

Photometric Test Report



ECLFWTU

High quality Full White LED ellipsoidal
in Tungsten version

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TESTING PROCESS

Prolights has its own optical testing laboratory in order to provide accurate photometric reports for its lighting products. The testing laboratory contains certain variety of precise lighting measurement systems that ensure an optimal reading of all the characteristic parameters of the lighting devices. All measurements are made at a controlled room temperature of 20°C without any external light sources. This photometric report is obtained through the data measured by a high precision measurement system and analyzed by a dedicate software.

Prolights measurement instrument

Prolights measurement instrument is a complete measurement system for any light source. It's equipped with two-axis goniometer, that enables to measure the full 3D distribution field of the light source. This instrument measures the light intensity, the beam angle and the most significative colors parameters, like color temperature, spectral distribution, CRI, CQS, TM-30 with a very high accuracy rate.

Please Note: All measurements are made with light source at operating temperature. Before starting the measurement, the instrument analyzes the process of the light source during the heating phase. The measuring process of all the parameters begins only when the light emission is stable, that is with a variation of less than 0.5% in a 15 minutes time frame.

Prolights measurement software

The software provides user friendly interface for the operator who does the measurements, and it also analyzes and processes all the collected data by the instrument. With this software it is possible to see the measured data in real-time and it is possible to examine all the measured data and graphics afterwards as well. All information is collected in a specific Prolights template, and the software creates also IES and LDT files, which are widely used to transfer the photometric data, and to develop lighting system.

Additionally, the fixtures are rechecked using various hand-held instruments like Sekonic C-700 and Gossen Mavospec Base, this is done to ensure, that the data in the photometric report are as accurate as possible.



Total lumen output:

6662 lm

Peak candela output:

762725 cd

Light quality:

CRI: 98,1

Color temperature:

3120 K

PRODUCT NAME:

ECLFWTU

MEASUREMENT CONDITIONS:

Beam angle:

PRL5

Target:

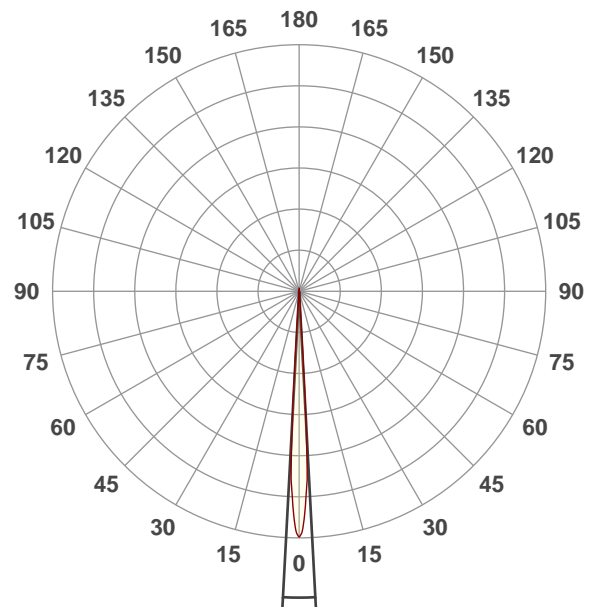
Warm White

Operator:

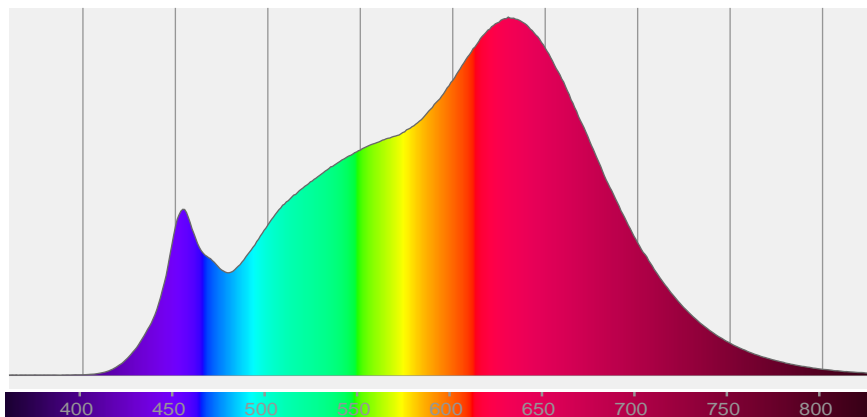
Paolo Carvone

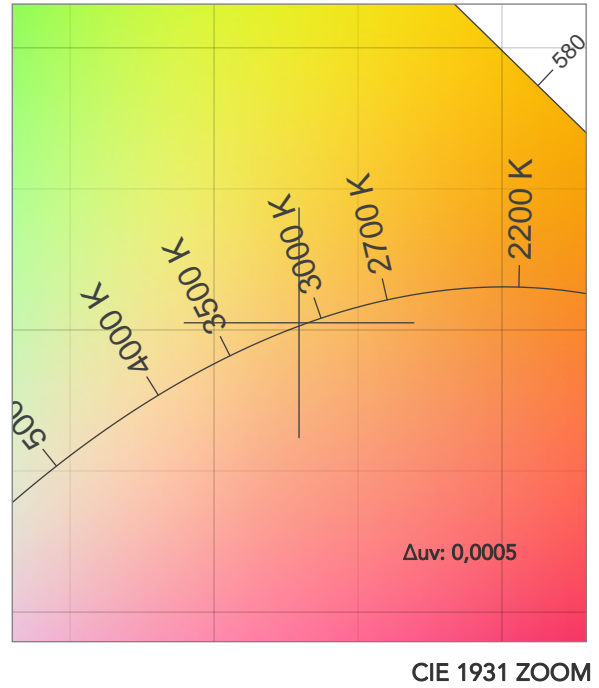
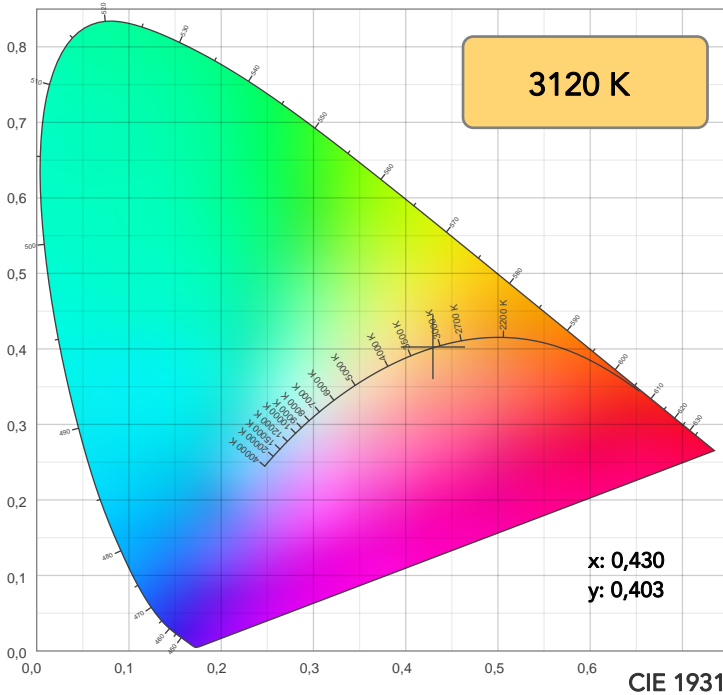
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17/11/2020 12:33:40

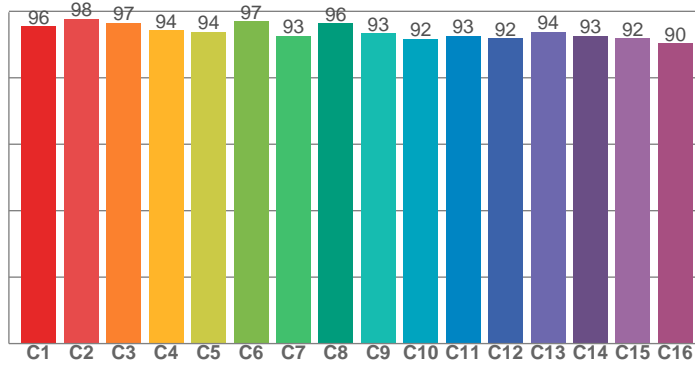


Spectra

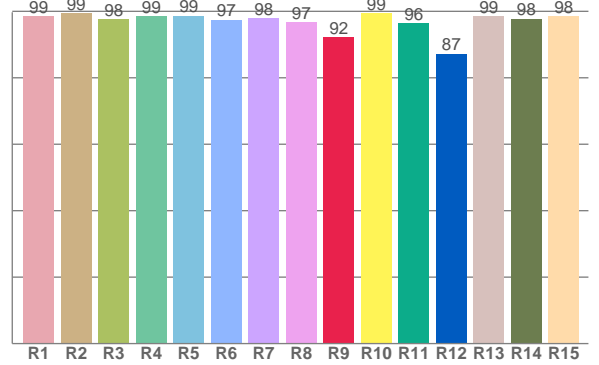




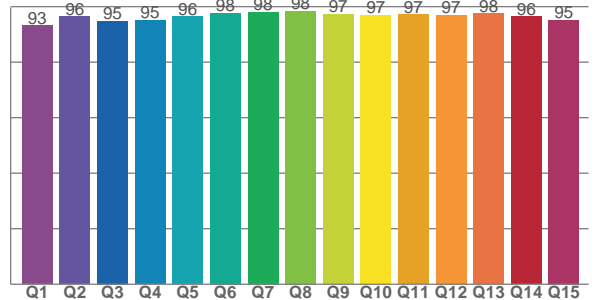
TM30: 94,1



CRI: 98,1 (R1-R8)



CQS: 96,1



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
98,5	99,5	97,7	98,6	98,7	97,5	97,8	96,7	92,2	99,4	96,4	87,2	98,6	97,7	98,4

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,5	97,7	96,5	94,3	93,7	96,9	92,7	96,4	93,4	91,6	92,5	91,8	93,7	92,5	91,8	90,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,1	96,4	94,9	95,1	96,4	97,7	98,1	98,4	97,2	96,9	97,2	97,0	97,5	96,4	95,2

COLOR PARAMETERS

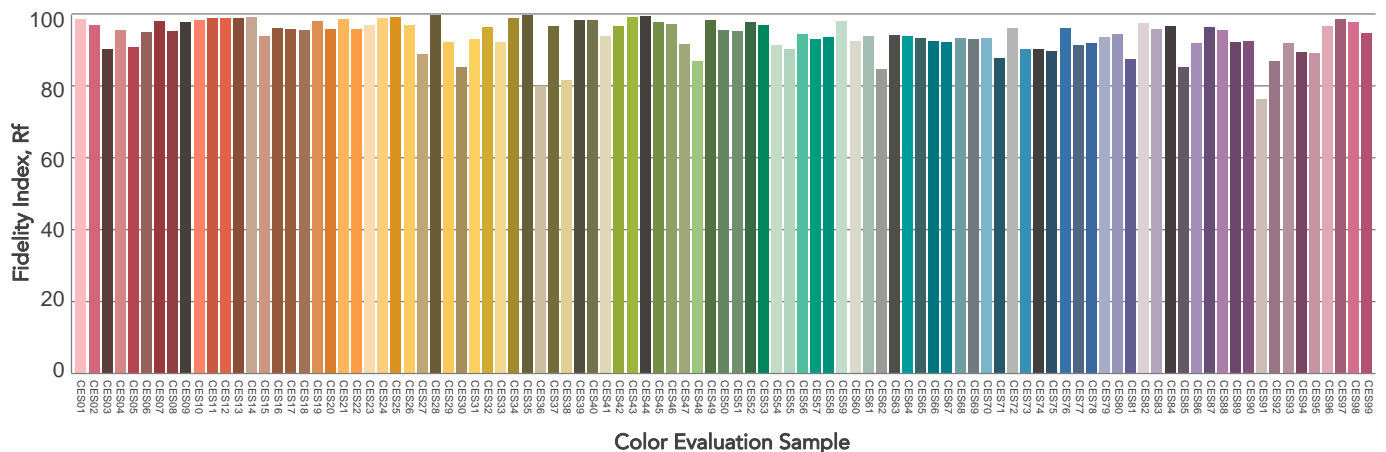
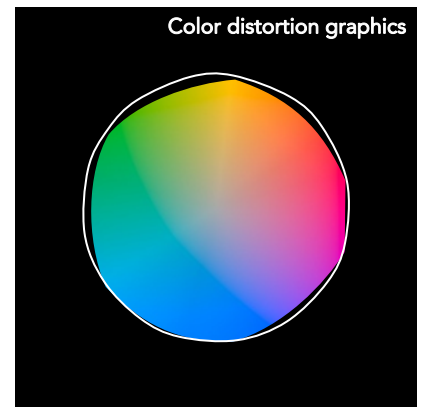
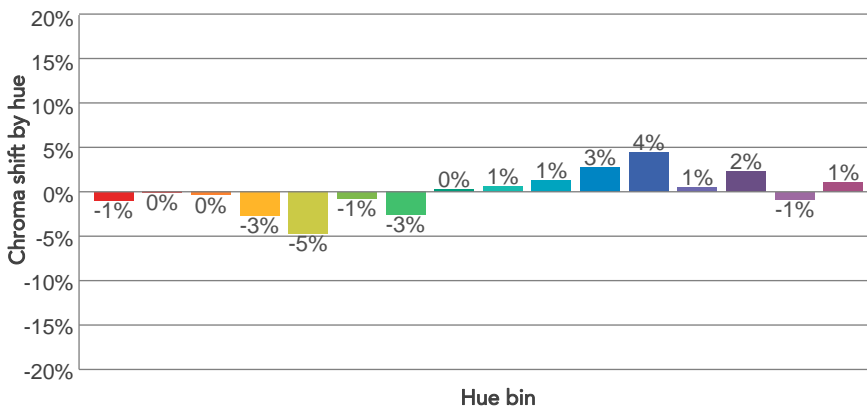
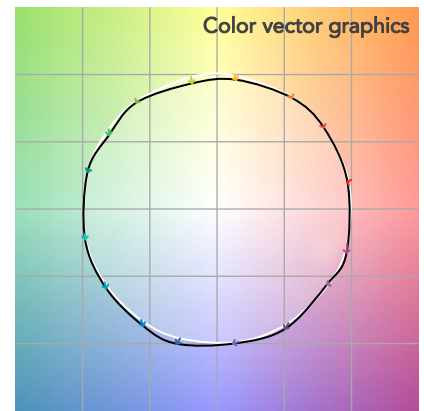
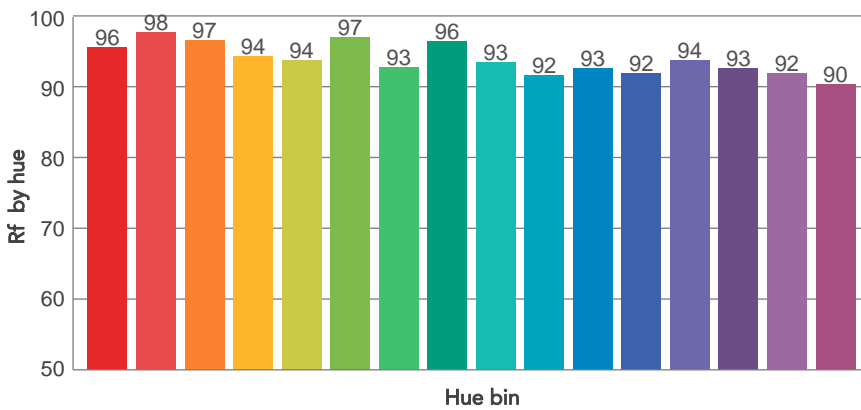
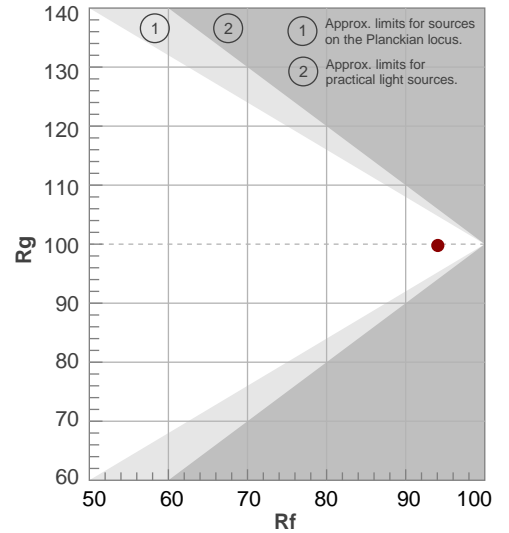
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3120 K	98,1	92,2	94,1	99,8	96,1	98	0,430	0,403	0,0005

TM30 DETAILS

Rf 94,1
Fidelity index Rf

Rg 99,8
Gammut index

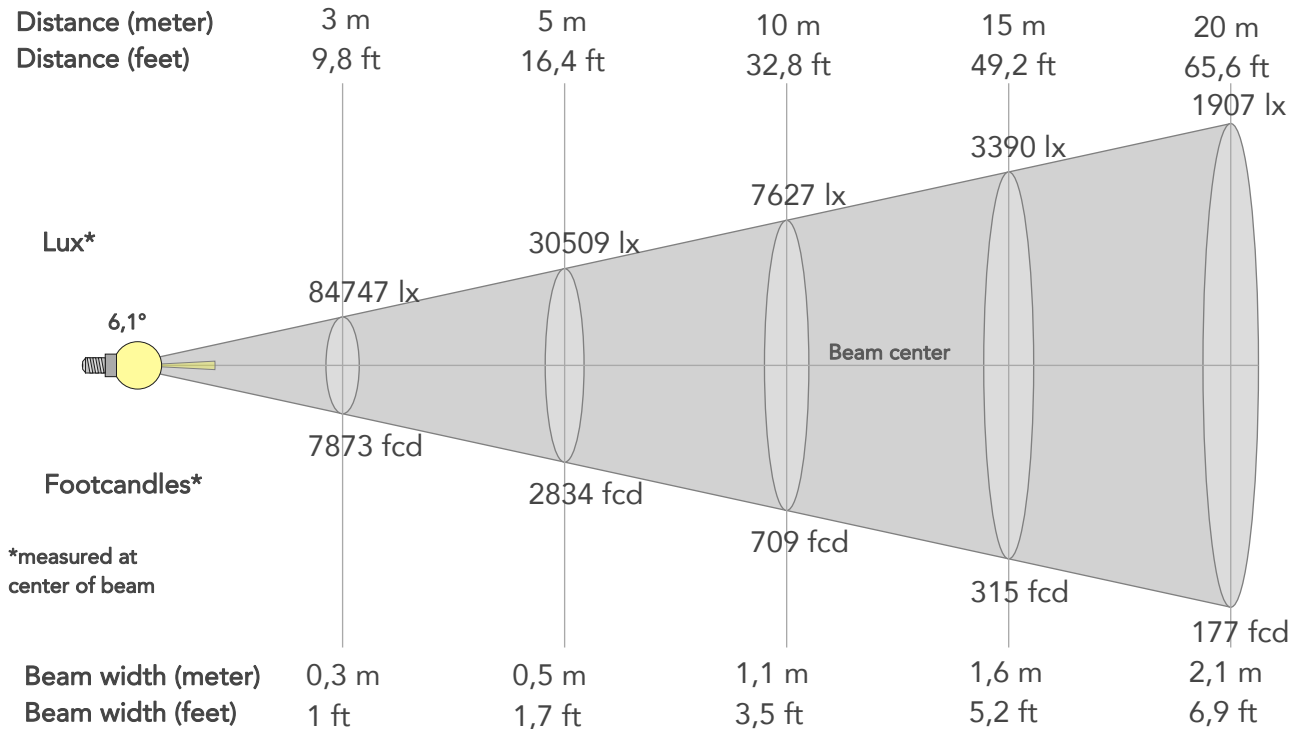
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	-1%	1%
2	98	0%	0%
3	97	0%	-1%
4	94	-3%	-2%
5	94	-5%	0%
6	97	-1%	2%
7	93	-3%	3%
8	96	0%	2%
9	93	1%	4%
10	92	1%	4%
11	93	3%	4%
12	92	4%	-2%
13	94	1%	-4%
14	93	2%	-4%
15	92	-1%	-2%
16	90	1%	-7%



BEAM DETAILS



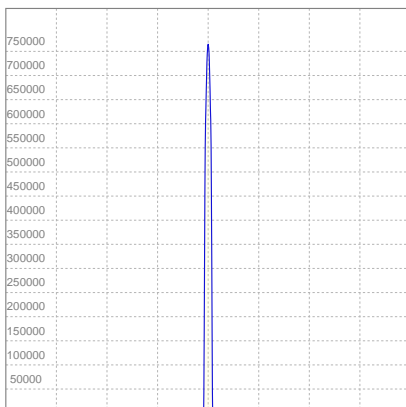
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,1°	7,4°	8,4°	100,0%	100,0%



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	762725lx	190681lx	84747lx	47670lx	30509lx	13560lx	7627lx	3390lx	1907lx	1220lx	847lx	477lx	305lx
Footcand.	70859fcd	17715fcd	7873fcd	4429fcd	2834fcd	1260fcd	709fcd	315fcd	177fcd	113fcd	79fcd	44fcd	28fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,5m	0,8m	1,1m	1,6m	2,1m	2,6m	3,2m	4,2m	5,3m
Beam wid.	0,3ft	0,7ft	1ft	1,4ft	1,7ft	2,6ft	3,5ft	5,2ft	6,9ft	8,7ft	10,4ft	13,9ft	17,4ft

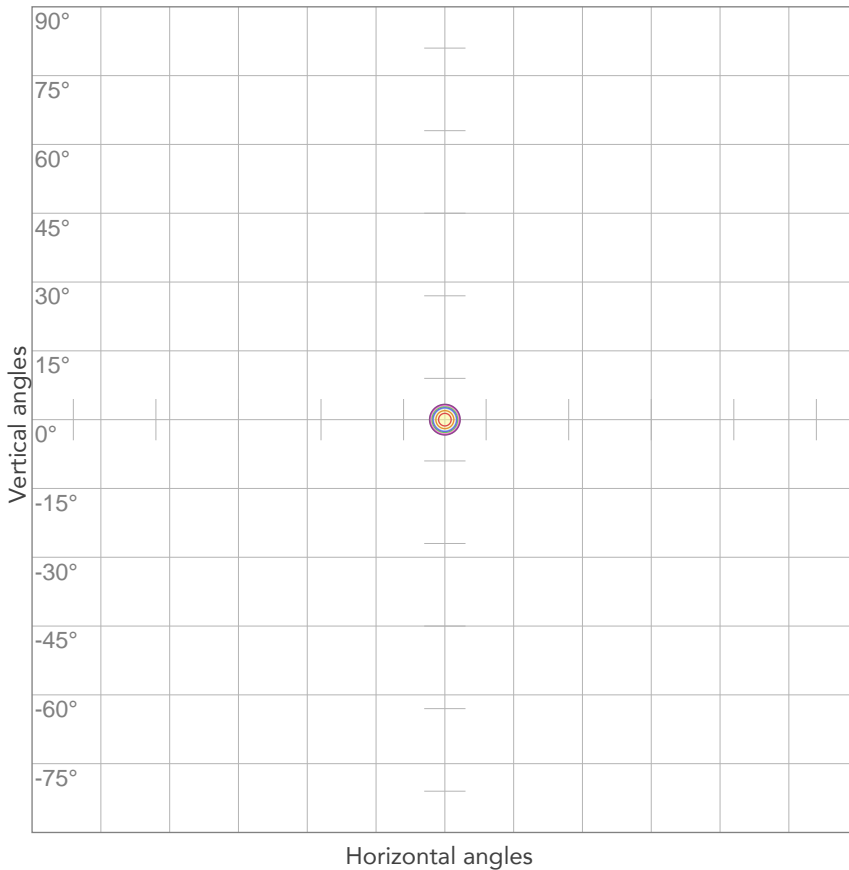
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,22A	263,3W	25lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



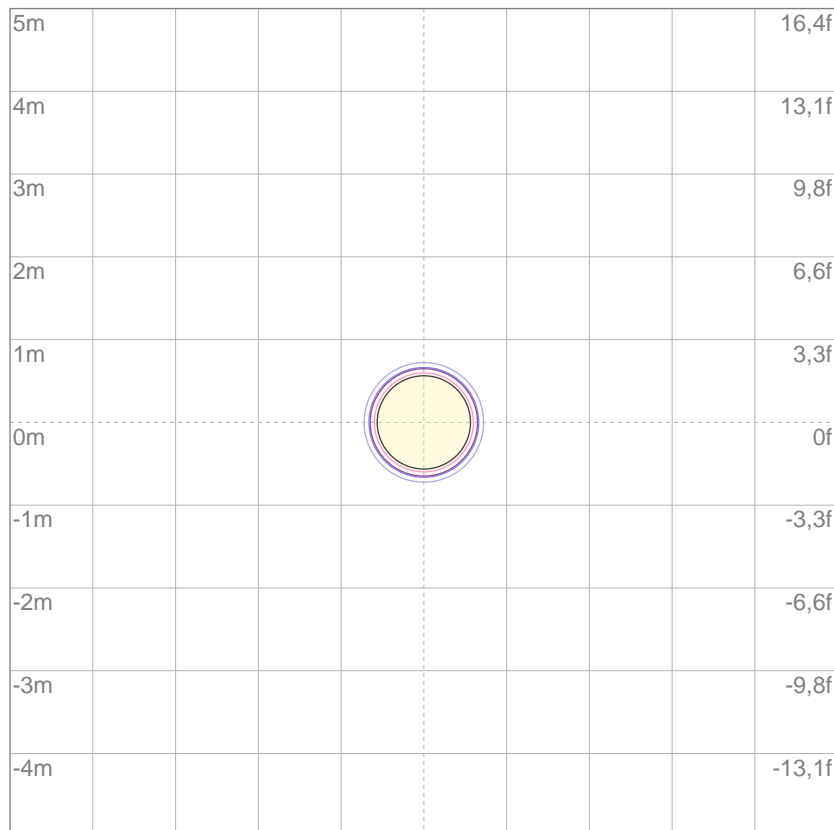
10%	76273 cd
20%	152545 cd
30%	228818 cd
40%	305090 cd
50%	381363 cd
60%	457635 cd
70%	533908 cd
80%	610180 cd

Conditions:

Number of c-planes: 2

Candela at center: 762725 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	229 lx
5%	381 lx
10%	763 lx
30%	2288 lx
50%	3814 lx

Conditions:

Number of c-planes: 2

Lux at center: 7627 lx

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



Total lumen output:

8005 lm

Peak candela output:

370315 cd

Light quality:

CRI: 98,2

Color temperature:

3127 K

PRODUCT NAME:

ECLFWTU

MEASURAMENT CONDITIONS:

Beam angle:

PRL10

Target:

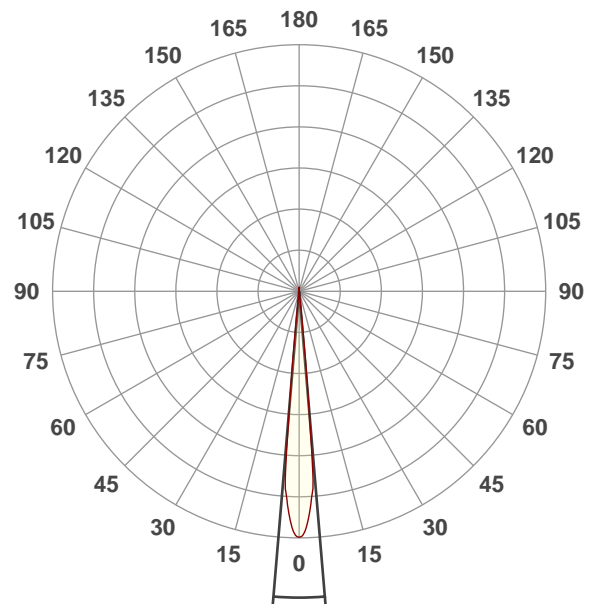
Warm White

Operator:

Paolo Carvone

Date and time:

17/11/2020 12:36:09

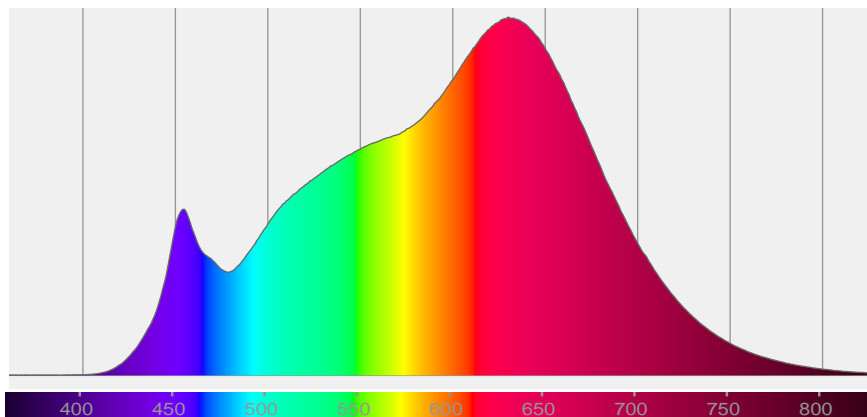


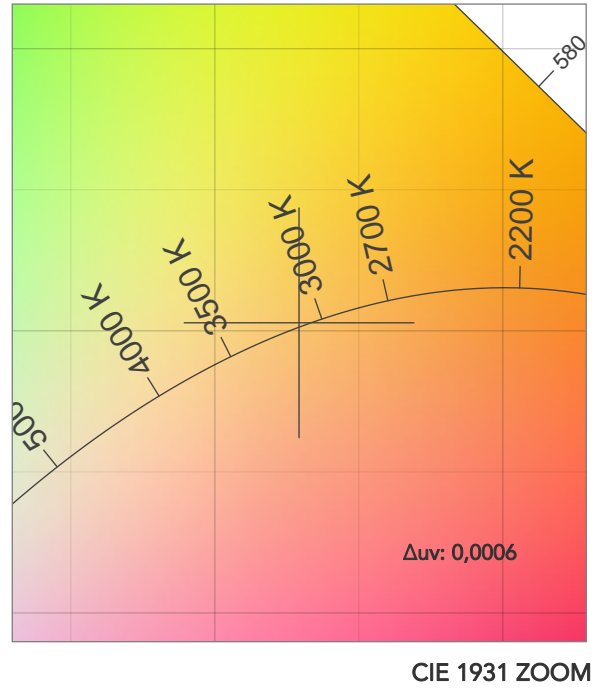
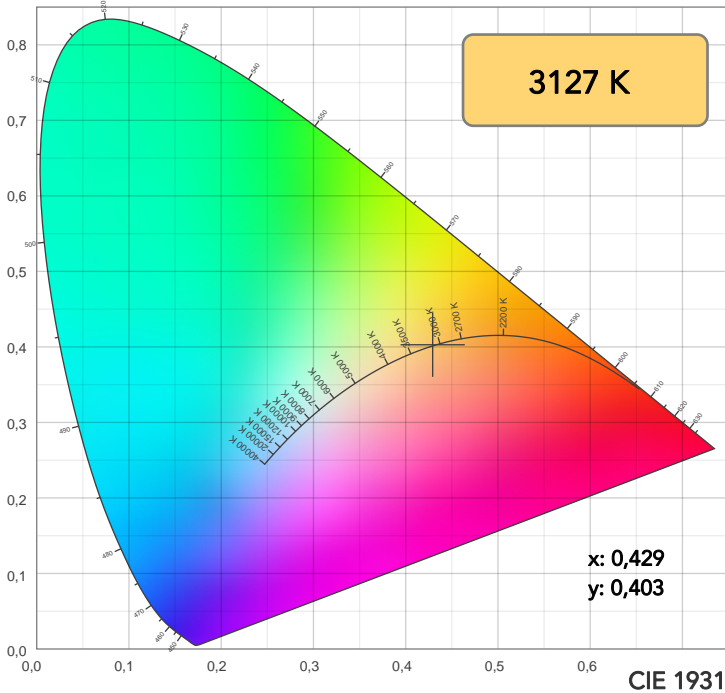
Beam angle 50%: 9,6°

Field angle 10%: 11,8°

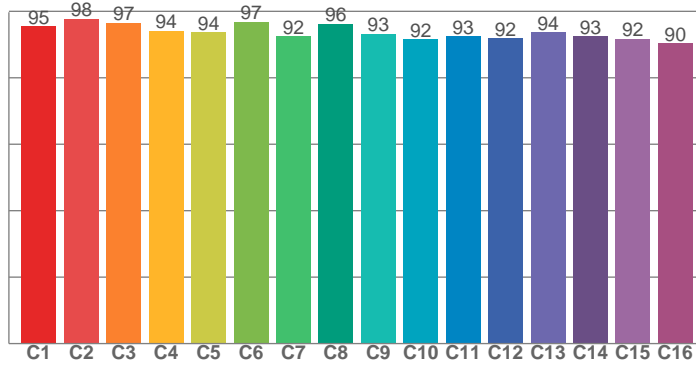
Cut off angle 2.5%: 12,3°

Spectra

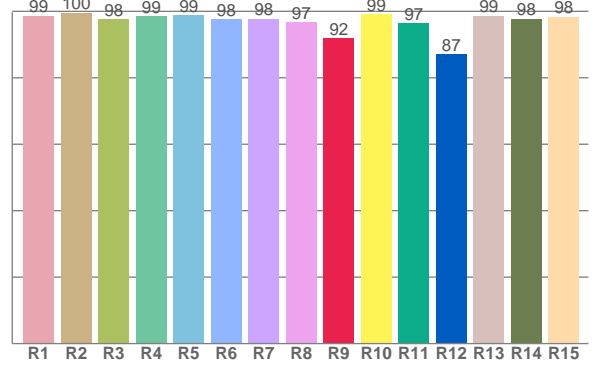




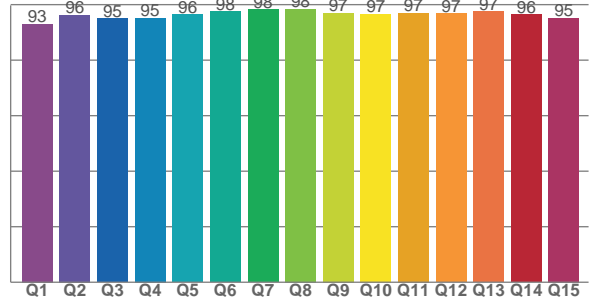
TM30: 94,0



CRI: 98,2 (R1-R8)



CQS: 96,0



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
98,6	99,6	97,7	98,6	98,7	97,6	97,8	96,6	91,9	99,2	96,5	87,1	98,7	97,7	98,3

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,5	97,7	96,5	94,1	93,6	96,8	92,5	96,2	93,3	91,5	92,5	91,8	93,7	92,5	91,7	90,3

CQS Q values

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

COLOR PARAMETERS

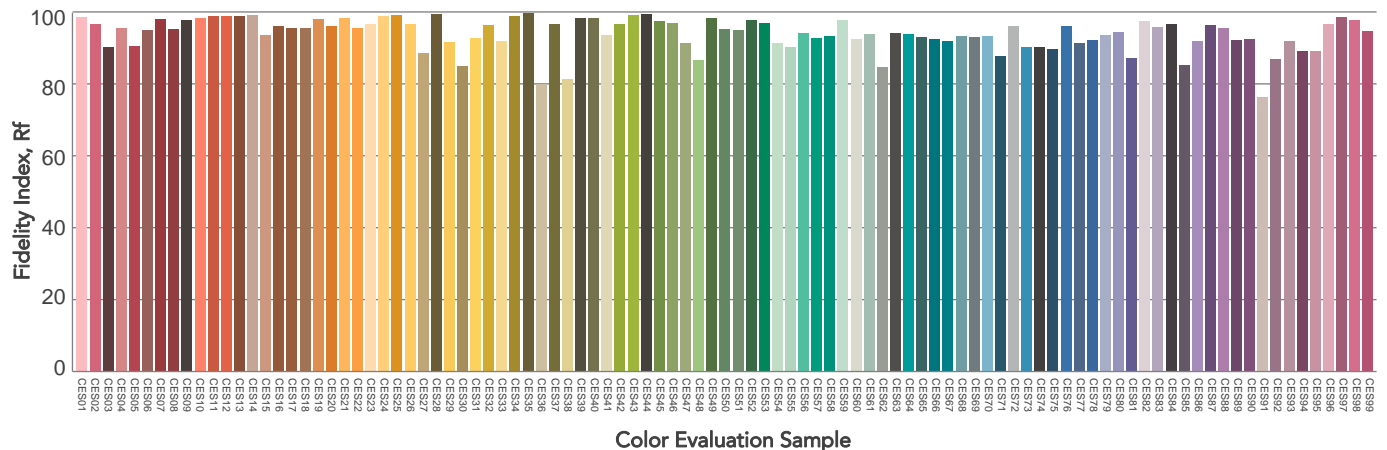
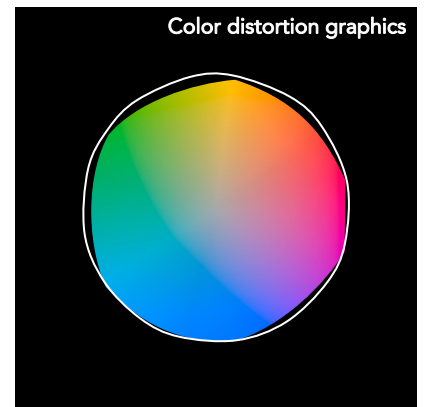
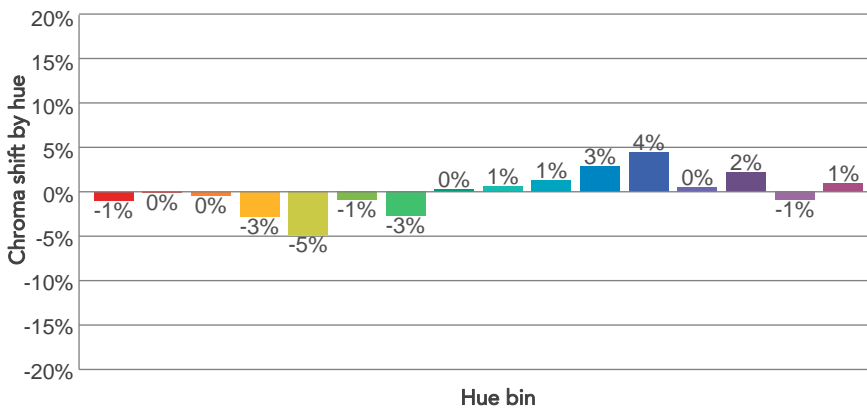
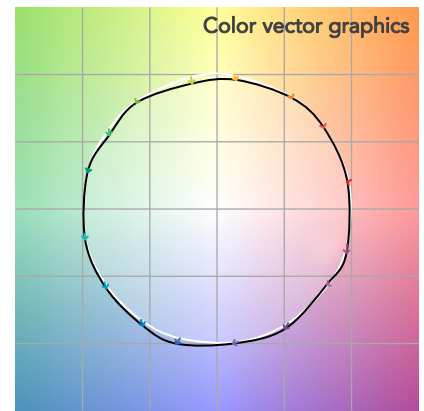
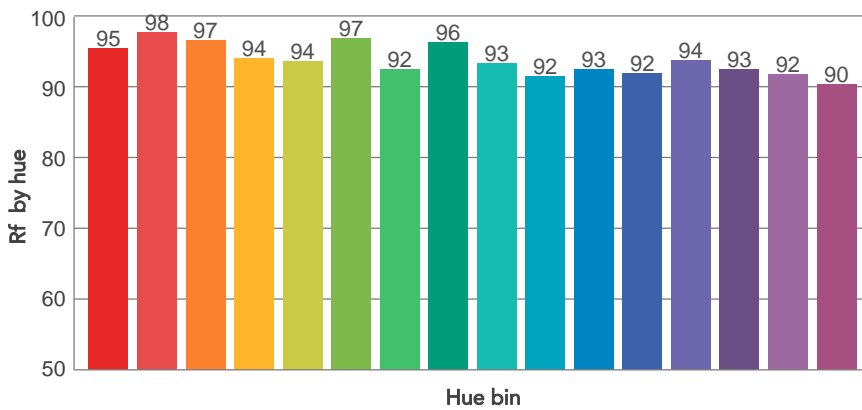
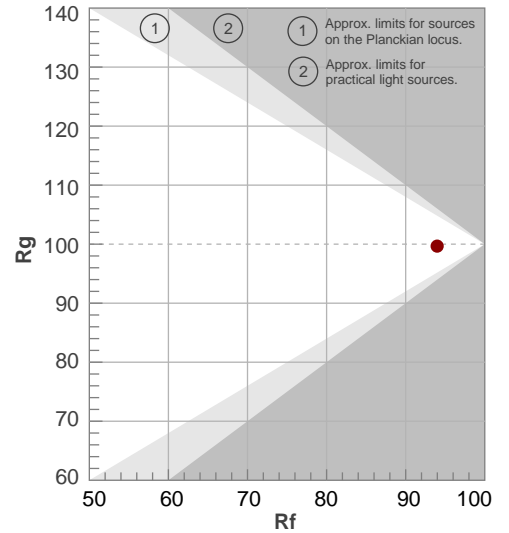
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3127 K	98,2	91,9	94,0	99,7	96,0	98	0,429	0,403	0,0006

TM30 DETAILS

Rf 94,0
Fidelity index Rf

Rg 99,7
Gammut index

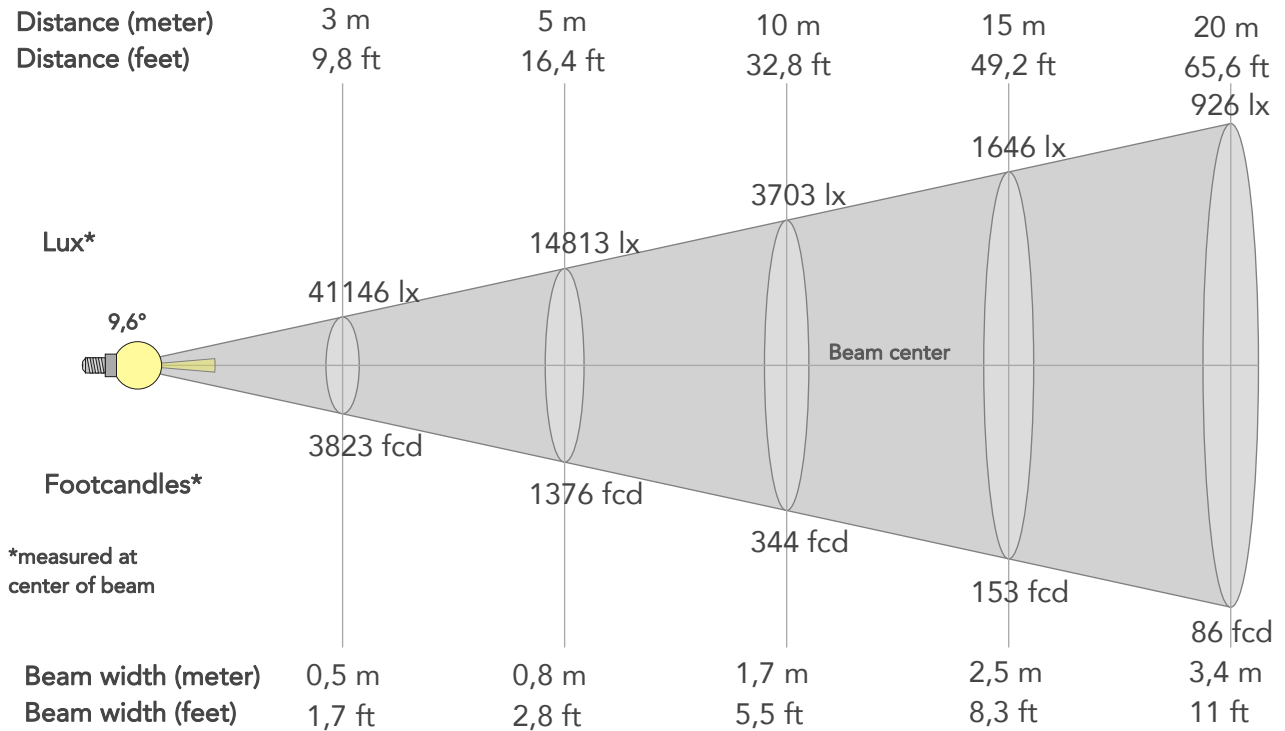
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	98	0%	0%
3	97	0%	-1%
4	94	-3%	-2%
5	94	-5%	0%
6	97	-1%	2%
7	92	-3%	3%
8	96	0%	2%
9	93	1%	4%
10	92	1%	4%
11	93	3%	4%
12	92	4%	-2%
13	94	0%	-4%
14	93	2%	-5%
15	92	-1%	-2%
16	90	1%	-7%



BEAM DETAILS



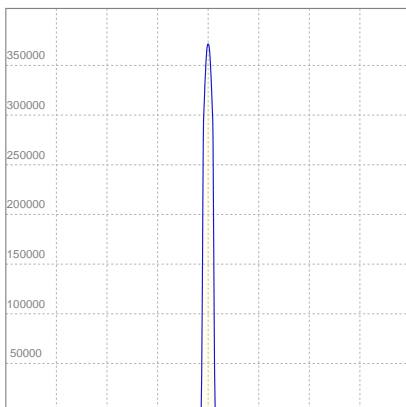
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,6°	11,8°	12,3°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	370315lx	92579lx	41146lx	23145lx	14813lx	6583lx	3703lx	1646lx	926lx	593lx	411lx	231lx	148lx
Footcand.	34403fcd	8601fcd	3823fcd	2150fcd	1376fcd	612fcd	344fcd	153fcd	86fcd	55fcd	38fcd	22fcd	14fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,8m	1,3m	1,7m	2,5m	3,4m	4,2m	5,1m	6,7m	8,4m
Beam wid.	0,6ft	1,1ft	1,7ft	2,2ft	2,8ft	4,1ft	5,5ft	8,3ft	11ft	13,8ft	16,6ft	22,1ft	27,6ft

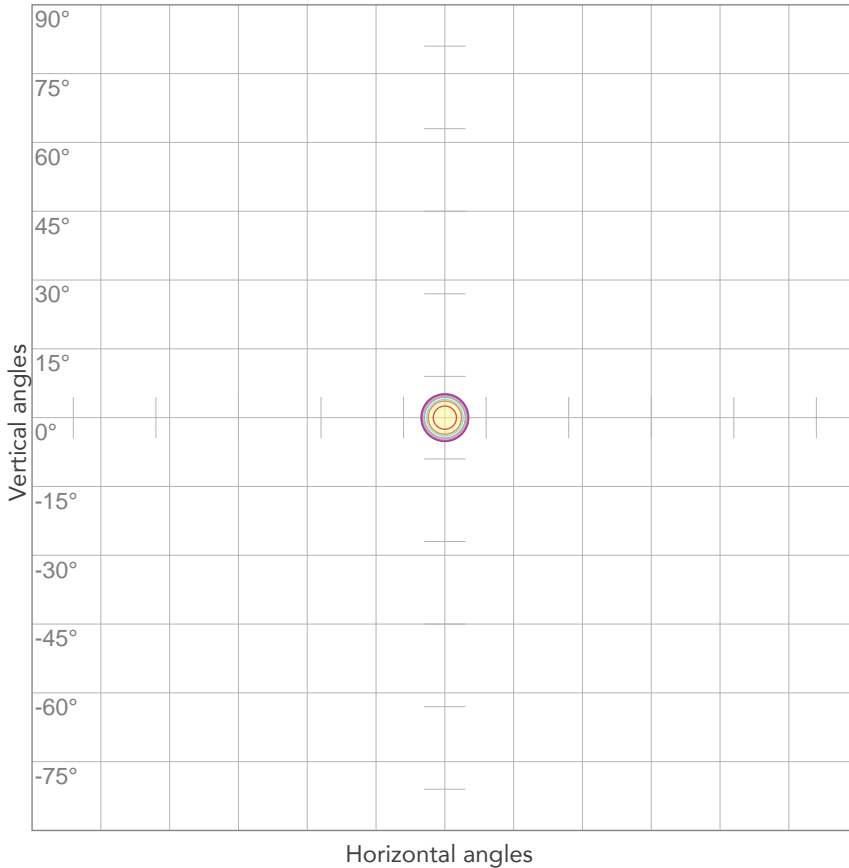
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,22A	263,3W	30lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



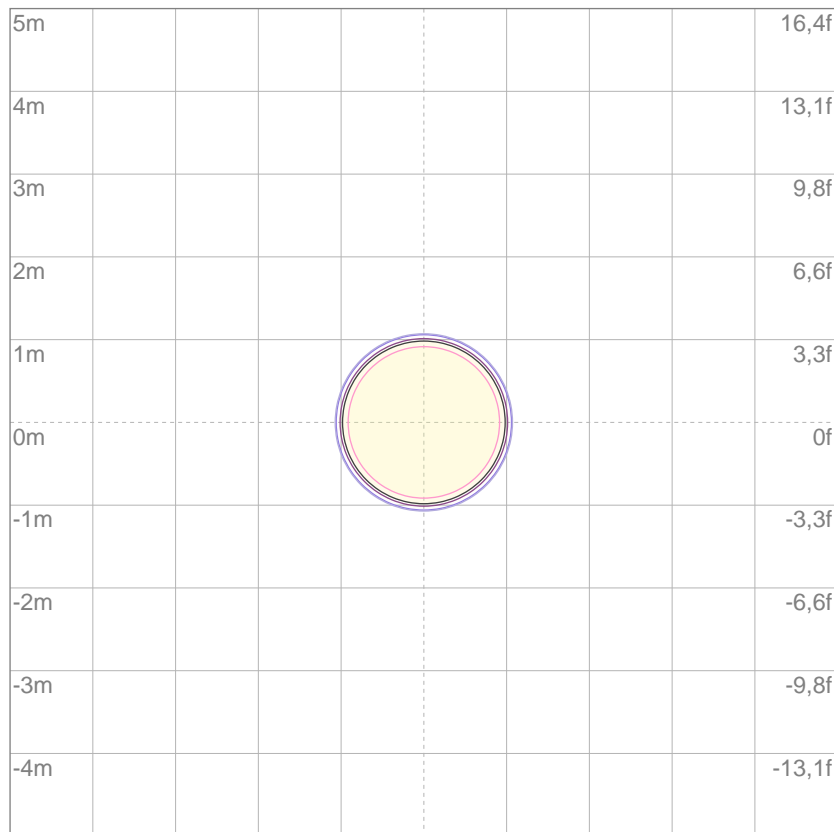
10%	37032 cd
20%	74063 cd
30%	111095 cd
40%	148126 cd
50%	185158 cd
60%	222189 cd
70%	259221 cd
80%	296252 cd

Conditions:

Number of c-planes: 2

Candela at center: 370315 cd

ISO LUX DIAGRAM



3%	111 lx
5%	185 lx
10%	370 lx
30%	1111 lx
50%	1852 lx

Conditions:

Number of c-planes: 2

Lux at center: 3703 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:

7283 lm

Peak candela output:

179926 cd

Light quality:

CRI: 98,1

Color temperature:

3075 K

PRODUCT NAME:

ECLFWTU

MEASURAMENT CONDITIONS:

Beam angle:

PRL14

Target:

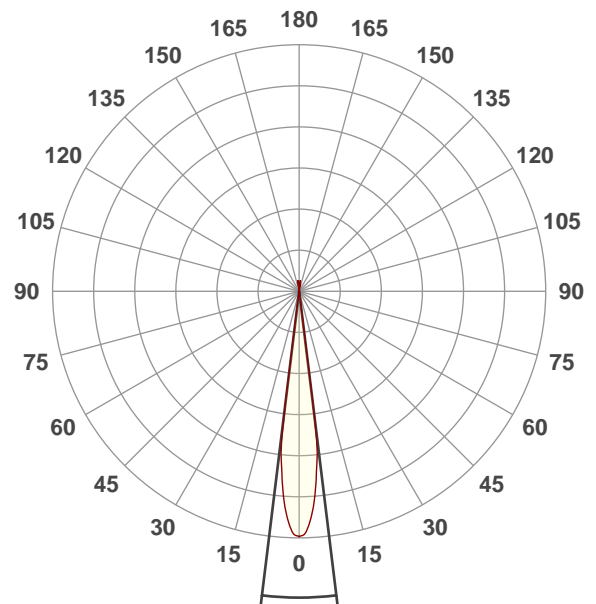
Warm White

Operator:

Paolo Carvone

Date and time:

17/11/2020 12:27:15

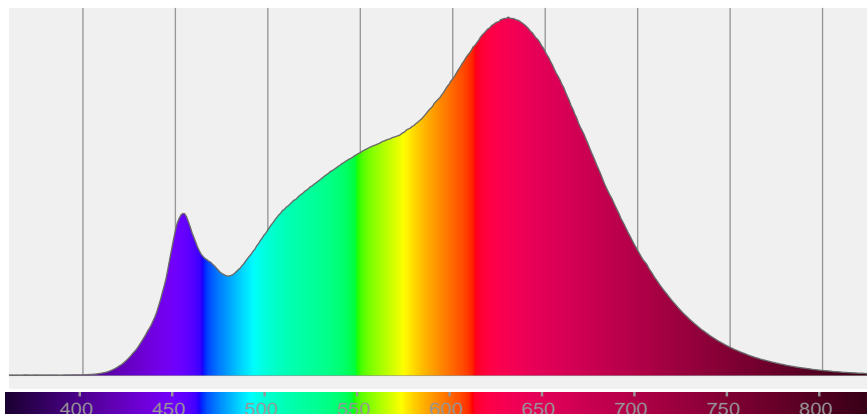


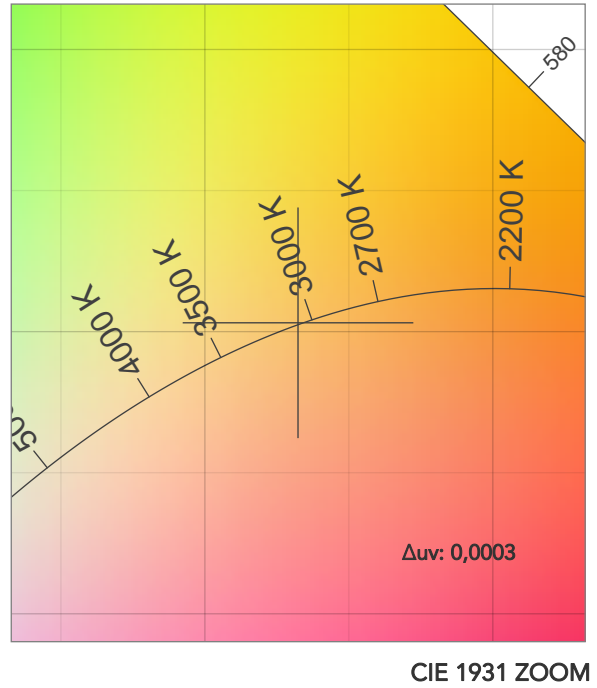
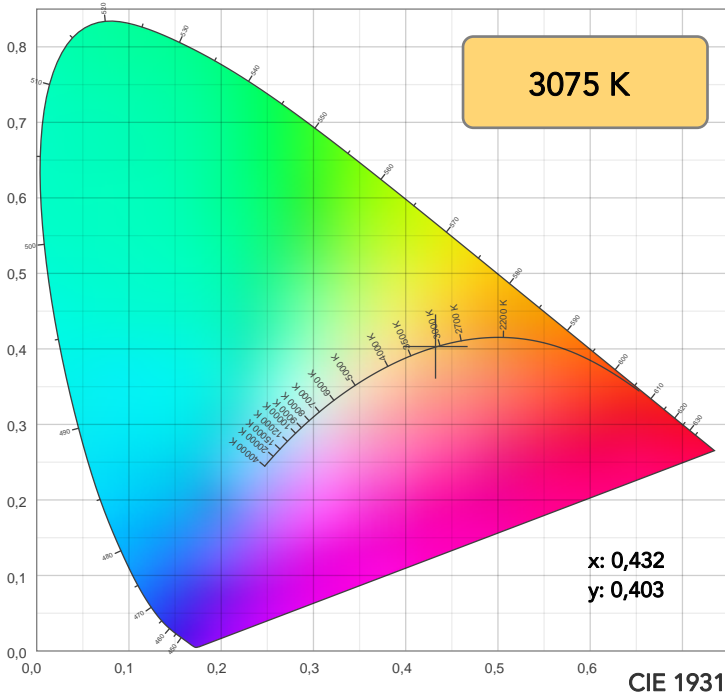
Beam angle 50%: 14°

Field angle 10%: 15,9°

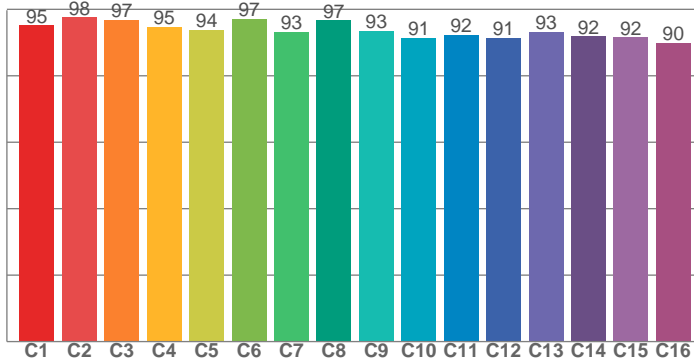
Cut off angle 2.5%: 16,2°

Spectra

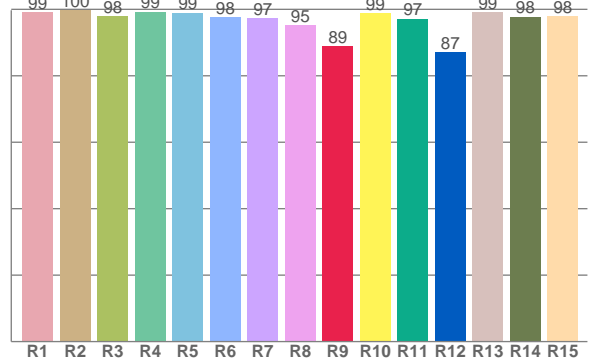




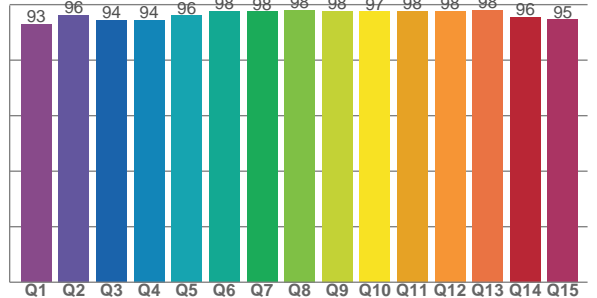
TM30: 94,0



CRI: 98,1 (R1-R8)



CQS: 95,8



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
99,1	99,7	97,9	99,3	98,9	97,5	97,3	95,3	88,9	98,8	97,2	87,1	99,2	97,8	97,9

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
95,1	97,5	96,8	94,8	93,9	97,2	93,2	96,7	93,4	91,4	92,3	91,5	93,3	91,9	91,5	89,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,9	96,2	94,4	94,4	96,0	97,6	97,6	98,1	97,7	97,5	97,7	97,7	98,1	95,5	94,6

COLOR PARAMETERS

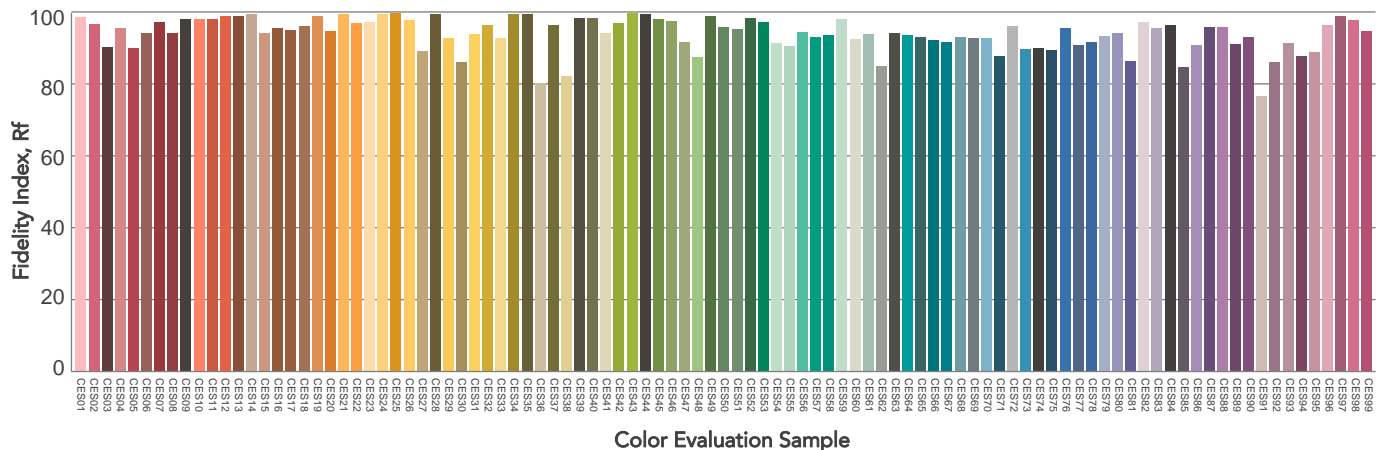
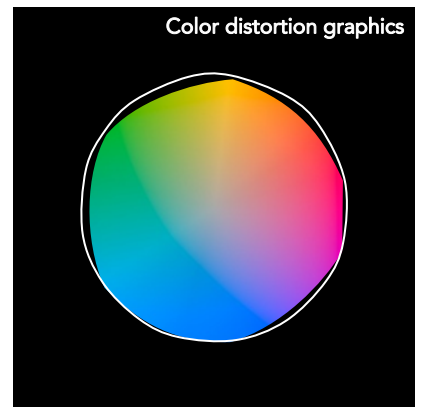
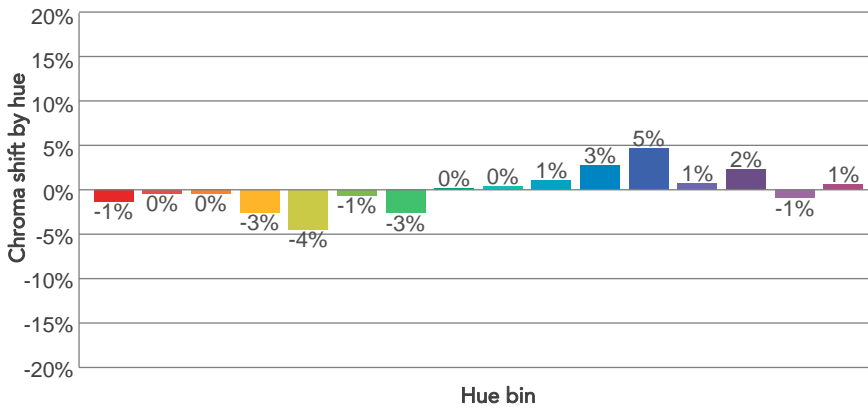
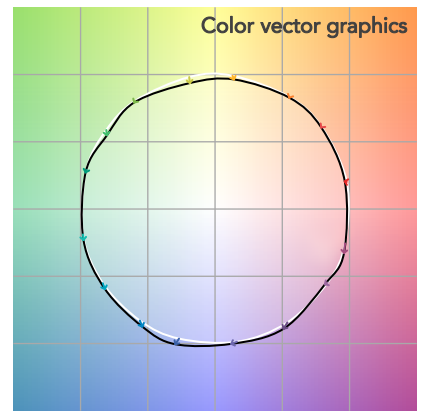
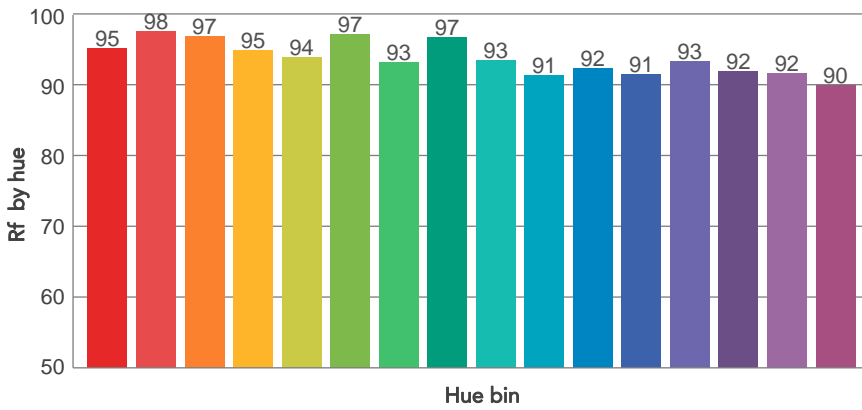
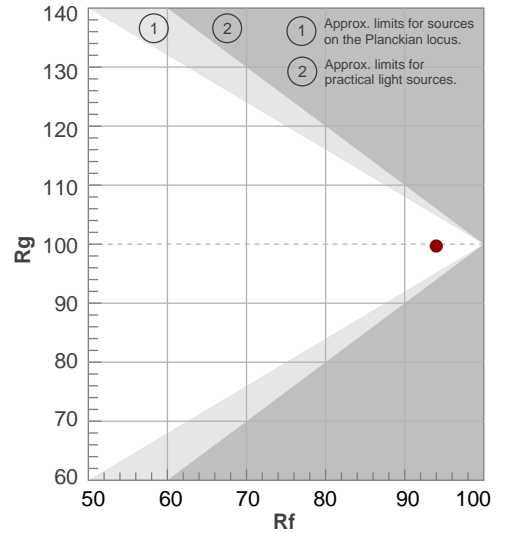
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3075 K	98,1	88,9	94,0	99,7	95,8	98	0,432	0,403	0,0003

TM30 DETAILS

Rf 94,0
Fidelity index Rf

Rg 99,7
Gammut index

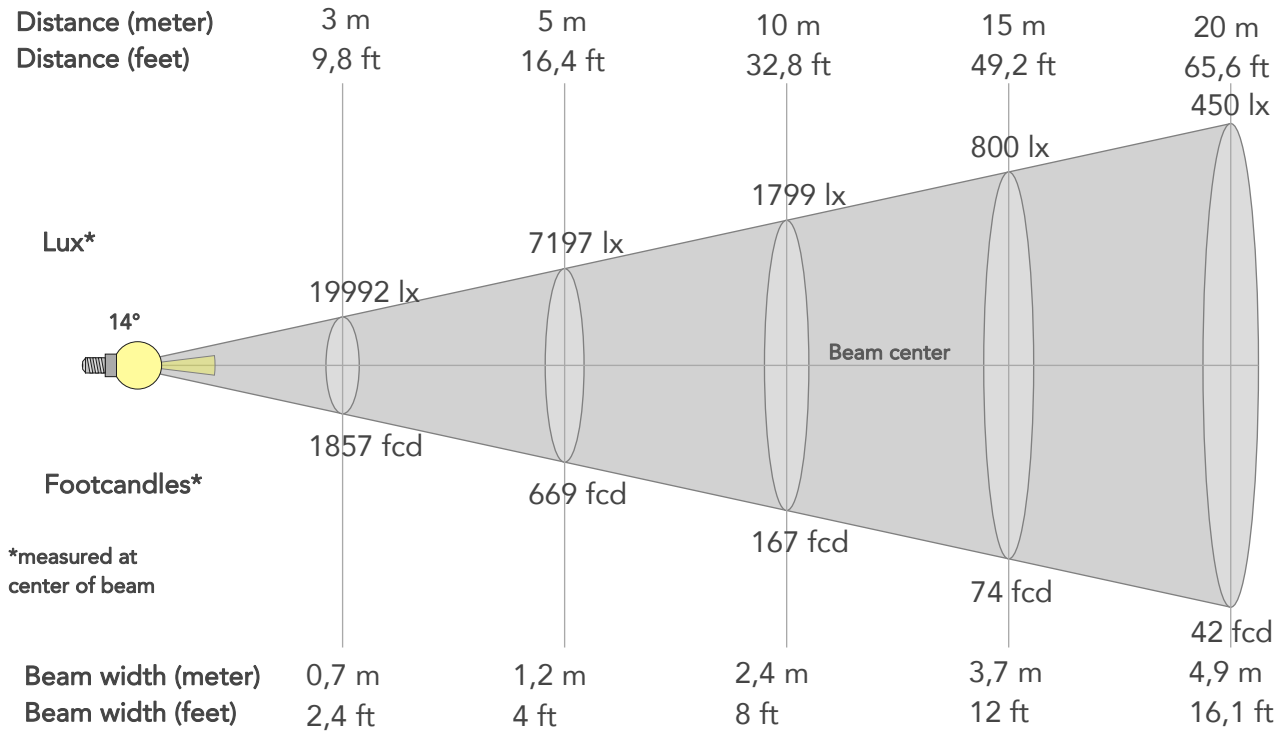
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	98	0%	0%
3	97	0%	0%
4	95	-3%	-2%
5	94	-4%	0%
6	97	-1%	1%
7	93	-3%	3%
8	97	0%	2%
9	93	0%	4%
10	91	1%	5%
11	92	3%	4%
12	91	5%	-2%
13	93	1%	-4%
14	92	2%	-5%
15	92	-1%	-2%
16	90	1%	-7%



BEAM DETAILS



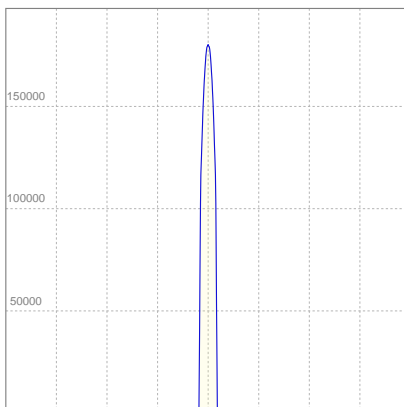
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
14°	15,9°	16,2°	100,0%	100,0%



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	17992lx	44981lx	19992lx	11245lx	7197lx	3199lx	1799lx	800lx	450lx	288lx	200lx	112lx	72lx
Footcand.	16716fcd	4179fcd	1857fcd	1045fcd	669fcd	297fcd	167fcd	74fcd	42fcd	27fcd	19fcd	10fcd	7fcd
Beam wid.	0,2m	0,5m	0,7m	1m	1,2m	1,8m	2,4m	3,7m	4,9m	6,1m	7,3m	9,8m	12,2m
Beam wid.	0,8ft	1,6ft	2,4ft	3,2ft	4ft	6ft	8ft	12ft	16,1ft	20,1ft	24,1ft	32,1ft	40,1ft

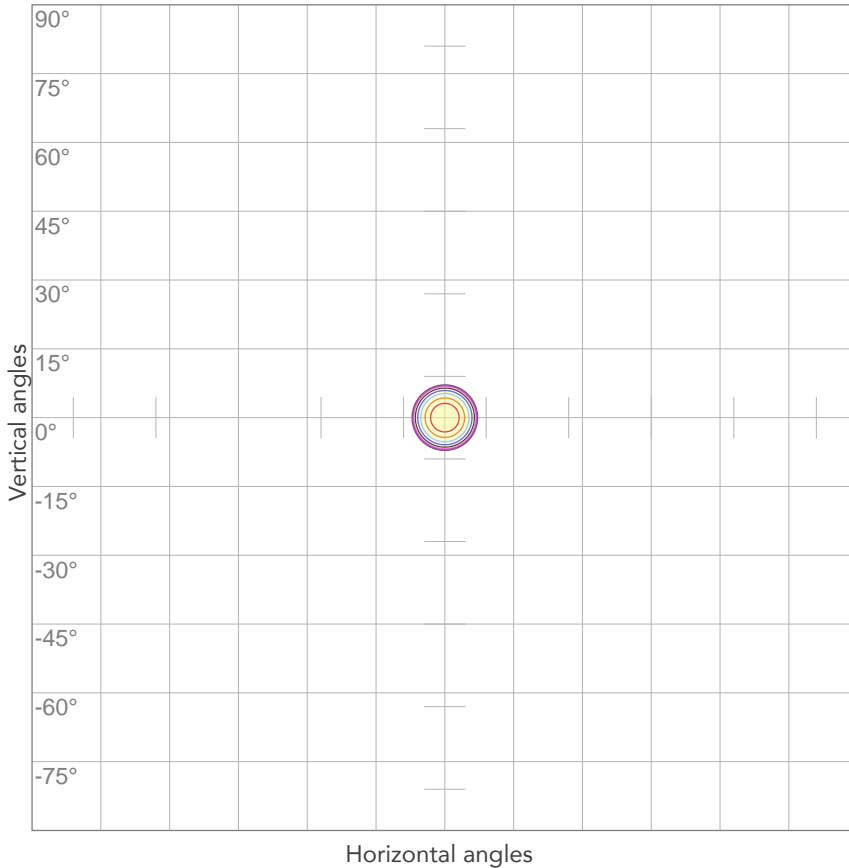
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,22A	263,6W	28lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



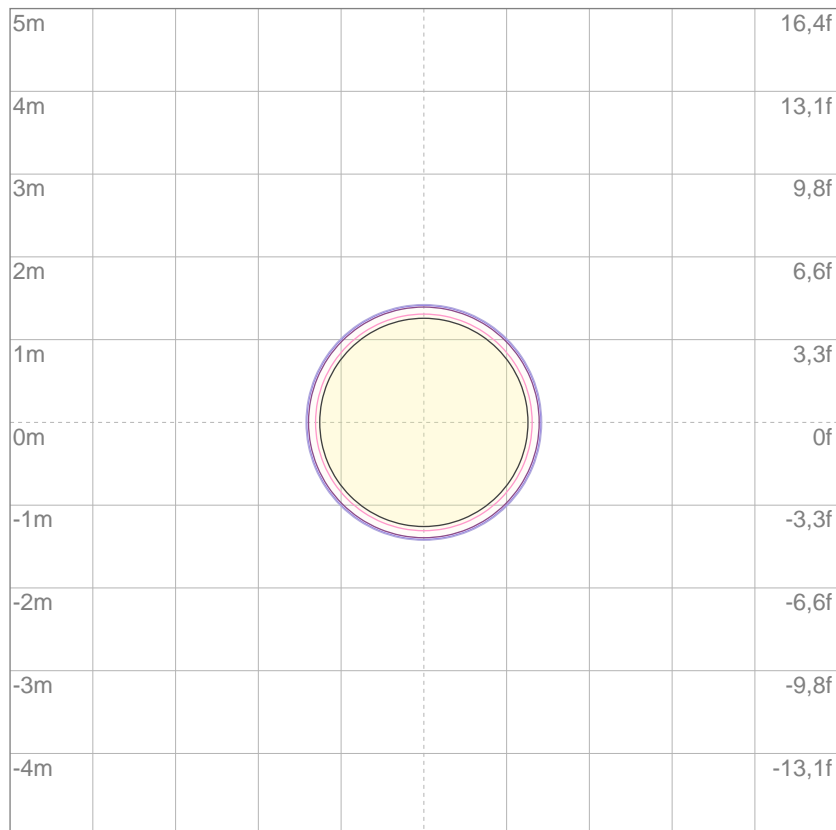
10%	17993 cd
20%	35985 cd
30%	53978 cd
40%	71970 cd
50%	89963 cd
60%	107955 cd
70%	125948 cd
80%	143941 cd

Conditions:

Number of c-planes: 2

Candela at center: 179926 cd

ISO LUX DIAGRAM



3%	54,0 lx
5%	90,0 lx
10%	180 lx
30%	540 lx
50%	900 lx

Conditions:

Number of c-planes: 2

Lux at center: 1799 lx

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



Total lumen output:

7965 lm

Peak candela output:

105439 cd

Light quality:

CRI: 98,1

Color temperature:

3084 K

PRODUCT NAME:

ECLFWTU

MEASURAMENT CONDITIONS:

Beam angle:

PRL19

Target:

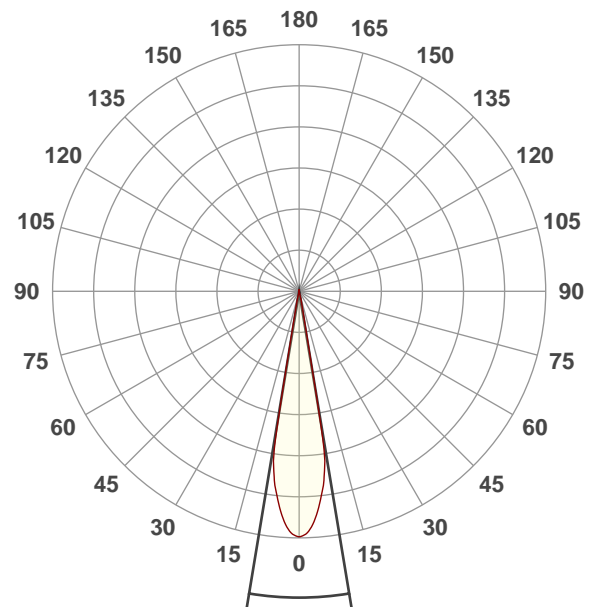
Warm White

Operator:

Paolo Carvone

Date and time:

17/11/2020 12:24:30

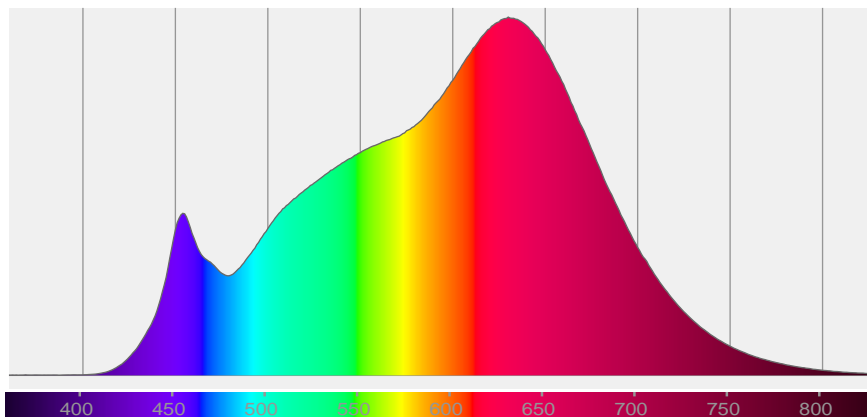


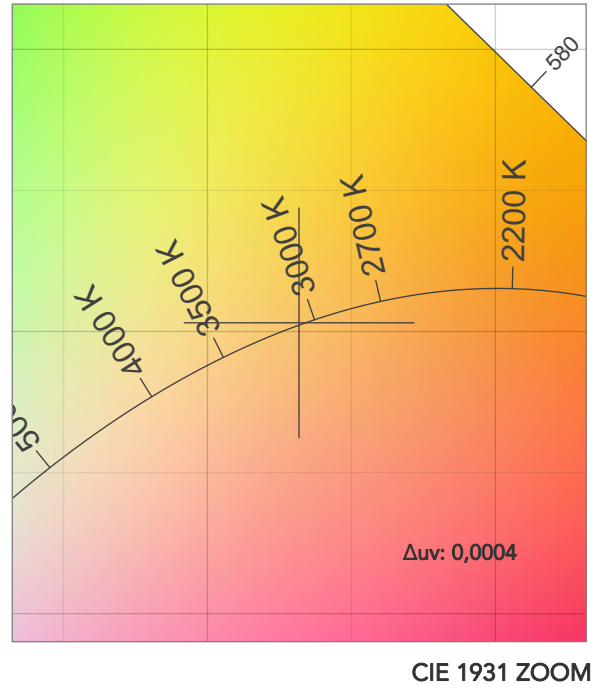
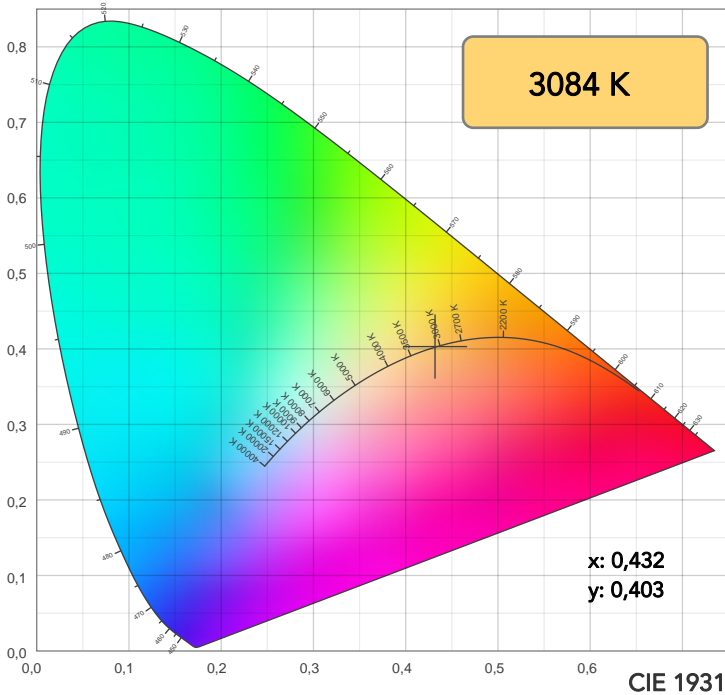
Beam angle 50%: 18,8°

Field angle 10%: 21°

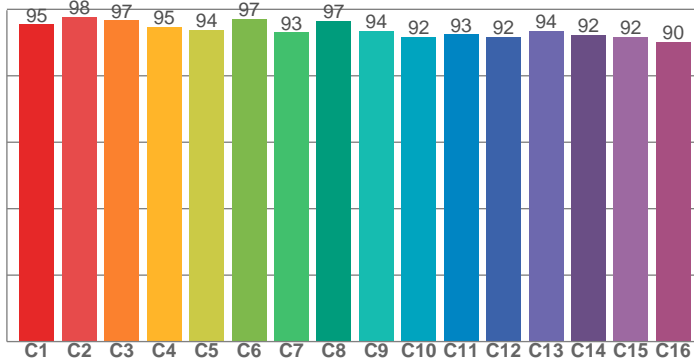
Cut off angle 2.5%: 23,2°

Spectra

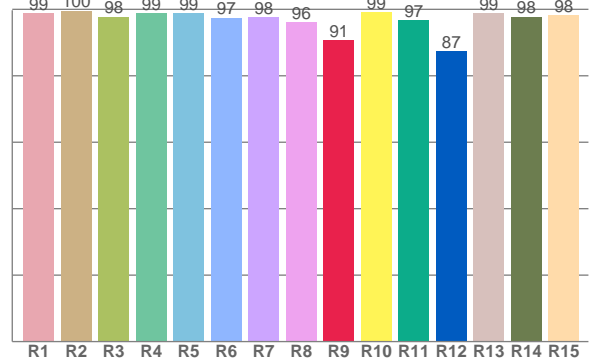




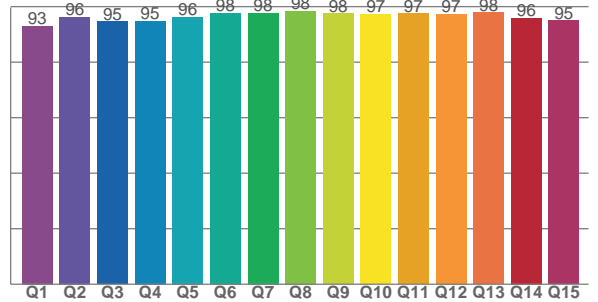
TM30: 94,1



CRI: 98,1 (R1-R8)



CQS: 96,0



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
98,8	99,6	97,8	98,9	98,9	97,5	97,6	96,1	90,6	99,2	96,7	87,4	98,8	97,8	98,3

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,4	97,7	96,7	94,7	93,9	97,1	93,1	96,6	93,6	91,7	92,5	91,7	93,5	92,3	91,7	90,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,1	96,3	94,6	94,8	96,3	97,8	97,8	98,4	97,5	97,3	97,4	97,3	97,8	96,0	95,0

COLOR PARAMETERS

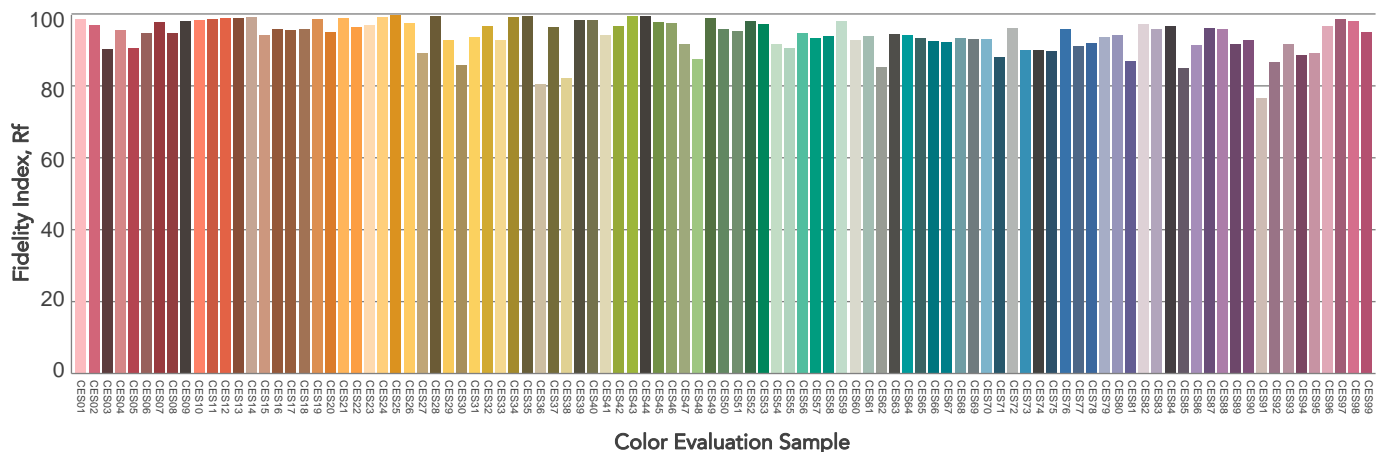
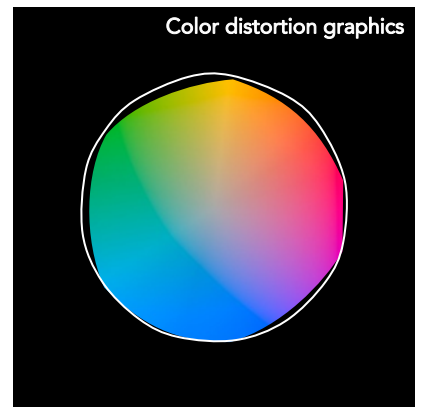
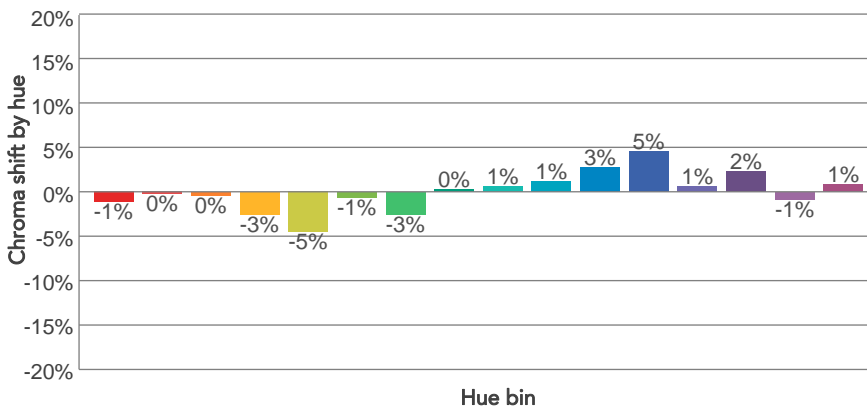
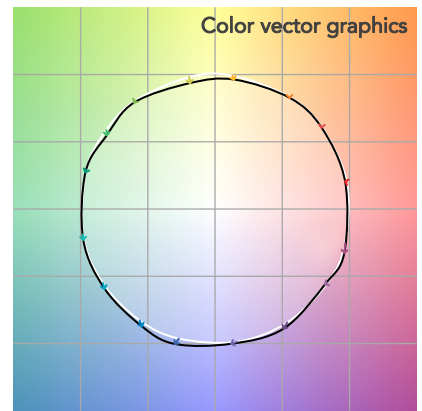
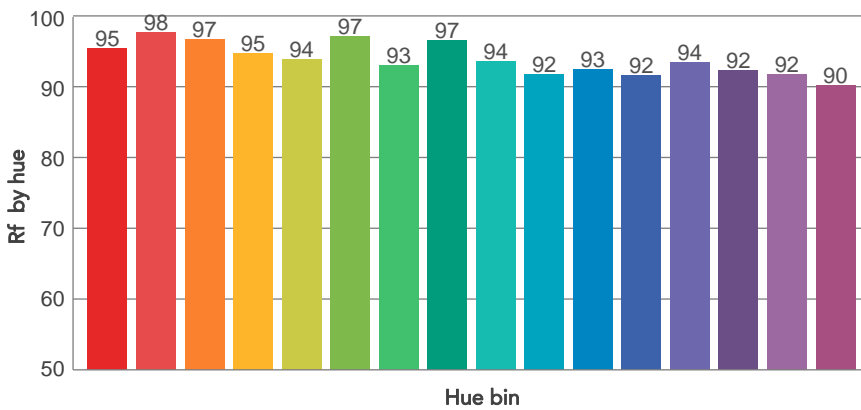
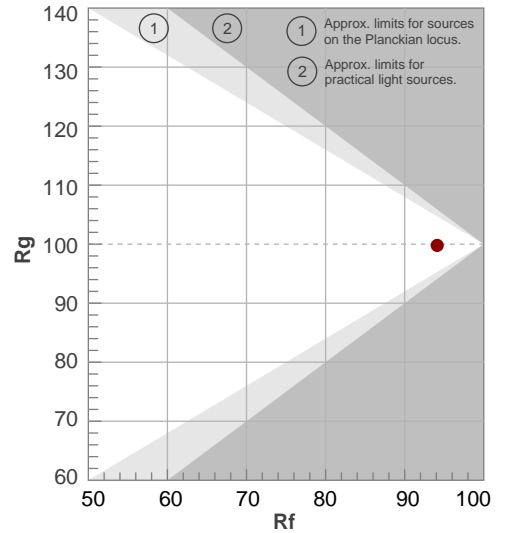
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3084 K	98,1	90,6	94,1	99,8	96,0	98	0,432	0,403	0,0004

TM30 DETAILS

Rf 94,1
Fidelity index Rf

Rg 99,8
Gammut index

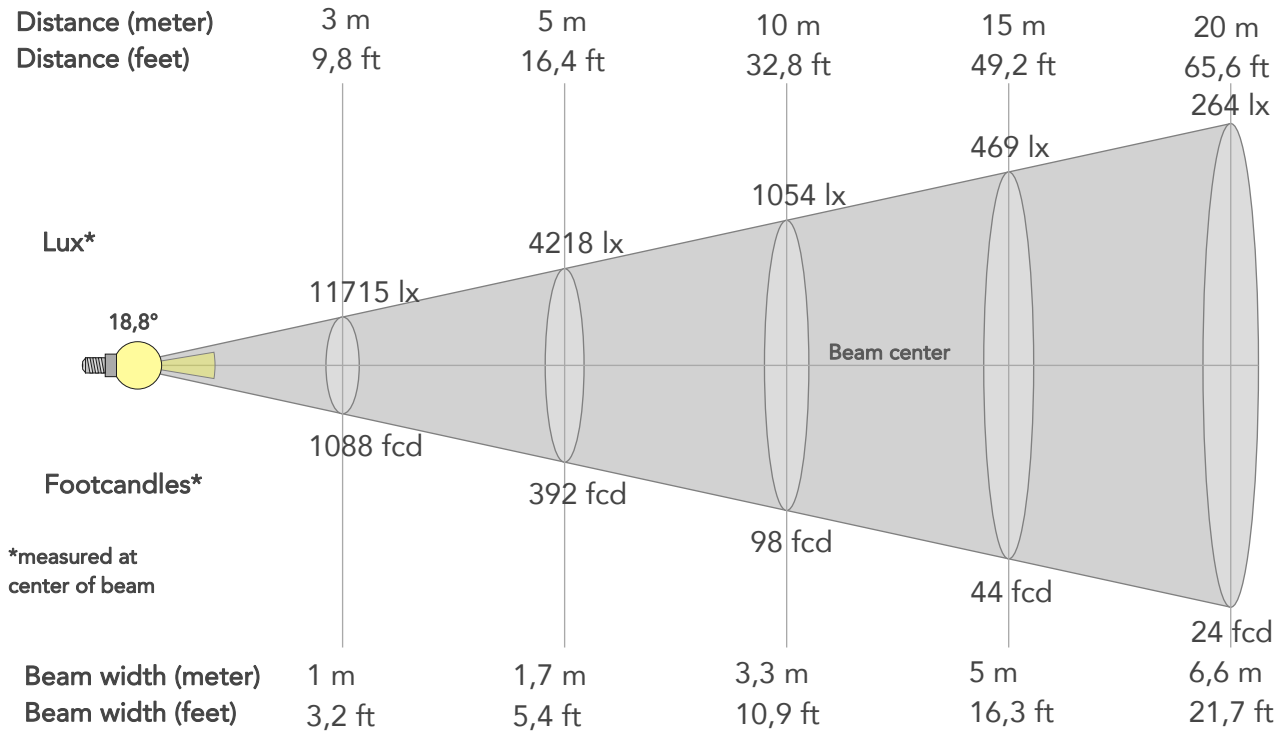
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	98	0%	0%
3	97	0%	0%
4	95	-3%	-2%
5	94	-5%	0%
6	97	-1%	2%
7	93	-3%	3%
8	97	0%	2%
9	94	1%	4%
10	92	1%	4%
11	93	3%	4%
12	92	5%	-2%
13	94	1%	-4%
14	92	2%	-5%
15	92	-1%	-2%
16	90	1%	-7%



BEAM DETAILS



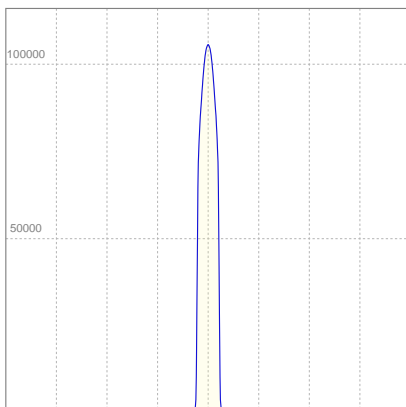
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,8°	21°	23,2°	100,0%	100,0%



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	105439lx	26360lx	11715lx	6590lx	4218lx	1874lx	1054lx	469lx	264lx	169lx	117lx	66lx	42lx
Footcand.	9796fcd	2449fcd	1088fcd	612fcd	392fcd	174fcd	98fcd	44fcd	24fcd	16fcd	11fcd	6fcd	4fcd
Beam wid.	0,3m	0,7m	1m	1,3m	1,7m	2,5m	3,3m	5m	6,6m	8,3m	9,9m	13,2m	16,6m
Beam wid.	1,1ft	2,2ft	3,2ft	4,3ft	5,4ft	8,1ft	10,9ft	16,3ft	21,7ft	27,2ft	32,6ft	43,4ft	54,3ft

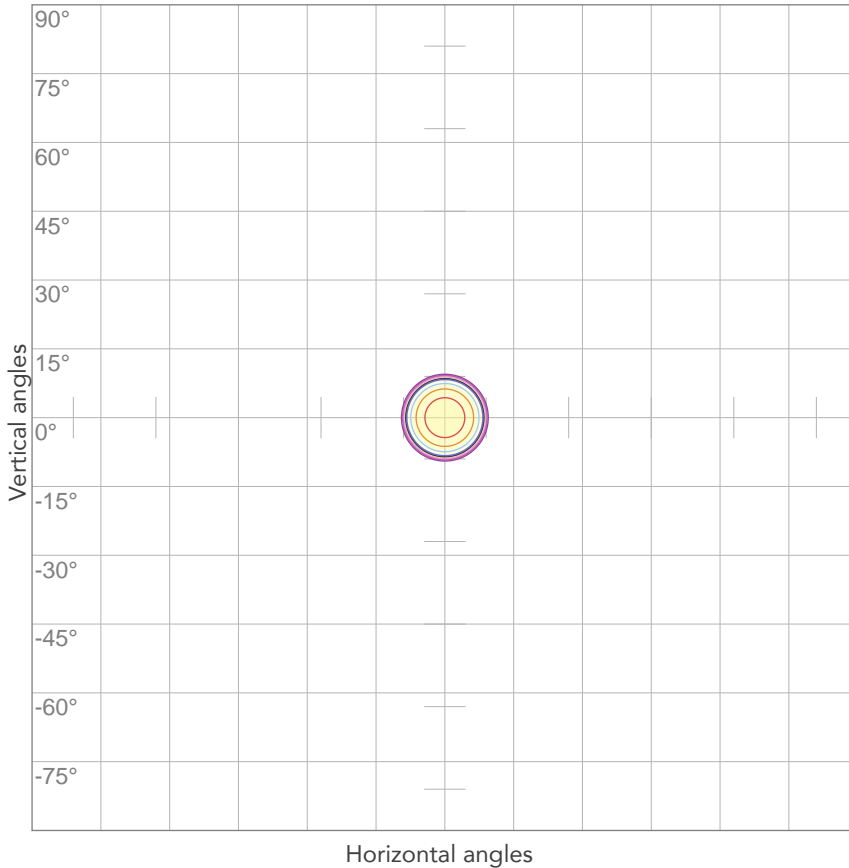
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,23A	263,8W	30lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



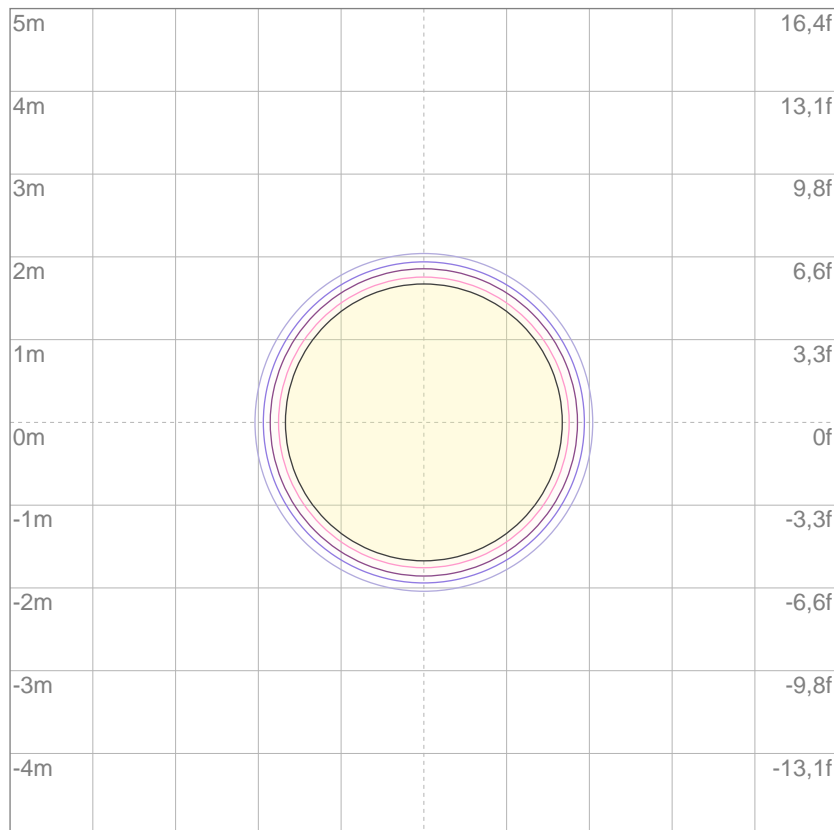
10%	10544 cd
20%	21088 cd
30%	31632 cd
40%	42176 cd
50%	52720 cd
60%	63264 cd
70%	73808 cd
80%	84352 cd

Conditions:

Number of c-planes: 2

Candela at center: 105439 cd

ISO LUX DIAGRAM



3%	31,6 lx
5%	52,7 lx
10%	105 lx
30%	316 lx
50%	527 lx

Conditions:

Number of c-planes: 2

Lux at center: 1054 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:

8944 lm

Peak candela output:

61465 cd

Light quality:

CRI: 98,2

Color temperature:

3087 K

PRODUCT NAME:

ECLFWTU

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

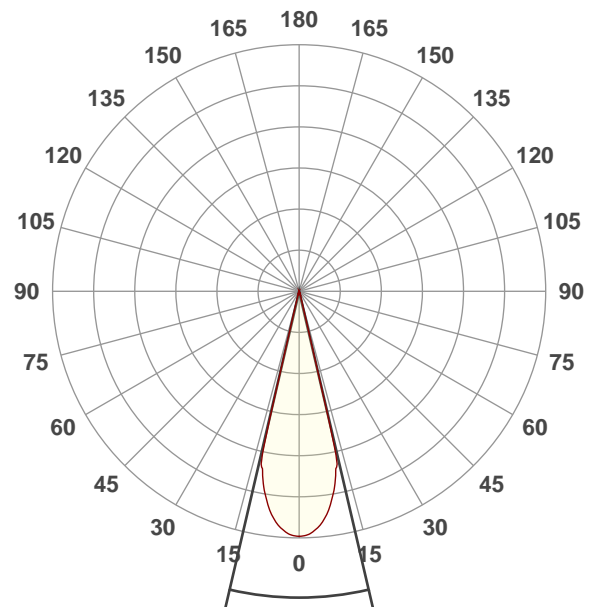
Warm White

Operator:

Paolo Carvone

Date and time:

17/11/2020 12:05:20

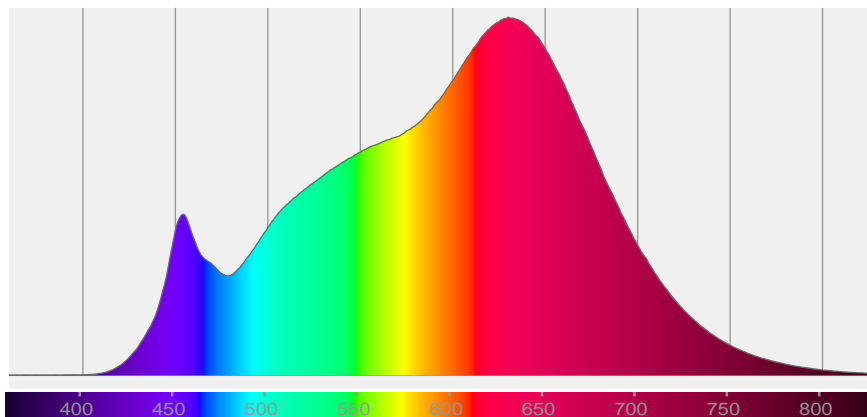


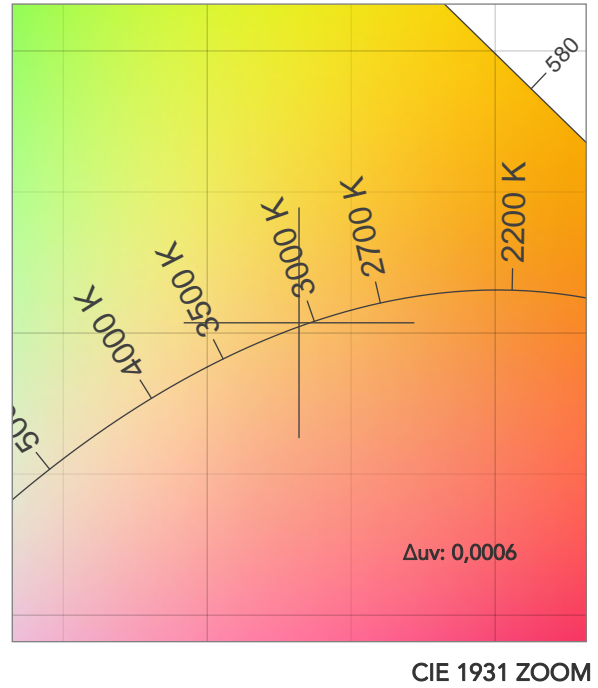
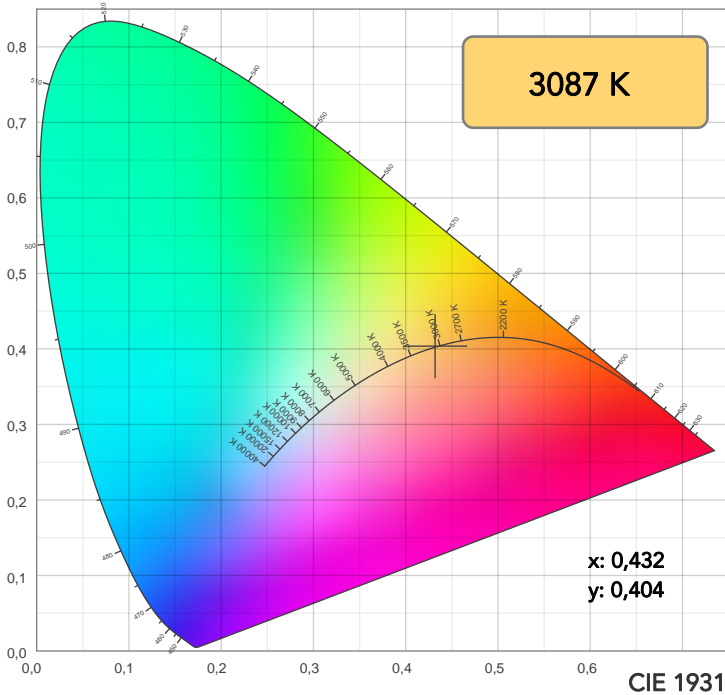
Beam angle 50%: 26,2°

Field angle 10%: 28°

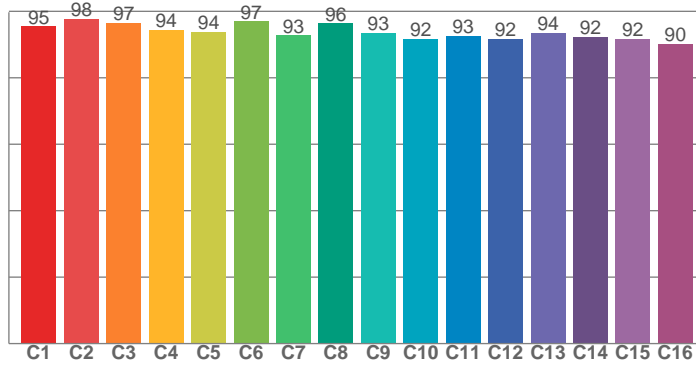
Cut off angle 2.5%: 29,9°

Spectra

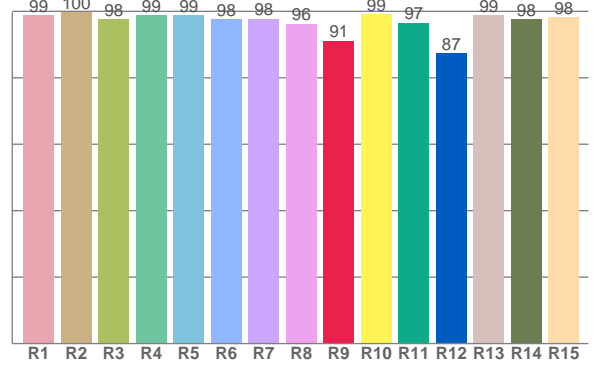




TM30: 94,1



CRI: 98,2 (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
98,8	99,6	97,7	98,7	98,8	97,6	97,7	96,3	91,1	99,1	96,6	87,3	98,8	97,7	98,3

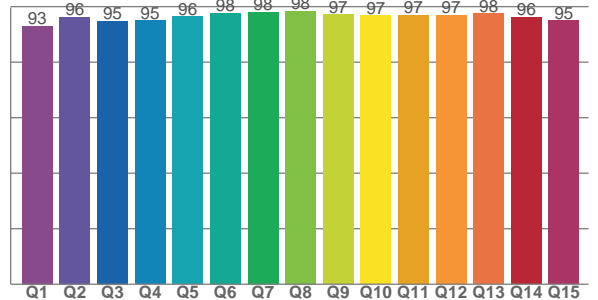
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,5	97,7	96,6	94,4	93,8	96,9	92,8	96,4	93,5	91,7	92,6	91,7	93,6	92,4	91,8	90,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,0	96,3	94,8	95,0	96,4	97,7	98,0	98,4	97,2	96,7	97,0	97,0	97,6	96,1	95,0

CQS: 96,0



COLOR PARAMETERS

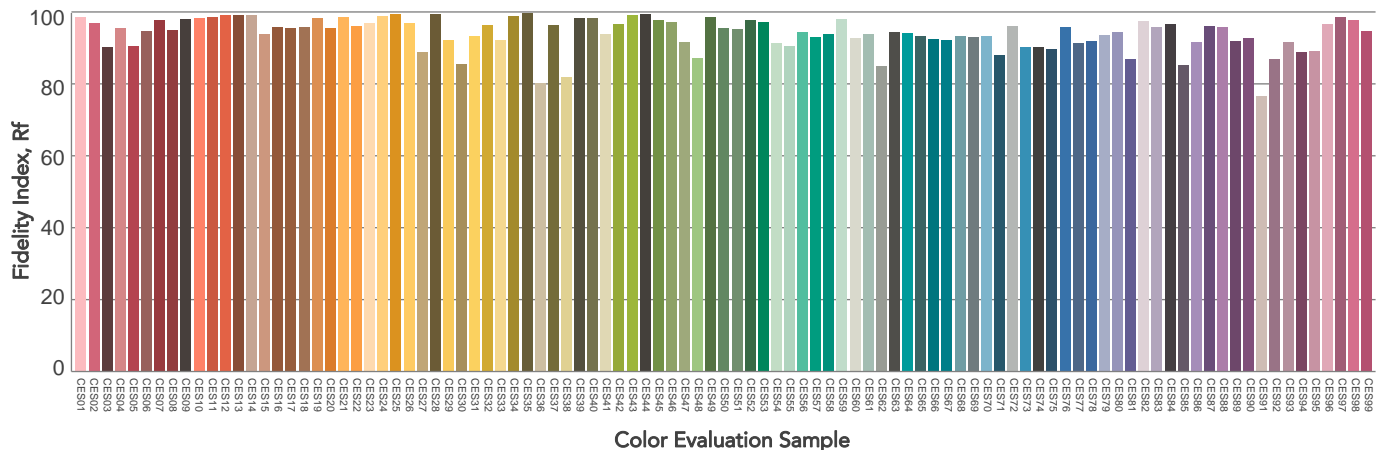
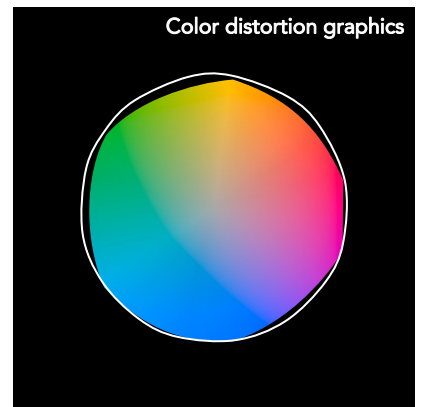
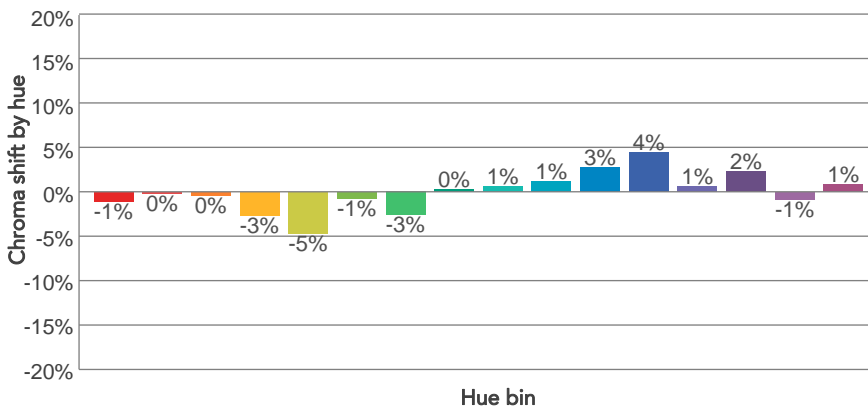
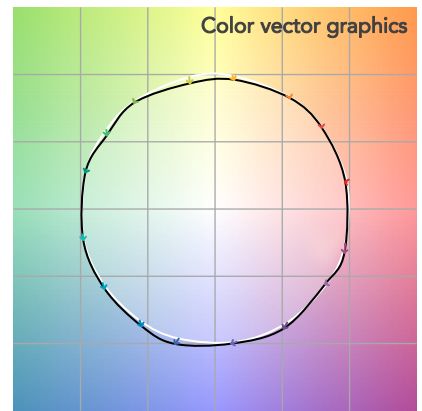
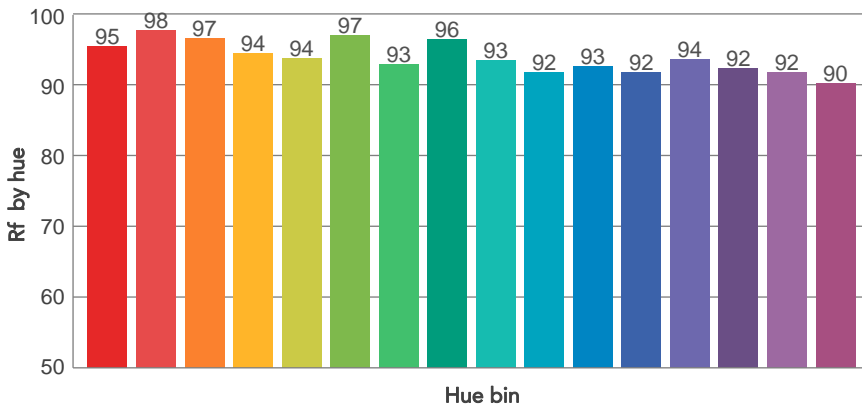
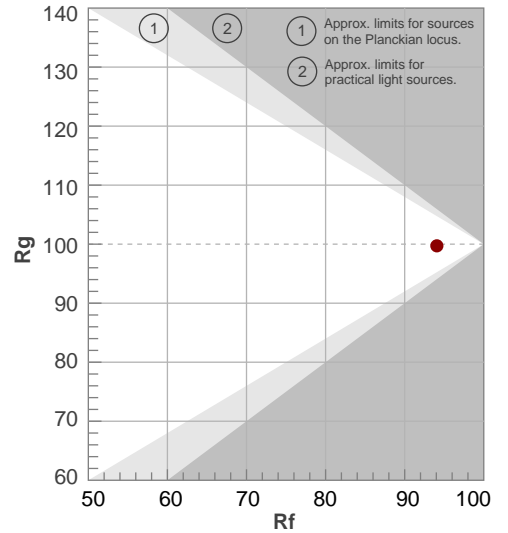
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3087 K	98,2	91,1	94,1	99,7	96,0	98	0,432	0,404	0,0006

TM30 DETAILS

Rf 94,1
Fidelity index Rf

Rg 99,7
Gammut index

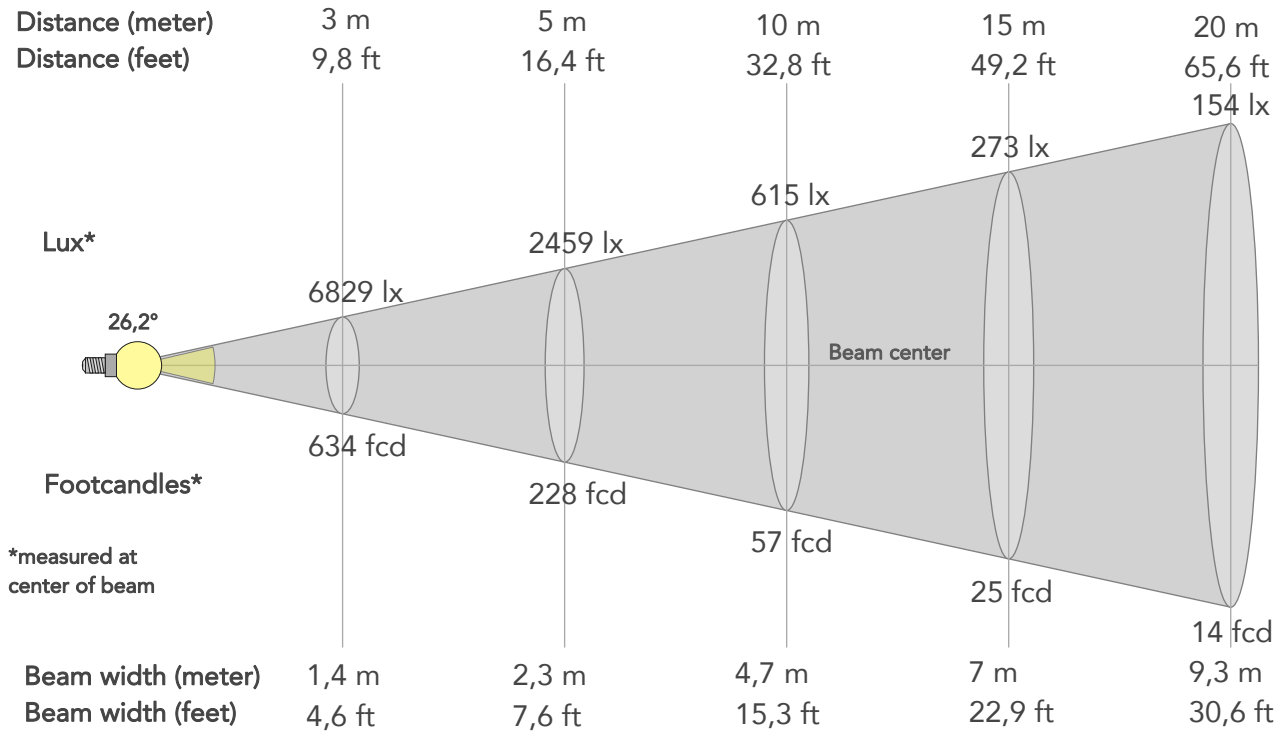
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	98	0%	0%
3	97	0%	0%
4	94	-3%	-2%
5	94	-5%	0%
6	97	-1%	2%
7	93	-3%	3%
8	96	0%	2%
9	93	1%	4%
10	92	1%	4%
11	93	3%	4%
12	92	4%	-2%
13	94	1%	-4%
14	92	2%	-5%
15	92	-1%	-2%
16	90	1%	-7%



BEAM DETAILS



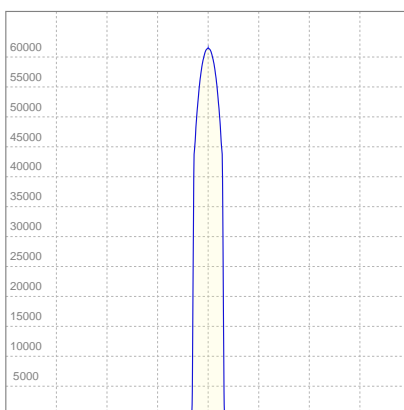
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
26,2°	28°	29,9°	100,0%	100,0%



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	61465lx	15366lx	6829lx	3842lx	2459lx	1093lx	615lx	273lx	154lx	98lx	68lx	38lx	25lx
Footcand.	5710fcd	1428fcd	634fcd	357fcd	228fcd	102fcd	57fcd	25fcd	14fcd	9fcd	6fcd	4fcd	2fcd
Beam wid.	0,5m	0,9m	1,4m	1,9m	2,3m	3,5m	4,7m	7m	9,3m	11,7m	14m	18,6m	23,3m
Beam wid.	1,5ft	3,1ft	4,6ft	6,1ft	7,6ft	11,5ft	15,3ft	22,9ft	30,6ft	38,2ft	45,9ft	61,1ft	76,4ft

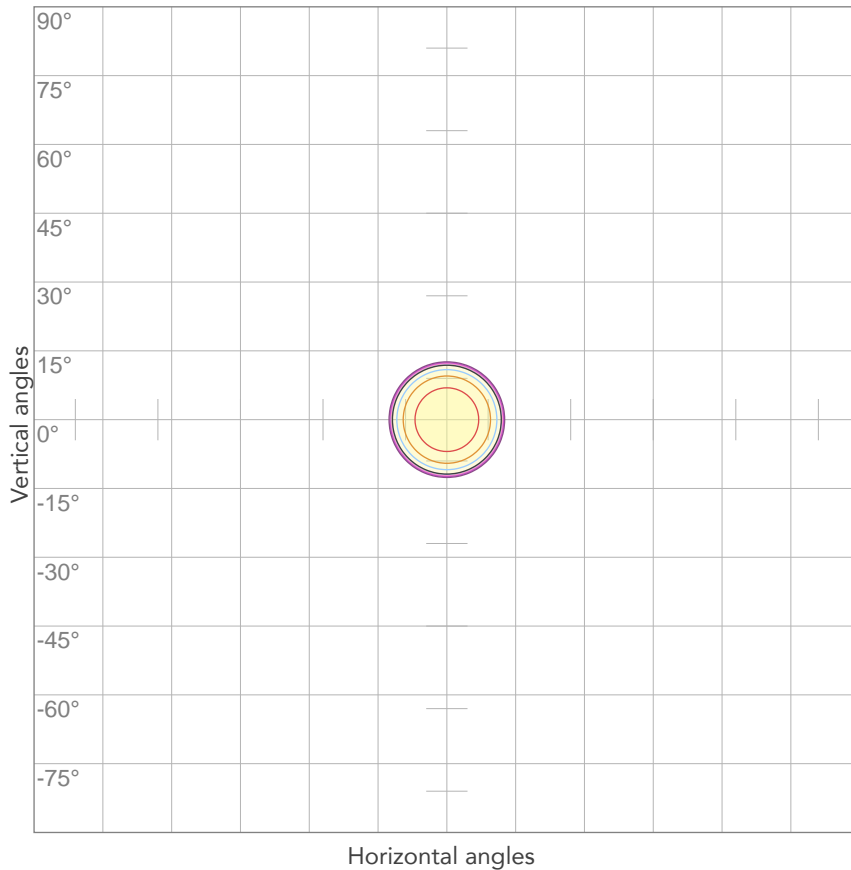
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,23A	264W	34lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



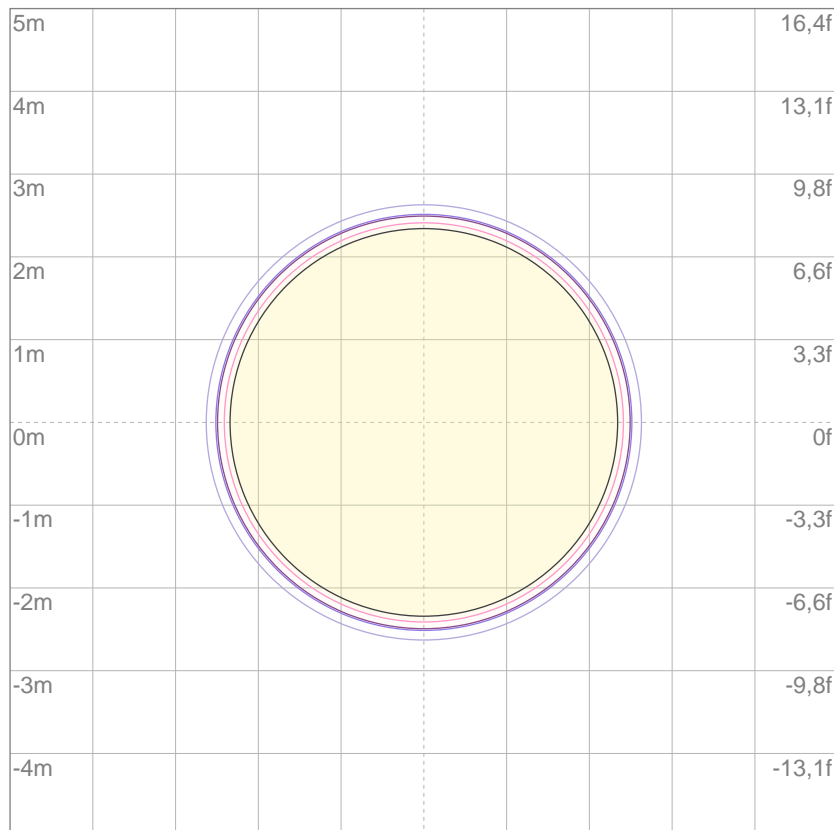
10%	6147 cd
20%	12293 cd
30%	18440 cd
40%	24586 cd
50%	30733 cd
60%	36879 cd
70%	43026 cd
80%	49172 cd

Conditions:

Number of c-planes: 2

Candela at center: 61465 cd

ISO LUX DIAGRAM



3%	18,4 lx
5%	30,7 lx
10%	61,5 lx
30%	184 lx
50%	307 lx

Conditions:

Number of c-planes: 2

Lux at center: 615 lx

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



Total lumen output:

8996 lm

Peak candela output:

33073 cd

Light quality:

CRI: 98,3

Color temperature:

3118 K

PRODUCT NAME:

ECLFWTU

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

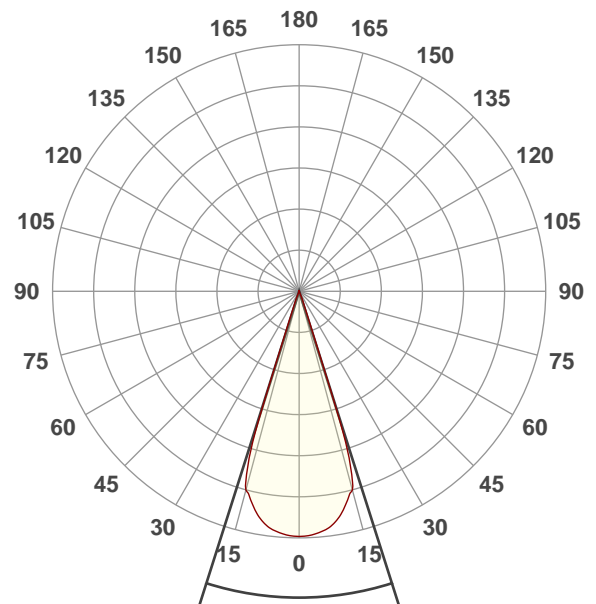
Warm White

Operator:

Paolo Carvone

Date and time:

17/11/2020 12:19:40

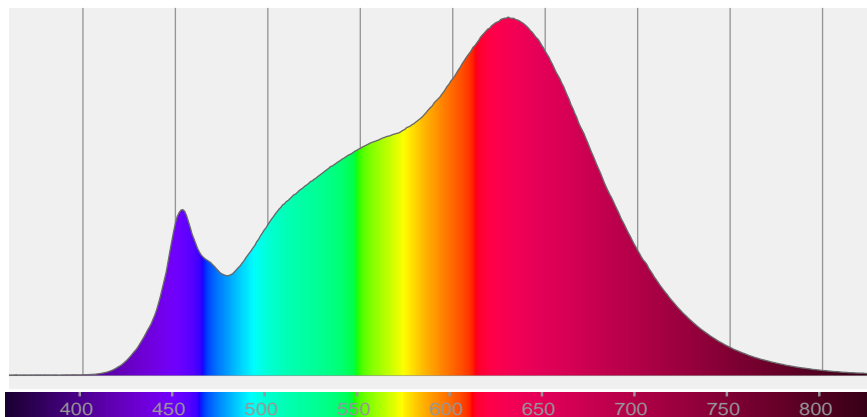


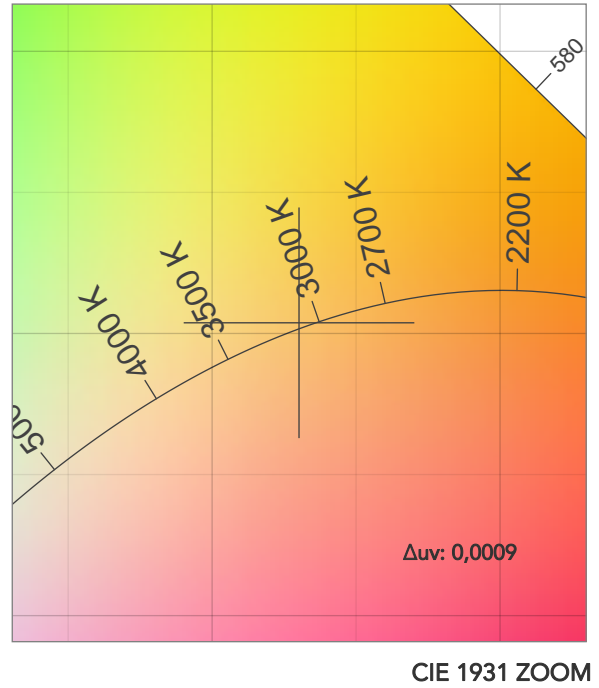
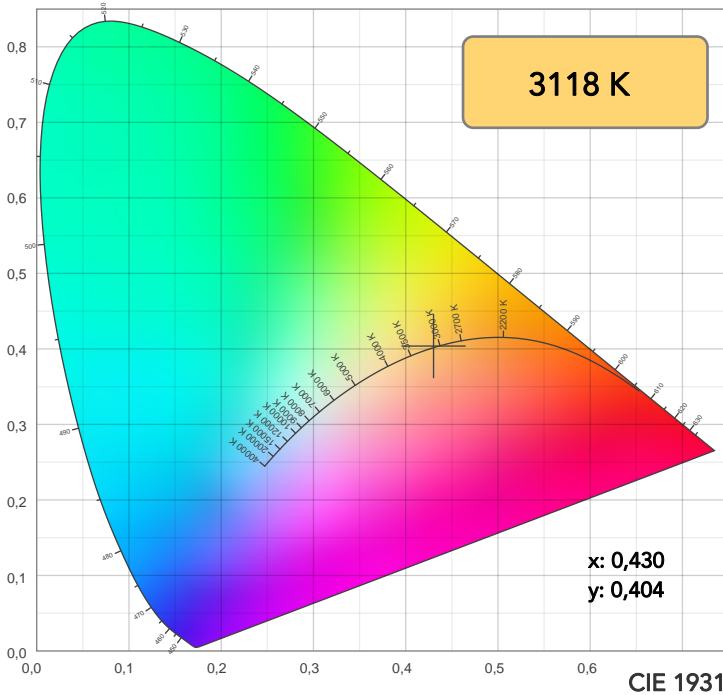
Beam angle 50%: 35,3°

Field angle 10%: 37,9°

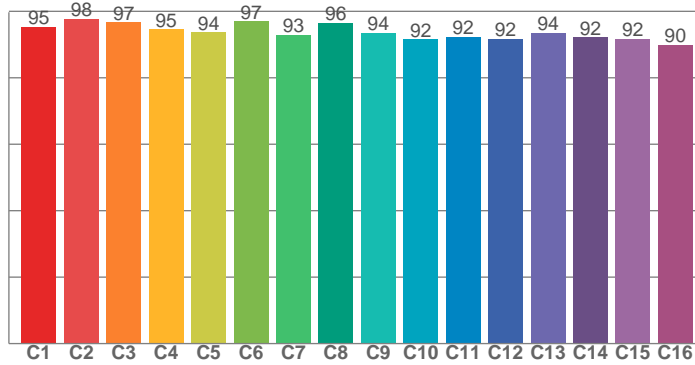
Cut off angle 2.5%: 40,6°

Spectra

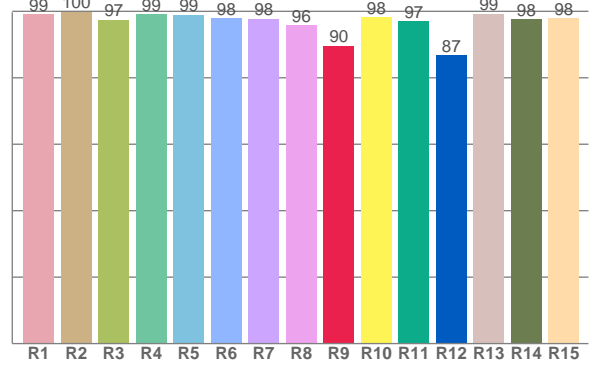




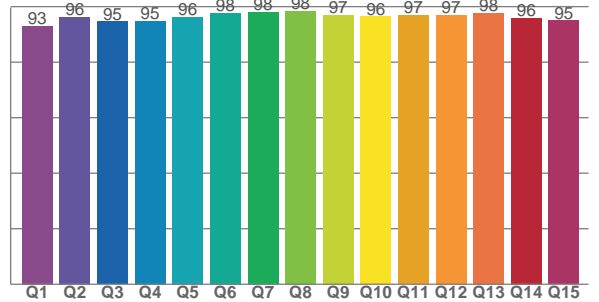
TM30: 94,0



CRI: 98,3 (R1-R8)



CQS: 95,9



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
99,2	99,8	97,5	99,1	99,0	97,9	97,7	95,8	89,6	98,2	97,1	86,7	99,3	97,6	97,8

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,3	97,7	96,7	94,6	93,7	97,0	93,0	96,5	93,5	91,5	92,3	91,7	93,6	92,1	91,6	89,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,0	96,3	94,6	94,8	96,3	97,7	98,0	98,5	97,0	96,4	96,9	97,0	97,7	95,9	94,9

COLOR PARAMETERS

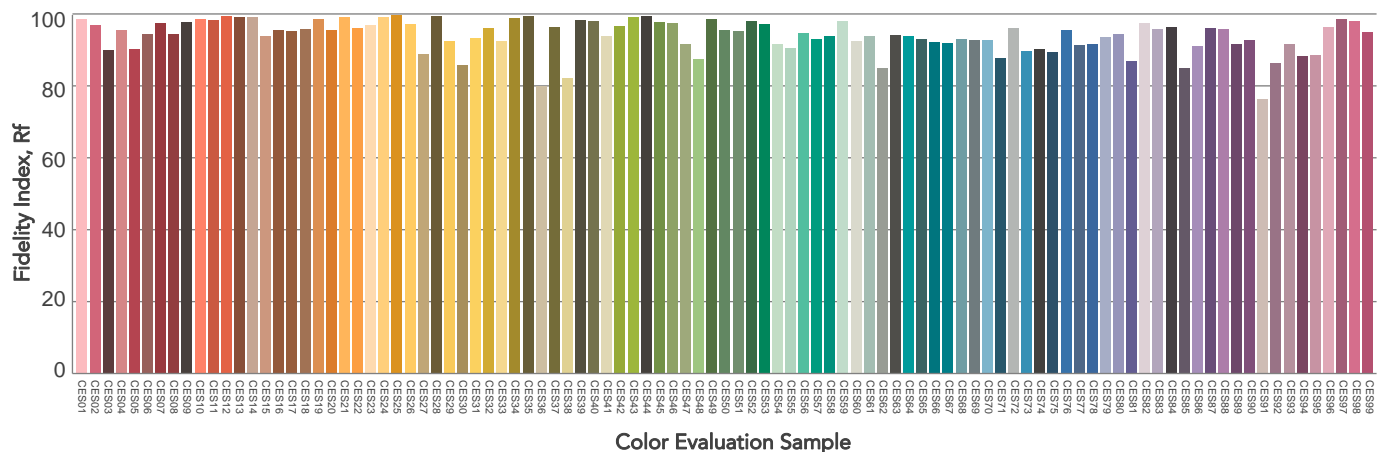
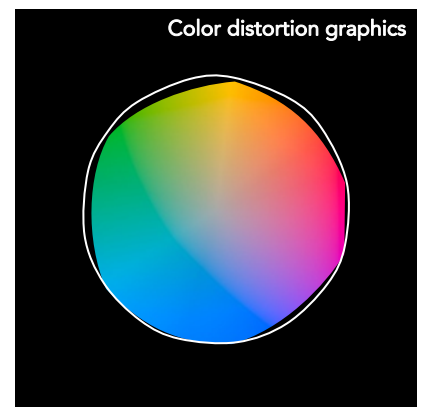
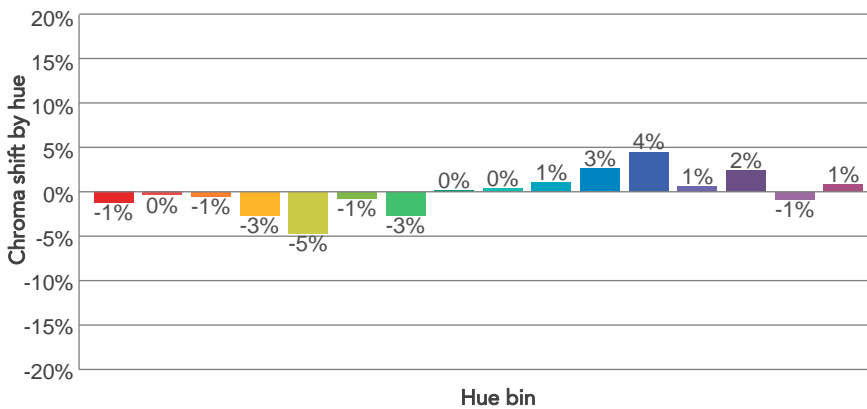
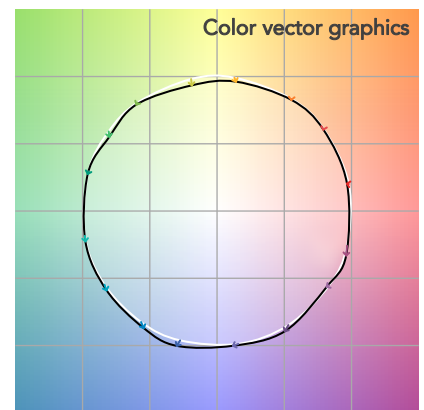
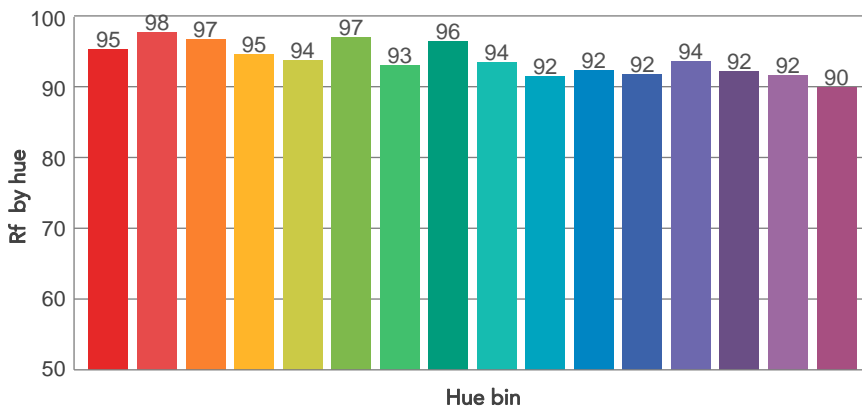
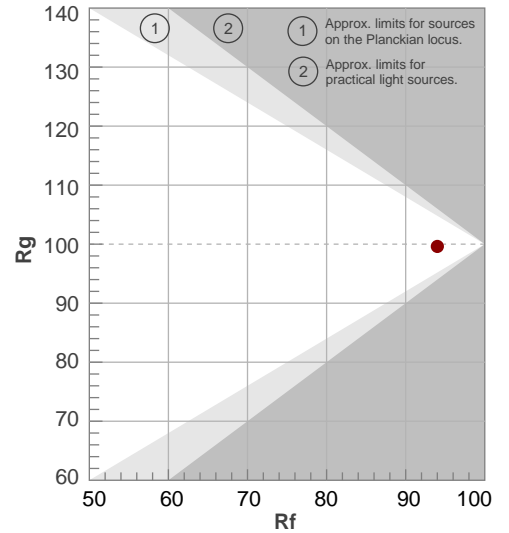
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3118 K	98,3	89,6	94,0	99,6	95,9	98	0,430	0,404	0,0009

TM30 DETAILS

Rf 94,0
Fidelity index Rf

Rg 99,6
Gammut index

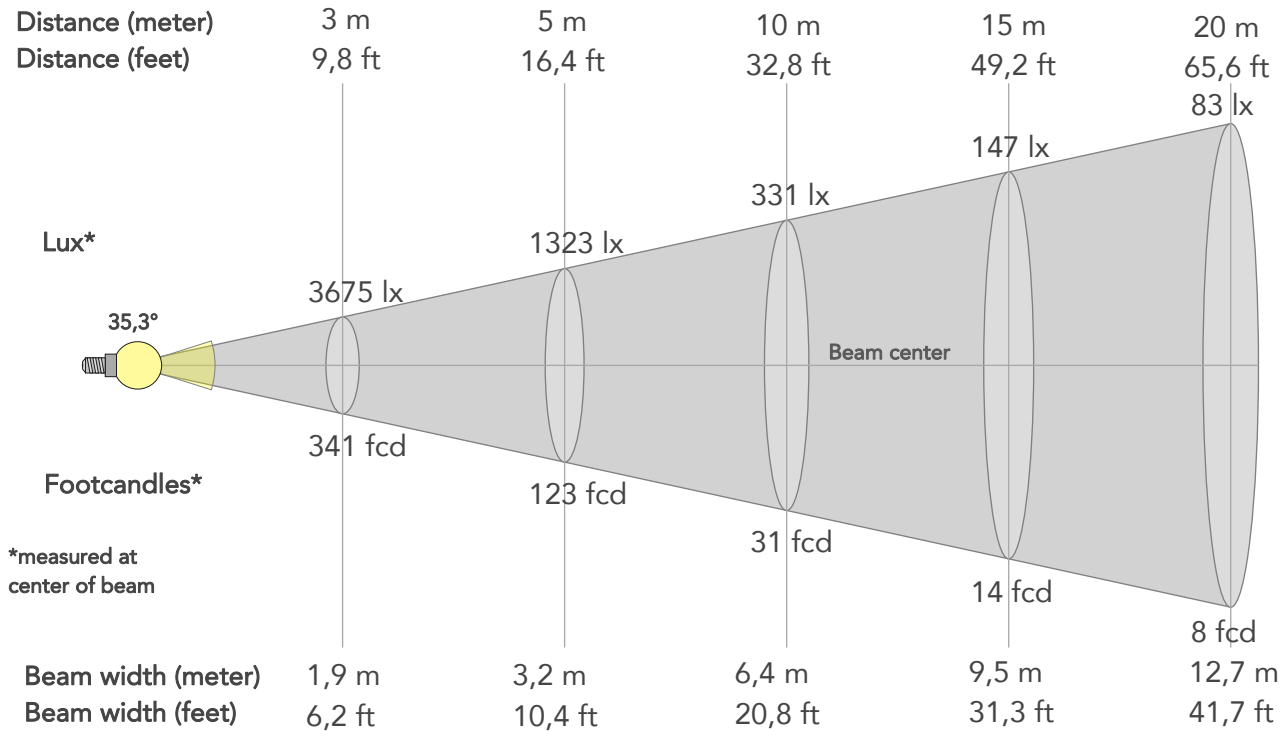
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	98	0%	0%
3	97	-1%	0%
4	95	-3%	-2%
5	94	-5%	0%
6	97	-1%	2%
7	93	-3%	3%
8	96	0%	2%
9	94	0%	4%
10	92	1%	4%
11	92	3%	4%
12	92	4%	-2%
13	94	1%	-4%
14	92	2%	-5%
15	92	-1%	-2%
16	90	1%	-7%



BEAM DETAILS



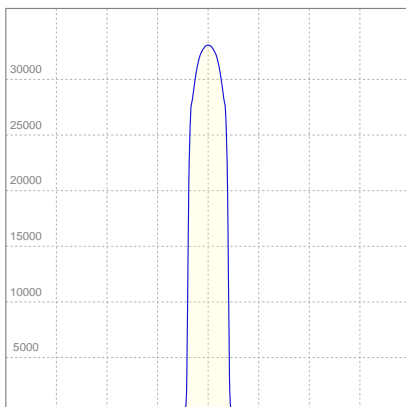
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35,3°	37,9°	40,6°	100,0%	100,0%



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	33073lx	8268lx	3675lx	2067lx	1323lx	588lx	331lx	147lx	83lx	53lx	37lx	21lx	13lx
Footcand.	3073fcd	768fcd	341fcd	192fcd	123fcd	55fcd	31fcd	14fcd	8fcd	5fcd	3fcd	2fcd	1fcd
Beam wid.	0,6m	1,3m	1,9m	2,5m	3,2m	4,8m	6,4m	9,5m	12,7m	15,9m	19,1m	25,4m	31,8m
Beam wid.	2,1ft	4,2ft	6,2ft	8,3ft	10,4ft	15,6ft	20,8ft	31,3ft	41,7ft	52,1ft	62,5ft	83,4ft	104,2ft

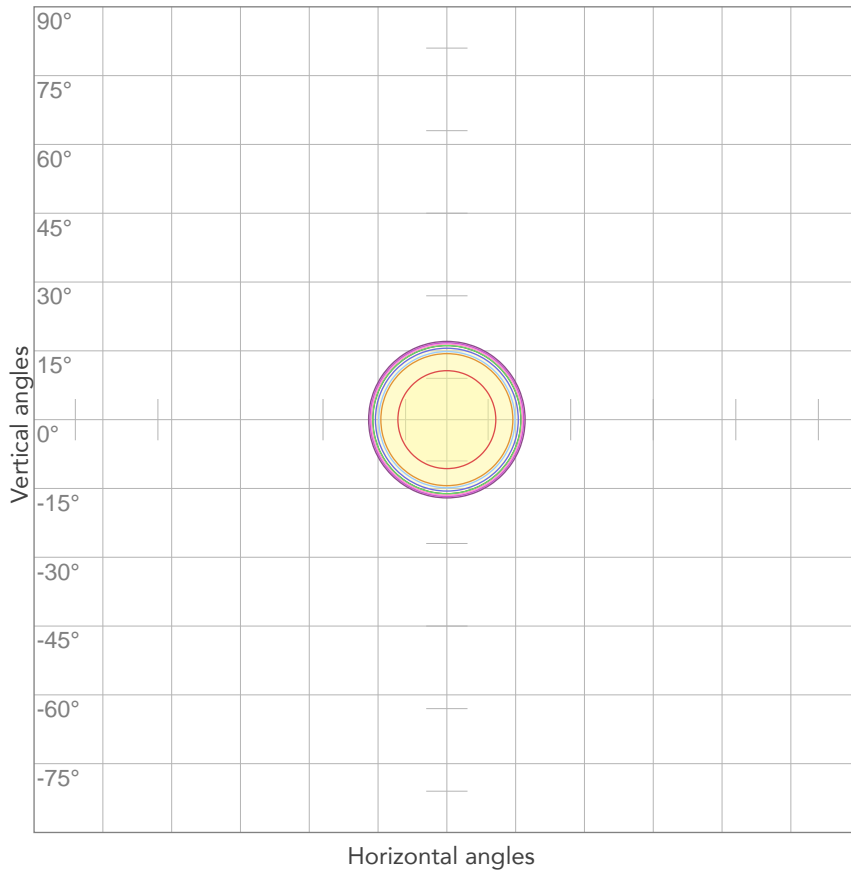
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,24A	266,2W	34lm/W
Power Fc			
0,97			

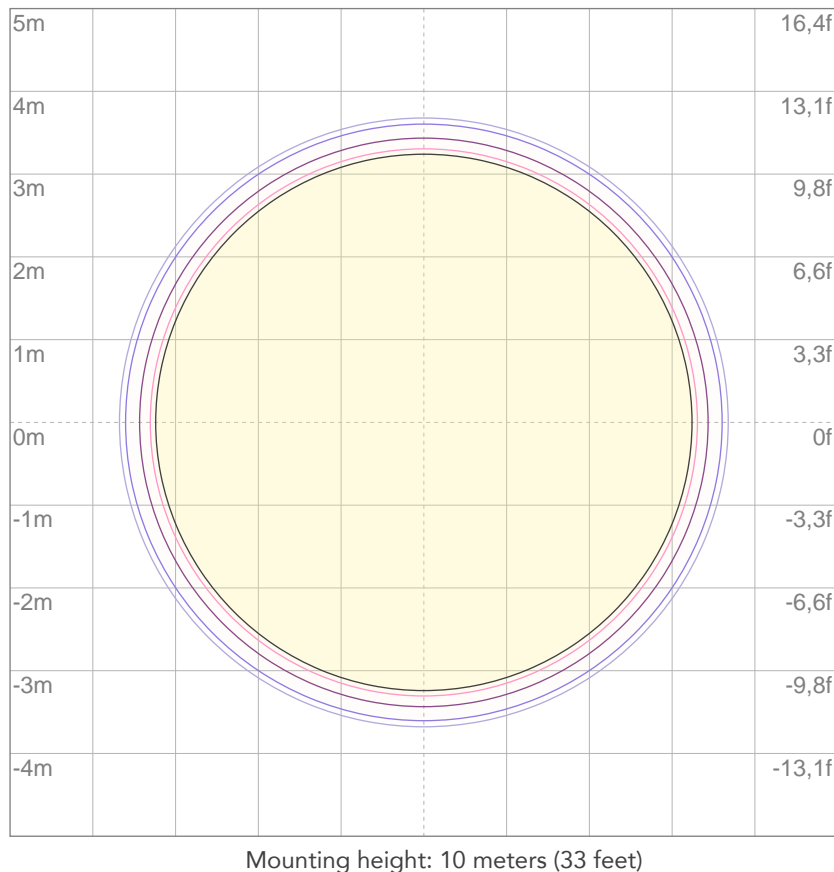
ISO CANDELA DIAGRAM



10%	3307 cd
20%	6615 cd
30%	9922 cd
40%	13229 cd
50%	16536 cd
60%	19844 cd
70%	23151 cd
80%	26458 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 33073 cd

ISO LUX DIAGRAM



3%	9,92 lx
5%	16,5 lx
10%	33,1 lx
30%	99,2 lx
50%	165 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 331 lx

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



Total lumen output:

8286 lm

Peak candela output:

17011 cd

Light quality:

CRI: 98,3

Color temperature:

3122 K

PRODUCT NAME:

ECLFWTU

MEASURAMENT CONDITIONS:

Beam angle:

PRL50

Target:

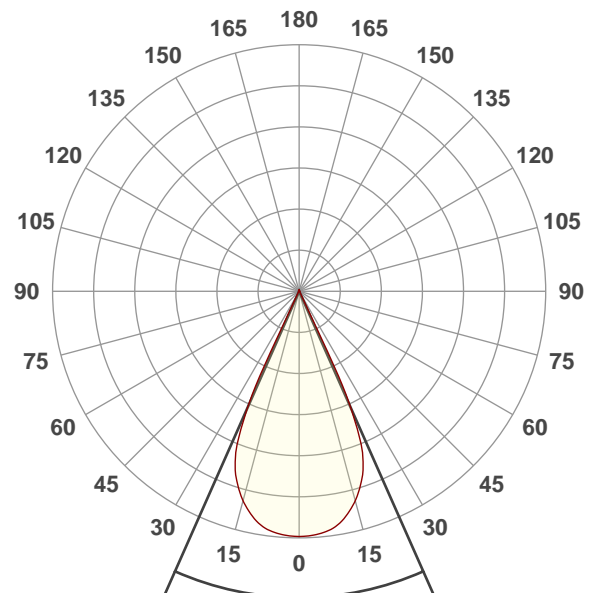
Warm White

Operator:

Paolo Carvone

Date and time:

17/11/2020 12:21:27

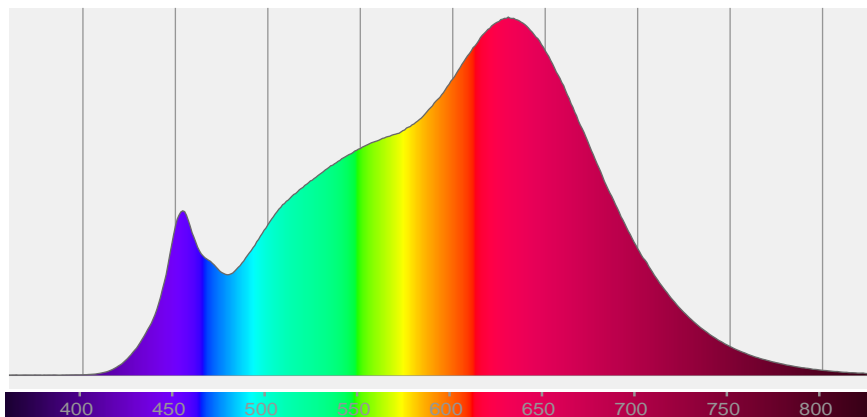


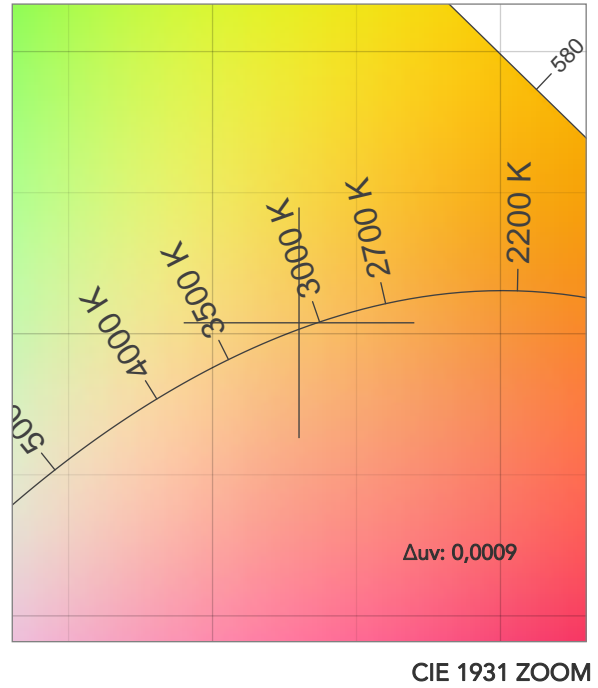
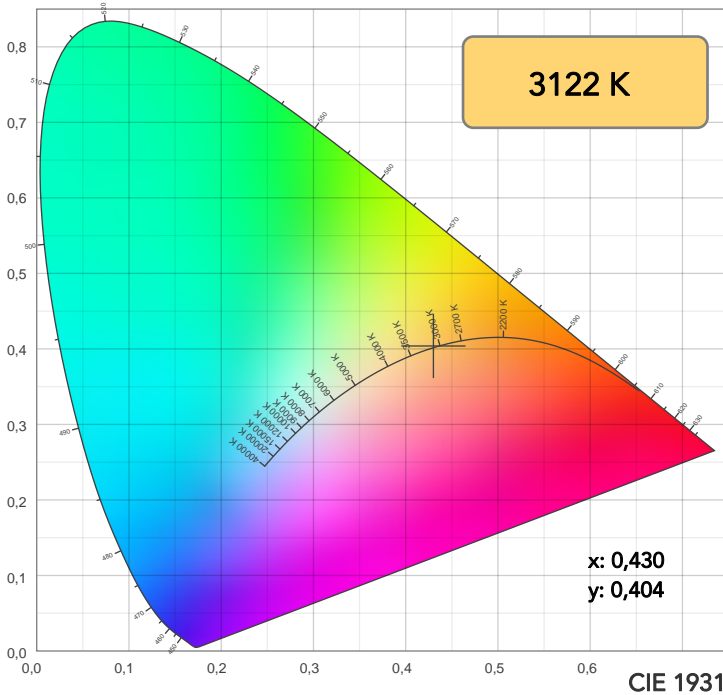
Beam angle 50%: 47,8°

Field angle 10%: 53,3°

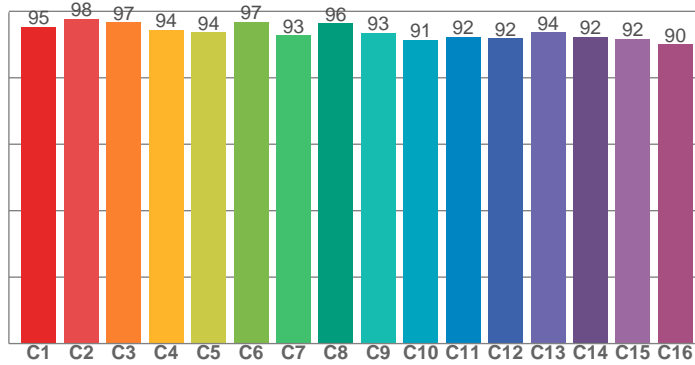
Cut off angle 2.5%: 55,2°

Spectra

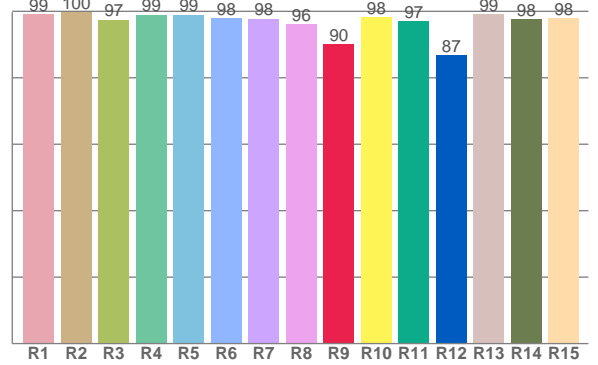




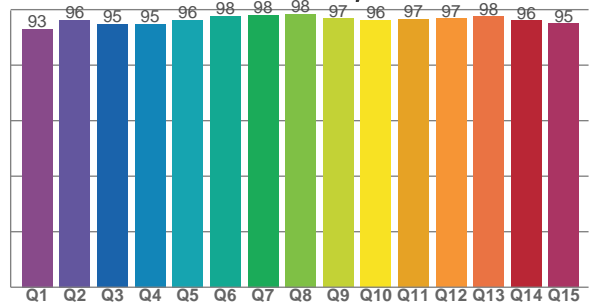
TM30: 94,0



CRI: 98,3 (R1-R8)



CQS: 95,9



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
99,1	99,8	97,4	99,0	99,0	97,9	97,8	96,0	90,1	98,3	96,9	86,8	99,2	97,6	97,9

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
95,4	97,7	96,6	94,4	93,7	96,8	92,8	96,3	93,4	91,5	92,4	91,8	93,7	92,3	91,7	90,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,0	96,3	94,7	94,9	96,3	97,6	98,1	98,4	96,9	96,2	96,7	96,8	97,5	96,1	95,0

COLOR PARAMETERS

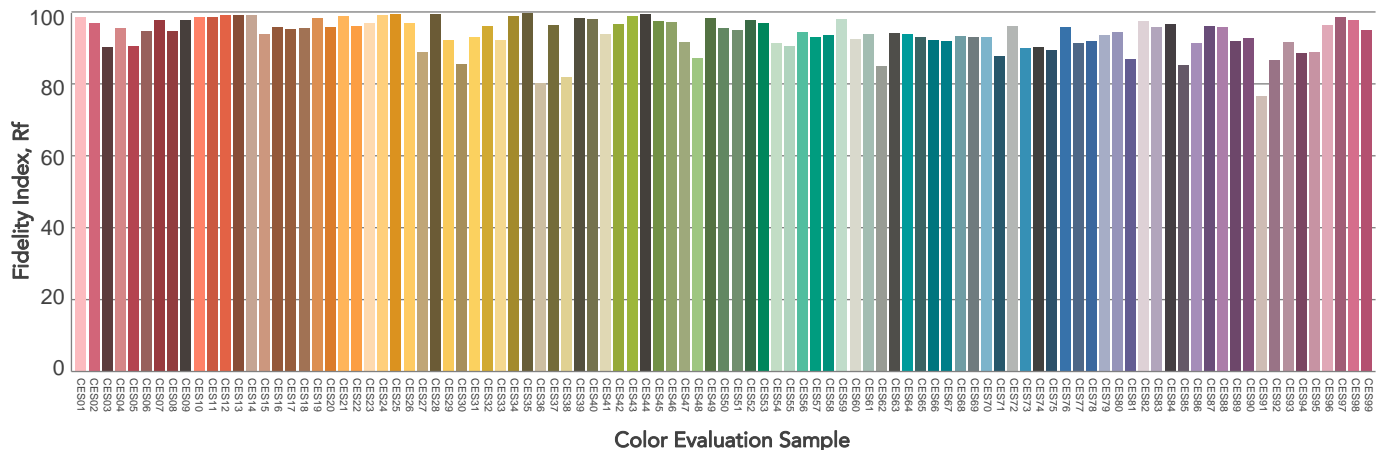
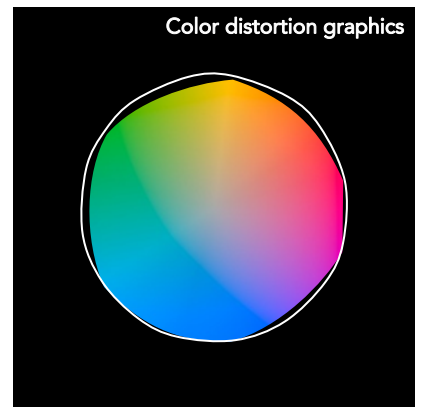
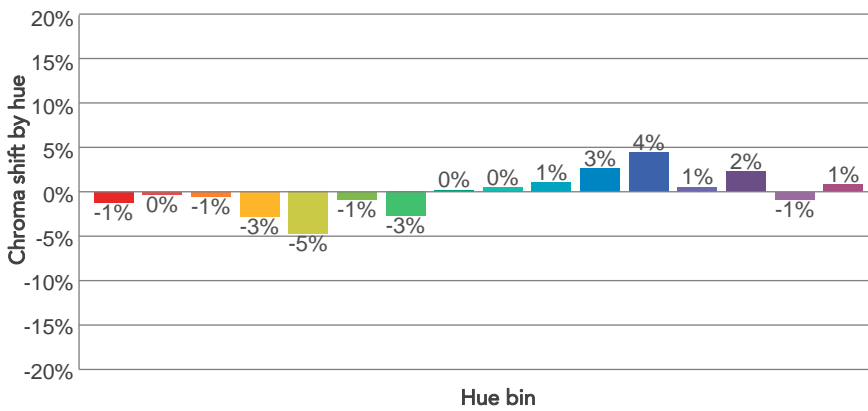
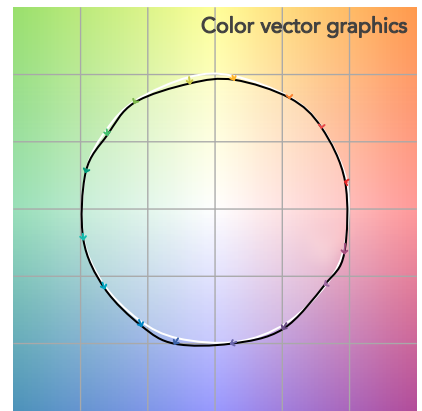
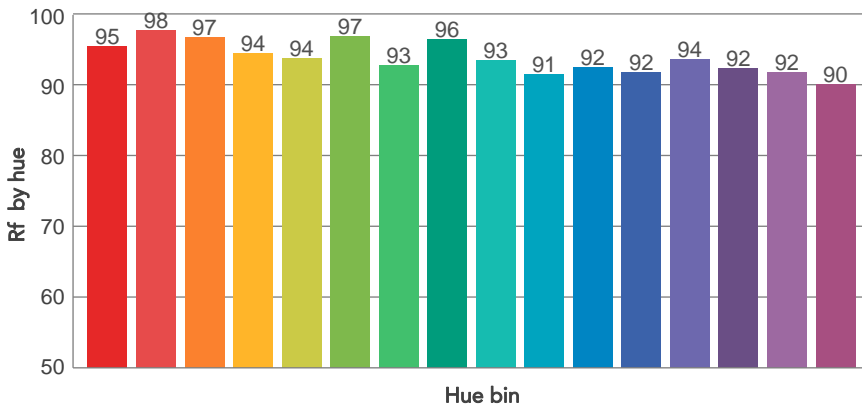
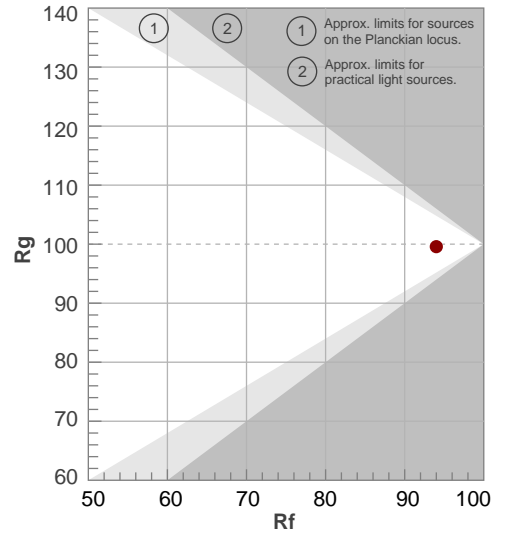
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3122 K	98,3	90,1	94,0	99,6	95,9	98	0,430	0,404	0,0009

TM30 DETAILS

Rf 94,0
Fidelity index Rf

Rg 99,6
Gammut index

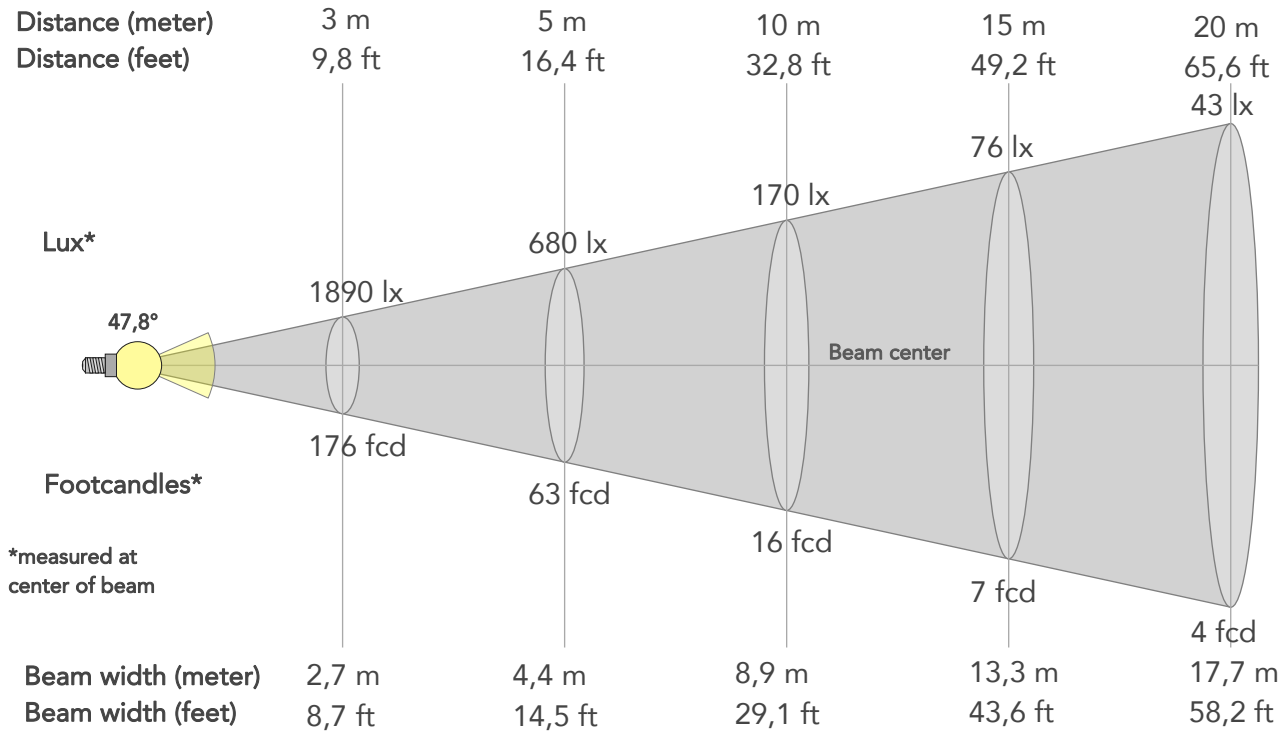
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	98	0%	0%
3	97	-1%	0%
4	94	-3%	-2%
5	94	-5%	0%
6	97	-1%	2%
7	93	-3%	3%
8	96	0%	2%
9	93	0%	4%
10	91	1%	4%
11	92	3%	4%
12	92	4%	-2%
13	94	1%	-4%
14	92	2%	-5%
15	92	-1%	-2%
16	90	1%	-7%



BEAM DETAILS



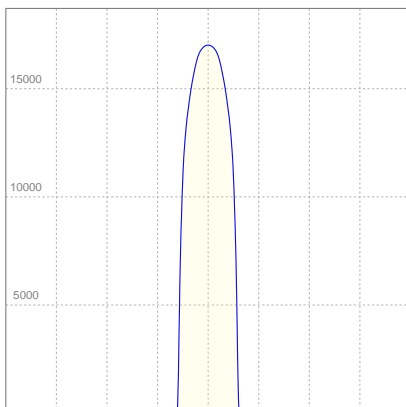
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
47,8°	53,3°	55,2°	100,0%	100,0%



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	17011lx	4253lx	1890lx	1063lx	680lx	302lx	170lx	76lx	43lx	27lx	19lx	11lx	7lx
Footcand.	1580fcd	395fcd	176fcd	99fcd	63fcd	28fcd	16fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,9m	1,8m	2,7m	3,5m	4,4m	6,6m	8,9m	13,3m	17,7m	22,2m	26,6m	35,5m	44,3m
Beam wid.	2,9ft	5,9ft	8,7ft	11,6ft	14,5ft	21,8ft	29,1ft	43,6ft	58,2ft	72,7ft	87,2ft	116,3ft	145,4ft

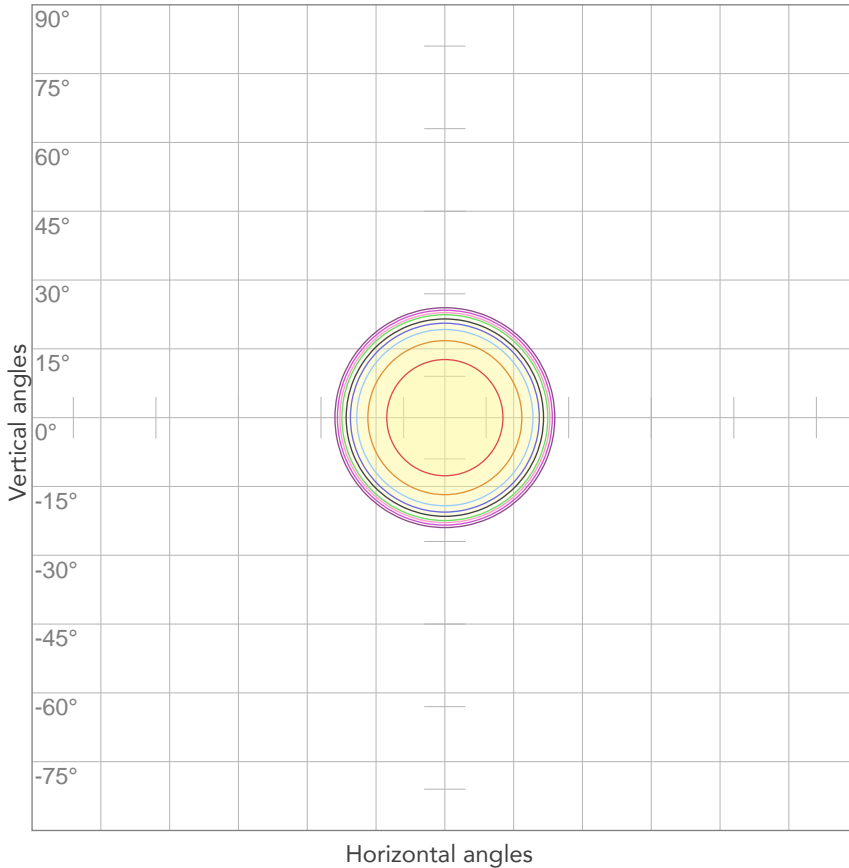
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,23A	264,7W	31lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



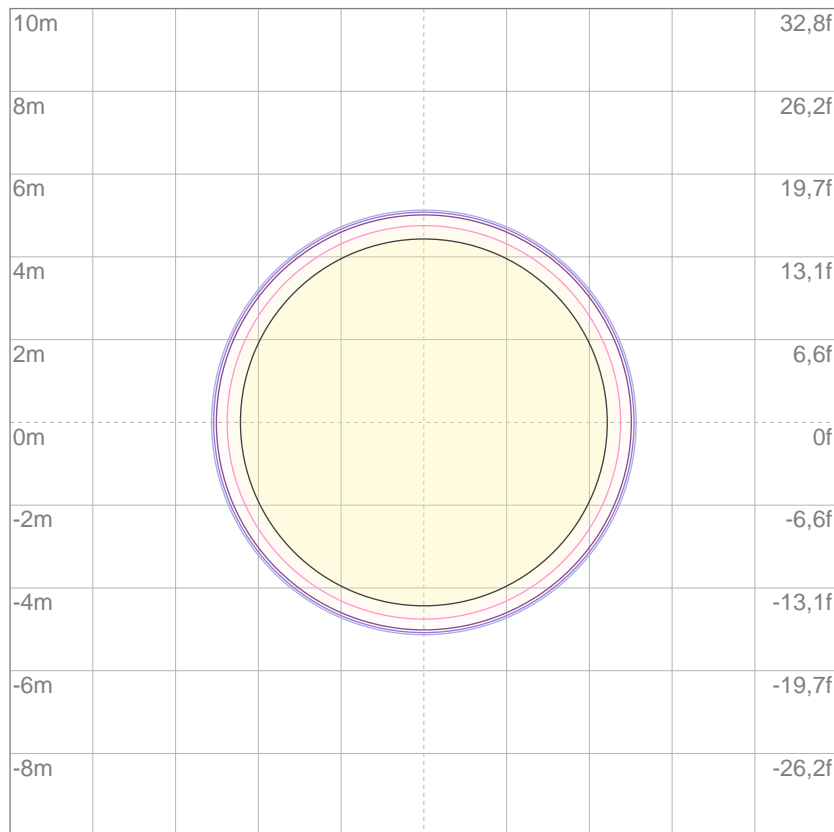
10%	1701 cd
20%	3402 cd
30%	5103 cd
40%	6804 cd
50%	8506 cd
60%	10207 cd
70%	11908 cd
80%	13609 cd

Conditions:

Number of c-planes: 2

Candela at center: 17011 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	5,10 lx
5%	8,51 lx
10%	17,0 lx
30%	51,0 lx
50%	85,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 170 lx

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



Total lumen output:

9670 lm

Peak candela output:

10471 cd

Light quality:

CRI: 97,8

Color temperature:

3087 K

PRODUCT NAME:

ECLFWTU

MEASURAMENT CONDITIONS:

Beam angle:

PRL70

Target:

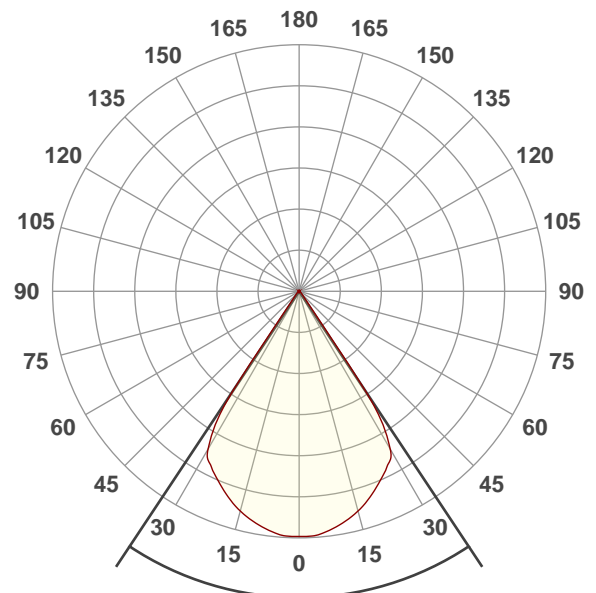
Warm White

Operator:

Paolo Carvone

Date and time:

23/11/2020 13:20:23

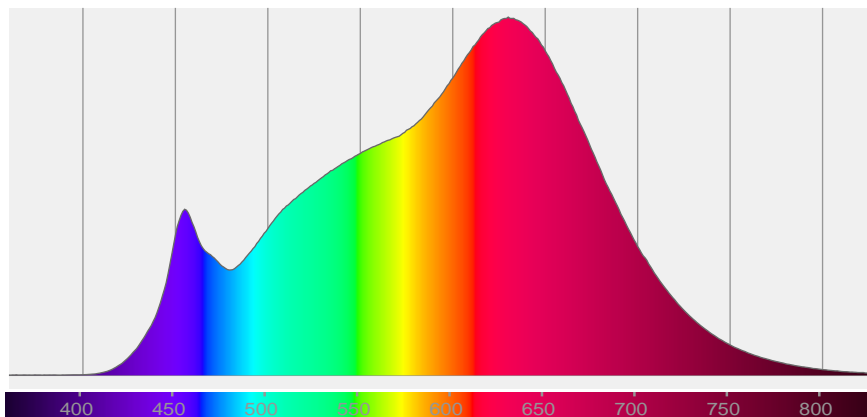


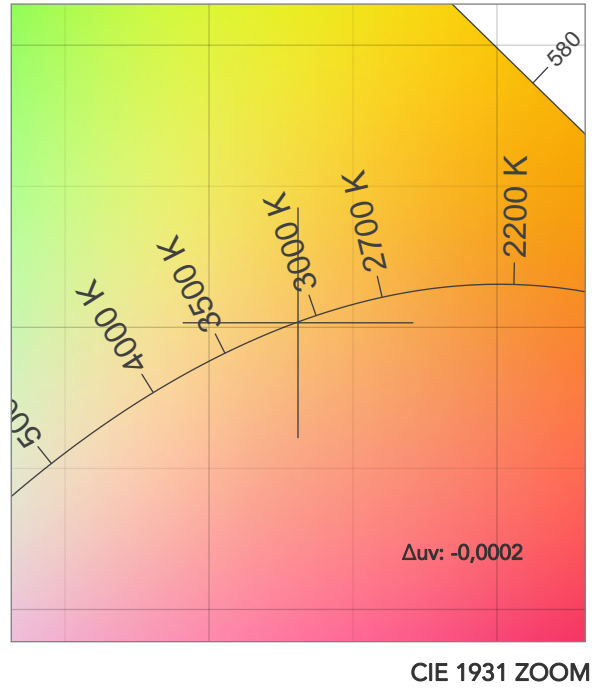
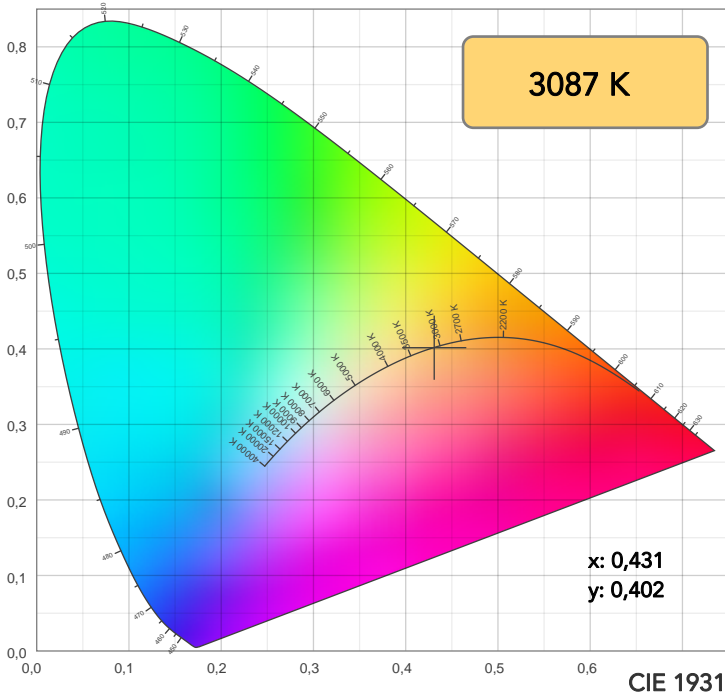
Beam angle 50%: 67,2°

Field angle 10%: 72,8°

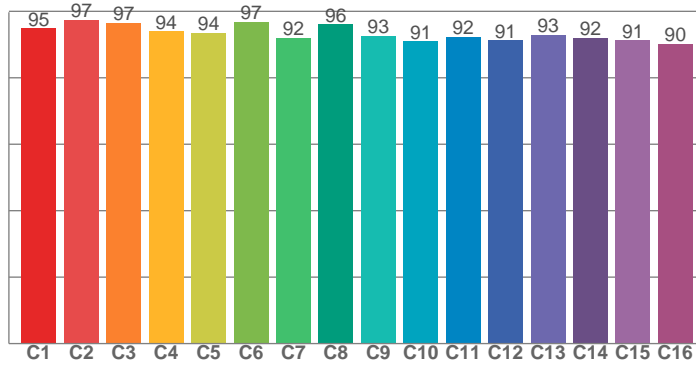
Cut off angle 2.5%: 77,5°

Spectra

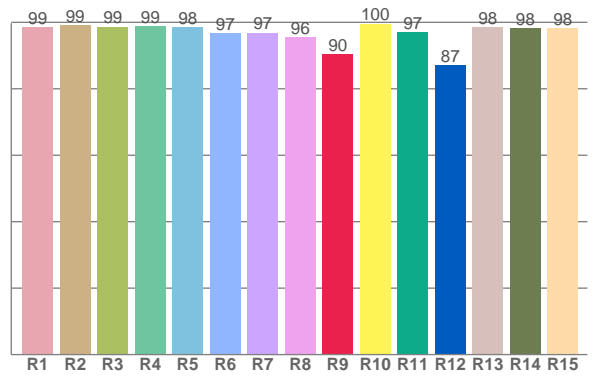




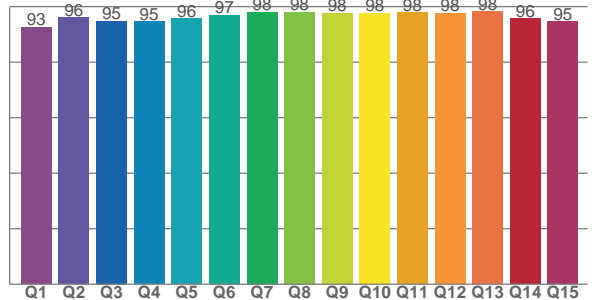
TM30: 93,7



CRI: 97,8 (R1-R8)



CQS: 95,8



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
98,6	99,0	98,6	98,9	98,5	96,7	96,9	95,5	90,3	99,5	96,9	87,1	98,5	98,2	98,3

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
94,9	97,4	96,6	93,9	93,5	96,8	92,0	96,1	92,7	90,9	92,3	91,3	92,9	92,0	91,3	90,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,5	96,0	94,9	94,6	95,7	96,9	98,0	98,1	97,7	97,7	97,9	97,6	98,2	95,7	94,6

COLOR PARAMETERS

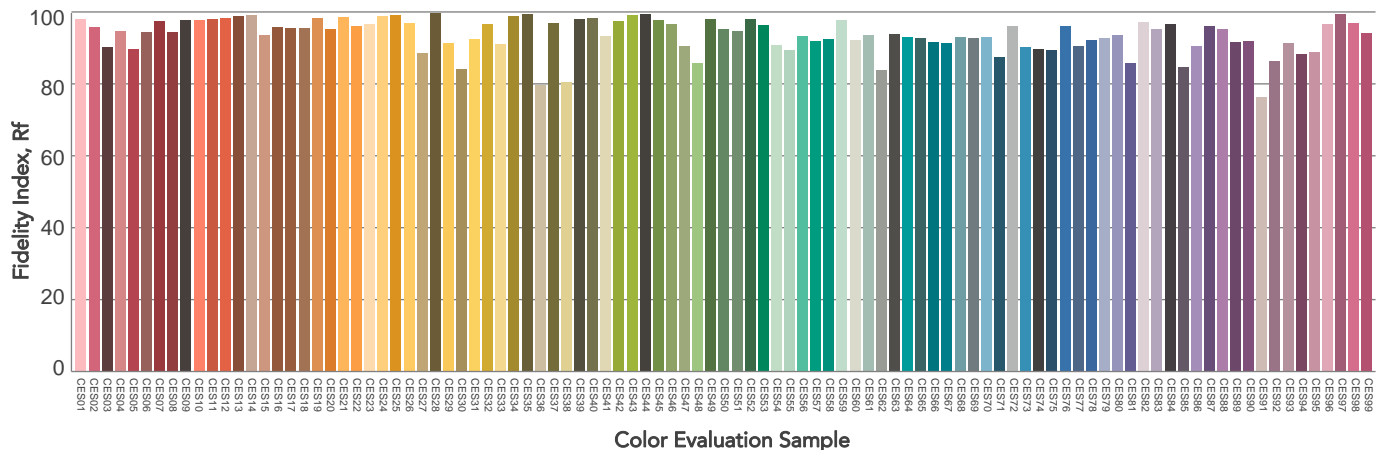
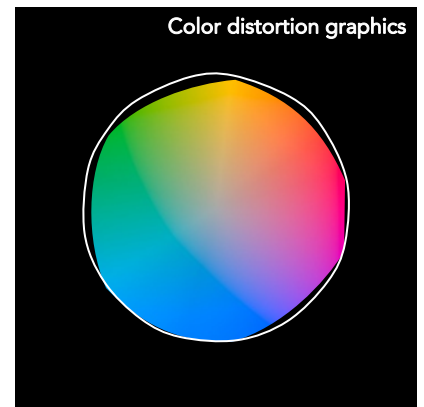
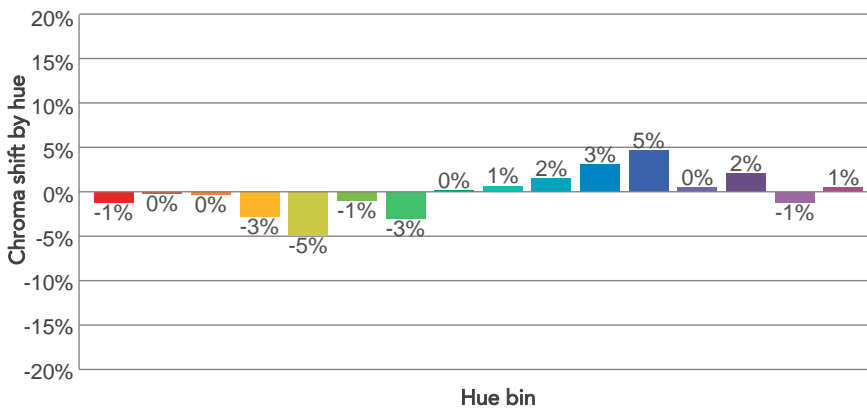
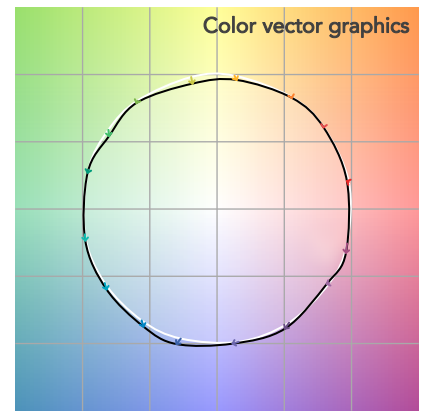
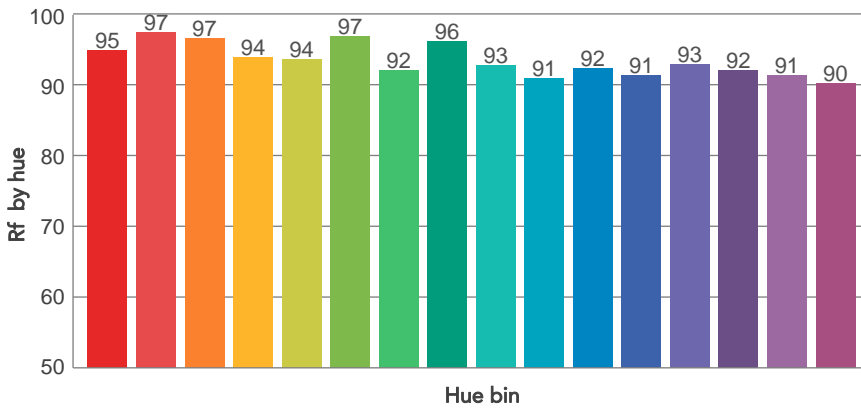
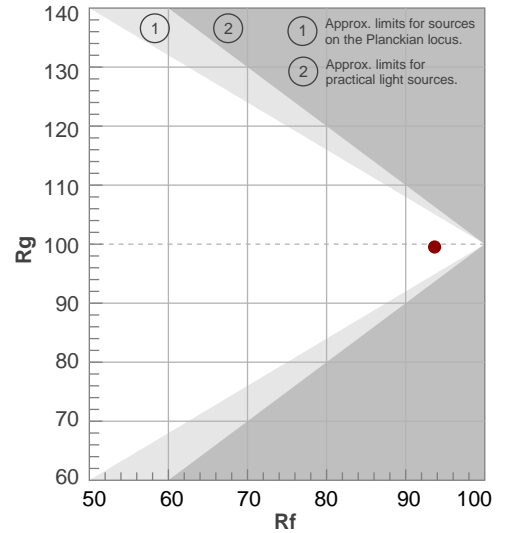
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3087 K	97,8	90,3	93,7	99,5	95,8	98	0,431	0,402	-0,0002

TM30 DETAILS

Rf 93,7
Fidelity index Rf

Rg 99,5
Gammut index

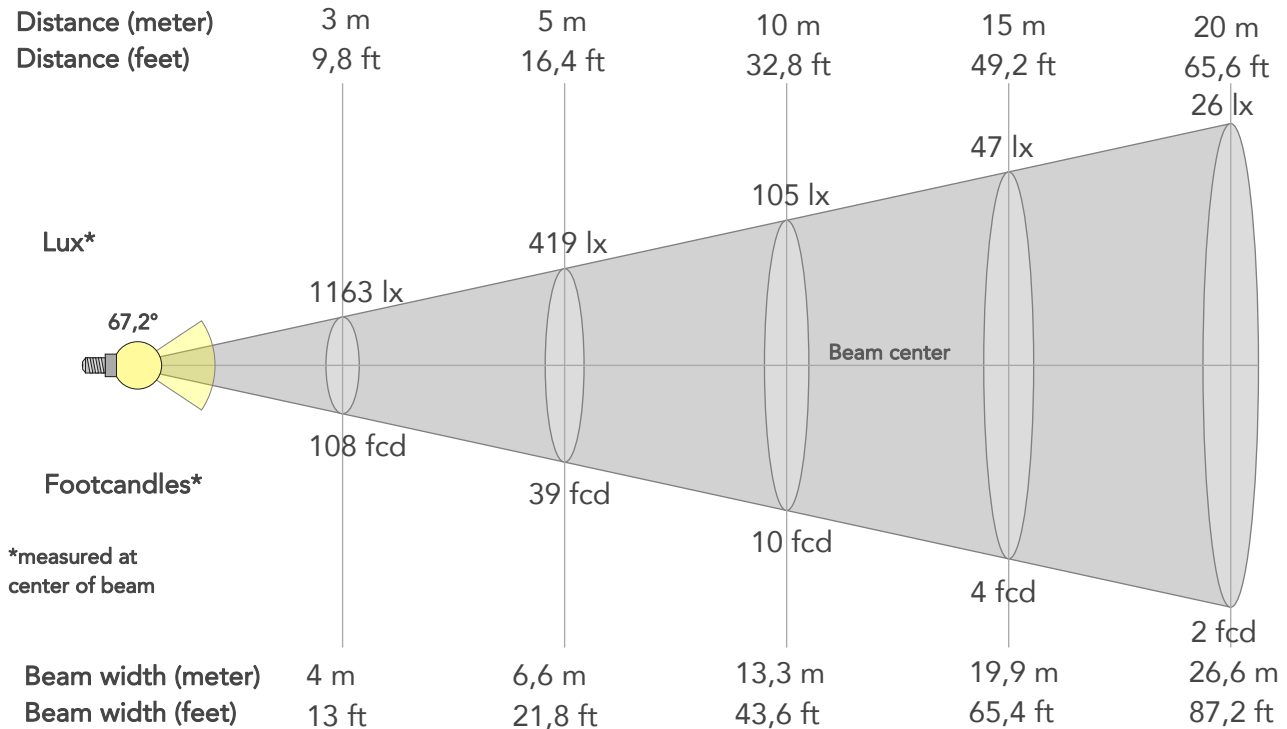
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	97	0%	0%
3	97	0%	0%
4	94	-3%	-2%
5	94	-5%	0%
6	97	-1%	1%
7	92	-3%	3%
8	96	0%	2%
9	93	1%	5%
10	91	2%	5%
11	92	3%	4%
12	91	5%	-2%
13	93	0%	-5%
14	92	2%	-5%
15	91	-1%	-2%
16	90	1%	-7%



BEAM DETAILS



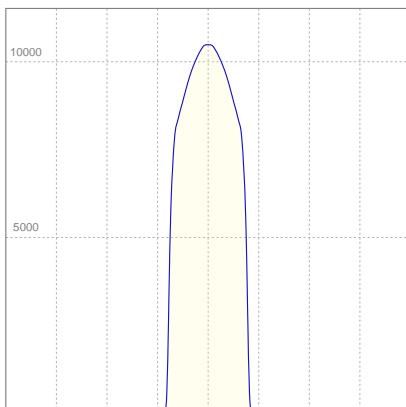
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
67,2°	72,8°	77,5°	100,0%	99,9%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	10471lx	2618lx	1163lx	654lx	419lx	186lx	105lx	47lx	26lx	17lx	12lx	7lx	4lx
Footcand.	973fcd	243fcd	108fcd	61fcd	39fcd	17fcd	10fcd	4fcd	2fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	1,3m	2,7m	4m	5,3m	6,6m	10m	13,3m	19,9m	26,6m	33,2m	39,9m	53,2m	66,5m
Beam wid.	4,4ft	8,8ft	13ft	17,4ft	21,8ft	32,7ft	43,6ft	65,4ft	87,2ft	109ft	130,8ft	174,4ft	218ft

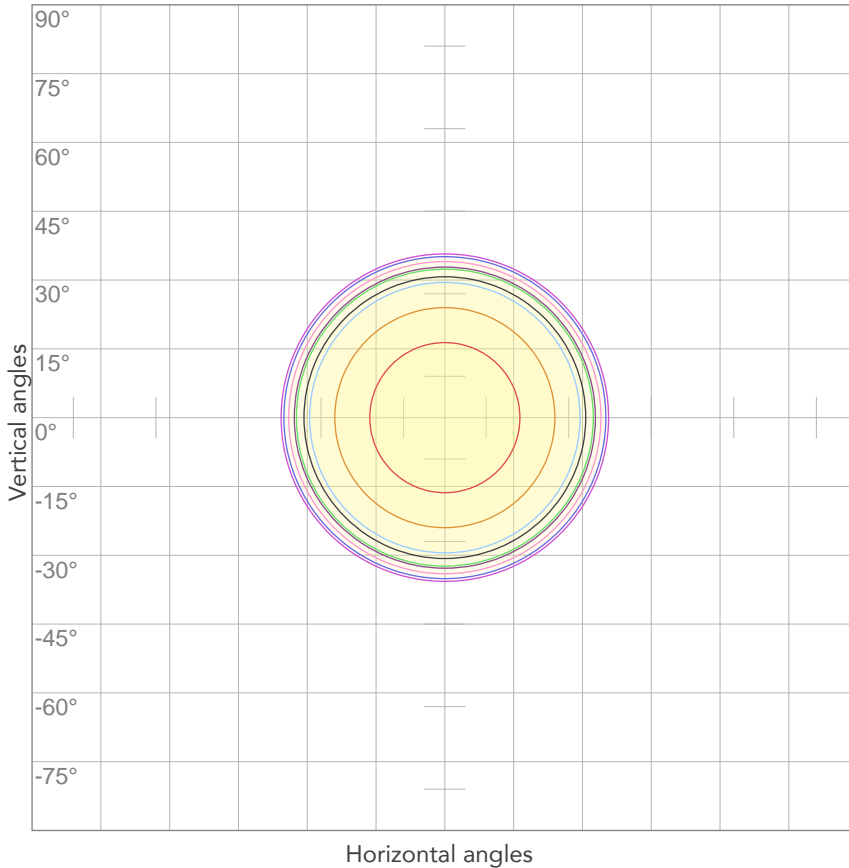
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,20A	258,4W	37lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



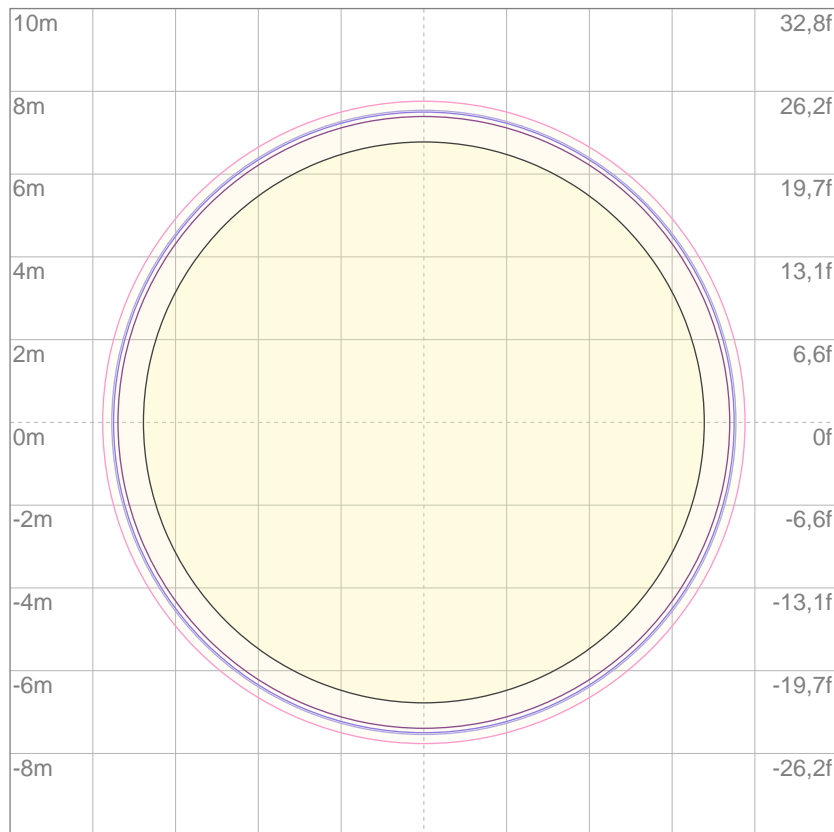
10%	1047 cd
20%	2094 cd
30%	3141 cd
40%	4188 cd
50%	5235 cd
60%	6282 cd
70%	7329 cd
80%	8376 cd

Conditions:

Number of c-planes: 2

Candela at center: 10471 cd

ISO LUX DIAGRAM



3%	3,14 lx
5%	5,24 lx
10%	10,5 lx
30%	31,4 lx
50%	52,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 105 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:

8130 lm

Peak candela output:

45395 cd

Light quality:

CRI: 98,0

Color temperature:

3136 K

PRODUCT NAME:

ECLFWTU

MEASUREMENT CONDITIONS:

Beam angle:

PRL15-30 Max Zoom

Target:

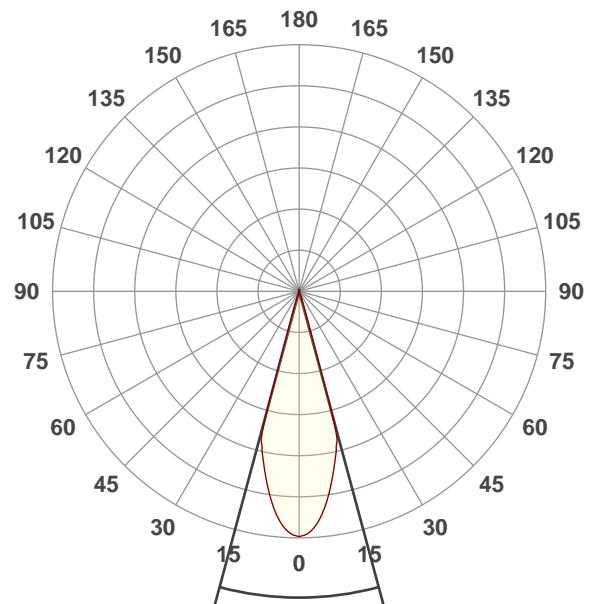
Warm White

Operator:

Paolo Carvone

Date and time:

17/11/2020 12:49:28

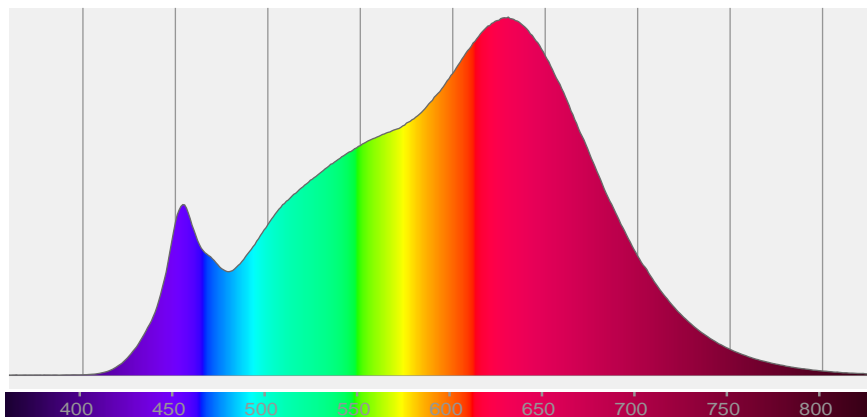


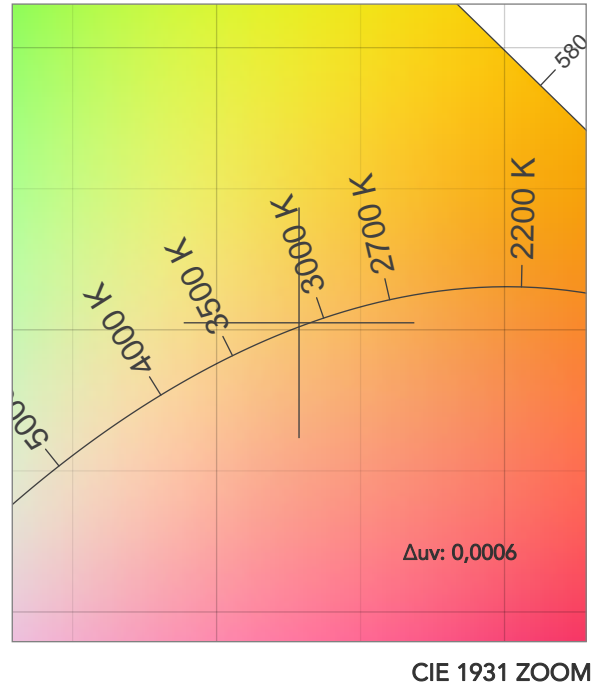
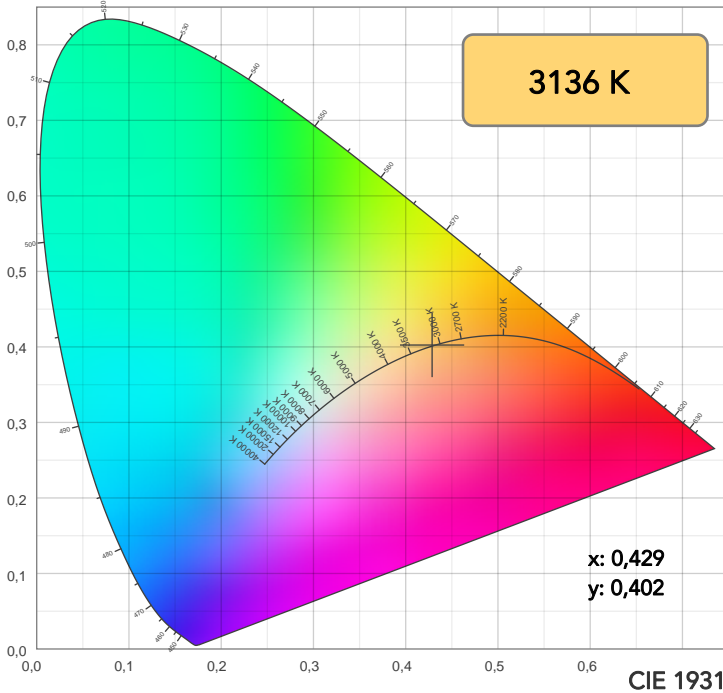
Beam angle 50%: 30,1°

Field angle 10%: 33,2°

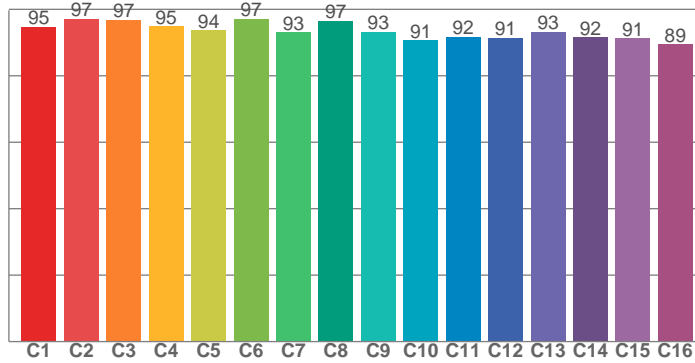
Cut off angle 2.5%: 35°

Spectra

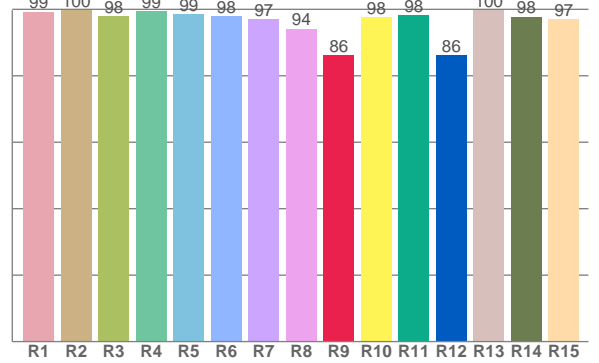




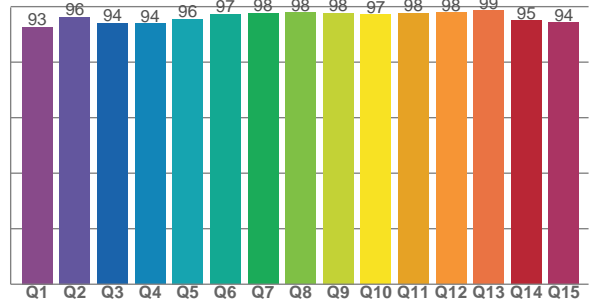
TM30: 93,7



CRI: 98,0 (R1-R8)



CQS: 95,6



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
99,3	99,7	97,8	99,4	98,6	97,8	97,0	94,2	86,2	97,7	98,2	86,2	99,7	97,8	97,1

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,7	97,2	96,8	94,9	93,6	97,1	93,1	96,6	93,2	90,7	91,7	91,5	93,2	91,5	91,3	89,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,6	96,2	94,0	93,8	95,5	97,2	97,6	97,9	97,7	97,2	97,6	97,8	98,5	95,0	94,2

COLOR PARAMETERS

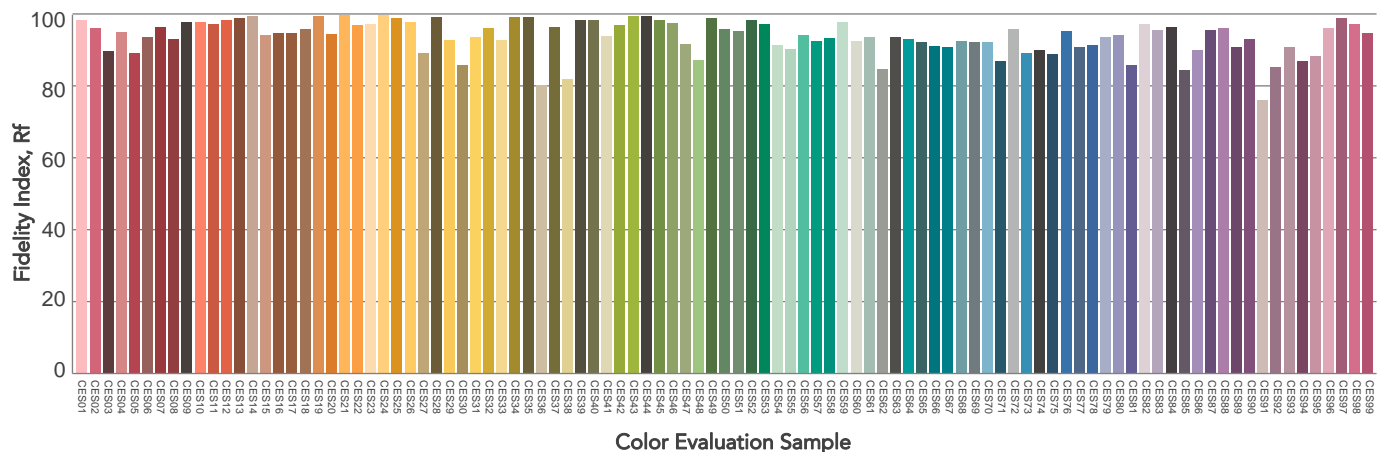
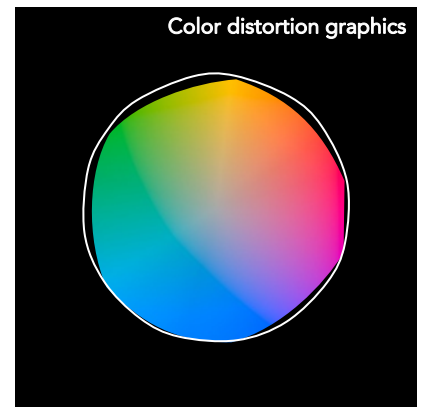
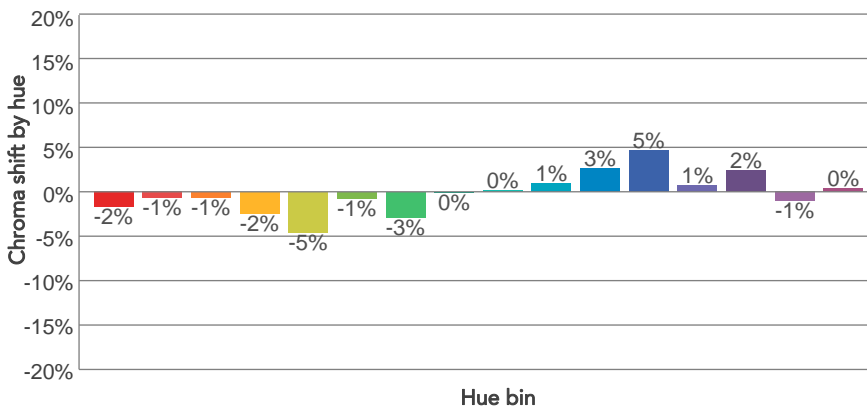
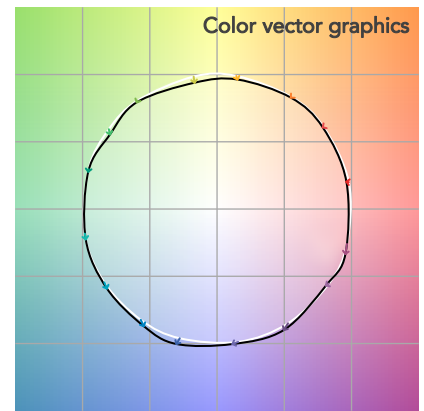
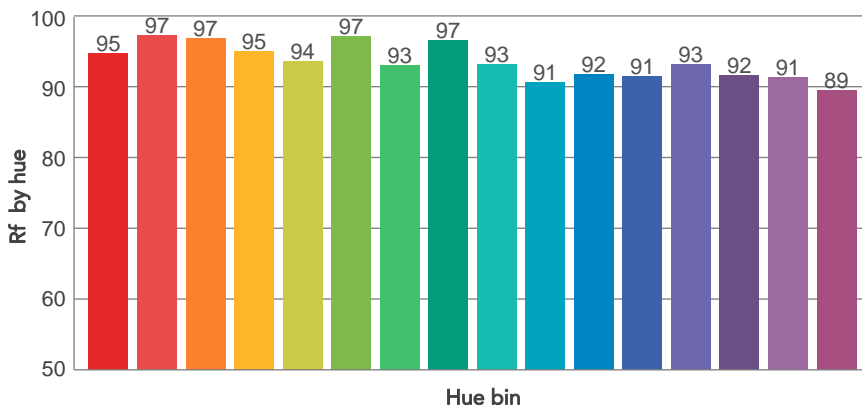
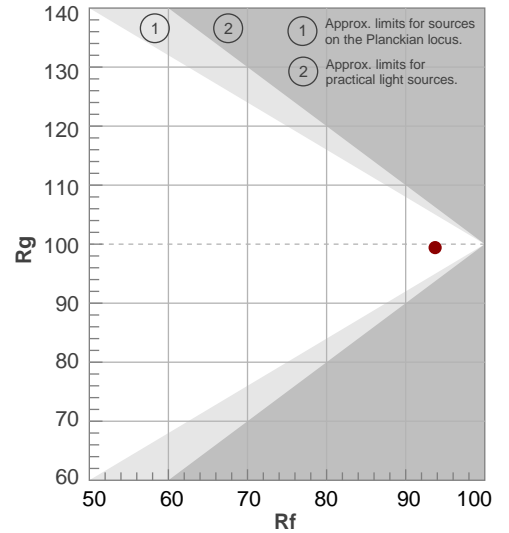
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3136 K	98,0	86,2	93,7	99,4	95,6	97	0,429	0,402	0,0006

TM30 DETAILS

Rf 93,7
Fidelity index Rf

Rg 99,4
Gammut index

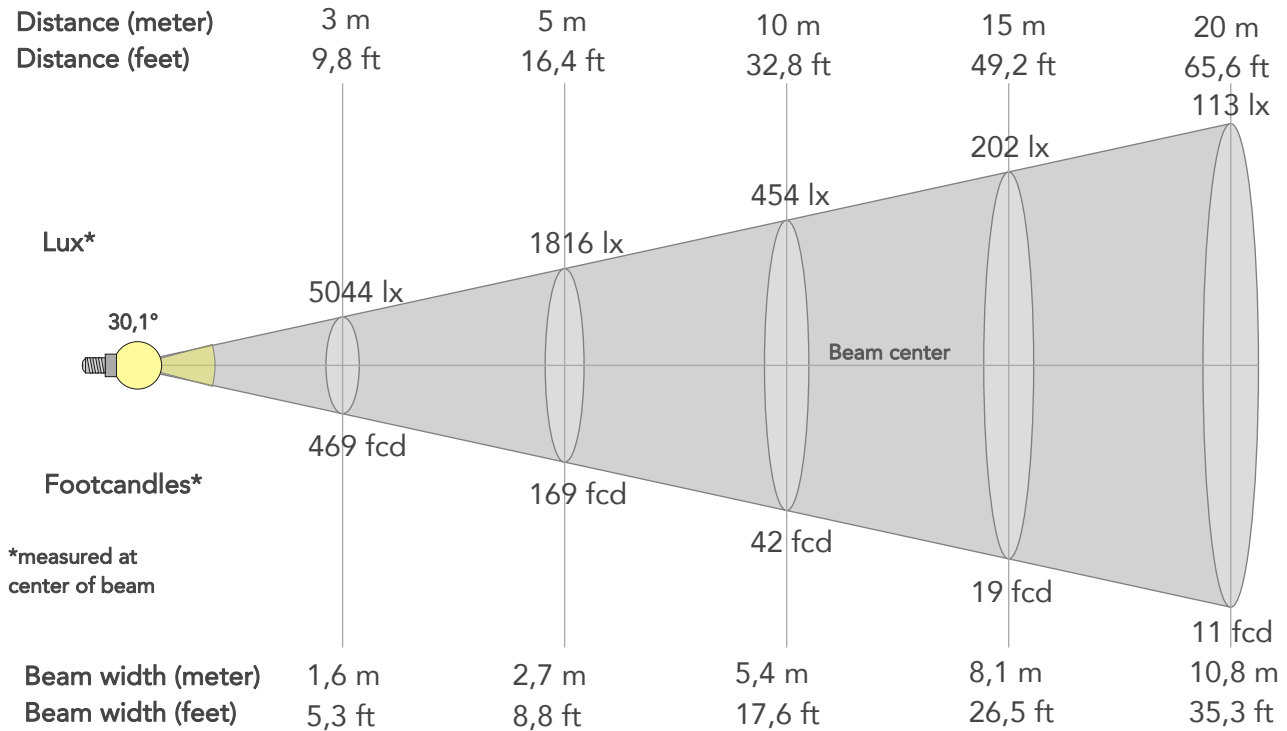
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	1%
2	97	-1%	0%
3	97	-1%	0%
4	95	-2%	-1%
5	94	-5%	0%
6	97	-1%	1%
7	93	-3%	3%
8	97	0%	2%
9	93	0%	4%
10	91	1%	5%
11	92	3%	5%
12	91	5%	-2%
13	93	1%	-4%
14	92	2%	-5%
15	91	-1%	-2%
16	89	0%	-8%



BEAM DETAILS



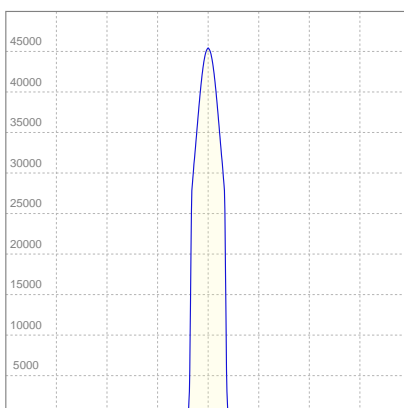
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,1°	33,2°	35°	100,0%	100,0%



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	45395lx	11349lx	5044lx	2837lx	1816lx	807lx	454lx	202lx	113lx	73lx	50lx	28lx	18lx
Footcand.	4217fcd	1054fcd	469fcd	264fcd	169fcd	75fcd	42fcd	19fcd	11fcd	7fcd	5fcd	3fcd	2fcd
Beam wid.	0,5m	1,1m	1,6m	2,2m	2,7m	4m	5,4m	8,1m	10,8m	13,4m	16,1m	21,5m	26,9m
Beam wid.	1,8ft	3,6ft	5,3ft	7ft	8,8ft	13,2ft	17,6ft	26,5ft	35,3ft	44,1ft	52,9ft	70,6ft	88,2ft

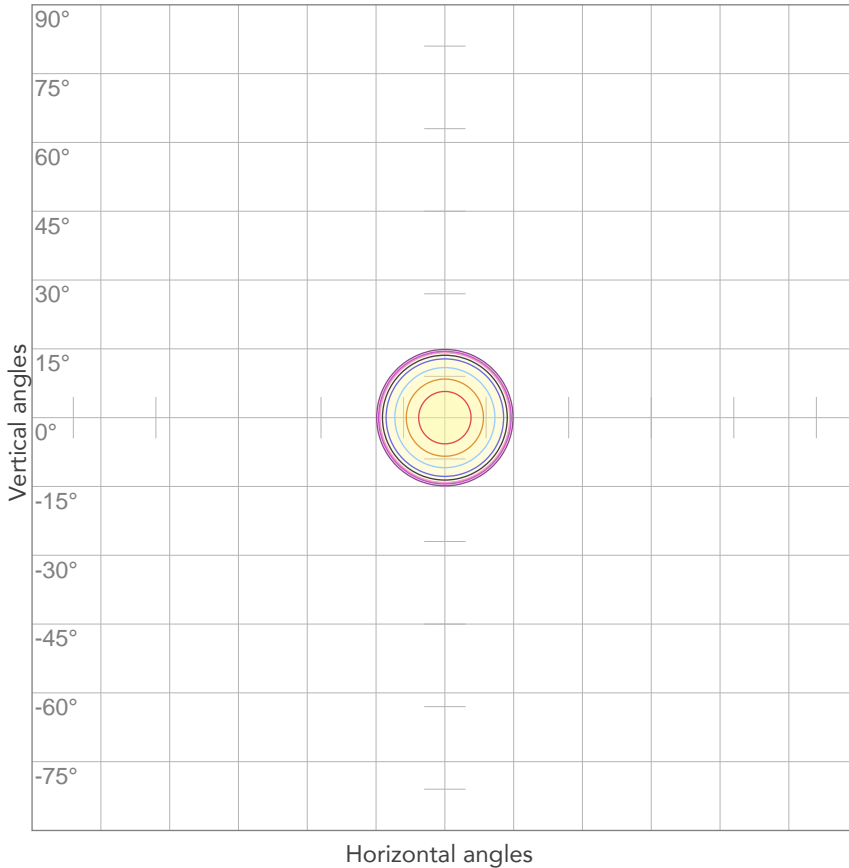
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,21A	263,2W	31lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



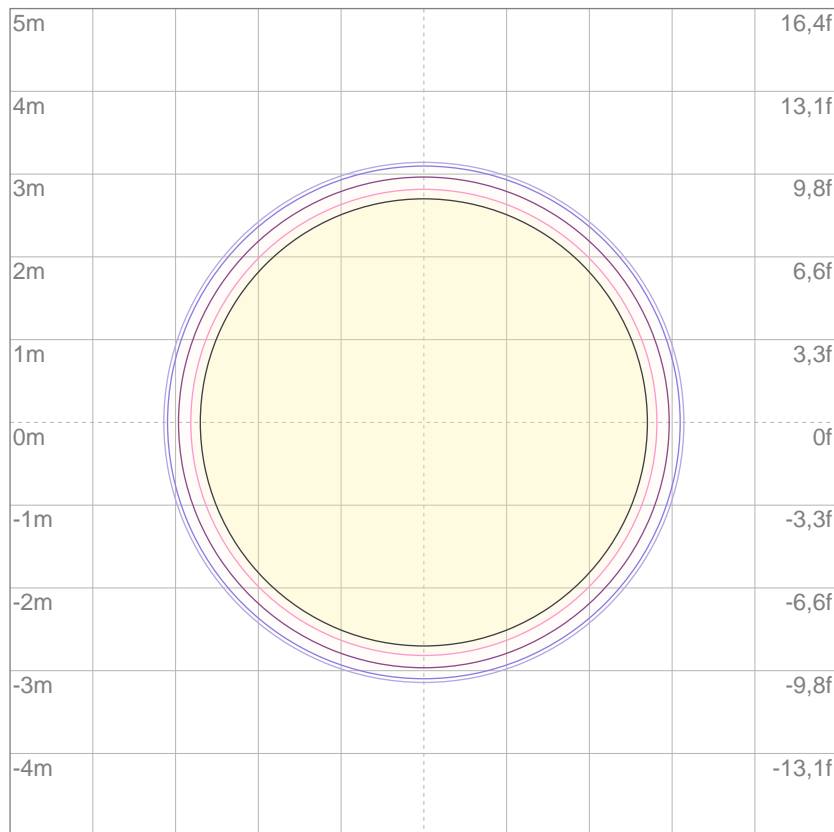
10%	4539 cd
20%	9079 cd
30%	13618 cd
40%	18158 cd
50%	22697 cd
60%	27237 cd
70%	31776 cd
80%	36316 cd

Conditions:

Number of c-planes: 2

Candela at center: 45395 cd

ISO LUX DIAGRAM



3%	13,6 lx
5%	22,7 lx
10%	45,4 lx
30%	136 lx
50%	227 lx

Conditions:

Number of c-planes: 2

Lux at center: 454 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:

7483 lm

Peak candela output:

136680 cd

Light quality:

CRI: 98,0

Color temperature:

3140 K

PRODUCT NAME:

ECLFWTU

MEASURAMENT CONDITIONS:

Beam angle:

PRL15-30 MIn Zoom

Target:

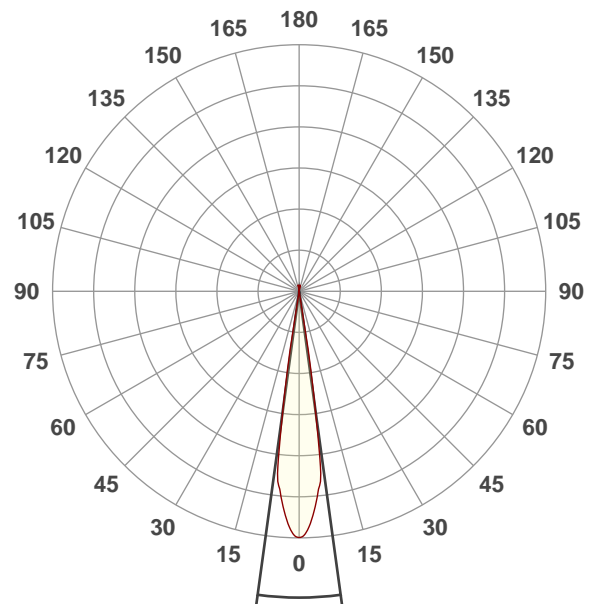
Warm White

Operator:

Paolo Carvone

Date and time:

17/11/2020 12:47:03

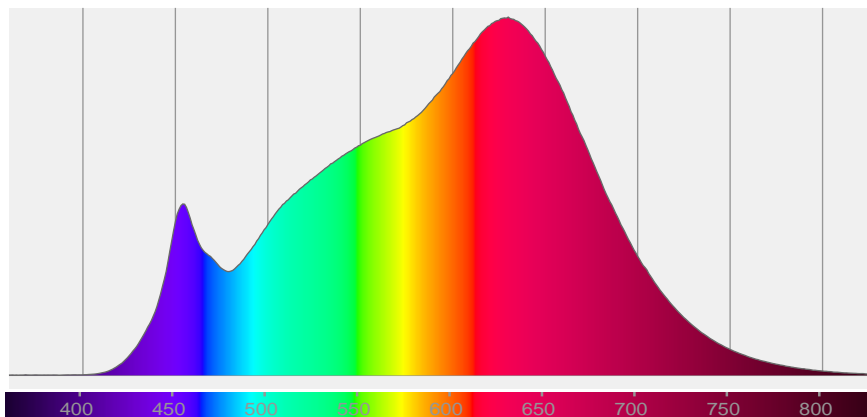


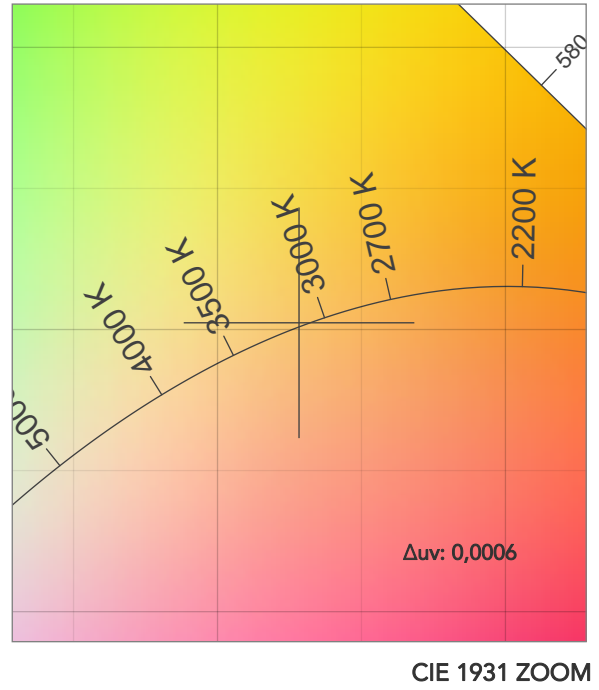
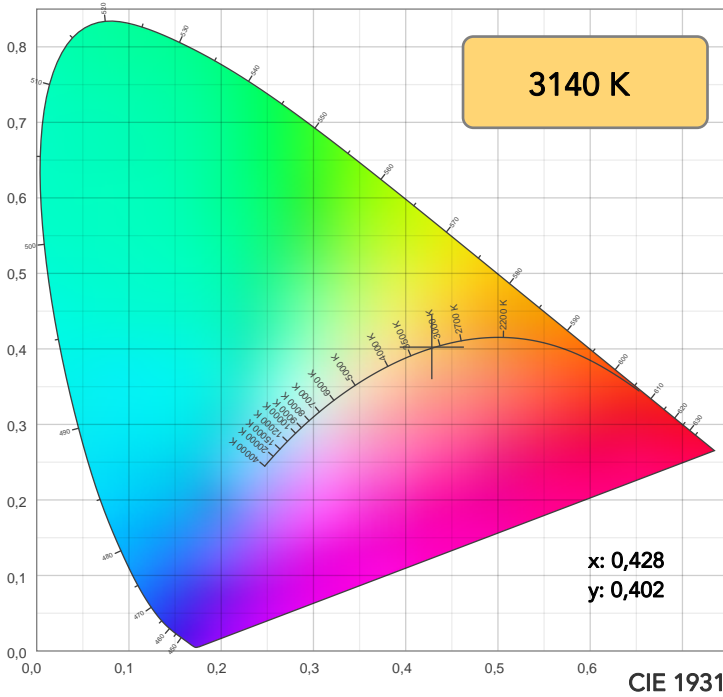
Beam angle 50%: 15,6°

Field angle 10%: 19°

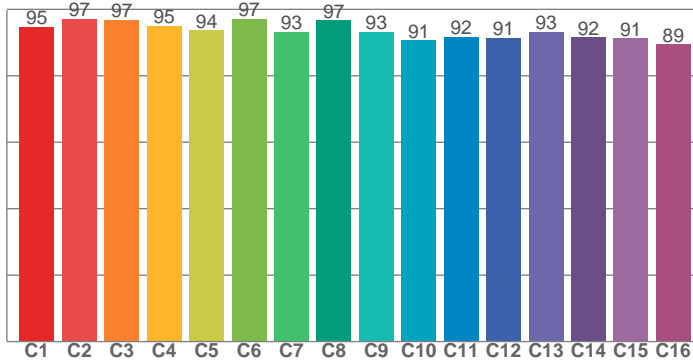
Cut off angle 2.5%: 19,7°

Spectra

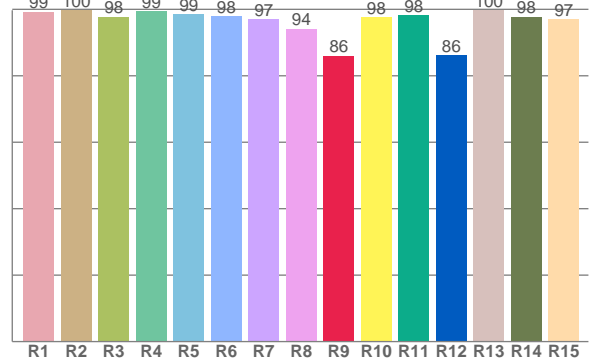




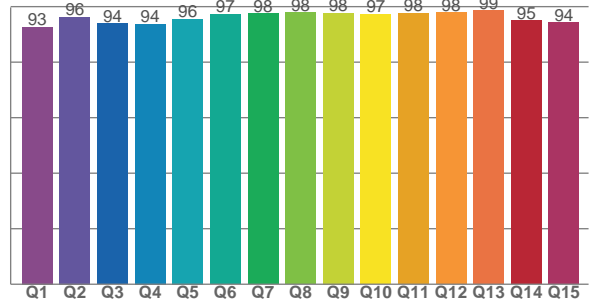
TM30: 93,7



CRI: 98,0 (R1-R8)



CQS: 95,6



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
99,3	99,7	97,8	99,4	98,6	97,9	97,0	94,1	86,1	97,6	98,3	86,1	99,7	97,8	97,0

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
94,6	97,2	96,8	95,0	93,6	97,2	93,1	96,7	93,2	90,7	91,7	91,5	93,2	91,5	91,3	89,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,6	96,3	93,9	93,8	95,5	97,2	97,5	97,9	97,8	97,2	97,6	97,9	98,5	95,0	94,2

COLOR PARAMETERS

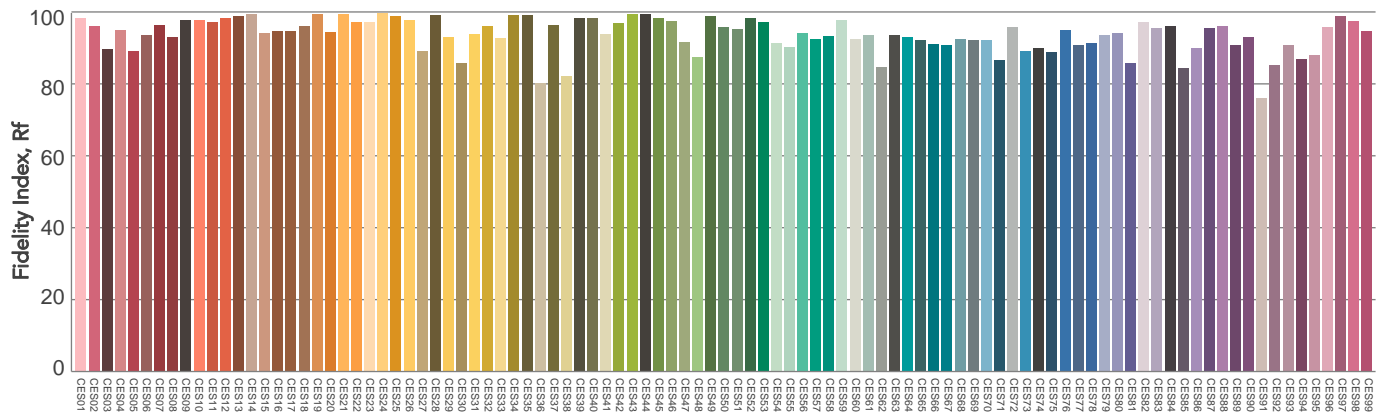
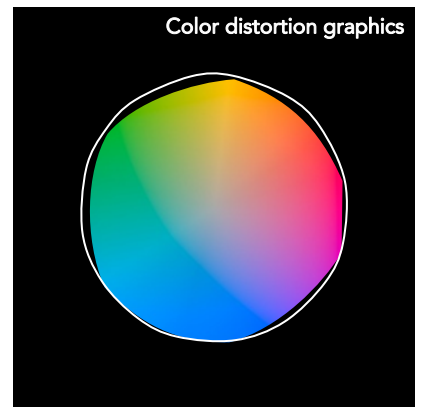
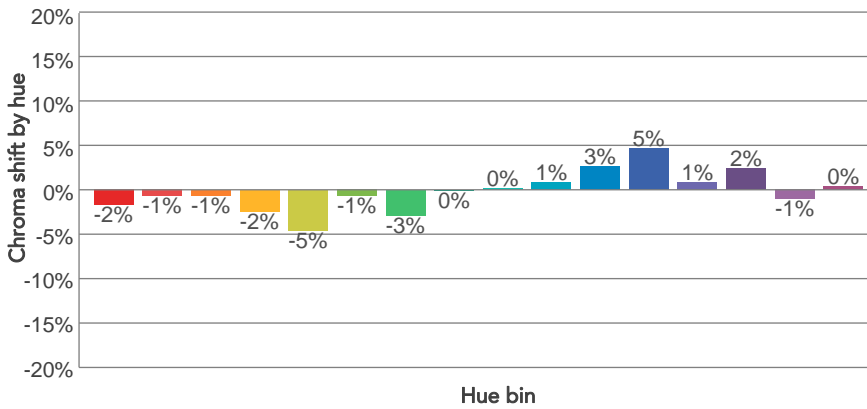
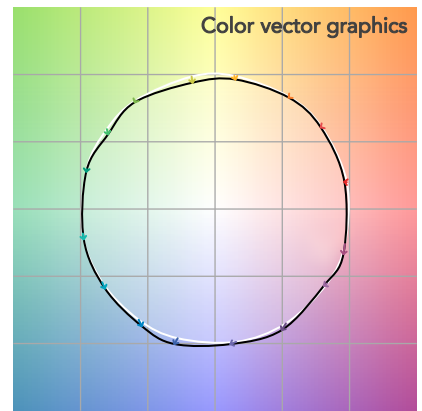
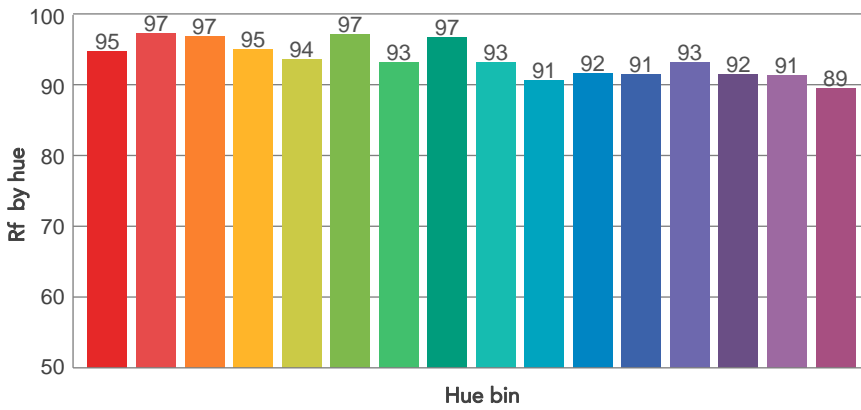
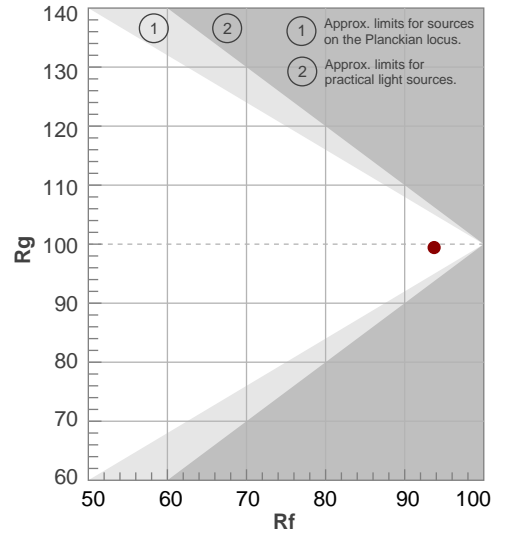
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3140 K	98,0	86,1	93,7	99,4	95,6	97	0,428	0,402	0,0006

TM30 DETAILS

Rf 93,7
Fidelity index Rf

Rg 99,4
Gammut index

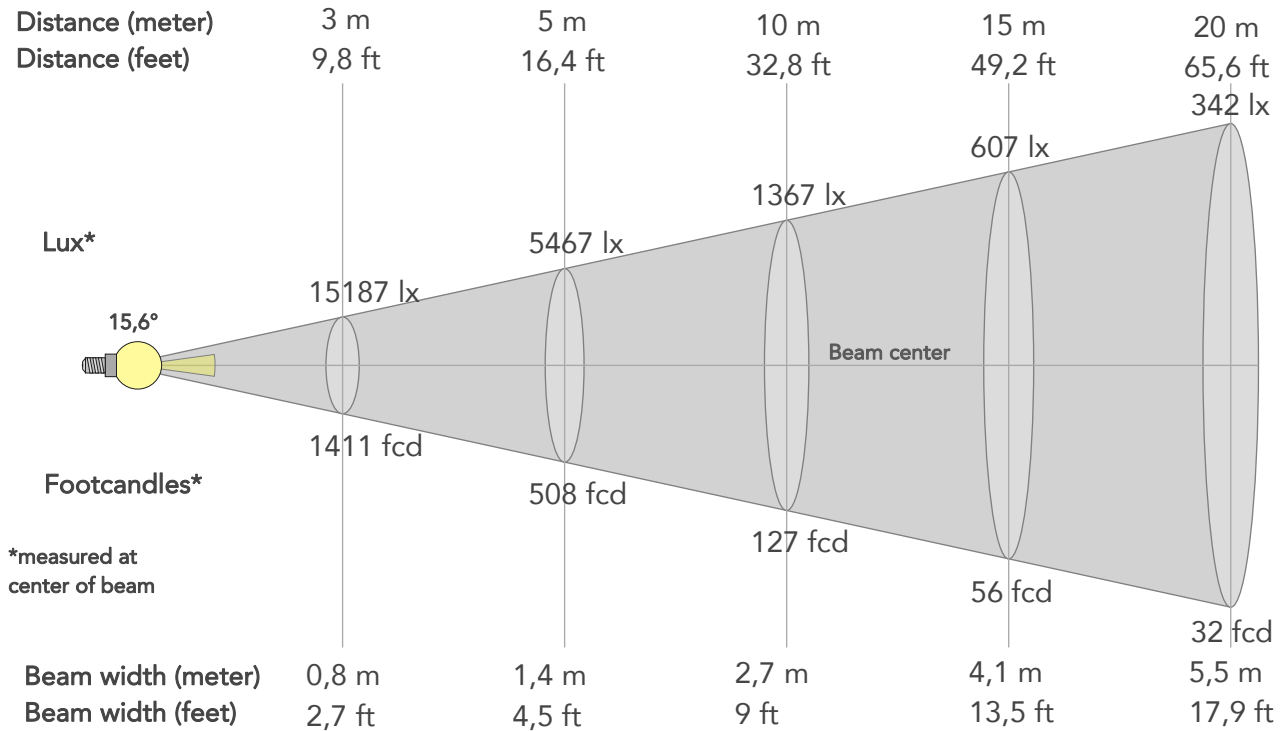
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	1%
2	97	-1%	0%
3	97	-1%	0%
4	95	-2%	-1%
5	94	-5%	0%
6	97	-1%	1%
7	93	-3%	3%
8	97	0%	2%
9	93	0%	4%
10	91	1%	5%
11	92	3%	5%
12	91	5%	-2%
13	93	1%	-4%
14	92	2%	-5%
15	91	-1%	-3%
16	89	0%	-8%



BEAM DETAILS



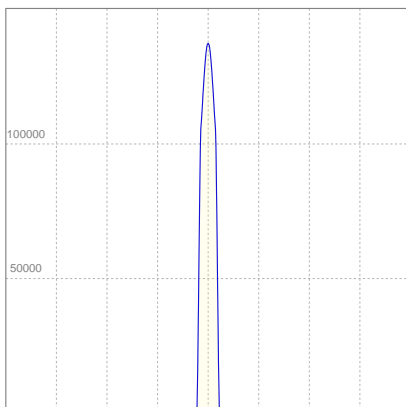
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,6°	19°	19,7°	100,0%	100,0%



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	136680lx	34170lx	15187lx	8543lx	5467lx	2430lx	1367lx	607lx	342lx	219lx	152lx	85lx	55lx
Footcand.	12698fcd	3174fcd	1411fcd	794fcd	508fcd	226fcd	127fcd	56fcd	32fcd	20fcd	14fcd	8fcd	5fcd
Beam wid.	0,3m	0,5m	0,8m	1,1m	1,4m	2,1m	2,7m	4,1m	5,5m	6,8m	8,2m	10,9m	13,7m
Beam wid.	0,9ft	1,8ft	2,7ft	3,6ft	4,5ft	6,7ft	9ft	13,5ft	17,9ft	22,4ft	26,9ft	35,9ft	44,9ft

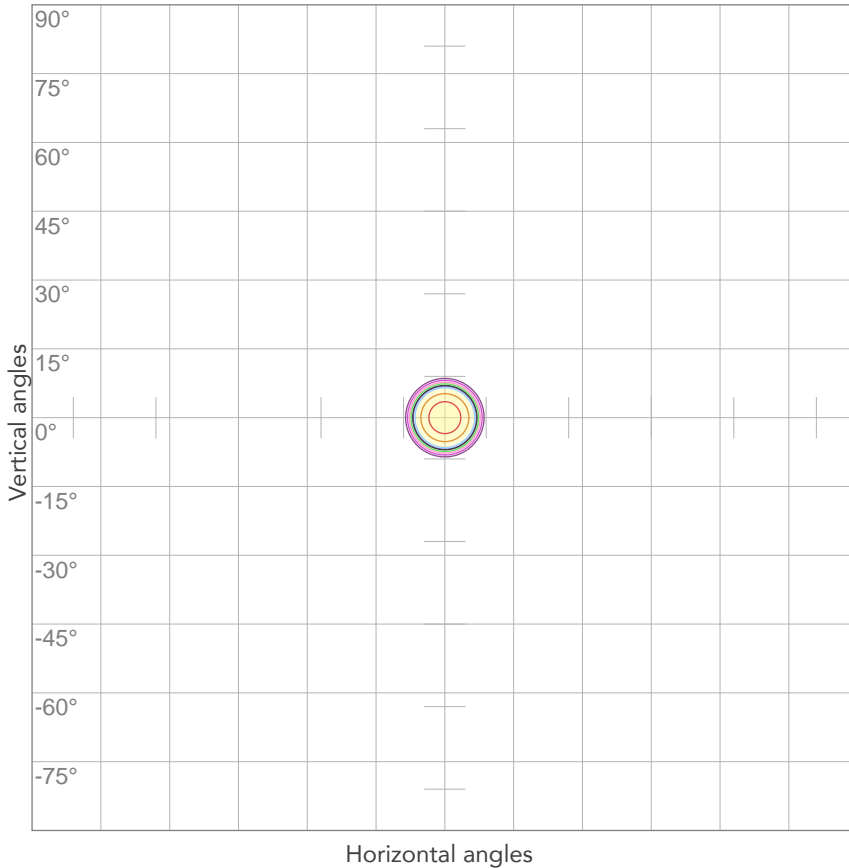
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,22A	263,2W	28lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



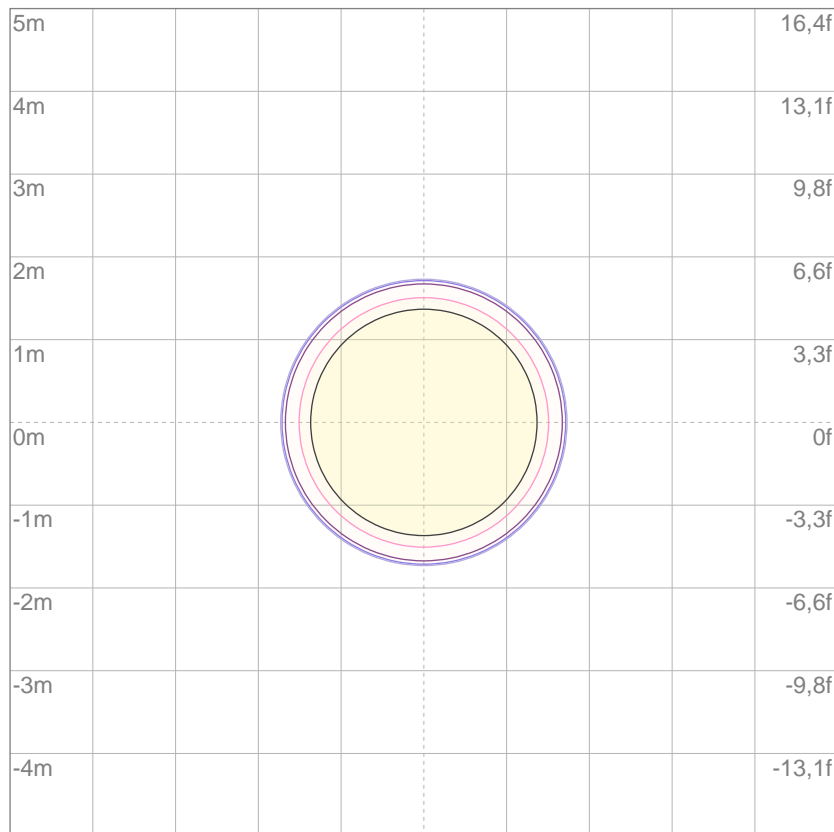
10%	13668 cd
20%	27336 cd
30%	41004 cd
40%	54672 cd
50%	68340 cd
60%	82008 cd
70%	95676 cd
80%	109344 cd

Conditions:

Number of c-planes: 2

Candela at center: 136680 cd

ISO LUX DIAGRAM



3%	41,0 lx
5%	68,3 lx
10%	137 lx
30%	410 lx
50%	683 lx

Conditions:

Number of c-planes: 2

Lux at center: 1367 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:

7745 lm

Peak candela output:

27139 cd

Light quality:

CRI: 98,0

Color temperature:

3127 K

PRODUCT NAME:

ECLFWTU

MEASUREMENT CONDITIONS:

Beam angle:

PRL25-50 Max Zoom

Target:

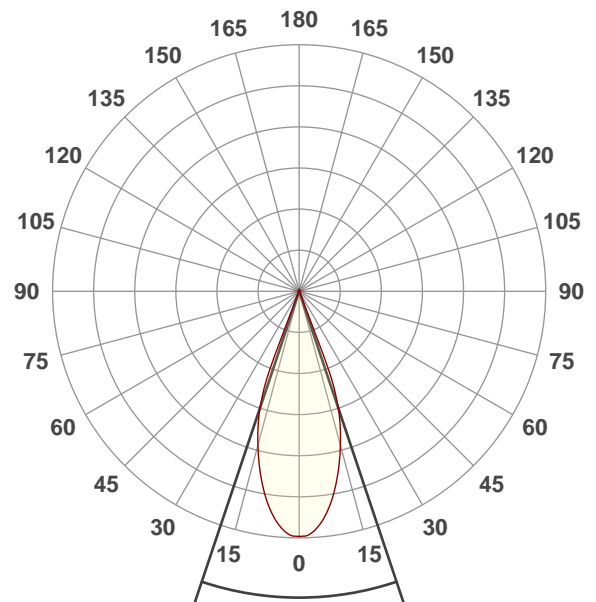
Warm White

Operator:

Paolo Carvone

Date and time:

17/11/2020 13:00:48

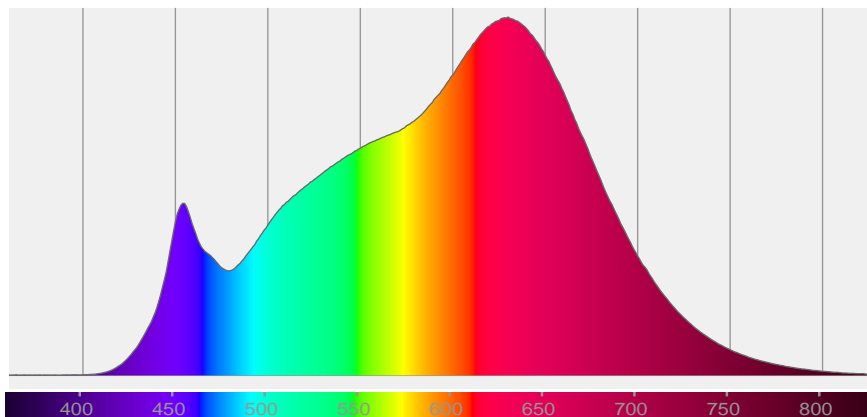


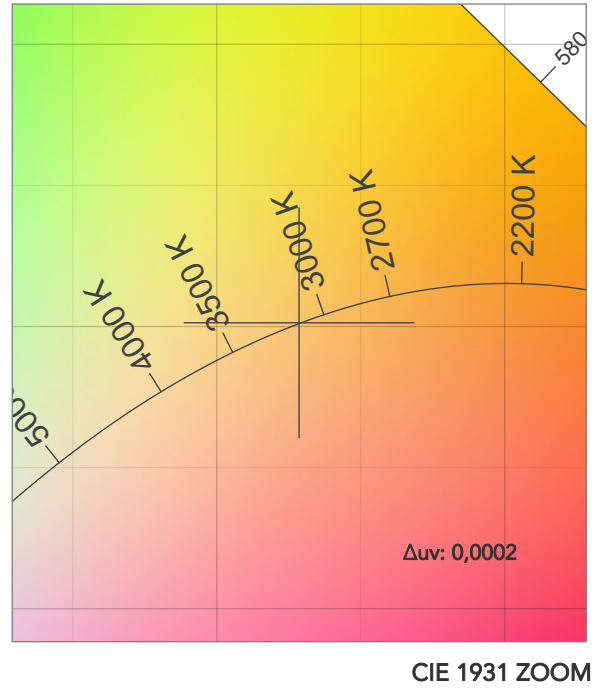
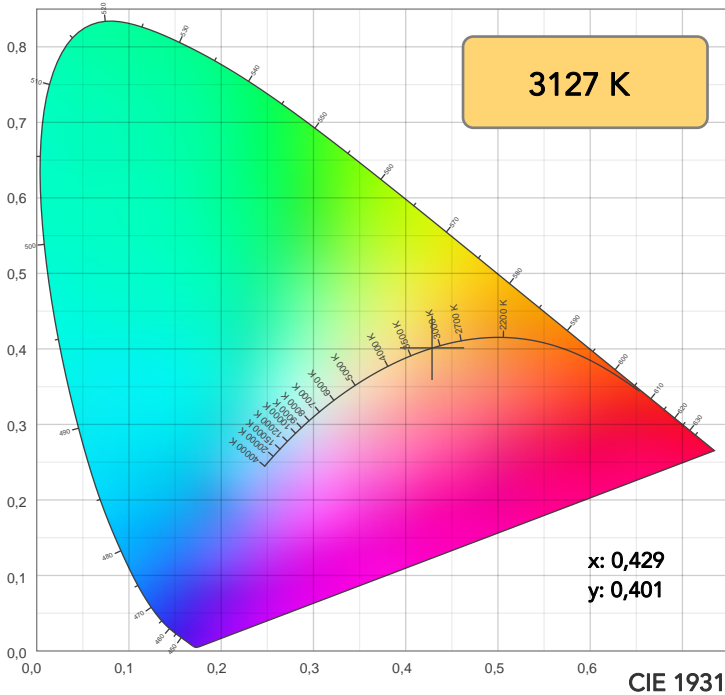
Beam angle 50%: 37,1°

Field angle 10%: 44°

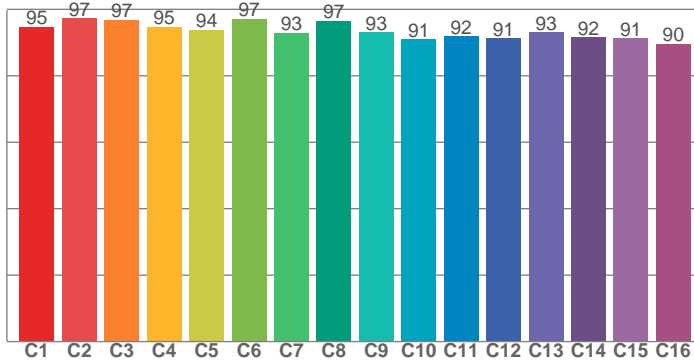
Cut off angle 2.5%: 45,7°

Spectra

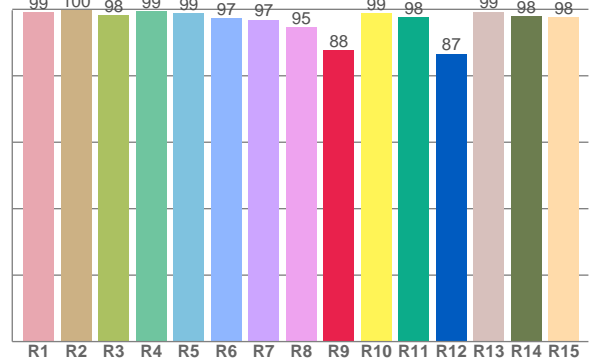




TM30: 93,8



CRI: 98,0 (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
99,2	99,7	98,2	99,5	98,8	97,4	96,9	94,6	87,6	98,9	97,7	86,6	99,3	98,0	97,6

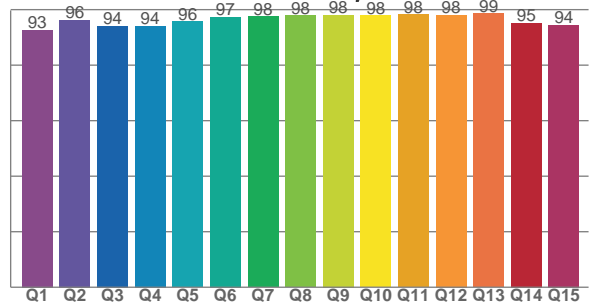
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,8	97,3	96,8	94,7	93,8	97,2	93,0	96,6	93,1	90,9	91,9	91,3	93,0	91,6	91,2	89,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,7	96,2	94,2	94,1	95,7	97,4	97,5	97,9	98,1	97,8	98,2	98,1	98,5	95,2	94,4

CQS: 95,7



COLOR PARAMETERS

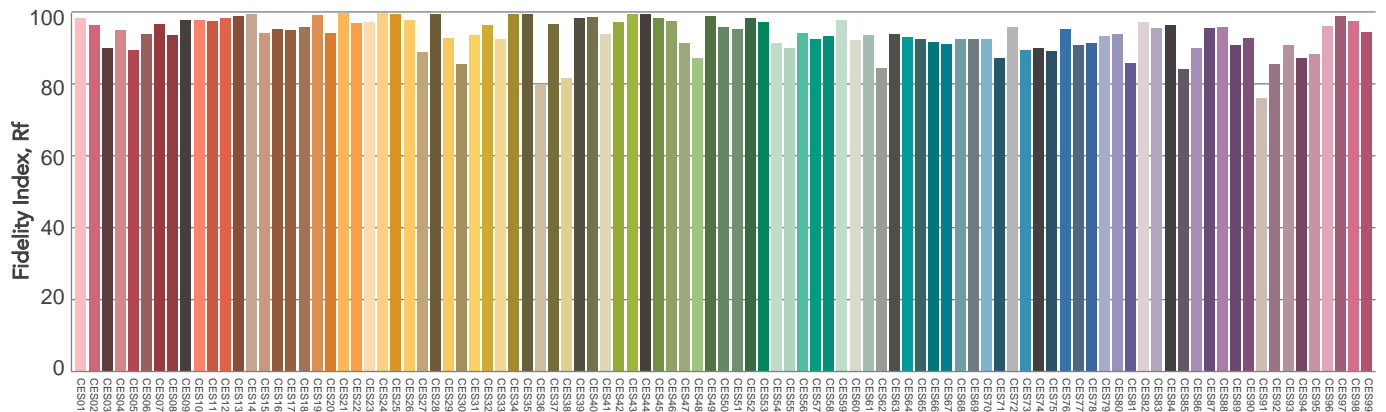
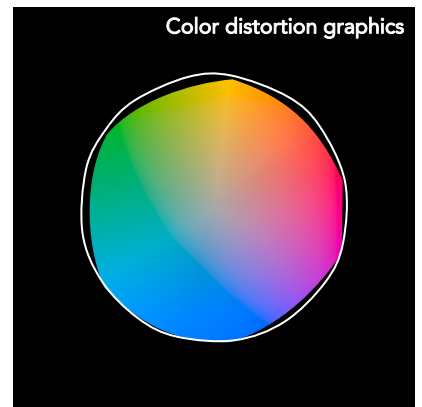
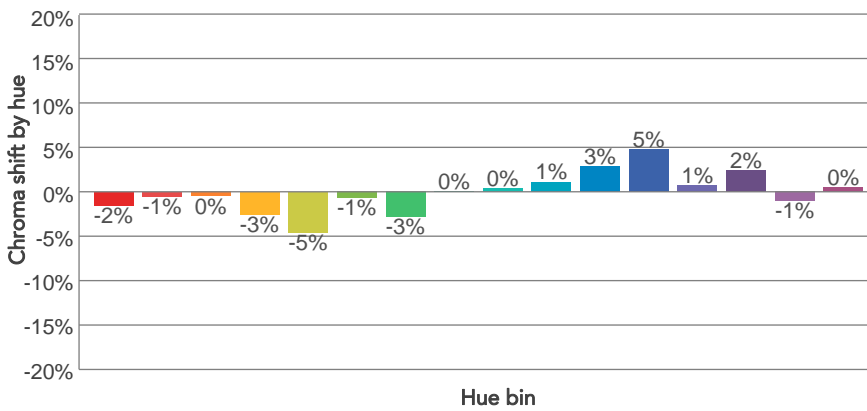
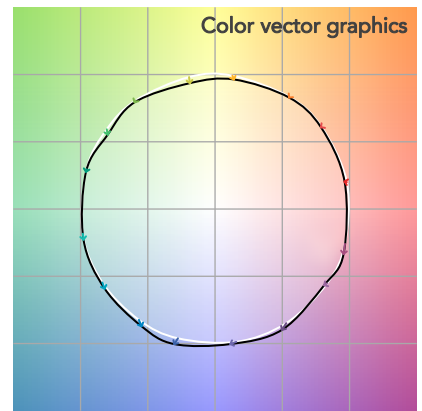
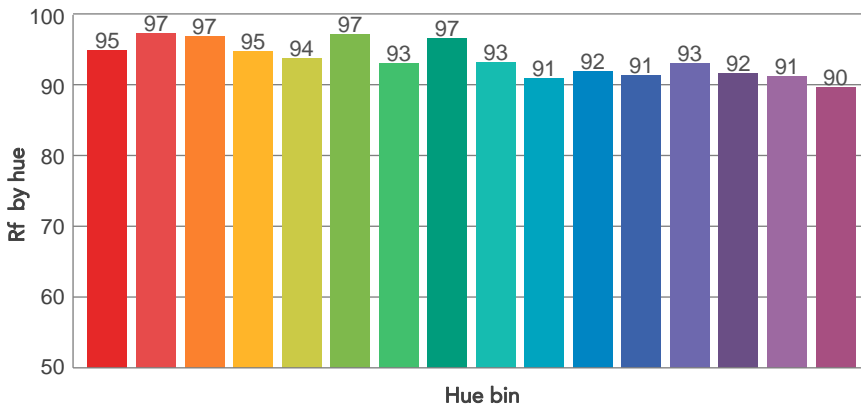
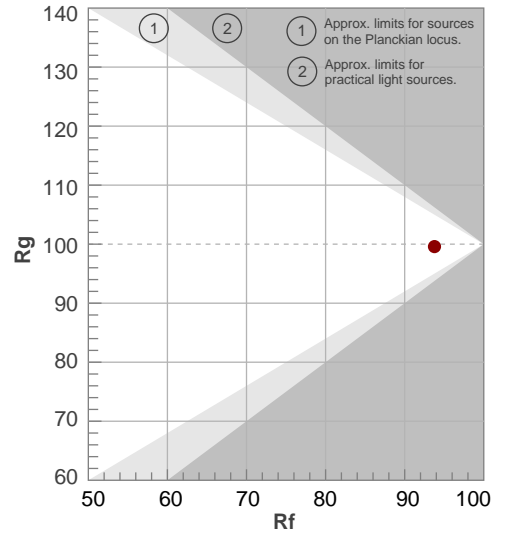
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3127 K	98,0	87,6	93,8	99,6	95,7	98	0,429	0,401	0,0002

TM30 DETAILS

Rf 93,8
Fidelity index Rf

Rg 99,6
Gammut index

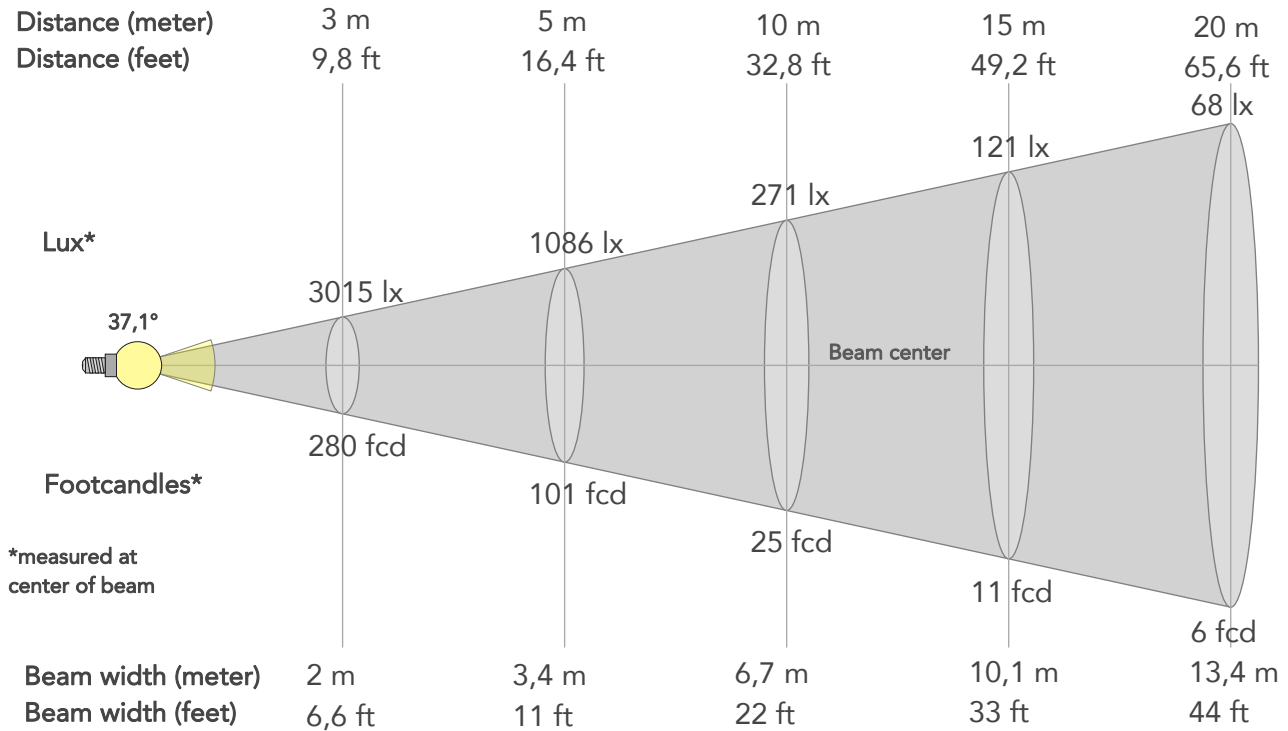
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	1%
2	97	-1%	0%
3	97	0%	0%
4	95	-3%	-2%
5	94	-5%	0%
6	97	-1%	1%
7	93	-3%	3%
8	97	0%	2%
9	93	0%	4%
10	91	1%	5%
11	92	3%	4%
12	91	5%	-2%
13	93	1%	-5%
14	92	2%	-5%
15	91	-1%	-2%
16	90	0%	-7%



BEAM DETAILS



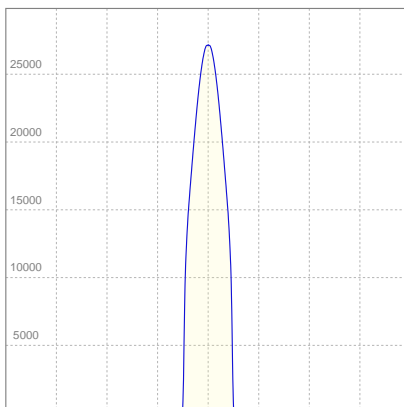
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,1°	44°	45,7°	99,9%	99,9%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	27139lx	6785lx	3015lx	1696lx	1086lx	482lx	271lx	121lx	68lx	43lx	30lx	17lx	11lx
Footcand.	2521fcd	630fcd	280fcd	158fcd	101fcd	45fcd	25fcd	11fcd	6fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,4m	5m	6,7m	10,1m	13,4m	16,8m	20,1m	26,8m	33,5m
Beam wid.	2,2ft	4,4ft	6,6ft	8,8ft	11ft	16,5ft	22ft	33ft	44ft	55ft	66ft	88ft	110ft

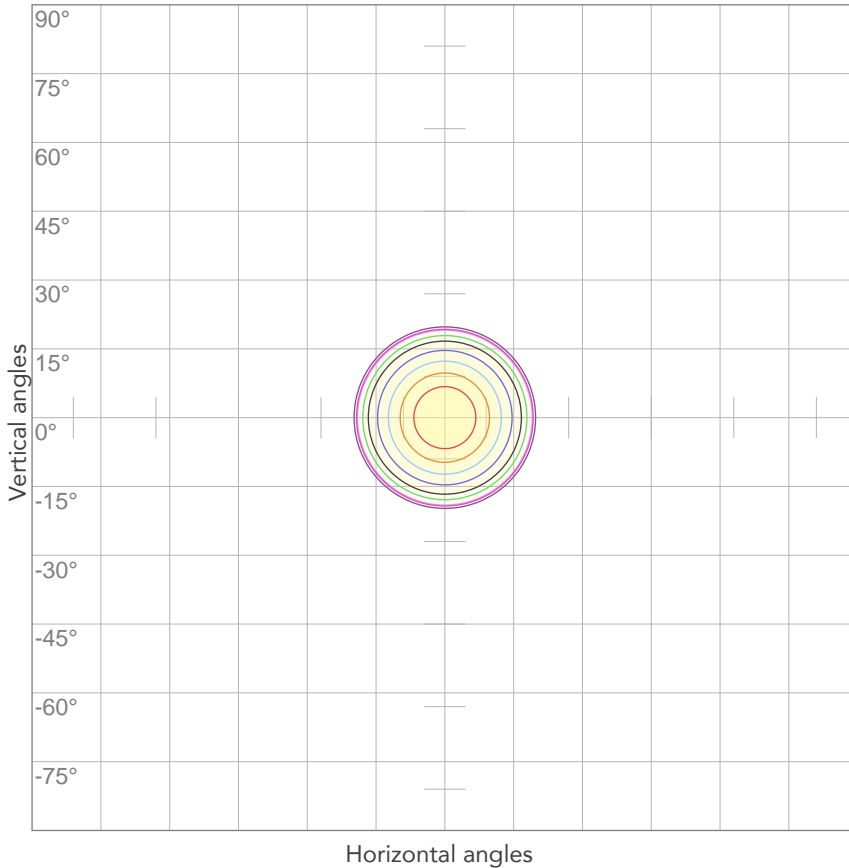
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,22A	263,3W	29lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



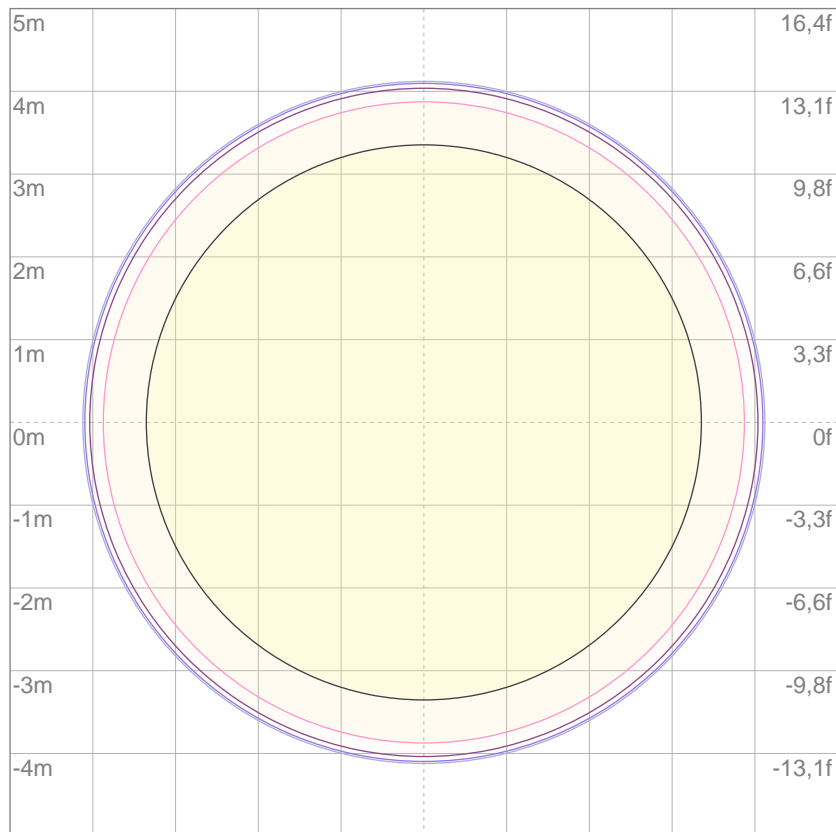
10%	2714 cd
20%	5428 cd
30%	8142 cd
40%	10856 cd
50%	13569 cd
60%	16283 cd
70%	18997 cd
80%	21711 cd

Conditions:

Number of c-planes: 2

Candela at center: 27139 cd

ISO LUX DIAGRAM



3%	8,14 lx
5%	13,6 lx
10%	27,1 lx
30%	81,4 lx
50%	136 lx

Conditions:

Number of c-planes: 2

Lux at center: 271 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:

7341 lm

Peak candela output:

61548 cd

Light quality:

CRI: 98,0

Color temperature:

3112 K

PRODUCT NAME:

ECLFWTU

MEASURAMENT CONDITIONS:

Beam angle:

PRL25-50 MIn Zoom

Target:

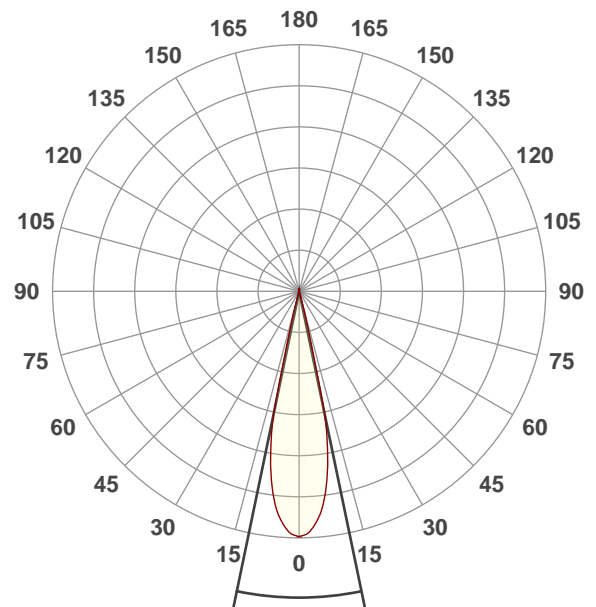
Warm White

Operator:

Paolo Carvone

Date and time:

17/11/2020 12:55:51

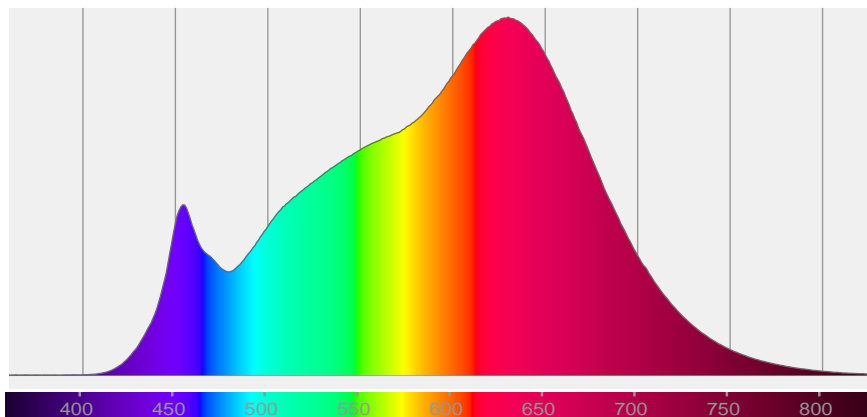


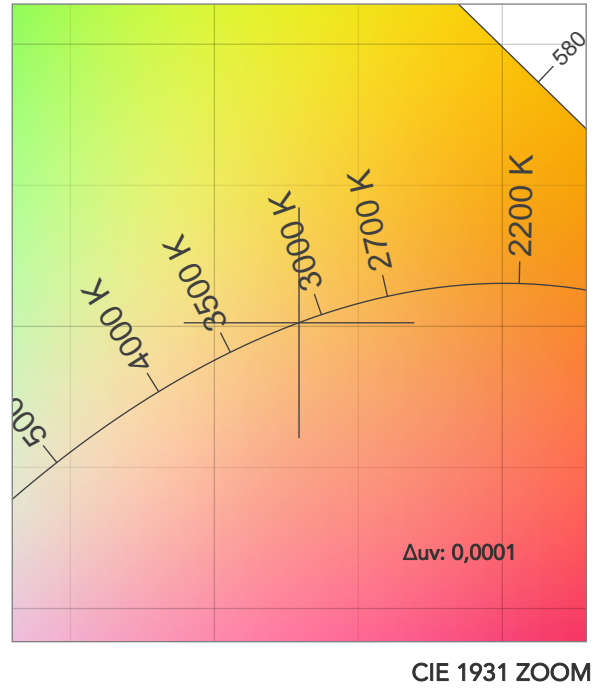
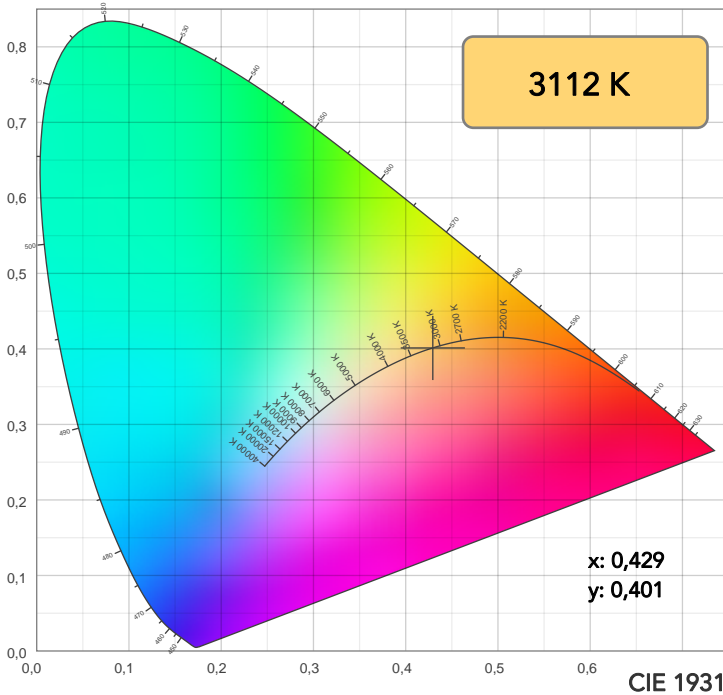
Beam angle 50%: 23,5°

Field angle 10%: 28,5°

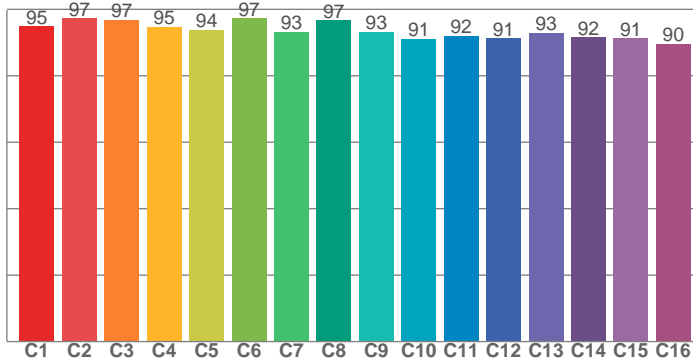
Cut off angle 2.5%: 30,5°

Spectra

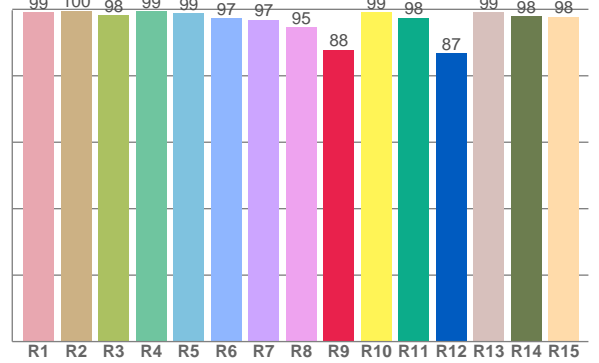




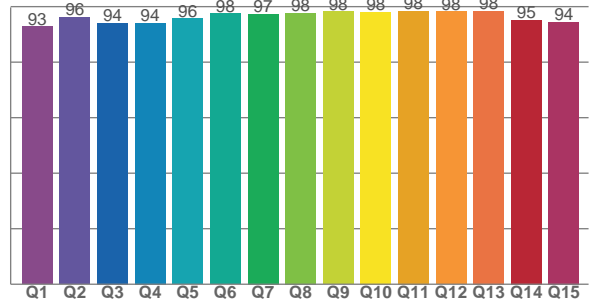
TM30: 93,8



CRI: 98,0 (R1-R8)



CQS: 95,8



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
99,1	99,6	98,3	99,5	98,8	97,3	96,9	94,7	87,9	99,1	97,5	86,8	99,2	98,0	97,7

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,8	97,3	96,8	94,8	93,9	97,2	93,1	96,7	93,2	91,0	92,0	91,3	93,0	91,6	91,3	89,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,8	96,2	94,2	94,1	95,8	97,5	97,4	97,8	98,2	98,0	98,4	98,2	98,4	95,2	94,4

COLOR PARAMETERS

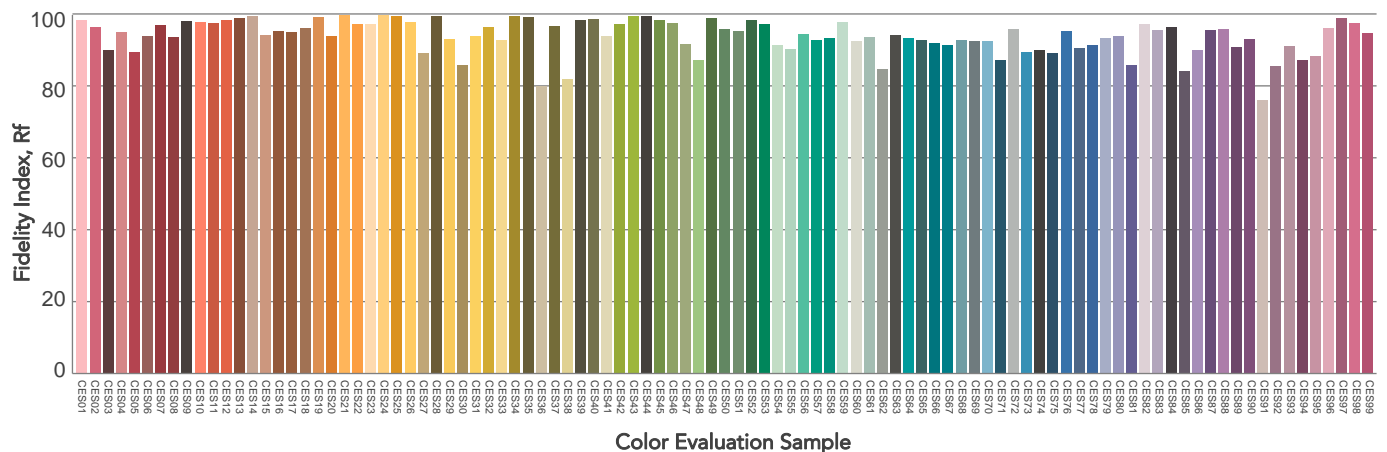
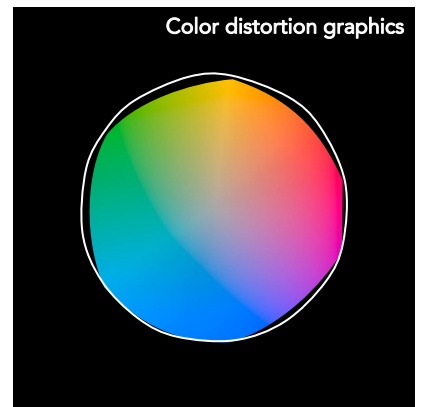
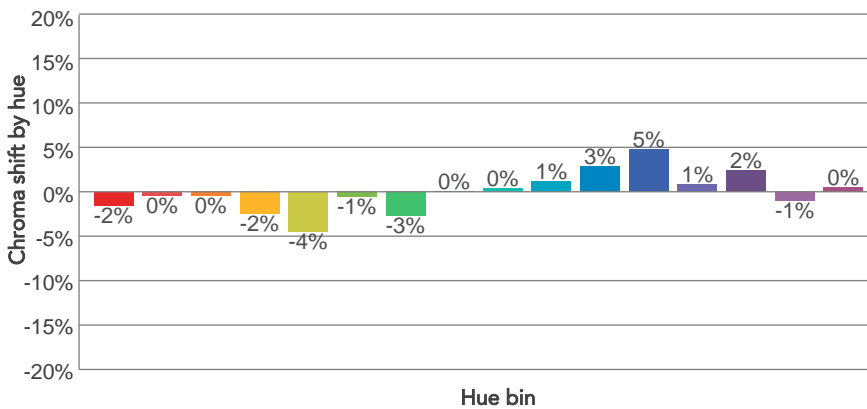
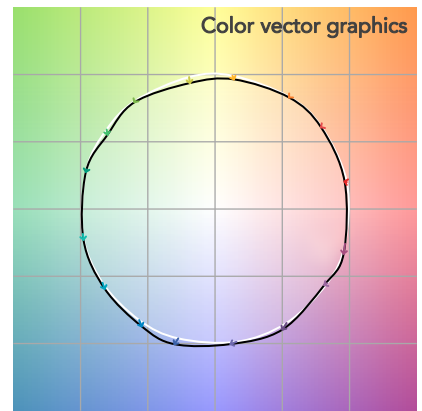
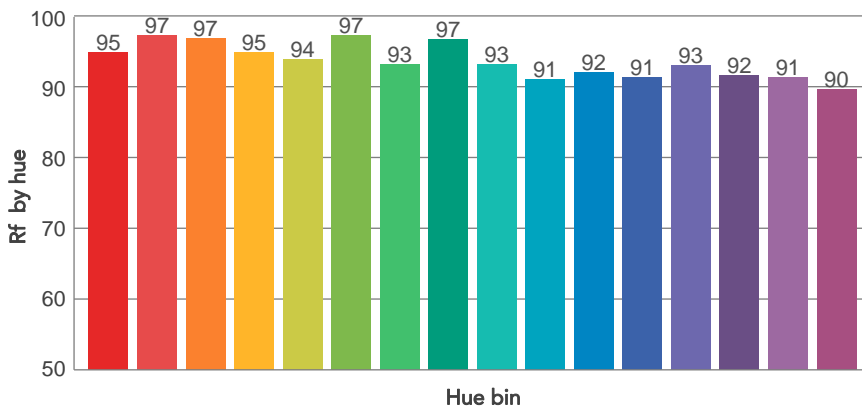
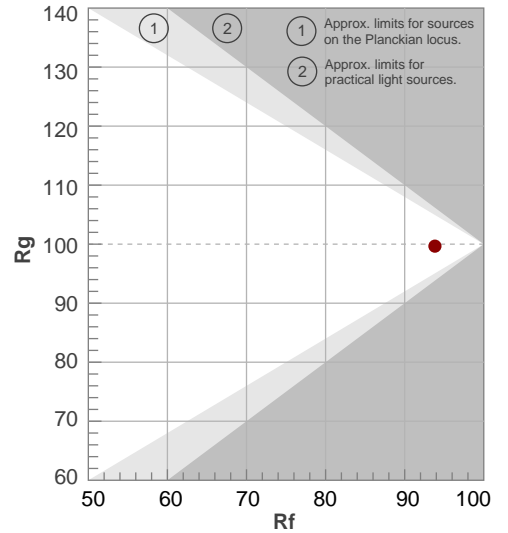
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3112 K	98,0	87,9	93,8	99,7	95,8	98	0,429	0,401	0,0001

TM30 DETAILS

Rf 93,8
Fidelity index Rf

Rg 99,7
Gammut index

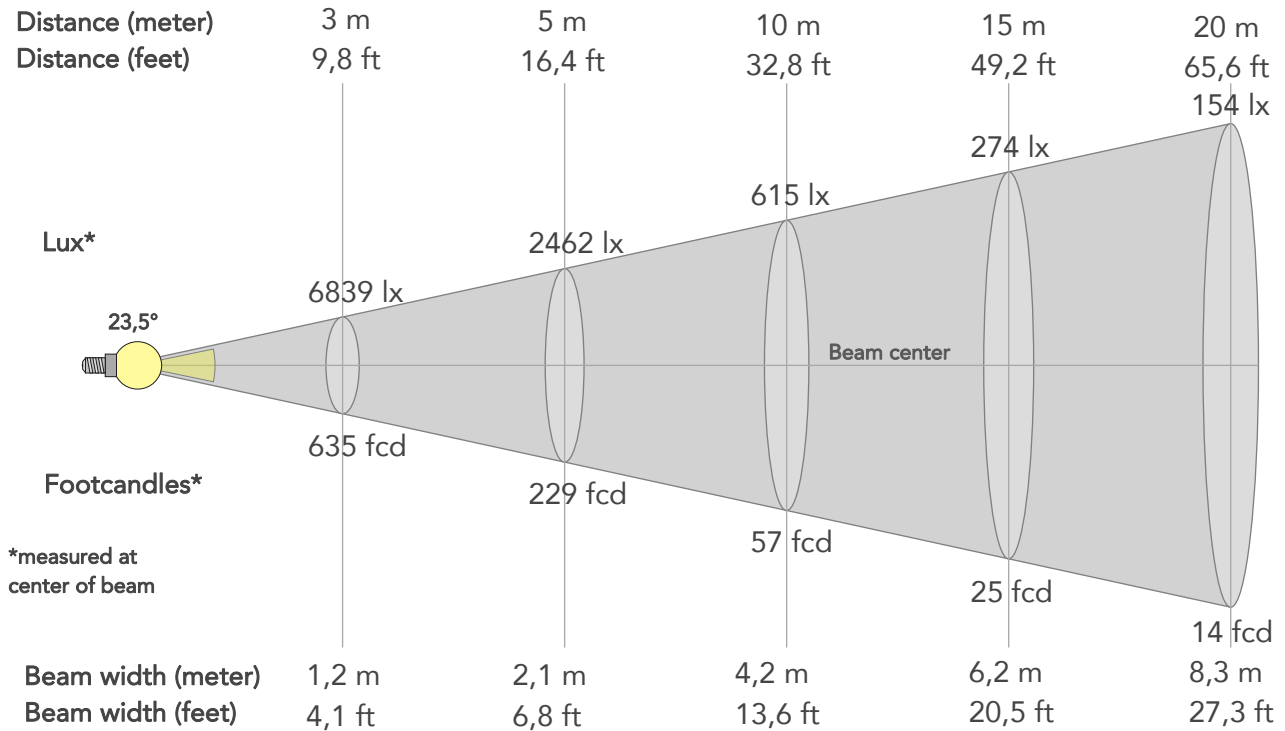
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	1%
2	97	0%	0%
3	97	0%	0%
4	95	-2%	-2%
5	94	-4%	0%
6	97	-1%	1%
7	93	-3%	3%
8	97	0%	2%
9	93	0%	4%
10	91	1%	5%
11	92	3%	4%
12	91	5%	-2%
13	93	1%	-5%
14	92	2%	-5%
15	91	-1%	-2%
16	90	0%	-7%



BEAM DETAILS



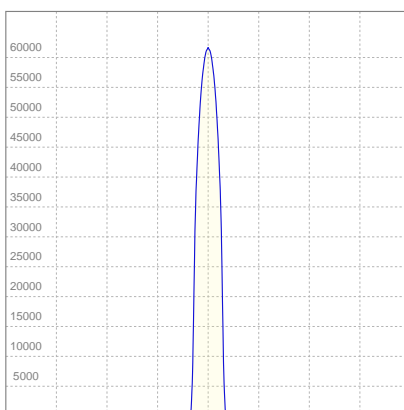
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,5°	28,5°	30,5°	100,0%	100,0%



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	61548lx	15387lx	6839lx	3847lx	2462lx	1094lx	615lx	274lx	154lx	98lx	68lx	38lx	25lx
Footcand.	5718fcd	1430fcd	635fcd	357fcd	229fcd	102fcd	57fcd	25fcd	14fcd	9fcd	6fcd	4fcd	2fcd
Beam wid.	0,4m	0,8m	1,2m	1,7m	2,1m	3,1m	4,2m	6,2m	8,3m	10,4m	12,5m	16,6m	20,8m
Beam wid.	1,4ft	2,7ft	4,1ft	5,4ft	6,8ft	10,2ft	13,6ft	20,5ft	27,3ft	34,1ft	40,9ft	54,5ft	68,2ft

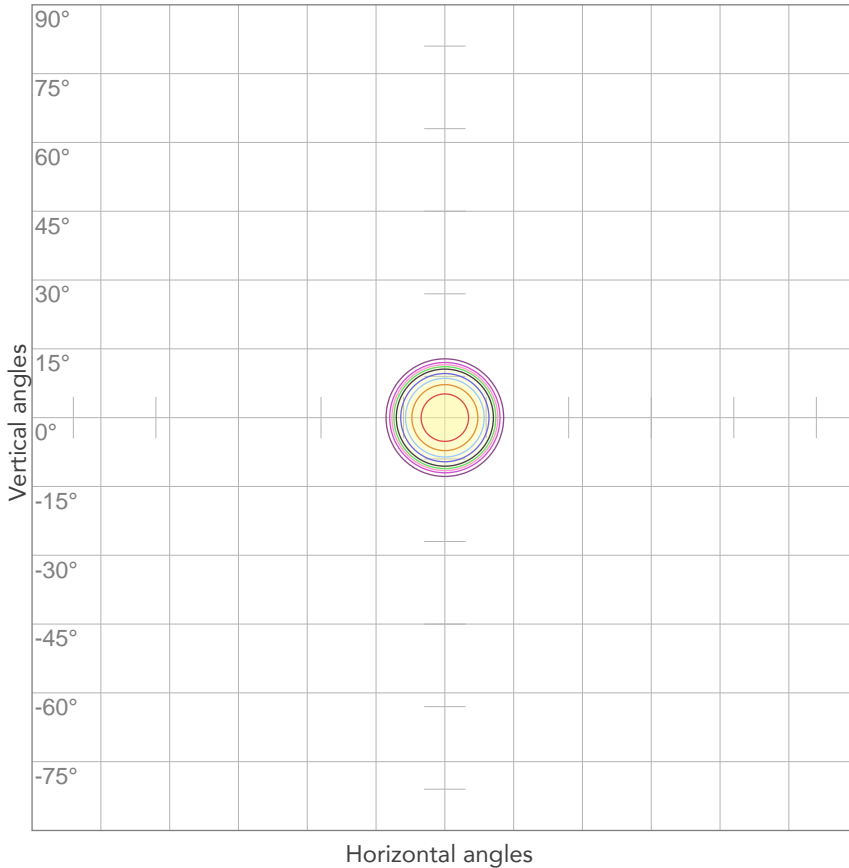
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	1,21A	263,1W	28lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



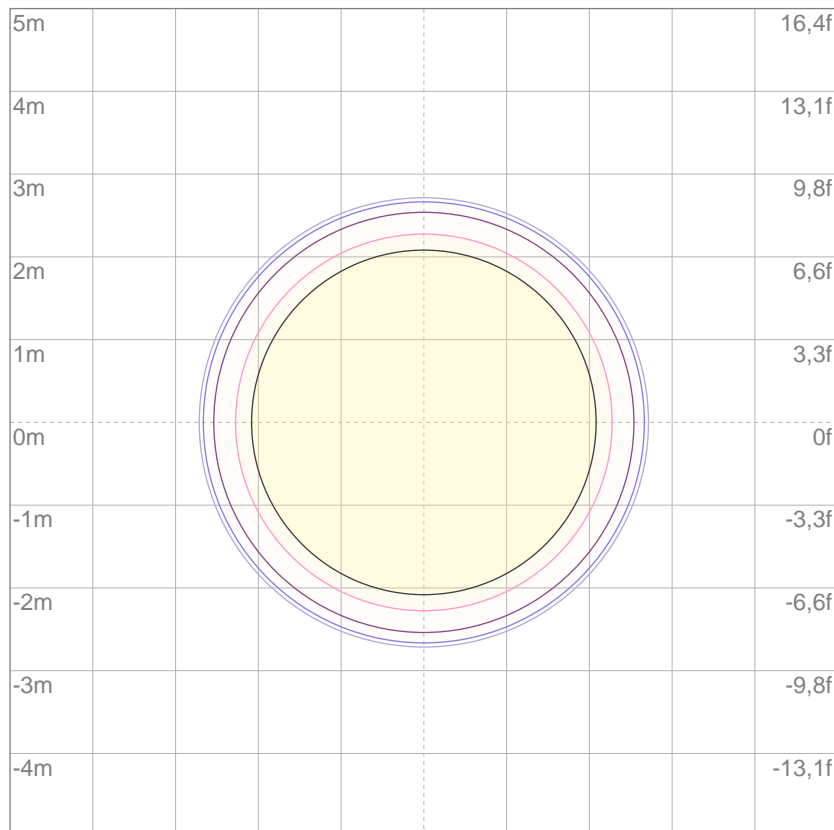
10%	6155 cd
20%	12310 cd
30%	18464 cd
40%	24619 cd
50%	30774 cd
60%	36929 cd
70%	43084 cd
80%	49239 cd

Conditions:

Number of c-planes: 2

Candela at center: 61548 cd

ISO LUX DIAGRAM



3%	18,5 lx
5%	30,8 lx
10%	61,5 lx
30%	185 lx
50%	308 lx

Conditions:

Number of c-planes: 2

Lux at center: 615 lx

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

Mounting height: 10 meters (33 feet)