



Photometric Test Report



RA3000PROFILE

1000 W high-precision LED moving profile light

CONTENTS

Table of contents	2
Testing process	3
Color preset Full on	
Beam angle Max Zoom	4
Beam angle Med Zoom	9
Beam angle Min Zoom	14

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:

18576 lm

Peak candela output:

38567 cd

Light quality:

CRI: 93,1

Color temperature:

6212 K

PRODUCT NAME:

RA3000PROFILE

MEASURAMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

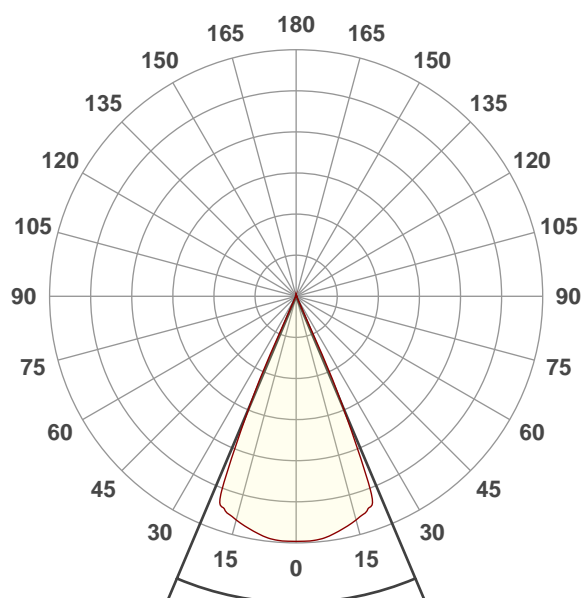
Full On

Operator:

Paolo Carvone

Date and time:

02/11/2020 14:52:41

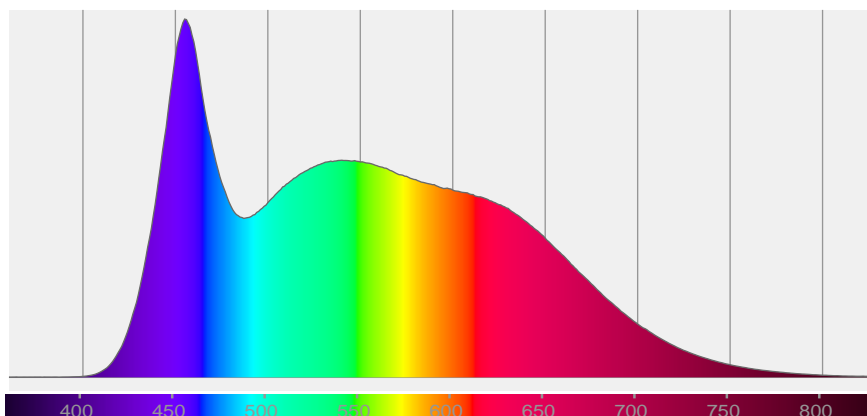


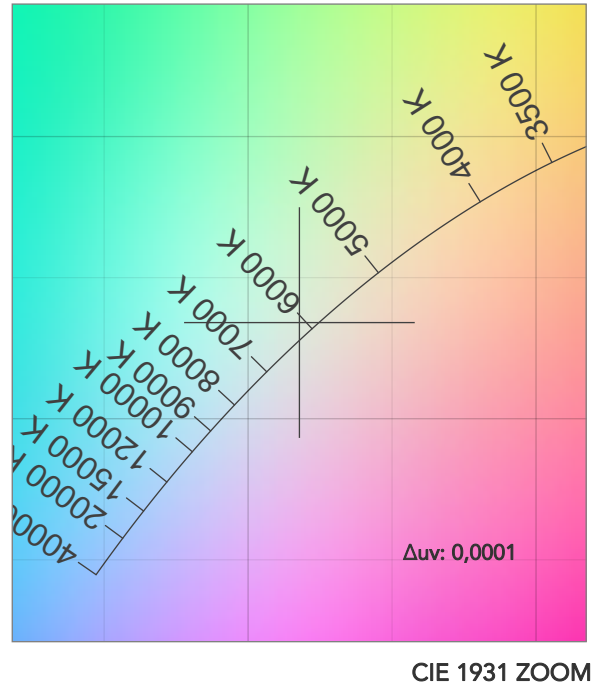
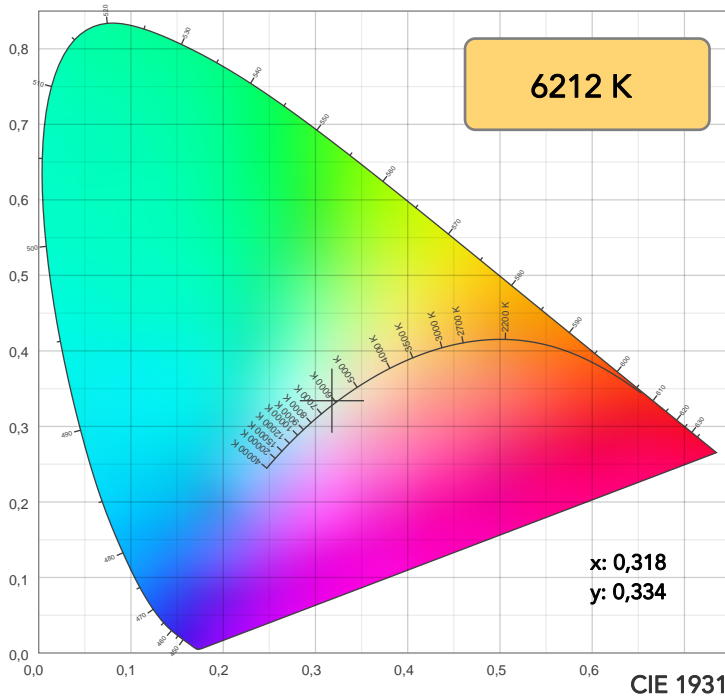
Beam angle 50%: 45,8°

Field angle 10%: 50,7°

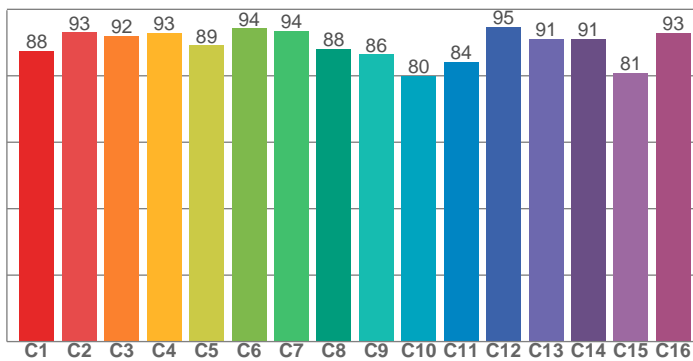
Cut off angle 2.5%: 53,2°

Spectra

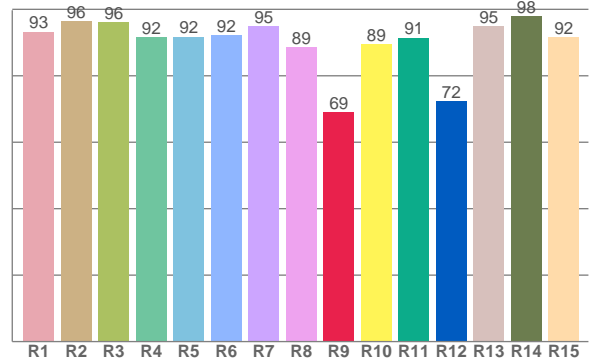




TM30: 89,2



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
93,3	96,4	96,2	91,5	91,8	92,3	94,9	88,6	68,9	89,5	91,5	72,2	94,8	98,0	91,6

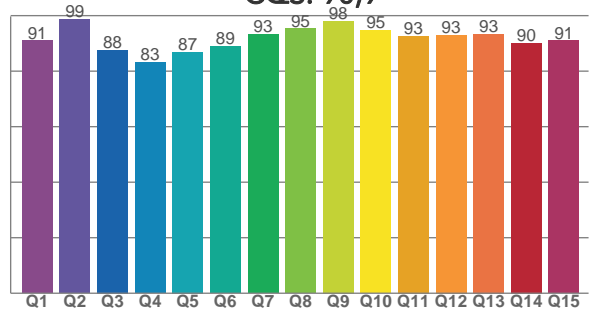
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
87,6	93,1	92,0	92,9	89,1	94,3	93,5	88,2	86,4	79,9	84,2	94,7	91,2	91,0	80,9	93,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91,1	98,7	87,6	83,2	86,8	88,9	93,3	95,4	98,1	94,7	92,6	93,0	93,5	90,1	91,0

CQS: 90,9



COLOR PARAMETERS

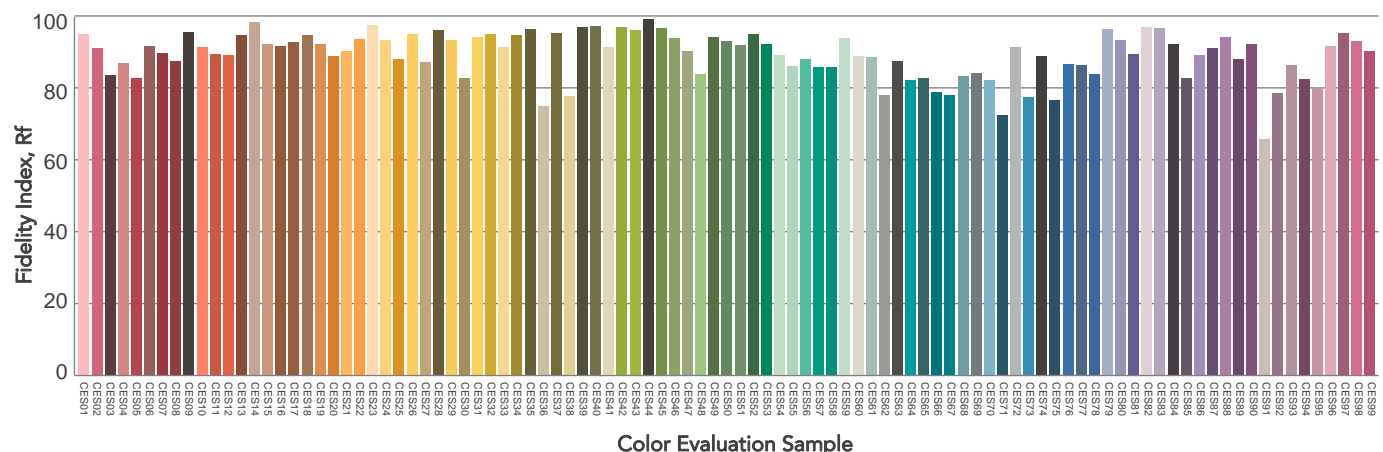
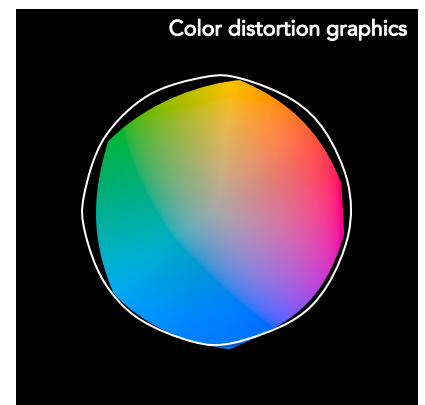
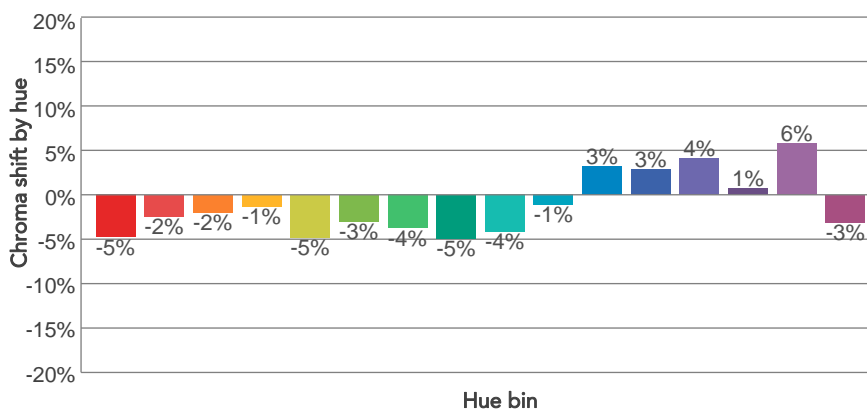
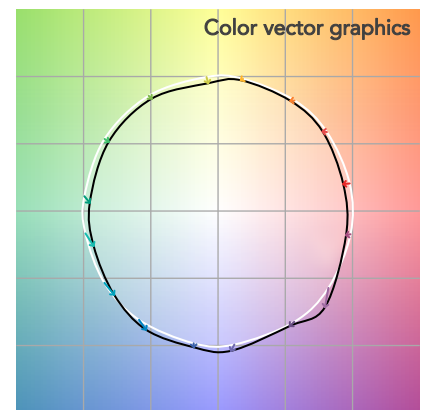
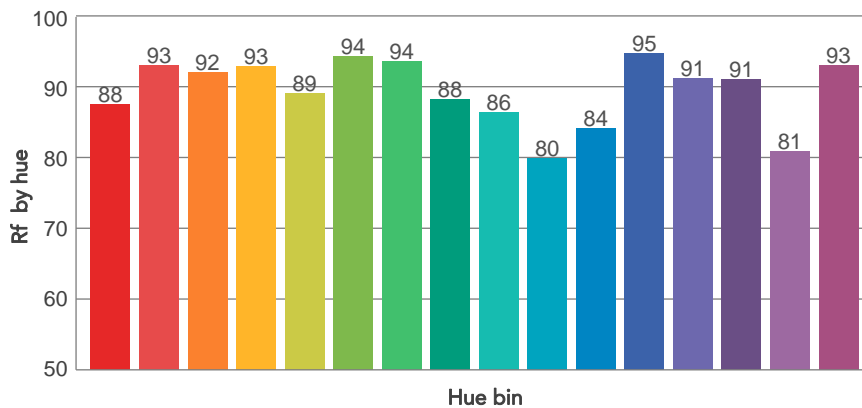
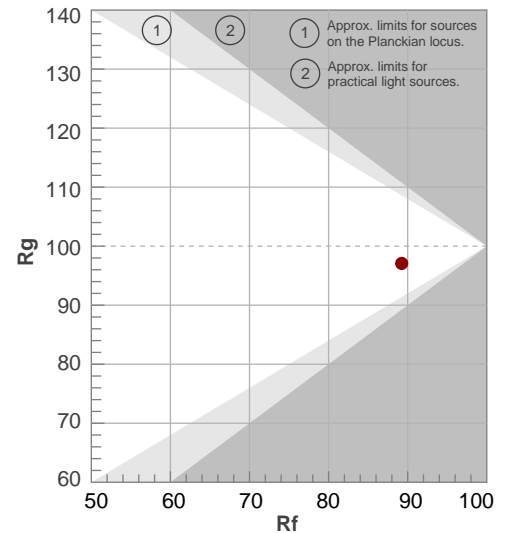
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6212 K	93,1	68,9	89,2	97,1	90,9	94	0,318	0,334	0,0001

TM30 DETAILS

Rf 89,2
Fidelity index Rf

Rg 97,1
Gammut index

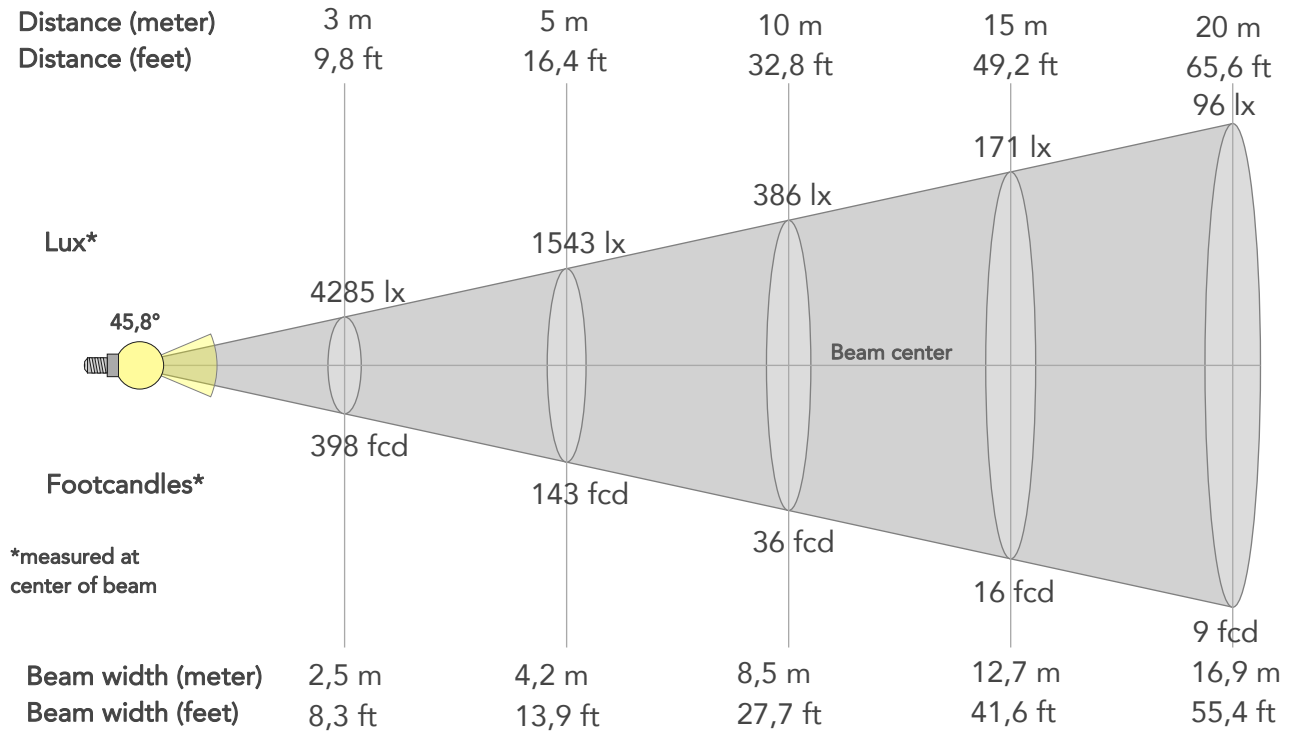
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	88	-5%	0%
2	93	-2%	2%
3	92	-2%	2%
4	93	-1%	1%
5	89	-5%	0%
6	94	-3%	-1%
7	94	-4%	0%
8	88	-5%	4%
9	86	-4%	10%
10	80	-1%	11%
11	84	3%	8%
12	95	3%	1%
13	91	4%	-3%
14	91	1%	-5%
15	81	6%	-13%
16	93	-3%	-1%



BEAM DETAILS



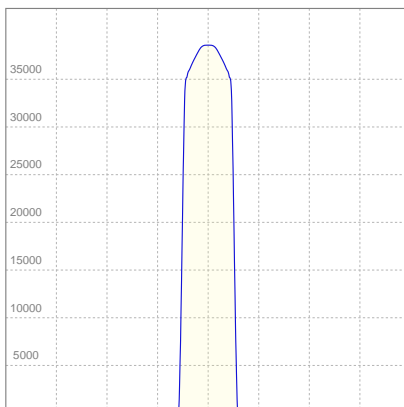
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
45,8°	50,7°	53,2°	100,0%	100,0%



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	38567lx	9642lx	4285lx	2410lx	1543lx	686lx	386lx	171lx	96lx	62lx	43lx	24lx	15lx
Footcand.	3583fcd	896fcd	398fcd	224fcd	143fcd	64fcd	36fcd	16fcd	9fcd	6fcd	4fcd	2fcd	1fcd
Beam wid.	0,8m	1,7m	2,5m	3,4m	4,2m	6,3m	8,5m	12,7m	16,9m	21,1m	25,4m	33,8m	42,3m
Beam wid.	2,8ft	5,6ft	8,3ft	11,1ft	13,9ft	20,8ft	27,7ft	41,6ft	55,4ft	69,3ft	83,2ft	110,9ft	138,6ft

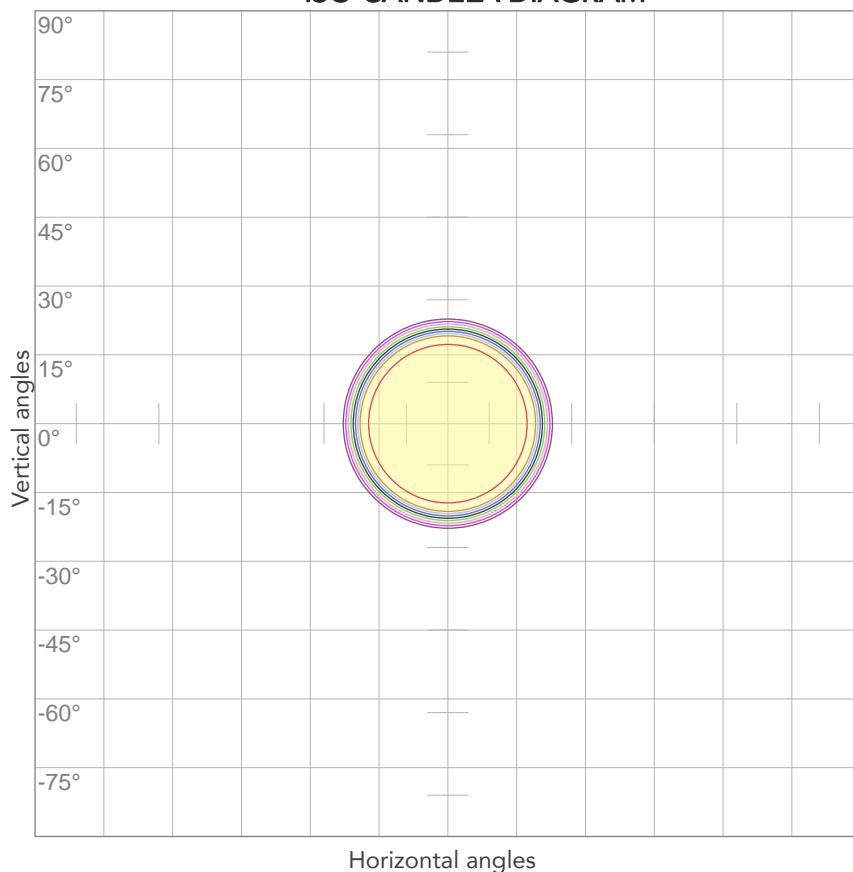
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
220V	6,18A	1331,8W	14lm/W
Power Fc			
0,98			

ISO CANDELA DIAGRAM



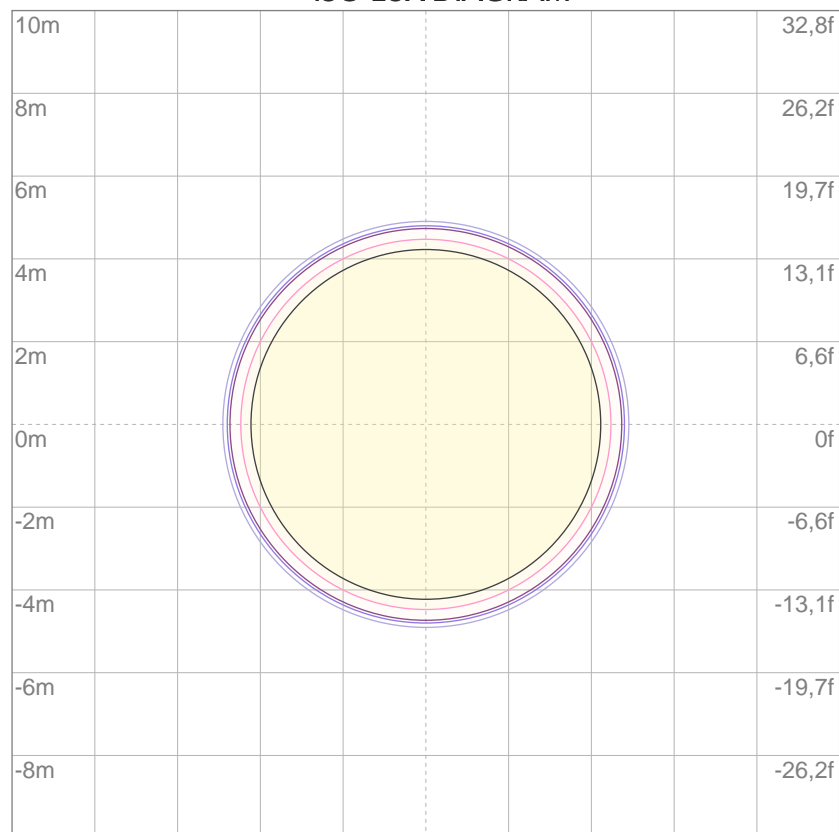
10%	3857 cd
20%	7713 cd
30%	11570 cd
40%	15427 cd
50%	19283 cd
60%	23140 cd
70%	26997 cd
80%	30853 cd

Conditions:

Number of c-planes: 2

Candela at center: 38567 cd

ISO LUX DIAGRAM



3%	11,6 lx
5%	19,3 lx
10%	38,6 lx
30%	116 lx
50%	193 lx

Conditions:

Number of c-planes: 2

Lux at center: 386 lx

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



Total lumen output:

18008 lm

Peak candela output:

268648 cd

Light quality:

CRI: 93,1

Color temperature:

6154 K

PRODUCT NAME:

RA3000PROFILE

MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

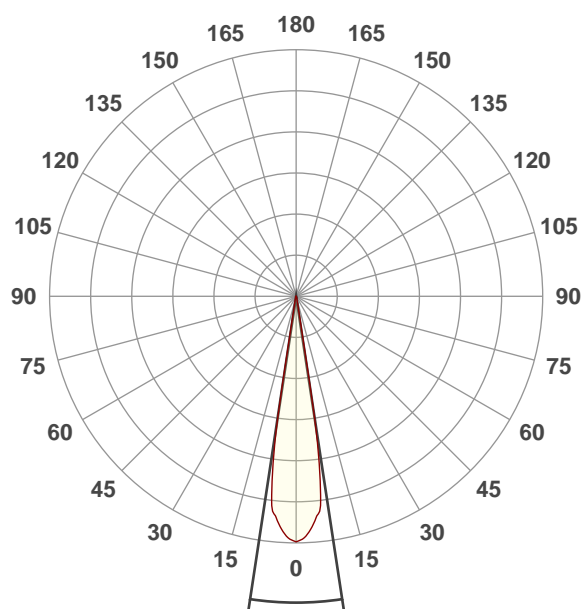
Full On

Operator:

Paolo Carvone

Date and time:

02/11/2020 14:50:32

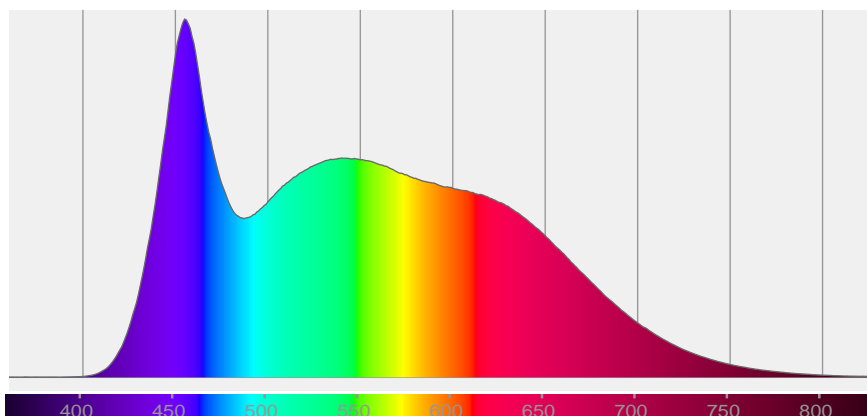


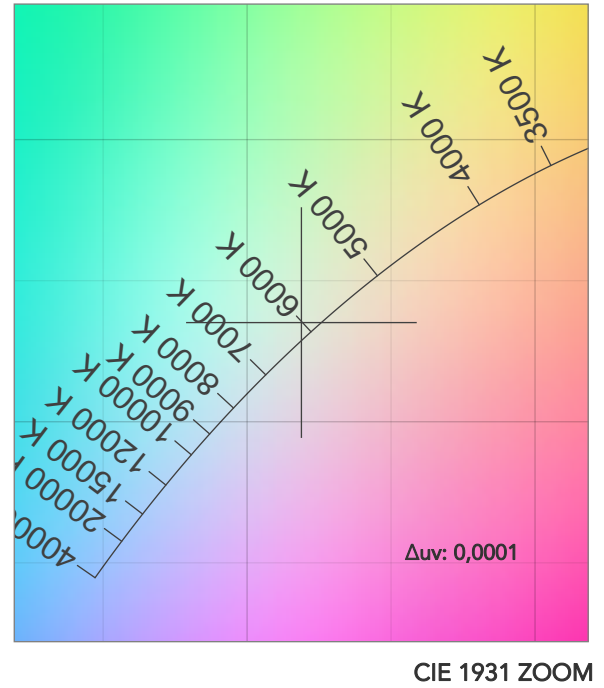
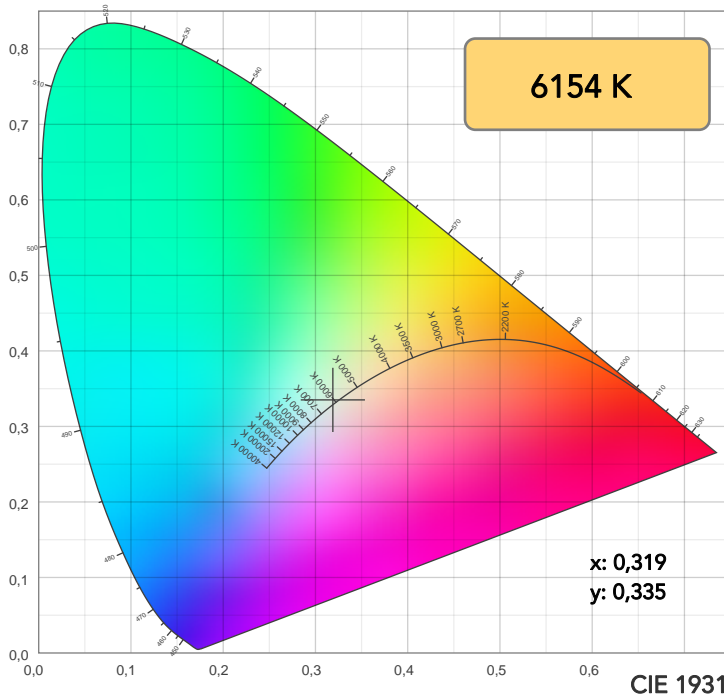
Beam angle 50%: 17,3°

Field angle 10%: 19,9°

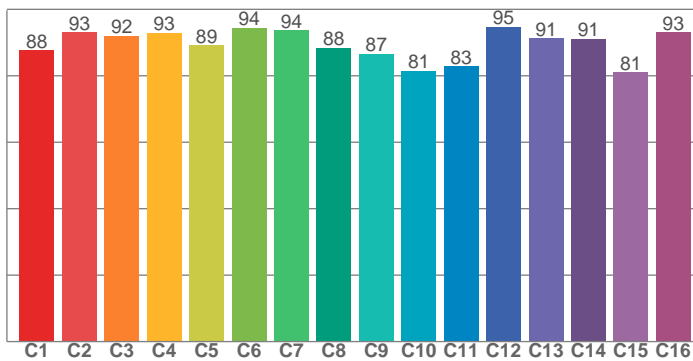
Cut off angle 2.5%: 22,2°

Spectra

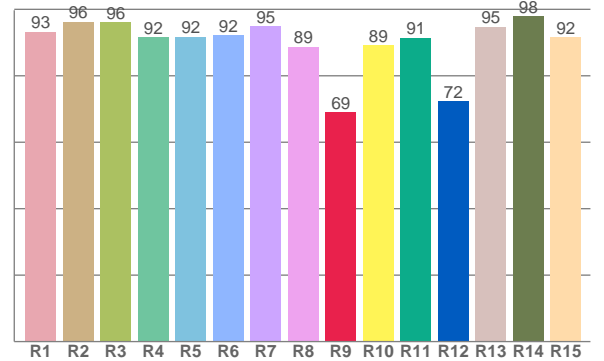




TM30: 89,3



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
93,3	96,3	96,0	91,6	91,8	92,1	95,0	88,8	69,1	89,2	91,5	72,2	94,7	97,9	91,6

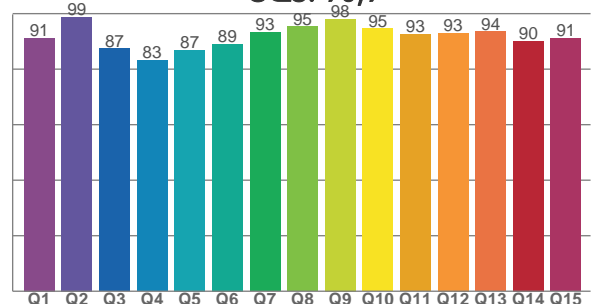
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
87,7	93,1	92,0	92,9	89,2	94,4	93,7	88,4	86,5	81,5	82,8	94,7	91,3	91,1	81,1	93,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91,3	98,7	87,5	83,2	86,9	89,1	93,3	95,4	98,1	94,6	92,5	93,0	93,5	90,2	91,1

CQS: 90,9



COLOR PARAMETERS

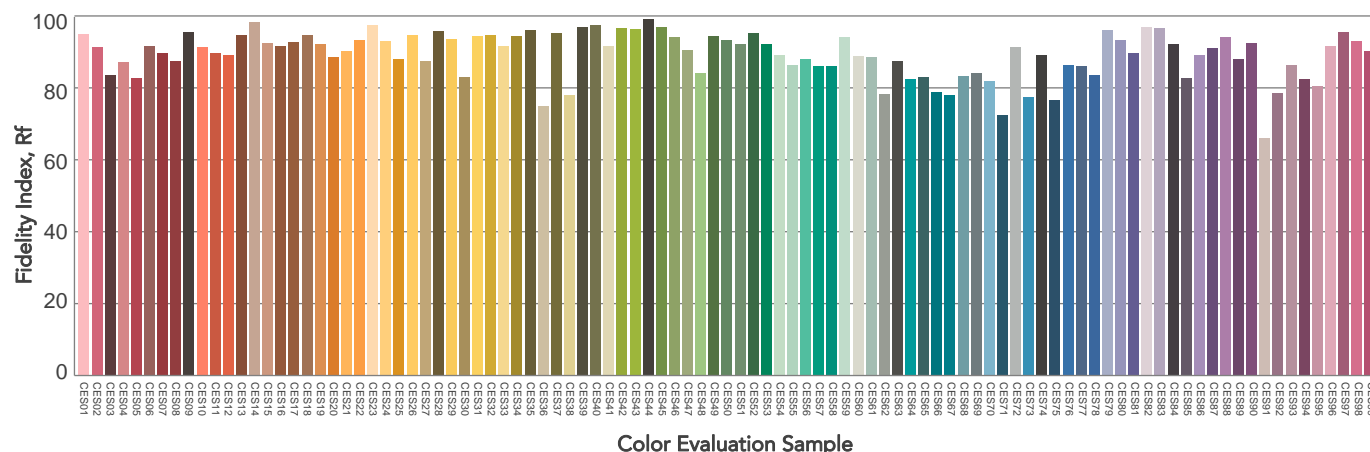
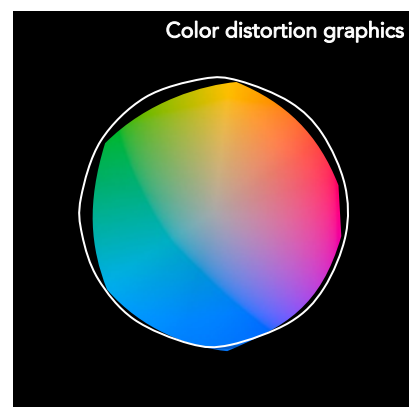
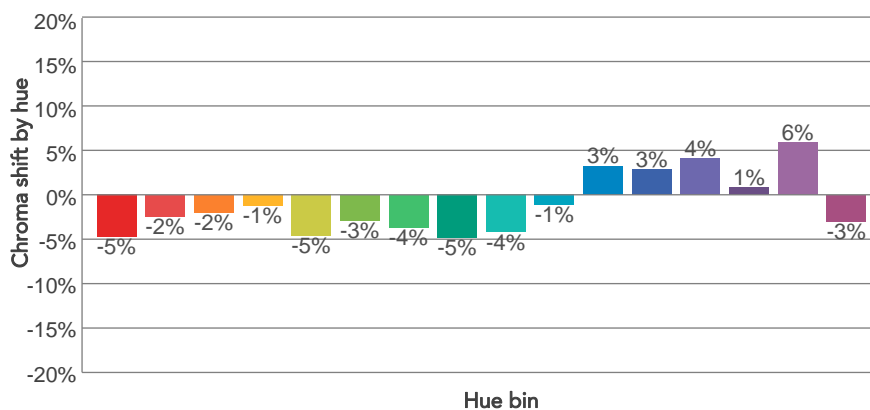
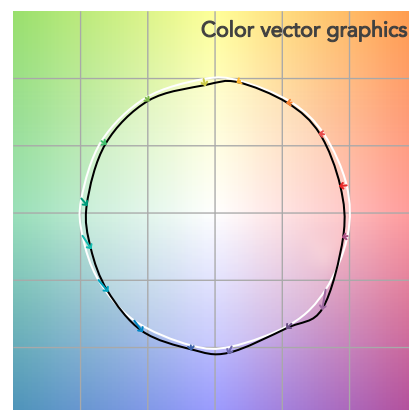
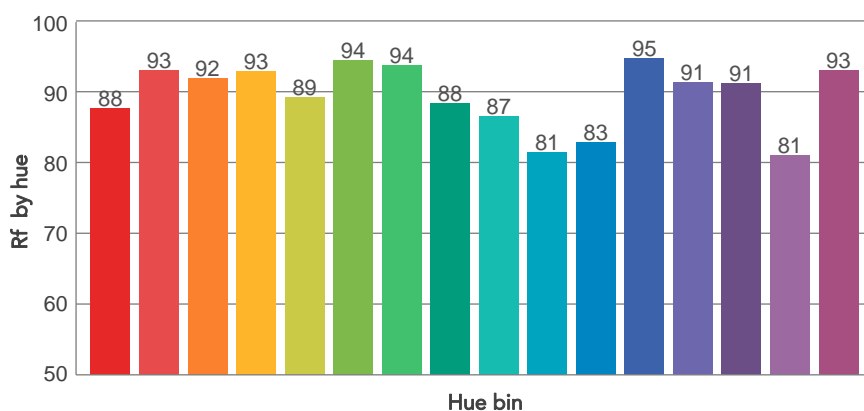
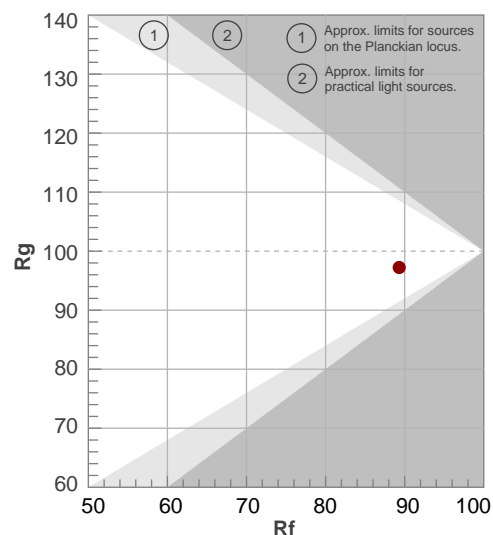
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6154 K	93,1	69,1	89,3	97,2	90,9	94	0,319	0,335	0,0001

TM30 DETAILS

Rf 89,3
Fidelity index Rf

Rg 97,2
Gammut index

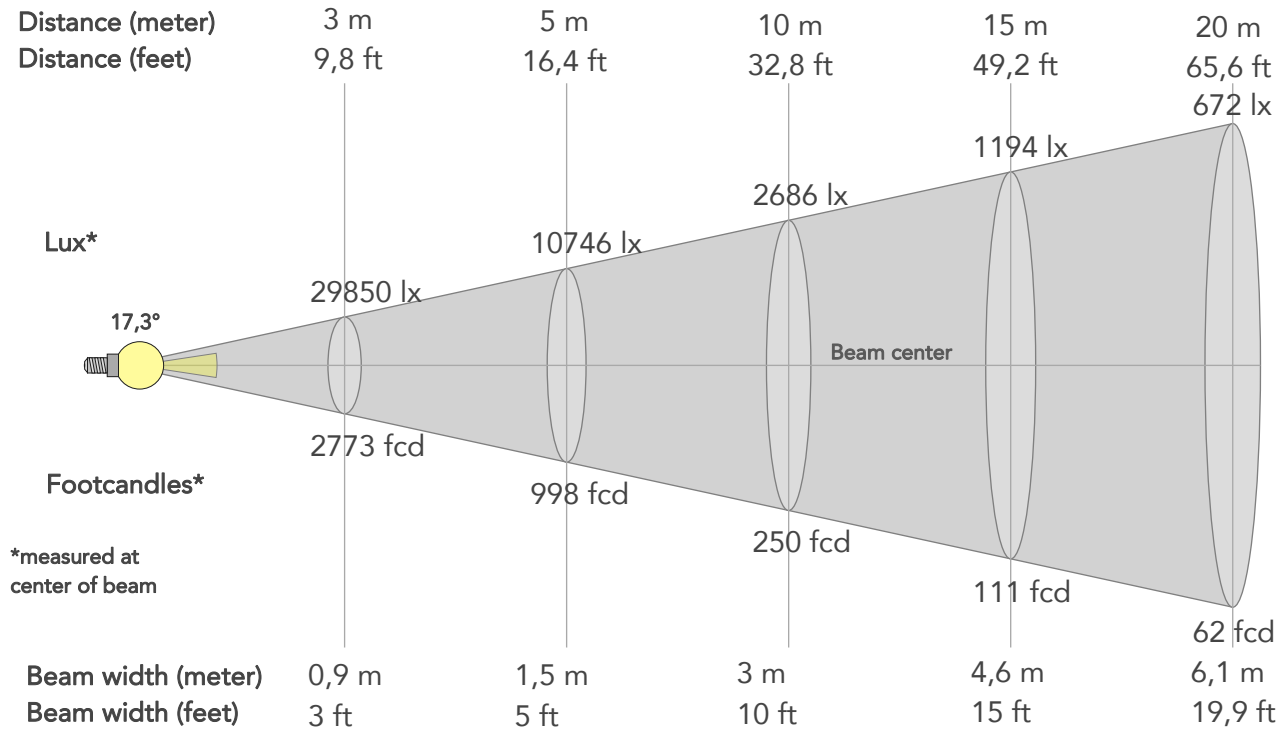
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	88	-5%	0%
2	93	-2%	2%
3	92	-2%	2%
4	93	-1%	2%
5	89	-5%	0%
6	94	-3%	-1%
7	94	-4%	0%
8	88	-5%	4%
9	87	-4%	10%
10	81	-1%	10%
11	83	3%	9%
12	95	3%	1%
13	91	4%	-3%
14	91	1%	-4%
15	81	6%	-13%
16	93	-3%	-1%



BEAM DETAILS



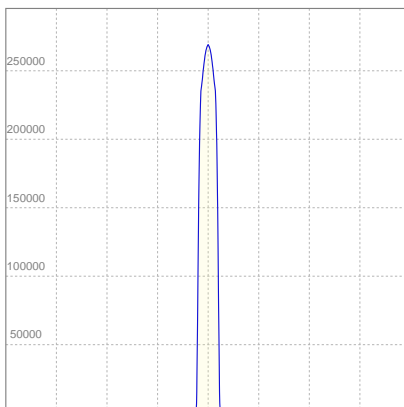
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,3°	19,9°	22,2°	100,0%	100,0%



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	268648lx	67162lx	29850lx	16791lx	10746lx	4776lx	2686lx	1194lx	672lx	430lx	298lx	168lx	107lx
Footcand.	24958fcd	6240fcd	2773fcd	1560fcd	998fcd	444fcd	250fcd	111fcd	62fcd	40fcd	28fcd	16fcd	10fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3m	4,6m	6,1m	7,6m	9,1m	12,2m	15,2m
Beam wid.	1ft	2ft	3ft	4ft	5ft	7,5ft	10ft	15ft	19,9ft	24,9ft	29,9ft	39,9ft	49,9ft

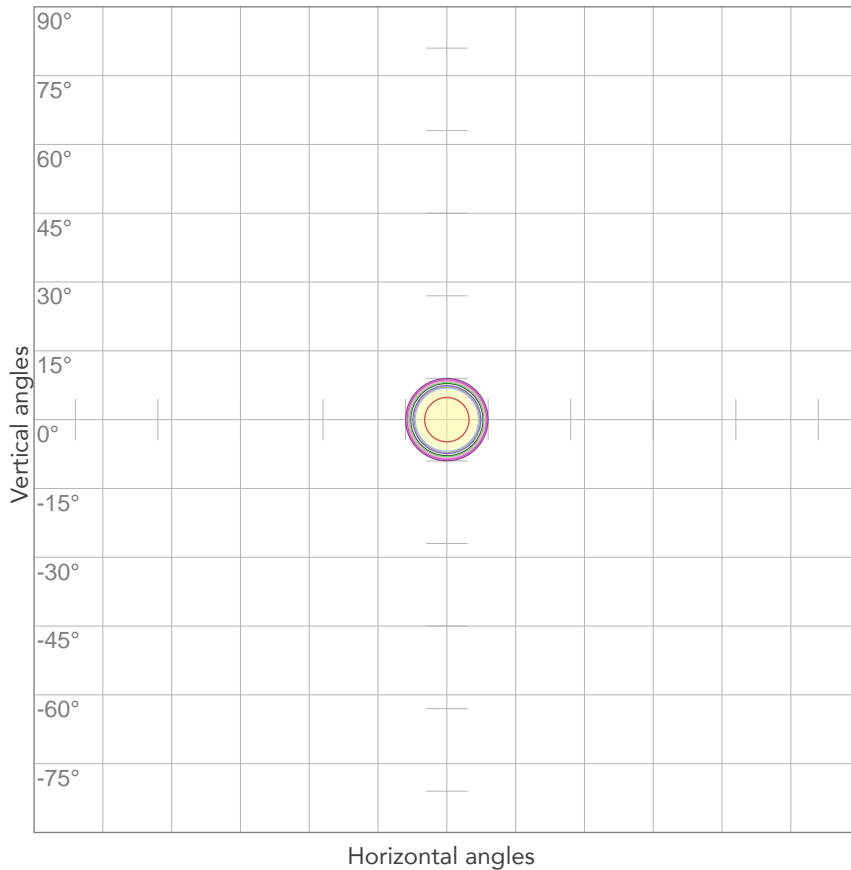
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
220V	6,26A	1342,7W	13lm/W
Power Fc			
0,98			

ISO CANDELA DIAGRAM



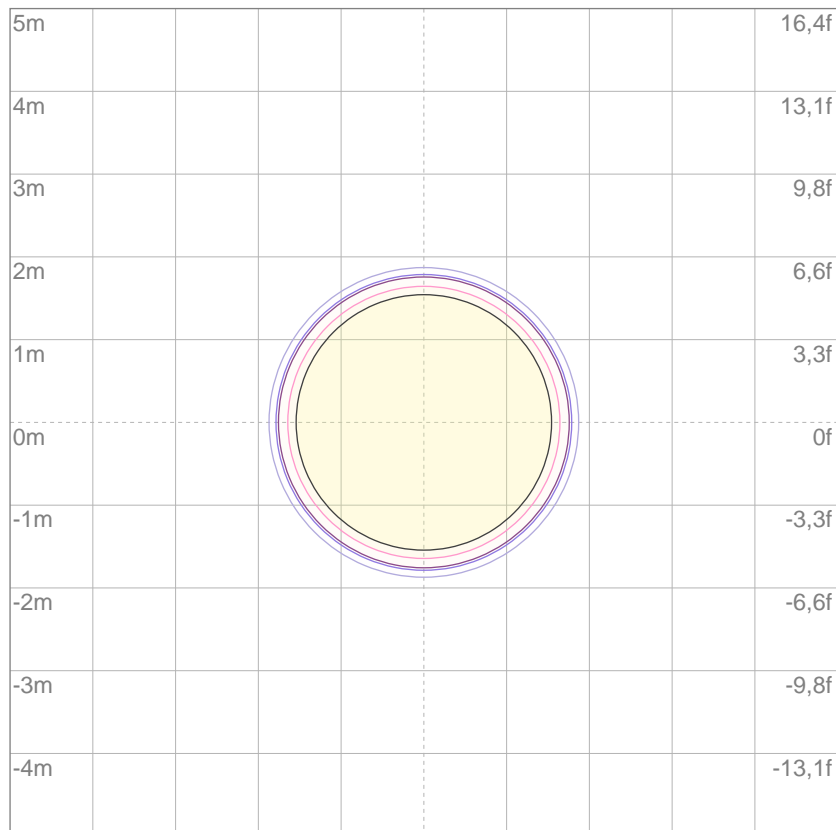
10%	26865 cd
20%	53730 cd
30%	80594 cd
40%	107459 cd
50%	134324 cd
60%	161189 cd
70%	188054 cd
80%	214919 cd

Conditions:

Number of c-planes: 2

Candela at center: 268648 cd

ISO LUX DIAGRAM



3%	80,6 lx
5%	134 lx
10%	269 lx
30%	806 lx
50%	1343 lx

Conditions:

Number of c-planes: 2

Lux at center: 2686 lx

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



Total lumen output:

12182 lm

Peak candela output:

1700683 cd

Light quality:

CRI: 92,9

Color temperature:

6102 K

PRODUCT NAME:

RA3000PROFILE

MEASURAMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

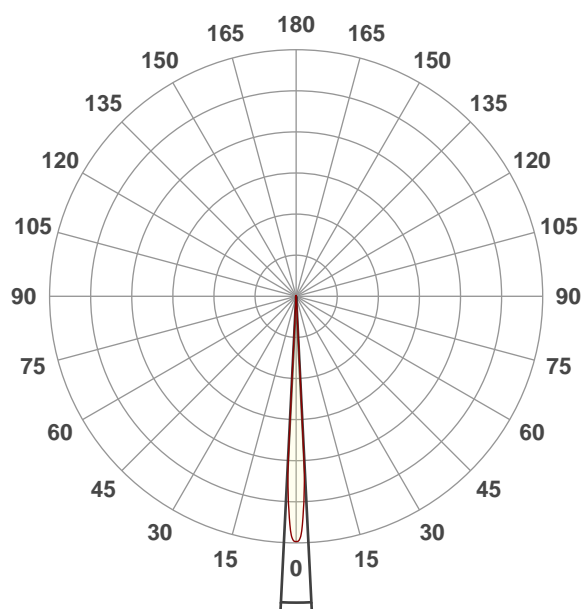
Full On

Operator:

Paolo Carvone

Date and time:

02/11/2020 14:48:45

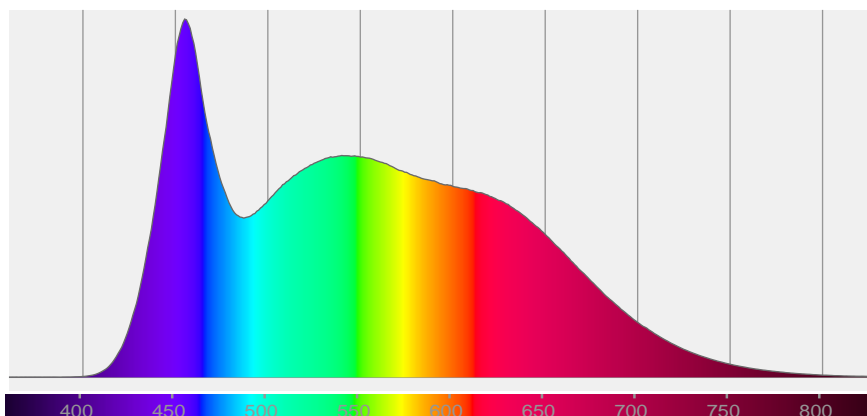


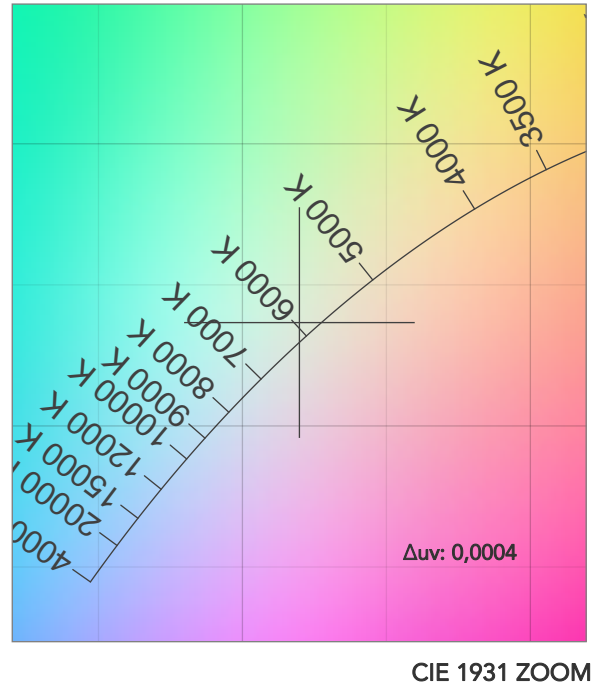
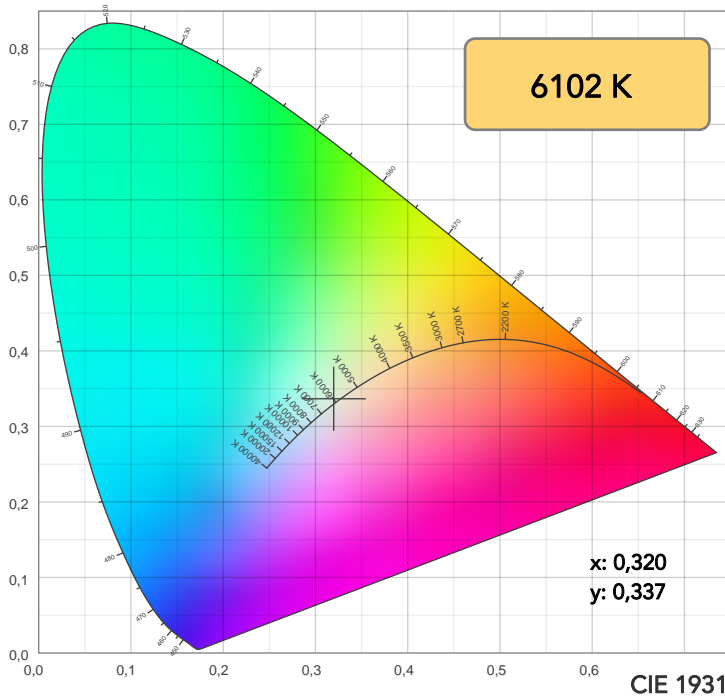
Beam angle 50%: 5,7°

Field angle 10%: 6,2°

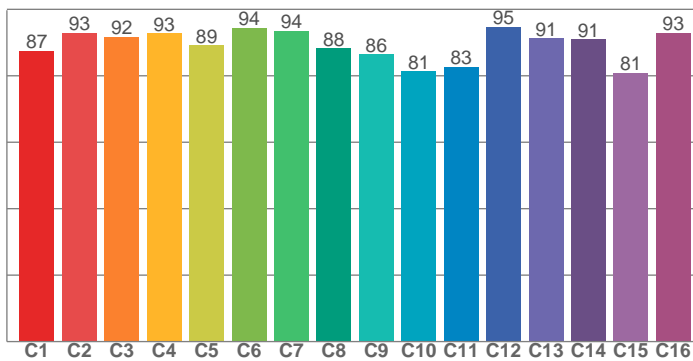
Cut off angle 2.5%: 6,9°

Spectra

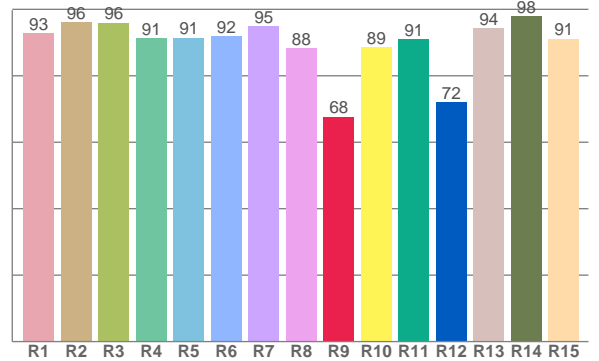




TM30: 89,2



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
92,9	96,1	96,0	91,3	91,5	92,0	94,9	88,3	67,7	88,6	91,0	72,0	94,3	97,9	91,1

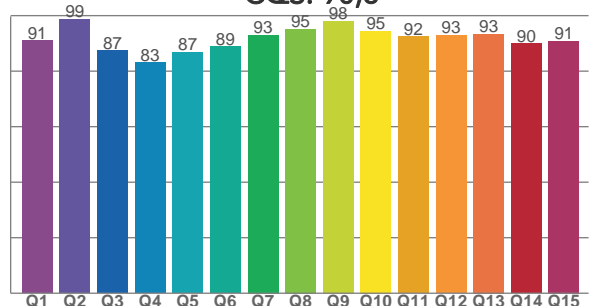
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
87,4	92,9	91,8	92,8	89,2	94,3	93,6	88,3	86,5	81,3	82,7	94,7	91,2	90,9	80,9	92,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91,1	98,7	87,4	83,1	86,8	88,8	93,0	95,2	98,1	94,5	92,5	92,9	93,4	89,9	90,8

CQS: 90,8



COLOR PARAMETERS

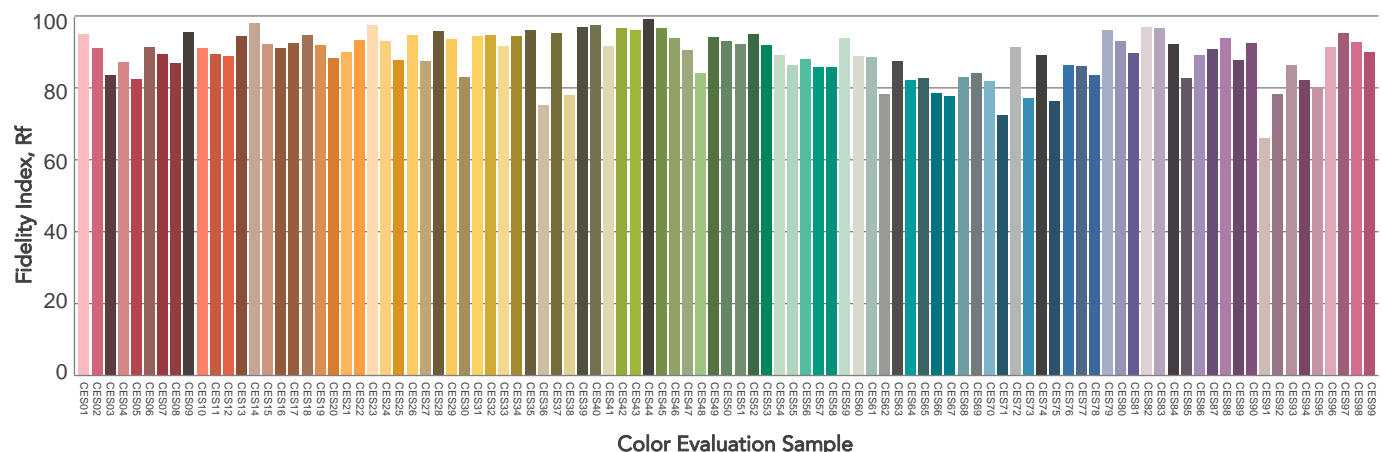
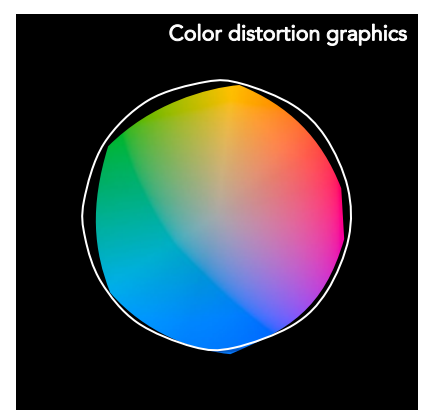
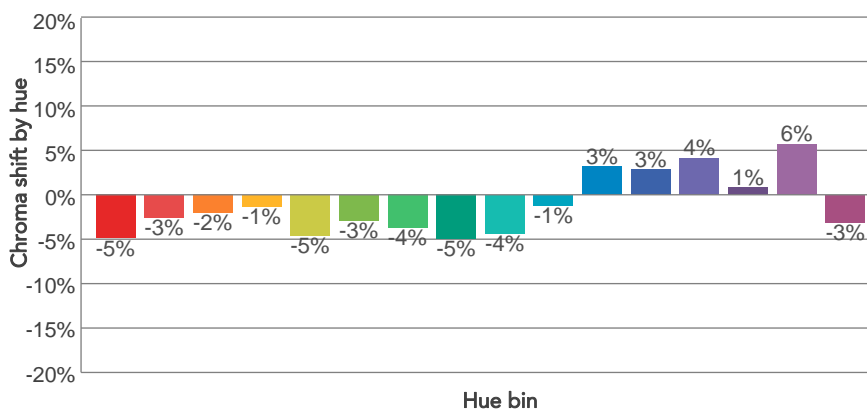
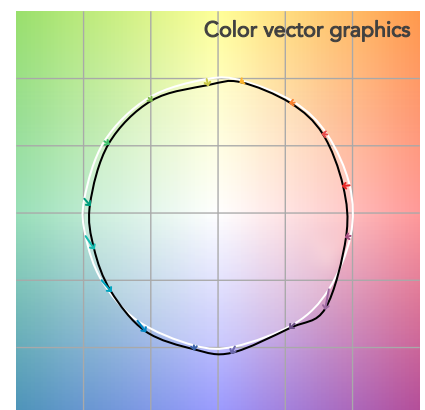
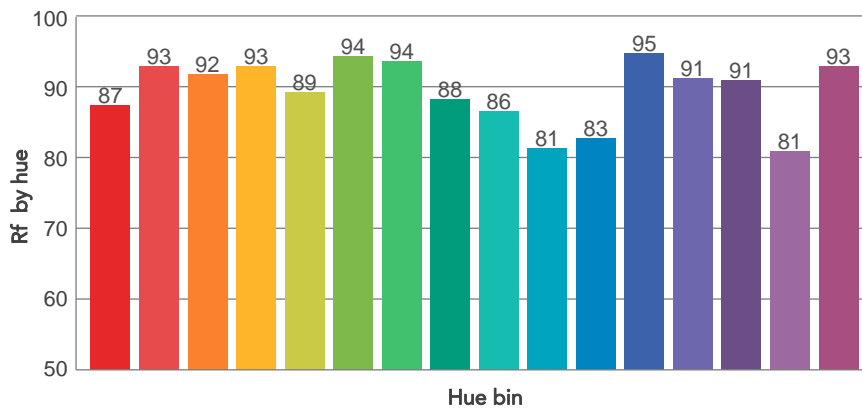
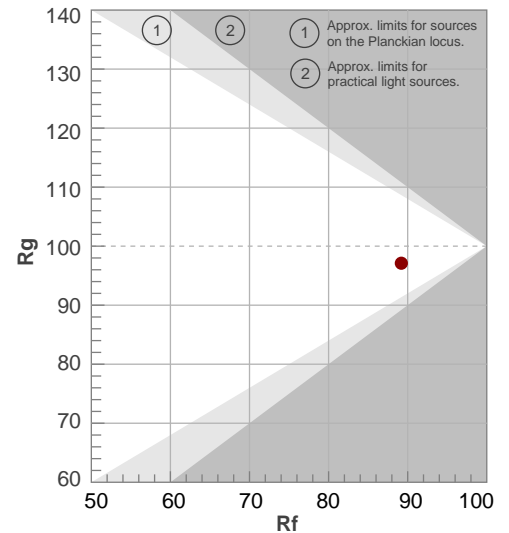
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6102 K	92,9	67,7	89,2	97,1	90,8	94	0,320	0,337	0,0004

TM30 DETAILS

Rf 89,2
Fidelity index Rf

Rg 97,1
Gammut index

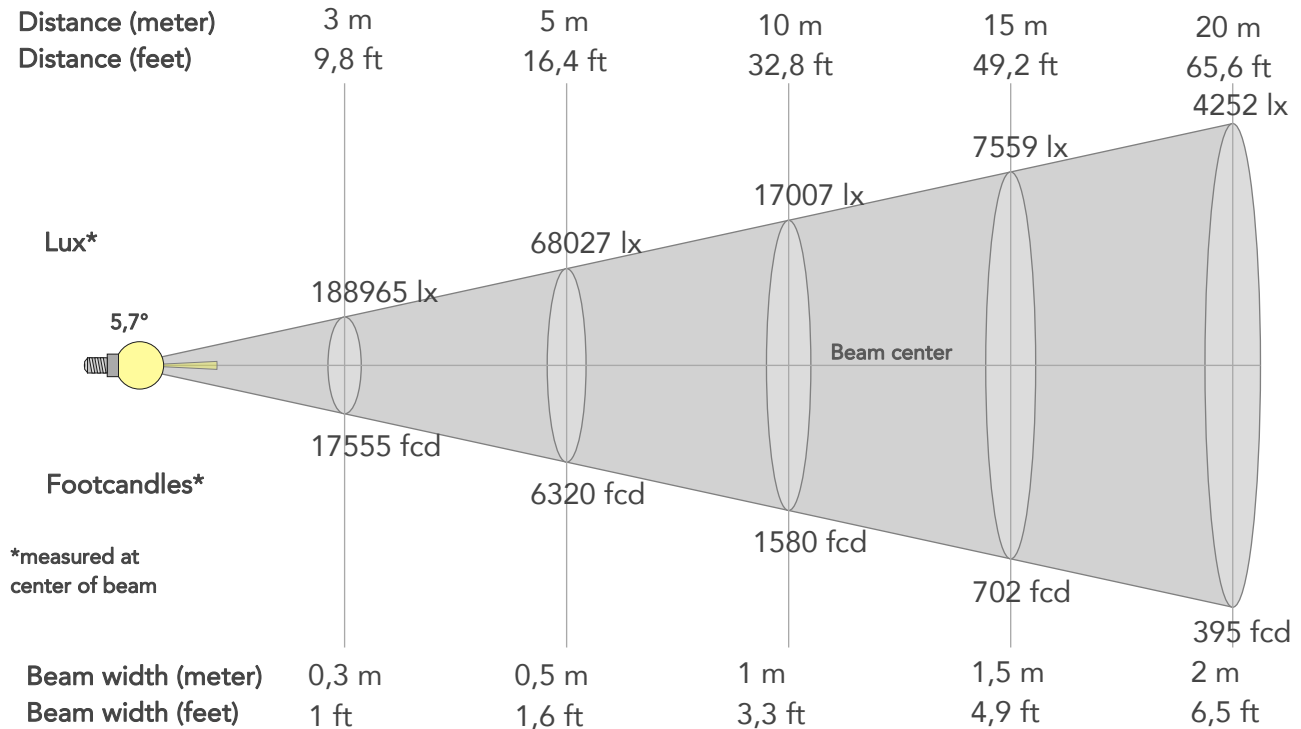
		Graphic shifts (%)	
Hue Bin	R _f	Chroma	Hue
1	87	-5%	0%
2	93	-3%	2%
3	92	-2%	2%
4	93	-1%	2%
5	89	-5%	0%
6	94	-3%	-1%
7	94	-4%	0%
8	88	-5%	4%
9	86	-4%	10%
10	81	-1%	11%
11	83	3%	9%
12	95	3%	1%
13	91	4%	-3%
14	91	1%	-5%
15	81	6%	-13%
16	93	-3%	-2%



BEAM DETAILS



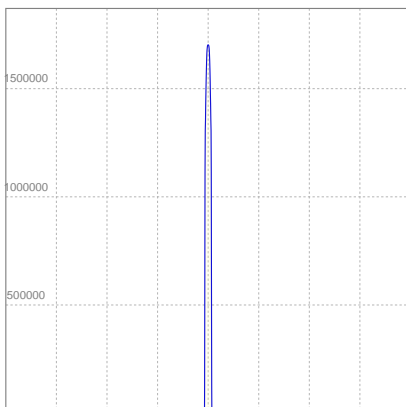
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
5,7°	6,2°	6,9°	100,0%	100,0%



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	1700683lx	425171lx	188965lx	106293lx	68027lx	30234lx	17007lx	7559lx	4252lx	2721lx	1890lx	1063lx	680lx
Footcand.	157999fcd	39500fcd	17555fcd	9875fcd	6320fcd	2809fcd	1580fcd	702fcd	395fcd	253fcd	176fcd	99fcd	63fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1m	1,5m	2m	2,5m	3m	4m	5m
Beam wid.	0,3ft	0,7ft	1ft	1,3ft	1,6ft	2,4ft	3,3ft	4,9ft	6,5ft	8,2ft	9,8ft	13,1ft	16,3ft

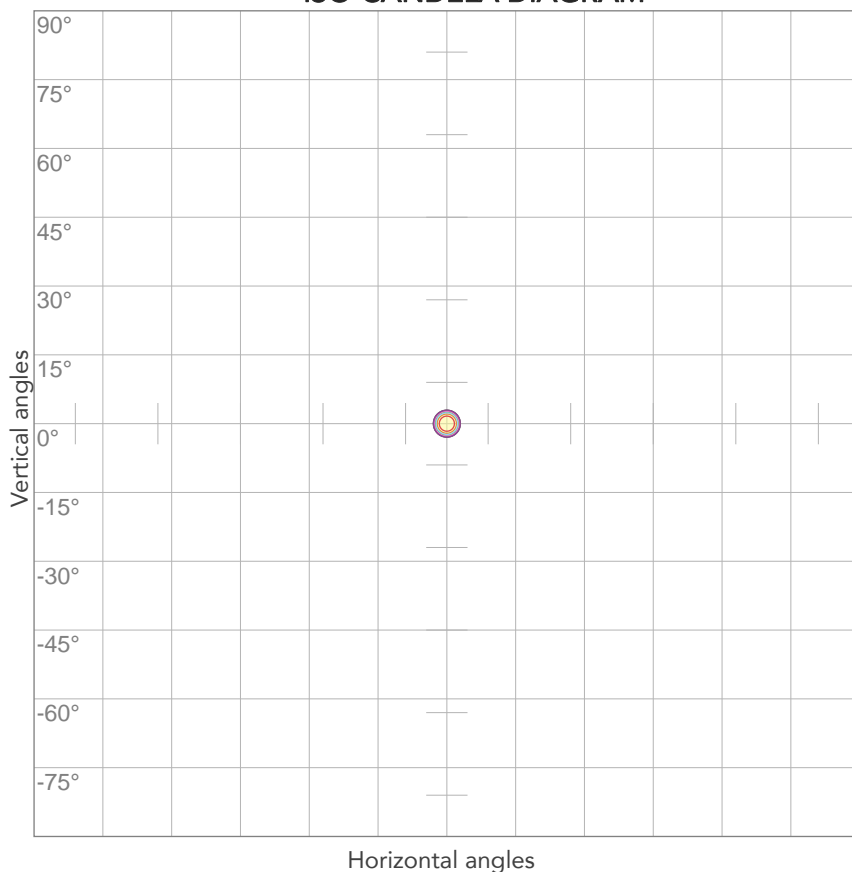
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
219V	6,34A	1359,1W	9lm/W
Power Fc			
0,98			

ISO CANDELA DIAGRAM



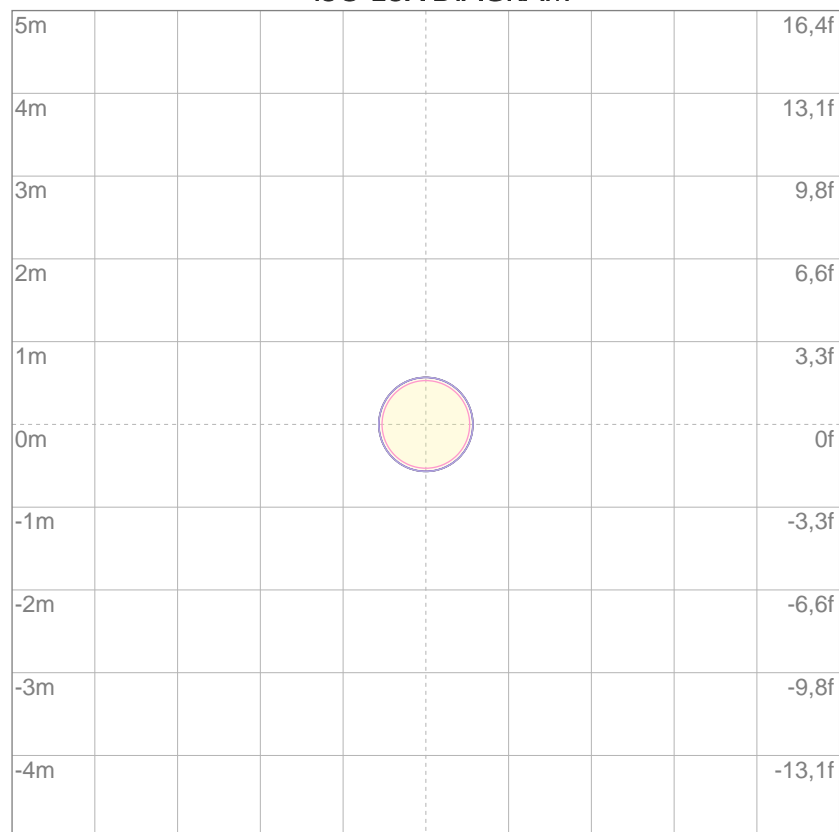
10%	170068 cd
20%	340137 cd
30%	510205 cd
40%	680273 cd
50%	850341 cd
60%	1020410 cd
70%	1190478 cd
80%	1360546 cd

Conditions:

Number of c-planes: 2

Candela at center: 1700683 cd

ISO LUX DIAGRAM



3%	510 lx
5%	850 lx
10%	1701 lx
30%	5102 lx
50%	8503 lx

Conditions:

Number of c-planes: 2

Lux at center: 17,0K lx

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