

Photometric Test Report



ECLDISPLAYCC

PROFILE LENS 36°

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

CONTENTS

Table of contents	2
Testing process	3
Color temperature 2700K	4
Color temperature 3000K	9
Color temperature 4000K	14
Color temperature 5600K	19

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:

1625 lm

Peak candela output:

6892 cd

Light quality:

CRI: 91,0

Color temperature:

2701 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

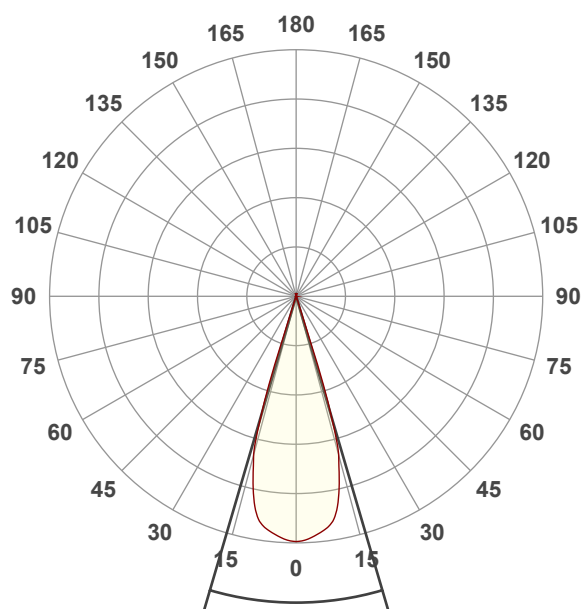
2700K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 15:56:46

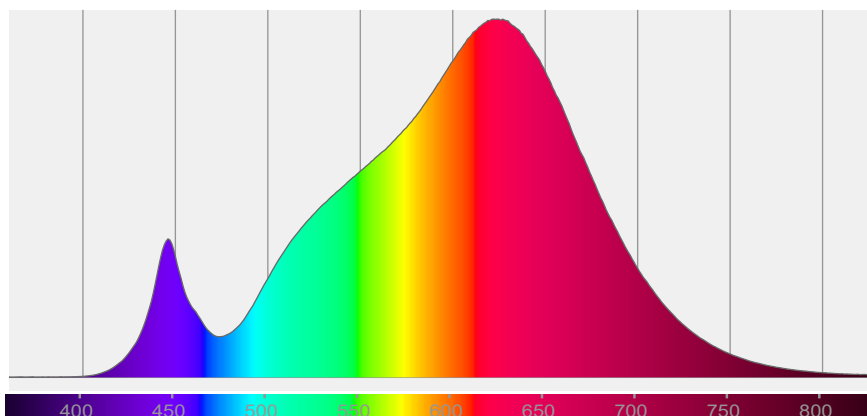


Beam angle 50%: 32,7°

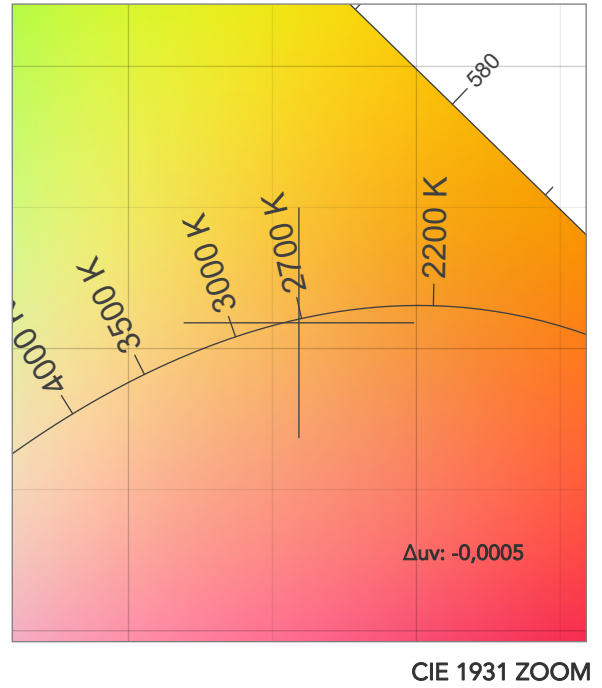
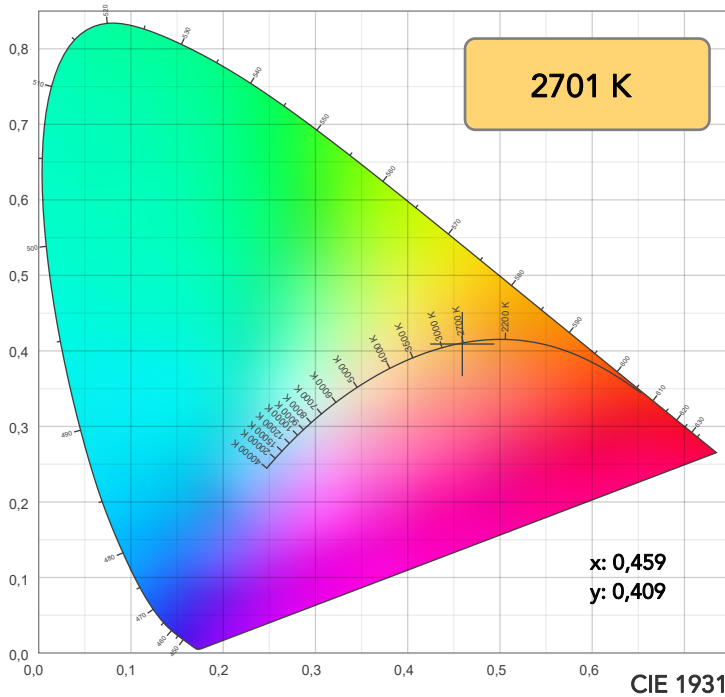
Field angle 10%: 36,6°

Cut off angle 2.5%: 37,7°

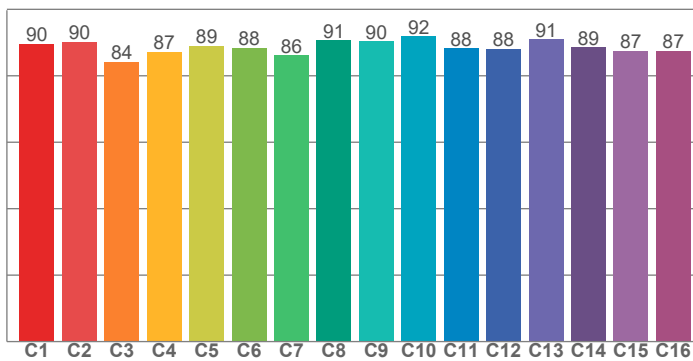
Spectra



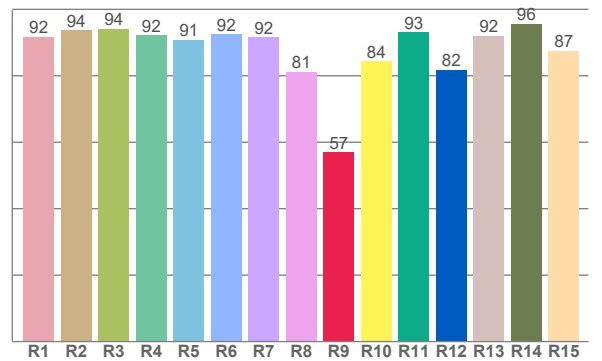
COLOR DETAILS



TM30: 88,7



CRI: 91,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91,7	93,8	94,1	92,1	90,8	92,5	91,7	81,2	56,9	84,4	93,1	81,8	92,0	95,7	87,5

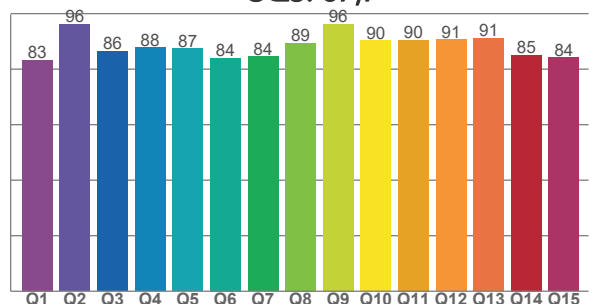
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,6	90,2	84,2	87,3	89,0	88,4	86,1	90,7	90,4	91,9	88,3	88,1	90,9	88,6	87,5	87,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,3	96,1	86,4	87,7	87,5	84,0	84,5	89,5	96,3	90,3	90,5	90,6	91,1	85,2	84,2

CQS: 87,7



COLOR PARAMETERS

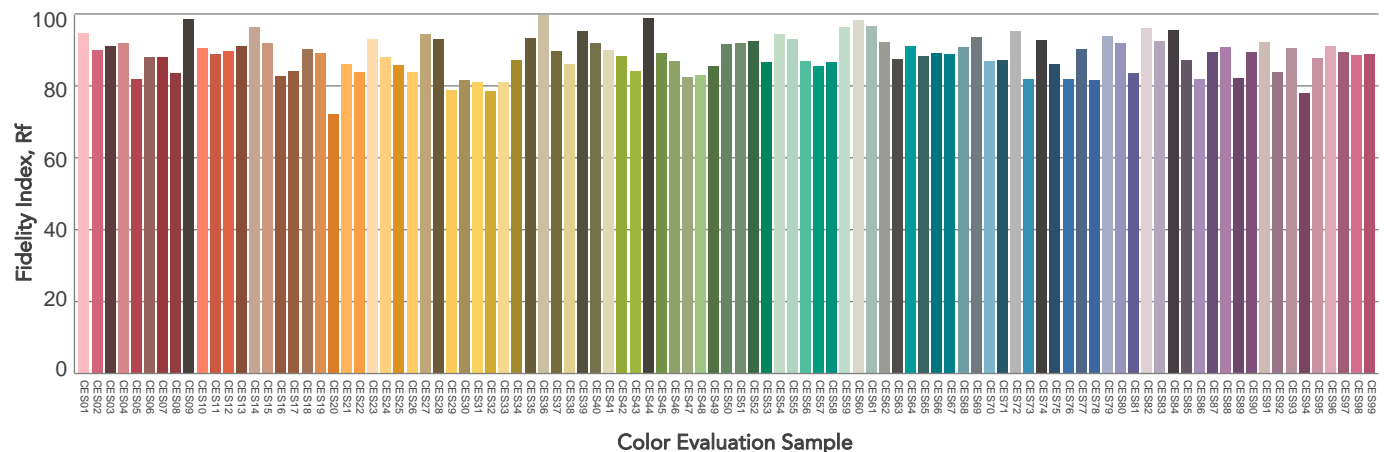
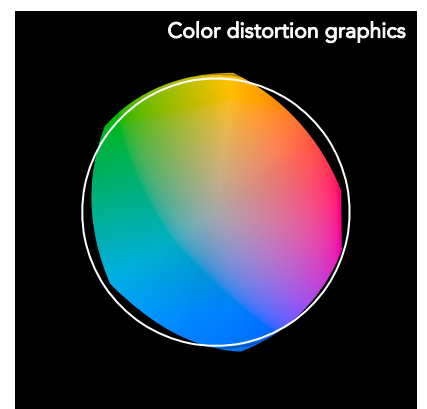
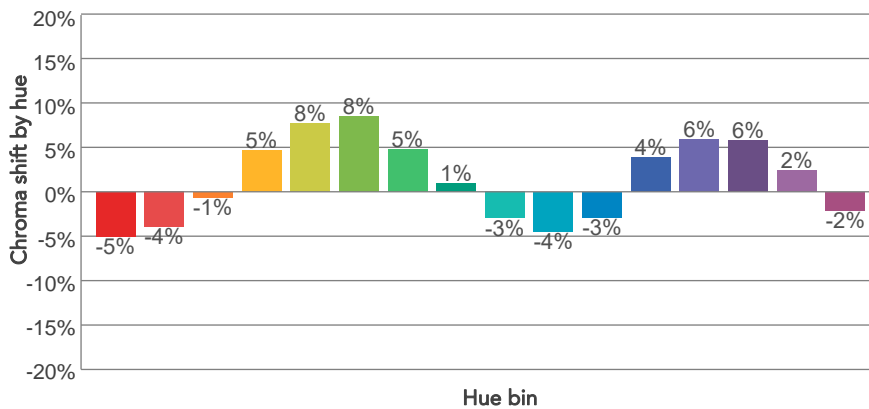
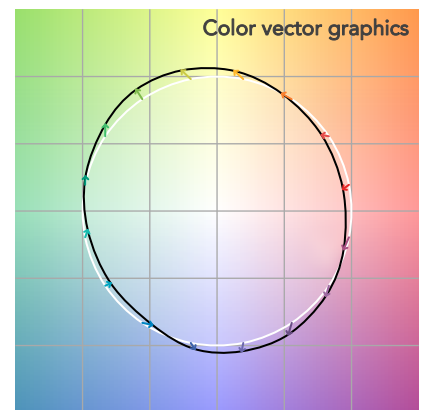
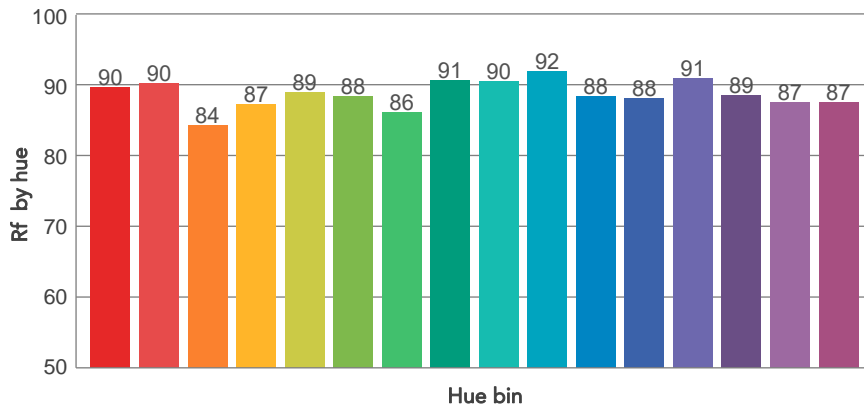
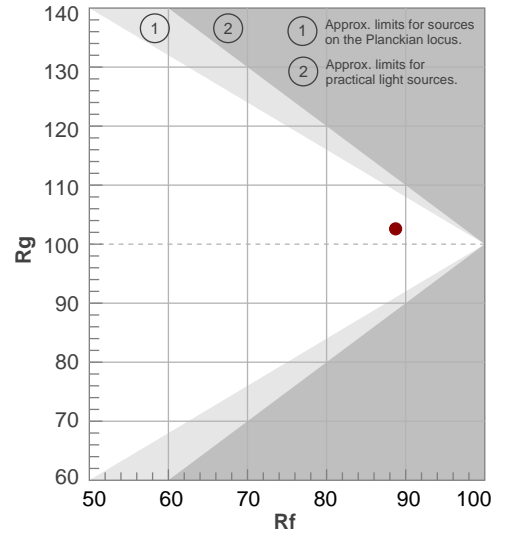
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2701 K	91,0	56,9	88,7	102,6	87,7	82	0,459	0,409	-0,0005

TM30 DETAILS

Rf 88,7
Fidelity index Rf

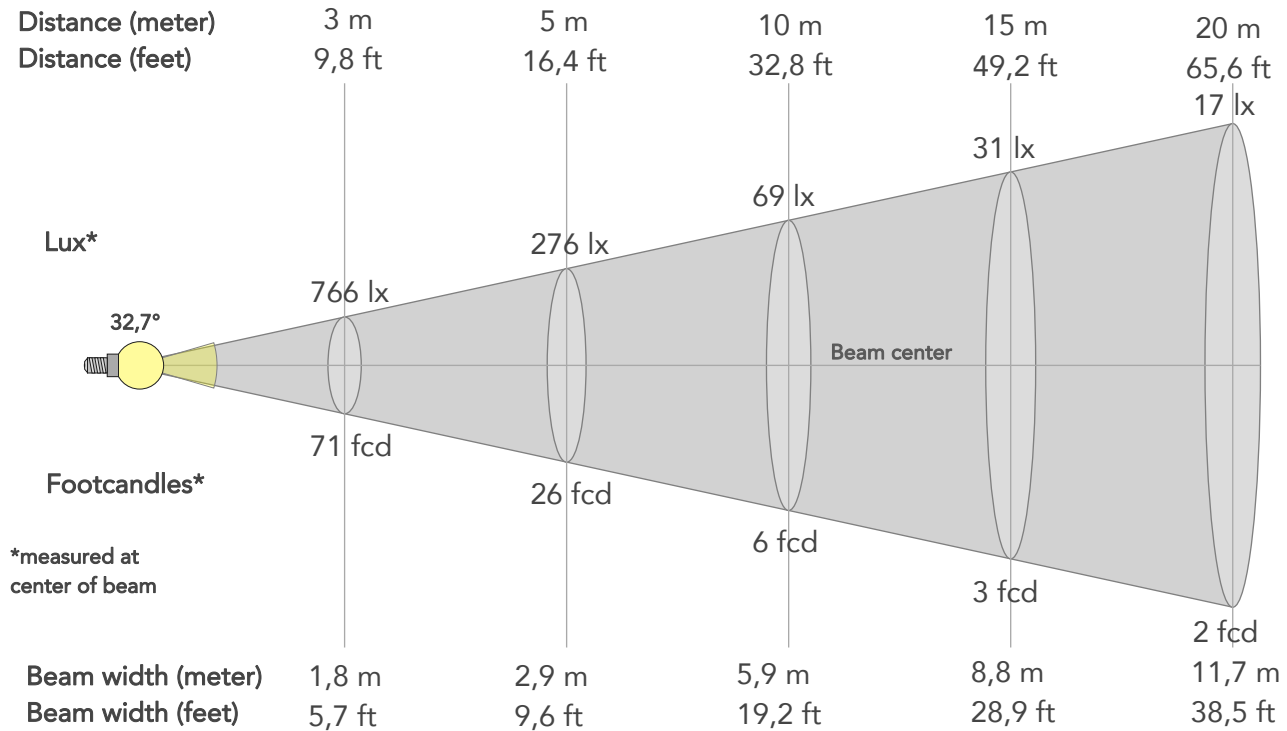
Rg 102,6
Gammut index

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



BEAM DETAILS

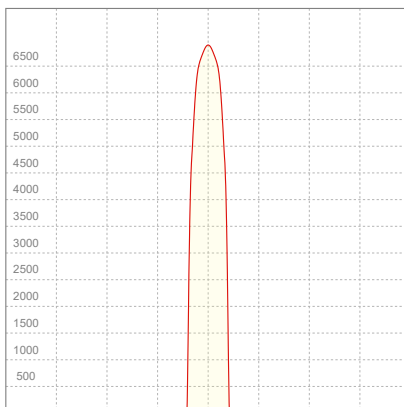
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
32,7°	36,6°	37,7°	98,6%	98,4%



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	6892lx	1723lx	766lx	431lx	276lx	123lx	69lx	31lx	17lx	11lx	8lx	4lx	3lx
Footcand.	640fcd	160fcd	71fcd	40fcd	26fcd	11fcd	6fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,3m	2,9m	4,4m	5,9m	8,8m	11,7m	14,7m	17,6m	23,5m	29,3m
Beam wid.	1,9ft	3,9ft	5,7ft	7,7ft	9,6ft	14,4ft	19,2ft	28,9ft	38,5ft	48,1ft	57,7ft	77ft	96,2ft

LINEAR DISTRIBUTION DIAGRAM

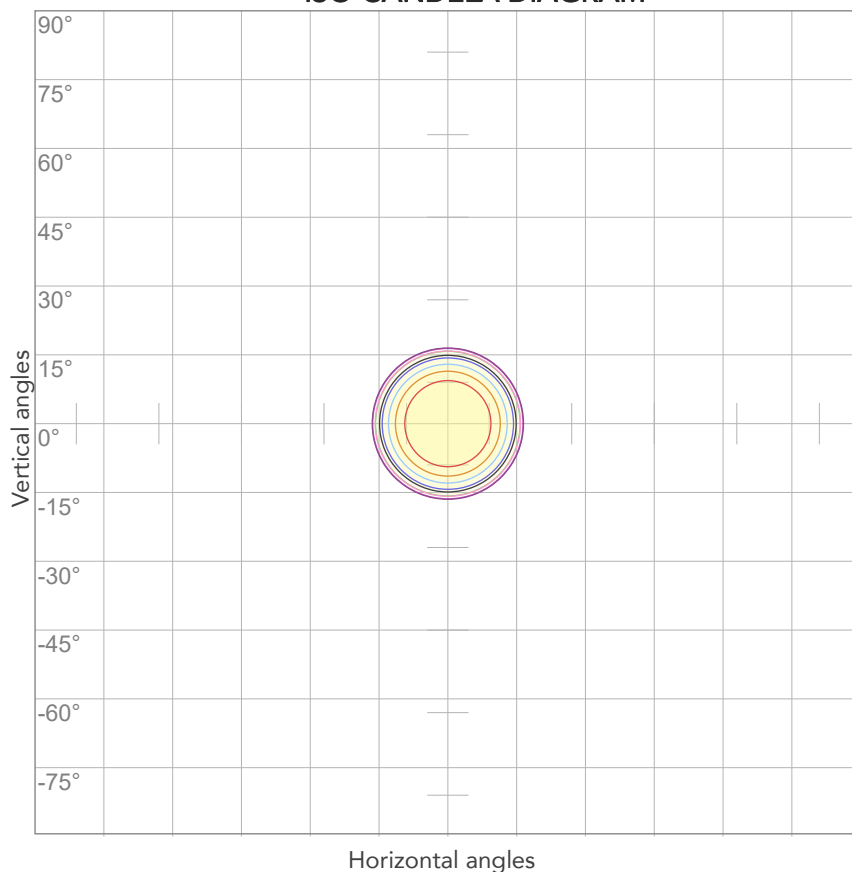


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
225V	0,158A	33,0W	0,93	49lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



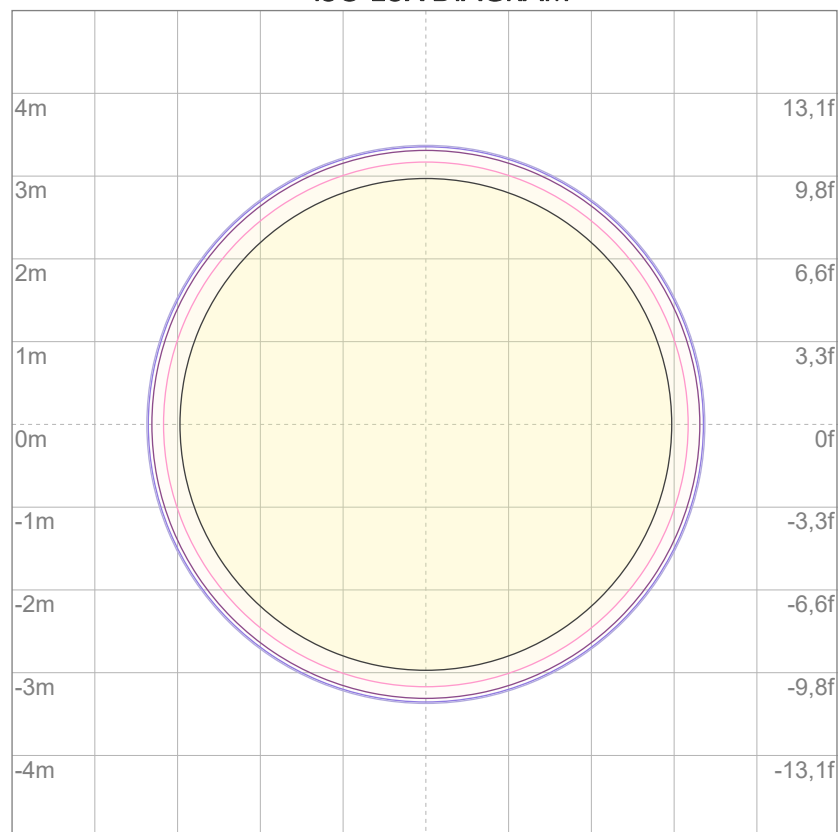
10%	689 cd
20%	1378 cd
30%	2067 cd
40%	2757 cd
50%	3446 cd
60%	4135 cd
70%	4824 cd
80%	5513 cd

Conditions:

Number of c-planes: 2

Candela at center: 6892 cd

ISO LUX DIAGRAM



3%	2,07 lx
5%	3,45 lx
10%	6,89 lx
30%	20,7 lx
50%	34,5 lx

Conditions:

Number of c-planes: 2

Lux at center: 68,9 lx

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



Total lumen output:

1633 lm

Peak candela output:

7272 cd

Light quality:

CRI: 90,0

Color temperature:

3052 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

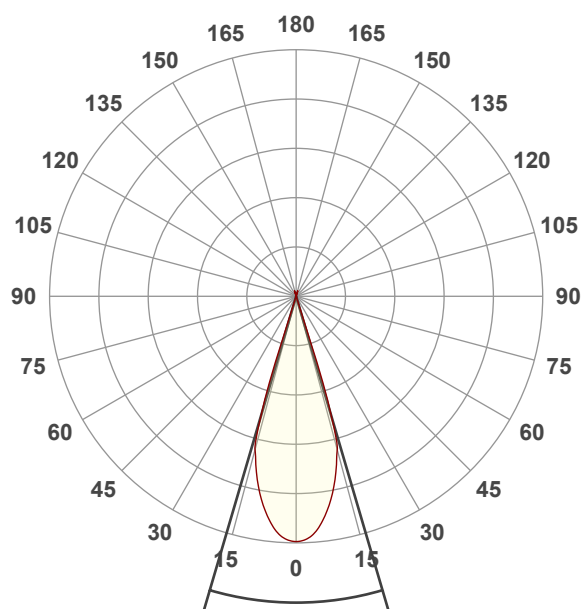
3000K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 13:04:24

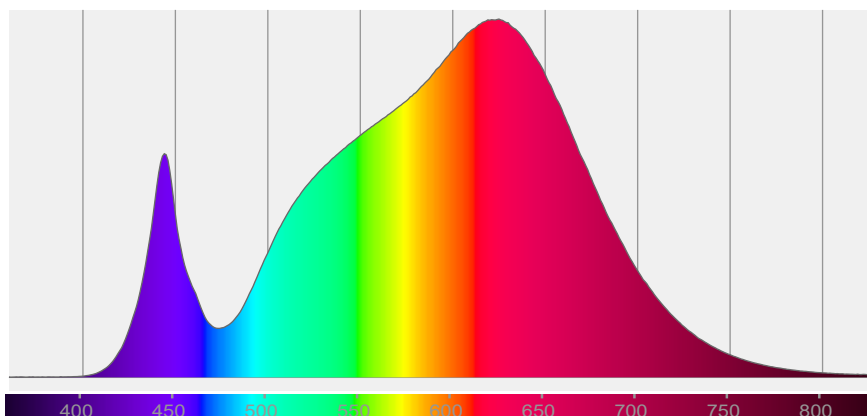


Beam angle 50%: 32,7°

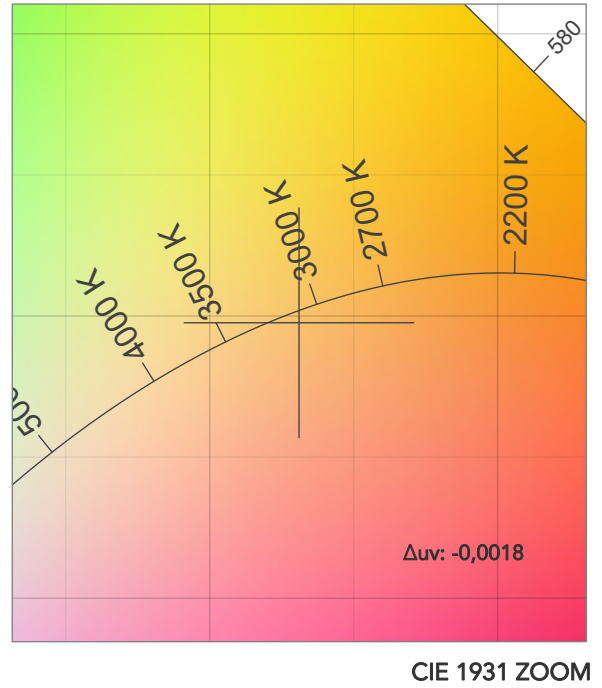
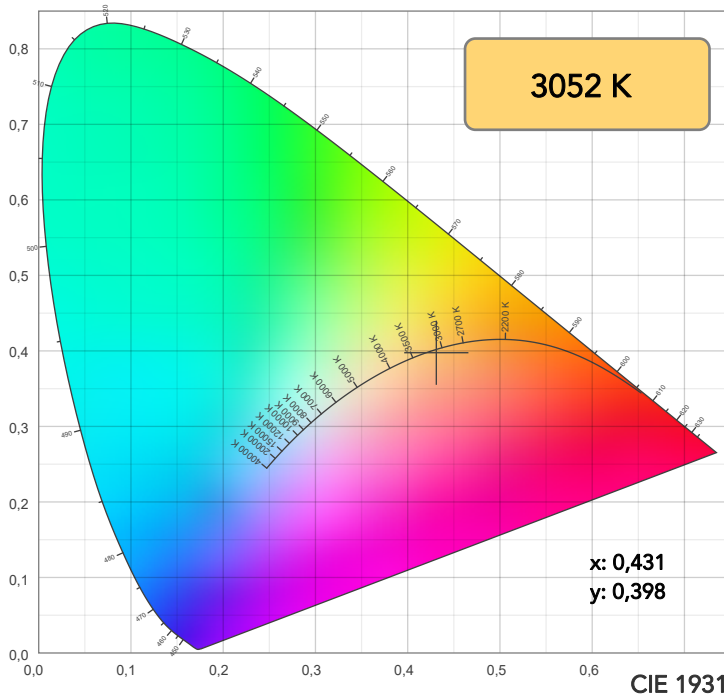
Field angle 10%: 36,7°

Cut off angle 2.5%: 37,3°

Spectra

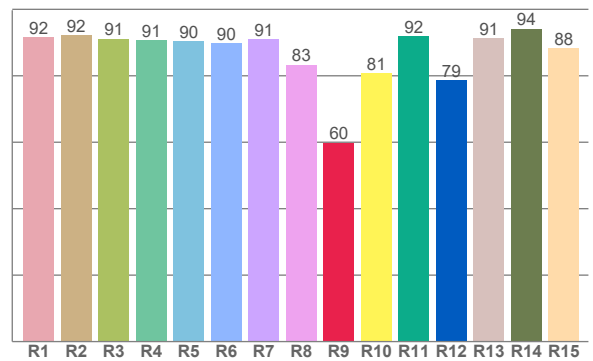
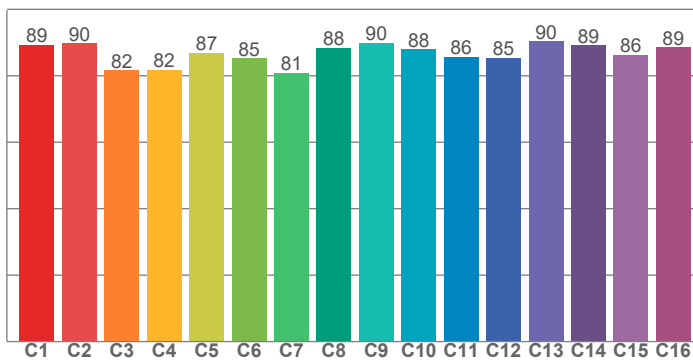


COLOR DETAILS



TM30: 86,8

CRI: 90,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91,6	92,2	91,1	90,7	90,4	89,7	91,0	83,3	59,9	80,8	91,8	78,7	91,3	94,2	88,3

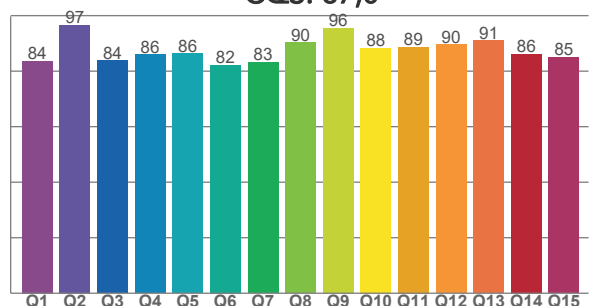
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,4	89,7	81,7	81,7	86,8	85,3	80,9	88,4	89,9	87,9	85,7	85,4	90,3	89,2	86,2	88,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,6	96,6	83,8	86,0	86,3	82,2	83,2	90,3	95,6	88,3	88,7	89,6	91,1	86,2	85,0

CQS: 87,0



COLOR PARAMETERS

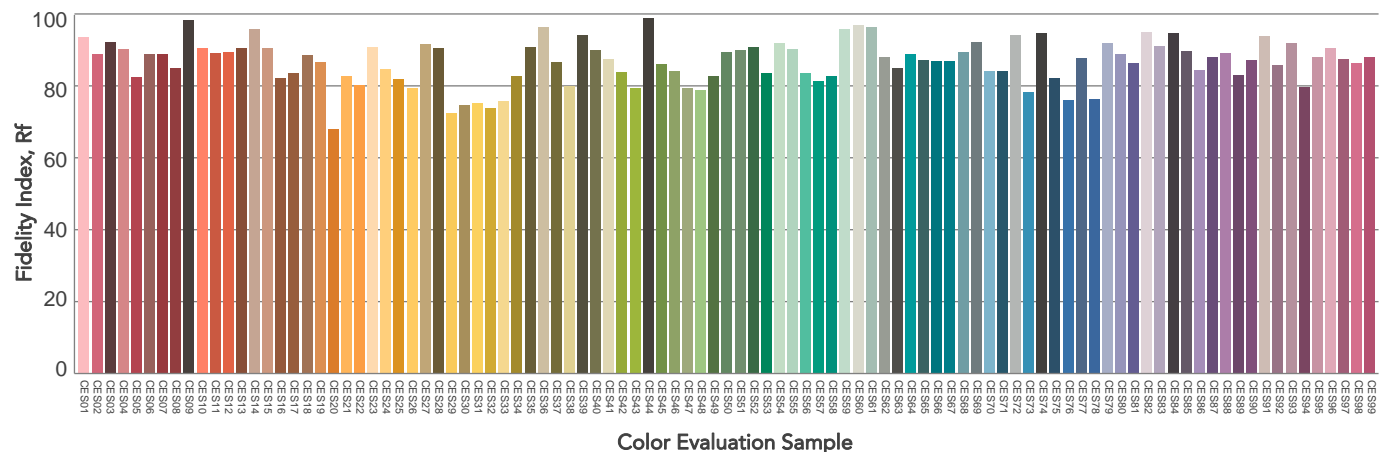
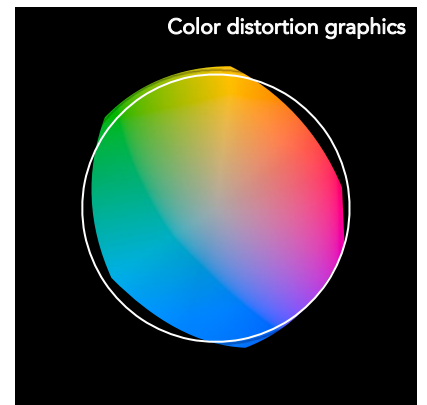
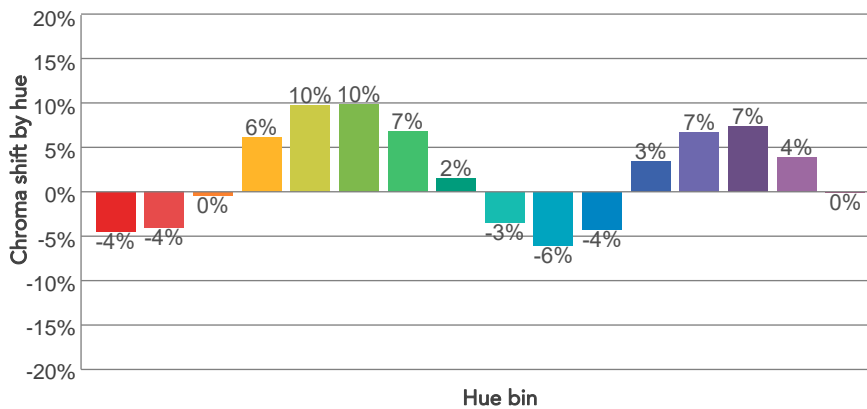
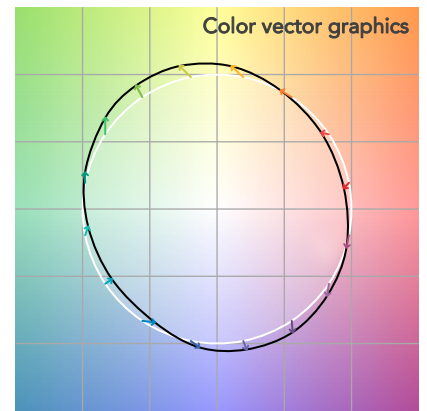
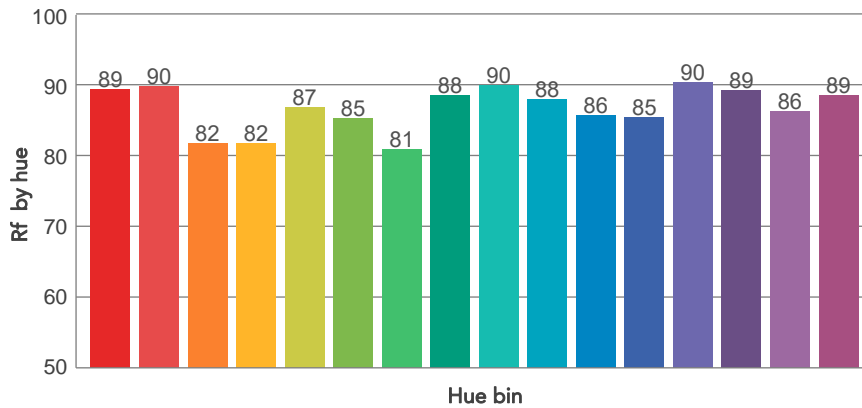
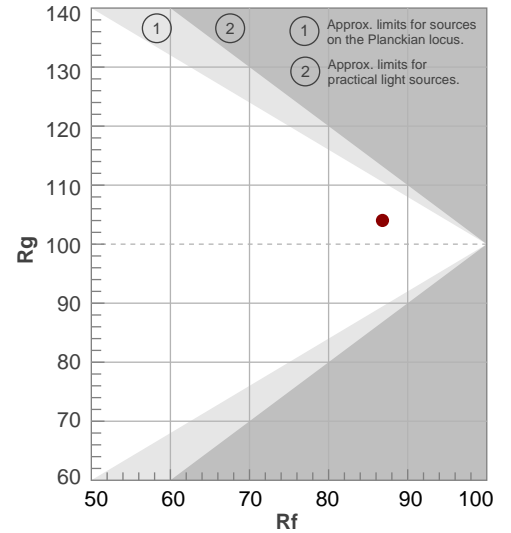
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3052 K	90,0	59,9	86,8	104,0	87,0	79	0,431	0,398	-0,0018

TM30 DETAILS

Rf 86,8
Fidelity index Rf

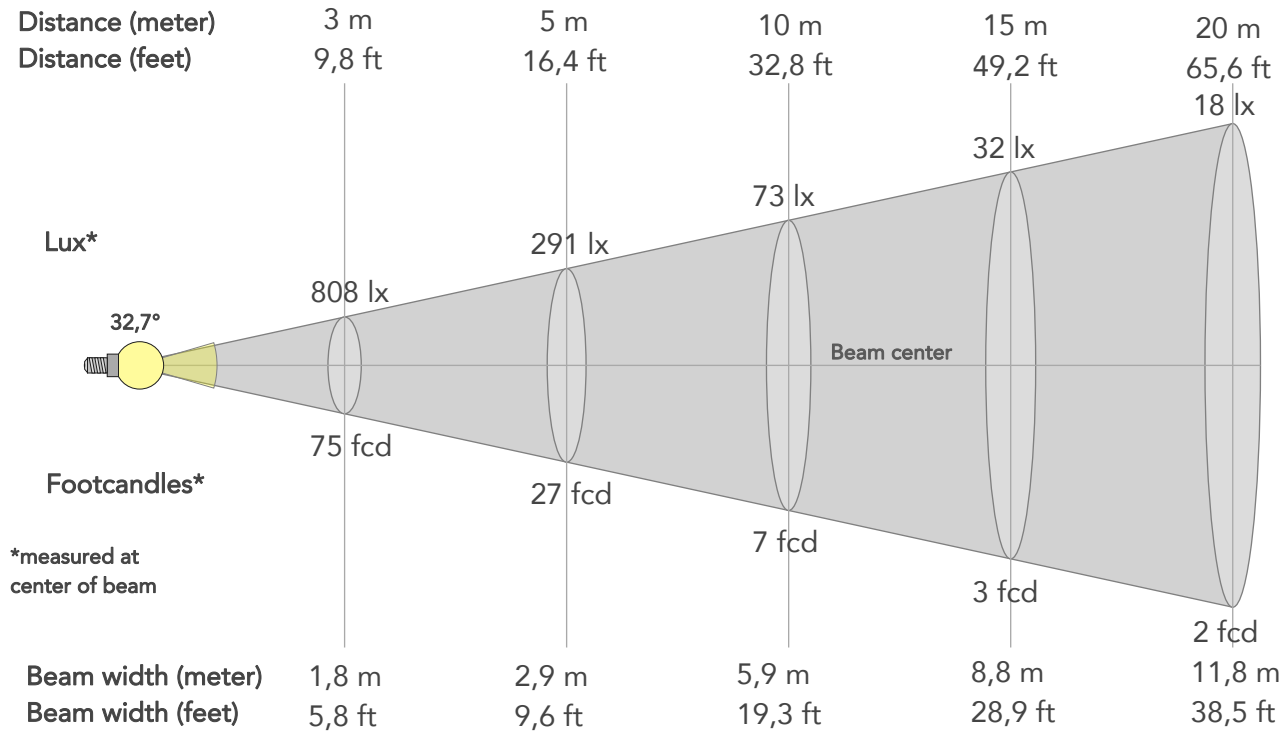
Rg 104,0
Gammut index

		Graphic shifts (%)	
Hue Bin	R _f	Chroma	Hue
1	89	-4%	-3%
2	90	-4%	4%
3	82	0%	10%
4	82	6%	10%
5	87	10%	6%
6	85	10%	-1%
7	81	7%	-10%
8	88	2%	-8%
9	90	-3%	-6%
10	88	-6%	0%
11	86	-4%	8%
12	85	3%	7%
13	90	7%	1%
14	89	7%	-4%
15	86	4%	-8%
16	89	0%	-9%



BEAM DETAILS

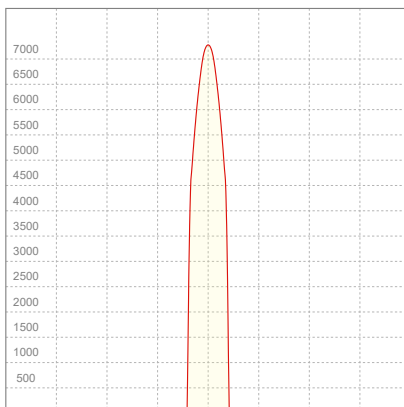
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
32,7°	36,7°	37,3°	98,8%	98,5%



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	7272lx	1818lx	808lx	455lx	291lx	129lx	73lx	32lx	18lx	12lx	8lx	5lx	3lx
Footcand.	676fcd	169fcd	75fcd	42fcd	27fcd	12fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	2,9m	4,4m	5,9m	8,8m	11,8m	14,7m	17,6m	23,5m	29,4m
Beam wid.	1,9ft	3,9ft	5,8ft	7,7ft	9,6ft	14,5ft	19,3ft	28,9ft	38,5ft	48,2ft	57,8ft	77,1ft	96,4ft

LINEAR DISTRIBUTION DIAGRAM

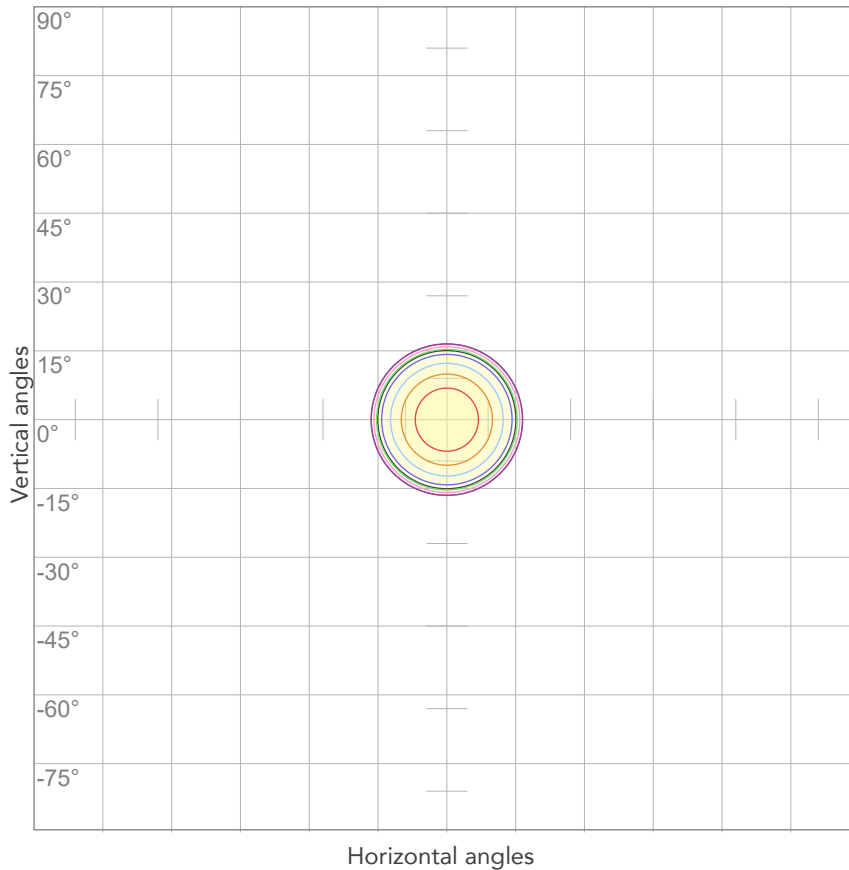


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
222V	0,160A	33,1W	0,93	49lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



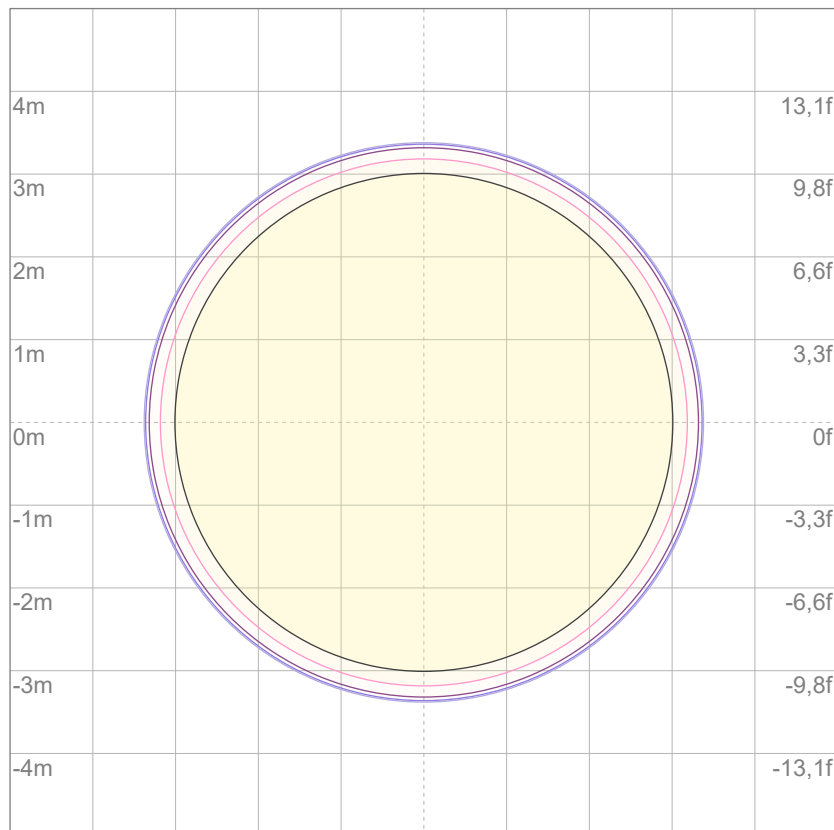
10%	727 cd
20%	1454 cd
30%	2182 cd
40%	2909 cd
50%	3636 cd
60%	4363 cd
70%	5090 cd
80%	5818 cd

Conditions:

Number of c-planes: 2

Candela at center: 7272 cd

ISO LUX DIAGRAM



3%	2,18 lx
5%	3,64 lx
10%	7,27 lx
30%	21,8 lx
50%	36,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 72,7 lx

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



Total lumen output:

1894 lm

Peak candela output:

7775 cd

Light quality:

CRI: 88,8

Color temperature:

4127 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

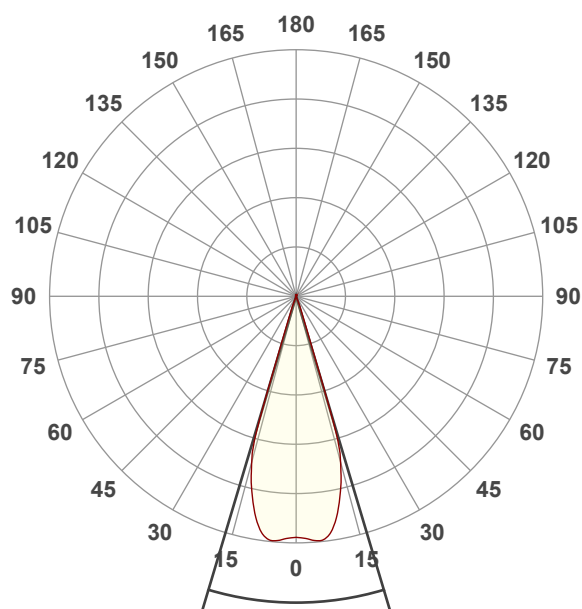
4000K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 12:07:30

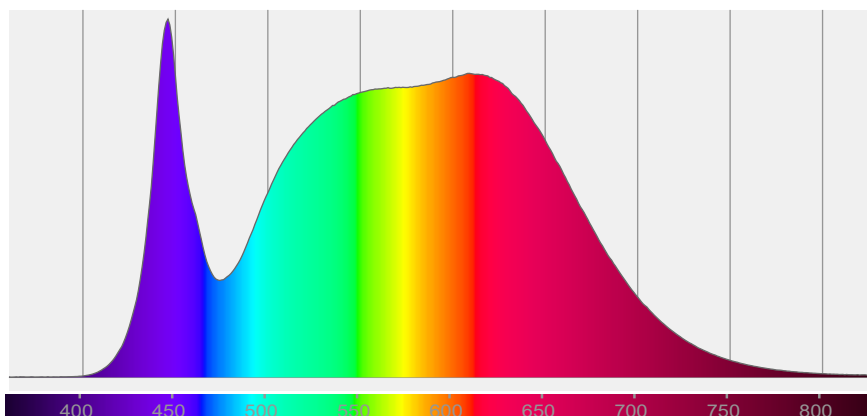


Beam angle 50%: 33,3°

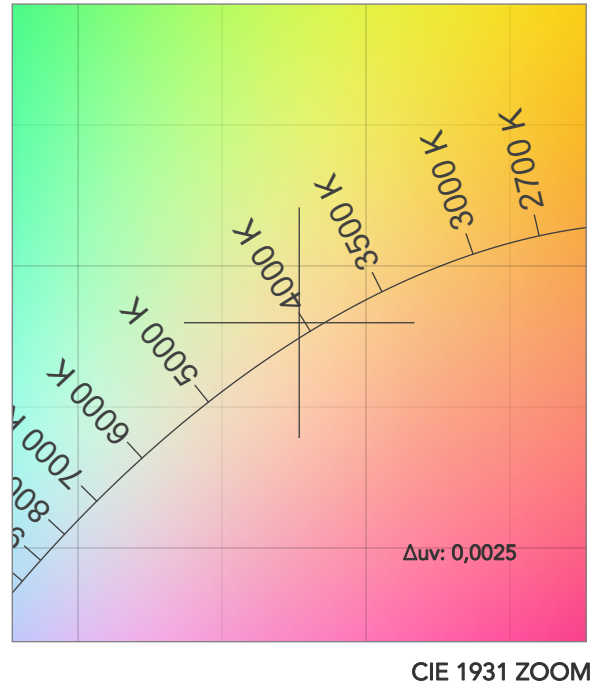
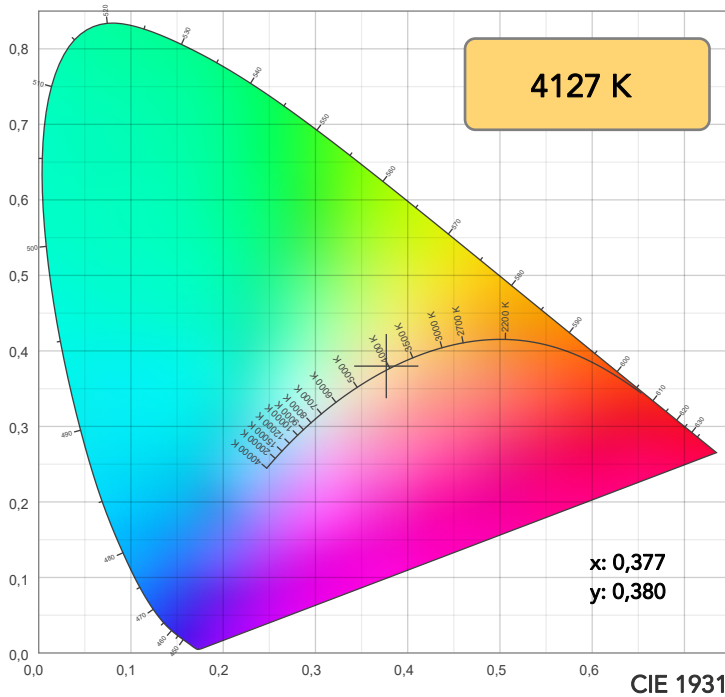
Field angle 10%: 36,7°

Cut off angle 2.5%: 39,7°

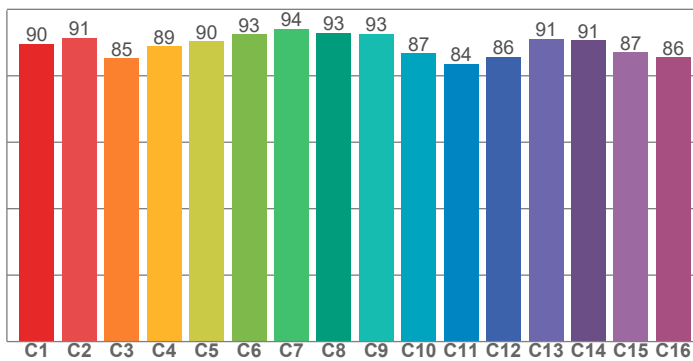
Spectra



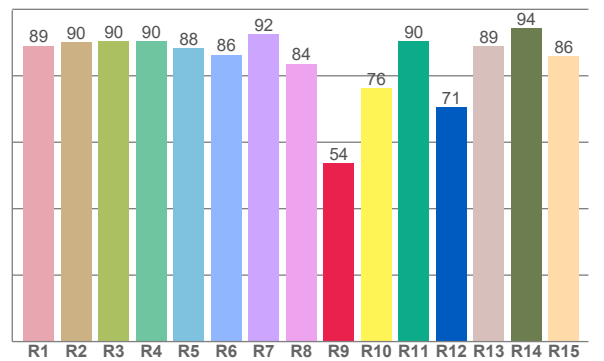
COLOR DETAILS



TM30: 89,0



CRI: 88,8 (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
89,0	90,2	90,3	90,5	88,3	86,4	92,4	83,6	53,8	76,3	90,3	70,5	88,8	94,3	85,8

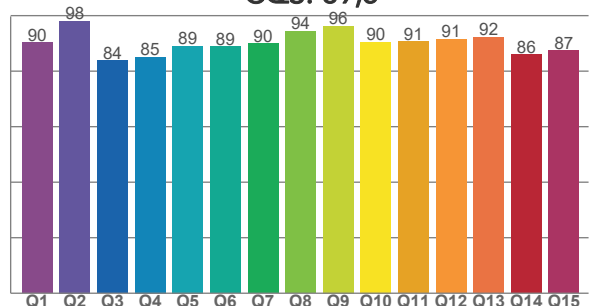
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,5	91,4	85,2	88,8	90,4	92,5	94,1	92,9	92,6	86,7	83,5	85,7	91,2	90,6	87,0	85,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90,2	98,1	83,8	85,0	89,1	88,9	89,9	94,3	96,3	90,5	90,6	91,5	92,2	86,0	87,5

CQS: 89,5



COLOR PARAMETERS

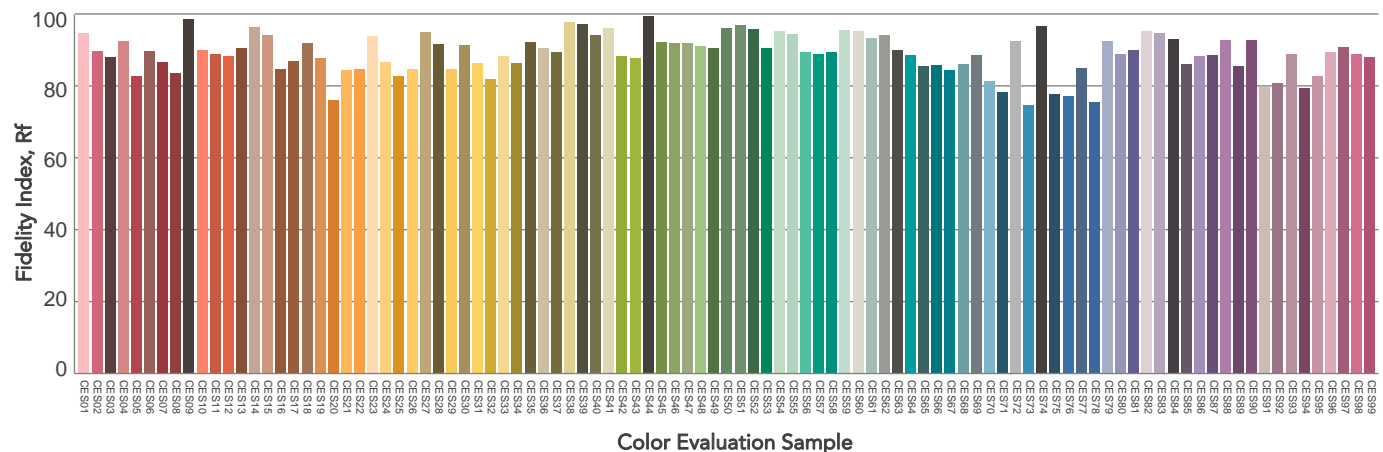
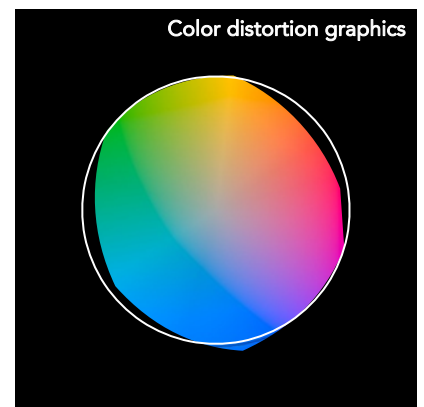
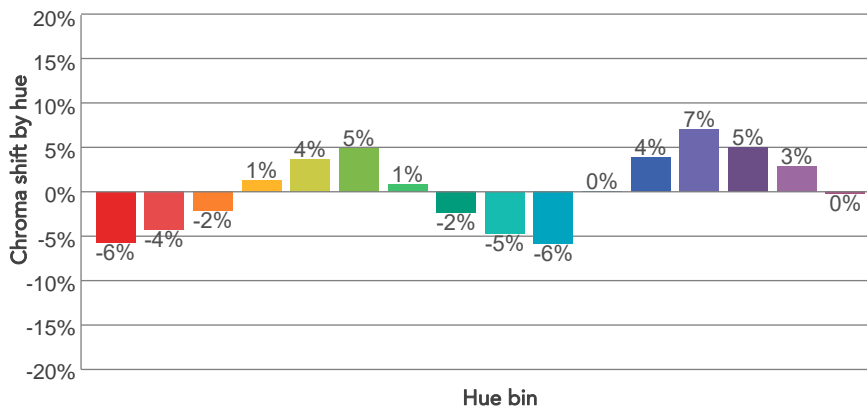
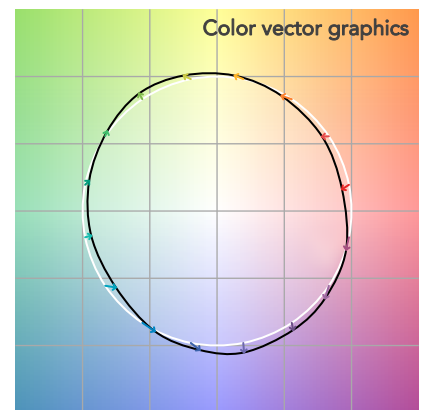
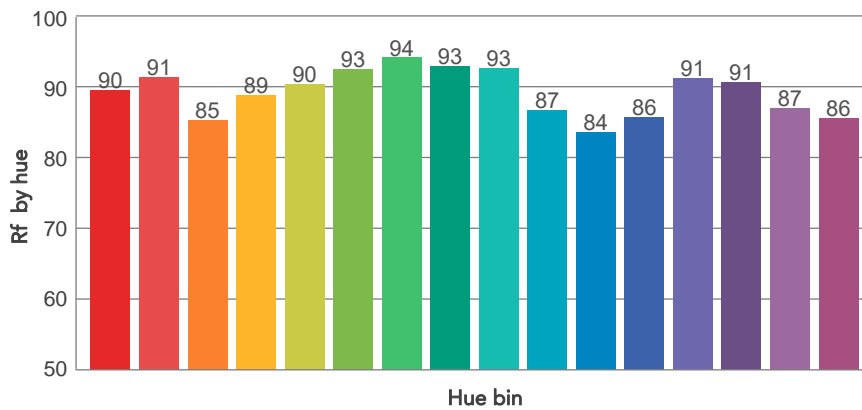
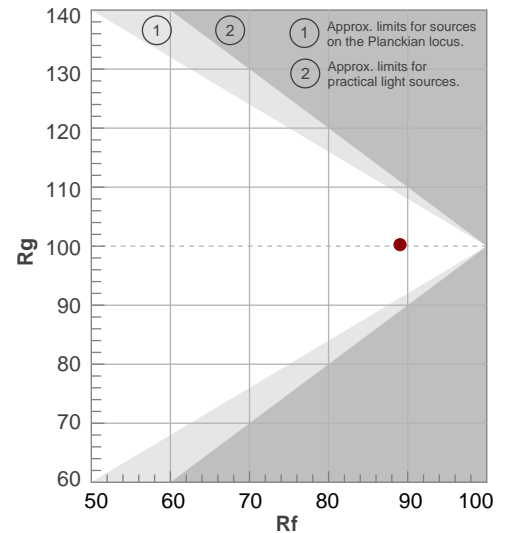
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4127 K	88,8	53,8	89,0	100,3	89,5	88	0,377	0,380	0,0025

TM30 DETAILS

Rf 89,0
Fidelity index Rf

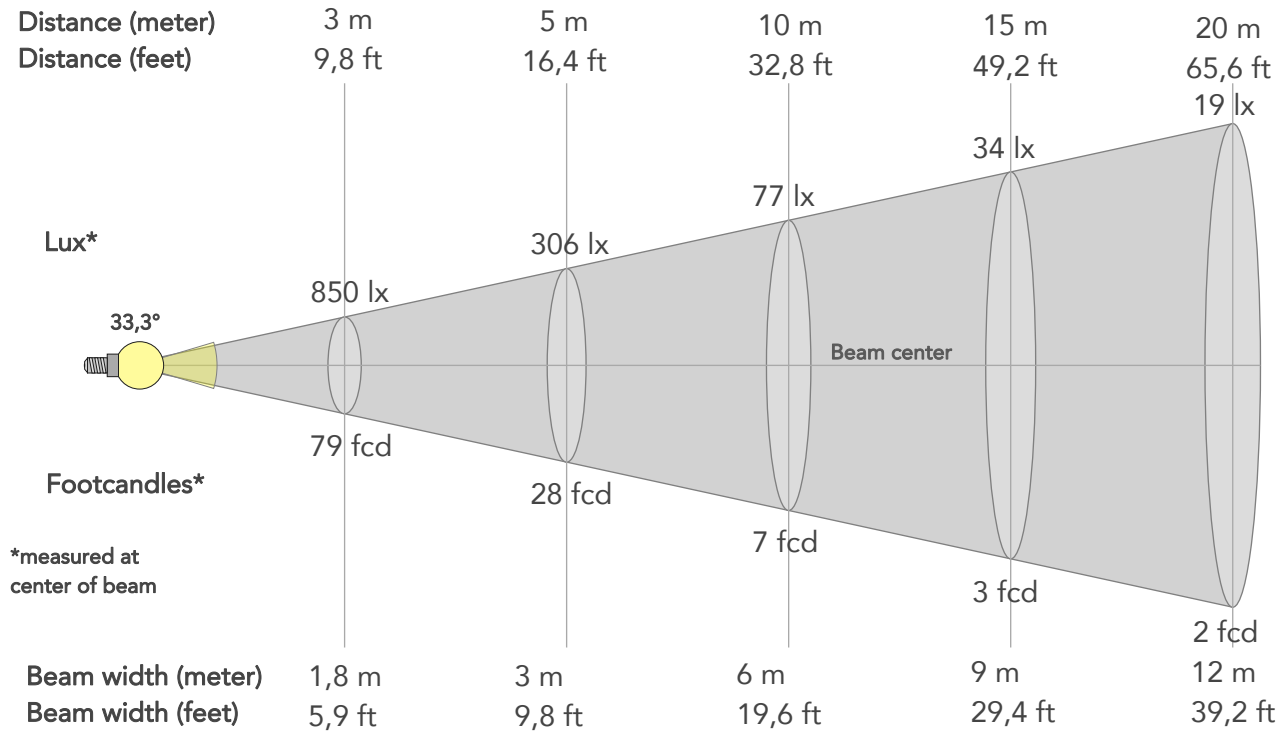
Rg 100,3
Gammut index

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



BEAM DETAILS

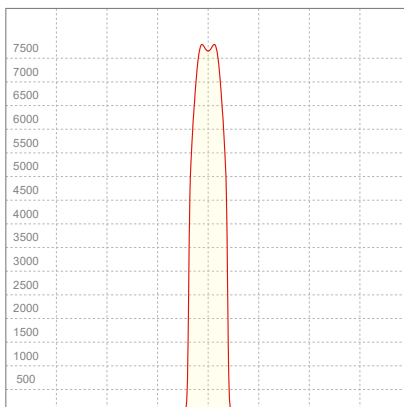
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,3°	36,7°	39,7°	99,2%	99,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	7652lx	1913lx	850lx	478lx	306lx	136lx	77lx	34lx	19lx	12lx	9lx	5lx	3lx
Footcand.	711fcd	178fcd	79fcd	44fcd	28fcd	13fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,5m	6m	9m	12m	14,9m	17,9m	23,9m	29,9m
Beam wid.	2ft	3,9ft	5,9ft	7,8ft	9,8ft	14,7ft	19,6ft	29,4ft	39,2ft	49ft	58,8ft	78,4ft	98ft

LINEAR DISTRIBUTION DIAGRAM

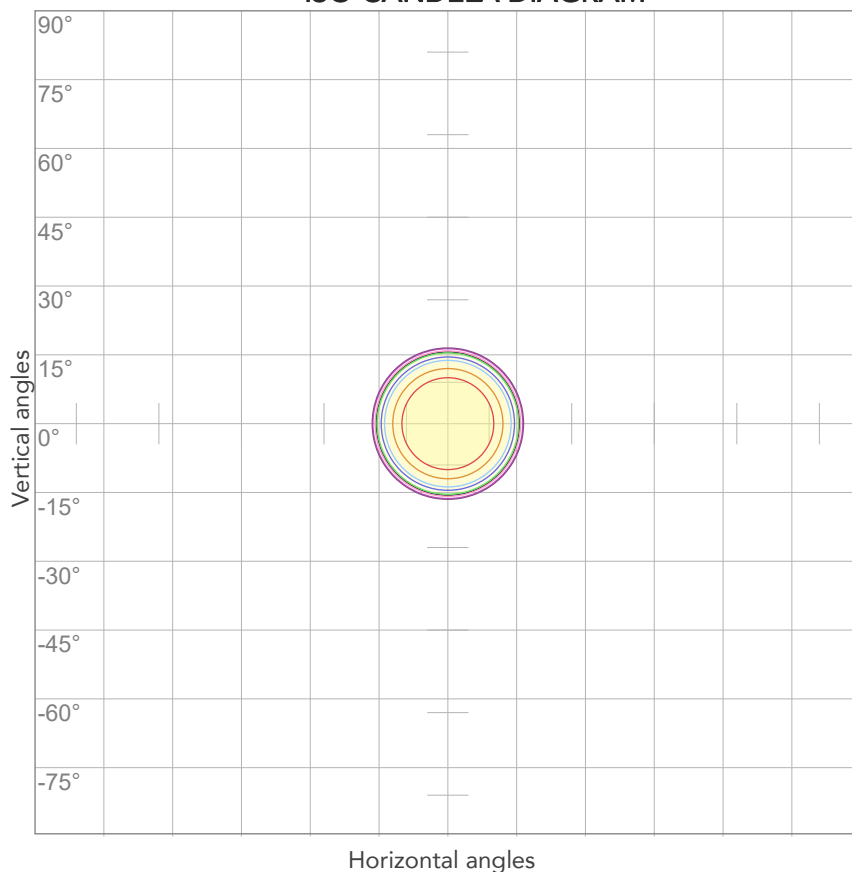


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	0,163A	34,0W	0,93	56lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



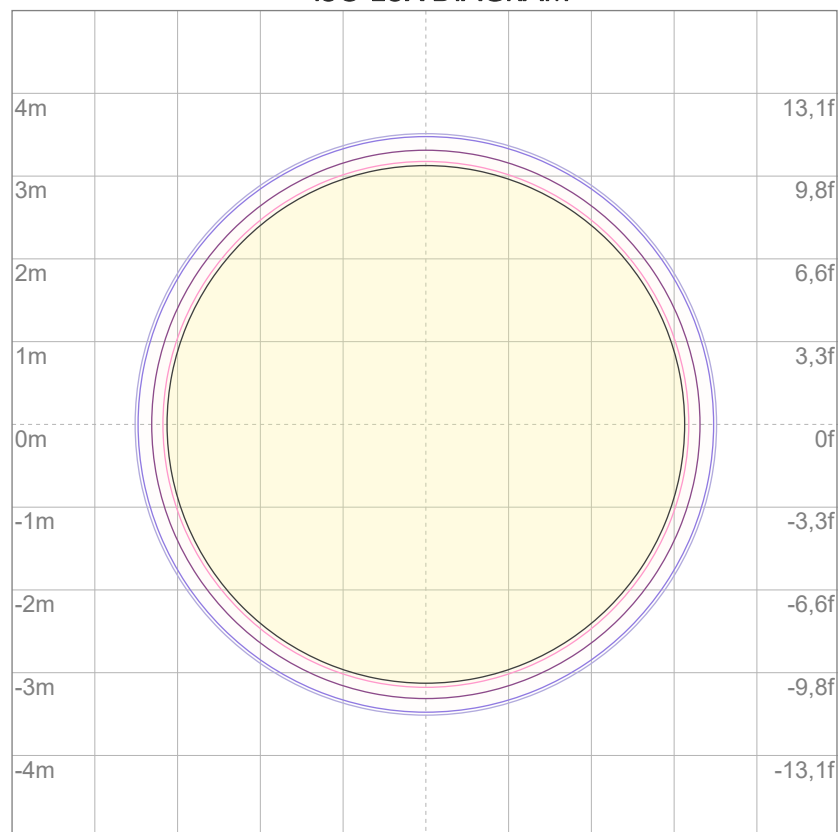
10%	765 cd
20%	1530 cd
30%	2296 cd
40%	3061 cd
50%	3826 cd
60%	4591 cd
70%	5356 cd
80%	6122 cd

Conditions:

Number of c-planes: 2

Candela at center: 7652 cd

ISO LUX DIAGRAM



3%	2,30 lx
5%	3,83 lx
10%	7,65 lx
30%	23,0 lx
50%	38,3 lx

Conditions:

Number of c-planes: 2

Lux at center: 76,5 lx

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



Total lumen output:

1875 lm

Peak candela output:

8239 cd

Light quality:

CRI: 91,0

Color temperature:

5615 K

PRODUCT NAME:

ECLDISPLAY

MEASURAMENT CONDITIONS:

Beam angle:

Profile 36°

Target:

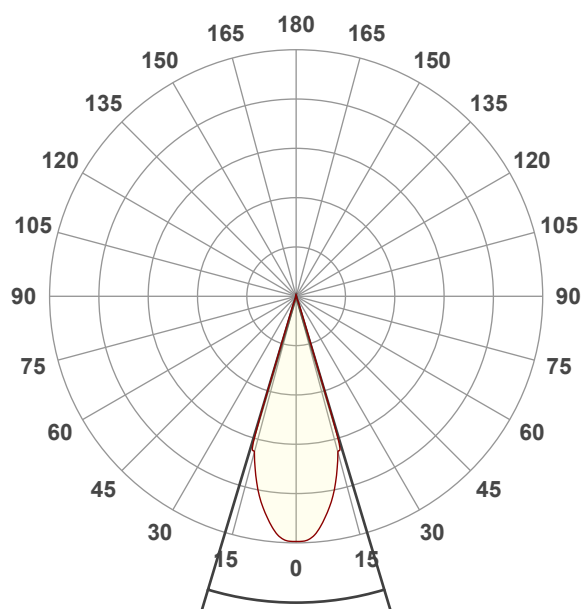
5600K

Operator:

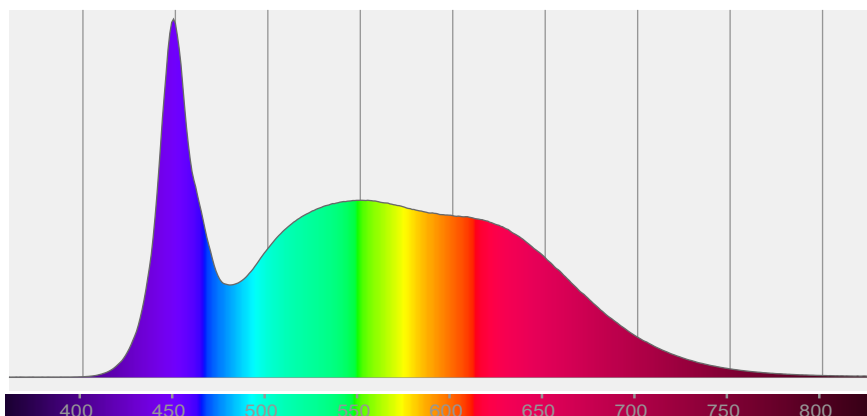
Salvatore Giglio

Date and time:

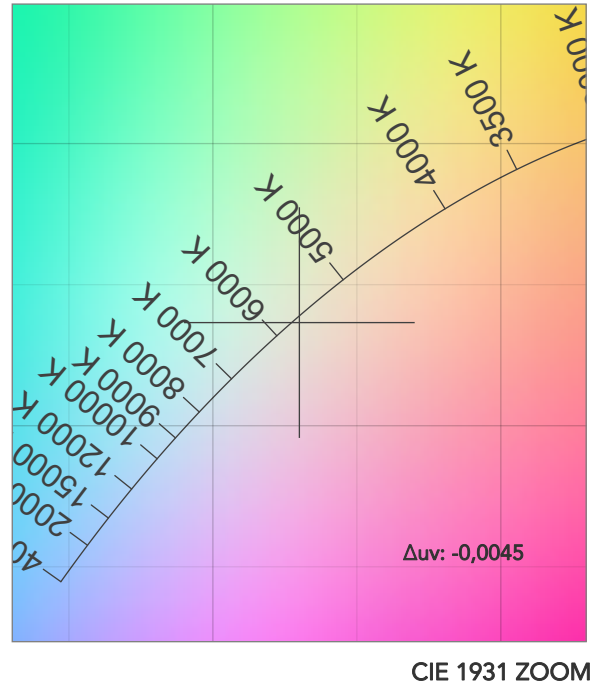
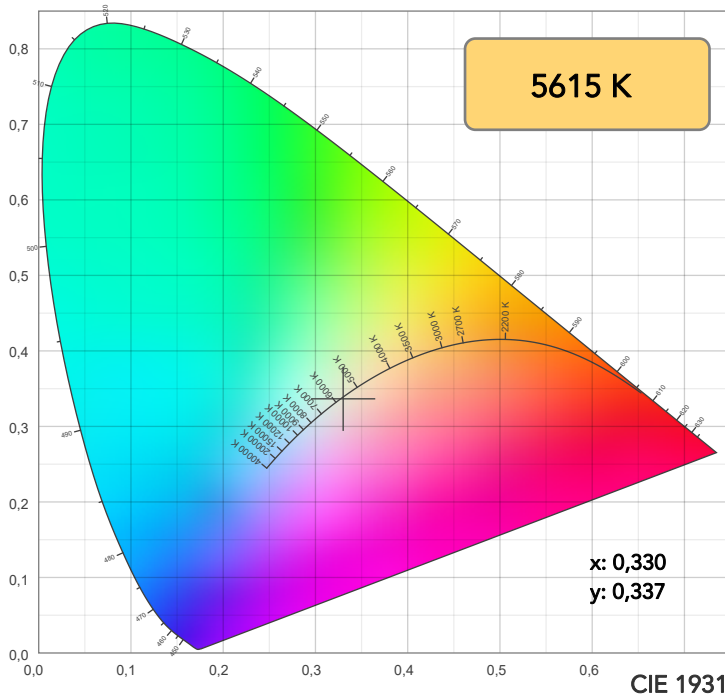
07/02/2024 12:40:20



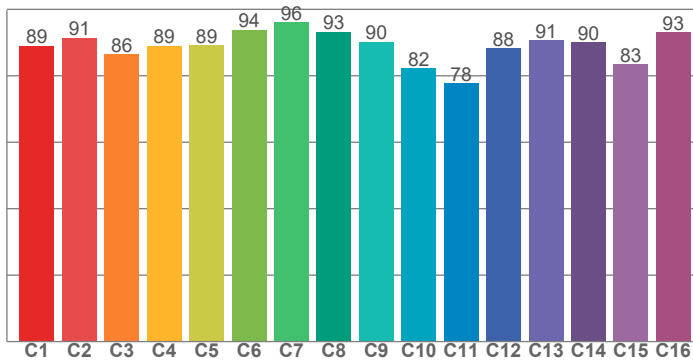
Spectra



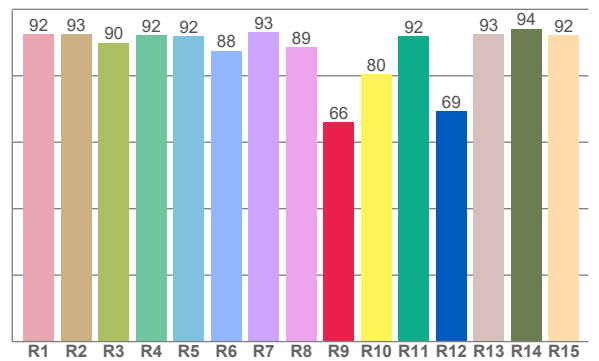
COLOR DETAILS



TM30: 88,6



CRI: 91,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,5	92,5	89,9	92,2	91,9	87,5	93,0	88,5	66,0	80,5	92,0	69,4	92,6	94,2	92,1

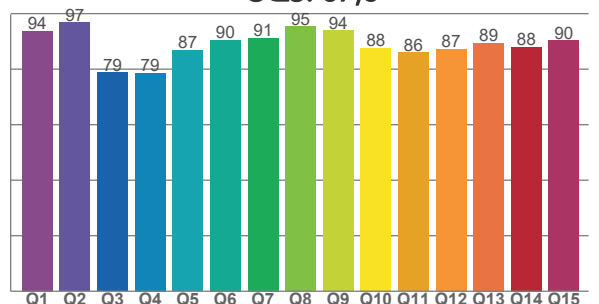
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,1	91,5	86,5	89,0	89,1	93,9	96,1	93,2	90,3	82,2	77,7	88,2	90,7	90,1	83,4	93,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,7	96,8	78,7	78,6	86,8	90,5	91,2	95,3	93,9	87,6	86,0	87,2	89,4	88,0	90,2

CQS: 87,8



COLOR PARAMETERS

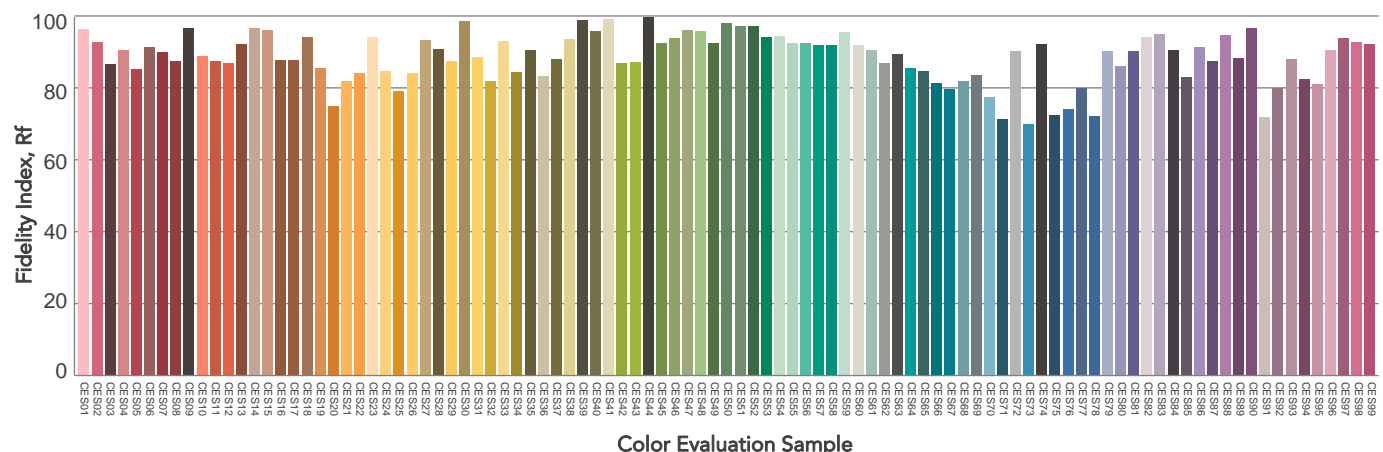
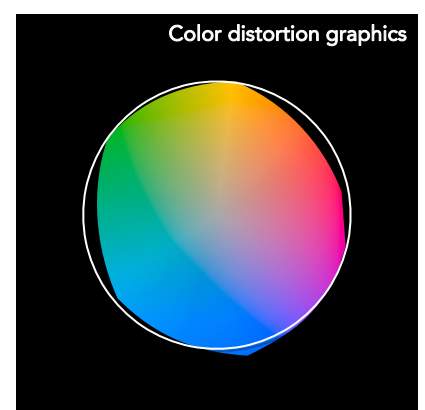
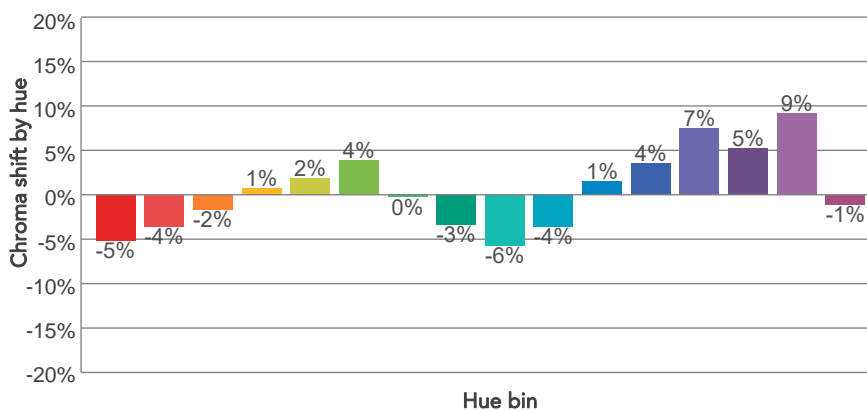
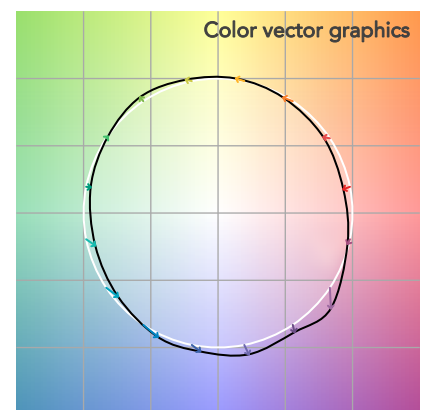
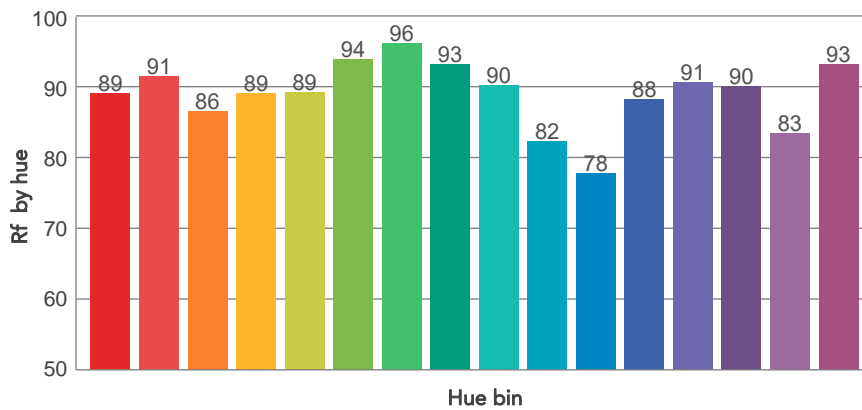
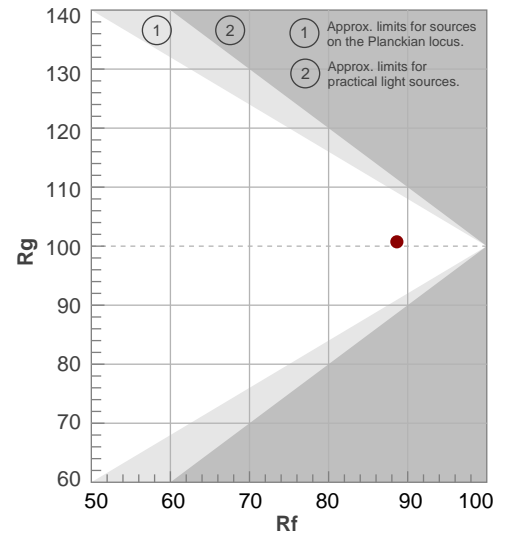
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5615 K	91,0	66,0	88,6	100,7	87,8	92	0,330	0,337	-0,0045

TM30 DETAILS

Rf 88,6
Fidelity index Rf

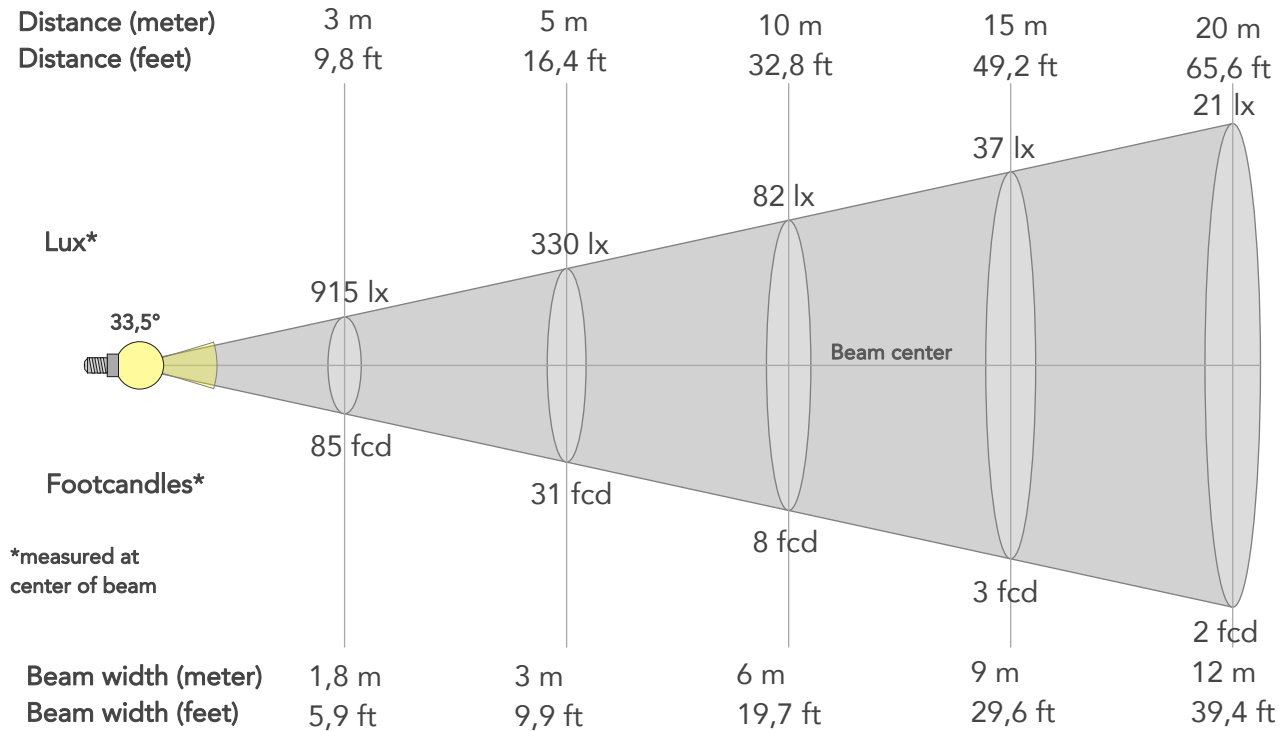
Rg 100,7
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	-1%
2	91	-4%	3%
3	86	-2%	7%
4	89	1%	6%
5	89	2%	4%
6	94	4%	0%
7	96	0%	-2%
8	93	-3%	0%
9	90	-6%	6%
10	82	-4%	10%
11	78	1%	14%
12	88	4%	7%
13	91	7%	2%
14	90	5%	-2%
15	83	9%	-12%
16	93	-1%	-4%



BEAM DETAILS

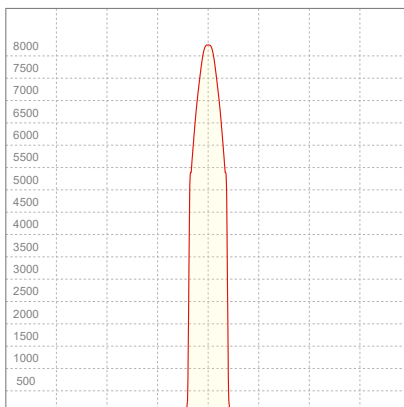
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,5°	35,9°	38,2°	98,9%	98,7%



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	8238lx	2060lx	915lx	515lx	330lx	146lx	82lx	37lx	21lx	13lx	9lx	5lx	3lx
Footcand.	765fcd	191fcd	85fcd	48fcd	31fcd	14fcd	8fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,5m	6m	9m	12m	15m	18m	24m	30,1m
Beam wid.	2ft	4ft	5,9ft	7,9ft	9,9ft	14,8ft	19,7ft	29,6ft	39,4ft	49,3ft	59,1ft	78,9ft	98,6ft

LINEAR DISTRIBUTION DIAGRAM

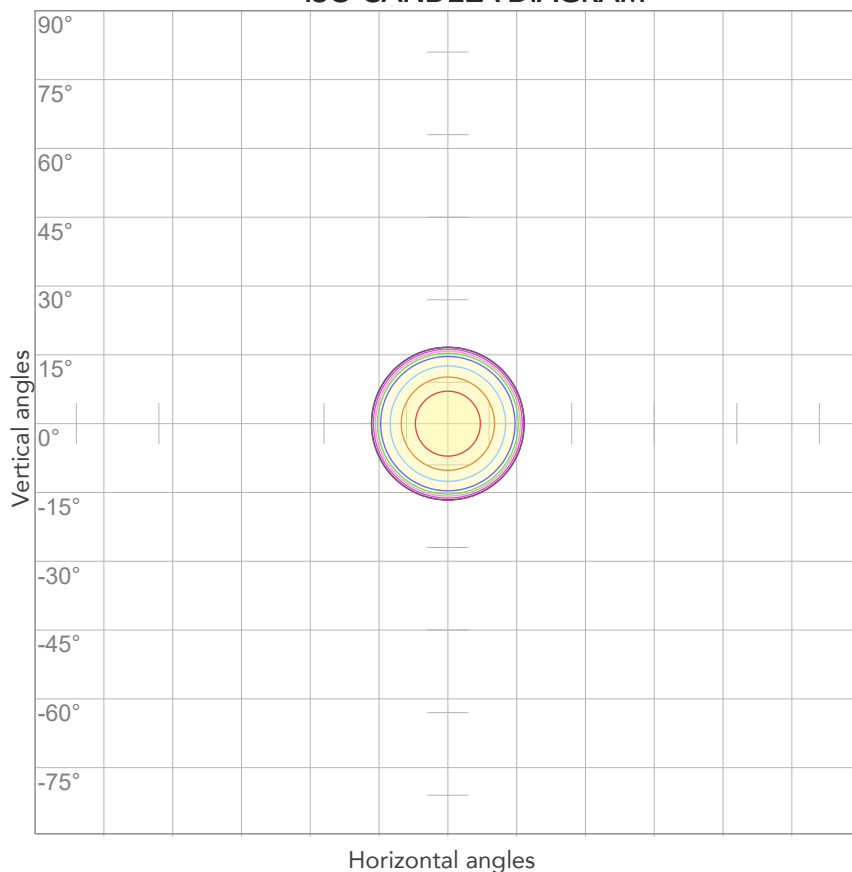


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
223V	0,160A	33,2W	0,93	56lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



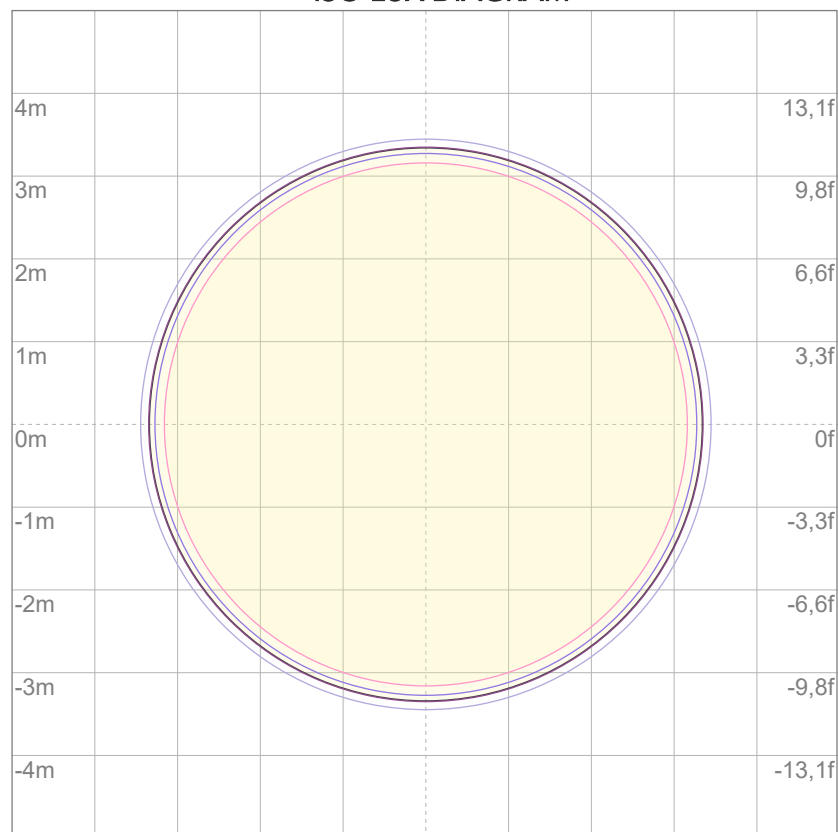
10%	824 cd
20%	1648 cd
30%	2472 cd
40%	3295 cd
50%	4119 cd
60%	4943 cd
70%	5767 cd
80%	6591 cd

Conditions:

Number of c-planes: 2

Candela at center: 8238 cd

ISO LUX DIAGRAM



3%	2,47 lx
5%	4,12 lx
10%	8,24 lx
30%	24,7 lx
50%	41,2 lx

Conditions:

Number of c-planes: 2

Lux at center: 82,4 lx

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