

Photometric Test Report



MINIECLFRVW

60W Variable White LED Mini Fresnel
(2.700K - 5.600K) with manual zoom 21° - 83°

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TESTING PROCESS

Prolights has its own optical testing laboratory in order to provide accurate photometric reports for its lighting products. The testing laboratory contains certain variety of precise lighting measurement systems that ensure an optimal reading of all the characteristic parameters of the lighting devices. All measurements are made at a controlled room temperature of 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:

2320 lm

Peak candela output:

2145 cd

Light quality:

CRI: 95,0

Color temperature:

3991 K

PRODUCT NAME:
MINIECLFRVW

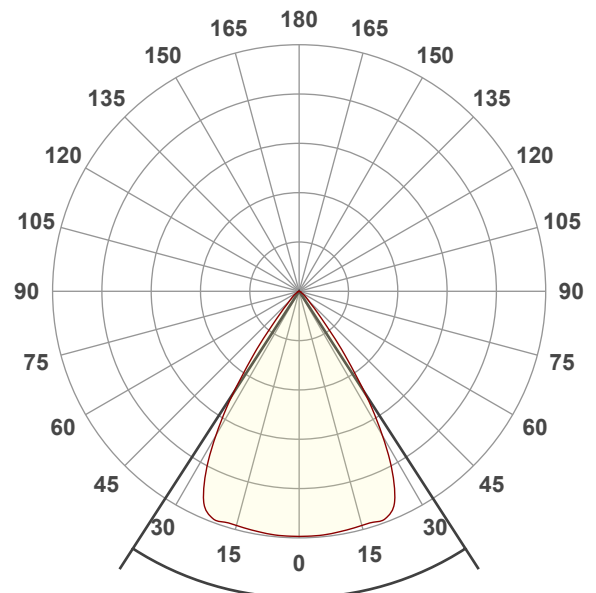
MEASUREMENT CONDITIONS:

Beam angle:
Max Zoom

Target:
Full On

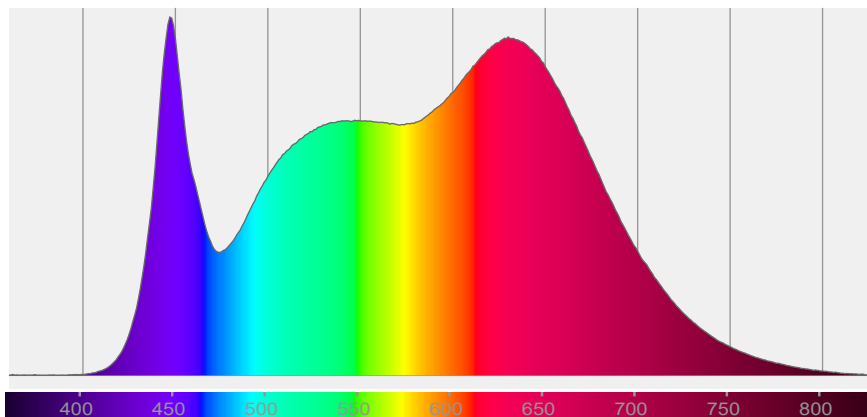
Operator:
Paolo Carvone

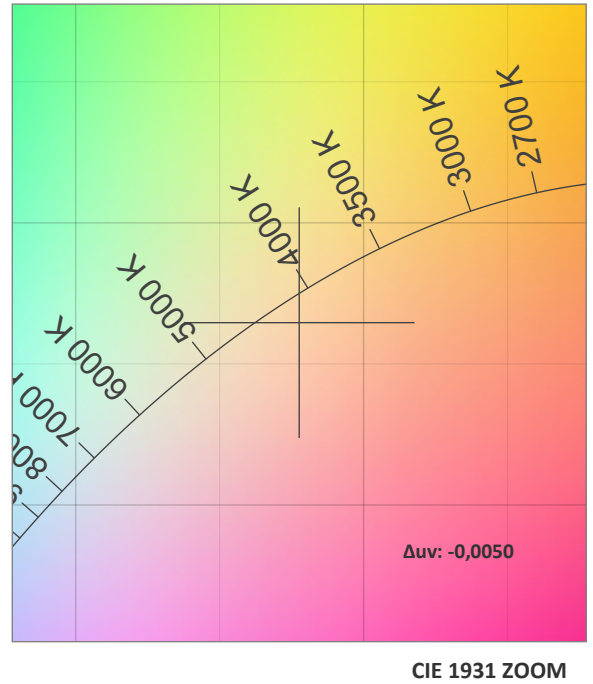
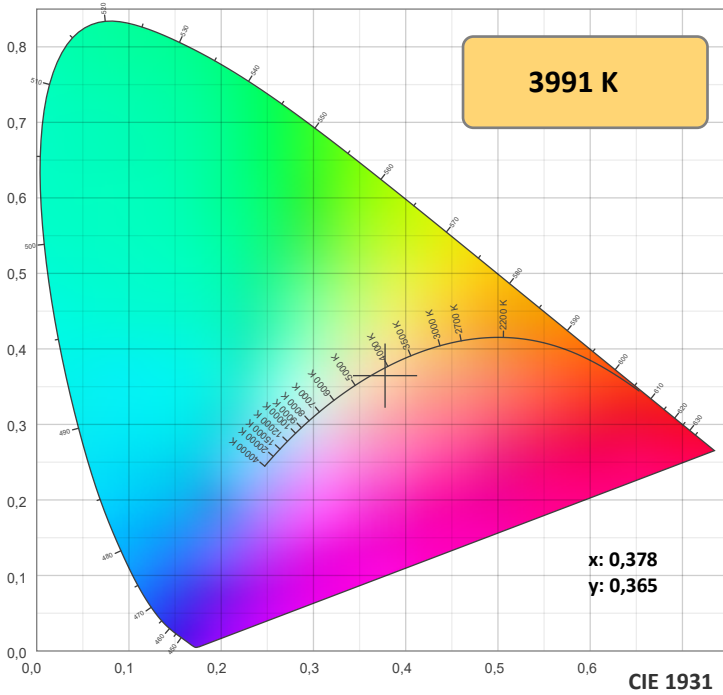
Date and time:
01/09/2021 11:41:50



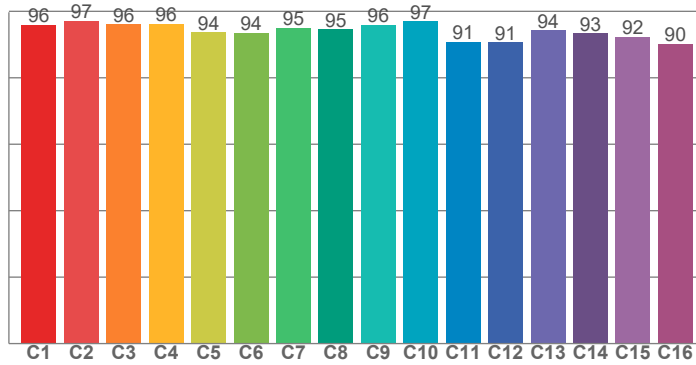
Beam angle 50%: 65,8°
Field angle 10%: 83,3°
Cut off angle 2.5%: 105,9°

Spectra

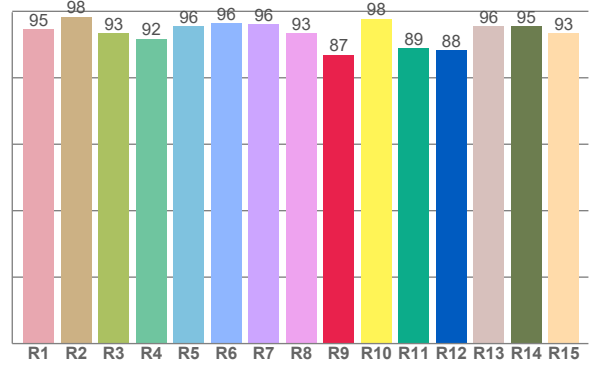




TM30: 94,3



CRI: 95,0 (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
94,6	98,3	93,3	91,8	95,6	96,4	96,1	93,5	86,9	97,7	88,9	88,3	95,5	95,4	93,3

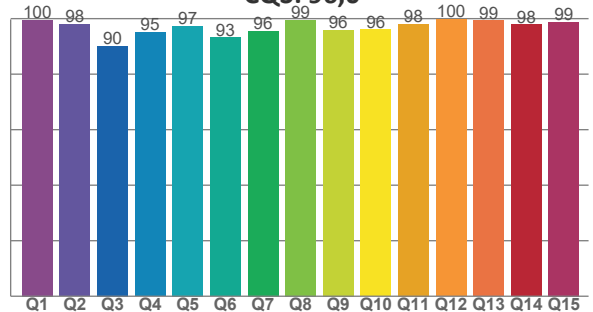
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,0	97,1	96,1	96,2	93,7	93,6	95,1	94,6	96,0	96,9	90,8	90,7	94,2	93,4	92,3	90,3

CQS Q values

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

CQS: 96,0



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
3991 K	95,0	86,9	94,3	104,9	96,0	97	0,378	0,365	-0,0050

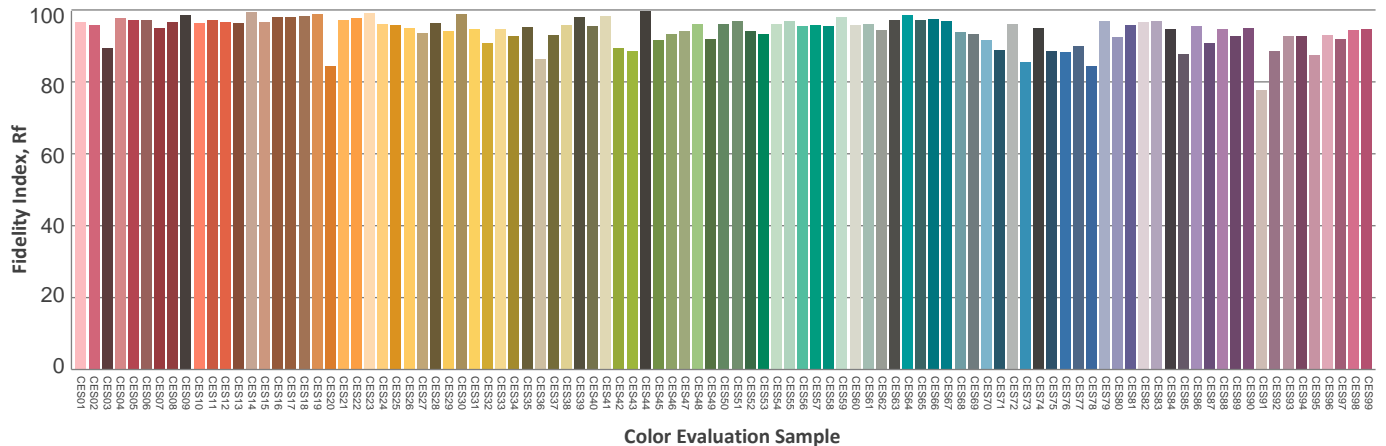
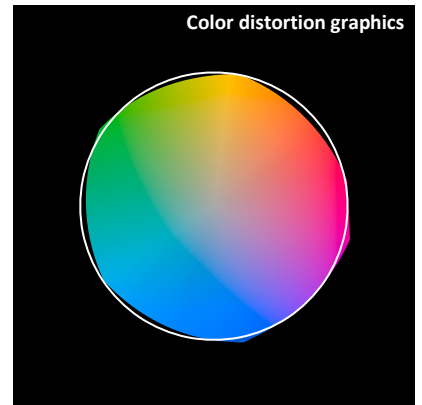
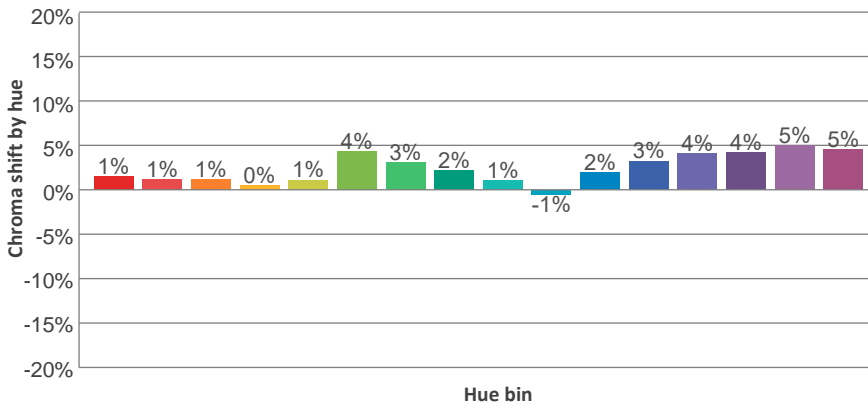
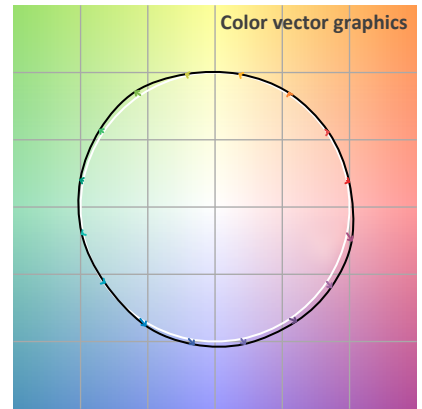
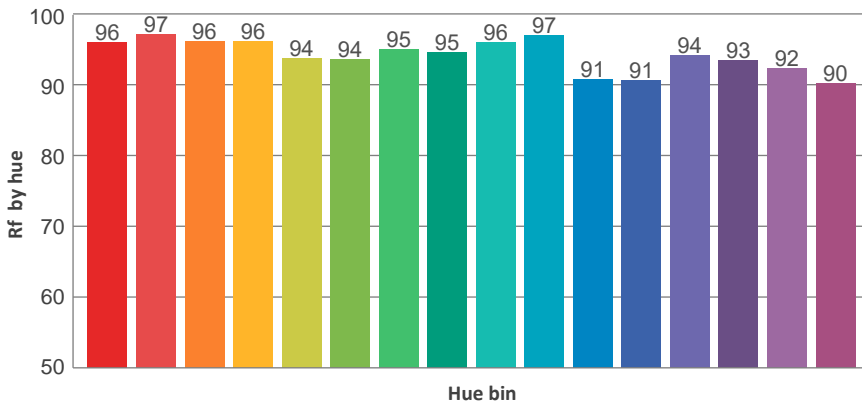
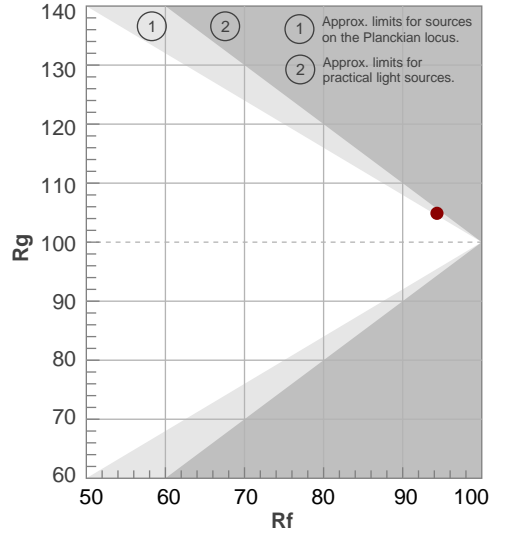
TM30 DETAILS



Rf 94,3
Fidelity index Rf

Rg 104,9
Gammut index Rg

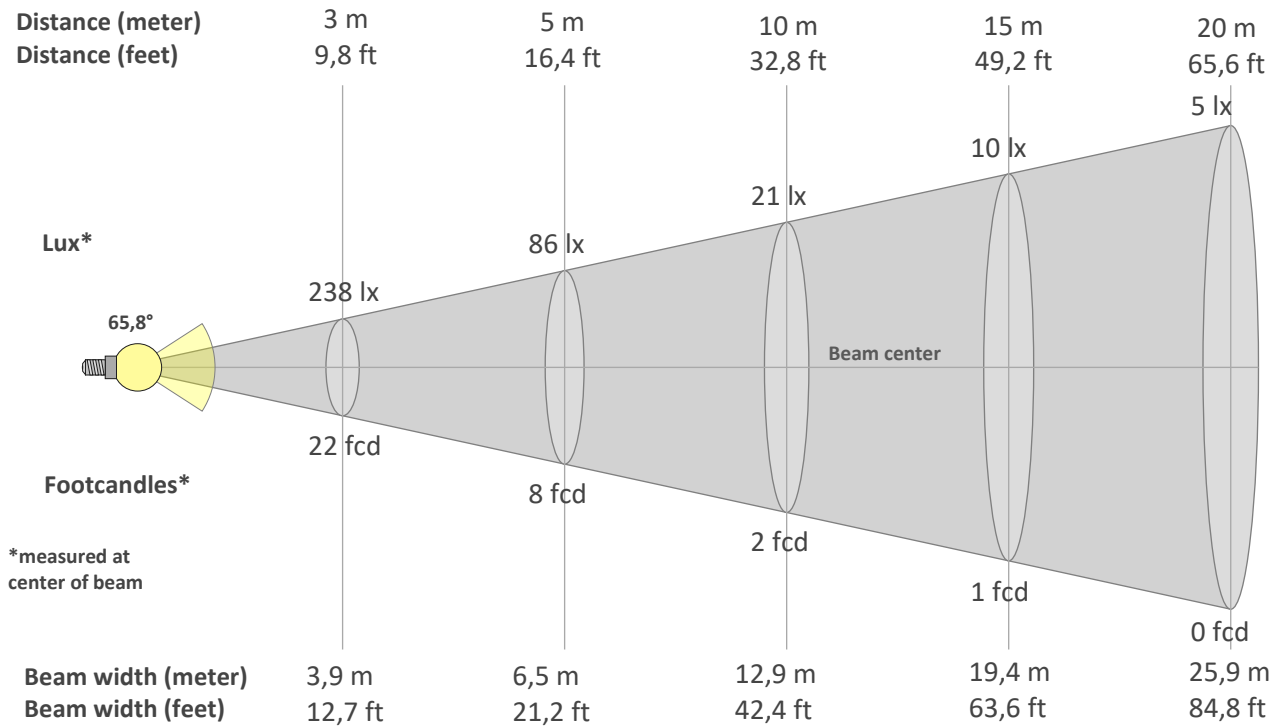
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	-1%
2	97	1%	-1%
3	96	1%	1%
4	96	0%	1%
5	94	1%	2%
6	94	4%	2%
7	95	3%	0%
8	95	2%	0%
9	96	1%	0%
10	97	-1%	1%
11	91	2%	6%
12	91	3%	4%
13	94	4%	2%
14	93	4%	3%
15	92	5%	-2%
16	90	5%	-4%



BEAM DETAILS



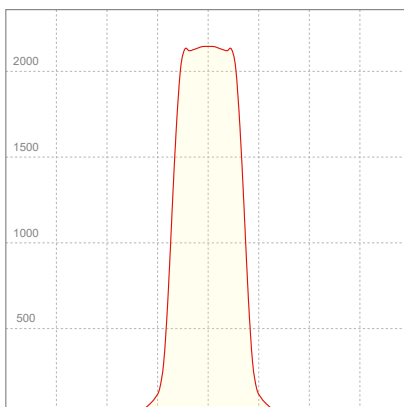
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
65,8°	83,3°	105,9°	99,8%	96,6%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	2145lx	536lx	238lx	134lx	86lx	38lx	21lx	10lx	5lx	3lx	2lx	1lx	1lx
Footcand.	199fcd	50fcd	22fcd	12fcd	8fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,3m	2,6m	3,9m	5,2m	6,5m	9,7m	12,9m	19,4m	25,9m	32,3m	38,8m	51,7m	64,6m
Beam wid.	4,3ft	8,5ft	12,7ft	16,9ft	21,2ft	31,8ft	42,4ft	63,6ft	84,8ft	106ft	127,2ft	169,6ft	212ft

LINEAR DISTRIBUTION DIAGRAM

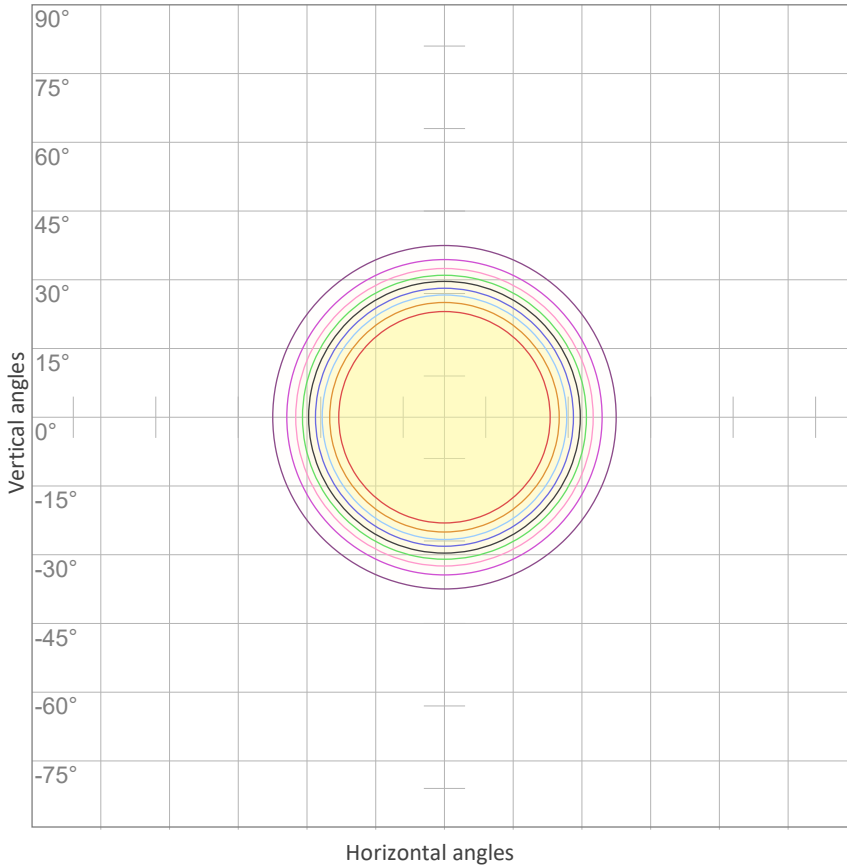


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,460A	54,3W	43lm/W

Power Fc
0,52

ISO CANDELA DIAGRAM



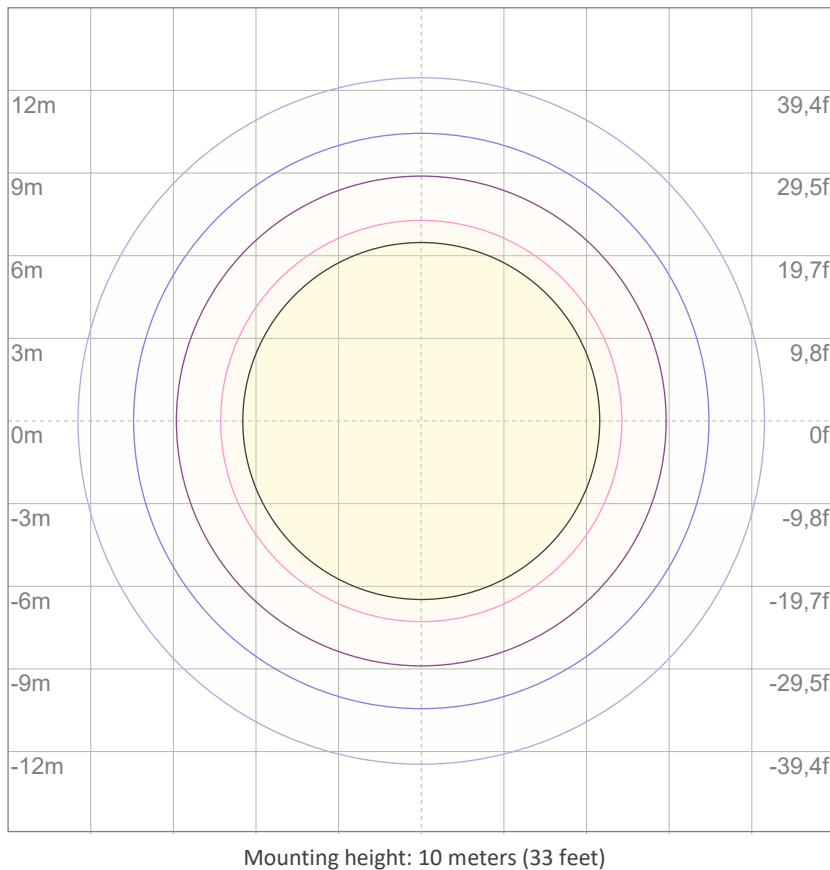
10%	215 cd
20%	429 cd
30%	644 cd
40%	858 cd
50%	1073 cd
60%	1287 cd
70%	1502 cd
80%	1716 cd
90%	1931 cd

Conditions:

Number of c-planes: 2

Candela at center: 2145 cd

ISO LUX DIAGRAM



3%	0,644 lx
5%	1,07 lx
10%	2,15 lx
30%	6,44 lx
50%	10,7 lx

Conditions:

Number of c-planes: 2

Lux at center: 21,5 lx

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



Total lumen output:

877 lm

Peak candela output:

5666 cd

Light quality:

CRI: 94,9

Color temperature:

4000 K

PRODUCT NAME:
MINIECLFRVW

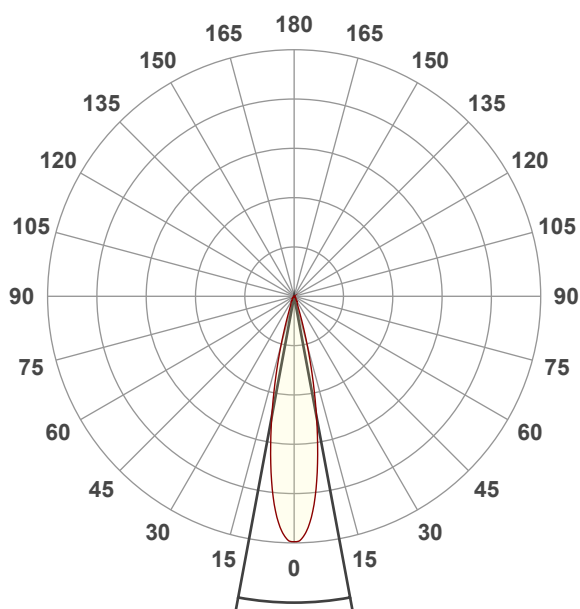
MEASUREMENT CONDITIONS:

Beam angle:
Min Zoom

Target:
Full On

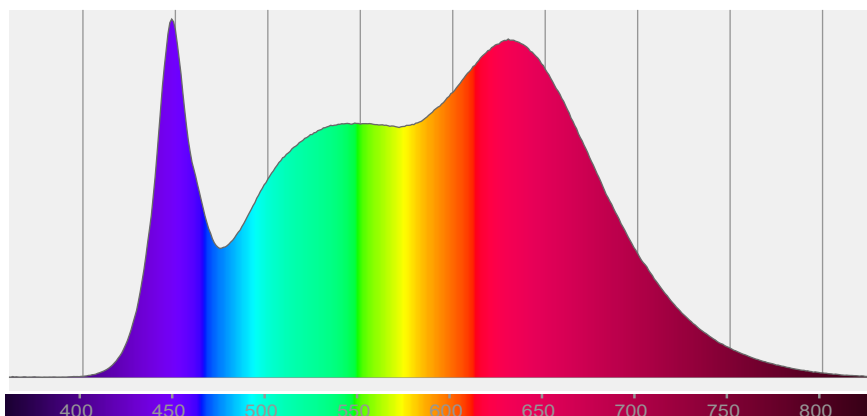
Operator:
Paolo Carvone

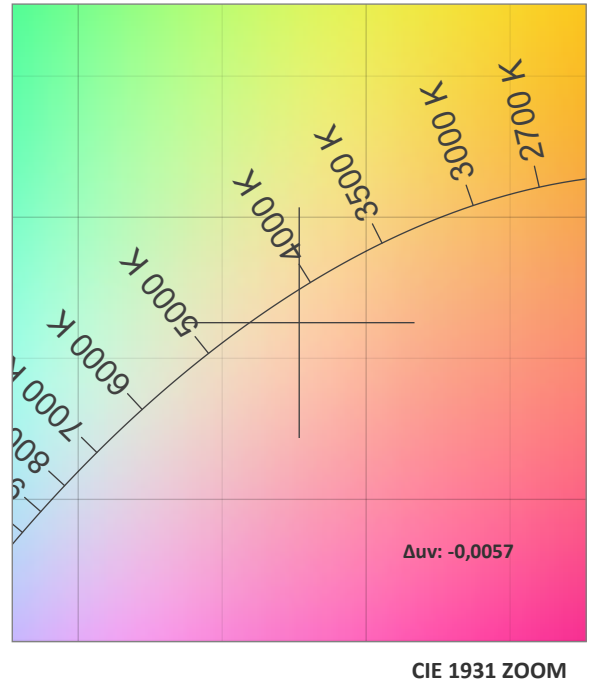
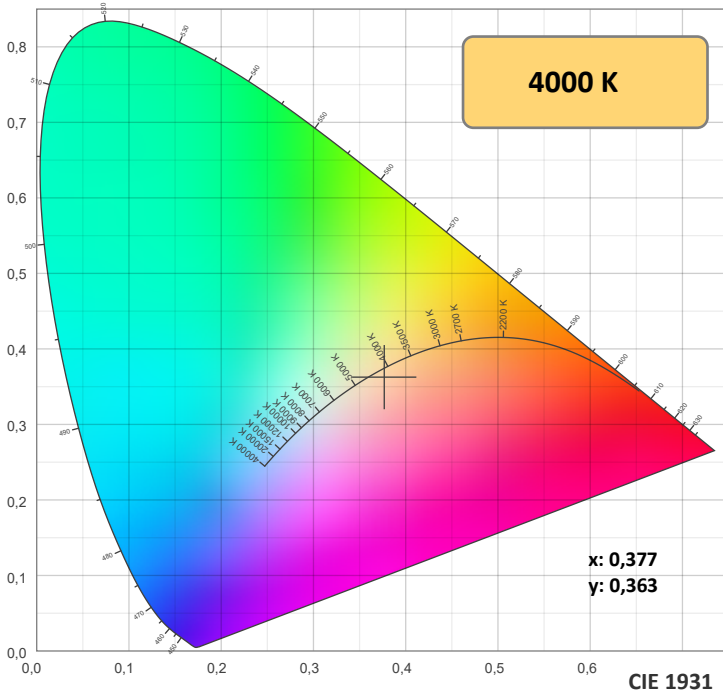
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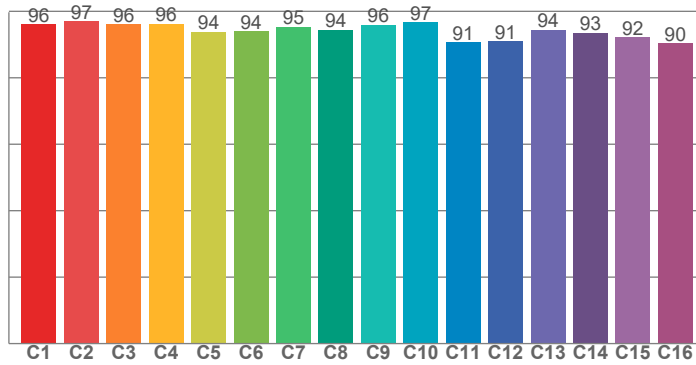
Beam angle 50%: 21,1°
Field angle 10%: 35,2°
Cut off angle 2.5%: 53,8°

Spectra

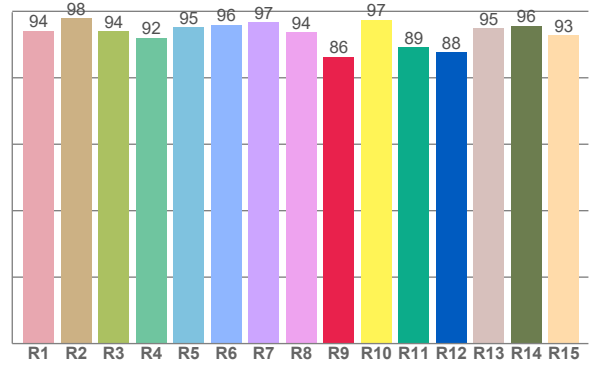




TM30: 94,4



CRI: 94,9 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
94,1	97,9	93,9	92,1	95,2	96,0	96,7	93,7	86,4	97,4	89,1	87,7	94,9	95,7	92,8

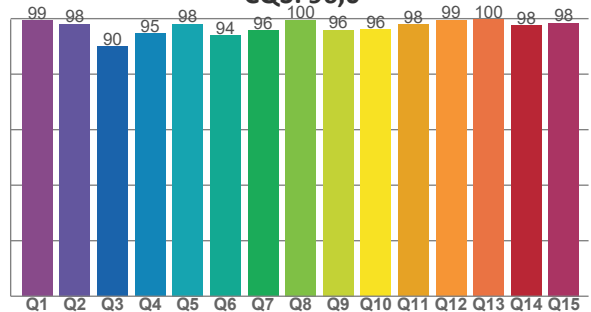
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,0	97,0	96,0	96,3	93,8	94,0	95,3	94,5	95,9	96,7	90,6	90,9	94,4	93,5	92,2	90,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,3	98,1	89,9	94,6	98,1	93,8	95,7	99,6	95,9	96,1	97,9	99,5	99,6	97,5	98,5

CQS: 96,0



COLOR PARAMETERS

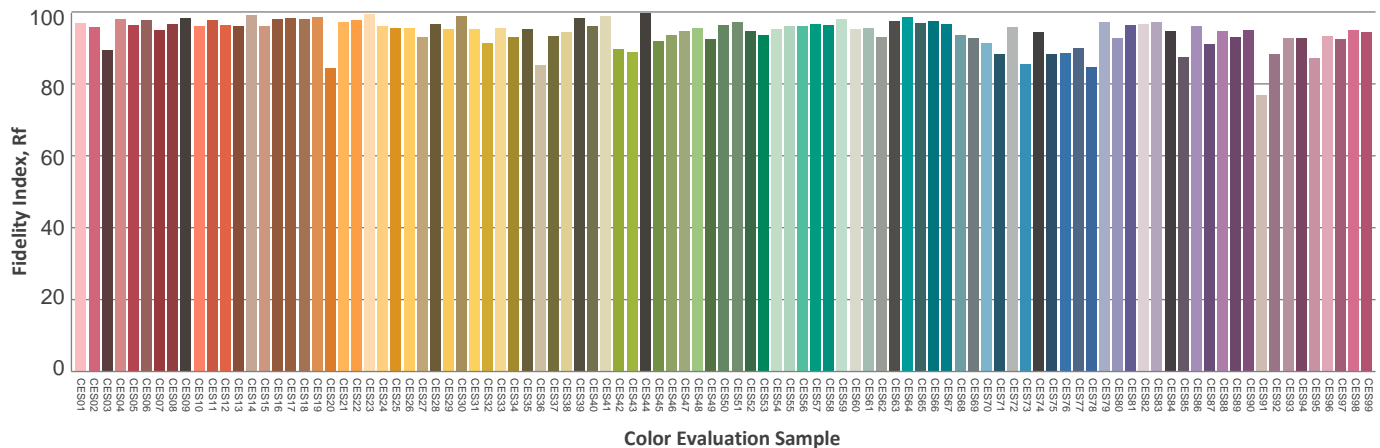
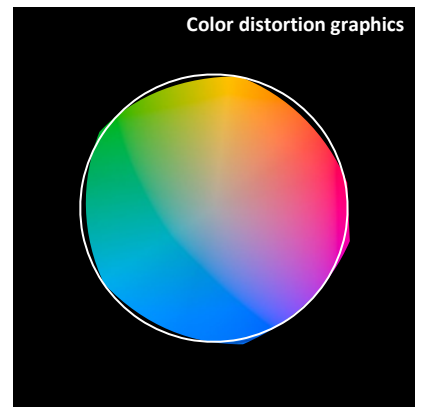
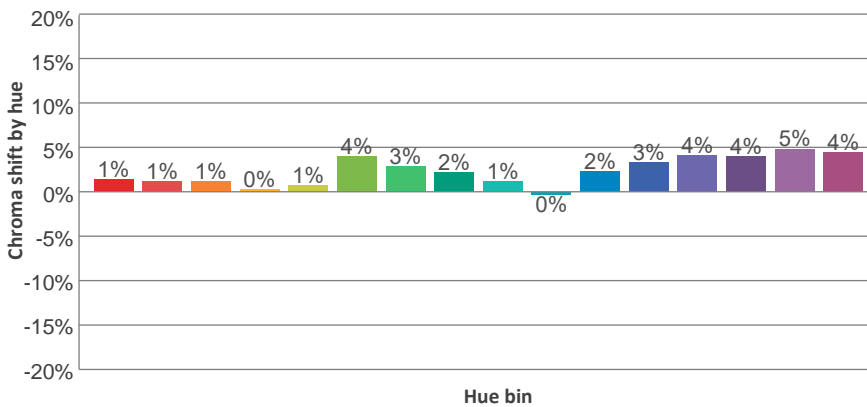
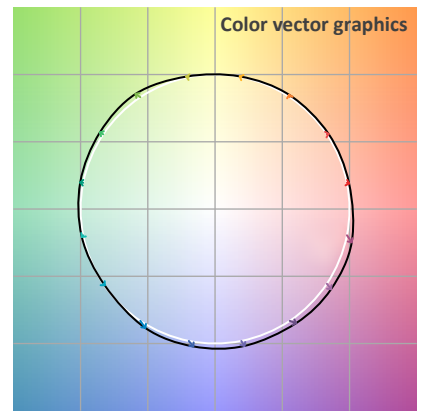
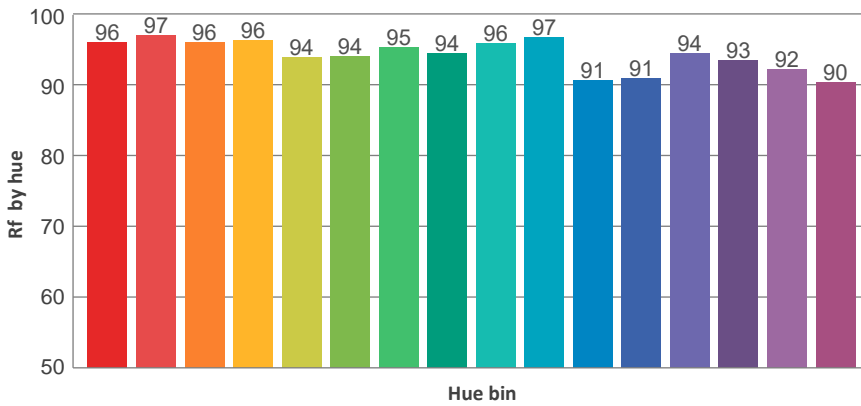
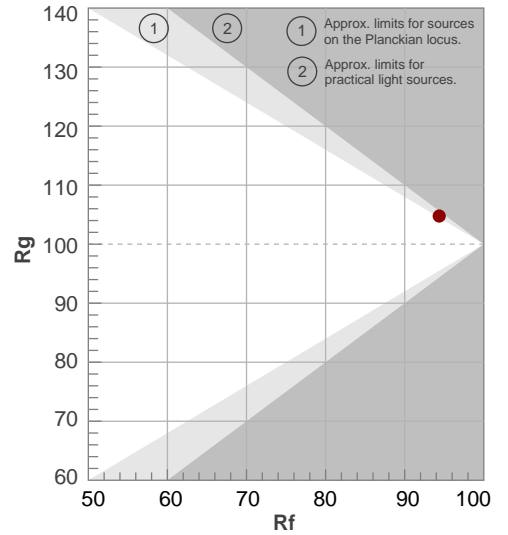
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4000 K	94,9	86,4	94,4	104,8	96,0	97	0,377	0,363	-0,0057

TM30 DETAILS

Rf 94,4
Fidelity index Rf

Rg 104,8
Gammut index Rg

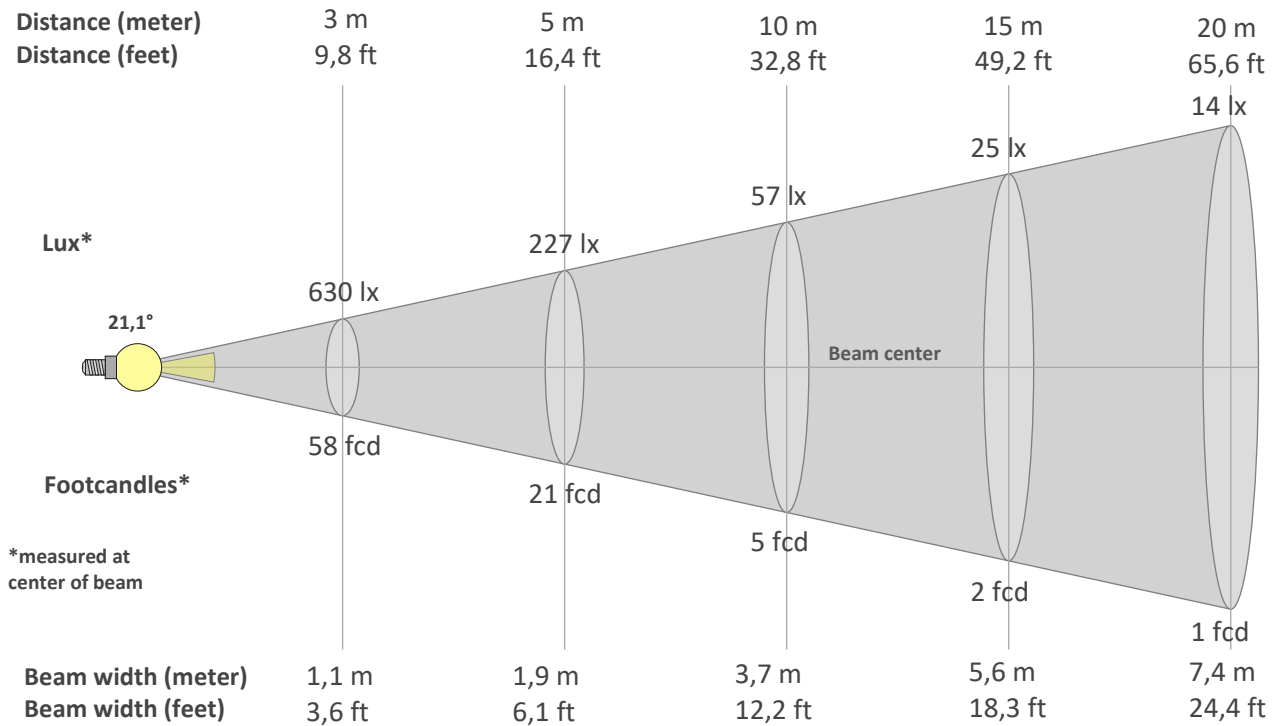
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	-1%
2	97	1%	0%
3	96	1%	1%
4	96	0%	1%
5	94	1%	2%
6	94	4%	2%
7	95	3%	0%
8	94	2%	0%
9	96	1%	1%
10	97	0%	2%
11	91	2%	6%
12	91	3%	4%
13	94	4%	2%
14	93	4%	3%
15	92	5%	-2%
16	90	4%	-4%



BEAM DETAILS



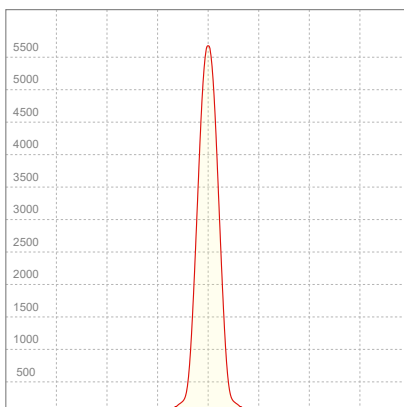
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
21,1°	35,2°	53,8°	100,0%	99,5%



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	5666lx	1417lx	630lx	354lx	227lx	101lx	57lx	25lx	14lx	9lx	6lx	4lx	2lx
Footcand.	526fcd	132fcd	58fcd	33fcd	21fcd	9fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,4m	0,7m	1,1m	1,5m	1,9m	2,8m	3,7m	5,6m	7,4m	9,3m	11,1m	14,9m	18,6m
Beam wid.	1,2ft	2,5ft	3,6ft	4,9ft	6,1ft	9,1ft	12,2ft	18,3ft	24,4ft	30,5ft	36,6ft	48,8ft	60,9ft

LINEAR DISTRIBUTION DIAGRAM

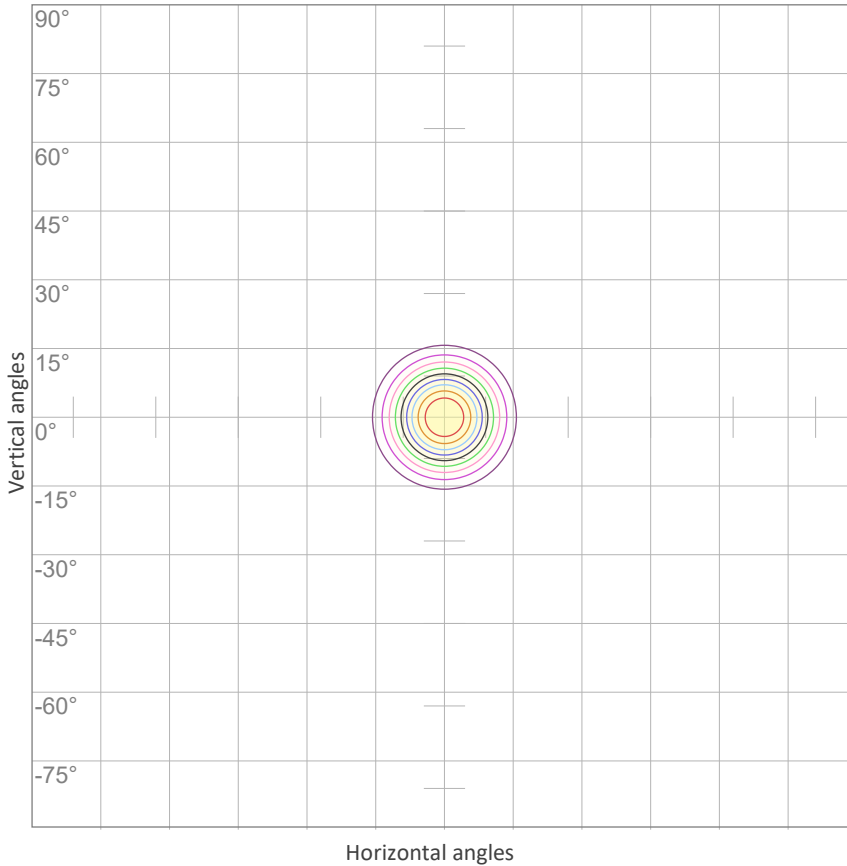


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
229V	0,477A	54,1W	16lm/W

Power Fc
0,52

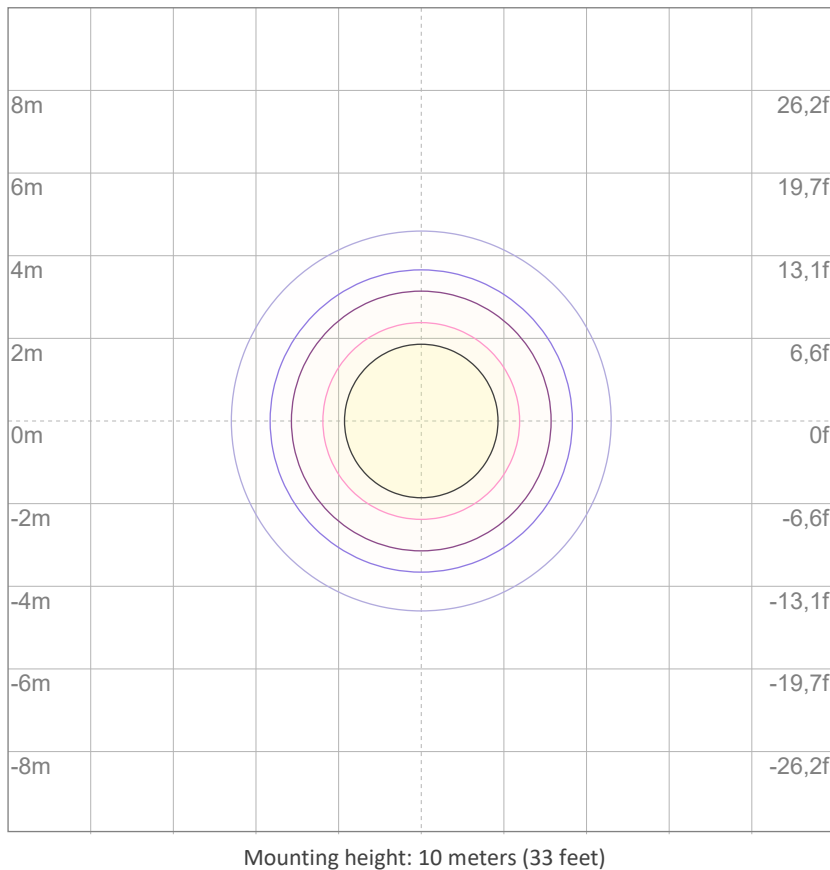
ISO CANDELA DIAGRAM



10%	567 cd
20%	1133 cd
30%	1700 cd
40%	2267 cd
50%	2833 cd
60%	3400 cd
70%	3966 cd
80%	4533 cd
90%	5100 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 5666 cd

ISO LUX DIAGRAM



3%	1,70 lx
5%	2,83 lx
10%	5,67 lx
30%	17,0 lx
50%	28,3 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 56,7 lx

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



Total lumen output:

2460 lm

Peak candela output:

2313 cd

Light quality:

CRI: 95,2

Color temperature:

5567 K

PRODUCT NAME:

MINIECLFRVW

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

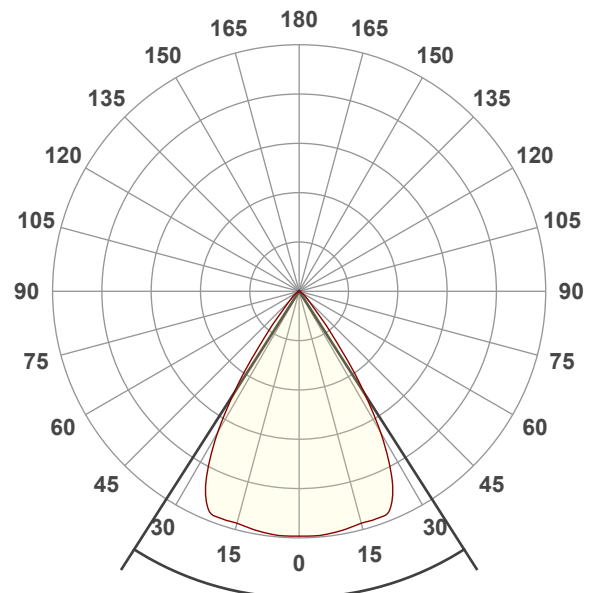
Cold White

Operator:

Paolo Carvone

Date and time:

01/09/2021 11:44:29

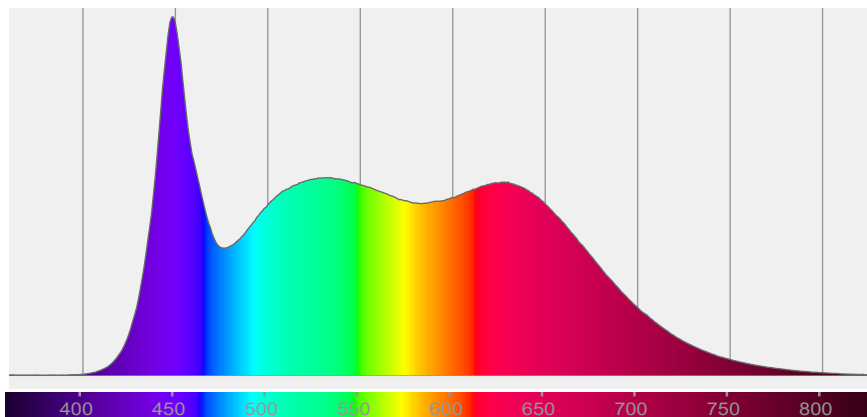


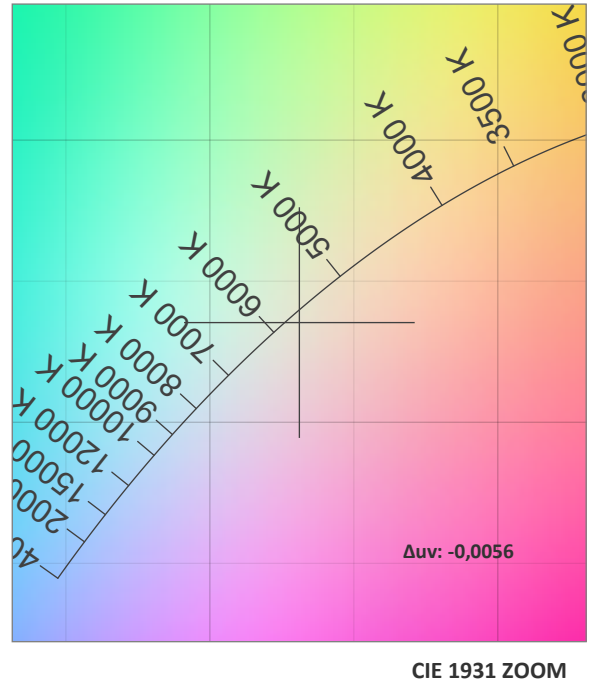
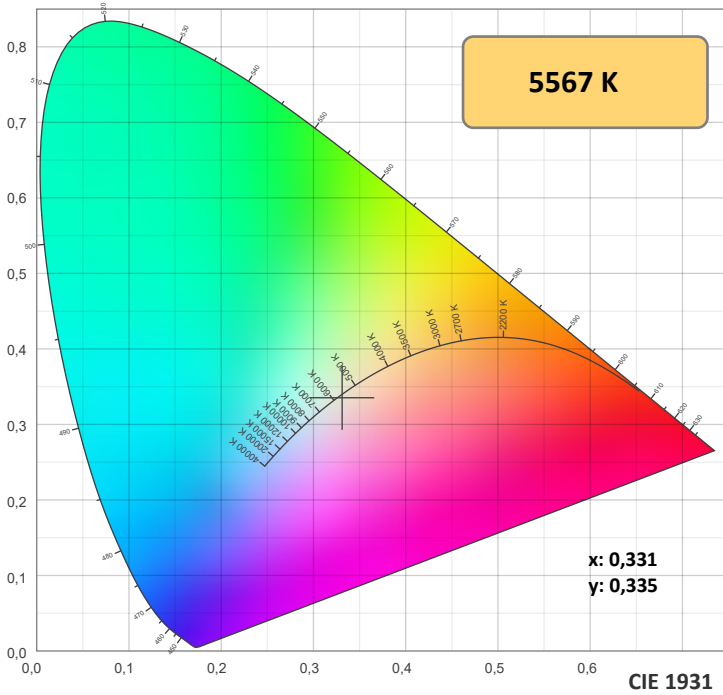
Beam angle 50%: 65,2°

Field angle 10%: 82°

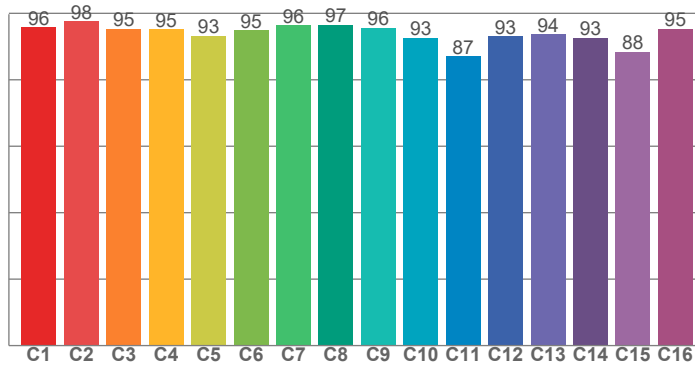
Cut off angle 2.5%: 106,4°

Spectra

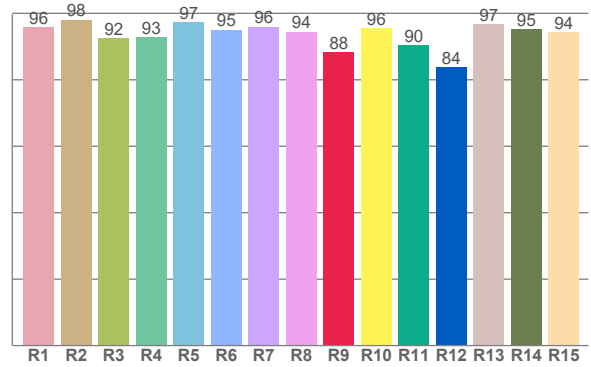




TM30: 93,9



CRI: 95,2 (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
95,8	98,1	92,4	92,9	97,2	95,1	96,0	94,5	88,2	95,5	90,4	83,8	96,8	95,2	94,2

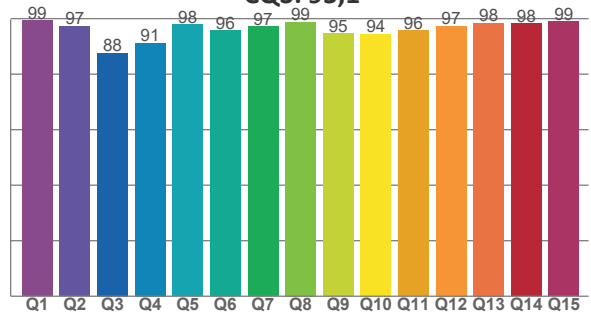
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,8	97,6	95,3	95,2	93,2	94,9	96,4	96,5	95,6	92,7	87,1	93,0	93,6	92,5	88,3	95,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,3	97,3	87,7	91,2	97,8	95,7	97,1	98,8	94,7	94,4	95,7	97,3	98,5	98,2	98,9

CQS: 95,1



COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5567 K	95,2	88,2	93,9	104,0	95,1	98	0,331	0,335	-0,0056

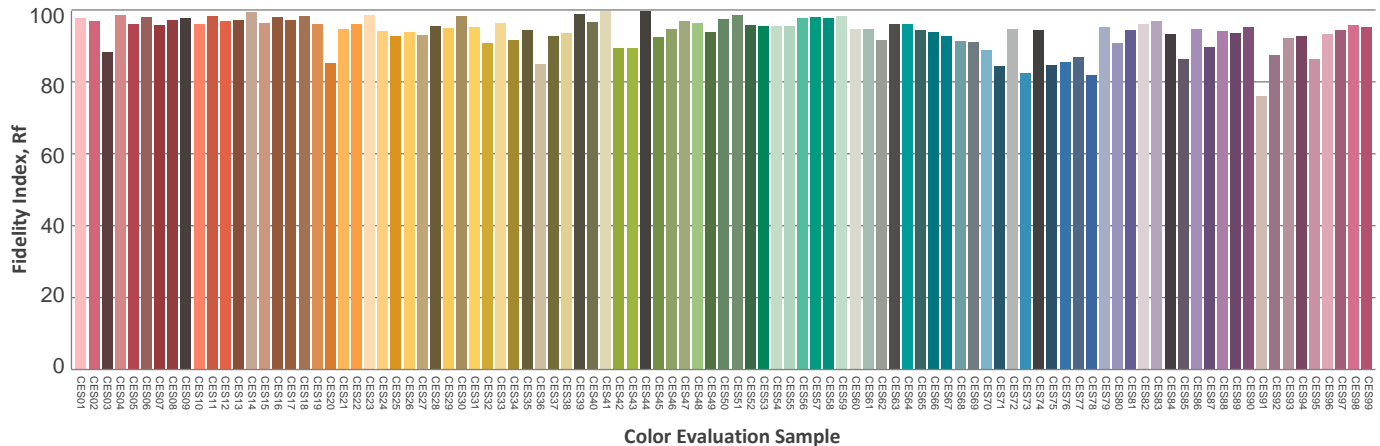
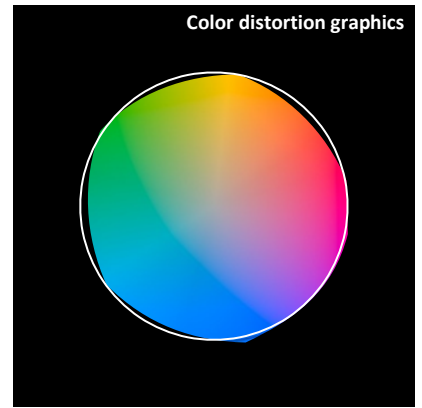
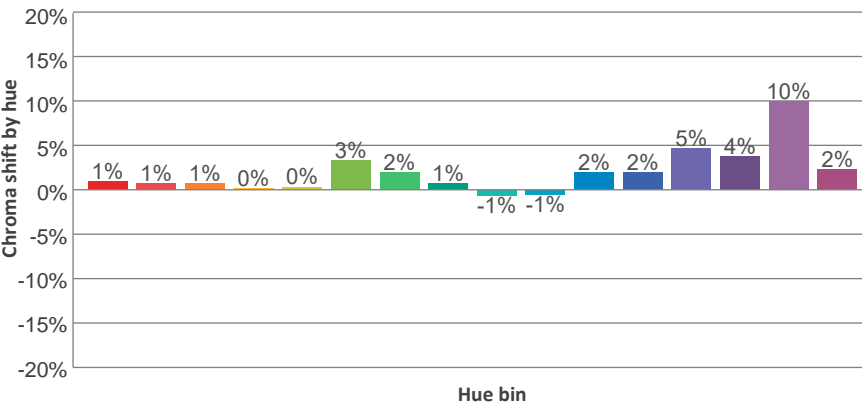
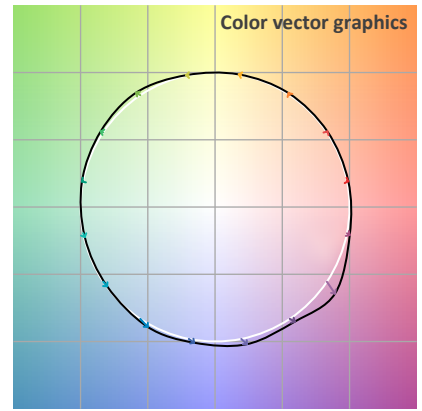
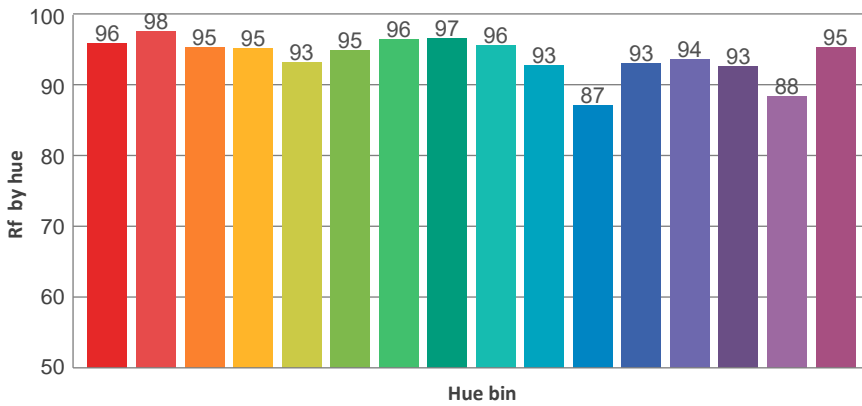
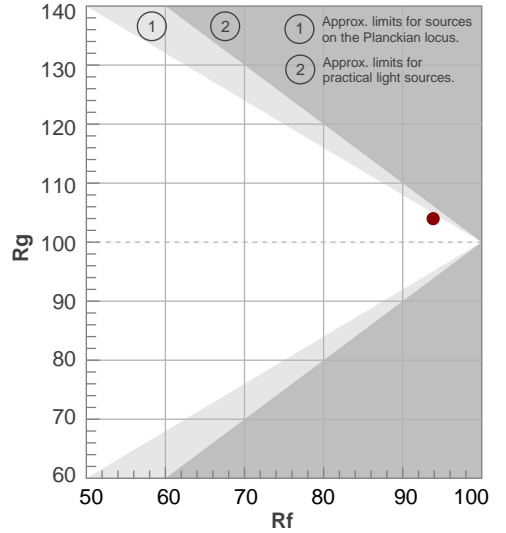
TM30 DETAILS



Rf 93,9
Fidelity index Rf

Rg 104,0
Gammut index Rg

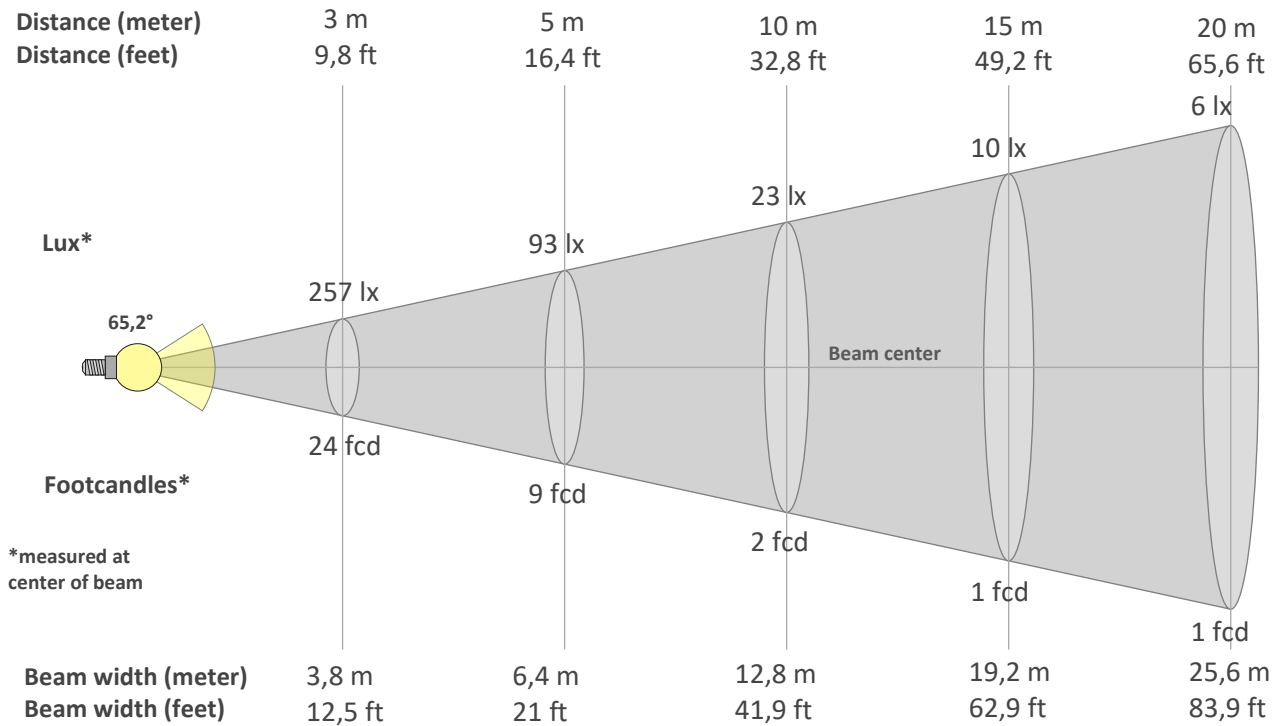
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	-1%
2	98	1%	0%
3	95	1%	2%
4	95	0%	2%
5	93	0%	2%
6	95	3%	1%
7	96	2%	0%
8	97	1%	1%
9	96	-1%	3%
10	93	-1%	4%
11	87	2%	8%
12	93	2%	4%
13	94	5%	3%
14	93	4%	2%
15	88	10%	-4%
16	95	2%	-1%



BEAM DETAILS



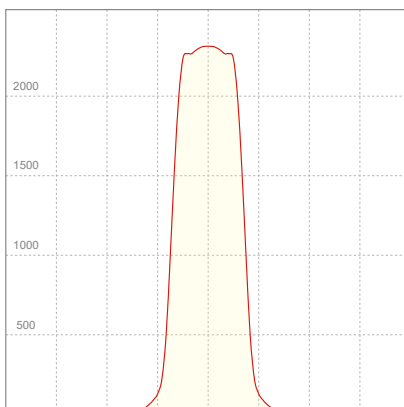
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
65,2°	82°	106,4°	99,8%	96,3%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	2313lx	578lx	257lx	145lx	93lx	41lx	23lx	10lx	6lx	4lx	3lx	1lx	1lx
Footcand.	215fcd	54fcd	24fcd	13fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,3m	2,6m	3,8m	5,1m	6,4m	9,6m	12,8m	19,2m	25,6m	32m	38,4m	51,1m	63,9m
Beam wid.	4,2ft	8,4ft	12,5ft	16,7ft	21ft	31,4ft	41,9ft	62,9ft	83,9ft	104,8ft	125,8ft	167,7ft	209,7ft

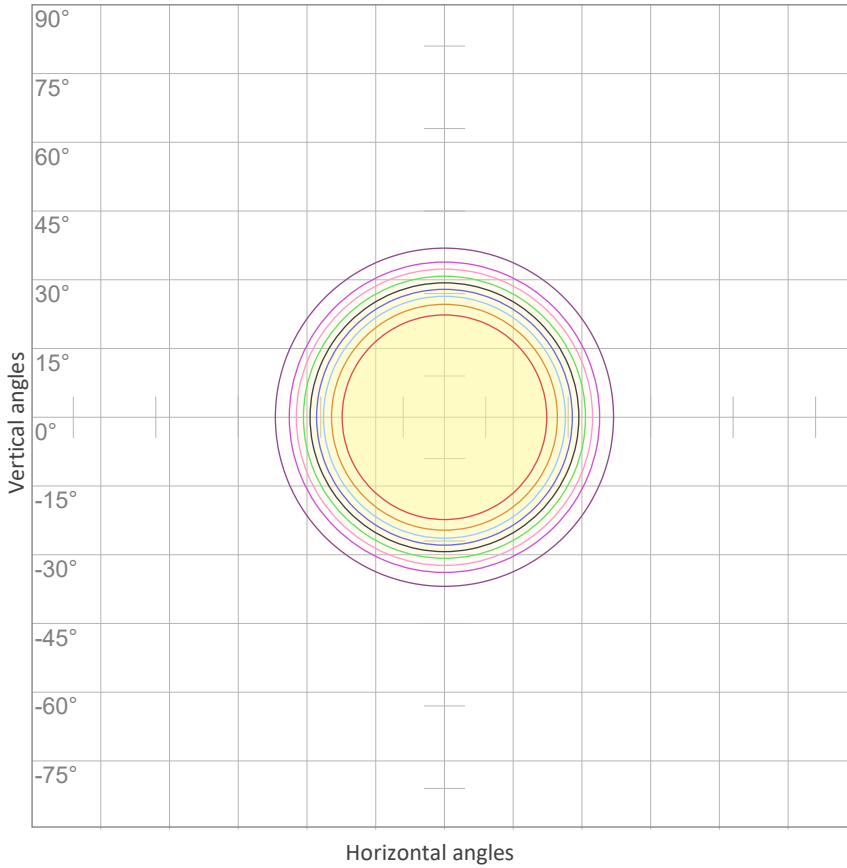
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,452A	52,1W	47lm/W
Power Fc			
0,52			

ISO CANDELA DIAGRAM



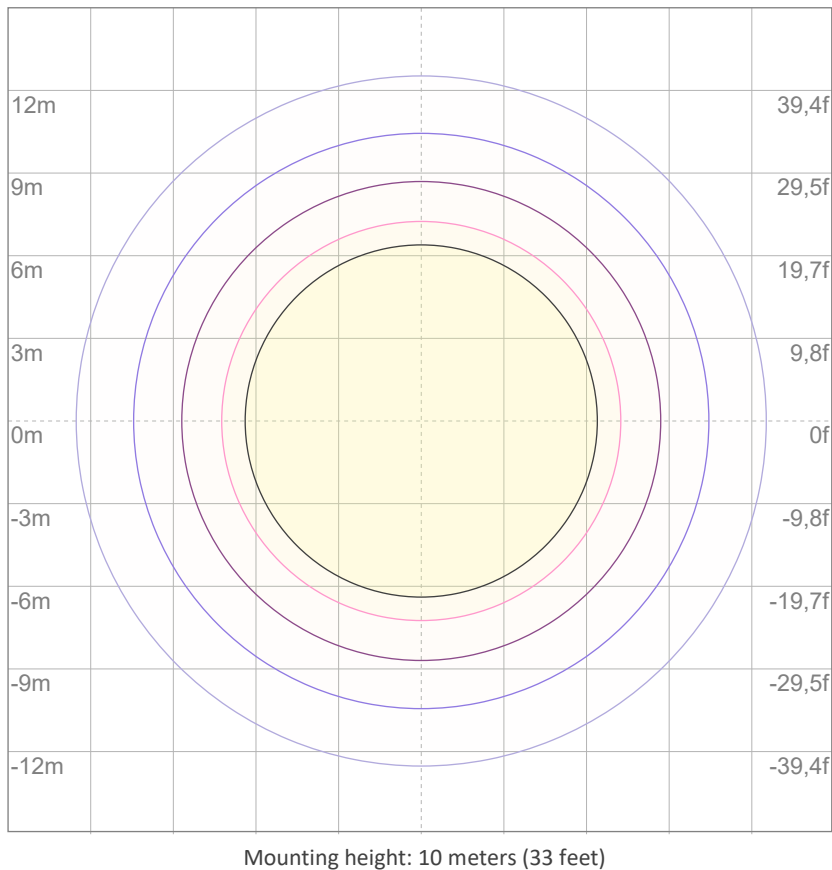
10%	231 cd
20%	463 cd
30%	694 cd
40%	925 cd
50%	1156 cd
60%	1388 cd
70%	1619 cd
80%	1850 cd
90%	2081 cd

Conditions:

Number of c-planes: 2

Candela at center: 2313 cd

ISO LUX DIAGRAM



3%	0,694 lx
5%	1,16 lx
10%	2,31 lx
30%	6,94 lx
50%	11,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 23,1 lx

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



Total lumen output:

939 lm

Peak candela output:

6224 cd

Light quality:

CRI: 95,1

Color temperature:

5680 K

PRODUCT NAME:

MINIECLFRVW

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

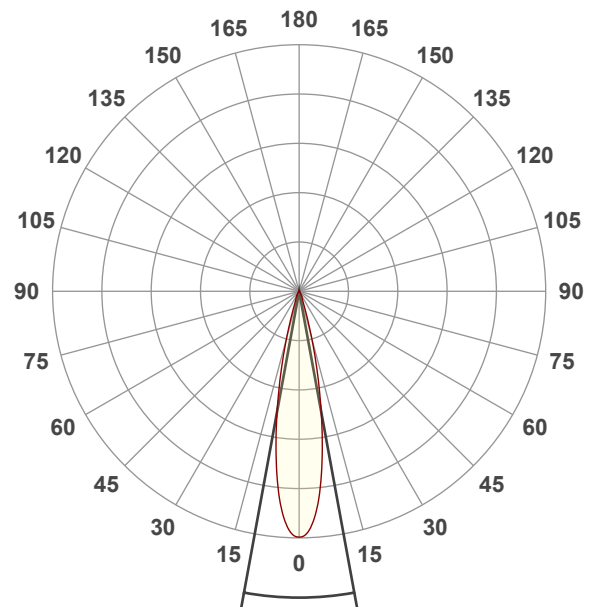
Cold White

Operator:

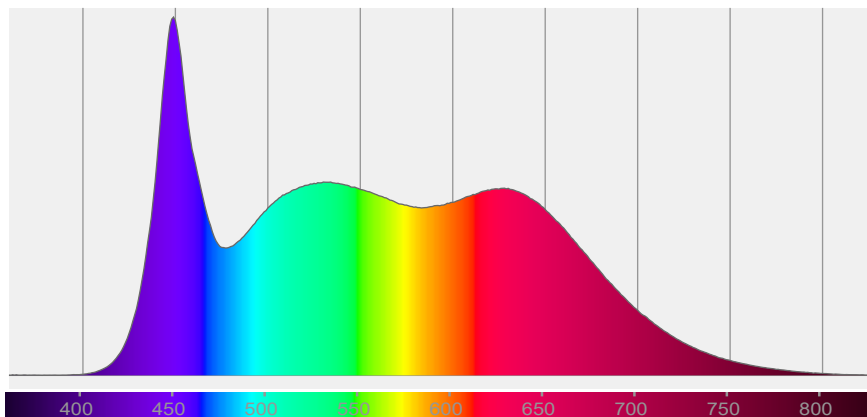
Paolo Carvone

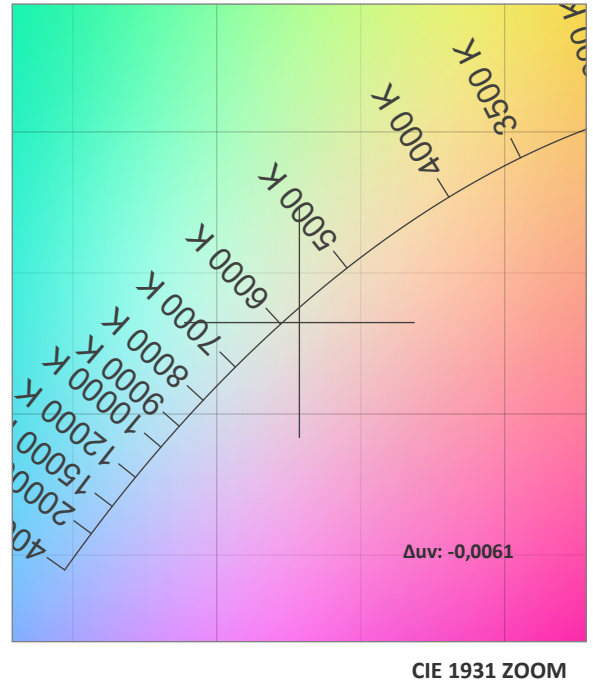
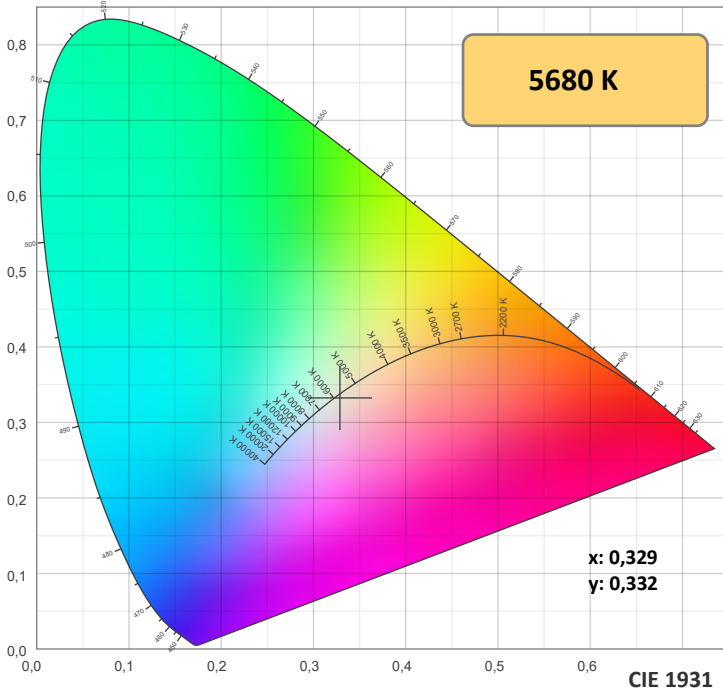
Date and time:

01/09/2021 11:50:16

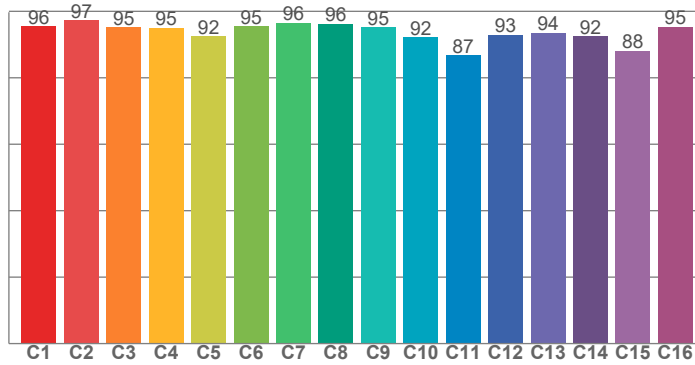


Spectra

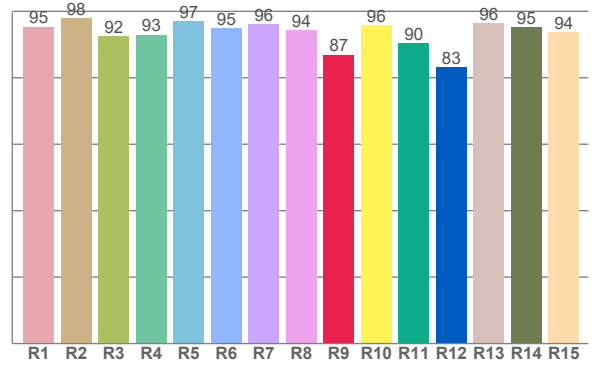




TM30: 93,7



CRI: 95,1 (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
95,3	98,0	92,5	93,0	96,9	94,9	96,2	94,3	86,9	95,8	90,4	83,2	96,3	95,2	93,7

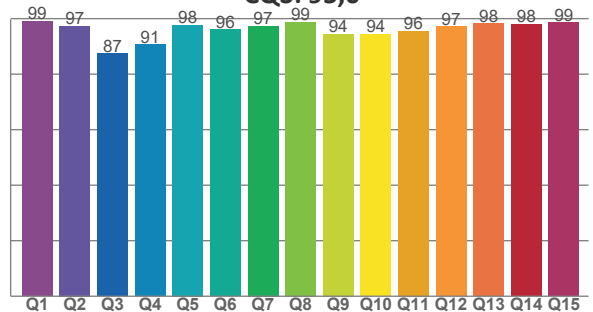
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,5	97,3	95,2	95,1	92,4	95,5	96,5	96,3	95,2	92,2	86,8	93,0	93,6	92,5	88,0	95,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,1	97,3	87,4	90,7	97,7	96,1	97,3	98,8	94,5	94,3	95,5	97,1	98,2	98,0	98,6

CQS: 95,0



COLOR PARAMETERS

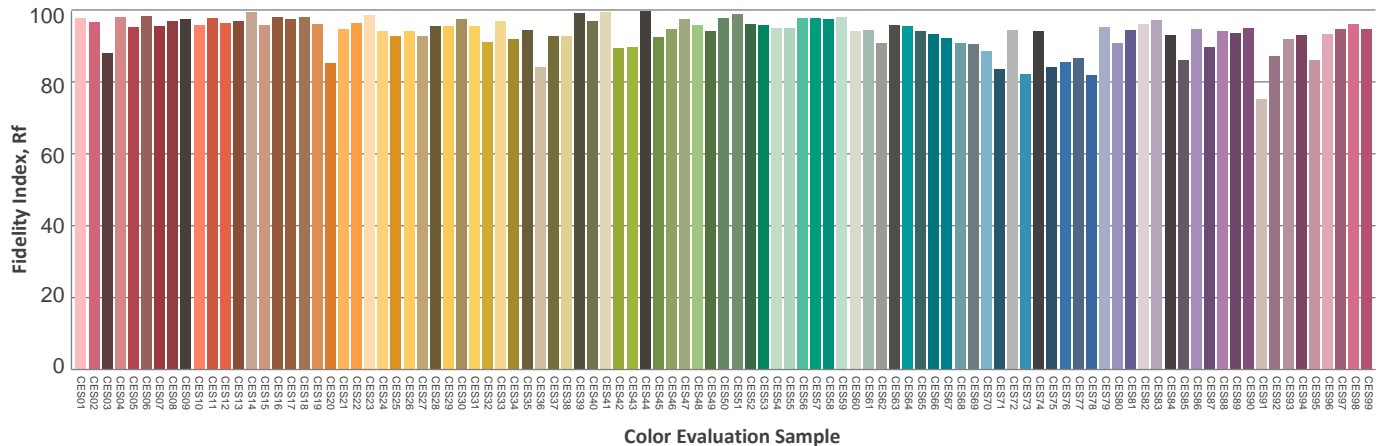
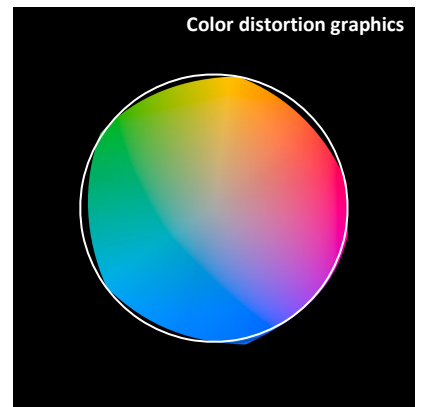
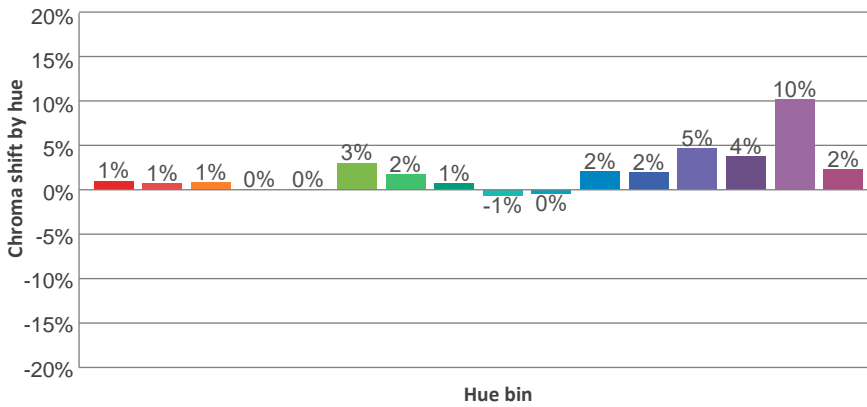
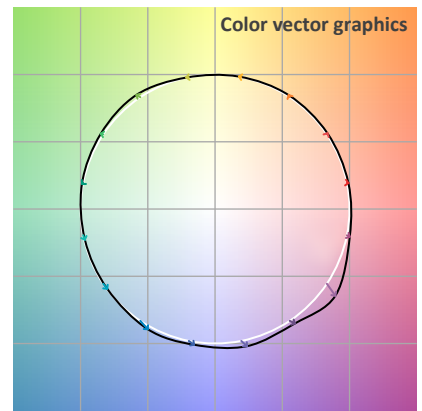
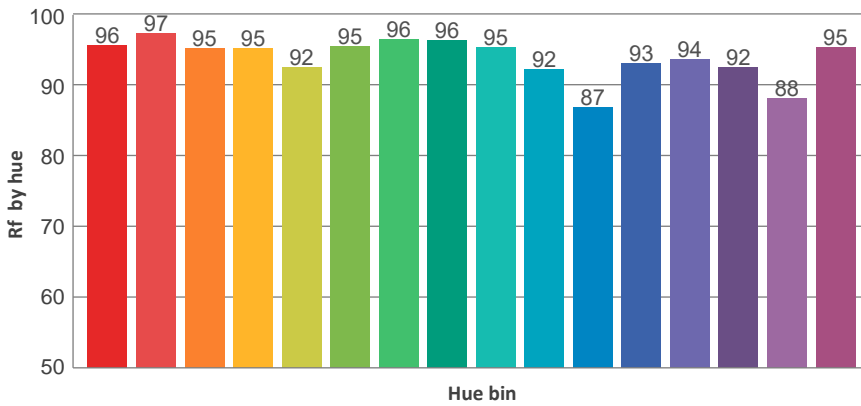
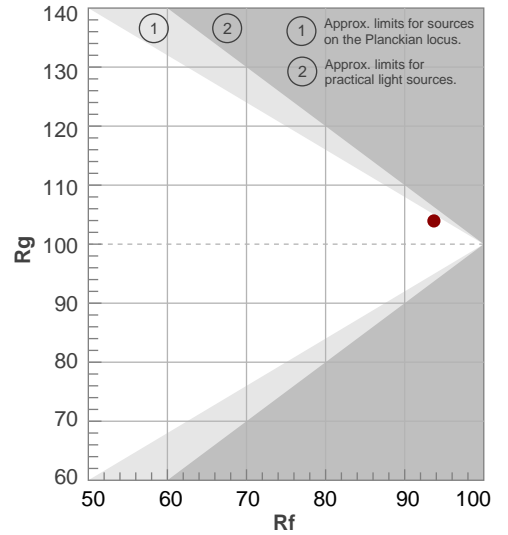
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5680 K	95,1	86,9	93,7	103,9	95,0	98	0,329	0,332	-0,0061

TM30 DETAILS

Rf 93,7
Fidelity index Rf

Rg 103,9
Gammut index Rg

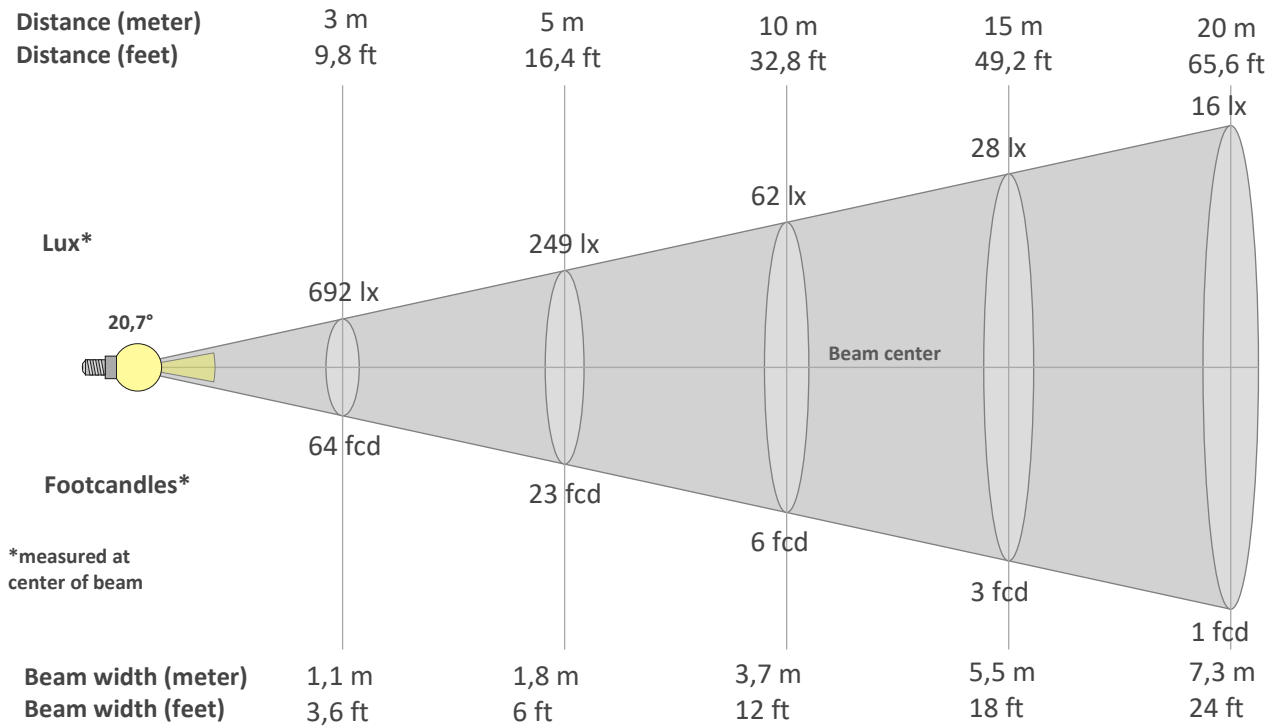
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	0%
2	97	1%	0%
3	95	1%	2%
4	95	0%	2%
5	92	0%	2%
6	95	3%	1%
7	96	2%	1%
8	96	1%	1%
9	95	-1%	3%
10	92	0%	5%
11	87	2%	8%
12	93	2%	4%
13	94	5%	3%
14	92	4%	2%
15	88	10%	-4%
16	95	2%	-1%



BEAM DETAILS



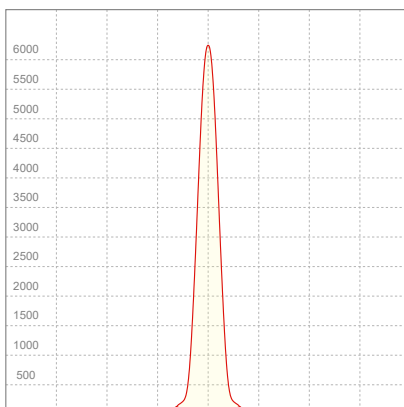
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
20,7°	34,7°	53,5°	100,0%	99,7%



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	6224lx	1556lx	692lx	389lx	249lx	111lx	62lx	28lx	16lx	10lx	7lx	4lx	2lx
Footcand.	578fcd	145fcd	64fcd	36fcd	23fcd	10fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,4m	0,7m	1,1m	1,5m	1,8m	2,7m	3,7m	5,5m	7,3m	9,2m	11m	14,6m	18,3m
Beam wid.	1,2ft	2,4ft	3,6ft	4,8ft	6ft	9ft	12ft	18ft	24ft	30ft	36ft	48ft	60ft

LINEAR DISTRIBUTION DIAGRAM

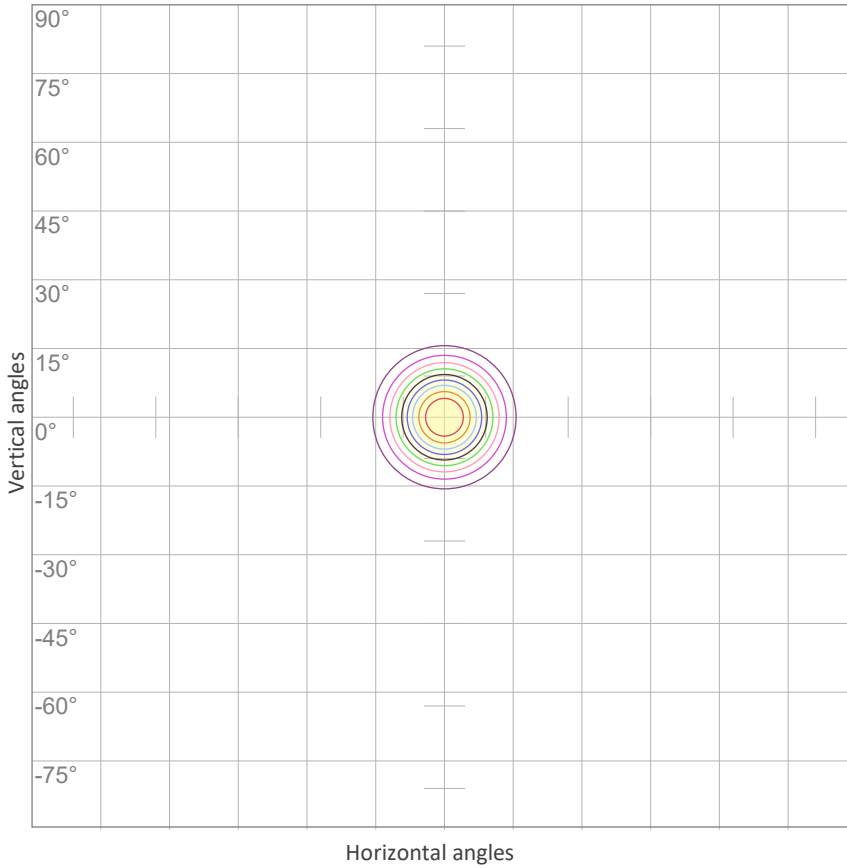


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,465A	52,0W	18lm/W

Power Fc
0,52

ISO CANDELA DIAGRAM



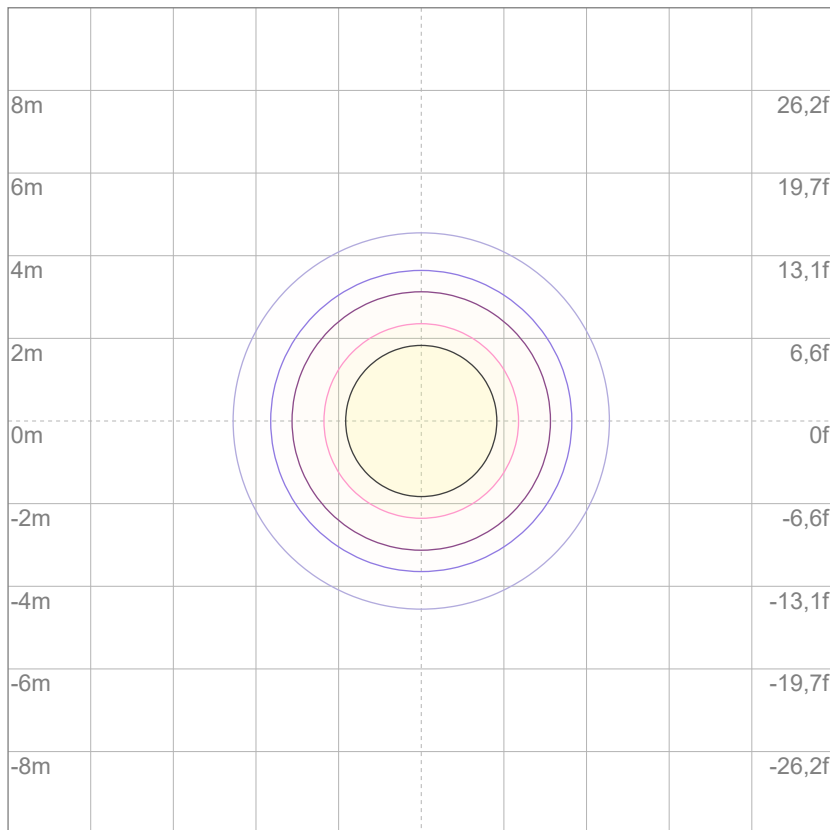
10%	622 cd
20%	1245 cd
30%	1867 cd
40%	2490 cd
50%	3112 cd
60%	3735 cd
70%	4357 cd
80%	4980 cd
90%	5602 cd

Conditions:

Number of c-planes: 2

Candela at center: 6224 cd

ISO LUX DIAGRAM



3%	1,87 lx
5%	3,11 lx
10%	6,22 lx
30%	18,7 lx
50%	31,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 62,2 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:

1761 lm

Peak candela output:

1591 cd

Light quality:

CRI: 96,9

Color temperature:

2692 K

PRODUCT NAME:

MINIECLFRVW

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

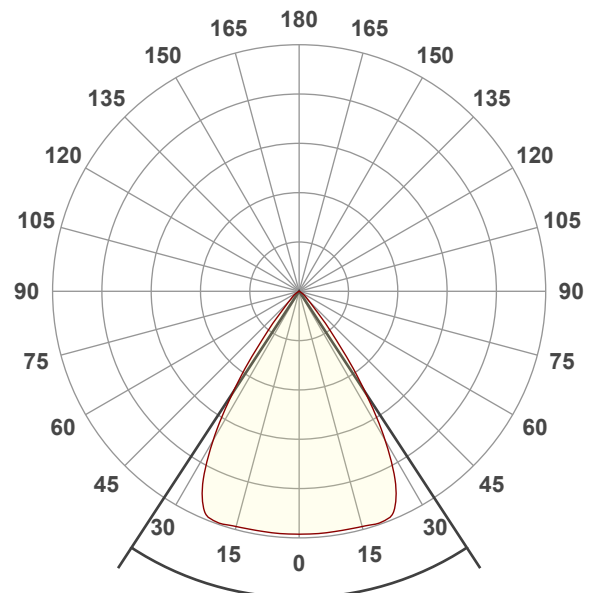
Warm White

Operator:

Paolo Carvone

Date and time:

01/09/2021 11:46:11

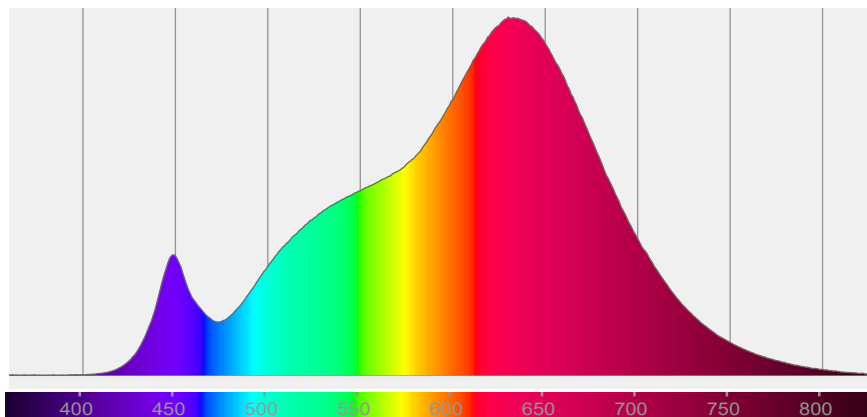


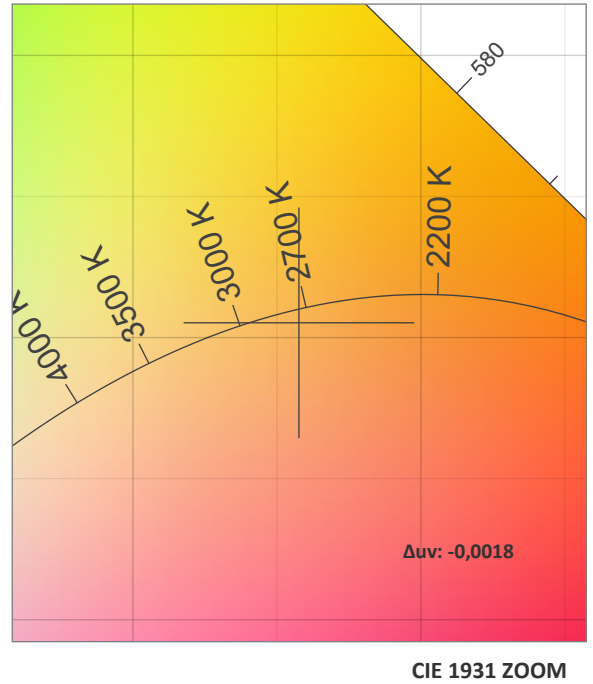
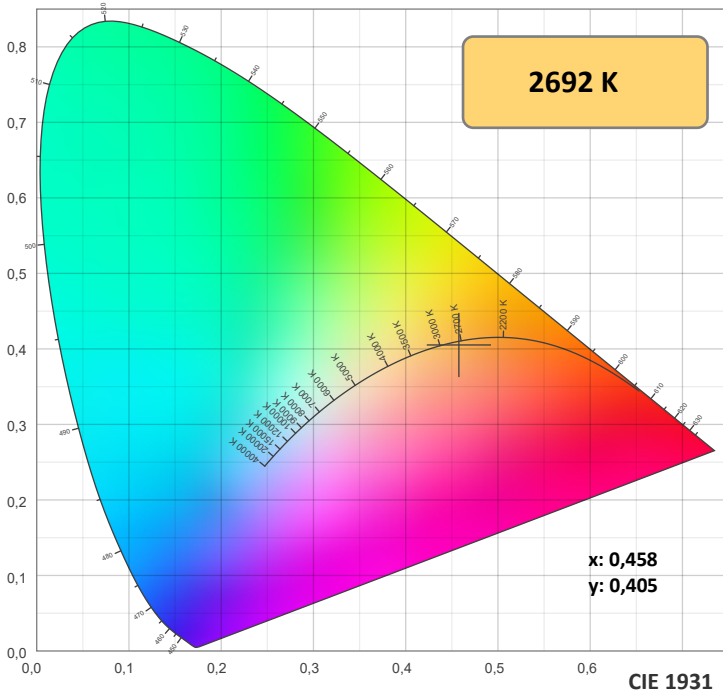
Beam angle 50%: 66,4°

Field angle 10%: 83,6°

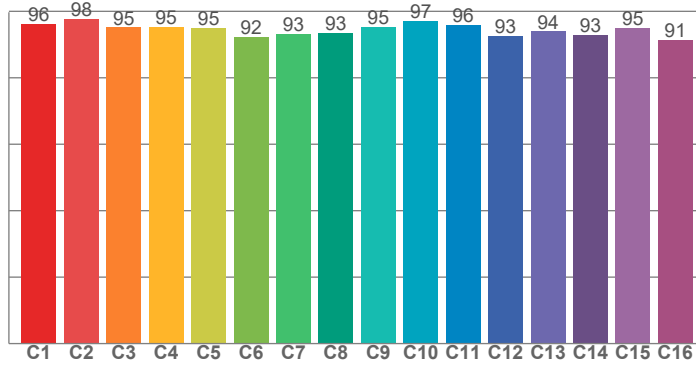
Cut off angle 2.5%: 106,6°

Spectra

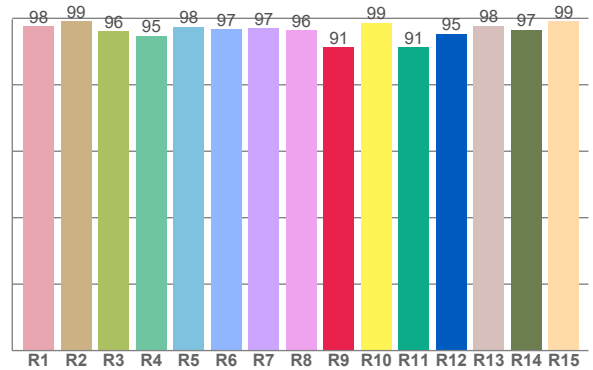




TM30: 94,9



CRI: 96,9 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
97,7	99,1	96,0	94,8	97,5	96,7	97,1	96,5	91,3	98,7	91,3	95,3	97,7	96,5	99,2

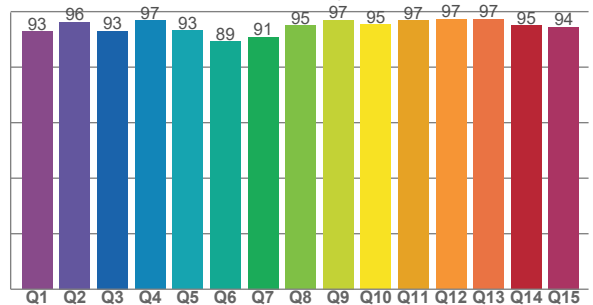
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,3	97,7	95,1	95,3	95,1	92,4	93,2	93,4	95,4	97,1	95,8	92,6	94,0	92,8	95,0	91,3

CQS Q values

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

CQS: 93,8



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
2692 K	96,9	91,3	94,9	103,9	93,8	95	0,458	0,405	-0,0018

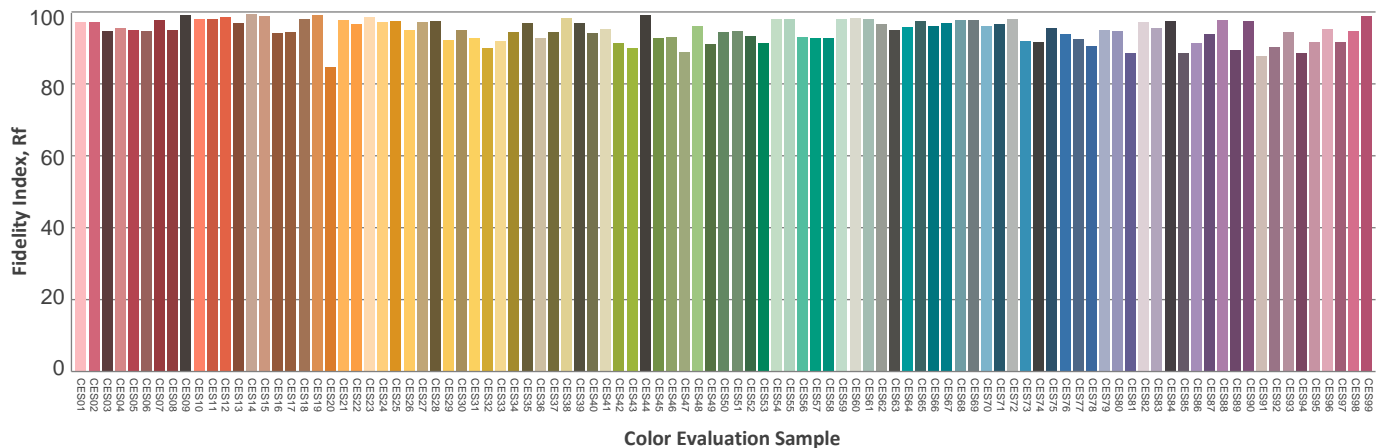
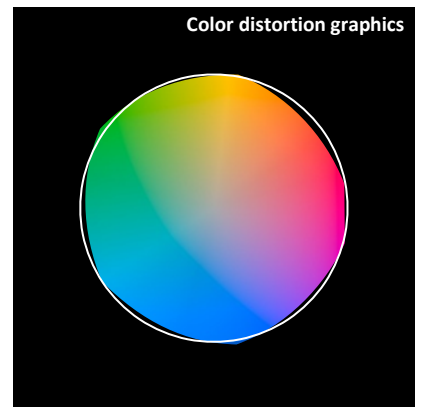
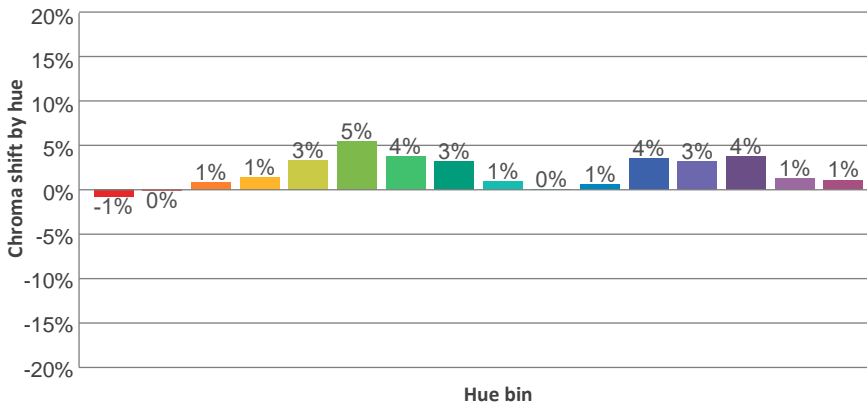
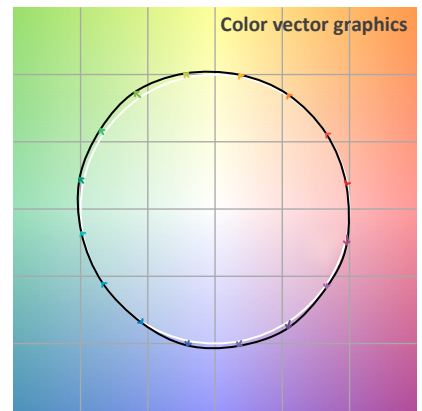
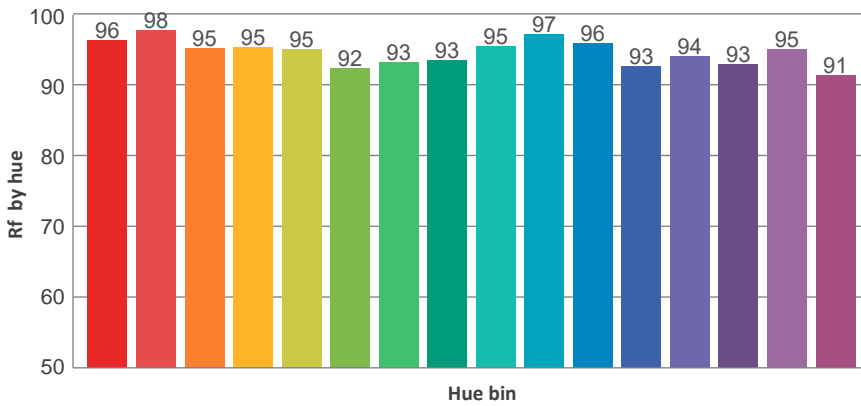
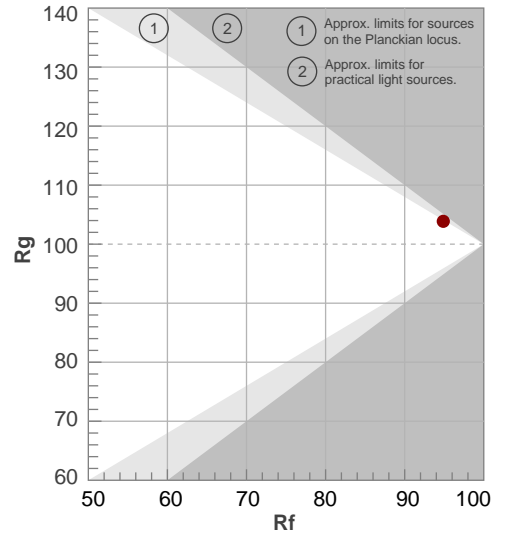
TM30 DETAILS



Rf 94,9
Fidelity index Rf

Rg 103,9
Gammut index Rg

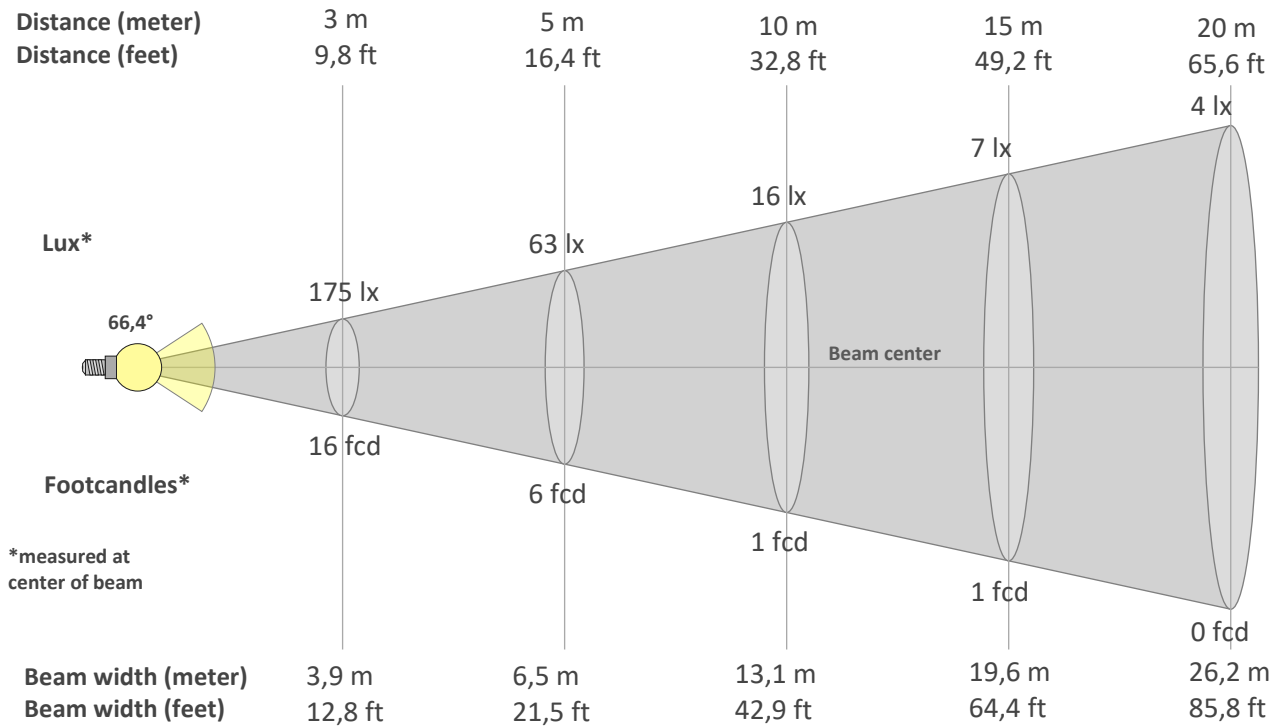
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	-1%	-1%
2	98	0%	1%
3	95	1%	2%
4	95	1%	2%
5	95	3%	3%
6	92	5%	1%
7	93	4%	-2%
8	93	3%	-3%
9	95	1%	-2%
10	97	0%	-1%
11	96	1%	2%
12	93	4%	0%
13	94	3%	-3%
14	93	4%	-4%
15	95	1%	-3%
16	91	1%	-7%



BEAM DETAILS



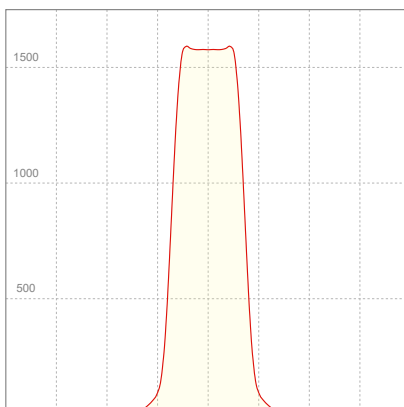
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
66,4°	83,6°	106,6°	99,8%	96,5%



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	1577lx	394lx	175lx	99lx	63lx	28lx	16lx	7lx	4lx	3lx	2lx	1lx	1lx
Footcand.	146fcd	37fcd	16fcd	9fcd	6fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,3m	2,6m	3,9m	5,2m	6,5m	9,8m	13,1m	19,6m	26,2m	32,7m	39,2m	52,3m	65,4m
Beam wid.	4,3ft	8,6ft	12,8ft	17,1ft	21,5ft	32,2ft	42,9ft	64,4ft	85,8ft	107,3ft	128,7ft	171,6ft	214,5ft

LINEAR DISTRIBUTION DIAGRAM

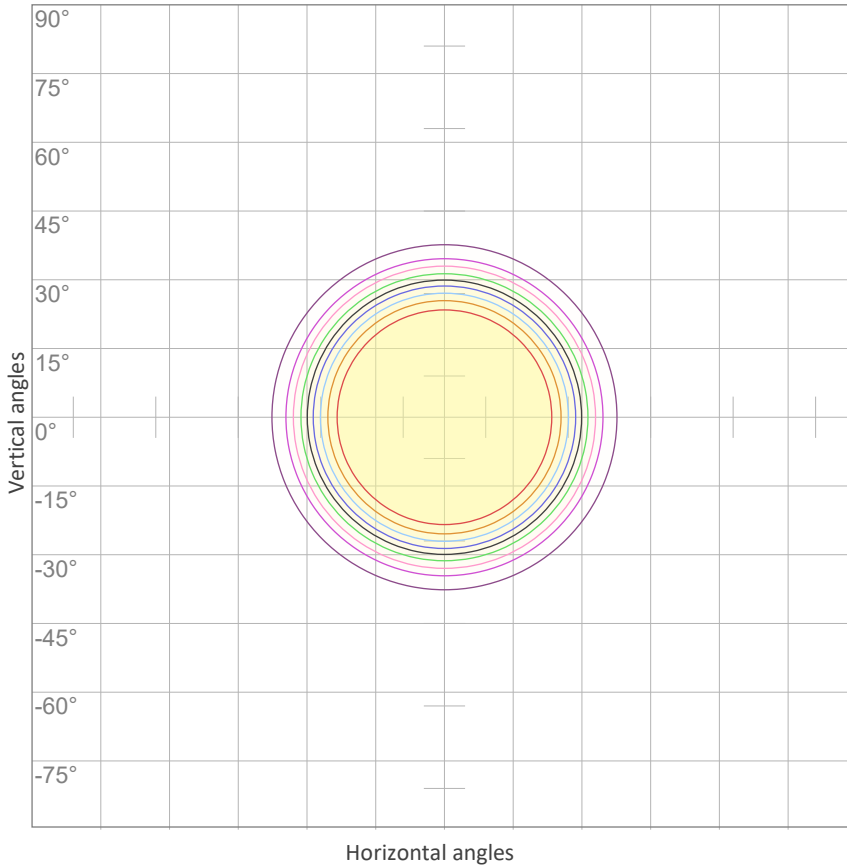


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,444A	51,0W	35lm/W

Power Fc
0,52

ISO CANDELA DIAGRAM



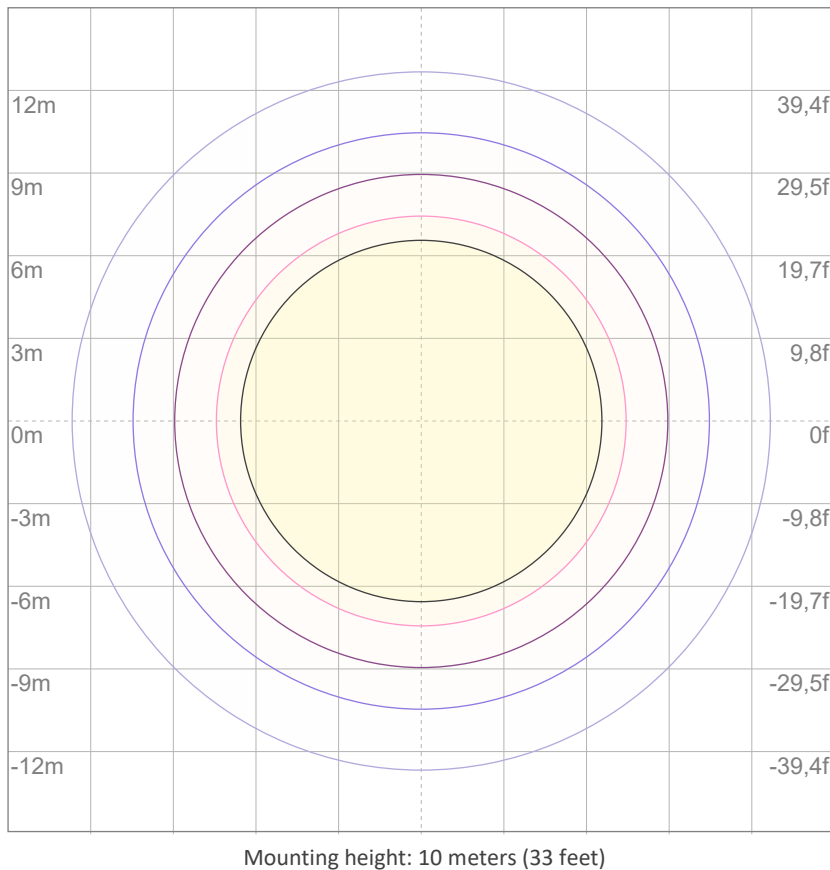
10%	158 cd
20%	315 cd
30%	473 cd
40%	631 cd
50%	788 cd
60%	946 cd
70%	1104 cd
80%	1261 cd
90%	1419 cd

Conditions:

Number of c-planes: 2

Candela at center: 1577 cd

ISO LUX DIAGRAM



3%	0,473 lx
5%	0,788 lx
10%	1,58 lx
30%	4,73 lx
50%	7,88 lx

Conditions:

Number of c-planes: 2

Lux at center: 15,8 lx

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



Total lumen output:

670 lm

Peak candela output:

4277 cd

Light quality:

CRI: 97,2

Color temperature:

2671 K

PRODUCT NAME:
MINIECLFRVW

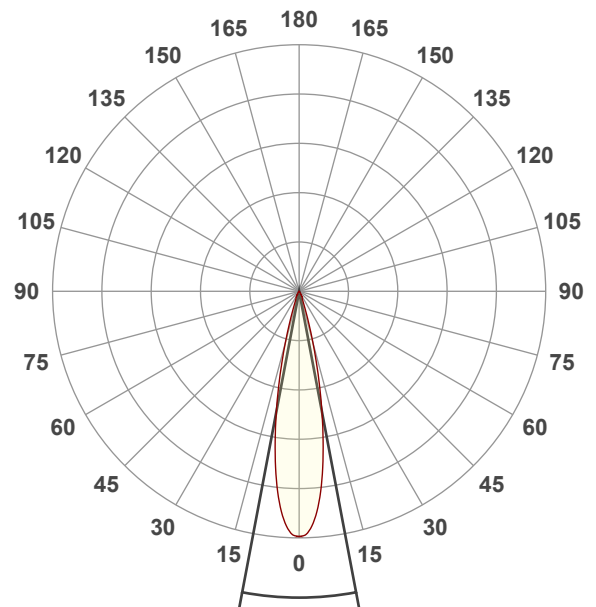
MEASUREMENT CONDITIONS:

Beam angle:
Min Zoom

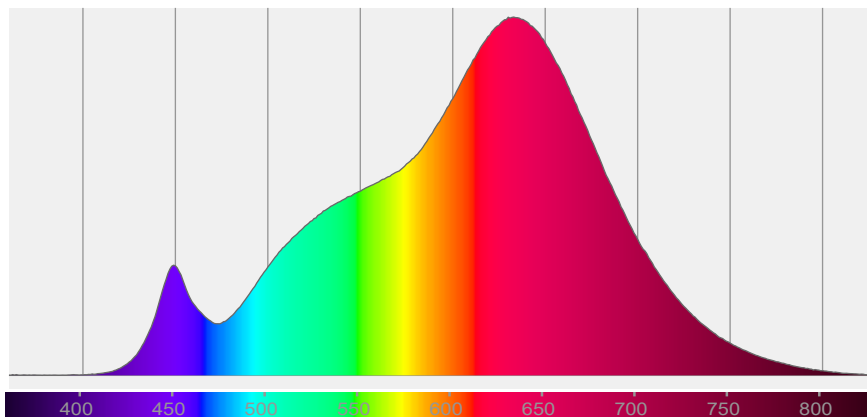
Target:
Warm White

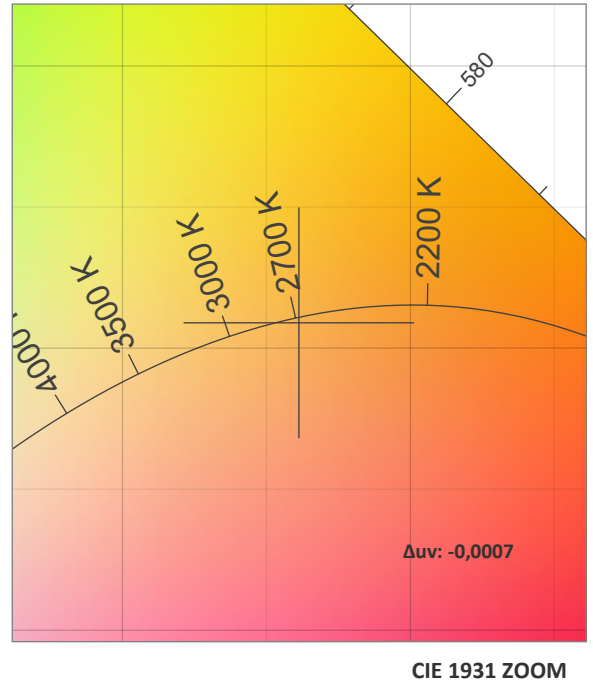
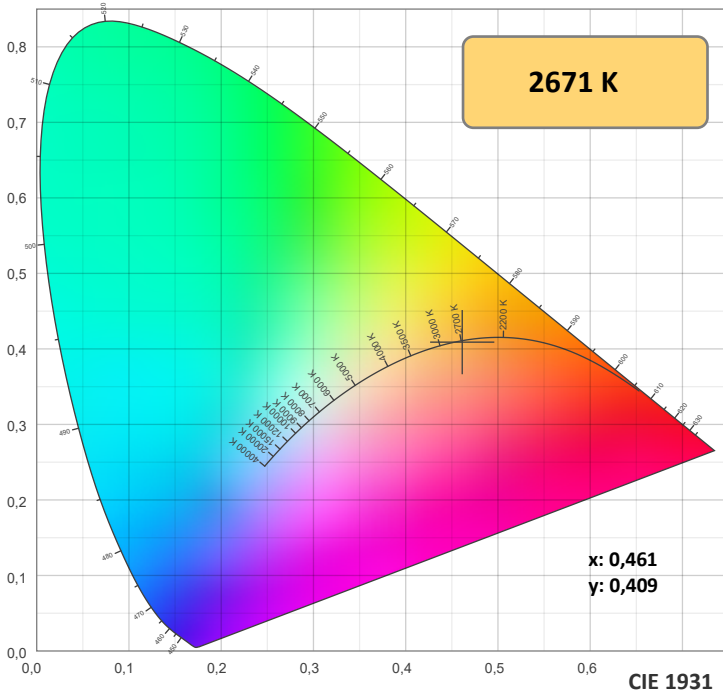
Operator:
Paolo Carvone

Date and time:
01/09/2021 11:48:20

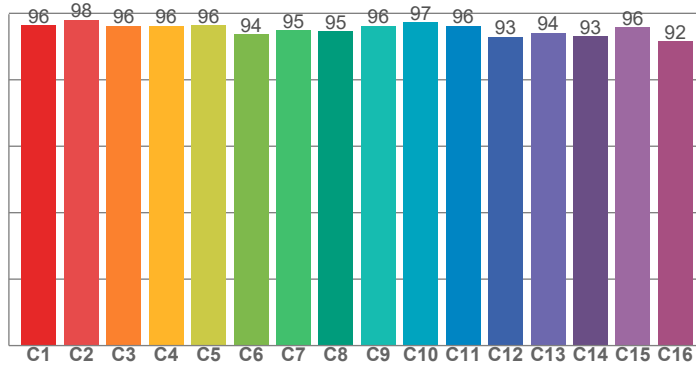


Spectra

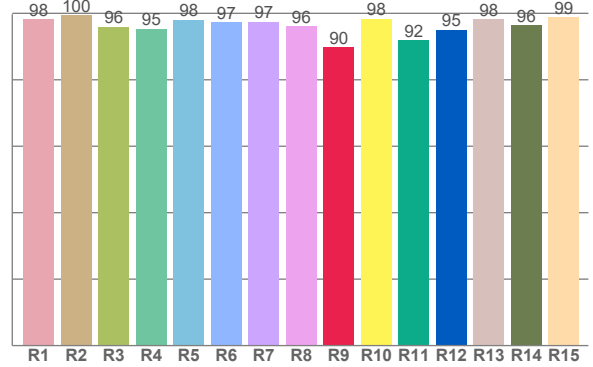




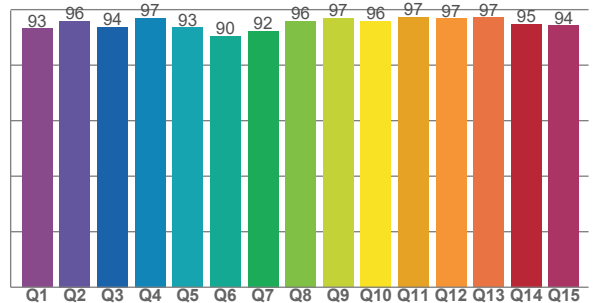
TM30: 95,5



CRI: 97,2 (R1-R8)



CQS: 94,3



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
98,2	99,5	95,9	95,4	98,0	97,3	97,5	96,1	89,8	98,4	91,9	95,0	98,2	96,5	98,7

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,4	98,0	96,2	96,2	96,3	93,6	94,9	94,6	96,2	97,3	96,2	92,9	94,1	93,0	95,8	91,5

CQS Q values

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

COLOR PARAMETERS

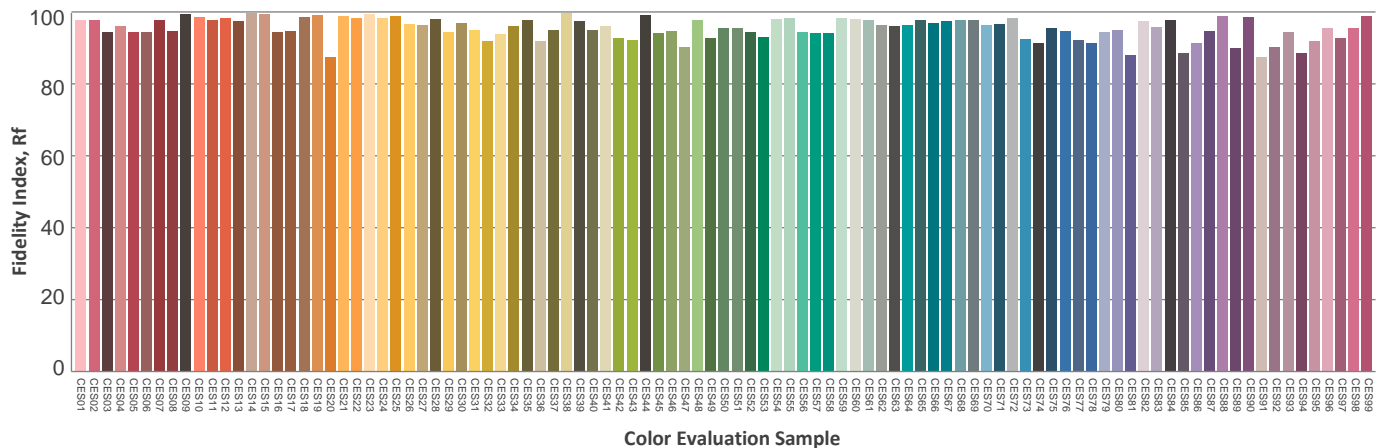
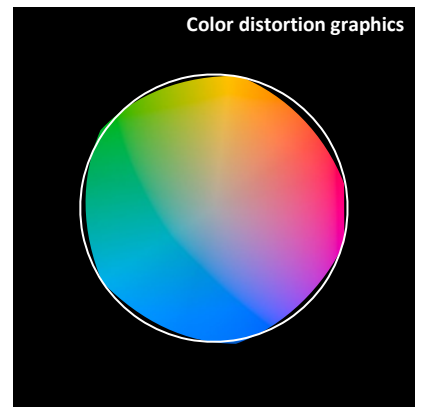
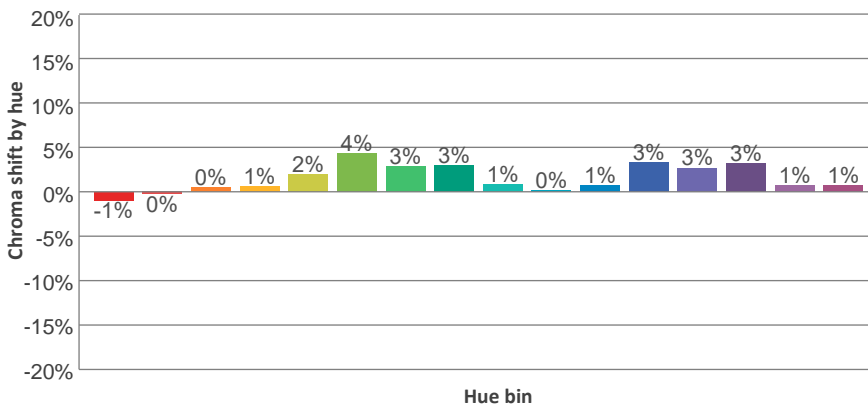
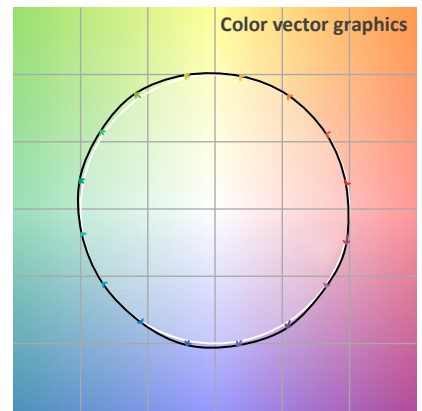
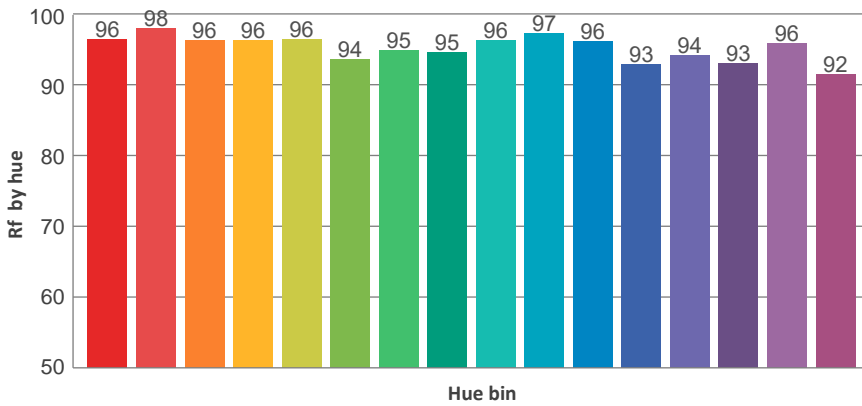
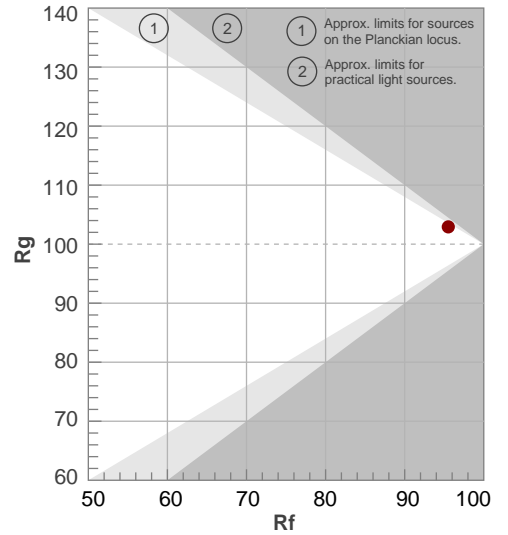
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2671 K	97,2	89,8	95,5	102,9	94,3	96	0,461	0,409	-0,0007

TM30 DETAILS

Rf 95,5
Fidelity index Rf

Rg 102,9
Gammut index Rg

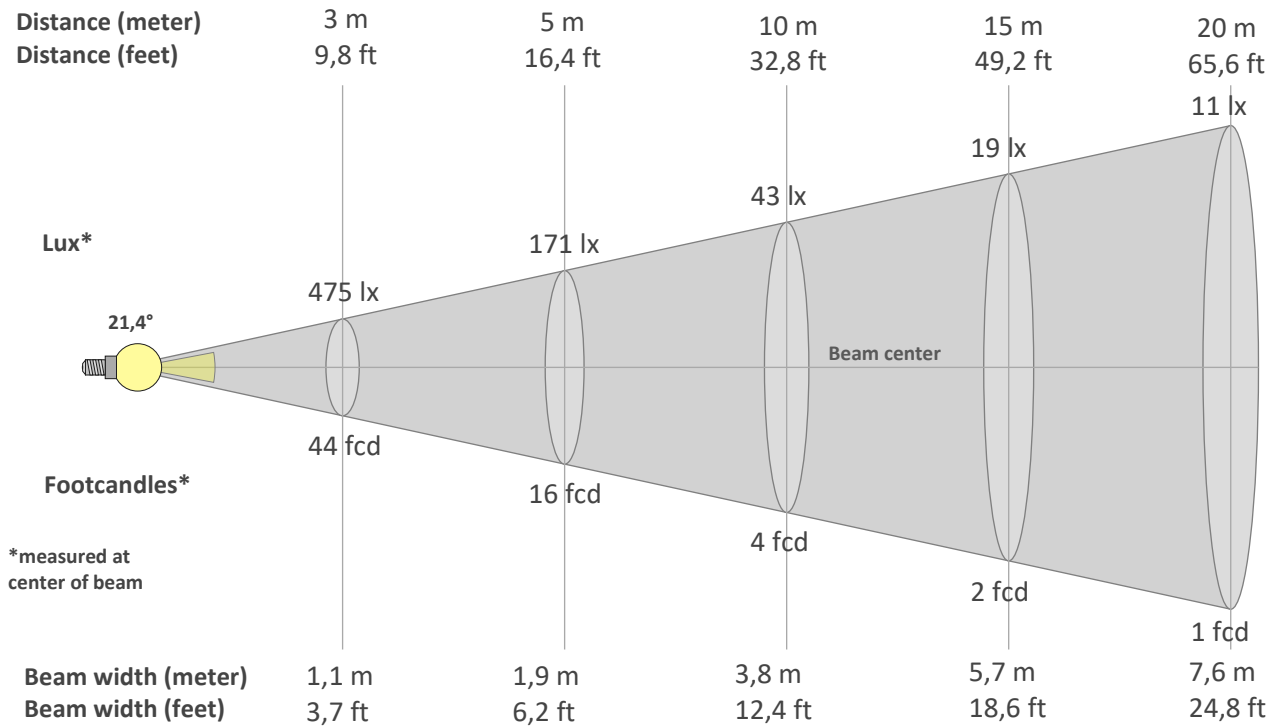
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	-1%	-1%
2	98	0%	0%
3	96	0%	2%
4	96	1%	1%
5	96	2%	2%
6	94	4%	2%
7	95	3%	-1%
8	95	3%	-2%
9	96	1%	-2%
10	97	0%	0%
11	96	1%	2%
12	93	3%	-1%
13	94	3%	-4%
14	93	3%	-4%
15	96	1%	-2%
16	92	1%	-6%



BEAM DETAILS



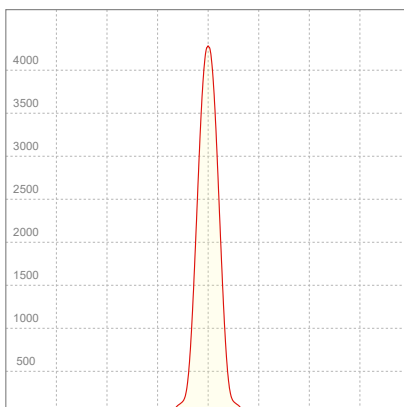
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
21,4°	35,7°	53,2°	100,0%	99,8%



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	4277lx	1069lx	475lx	267lx	171lx	76lx	43lx	19lx	11lx	7lx	5lx	3lx	2lx
Footcand.	397fcd	99fcd	44fcd	25fcd	16fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,4m	0,8m	1,1m	1,5m	1,9m	2,8m	3,8m	5,7m	7,6m	9,5m	11,4m	15,1m	18,9m
Beam wid.	1,2ft	2,5ft	3,7ft	5ft	6,2ft	9,3ft	12,4ft	18,6ft	24,8ft	31ft	37,2ft	49,6ft	62,1ft

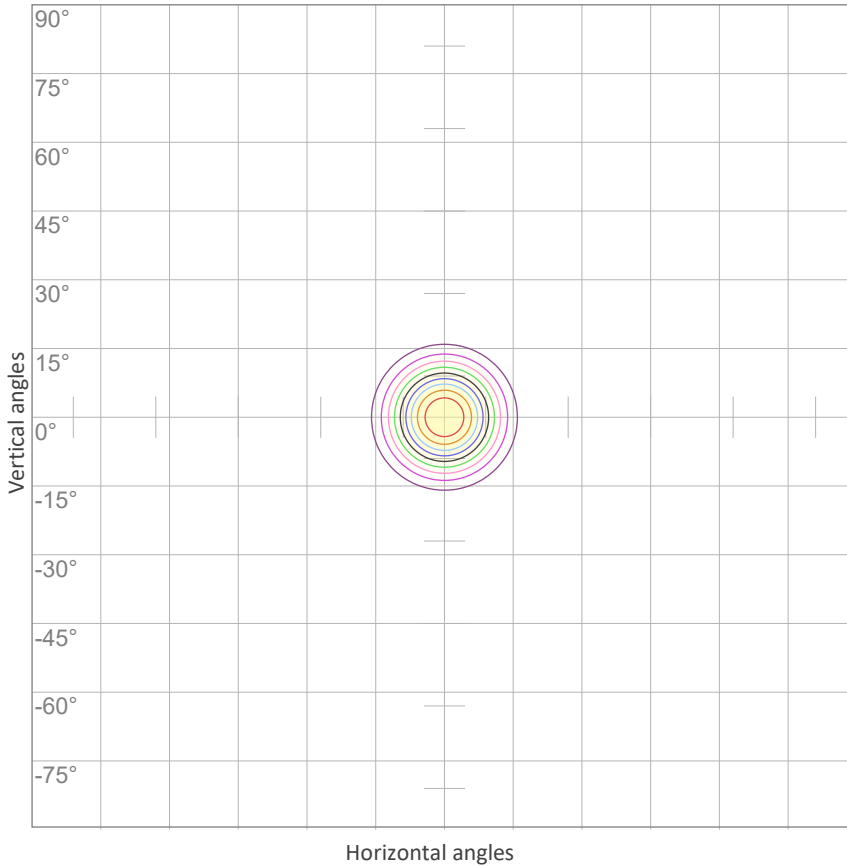
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
229V	0,431A	50,8W	13lm/W
Power Fc			
0,52			

ISO CANDELA DIAGRAM



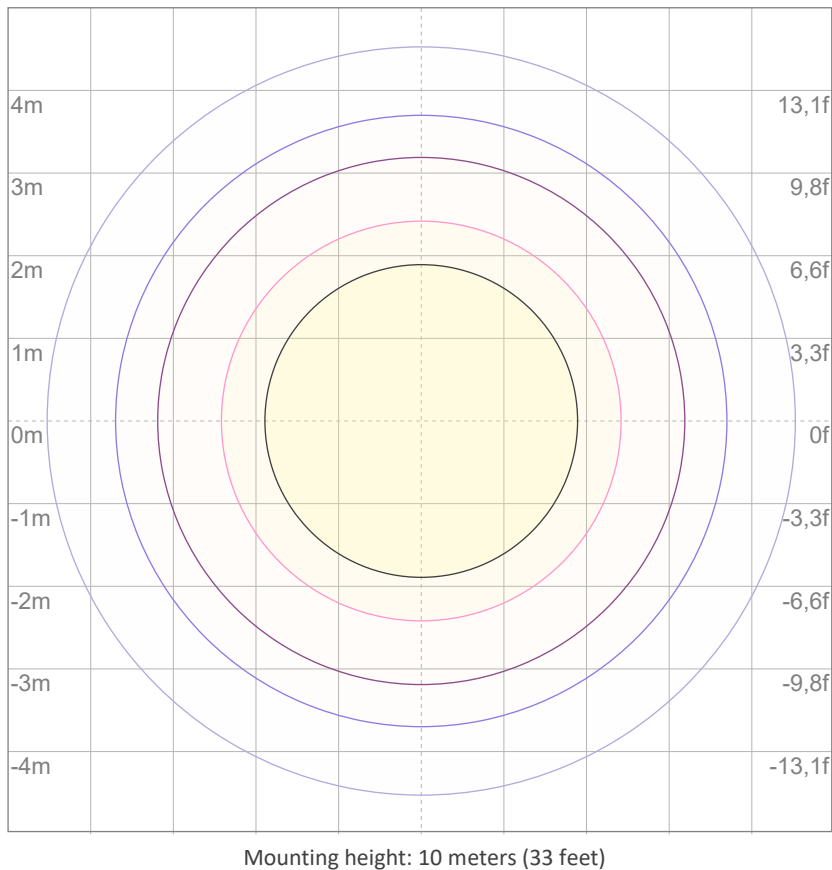
10%	428 cd
20%	855 cd
30%	1283 cd
40%	1711 cd
50%	2138 cd
60%	2566 cd
70%	2994 cd
80%	3421 cd
90%	3849 cd

Conditions:

Number of c-planes: 2

Candela at center: 4277 cd

ISO LUX DIAGRAM



3%	1,28 lx
5%	2,14 lx
10%	4,28 lx
30%	12,8 lx
50%	21,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 42,8 lx

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