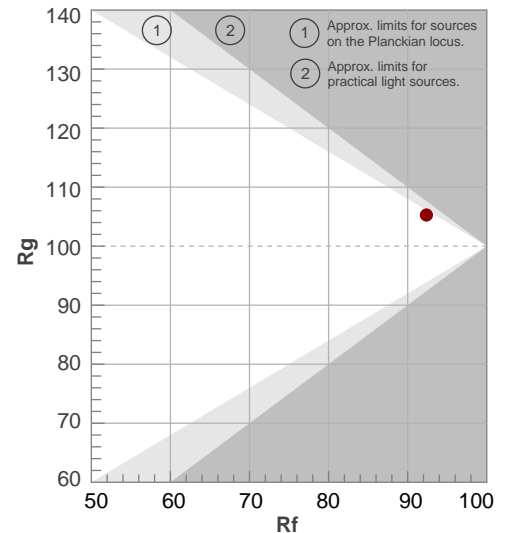
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4012 K	94,9	86,7	92,4	105,3	94,6	82	0,377	0,364	-0,0050

TM30 DETAILS

Rf 92,4
Fidelity index Rf

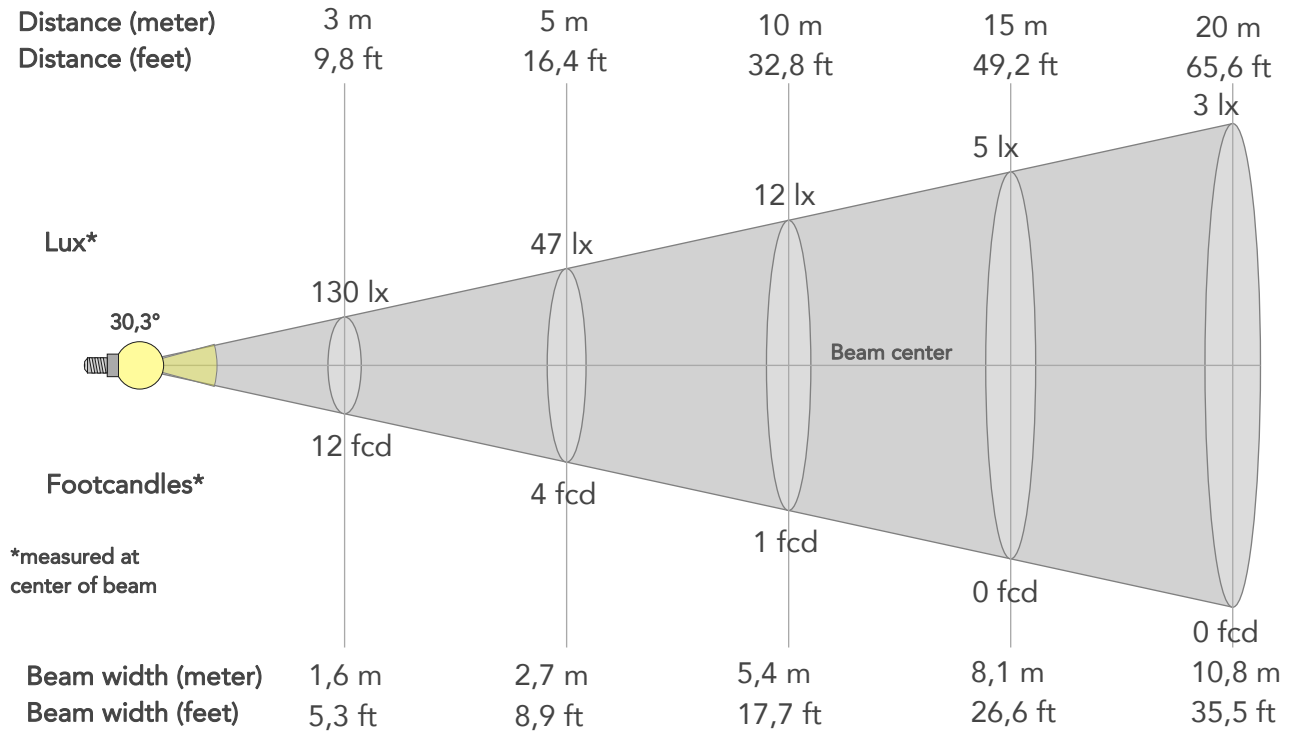
Rg 105,3
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	-2%	-1%
2	97	0%	1%
3	92	1%	4%
4	95	2%	3%
5	92	3%	4%
6	89	7%	3%
7	90	7%	-1%
8	92	4%	-2%
9	95	2%	-3%
10	95	-2%	-2%
11	92	2%	4%
12	88	4%	3%
13	90	6%	-4%
14	94	4%	1%
15	90	3%	-6%
16	90	2%	-7%



BEAM DETAILS

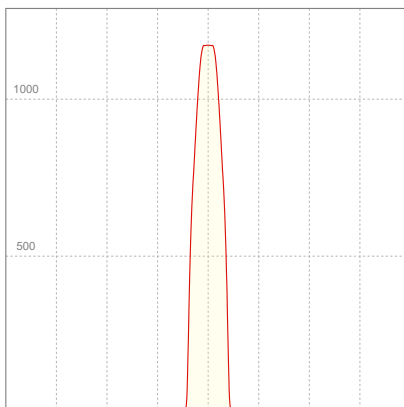
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,3°	36,8°	39,9°	98,8%	98,5%



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	1172lx	293lx	130lx	73lx	47lx	21lx	12lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	109fcd	27fcd	12fcd	7fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,2m	2,7m	4,1m	5,4m	8,1m	10,8m	13,5m	16,2m	21,6m	27m
Beam wid.	1,8ft	3,6ft	5,3ft	7,1ft	8,9ft	13,3ft	17,7ft	26,6ft	35,5ft	44,4ft	53,2ft	71ft	88,7ft

LINEAR DISTRIBUTION DIAGRAM

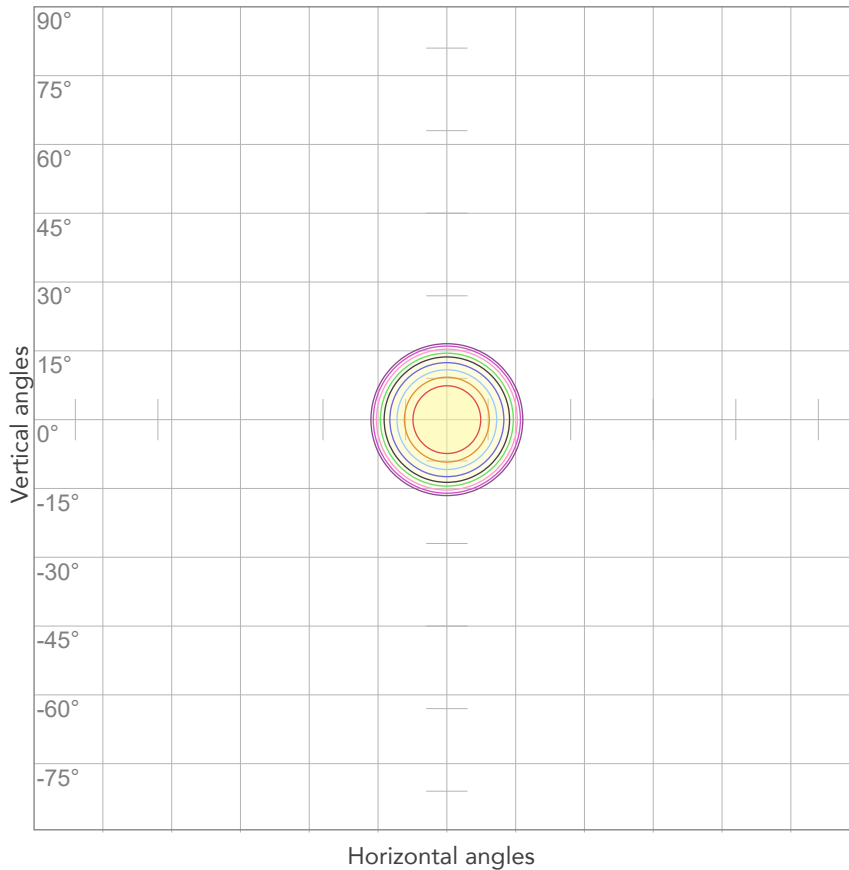


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,290A	27,5W	0,42	9lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



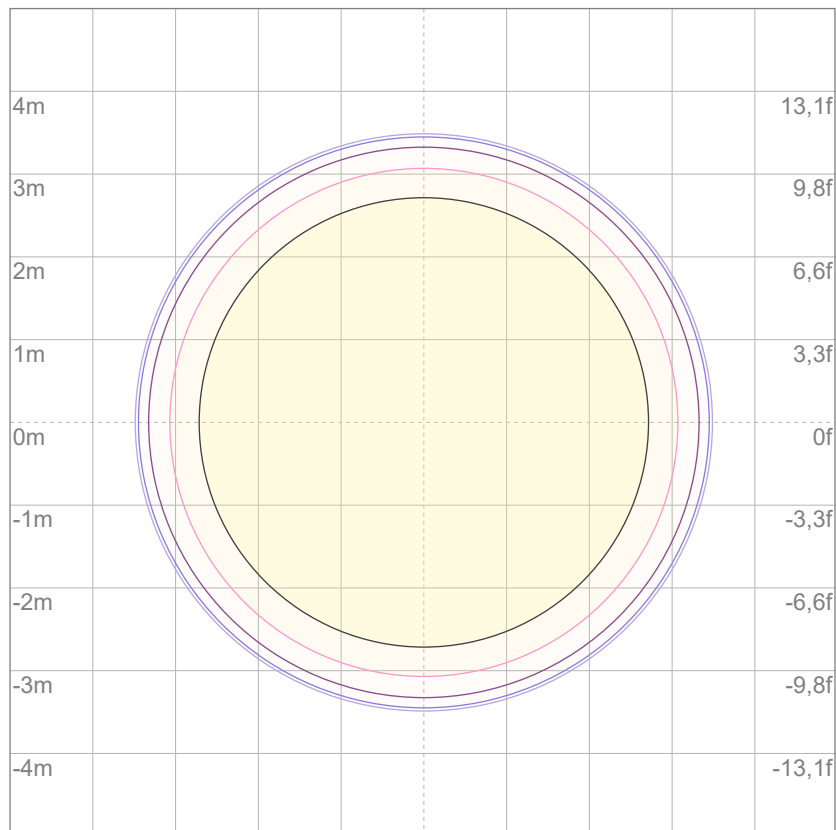
10%	117 cd
20%	234 cd
30%	352 cd
40%	469 cd
50%	586 cd
60%	703 cd
70%	820 cd
80%	937 cd

Conditions:

Number of c-planes: 2

Candela at center: 1172 cd

ISO LUX DIAGRAM



3%	0,352 lx
5%	0,586 lx
10%	1,17 lx
30%	3,52 lx
50%	5,86 lx

Conditions:

Number of c-planes: 2

Lux at center: 11,7 lx

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



Total lumen output:

256 lm

Peak candela output:

1225 cd

Light quality:

CRI: 91,1

Color temperature:

5618 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

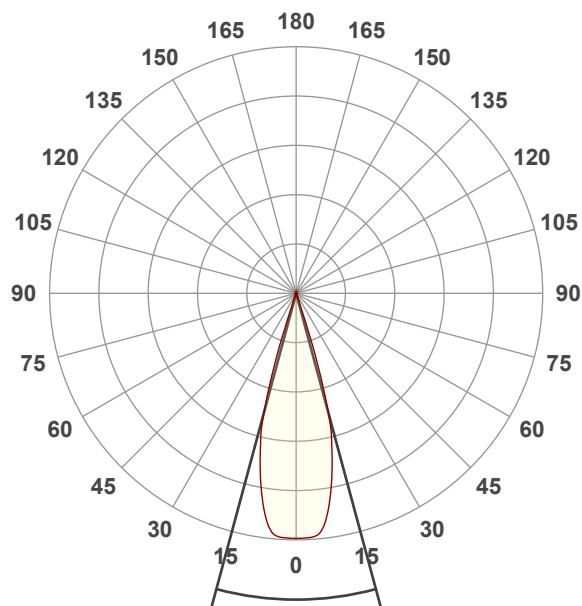
5600K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:43:54

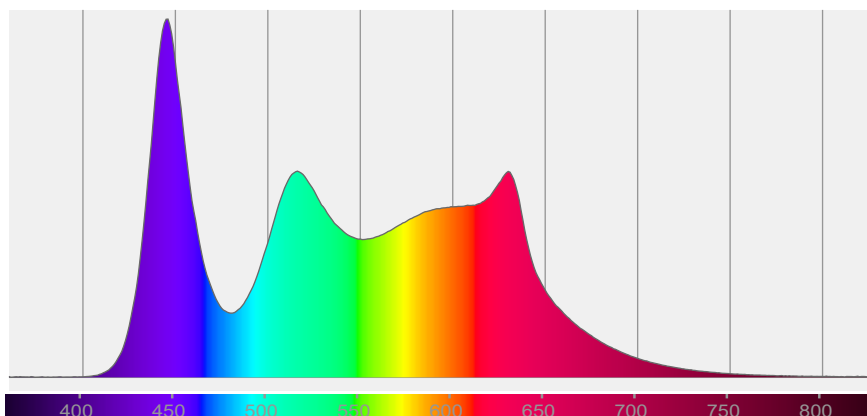


Beam angle 50%: 30,2°

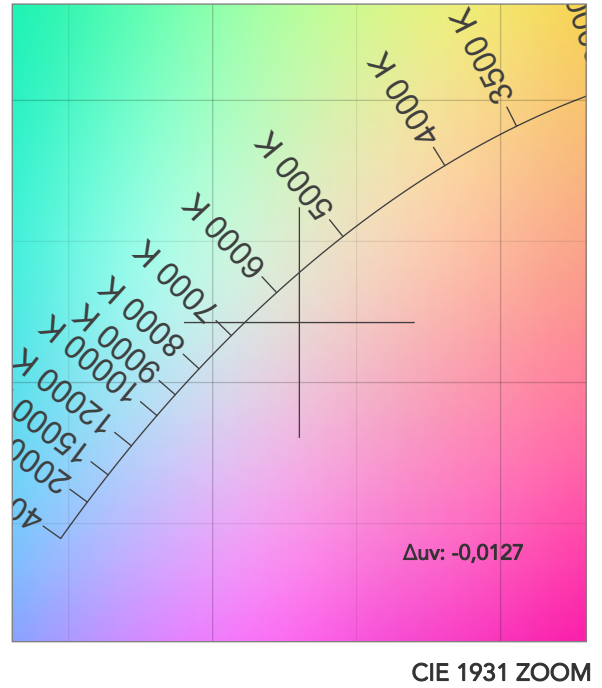
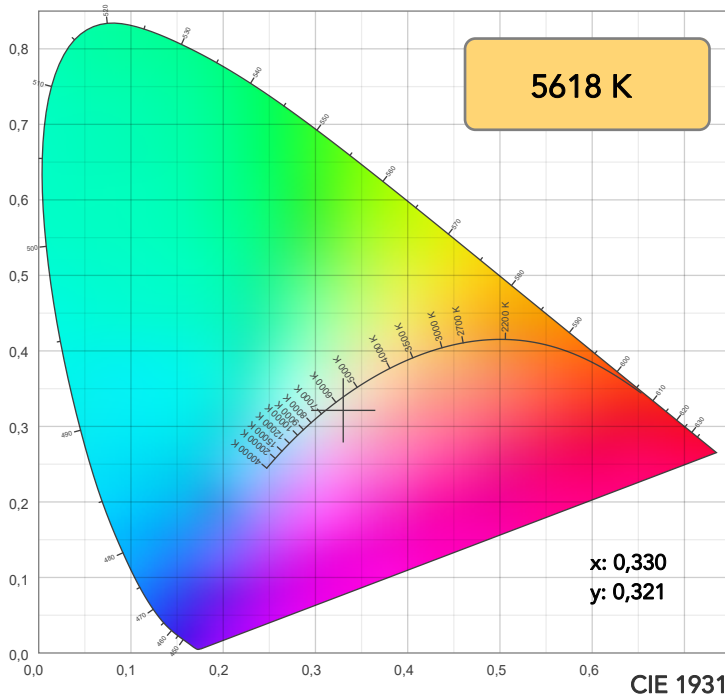
Field angle 10%: 37°

Cut off angle 2.5%: 38,9°

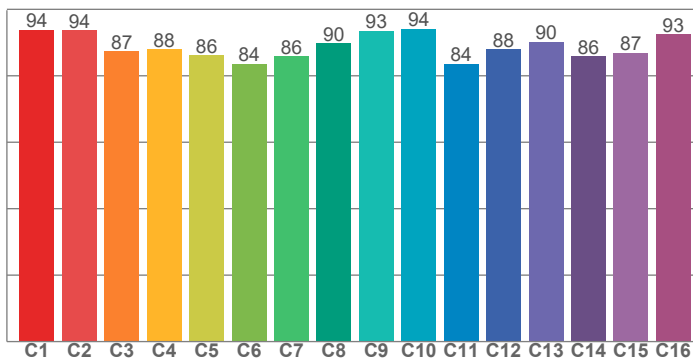
Spectra



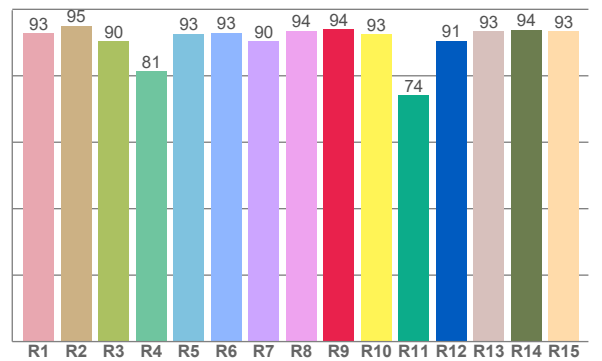
COLOR DETAILS



TM30: 88,7



CRI: 91,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,7	95,1	90,4	81,3	92,7	92,9	90,5	93,5	94,0	92,6	74,2	90,5	93,4	93,8	93,4

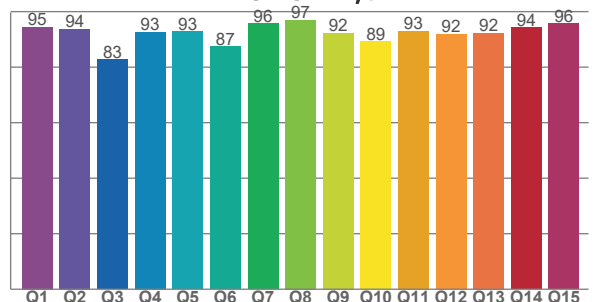
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,7	93,7	87,3	87,9	86,1	83,5	85,8	89,8	93,4	94,0	83,6	88,0	90,3	85,9	86,9	92,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,5	93,7	82,7	92,7	92,8	87,4	95,7	96,9	92,4	89,2	93,1	91,9	92,3	94,2	95,7

CQS: 91,6



COLOR PARAMETERS

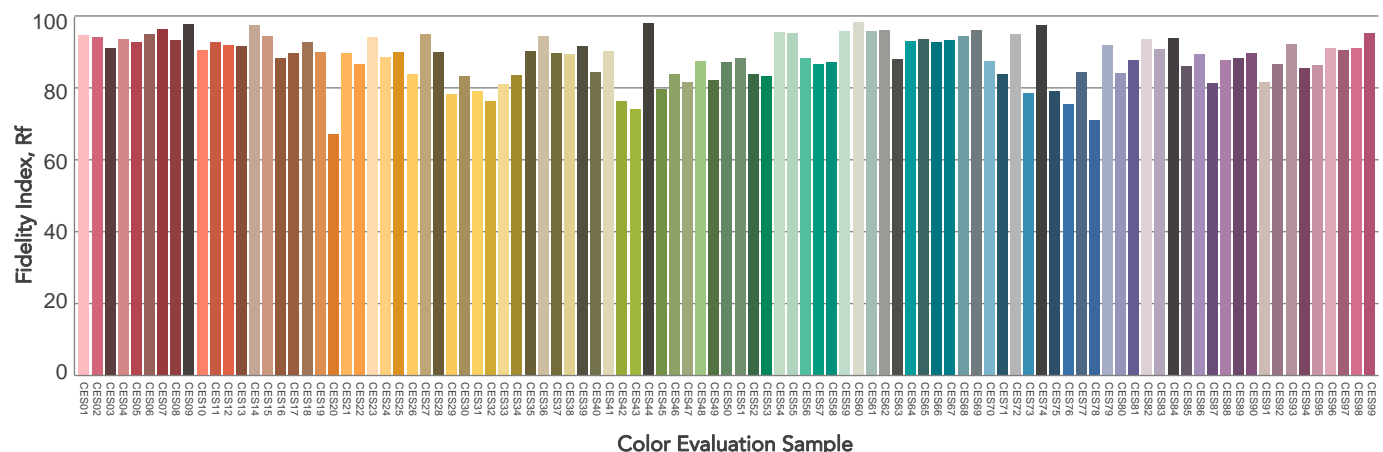
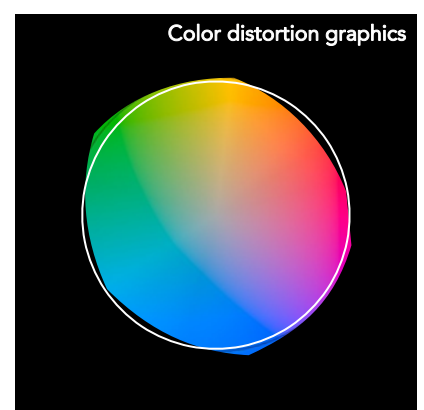
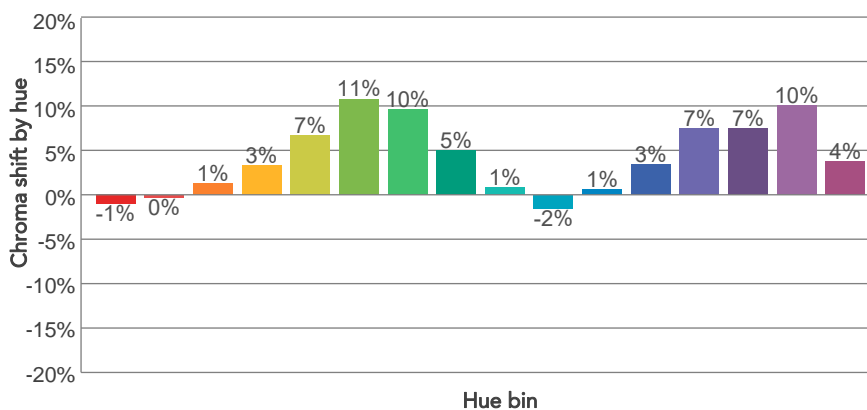
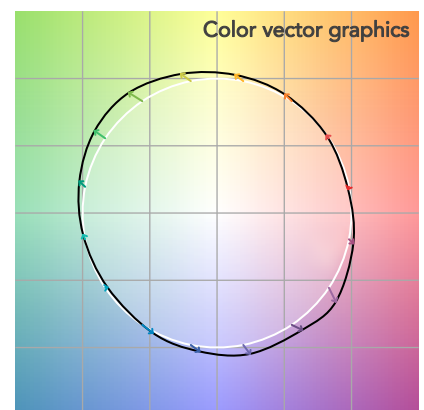
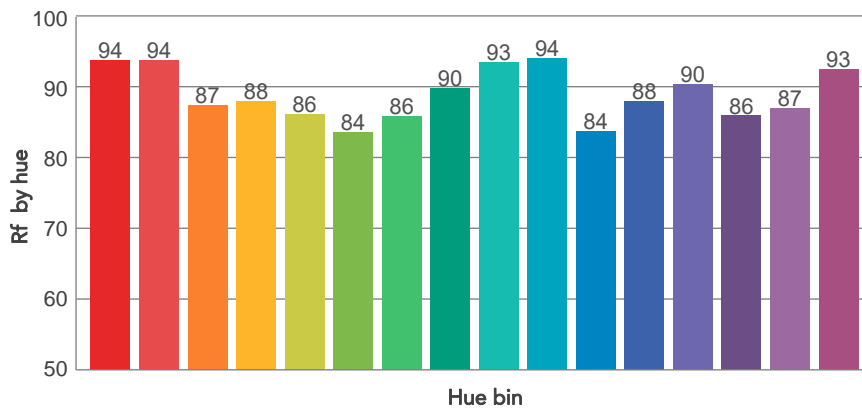
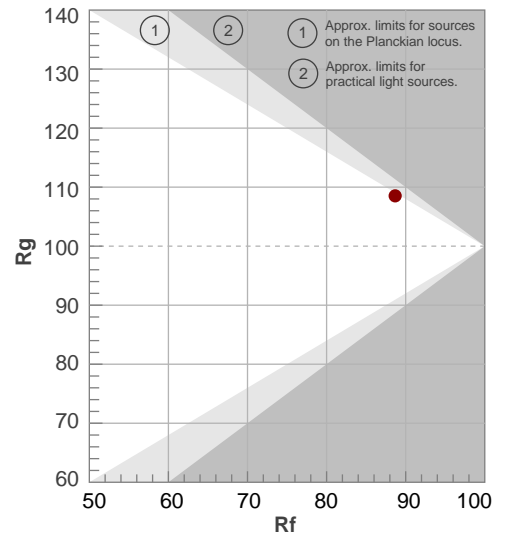
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5618 K	91,1	94,0	88,7	108,5	91,6	84	0,330	0,321	-0,0127

TM30 DETAILS

Rf 88,7
Fidelity index Rf

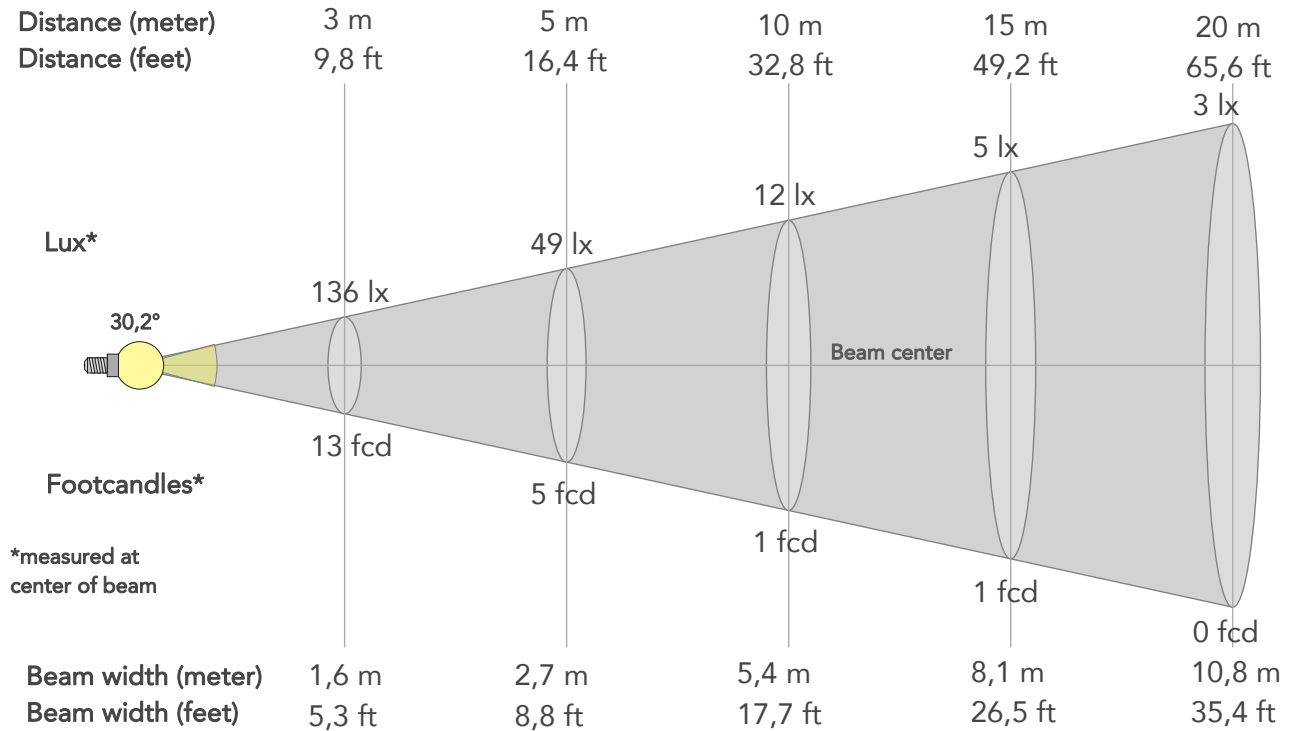
Rg 108,5
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	-1%	-2%
2	94	0%	3%
3	87	1%	7%
4	88	3%	7%
5	86	7%	6%
6	84	11%	5%
7	86	10%	0%
8	90	5%	-3%
9	93	1%	-4%
10	94	-2%	1%
11	84	1%	10%
12	88	3%	7%
13	90	7%	4%
14	86	7%	4%
15	87	10%	-6%
16	93	4%	-2%



BEAM DETAILS

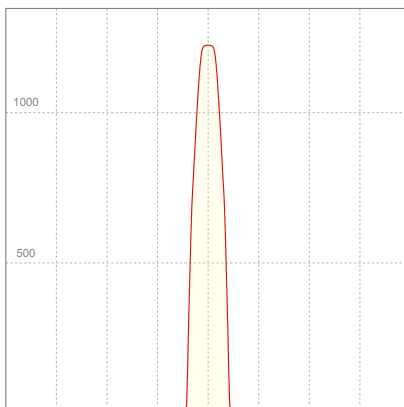
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,2°	37°	38,9°	99,1%	98,8%



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	1225lx	306lx	136lx	77lx	49lx	22lx	12lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	114fcd	28fcd	13fcd	7fcd	5fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,2m	2,7m	4m	5,4m	8,1m	10,8m	13,5m	16,2m	21,6m	27m
Beam wid.	1,8ft	3,6ft	5,3ft	7,1ft	8,8ft	13,3ft	17,7ft	26,5ft	35,4ft	44,2ft	53,1ft	70,8ft	88,5ft

LINEAR DISTRIBUTION DIAGRAM

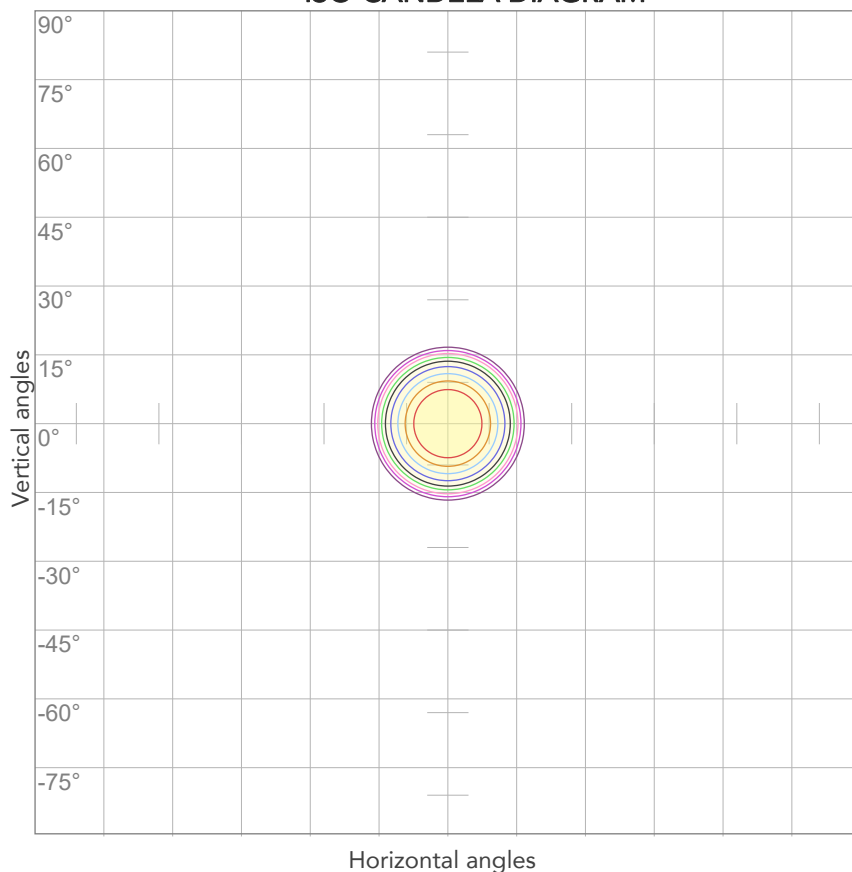


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	0,306A	29,8W	0,43	9lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



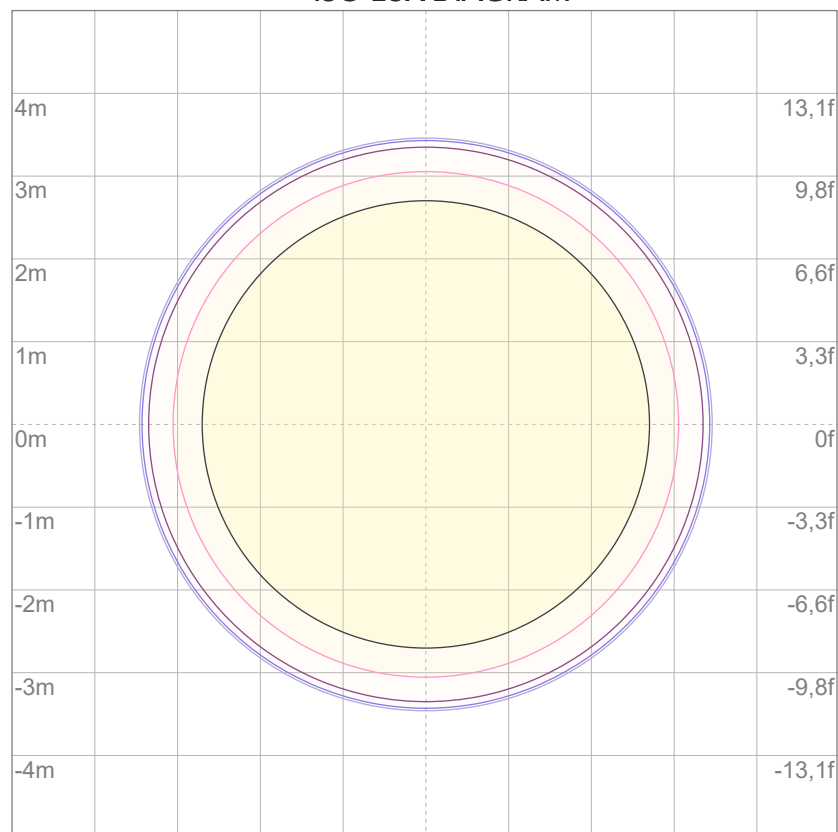
10%	122 cd
20%	245 cd
30%	367 cd
40%	490 cd
50%	612 cd
60%	735 cd
70%	857 cd
80%	980 cd

Conditions:

Number of c-planes: 2

Candela at center: 1225 cd

ISO LUX DIAGRAM



3%	0,367 lx
5%	0,612 lx
10%	1,22 lx
30%	3,67 lx
50%	6,12 lx

Conditions:

Number of c-planes: 2

Lux at center: 12,2 lx

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



Total lumen output:

258 lm

Peak candela output:

1225 cd

Light quality:

CRI: 90,7

Color temperature:

6066 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

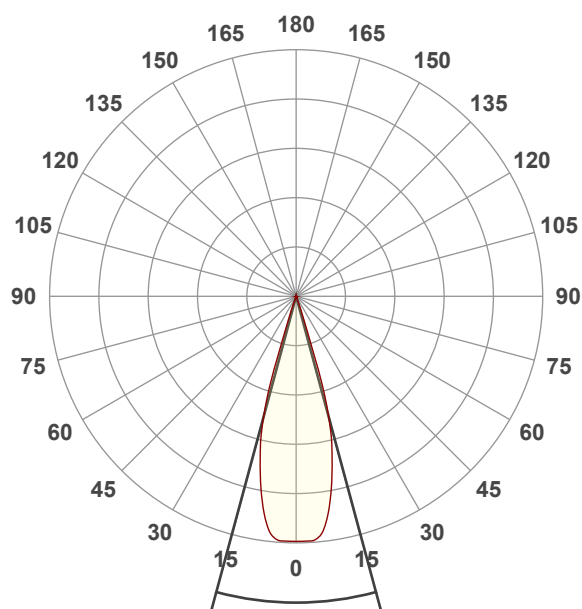
6000K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:45:53

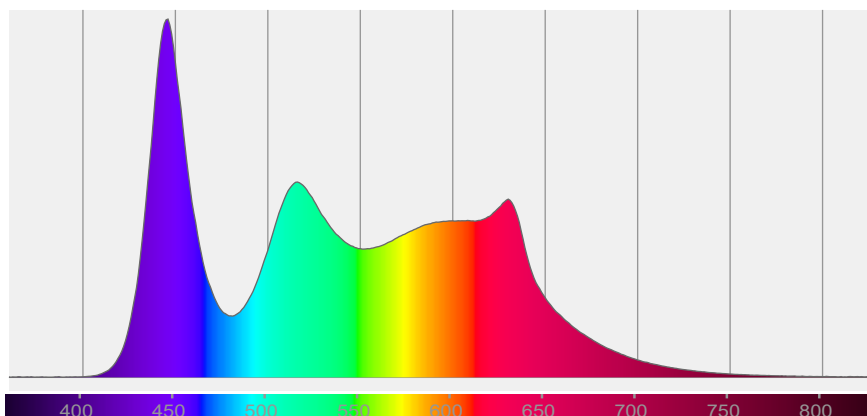


Beam angle 50%: 30,2°

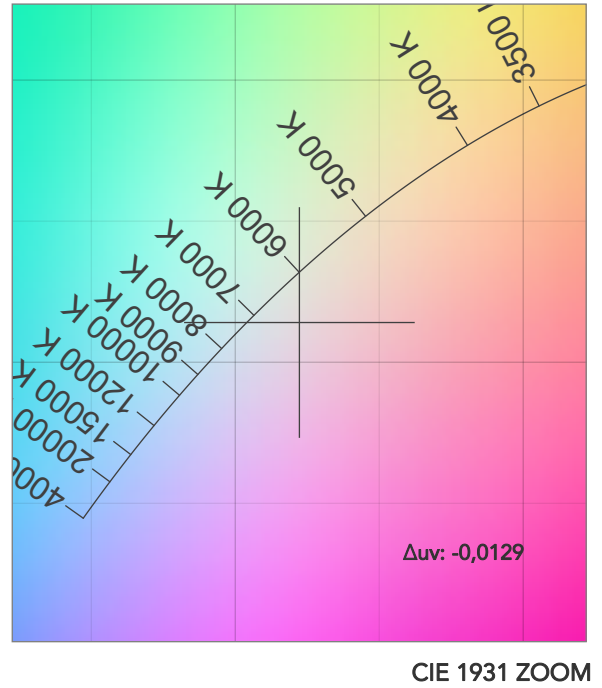
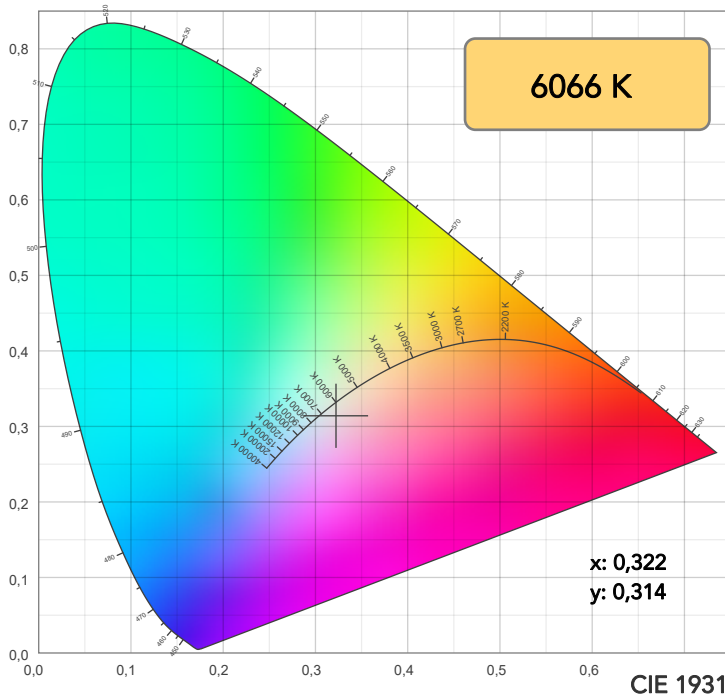
Field angle 10%: 36,7°

Cut off angle 2.5%: 39,9°

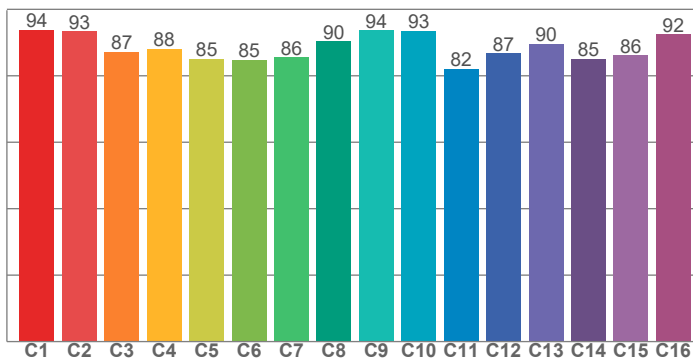
Spectra



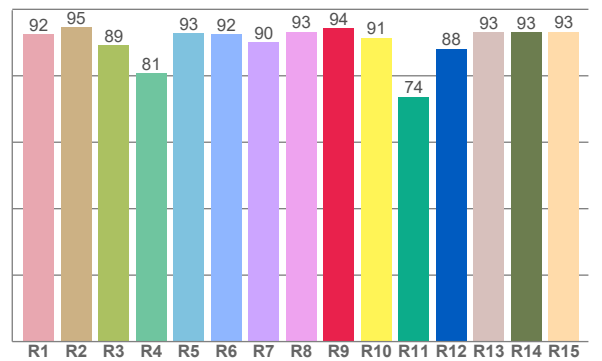
COLOR DETAILS



TM30: 88,4



CRI: 90,7 (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
92,5	94,6	89,1	80,8	92,9	92,5	90,1	93,2	94,4	91,4	73,7	88,2	93,2	93,2	93,2

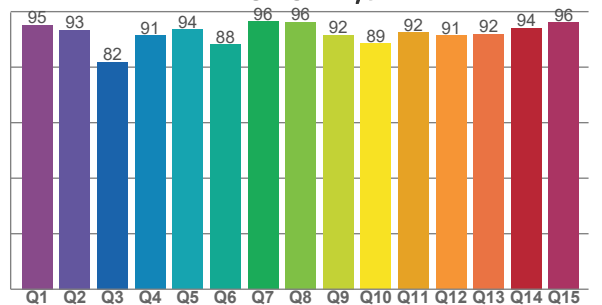
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,8	93,4	87,2	88,1	85,1	84,8	85,5	90,3	93,7	93,5	82,1	86,8	89,6	85,1	86,2	92,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,1	93,4	81,8	91,4	93,5	88,2	96,4	96,3	91,5	88,5	92,4	91,4	92,0	94,2	96,0

CQS: 91,3



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
6066 K	90,7	94,4	88,4	108,5	91,3	85	0,322	0,314	-0,0129

TM30 DETAILS

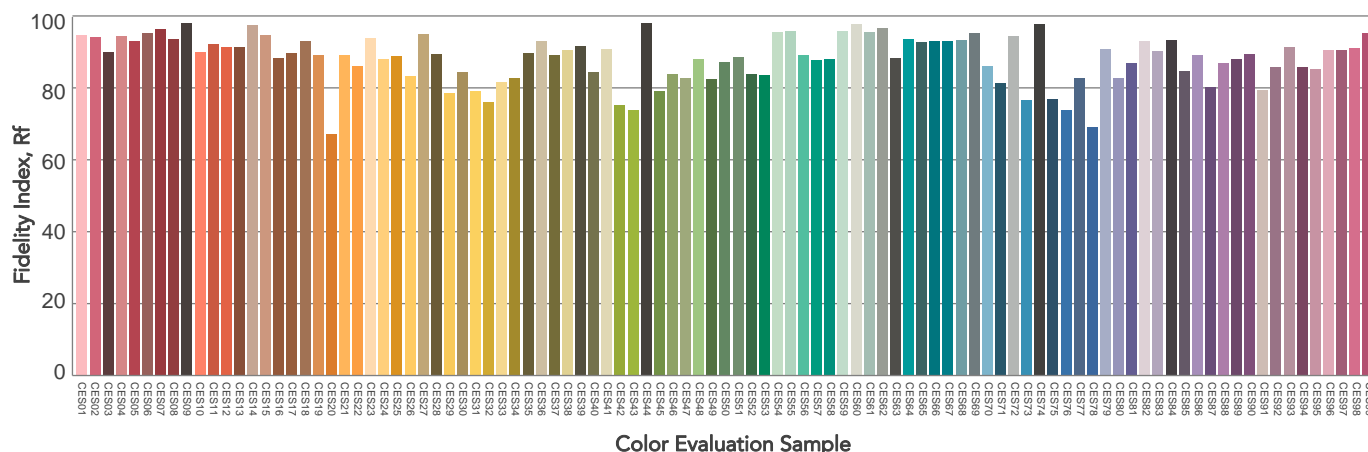
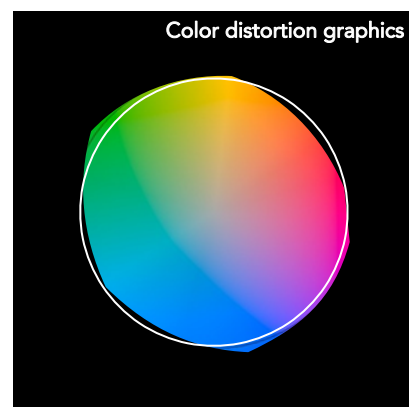
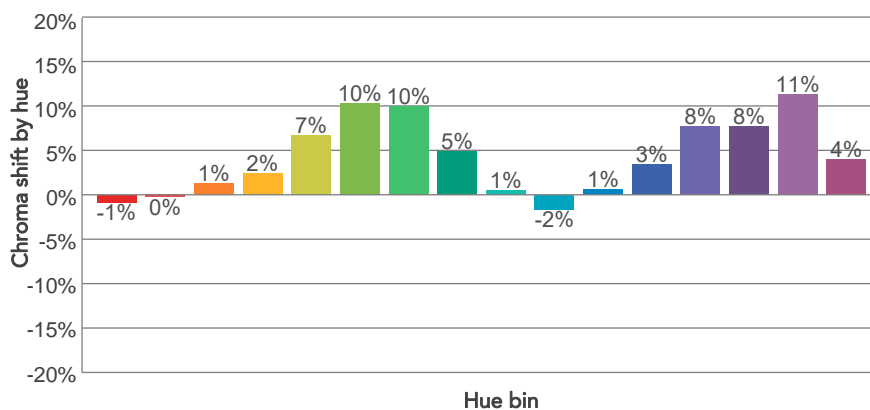
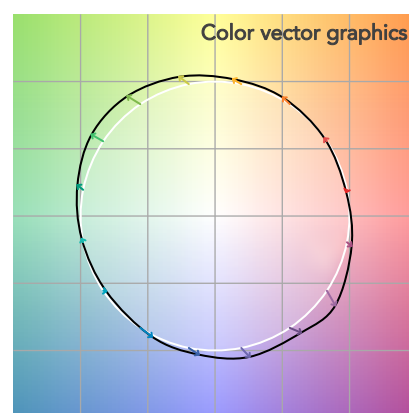
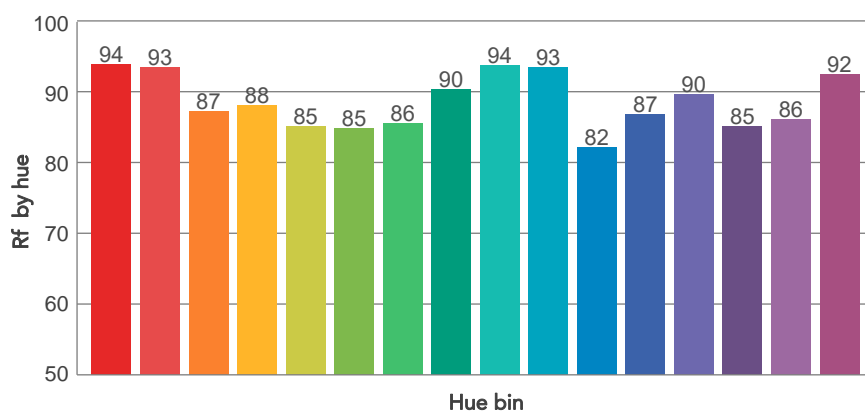
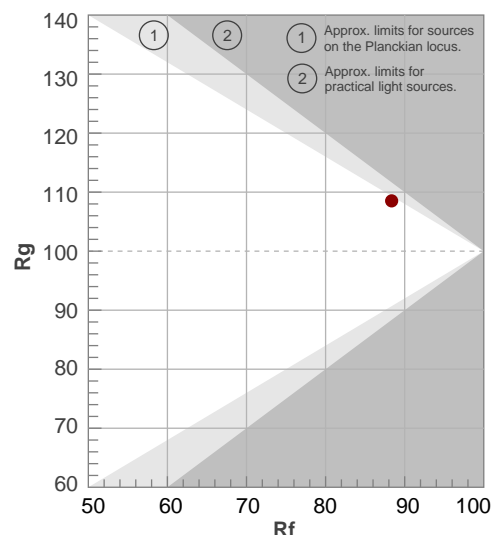
Rf 88,4

Fidelity index Rf

Rg 108,5

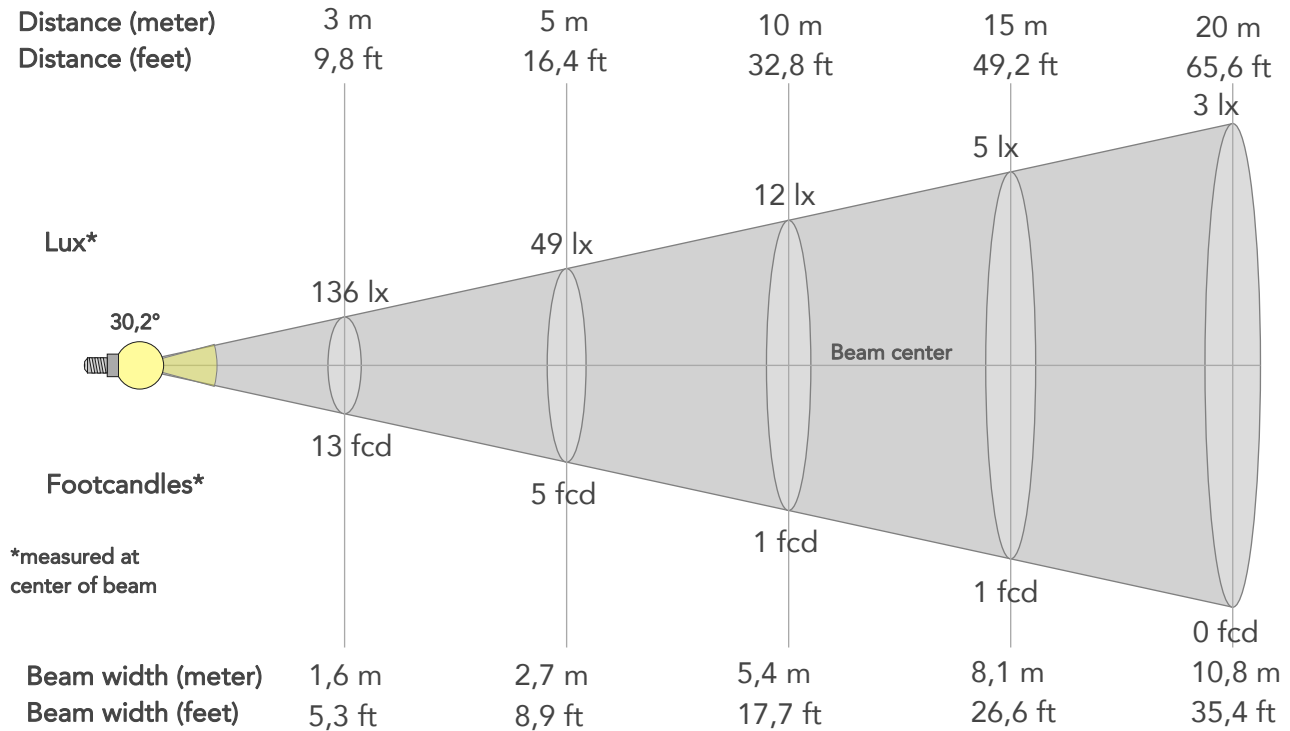
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	-1%	-2%
2	93	0%	3%
3	87	1%	7%
4	88	2%	7%
5	85	7%	6%
6	85	10%	5%
7	86	10%	1%
8	90	5%	-3%
9	94	1%	-3%
10	93	-2%	2%
11	82	1%	11%
12	87	3%	8%
13	90	8%	5%
14	85	8%	5%
15	86	11%	-6%
16	92	4%	-2%



BEAM DETAILS

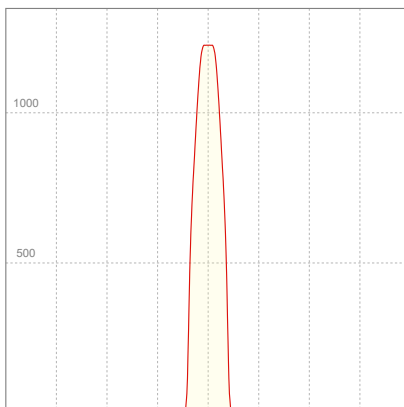
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,2°	36,7°	39,9°	98,8%	98,5%



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	1225lx	306lx	136lx	77lx	49lx	22lx	12lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	114fcd	28fcd	13fcd	7fcd	5fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,2m	2,7m	4m	5,4m	8,1m	10,8m	13,5m	16,2m	21,6m	27m
Beam wid.	1,8ft	3,6ft	5,3ft	7,1ft	8,9ft	13,3ft	17,7ft	26,6ft	35,4ft	44,3ft	53,1ft	70,8ft	88,5ft

LINEAR DISTRIBUTION DIAGRAM

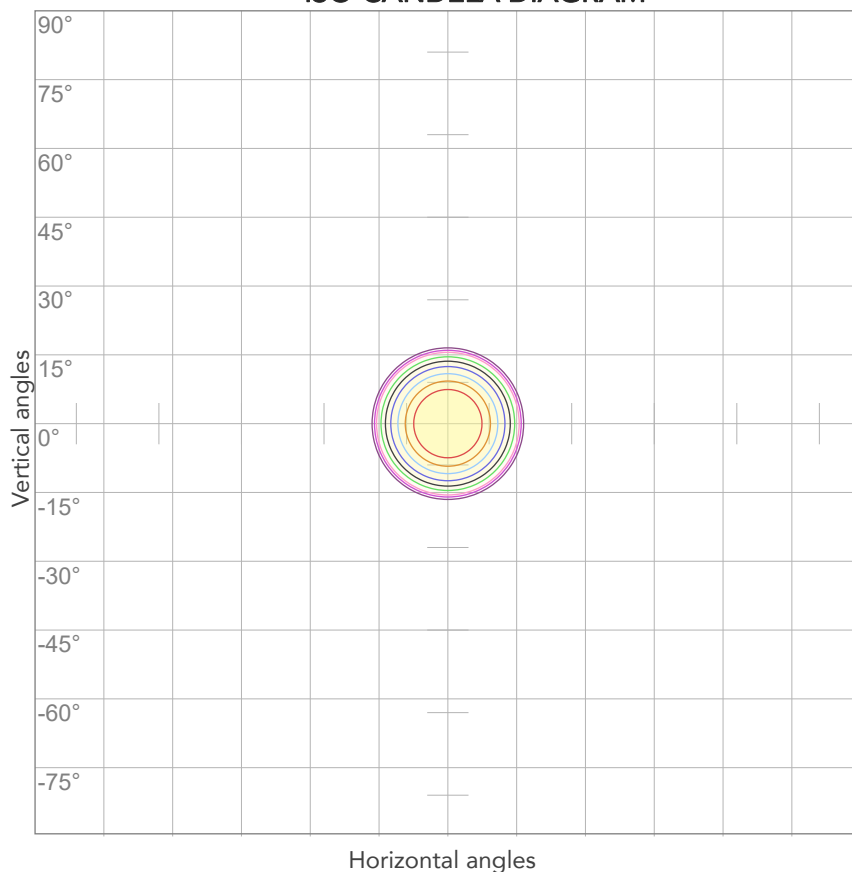


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	0,318A	30,2W	0,42	9lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



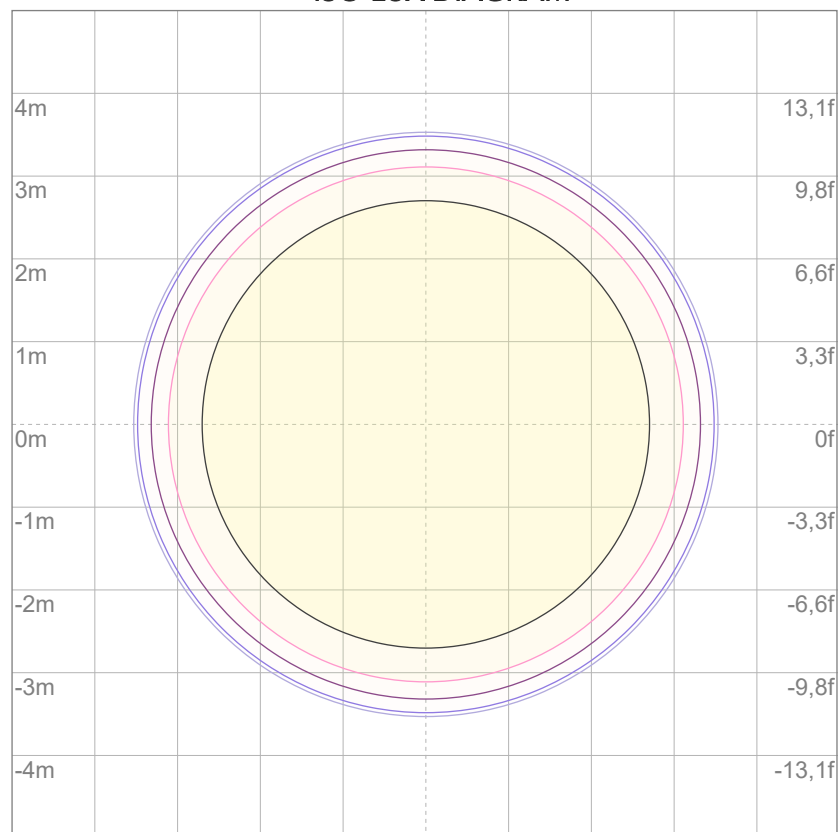
10%	122 cd
20%	245 cd
30%	367 cd
40%	490 cd
50%	612 cd
60%	735 cd
70%	857 cd
80%	980 cd

Conditions:

Number of c-planes: 2

Candela at center: 1225 cd

ISO LUX DIAGRAM



3%	0,367 lx
5%	0,612 lx
10%	1,22 lx
30%	3,67 lx
50%	6,12 lx

Conditions:

Number of c-planes: 2

Lux at center: 12,2 lx

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