

Photometric Test Report



ECLFRESNELJRVW

150W Variable White LED Fresnel
(2.700K - 5.600K) with manual zoom 15° - 83°

CONTENTS

Table of contents	2
Testing process	3
Color preset Full on	
Beam angle Max Zoom	4
Beam angle Med Zoom	9
Beam angle Min Zoom	14
Color temperature Cold White	
Beam angle Max Zoom	19
Beam angle Med Zoom	24
Beam angle Min Zoom	29
Color temperature Warm White	
Beam angle Max Zoom	34
Beam angle Med Zoom	39
Beam angle Min Zoom	44

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 25°C without any external light sources following the requirements of the standard LM79-08. This photometric report is obtained through the data measured by a high precision measurement system and analyzed by a dedicated 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 significant 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:

4558 lm

Peak candela output:

5025 cd

Light quality:

CRI: 94,1

Color temperature:

3919 K

PRODUCT NAME:
ECLFRESNELRVW

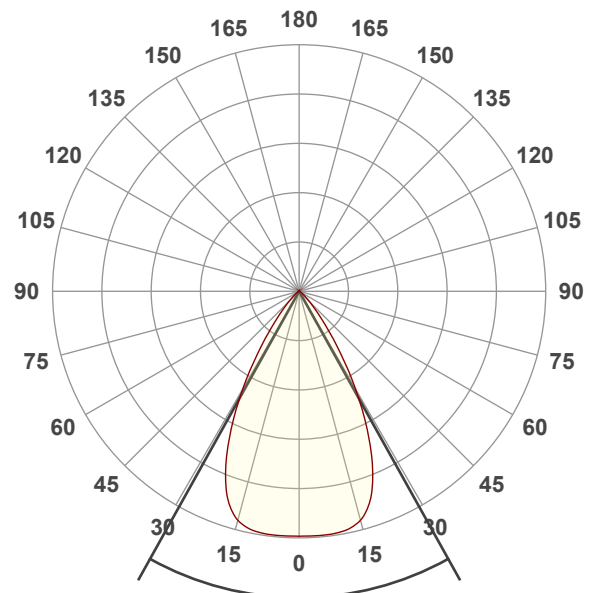
MEASUREMENT CONDITIONS:

Beam angle:
Max Zoom

Target:
Full On

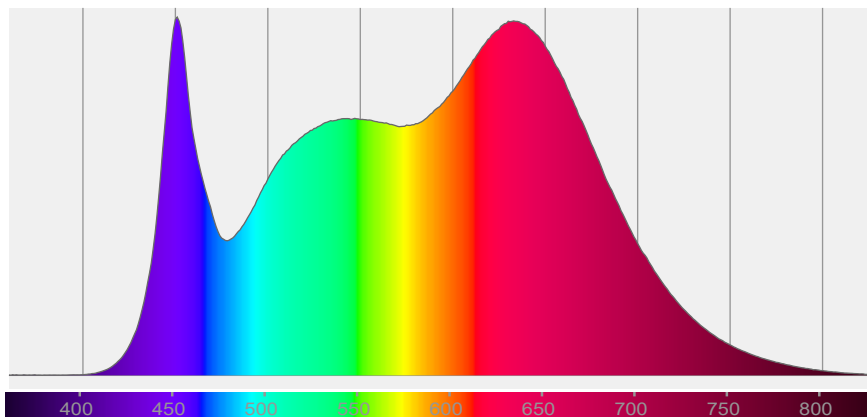
Operator:
Paolo Carvone

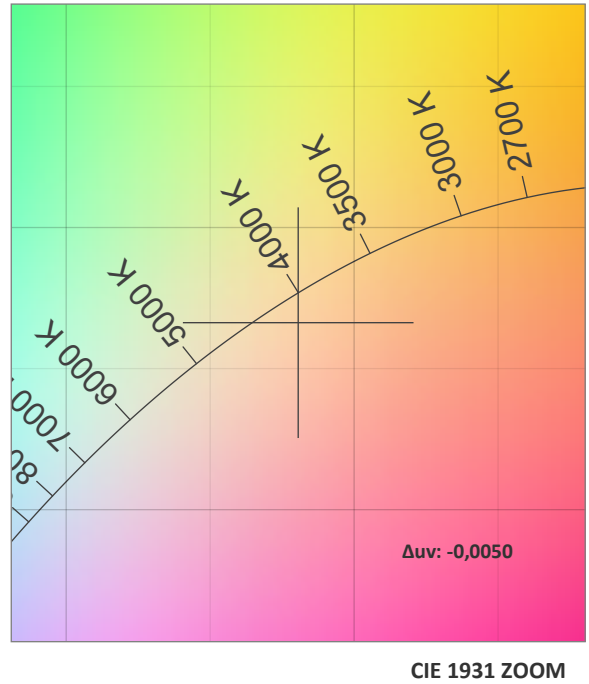
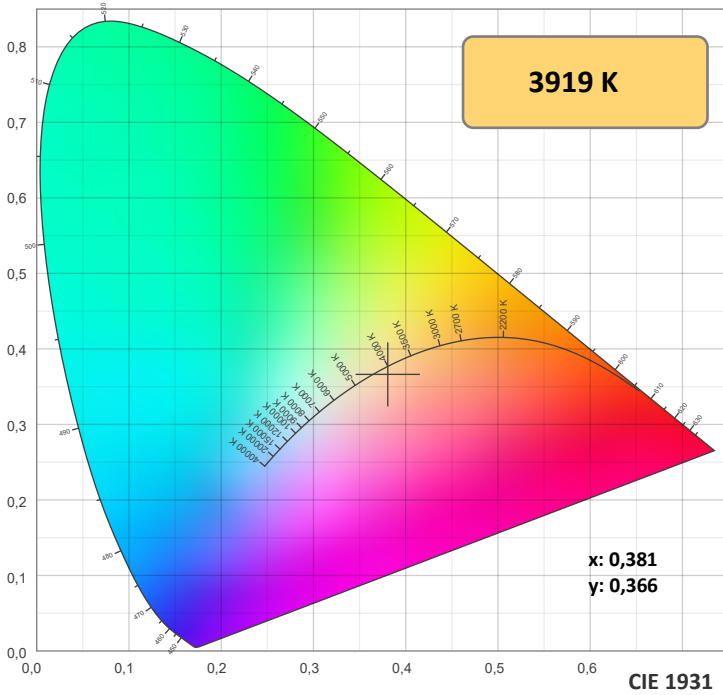
Date and time:
08/11/2021 12:29:08



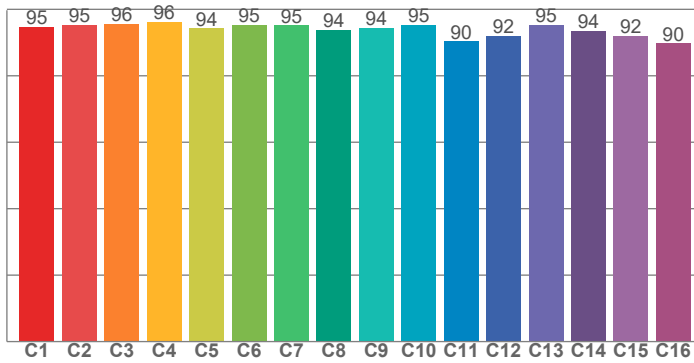
Beam angle 50%: 58,2°
Field angle 10%: 83,3°
Cut off angle 2.5%: 102,5°

Spectra

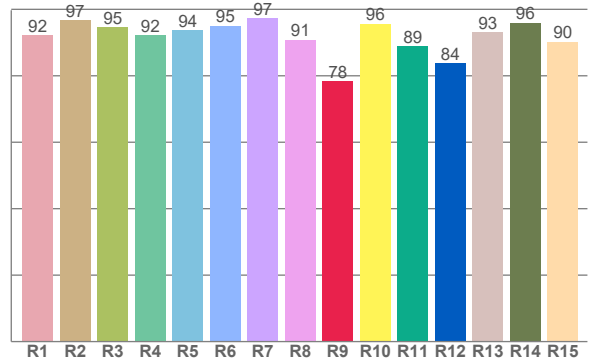




TM30: 94,1



CRI: 94,1 (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
92,2	96,8	94,6	92,3	93,7	95,1	97,4	90,8	78,4	95,6	88,8	83,8	93,0	95,9	90,2

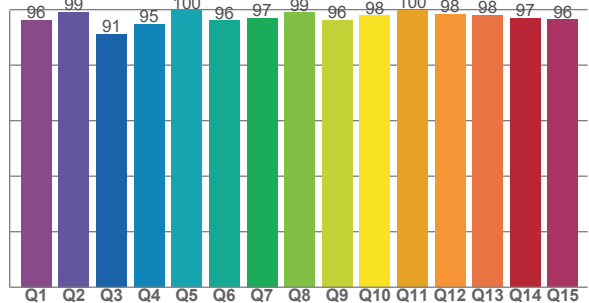
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,7	95,3	95,7	96,3	94,3	95,3	95,2	93,8	94,4	95,3	90,3	92,0	95,3	93,5	92,1	89,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,3	99,1	91,1	94,8	99,6	96,1	97,0	98,9	96,2	97,9	99,8	98,3	97,9	96,9	96,4

CQS: 96,4



COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3919 K	94,1	78,4	94,1	104,2	96,4	98	0,381	0,366	-0,0050

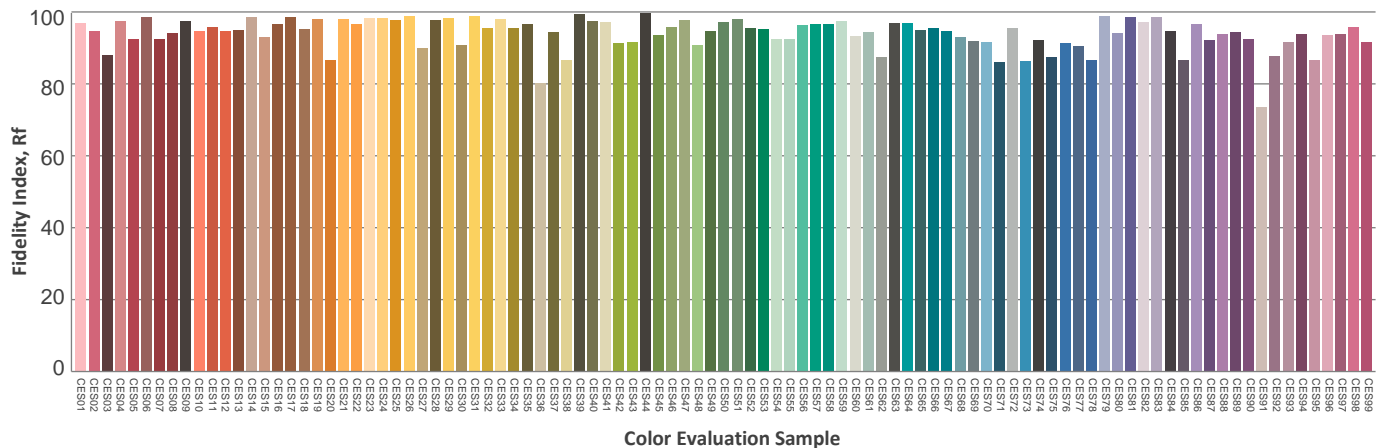
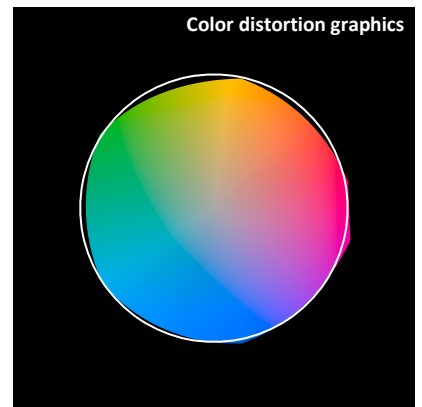
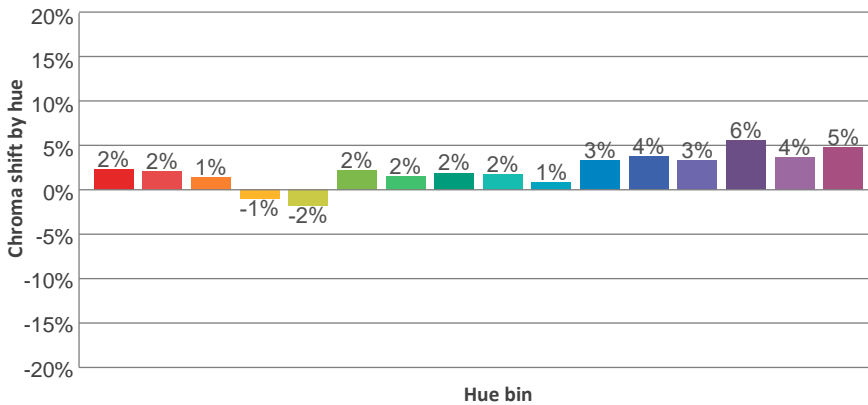
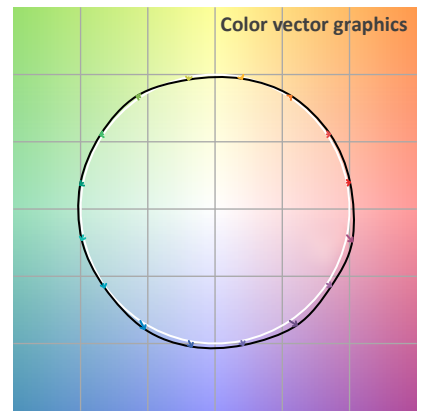
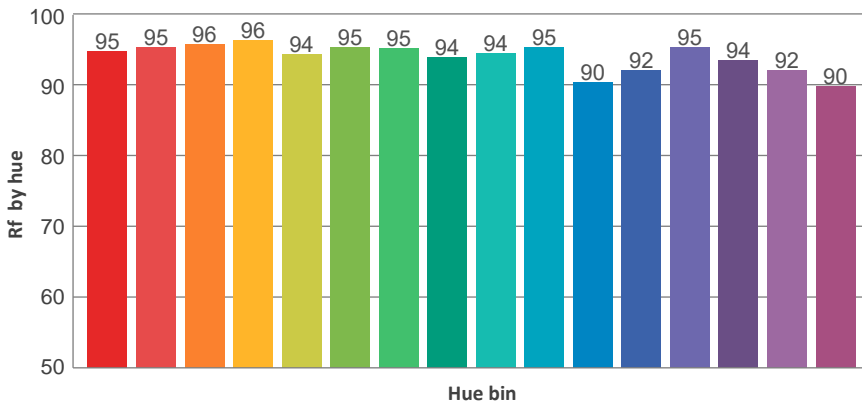
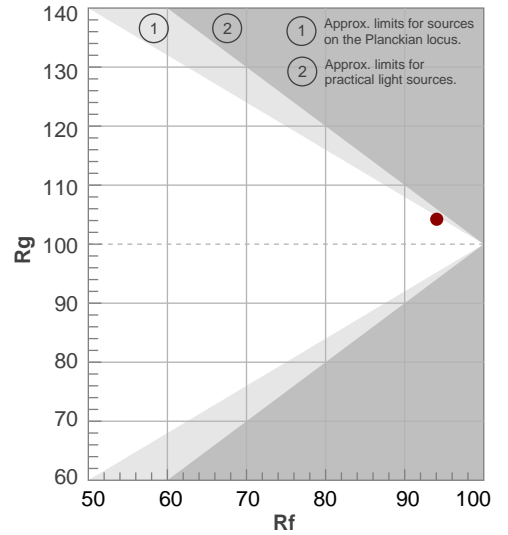
TM30 DETAILS



Rf 94,1
Fidelity index Rf

Rg 104,2
Gammut index Rg

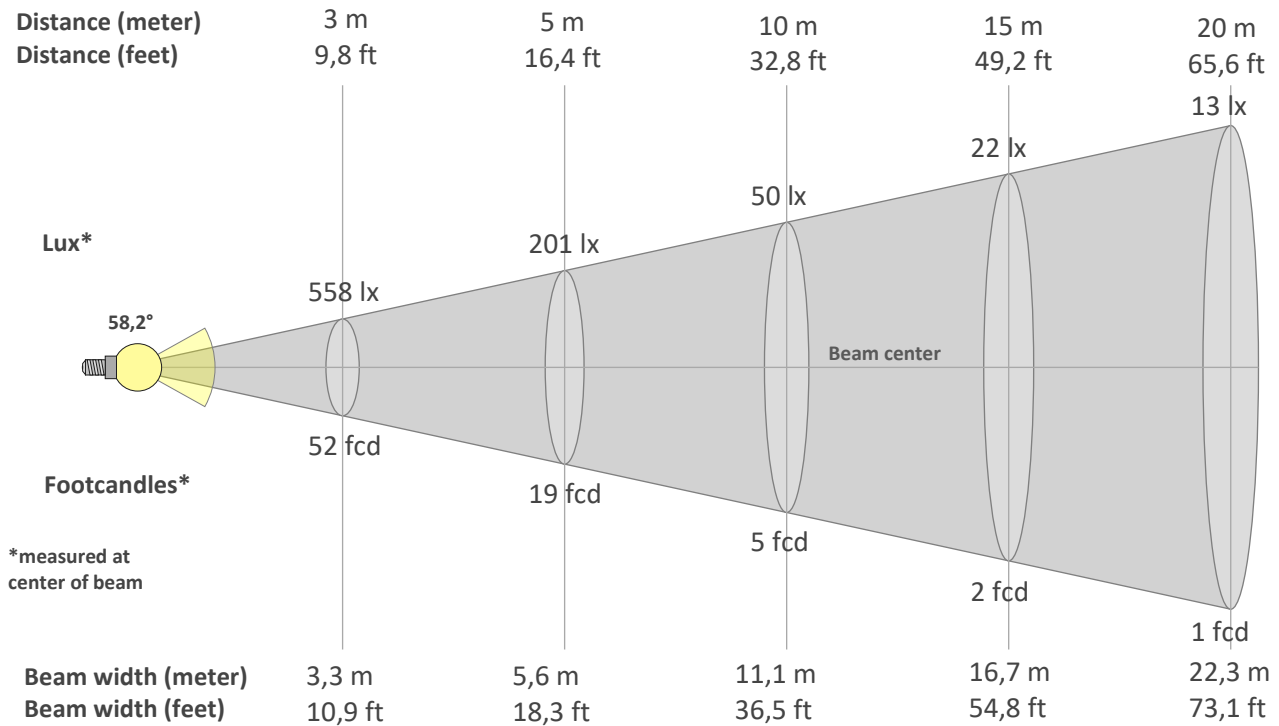
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	2%	0%
2	95	2%	-1%
3	96	1%	0%
4	96	-1%	-1%
5	94	-2%	1%
6	95	2%	2%
7	95	2%	2%
8	94	2%	2%
9	94	2%	3%
10	95	1%	3%
11	90	3%	6%
12	92	4%	3%
13	95	3%	1%
14	94	6%	2%
15	92	4%	0%
16	90	5%	-4%



BEAM DETAILS



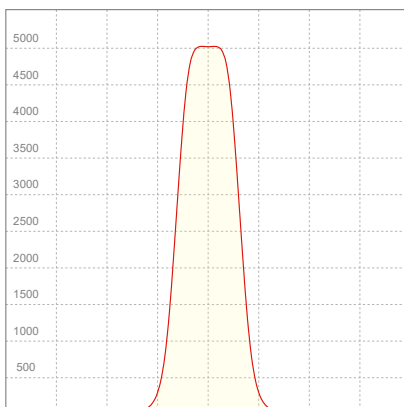
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
58,2°	83,3°	102,5°	99,4%	95,9%



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	5021lx	1255lx	558lx	314lx	201lx	89lx	50lx	22lx	13lx	8lx	6lx	3lx	2lx
Footcand.	466fcd	117fcd	52fcd	29fcd	19fcd	8fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	1,1m	2,2m	3,3m	4,5m	5,6m	8,4m	11,1m	16,7m	22,3m	27,9m	33,4m	44,6m	55,7m
Beam wid.	3,7ft	7,4ft	10,9ft	14,6ft	18,3ft	27,4ft	36,5ft	54,8ft	73,1ft	91,4ft	109,6ft	146,2ft	182,7ft

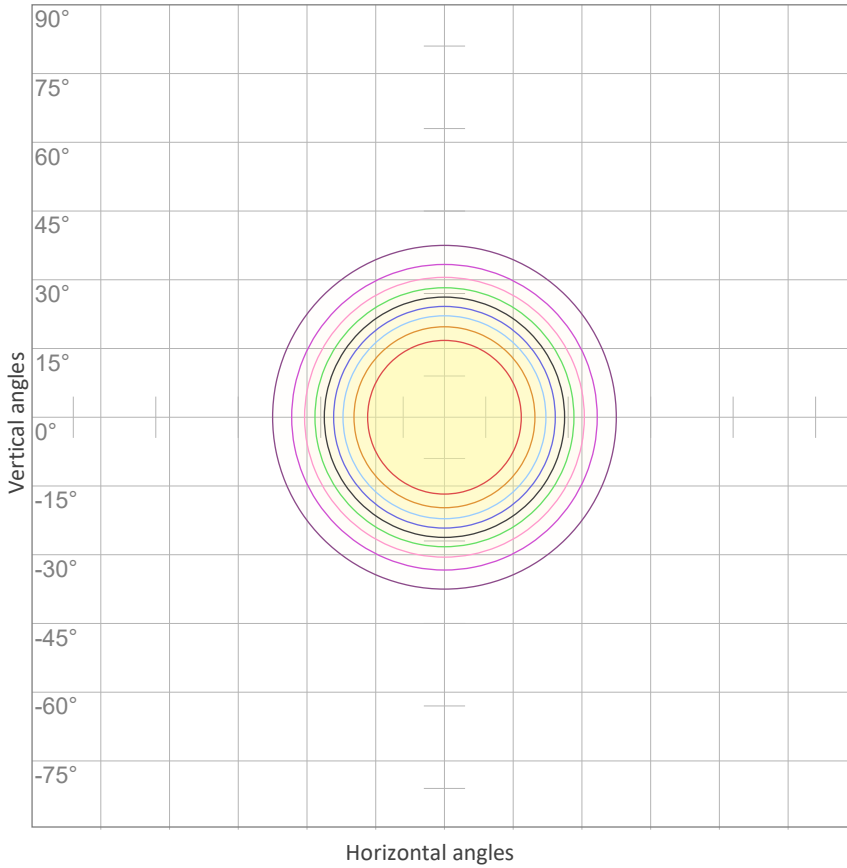
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,533A	113,6W	40lm/W
Power Fc			
0,94			

ISO CANDELA DIAGRAM



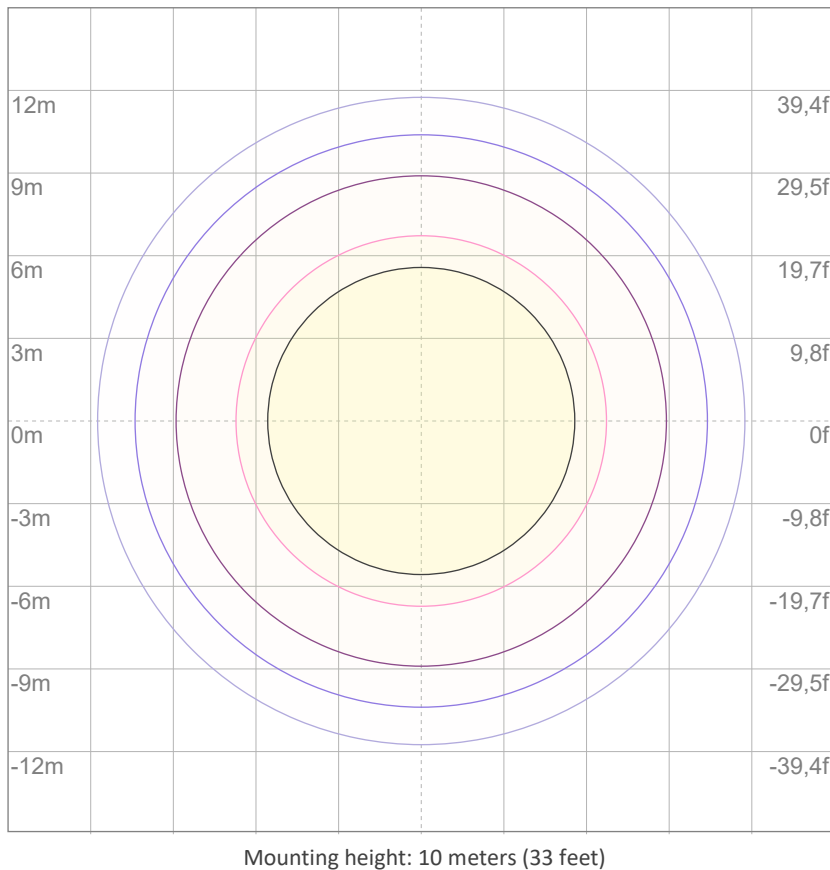
10%	502 cd
20%	1004 cd
30%	1506 cd
40%	2008 cd
50%	2510 cd
60%	3012 cd
70%	3514 cd
80%	4016 cd
90%	4518 cd

Conditions:

Number of c-planes: 2

Candela at center: 5021 cd

ISO LUX DIAGRAM



3%	1,51 lx
5%	2,51 lx
10%	5,02 lx
30%	15,1 lx
50%	25,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 50,2 lx

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



Total lumen output:

4224 lm

Peak candela output:

12014 cd

Light quality:

CRI: 94,2

Color temperature:

3932 K

PRODUCT NAME:
ECLFRESNELRVW

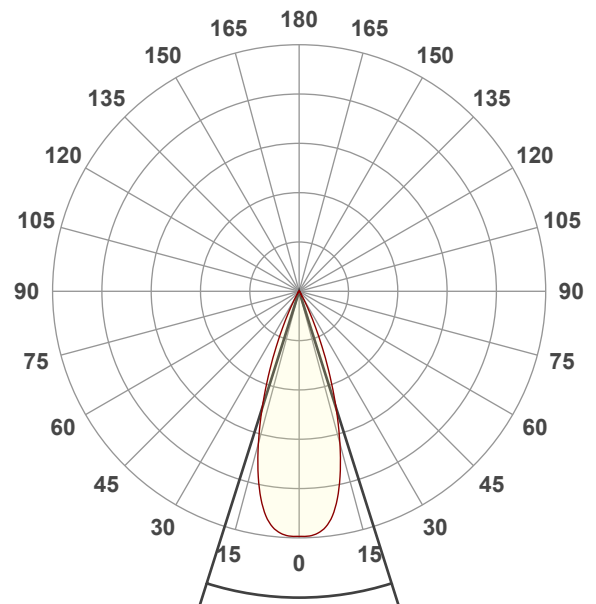
MEASUREMENT CONDITIONS:

Beam angle:
Med Zoom

Target:
Full On

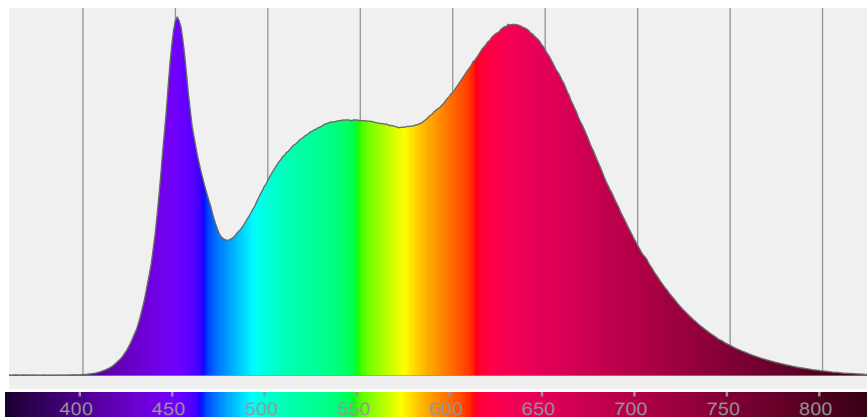
Operator:
Paolo Carvone

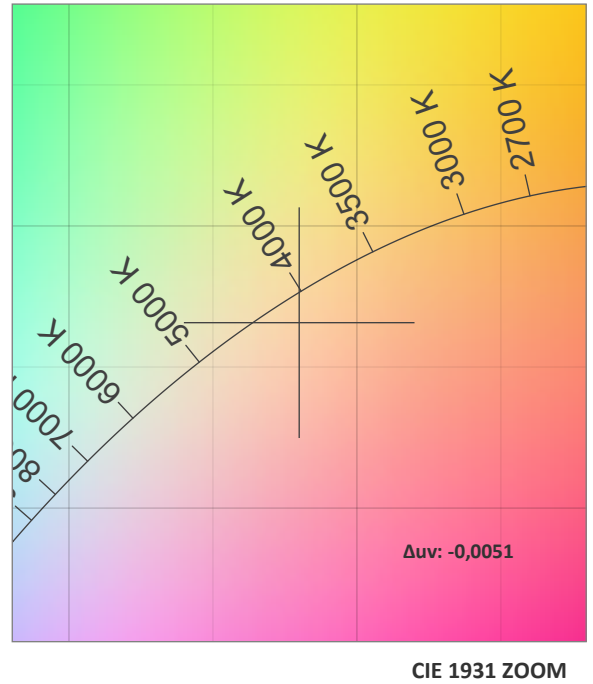
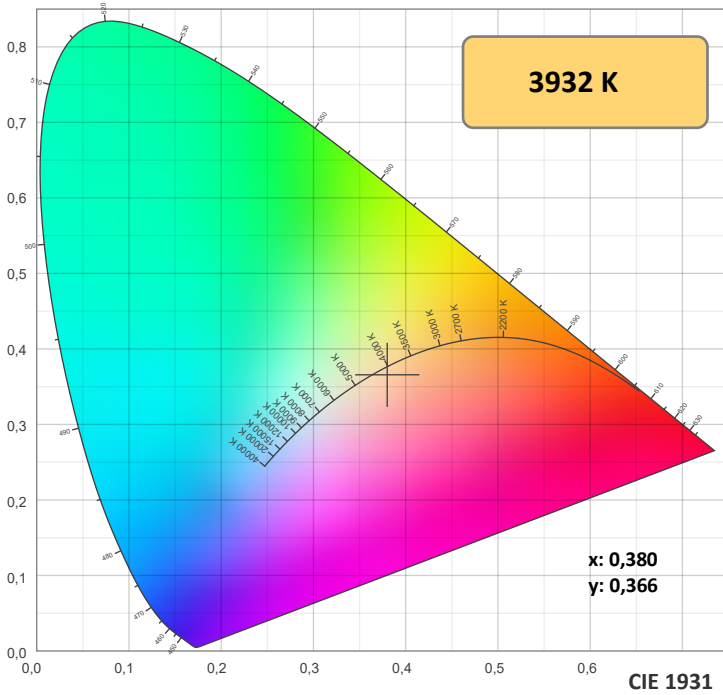
Date and time:
08/11/2021 12:32:44



Beam angle 50%: 35,1°
Field angle 10%: 52,8°
Cut off angle 2.5%: 63,8°

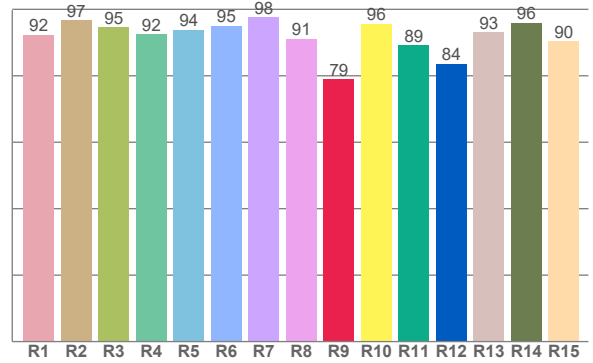
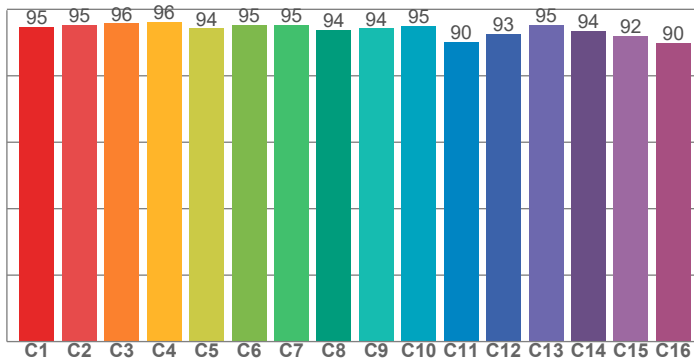
Spectra





TM30: 94,0

CRI: 94,2 (R1-R8)



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

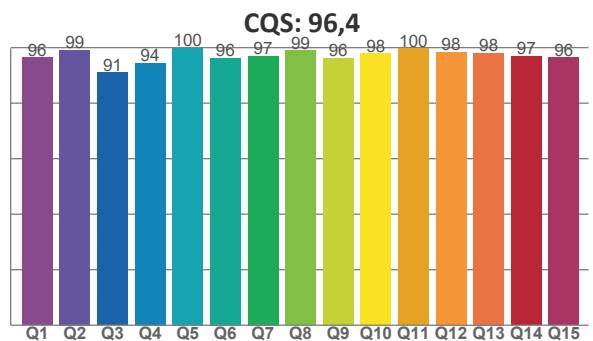
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,3	96,8	94,7	92,5	93,8	95,1	97,6	91,1	79,0	95,7	89,1	83,6	93,1	96,0	90,4

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
94,8	95,4	95,8	96,2	94,2	95,3	95,3	93,9	94,3	95,1	90,2	92,7	95,3	93,5	92,1	89,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,4	99,1	90,9	94,5	99,8	96,3	97,0	99,0	96,2	97,8	99,7	98,5	98,1	96,9	96,5



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
3932 K	94,2	79,0	94,0	104,1	96,4	98	0,380	0,366	-0,0051

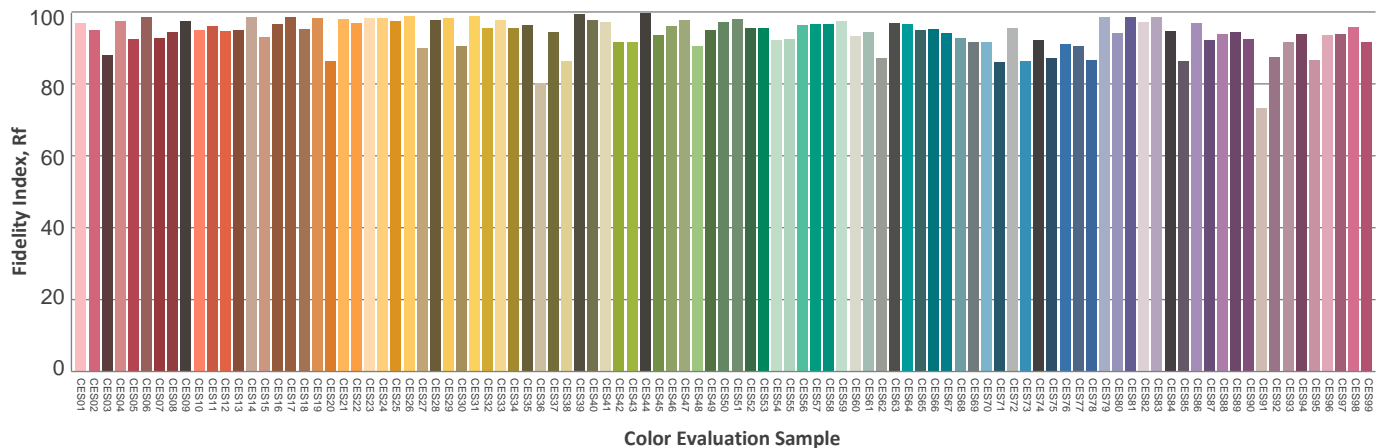
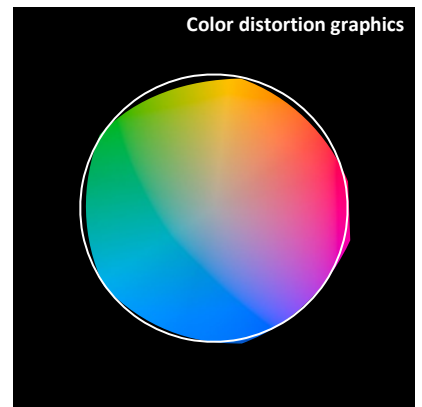
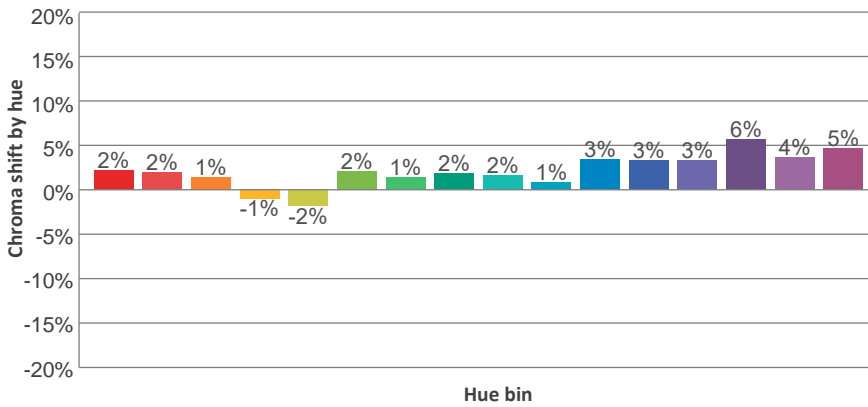
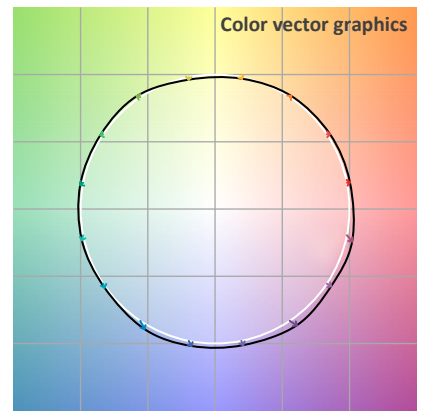
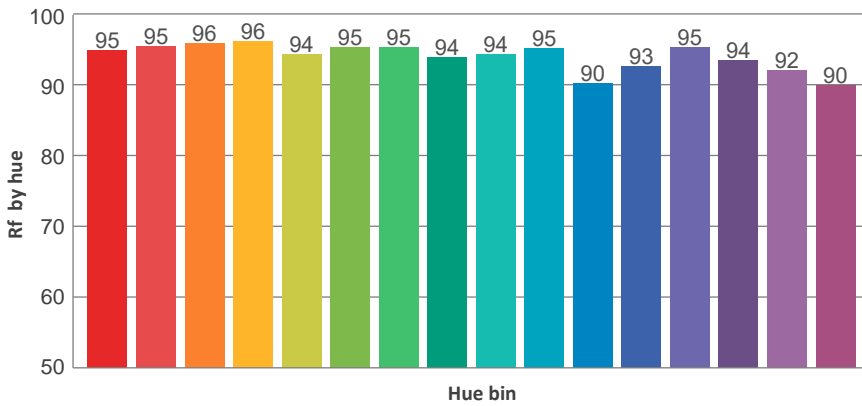
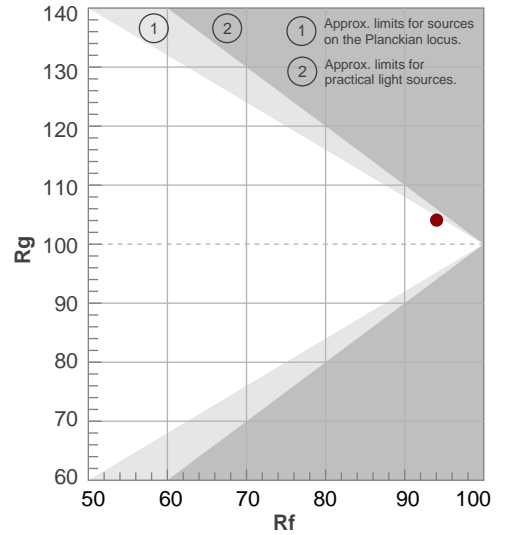
TM30 DETAILS



Rf 94,0
Fidelity index Rf

Rg 104,1
Gammut index Rg

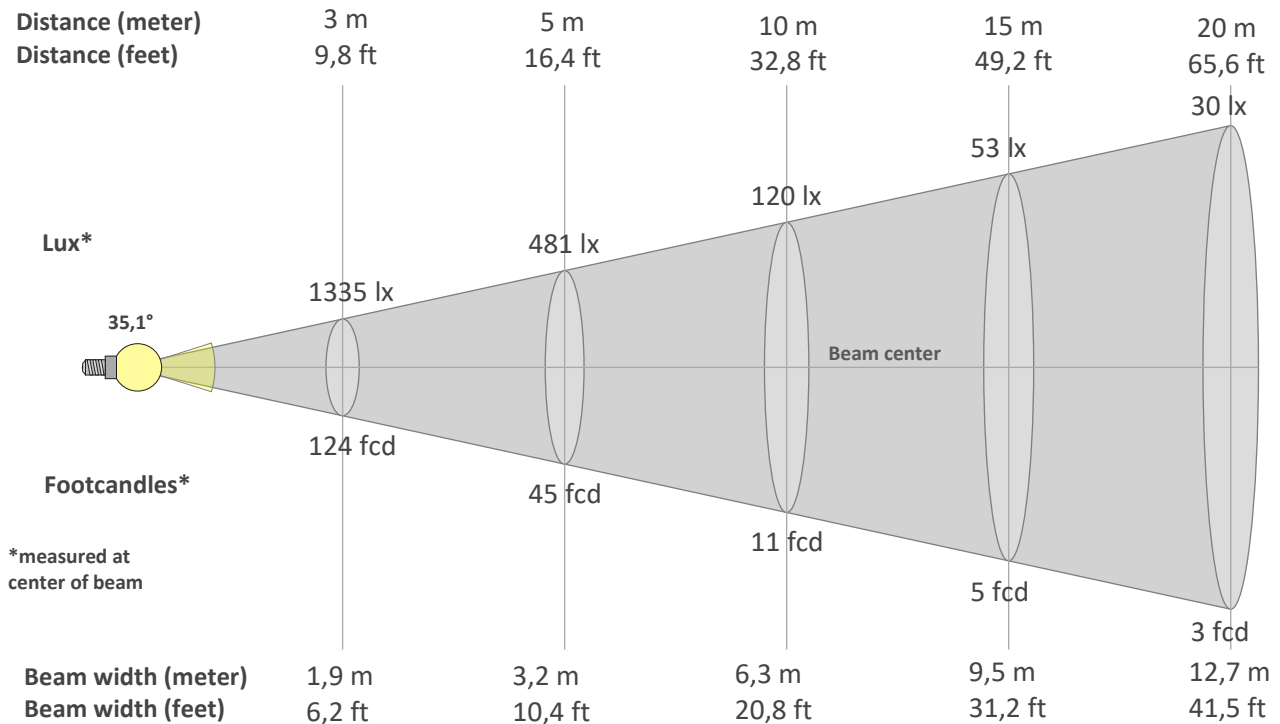
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	2%	0%
2	95	2%	-1%
3	96	1%	0%
4	96	-1%	-1%
5	94	-2%	1%
6	95	2%	2%
7	95	1%	2%
8	94	2%	2%
9	94	2%	3%
10	95	1%	3%
11	90	3%	6%
12	93	3%	3%
13	95	3%	1%
14	94	6%	2%
15	92	4%	0%
16	90	5%	-4%



BEAM DETAILS



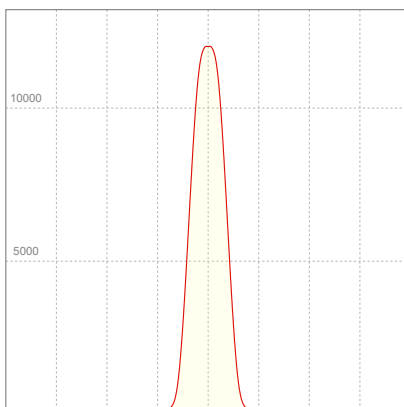
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35,1°	52,8°	63,8°	99,9%	98,7%



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	12014lx	3003lx	1335lx	751lx	481lx	214lx	120lx	53lx	30lx	19lx	13lx	8lx	5lx
Footcand.	1116fcd	279fcd	124fcd	70fcd	45fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,6m	1,3m	1,9m	2,5m	3,2m	4,7m	6,3m	9,5m	12,7m	15,8m	19m	25,3m	31,7m
Beam wid.	2,1ft	4,2ft	6,2ft	8,3ft	10,4ft	15,6ft	20,8ft	31,2ft	41,5ft	51,9ft	62,3ft	83,1ft	103,8ft

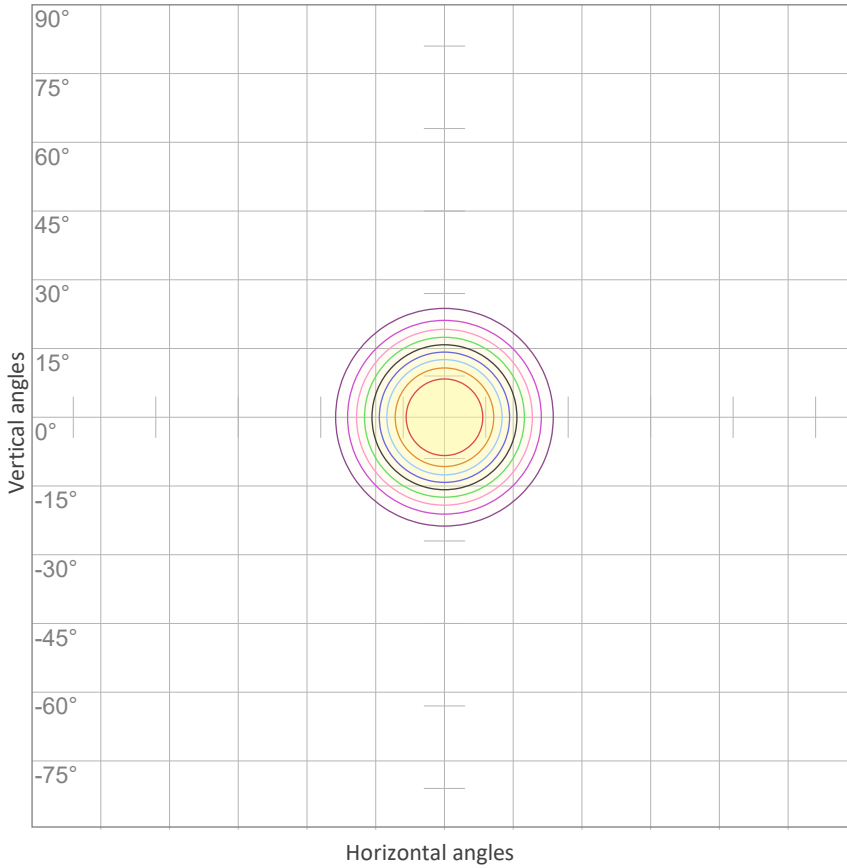
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,532A	113,1W	37lm/W
Power Fc			
0,94			

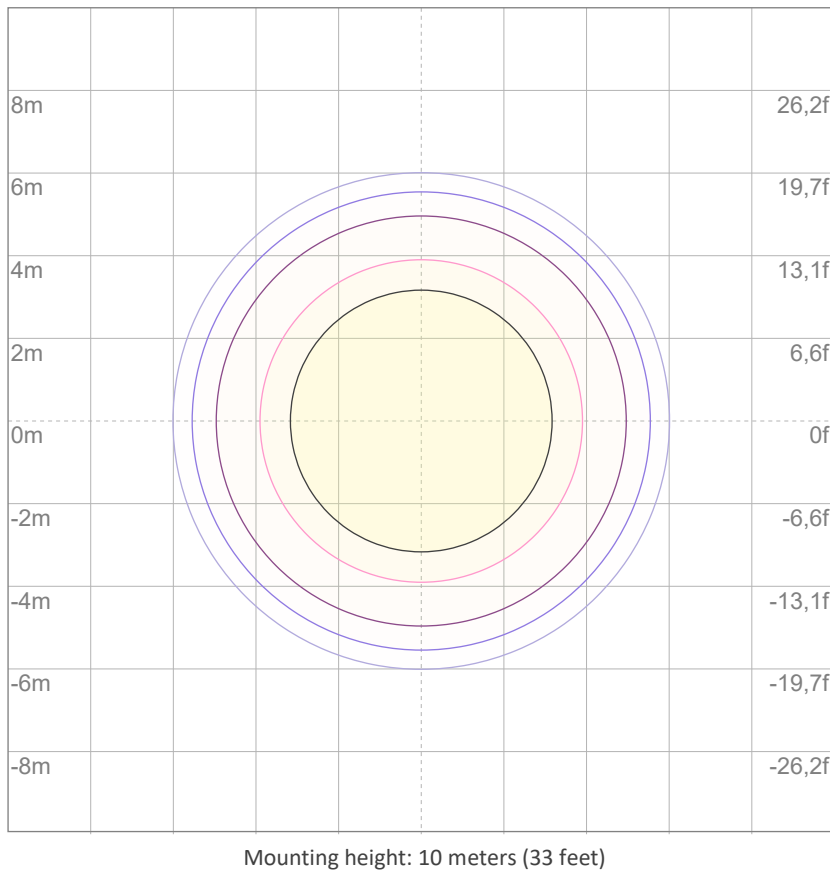
ISO CANDELA DIAGRAM



10%	1201 cd
20%	2403 cd
30%	3604 cd
40%	4806 cd
50%	6007 cd
60%	7208 cd
70%	8410 cd
80%	9611 cd
90%	10812 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 12014 cd

ISO LUX DIAGRAM



3%	3,60 lx
5%	6,01 lx
10%	12,0 lx
30%	36,0 lx
50%	60,1 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 120 lx

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



Total lumen output:

2270 lm

Peak candela output:

29889 cd

Light quality:

CRI: 94,1

Color temperature:

3975 K

PRODUCT NAME:
ECLFRESNELRVW

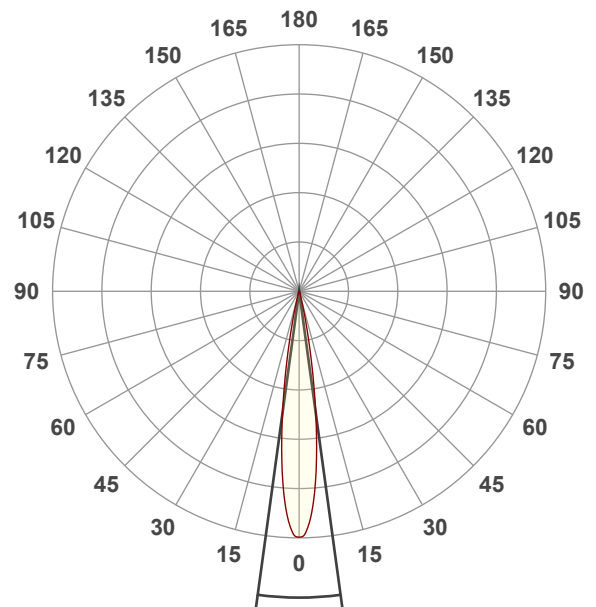
MEASUREMENT CONDITIONS:

Beam angle:
Min Zoom

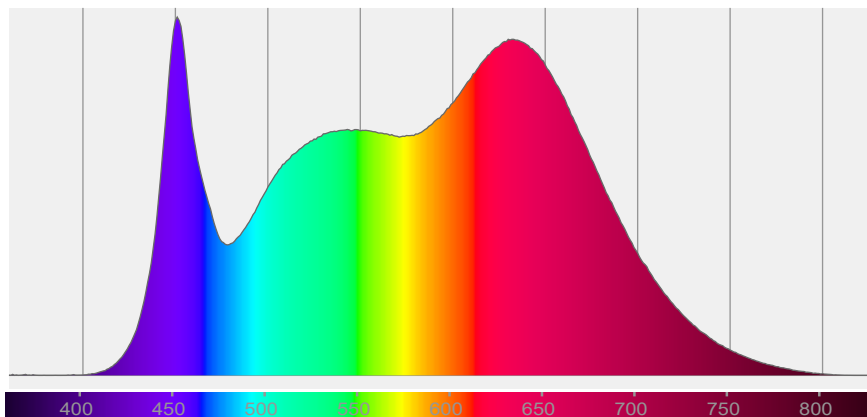
Target:
Full On

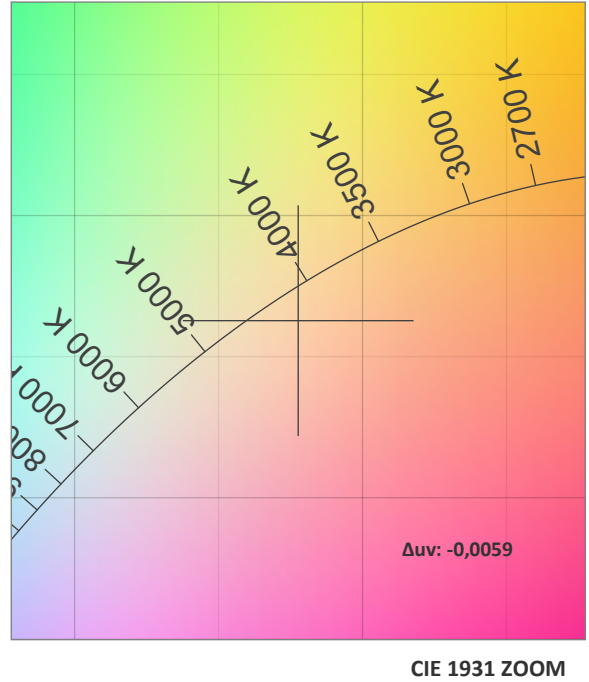
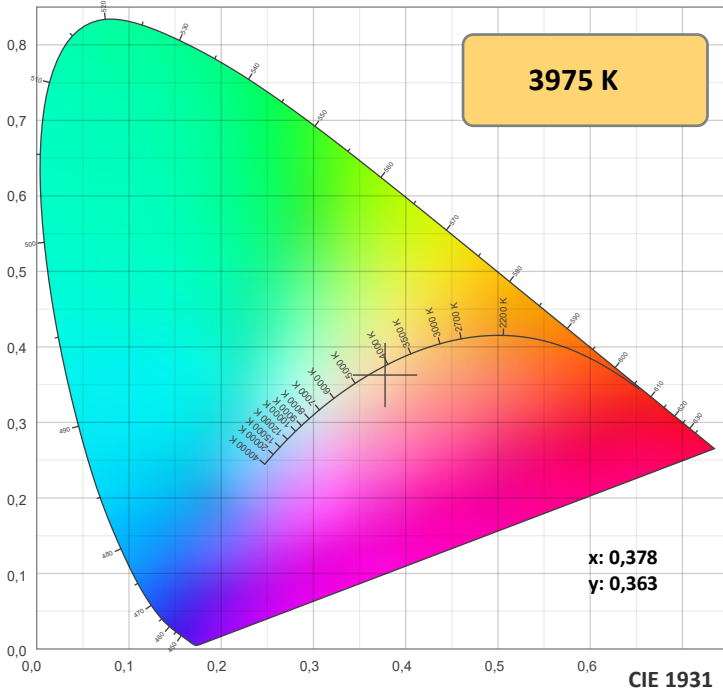
Operator:
Paolo Carvone

Date and time:
08/11/2021 12:37:24



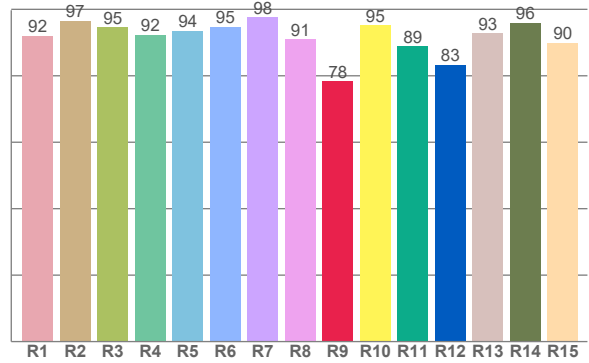
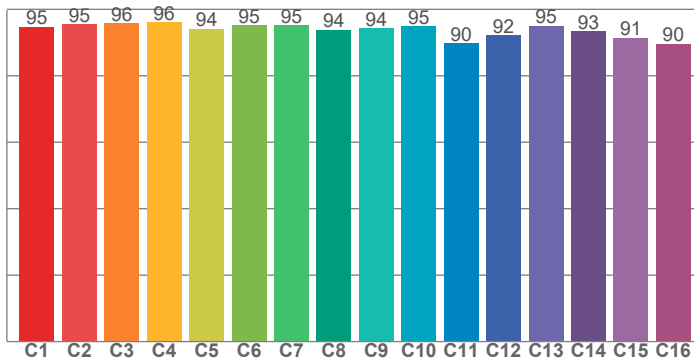
Spectra





TM30: 93,9

CRI: 94,1 (R1-R8)



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

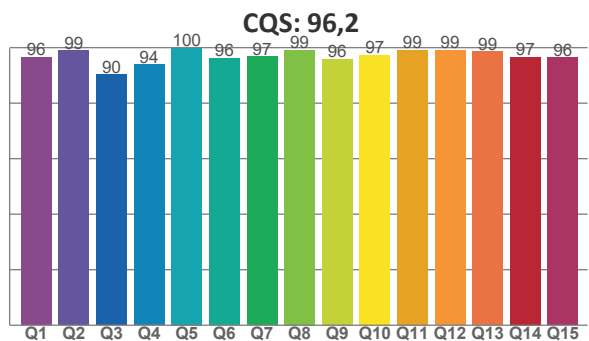
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,1	96,6	94,6	92,3	93,6	94,7	97,6	91,0	78,3	95,3	88,9	83,3	92,8	95,9	89,9

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
94,7	95,4	95,8	96,1	94,1	95,1	95,2	93,8	94,2	94,9	89,8	92,2	95,1	93,3	91,4	89,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,5	98,9	90,3	93,9	99,8	96,2	96,8	99,1	95,9	97,4	99,2	99,0	98,6	96,7	96,5



COLOR PARAMETERS

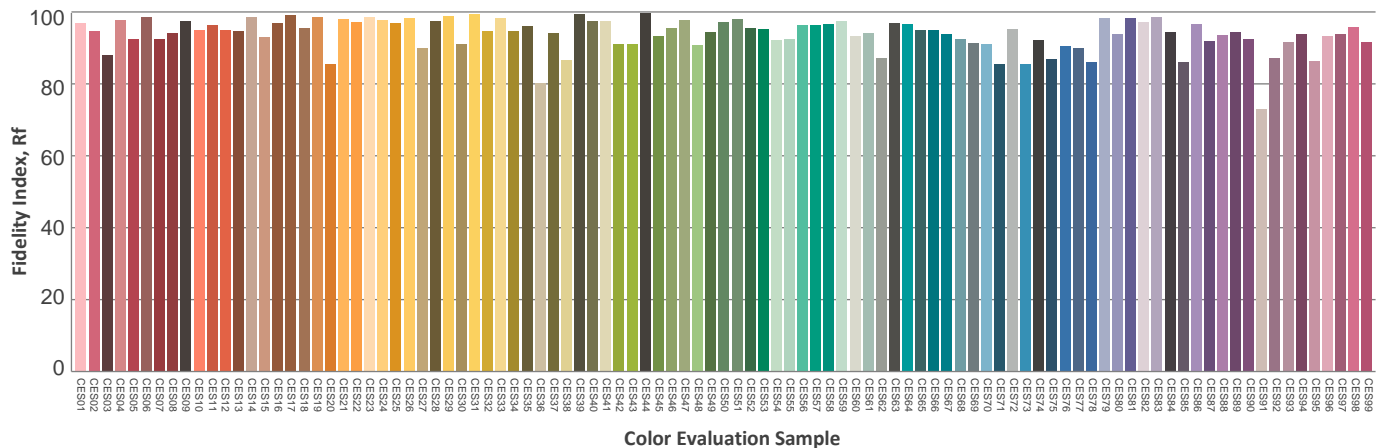
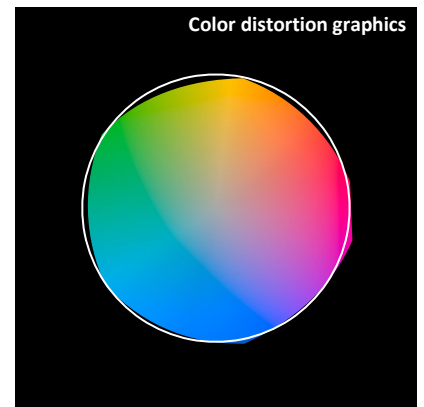
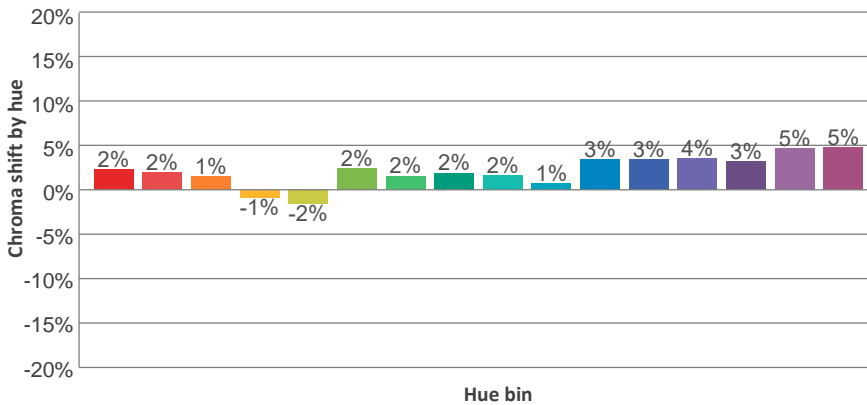
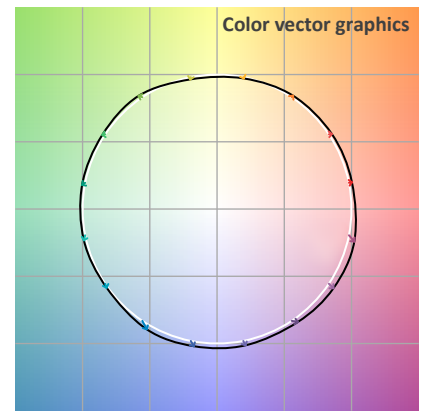
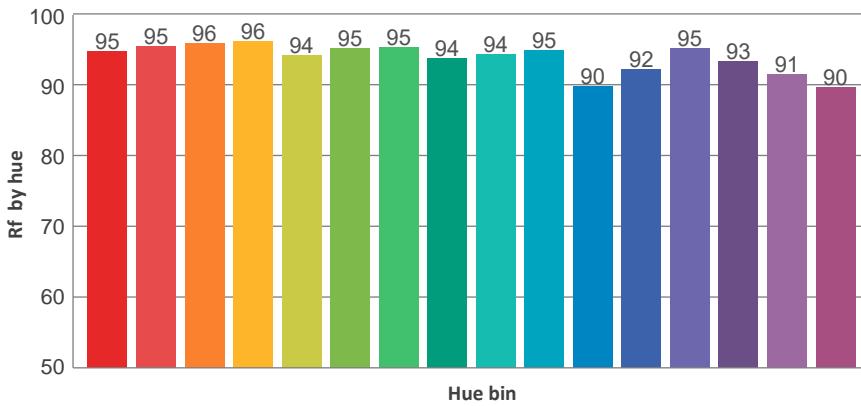
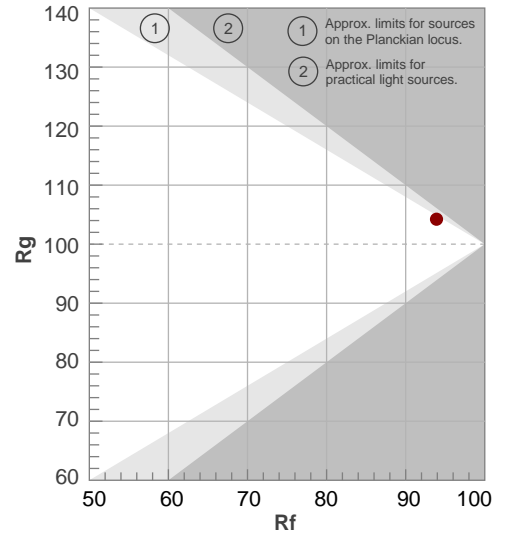
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3975 K	94,1	78,3	93,9	104,2	96,2	98	0,378	0,363	-0,0059

TM30 DETAILS

Rf 93,9
Fidelity index Rf

Rg 104,2
Gammut index Rg

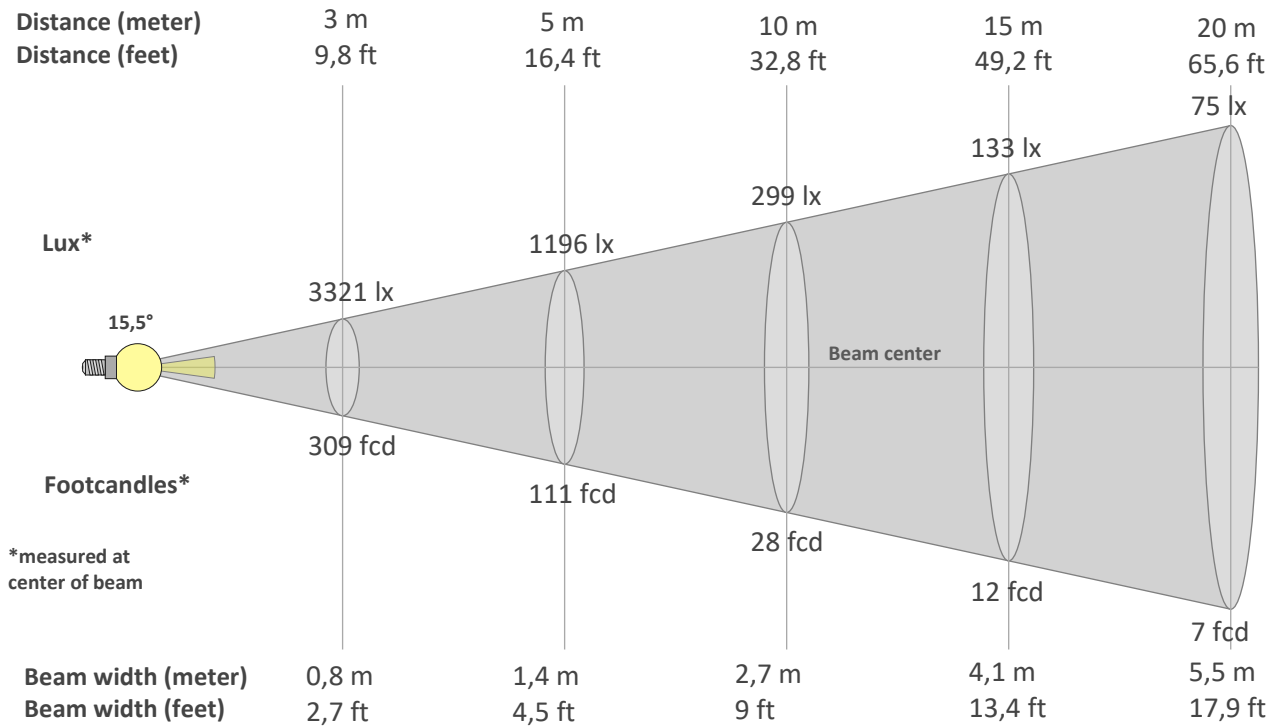
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	2%	0%
2	95	2%	-1%
3	96	1%	0%
4	96	-1%	-1%
5	94	-2%	1%
6	95	2%	2%
7	95	2%	2%
8	94	2%	2%
9	94	2%	3%
10	95	1%	3%
11	90	3%	6%
12	92	3%	3%
13	95	4%	1%
14	93	3%	3%
15	91	5%	-1%
16	90	5%	-4%



BEAM DETAILS



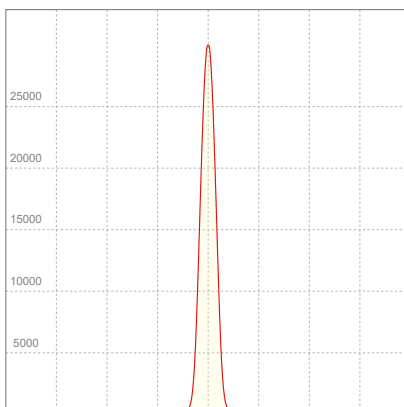
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,5°	25,7°	32,3°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	29889lx	7472lx	3321lx	1868lx	1196lx	531lx	299lx	133lx	75lx	48lx	33lx	19lx	12lx
Footcand.	2777fcd	694fcd	309fcd	174fcd	111fcd	49fcd	28fcd	12fcd	7fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,3m	0,5m	0,8m	1,1m	1,4m	2m	2,7m	4,1m	5,5m	6,8m	8,2m	10,9m	13,7m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,7ft	9ft	13,4ft	17,9ft	22,4ft	26,9ft	35,8ft	44,8ft

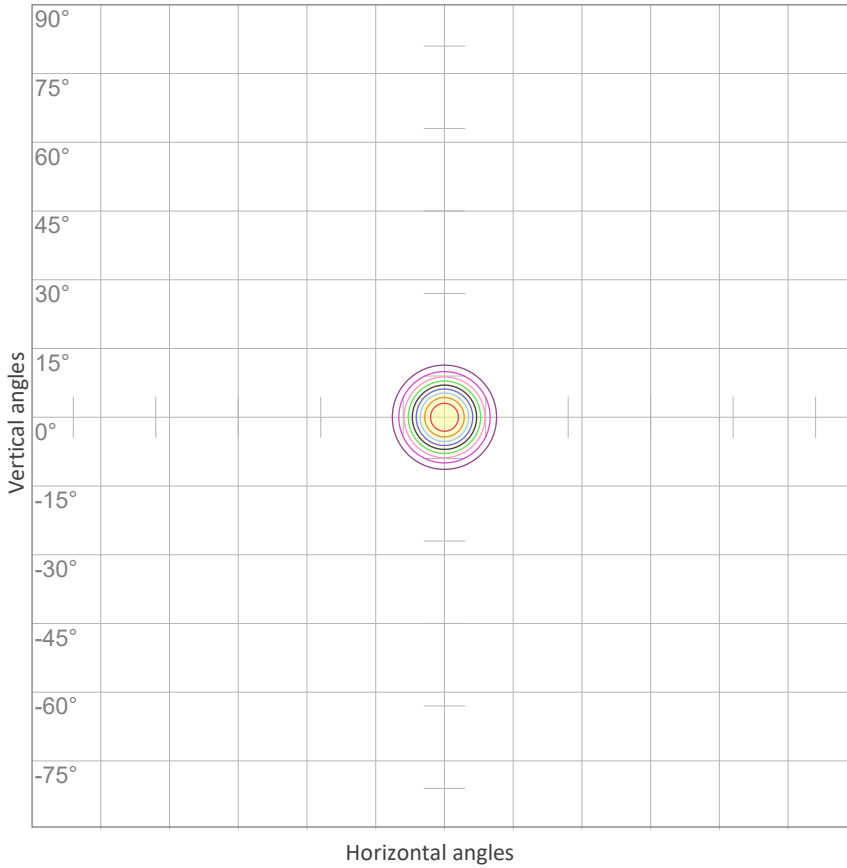
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,530A	112,6W	20lm/W
Power Fc			
0,94			

ISO CANDELA DIAGRAM



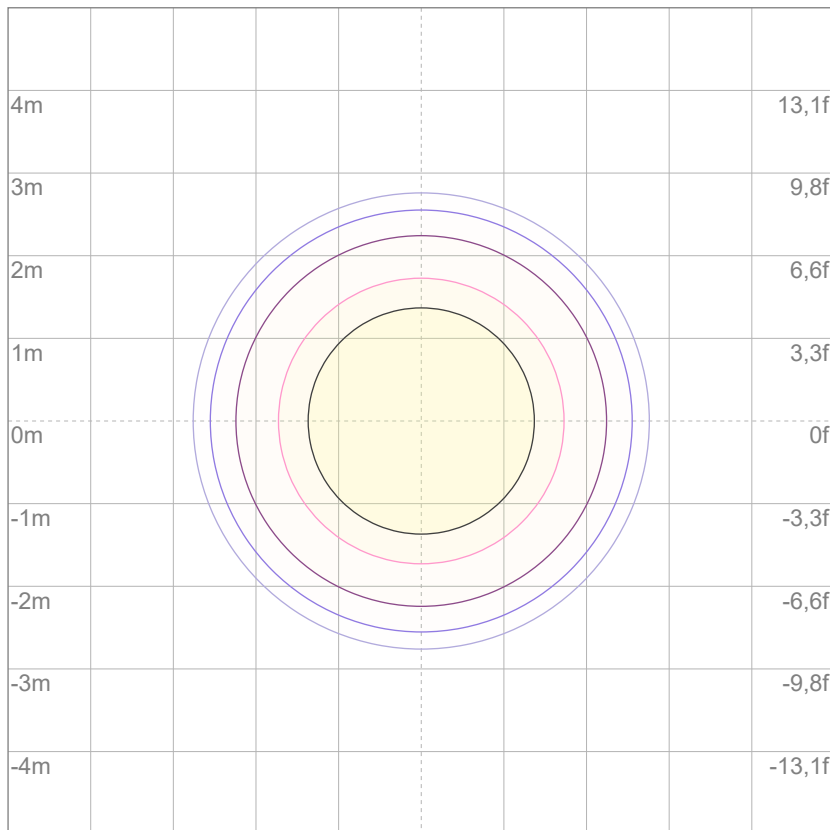
10%	2989 cd
20%	5978 cd
30%	8967 cd
40%	11955 cd
50%	14944 cd
60%	17933 cd
70%	20922 cd
80%	23911 cd
90%	26900 cd

Conditions:

Number of c-planes: 2

Candela at center: 29889 cd

ISO LUX DIAGRAM



3%	8,97 lx
5%	14,9 lx
10%	29,9 lx
30%	89,7 lx
50%	149 lx

Conditions:

Number of c-planes: 2

Lux at center: 299 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

3019 lm

Peak candela output:

3436 cd

Light quality:

CRI: 95,5

Color temperature:

5359 K

PRODUCT NAME:
ECLFRESNELRVW

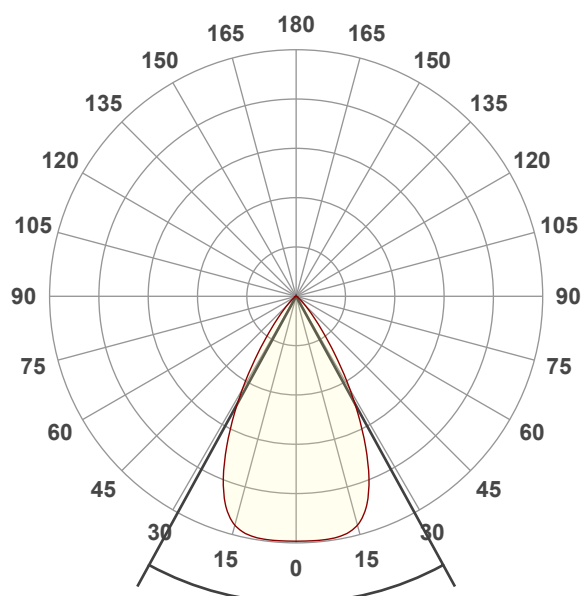
MEASUREMENT CONDITIONS:

Beam angle:
Max Zoom

Target:
Cold White

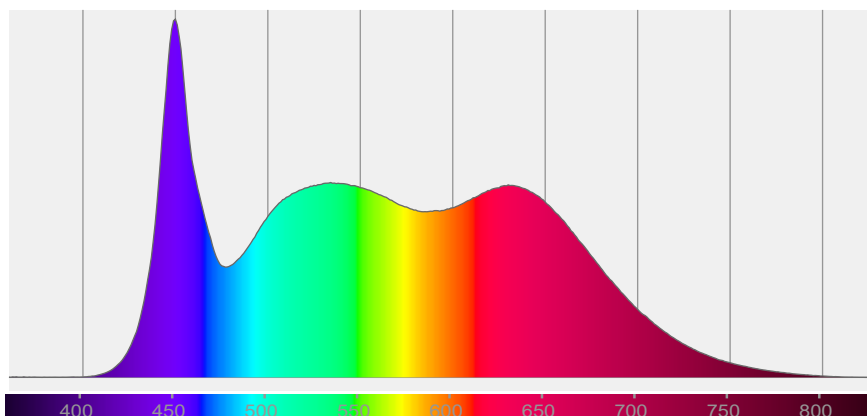
Operator:
Paolo Carvone

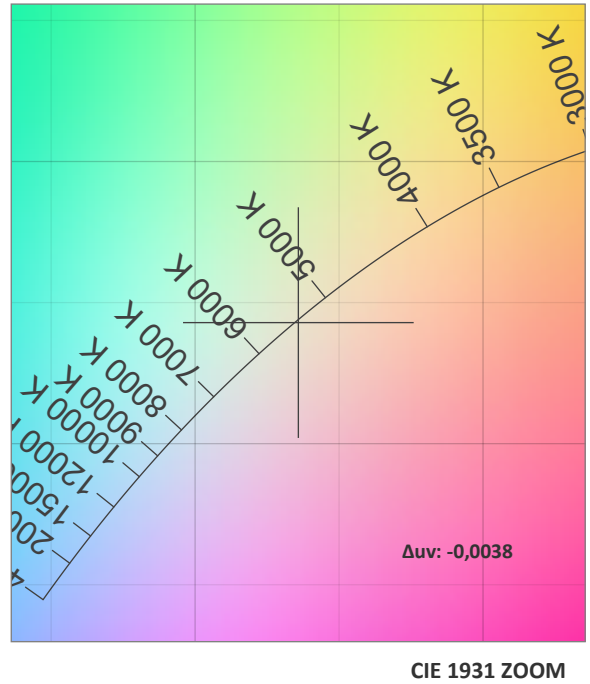
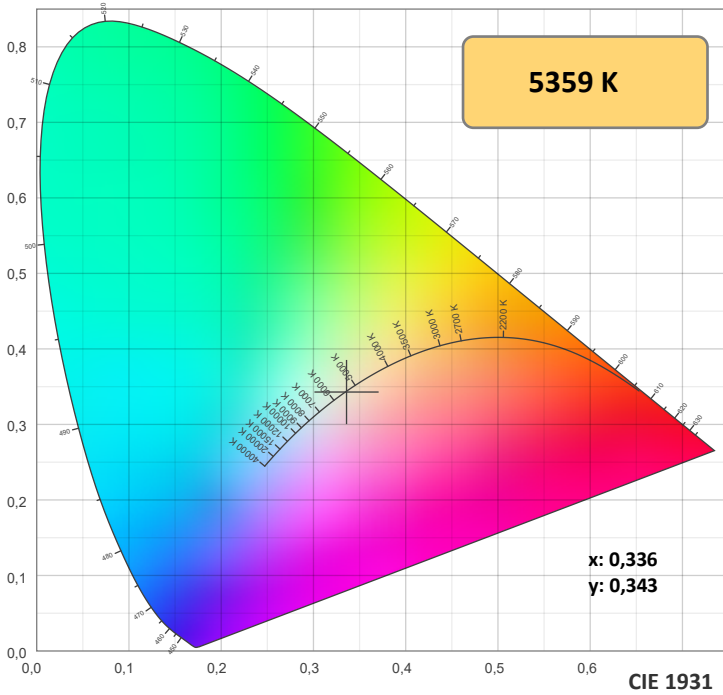
Date and time:
08/11/2021 12:23:10



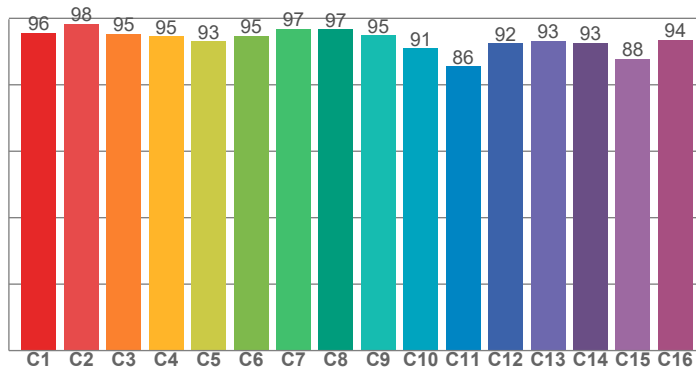
Beam angle 50%: 57,4°
Field angle 10%: 82°
Cut off angle 2.5%: 100,4°

Spectra

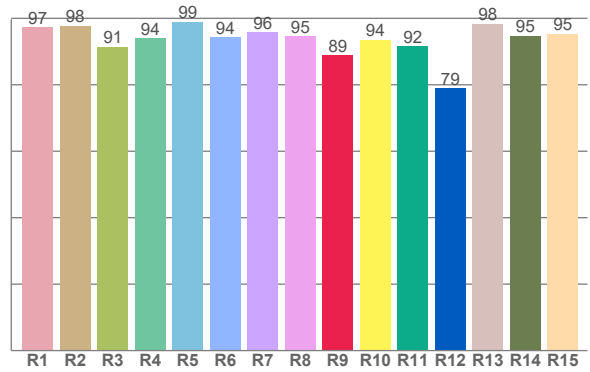




TM30: 93,5



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
97,3	97,8	91,5	94,0	98,9	94,4	95,8	94,5	88,9	93,5	91,6	79,0	98,4	94,8	95,3

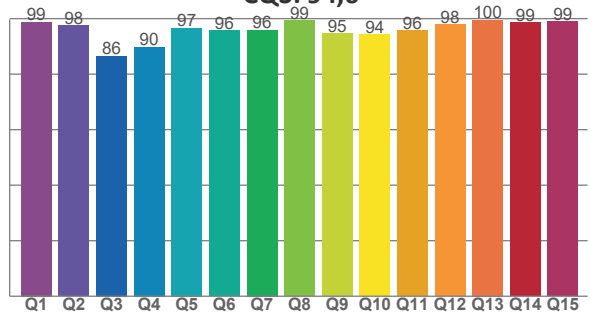
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,6	98,3	95,2	94,6	93,1	94,8	96,8	96,7	94,9	91,0	85,5	92,4	93,3	92,5	87,8	93,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,8	97,5	86,5	89,8	96,6	95,7	96,0	99,3	94,6	94,3	95,7	97,9	99,6	98,6	98,9

CQS: 94,6



COLOR PARAMETERS

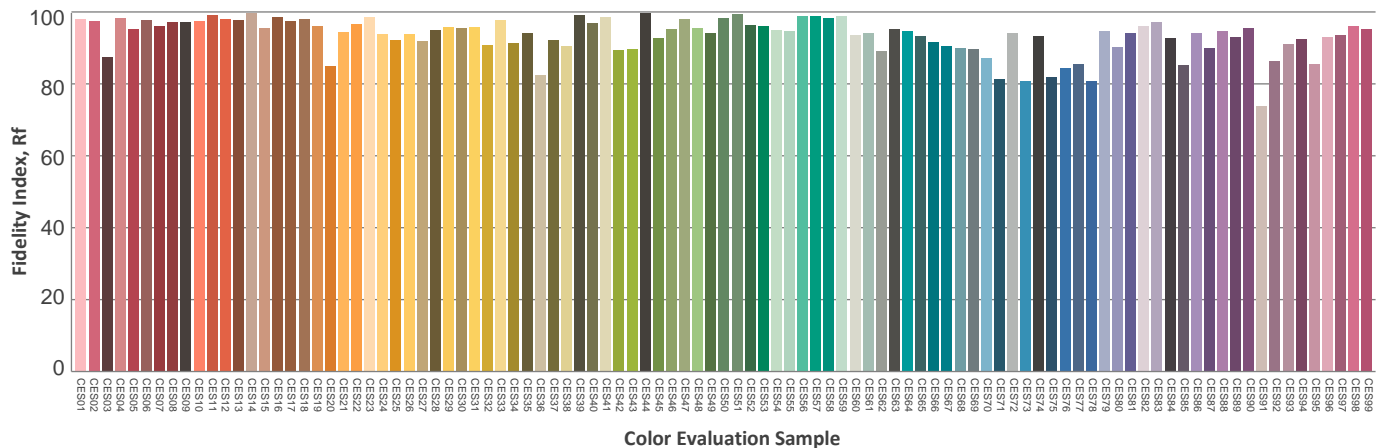
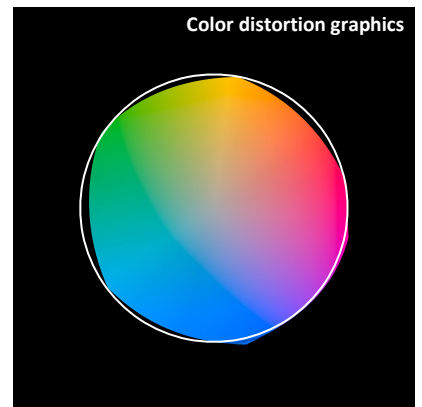
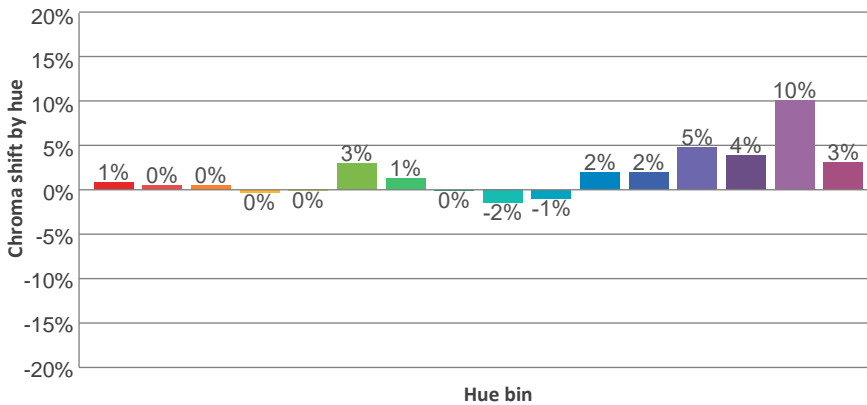
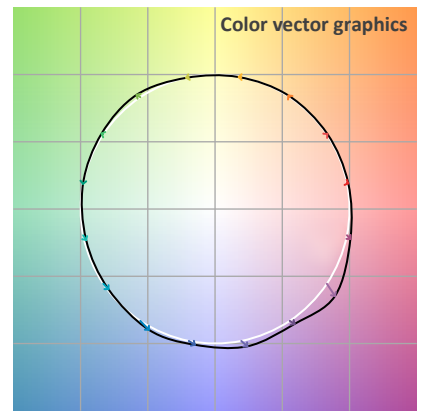
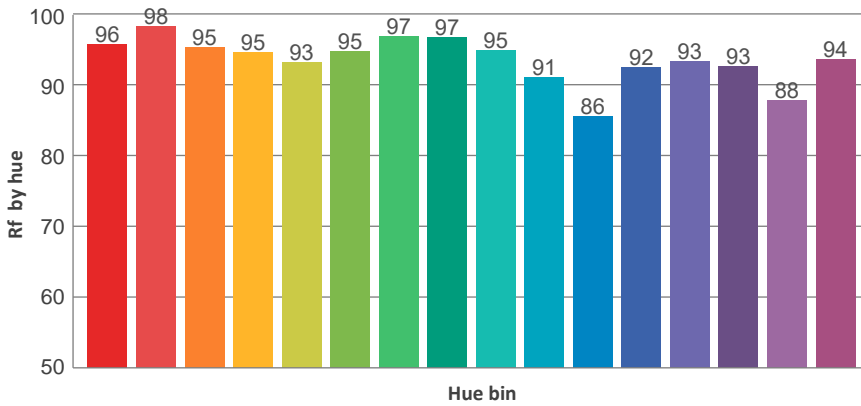
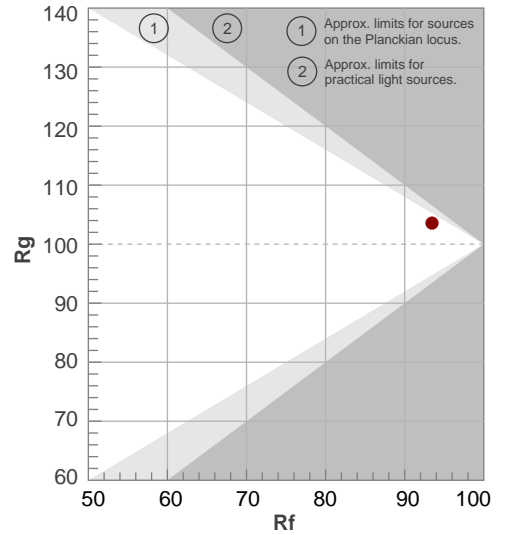
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5359 K	95,5	88,9	93,5	103,6	94,6	98	0,336	0,343	-0,0038

TM30 DETAILS

Rf 93,5
Fidelity index Rf

Rg 103,6
Gammut index Rg

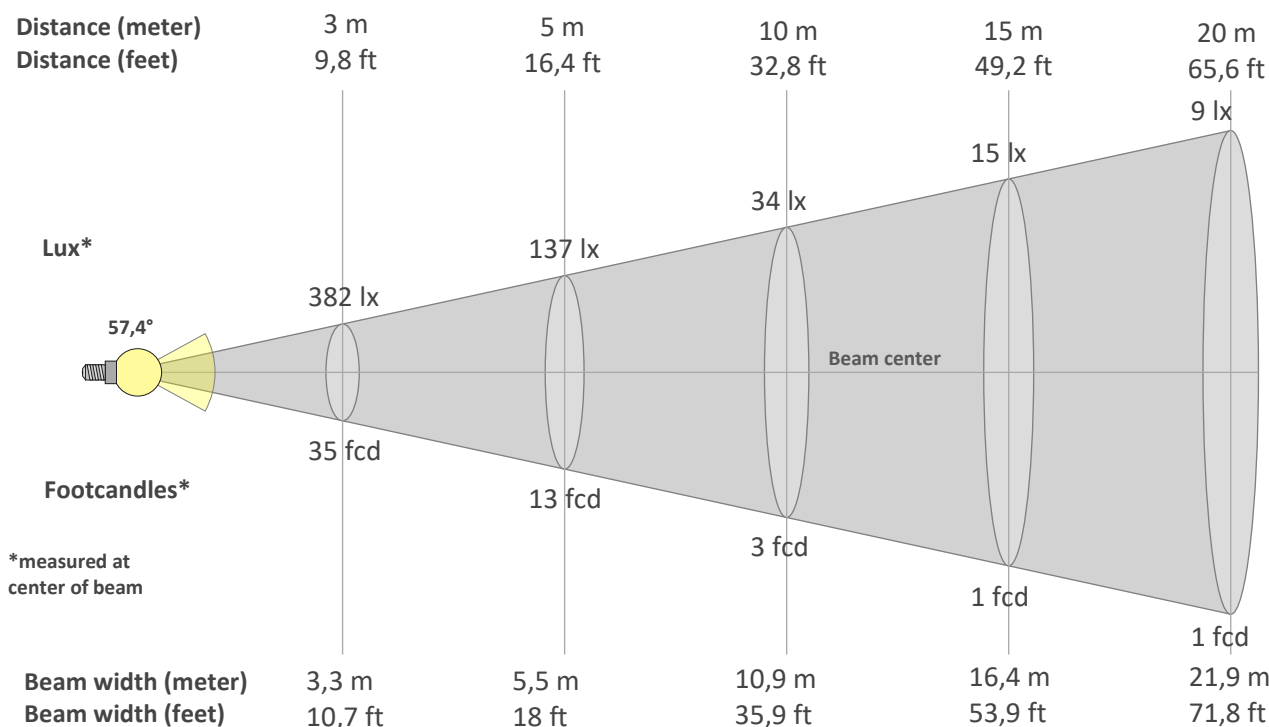
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	-1%
2	98	0%	0%
3	95	0%	1%
4	95	0%	2%
5	93	0%	2%
6	95	3%	1%
7	97	1%	0%
8	97	0%	1%
9	95	-2%	4%
10	91	-1%	6%
11	86	2%	9%
12	92	2%	5%
13	93	5%	4%
14	93	4%	2%
15	88	10%	-4%
16	94	3%	-2%



BEAM DETAILS



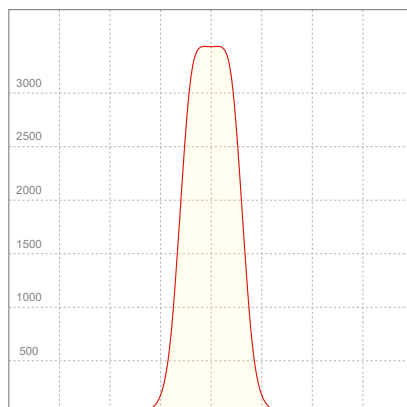
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
57,4°	82°	100,4°	99,6%	96,5%



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	3434lx	858lx	382lx	215lx	137lx	61lx	34lx	15lx	9lx	5lx	4lx	2lx	1lx
Footcand.	319fcd	80fcd	35fcd	20fcd	13fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	1,1m	2,2m	3,3m	4,4m	5,5m	8,2m	10,9m	16,4m	21,9m	27,4m	32,8m	43,8m	54,7m
Beam wid.	3,6ft	7,2ft	10,7ft	14,3ft	18ft	26,9ft	35,9ft	53,9ft	71,8ft	89,8ft	107,7ft	143,6ft	179,5ft

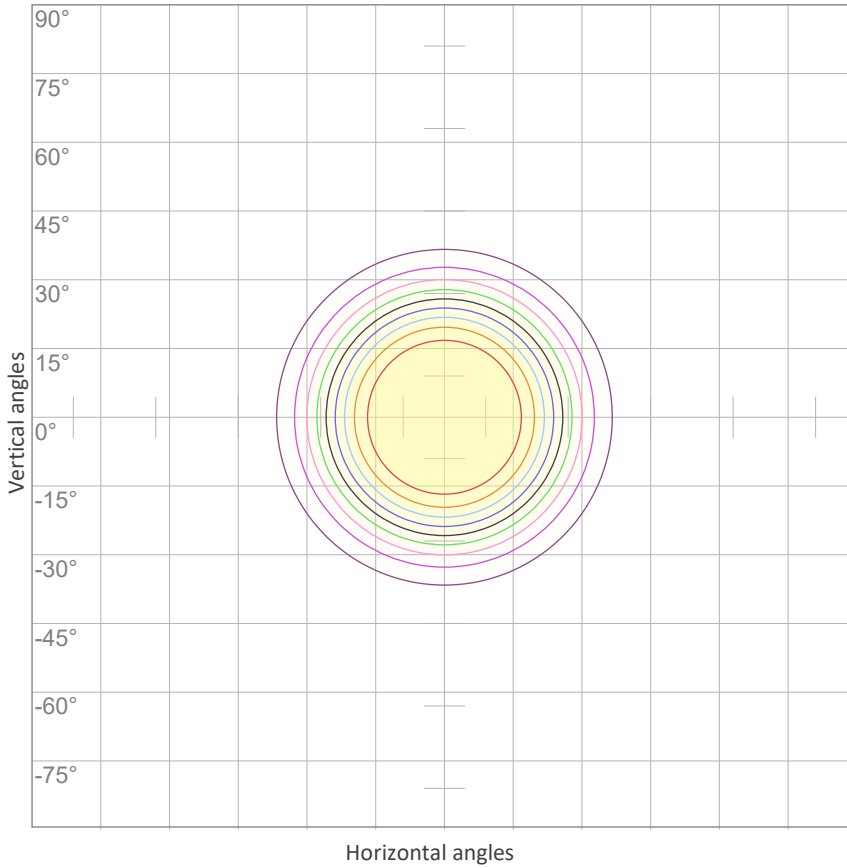
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,333A	69,4W	43lm/W
Power Fc			
0,94			

ISO CANDELA DIAGRAM



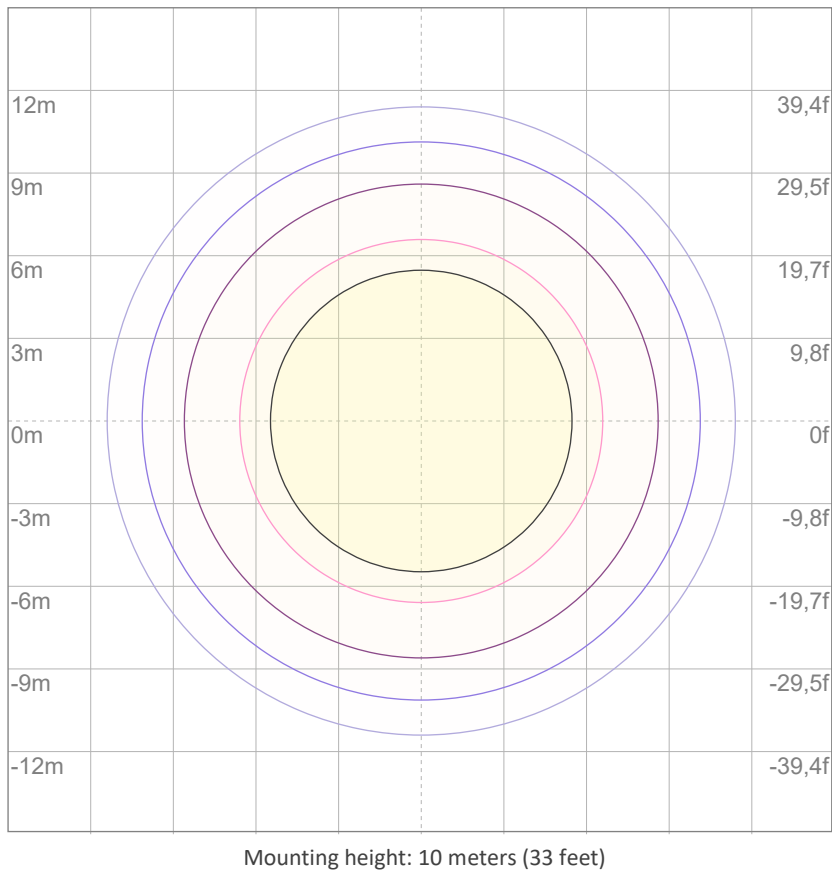
10%	343 cd
20%	687 cd
30%	1030 cd
40%	1373 cd
50%	1717 cd
60%	2060 cd
70%	2404 cd
80%	2747 cd
90%	3090 cd

Conditions:

Number of c-planes: 2

Candela at center: 3434 cd

ISO LUX DIAGRAM



3%	1,03 lx
5%	1,72 lx
10%	3,43 lx
30%	10,3 lx
50%	17,2 lx

Conditions:

Number of c-planes: 2

Lux at center: 34,3 lx

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



Total lumen output:

2798 lm

Peak candela output:

8228 cd

Light quality:

CRI: 95,7

Color temperature:

5390 K

PRODUCT NAME:
ECLFRESNELRVW

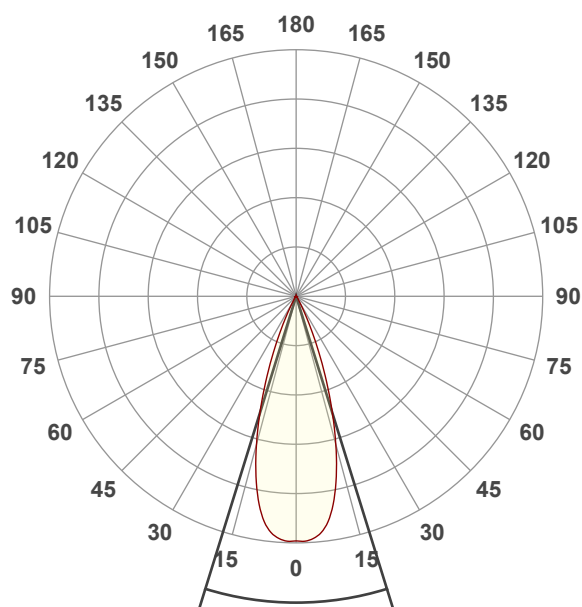
MEASUREMENT CONDITIONS:

Beam angle:
Med Zoom

Target:
Cold White

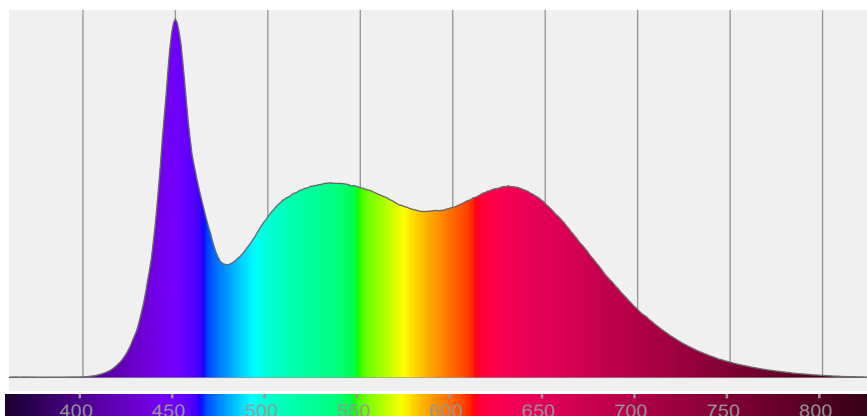
Operator:
Paolo Carvone

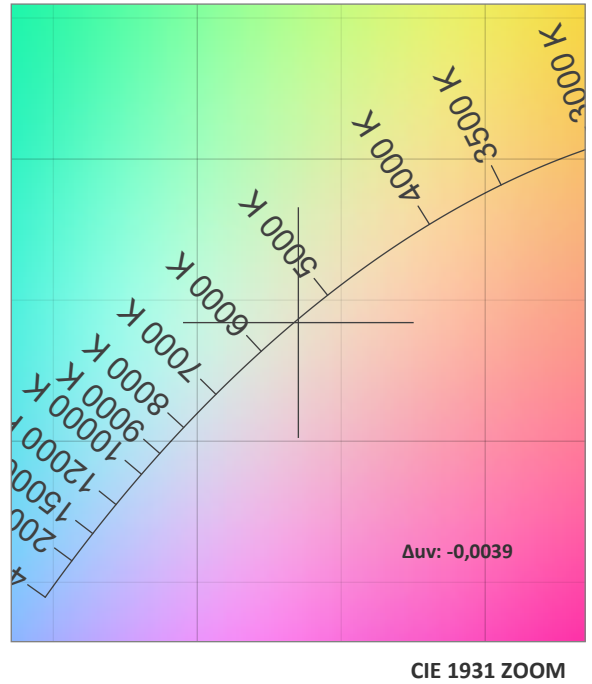
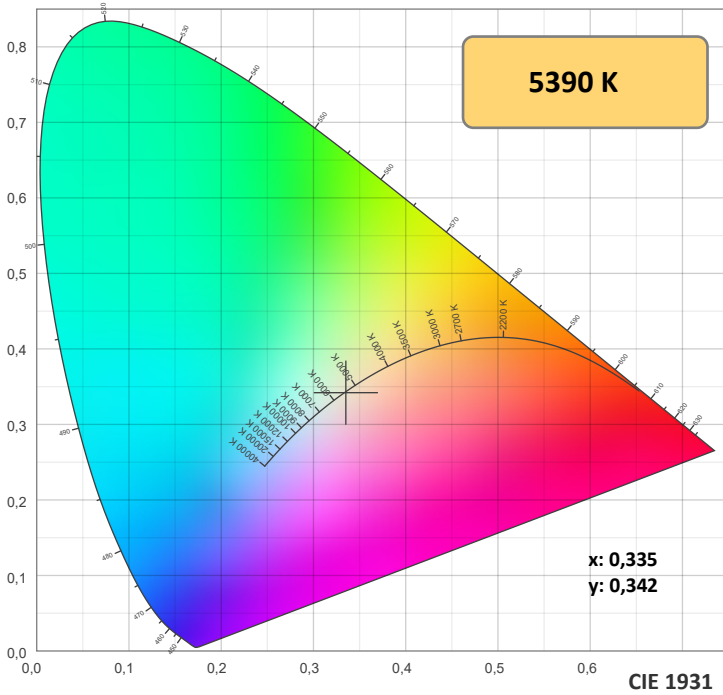
Date and time:
08/11/2021 12:31:08



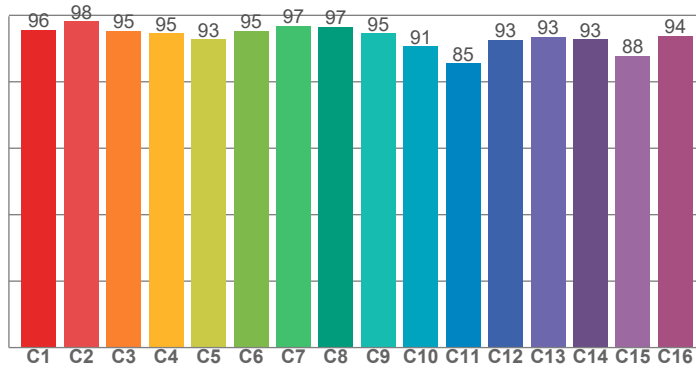
Beam angle 50%: 34,5°
Field angle 10%: 52°
Cut off angle 2.5%: 62,9°

Spectra

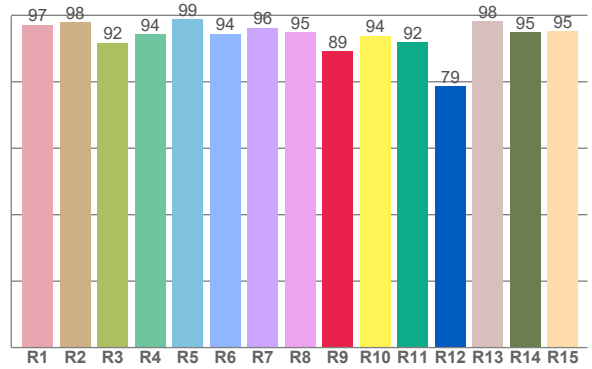




TM30: 93,5



CRI: 95,7 (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
97,2	97,9	91,7	94,4	98,8	94,4	96,2	94,8	89,2	93,8	92,0	78,7	98,3	94,9	95,3

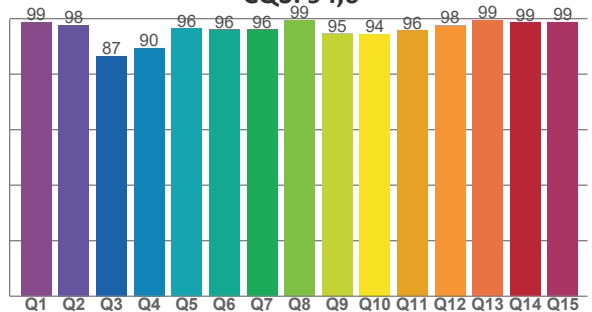
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,6	98,2	95,3	94,6	92,8	95,3	96,9	96,6	94,6	90,7	85,5	92,6	93,5	92,8	87,8	93,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,7	97,7	86,5	89,5	96,4	96,1	99,4	94,7	94,4	95,7	97,8	99,4	98,6	98,8	

CQS: 94,6



COLOR PARAMETERS

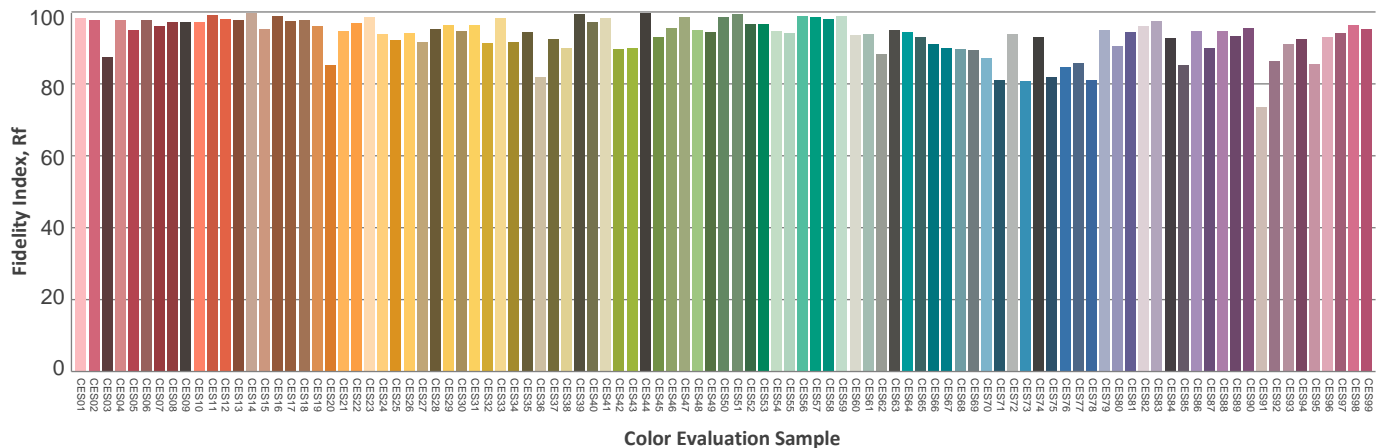
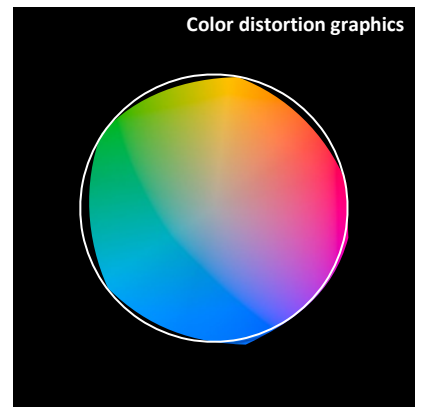
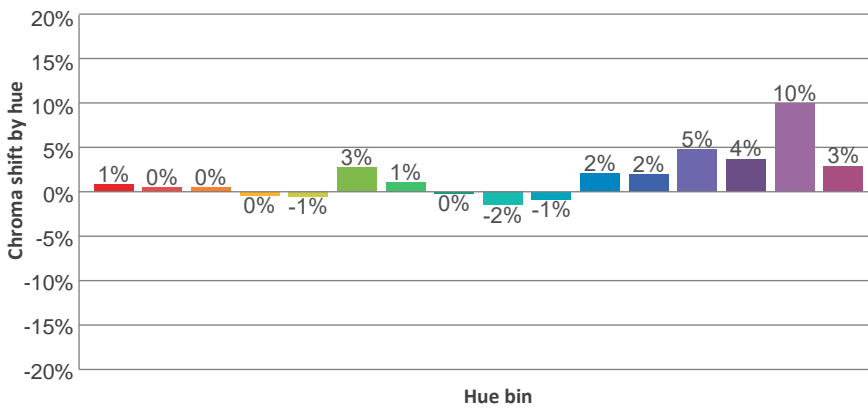
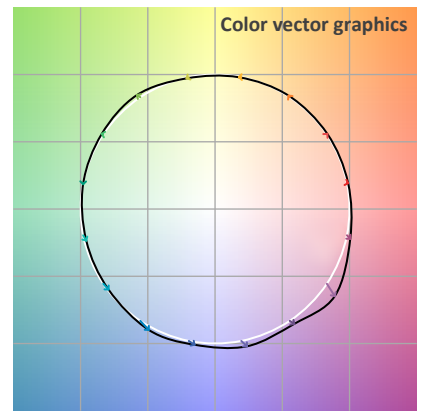
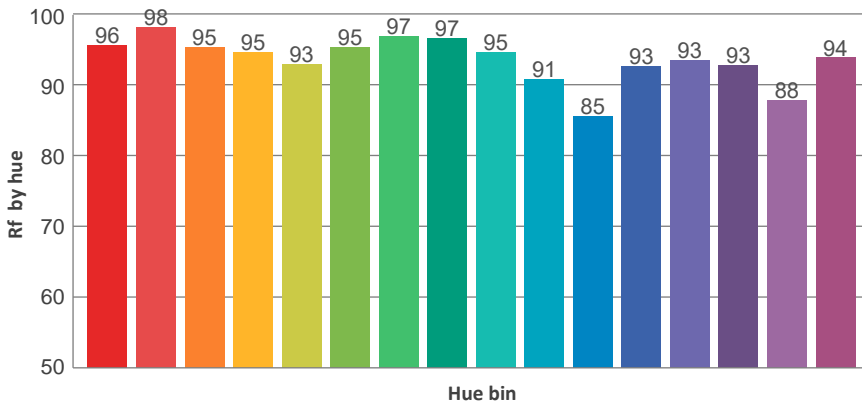
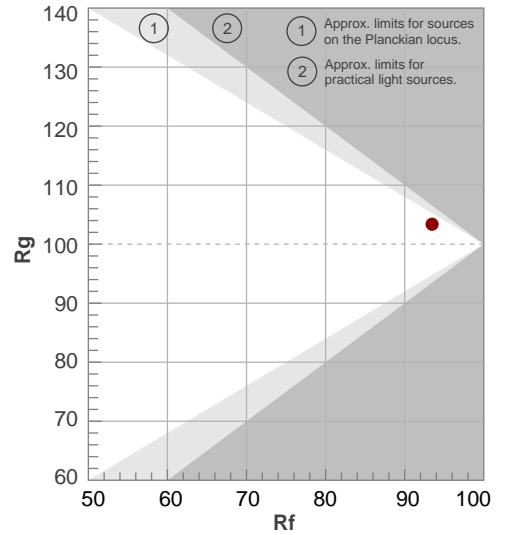
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5390 K	95,7	89,2	93,5	103,4	94,6	98	0,335	0,342	-0,0039

TM30 DETAILS

Rf 93,5
Fidelity index Rf

Rg 103,4
Gammut index Rg

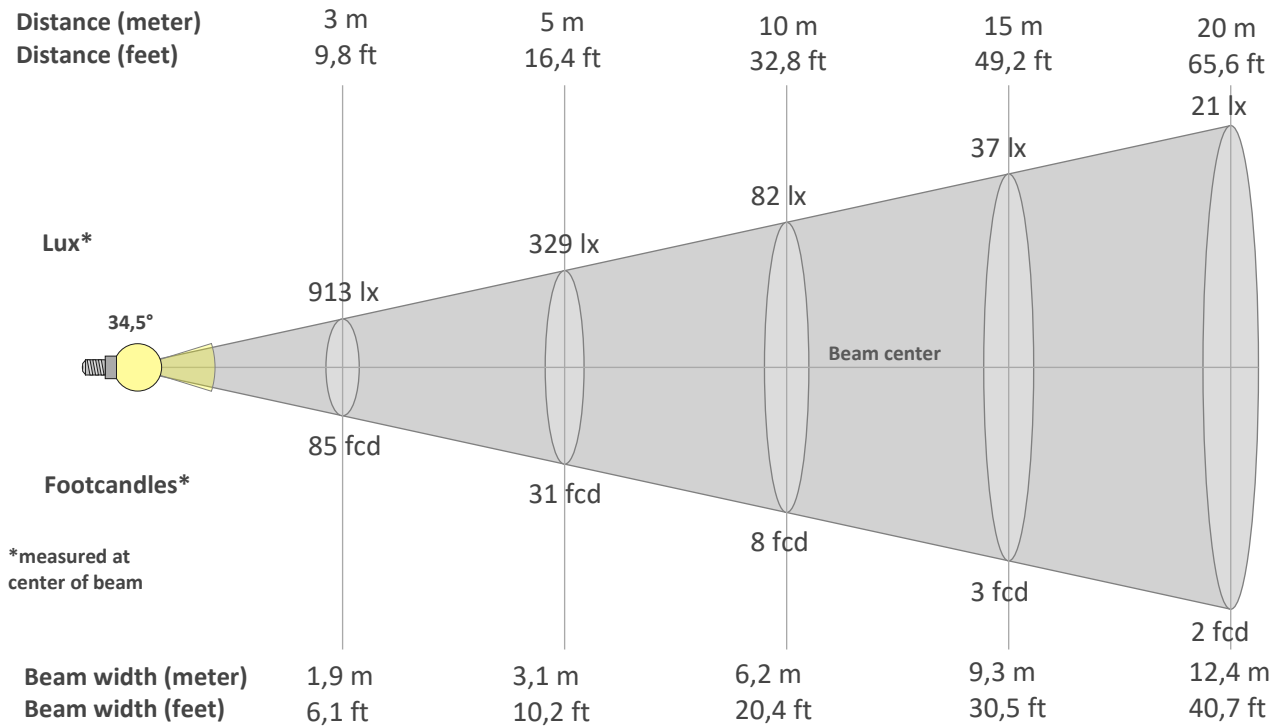
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	0%
2	98	0%	0%
3	95	0%	1%
4	95	0%	2%
5	93	-1%	2%
6	95	3%	1%
7	97	1%	0%
8	97	0%	1%
9	95	-2%	4%
10	91	-1%	6%
11	85	2%	9%
12	93	2%	5%
13	93	5%	3%
14	93	4%	2%
15	88	10%	-4%
16	94	3%	-2%



BEAM DETAILS



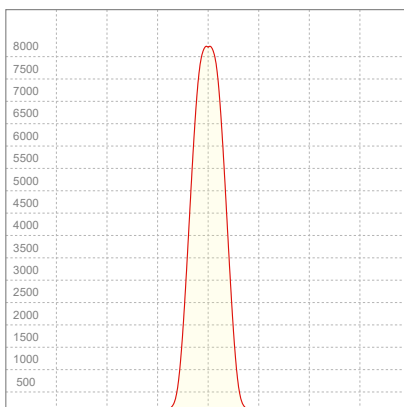
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,5°	52°	62,9°	99,9%	98,8%



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	8213lx	2053lx	913lx	513lx	329lx	146lx	82lx	37lx	21lx	13lx	9lx	5lx	3lx
Footcand.	763fcd	191fcd	85fcd	48fcd	31fcd	14fcd	8fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,9m	2,5m	3,1m	4,7m	6,2m	9,3m	12,4m	15,5m	18,6m	24,8m	31m
Beam wid.	2ft	4,1ft	6,1ft	8,1ft	10,2ft	15,3ft	20,4ft	30,5ft	40,7ft	50,9ft	61,1ft	81,4ft	101,8ft

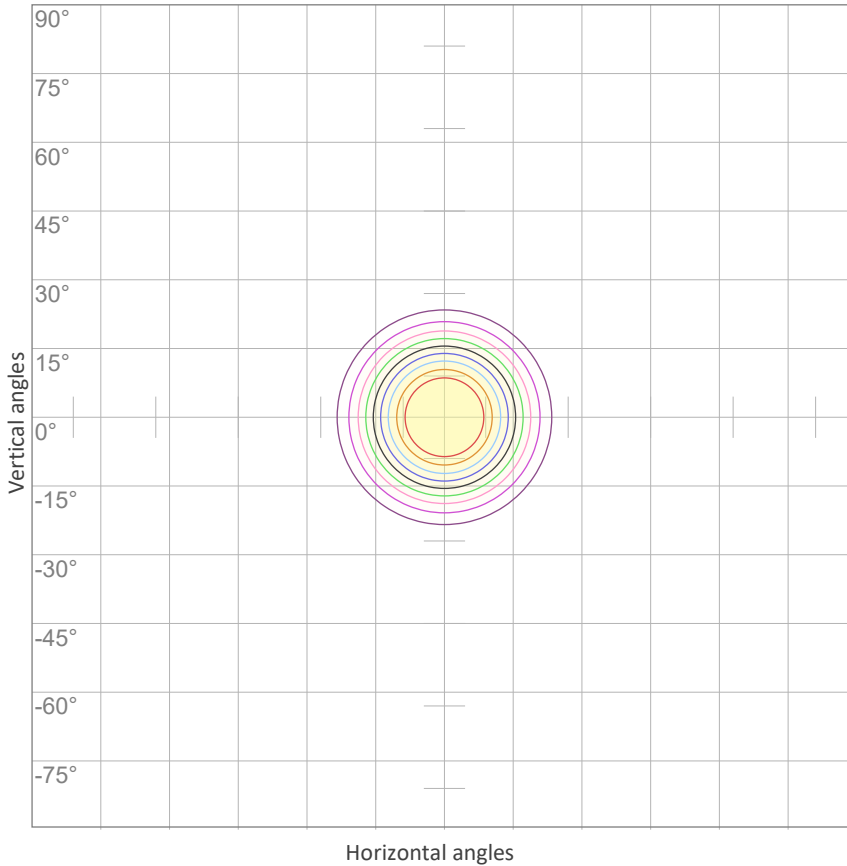
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,329A	68,5W	41lm/W
Power Fc			
0,94			

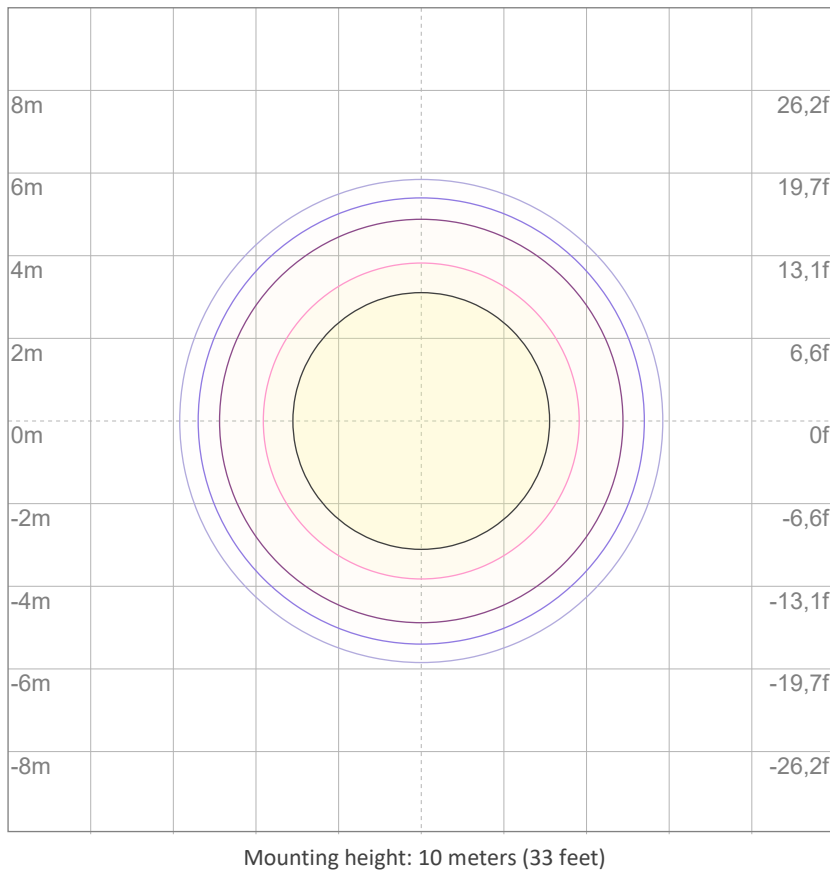
ISO CANDELA DIAGRAM



10%	821 cd
20%	1643 cd
30%	2464 cd
40%	3285 cd
50%	4107 cd
60%	4928 cd
70%	5749 cd
80%	6571 cd
90%	7392 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 8213 cd

ISO LUX DIAGRAM



3%	2,46 lx
5%	4,11 lx
10%	8,21 lx
30%	24,6 lx
50%	41,1 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 82,1 lx

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



Total lumen output:

1610 lm

Peak candela output:

20255 cd

Light quality:

CRI: 95,5

Color temperature:

5526 K

PRODUCT NAME:
ECLFRESNELRVW

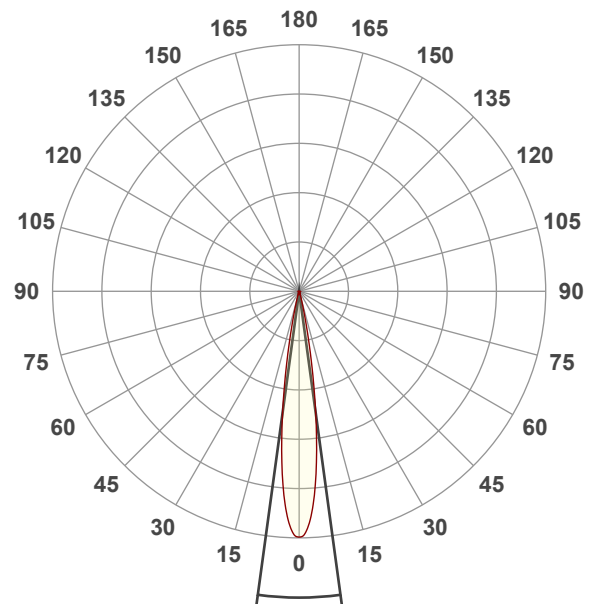
MEASUREMENT CONDITIONS:

Beam angle:
Min Zoom

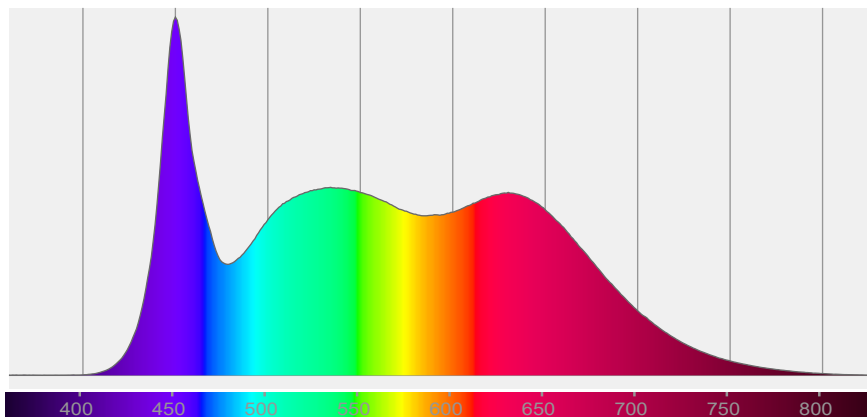
Target:
Cold White

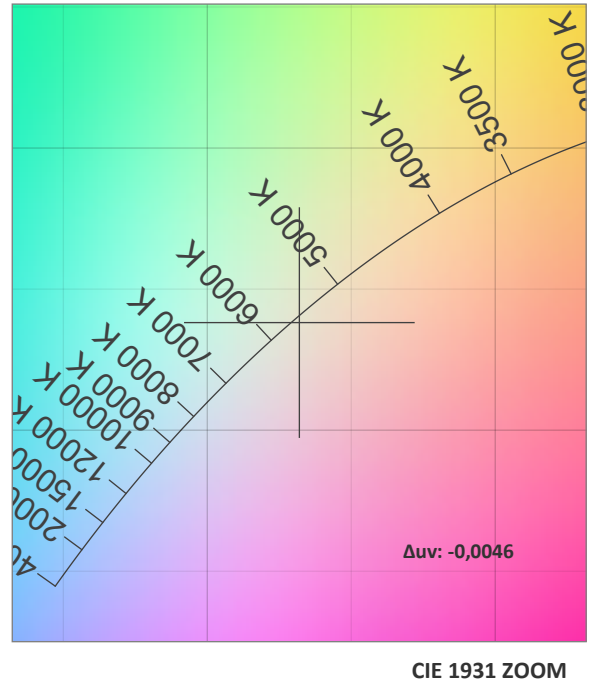
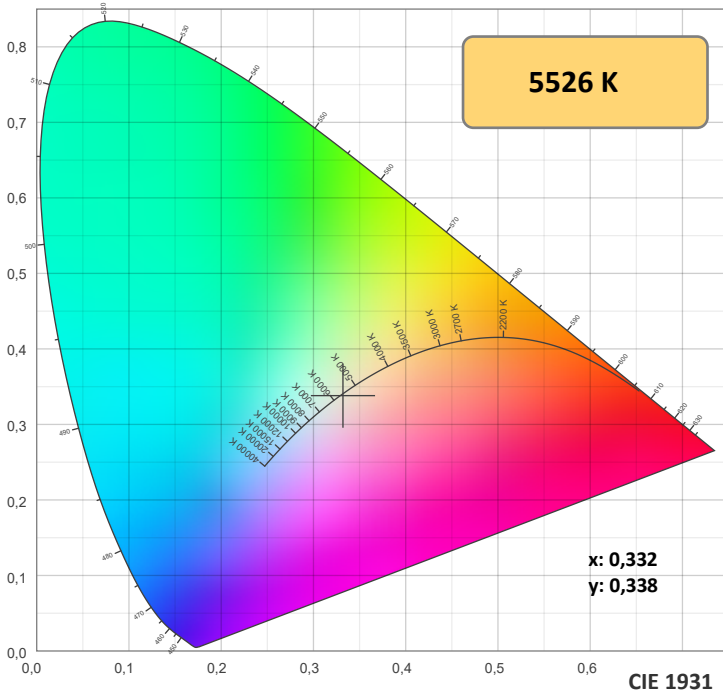
Operator:
Paolo Carvone

Date and time:
08/11/2021 12:38:56

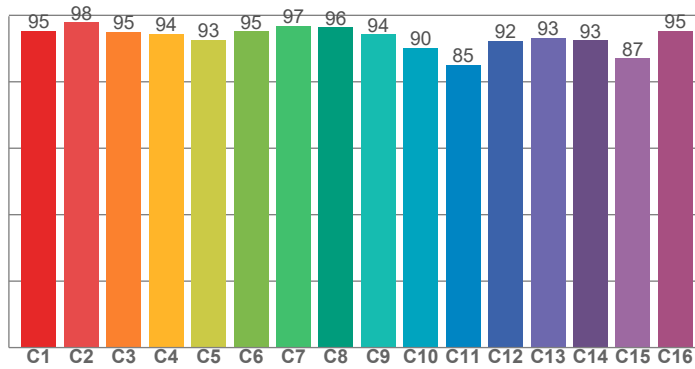


Spectra

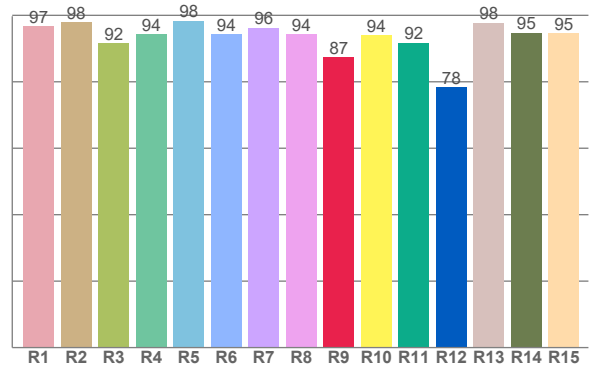




TM30: 93,2



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
96,7	98,0	91,6	94,2	98,4	94,3	96,2	94,3	87,4	94,1	91,7	78,3	97,8	94,8	94,5

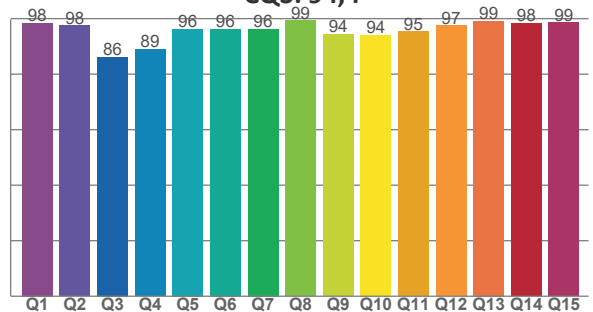
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,3	97,9	95,1	94,4	92,7	95,2	96,8	96,3	94,3	90,3	85,1	92,3	93,2	92,5	87,0	95,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,5	97,5	86,1	88,9	96,2	96,3	96,3	99,3	94,4	94,1	95,4	97,5	99,1	98,3	98,5

CQS: 94,4



COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5526 K	95,5	87,4	93,2	103,4	94,4	98	0,332	0,338	-0,0046

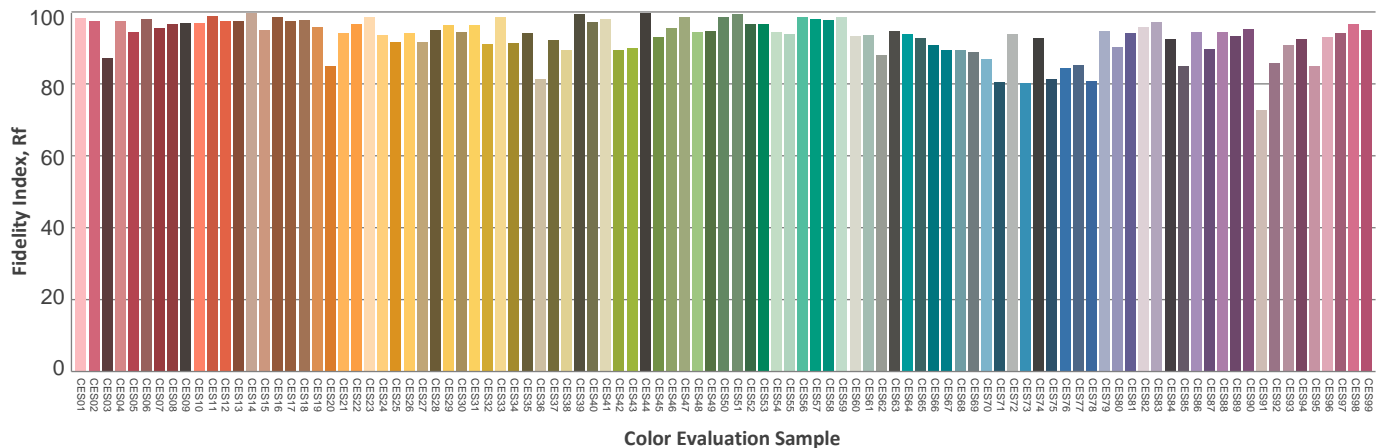
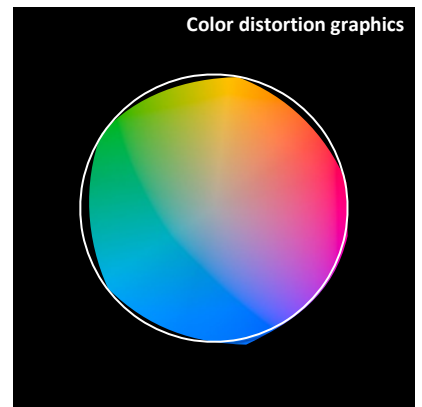
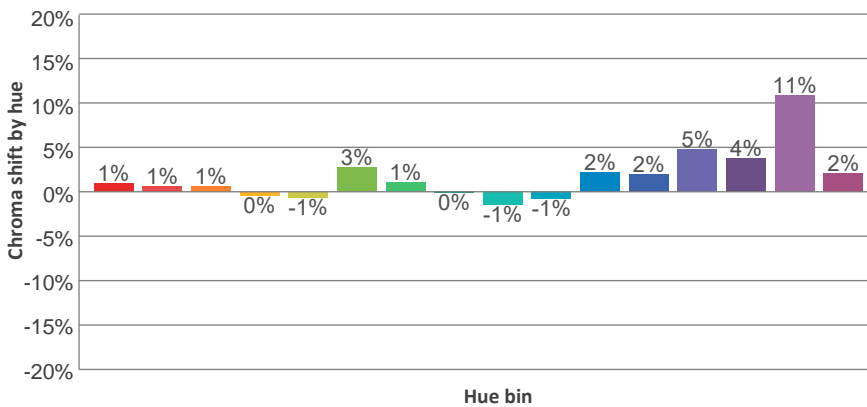
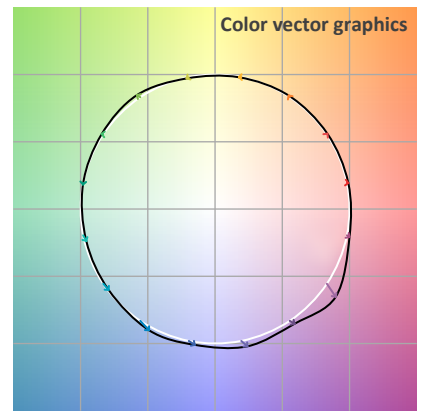
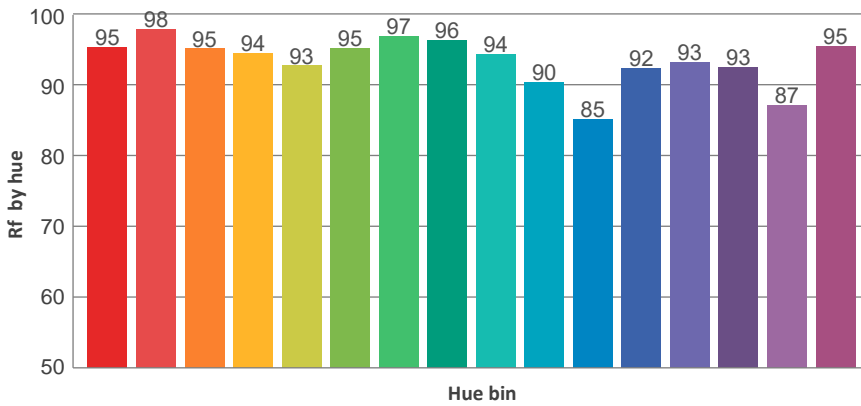
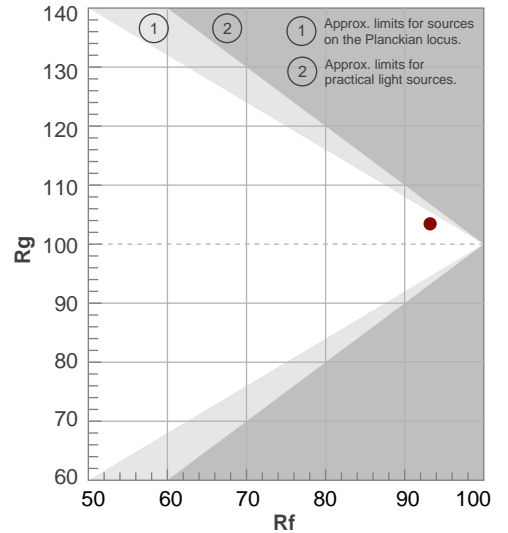
TM30 DETAILS



Rf 93,2
Fidelity index Rf

Rg 103,4
Gammut index Rg

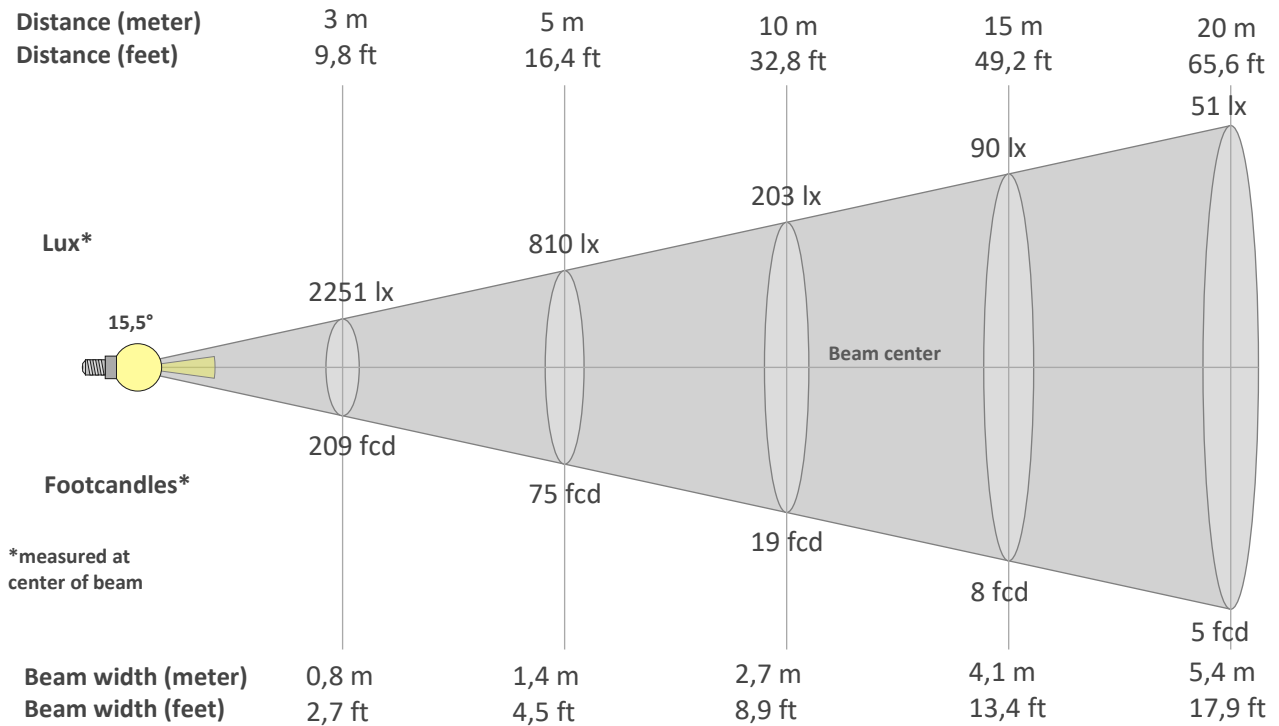
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	1%	0%
2	98	1%	0%
3	95	1%	1%
4	94	0%	2%
5	93	-1%	2%
6	95	3%	1%
7	97	1%	1%
8	96	0%	1%
9	94	-1%	5%
10	90	-1%	6%
11	85	2%	9%
12	92	2%	5%
13	93	5%	4%
14	93	4%	2%
15	87	11%	-4%
16	95	2%	-1%



BEAM DETAILS



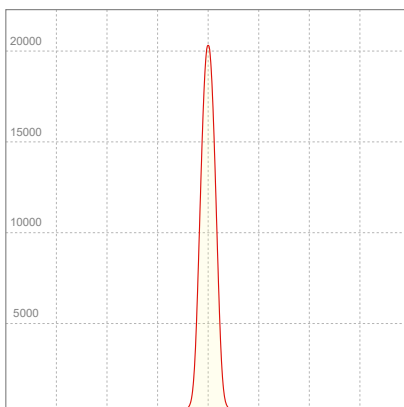
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,5°	25,5°	33°	100,0%	99,8%



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	2025lx	5064lx	2251lx	1266lx	810lx	360lx	203lx	90lx	51lx	32lx	23lx	13lx	8lx
Footcand.	1882fcd	470fcd	209fcd	118fcd	75fcd	33fcd	19fcd	8fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,5m	0,8m	1,1m	1,4m	2m	2,7m	4,1m	5,4m	6,8m	8,2m	10,9m	13,6m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,7ft	8,9ft	13,4ft	17,9ft	22,3ft	26,8ft	35,7ft	44,7ft

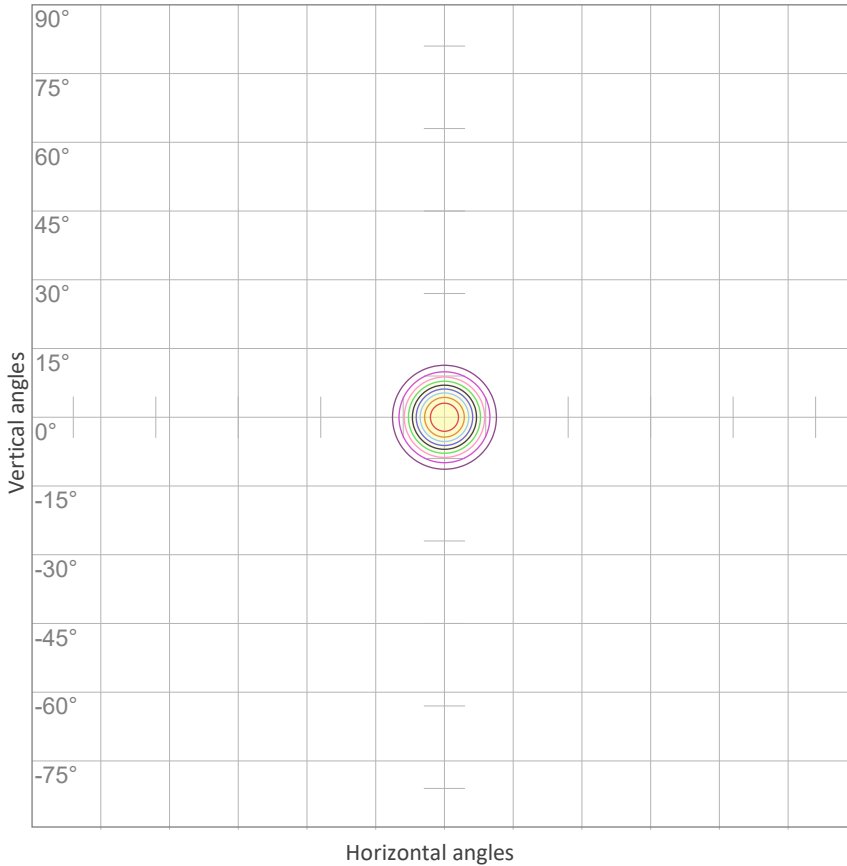
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,326A	68,0W	24lm/W
Power Fc			
0,94			

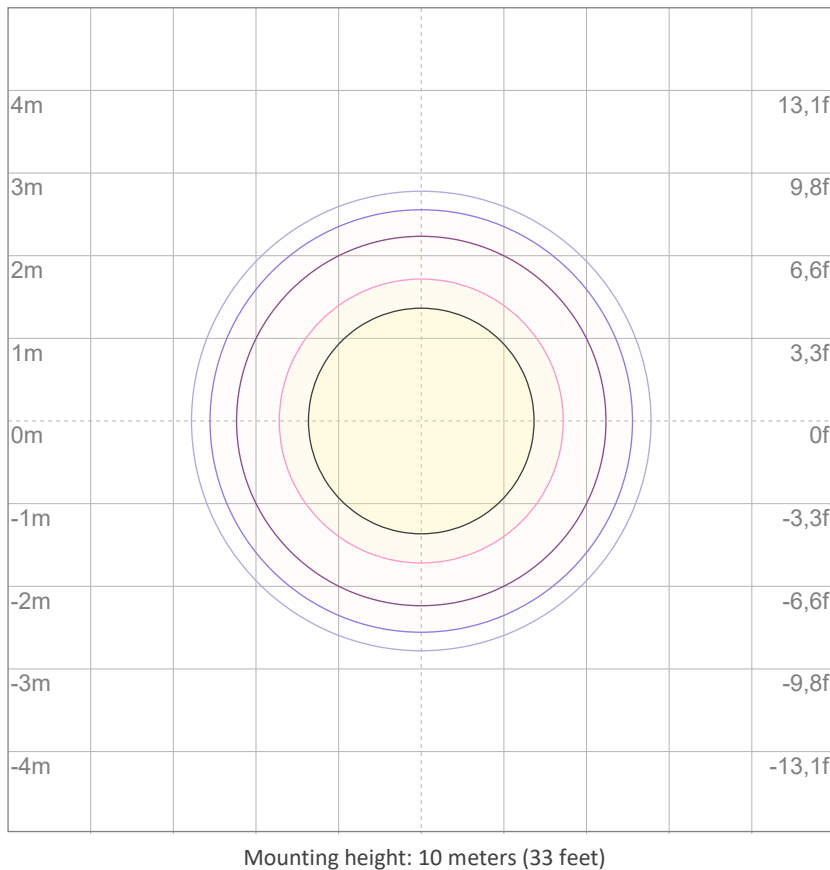
ISO CANDELA DIAGRAM



10%	2026 cd
20%	4051 cd
30%	6077 cd
40%	8102 cd
50%	10128 cd
60%	12153 cd
70%	14179 cd
80%	16204 cd
90%	18230 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 20255 cd

ISO LUX DIAGRAM



3%	6,08 lx
5%	10,1 lx
10%	20,3 lx
30%	60,8 lx
50%	101 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 203 lx

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



Total lumen output:

2250 lm

Peak candela output:

2415 cd

Light quality:

CRI: 94,3

Color temperature:

2770 K

PRODUCT NAME:
ECLFRESNELRVW

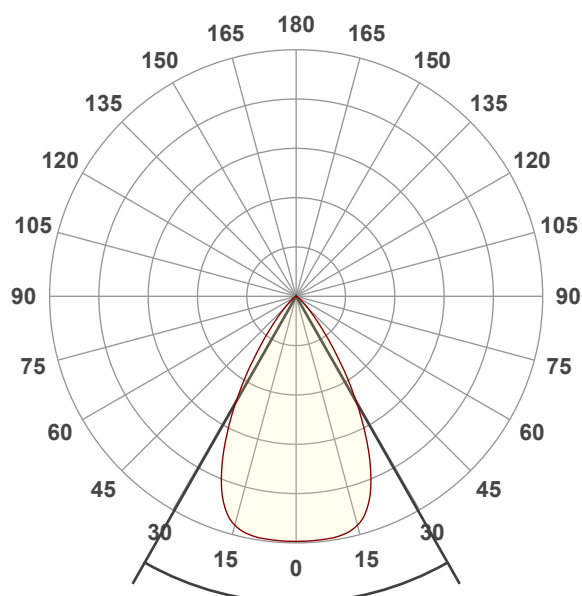
MEASUREMENT CONDITIONS:

Beam angle:
Max Zoom

Target:
Warm White

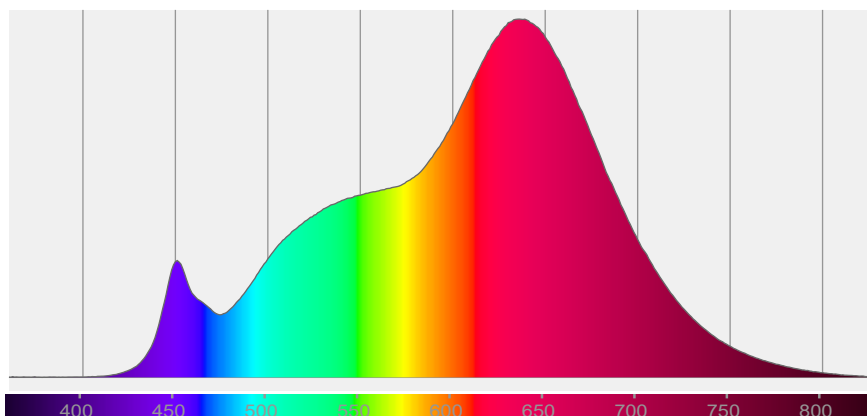
Operator:
Paolo Carvone

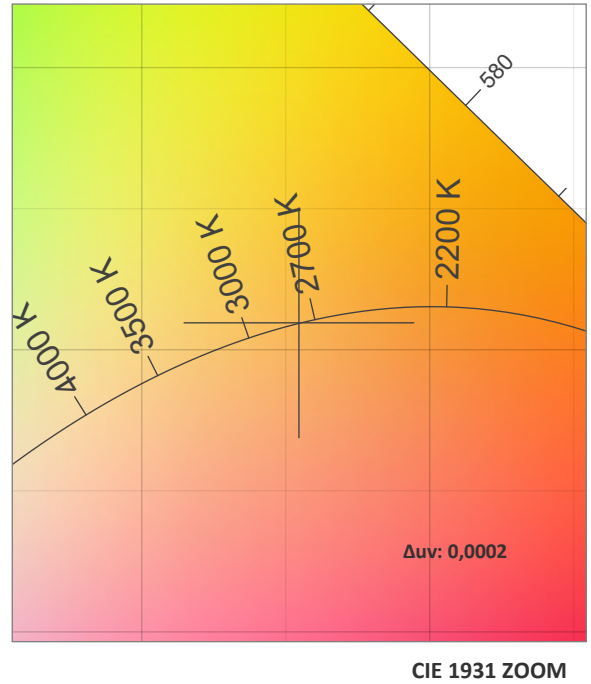
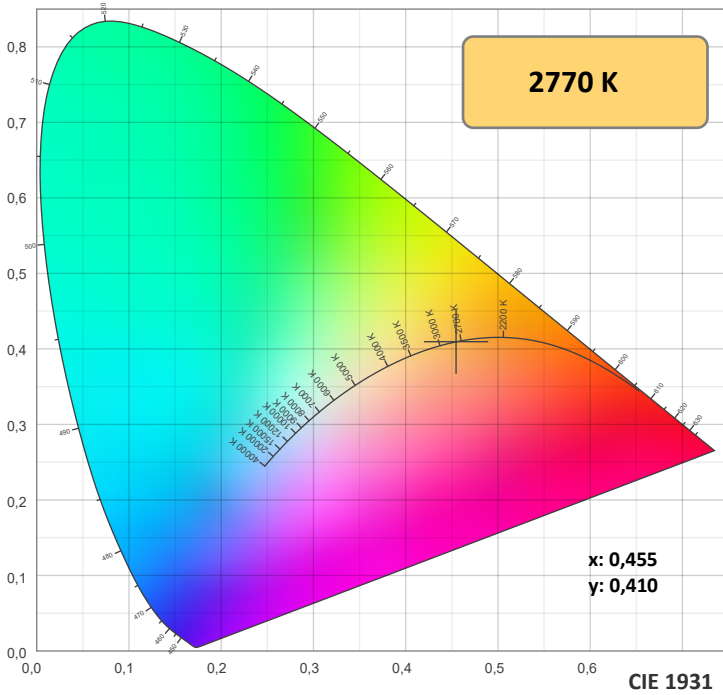
Date and time:
08/11/2021 12:27:39



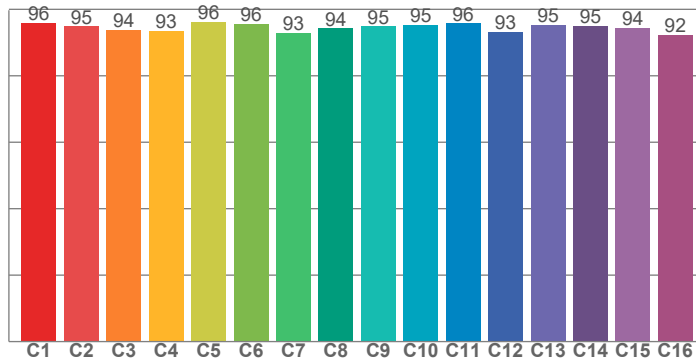
Beam angle 50%: 59,3°
Field angle 10%: 84,7°
Cut off angle 2.5%: 103,2°

Spectra

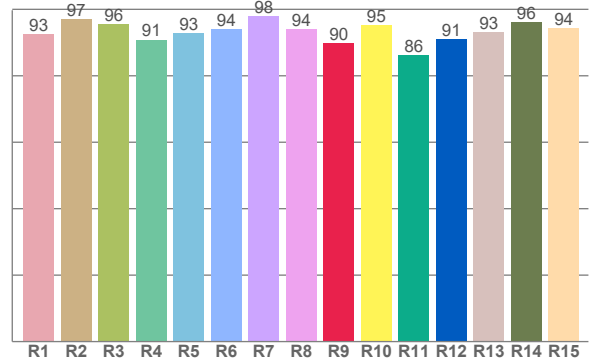




TM30: 94,7



CRI: 94,3 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,6	97,0	95,6	90,8	92,8	94,0	98,0	94,0	89,7	95,2	86,1	91,1	93,2	96,2	94,4

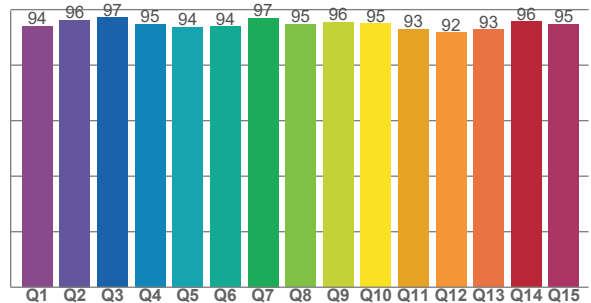
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

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

CQS: 94,3



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
2770 K	94,3	89,7	94,7	102,1	94,3	98	0,455	0,410	0,0002

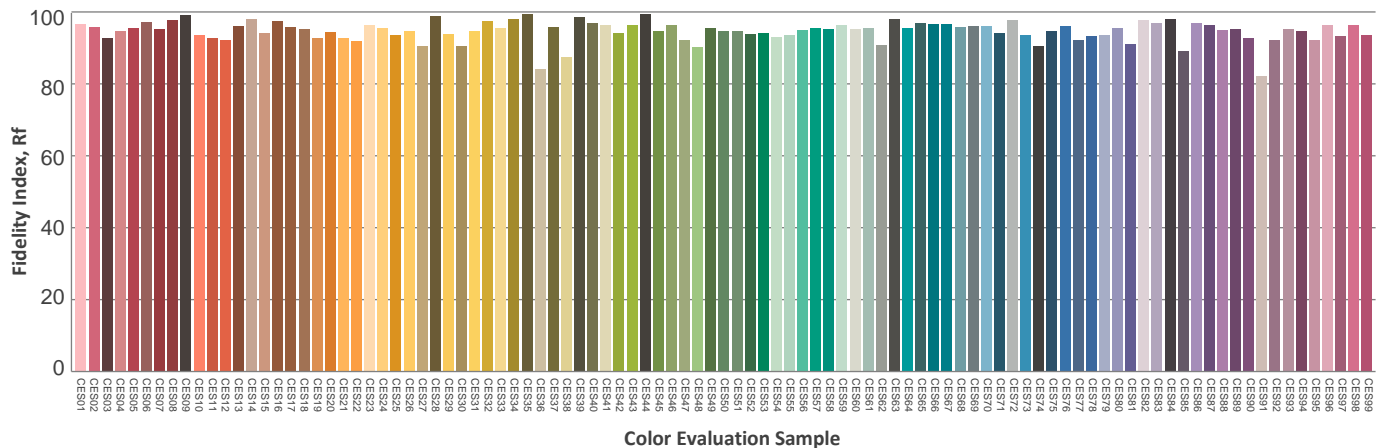
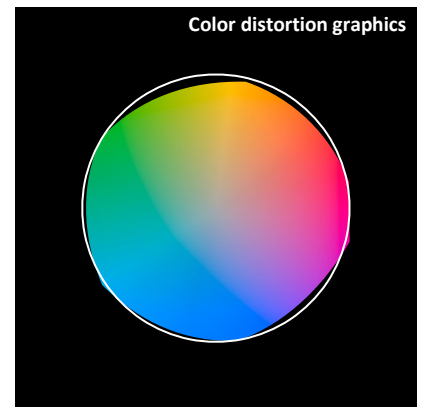
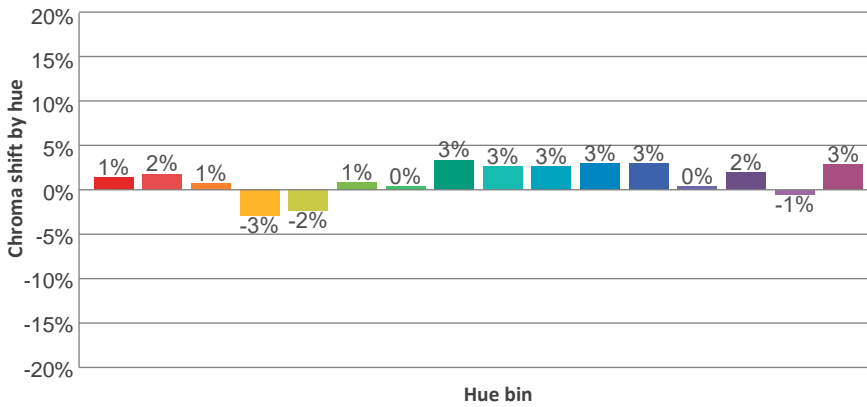
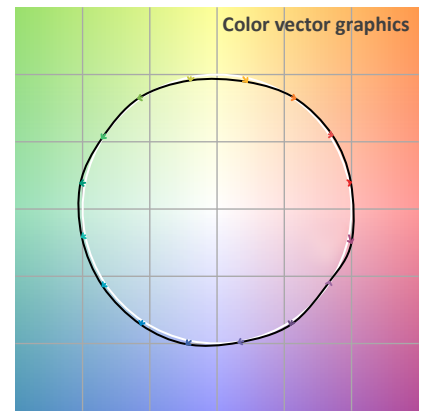
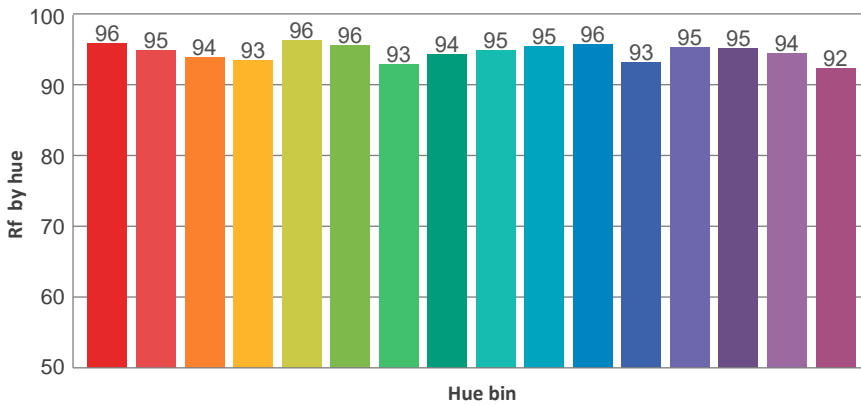
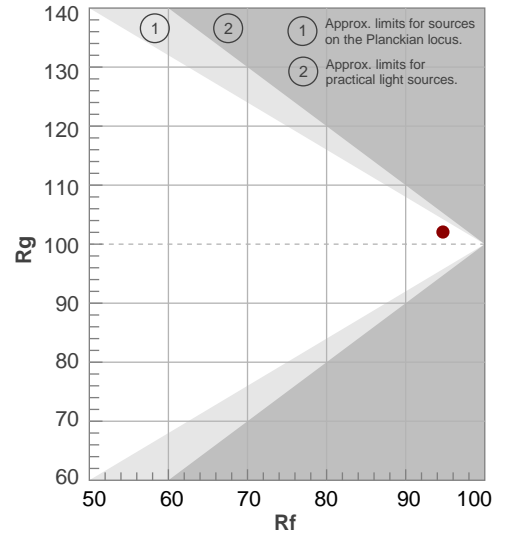
TM30 DETAILS



Rf 94,7
Fidelity index Rf

Rg 102,1
Gammut index Rg

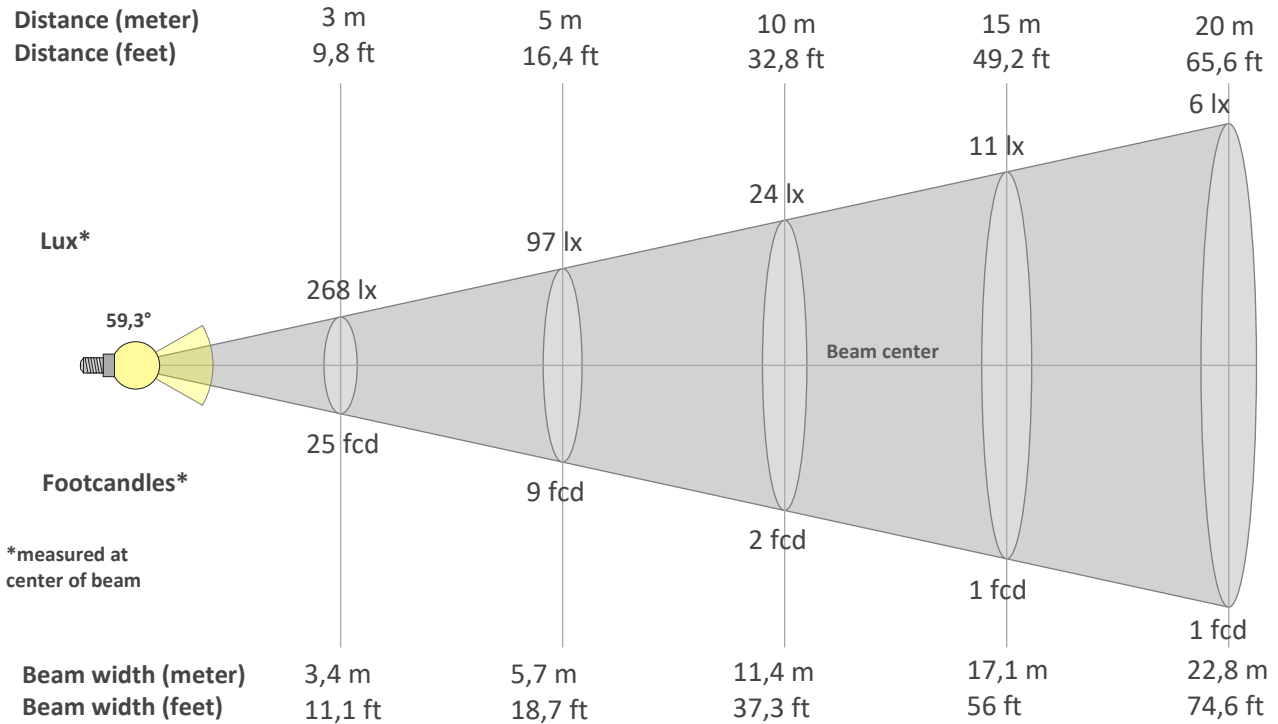
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	0%
2	95	2%	-2%
3	94	1%	-3%
4	93	-3%	-3%
5	96	-2%	1%
6	96	1%	3%
7	93	0%	4%
8	94	3%	1%
9	95	3%	1%
10	95	3%	0%
11	96	3%	1%
12	93	3%	-3%
13	95	0%	-4%
14	95	2%	-2%
15	94	-1%	1%
16	92	3%	-5%



BEAM DETAILS



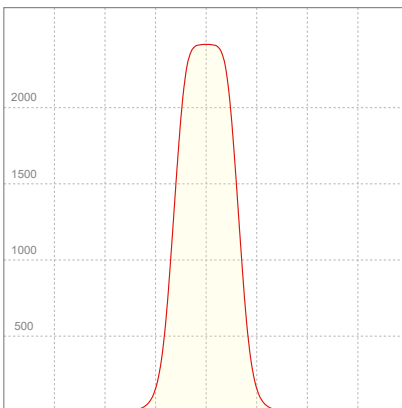
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
59,3°	84,7°	103,2°	99,4%	95,9%



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	2415lx	604lx	268lx	151lx	97lx	43lx	24lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	224fcd	56fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,1m	2,3m	3,4m	4,6m	5,7m	8,5m	11,4m	17,1m	22,8m	28,4m	34,1m	45,5m	56,9m
Beam wid.	3,8ft	7,5ft	11,1ft	14,9ft	18,7ft	28ft	37,3ft	56ft	74,6ft	93,3ft	111,9ft	149,3ft	186,6ft

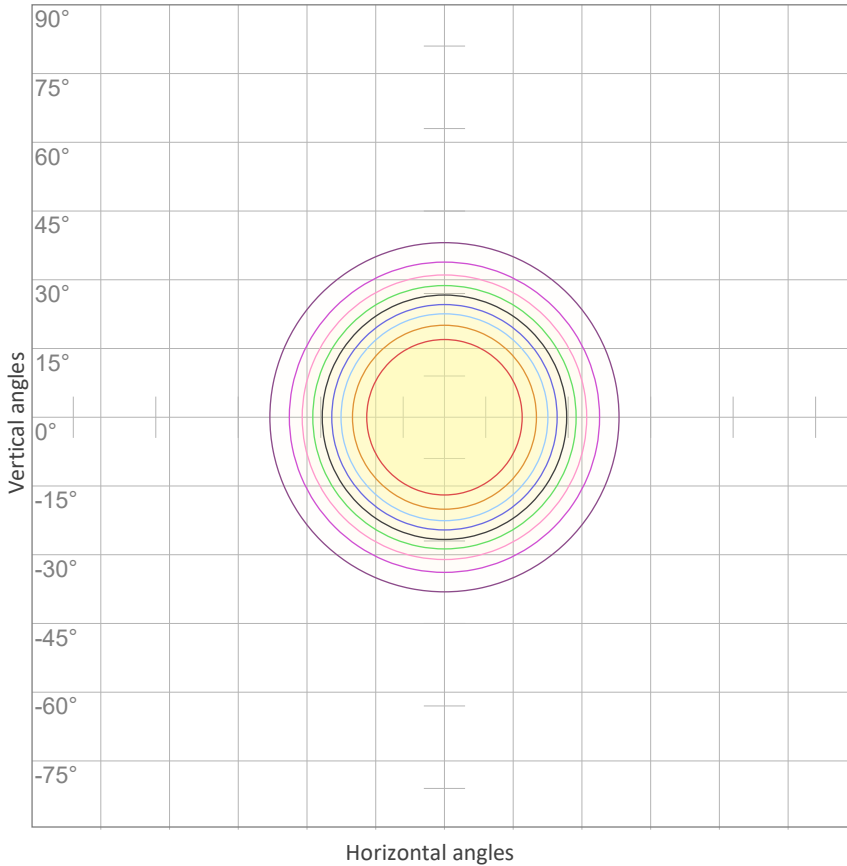
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,322A	67,1W	34lm/W
Power Fc			
0,94			

ISO CANDELA DIAGRAM



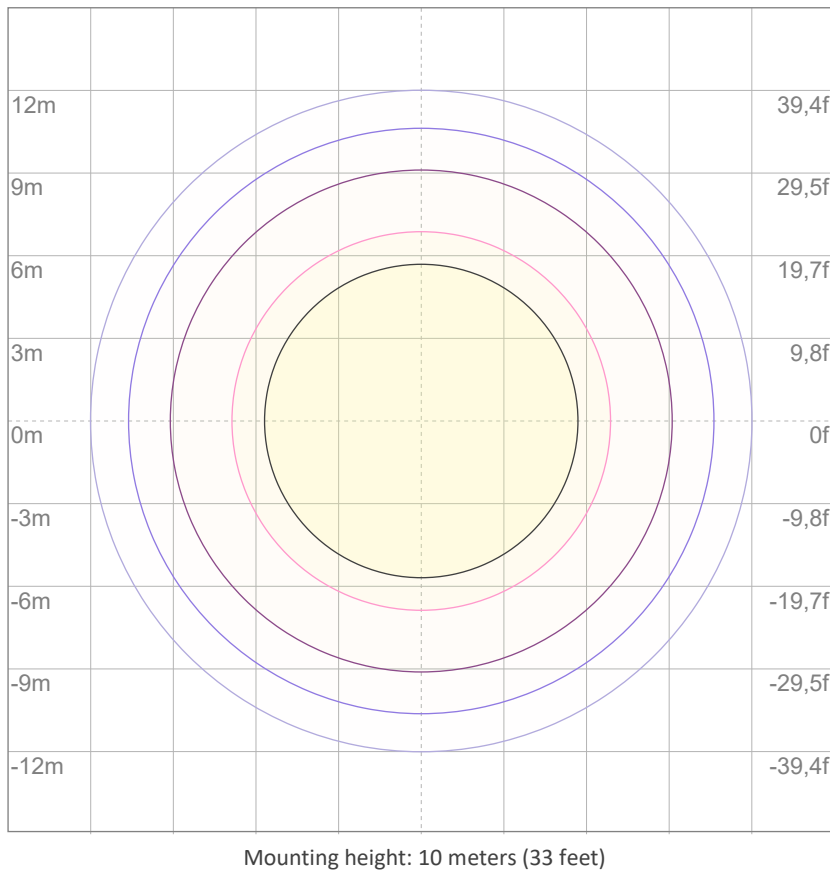
10%	242 cd
20%	483 cd
30%	725 cd
40%	966 cd
50%	1208 cd
60%	1449 cd
70%	1691 cd
80%	1932 cd
90%	2174 cd

Conditions:

Number of c-planes: 2

Candela at center: 2415 cd

ISO LUX DIAGRAM



3%	0,725 lx
5%	1,21 lx
10%	2,42 lx
30%	7,25 lx
50%	12,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 24,2 lx

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



Total lumen output:

2063 lm

Peak candela output:

5661 cd

Light quality:

CRI: 94,5

Color temperature:

2769 K

PRODUCT NAME:
ECLFRESNELRVW

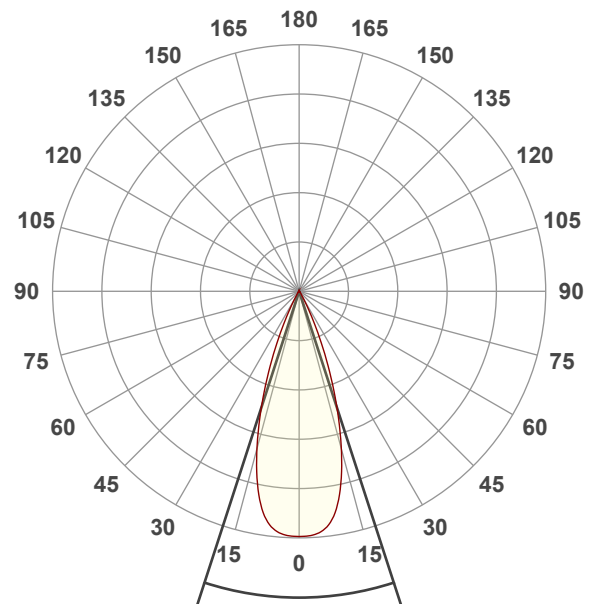
MEASUREMENT CONDITIONS:

Beam angle:
Med Zoom

Target:
Warm White

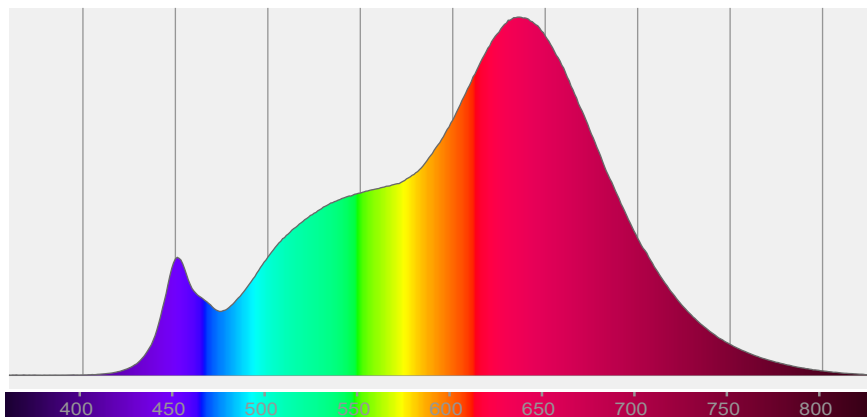
Operator:
Paolo Carvone

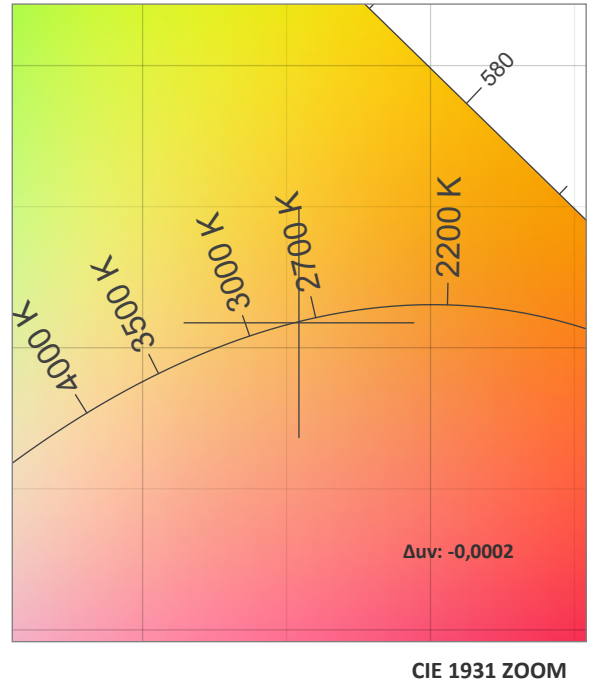
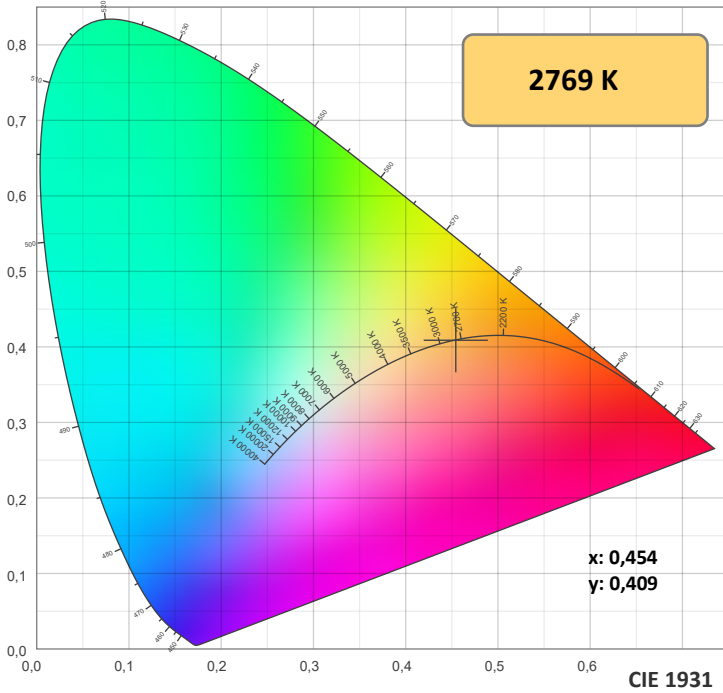
Date and time:
08/11/2021 12:34:12



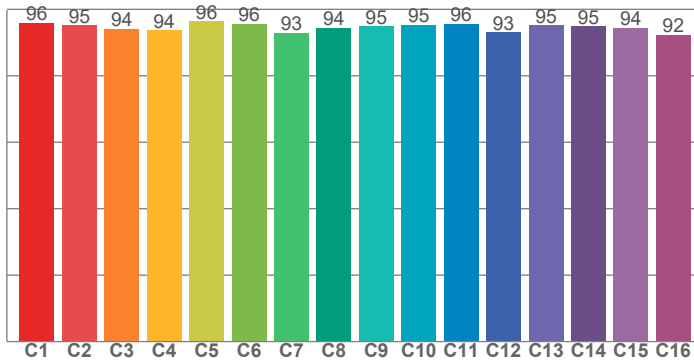
Beam angle 50%: 36°
Field angle 10%: 53,7°
Cut off angle 2.5%: 64,3°

Spectra

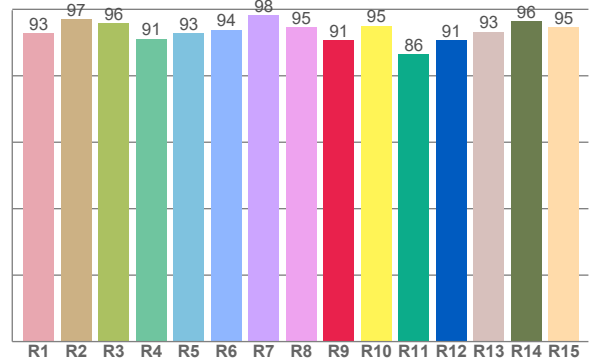




TM30: 94,8



CRI: 94,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,8	97,0	95,8	91,1	92,9	93,8	98,3	94,6	90,7	95,1	86,4	90,8	93,2	96,3	94,6

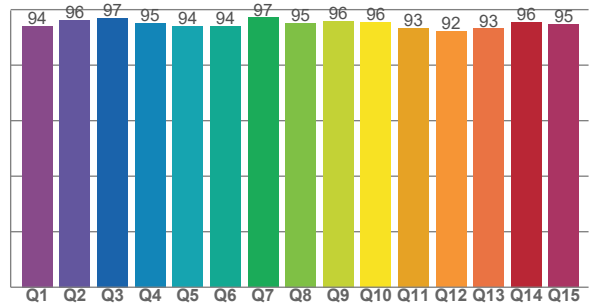
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,1	96,2	97,0	95,2	94,0	94,0	97,1	95,1	96,0	95,6	93,4	92,2	93,2	95,6	94,7

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
2769 K	94,5	90,7	94,8	102,1	94,6	98	0,454	0,409	-0,0002

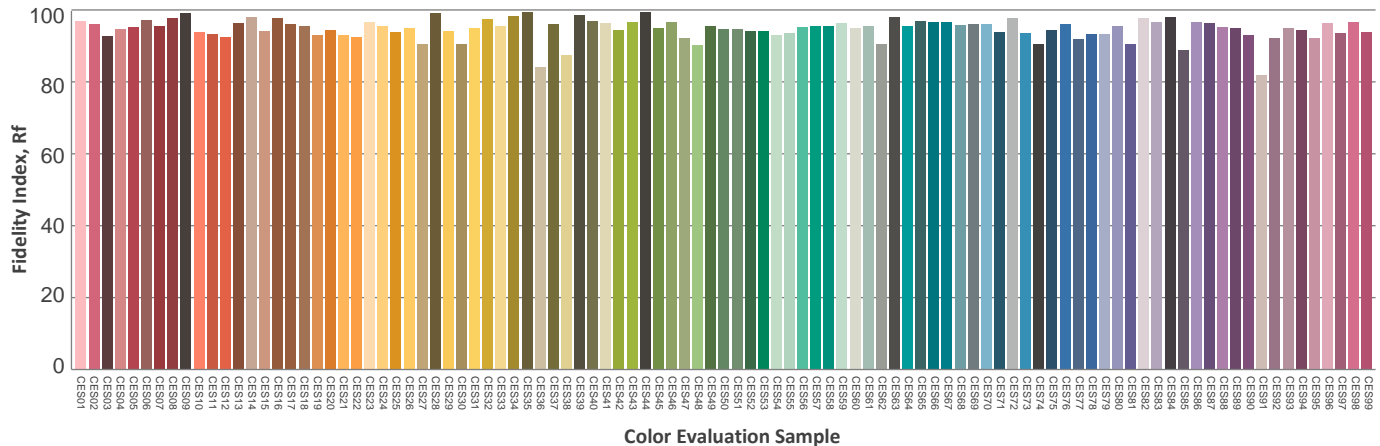
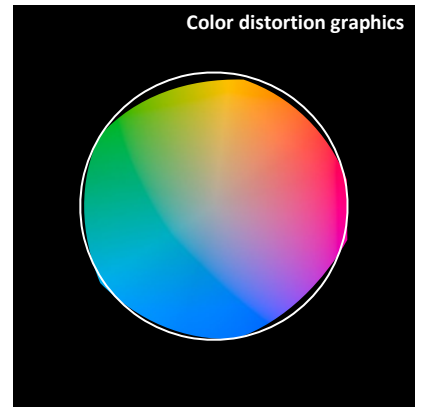
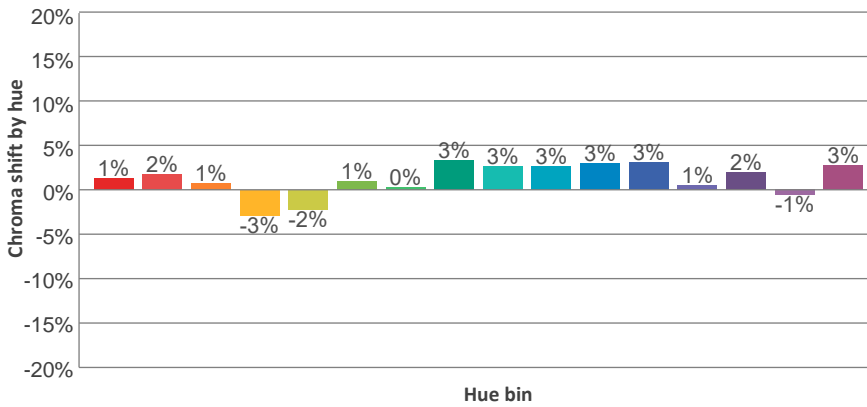
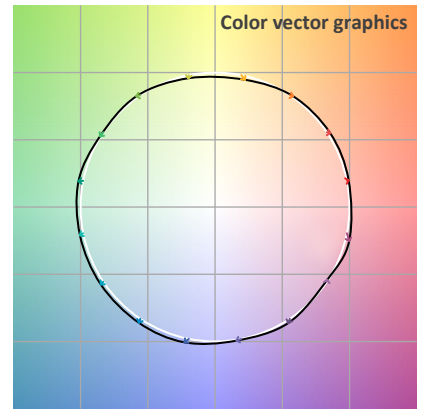
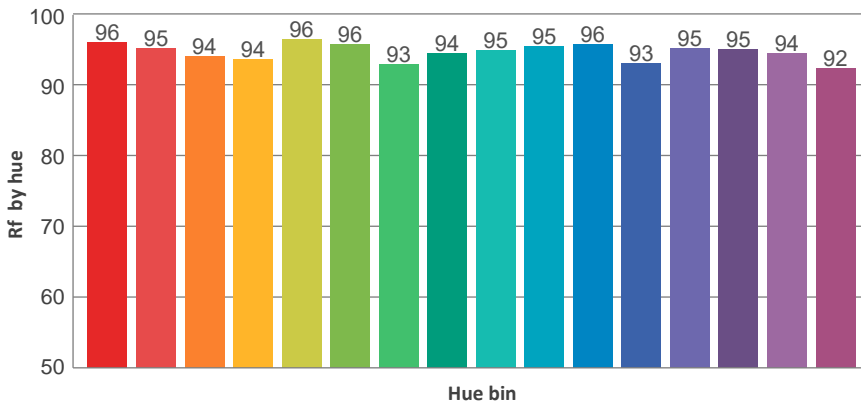
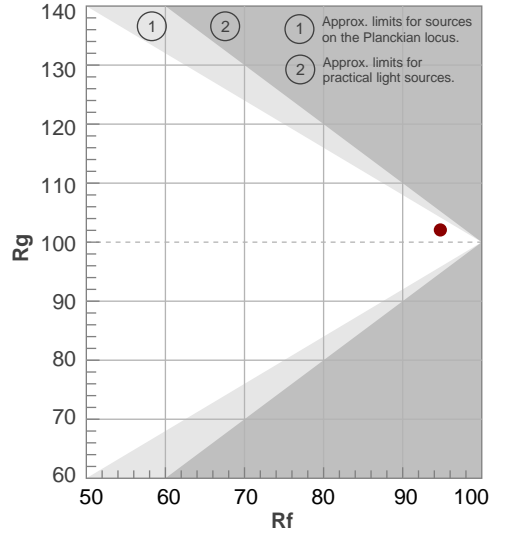
TM30 DETAILS



Rf 94,8
Fidelity index Rf

Rg 102,1
Gammut index Rg

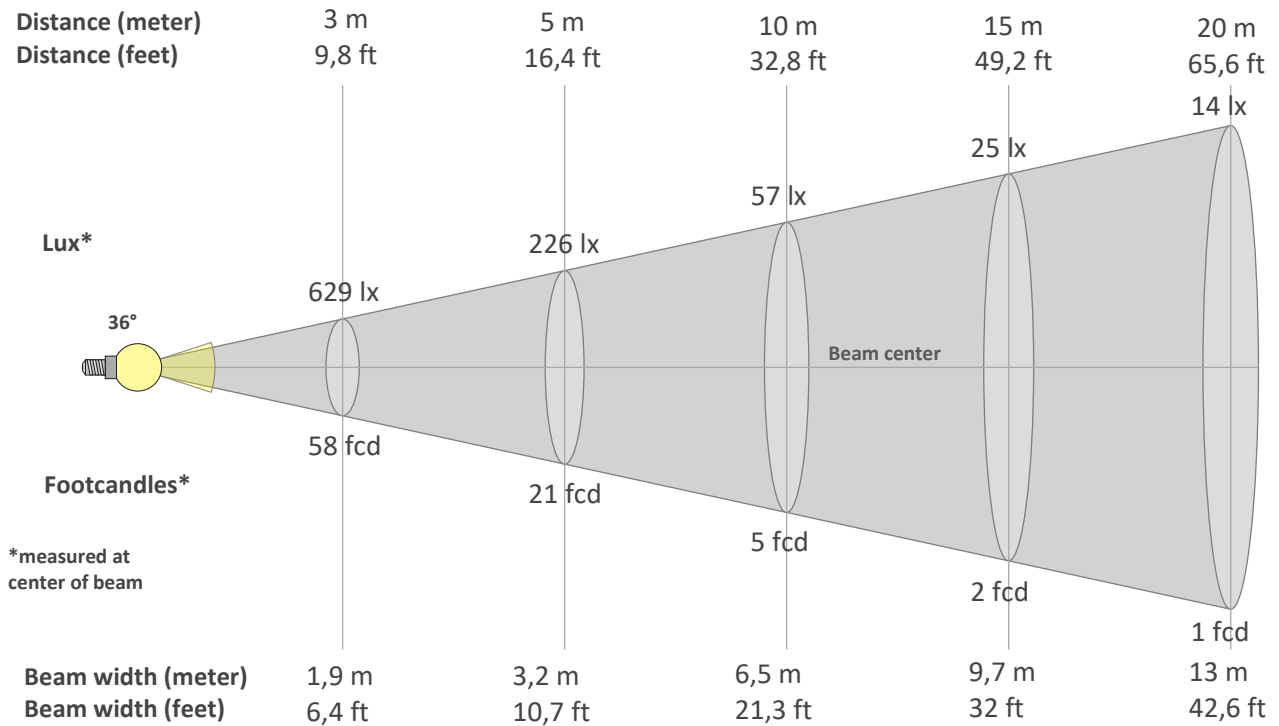
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	0%
2	95	2%	-2%
3	94	1%	-2%
4	94	-3%	-3%
5	96	-2%	1%
6	96	1%	3%
7	93	0%	4%
8	94	3%	1%
9	95	3%	1%
10	95	3%	1%
11	96	3%	1%
12	93	3%	-3%
13	95	1%	-4%
14	95	2%	-3%
15	94	-1%	1%
16	92	3%	-5%



BEAM DETAILS



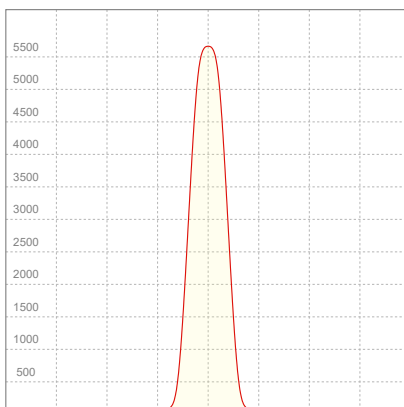
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36°	53,7°	64,3°	99,9%	98,9%



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	5661lx	1415lx	629lx	354lx	226lx	101lx	57lx	25lx	14lx	9lx	6lx	4lx	2lx
Footcand.	526fcd	131fcd	58fcd	33fcd	21fcd	9fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,3m	1,9m	2,6m	3,2m	4,9m	6,5m	9,7m	13m	16,2m	19,5m	26m	32,5m
Beam wid.	2,1ft	4,3ft	6,4ft	8,5ft	10,7ft	16ft	21,3ft	32ft	42,6ft	53,3ft	63,9ft	85,2ft	106,6ft

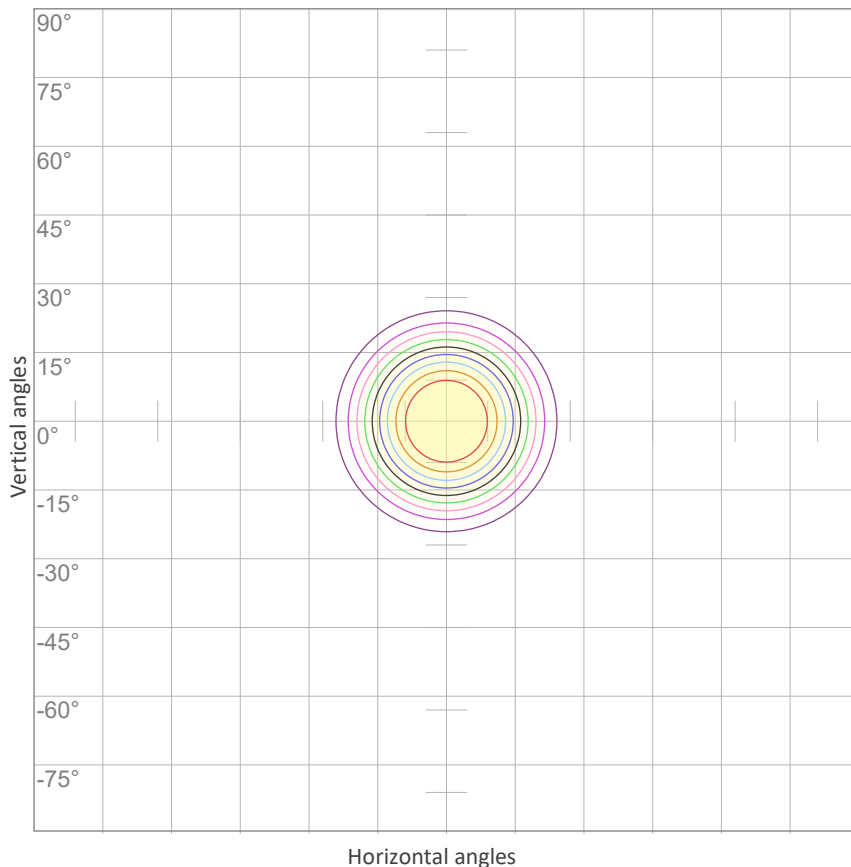
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,318A	66,4W	31lm/W
Power Fc			
0,94			

ISO CANDELA DIAGRAM



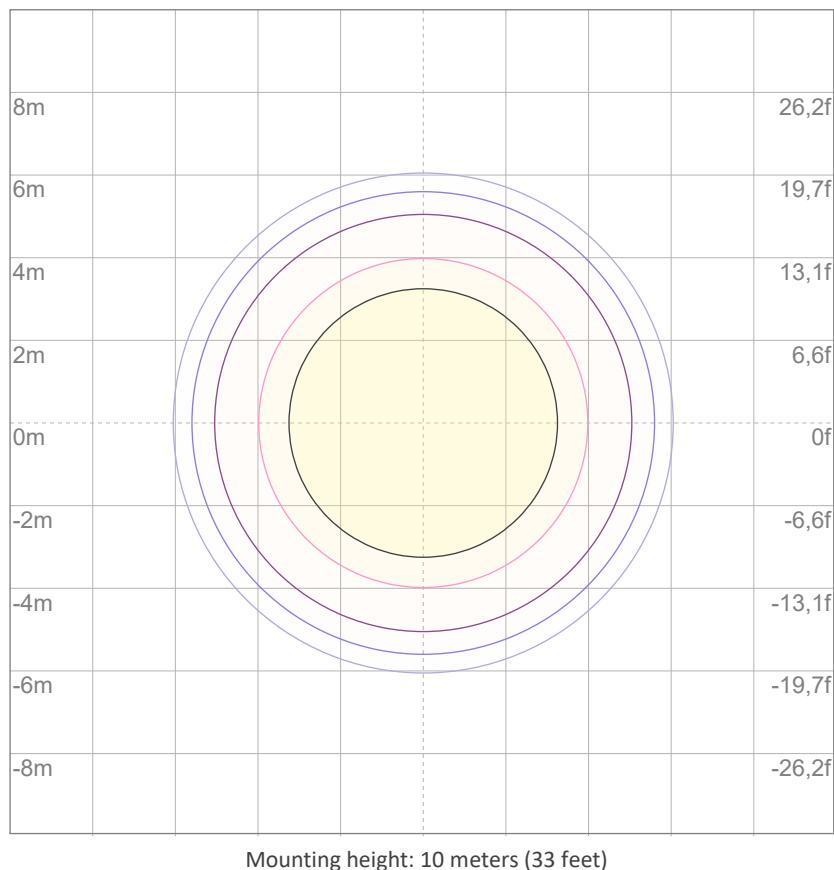
10%	566 cd
20%	1132 cd
30%	1698 cd
40%	2264 cd
50%	2831 cd
60%	3397 cd
70%	3963 cd
80%	4529 cd
90%	5095 cd

Conditions:

Number of c-planes: 2

Candela at center: 5661 cd

ISO LUX DIAGRAM



3%	1,70 lx
5%	2,83 lx
10%	5,66 lx
30%	17,0 lx
50%	28,3 lx

Conditions:

Number of c-planes: 2

Lux at center: 56,6 lx

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



Total lumen output:

1175 lm

Peak candela output:

14437 cd

Light quality:

CRI: 94,6

Color temperature:

2776 K

PRODUCT NAME:
ECLFRESNELRVW

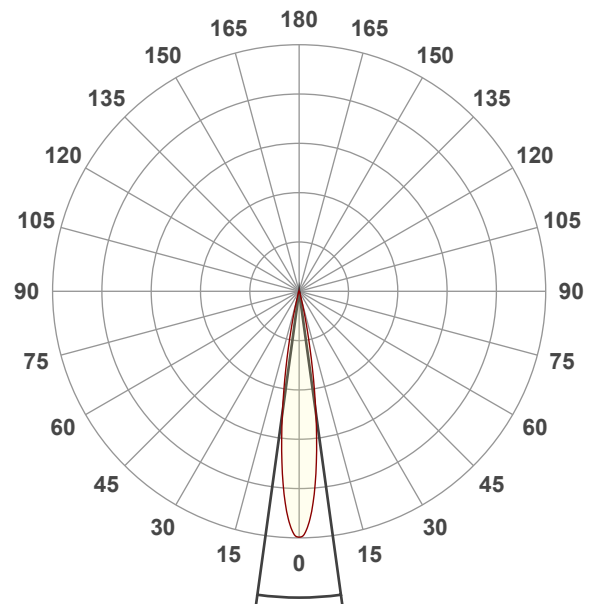
MEASUREMENT CONDITIONS:

Beam angle:
Min Zoom

Target:
Warm White

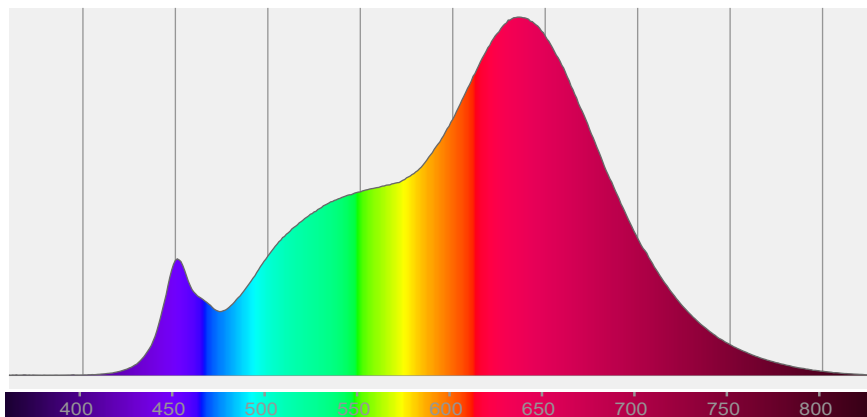
Operator:
Paolo Carvone

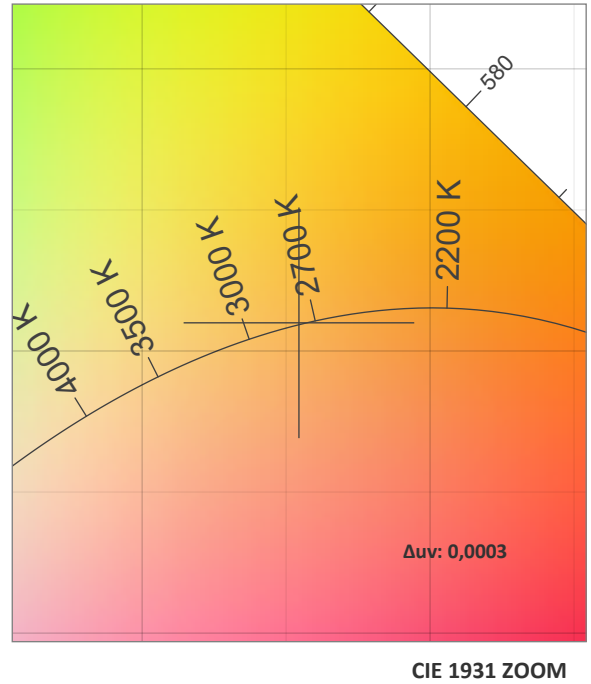
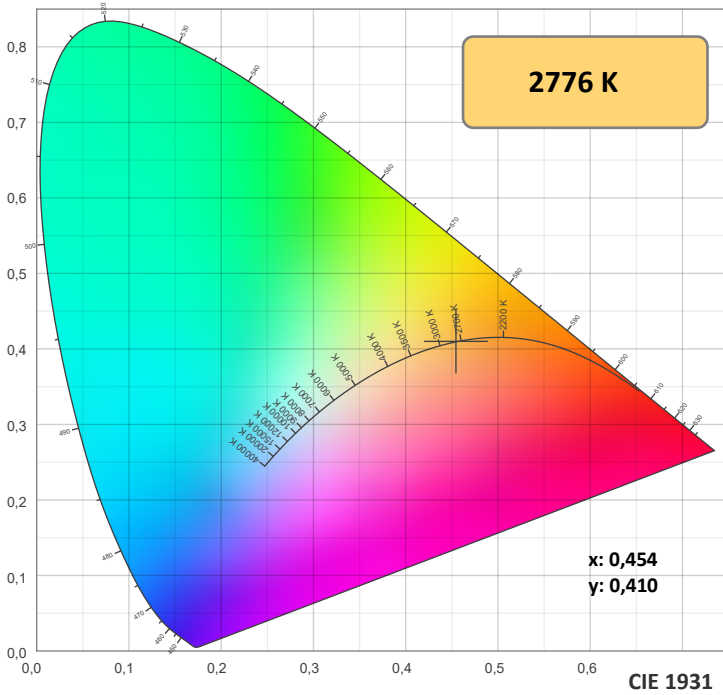
Date and time:
08/11/2021 12:35:44



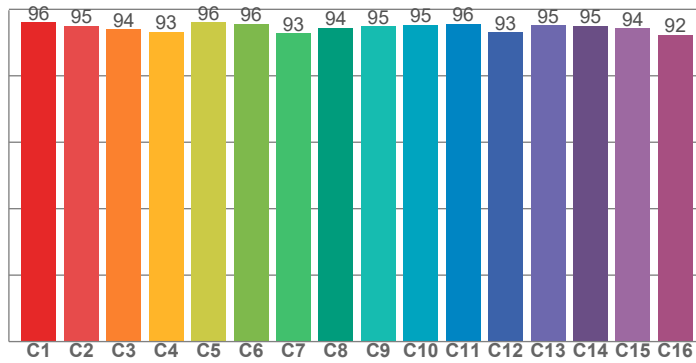
Beam angle 50%: 15,7°
Field angle 10%: 26,3°
Cut off angle 2.5%: 33,5°

Spectra

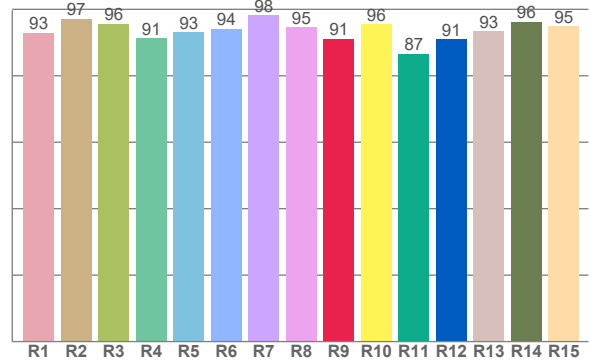




TM30: 94,7



CRI: 94,6 (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
93,0	97,2	95,7	91,3	93,1	94,2	98,1	94,7	91,1	95,5	86,6	91,0	93,5	96,3	94,9

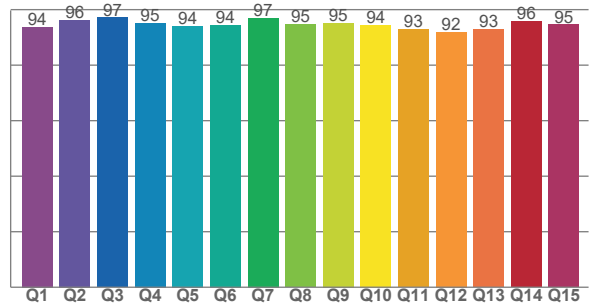
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,0	95,1	93,9	93,2	96,1	95,7	92,8	94,4	94,9	95,4	95,7	93,1	95,1	95,0	94,3	92,3

CQS Q values

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

CQS: 94,4



COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2776 K	94,6	91,1	94,7	101,7	94,4	98	0,454	0,410	0,0003

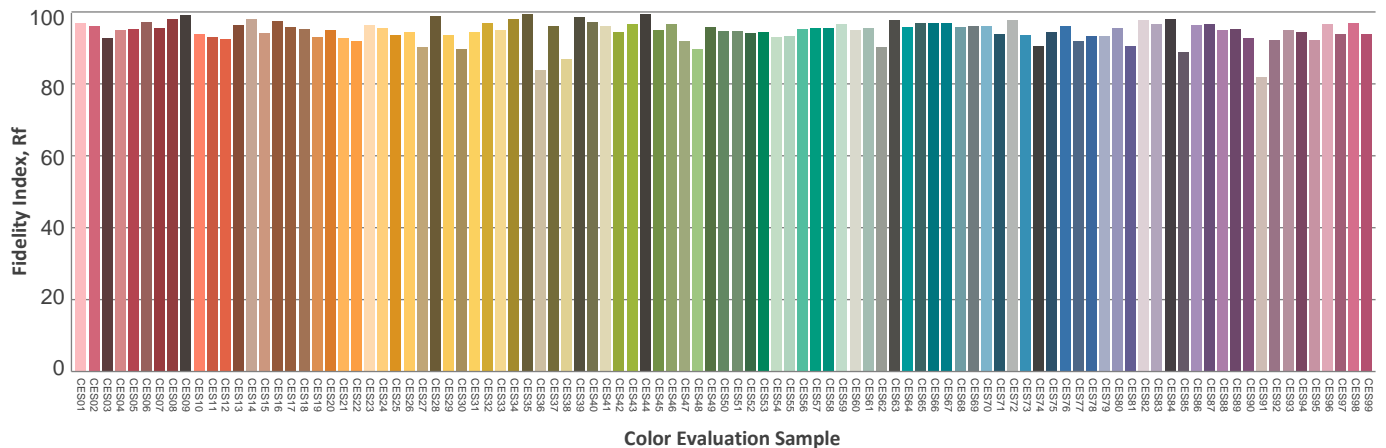
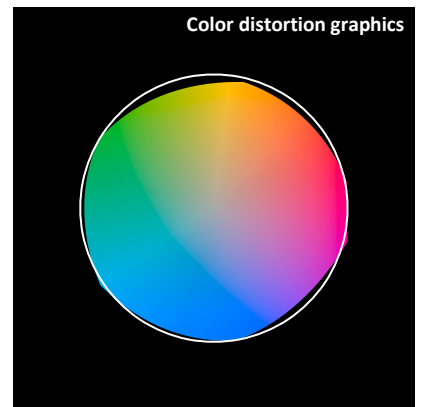
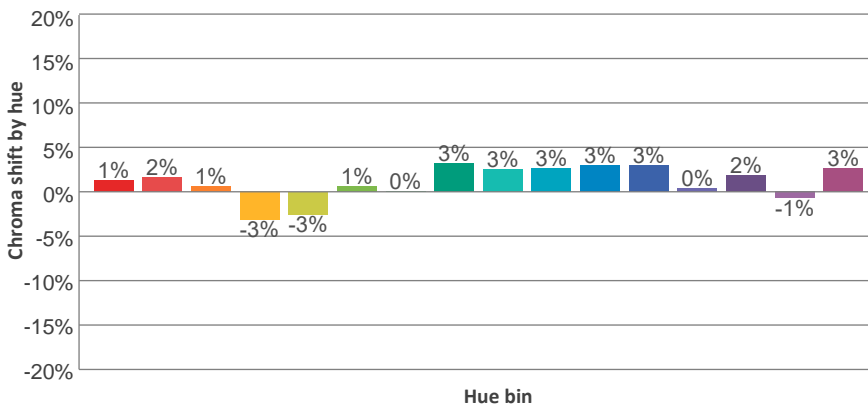
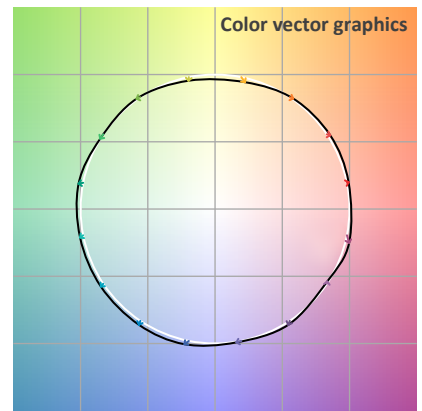
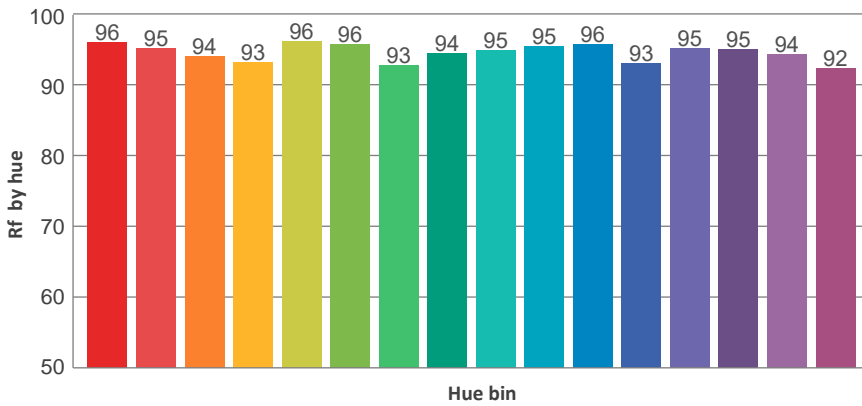
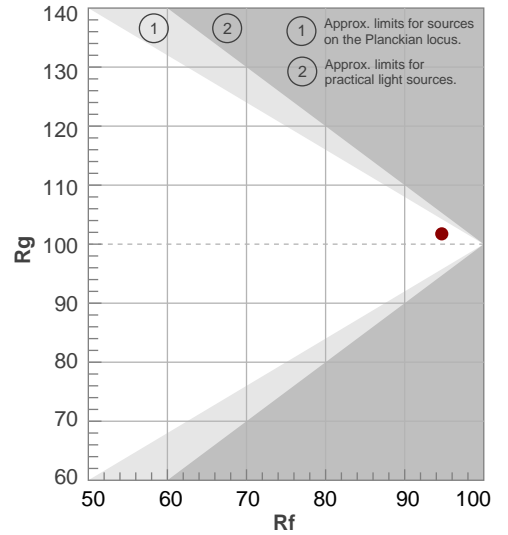
TM30 DETAILS



Rf 94,7
Fidelity index Rf

Rg 101,7
Gammut index Rg

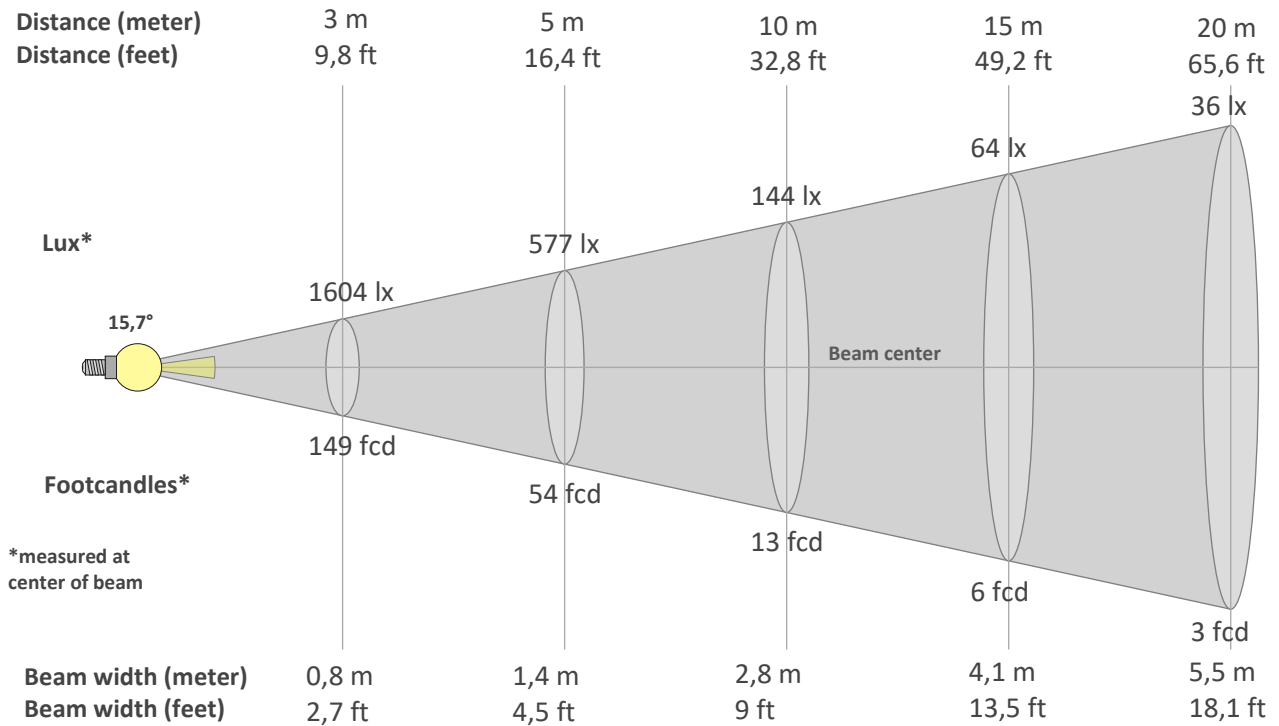
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	0%
2	95	2%	-2%
3	94	1%	-3%
4	93	-3%	-3%
5	96	-3%	1%
6	96	1%	3%
7	93	0%	4%
8	94	3%	1%
9	95	3%	1%
10	95	3%	1%
11	96	3%	1%
12	93	3%	-3%
13	95	0%	-4%
14	95	2%	-3%
15	94	-1%	1%
16	92	3%	-5%



BEAM DETAILS



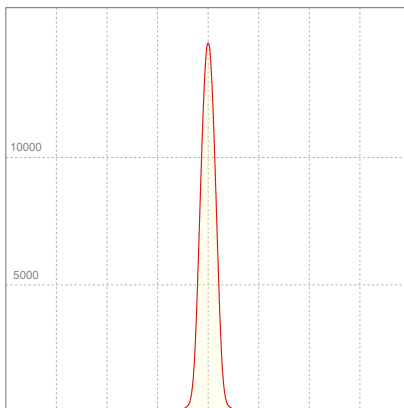
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,7°	26,3°	33,5°	100,0%	99,8%



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	14437lx	3609lx	1604lx	902lx	577lx	257lx	144lx	64lx	36lx	23lx	16lx	9lx	6lx
Footcand.	1341fcd	335fcd	149fcd	84fcd	54fcd	24fcd	13fcd	6fcd	3fcd	2fcd	1fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	0,8m	1,1m	1,4m	2,1m	2,8m	4,1m	5,5m	6,9m	8,3m	11m	13,8m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,8ft	9ft	13,5ft	18,1ft	22,6ft	27,1ft	36,1ft	45,1ft

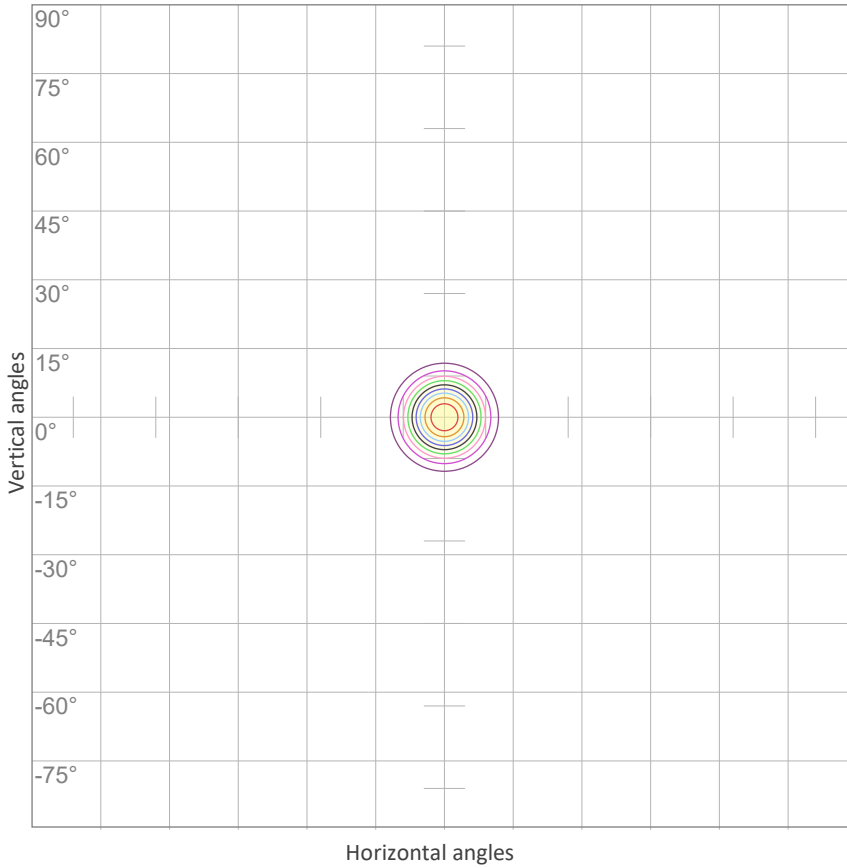
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,319A	66,4W	18lm/W
Power Fc			
0,94			

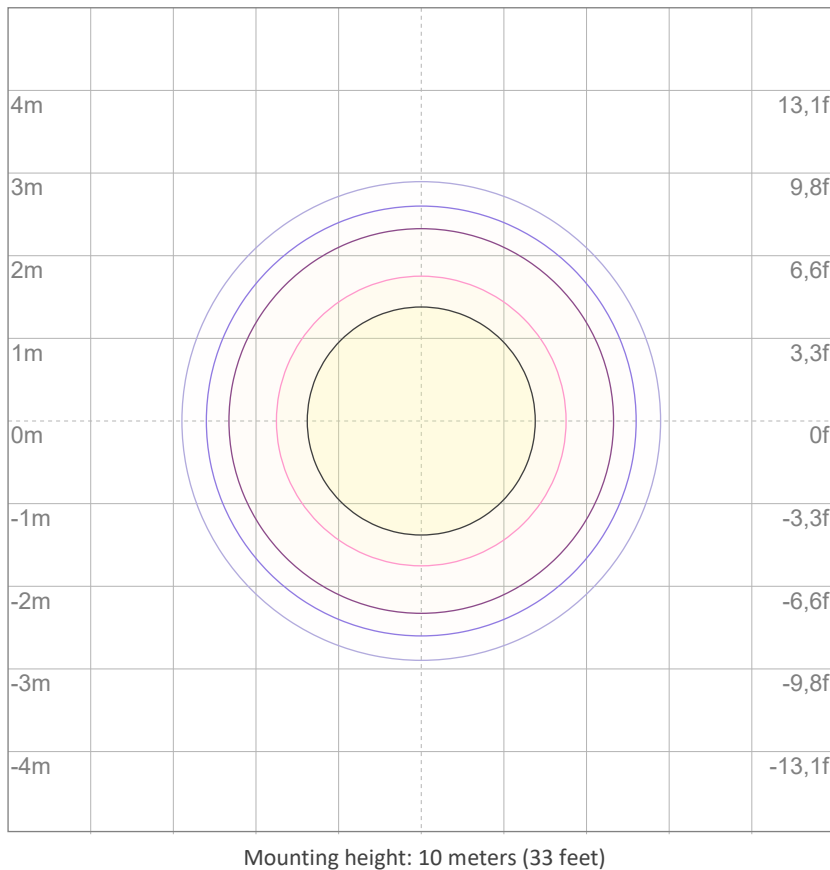
ISO CANDELA DIAGRAM



10%	1444 cd
20%	2887 cd
30%	4331 cd
40%	5775 cd
50%	7219 cd
60%	8662 cd
70%	10106 cd
80%	11550 cd
90%	12994 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 14437 cd

ISO LUX DIAGRAM



3%	4,33 lx
5%	7,22 lx
10%	14,4 lx
30%	43,3 lx
50%	72,2 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 144 lx

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