

Photometric Test Report



ECLFR2KVW

500W Variable White LED Fresnel
(2.700K - 5.600K) with manual zoom 15° - 79°

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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:

19711 lm

Peak candela output:

27942 cd

Light quality:

CRI: 92,9

Color temperature:

4093 K

PRODUCT NAME:

ECLFR2KVW

MEASUREMENT CONDITIONS:

Beam angle:

Max zoom

Target:

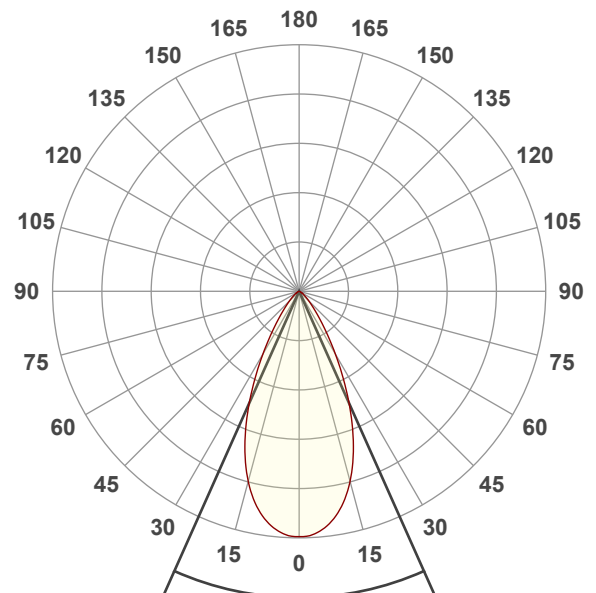
Full On

Operator:

Paolo Carvone

Date and time:

08/11/2021 13:10:54

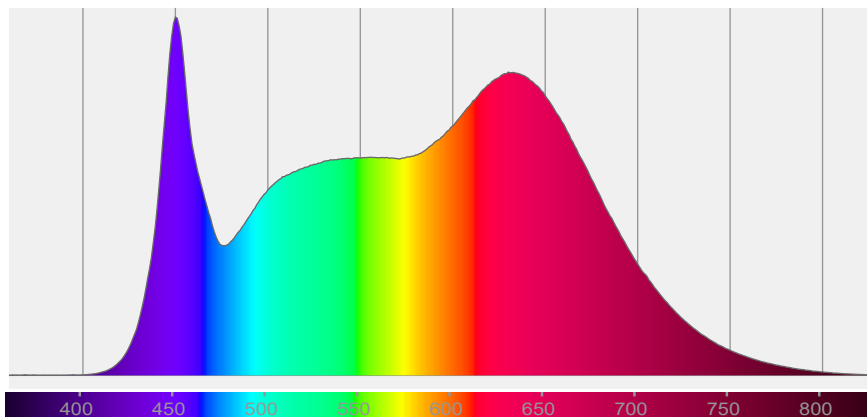


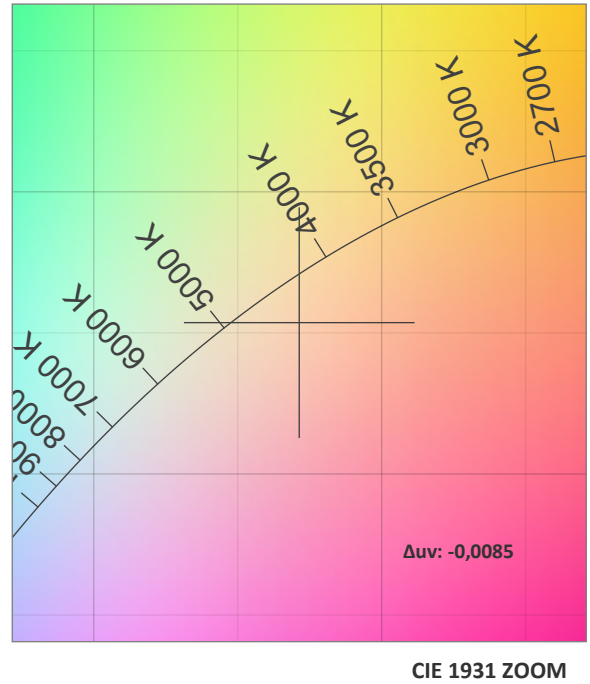
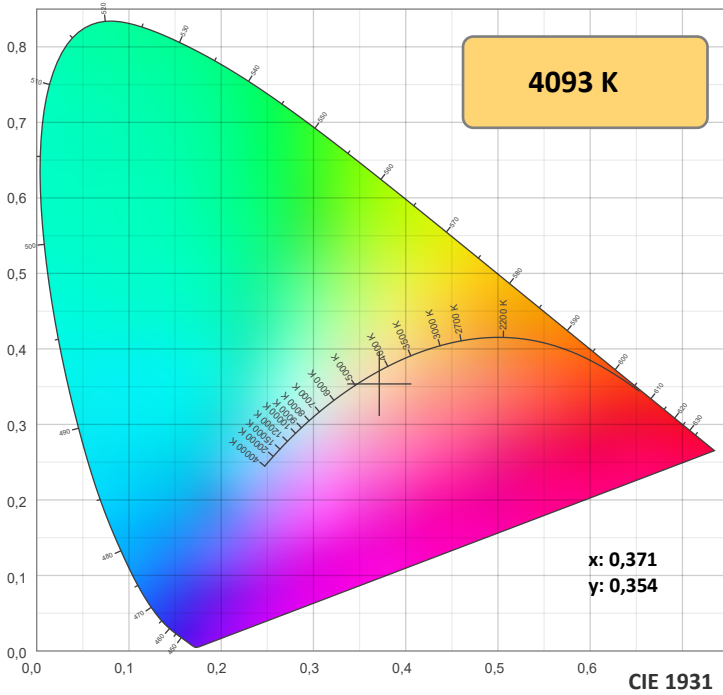
Beam angle 50%: 48,1°

Field angle 10%: 79,5°

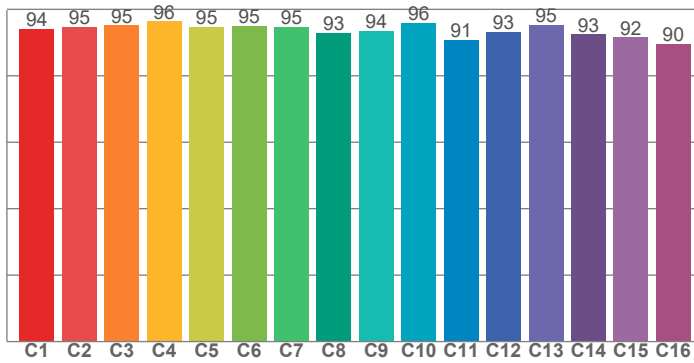
Cut off angle 2.5%: 105,5°

Spectra

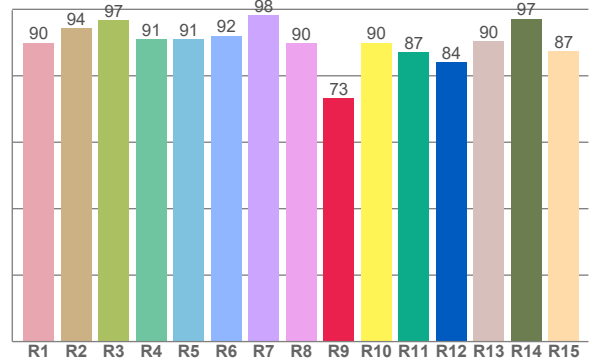




TM30: 93,9



CRI: 92,9 (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
89,9	94,3	96,7	91,0	91,0	92,0	98,2	89,8	73,2	89,9	87,0	84,1	90,5	97,1	87,3

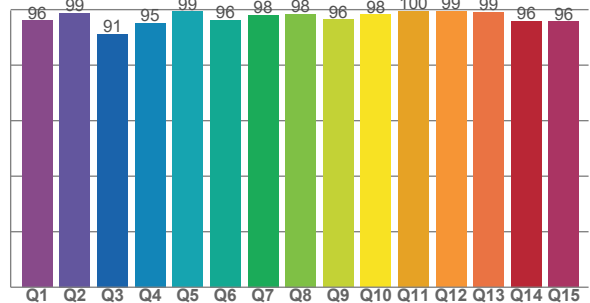
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,1	94,7	95,1	96,4	94,7	95,1	94,7	93,0	93,6	95,9	90,9	93,1	95,3	92,5	91,6	89,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,0	98,8	91,2	95,1	99,3	96,3	98,0	98,4	96,4	98,2	99,5	99,4	99,0	95,9	95,7

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
4093 K	92,9	73,2	93,9	104,8	96,4	98	0,371	0,354	-0,0085

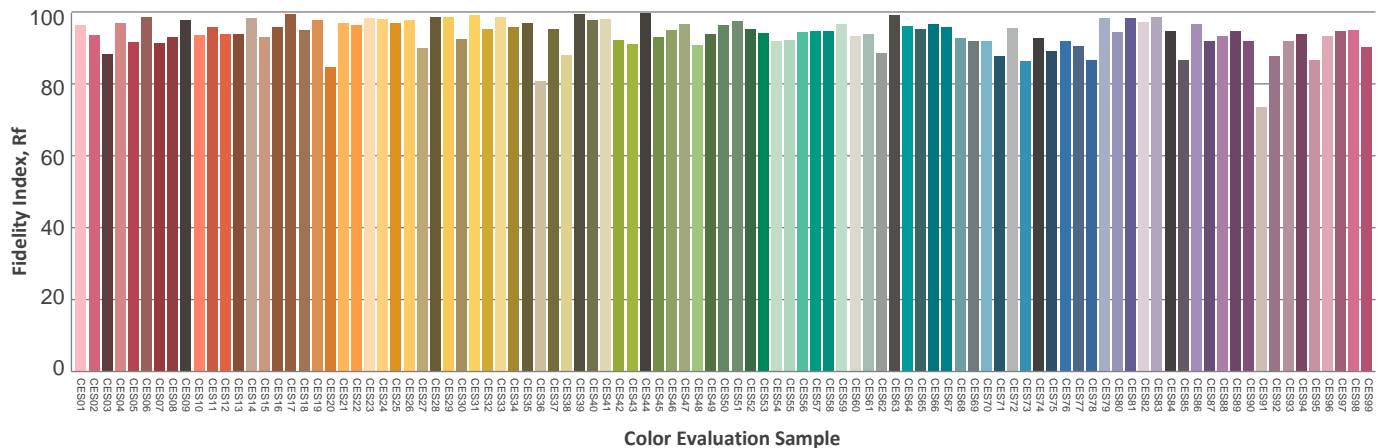
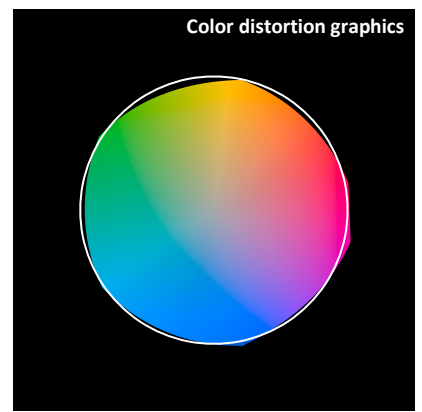
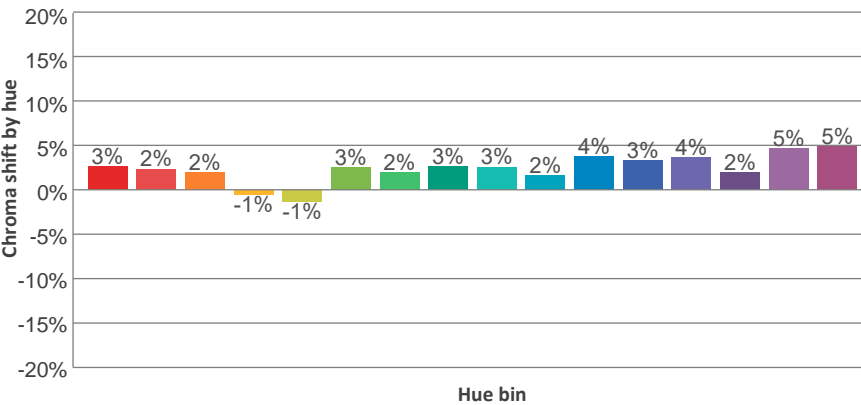
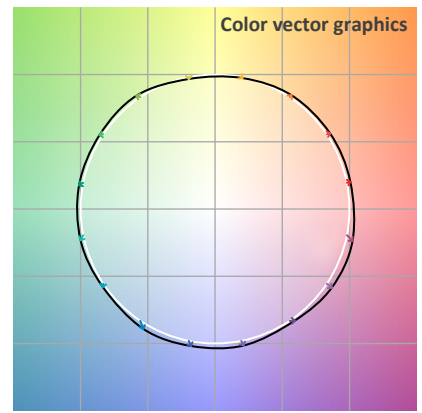
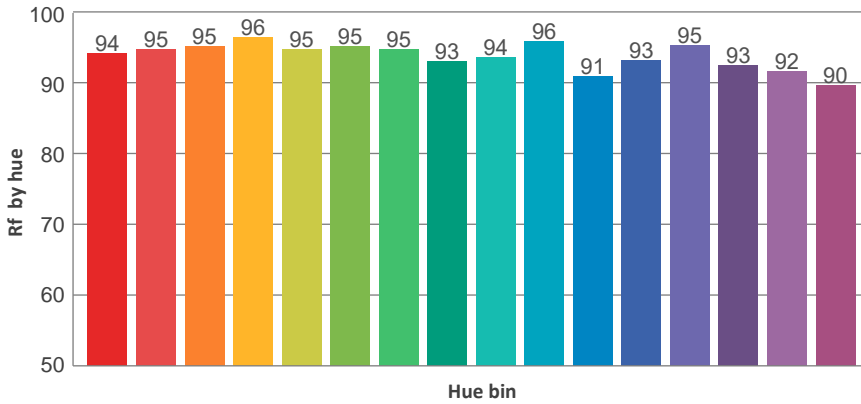
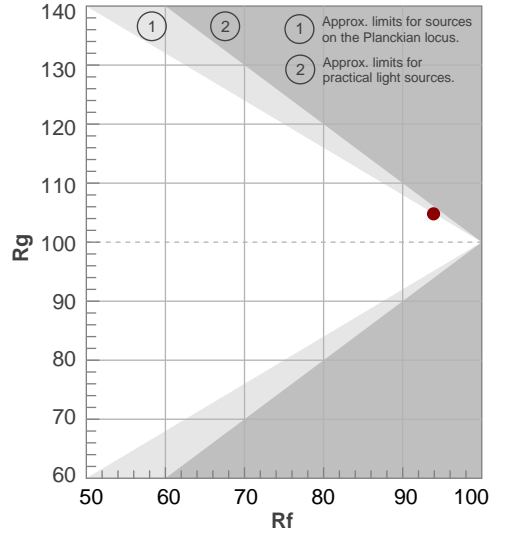
TM30 DETAILS



Rf 93,9
Fidelity index Rf

Rg 104,8
Gammut index Rg

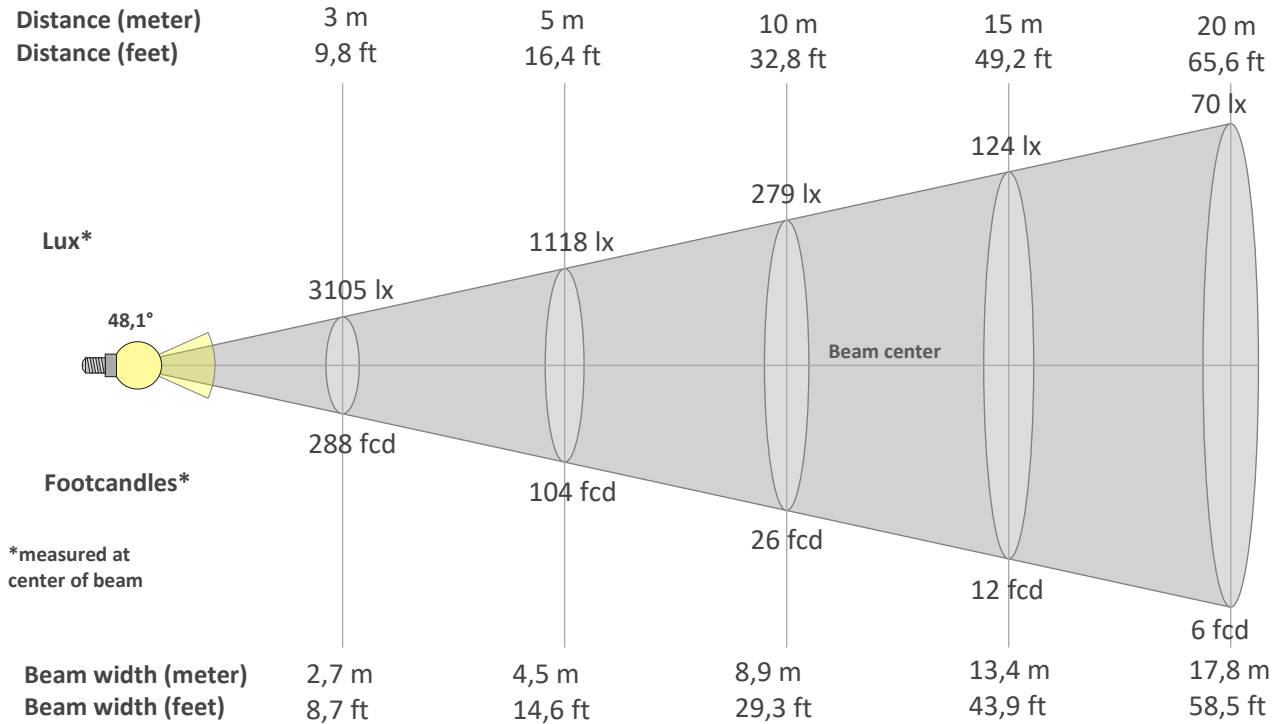
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	3%	0%
2	95	2%	-1%
3	95	2%	0%
4	96	-1%	-1%
5	95	-1%	0%
6	95	3%	2%
7	95	2%	2%
8	93	3%	2%
9	94	3%	3%
10	96	2%	2%
11	91	4%	5%
12	93	3%	2%
13	95	4%	1%
14	93	2%	3%
15	92	5%	0%
16	90	5%	-3%



BEAM DETAILS



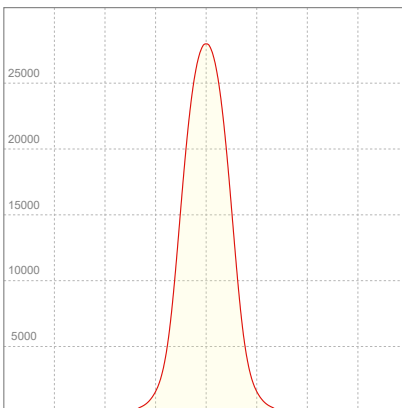
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
48,1°	79,5°	105,5°	98,9%	93,8%



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	27942lx	6986lx	3105lx	1746lx	1118lx	497lx	279lx	124lx	70lx	45lx	31lx	17lx	11lx
Footcand.	2596fcd	649fcd	288fcd	162fcd	104fcd	46fcd	26fcd	12fcd	6fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,9m	1,8m	2,7m	3,6m	4,5m	6,7m	8,9m	13,4m	17,8m	22,3m	26,8m	35,7m	44,6m
Beam wid.	2,9ft	5,9ft	8,7ft	11,7ft	14,6ft	21,9ft	29,3ft	43,9ft	58,5ft	73,2ft	87,8ft	117ft	146,3ft

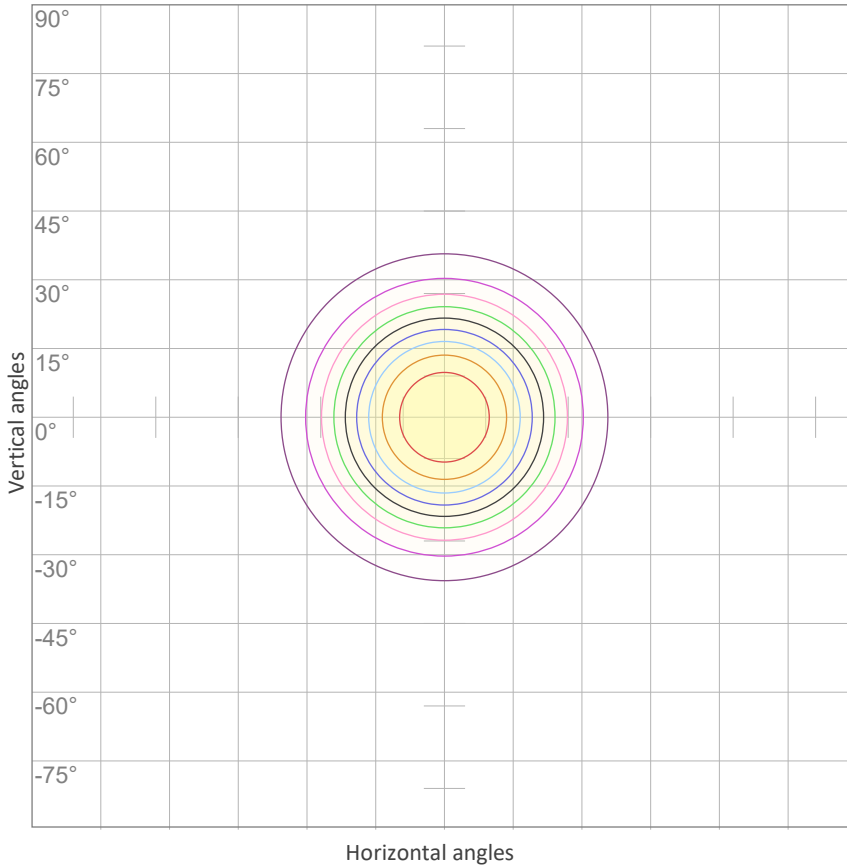
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	2,05A	436,9W	45lm/W
Power Fc			
0,95			

ISO CANDELA DIAGRAM



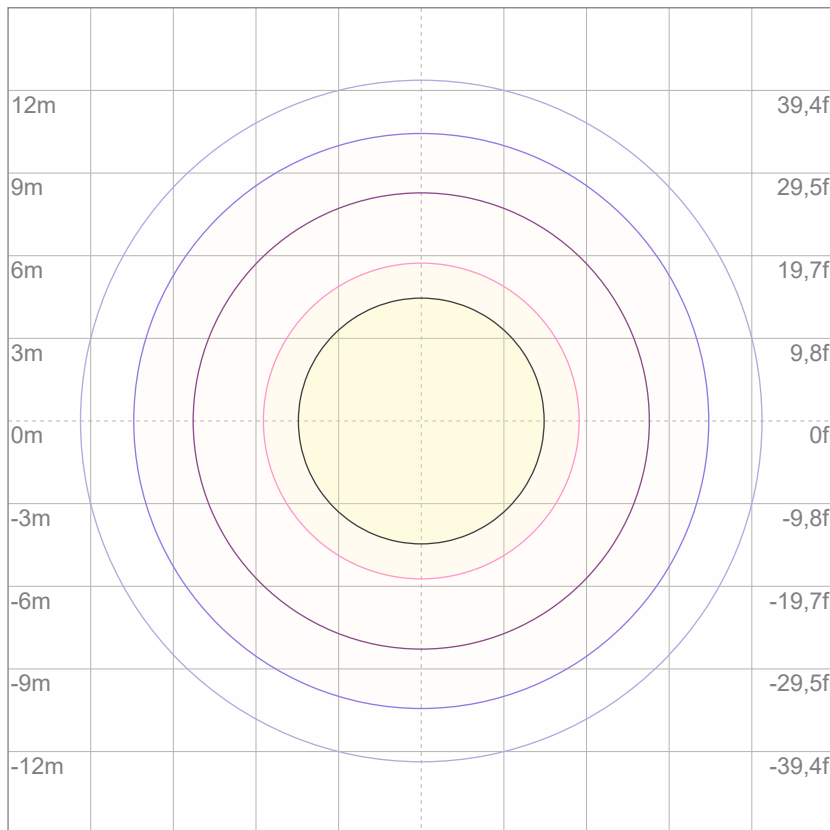
10%	2794 cd
20%	5588 cd
30%	8383 cd
40%	11177 cd
50%	13971 cd
60%	16765 cd
70%	19560 cd
80%	22354 cd
90%	25148 cd

Conditions:

Number of c-planes: 2

Candela at center: 27942 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	8,38 lx
5%	14,0 lx
10%	27,9 lx
30%	83,8 lx
50%	140 lx

Conditions:

Number of c-planes: 2

Lux at center: 279 lx

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



Total lumen output:

17805 lm

Peak candela output:

70405 cd

Light quality:

CRI: 93,0

Color temperature:

4080 K

PRODUCT NAME:

ECLFR2KVW

MEASUREMENT CONDITIONS:

Beam angle:

Med zoom

Target:

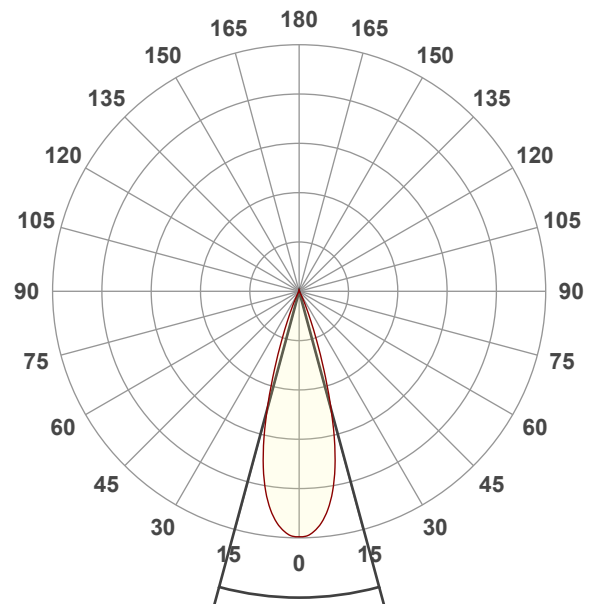
Full On

Operator:

Paolo Carvone

Date and time:

08/11/2021 13:08:34

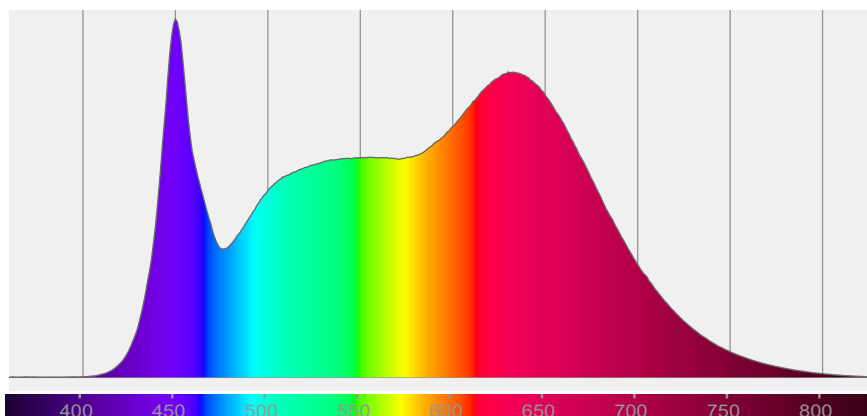


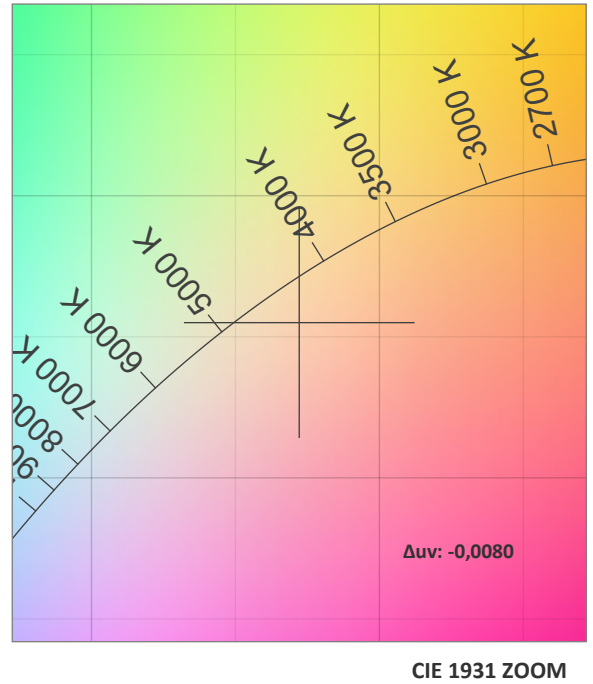
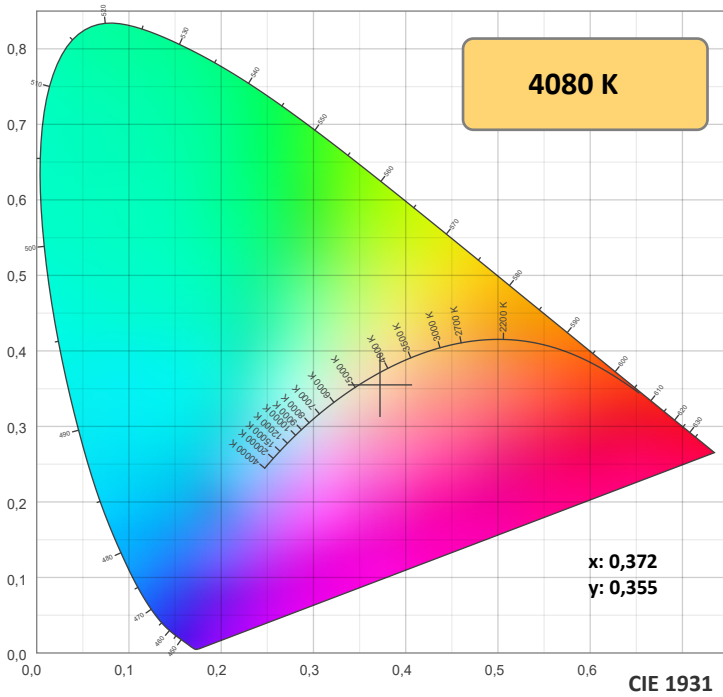
Beam angle 50%: 30,3°

Field angle 10%: 45,2°

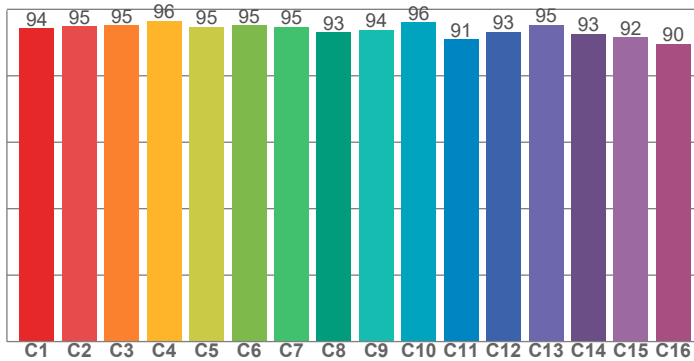
Cut off angle 2.5%: 54,8°

Spectra

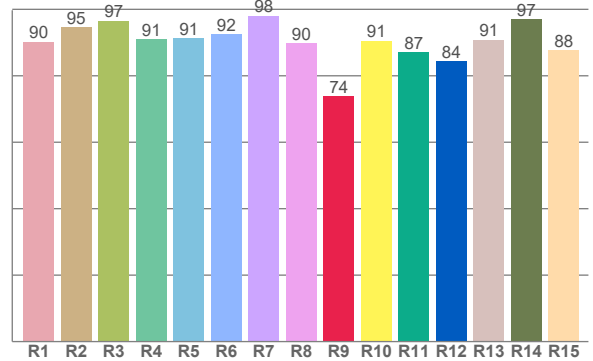




TM30: 94,0



CRI: 93,0 (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
90,2	94,6	96,5	91,1	91,3	92,4	98,1	89,9	73,8	90,6	87,1	84,4	90,8	97,0	87,7

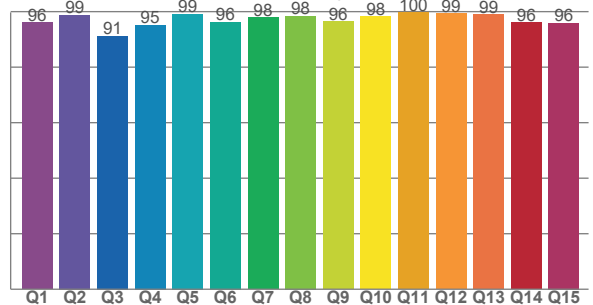
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,2	94,8	95,2	96,4	94,7	95,1	94,8	93,1	93,7	96,1	90,9	93,2	95,3	92,6	91,6	89,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,1	98,8	91,3	95,3	99,1	96,2	97,9	98,4	96,5	98,2	99,6	99,3	99,0	96,0	95,8

CQS: 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
4080 K	93,0	73,8	94,0	104,8	96,5	98	0,372	0,355	-0,0080

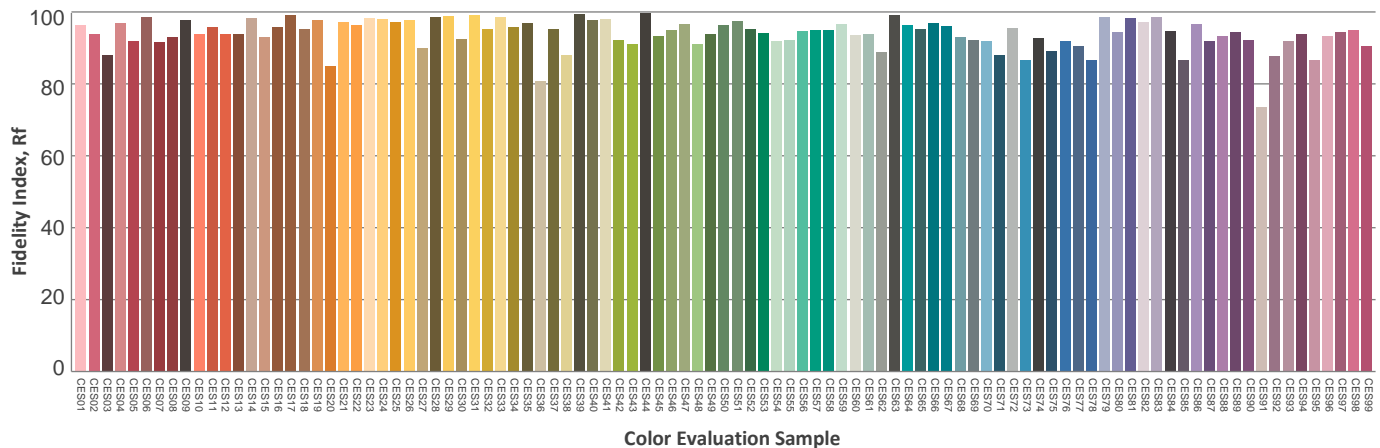
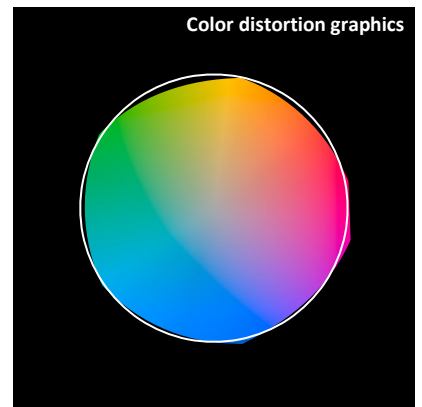
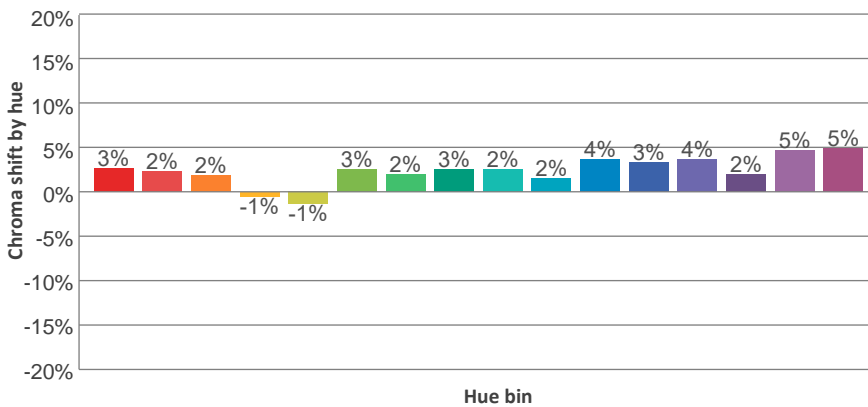
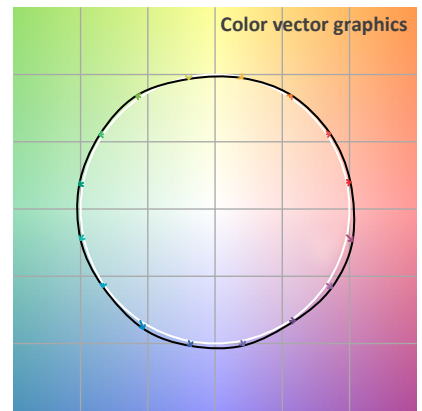
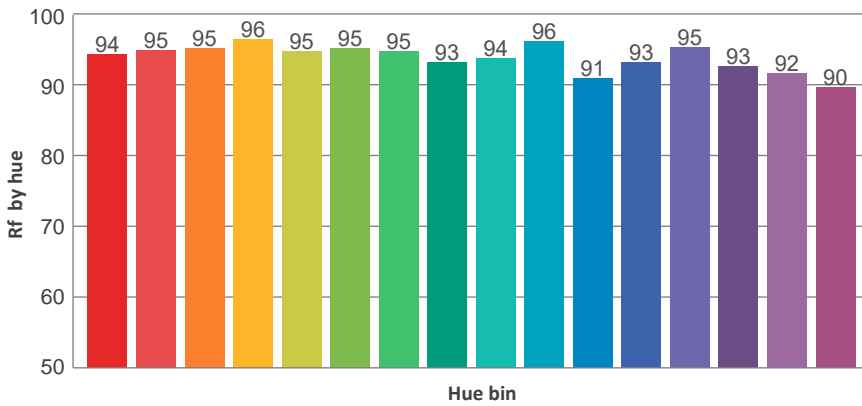
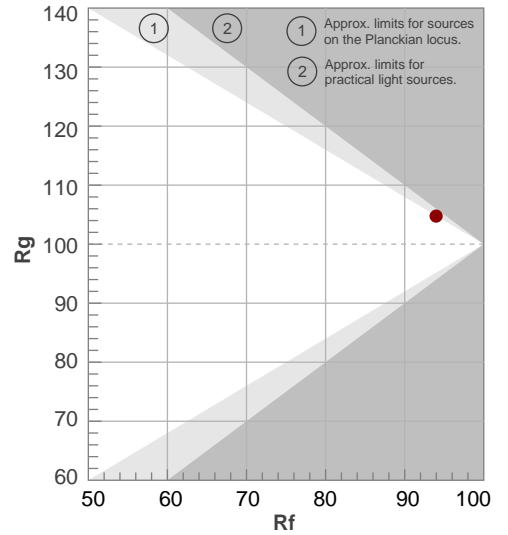
TM30 DETAILS



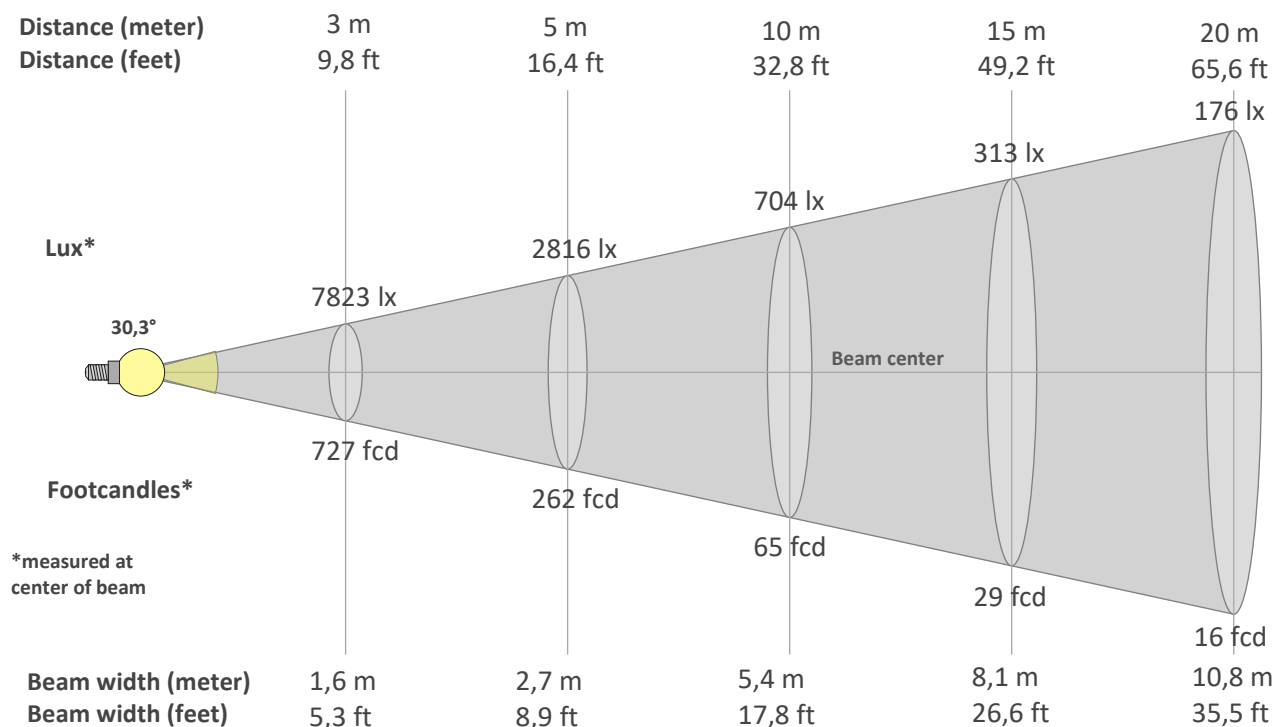
Rf 94,0
Fidelity index Rf

Rg 104,8
Gammut index Rg

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



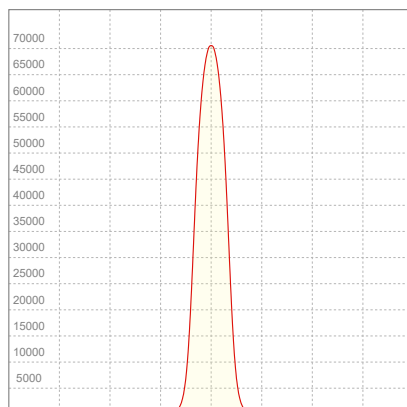
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,3°	45,2°	54,8°	100,0%	99,8%



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	70405lx	17601lx	7823lx	4400lx	2816lx	1252lx	704lx	313lx	176lx	113lx	78lx	44lx	28lx
Footcand.	6541fcd	1635fcd	727fcd	409fcd	262fcd	116fcd	65fcd	29fcd	16fcd	10fcd	7fcd	4fcd	3fcd
Beam wid.	0,5m	1,1m	1,6m	2,2m	2,7m	4,1m	5,4m	8,1m	10,8m	13,5m	16,2m	21,7m	27,1m
Beam wid.	1,8ft	3,6ft	5,3ft	7,1ft	8,9ft	13,3ft	17,8ft	26,6ft	35,5ft	44,4ft	53,3ft	71ft	88,8ft

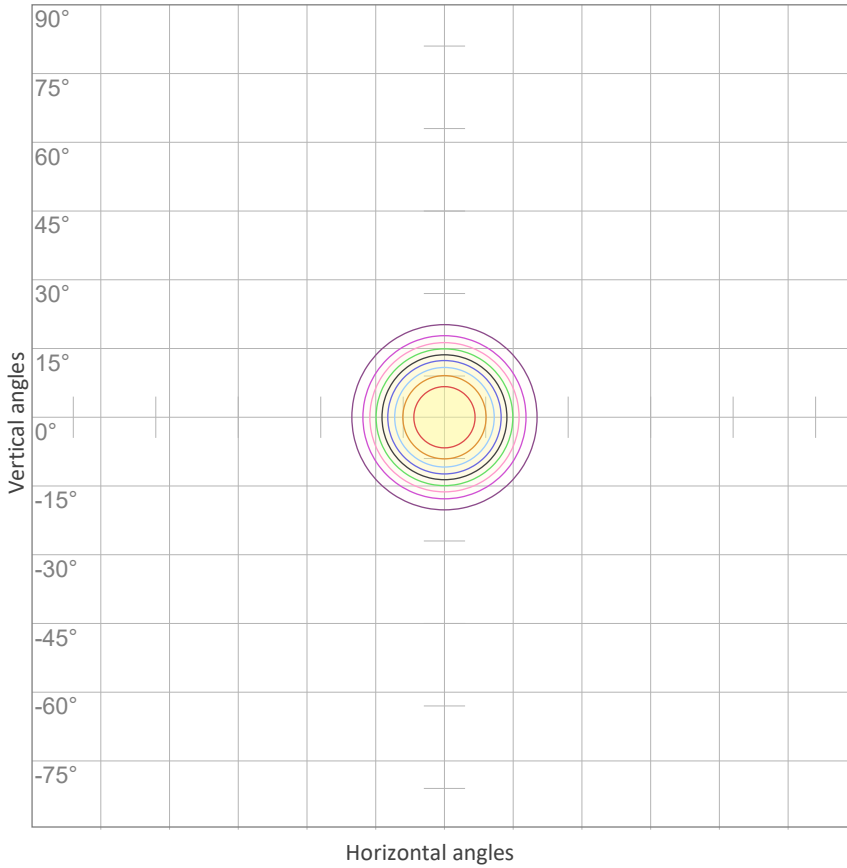
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	2,06A	439,3W	41lm/W
Power Fc			
0,95			

ISO CANDELA DIAGRAM



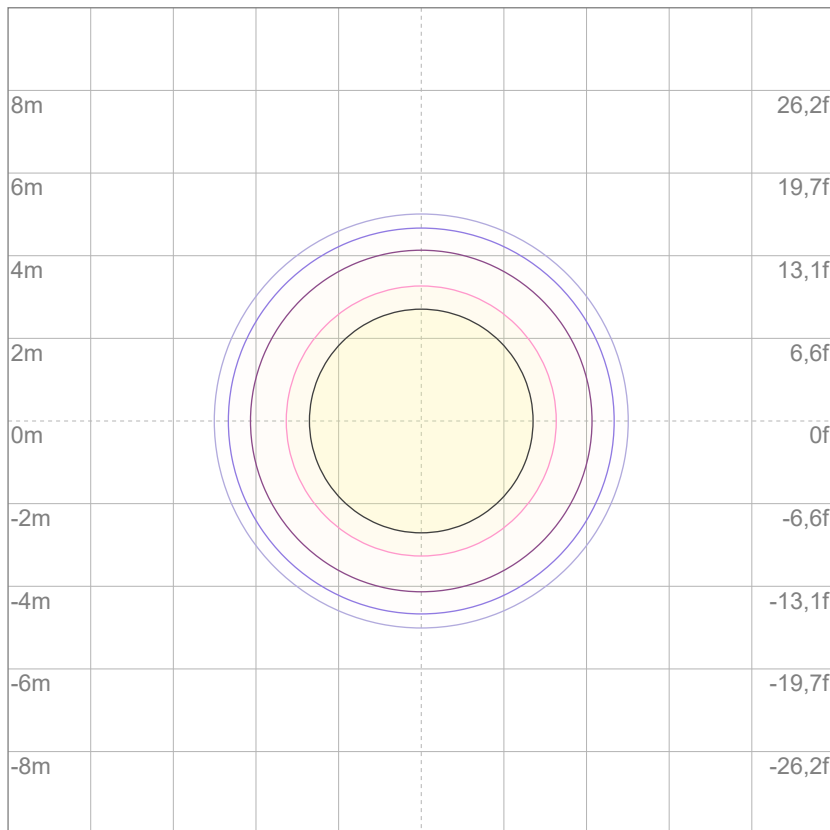
10%	7040 cd
20%	14081 cd
30%	21121 cd
40%	28162 cd
50%	35202 cd
60%	42243 cd
70%	49283 cd
80%	56324 cd
90%	63364 cd

Conditions:

Number of c-planes: 2

Candela at center: 70405 cd

ISO LUX DIAGRAM



3%	21,1 lx
5%	35,2 lx
10%	70,4 lx
30%	211 lx
50%	352 lx

Conditions:

Number of c-planes: 2

Lux at center: 704 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:

12196 lm

Peak candela output:

169557 cd

Light quality:

CRI: 93,1

Color temperature:

4044 K

PRODUCT NAME:

ECLFR2KVW

MEASUREMENT CONDITIONS:

Beam angle:

Min zoom

Target:

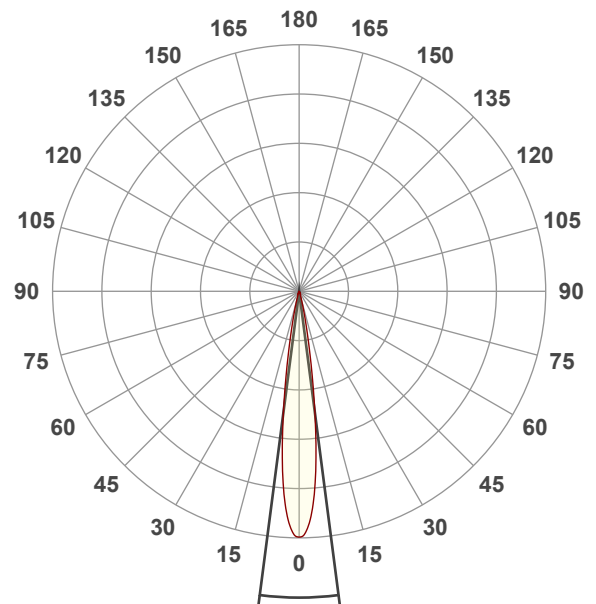
Full On

Operator:

Paolo Carvone

Date and time:

08/11/2021 13:17:36

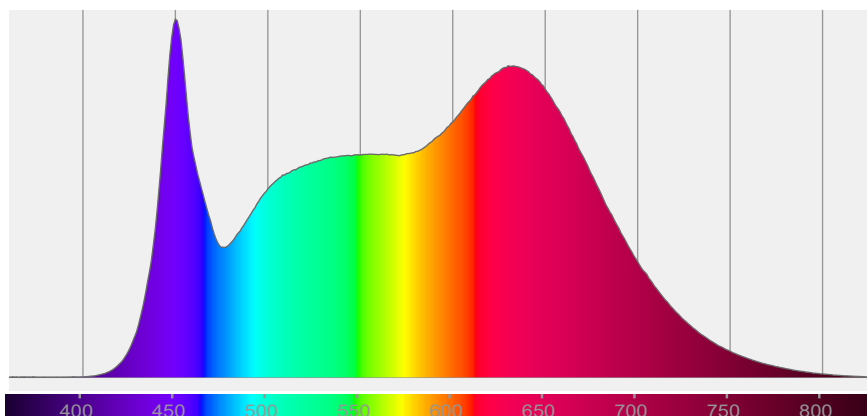


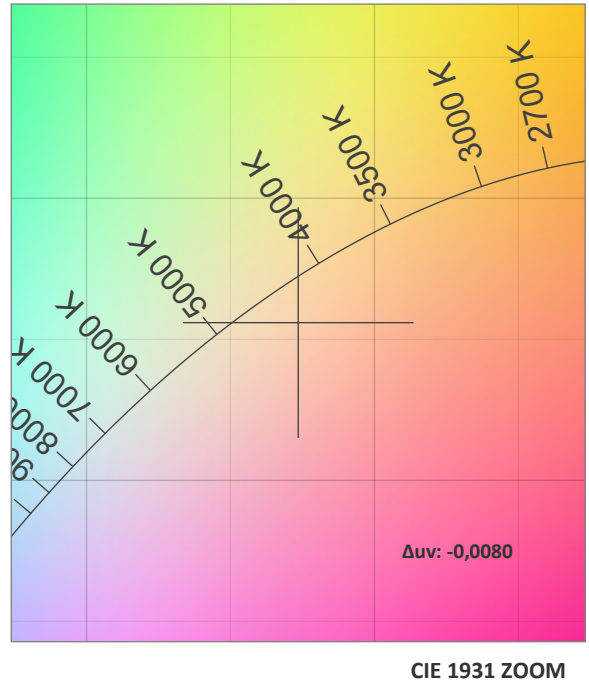
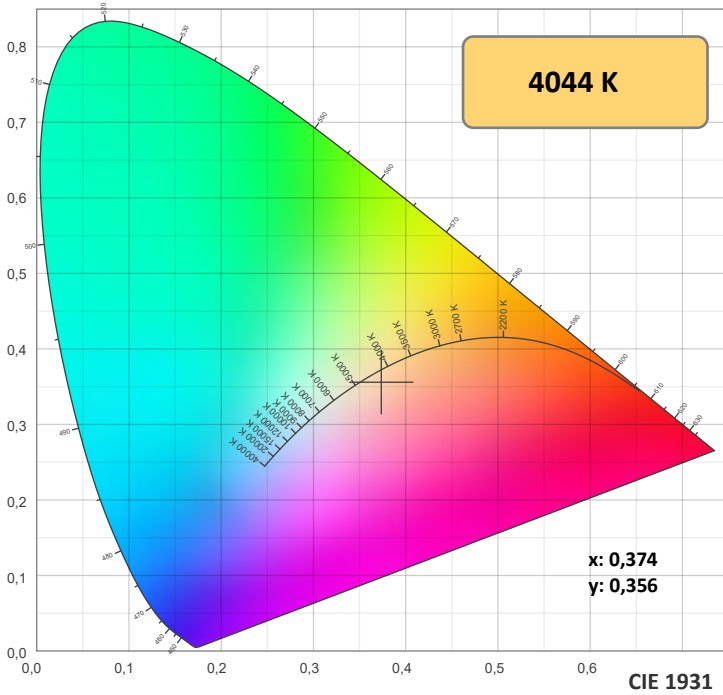
Beam angle 50%: 14,8°

Field angle 10%: 25,3°

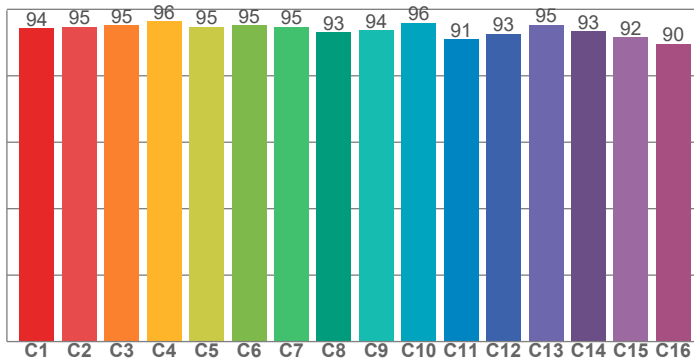
Cut off angle 2.5%: 32,8°

Spectra

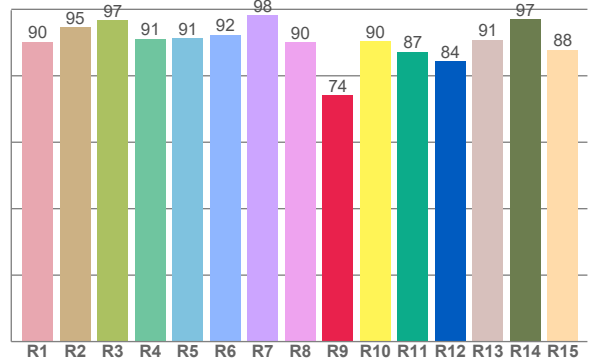




TM30: 94,0



CRI: 93,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
90,3	94,5	96,7	91,2	91,3	92,4	98,2	90,1	74,2	90,4	87,2	84,4	90,8	97,1	87,8

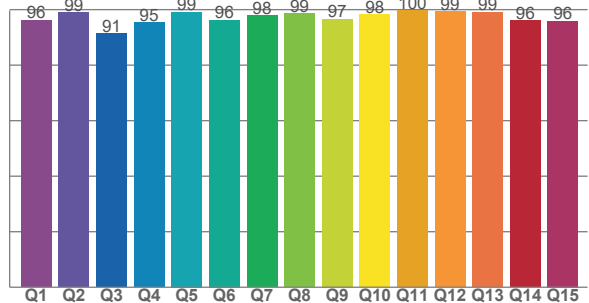
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,2	94,8	95,1	96,4	94,7	95,2	94,8	93,1	93,7	96,0	91,0	92,7	95,3	93,4	91,6	89,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,1	98,9	91,4	95,3	99,1	96,2	97,9	98,5	96,6	98,3	99,6	99,3	99,0	96,0	95,8

CQS: 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
4044 K	93,1	74,2	94,0	104,7	96,5	98	0,374	0,356	-0,0080

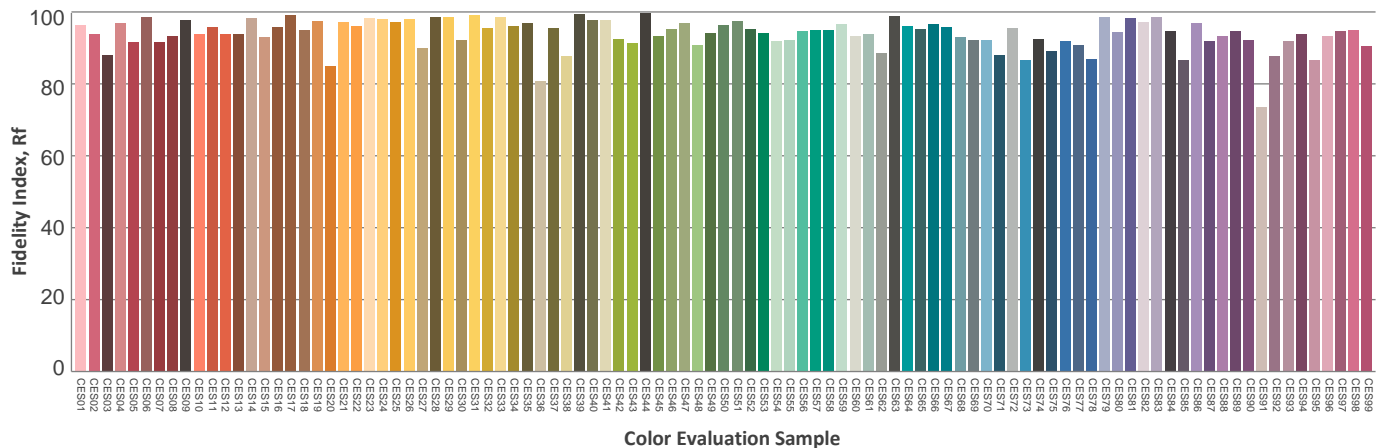
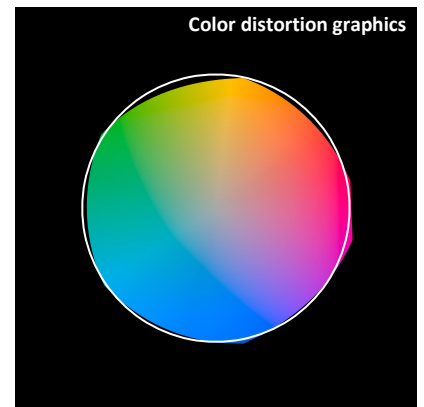
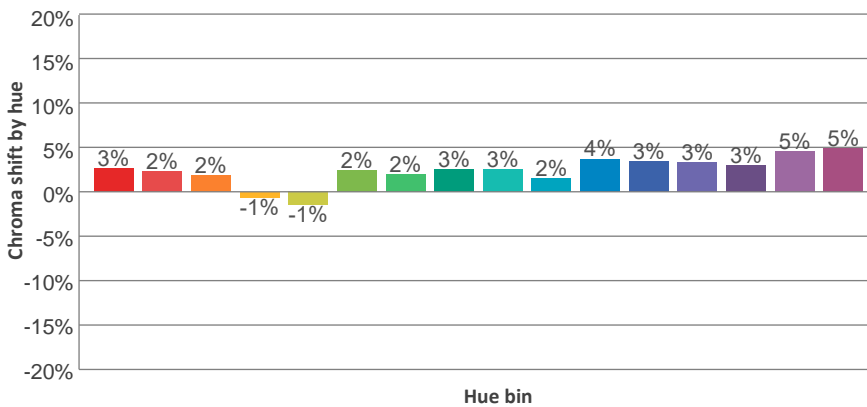
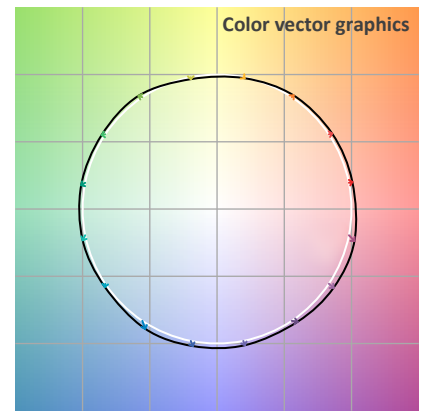
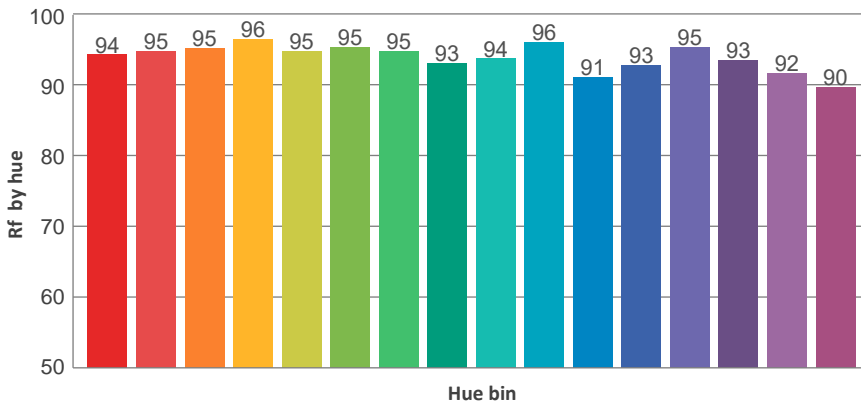
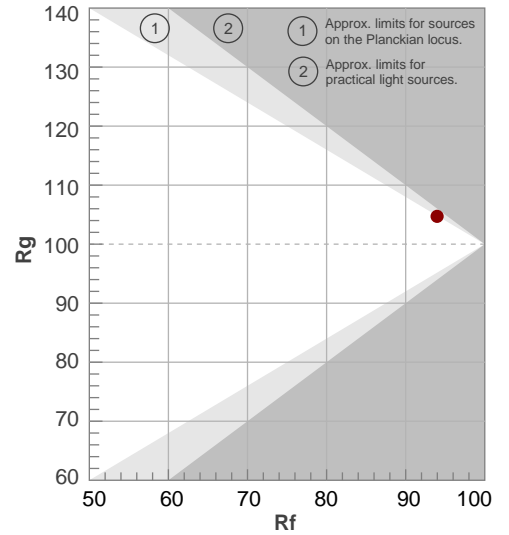
TM30 DETAILS



Rf 94,0
Fidelity index Rf

Rg 104,7
Gammut index Rg

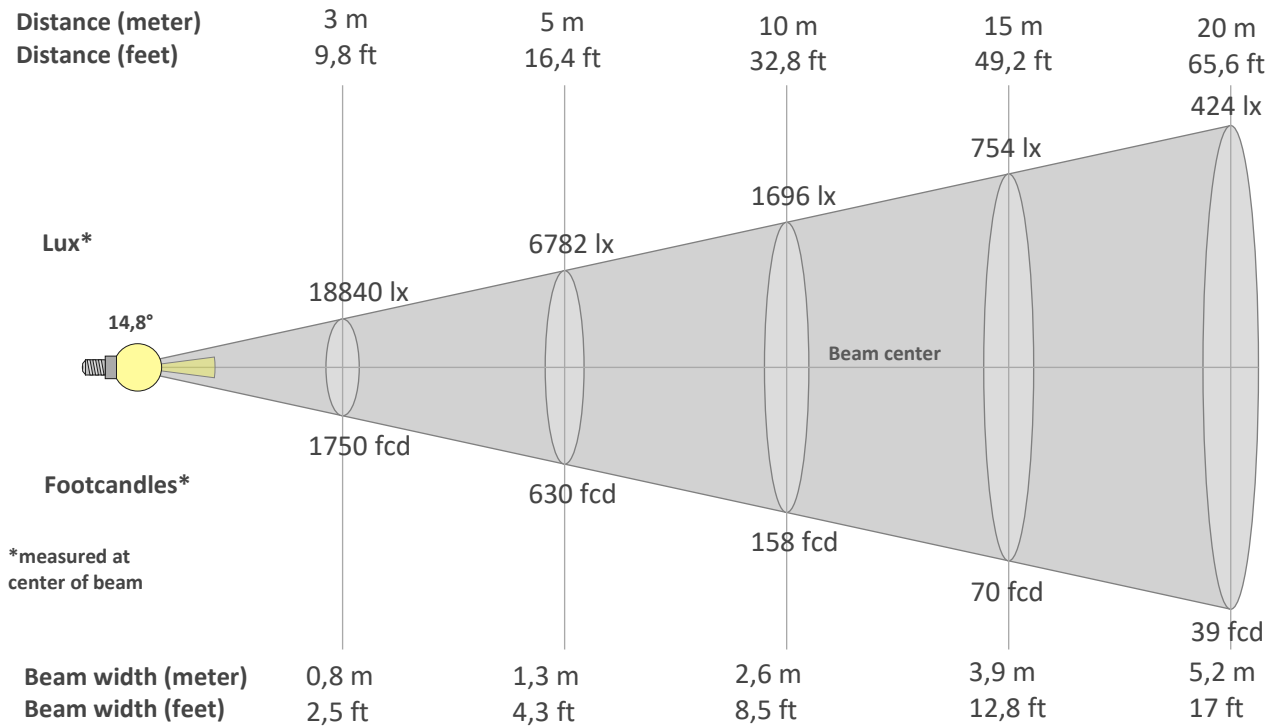
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	3%	0%
2	95	2%	-1%
3	95	2%	0%
4	96	-1%	-1%
5	95	-1%	0%
6	95	2%	2%
7	95	2%	2%
8	93	3%	2%
9	94	3%	3%
10	96	2%	2%
11	91	4%	5%
12	93	3%	2%
13	95	3%	1%
14	93	3%	3%
15	92	5%	0%
16	90	5%	-3%



BEAM DETAILS



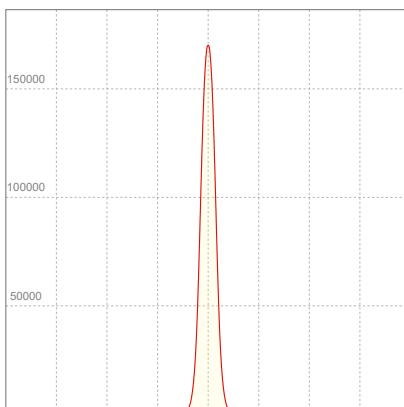
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
14,8°	25,3°	32,8°	100,0%	100,0%



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	169557lx	42389lx	18840lx	10597lx	6782lx	3014lx	1696lx	754lx	424lx	271lx	188lx	106lx	68lx
Footcand.	15752fcd	3938fcd	1750fcd	985fcd	630fcd	280fcd	158fcd	70fcd	39fcd	25fcd	18fcd	10fcd	6fcd
Beam wid.	0,3m	0,5m	0,8m	1m	1,3m	1,9m	2,6m	3,9m	5,2m	6,5m	7,8m	10,4m	13m
Beam wid.	0,9ft	1,7ft	2,5ft	3,4ft	4,3ft	6,4ft	8,5ft	12,8ft	17ft	21,3ft	25,5ft	34ft	42,5ft

LINEAR DISTRIBUTION DIAGRAM

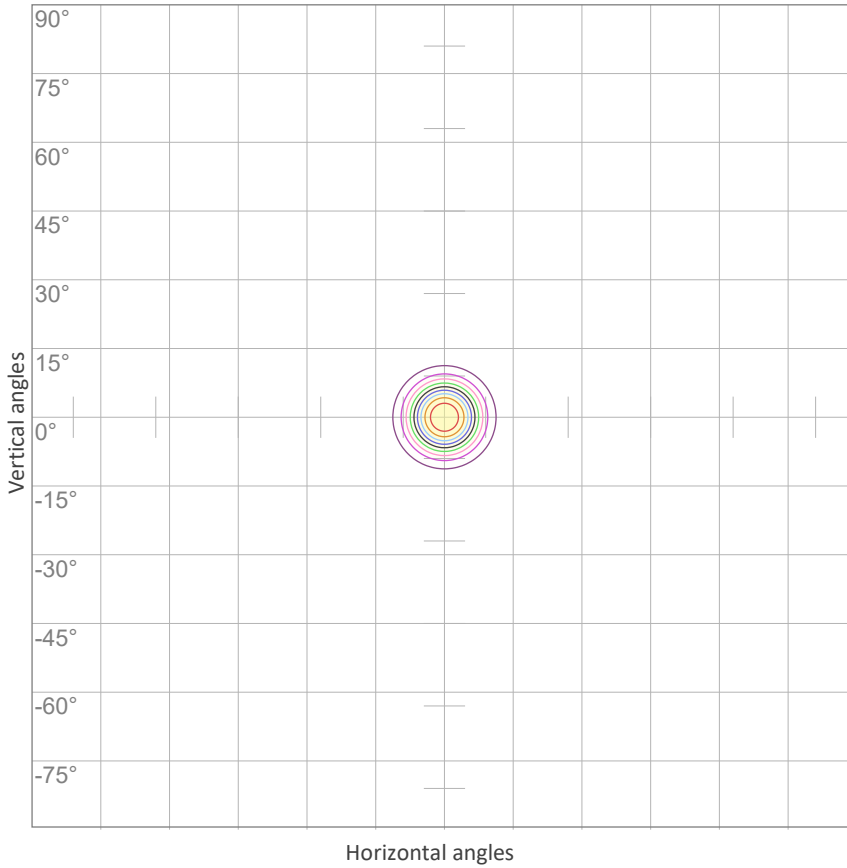


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,06A	437,5W	28lm/W

Power Fc
0,95

ISO CANDELA DIAGRAM



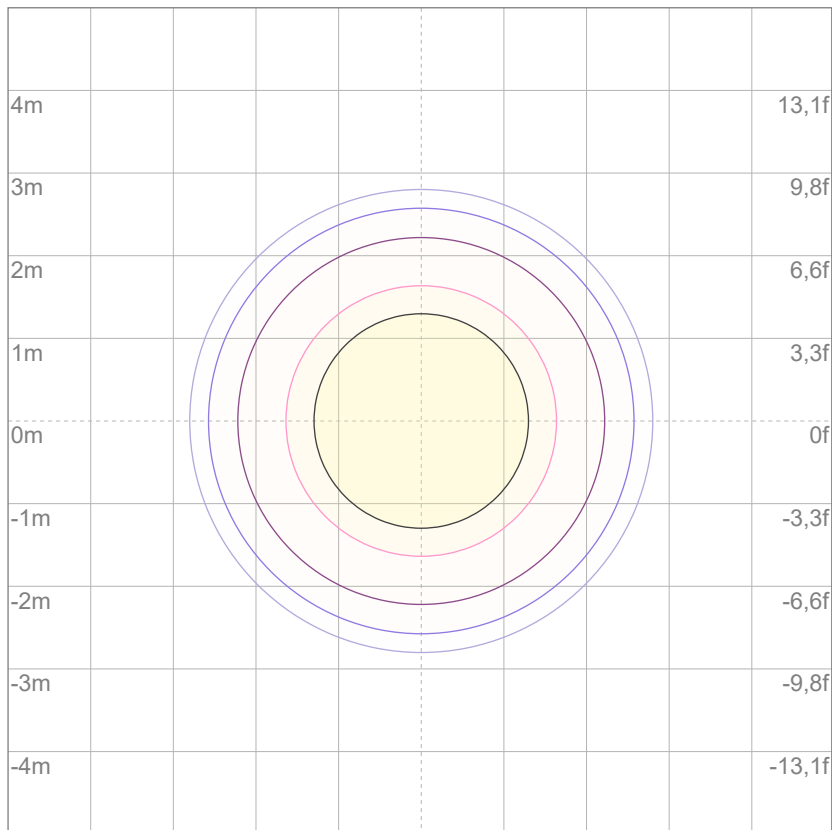
10%	16956 cd
20%	33911 cd
30%	50867 cd
40%	67823 cd
50%	84778 cd
60%	101734 cd
70%	118690 cd
80%	135645 cd
90%	152601 cd

Conditions:

Number of c-planes: 2

Candela at center: 169557 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	50,9 lx
5%	84,8 lx
10%	170 lx
30%	509 lx
50%	848 lx

Conditions:

Number of c-planes: 2

Lux at center: 1696 lx

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



Total lumen output:

12478 lm

Peak candela output:

17794 cd

Light quality:

CRI: 96,0

Color temperature:

5855 K

PRODUCT NAME:

ECLFR2KVW

MEASUREMENT CONDITIONS:

Beam angle:

Max zoom

Target:

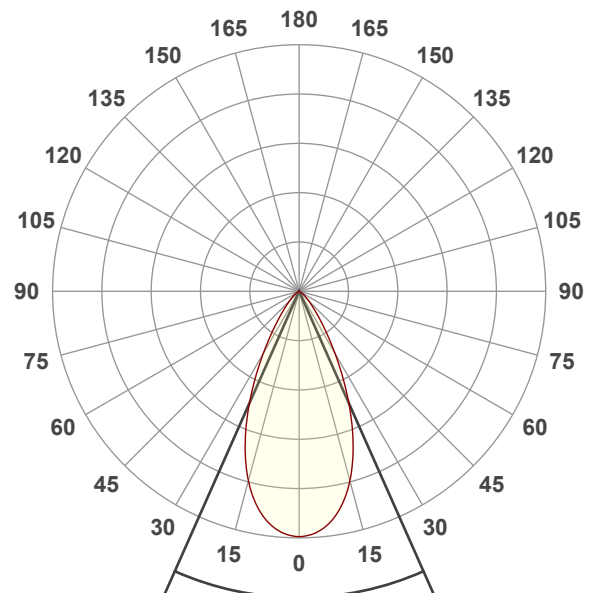
Cold White

Operator:

Paolo Carvone

Date and time:

08/11/2021 13:00:47

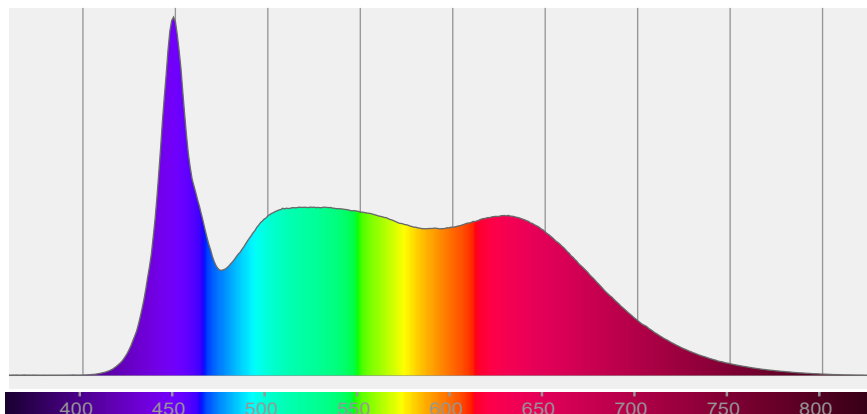


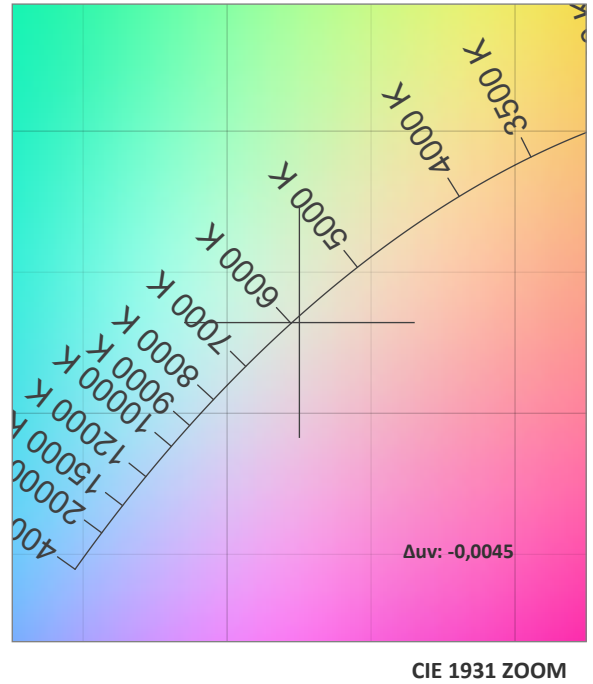
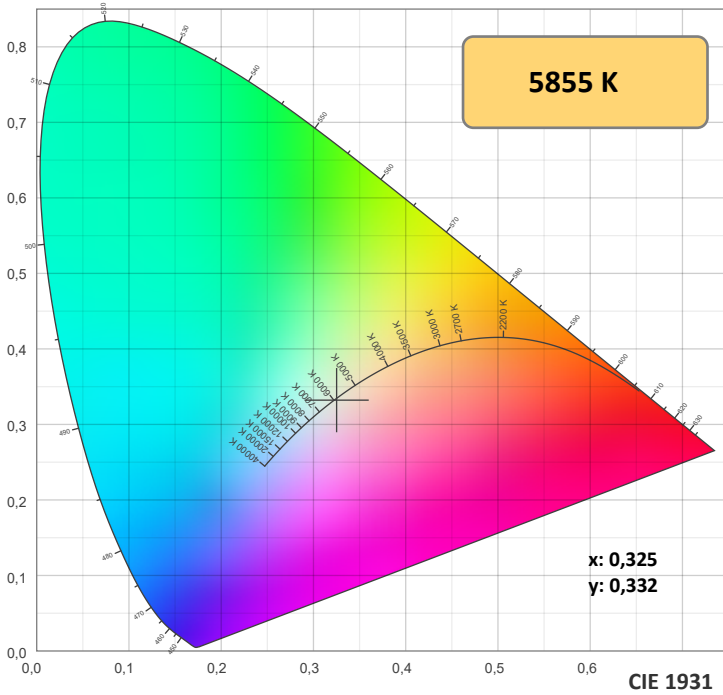
Beam angle 50%: 47,9°

Field angle 10%: 79,4°

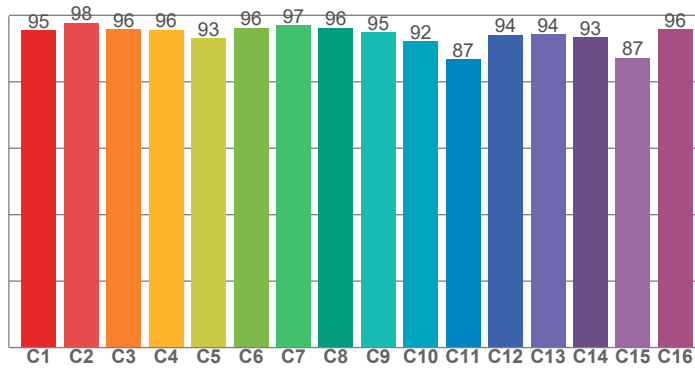
Cut off angle 2.5%: 105,5°

Spectra

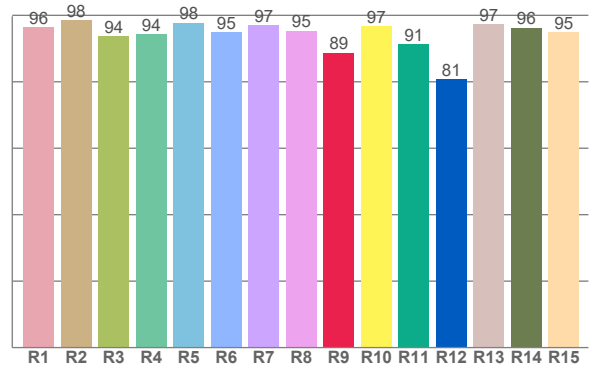




TM30: 94,0



CRI: 96,0 (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
96,4	98,4	93,8	94,3	97,8	95,0	97,0	95,4	88,8	96,6	91,3	80,8	97,3	96,2	94,9

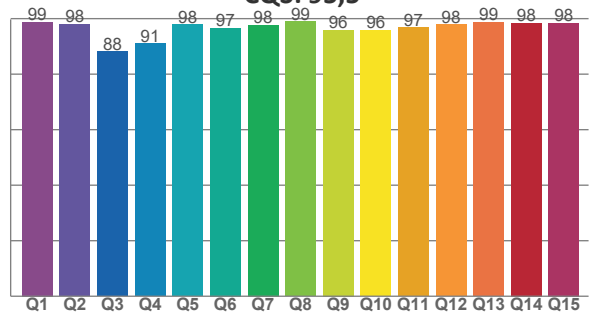
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,5	97,8	95,8	95,6	93,0	96,2	97,0	96,2	94,9	92,1	86,7	94,0	94,2	93,4	87,2	95,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,8	97,9	88,1	91,1	97,9	96,6	97,8	99,0	95,9	95,8	96,8	97,9	98,7	98,3	98,4

CQS: 95,5



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
5855 K	96,0	88,8	94,0	103,3	95,5	99	0,325	0,332	-0,0045

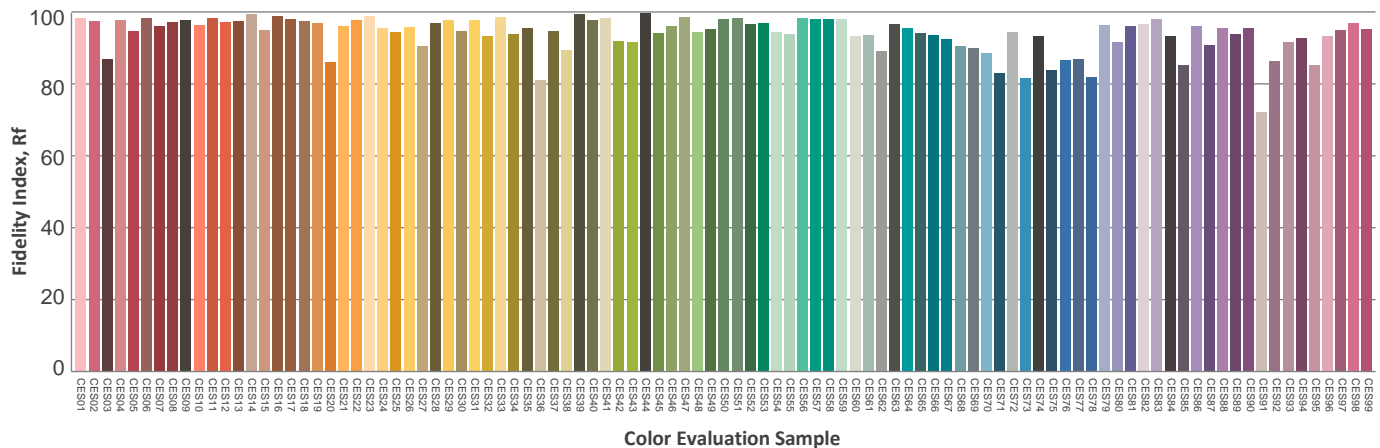
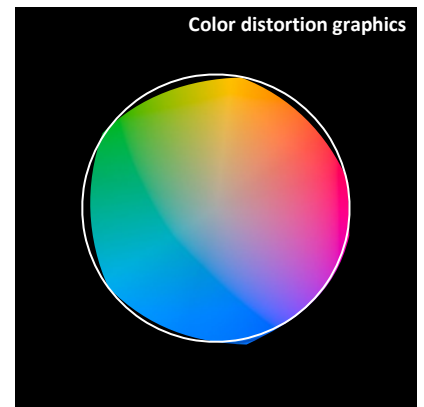
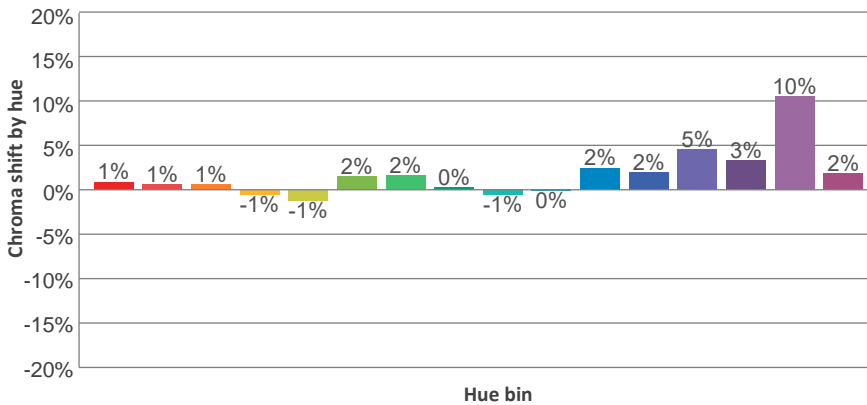
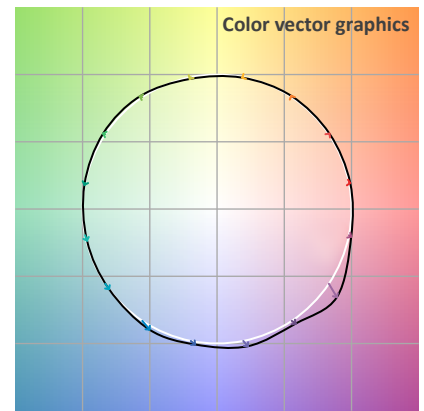
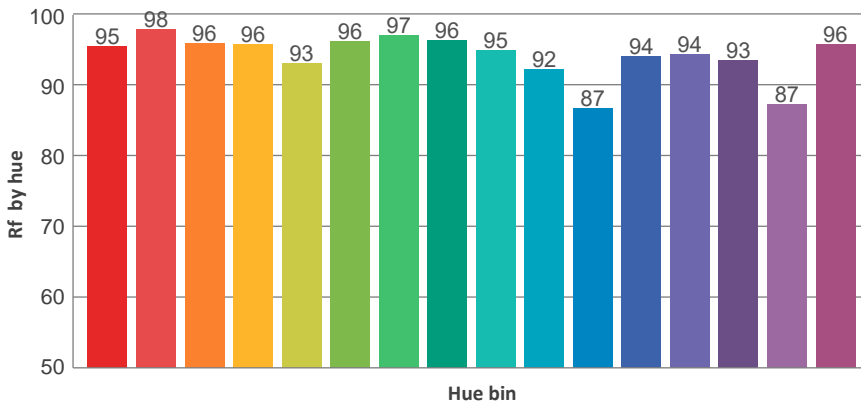
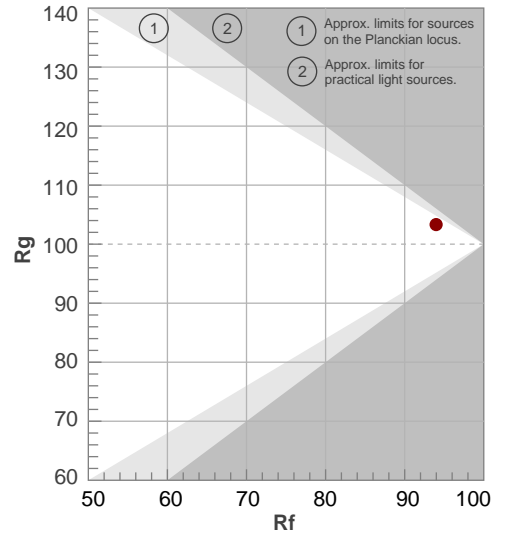
TM30 DETAILS



Rf 94,0
Fidelity index Rf

Rg 103,3
Gammut index Rg

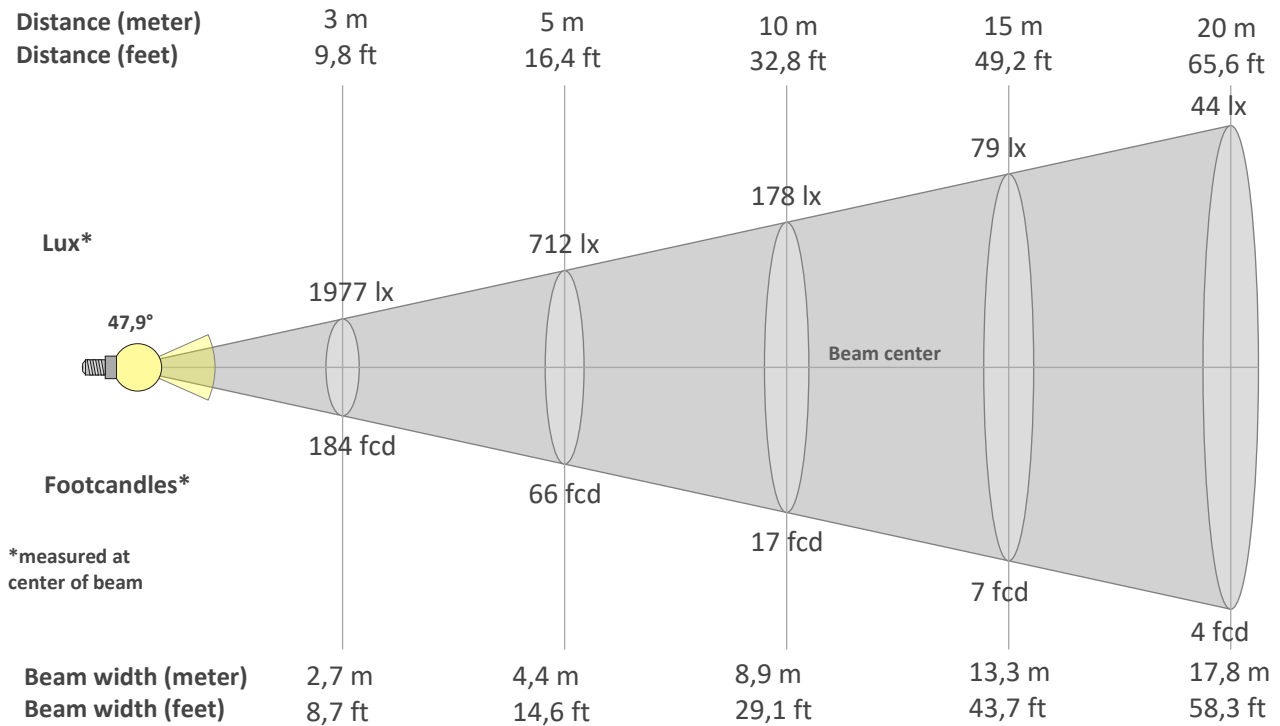
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	1%	0%
2	98	1%	0%
3	96	1%	1%
4	96	-1%	1%
5	93	-1%	1%
6	96	2%	1%
7	97	2%	0%
8	96	0%	2%
9	95	-1%	4%
10	92	0%	5%
11	87	2%	8%
12	94	2%	4%
13	94	5%	3%
14	93	3%	1%
15	87	10%	-5%
16	96	2%	-1%



BEAM DETAILS



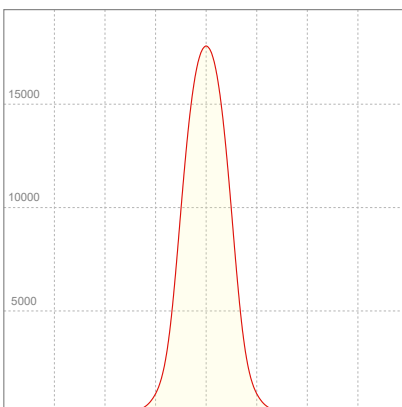
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
47,9°	79,4°	105,5°	98,9%	93,8%



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	17794lx	4449lx	1977lx	1112lx	712lx	316lx	178lx	79lx	44lx	28lx	20lx	11lx	7lx
Footcand.	1653fcd	413fcd	184fcd	103fcd	66fcd	29fcd	17fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,9m	1,8m	2,7m	3,6m	4,4m	6,7m	8,9m	13,3m	17,8m	22,2m	26,7m	35,5m	44,4m
Beam wid.	2,9ft	5,9ft	8,7ft	11,6ft	14,6ft	21,9ft	29,1ft	43,7ft	58,3ft	72,8ft	87,4ft	116,6ft	145,7ft

LINEAR DISTRIBUTION DIAGRAM

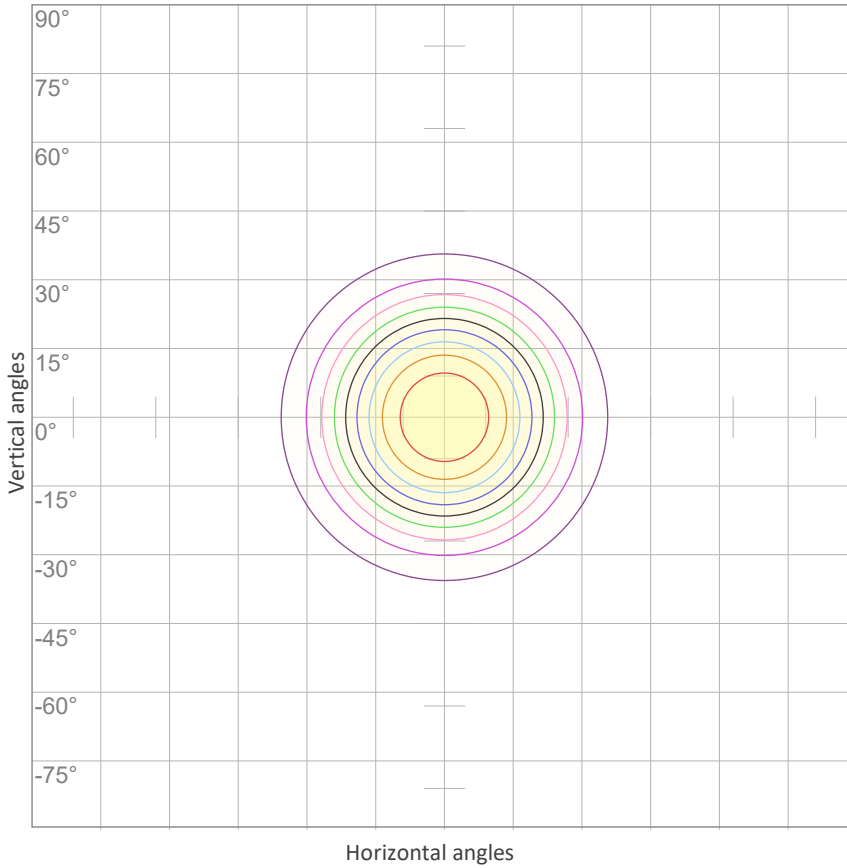


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,16A	231W	54lm/W

Power Fc
0,95

ISO CANDELA DIAGRAM



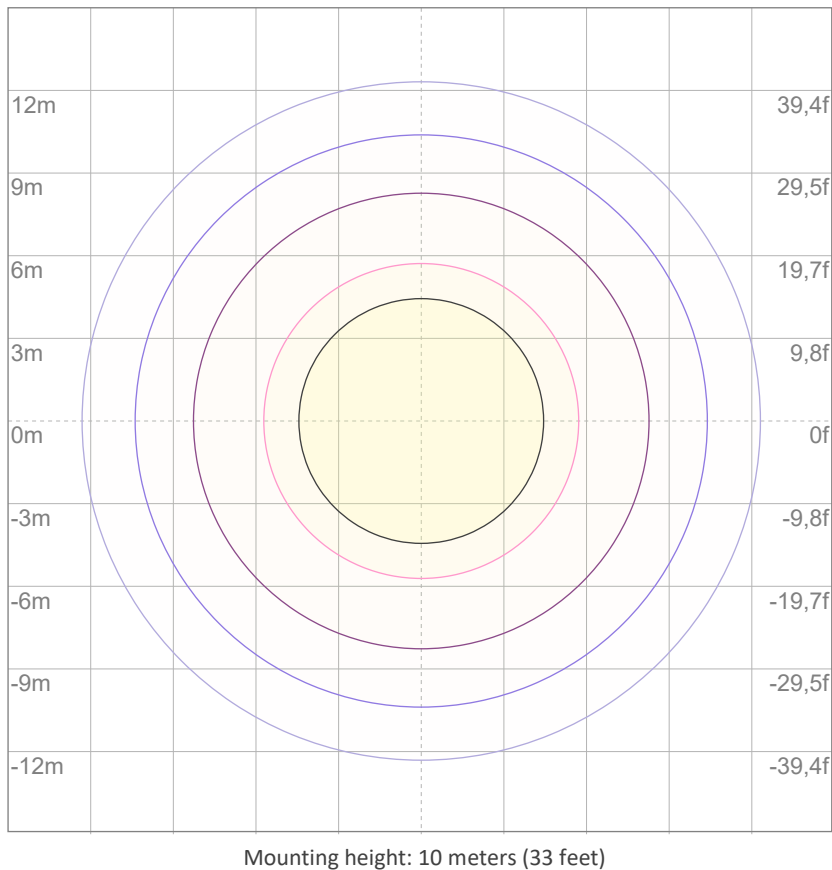
10%	1779 cd
20%	3559 cd
30%	5338 cd
40%	7118 cd
50%	8897 cd
60%	10676 cd
70%	12456 cd
80%	14235 cd
90%	16015 cd

Conditions:

Number of c-planes: 2

Candela at center: 17794 cd

ISO LUX DIAGRAM



3%	5,34 lx
5%	8,90 lx
10%	17,8 lx
30%	53,4 lx
50%	89,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 178 lx

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



Total lumen output:

11050 lm

Peak candela output:

44135 cd

Light quality:

CRI: 96,1

Color temperature:

5835 K

PRODUCT NAME:

ECLFR2KVW

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

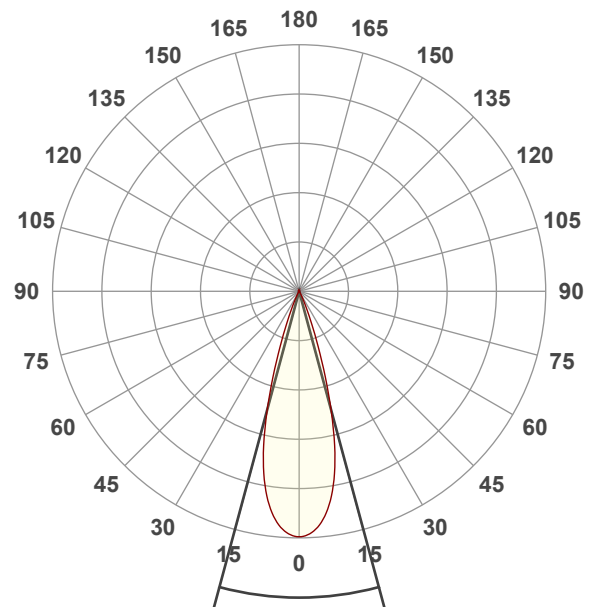
Cold White

Operator:

Paolo Carvone

Date and time:

08/11/2021 13:07:01

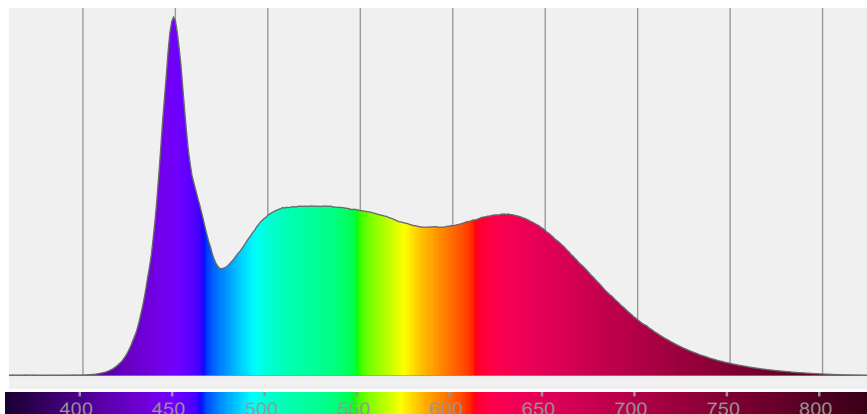


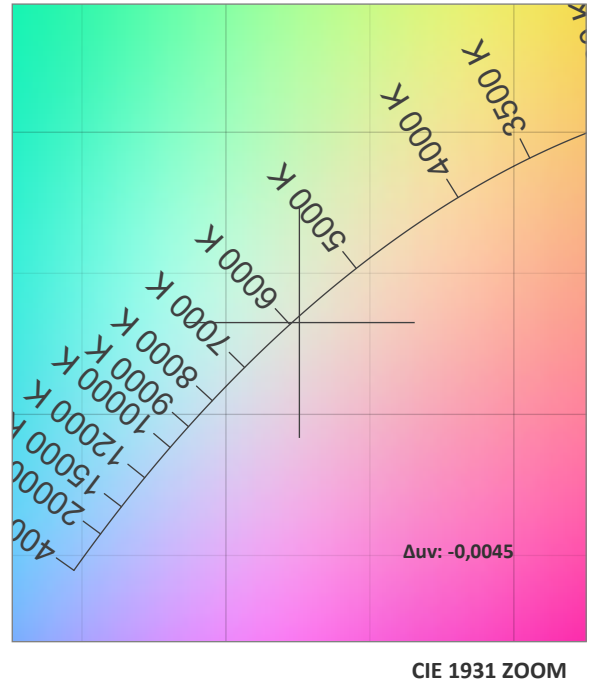
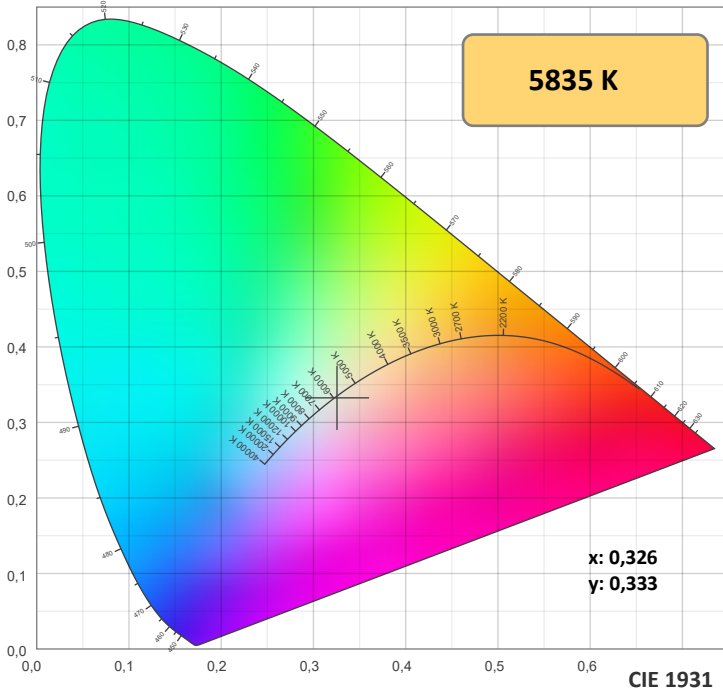
Beam angle 50%: 30,2°

Field angle 10%: 44,9°

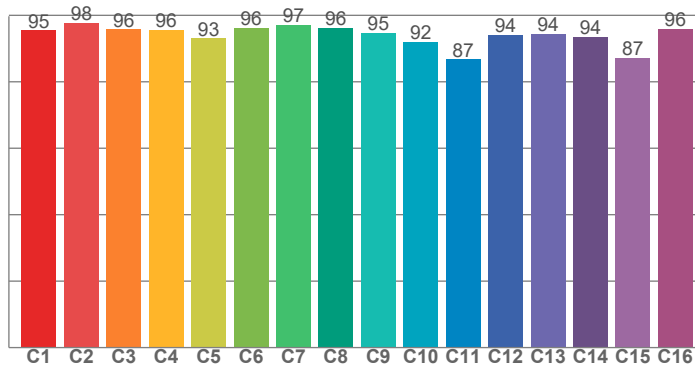
Cut off angle 2.5%: 54,6°

Spectra

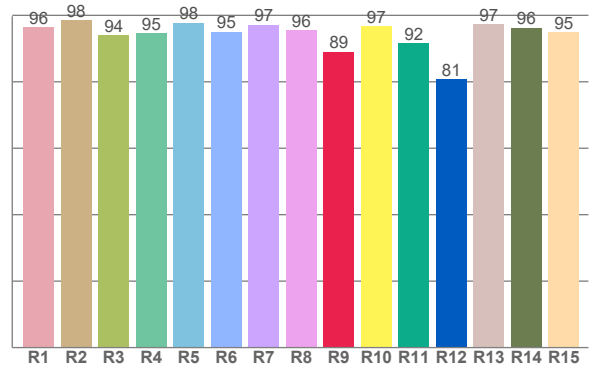




TM30: 94,0



CRI: 96,1 (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
96,4	98,5	93,9	94,5	97,8	95,0	97,2	95,5	89,0	96,7	91,5	80,7	97,3	96,3	94,9

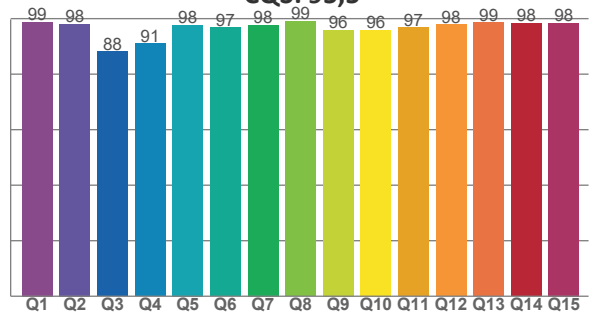
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,5	97,8	95,8	95,6	93,1	96,3	97,1	96,2	94,8	92,0	86,7	94,2	94,3	93,5	87,3	95,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,7	98,0	88,2	91,0	97,8	96,8	97,8	99,0	95,9	95,8	96,8	97,8	98,6	98,3	98,4

CQS: 95,5



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
5835 K	96,1	89,0	94,0	103,2	95,5	99	0,326	0,333	-0,0045

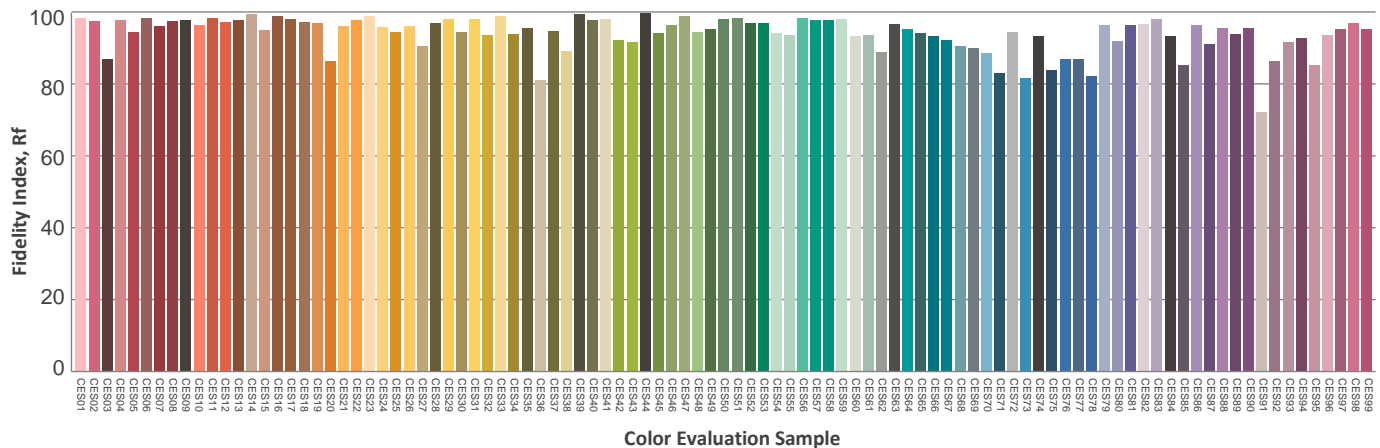
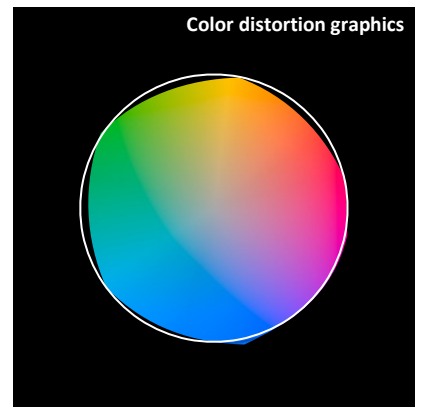
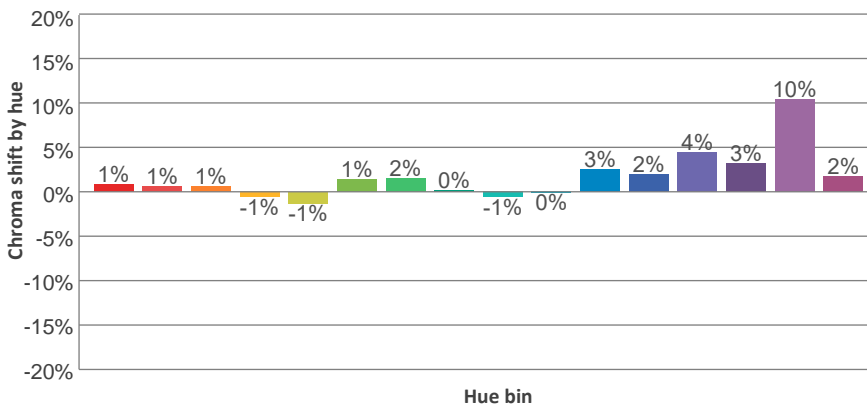
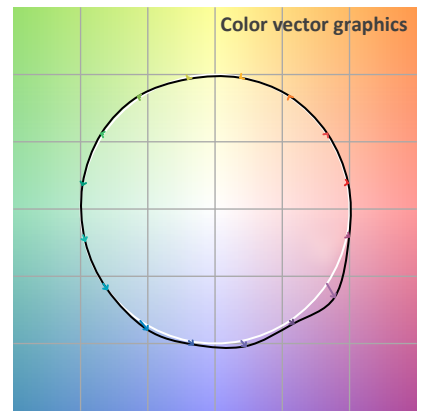
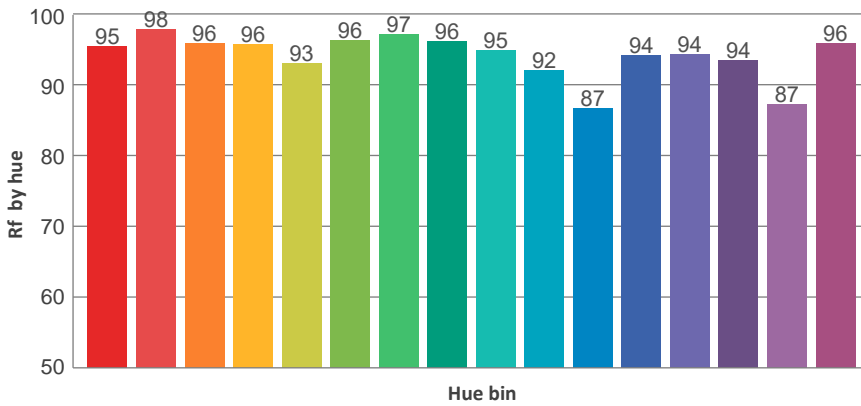
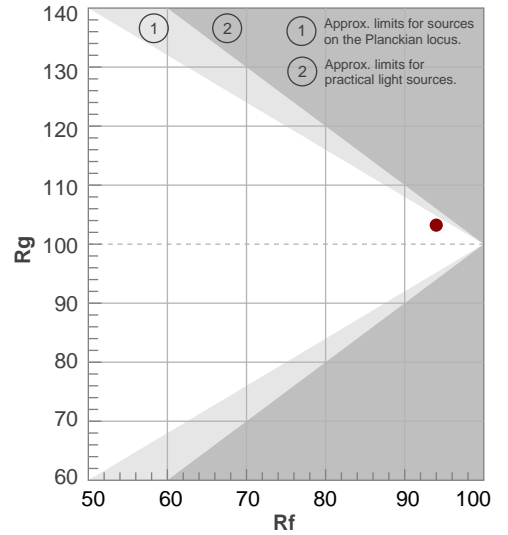
TM30 DETAILS



Rf 94,0
Fidelity index Rf

Rg 103,2
Gammut index Rg

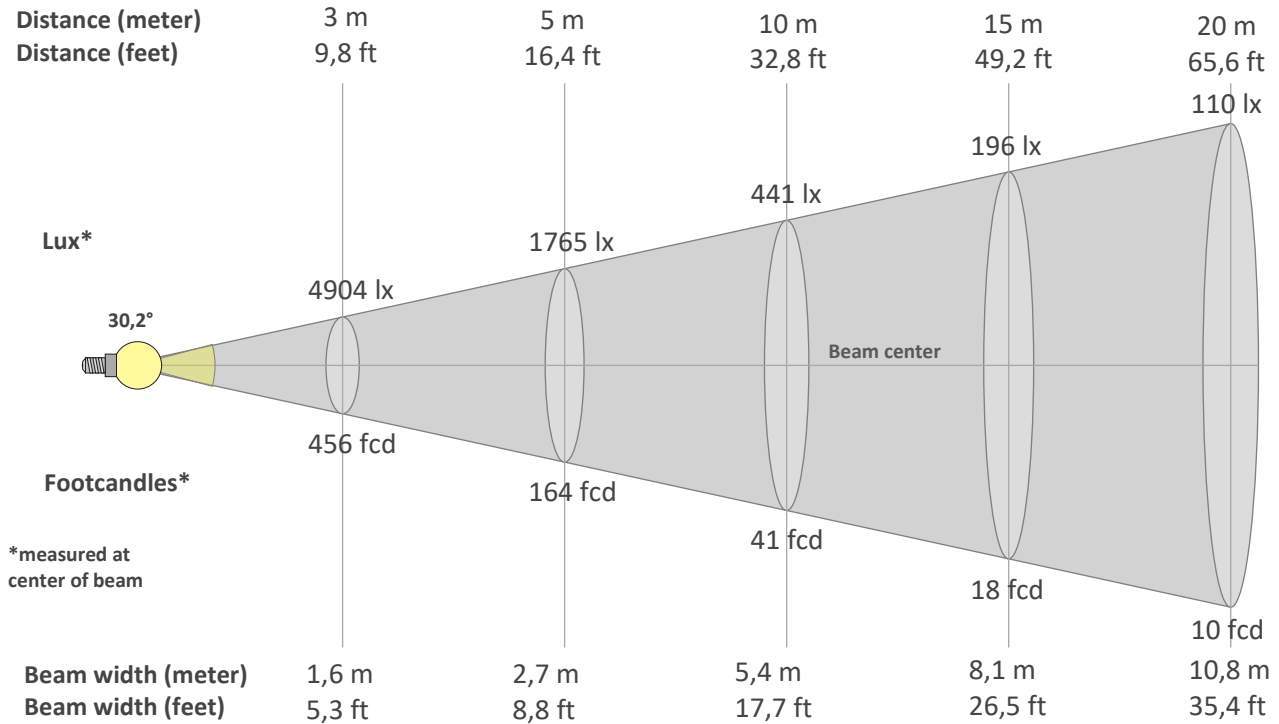
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	1%	0%
2	98	1%	0%
3	96	1%	1%
4	96	-1%	1%
5	93	-1%	1%
6	96	1%	1%
7	97	2%	0%
8	96	0%	2%
9	95	-1%	4%
10	92	0%	5%
11	87	3%	8%
12	94	2%	4%
13	94	4%	2%
14	94	3%	1%
15	87	10%	-5%
16	96	2%	-1%



BEAM DETAILS



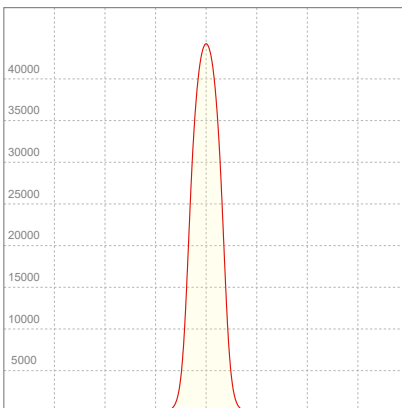
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,2°	44,9°	54,6°	100,0%	99,8%



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	44135lx	11034lx	4904lx	2758lx	1765lx	785lx	441lx	196lx	110lx	71lx	49lx	28lx	18lx
Footcand.	4100fcd	1025fcd	456fcd	256fcd	164fcd	73fcd	41fcd	18fcd	10fcd	7fcd	5fcd	3fcd	2fcd
Beam wid.	0,5m	1,1m	1,6m	2,2m	2,7m	4m	5,4m	8,1m	10,8m	13,5m	16,2m	21,6m	27m
Beam wid.	1,8ft	3,6ft	5,3ft	7,1ft	8,8ft	13,3ft	17,7ft	26,5ft	35,4ft	44,2ft	53ft	70,7ft	88,4ft

LINEAR DISTRIBUTION DIAGRAM

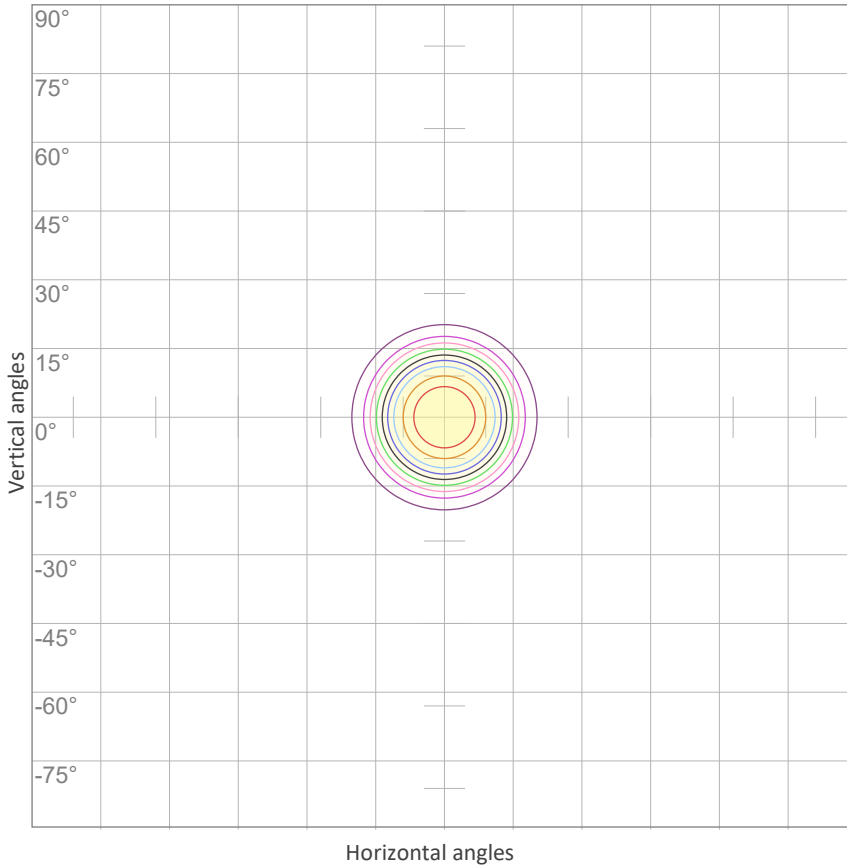


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	1,14A	229,9W	48lm/W

Power Fc
0,95

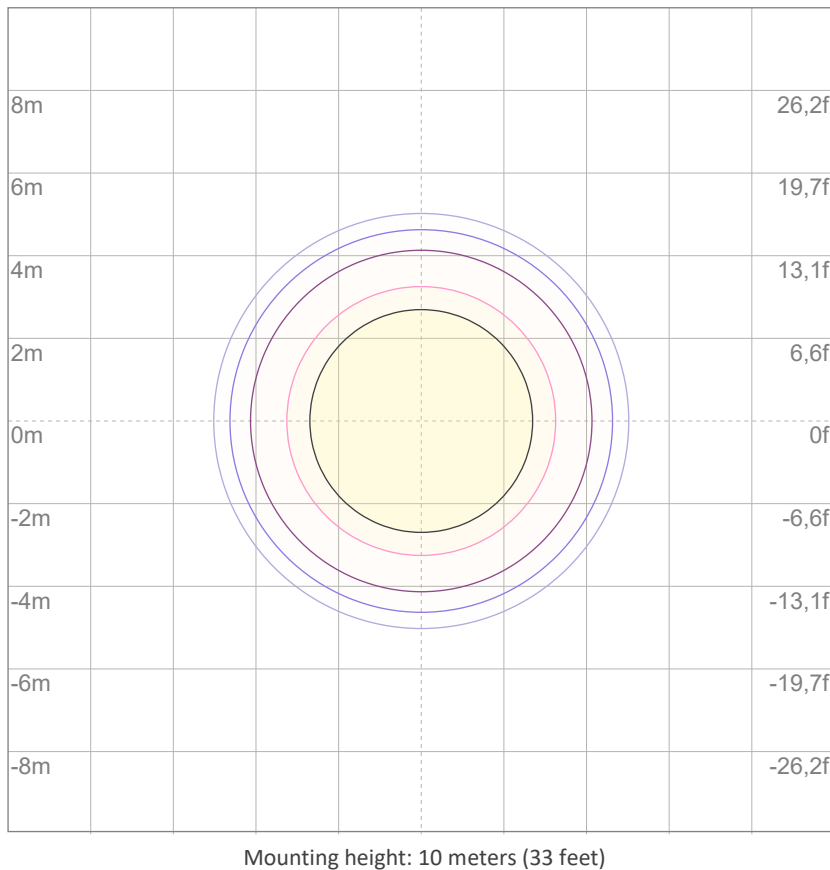
ISO CANDELA DIAGRAM



10%	4413 cd
20%	8827 cd
30%	13240 cd
40%	17654 cd
50%	22067 cd
60%	26481 cd
70%	30894 cd
80%	35308 cd
90%	39721 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 44135 cd

ISO LUX DIAGRAM



3%	13,2 lx
5%	22,1 lx
10%	44,1 lx
30%	132 lx
50%	221 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 441 lx

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



Total lumen output:

7542 lm

Peak candela output:

105187 cd

Light quality:

CRI: 96,1

Color temperature:

5797 K

PRODUCT NAME:

ECLFR2KVW

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

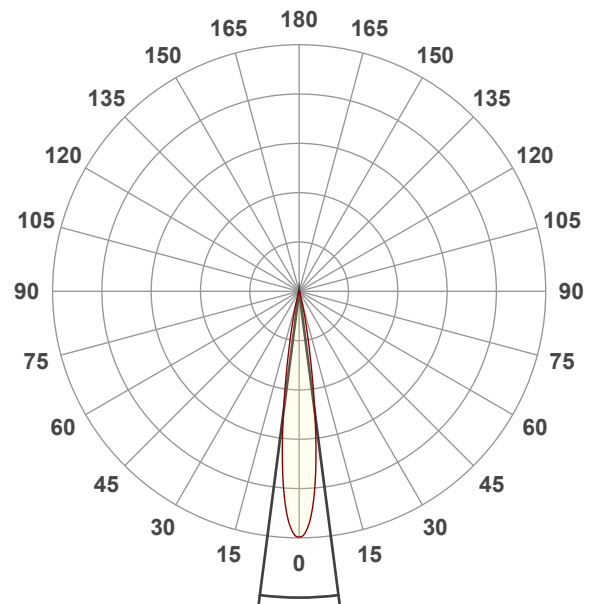
Cold White

Operator:

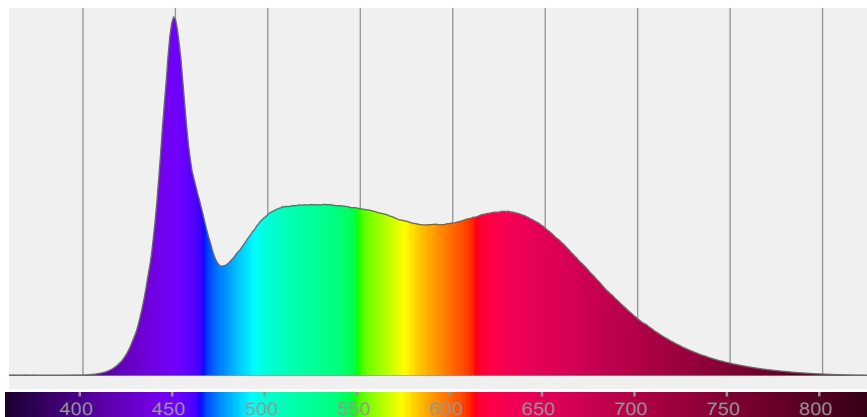
Paolo Carvone

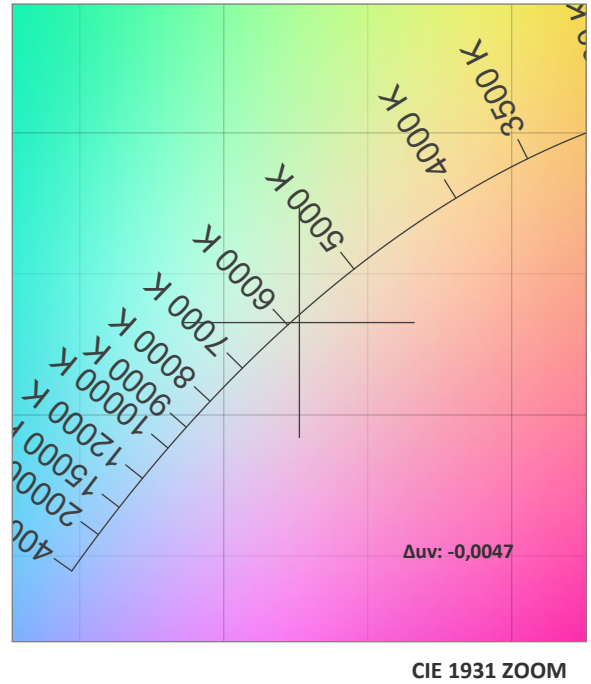
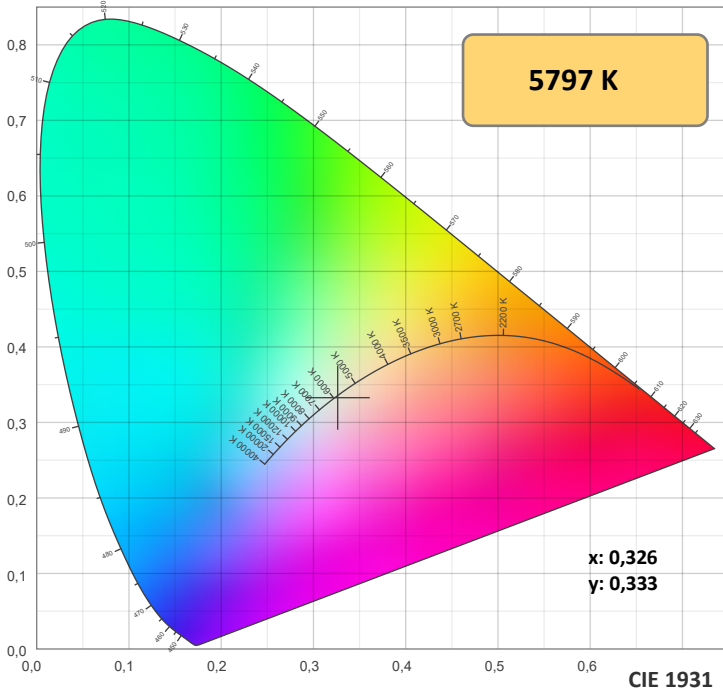
Date and time:

08/11/2021 13:19:04

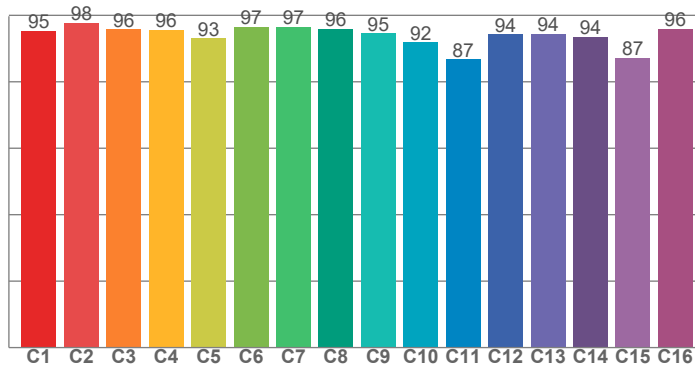


Spectra

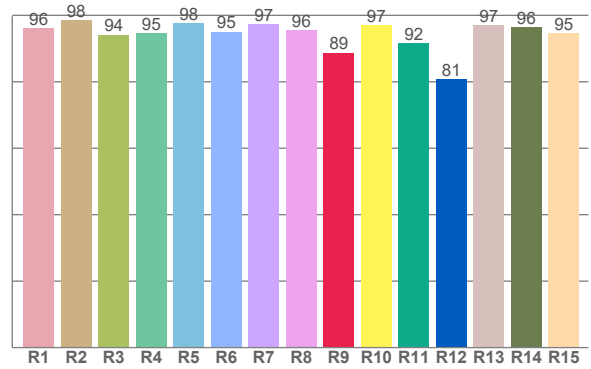




TM30: 94,0



CRI: 96,1 (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
96,2	98,4	94,1	94,7	97,6	95,0	97,4	95,6	88,8	97,0	91,6	80,7	97,1	96,4	94,7

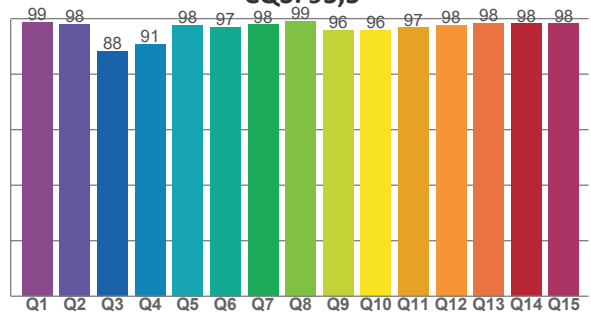
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,4	97,7	95,8	95,6	93,1	96,6	96,5	96,0	94,6	91,9	86,8	94,3	94,4	93,6	87,3	95,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,7	98,1	88,2	90,9	97,7	97,0	97,8	99,1	95,9	95,9	96,7	97,7	98,5	98,2	98,3

CQS: 95,5



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
5797 K	96,1	88,8	94,0	103,1	95,5	99	0,326	0,333	-0,0047

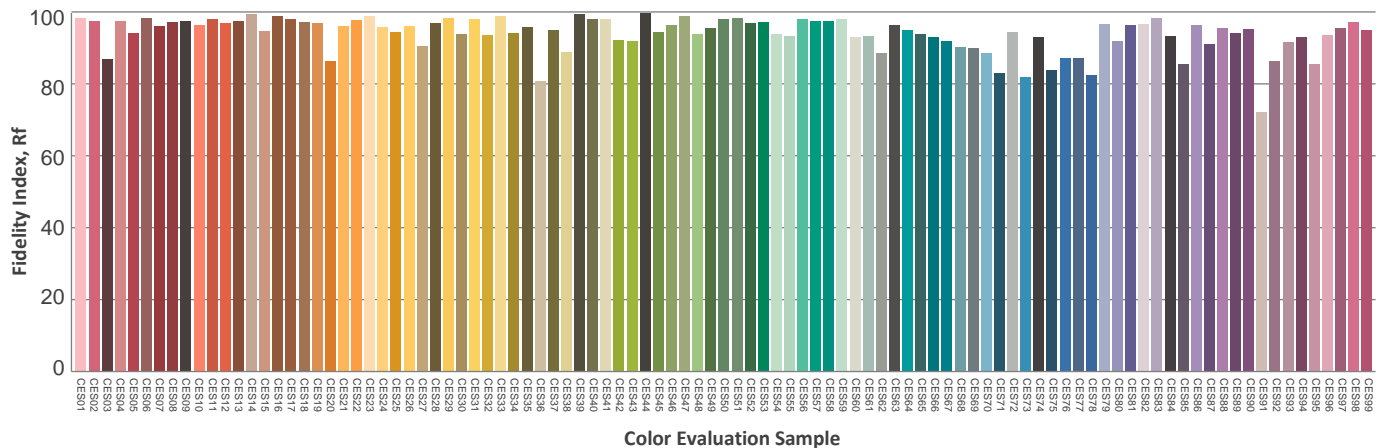
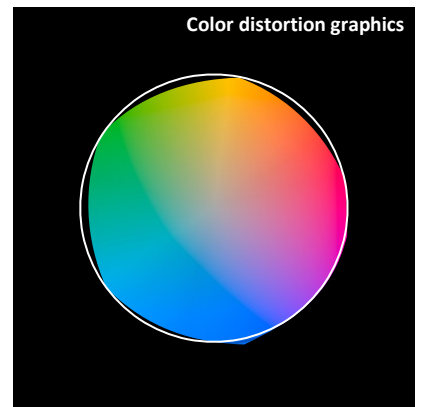
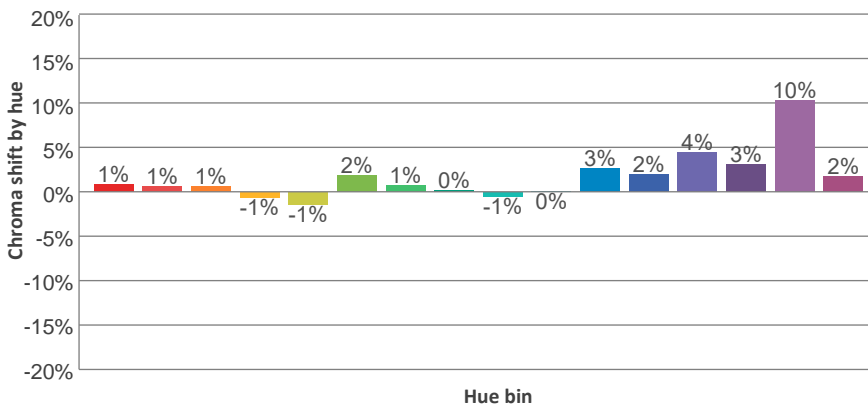
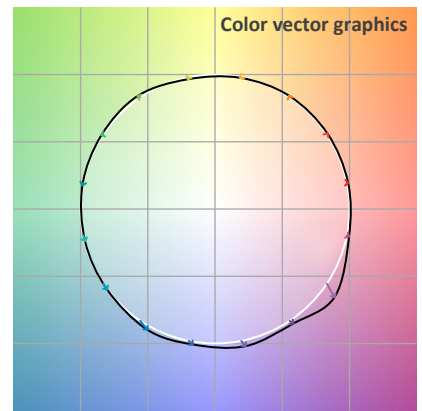
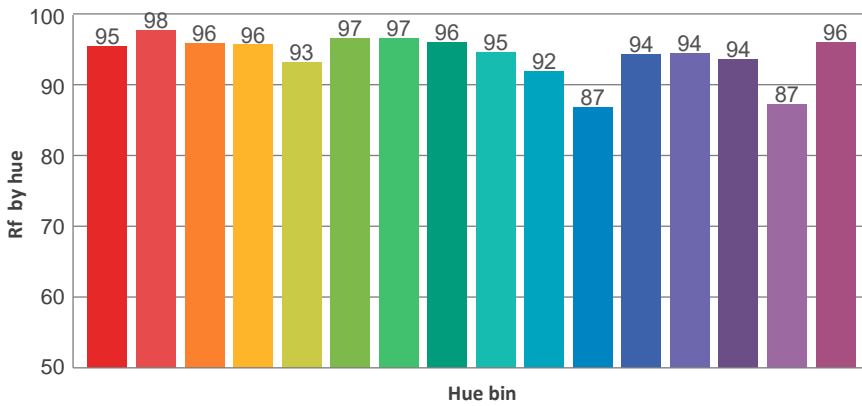
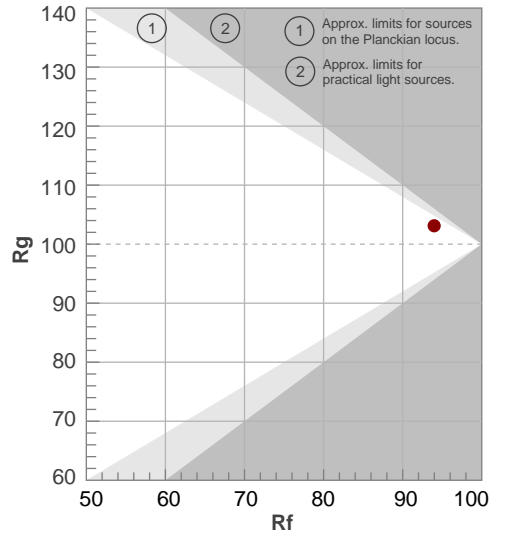
TM30 DETAILS



Rf 94,0
Fidelity index Rf

Rg 103,1
Gammut index Rg

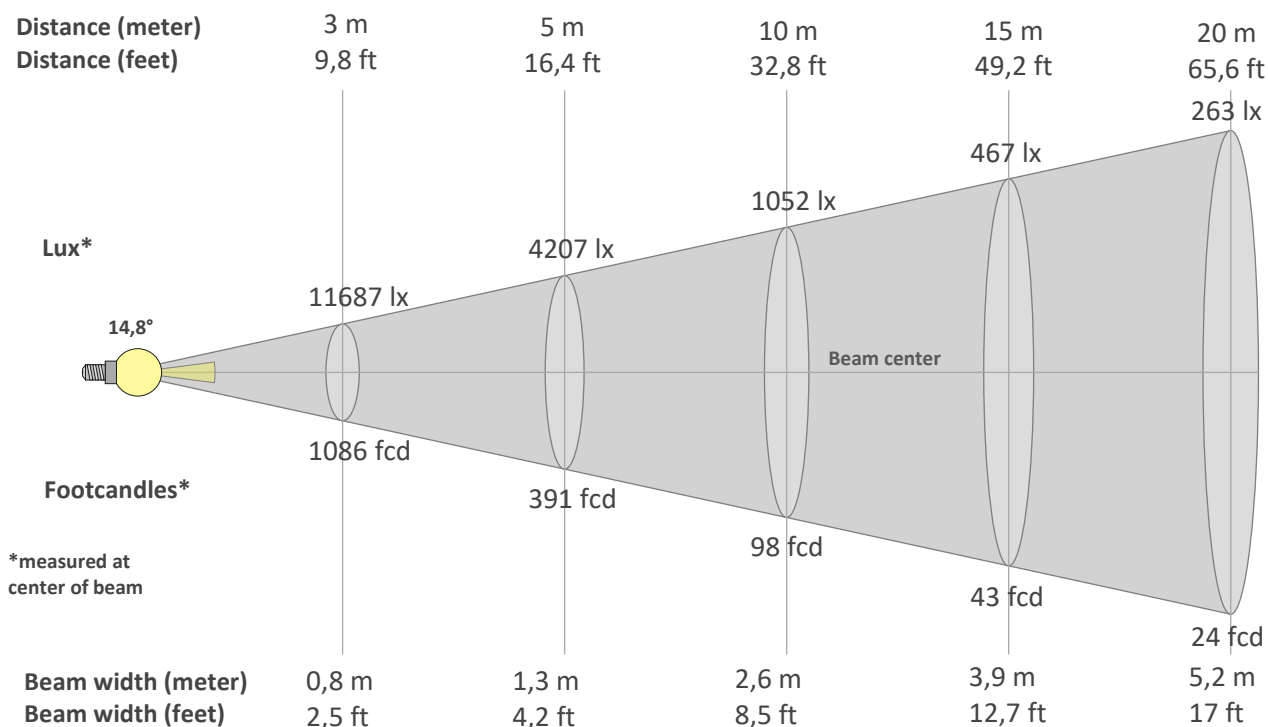
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	1%	0%
2	98	1%	0%
3	96	1%	1%
4	96	-1%	1%
5	93	-1%	1%
6	97	2%	1%
7	97	1%	1%
8	96	0%	2%
9	95	-1%	5%
10	92	0%	5%
11	87	3%	8%
12	94	2%	3%
13	94	4%	2%
14	94	3%	1%
15	87	10%	-5%
16	96	2%	-1%



BEAM DETAILS



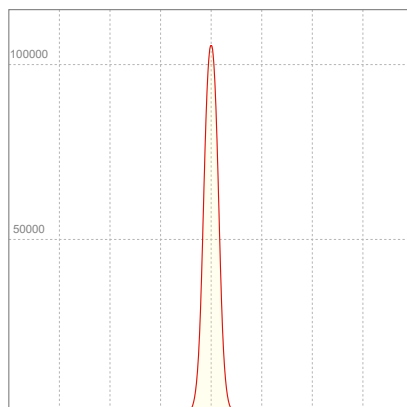
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
14,8°	25,3°	32,8°	100,0%	100,0%



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	105187lx	26297lx	11687lx	6574lx	4207lx	1870lx	1052lx	467lx	263lx	168lx	117lx	66lx	42lx
Footcand.	9772fcd	2443fcd	1086fcd	611fcd	391fcd	174fcd	98fcd	43fcd	24fcd	16fcd	11fcd	6fcd	4fcd
Beam wid.	0,3m	0,5m	0,8m	1m	1,3m	1,9m	2,6m	3,9m	5,2m	6,5m	7,8m	10,4m	12,9m
Beam wid.	0,9ft	1,7ft	2,5ft	3,4ft	4,2ft	6,4ft	8,5ft	12,7ft	17ft	21,2ft	25,5ft	34ft	42,5ft

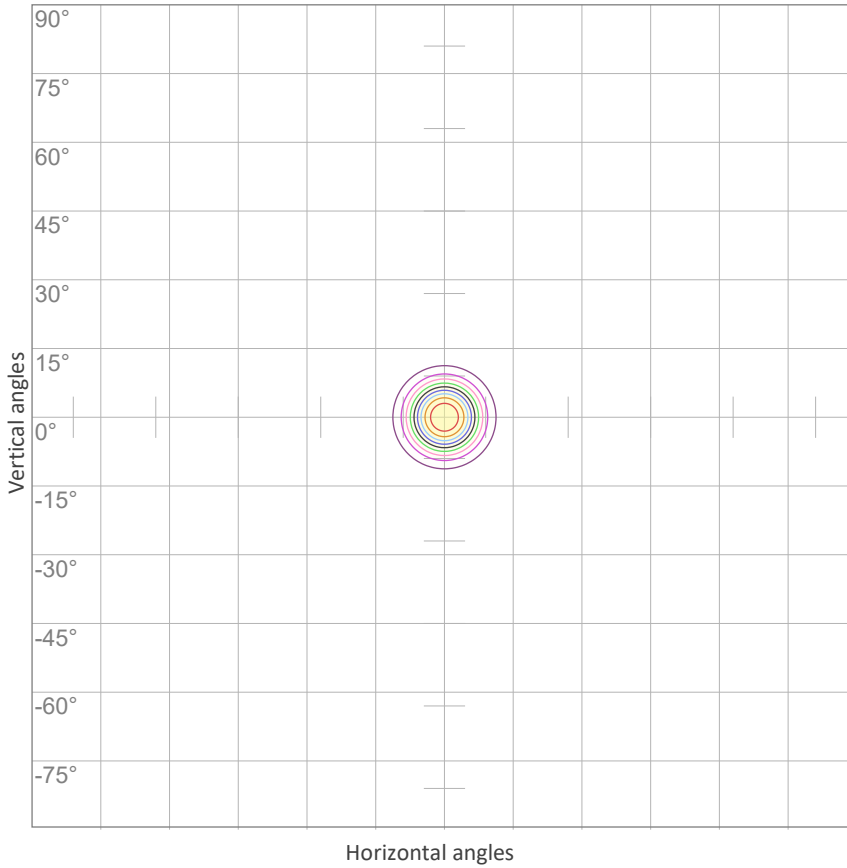
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	1,14A	228W	33lm/W
Power Fc			
0,95			

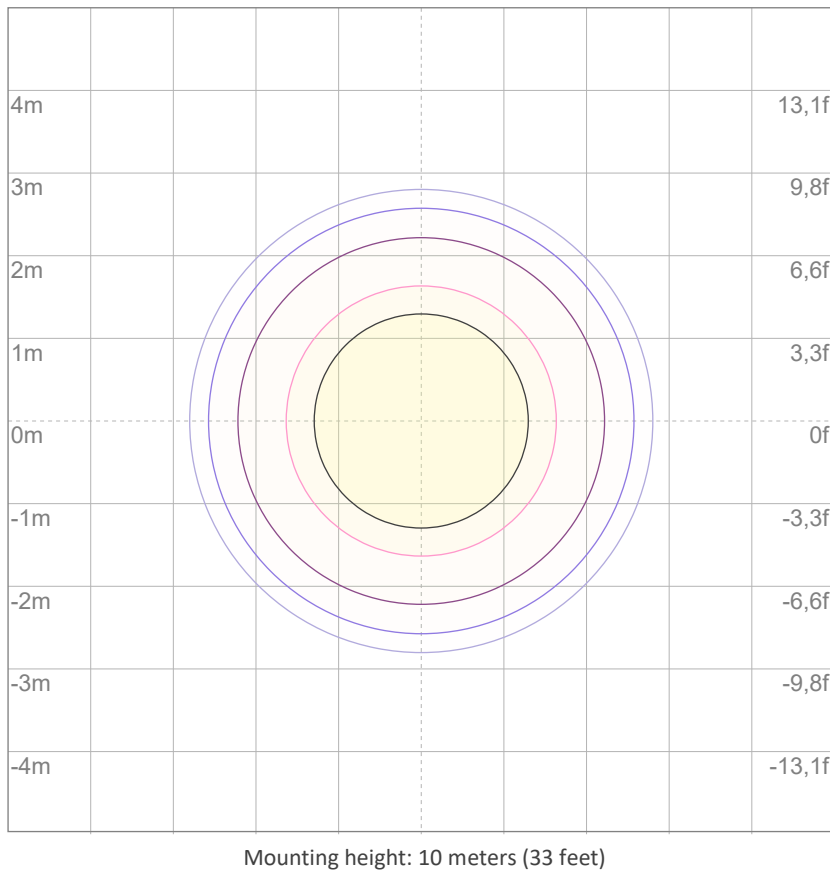
ISO CANDELA DIAGRAM



10%	10519 cd
20%	21037 cd
30%	31556 cd
40%	42075 cd
50%	52594 cd
60%	63112 cd
70%	73631 cd
80%	84150 cd
90%	94669 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 105187 cd

ISO LUX DIAGRAM



3%	31,6 lx
5%	52,6 lx
10%	105 lx
30%	316 lx
50%	526 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 1052 lx

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



Total lumen output:

8619 lm

Peak candela output:

12313 cd

Light quality:

CRI: 94,1

Color temperature:

2695 K

PRODUCT NAME:

ECLFR2KVW

MEASUREMENT CONDITIONS:

Beam angle:

Max zoom

Target:

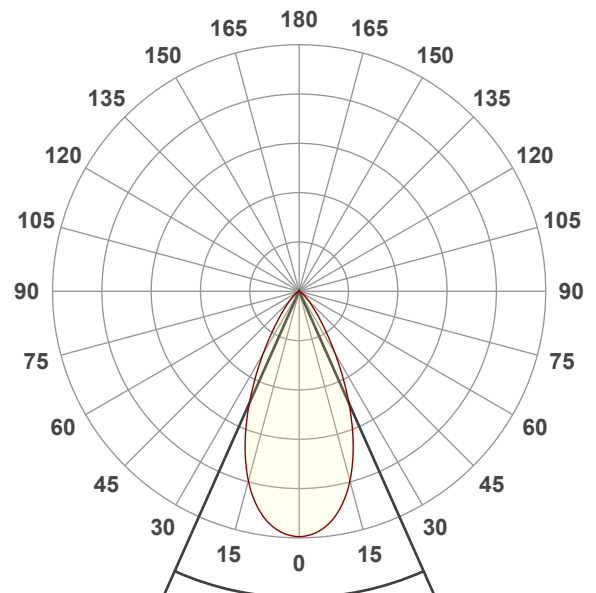
Warm White

Operator:

Paolo Carvone

Date and time:

08/11/2021 13:02:58

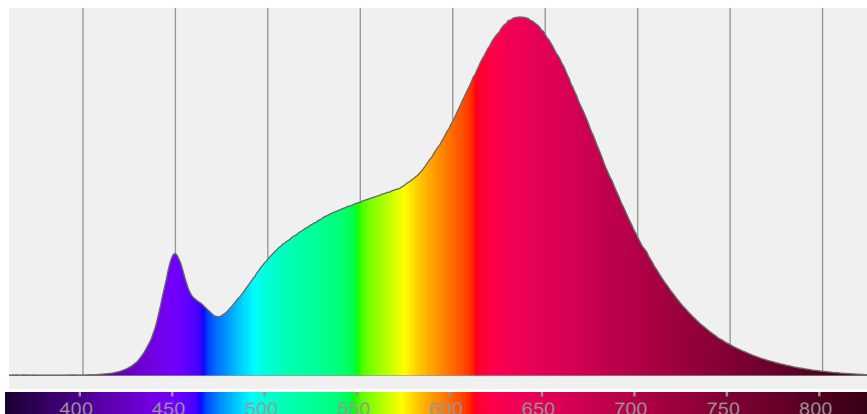


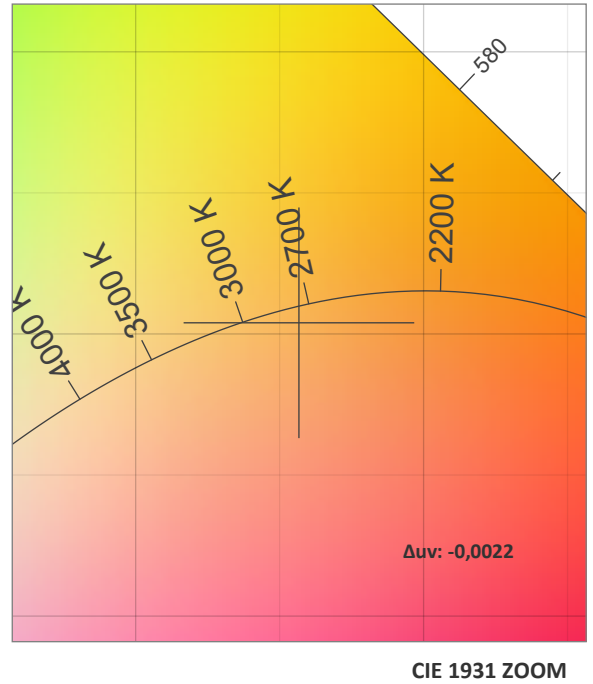
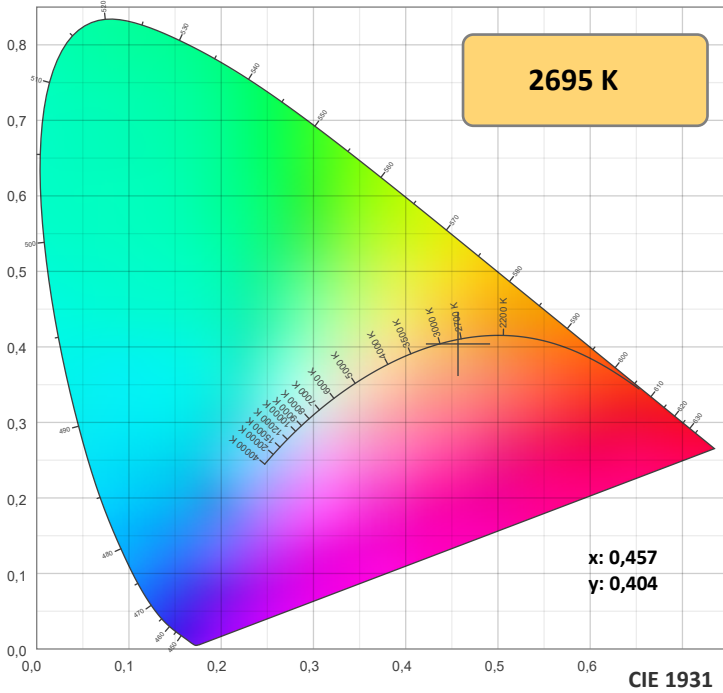
Beam angle 50%: 48°

Field angle 10%: 79,4°

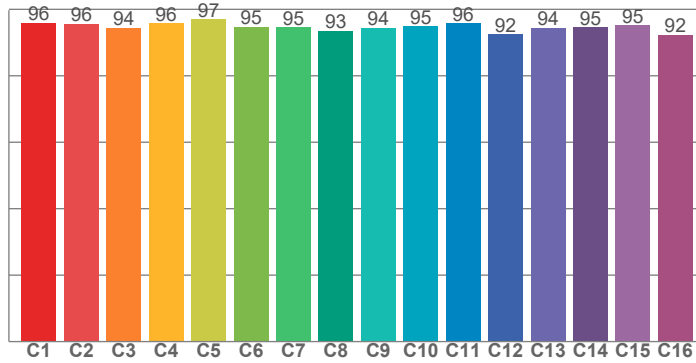
Cut off angle 2.5%: 104,9°

Spectra

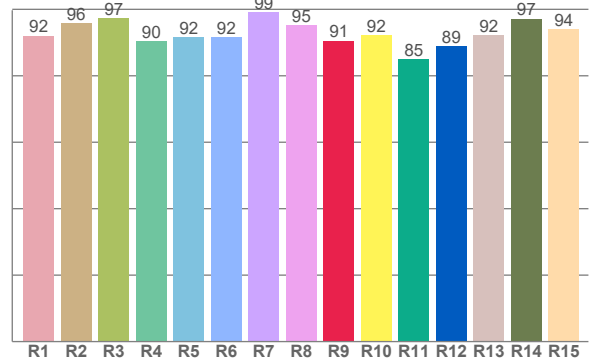




TM30: 94,9



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	95,7	97,3	90,5	91,6	91,7	99,2	95,2	90,5	92,1	85,1	89,0	92,3	97,2	93,9

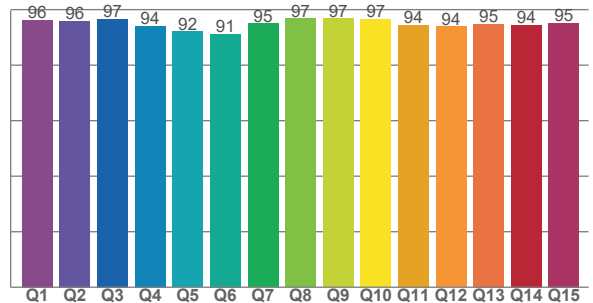
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

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

CQS: 94,5



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
2695 K	94,1	90,5	94,9	103,8	94,5	97	0,457	0,404	-0,0022

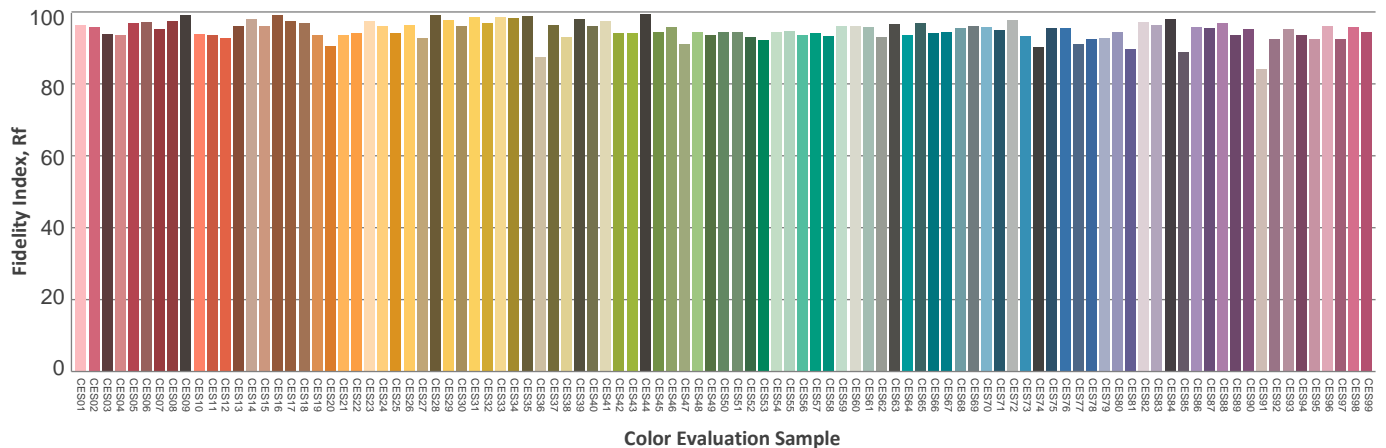
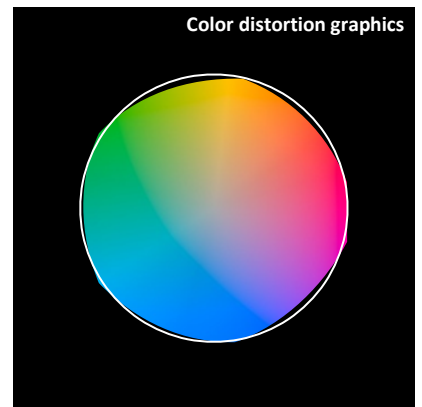
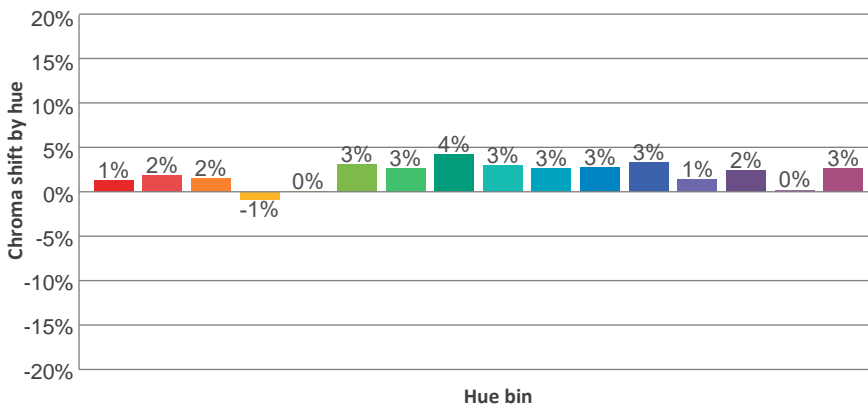
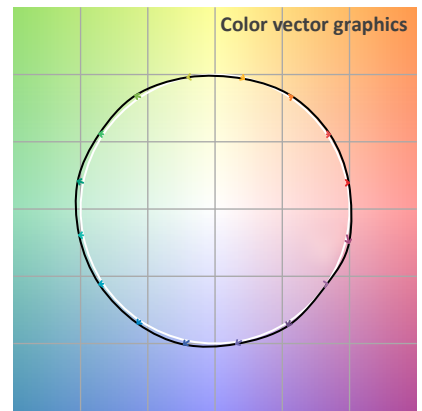
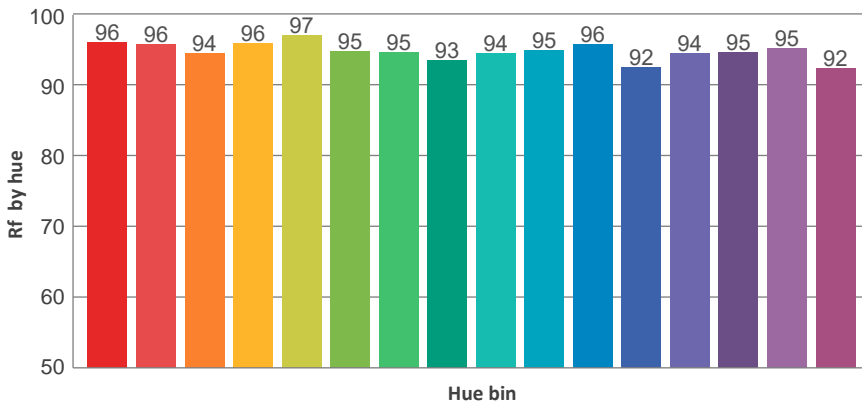
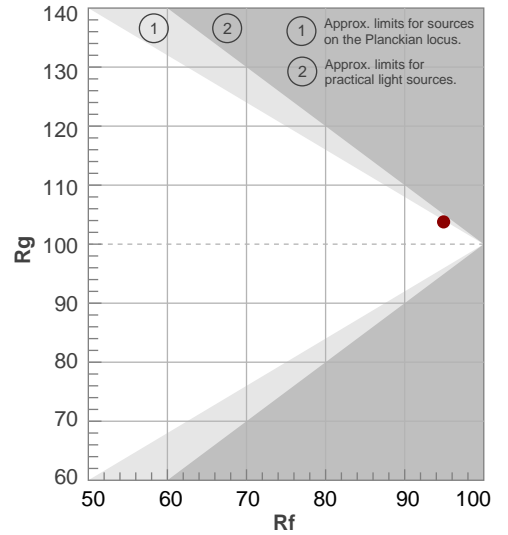
TM30 DETAILS



Rf 94,9
Fidelity index Rf

Rg 103,8
Gammut index Rg

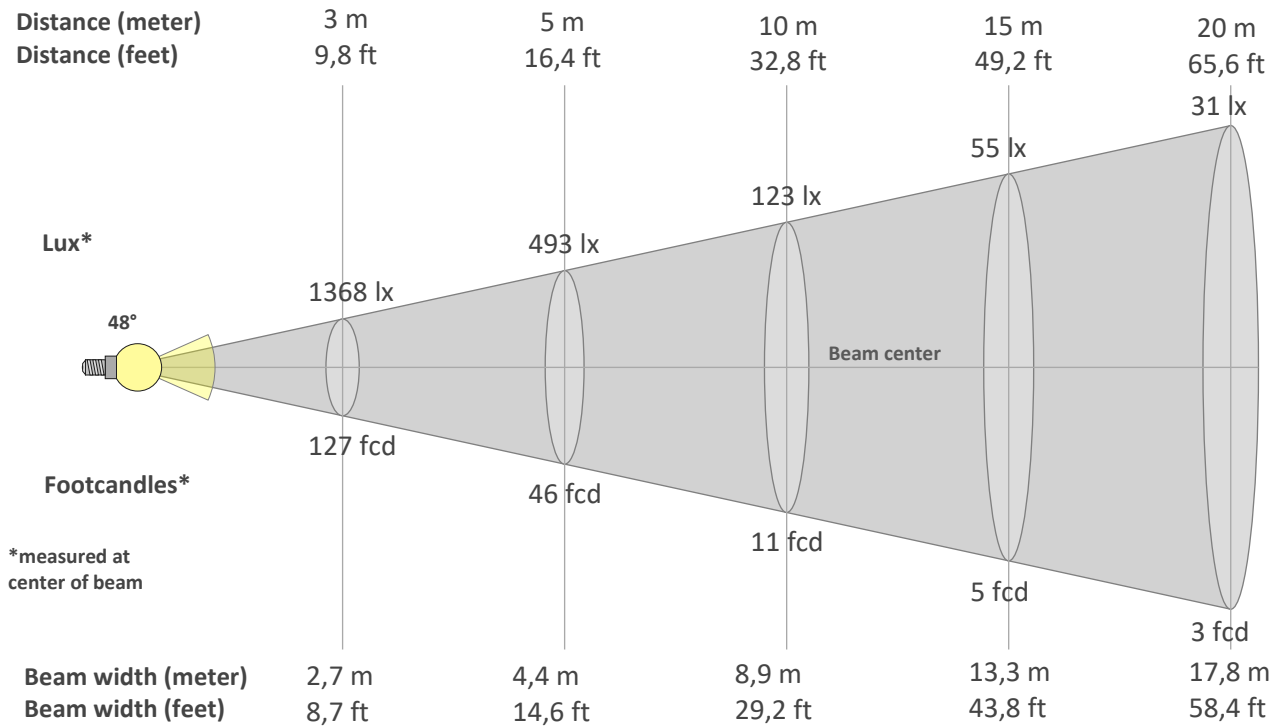
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	0%
2	96	2%	-1%
3	94	2%	-1%
4	96	-1%	-2%
5	97	0%	1%
6	95	3%	2%
7	95	3%	1%
8	93	4%	-1%
9	94	3%	-1%
10	95	3%	-1%
11	96	3%	-1%
12	92	3%	-3%
13	94	1%	-4%
14	95	2%	-3%
15	95	0%	0%
16	92	3%	-5%



BEAM DETAILS



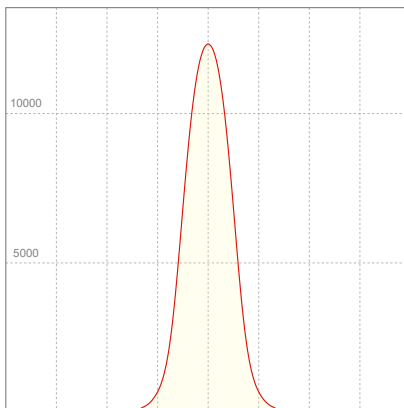
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
48°	79,4°	104,9°	99,1%	94,1%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	12313lx	3078lx	1368lx	770lx	493lx	219lx	123lx	55lx	31lx	20lx	14lx	8lx	5lx
Footcand.	1144fcd	286fcd	127fcd	71fcd	46fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,9m	1,8m	2,7m	3,6m	4,4m	6,7m	8,9m	13,3m	17,8m	22,2m	26,7m	35,6m	44,5m
Beam wid.	2,9ft	5,9ft	8,7ft	11,7ft	14,6ft	21,9ft	29,2ft	43,8ft	58,4ft	72,9ft	87,5ft	116,7ft	145,9ft

LINEAR DISTRIBUTION DIAGRAM

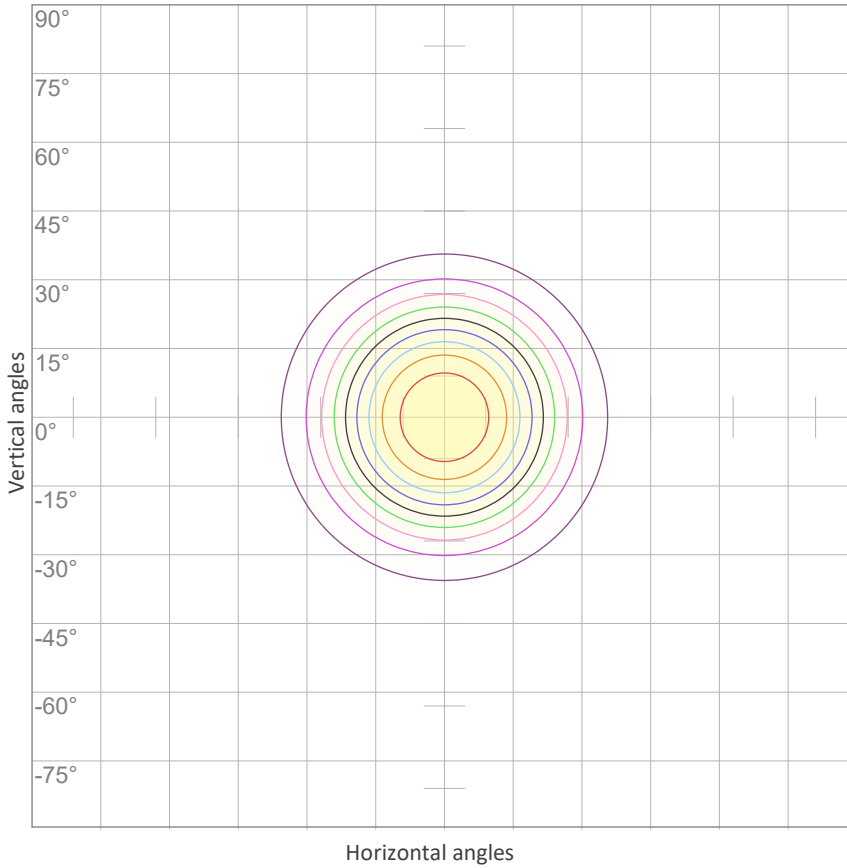


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,10A	218,4W	39lm/W

Power Fc
0,95

ISO CANDELA DIAGRAM



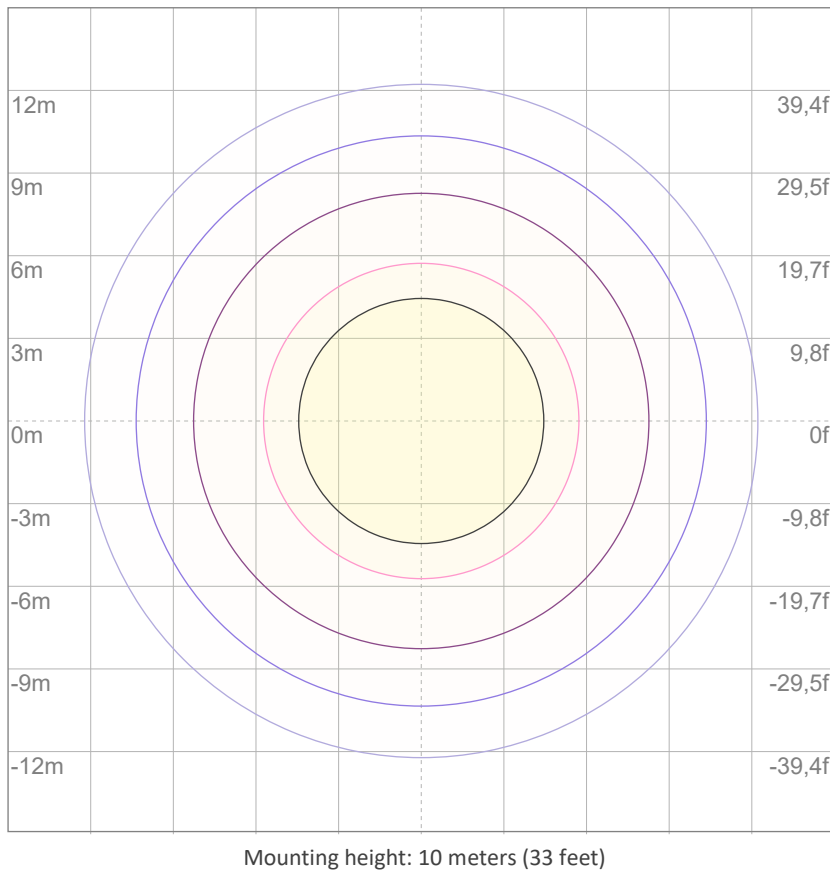
10%	1231 cd
20%	2463 cd
30%	3694 cd
40%	4925 cd
50%	6156 cd
60%	7388 cd
70%	8619 cd
80%	9850 cd
90%	11082 cd

Conditions:

Number of c-planes: 2

Candela at center: 12313 cd

ISO LUX DIAGRAM



3%	3,69 lx
5%	6,16 lx
10%	12,3 lx
30%	36,9 lx
50%	61,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 123 lx

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



Total lumen output:

7587 lm

Peak candela output:

30911 cd

Light quality:

CRI: 94,2

Color temperature:

2685 K

PRODUCT NAME:

ECLFR2KVW

MEASUREMENT CONDITIONS:

Beam angle:

Max zoom

Target:

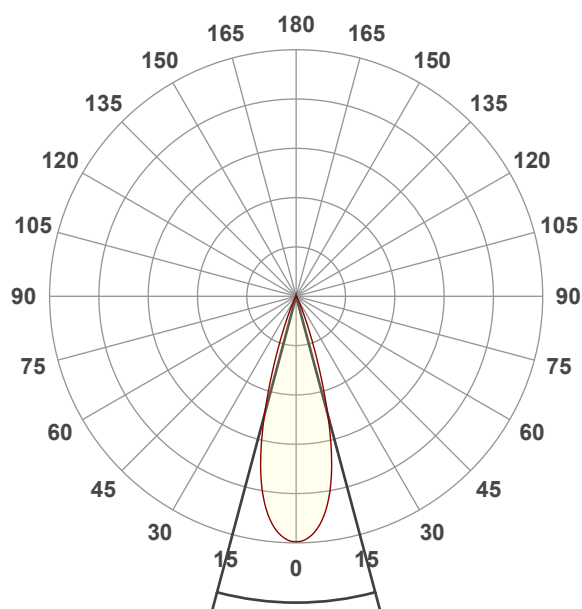
Warm White

Operator:

Paolo Carvone

Date and time:

08/11/2021 13:14:27

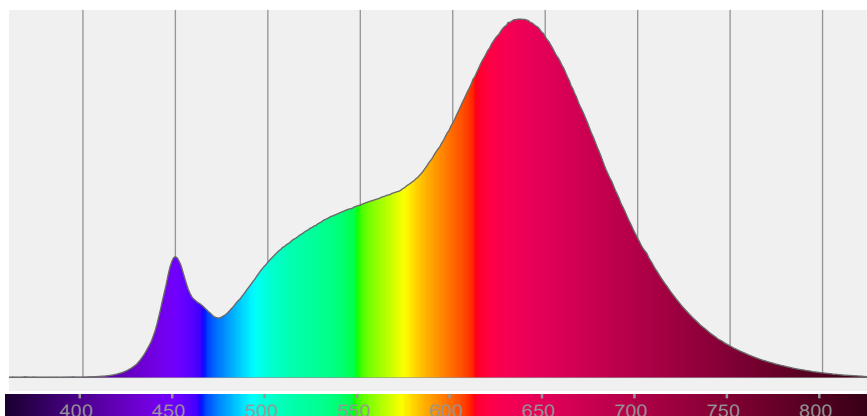


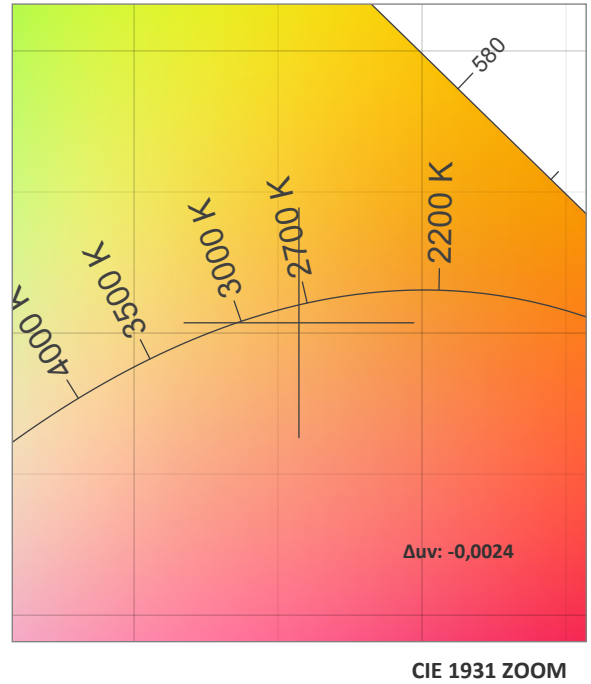
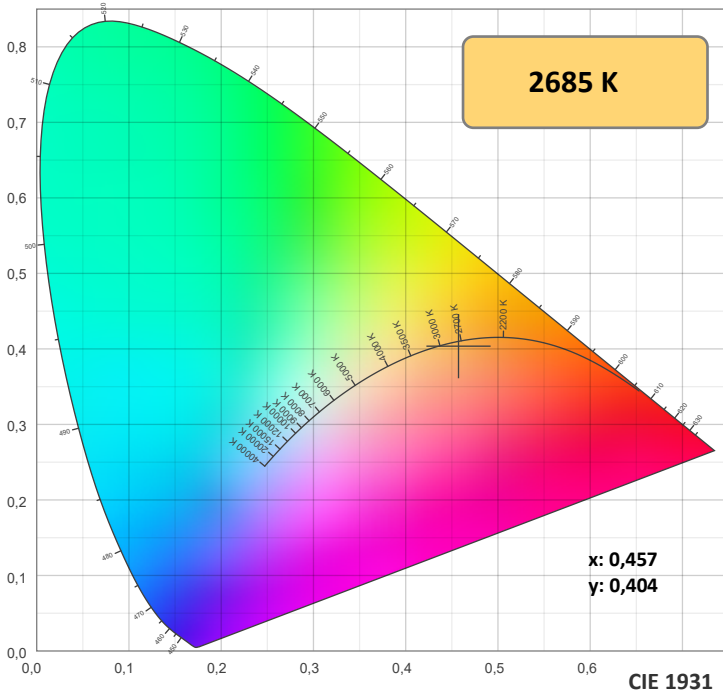
Beam angle 50%: 29,9°

Field angle 10%: 44,4°

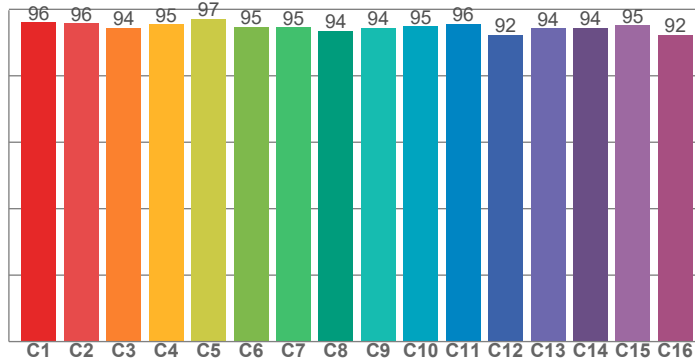
Cut off angle 2.5%: 53,9°

Spectra

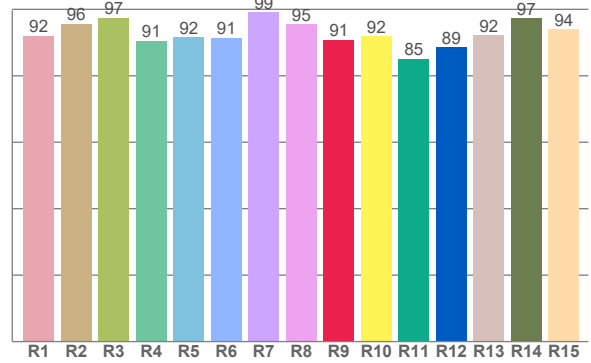




TM30: 94,9



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
92,1	95,6	97,5	90,6	91,5	91,4	99,2	95,4	90,8	91,9	85,1	88,5	92,2	97,3	93,9

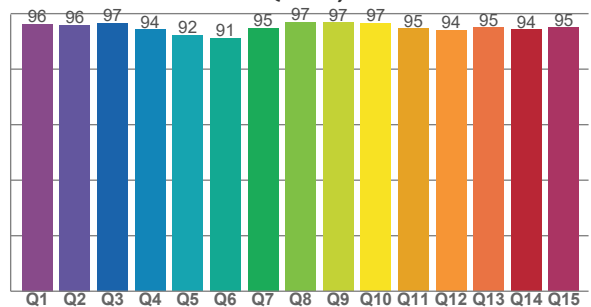
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,2	95,9	96,6	94,3	92,2	91,2	94,8	96,9	96,8	96,5	94,6	94,0	95,0	94,2	95,0

CQS: 94,5



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
2685 K	94,2	90,8	94,9	103,8	94,5	97	0,457	0,404	-0,0024

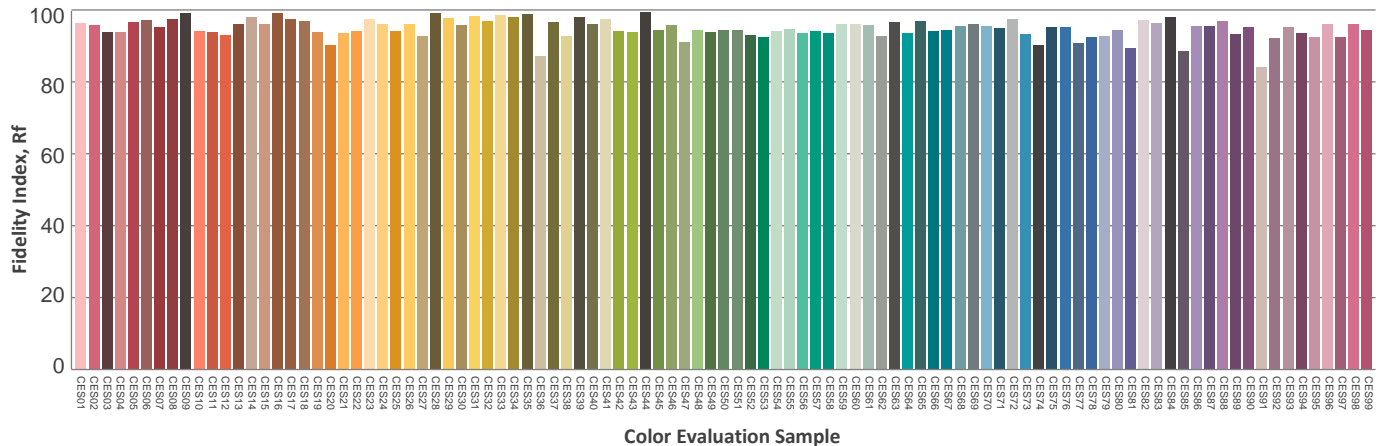
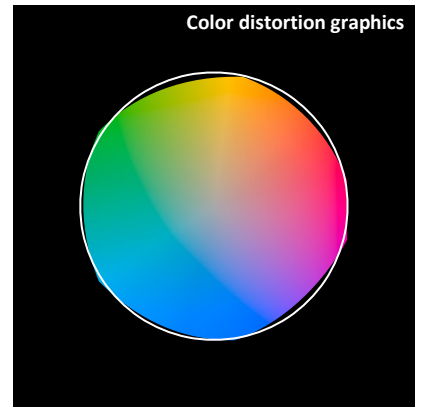
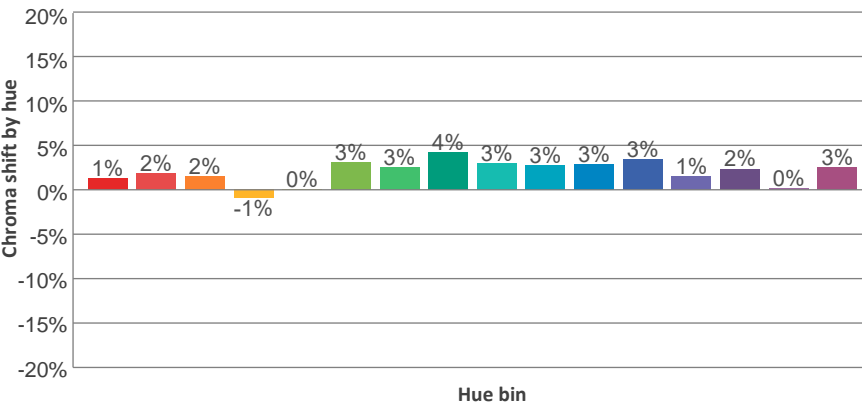
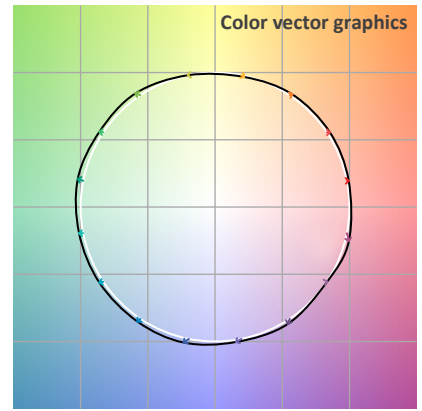
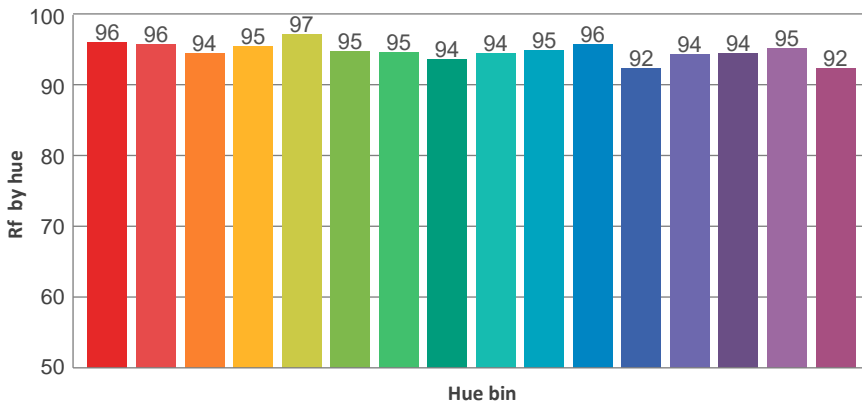
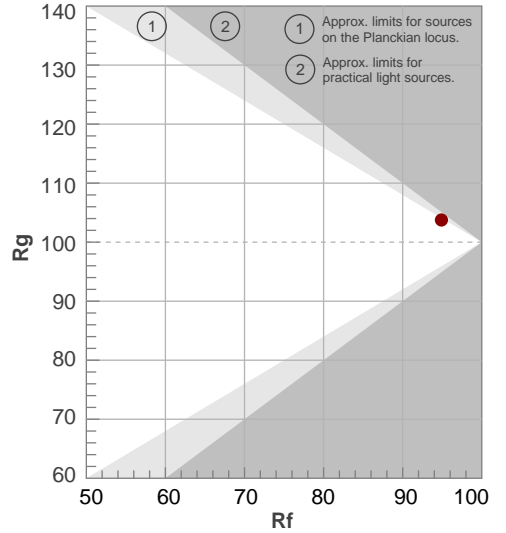
TM30 DETAILS



Rf 94,9
Fidelity index Rf

Rg 103,8
Gammut index Rg

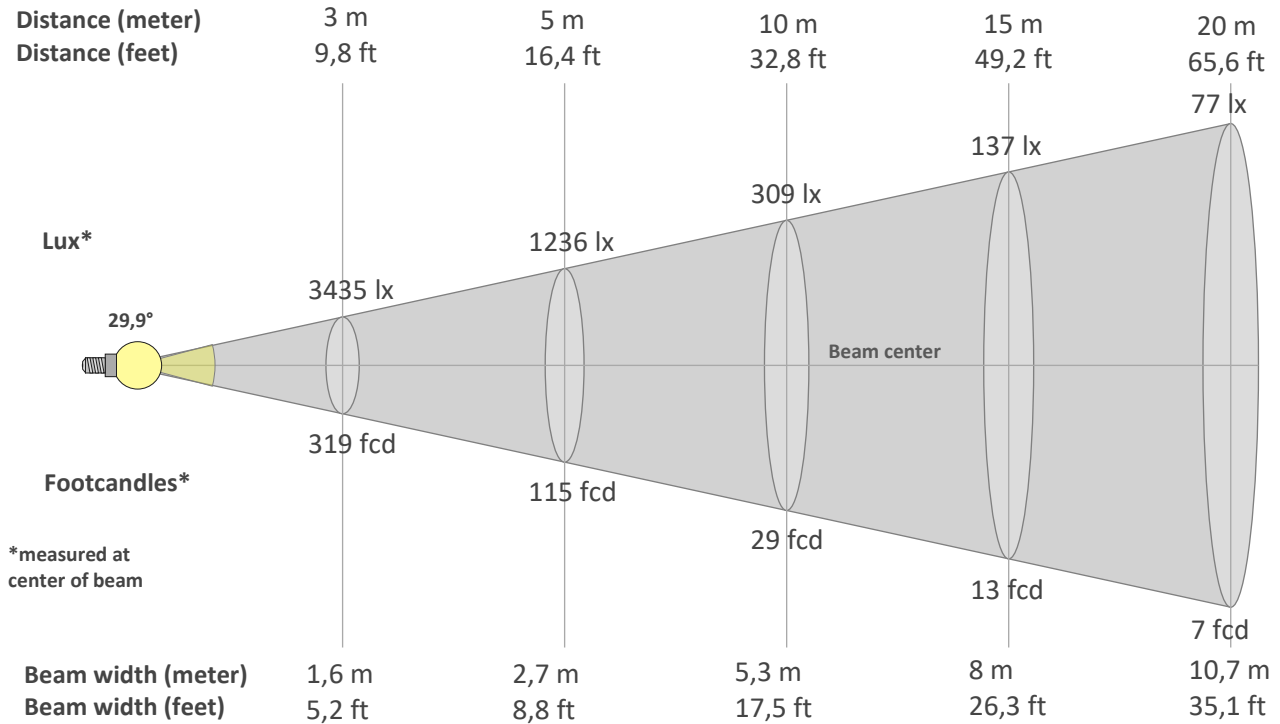
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	0%
2	96	2%	-1%
3	94	2%	-1%
4	95	-1%	-2%
5	97	0%	1%
6	95	3%	2%
7	95	3%	1%
8	94	4%	-1%
9	94	3%	-1%
10	95	3%	-1%
11	96	3%	-1%
12	92	3%	-3%
13	94	1%	-4%
14	94	2%	-3%
15	95	0%	0%
16	92	3%	-5%



BEAM DETAILS



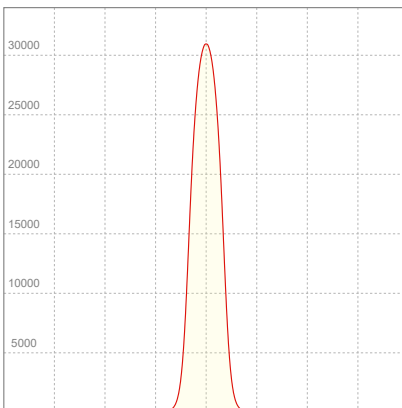
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
29,9°	44,4°	53,9°	100,0%	99,8%



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	30911lx	7728lx	3435lx	1932lx	1236lx	550lx	309lx	137lx	77lx	49lx	34lx	19lx	12lx
Footcand.	2872fcd	718fcd	319fcd	179fcd	115fcd	51fcd	29fcd	13fcd	7fcd	5fcd	3fcd	2fcd	1fcd
Beam wid.	0,5m	1,1m	1,6m	2,1m	2,7m	4m	5,3m	8m	10,7m	13,4m	16m	21,4m	26,7m
Beam wid.	1,8ft	3,5ft	5,2ft	7ft	8,8ft	13,2ft	17,5ft	26,3ft	35,1ft	43,8ft	52,6ft	70,1ft	87,7ft

LINEAR DISTRIBUTION DIAGRAM

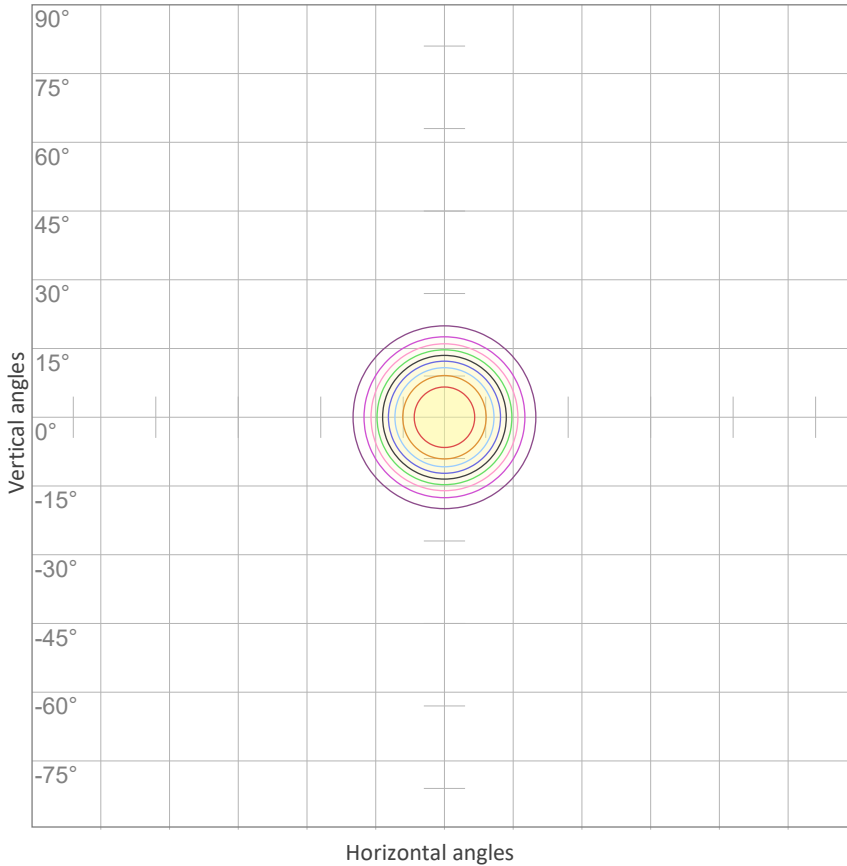


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	1,08A	216,4W	35lm/W

Power Fc
0,95

ISO CANDELA DIAGRAM



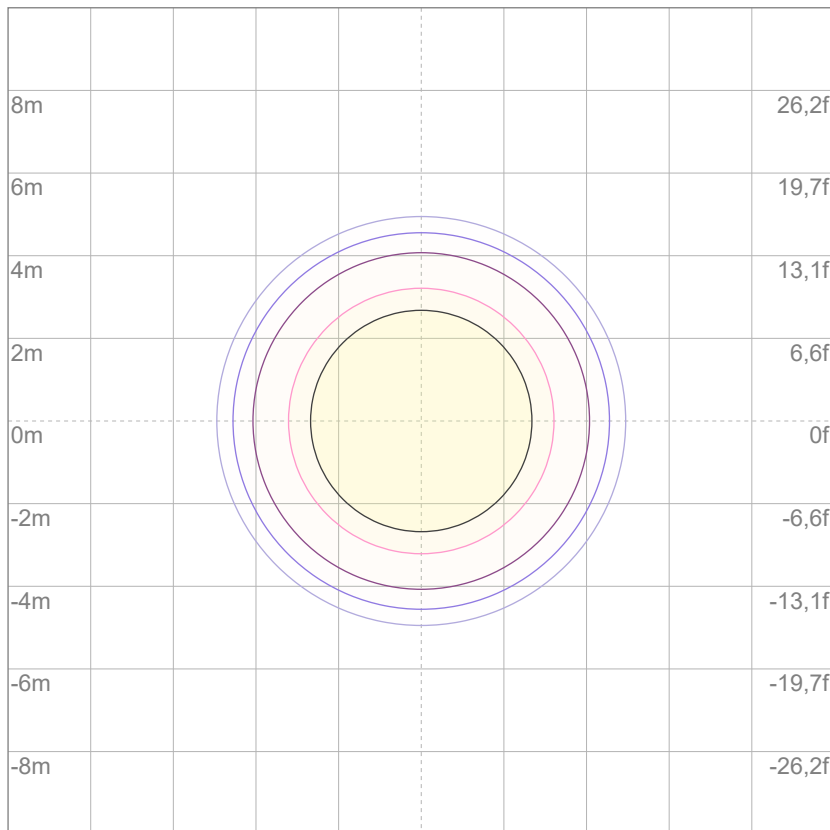
10%	3091 cd
20%	6182 cd
30%	9273 cd
40%	12365 cd
50%	15456 cd
60%	18547 cd
70%	21638 cd
80%	24729 cd
90%	27820 cd

Conditions:

Number of c-planes: 2

Candela at center: 30911 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	9,27 lx
5%	15,5 lx
10%	30,9 lx
30%	92,7 lx
50%	155 lx

Conditions:

Number of c-planes: 2

Lux at center: 309 lx

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



Total lumen output:

5246 lm

Peak candela output:

73586 cd

Light quality:

CRI: 94,3

Color temperature:

2667 K

PRODUCT NAME:

ECLFR2KVW

MEASUREMENT CONDITIONS:

Beam angle:

Min zoom

Target:

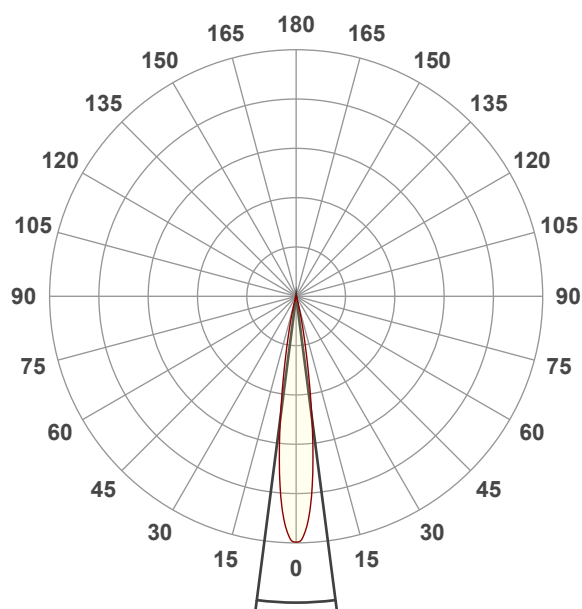
Warm White

Operator:

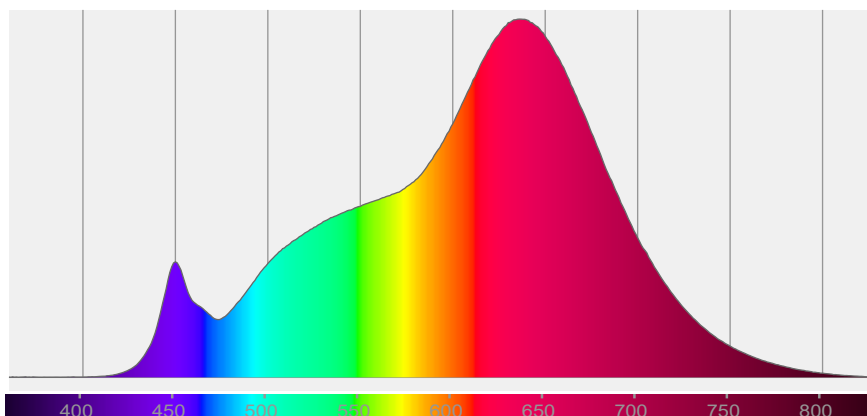
Paolo Carvone

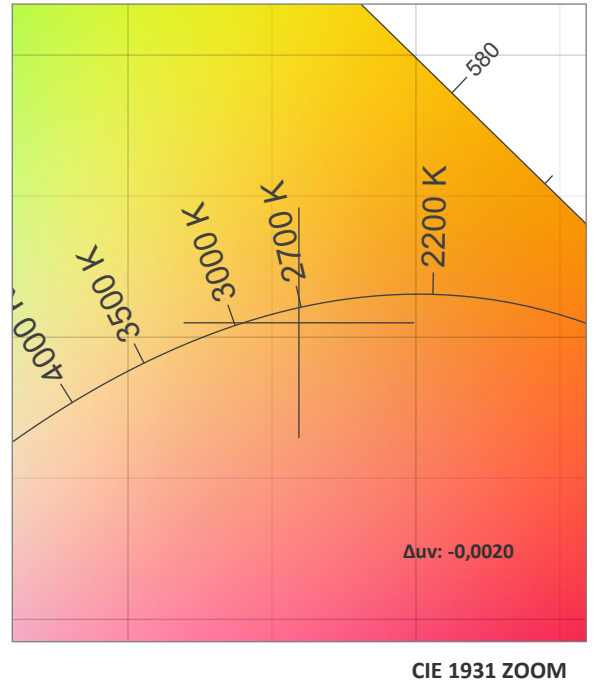
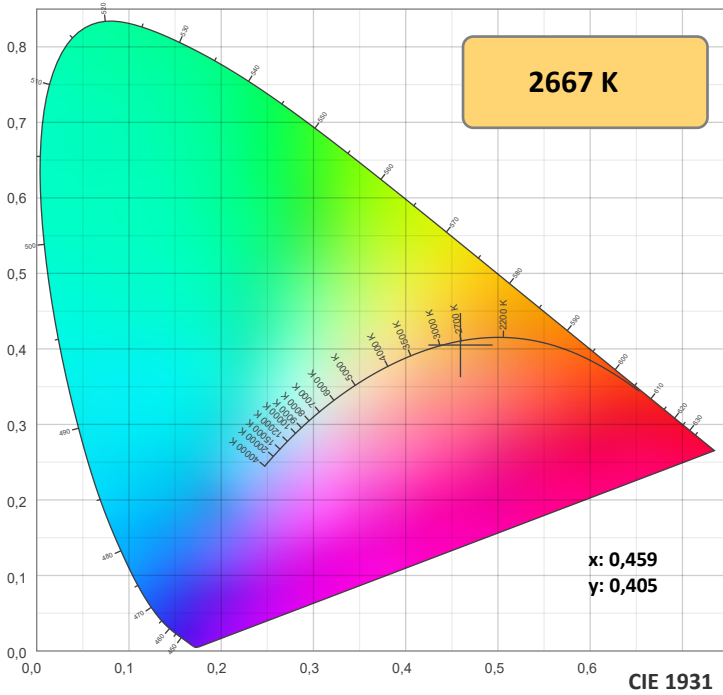
Date and time:

08/11/2021 13:16:04

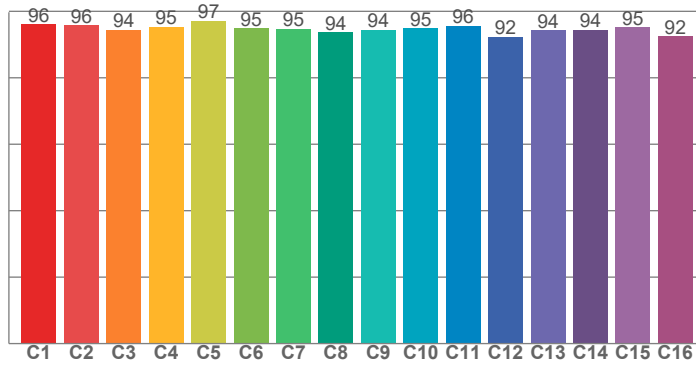


Spectra

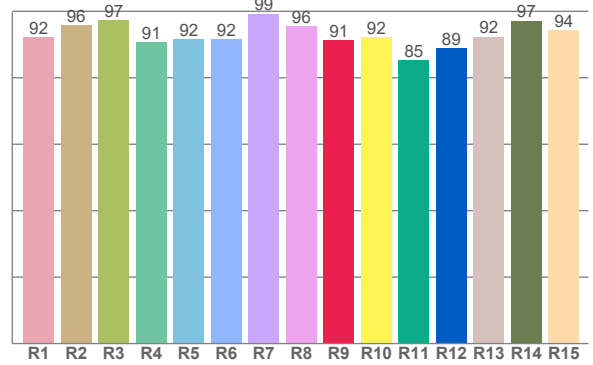




TM30: 94,9



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
92,2	95,8	97,4	90,6	91,7	91,6	99,3	95,5	91,3	92,2	85,2	88,8	92,4	97,2	94,2

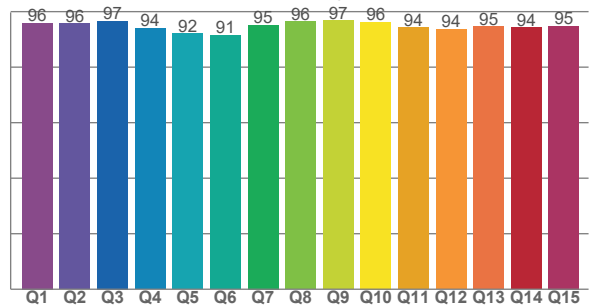
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,9	95,7	96,6	94,0	92,1	91,5	95,2	96,5	96,7	96,2	94,2	93,6	94,6	94,3	94,9

CQS: 94,4



COLOR PARAMETERS

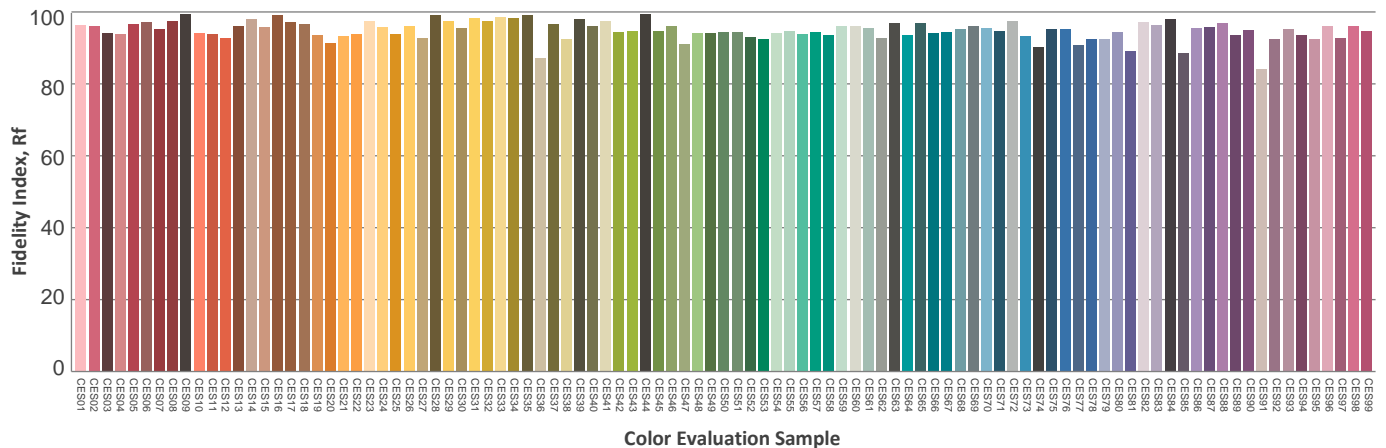
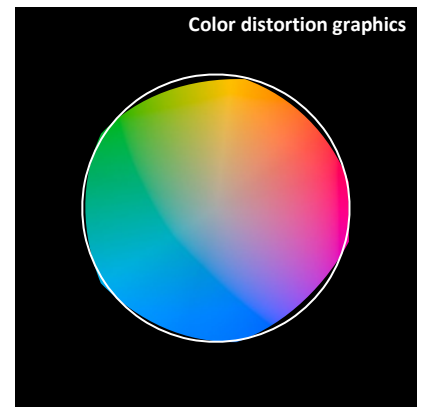
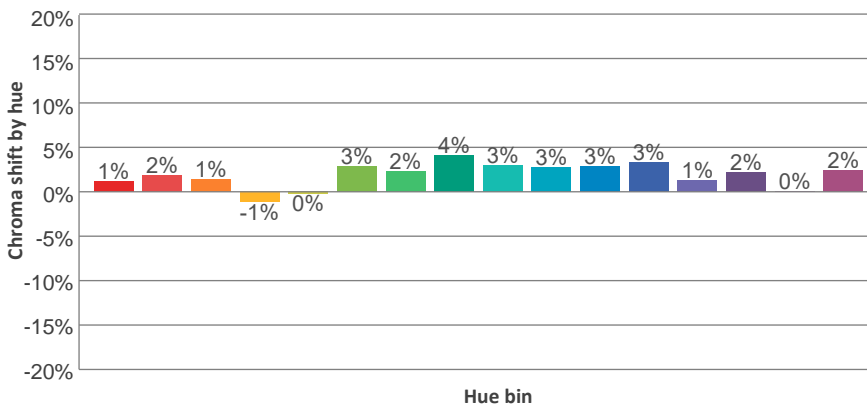
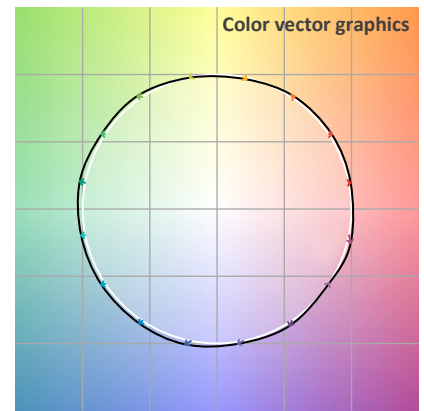
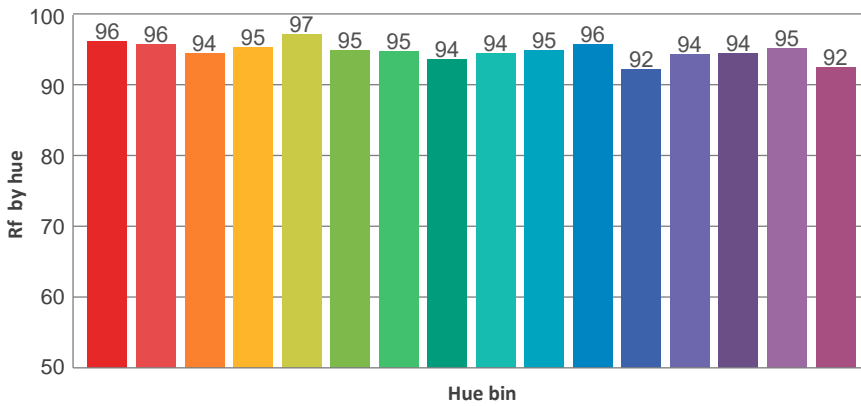
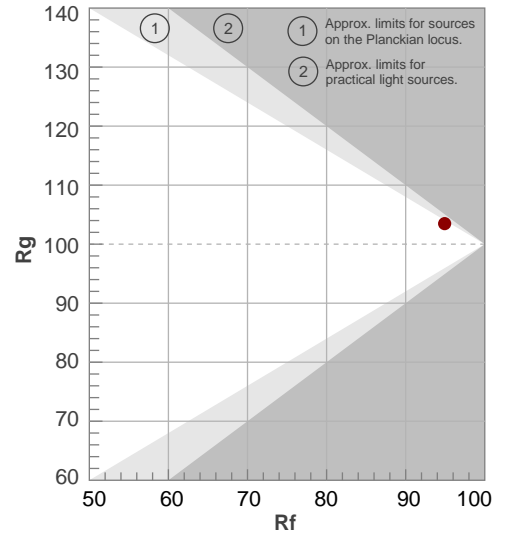
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2667 K	94,3	91,3	94,9	103,5	94,4	97	0,459	0,405	-0,0020

TM30 DETAILS

Rf 94,9
Fidelity index Rf

Rg 103,5
Gammut index Rg

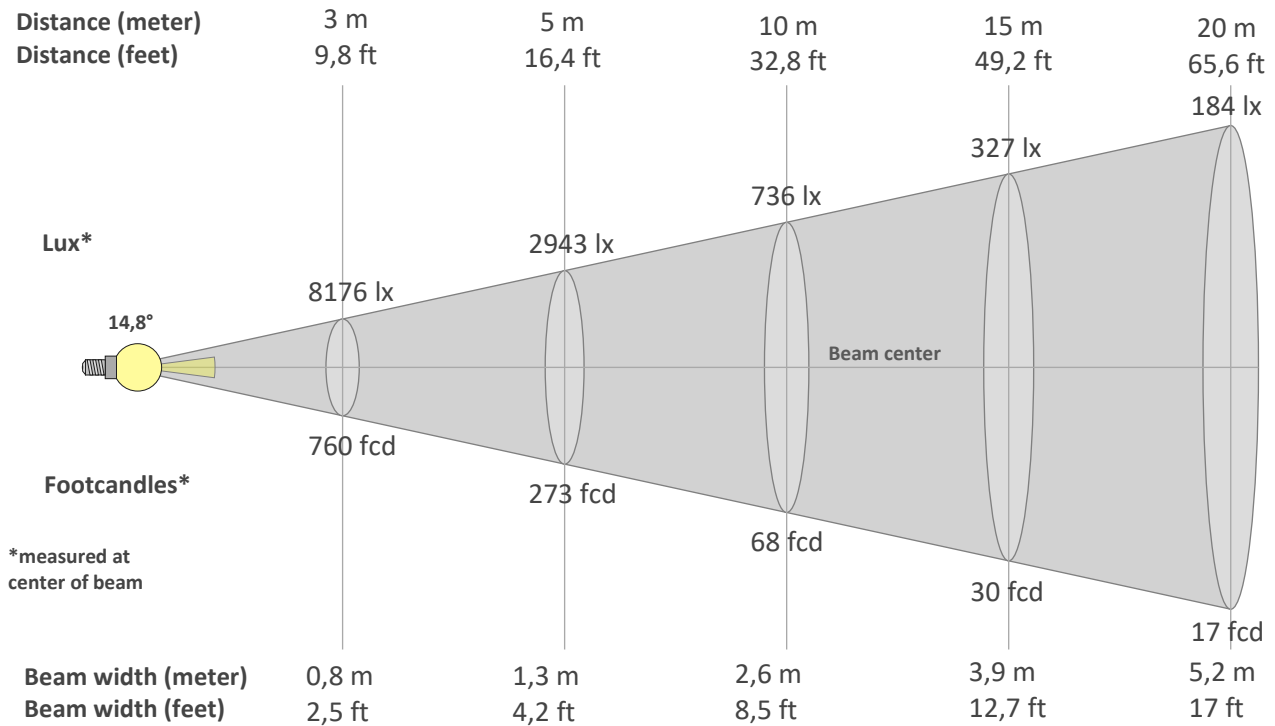
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	0%
2	96	2%	-1%
3	94	1%	-1%
4	95	-1%	-3%
5	97	0%	1%
6	95	3%	2%
7	95	2%	1%
8	94	4%	0%
9	94	3%	0%
10	95	3%	-1%
11	96	3%	-1%
12	92	3%	-3%
13	94	1%	-4%
14	94	2%	-3%
15	95	0%	0%
16	92	2%	-5%



BEAM DETAILS



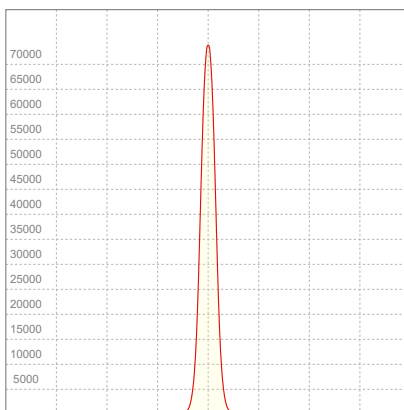
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
14,8°	25,3°	32,7°	100,0%	100,0%



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	73586lx	18396lx	8176lx	4599lx	2943lx	1308lx	736lx	327lx	184lx	118lx	82lx	46lx	29lx
Footcand.	6836fcd	1709fcd	760fcd	427fcd	273fcd	122fcd	68fcd	30fcd	17fcd	11fcd	8fcd	4fcd	3fcd
Beam wid.	0,3m	0,5m	0,8m	1m	1,3m	1,9m	2,6m	3,9m	5,2m	6,5m	7,8m	10,4m	13m
Beam wid.	0,9ft	1,7ft	2,5ft	3,4ft	4,2ft	6,4ft	8,5ft	12,7ft	17ft	21,2ft	25,5ft	34ft	42,5ft

LINEAR DISTRIBUTION DIAGRAM

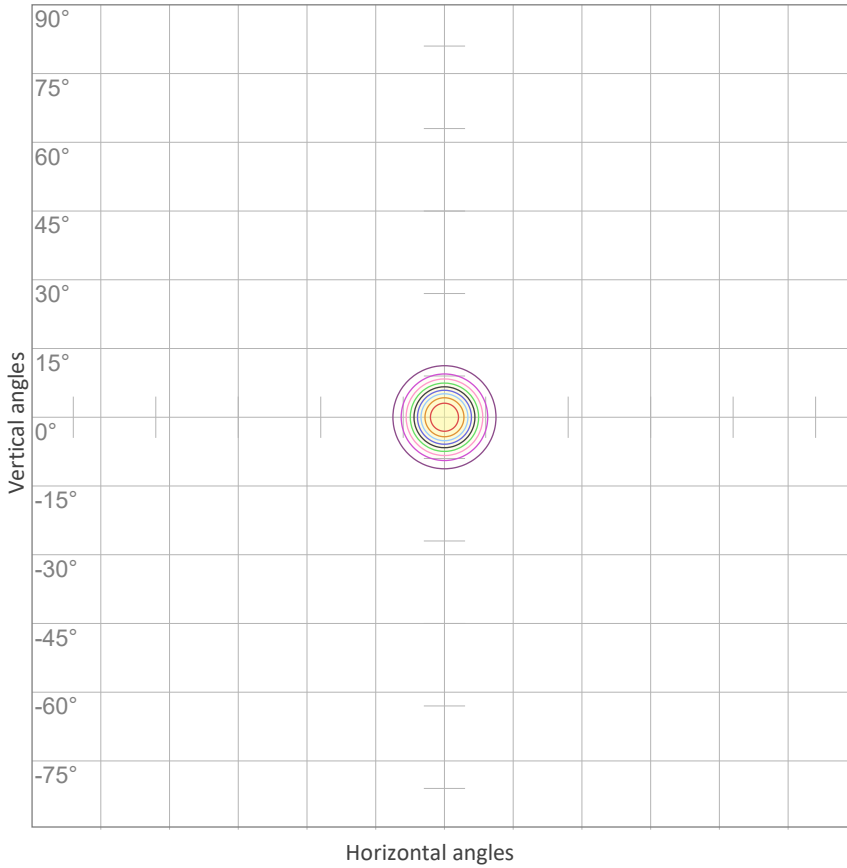


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	1,09A	216,6W	24lm/W

Power Fc
0,95

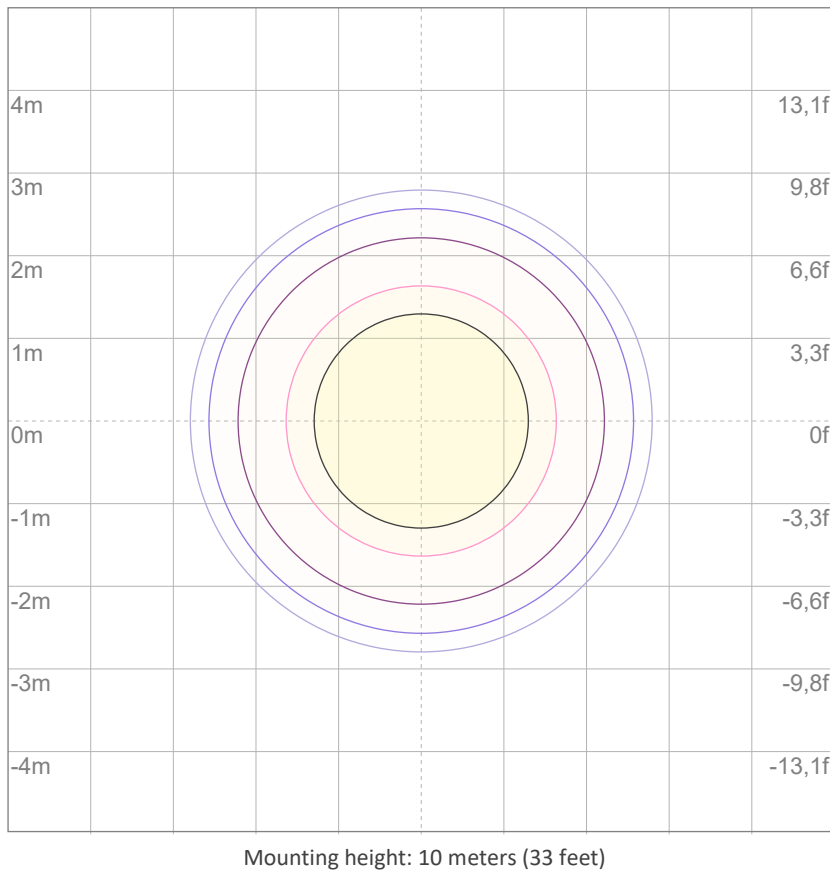
ISO CANDELA DIAGRAM



10%	7359 cd
20%	14717 cd
30%	22076 cd
40%	29434 cd
50%	36793 cd
60%	44152 cd
70%	51510 cd
80%	58869 cd
90%	66227 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 73586 cd

ISO LUX DIAGRAM



3%	22,1 lx
5%	36,8 lx
10%	73,6 lx
30%	221 lx
50%	368 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 736 lx

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