

Photometric Test Report



AstraWash37Pix

37x40W RGBW moving wash light with 4°- 54°
zoom, pixel control and pixel ring

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Beam angle Max Zoom 80

Beam angle Med Zoom 85

Beam angle Min Zoom 90

Color temperature 5600K

Beam angle Max Zoom 95

Beam angle Med Zoom 100

Beam angle Min Zoom 105

Color temperature 6000K

Beam angle Max Zoom 110

Beam angle Med Zoom 115

Beam angle Min Zoom 120

TESTING PROCESS

Prolights has its own optical testing laboratory in order to provide accurate photometric reports for its lighting products. The testing laboratory contains certain variety of precise lighting measurement systems that ensure an optimal reading of all the characteristic parameters of the lighting devices. All measurements are made at a controlled room temperature of 25°C without any external light sources. 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:

17898 lm

Peak candela output:

53503 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

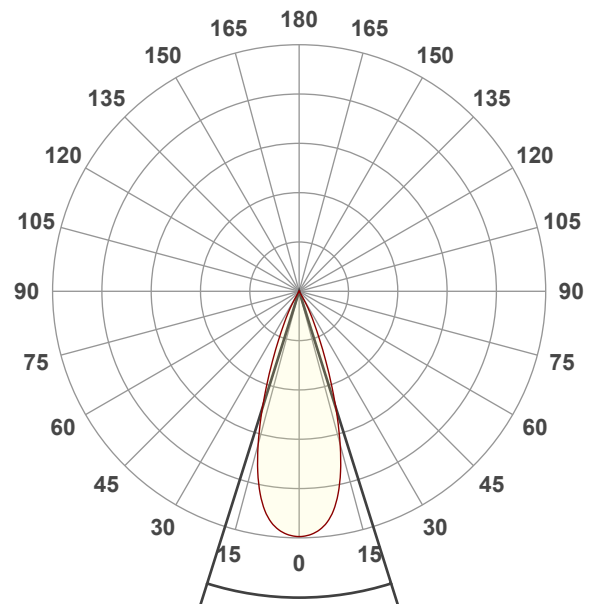
Full On Studio

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:36:37

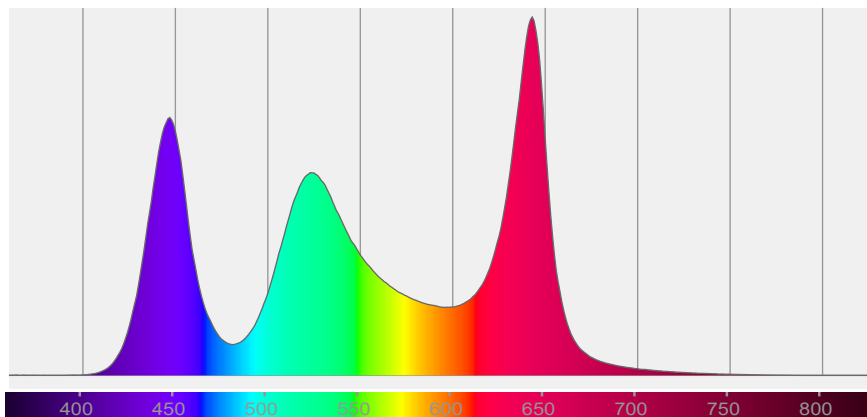


Beam angle 50%: 35°

Field angle 10%: 53,9°

Cut off angle 2.5%: 60,7°

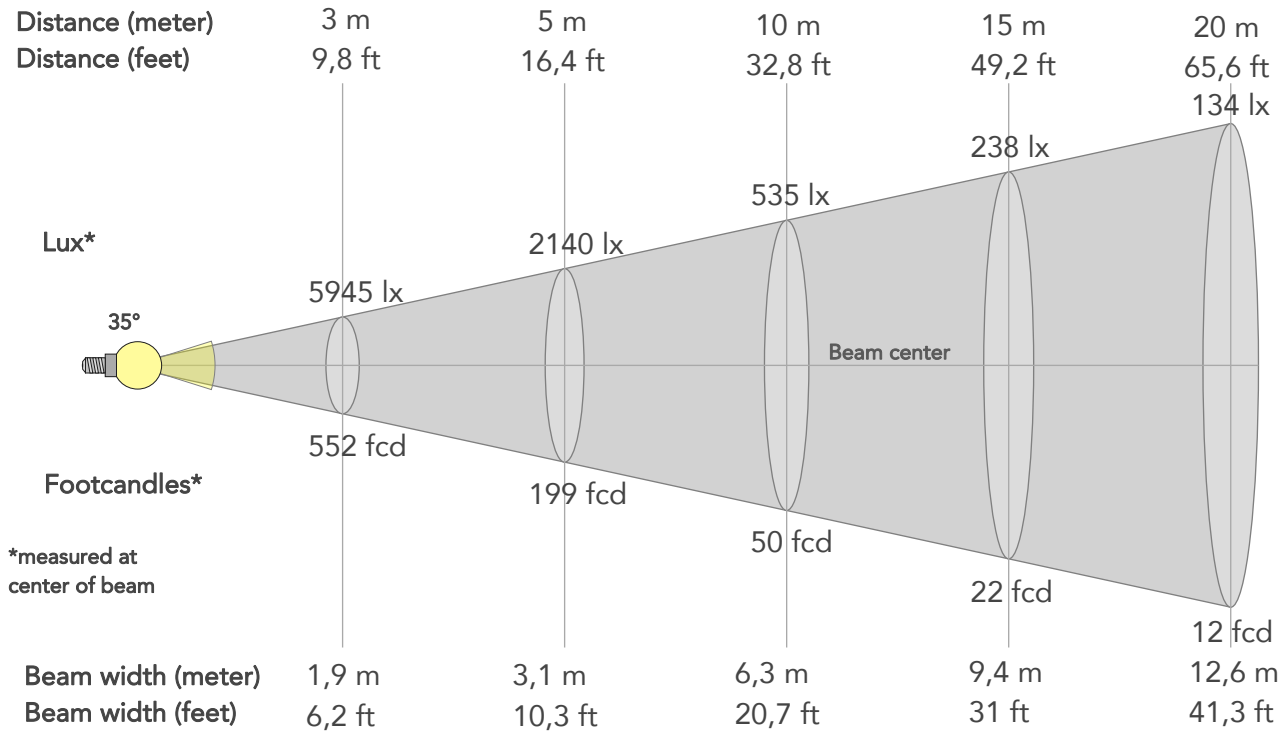
Spectra



BEAM DETAILS



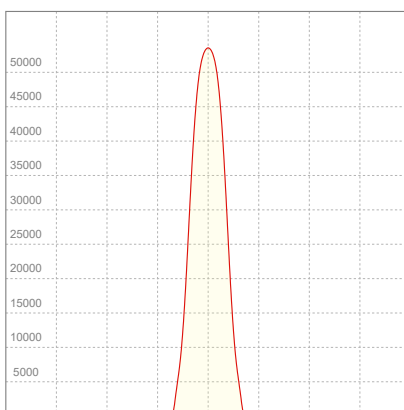
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35°	53,9°	60,7°	100,0%	100,0%



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	53503lx	13376lx	5945lx	3344lx	2140lx	951lx	535lx	238lx	134lx	86lx	59lx	33lx	21lx
Footcand.	4971fcd	1243fcd	552fcd	311fcd	199fcd	88fcd	50fcd	22fcd	12fcd	8fcd	6fcd	3fcd	2fcd
Beam wid.	0,6m	1,3m	1,9m	2,5m	3,1m	4,7m	6,3m	9,4m	12,6m	15,7m	18,9m	25,2m	31,5m
Beam wid.	2,1ft	4,2ft	6,2ft	8,2ft	10,3ft	15,5ft	20,7ft	31ft	41,3ft	51,6ft	62ft	82,6ft	103,3ft

LINEAR DISTRIBUTION DIAGRAM

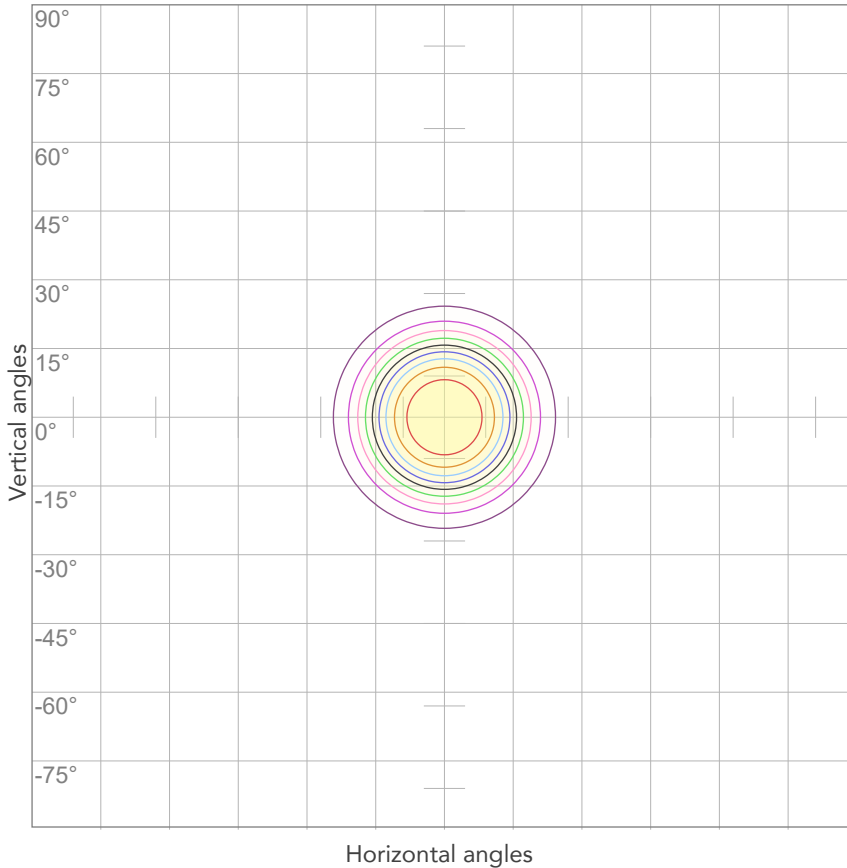


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	4,20A	902,6W	20lm/W

Power FC
0,97

ISO CANDELA DIAGRAM



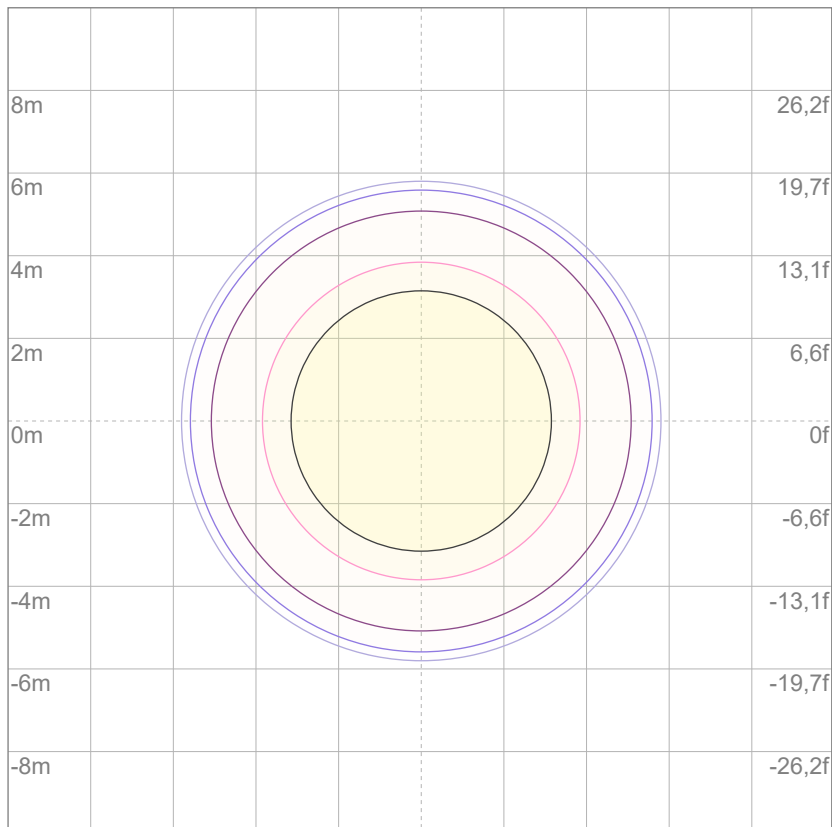
10%	5350 cd
20%	10701 cd
30%	16051 cd
40%	21401 cd
50%	26751 cd
60%	32102 cd
70%	37452 cd
80%	42802 cd

Conditions:

Number of c-planes: 2

Candela at center: 53503 cd

ISO LUX DIAGRAM



3%	16,1 lx
5%	26,8 lx
10%	53,5 lx
30%	161 lx
50%	268 lx

Conditions:

Number of c-planes: 2

Lux at center: 535 lx

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



Total lumen output:

13472 lm

Peak candela output:

180222 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

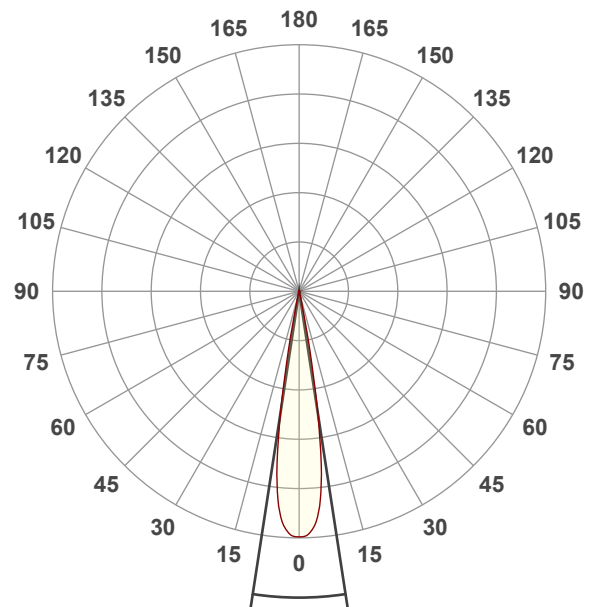
Full On Studio

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:34:05

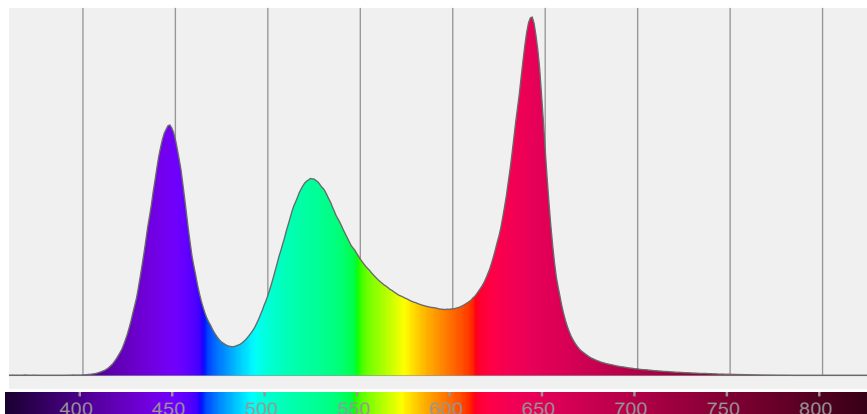


Beam angle 50%: 17,4°

Field angle 10%: 23,1°

Cut off angle 2.5%: 25,8°

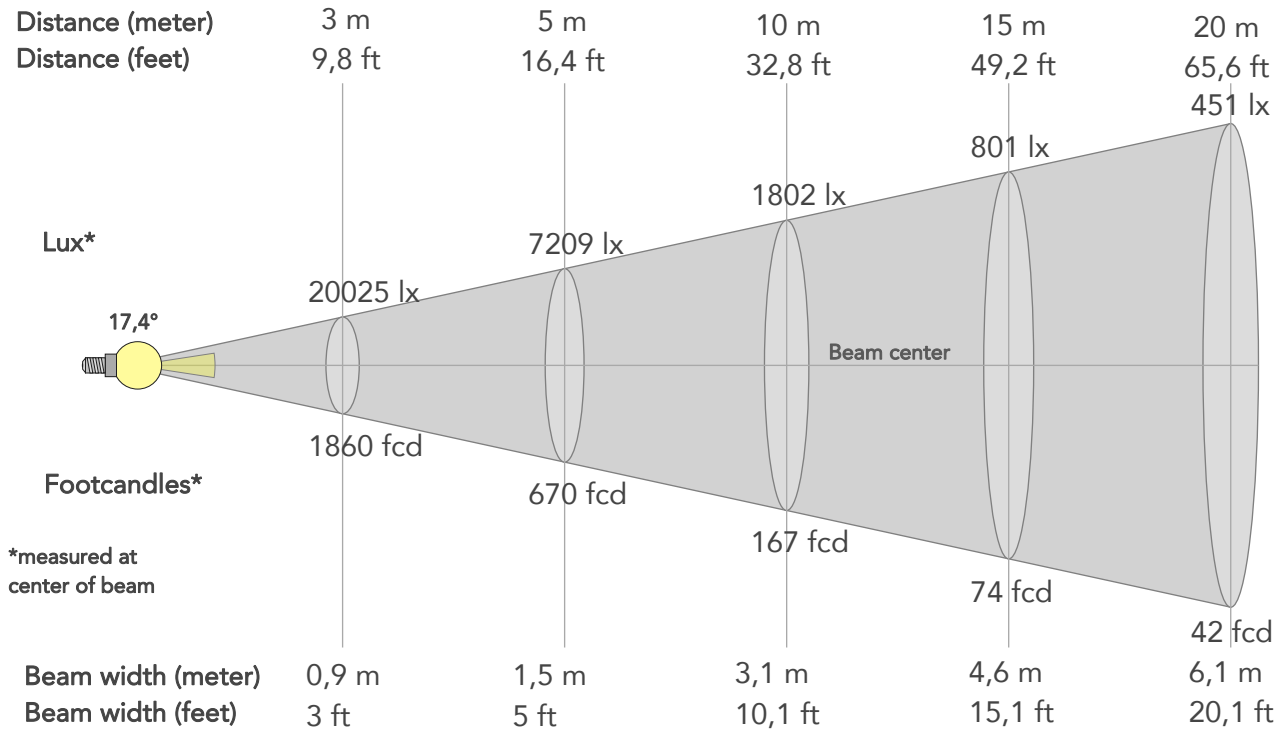
Spectra



BEAM DETAILS



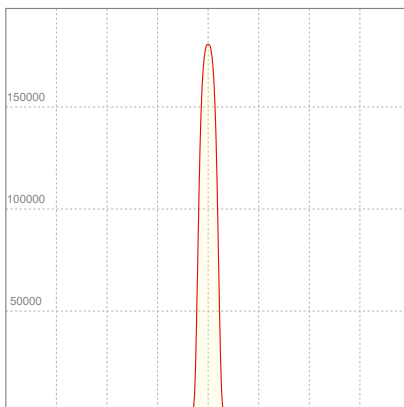
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,4°	23,1°	25,8°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	180222lx	45056lx	20025lx	11264lx	7209lx	3204lx	1802lx	801lx	451lx	288lx	200lx	113lx	72lx
Footcand.	16743fcd	4186fcd	1860fcd	1046fcd	670fcd	298fcd	167fcd	74fcd	42fcd	27fcd	19fcd	10fcd	7fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3,1m	4,6m	6,1m	7,7m	9,2m	12,3m	15,3m
Beam wid.	1ft	2ft	3ft	4ft	5ft	7,5ft	10,1ft	15,1ft	20,1ft	25,1ft	30,2ft	40,2ft	50,3ft

LINEAR DISTRIBUTION DIAGRAM

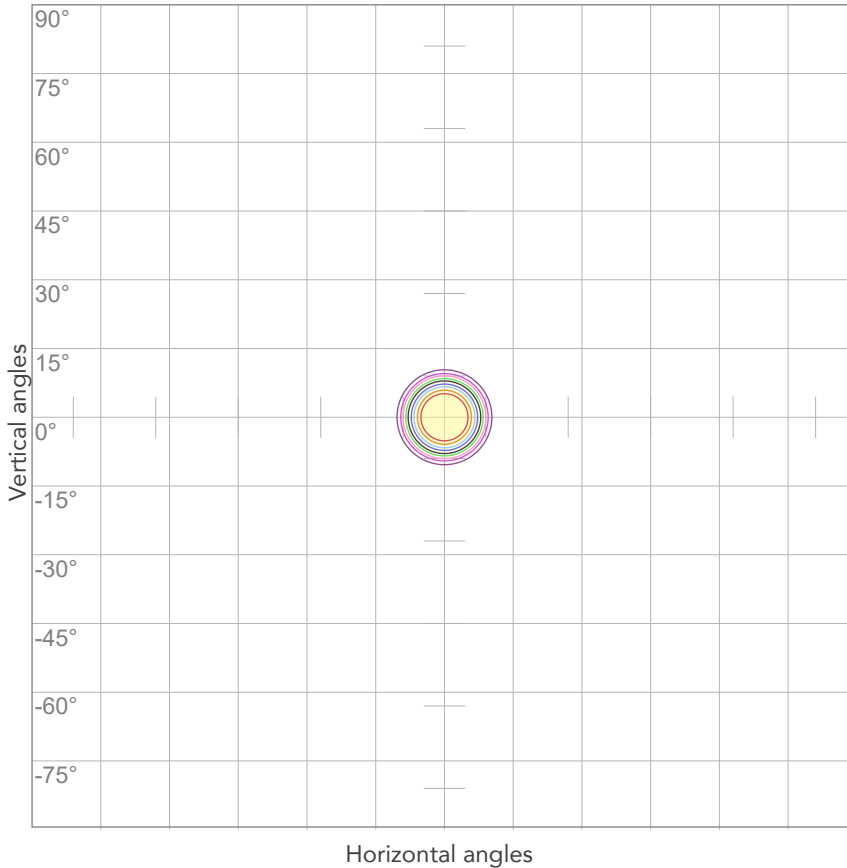


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	4,22A	906,7W	15lm/W

Power FC
0,97

ISO CANDELA DIAGRAM



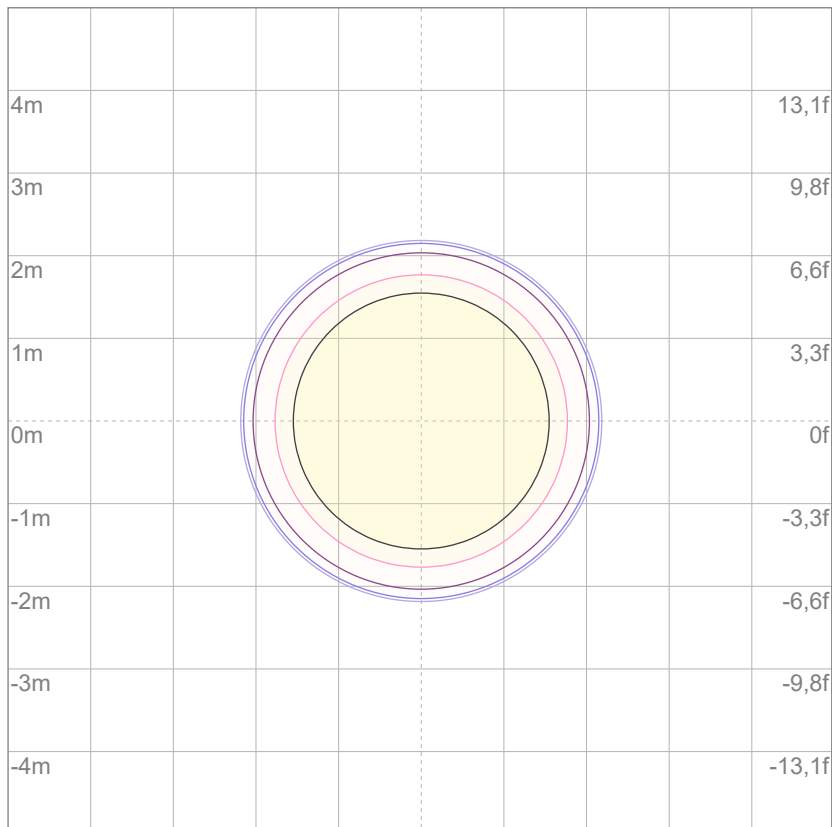
10%	18022 cd
20%	36044 cd
30%	54067 cd
40%	72089 cd
50%	90111 cd
60%	108133 cd
70%	126156 cd
80%	144178 cd

Conditions:

Number of c-planes: 2

Candela at center: 180222 cd

ISO LUX DIAGRAM



3%	54,1 lx
5%	90,1 lx
10%	180 lx
30%	541 lx
50%	901 lx

Conditions:

Number of c-planes: 2

Lux at center: 1802 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:

8452 lm

Peak candela output:

1838051 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

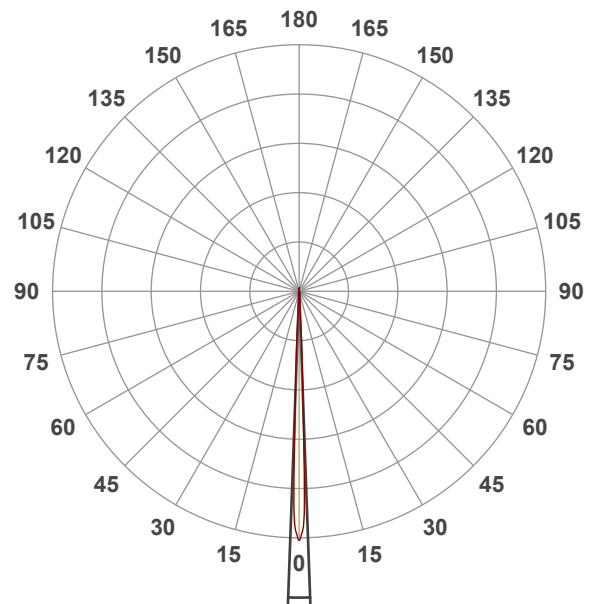
Full On Studio

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:31:54

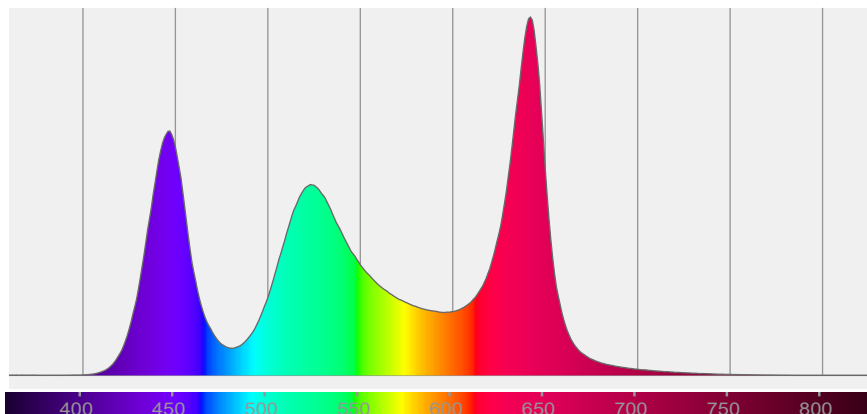


Beam angle 50%: 4,1°

Field angle 10%: 6,2°

Cut off angle 2.5%: 6,8°

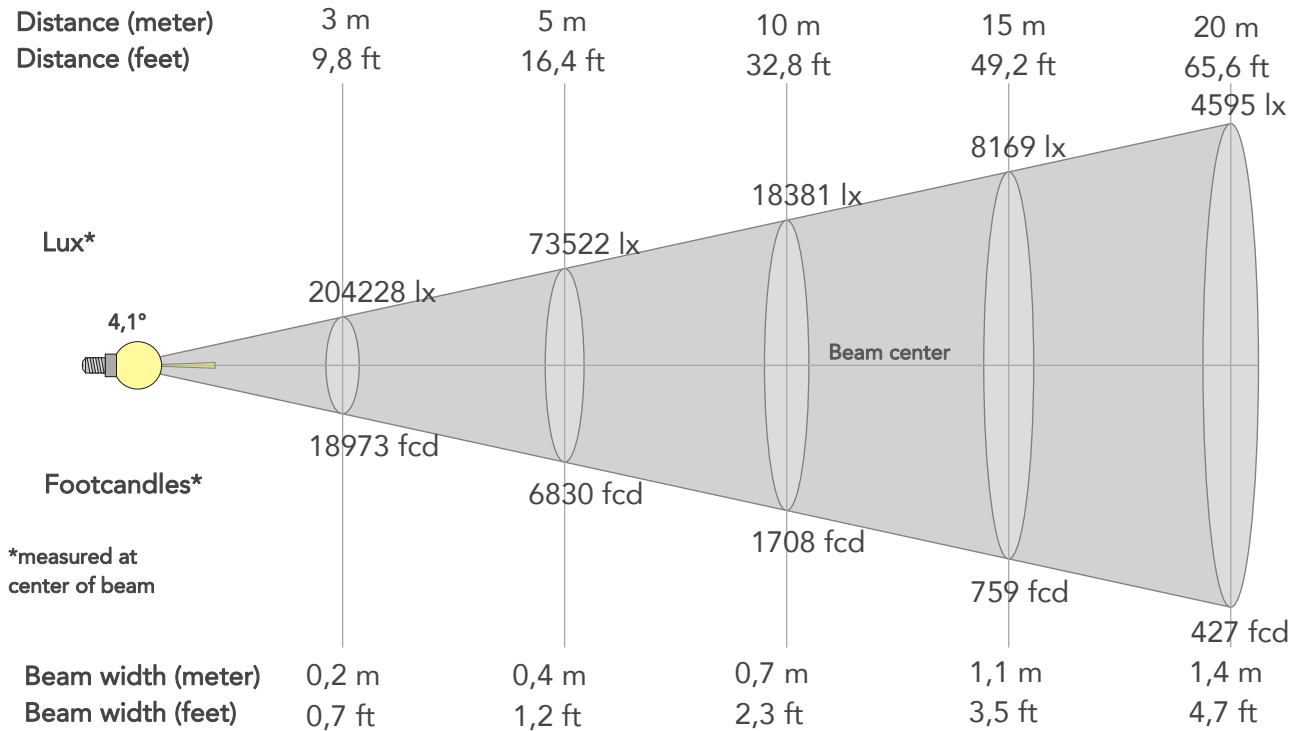
Spectra



BEAM DETAILS



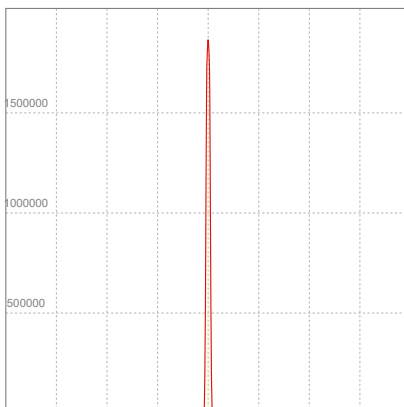
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,1°	6,2°	6,8°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1838051lx	459513lx	204228lx	114878lx	73522lx	32676lx	18381lx	8169lx	4595lx	2941lx	2042lx	1149lx	735lx
Footcand.	170761fcd	42690fcd	18973fcd	10673fcd	6830fcd	3036fcd	1708fcd	759fcd	427fcd	273fcd	190fcd	107fcd	68fcd
Beam wid.	0,1m	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1,1m	1,4m	1,8m	2,1m	2,9m	3,6m
Beam wid.	0,2ft	0,5ft	0,7ft	0,9ft	1,2ft	1,8ft	2,3ft	3,5ft	4,7ft	5,9ft	7ft	9,4ft	11,7ft

LINEAR DISTRIBUTION DIAGRAM

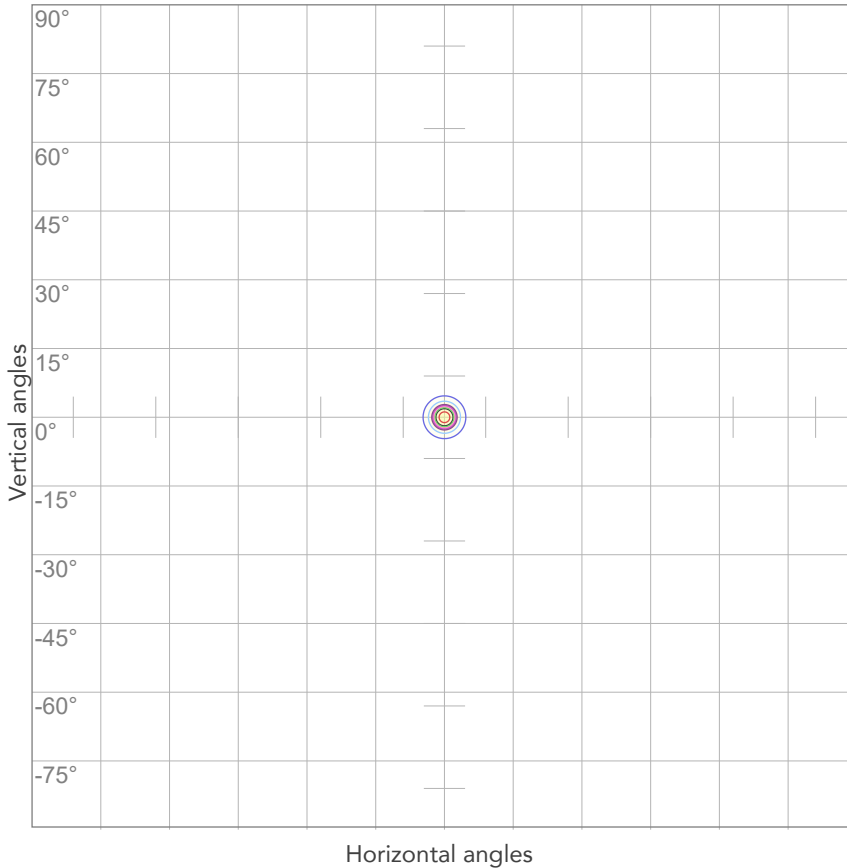


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	4,22A	906W	9lm/W

Power FC
0,97

ISO CANDELA DIAGRAM



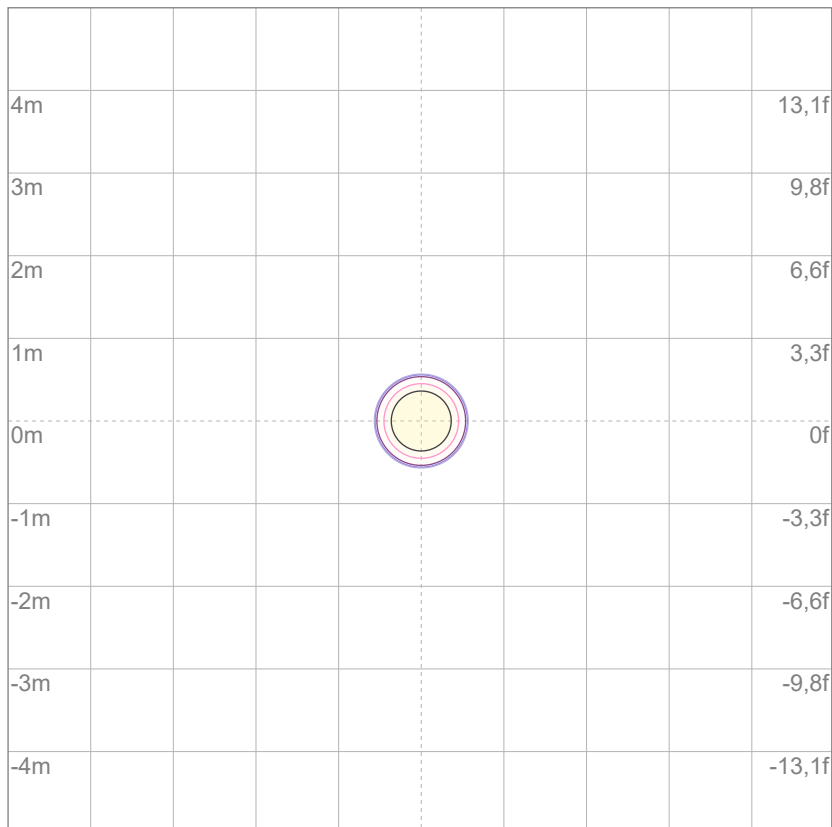
10%	183805 cd
20%	367610 cd
30%	551415 cd
40%	735220 cd
50%	919025 cd
60%	1102831 cd
70%	1286636 cd
80%	1470441 cd

Conditions:

Number of c-planes: 2

Candela at center: 1838051 cd

ISO LUX DIAGRAM



3%	551 lx
5%	919 lx
10%	1838 lx
30%	5514 lx
50%	9190 lx

Conditions:

Number of c-planes: 2

Lux at center: 18,4K 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:

3130 lm

Peak candela output:

9847 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

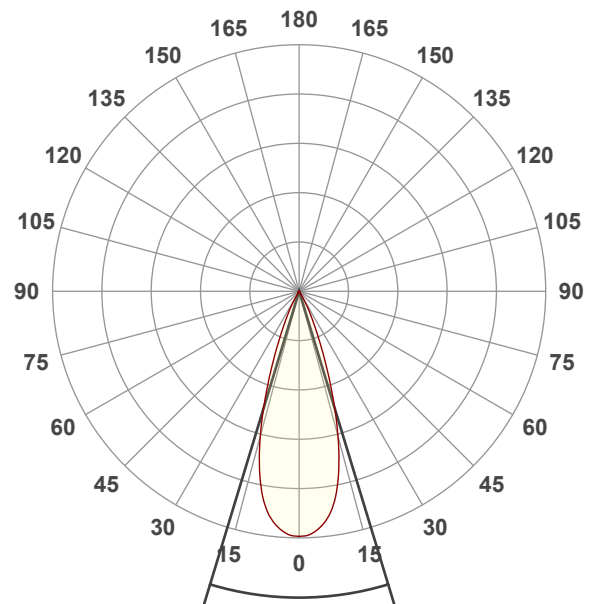
Red

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:48:59

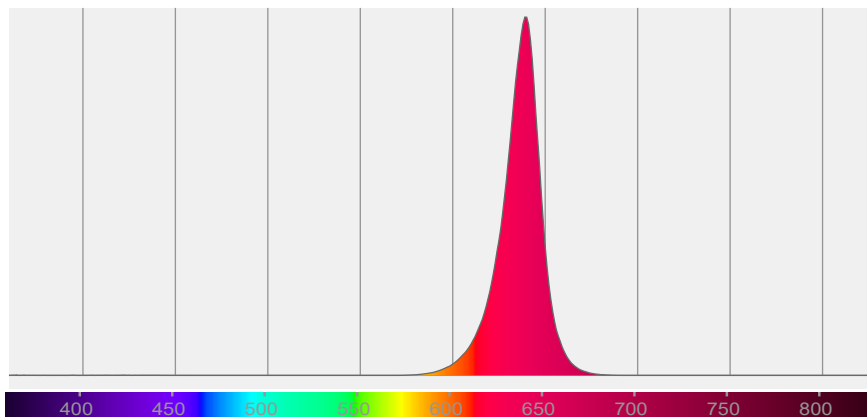


Beam angle 50%: 33,8°

Field angle 10%: 52,6°

Cut off angle 2.5%: 60,7°

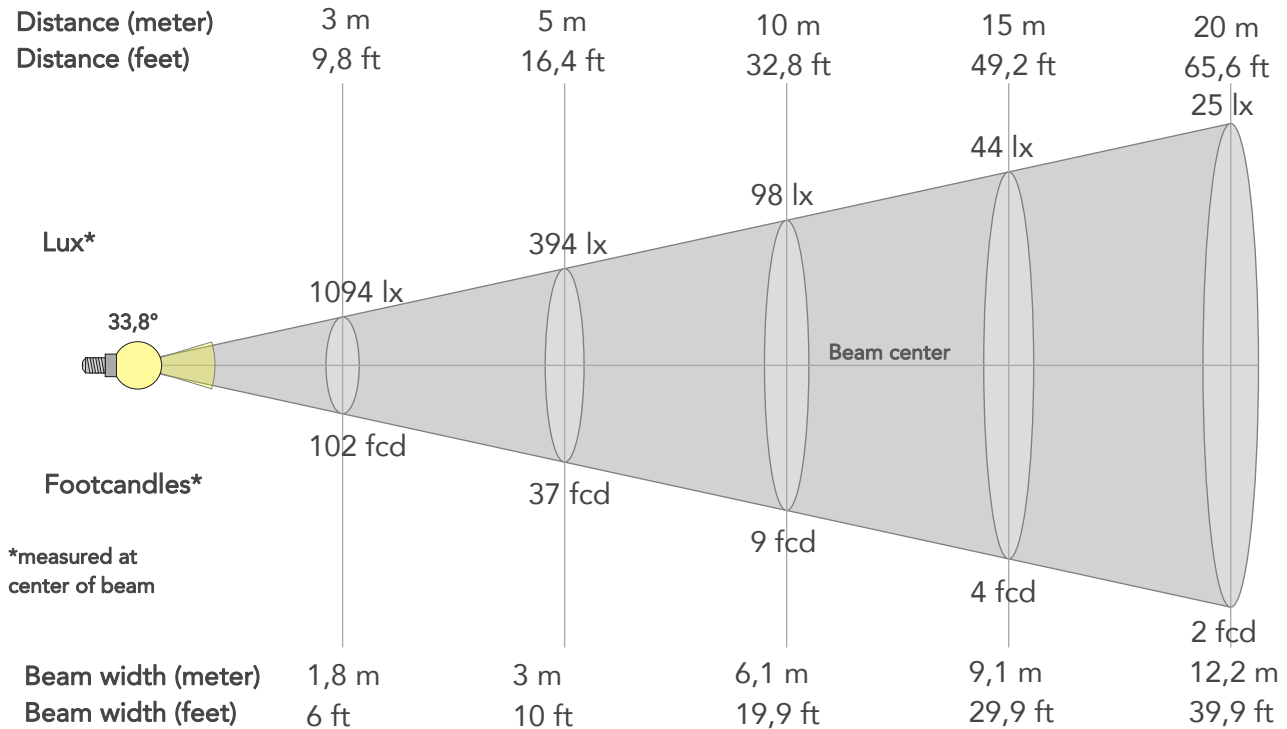
Spectra



BEAM DETAILS



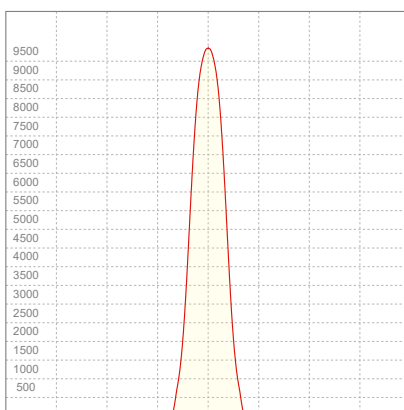
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,8°	52,6°	60,7°	100,0%	100,0%



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	9847lx	2462lx	1094lx	615lx	394lx	175lx	98lx	44lx	25lx	16lx	11lx	6lx	4lx
Footcand.	915fcd	229fcd	102fcd	57fcd	37fcd	16fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,6m	6,1m	9,1m	12,2m	15,2m	18,2m	24,3m	30,4m
Beam wid.	2ft	4ft	6ft	8ft	10ft	14,9ft	19,9ft	29,9ft	39,9ft	49,8ft	59,8ft	79,7ft	99,7ft

LINEAR DISTRIBUTION DIAGRAM

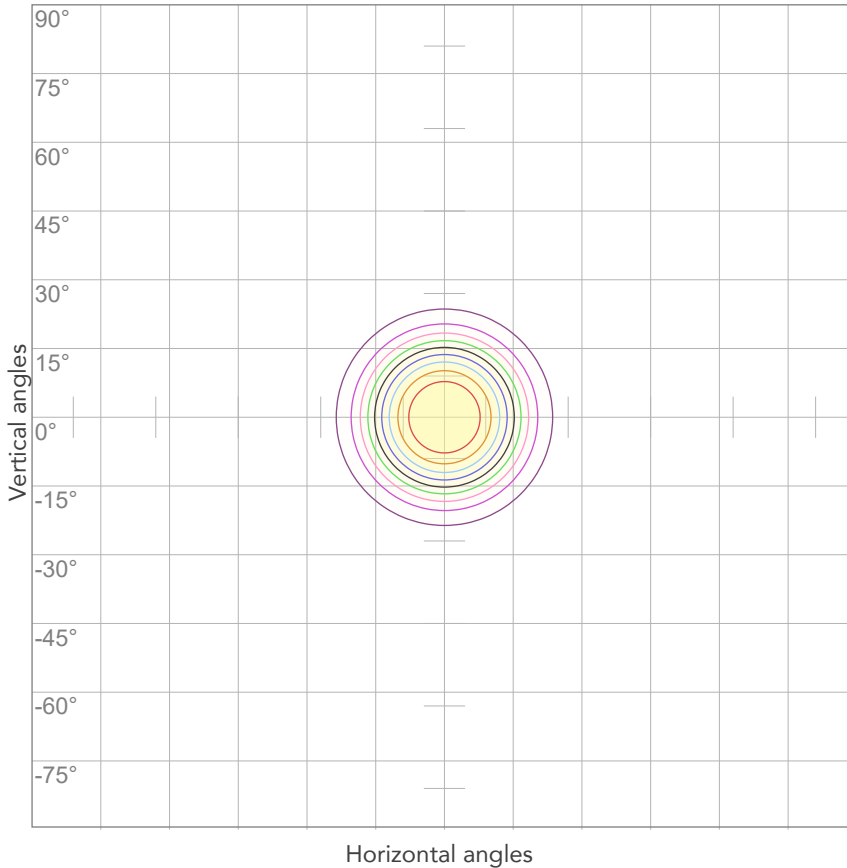


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	1,61A	319W	10lm/W

Power FC
0,88

ISO CANDELA DIAGRAM



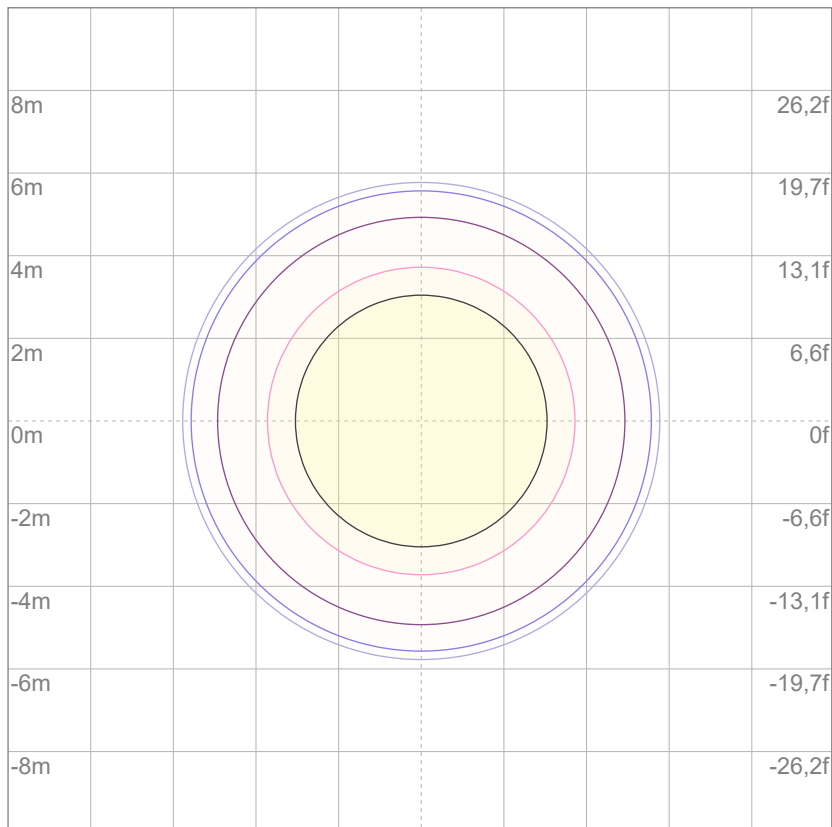
10%	985 cd
20%	1969 cd
30%	2954 cd
40%	3939 cd
50%	4923 cd
60%	5908 cd
70%	6893 cd
80%	7878 cd

Conditions:

Number of c-planes: 2

Candela at center: 9847 cd

ISO LUX DIAGRAM



3%	2,95 lx
5%	4,92 lx
10%	9,85 lx
30%	29,5 lx
50%	49,2 lx

Conditions:

Number of c-planes: 2

Lux at center: 98,5 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:

2412 lm

Peak candela output:

29601 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

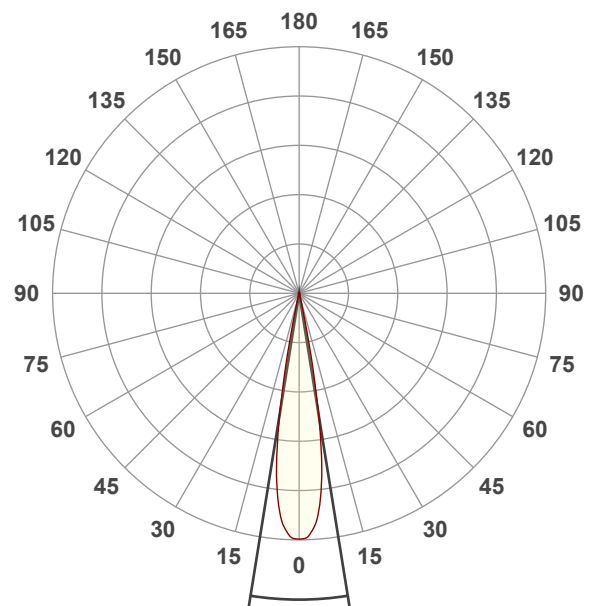
Red

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:50:20

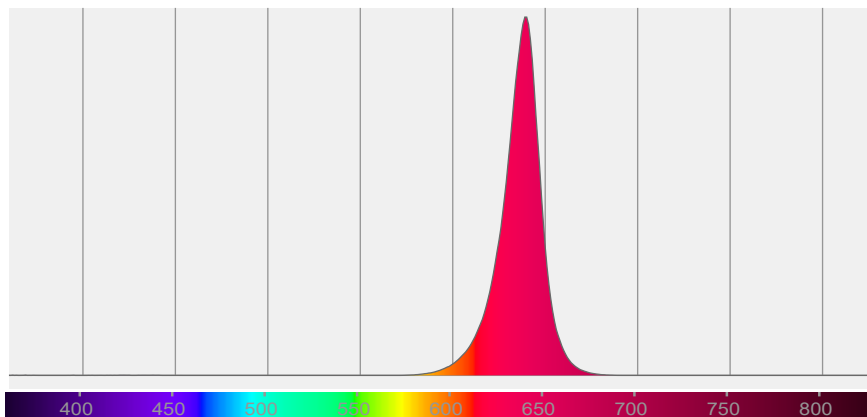


Beam angle 50%: 18,3°

Field angle 10%: 24,4°

Cut off angle 2.5%: 26,7°

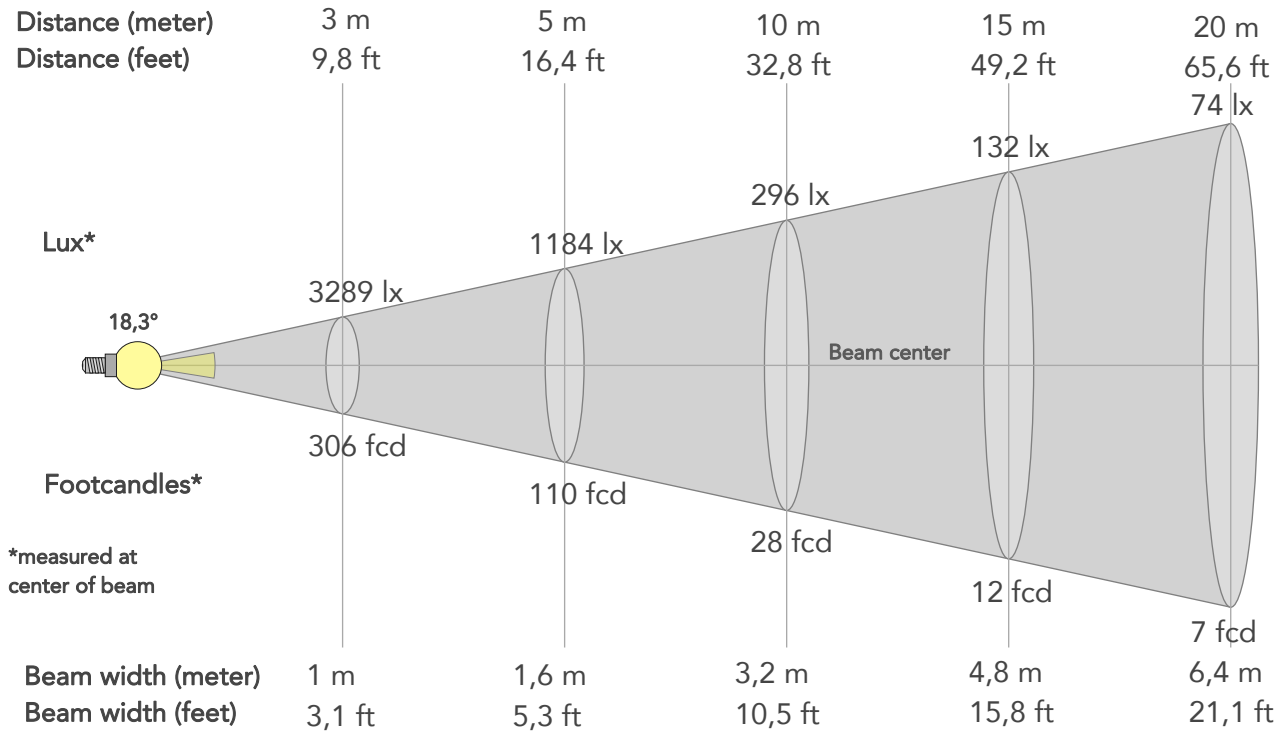
Spectra



BEAM DETAILS



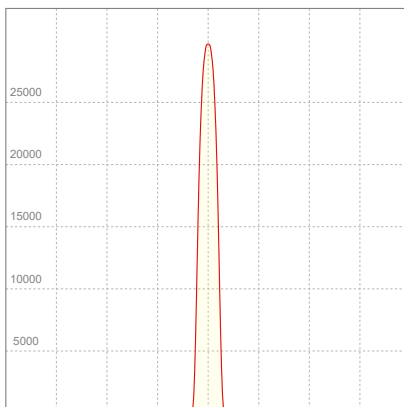
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,3°	24,4°	26,7°	100,0%	100,0%



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	2960lx	7400lx	3289lx	1850lx	1184lx	526lx	296lx	132lx	74lx	47lx	33lx	19lx	12lx
Footcand.	2750fcd	688fcd	306fcd	172fcd	110fcd	49fcd	28fcd	12fcd	7fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8m	9,6m	12,9m	16,1m
Beam wid.	1,1ft	2,1ft	3,1ft	4,2ft	5,3ft	7,9ft	10,5ft	15,8ft	21,1ft	26,4ft	31,6ft	42,2ft	52,7ft

LINEAR DISTRIBUTION DIAGRAM

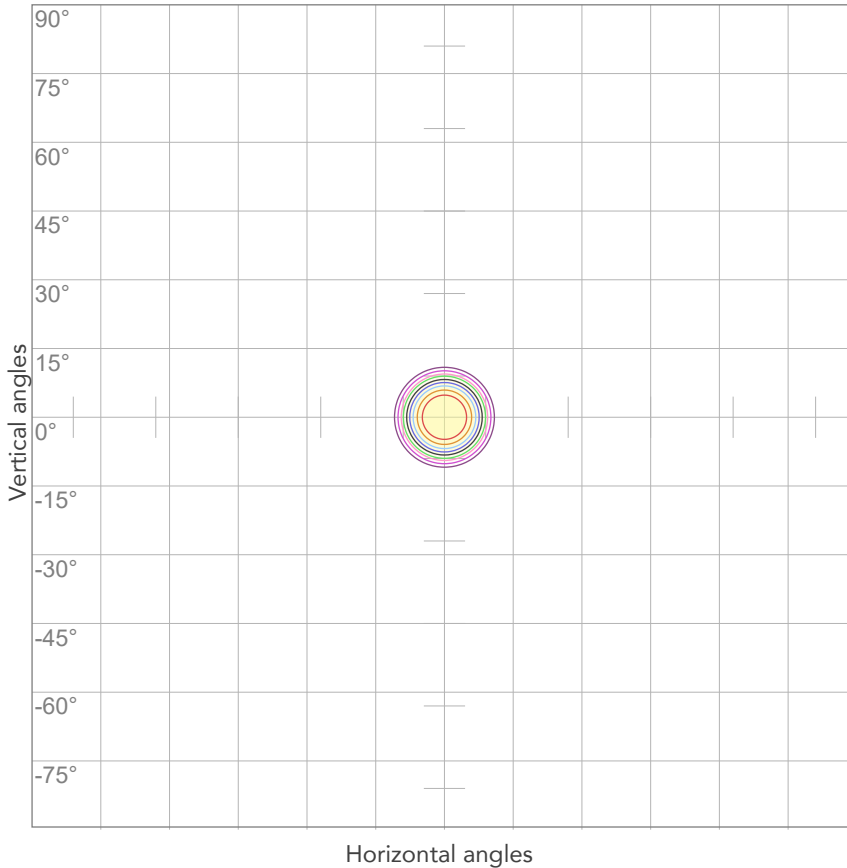


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Efficiency
225V	1,60A	317,5W	8lm/W

Power FC
0,88

ISO CANDELA DIAGRAM



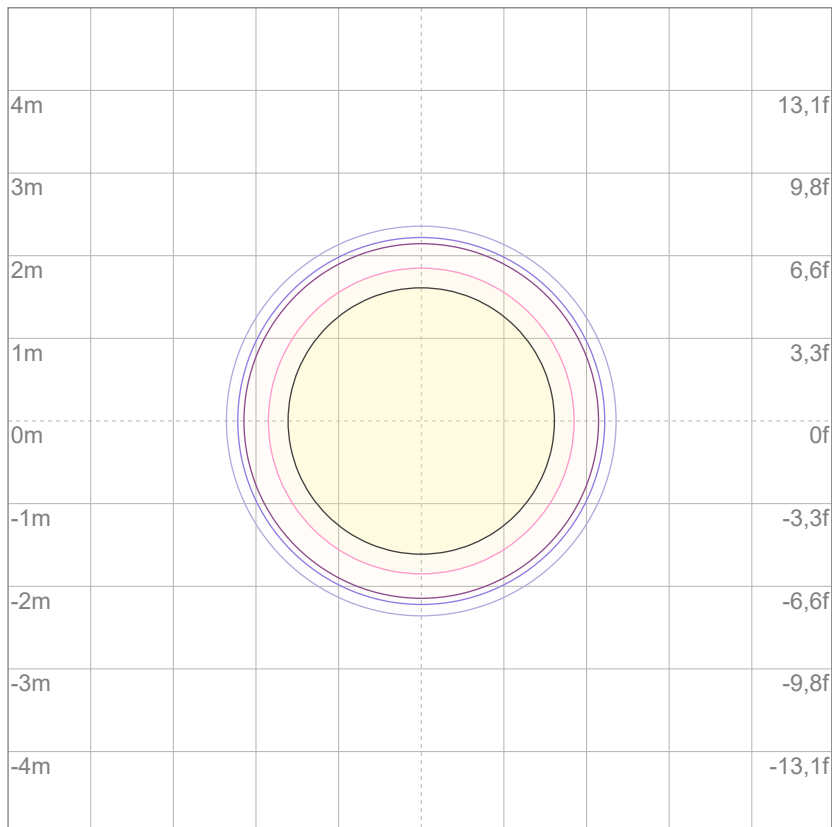
10%	2960 cd
20%	5920 cd
30%	8880 cd
40%	11840 cd
50%	14800 cd
60%	17760 cd
70%	20721 cd
80%	23681 cd

Conditions:

Number of c-planes: 2

Candela at center: 29601 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	8,88 lx
5%	14,8 lx
10%	29,6 lx
30%	88,8 lx
50%	148 lx

Conditions:

Number of c-planes: 2

Lux at center: 296 lx

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



Total lumen output:

1441 lm

Peak candela output:

325753 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

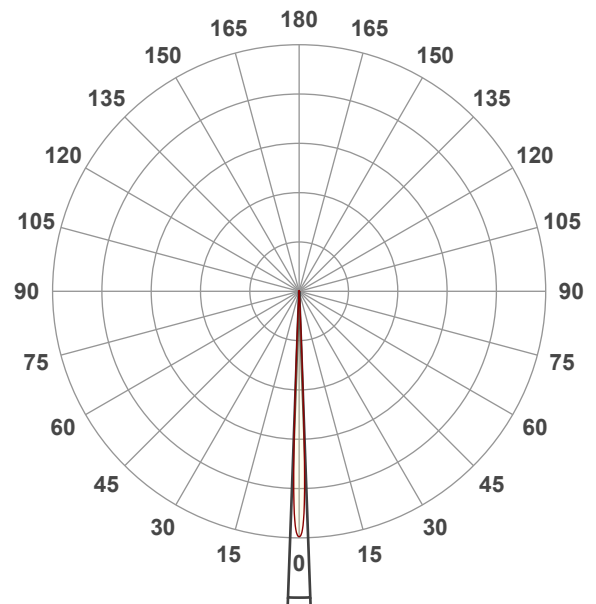
Red

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:52:28

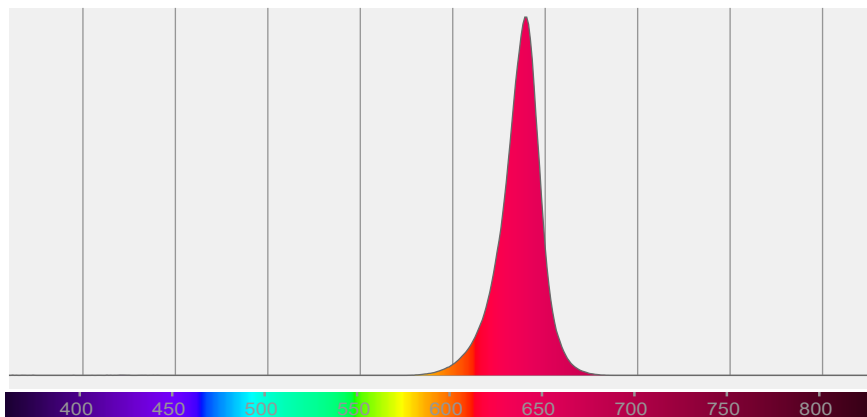


Beam angle 50%: 4,2°

Field angle 10%: 5,6°

Cut off angle 2.5%: 6,4°

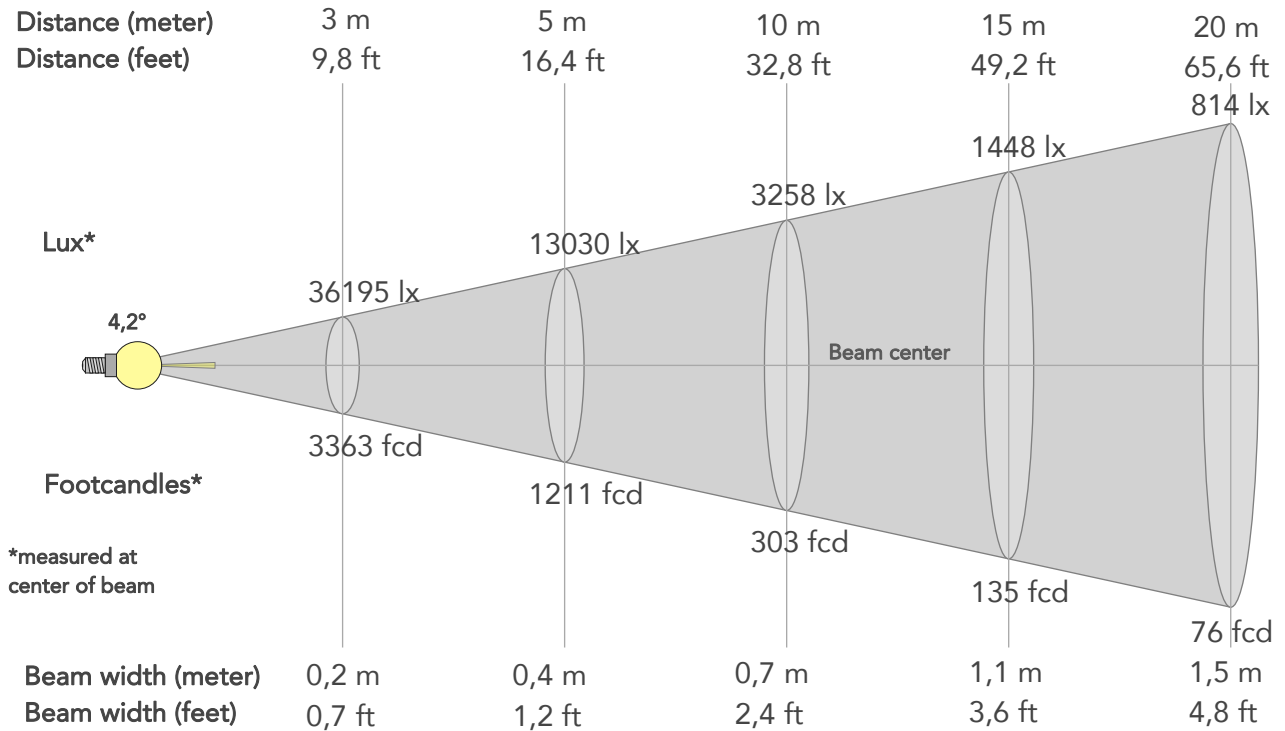
Spectra



BEAM DETAILS



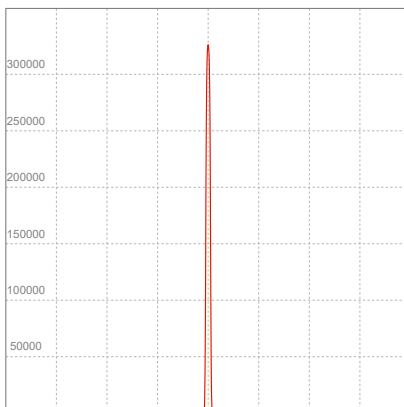
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,2°	5,6°	6,4°	99,6%	99,5%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	325753lx	81438lx	36195lx	20360lx	13030lx	5791lx	3258lx	1448lx	814lx	521lx	362lx	204lx	130lx
Footcand.	30263fcd	7566fcd	3363fcd	1891fcd	1211fcd	538fcd	303fcd	135fcd	76fcd	48fcd	34fcd	19fcd	12fcd
Beam wid.	0,1m	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1,1m	1,5m	1,8m	2,2m	2,9m	3,6m
Beam wid.	0,2ft	0,5ft	0,7ft	1ft	1,2ft	1,8ft	2,4ft	3,6ft	4,8ft	6ft	7,2ft	9,6ft	11,9ft

LINEAR DISTRIBUTION DIAGRAM

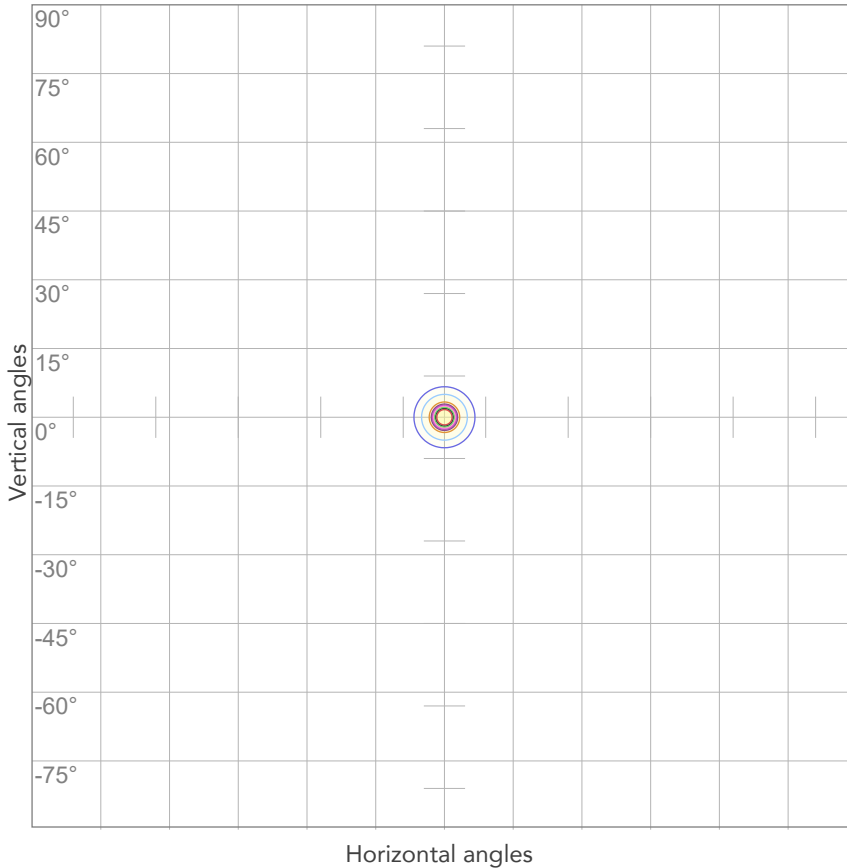


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
221V	1,61A	317,1W	5lm/W

Power FC
0,89

ISO CANDELA DIAGRAM



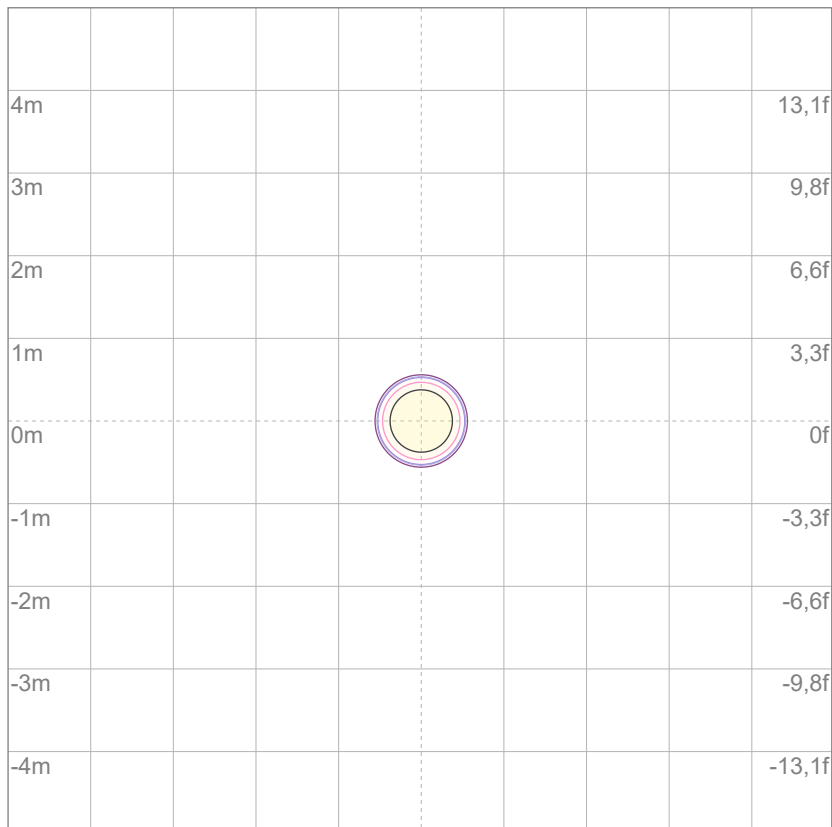
10%	32575 cd
20%	65151 cd
30%	97726 cd
40%	130301 cd
50%	162876 cd
60%	195452 cd
70%	228027 cd
80%	260602 cd

Conditions:

Number of c-planes: 2

Candela at center: 325753 cd

ISO LUX DIAGRAM



3%	97,7 lx
5%	163 lx
10%	326 lx
30%	977 lx
50%	1629 lx

Conditions:

Number of c-planes: 2

Lux at center: 3258 lx

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



Total lumen output:

6746 lm

Peak candela output:

20780 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

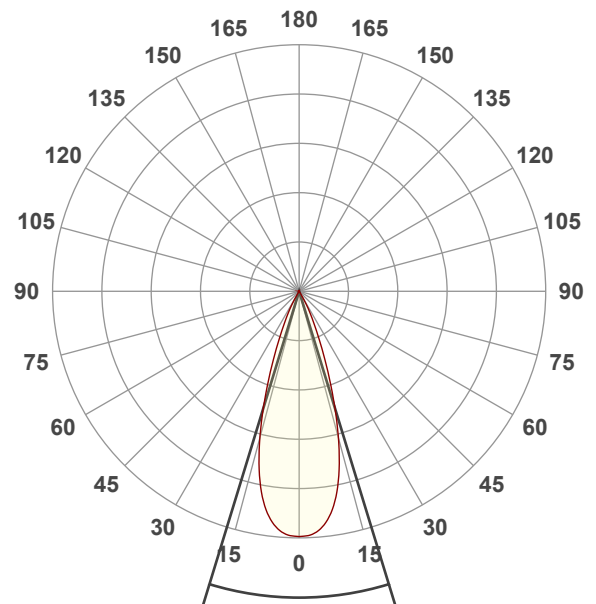
Green

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:43:31

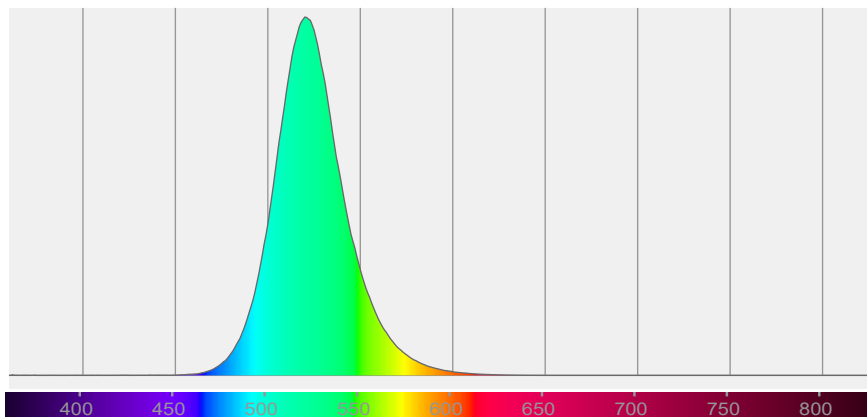


Beam angle 50%: 34,1°

Field angle 10%: 53,3°

Cut off angle 2.5%: 60,7°

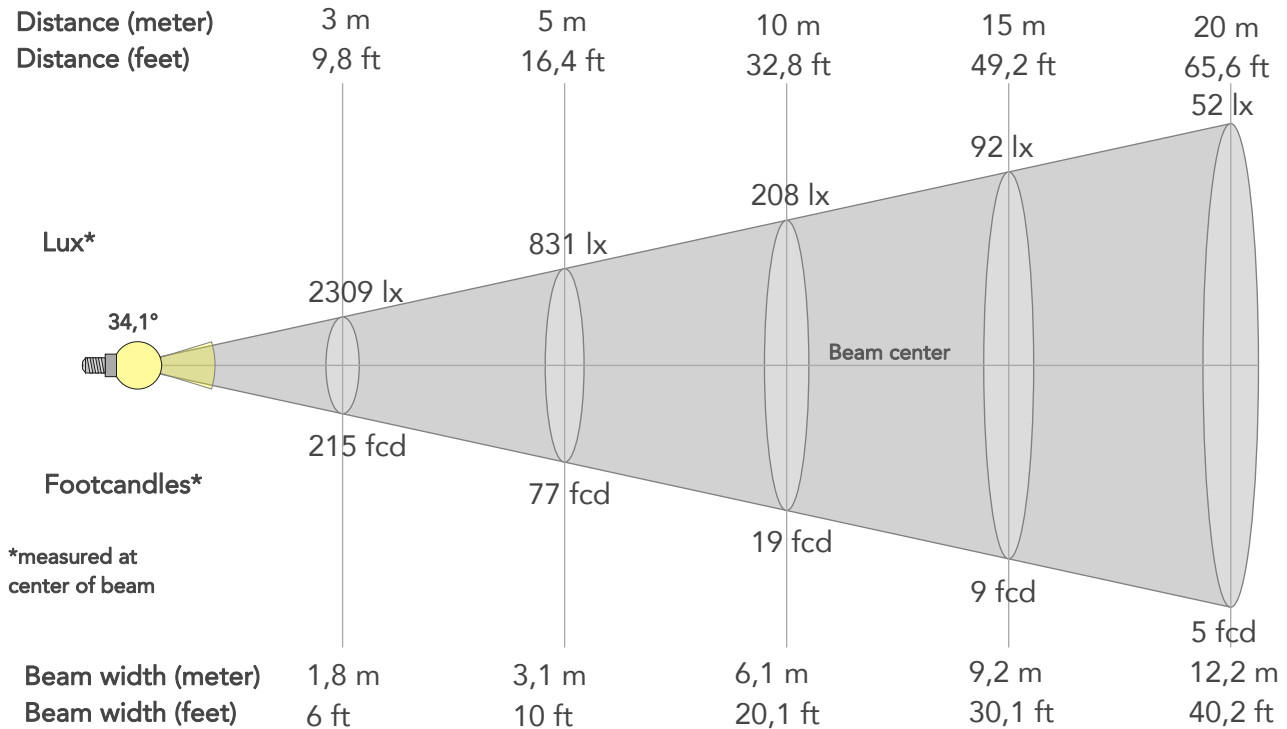
Spectra



BEAM DETAILS



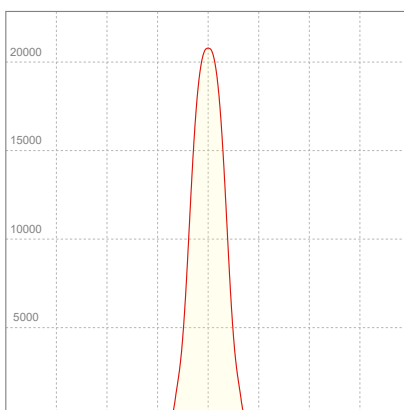
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,1°	53,3°	60,7°	100,0%	99,8%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	20780lx	5195lx	2309lx	1299lx	831lx	369lx	208lx	92lx	52lx	33lx	23lx	13lx	8lx
Footcand.	1931fcd	483fcd	215fcd	121fcd	77fcd	34fcd	19fcd	9fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3,1m	4,6m	6,1m	9,2m	12,2m	15,3m	18,4m	24,5m	30,6m
Beam wid.	2ft	4ft	6ft	8ft	10ft	15,1ft	20,1ft	30,1ft	40,2ft	50,2ft	60,3ft	80,4ft	100,4ft

LINEAR DISTRIBUTION DIAGRAM

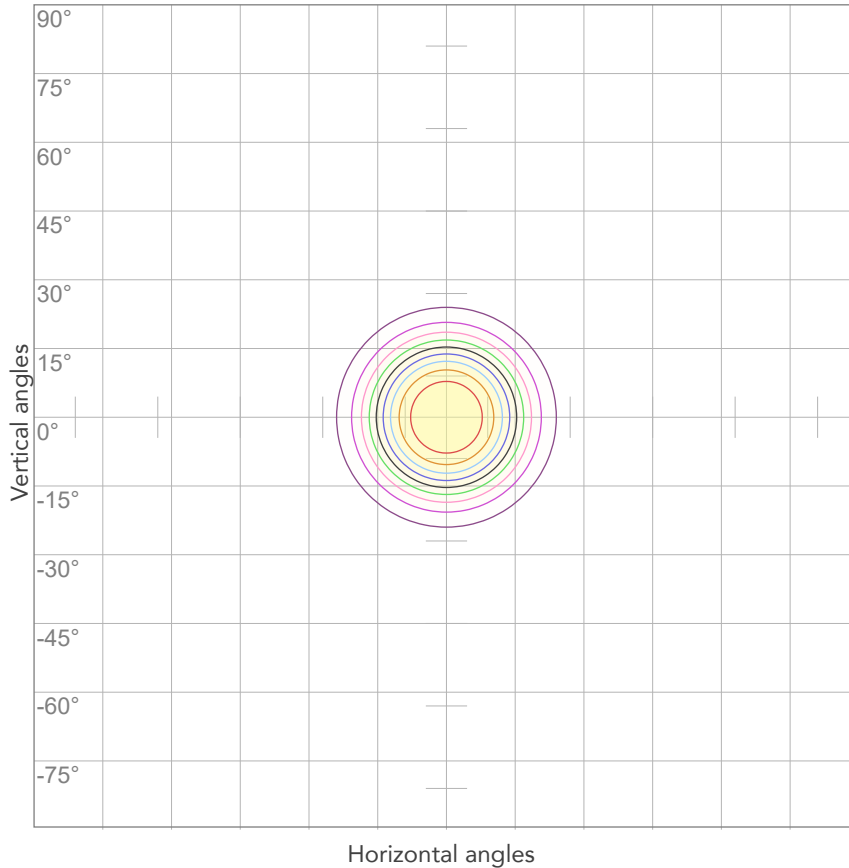


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,22A	461W	15lm/W

Power FC
0,93

ISO CANDELA DIAGRAM



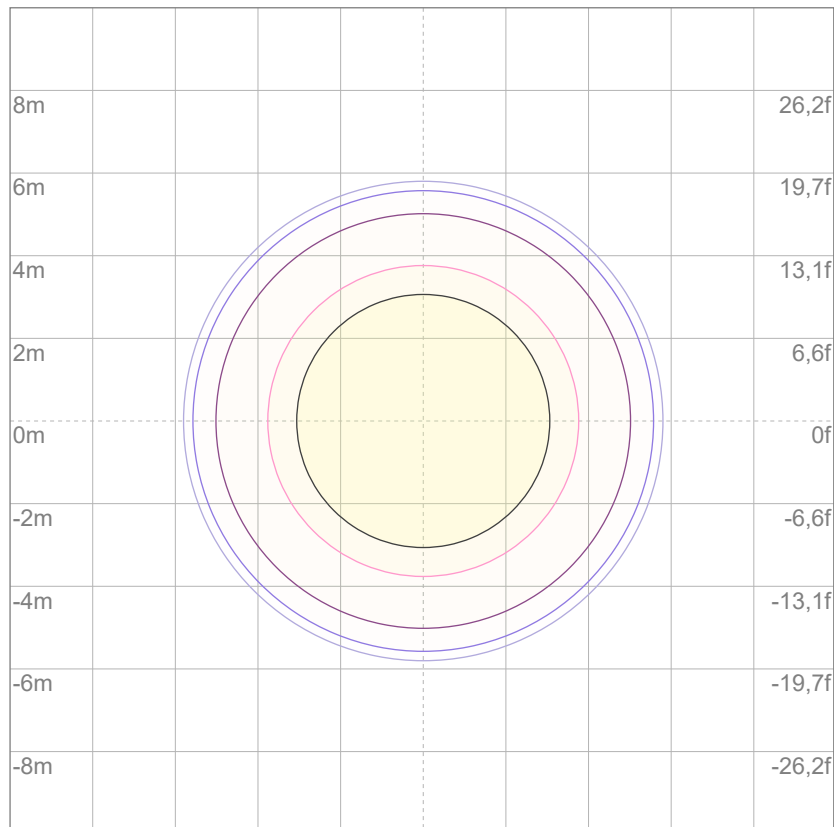
10%	2078 cd
20%	4156 cd
30%	6234 cd
40%	8312 cd
50%	10390 cd
60%	12468 cd
70%	14546 cd
80%	16624 cd

Conditions:

Number of c-planes: 2

Candela at center: 20780 cd

ISO LUX DIAGRAM



3%	6,23 lx
5%	10,4 lx
10%	20,8 lx
30%	62,3 lx
50%	104 lx

Conditions:

Number of c-planes: 2

Lux at center: 208 lx

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



Total lumen output:

5127 lm

Peak candela output:

64009 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

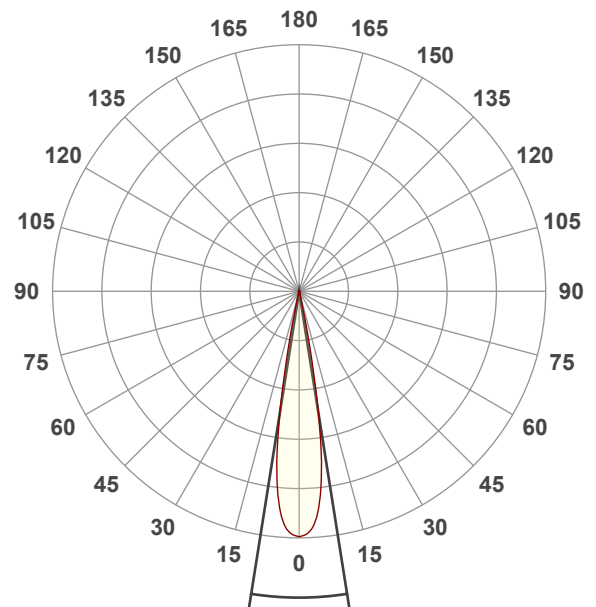
Green

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:45:08

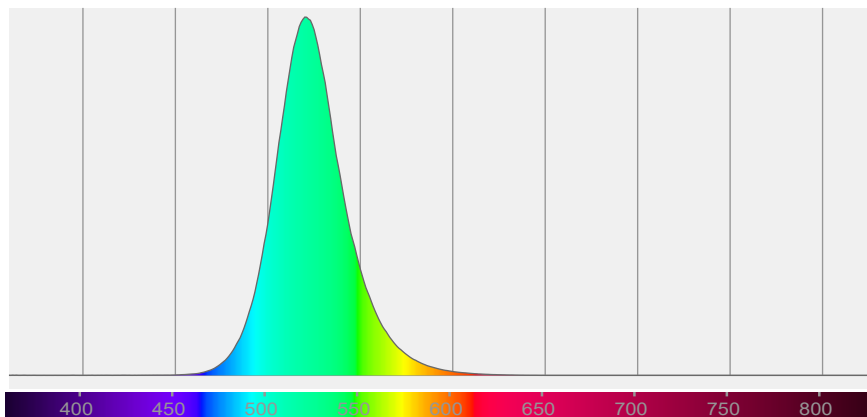


Beam angle 50%: 18°

Field angle 10%: 24,2°

Cut off angle 2.5%: 26,9°

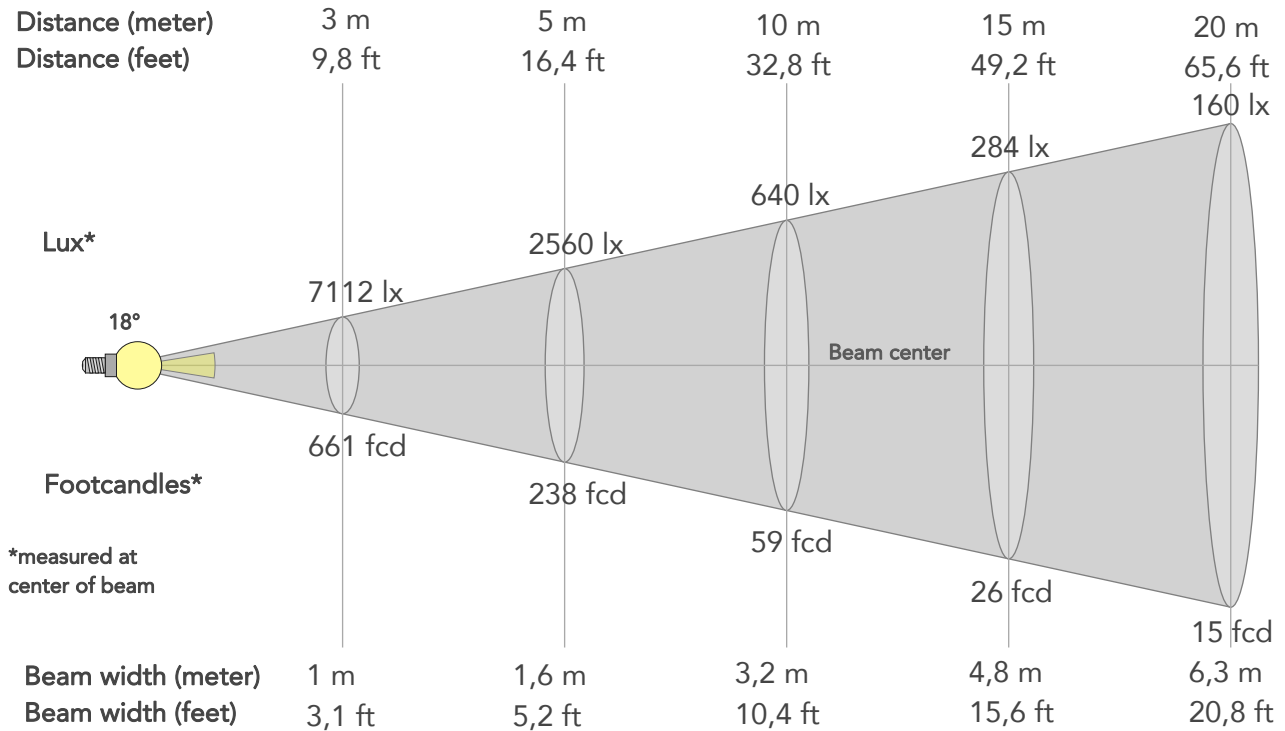
Spectra



BEAM DETAILS



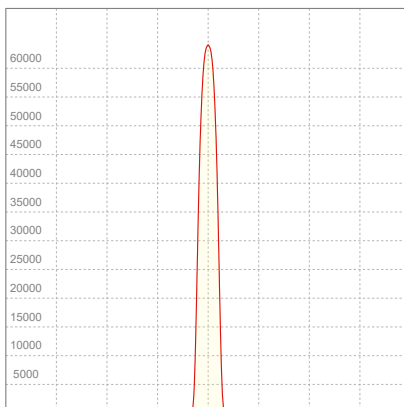
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18°	24,2°	26,9°	100,0%	100,0%



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	64009lx	16002lx	7112lx	4001lx	2560lx	1138lx	640lx	284lx	160lx	102lx	71lx	40lx	26lx
Footcand.	5947fcd	1487fcd	661fcd	372fcd	238fcd	106fcd	59fcd	26fcd	15fcd	10fcd	7fcd	4fcd	2fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,3m	7,9m	9,5m	12,7m	15,8m
Beam wid.	1ft	2,1ft	3,1ft	4,2ft	5,2ft	7,8ft	10,4ft	15,6ft	20,8ft	26ft	31,2ft	41,6ft	52ft

LINEAR DISTRIBUTION DIAGRAM

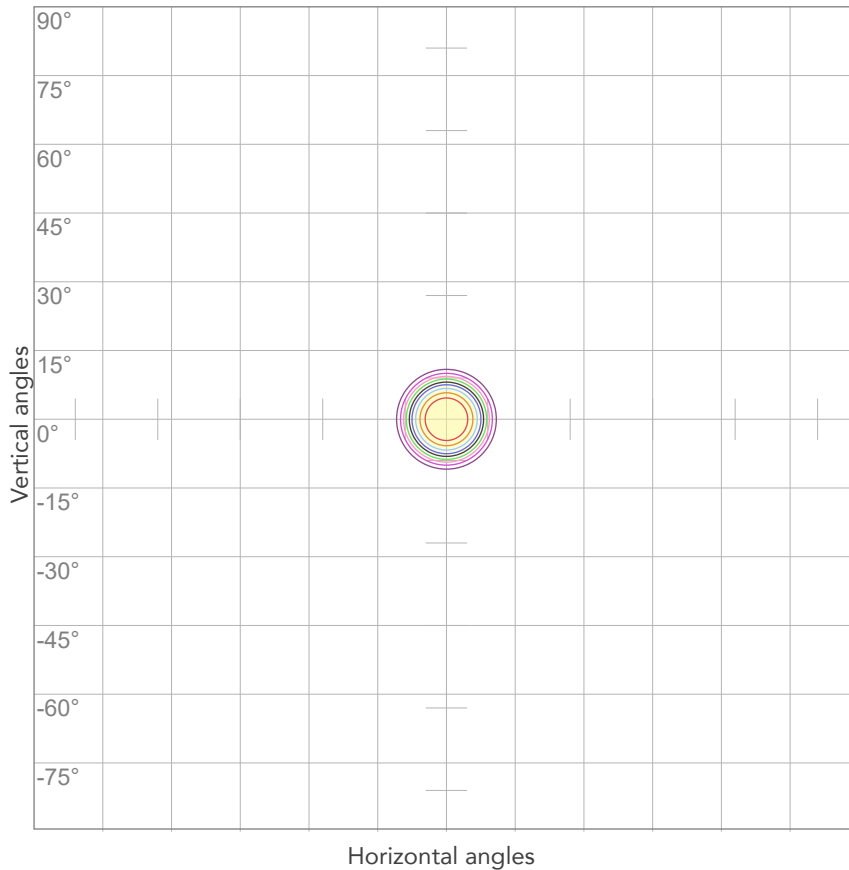


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,22A	460,4W	11lm/W

Power FC
0,93

ISO CANDELA DIAGRAM



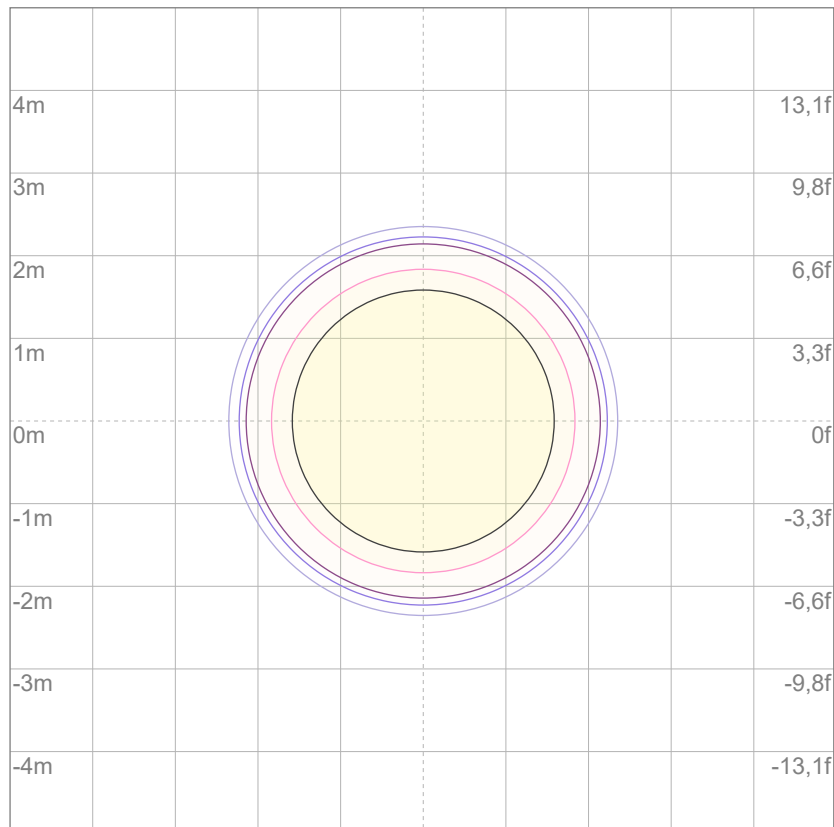
10%	6401 cd
20%	12802 cd
30%	19203 cd
40%	25604 cd
50%	32004 cd
60%	38405 cd
70%	44806 cd
80%	51207 cd

Conditions:

Number of c-planes: 2

Candela at center: 64009 cd

ISO LUX DIAGRAM



3%	19,2 lx
5%	32,0 lx
10%	64,0 lx
30%	192 lx
50%	320 lx

Conditions:

Number of c-planes: 2

Lux at center: 640 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:

3059 lm

Peak candela output:

683473 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

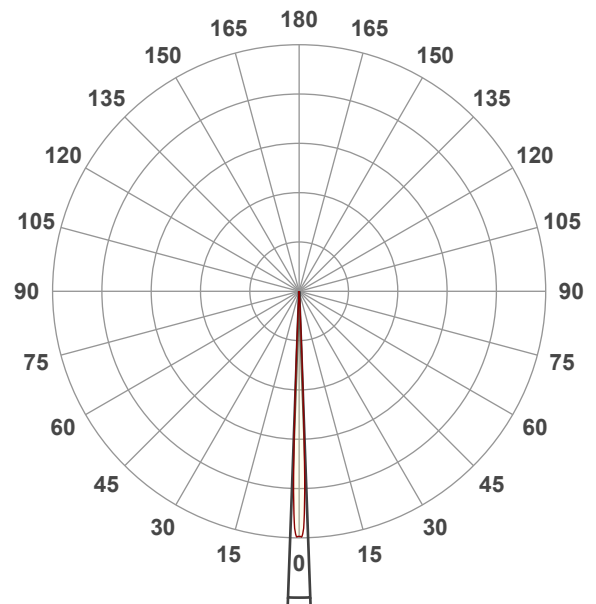
Green

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:47:05

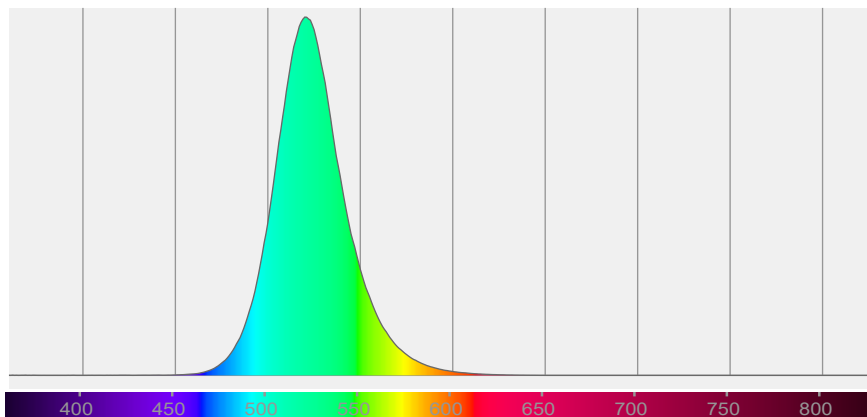


Beam angle 50%: 4,2°

Field angle 10%: 5,7°

Cut off angle 2.5%: 6,4°

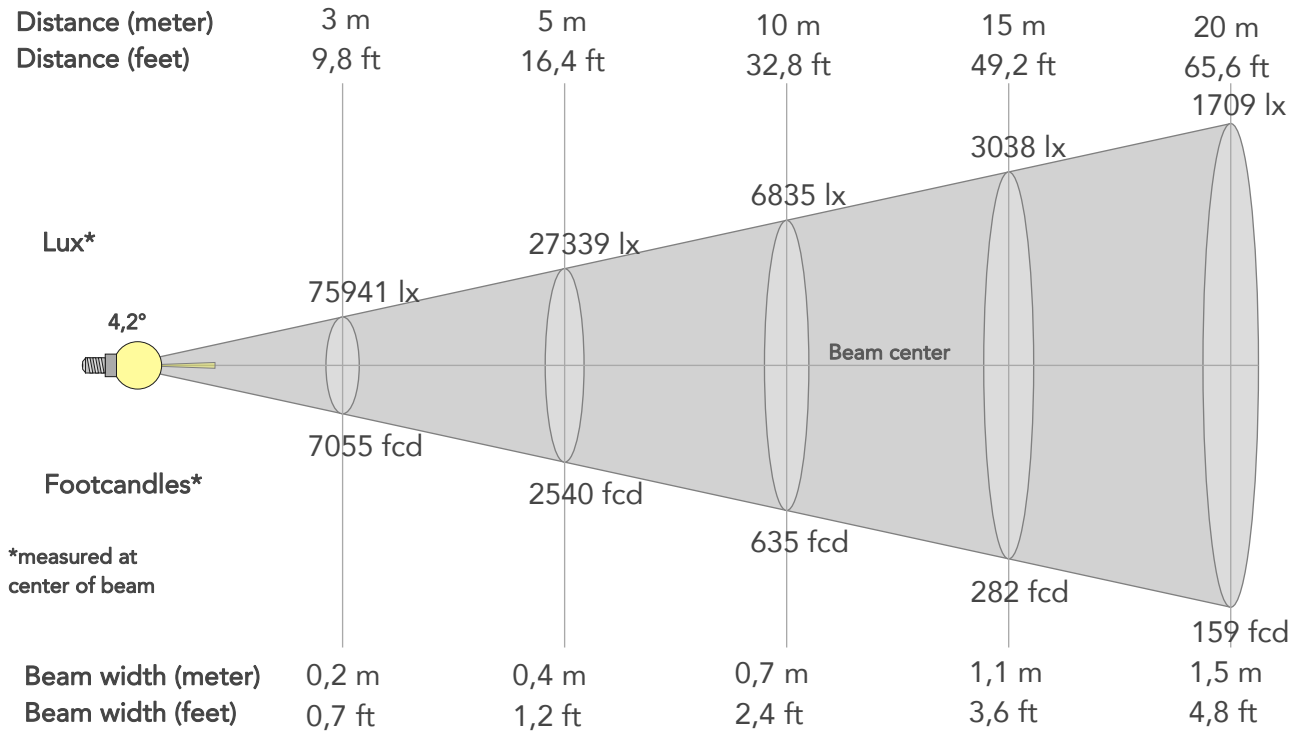
Spectra



BEAM DETAILS



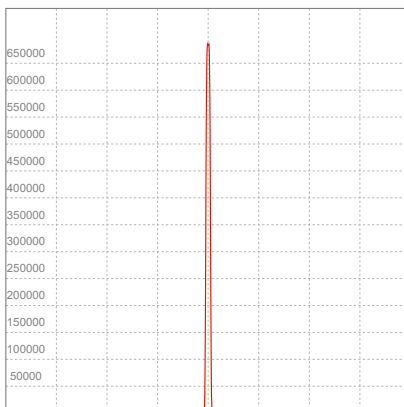
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,2°	5,7°	6,4°	100,0%	100,0%



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	683473lx	170868lx	75941lx	42717lx	27339lx	12151lx	6835lx	3038lx	1709lx	1094lx	759lx	427lx	273lx
Footcand.	63497fcd	15874fcd	7055fcd	3969fcd	2540fcd	1129fcd	635fcd	282fcd	159fcd	102fcd	71fcd	40fcd	25fcd
Beam wid.	0,1m	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1,1m	1,5m	1,8m	2,2m	2,9m	3,6m
Beam wid.	0,2ft	0,5ft	0,7ft	1ft	1,2ft	1,8ft	2,4ft	3,6ft	4,8ft	6ft	7,2ft	9,5ft	11,9ft

LINEAR DISTRIBUTION DIAGRAM

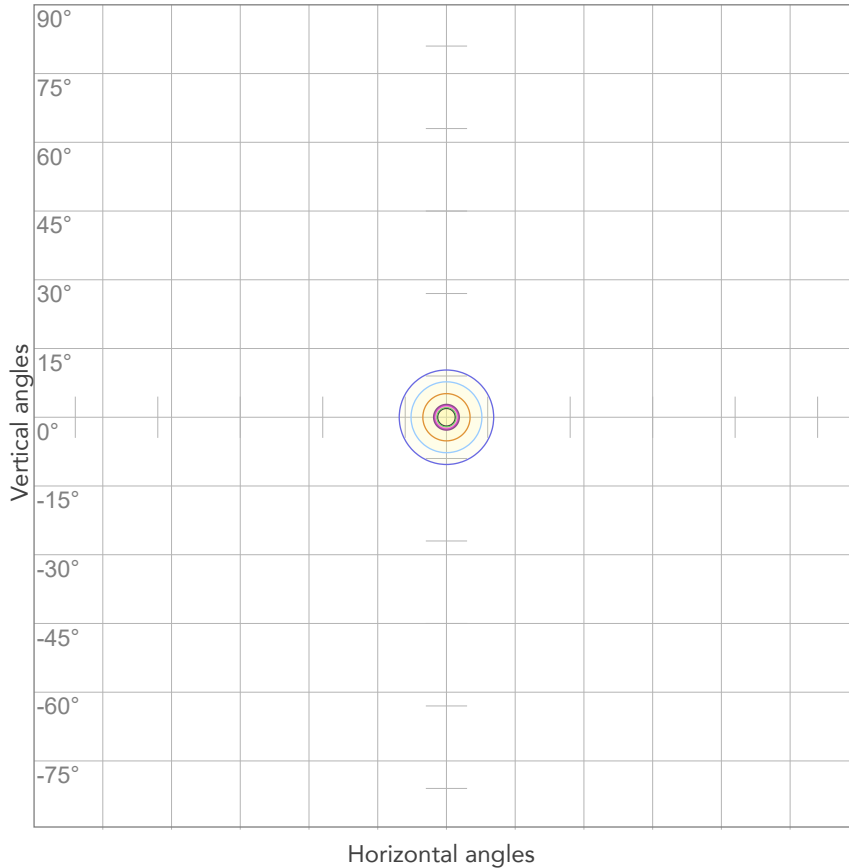


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,20A	455,3W	7lm/W

Power FC
0,93

ISO CANDELA DIAGRAM



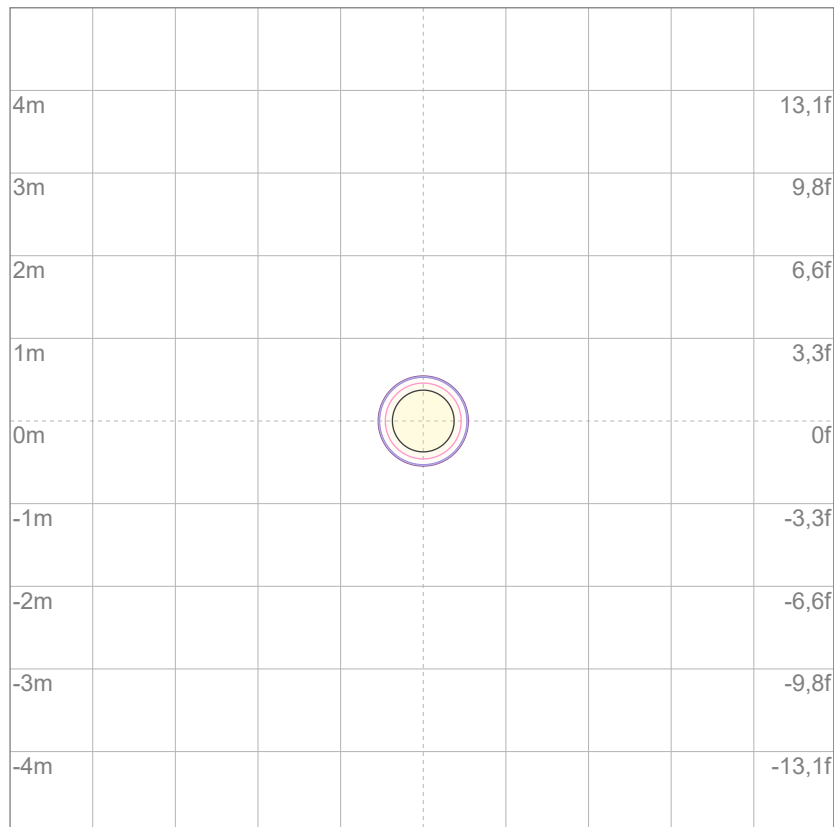
10%	68347 cd
20%	136695 cd
30%	205042 cd
40%	273389 cd
50%	341737 cd
60%	410084 cd
70%	478431 cd
80%	546779 cd

Conditions:

Number of c-planes: 2

Candela at center: 683473 cd

ISO LUX DIAGRAM



3%	205 lx
5%	342 lx
10%	683 lx
30%	2050 lx
50%	3417 lx

Conditions:

Number of c-planes: 2

Lux at center: 6835 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:

1417 lm

Peak candela output:

4477 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

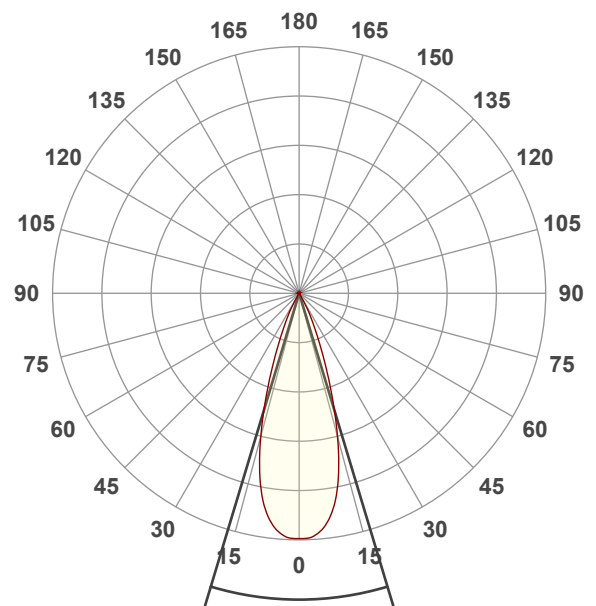
Blue

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:38:47

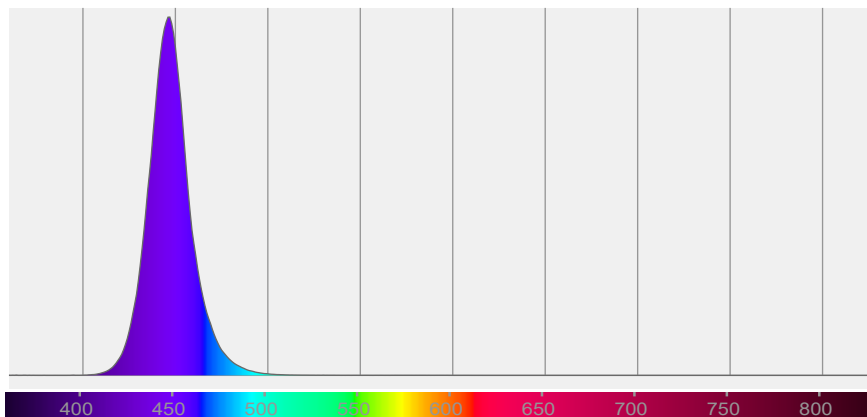


Beam angle 50%: 33,5°

Field angle 10%: 52,8°

Cut off angle 2.5%: 59,9°

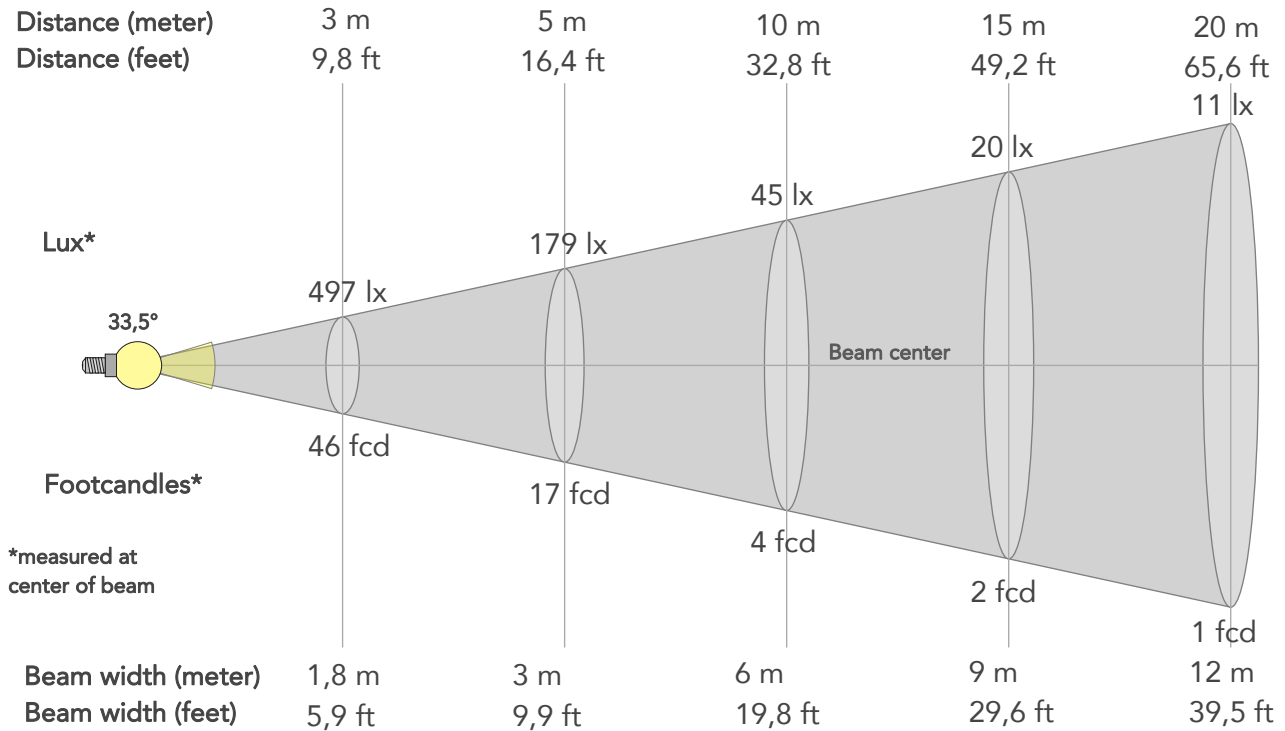
Spectra



BEAM DETAILS



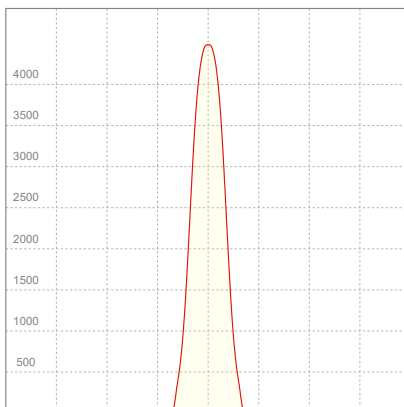
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,5°	52,8°	59,9°	99,9%	99,8%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4477lx	1119lx	497lx	280lx	179lx	80lx	45lx	20lx	11lx	7lx	5lx	3lx	2lx
Footcand.	416fcd	104fcd	46fcd	26fcd	17fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,5m	6m	9m	12m	15,1m	18,1m	24,1m	30,1m
Beam wid.	2ft	4ft	5,9ft	7,9ft	9,9ft	14,8ft	19,8ft	29,6ft	39,5ft	49,4ft	59,3ft	79ft	98,8ft

LINEAR DISTRIBUTION DIAGRAM

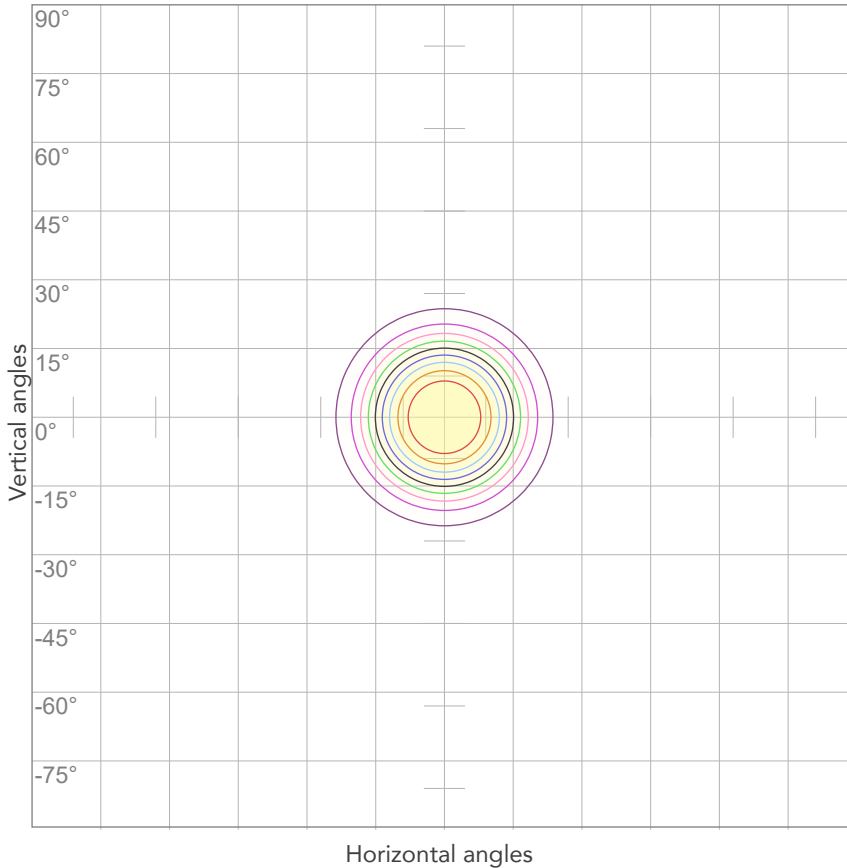


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	1,79A	362,5W	4lm/W

Power FC
0,9

ISO CANDELA DIAGRAM



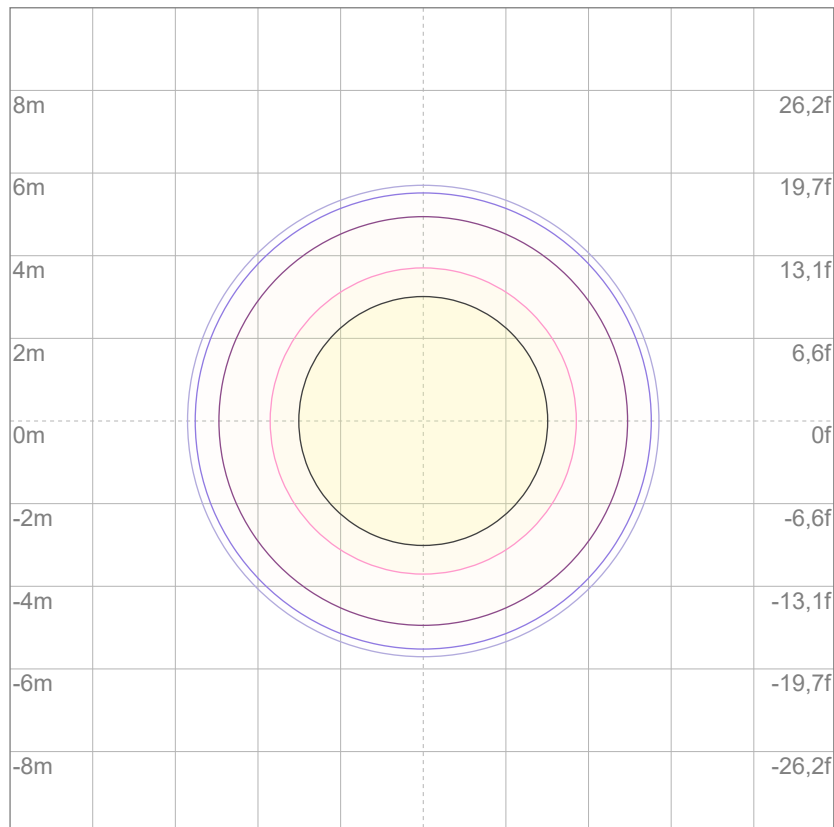
10%	448 cd
20%	895 cd
30%	1343 cd
40%	1791 cd
50%	2239 cd
60%	2686 cd
70%	3134 cd
80%	3582 cd

Conditions:

Number of c-planes: 2

Candela at center: 4477 cd

ISO LUX DIAGRAM



3%	1,34 lx
5%	2,24 lx
10%	4,48 lx
30%	13,4 lx
50%	22,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 44,8 lx

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



Total lumen output:

1055 lm

Peak candela output:

13719 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

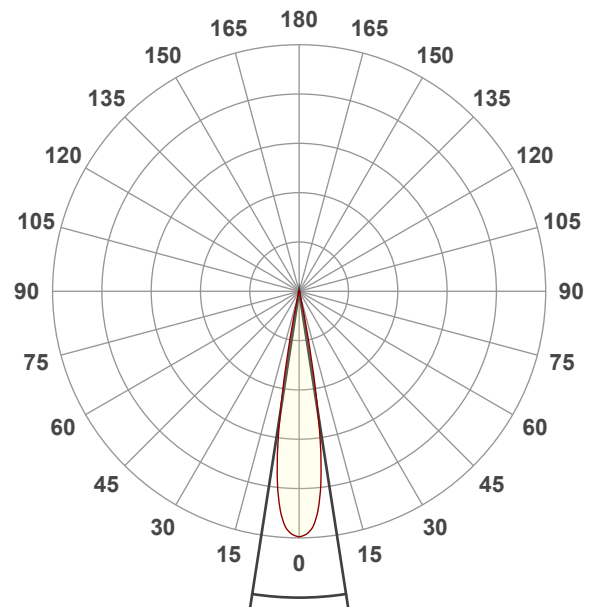
Blue

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:40:05

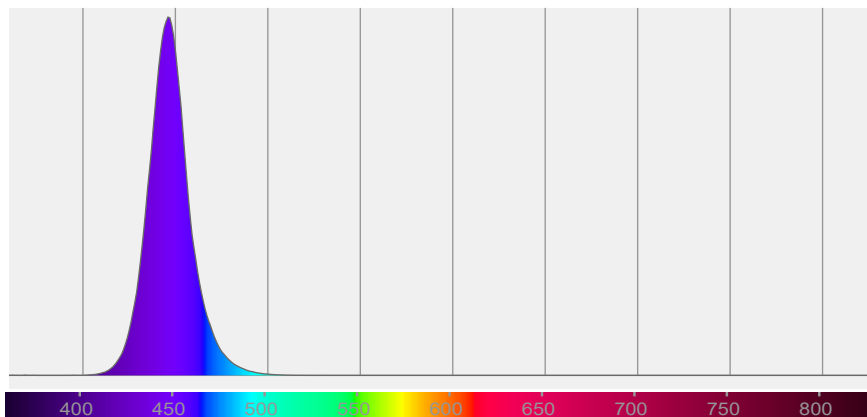


Beam angle 50%: 17,6°

Field angle 10%: 23,8°

Cut off angle 2.5%: 26,4°

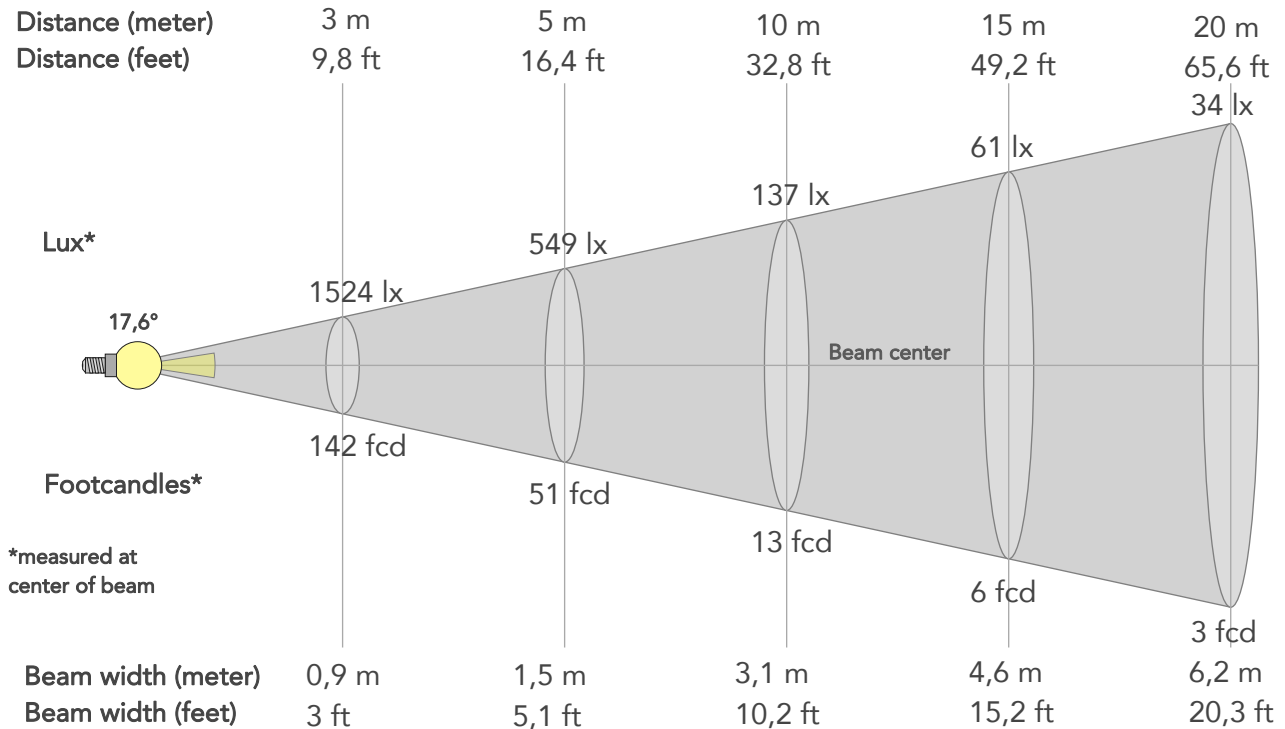
Spectra



BEAM DETAILS



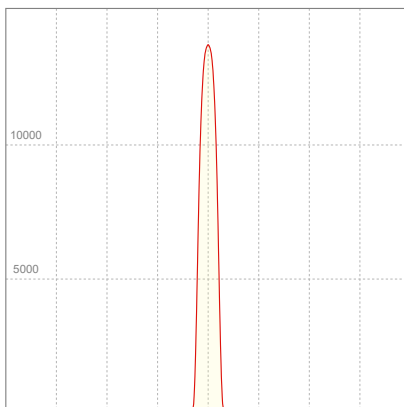
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,6°	23,8°	26,4°	99,8%	99,7%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	13719lx	3430lx	1524lx	857lx	549lx	244lx	137lx	61lx	34lx	22lx	15lx	9lx	5lx
Footcand.	1275fcd	319fcd	142fcd	80fcd	51fcd	23fcd	13fcd	6fcd	3fcd	2fcd	1fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3,1m	4,6m	6,2m	7,7m	9,3m	12,4m	15,5m
Beam wid.	1ft	2ft	3ft	4,1ft	5,1ft	7,6ft	10,2ft	15,2ft	20,3ft	25,4ft	30,5ft	40,7ft	50,8ft

LINEAR DISTRIBUTION DIAGRAM

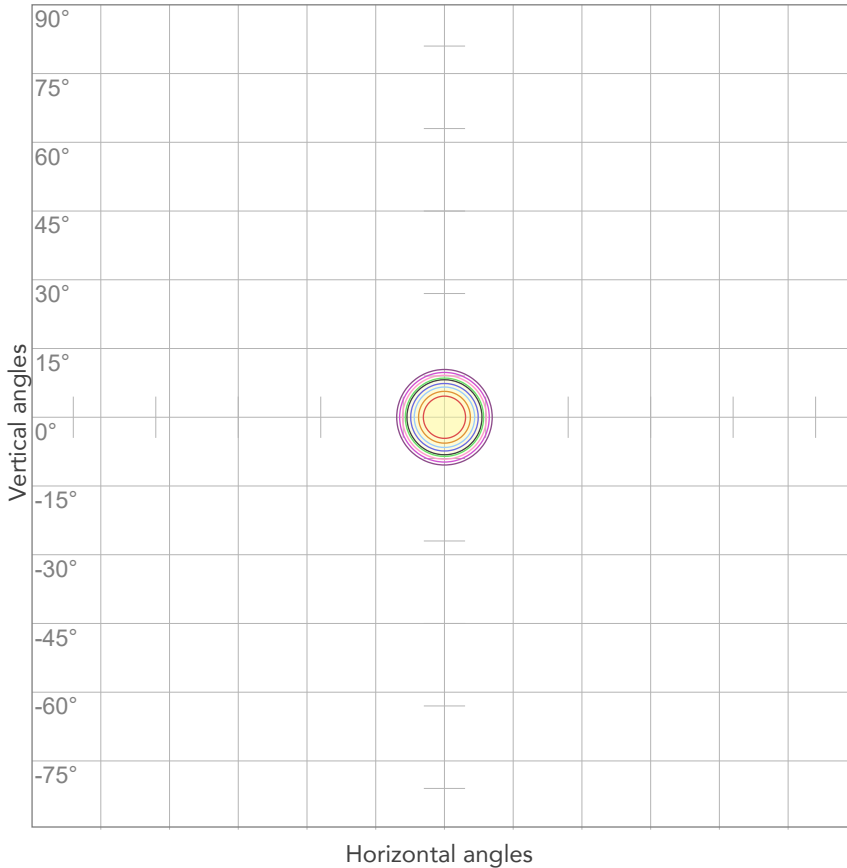


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	1,81A	367,4W	3lm/W

Power FC
0,9

ISO CANDELA DIAGRAM



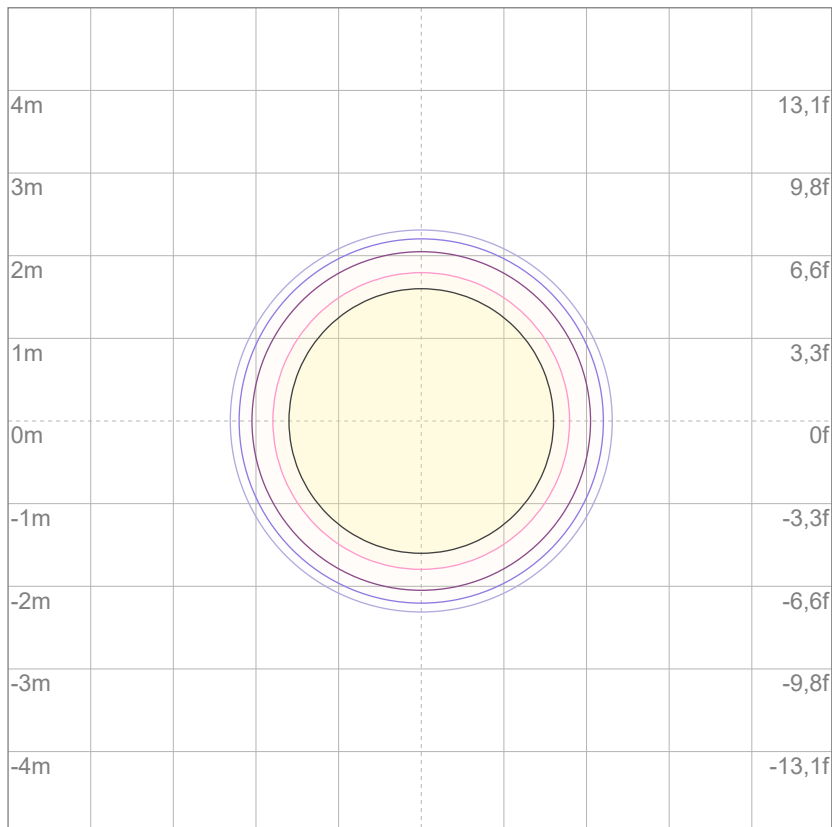
10%	1372 cd
20%	2744 cd
30%	4116 cd
40%	5488 cd
50%	6860 cd
60%	8231 cd
70%	9603 cd
80%	10975 cd

Conditions:

Number of c-planes: 2

Candela at center: 13719 cd

ISO LUX DIAGRAM



3%	4,12 lx
5%	6,86 lx
10%	13,7 lx
30%	41,2 lx
50%	68,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 137 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:

632 lm

Peak candela output:

140675 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

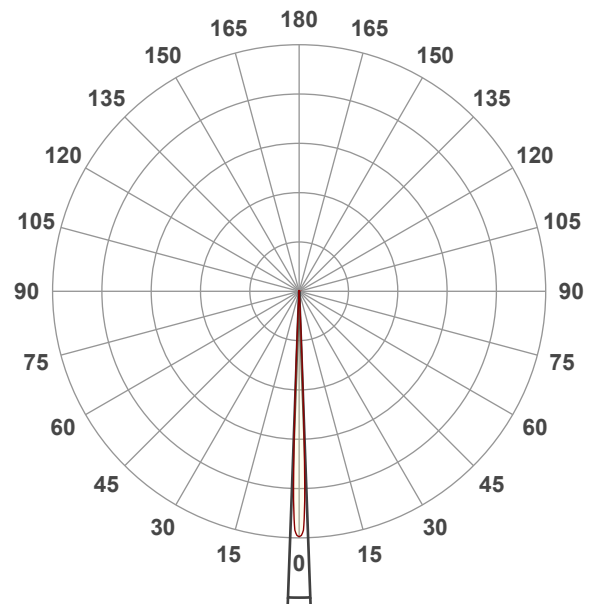
Blue

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:41:36

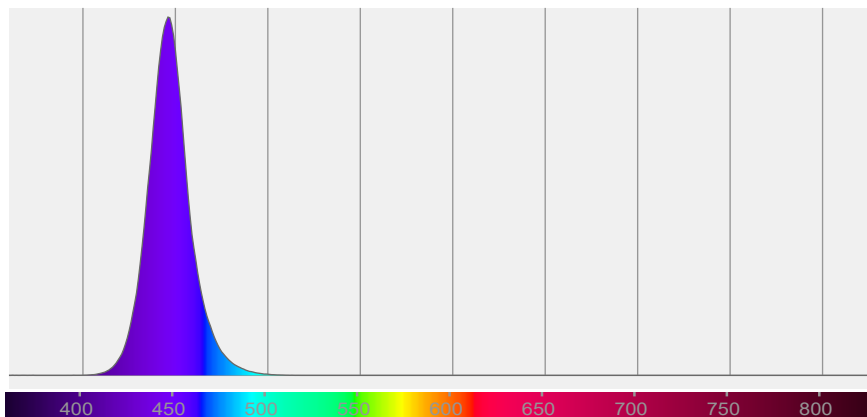


Beam angle 50%: 4,2°

Field angle 10%: 5,7°

Cut off angle 2.5%: 6,2°

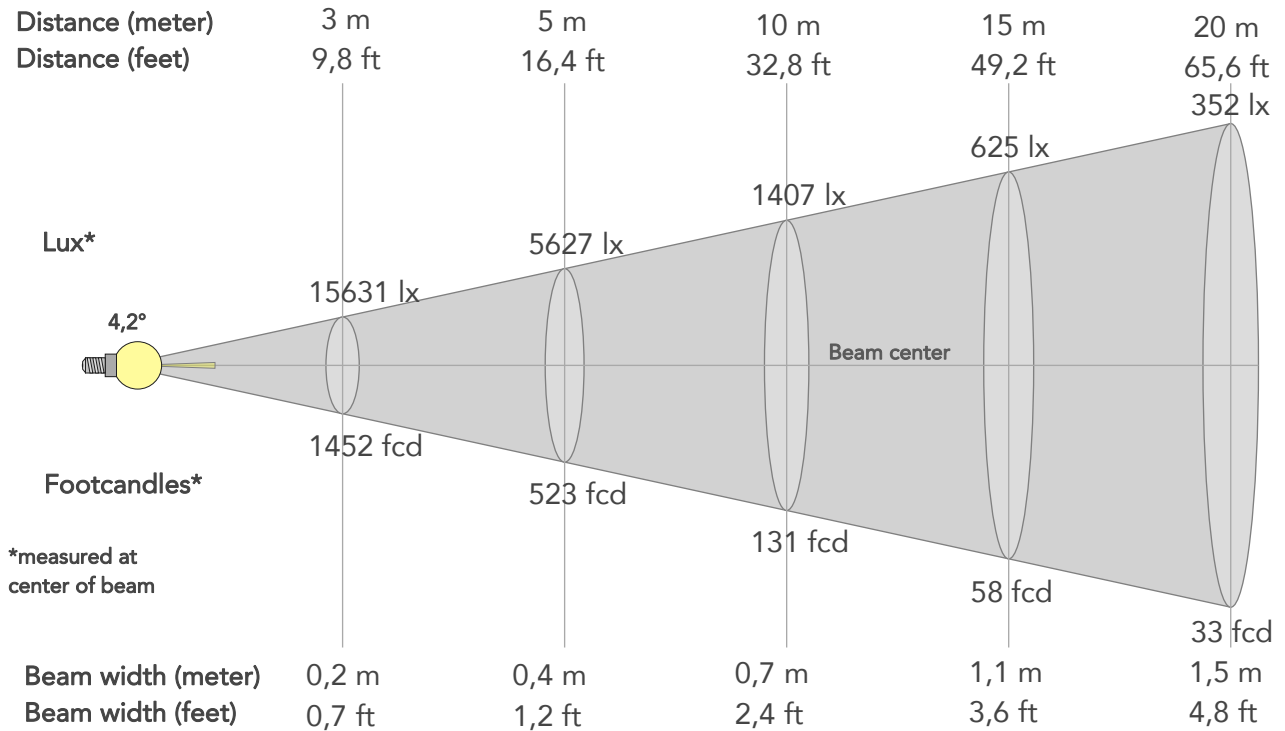
Spectra



BEAM DETAILS



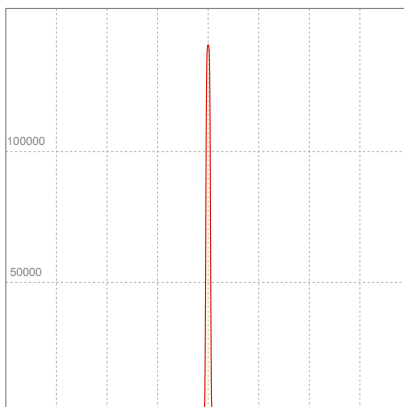
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,2°	5,7°	6,2°	99,2%	99,0%



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	140675lx	35169lx	15631lx	8792lx	5627lx	2501lx	1407lx	625lx	352lx	225lx	156lx	88lx	56lx
Footcand.	13069fcd	3267fcd	1452fcd	817fcd	523fcd	232fcd	131fcd	58fcd	33fcd	21fcd	15fcd	8fcd	5fcd
Beam wid.	0,1m	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1,1m	1,5m	1,8m	2,2m	2,9m	3,6m
Beam wid.	0,2ft	0,5ft	0,7ft	1ft	1,2ft	1,8ft	2,4ft	3,6ft	4,8ft	6ft	7,2ft	9,6ft	11,9ft

LINEAR DISTRIBUTION DIAGRAM

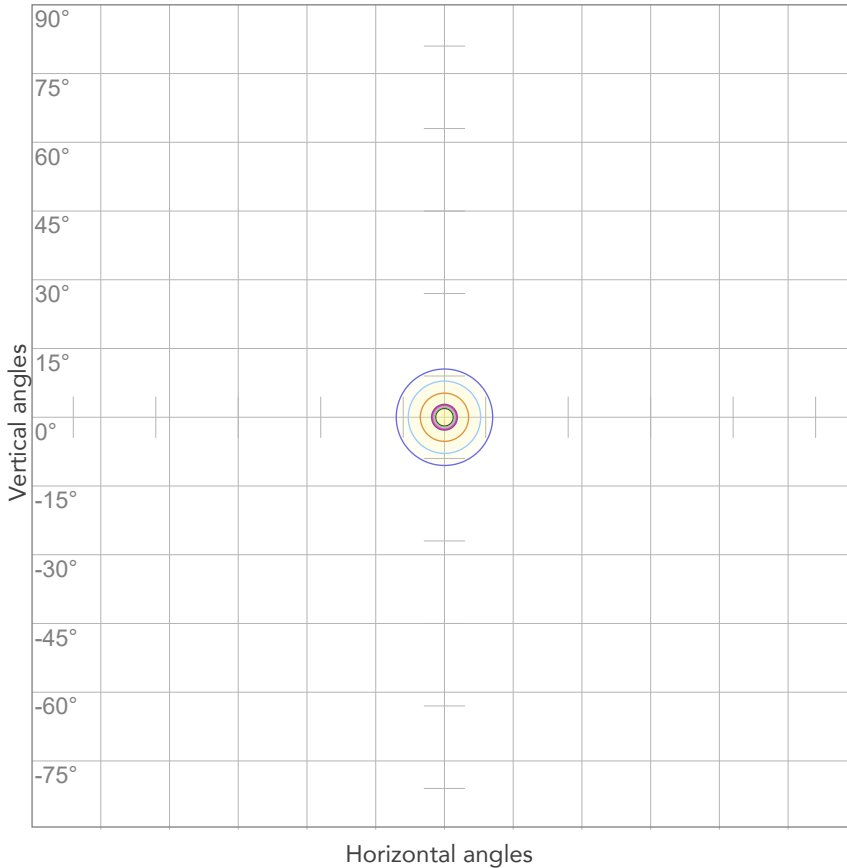


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	1,80A	364,6W	2lm/W

Power FC
0,9

ISO CANDELA DIAGRAM



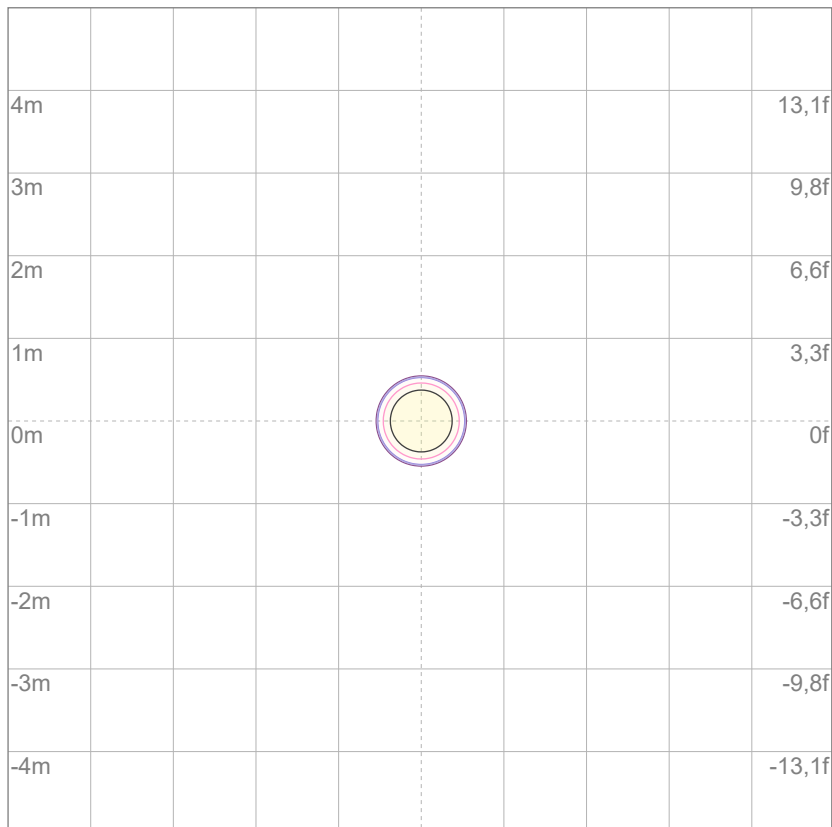
10%	14067 cd
20%	28135 cd
30%	42202 cd
40%	56270 cd
50%	70337 cd
60%	84405 cd
70%	98472 cd
80%	112540 cd

Conditions:

Number of c-planes: 2

Candela at center: 140675 cd

ISO LUX DIAGRAM



3%	42,2 lx
5%	70,3 lx
10%	141 lx
30%	422 lx
50%	703 lx

Conditions:

Number of c-planes: 2

Lux at center: 1407 lx

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



Total lumen output:

10243 lm

Peak candela output:

29185 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

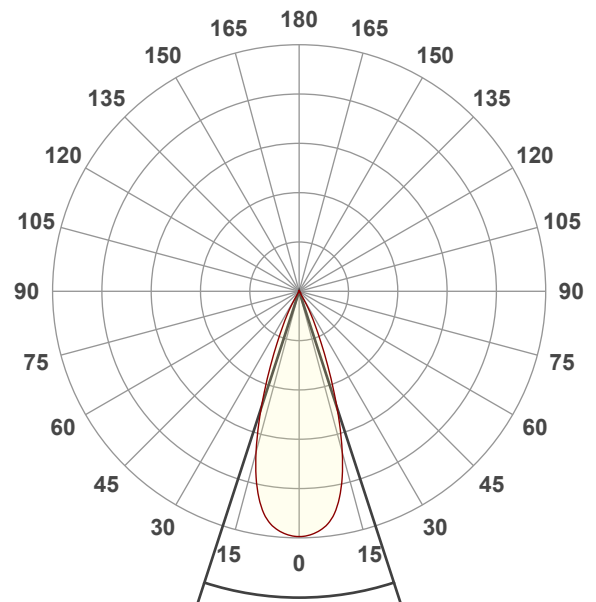
White

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:57:10

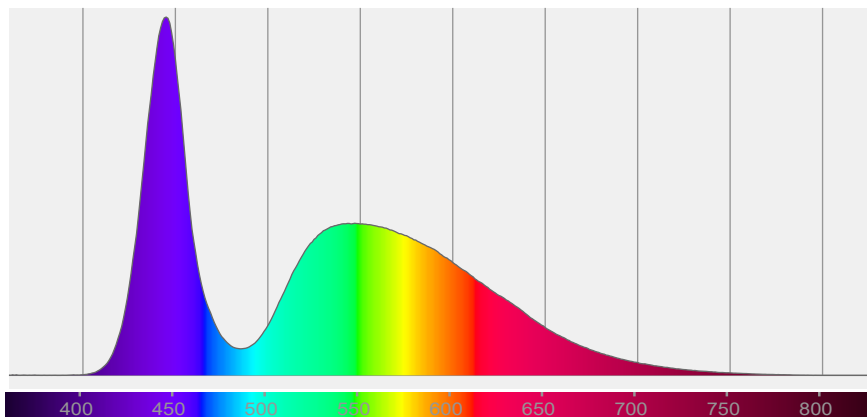


Beam angle 50%: 36°

Field angle 10%: 54,7°

Cut off angle 2.5%: 60,9°

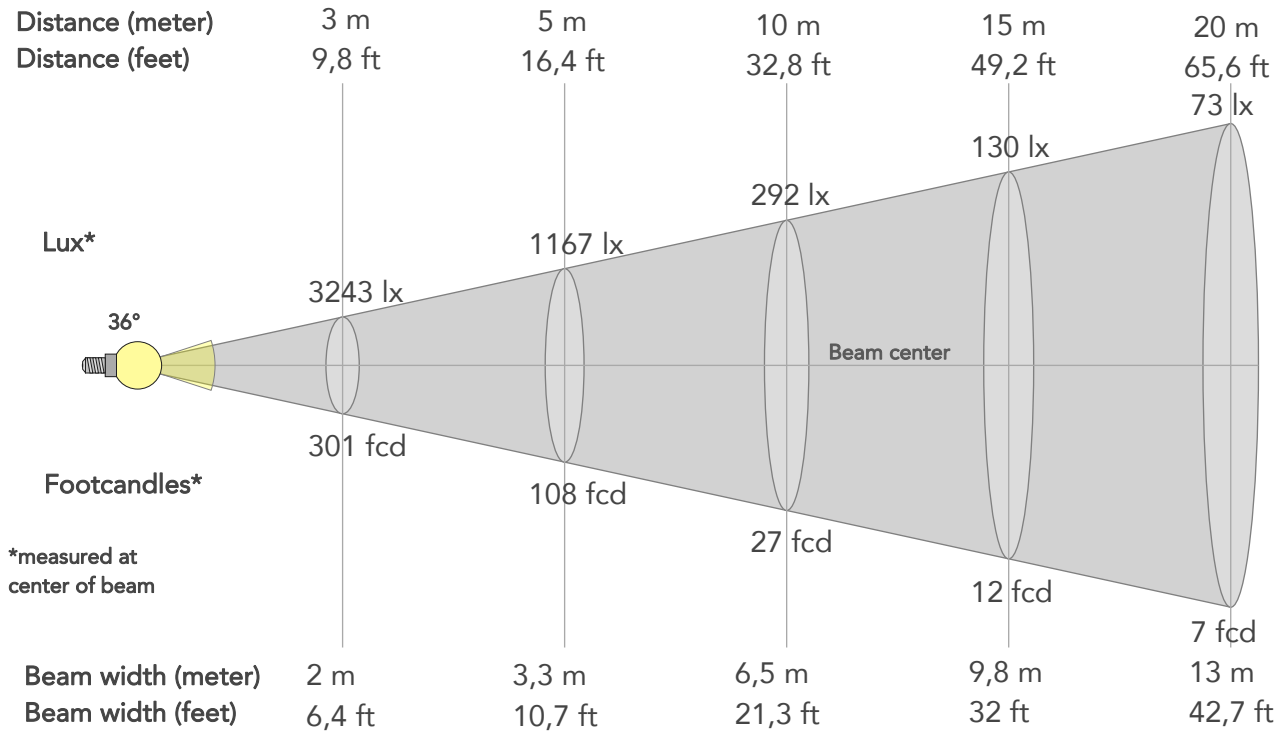
Spectra



BEAM DETAILS



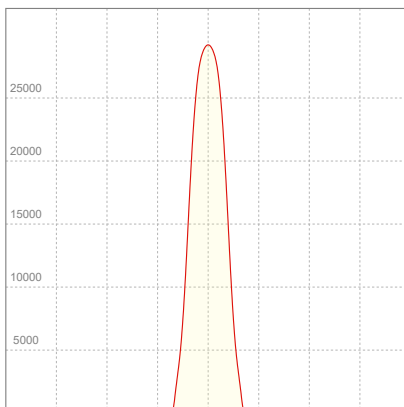
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36°	54,7°	60,9°	100,0%	100,0%



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	29185lx	7296lx	3243lx	1824lx	1167lx	519lx	292lx	130lx	73lx	47lx	32lx	18lx	12lx
Footcand.	2711fcd	678fcd	301fcd	169fcd	108fcd	48fcd	27fcd	12fcd	7fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,7m	1,3m	2m	2,6m	3,3m	4,9m	6,5m	9,8m	13m	16,3m	19,5m	26m	32,5m
Beam wid.	2,1ft	4,3ft	6,4ft	8,5ft	10,7ft	16ft	21,3ft	32ft	42,7ft	53,4ft	64ft	85,4ft	106,7ft

LINEAR DISTRIBUTION DIAGRAM

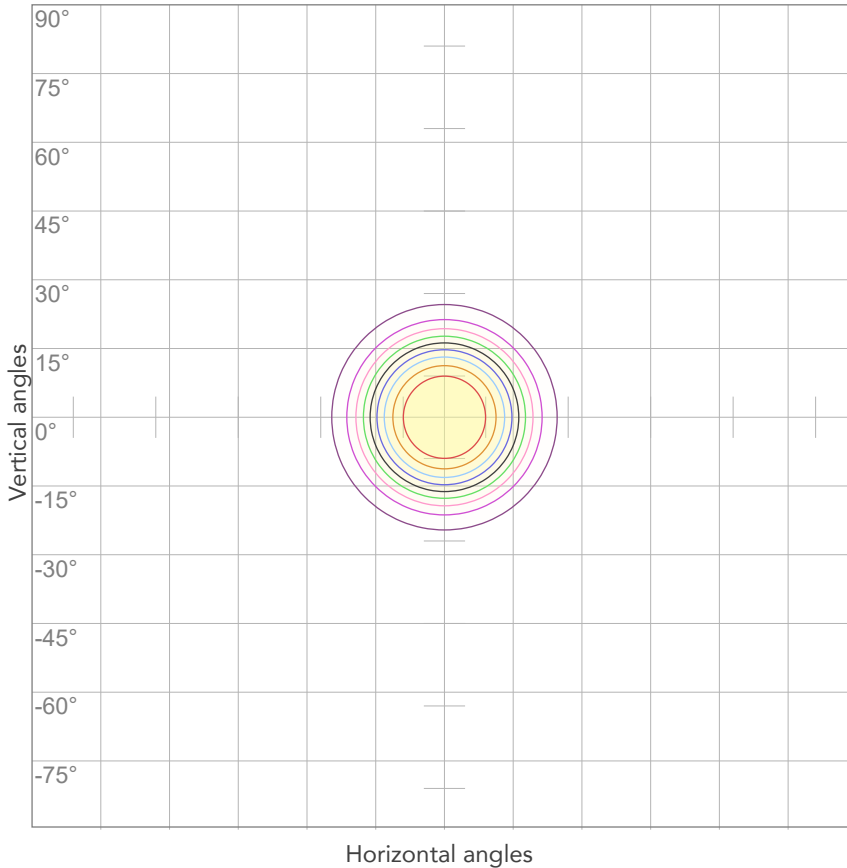


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,16A	447,5W	23lm/W

Power FC
0,93

ISO CANDELA DIAGRAM



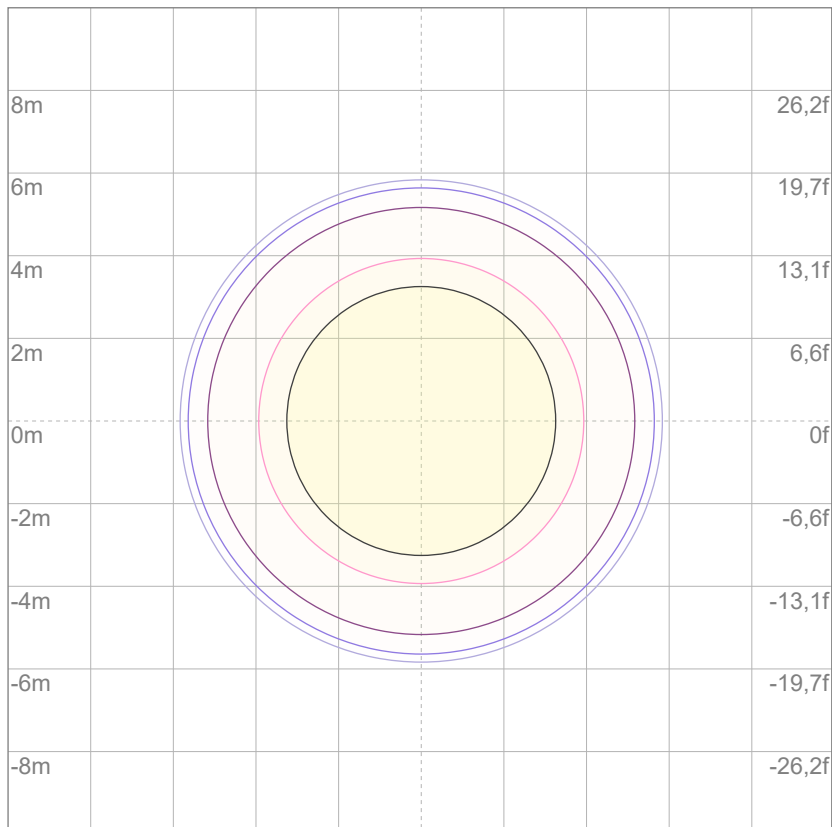
10%	2919 cd
20%	5837 cd
30%	8756 cd
40%	11674 cd
50%	14593 cd
60%	17511 cd
70%	20430 cd
80%	23348 cd

Conditions:

Number of c-planes: 2

Candela at center: 29185 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	8,76 lx
5%	14,6 lx
10%	29,2 lx
30%	87,6 lx
50%	146 lx

Conditions:

Number of c-planes: 2

Lux at center: 292 lx

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



Total lumen output:

7731 lm

Peak candela output:

89369 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

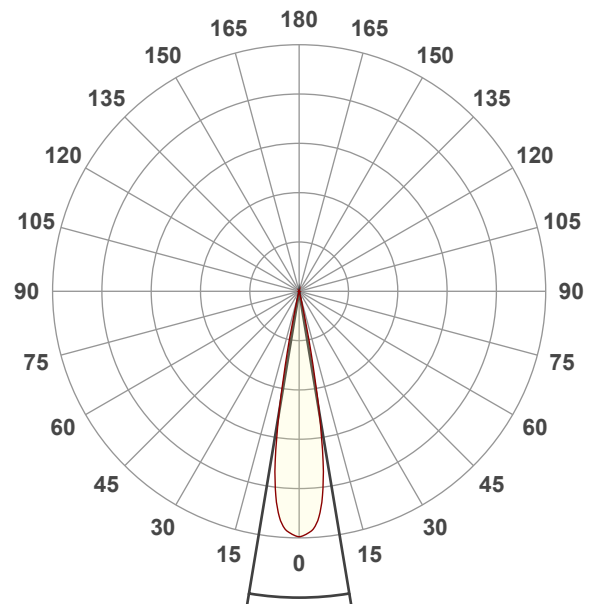
White

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:58:34

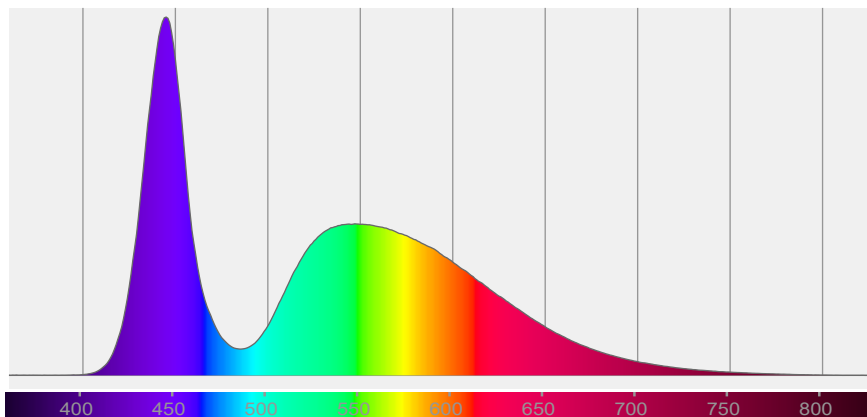


Beam angle 50%: 18,9°

Field angle 10%: 24,6°

Cut off angle 2.5%: 27,3°

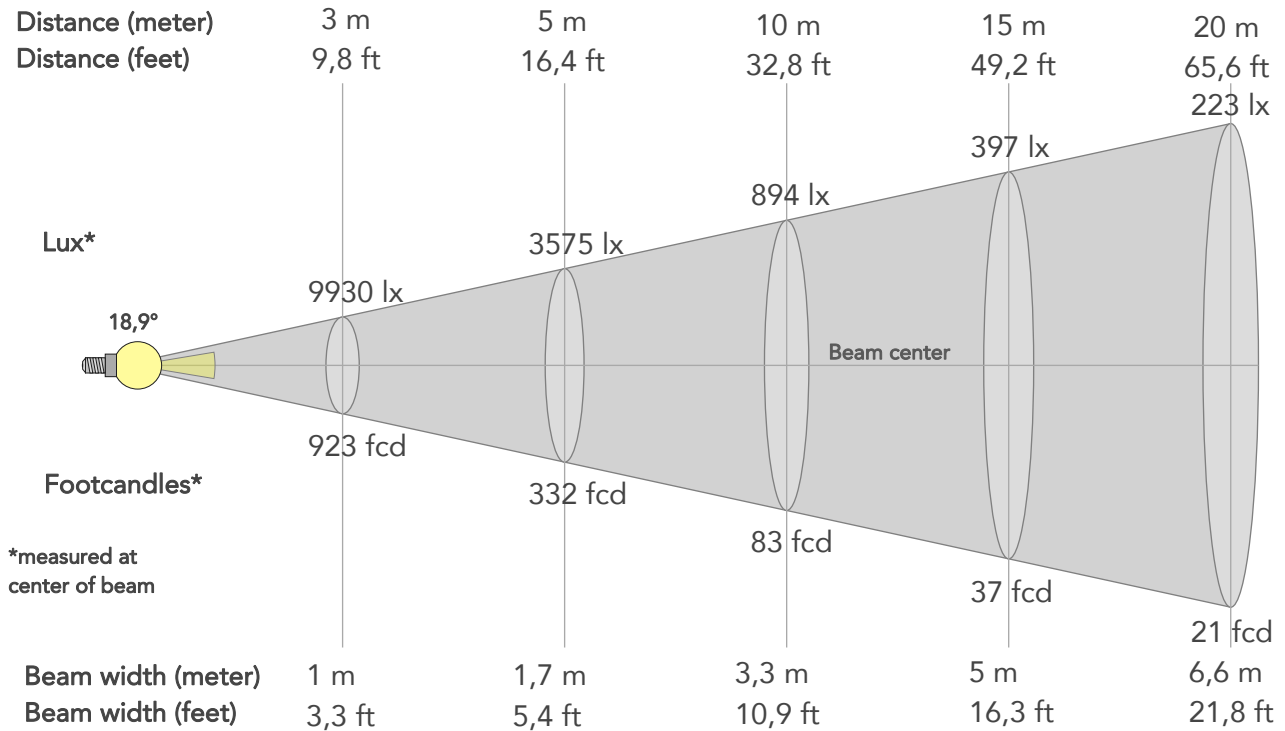
Spectra



BEAM DETAILS



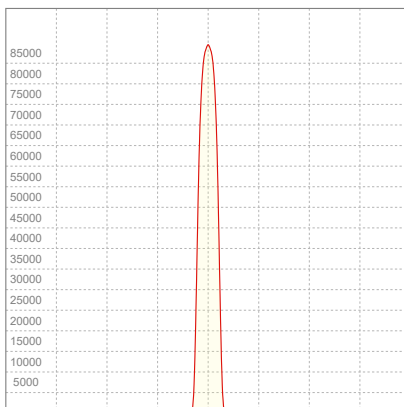
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,9°	24,6°	27,3°	100,0%	100,0%



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	89369lx	22342lx	9930lx	5586lx	3575lx	1589lx	894lx	397lx	223lx	143lx	99lx	56lx	36lx
Footcand.	8303fcd	2076fcd	923fcd	519fcd	332fcd	148fcd	83fcd	37fcd	21fcd	13fcd	9fcd	5fcd	3fcd
Beam wid.	0,3m	0,7m	1m	1,3m	1,7m	2,5m	3,3m	5m	6,6m	8,3m	10m	13,3m	16,6m
Beam wid.	1,1ft	2,2ft	3,3ft	4,4ft	5,4ft	8,2ft	10,9ft	16,3ft	21,8ft	27,2ft	32,7ft	43,6ft	54,5ft

LINEAR DISTRIBUTION DIAGRAM

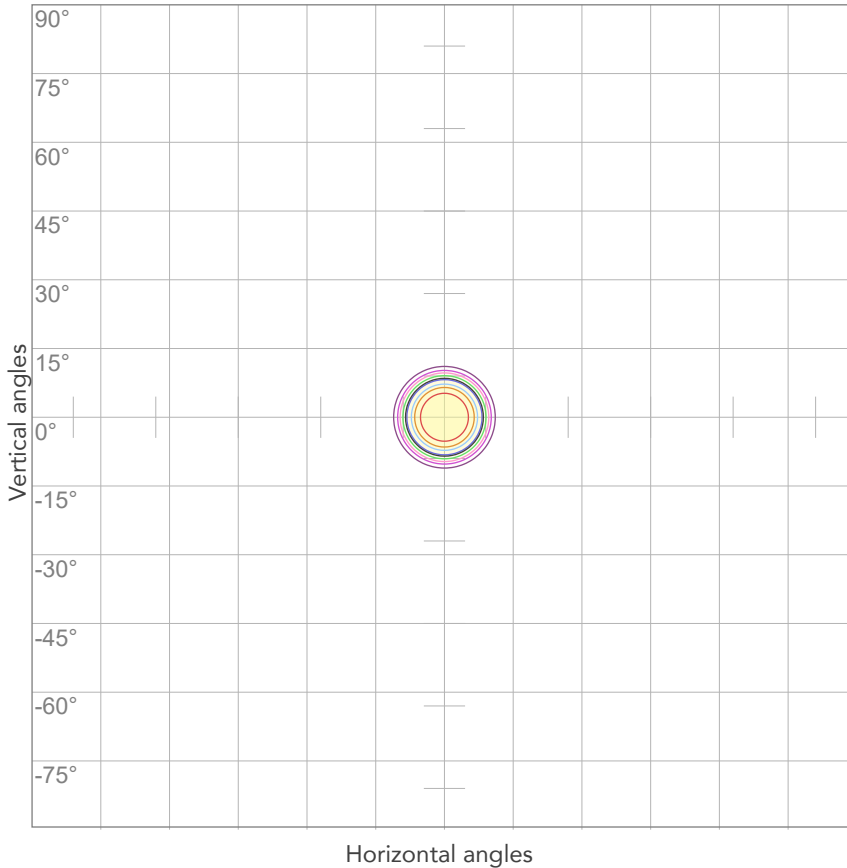


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,16A	447W	17lm/W

Power FC
0,93

ISO CANDELA DIAGRAM



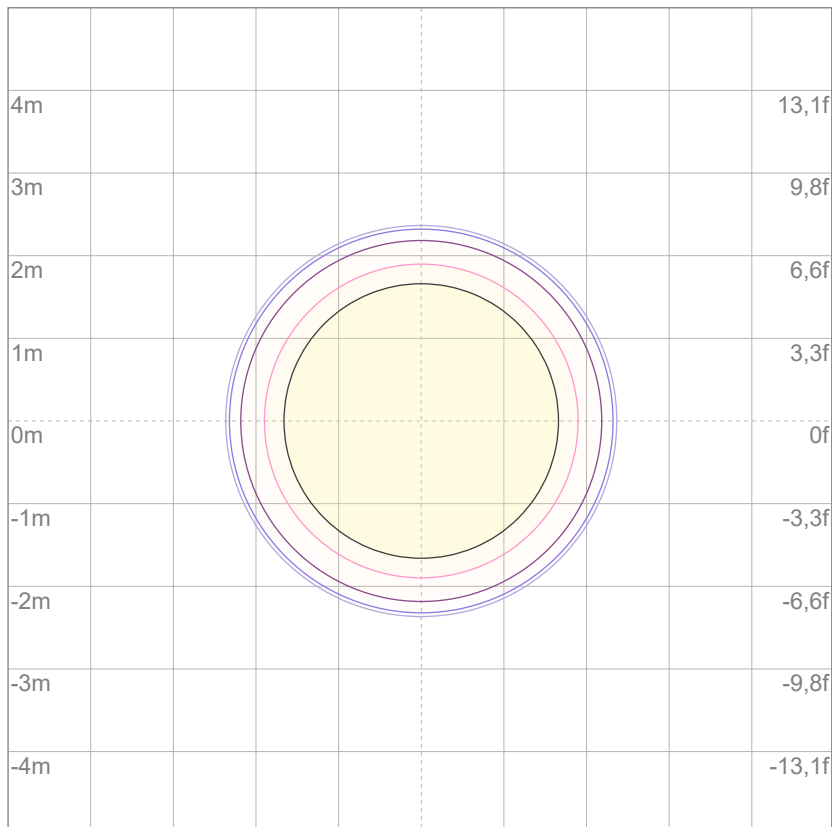
10%	8937 cd
20%	17874 cd
30%	26811 cd
40%	35748 cd
50%	44685 cd
60%	53622 cd
70%	62559 cd
80%	71495 cd

Conditions:

Number of c-planes: 2

Candela at center: 89369 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	26,8 lx
5%	44,7 lx
10%	89,4 lx
30%	268 lx
50%	447 lx

Conditions:

Number of c-planes: 2

Lux at center: 894 lx

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



Total lumen output:

4475 lm

Peak candela output:

995849 cd

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

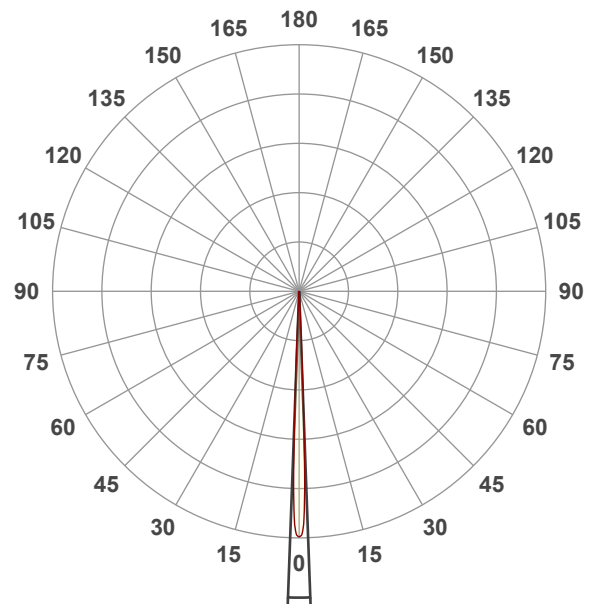
White

Operator:

Paolo Carvone

Date and time:

03/09/2021 09:59:54

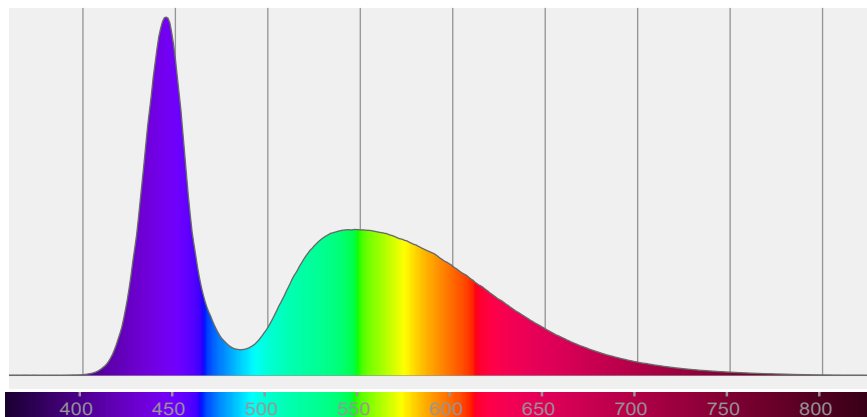


Beam angle 50%: 4,2°

Field angle 10%: 5,7°

Cut off angle 2.5%: 6,5°

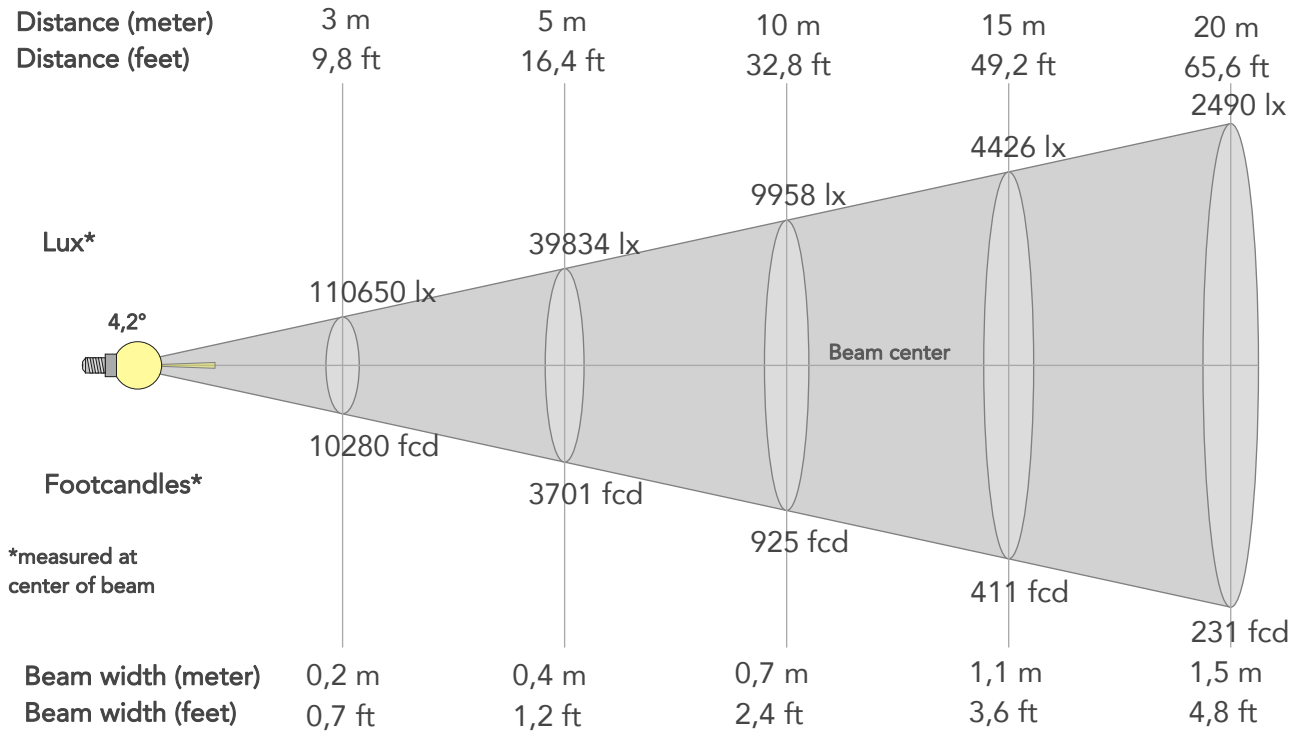
Spectra



BEAM DETAILS



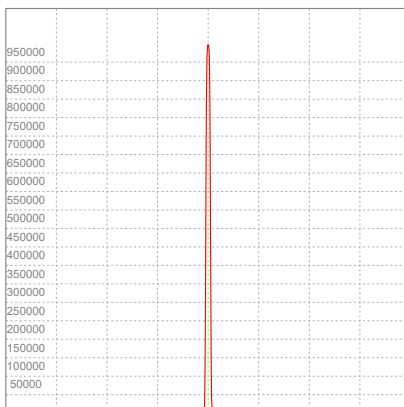
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,2°	5,7°	6,5°	100,0%	100,0%



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	995849lx	248962lx	110650lx	62241lx	39834lx	17704lx	9958lx	4426lx	2490lx	1593lx	1106lx	622lx	398lx
Footcand.	92517fcd	23129fcd	10280fcd	5782fcd	3701fcd	1645fcd	925fcd	411fcd	231fcd	148fcd	103fcd	58fcd	37fcd
Beam wid.	0,1m	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1,1m	1,5m	1,8m	2,2m	2,9m	3,6m
Beam wid.	0,2ft	0,5ft	0,7ft	1ft	1,2ft	1,8ft	2,4ft	3,6ft	4,8ft	6ft	7,2ft	9,6ft	11,9ft

LINEAR DISTRIBUTION DIAGRAM

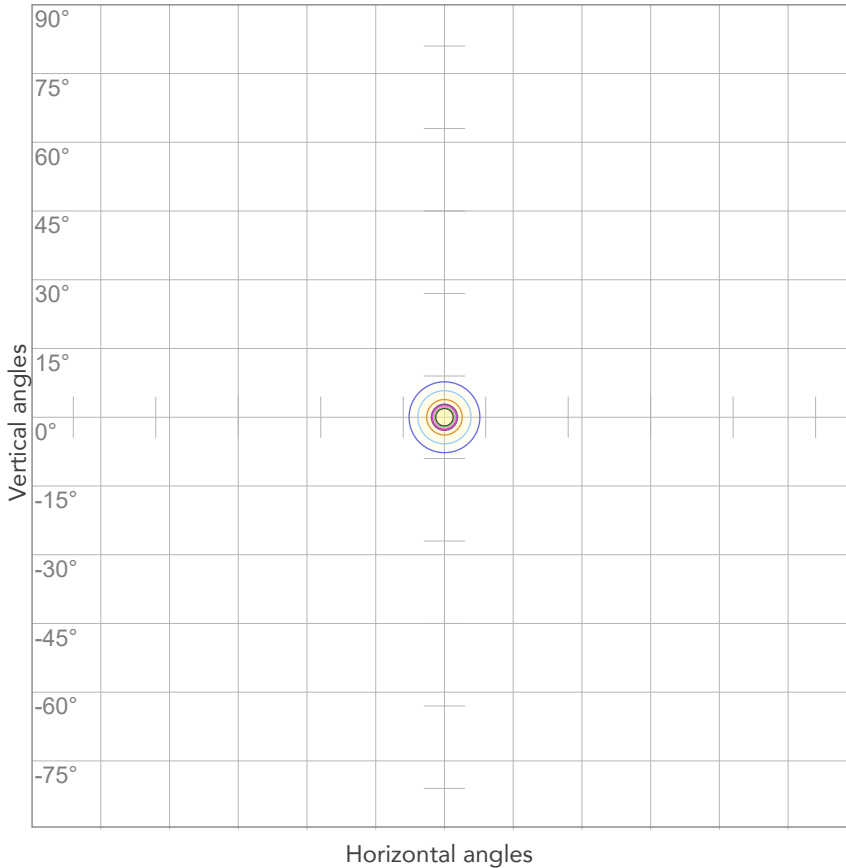


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,15A	444,9W	10lm/W

Power FC
0,93

ISO CANDELA DIAGRAM



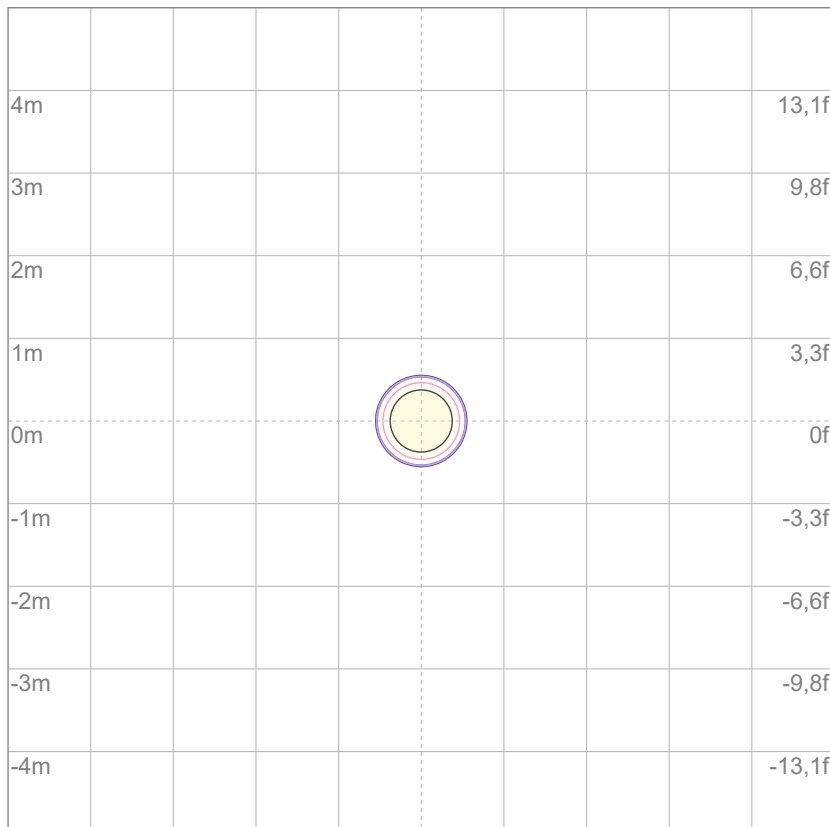
10%	99585 cd
20%	199170 cd
30%	298755 cd
40%	398339 cd
50%	497924 cd
60%	597509 cd
70%	697094 cd
80%	796679 cd

Conditions:

Number of c-planes: 2

Candela at center: 995849 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	299 lx
5%	498 lx
10%	996 lx
30%	2988 lx
50%	4979 lx

Conditions:

Number of c-planes: 2

Lux at center: 9958 lx

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



Total lumen output:

8453 lm

Peak candela output:

26433 cd

Light quality:

CRI: 23,6

Color temperature:

2867 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASURAMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

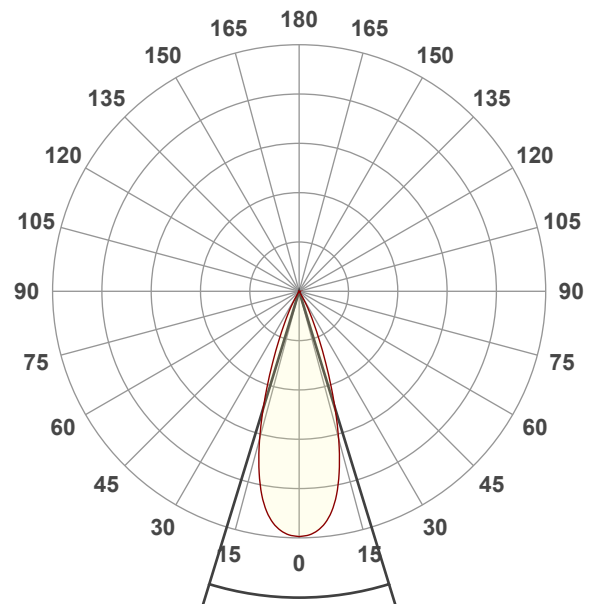
2800K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:06:25

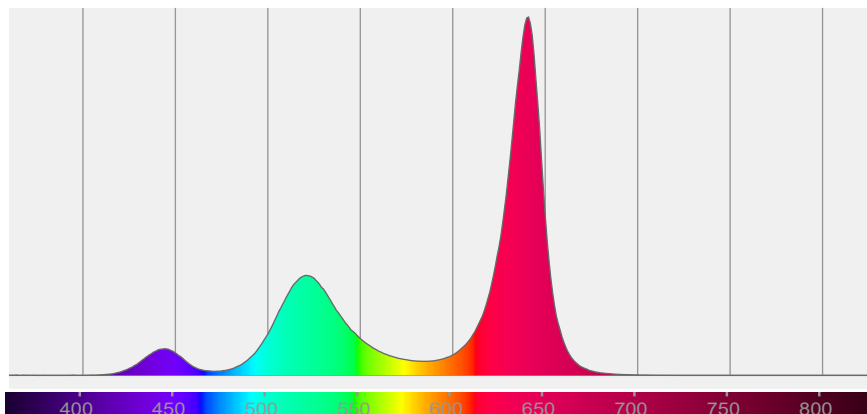


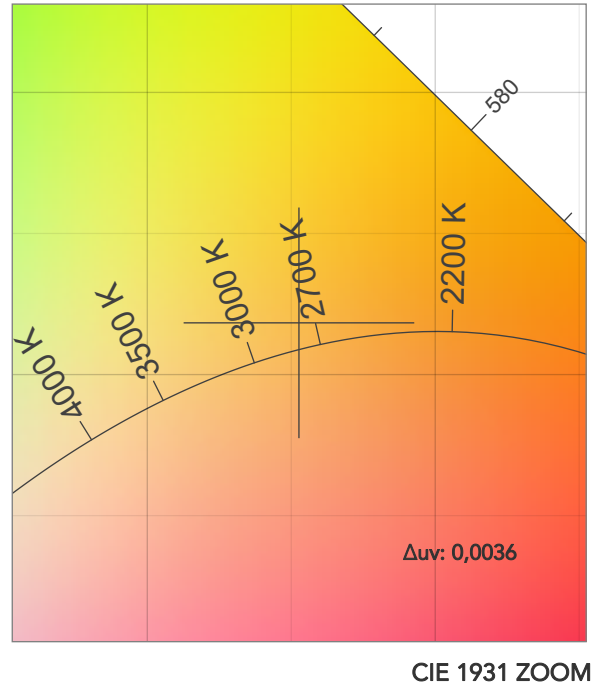
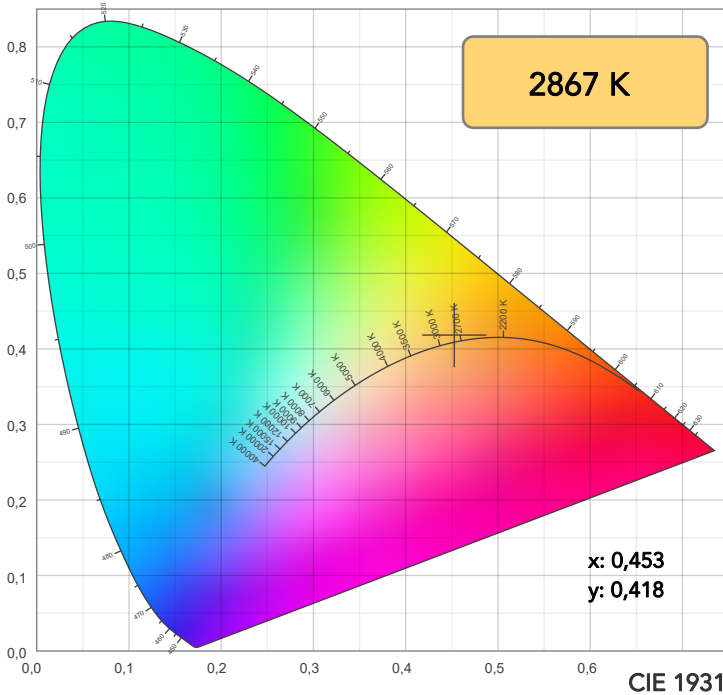
Beam angle 50%: 34,1°

Field angle 10%: 52,6°

Cut off angle 2.5%: 59,9°

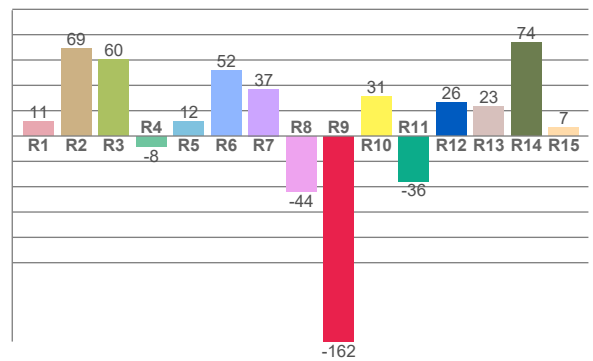
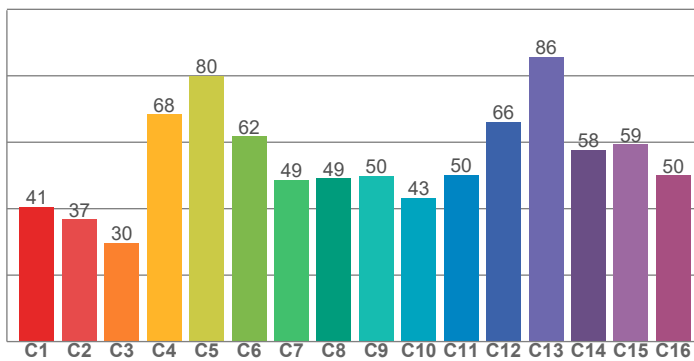
Spectra





TM30: 54,2

CRI: 23,6 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
11,5	69,2	60,2	-8,3	11,8	51,5	37,1	-44,2	-162,3	31,0	-35,6	26,4	23,5	73,9	6,5

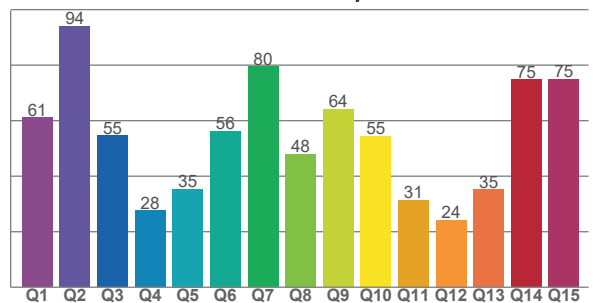
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
40,6	36,8	29,7	68,4	79,9	61,8	48,6	49,1	49,8	43,2	50,1	66,2	85,6	57,7	59,3	50,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
61,2	94,0	54,6	27,6	35,5	56,2	79,5	48,0	64,1	54,5	31,4	24,2	35,2	74,8	74,9

CQS: 49,8



COLOR PARAMETERS

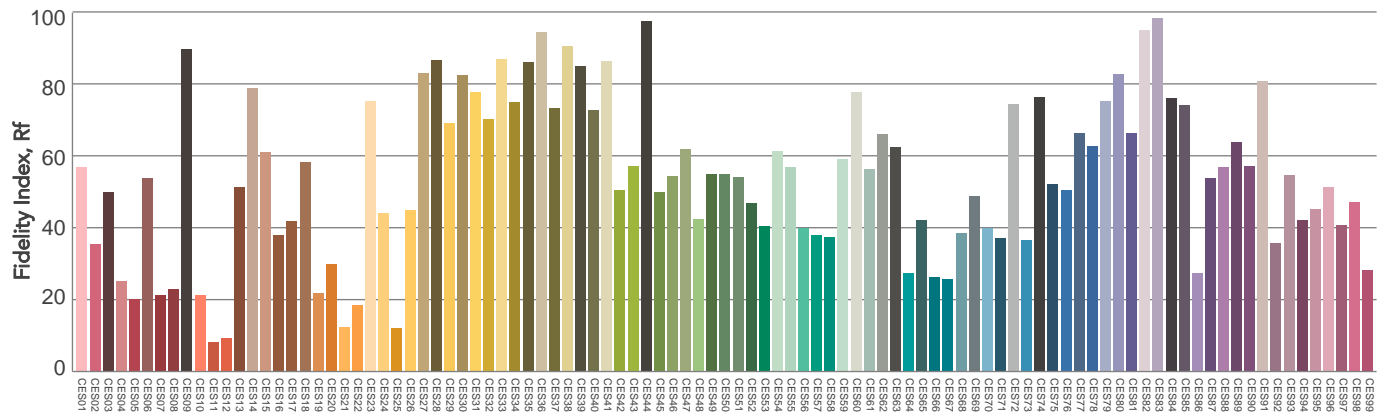
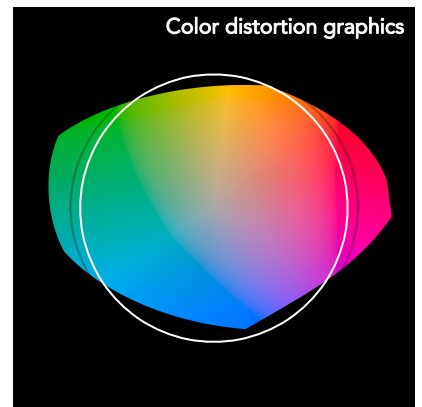
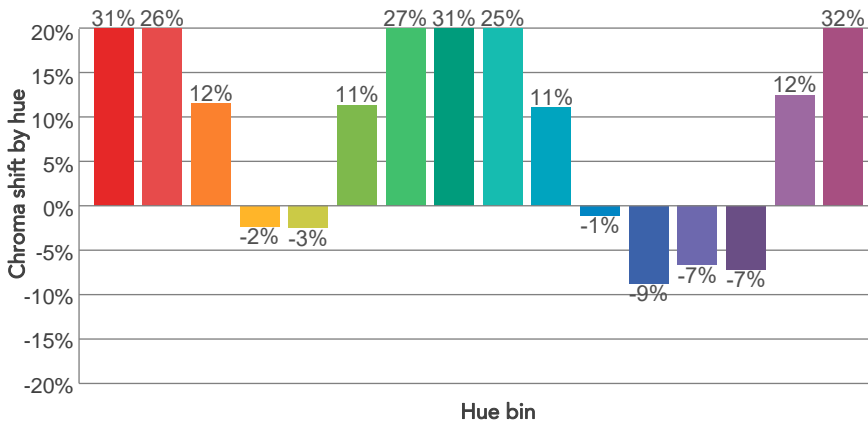
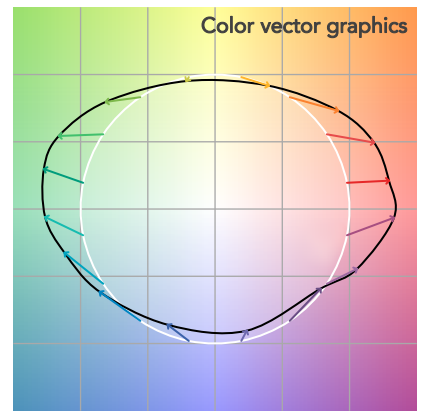
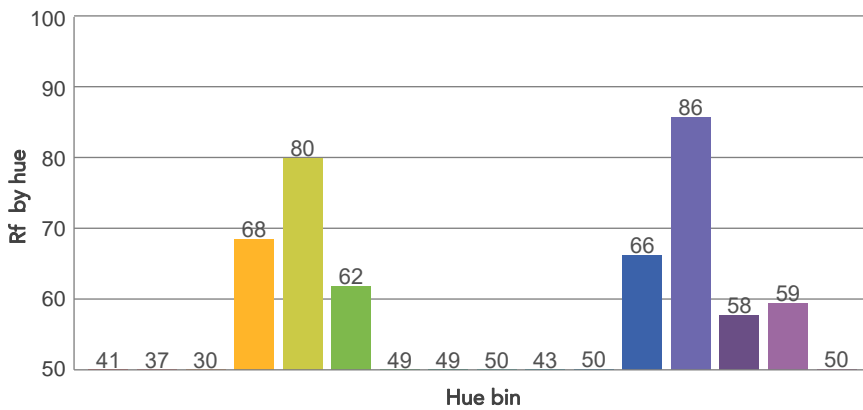
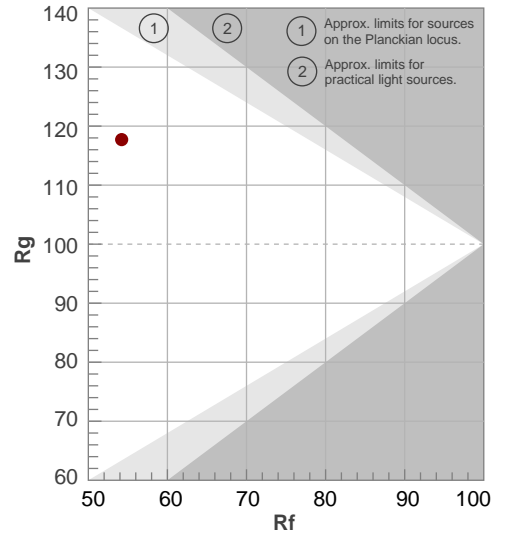
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2867 K	23,6	-162,3	54,2	117,7	49,8	15	0,453	0,418	0,0036

TM30 DETAILS

Rf 54,2
Fidelity index Rf

Rg 117,7
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	41	31%	-5%
2	37	26%	-25%
3	30	12%	-35%
4	68	-2%	-21%
5	80	-3%	2%
6	62	11%	23%
7	49	27%	19%
8	49	31%	-4%
9	50	25%	-19%
10	43	11%	-35%
11	50	-1%	-37%
12	66	-9%	-18%
13	86	-7%	5%
14	58	-7%	32%
15	59	12%	22%
16	50	32%	20%

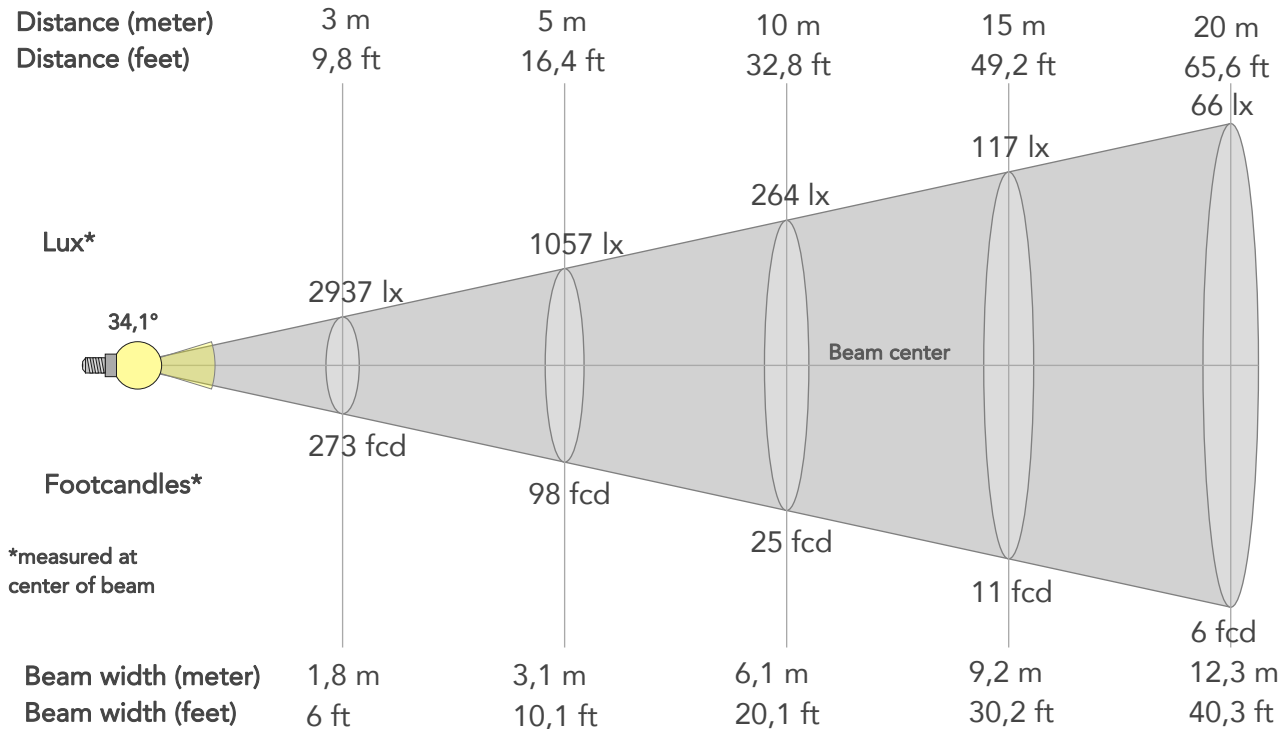


Color Evaluation Sample

BEAM DETAILS



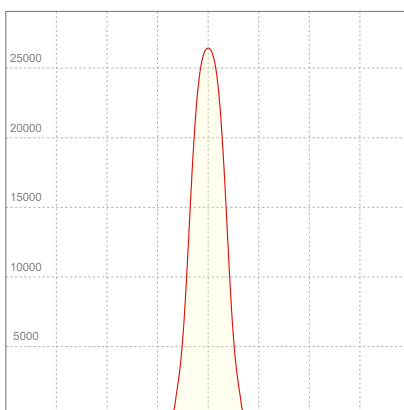
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,1°	52,6°	59,9°	100,0%	100,0%



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	26433lx	6608lx	2937lx	1652lx	1057lx	470lx	264lx	117lx	66lx	42lx	29lx	17lx	11lx
Footcand.	2456fcd	614fcd	273fcd	153fcd	98fcd	44fcd	25fcd	11fcd	6fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,6m	1,2m	1,8m	2,5m	3,1m	4,6m	6,1m	9,2m	12,3m	15,3m	18,4m	24,6m	30,7m
Beam wid.	2ft	4,1ft	6ft	8ft	10,1ft	15,1ft	20,1ft	30,2ft	40,3ft	50,3ft	60,4ft	80,5ft	100,7ft

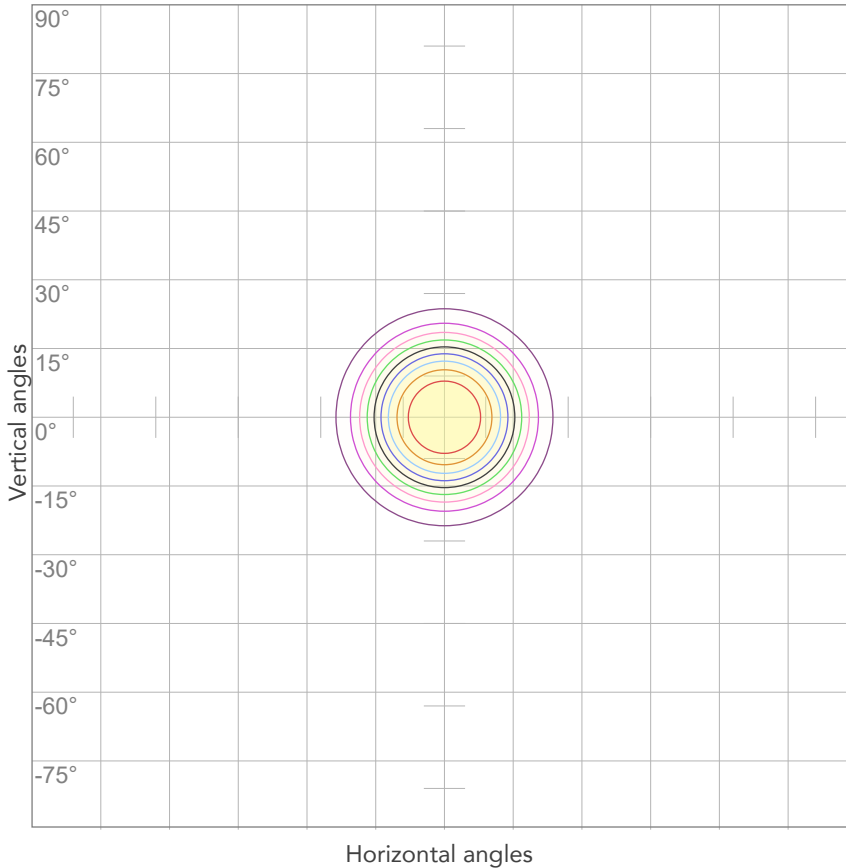
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,51A	529W	16lm/W

ISO CANDELA DIAGRAM



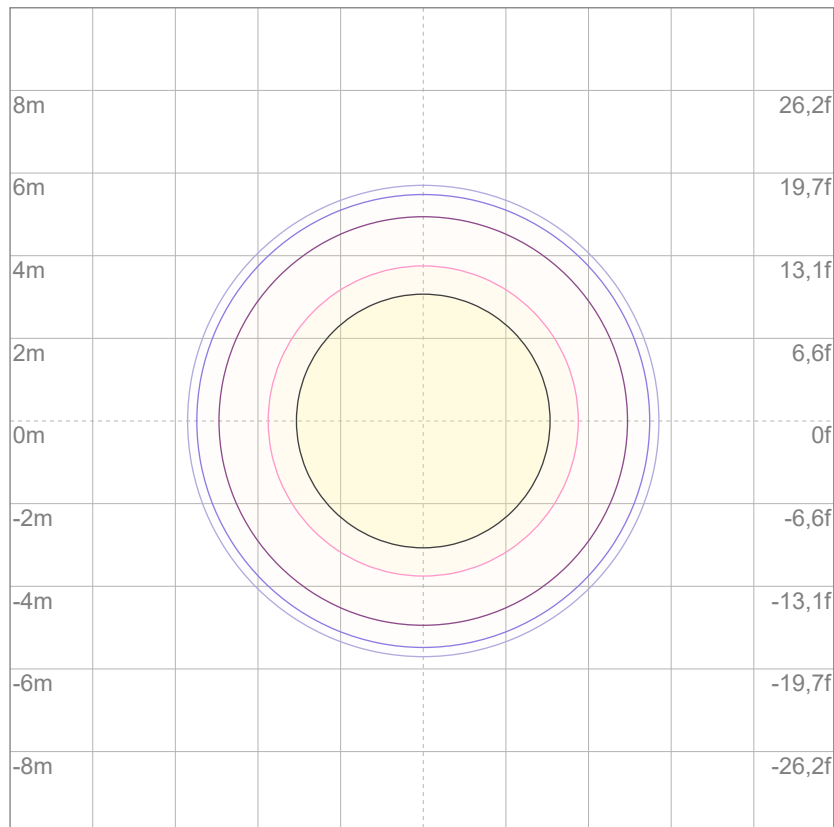
10%	2643 cd
20%	5287 cd
30%	7930 cd
40%	10573 cd
50%	13216 cd
60%	15860 cd
70%	18503 cd
80%	21146 cd

Conditions:

Number of c-planes: 2

Candela at center: 26433 cd

ISO LUX DIAGRAM



3%	7,93 lx
5%	13,2 lx
10%	26,4 lx
30%	79,3 lx
50%	132 lx

Conditions:

Number of c-planes: 2

Lux at center: 264 lx

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



Total lumen output:

6396 lm

Peak candela output:

87802 cd

Light quality:

CRI: 23,2

Color temperature:

2841 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

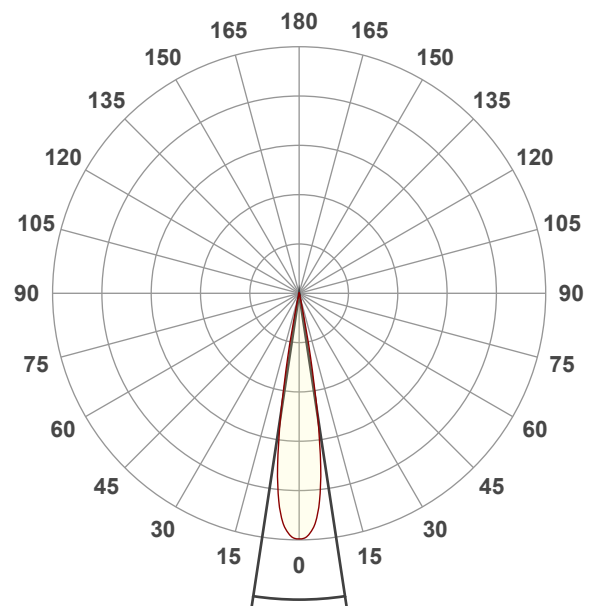
2800K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:04:32

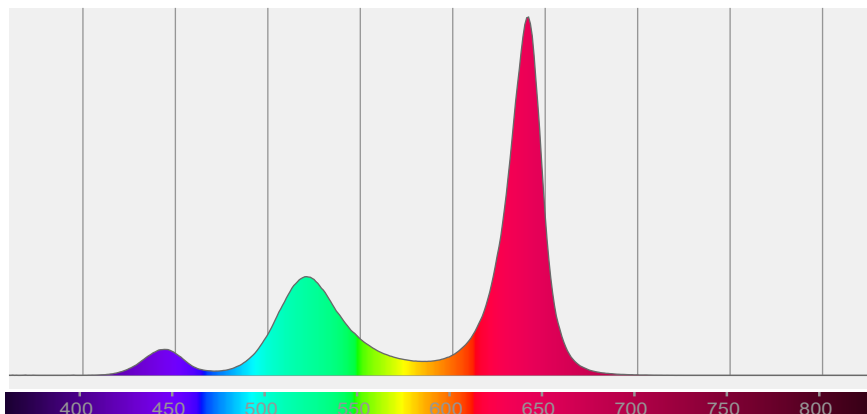


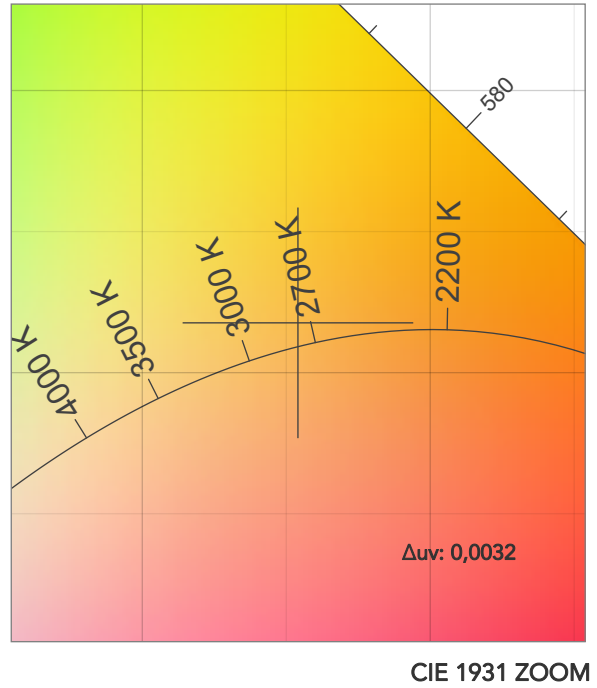
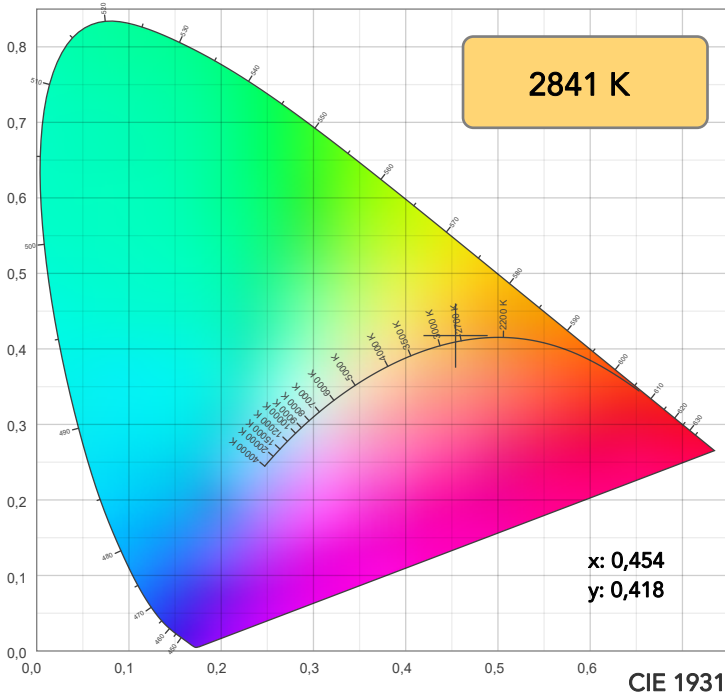
Beam angle 50%: 17,2°

Field angle 10%: 22,9°

Cut off angle 2.5%: 25,5°

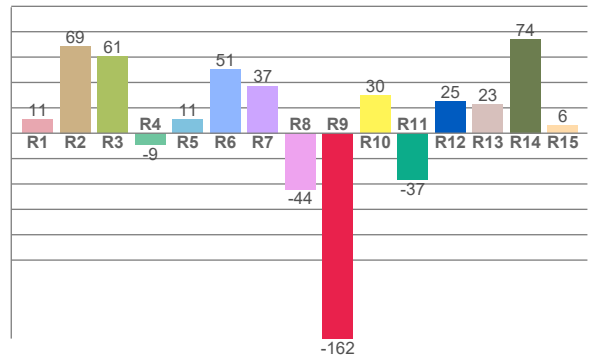
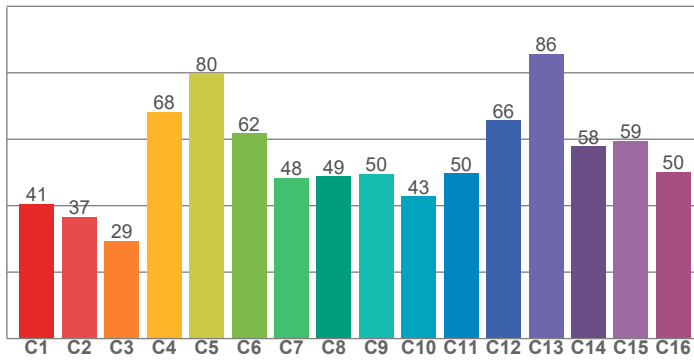
Spectra





TM30: 54,1

CRI: 23,2 (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
10,9	68,7	60,6	-8,9	11,0	50,6	37,3	-44,2	-161,9	29,8	-36,6	25,0	22,8	74,1	6,2

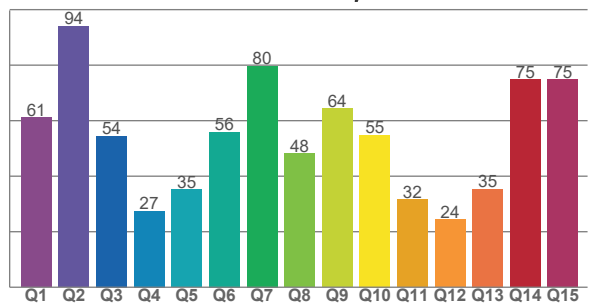
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
40,6	36,6	29,5	68,2	79,9	61,7	48,4	48,8	49,5	42,8	49,7	65,7	85,7	57,9	59,5	50,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
61,2	94,0	54,5	27,4	35,2	55,9	79,7	48,1	64,4	54,9	31,6	24,3	35,3	74,8	74,8

CQS: 49,8



COLOR PARAMETERS

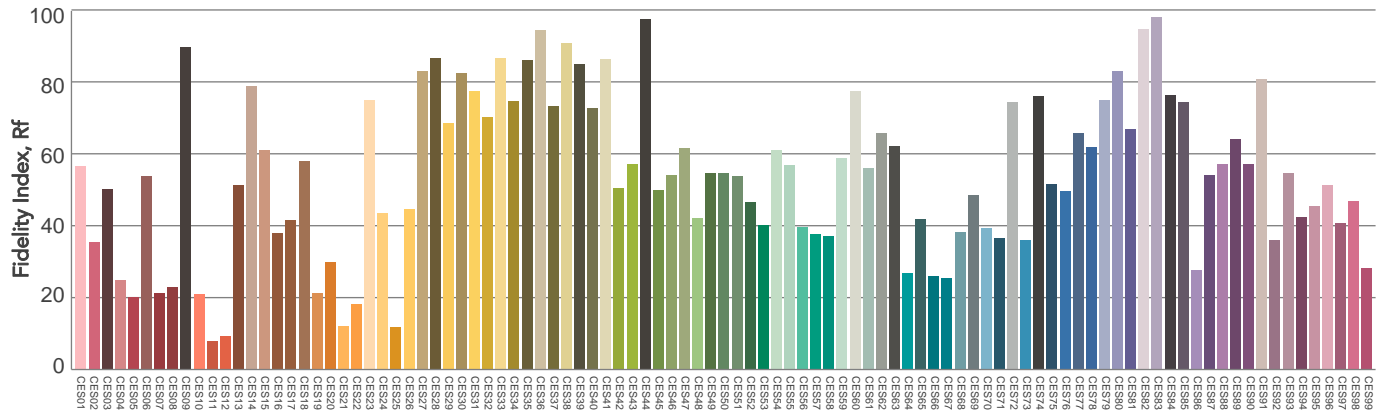
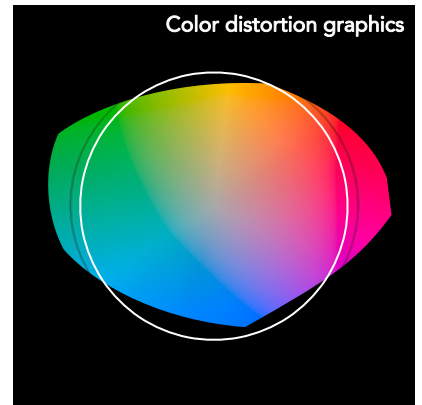
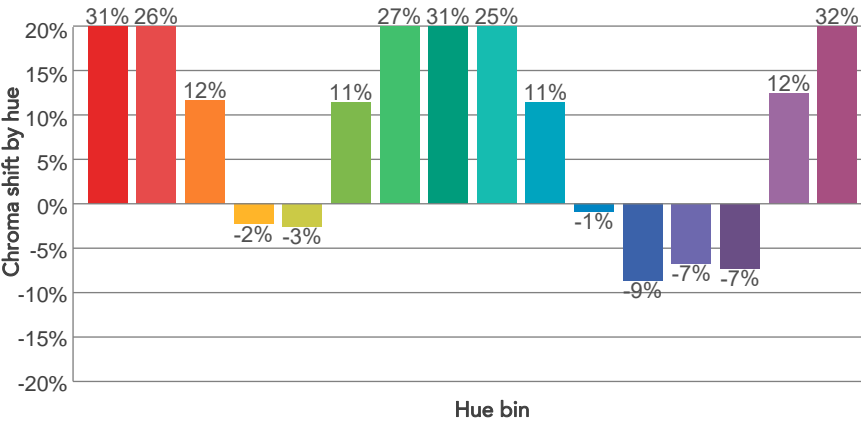
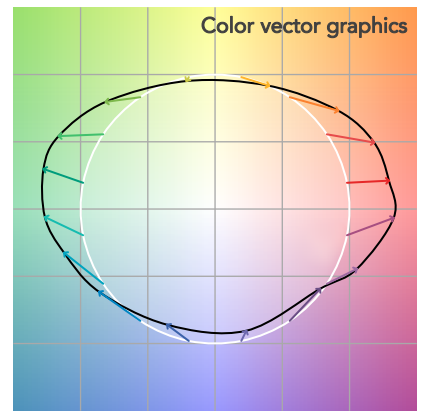
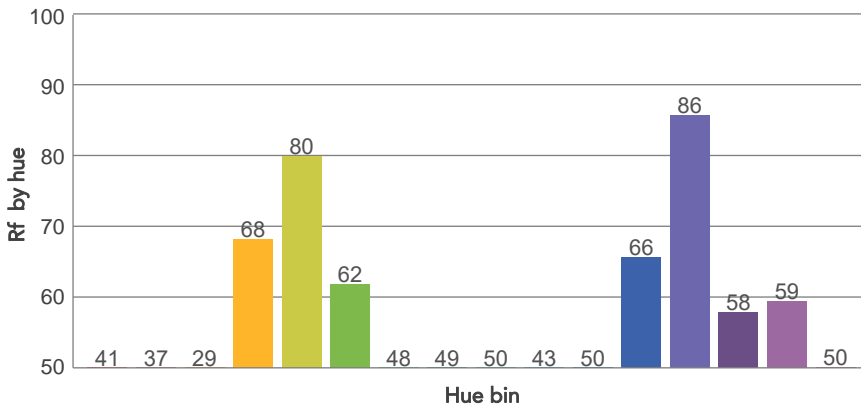
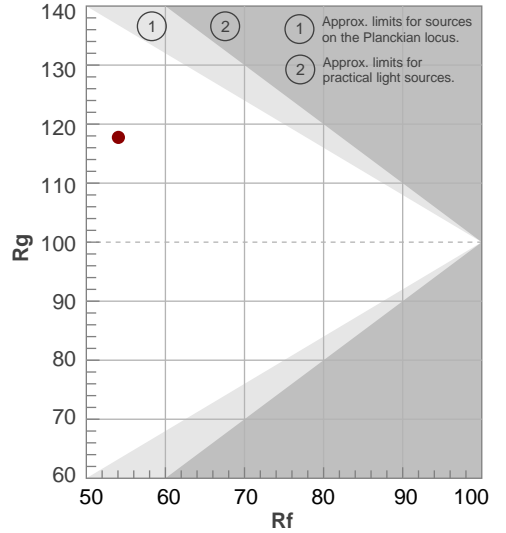
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2841 K	23,2	-161,9	54,1	117,8	49,8	15	0,454	0,418	0,0032

TM30 DETAILS

Rf 54,1
Fidelity index Rf

Rg 117,8
Gammut index

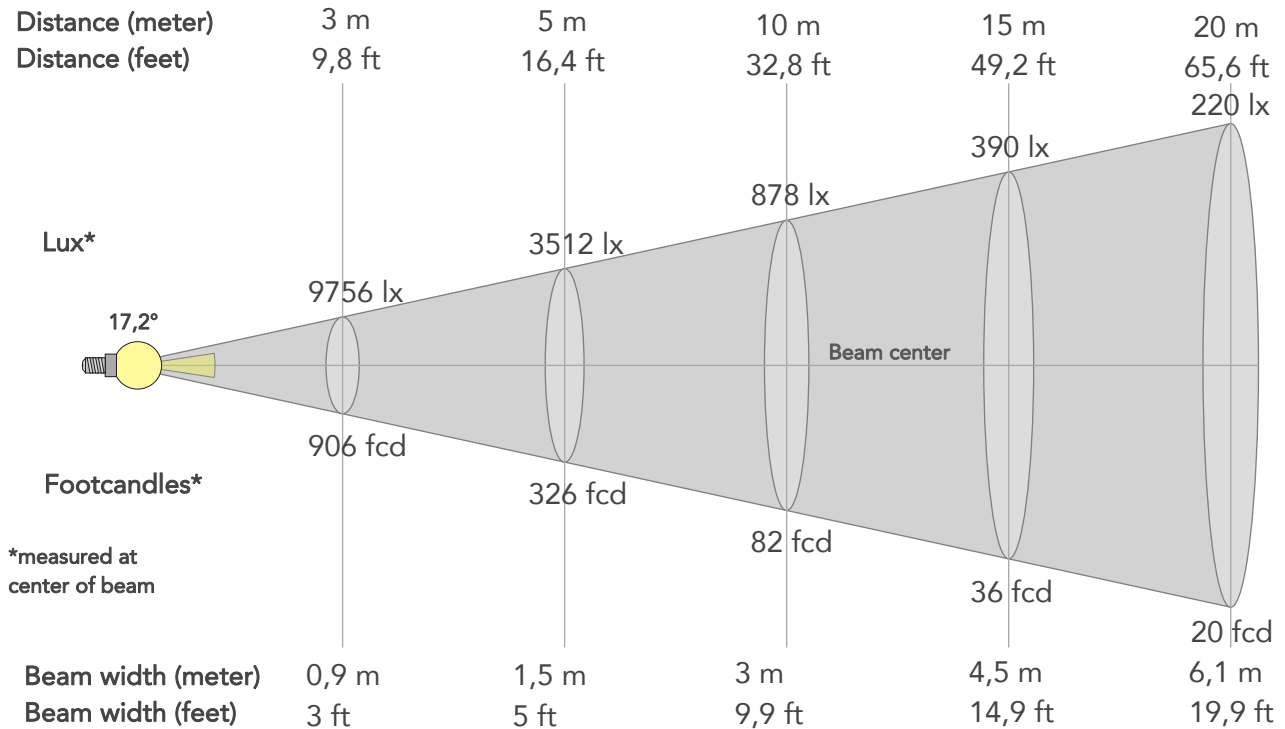
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	41	31%	-5%
2	37	26%	-25%
3	29	12%	-36%
4	68	-2%	-22%
5	80	-3%	2%
6	62	11%	23%
7	48	27%	20%
8	49	31%	-4%
9	50	25%	-19%
10	43	11%	-35%
11	50	-1%	-38%
12	66	-9%	-18%
13	86	-7%	5%
14	58	-7%	32%
15	59	12%	22%
16	50	32%	19%



BEAM DETAILS



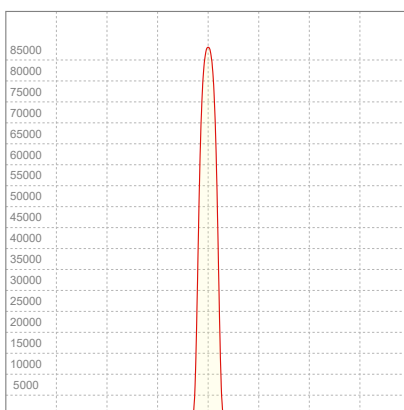
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,2°	22,9°	25,5°	100,0%	100,0%



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	87802lx	21950lx	9756lx	5488lx	3512lx	1561lx	878lx	390lx	220lx	140lx	98lx	55lx	35lx
Footcand.	8157fcd	2039fcd	906fcd	510fcd	326fcd	145fcd	82fcd	36fcd	20fcd	13fcd	9fcd	5fcd	3fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3m	4,5m	6,1m	7,6m	9,1m	12,1m	15,1m
Beam wid.	1ft	2ft	3ft	4ft	5ft	7,5ft	9,9ft	14,9ft	19,9ft	24,8ft	29,8ft	39,7ft	49,7ft

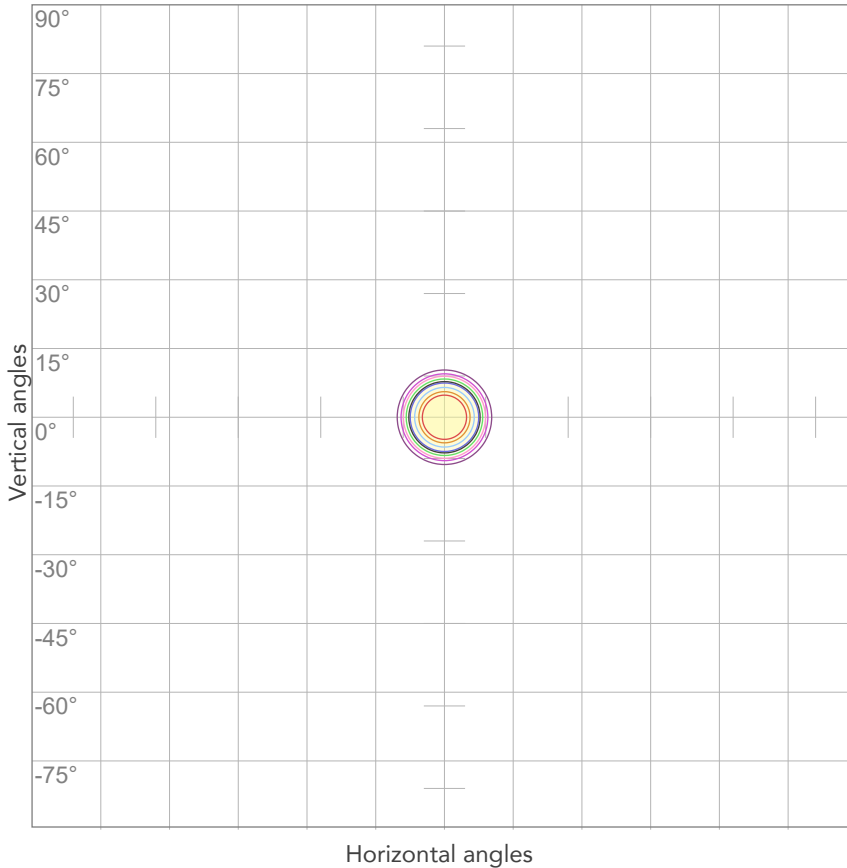
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,51A	528,3W	12lm/W

ISO CANDELA DIAGRAM



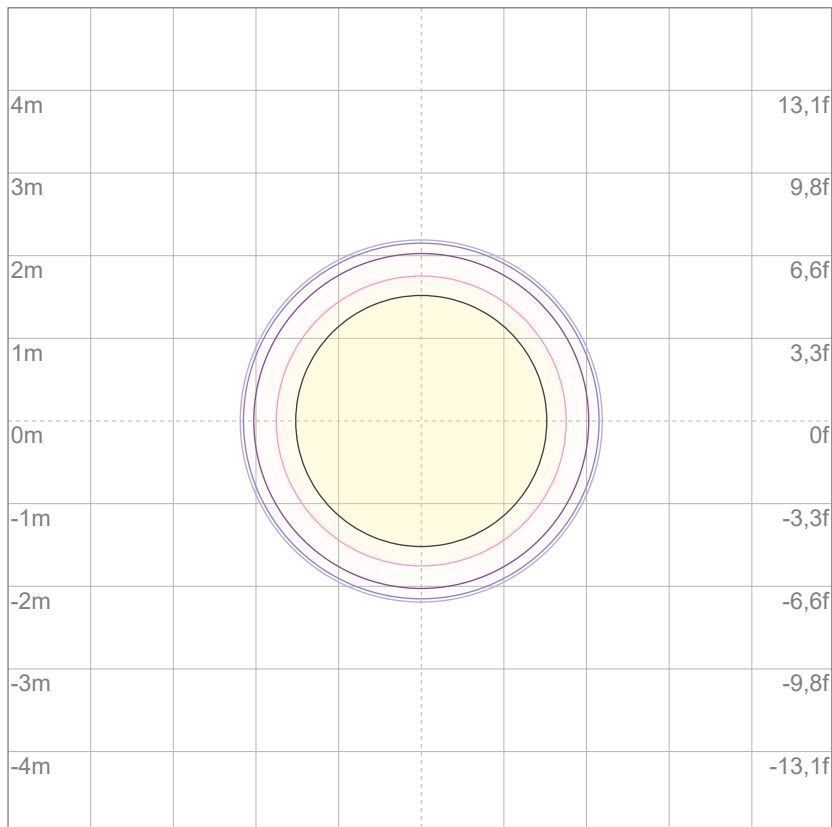
10%	8780 cd
20%	17560 cd
30%	26340 cd
40%	35121 cd
50%	43901 cd
60%	52681 cd
70%	61461 cd
80%	70241 cd

Conditions:

Number of c-planes: 2

Candela at center: 87802 cd

ISO LUX DIAGRAM



3%	26,3 lx
5%	43,9 lx
10%	87,8 lx
30%	263 lx
50%	439 lx

Conditions:

Number of c-planes: 2

Lux at center: 878 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:

3885 lm

Peak candela output:

879275 cd

Light quality:

CRI: 22,5

Color temperature:

2825 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

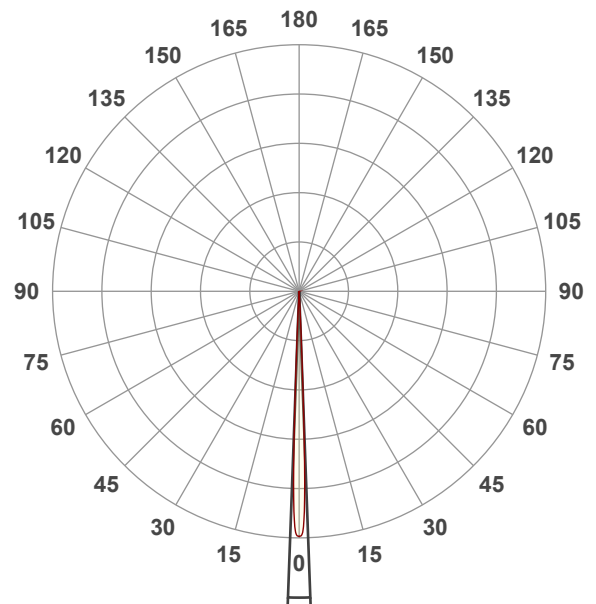
2800K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:02:14

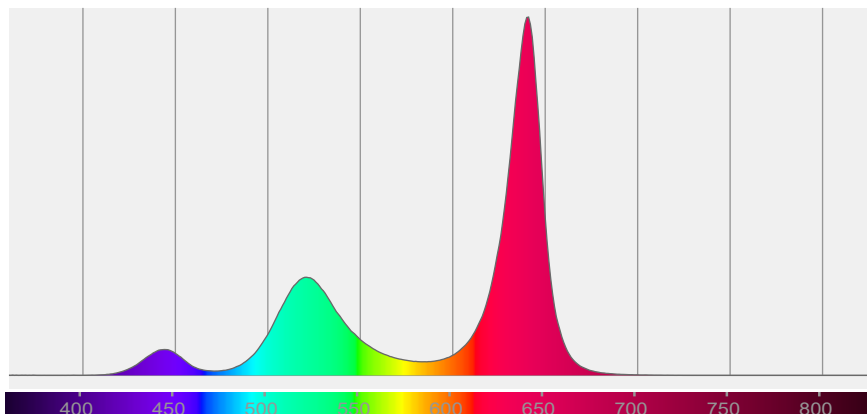


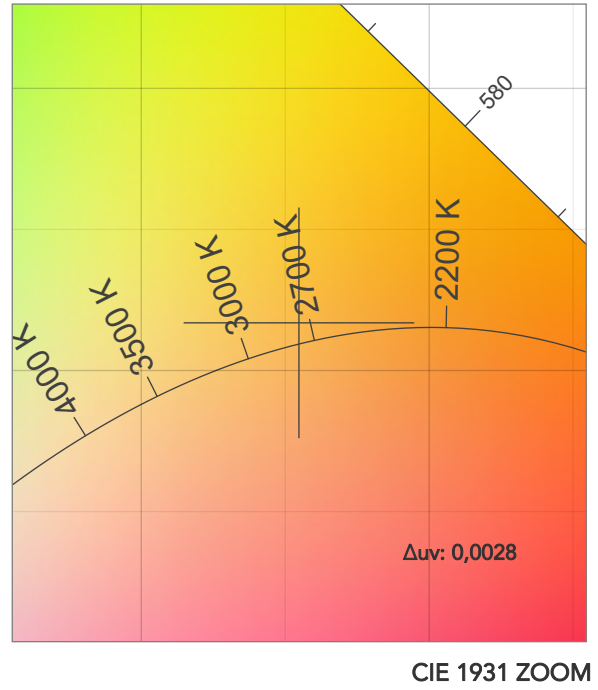
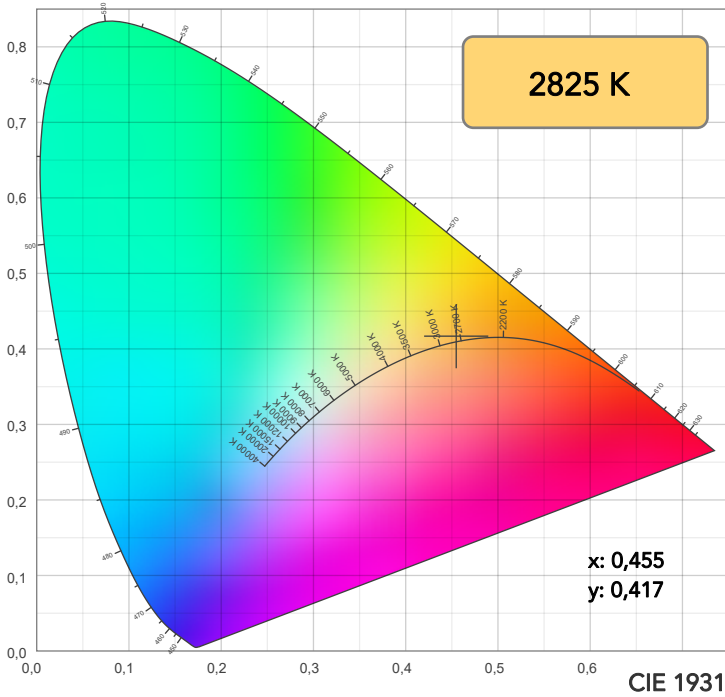
Beam angle 50%: 4,2°

Field angle 10%: 5,6°

Cut off angle 2.5%: 6,4°

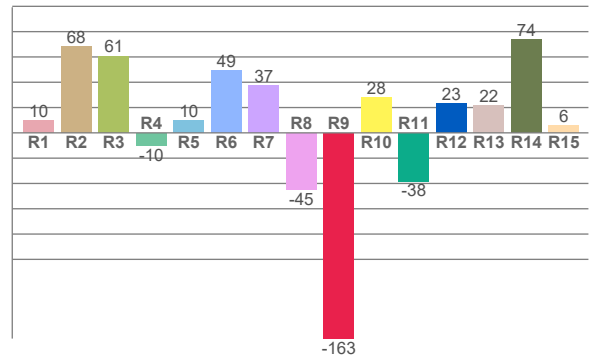
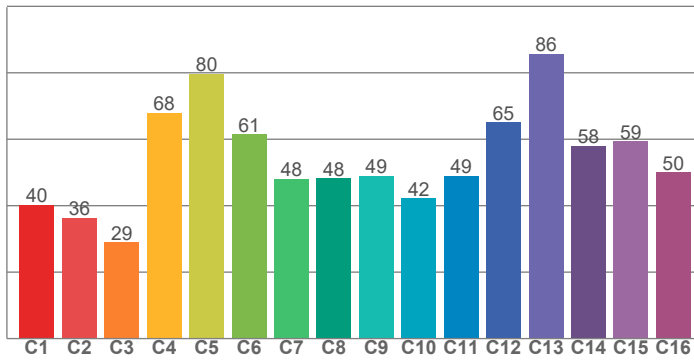
Spectra





TM30: 53,7

CRI: 22,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
9,9	68,0	60,9	-10,1	9,8	49,5	37,3	-44,8	-162,6	28,3	-38,3	23,2	21,8	74,2	5,5

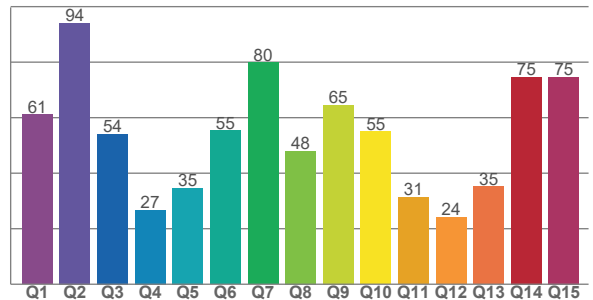
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
40,3	36,3	29,0	67,8	79,7	61,4	48,0	48,2	49,0	42,1	49,0	65,0	85,7	57,9	59,4	50,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
61,1	94,1	54,1	26,7	34,7	55,4	79,8	48,0	64,6	55,0	31,3	24,1	35,2	74,6	74,7

CQS: 49,6



COLOR PARAMETERS

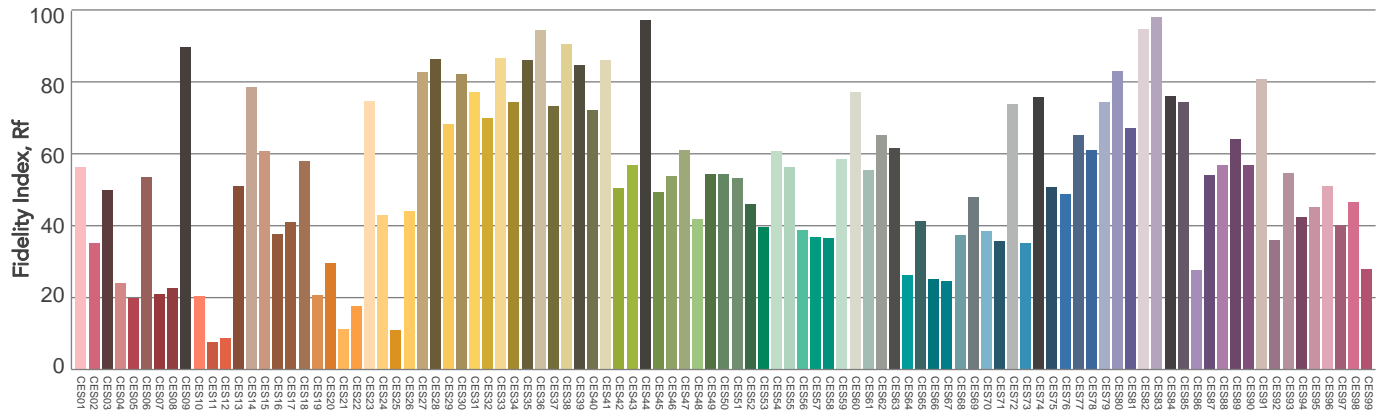
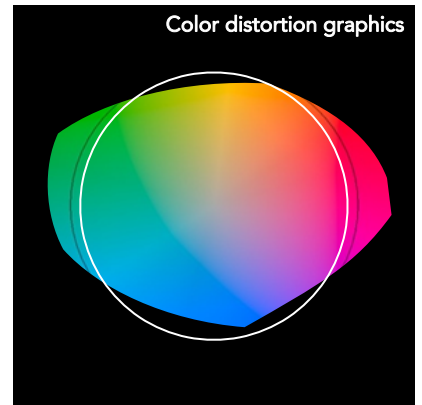
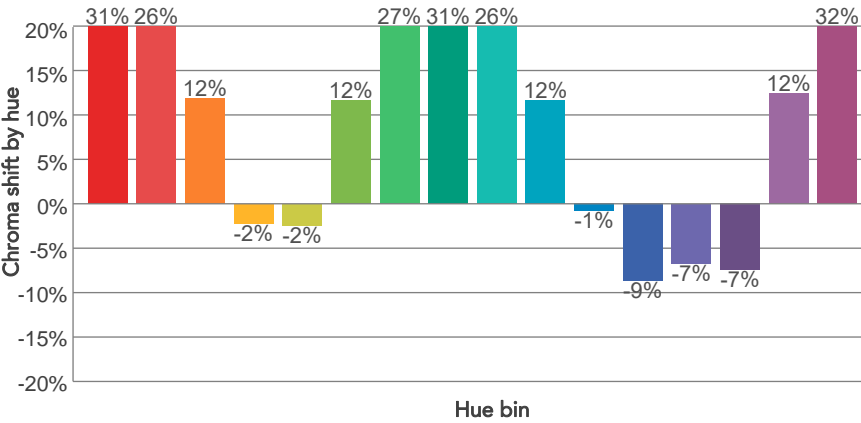
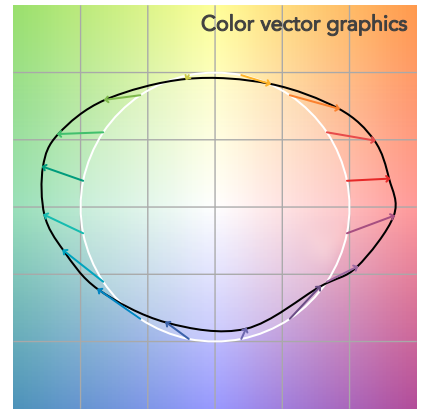
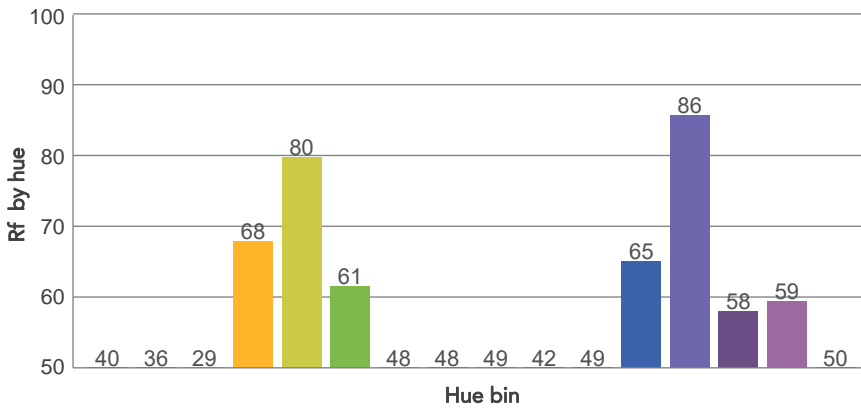
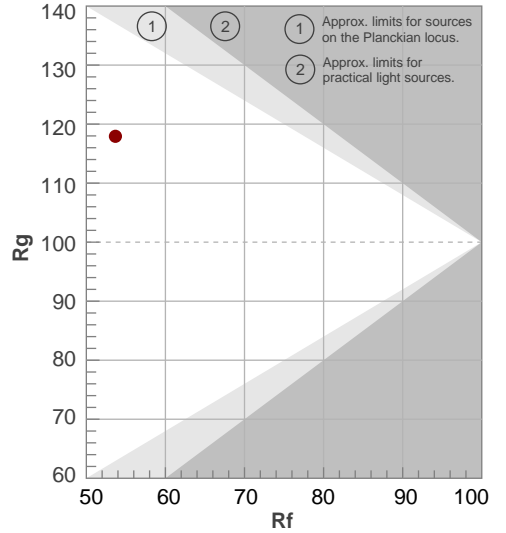
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2825 K	22,5	-162,6	53,7	117,9	49,6	15	0,455	0,417	0,0028

TM30 DETAILS

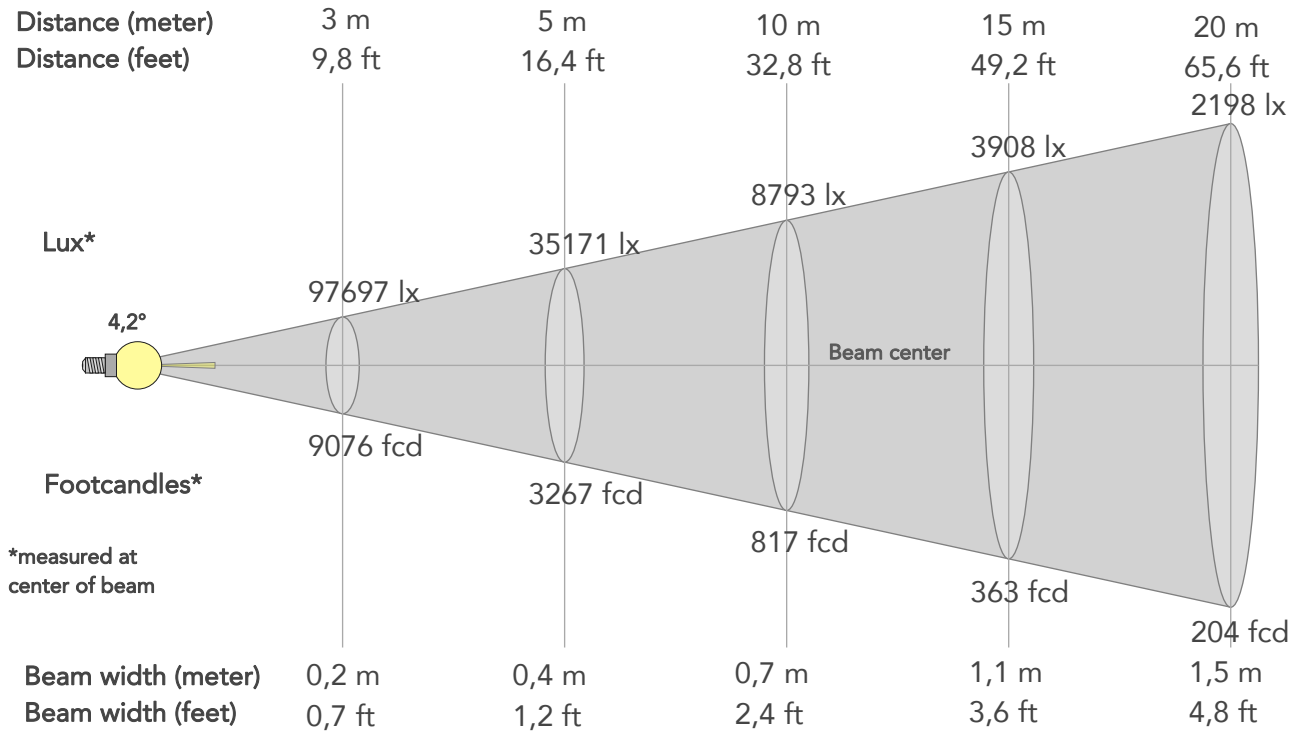
Rf 53,7
Fidelity index Rf

Rg 117,9
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	40	31%	-5%
2	36	26%	-25%
3	29	12%	-36%
4	68	-2%	-22%
5	80	-2%	2%
6	61	12%	24%
7	48	27%	20%
8	48	31%	-4%
9	49	26%	-19%
10	42	12%	-36%
11	49	-1%	-38%
12	65	-9%	-19%
13	86	-7%	5%
14	58	-7%	32%
15	59	12%	22%
16	50	32%	19%



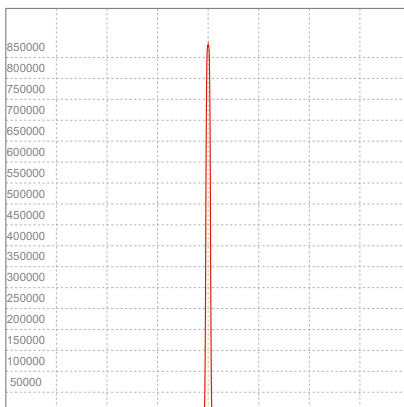
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,2°	5,6°	6,4°	99,9%	99,9%



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	879275lx	219819lx	97697lx	54955lx	35171lx	15632lx	8793lx	3908lx	2198lx	1407lx	977lx	550lx	352lx
Footcand.	81687fcd	20422fcd	9076fcd	5105fcd	3267fcd	1452fcd	817fcd	363fcd	204fcd	131fcd	91fcd	51fcd	33fcd
Beam wid.	0,1m	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1,1m	1,5m	1,8m	2,2m	2,9m	3,7m
Beam wid.	0,2ft	0,5ft	0,7ft	1ft	1,2ft	1,8ft	2,4ft	3,6ft	4,8ft	6ft	7,2ft	9,6ft	12ft

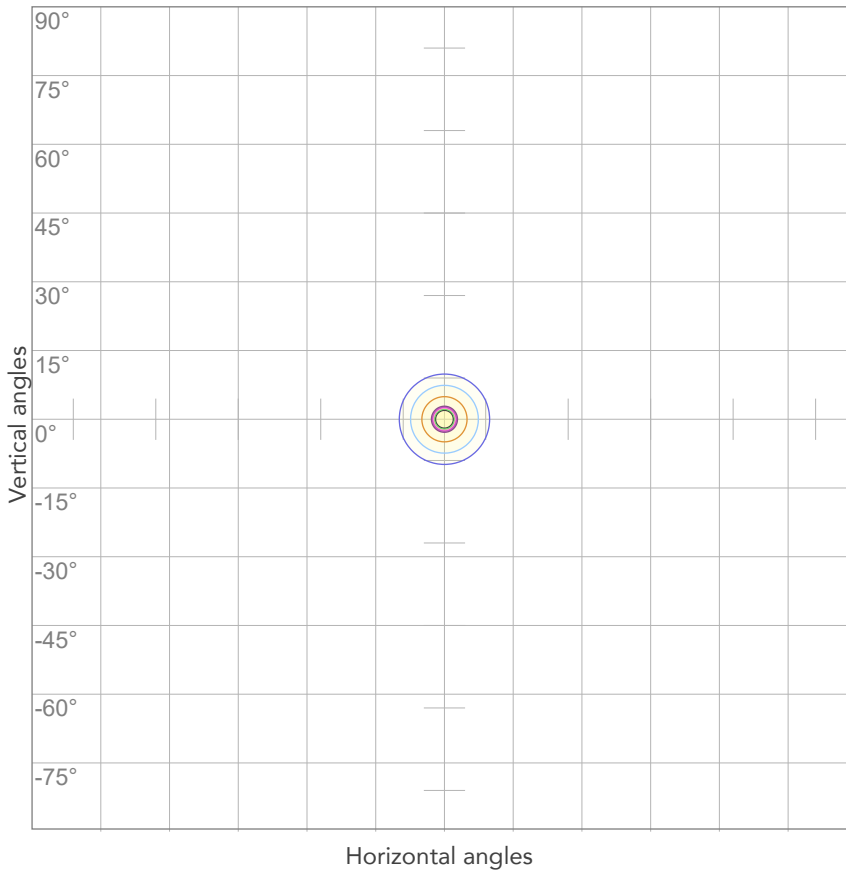
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,52A	529,6W	7lm/W

ISO CANDELA DIAGRAM



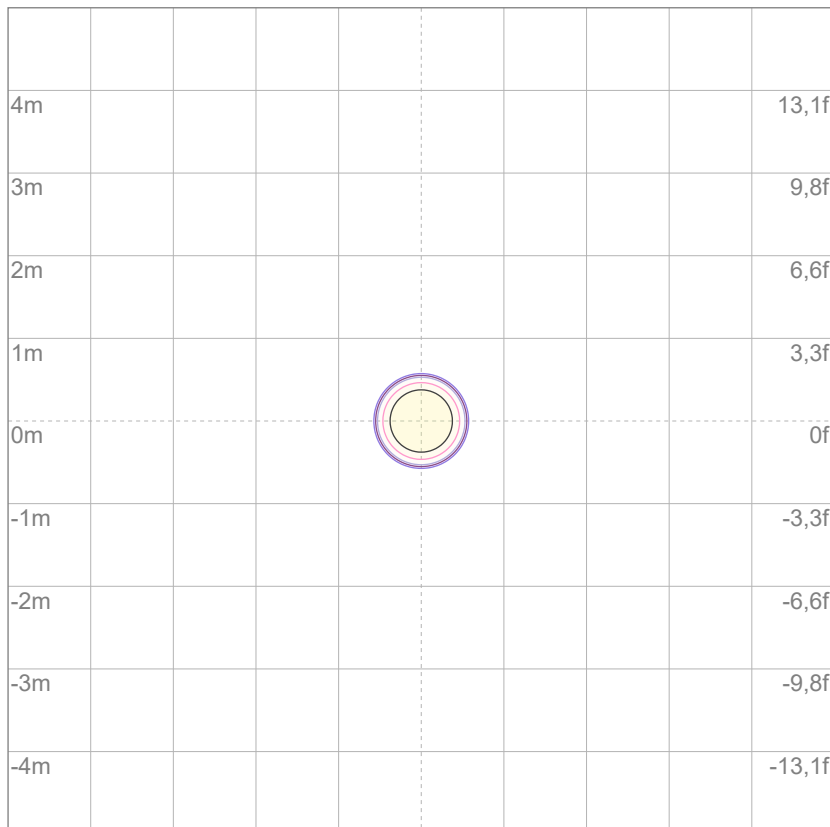
10%	87928 cd
20%	175855 cd
30%	263783 cd
40%	351710 cd
50%	439638 cd
60%	527565 cd
70%	615493 cd
80%	703420 cd

Conditions:

Number of c-planes: 2

Candela at center: 879275 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	264 lx
5%	440 lx
10%	879 lx
30%	2638 lx
50%	4396 lx

Conditions:

Number of c-planes: 2

Lux at center: 8793 lx

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



Total lumen output:

9782 lm

Peak candela output:

30269 cd

Light quality:

CRI: 35,7

Color temperature:

3304 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

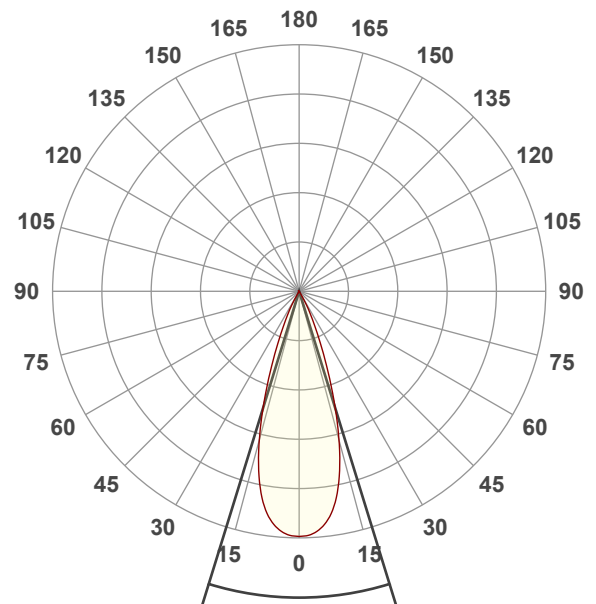
3200K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:11:14

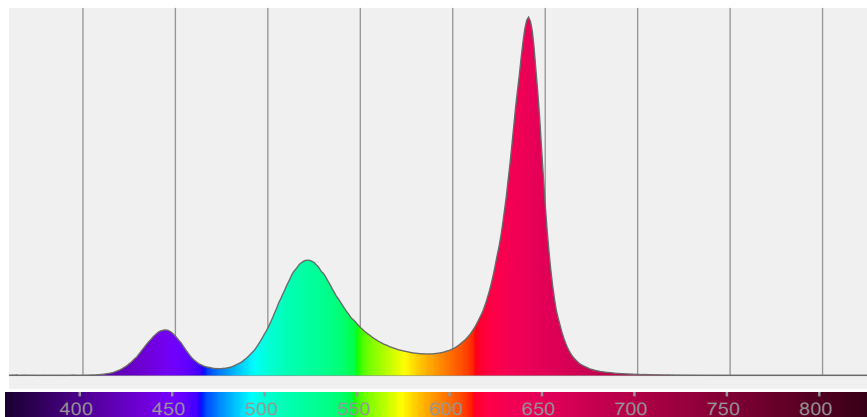


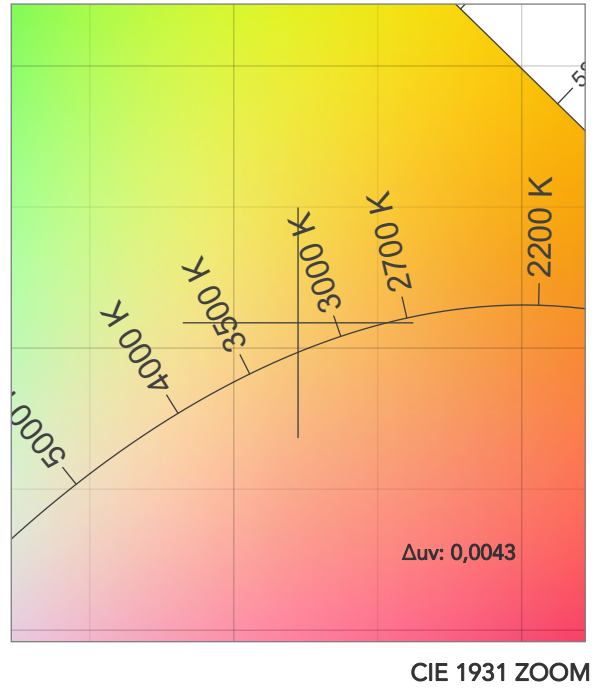
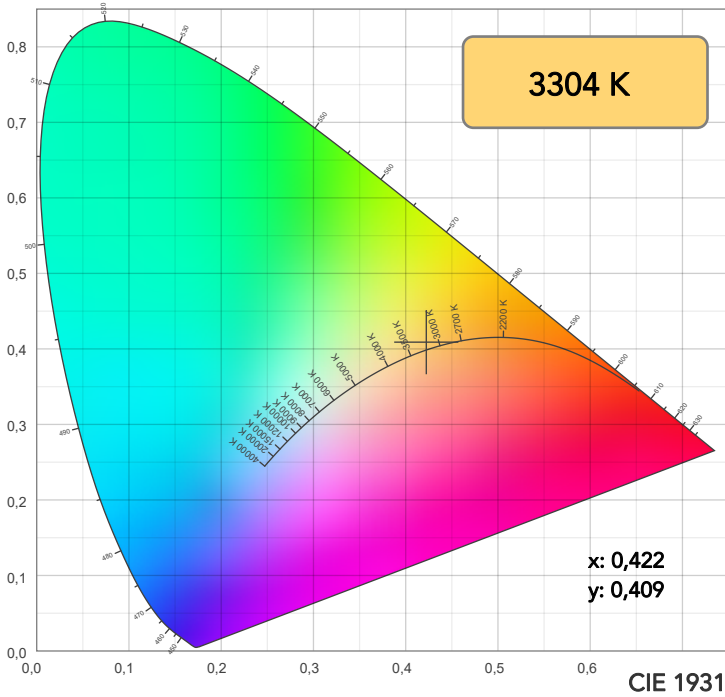
Beam angle 50%: 34,3°

Field angle 10%: 52,8°

Cut off angle 2.5%: 60°

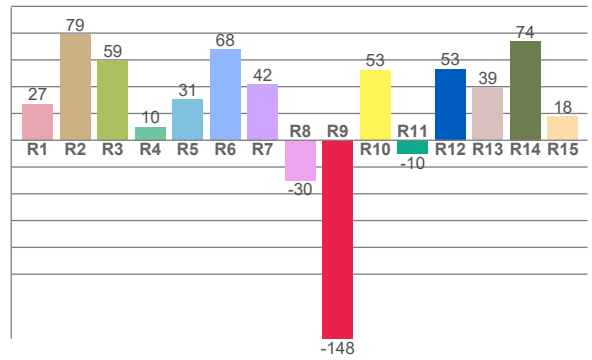
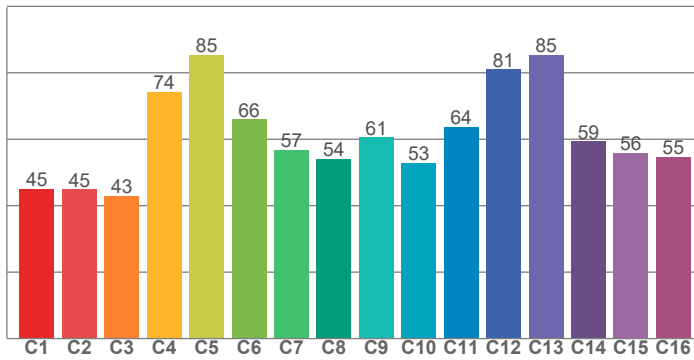
Spectra



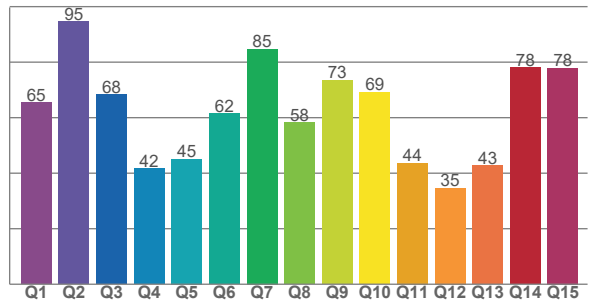


TM30: 61,4

CRI: 35,7 (R1-R8)



CQS: 58,7



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
27,2	78,8	59,5	10,0	30,6	67,7	41,8	-30,0	-148,1	52,6	-10,0	53,3	39,5	74,1	17,6

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
45,1	44,9	42,9	74,2	85,4	66,0	56,8	54,1	60,6	52,8	63,8	81,1	85,4	59,3	55,9	54,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
65,4	94,6	68,4	41,6	45,2	61,5	84,8	58,3	73,5	69,1	43,7	34,7	42,8	78,0	77,9

COLOR PARAMETERS

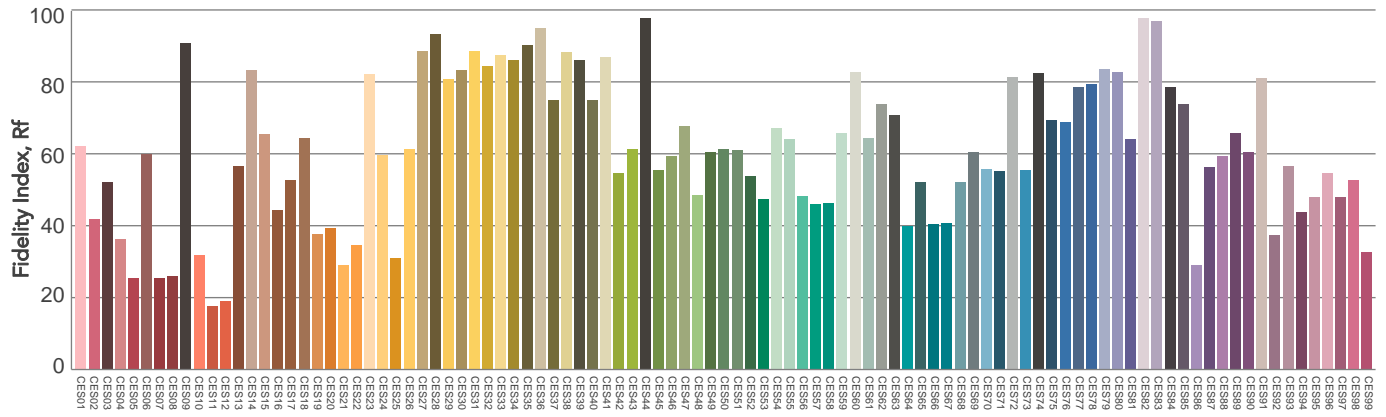
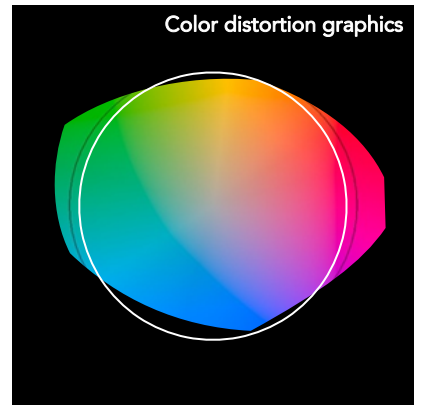
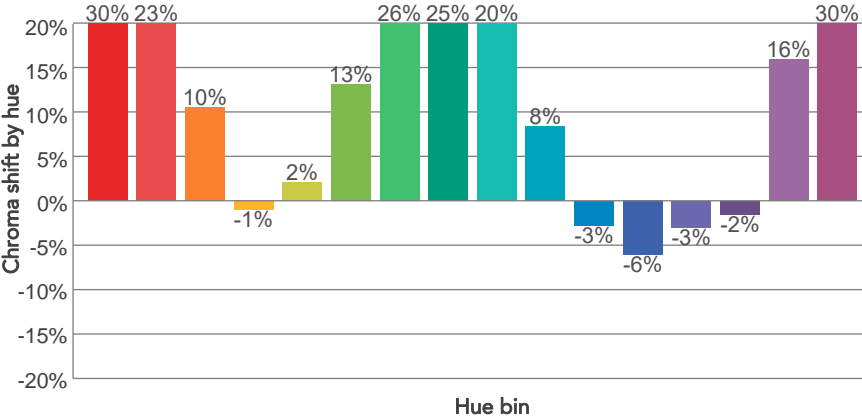
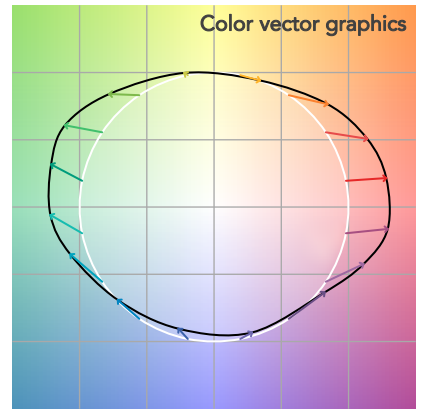
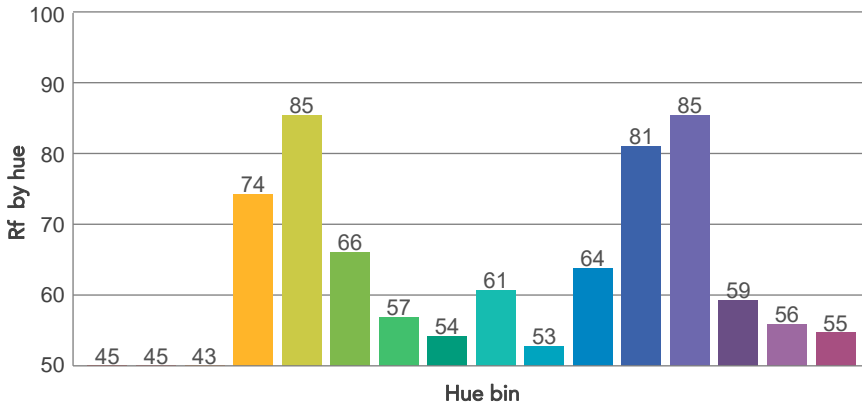
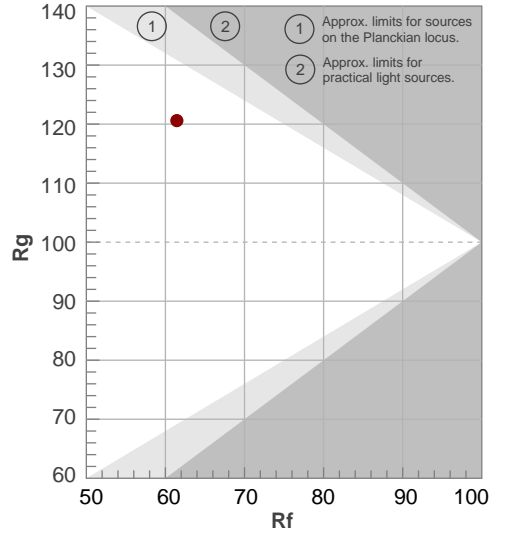
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3304 K	35,7	-148,1	61,4	120,6	58,7	21	0,422	0,409	0,0043

TM30 DETAILS

Rf 61,4
Fidelity index Rf

Rg 120,6
Gammut index

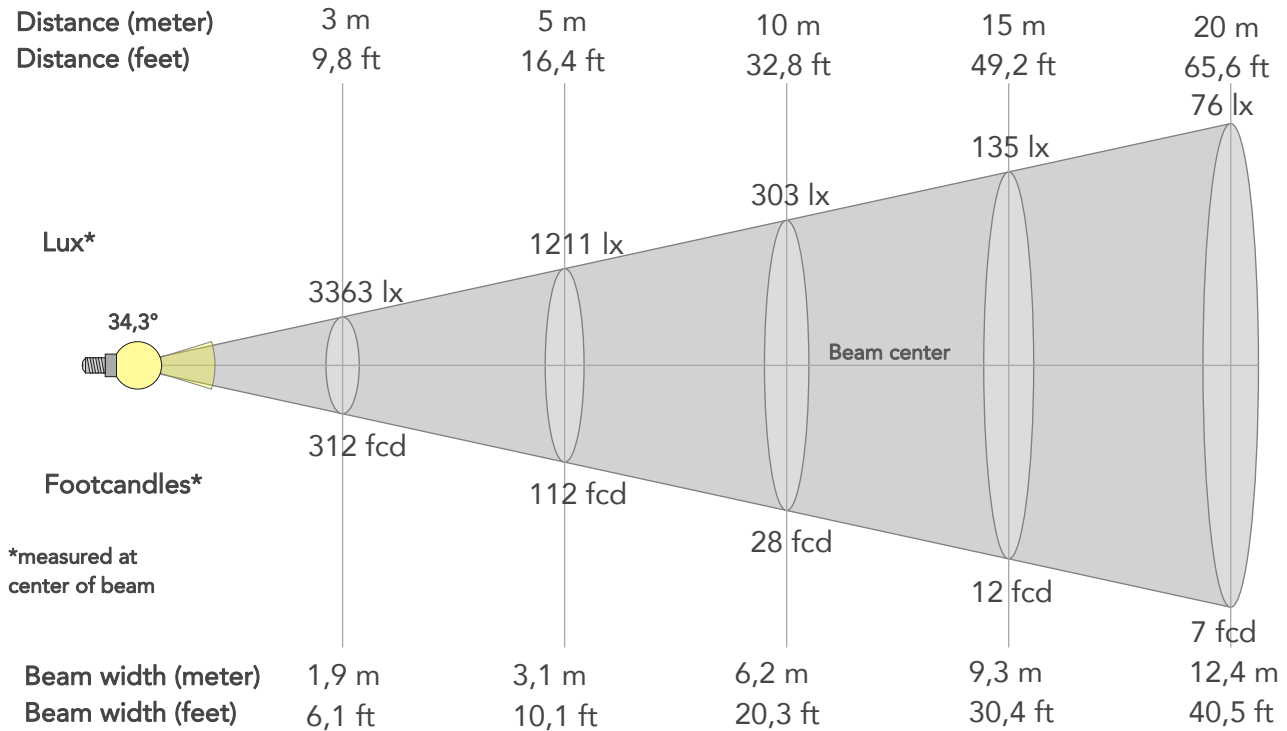
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	45	30%	-4%
2	45	23%	-21%
3	43	10%	-28%
4	74	-1%	-15%
5	85	2%	2%
6	66	13%	18%
7	57	26%	11%
8	54	25%	-7%
9	61	20%	-18%
10	53	8%	-30%
11	64	-3%	-21%
12	81	-6%	-8%
13	85	-3%	10%
14	59	-2%	33%
15	56	16%	26%
16	55	30%	9%



BEAM DETAILS



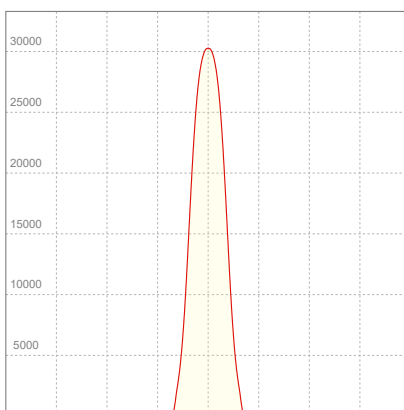
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,3°	52,8°	60°	100,0%	100,0%



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	30269lx	7567lx	3363lx	1892lx	1211lx	538lx	303lx	135lx	76lx	48lx	34lx	19lx	12lx
Footcand.	2812fcd	703fcd	312fcd	176fcd	112fcd	50fcd	28fcd	12fcd	7fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,6m	1,2m	1,9m	2,5m	3,1m	4,6m	6,2m	9,3m	12,4m	15,4m	18,5m	24,7m	30,9m
Beam wid.	2ft	4,1ft	6,1ft	8,1ft	10,1ft	15,2ft	20,3ft	30,4ft	40,5ft	50,7ft	60,8ft	81ft	101,3ft

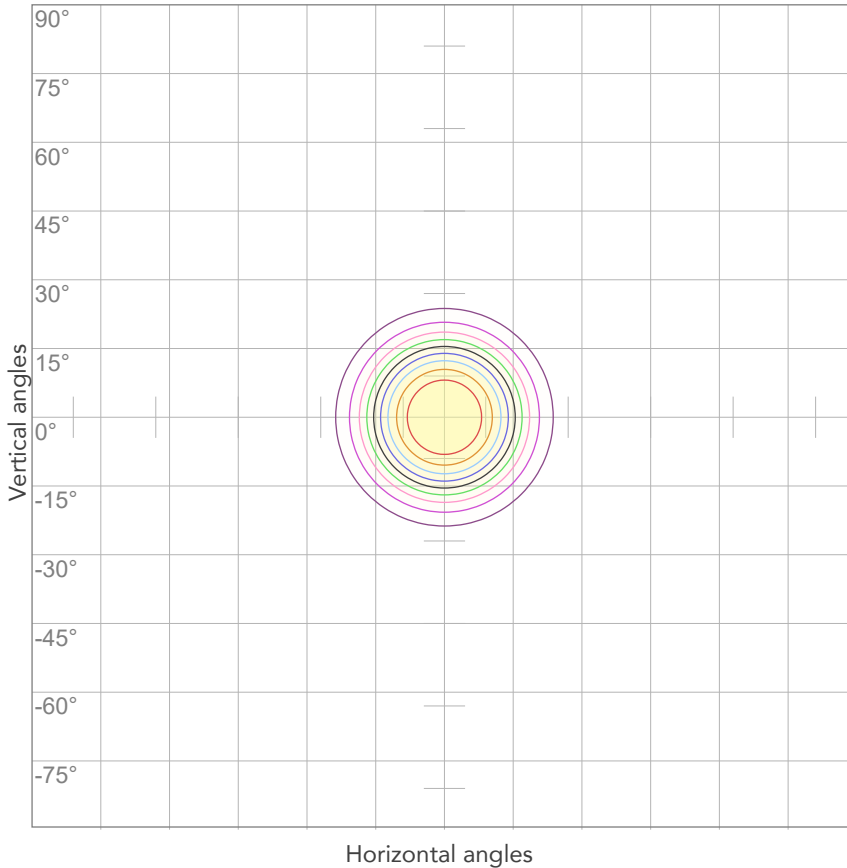
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,69A	571W	17lm/W

ISO CANDELA DIAGRAM



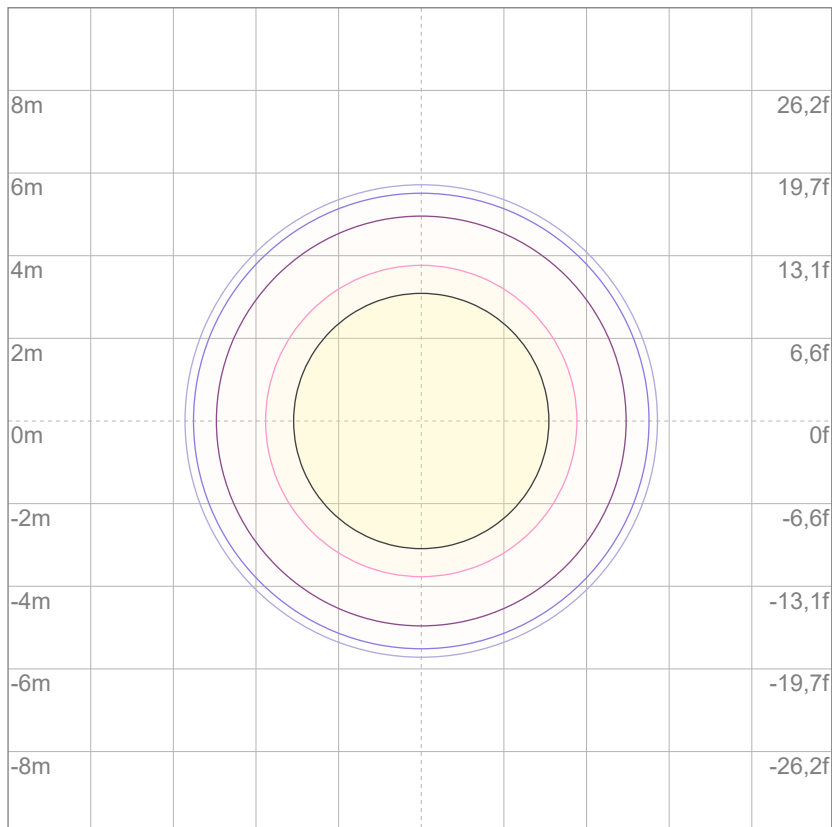
10%	3027 cd
20%	6054 cd
30%	9081 cd
40%	12108 cd
50%	15135 cd
60%	18162 cd
70%	21188 cd
80%	24215 cd

Conditions:

Number of c-planes: 2

Candela at center: 30269 cd

ISO LUX DIAGRAM



3%	9,08 lx
5%	15,1 lx
10%	30,3 lx
30%	90,8 lx
50%	151 lx

Conditions:

Number of c-planes: 2

Lux at center: 303 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:

7362 lm

Peak candela output:

100689 cd

Light quality:

CRI: 35,0

Color temperature:

3264 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

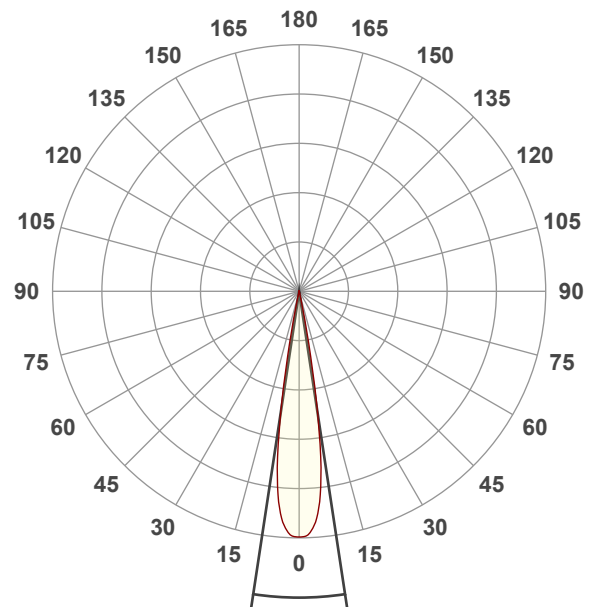
3200K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:09:30

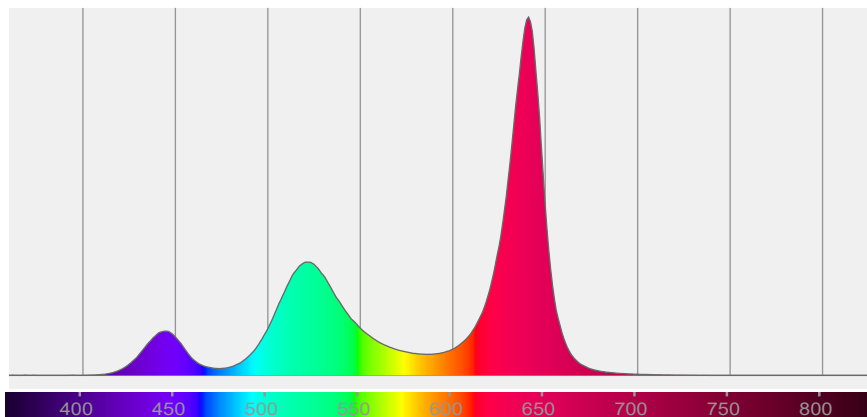


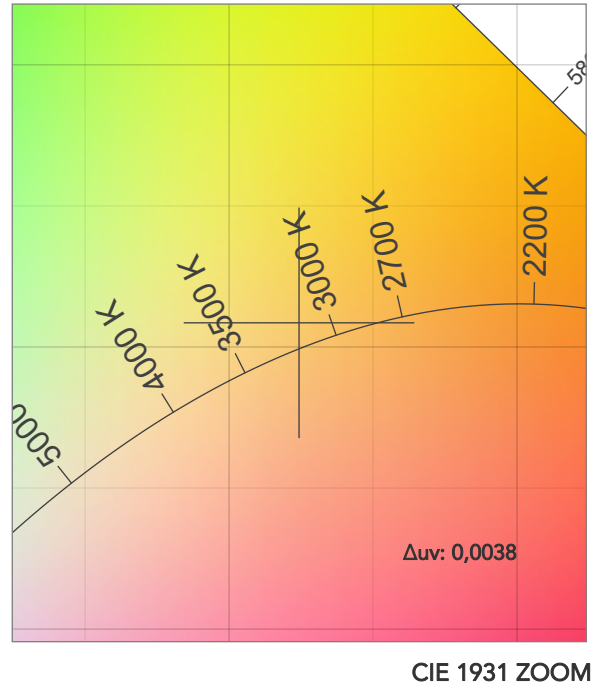
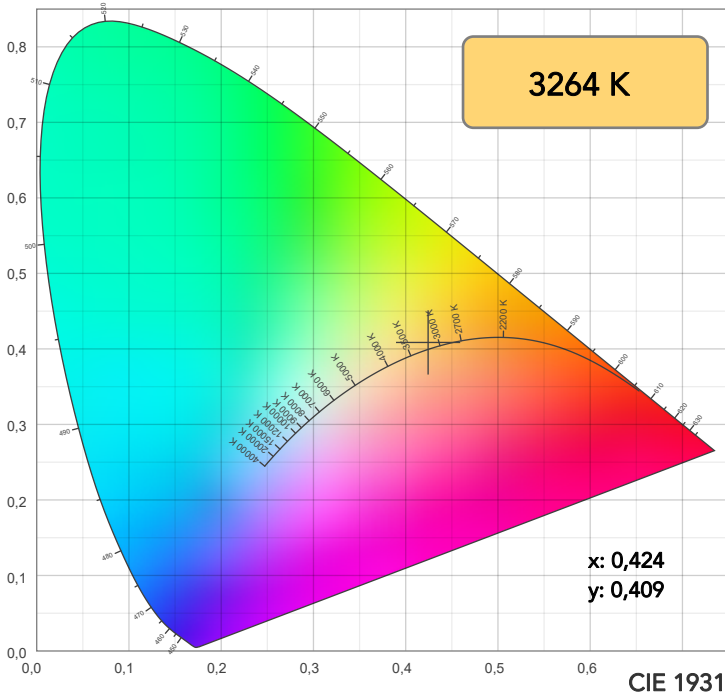
Beam angle 50%: 17,2°

Field angle 10%: 23°

Cut off angle 2.5%: 25,5°

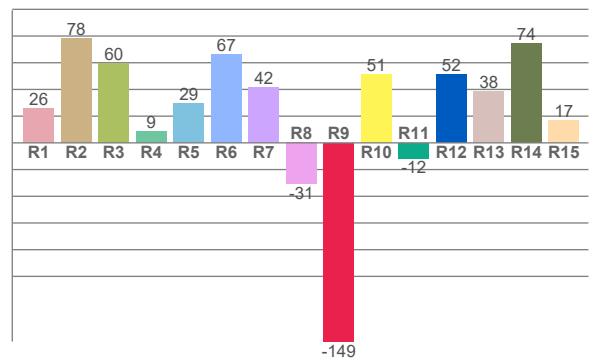
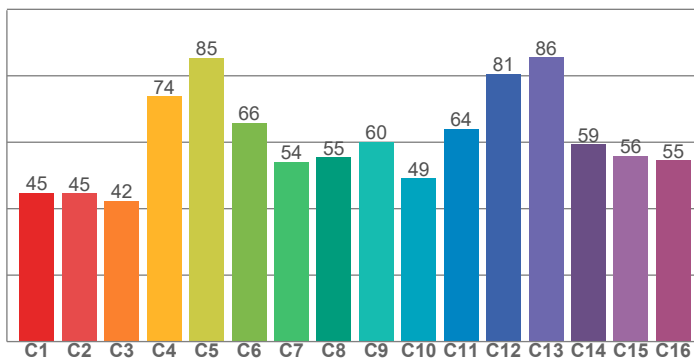
Spectra





TM30: 61,1

CRI: 35,0 (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
26,2	78,0	59,7	8,9	29,3	66,6	41,7	-30,8	-148,8	51,0	-11,6	51,6	38,4	74,2	16,8

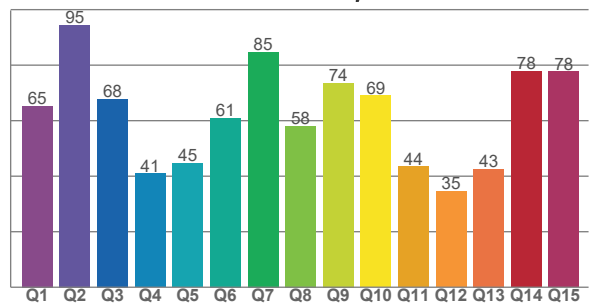
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
44,8	44,6	42,4	73,8	85,3	65,8	54,1	55,5	60,1	49,1	63,9	80,6	85,6	59,4	55,8	54,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
65,2	94,5	67,9	41,0	44,6	61,0	84,8	58,1	73,5	69,1	43,5	34,5	42,6	77,8	77,7

CQS: 58,4



COLOR PARAMETERS

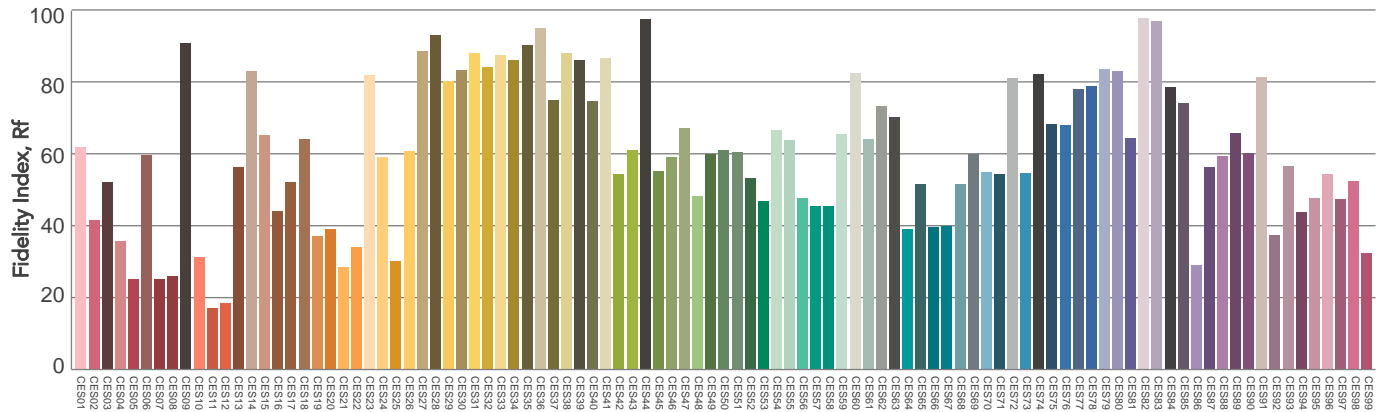
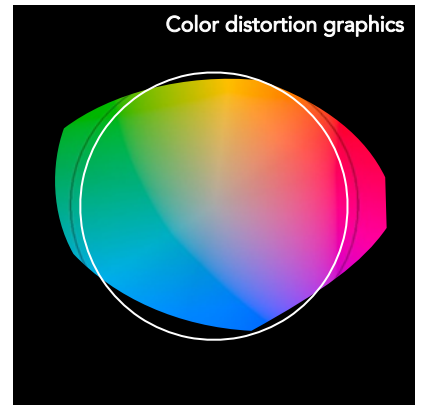
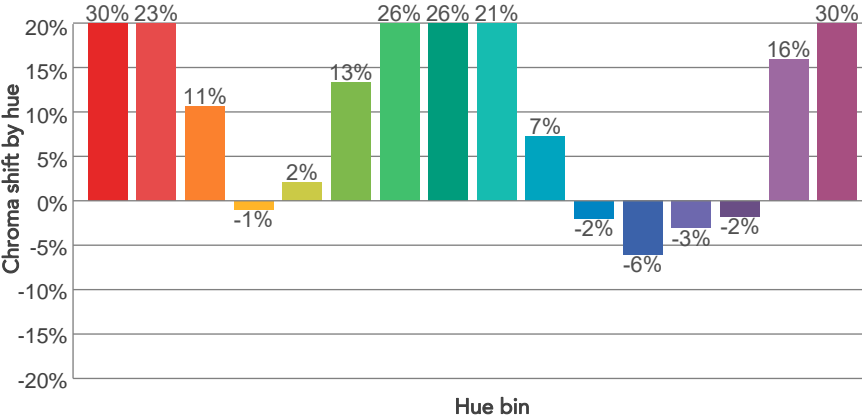
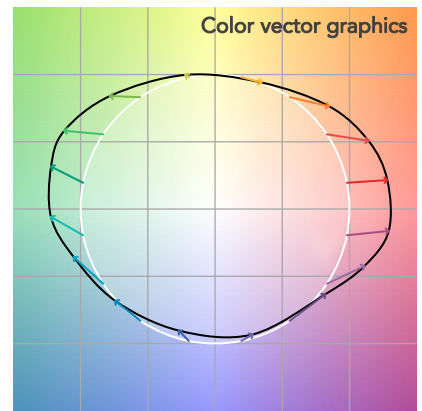
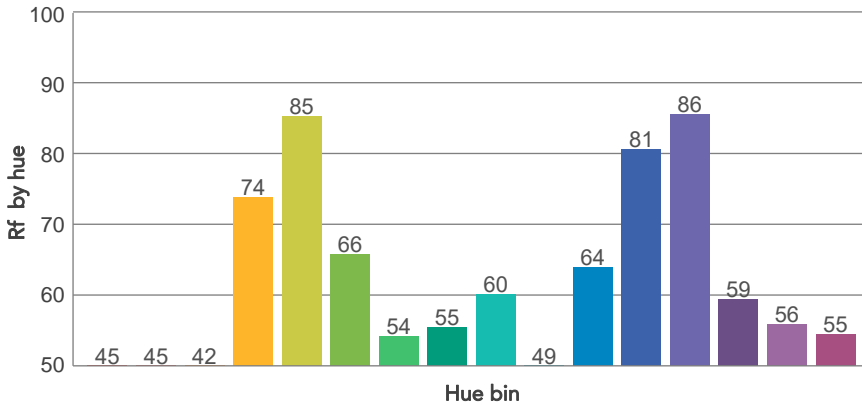
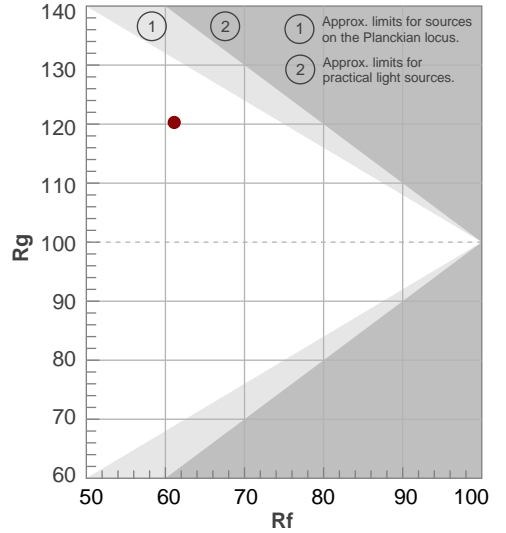
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3264 K	35,0	-148,8	61,1	120,3	58,4	21	0,424	0,409	0,0038

TM30 DETAILS

Rf 61,1
Fidelity index Rf

Rg 120,3
Gammut index

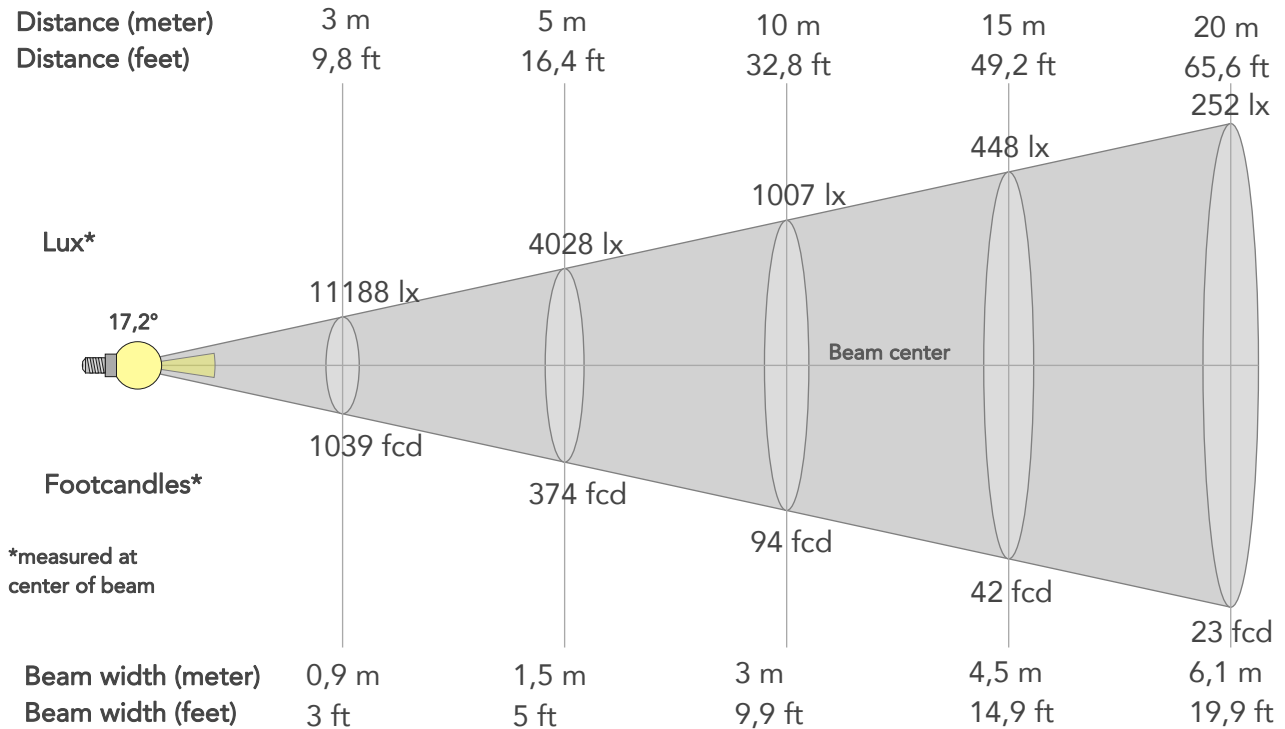
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	45	30%	-4%
2	45	23%	-21%
3	42	11%	-28%
4	74	-1%	-15%
5	85	2%	2%
6	66	13%	18%
7	54	26%	14%
8	55	26%	-7%
9	60	21%	-18%
10	49	7%	-29%
11	64	-2%	-24%
12	81	-6%	-9%
13	86	-3%	9%
14	59	-2%	33%
15	56	16%	26%
16	55	30%	9%



BEAM DETAILS



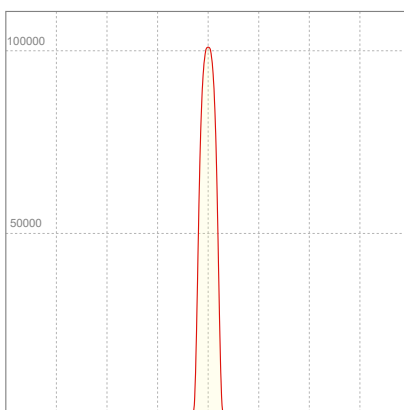
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,2°	23°	25,5°	100,0%	100,0%



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	100689lx	25172lx	11188lx	6293lx	4028lx	1790lx	1007lx	448lx	252lx	161lx	112lx	63lx	40lx
Footcand.	9354fcd	2339fcd	1039fcd	585fcd	374fcd	166fcd	94fcd	42fcd	23fcd	15fcd	10fcd	6fcd	4fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3m	4,5m	6,1m	7,6m	9,1m	12,1m	15,2m
Beam wid.	1ft	2ft	3ft	4ft	5ft	7,5ft	9,9ft	14,9ft	19,9ft	24,9ft	29,8ft	39,8ft	49,7ft

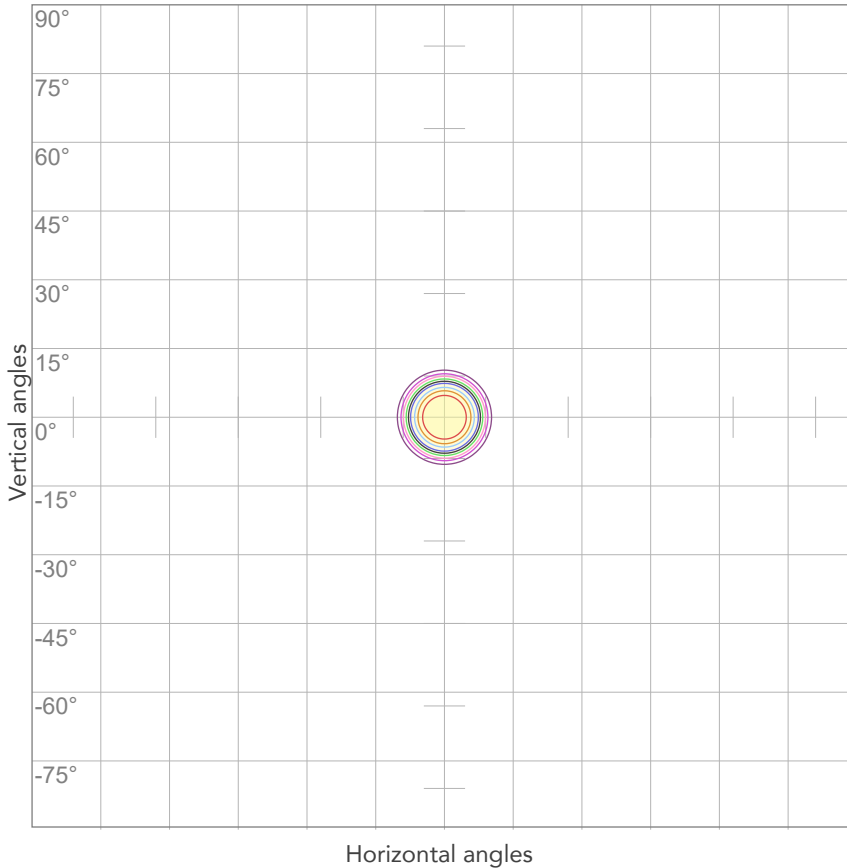
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,69A	570,4W	13lm/W

ISO CANDELA DIAGRAM



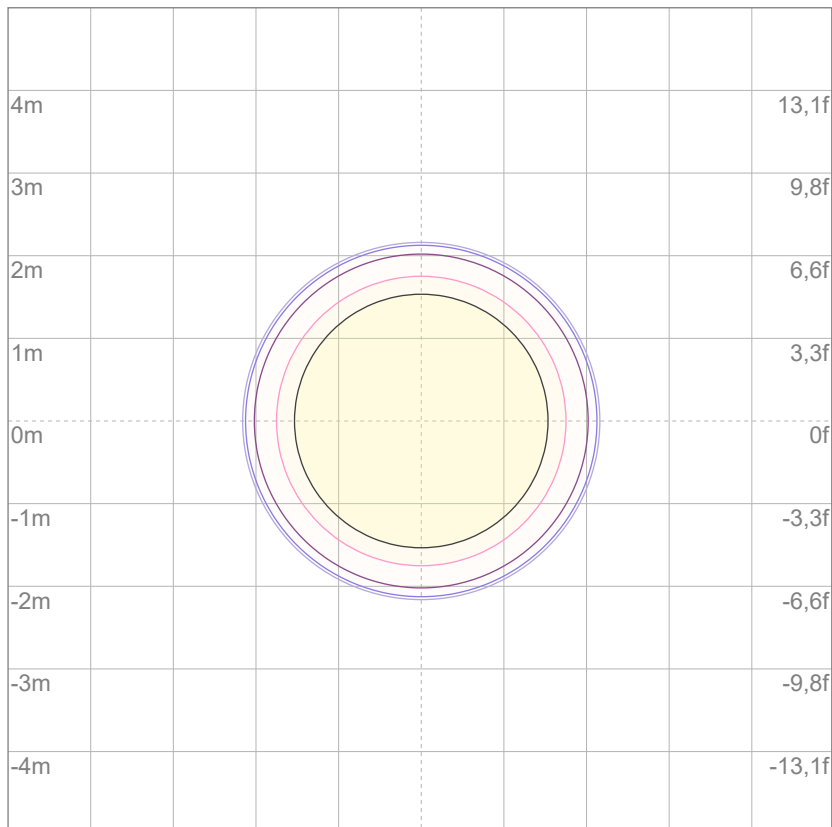
10%	10069 cd
20%	20138 cd
30%	30207 cd
40%	40276 cd
50%	50344 cd
60%	60413 cd
70%	70482 cd
80%	80551 cd

Conditions:

Number of c-planes: 2

Candela at center: 100689 cd

ISO LUX DIAGRAM



3%	30,2 lx
5%	50,3 lx
10%	101 lx
30%	302 lx
50%	503 lx

Conditions:

Number of c-planes: 2

Lux at center: 1007 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:

4490 lm

Peak candela output:

1010279 cd

Light quality:

CRI: 34,1

Color temperature:

3255 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

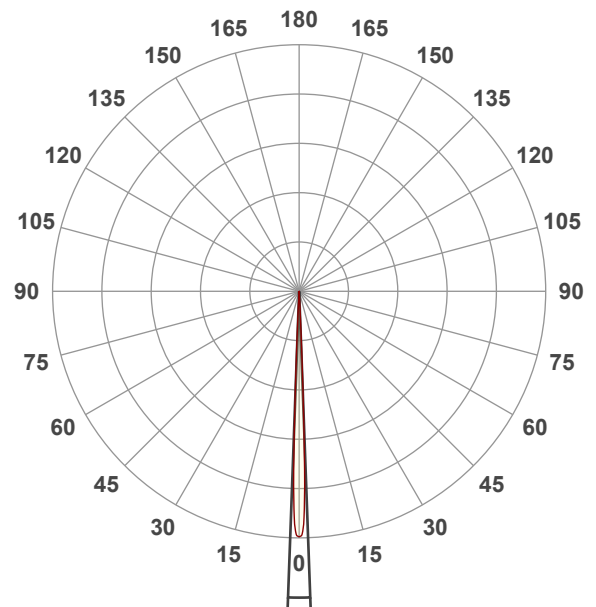
3200K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:07:58

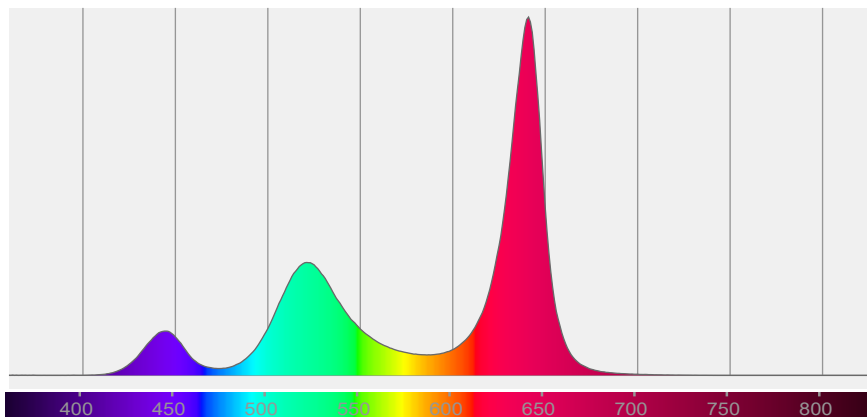


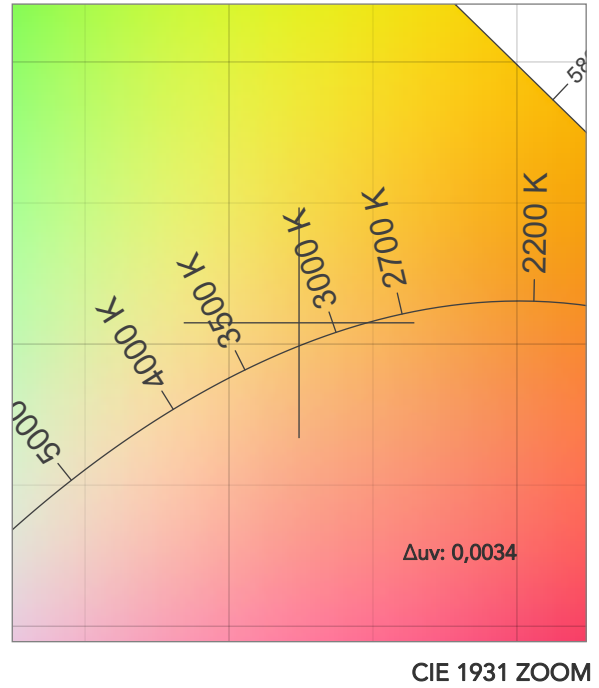
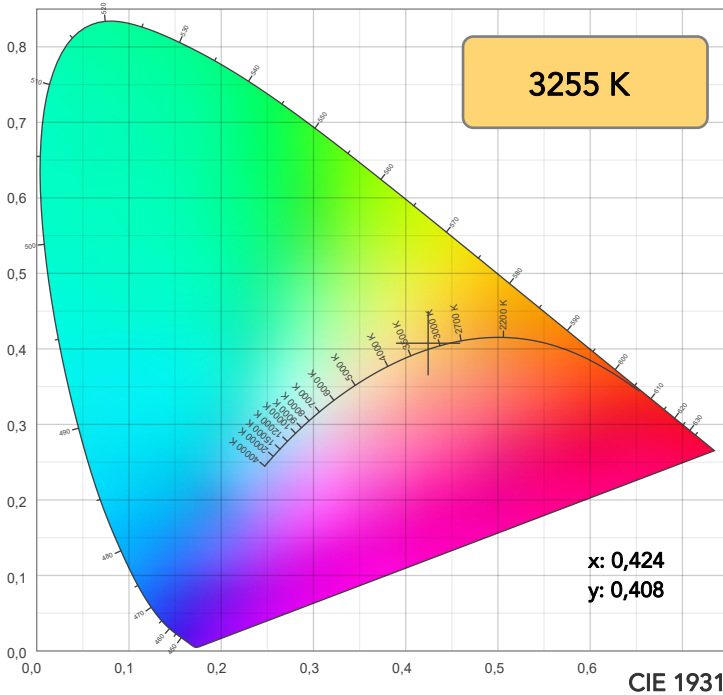
Beam angle 50%: 4,2°

Field angle 10%: 5,6°

Cut off angle 2.5%: 6,4°

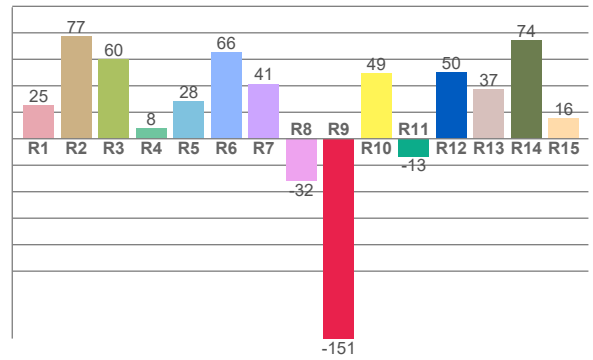
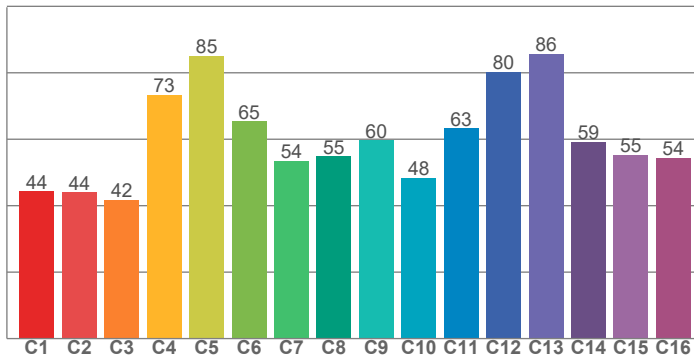
Spectra





TM30: 60,7

CRI: 34,1 (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
25,0	77,3	59,8	7,7	28,1	65,5	41,4	-32,0	-150,9	49,3	-13,3	50,0	37,2	74,2	15,6

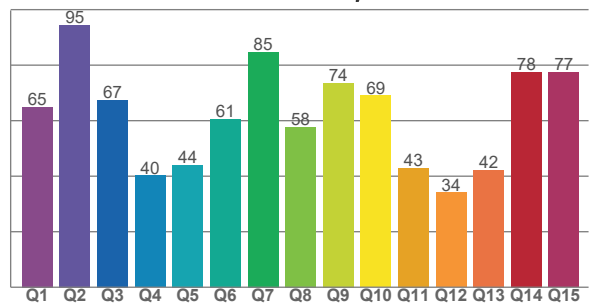
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
44,3	44,0	41,7	73,4	85,2	65,4	53,5	54,9	59,6	48,4	63,3	80,2	85,6	59,2	55,3	54,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
65,0	94,5	67,4	40,2	44,1	60,6	84,7	57,8	73,6	69,1	43,0	34,1	42,3	77,6	77,4

CQS: 58,1



COLOR PARAMETERS

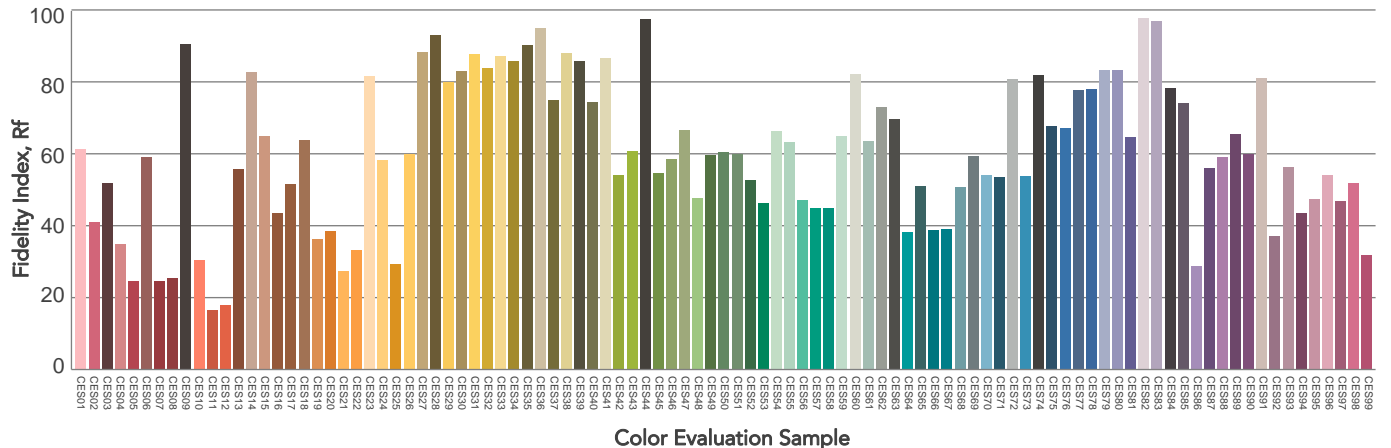
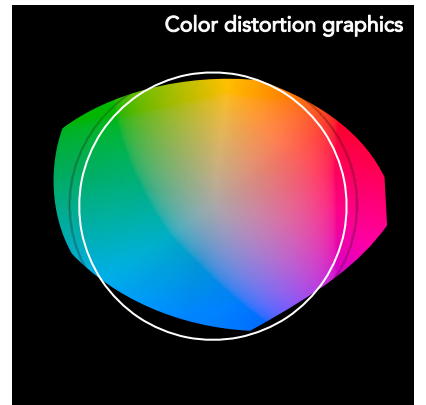
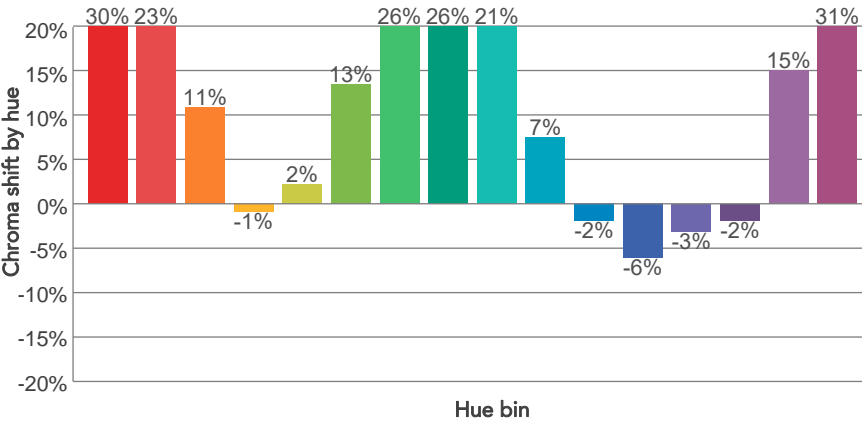
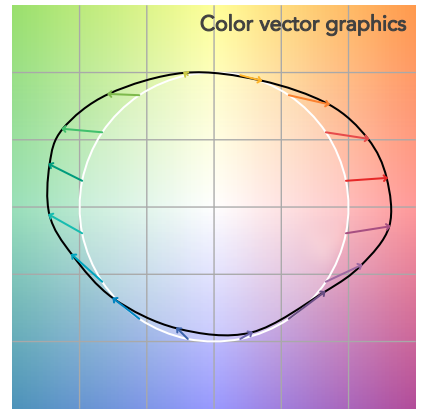
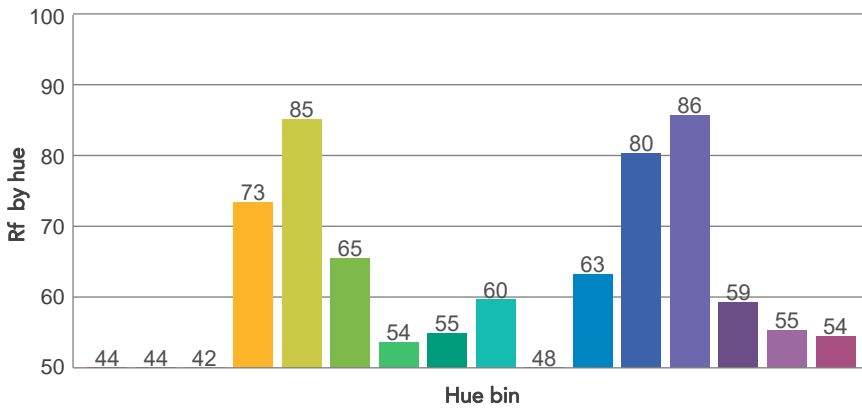
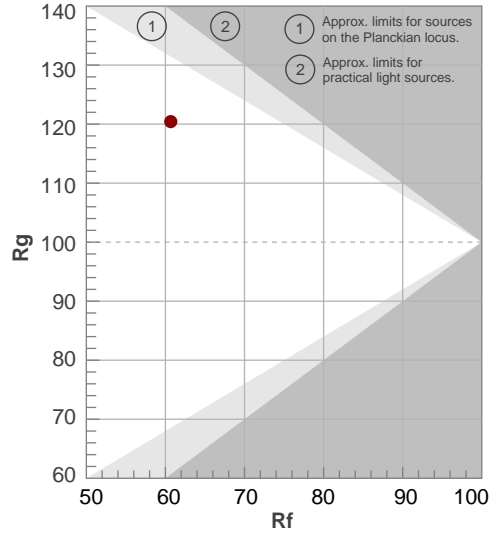
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3255 K	34,1	-150,9	60,7	120,4	58,1	20	0,424	0,408	0,0034

TM30 DETAILS

Rf 60,7
Fidelity index Rf

Rg 120,4
Gammut index

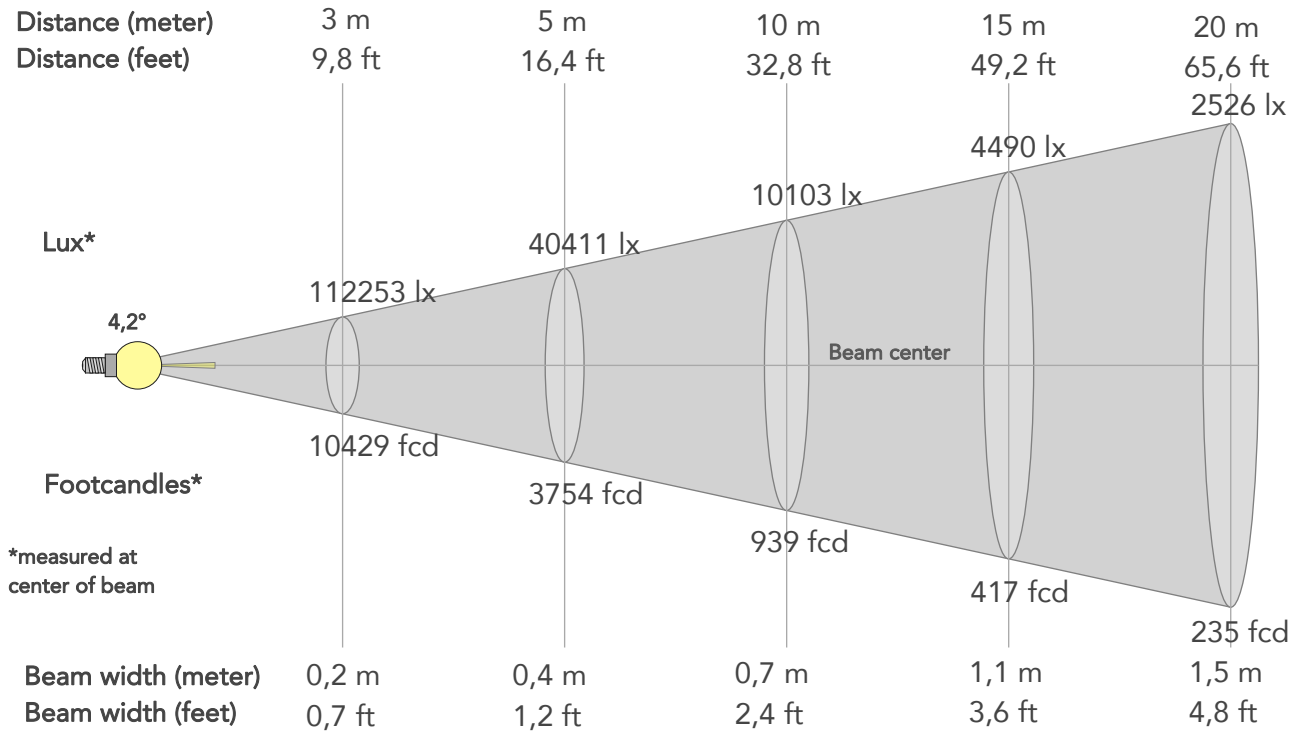
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	44	30%	-4%
2	44	23%	-21%
3	42	11%	-28%
4	73	-1%	-16%
5	85	2%	2%
6	65	13%	19%
7	54	26%	14%
8	55	26%	-7%
9	60	21%	-18%
10	48	7%	-29%
11	63	-2%	-24%
12	80	-6%	-9%
13	86	-3%	9%
14	59	-2%	33%
15	55	15%	25%
16	54	31%	11%



BEAM DETAILS



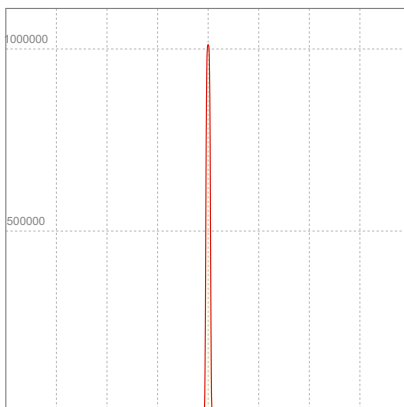
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,2°	5,6°	6,4°	99,9%	99,9%



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	1010279lx	252570lx	112253lx	63142lx	40411lx	17961lx	10103lx	4490lx	2526lx	1616lx	1123lx	631lx	404lx
Footcand.	93858fcd	23464fcd	10429fcd	5866fcd	3754fcd	1669fcd	939fcd	417fcd	235fcd	150fcd	104fcd	59fcd	38fcd
Beam wid.	0,1m	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1,1m	1,5m	1,8m	2,2m	2,9m	3,6m
Beam wid.	0,2ft	0,5ft	0,7ft	1ft	1,2ft	1,8ft	2,4ft	3,6ft	4,8ft	6ft	7,1ft	9,5ft	11,9ft

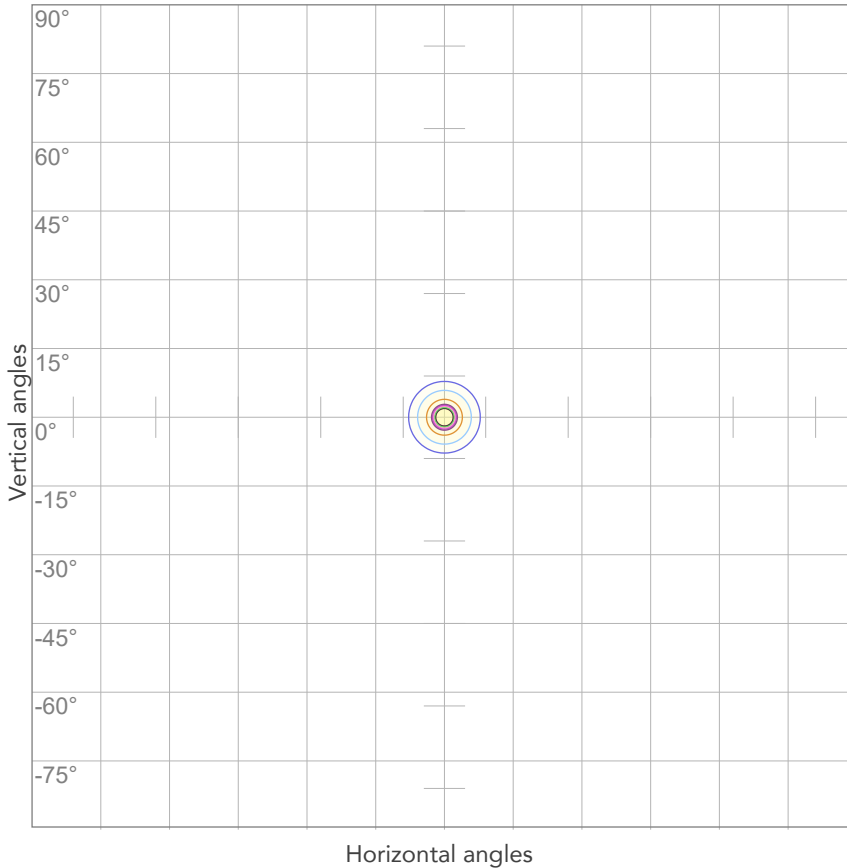
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,72A	576,8W	8lm/W

ISO CANDELA DIAGRAM



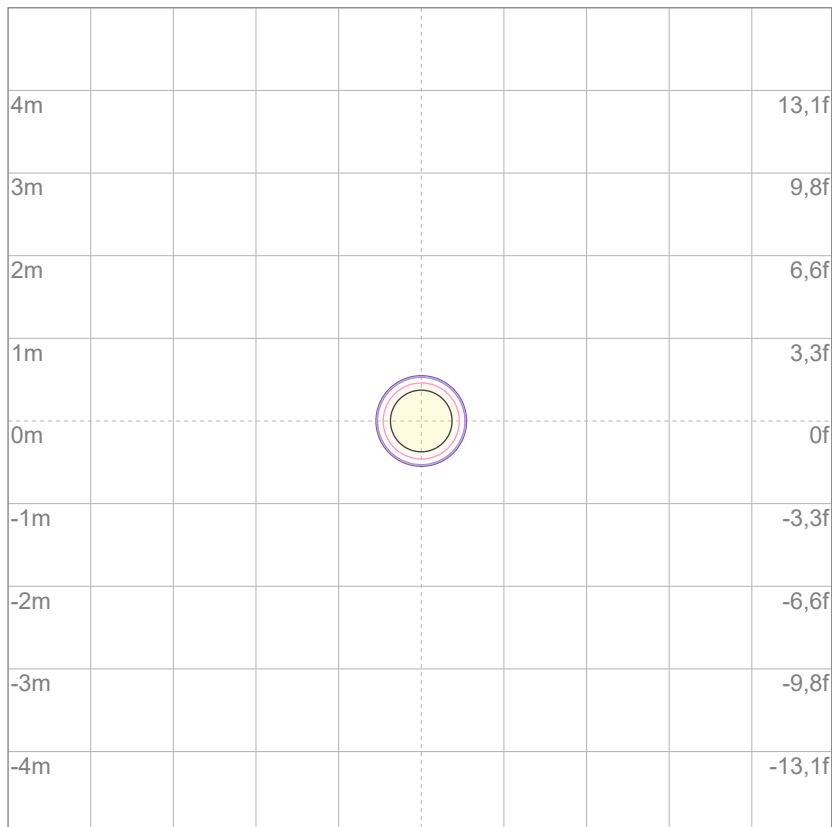
10%	101028 cd
20%	202056 cd
30%	303084 cd
40%	404111 cd
50%	505139 cd
60%	606167 cd
70%	707195 cd
80%	808223 cd

Conditions:

Number of c-planes: 2

Candela at center: 1010279 cd

ISO LUX DIAGRAM



3%	303 lx
5%	505 lx
10%	1010 lx
30%	3031 lx
50%	5051 lx

Conditions:

Number of c-planes: 2

Lux at center: 10,1K 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:

13106 lm

Peak candela output:

39819 cd

Light quality:

CRI: 58,1

Color temperature:

4189 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASURAMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

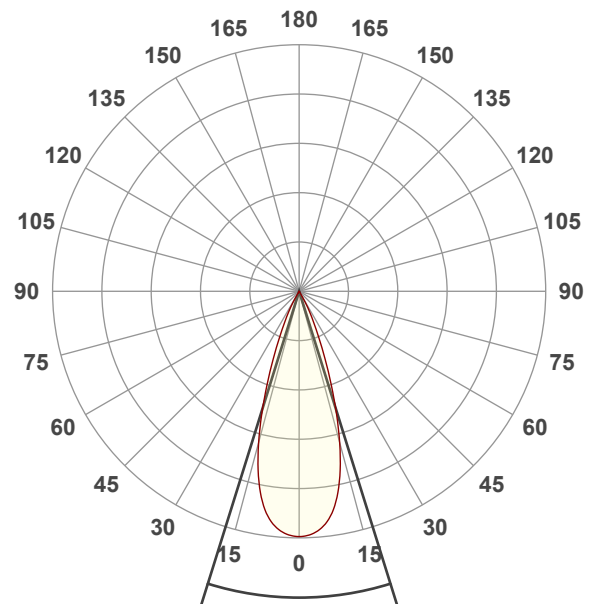
4000K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:18:13

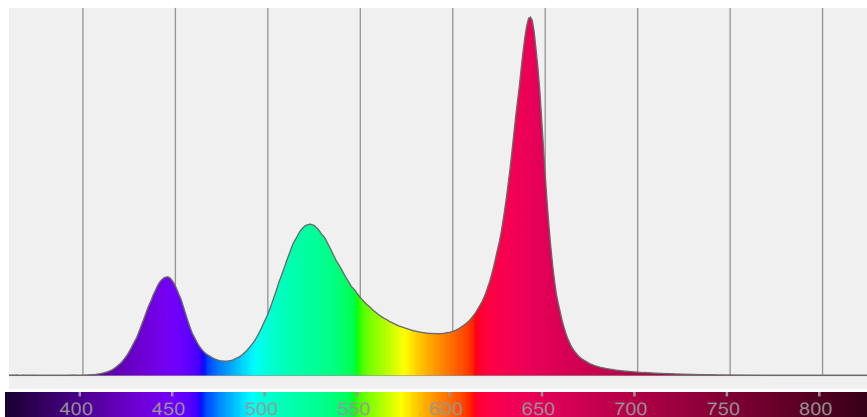


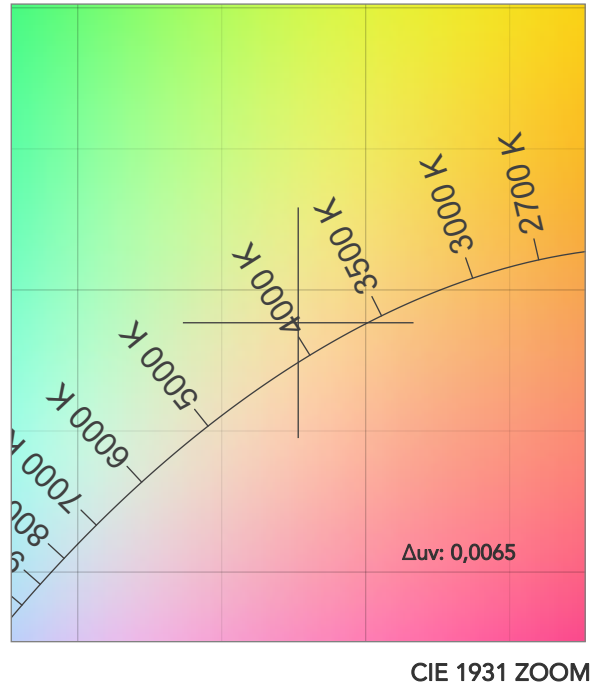
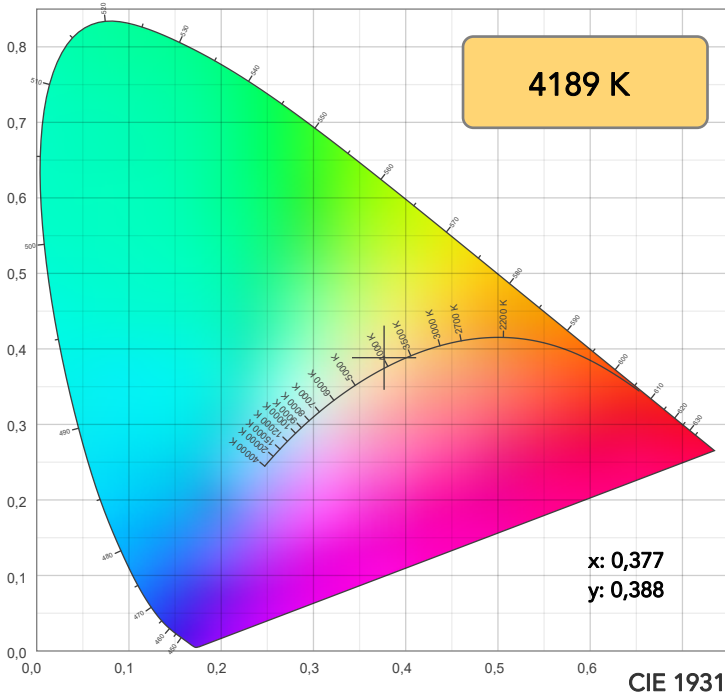
Beam angle 50%: 34,7°

Field angle 10%: 53,5°

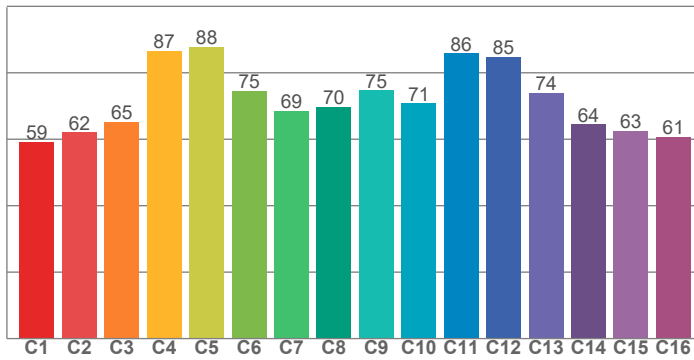
Cut off angle 2.5%: 60,4°

Spectra

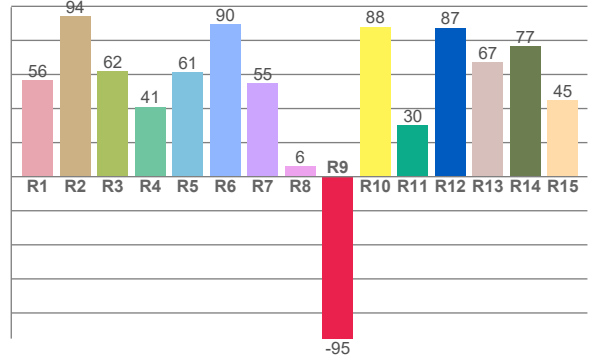




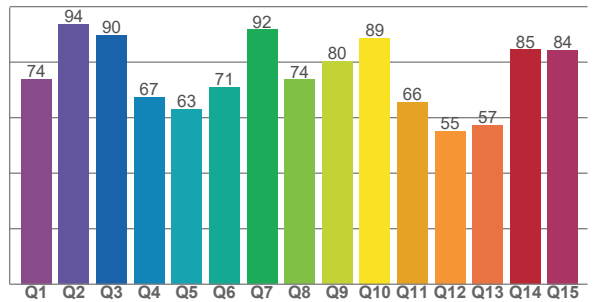
TM30: 73,1



CRI: 58,1 (R1-R8)



CQS: 73,1



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
56,5	94,2	61,7	41,0	61,3	89,5	54,8	6,0	-95,0	88,0	30,0	87,4	67,2	76,6	44,7

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
59,2	62,0	65,2	86,5	87,9	74,6	68,5	69,7	74,7	70,8	85,8	84,7	74,0	64,4	62,5	60,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,0	93,7	89,9	67,3	63,0	71,0	91,7	73,8	80,3	88,7	65,6	55,3	57,3	84,5	84,4

COLOR PARAMETERS

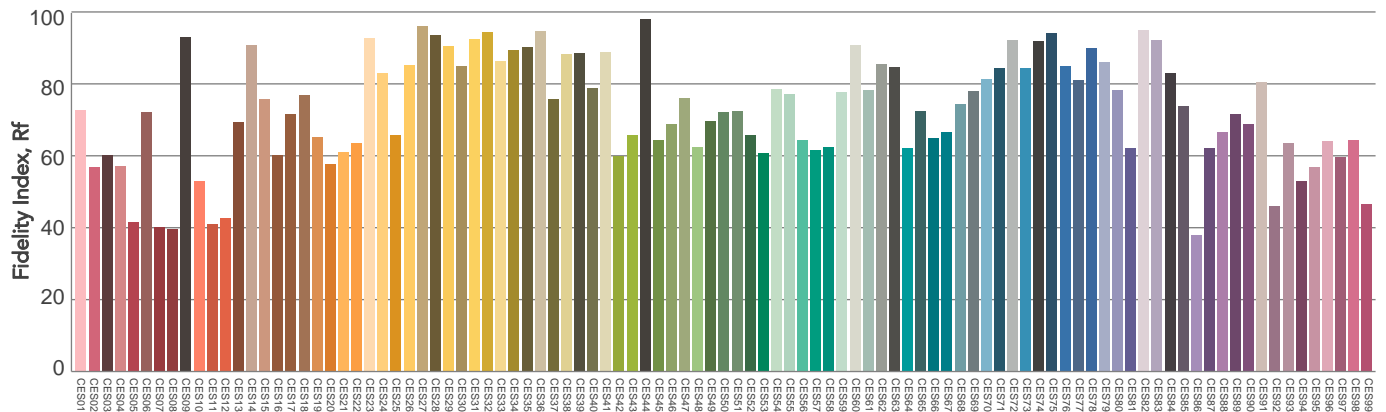
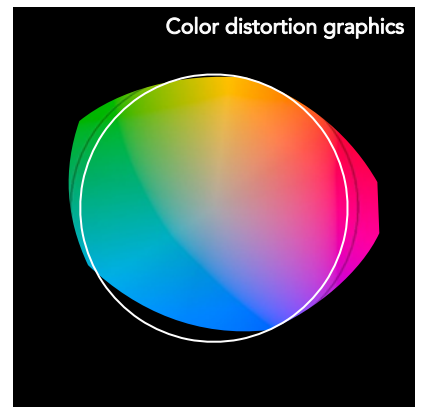
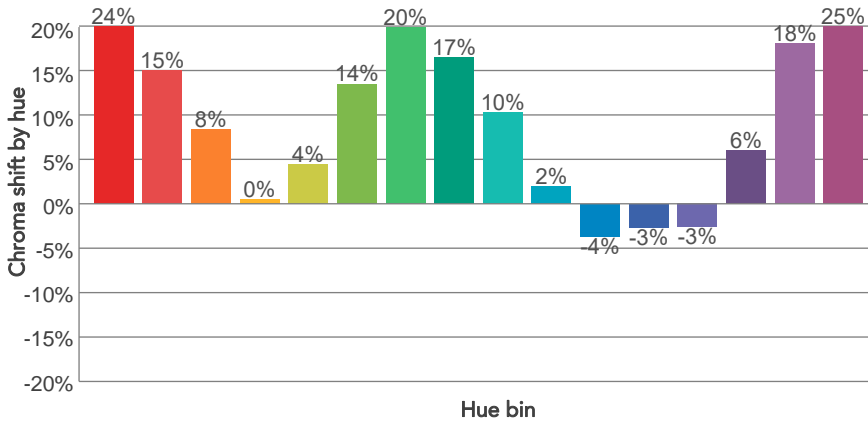
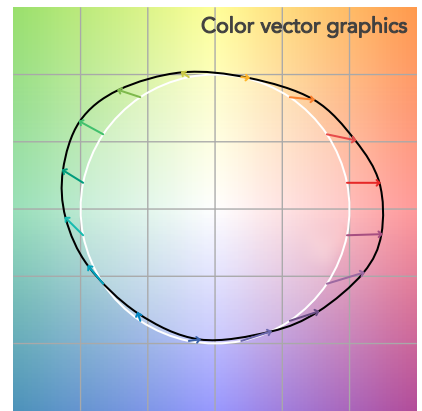
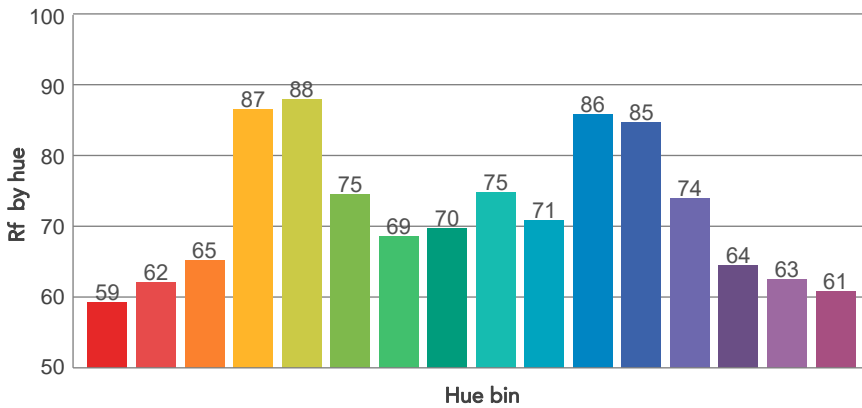
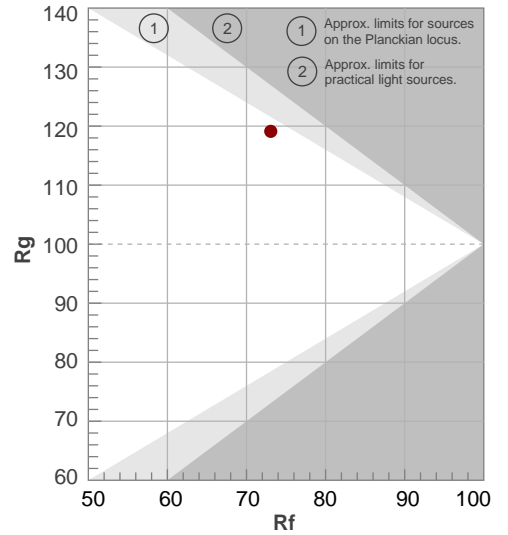
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4189 K	58,1	-95,0	73,1	119,1	73,1	37	0,377	0,388	0,0065

TM30 DETAILS

Rf 73,1
Fidelity index Rf

Rg 119,1
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	59	24%	-5%
2	62	15%	-15%
3	65	8%	-16%
4	87	0%	-5%
5	88	4%	4%
6	75	14%	11%
7	69	20%	2%
8	70	17%	-6%
9	75	10%	-15%
10	71	2%	-17%
11	86	-4%	-5%
12	85	-3%	8%
13	74	-3%	23%
14	64	6%	21%
15	63	18%	22%
16	61	25%	6%

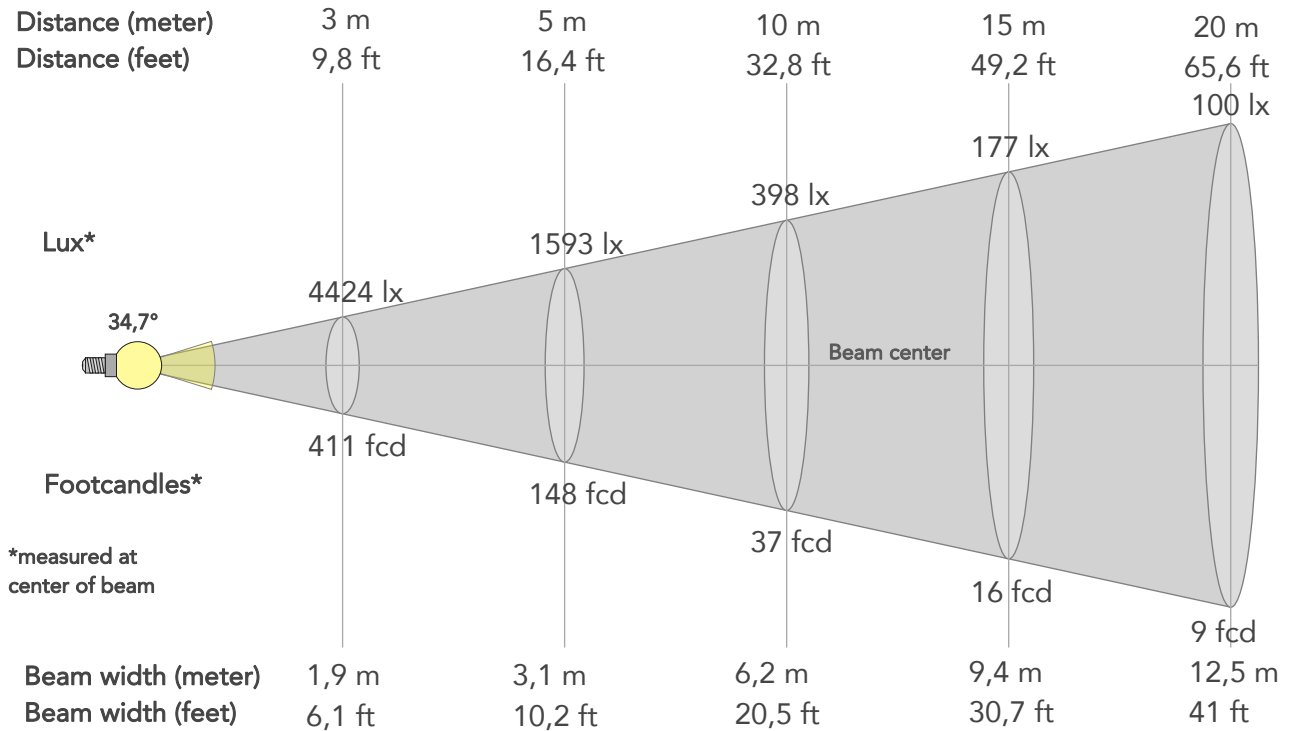


Color Evaluation Sample

BEAM DETAILS



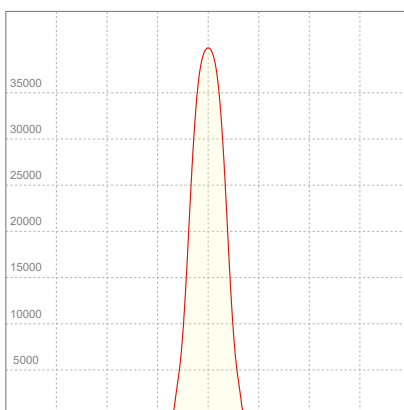
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,7°	53,5°	60,4°	100,0%	100,0%



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	39819lx	9955lx	4424lx	2489lx	1593lx	708lx	398lx	177lx	100lx	64lx	44lx	25lx	16lx
Footcand.	3699fcd	925fcd	411fcd	231fcd	148fcd	66fcd	37fcd	16fcd	9fcd	6fcd	4fcd	2fcd	1fcd
Beam wid.	0,6m	1,2m	1,9m	2,5m	3,1m	4,7m	6,2m	9,4m	12,5m	15,6m	18,7m	25m	31,2m
Beam wid.	2,1ft	4,1ft	6,1ft	8,2ft	10,2ft	15,4ft	20,5ft	30,7ft	41ft	51,2ft	61,5ft	81,9ft	102,4ft

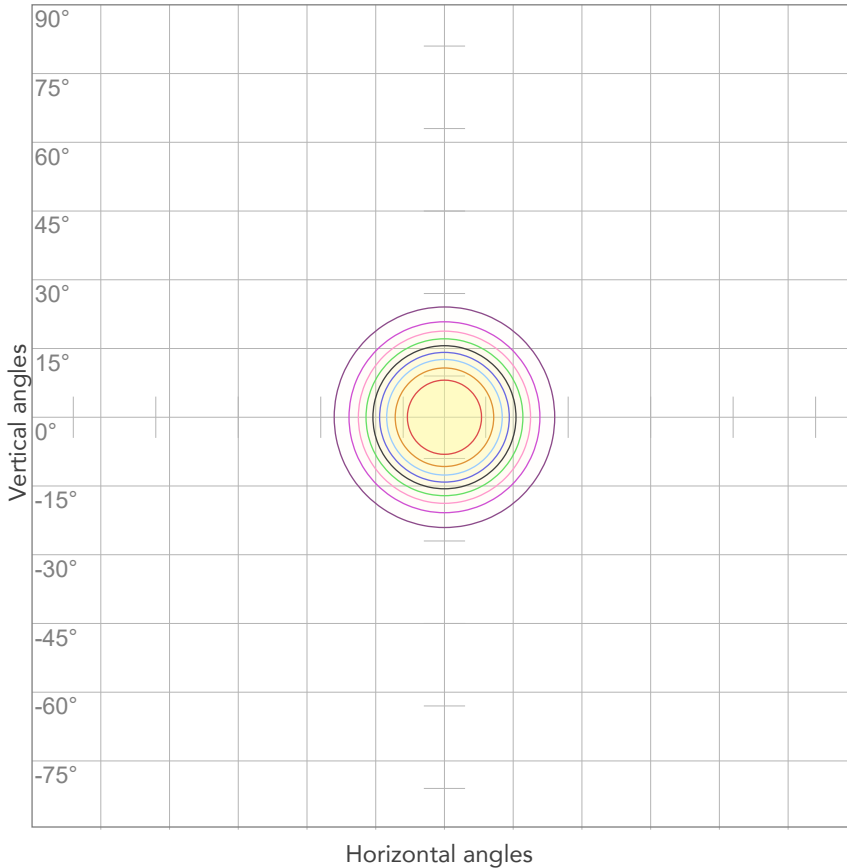
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	3,15A	674,1W	19lm/W

ISO CANDELA DIAGRAM



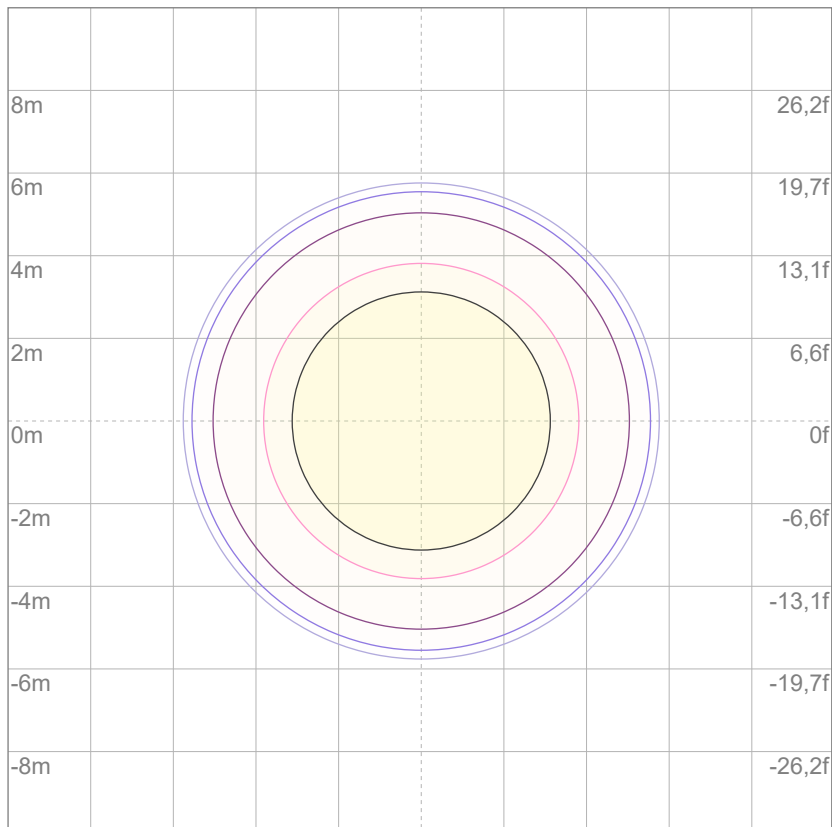
10%	3982 cd
20%	7964 cd
30%	11946 cd
40%	15928 cd
50%	19910 cd
60%	23891 cd
70%	27873 cd
80%	31855 cd

Conditions:

Number of c-planes: 2

Candela at center: 39819 cd

ISO LUX DIAGRAM



3%	11,9 lx
5%	19,9 lx
10%	39,8 lx
30%	119 lx
50%	199 lx

Conditions:

Number of c-planes: 2

Lux at center: 398 lx

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



Total lumen output:

9812 lm

Peak candela output:

132582 cd

Light quality:

CRI: 57,1

Color temperature:

4146 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

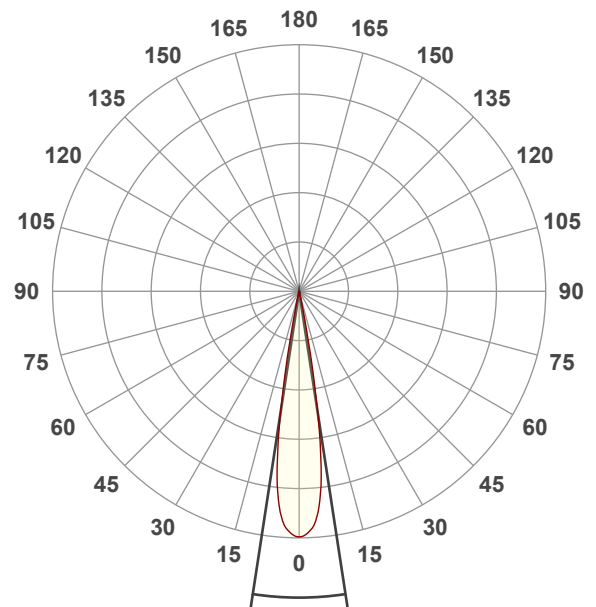
4000K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:16:09

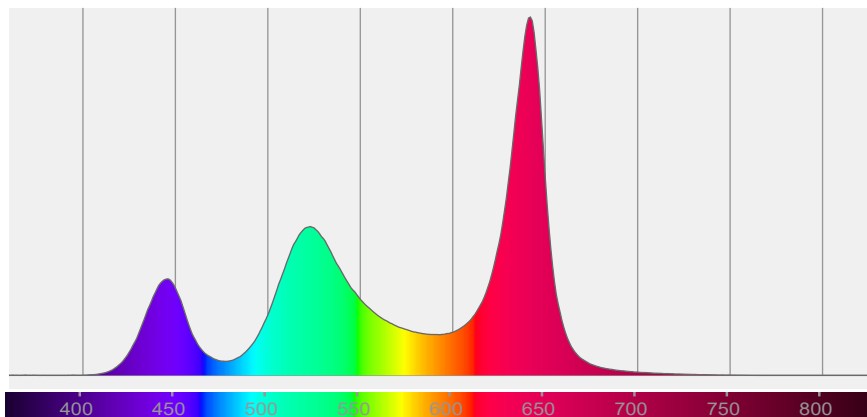


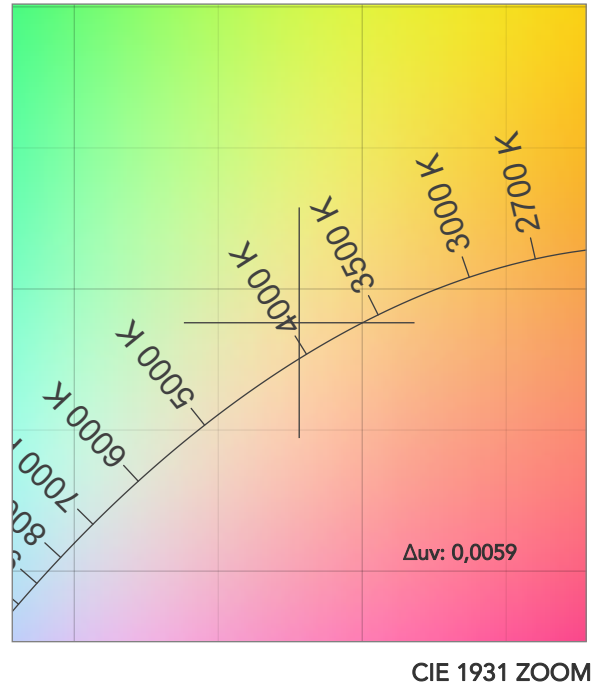
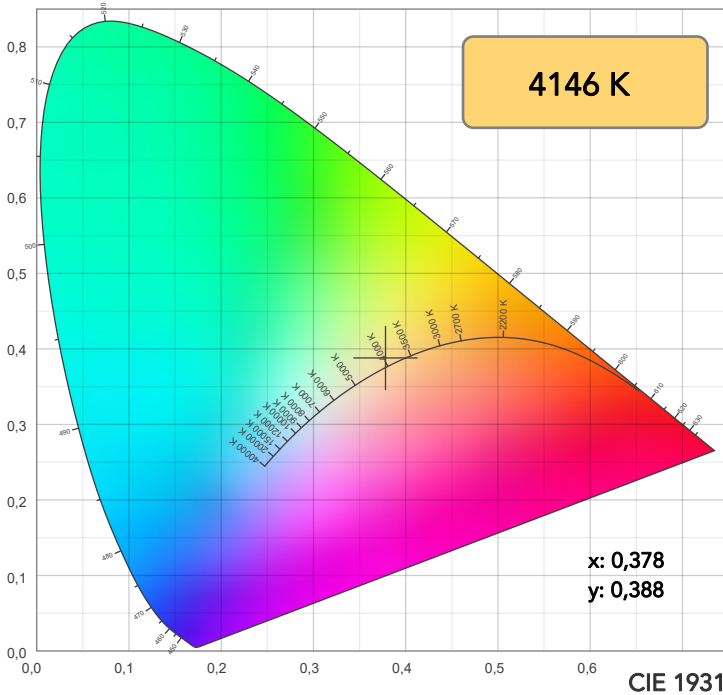
Beam angle 50%: 17,4°

Field angle 10%: 23,1°

Cut off angle 2.5%: 25,2°

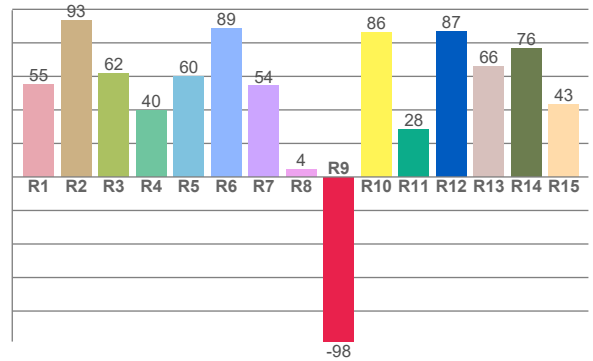
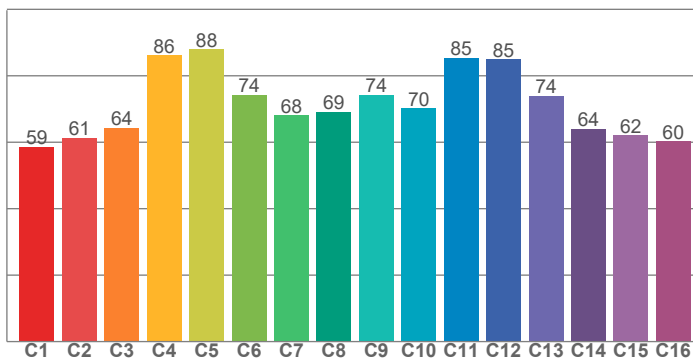
Spectra





TM30: 72,7

CRI: 57,1 (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
55,1	93,5	61,6	39,7	59,9	88,8	54,3	4,2	-98,2	86,3	28,3	87,0	65,8	76,4	43,1

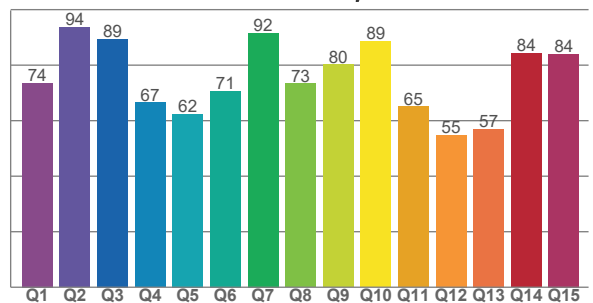
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
58,6	61,3	64,3	86,1	88,0	74,3	68,1	69,2	74,3	70,1	85,5	85,0	73,9	64,0	62,1	60,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
73,6	93,6	89,4	66,5	62,4	70,6	91,6	73,3	80,2	88,6	65,1	54,8	57,0	84,3	84,1

CQS: 72,7



COLOR PARAMETERS

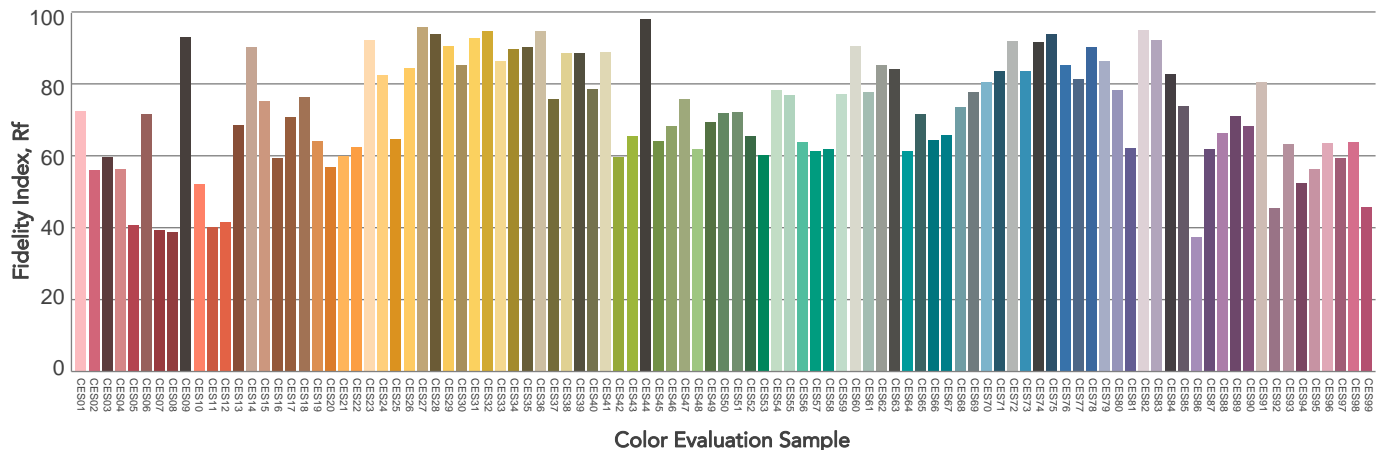
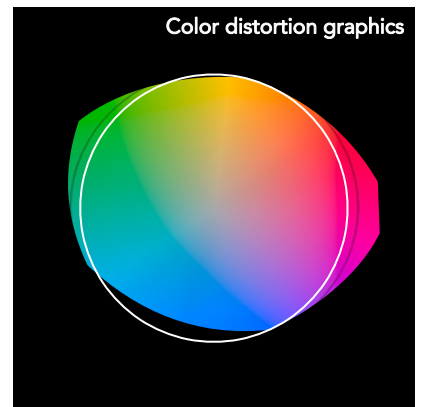
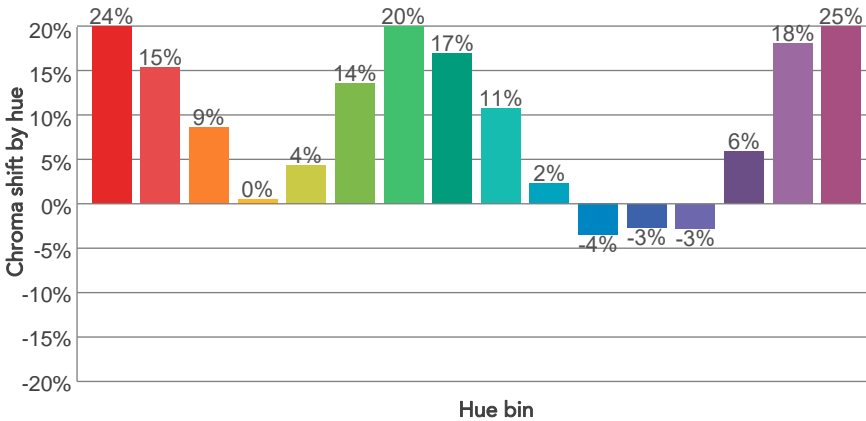
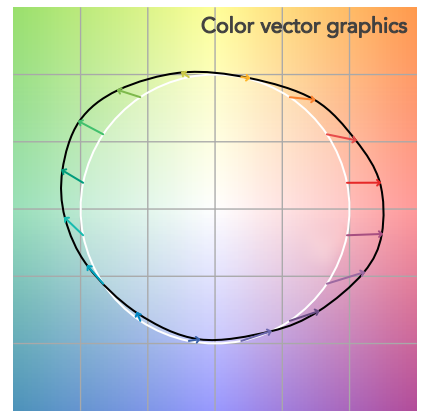
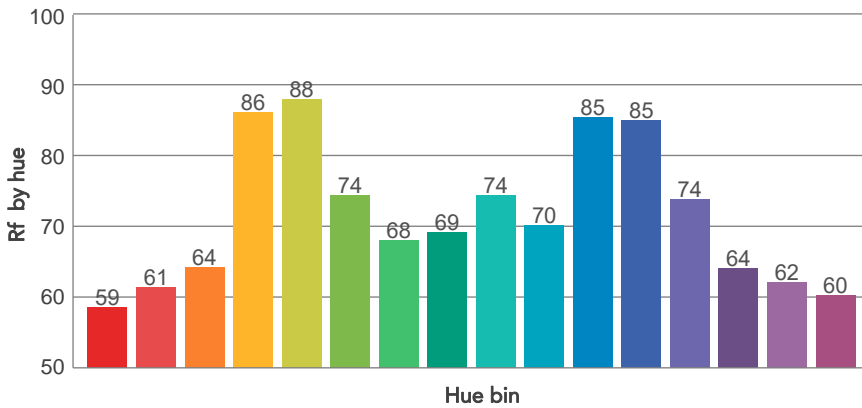
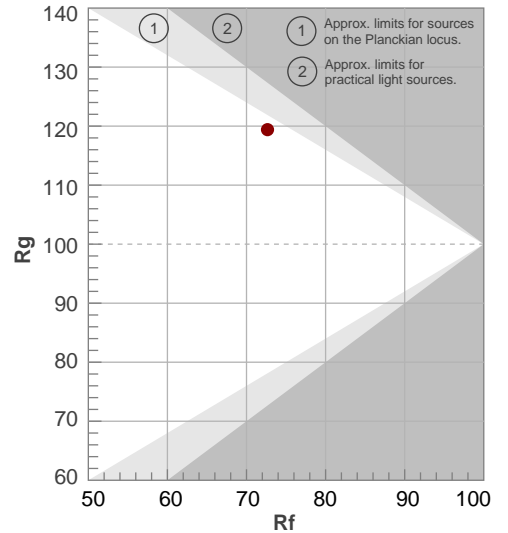
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4146 K	57,1	-98,2	72,7	119,4	72,7	36	0,378	0,388	0,0059

TM30 DETAILS

Rf 72,7
Fidelity index Rf

Rg 119,4
Gammut index

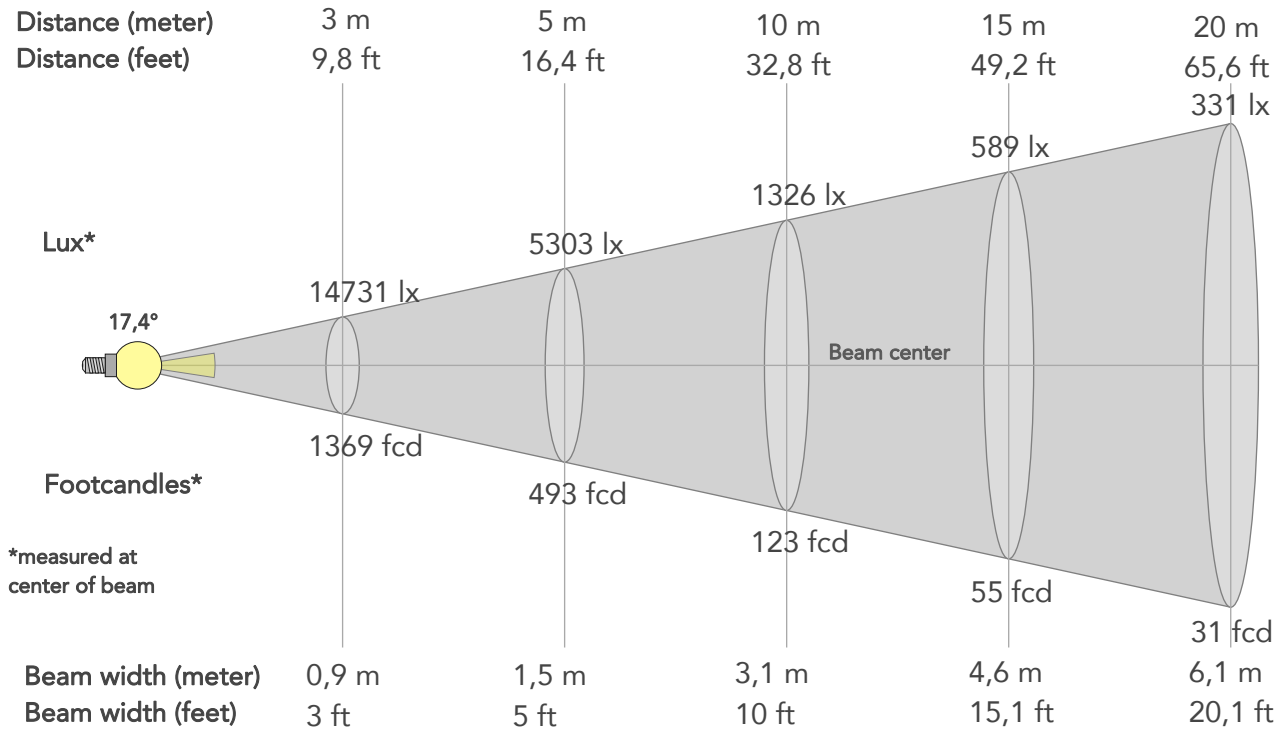
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	59	24%	-5%
2	61	15%	-16%
3	64	9%	-16%
4	86	0%	-6%
5	88	4%	4%
6	74	14%	11%
7	68	20%	2%
8	69	17%	-6%
9	74	11%	-15%
10	70	2%	-17%
11	85	-4%	-5%
12	85	-3%	7%
13	74	-3%	23%
14	64	6%	22%
15	62	18%	22%
16	60	25%	6%



BEAM DETAILS



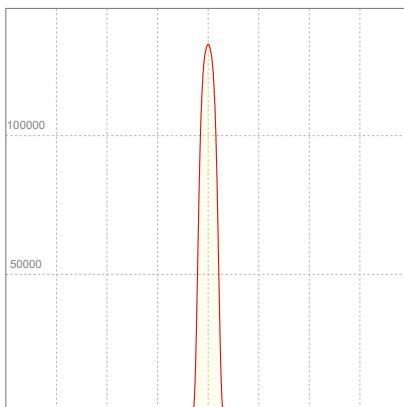
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,4°	23,1°	25,2°	100,0%	100,0%



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	132582lx	33146lx	14731lx	8286lx	5303lx	2357lx	1326lx	589lx	331lx	212lx	147lx	83lx	53lx
Footcand.	12317fcd	3079fcd	1369fcd	770fcd	493fcd	219fcd	123fcd	55fcd	31fcd	20fcd	14fcd	8fcd	5fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3,1m	4,6m	6,1m	7,7m	9,2m	12,2m	15,3m
Beam wid.	1ft	2ft	3ft	4ft	5ft	7,5ft	10ft	15,1ft	20,1ft	25,1ft	30,1ft	40,2ft	50,2ft

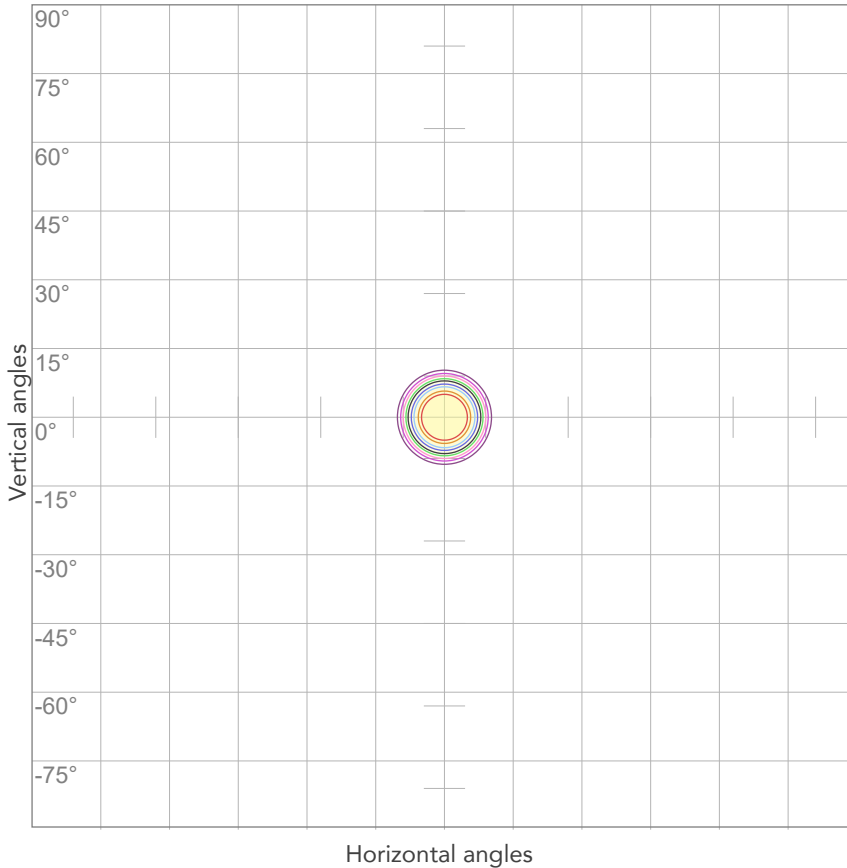
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	3,15A	673,8W	15lm/W

ISO CANDELA DIAGRAM



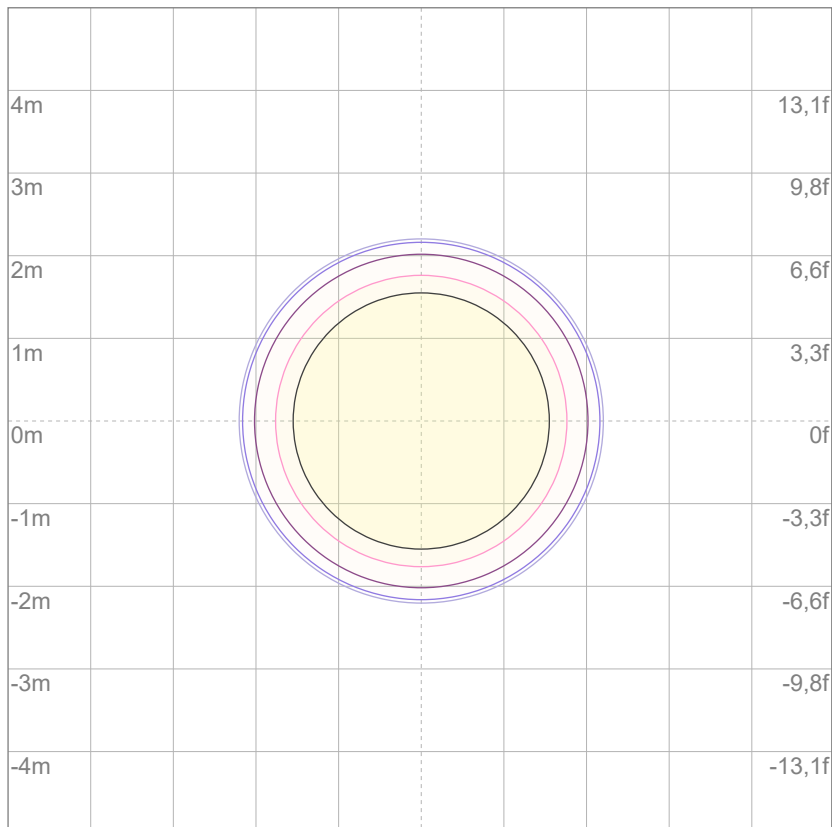
10%	13258 cd
20%	26516 cd
30%	39775 cd
40%	53033 cd
50%	66291 cd
60%	79549 cd
70%	92807 cd
80%	106066 cd

Conditions:

Number of c-planes: 2

Candela at center: 132582 cd

ISO LUX DIAGRAM



3%	39,8 lx
5%	66,3 lx
10%	133 lx
30%	398 lx
50%	663 lx

Conditions:

Number of c-planes: 2

Lux at center: 1326 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:

6000 lm

Peak candela output:

1337196 cd

Light quality:

CRI: 55,8

Color temperature:

4123 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASURAMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

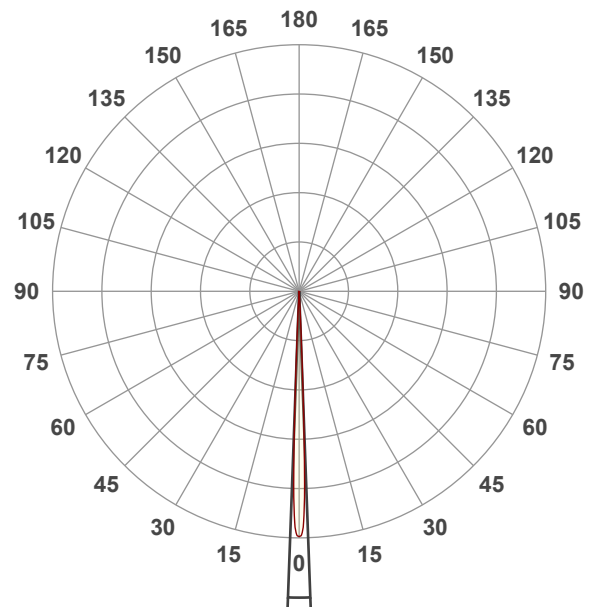
4000K

Operator:

Paolo Carvone

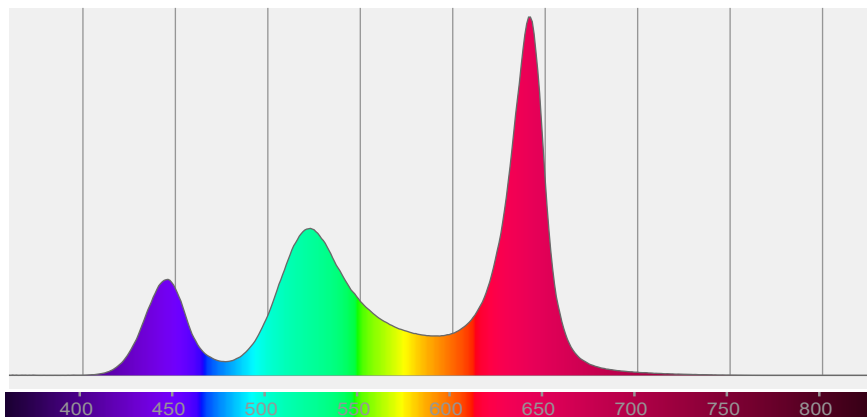
Date and time:

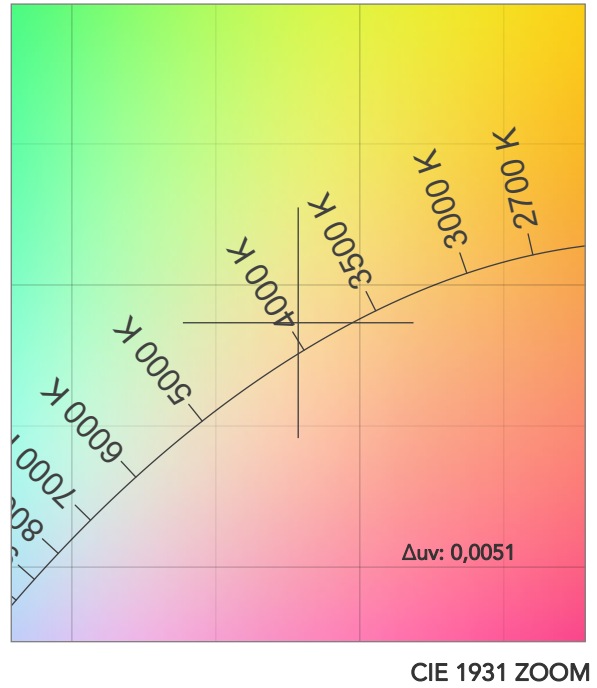
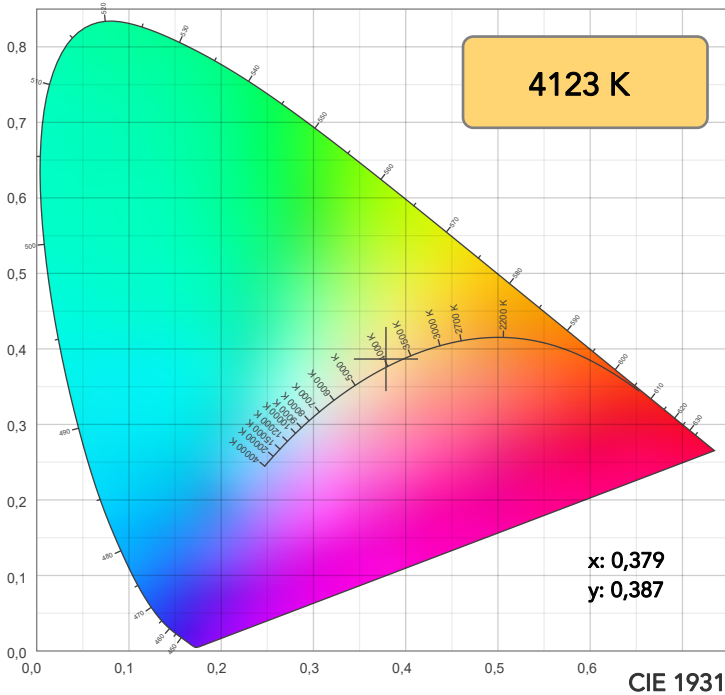
03/09/2021 10:14:17



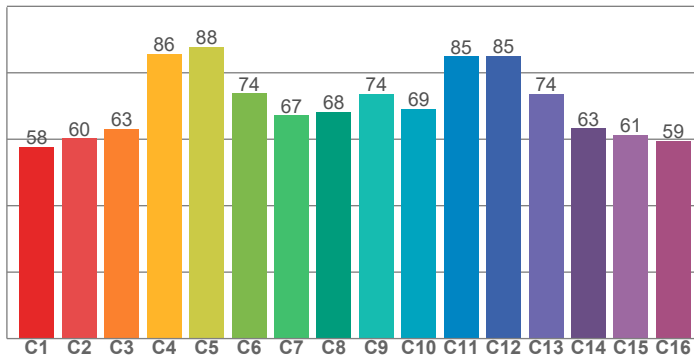
Beam angle 50%: 4,2°
Field angle 10%: 5,8°
Cut off angle 2.5%: 6,6°

Spectra

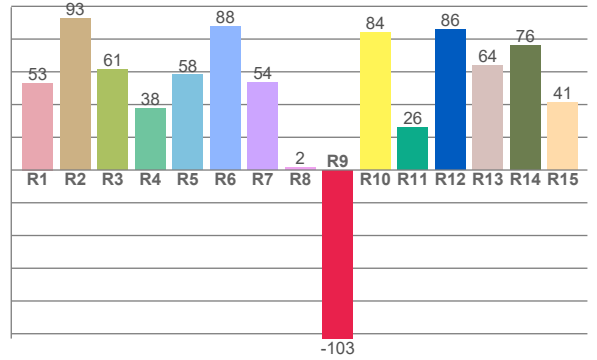




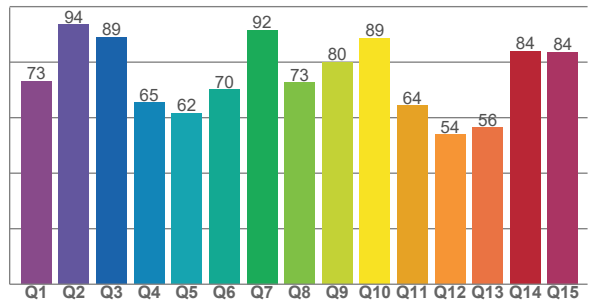
TM30: 72,0



CRI: 55,8 (R1-R8)



CQS: 72,2



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
53,2	92,6	61,3	37,7	58,1	87,9	53,5	1,8	-103,0	84,2	25,8	86,1	64,1	76,2	41,0

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
57,6	60,3	63,2	85,6	87,9	73,8	67,2	68,3	73,6	69,1	84,9	85,1	73,6	63,2	61,3	59,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
73,1	93,5	89,0	65,4	61,6	70,1	91,5	72,7	79,9	88,6	64,4	53,9	56,4	83,9	83,6

COLOR PARAMETERS

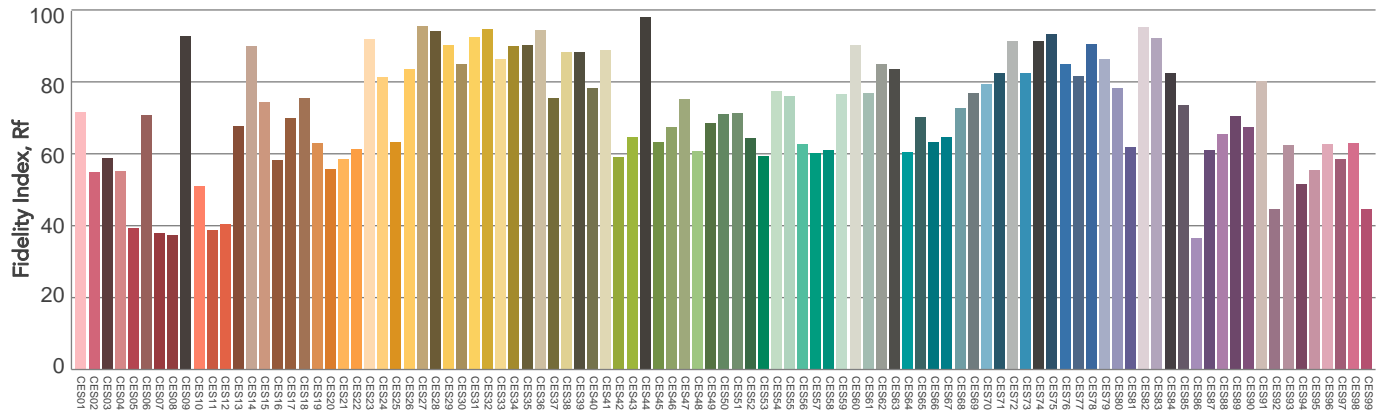
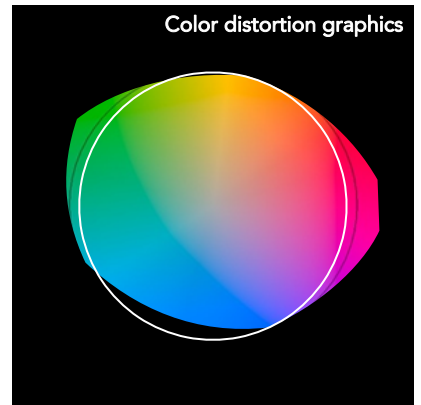
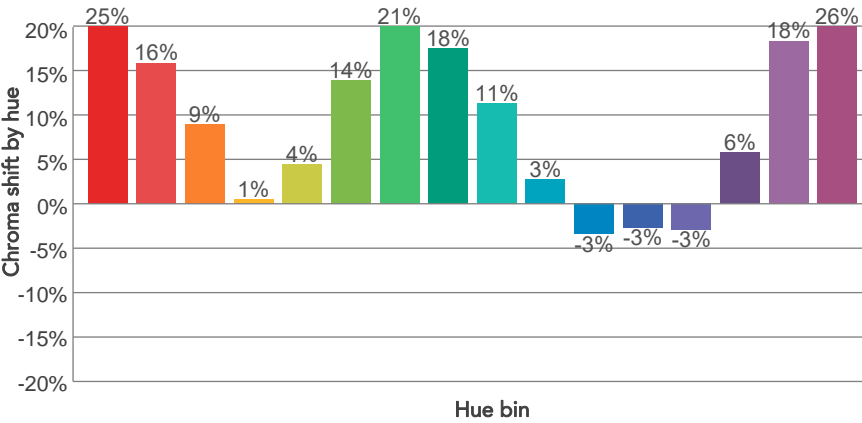
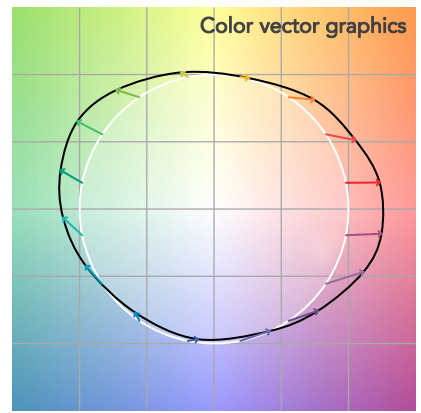
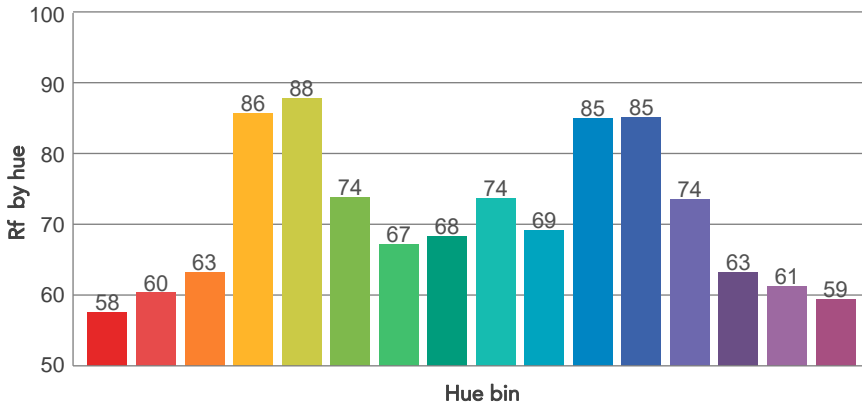
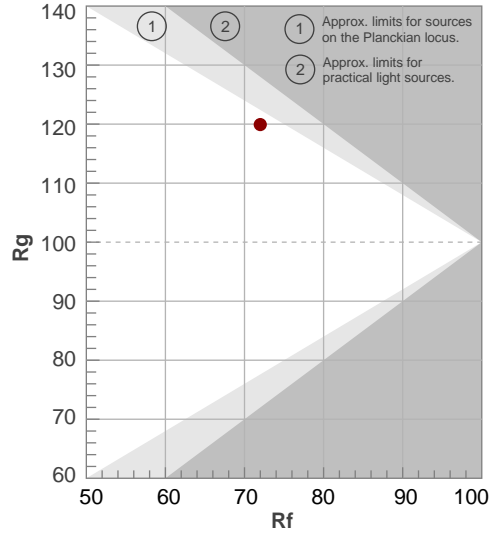
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4123 K	55,8	-103,0	72,0	119,9	72,2	35	0,379	0,387	0,0051

TM30 DETAILS

Rf 72,0
Fidelity index Rf

Rg 119,9
Gammut index

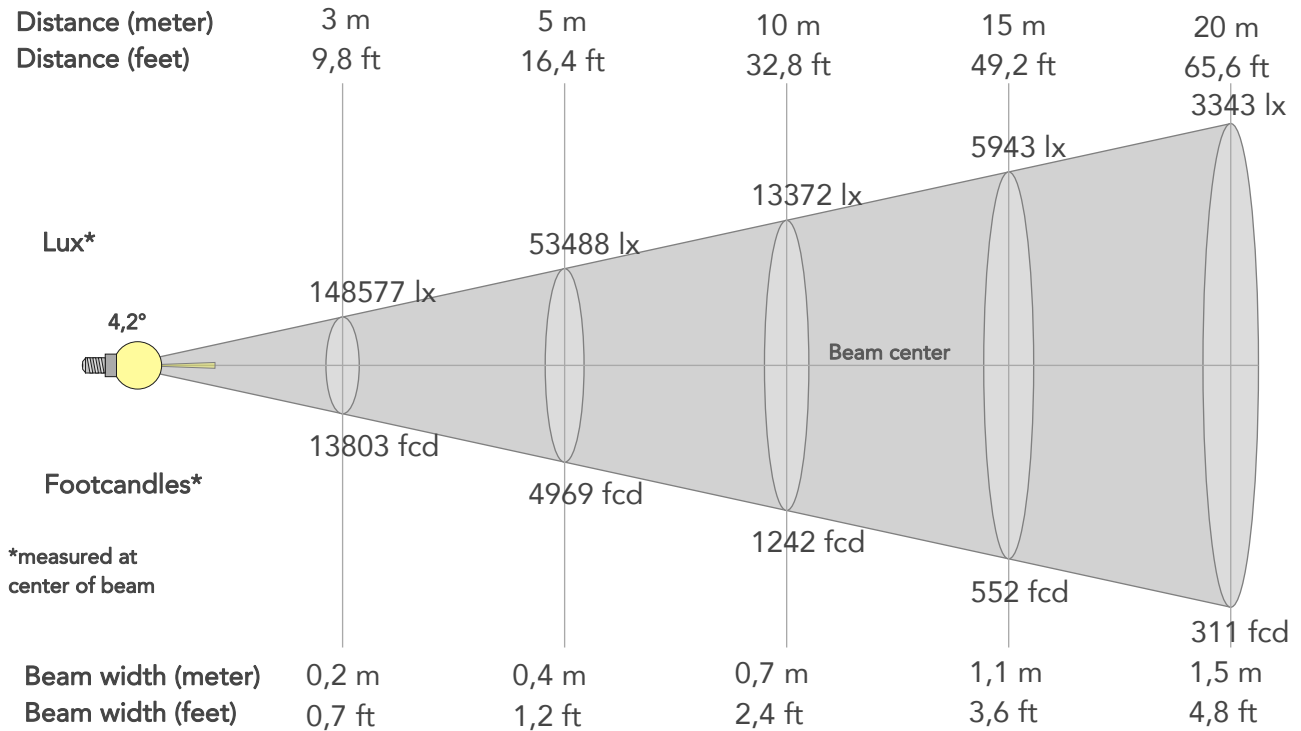
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	58	25%	-5%
2	60	16%	-16%
3	63	9%	-17%
4	86	1%	-6%
5	88	4%	4%
6	74	14%	11%
7	67	21%	2%
8	68	18%	-6%
9	74	11%	-16%
10	69	3%	-18%
11	85	-3%	-6%
12	85	-3%	7%
13	74	-3%	23%
14	63	6%	22%
15	61	18%	23%
16	59	26%	6%



BEAM DETAILS



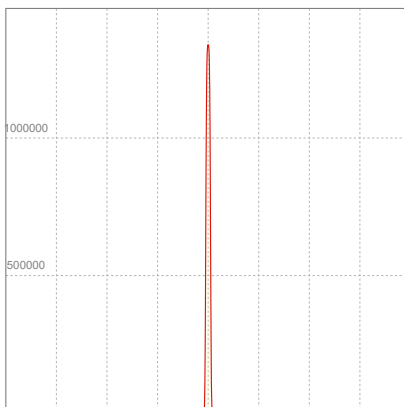
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,2°	5,8°	6,6°	99,9%	99,9%



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	1337196lx	334299lx	148577lx	83575lx	53488lx	23772lx	13372lx	5943lx	3343lx	2140lx	1486lx	836lx	535lx
Footcand.	124230fcd	31057fcd	13803fcd	7764fcd	4969fcd	2209fcd	1242fcd	552fcd	311fcd	199fcd	138fcd	78fcd	50fcd
Beam wid.	0,1m	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1,1m	1,5m	1,8m	2,2m	2,9m	3,7m
Beam wid.	0,2ft	0,5ft	0,7ft	1ft	1,2ft	1,8ft	2,4ft	3,6ft	4,8ft	6ft	7,2ft	9,6ft	12ft

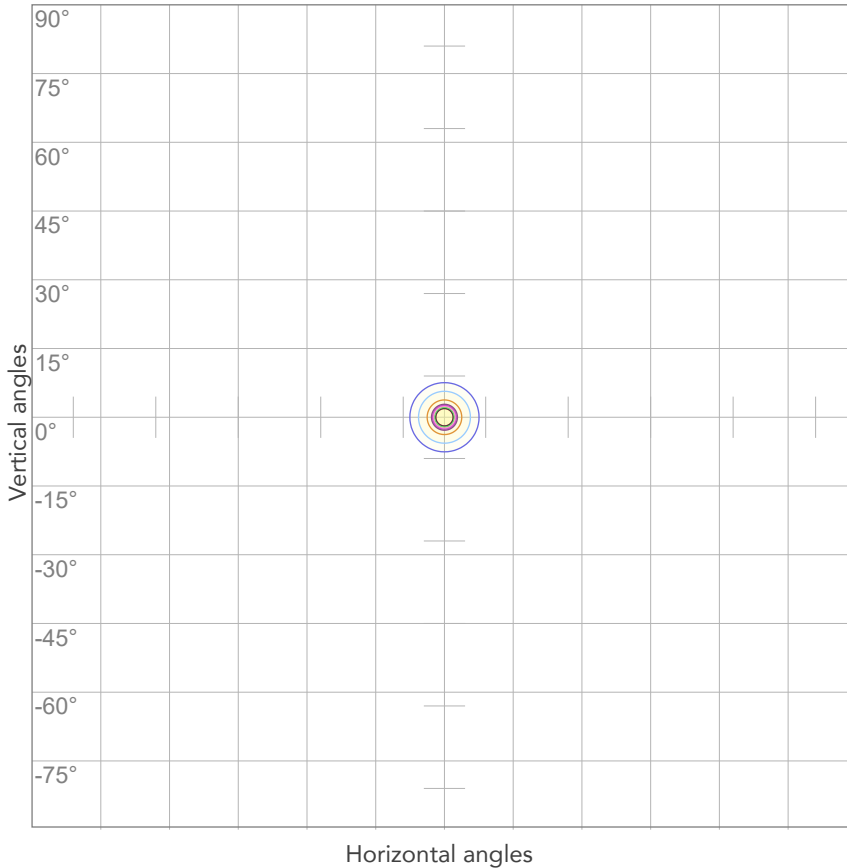
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	3,15A	675,6W	9lm/W

ISO CANDELA DIAGRAM



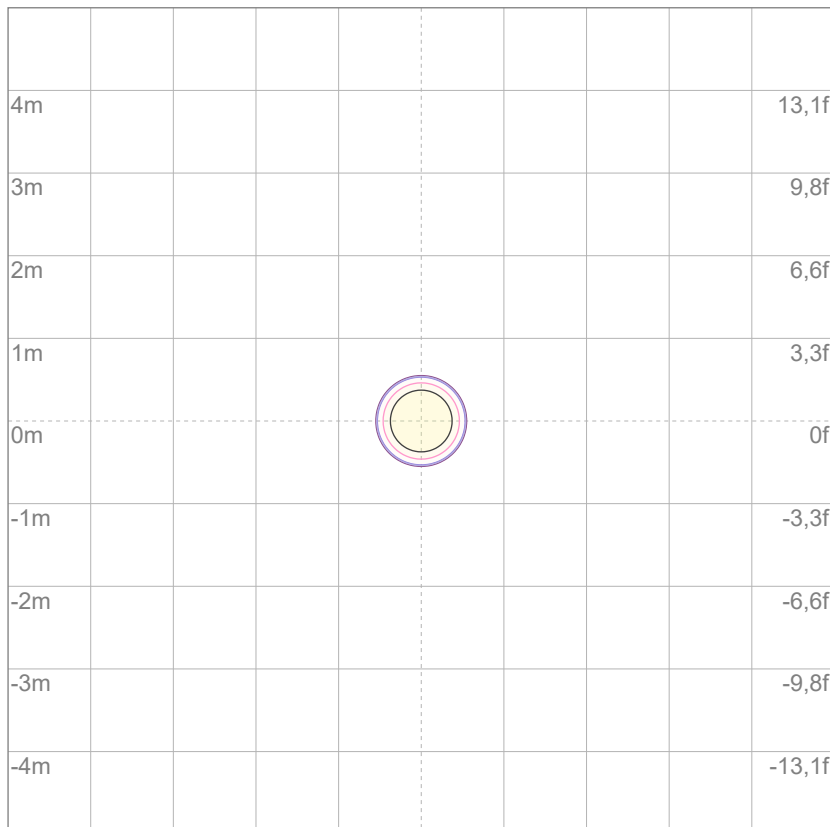
10%	133720 cd
20%	267439 cd
30%	401159 cd
40%	534878 cd
50%	668598 cd
60%	802317 cd
70%	936037 cd
80%	1069757 cd

Conditions:

Number of c-planes: 2

Candela at center: 1337196 cd

ISO LUX DIAGRAM



3%	401 lx
5%	669 lx
10%	1337 lx
30%	4012 lx
50%	6686 lx

Conditions:

Number of c-planes: 2

Lux at center: 13,4K 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:

17633 lm

Peak candela output:

52859 cd

Light quality:

CRI: 72,0

Color temperature:

5531 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

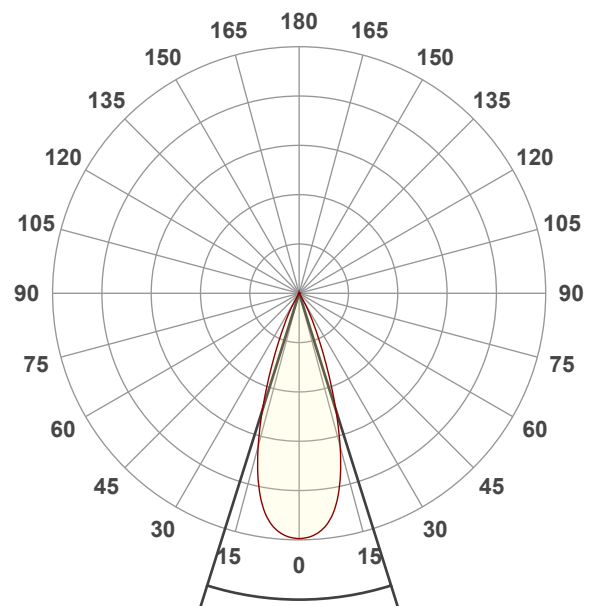
5600K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:20:35

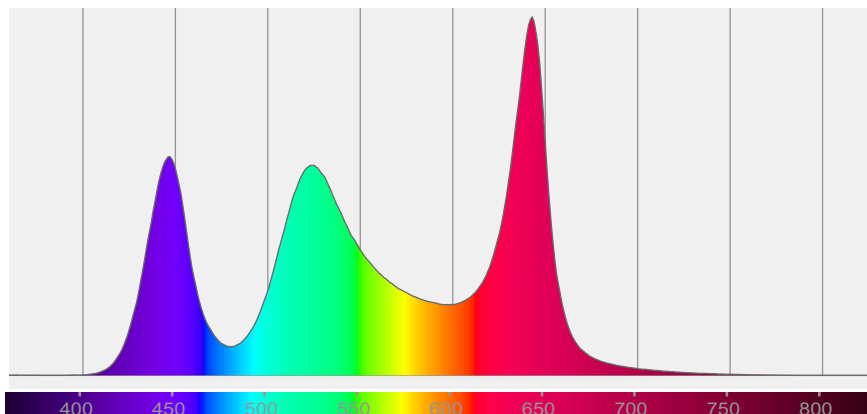


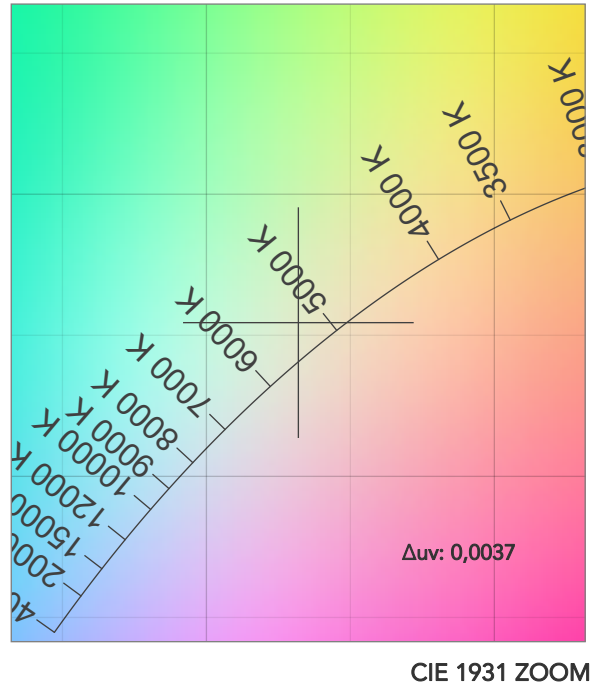
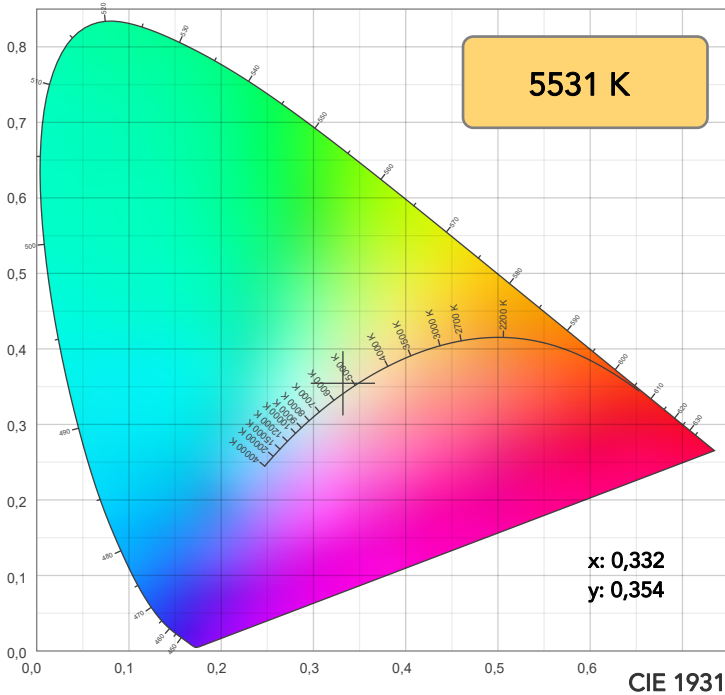
Beam angle 50%: 34,9°

Field angle 10%: 53,8°

Cut off angle 2.5%: 60,5°

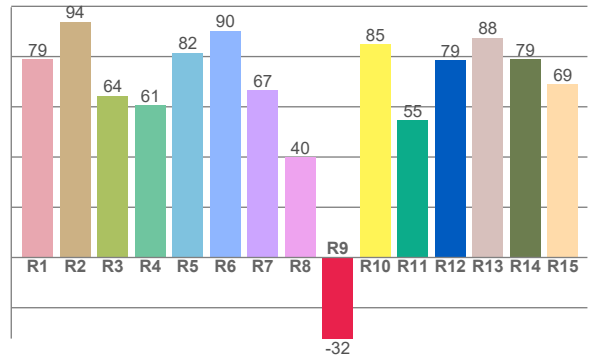
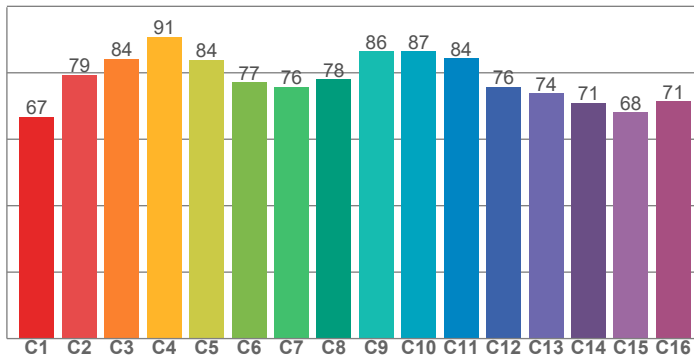
Spectra





TM30: 79,3

CRI: 72,0 (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
79,0	93,8	64,5	60,6	81,6	90,3	66,5	39,9	-32,3	84,8	54,7	78,6	87,6	79,0	68,9

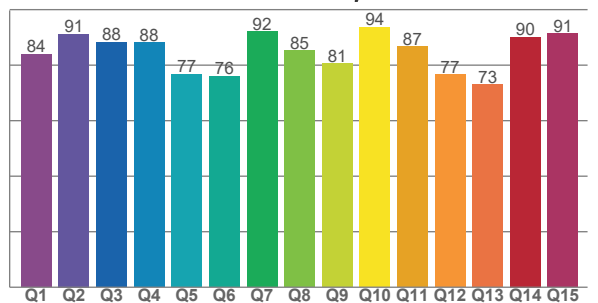
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
66,7	79,4	84,2	90,9	83,8	77,1	75,8	78,1	86,4	86,5	84,3	75,7	73,8	71,0	68,1	71,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,9	91,2	88,2	88,1	76,7	76,0	92,1	85,3	80,6	93,7	86,7	76,6	73,0	90,1	91,4

CQS: 83,6



COLOR PARAMETERS

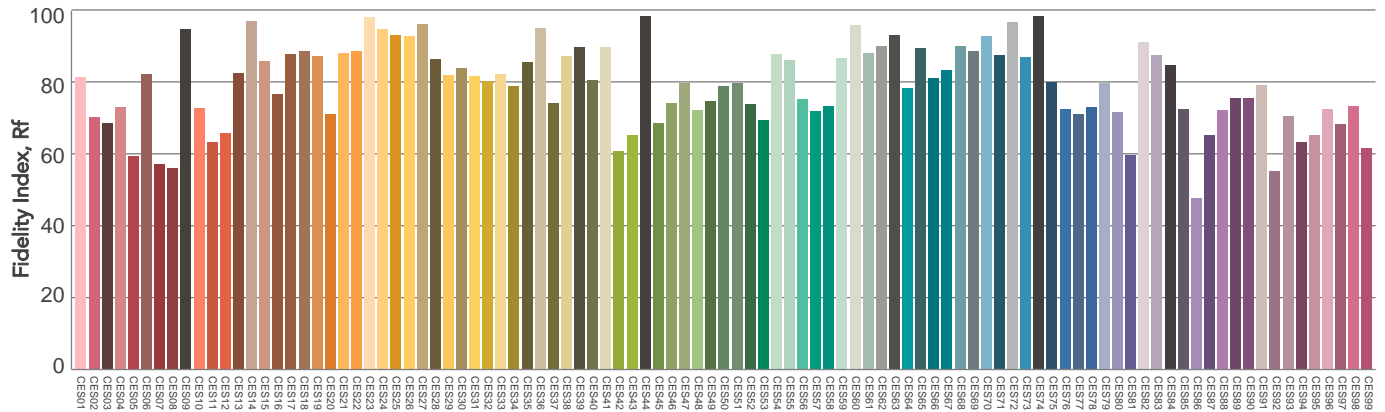
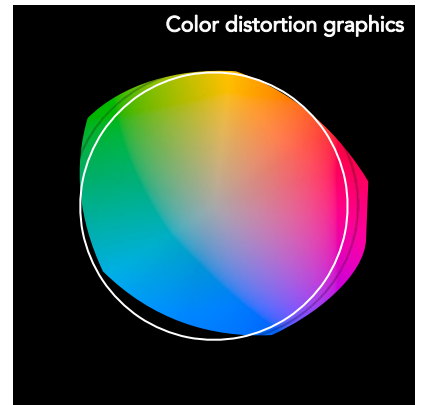
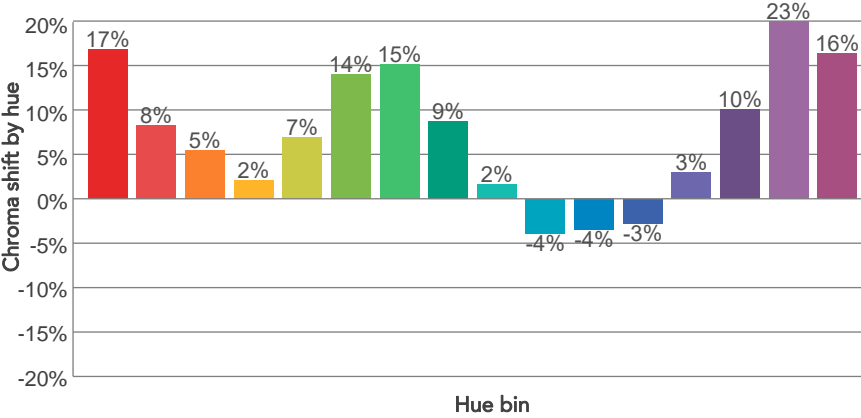
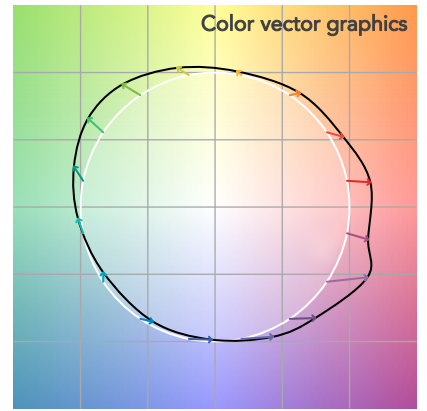
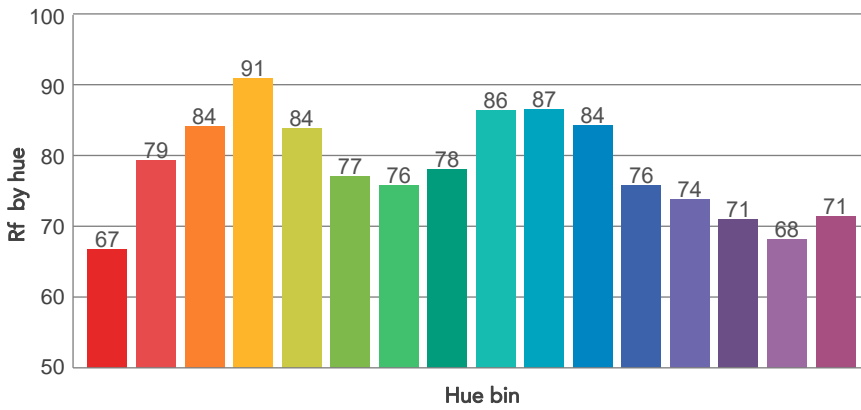
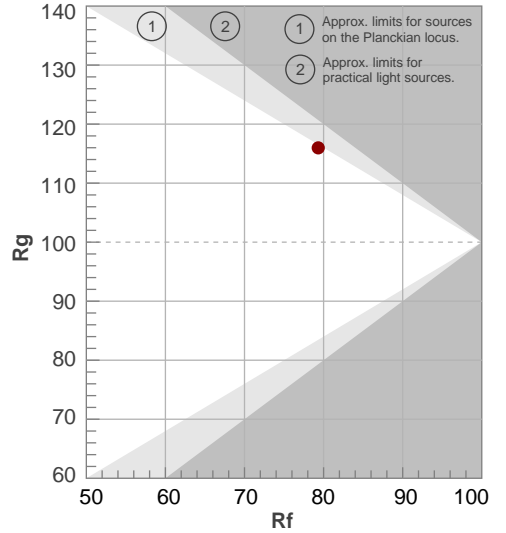
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5531 K	72,0	-32,3	79,3	116,0	83,6	55	0,332	0,354	0,0037

TM30 DETAILS

Rf 79,3
Fidelity index Rf

Rg 116,0
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	67	17%	-4%
2	79	8%	-9%
3	84	5%	-5%
4	91	2%	4%
5	84	7%	7%
6	77	14%	7%
7	76	15%	-2%
8	78	9%	-9%
9	86	2%	-11%
10	87	-4%	-6%
11	84	-4%	9%
12	76	-3%	17%
13	74	3%	23%
14	71	10%	16%
15	68	23%	19%
16	71	16%	-1%

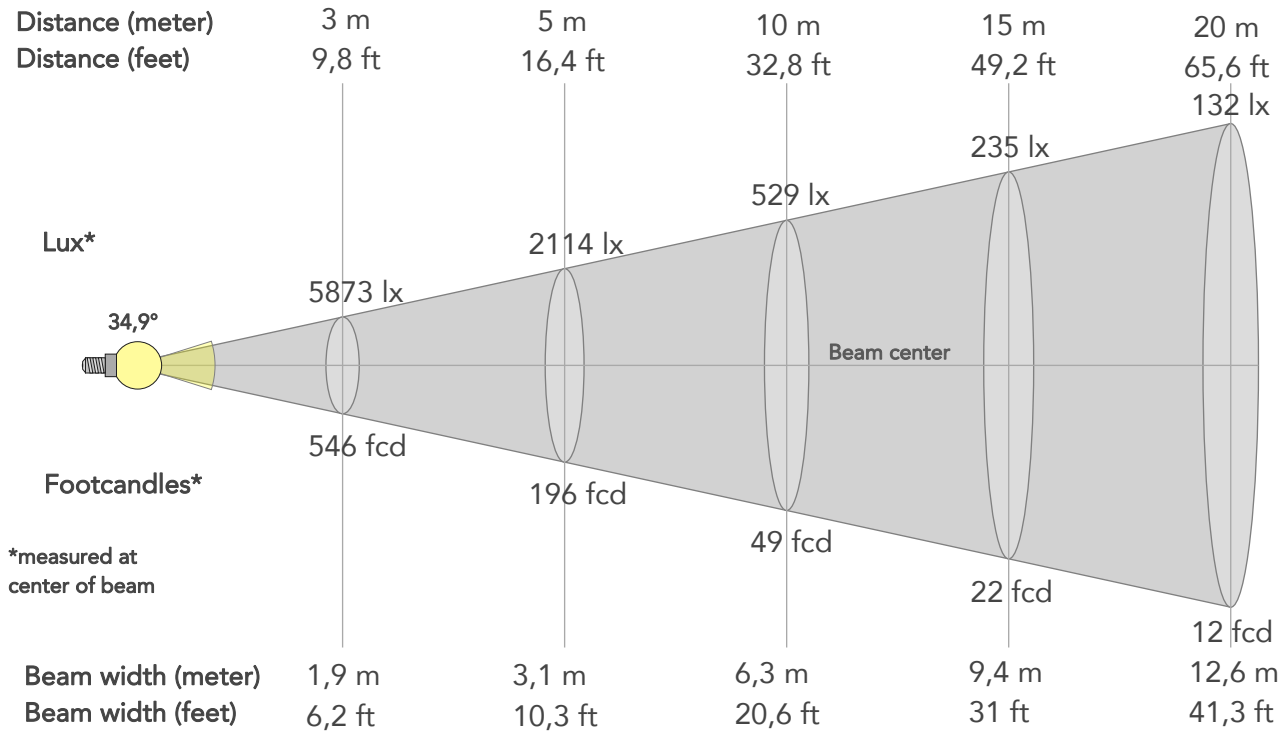


Color Evaluation Sample

BEAM DETAILS



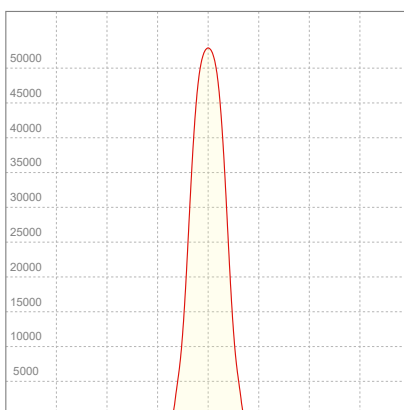
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,9°	53,8°	60,5°	100,0%	100,0%



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	52859lx	13215lx	5873lx	3304lx	2114lx	940lx	529lx	235lx	132lx	85lx	59lx	33lx	21lx
Footcand.	4911fcd	1228fcd	546fcd	307fcd	196fcd	87fcd	49fcd	22fcd	12fcd	8fcd	5fcd	3fcd	2fcd
Beam wid.	0,6m	1,3m	1,9m	2,5m	3,1m	4,7m	6,3m	9,4m	12,6m	15,7m	18,9m	25,2m	31,5m
Beam wid.	2,1ft	4,2ft	6,2ft	8,2ft	10,3ft	15,5ft	20,6ft	31ft	41,3ft	51,6ft	61,9ft	82,6ft	103,2ft

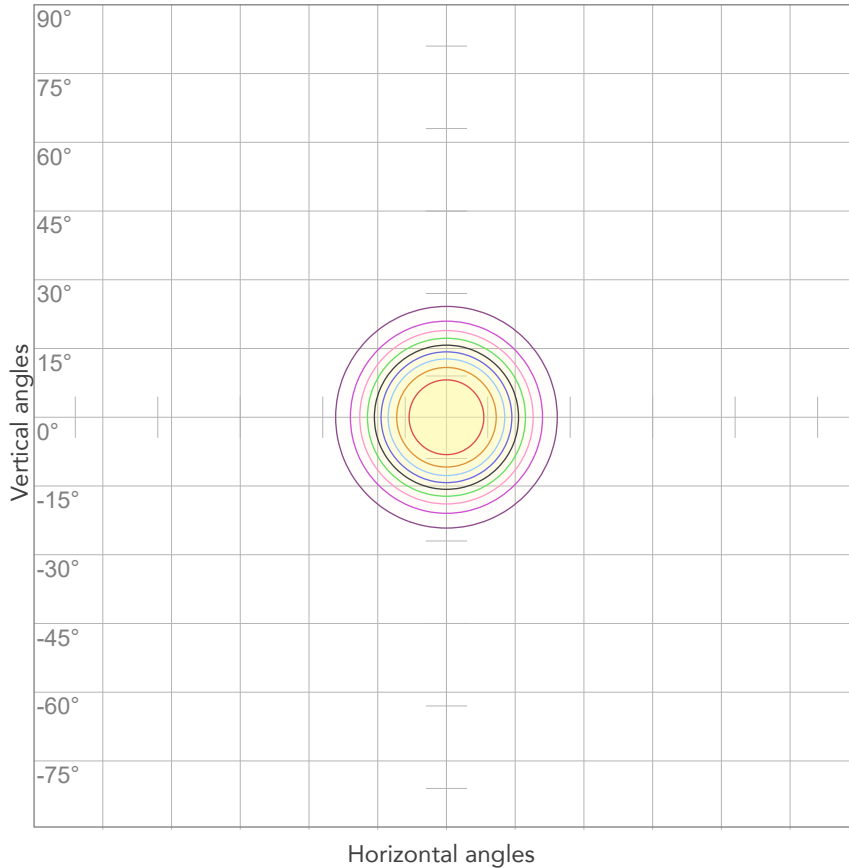
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	3,91A	840,1W	21lm/W

ISO CANDELA DIAGRAM



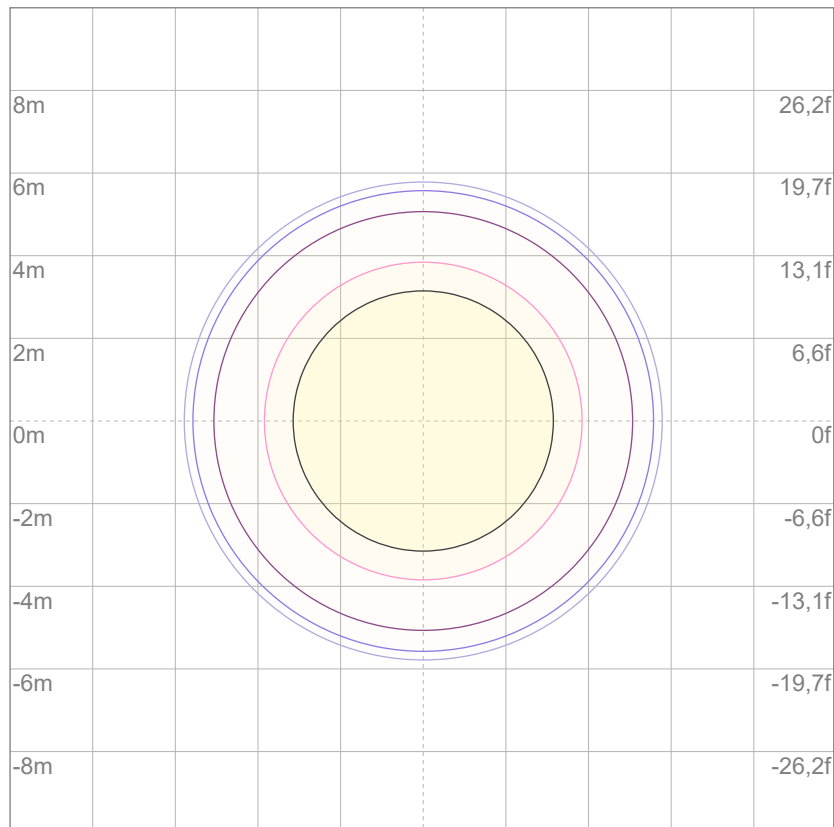
10%	5286 cd
20%	10572 cd
30%	15858 cd
40%	21144 cd
50%	26430 cd
60%	31715 cd
70%	37001 cd
80%	42287 cd

Conditions:

Number of c-planes: 2

Candela at center: 52859 cd

ISO LUX DIAGRAM



3%	15,9 lx
5%	26,4 lx
10%	52,9 lx
30%	159 lx
50%	264 lx

Conditions:

Number of c-planes: 2

Lux at center: 529 lx

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



Total lumen output:

13355 lm

Peak candela output:

159967 cd

Light quality:

CRI: 71,8

Color temperature:

5514 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

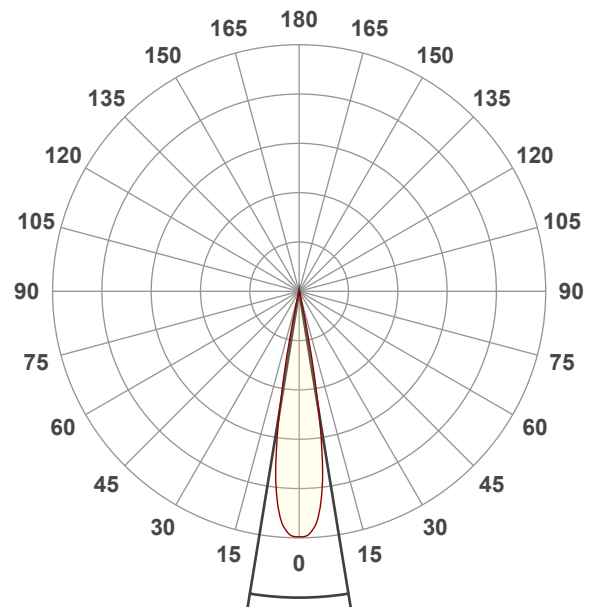
5600K

Operator:

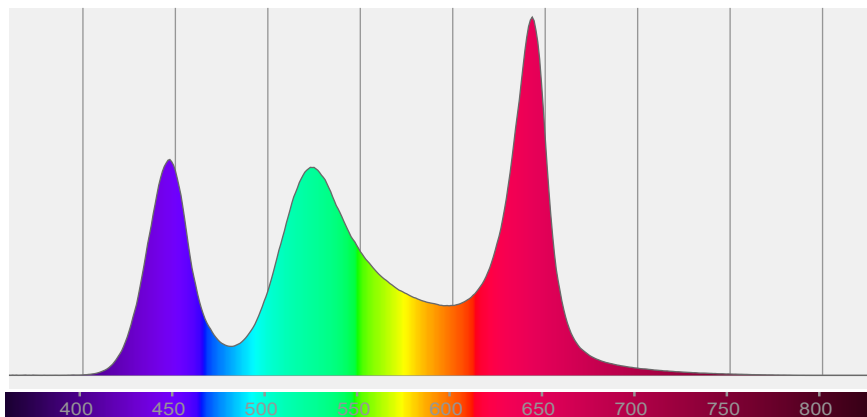
Paolo Carvone

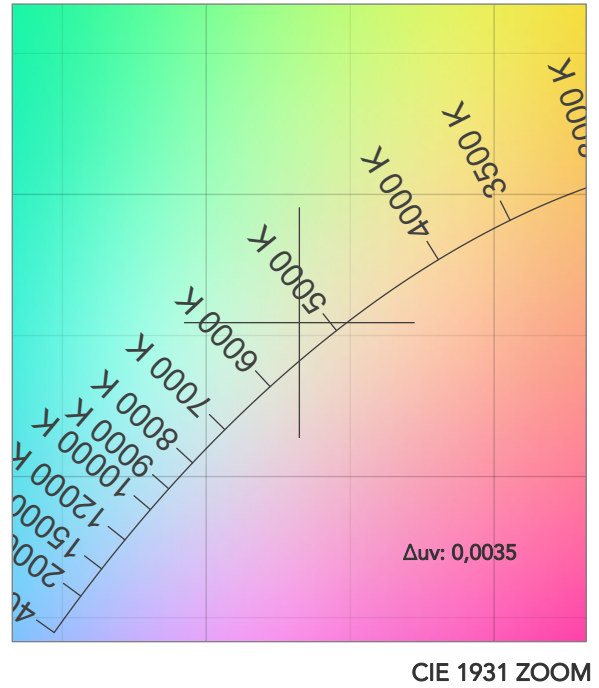
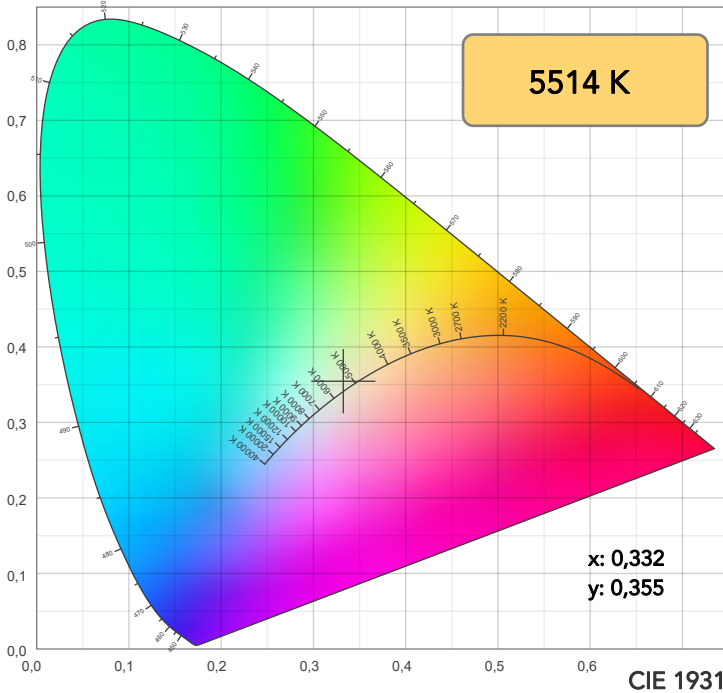
Date and time:

03/09/2021 10:22:20



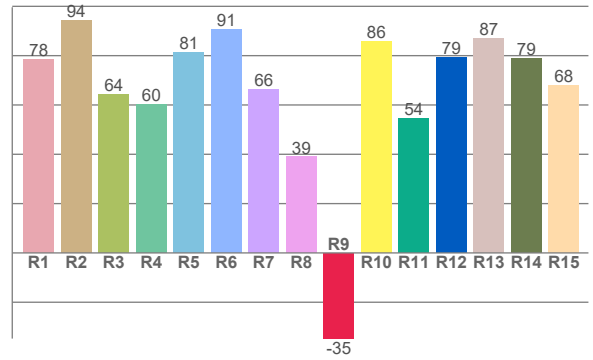
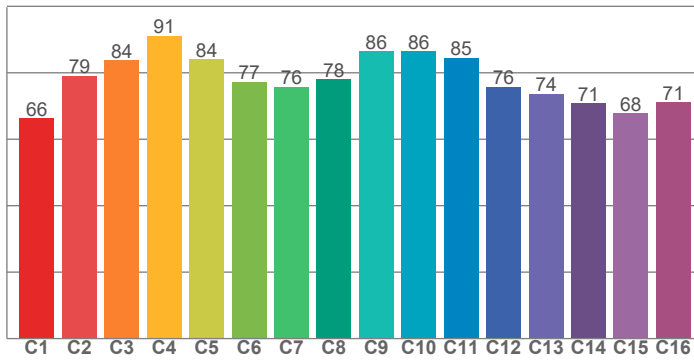
Spectra





TM30: 79,3

CRI: 71,8 (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
78,4	94,2	64,5	60,3	81,2	90,6	66,3	38,9	-34,7	85,6	54,4	79,2	87,0	79,0	68,1

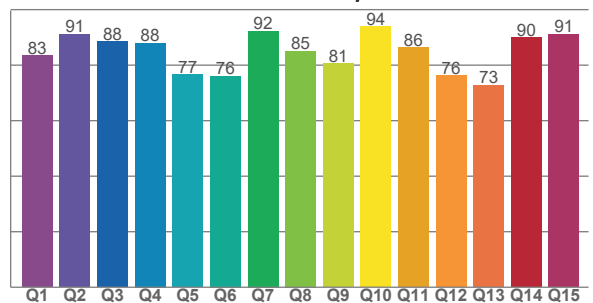
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
66,2	79,0	83,8	91,1	84,1	77,2	75,8	78,1	86,5	86,4	84,5	75,7	73,6	70,8	67,8	71,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,5	91,1	88,5	88,0	76,7	76,1	92,3	85,0	80,5	93,9	86,4	76,2	72,8	90,0	91,1

CQS: 83,4



COLOR PARAMETERS

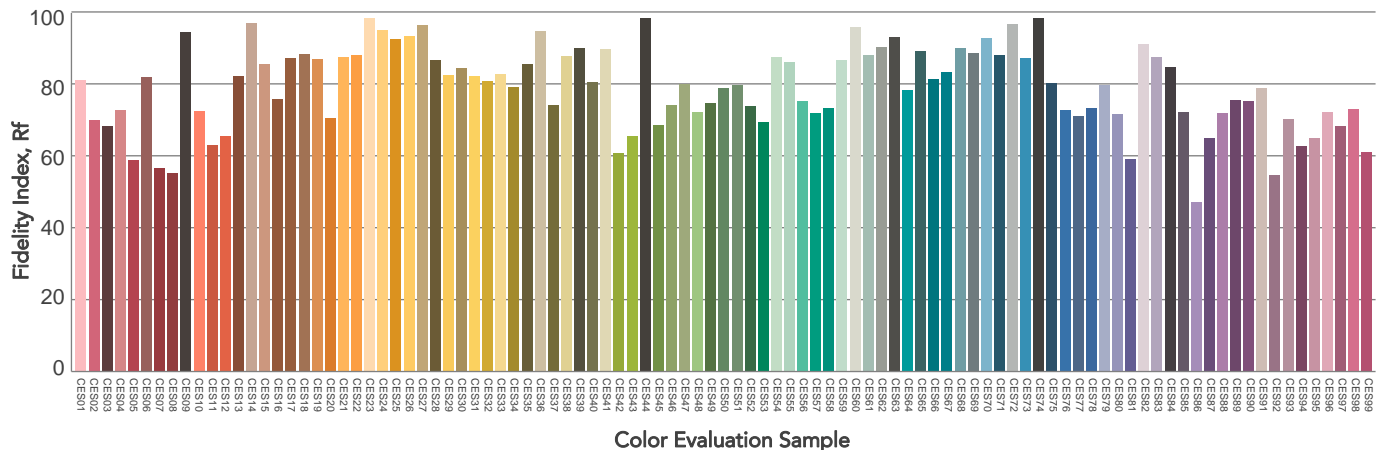
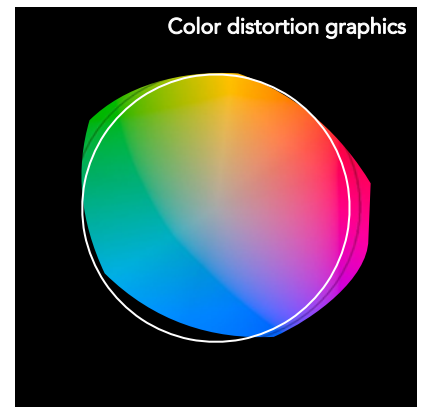
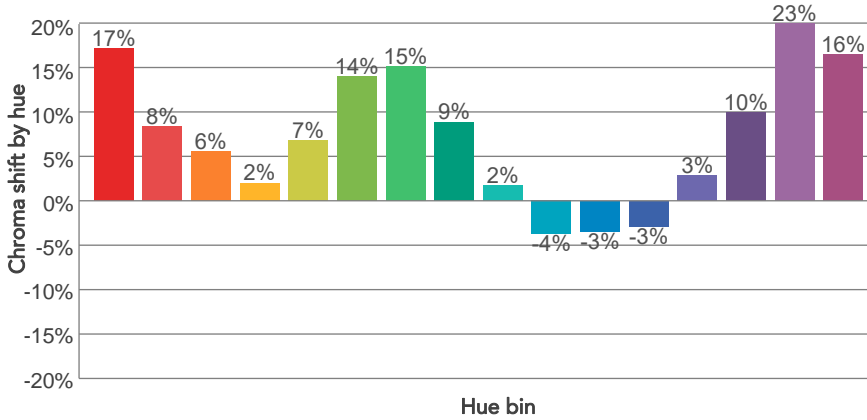
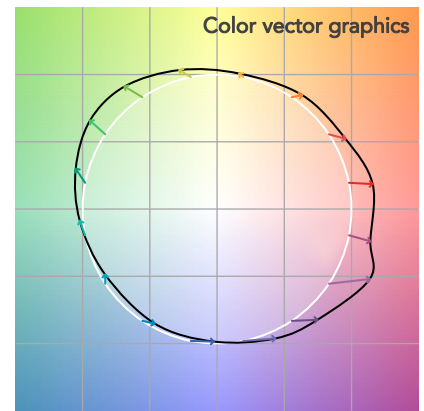
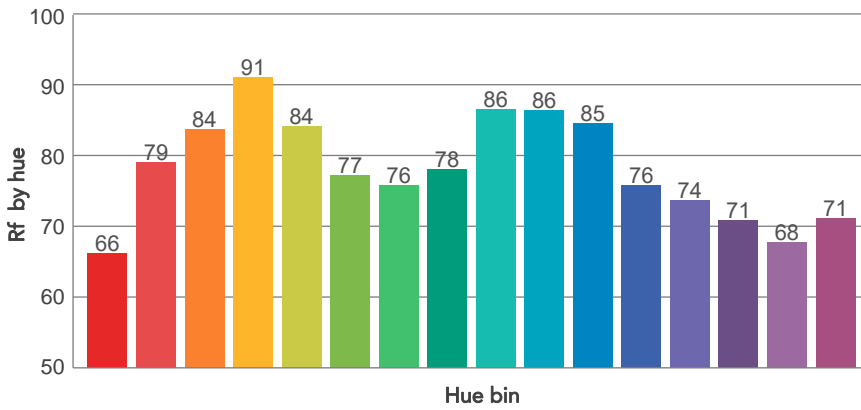
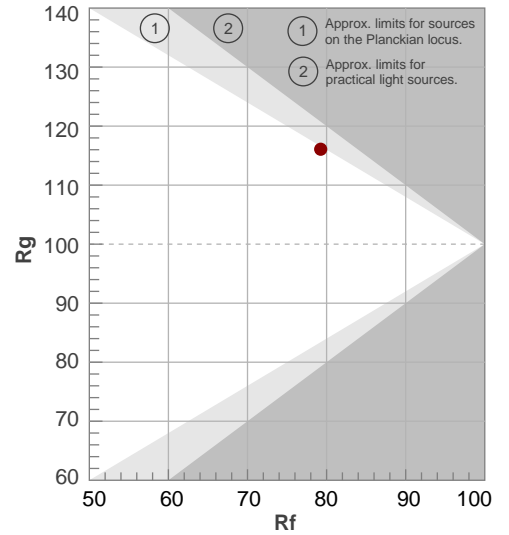
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5514 K	71,8	-34,7	79,3	116,1	83,4	54	0,332	0,355	0,0035

TM30 DETAILS

Rf 79,3
Fidelity index Rf

Rg 116,1
Gammut index

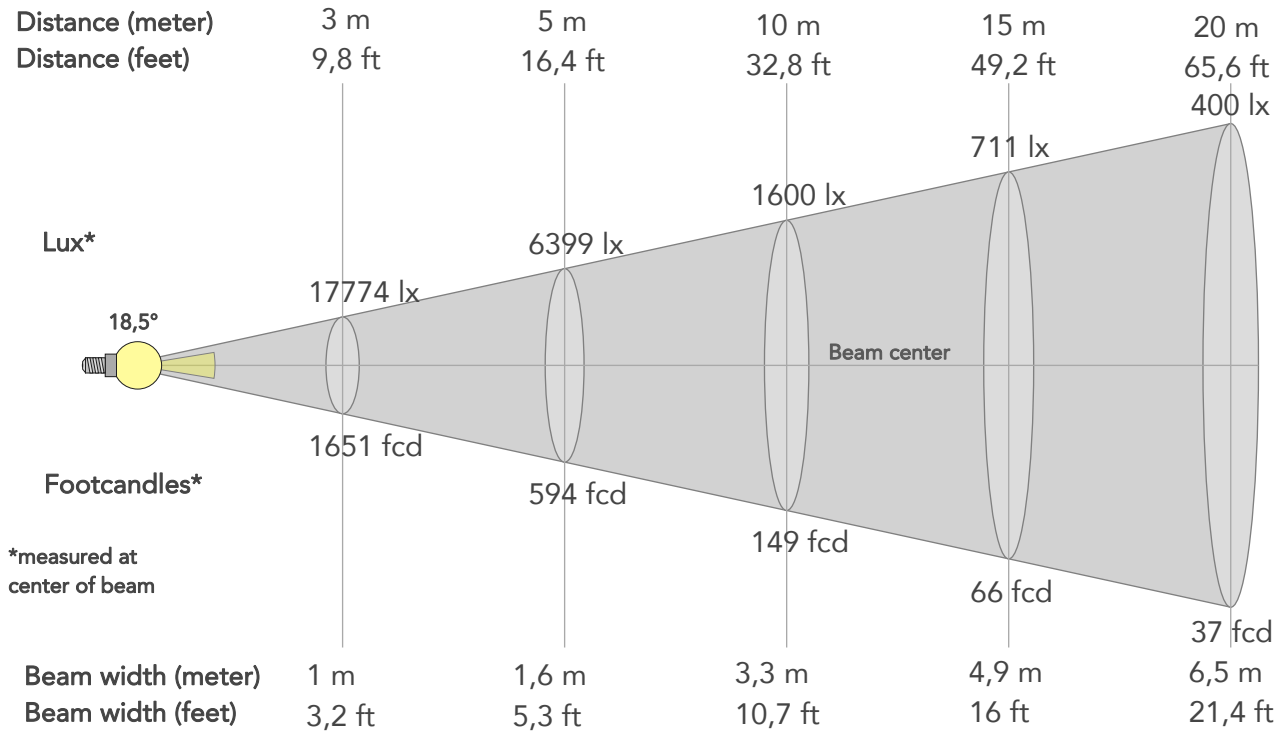
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	66	17%	-4%
2	79	8%	-10%
3	84	6%	-6%
4	91	2%	3%
5	84	7%	7%
6	77	14%	7%
7	76	15%	-2%
8	78	9%	-9%
9	86	2%	-11%
10	86	-4%	-6%
11	85	-3%	9%
12	76	-3%	17%
13	74	3%	24%
14	71	10%	16%
15	68	23%	20%
16	71	16%	-1%



BEAM DETAILS



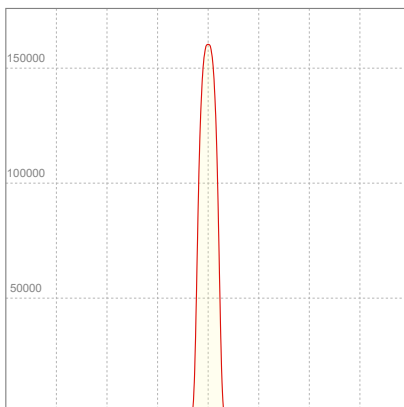
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,5°	24,4°	26,7°	100,0%	100,0%



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	159967lx	39992lx	17774lx	9998lx	6399lx	2844lx	1600lx	711lx	400lx	256lx	178lx	100lx	64lx
Footcand.	14861fcd	3715fcd	1651fcd	929fcd	594fcd	264fcd	149fcd	66fcd	37fcd	24fcd	17fcd	9fcd	6fcd
Beam wid.	0,3m	0,7m	1m	1,3m	1,6m	2,4m	3,3m	4,9m	6,5m	8,2m	9,8m	13m	16,3m
Beam wid.	1,1ft	2,2ft	3,2ft	4,3ft	5,3ft	8ft	10,7ft	16ft	21,4ft	26,7ft	32,1ft	42,8ft	53,5ft

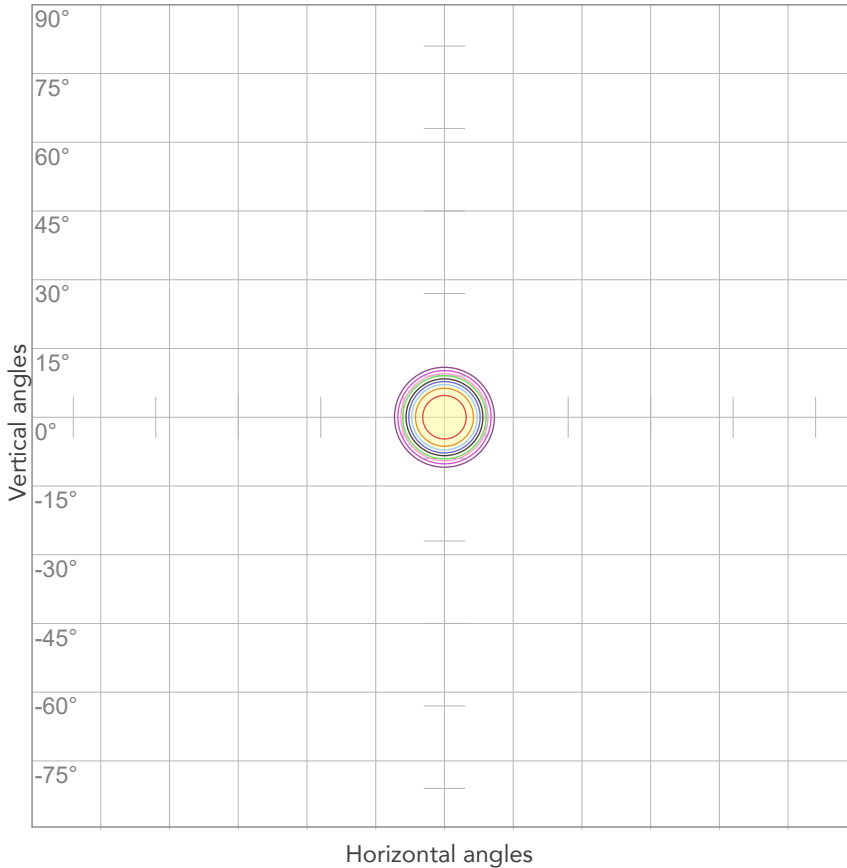
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
221V	3,96A	843,1W	16lm/W

ISO CANDELA DIAGRAM



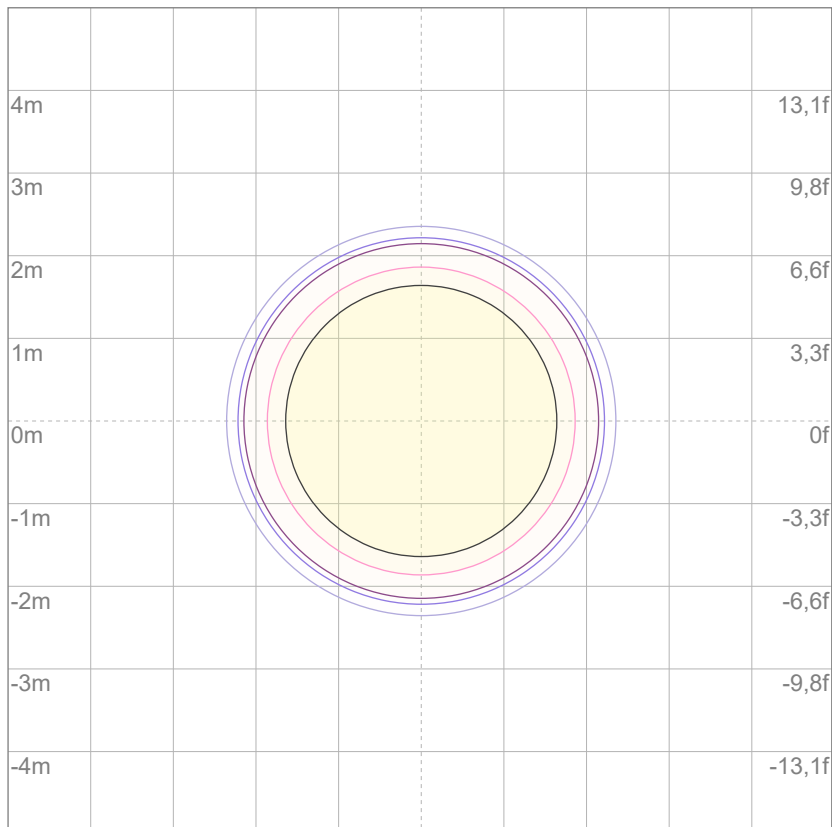
10%	15997 cd
20%	31993 cd
30%	47990 cd
40%	63987 cd
50%	79984 cd
60%	95980 cd
70%	111977 cd
80%	127974 cd

Conditions:

Number of c-planes: 2

Candela at center: 159967 cd

ISO LUX DIAGRAM



3%	48,0 lx
5%	80,0 lx
10%	160 lx
30%	480 lx
50%	800 lx

Conditions:

Number of c-planes: 2

Lux at center: 1600 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:

8034 lm

Peak candela output:

1749363 cd

Light quality:

CRI: 71,1

Color temperature:

5571 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

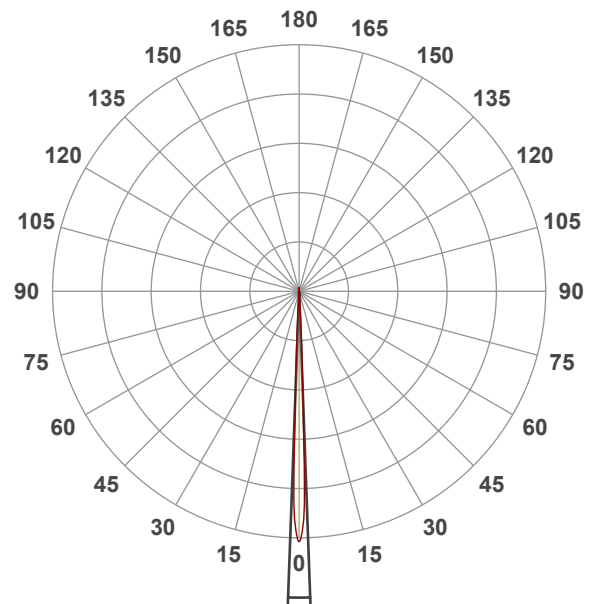
5600K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:23:56

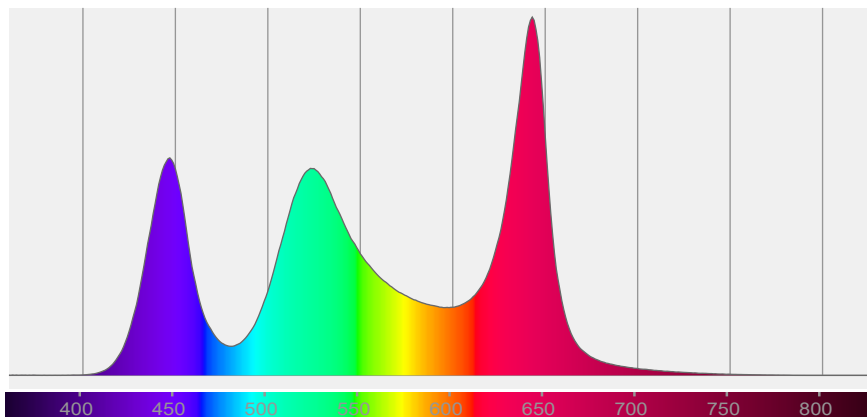


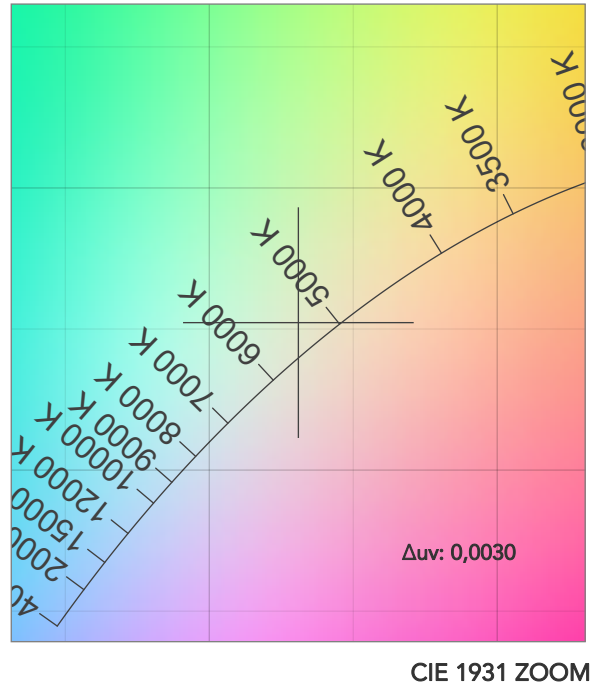
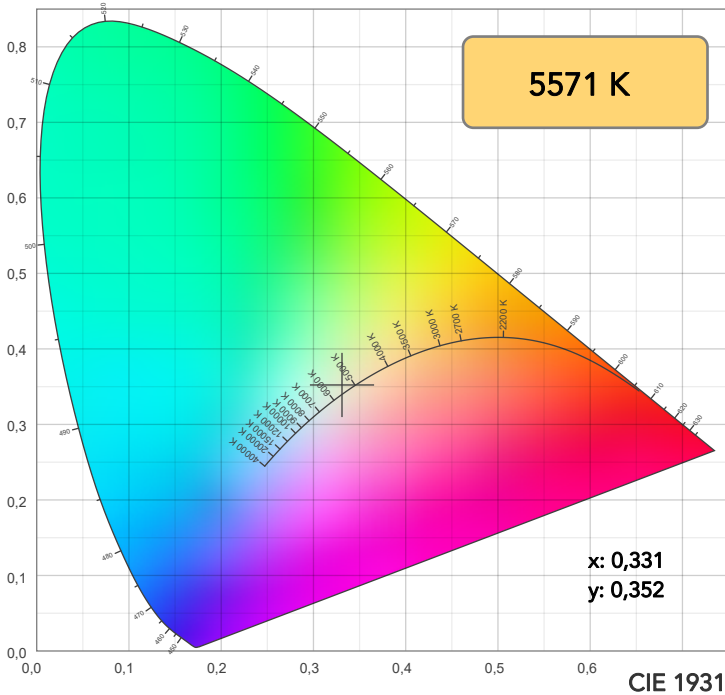
Beam angle 50%: 4,1°

Field angle 10%: 6,2°

Cut off angle 2.5%: 6,9°

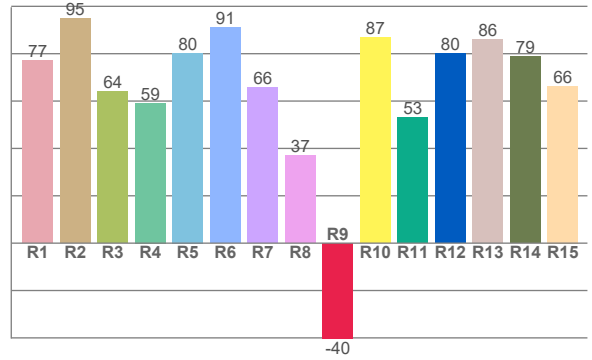
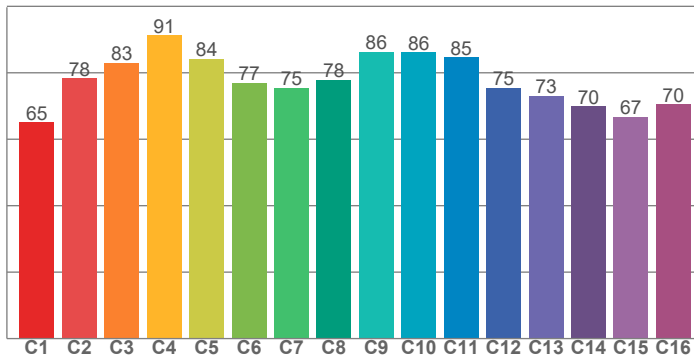
Spectra





TM30: 78,9

CRI: 71,1 (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
77,2	94,7	64,0	59,2	80,2	91,1	65,7	36,9	-40,3	86,8	53,0	80,0	86,0	78,7	66,3

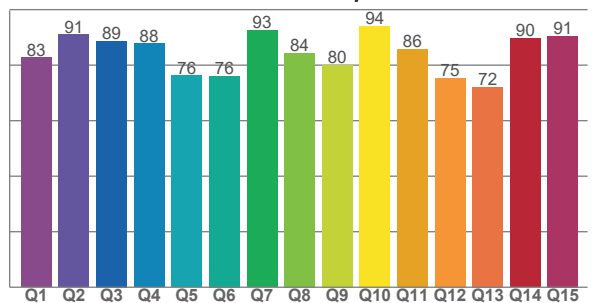
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
65,1	78,3	82,9	91,3	84,1	76,9	75,4	77,8	86,4	86,2	84,7	75,4	73,0	70,0	66,7	70,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,7	91,0	88,6	87,7	76,3	76,1	92,5	84,4	80,1	94,2	85,9	75,4	72,1	89,7	90,5

CQS: 83,1



COLOR PARAMETERS

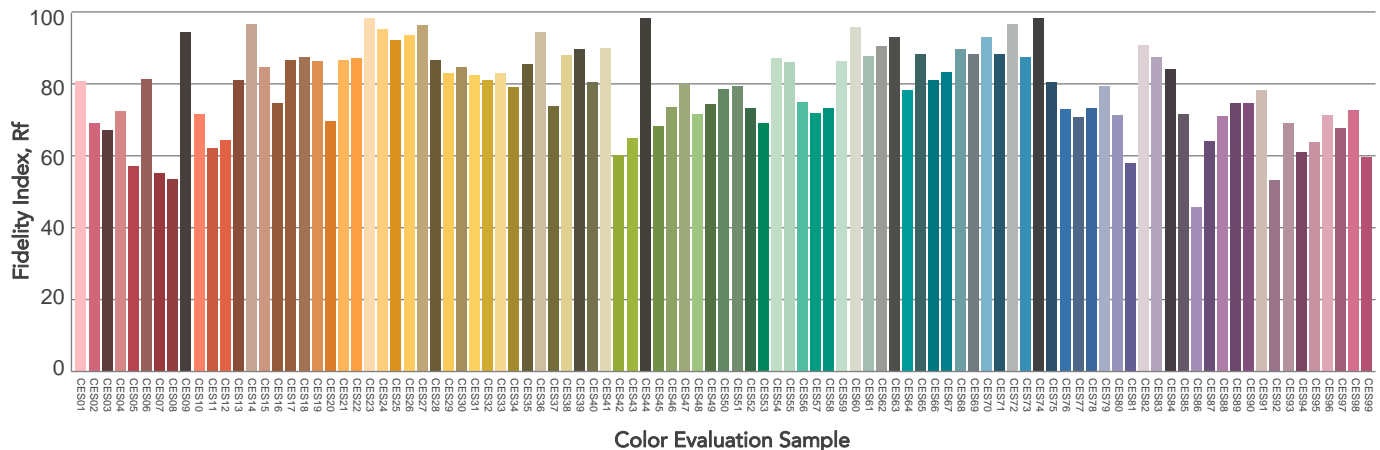
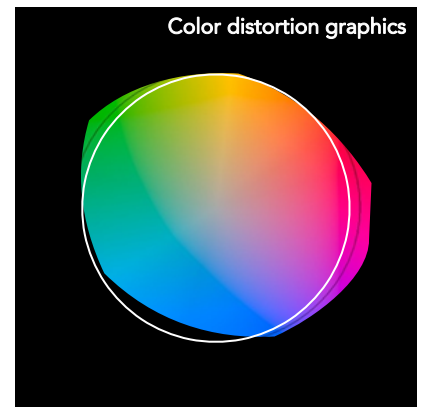
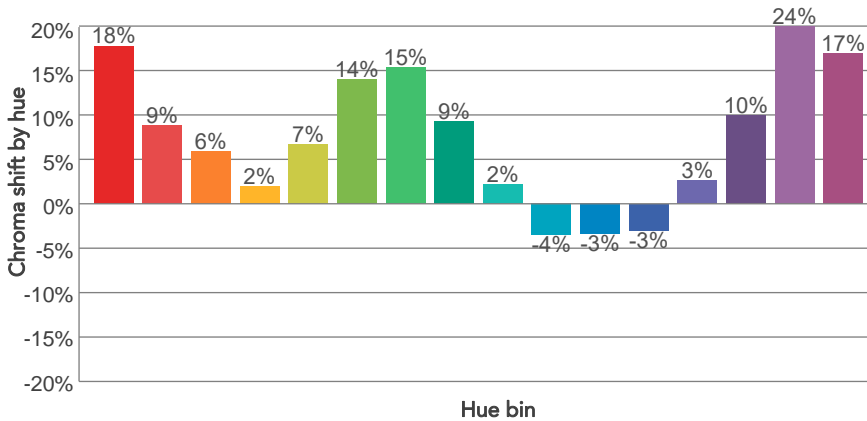
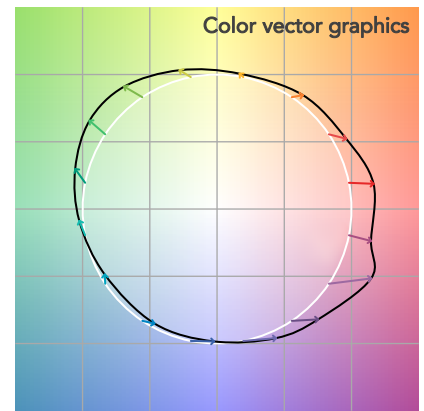
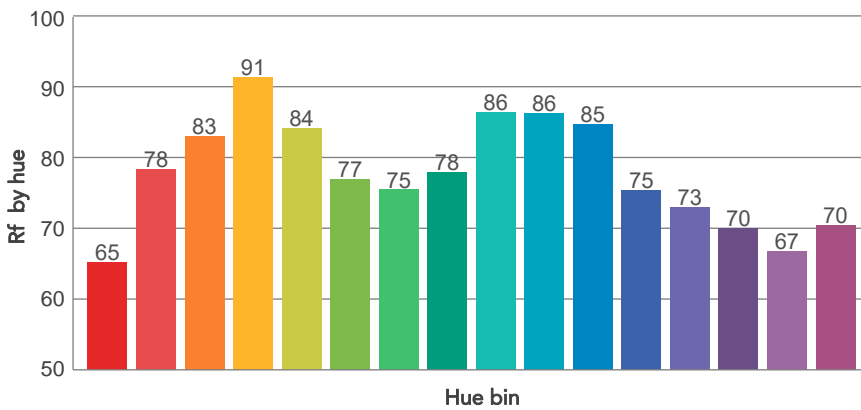
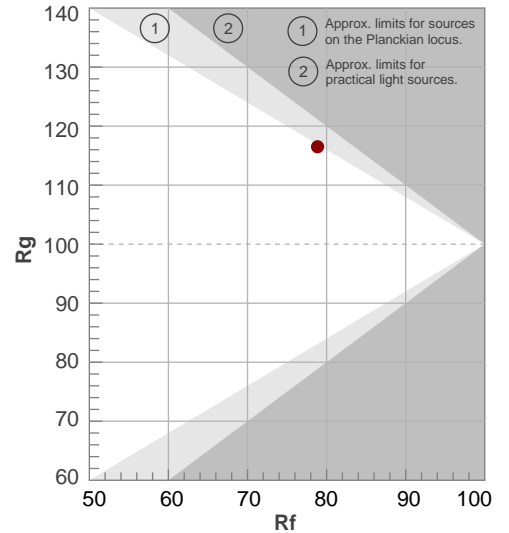
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5571 K	71,1	-40,3	78,9	116,5	83,1	53	0,331	0,352	0,0030

TM30 DETAILS

Rf 78,9
Fidelity index Rf

Rg 116,5
Gammut index

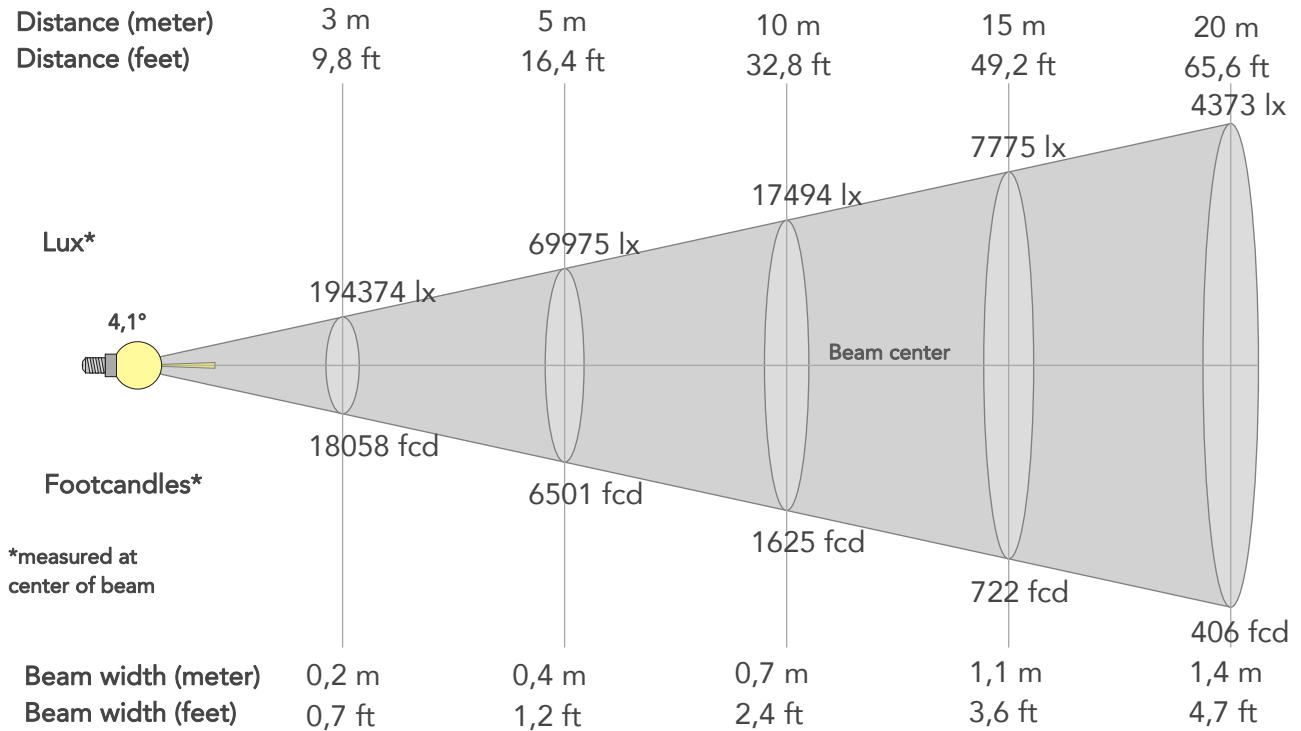
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	65	18%	-4%
2	78	9%	-10%
3	83	6%	-6%
4	91	2%	3%
5	84	7%	7%
6	77	14%	7%
7	75	15%	-2%
8	78	9%	-9%
9	86	2%	-11%
10	86	-4%	-6%
11	85	-3%	9%
12	75	-3%	17%
13	73	3%	24%
14	70	10%	17%
15	67	24%	21%
16	70	17%	-1%



BEAM DETAILS



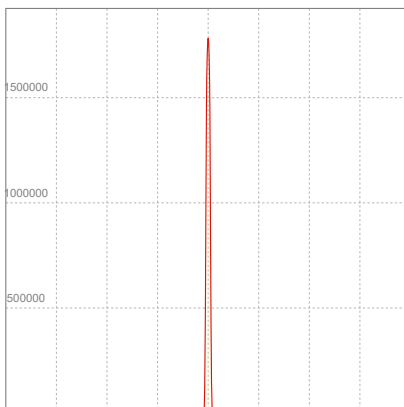
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,1°	6,2°	6,9°	100,0%	99,9%



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	1749363lx	437341lx	194374lx	109335lx	69975lx	31100lx	17494lx	7775lx	4373lx	2799lx	1944lx	1093lx	700lx
Footcand.	162521fcd	40630fcd	18058fcd	10158fcd	6501fcd	2889fcd	1625fcd	722fcd	406fcd	260fcd	181fcd	102fcd	65fcd
Beam wid.	0,1m	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1,1m	1,4m	1,8m	2,2m	2,9m	3,6m
Beam wid.	0,2ft	0,5ft	0,7ft	0,9ft	1,2ft	1,8ft	2,4ft	3,6ft	4,7ft	5,9ft	7,1ft	9,5ft	11,8ft

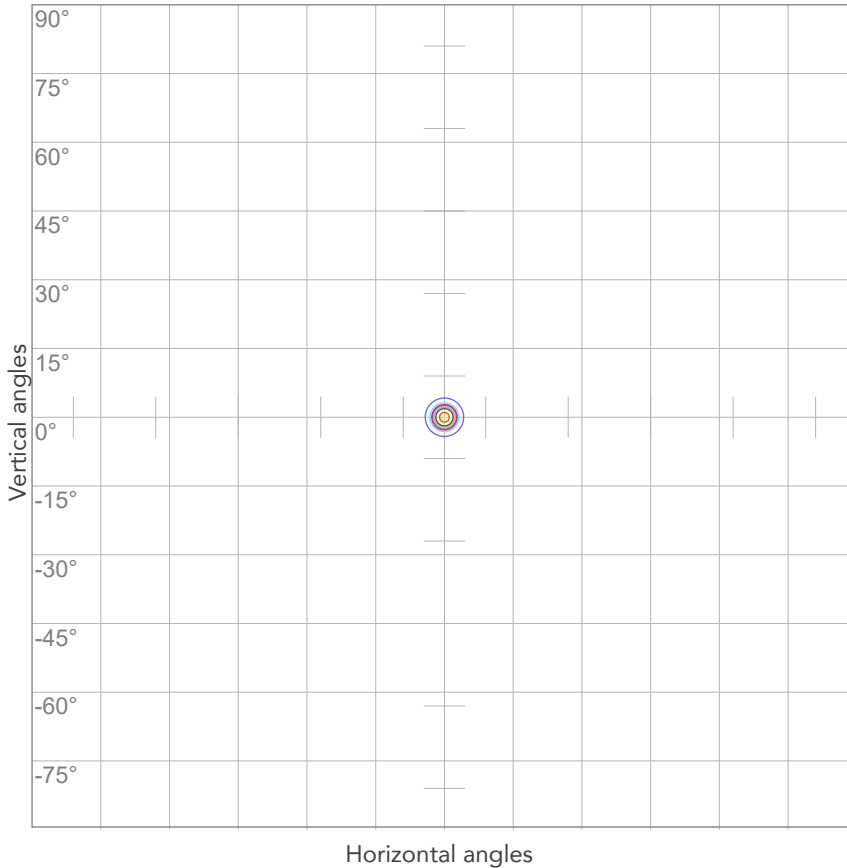
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
221V	3,94A	838,5W	10lm/W

ISO CANDELA DIAGRAM



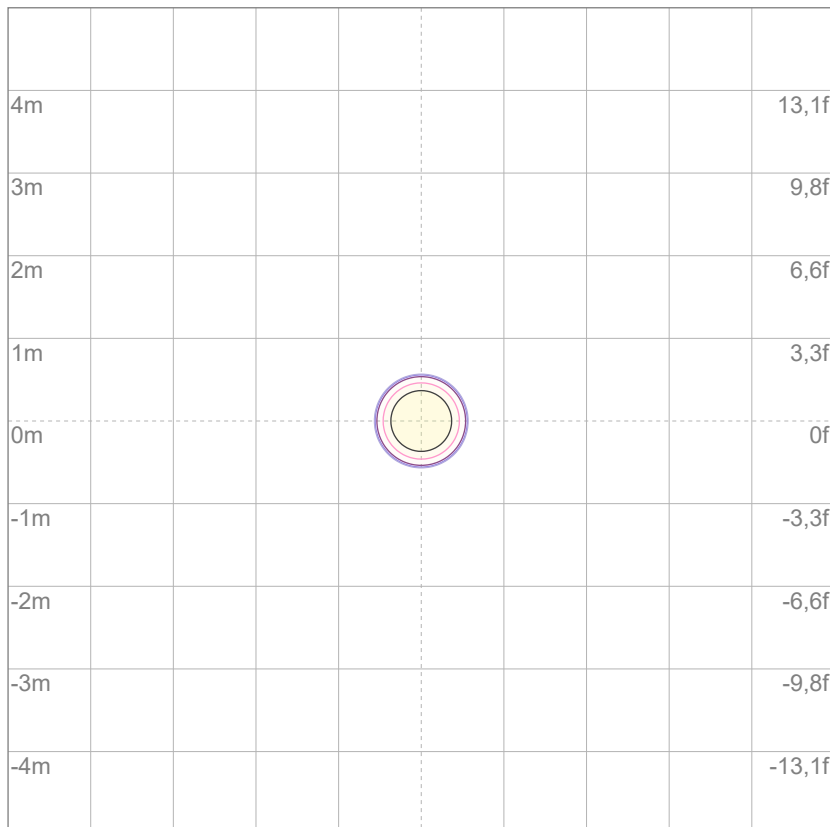
10%	174936 cd
20%	349873 cd
30%	524809 cd
40%	699745 cd
50%	874681 cd
60%	1049618 cd
70%	1224554 cd
80%	1399490 cd

Conditions:

Number of c-planes: 2

Candela at center: 1749363 cd

ISO LUX DIAGRAM



3%	525 lx
5%	875 lx
10%	1749 lx
30%	5248 lx
50%	8747 lx

Conditions:

Number of c-planes: 2

Lux at center: 17,5K 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:

17331 lm

Peak candela output:

52177 cd

Light quality:

CRI: 73,3

Color temperature:

6018 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

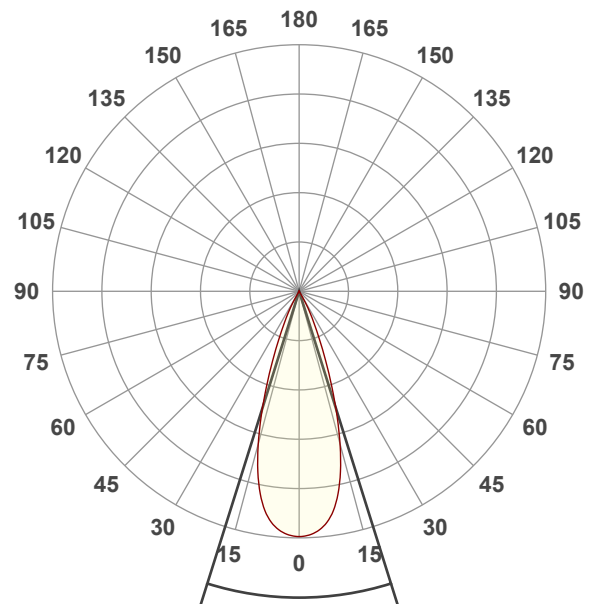
6000K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:30:27

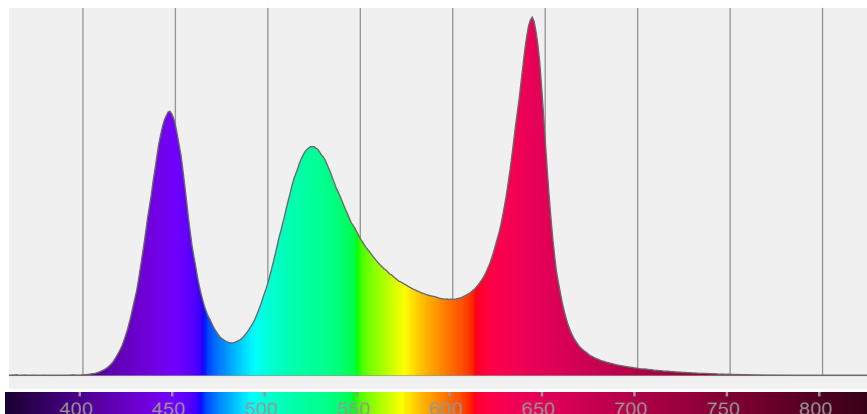


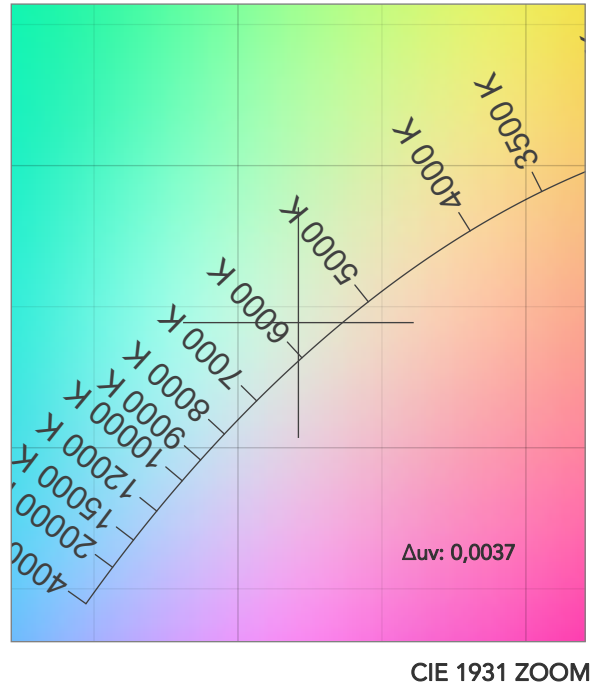
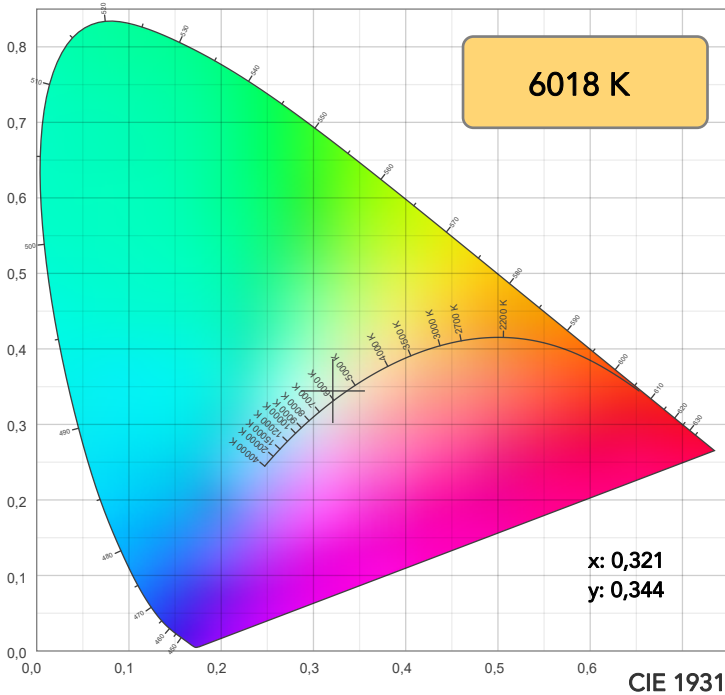
Beam angle 50%: 34,9°

Field angle 10%: 53,6°

Cut off angle 2.5%: 60,4°

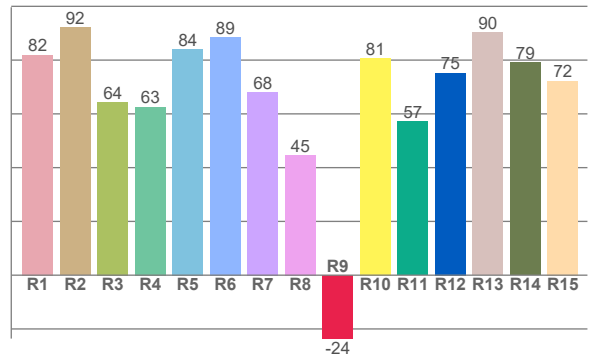
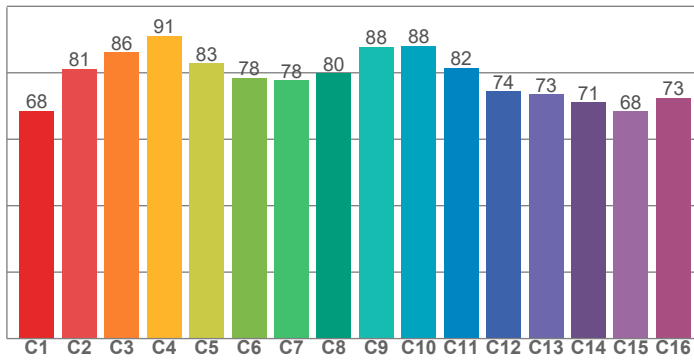
Spectra





TM30: 79,8

CRI: 73,3 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81,9	92,1	64,4	62,6	84,1	88,5	68,1	44,7	-23,6	80,7	57,1	75,3	90,2	79,2	72,3

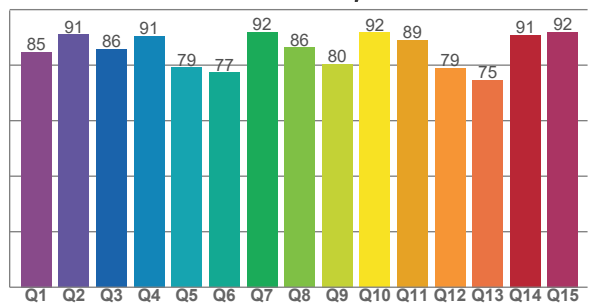
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
68,5	81,1	86,1	91,1	82,8	78,5	77,7	79,8	87,9	88,1	81,6	74,4	73,5	71,1	68,3	72,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,8	91,0	85,7	90,5	79,1	77,3	91,9	86,4	80,4	91,7	89,1	79,0	74,6	90,8	92,0

CQS: 84,5



COLOR PARAMETERS

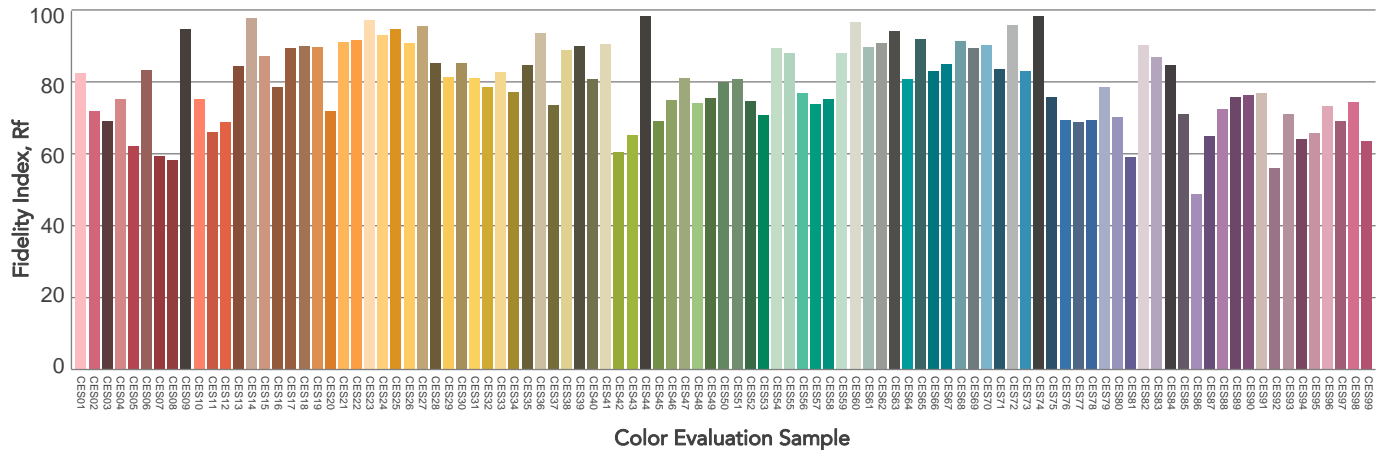
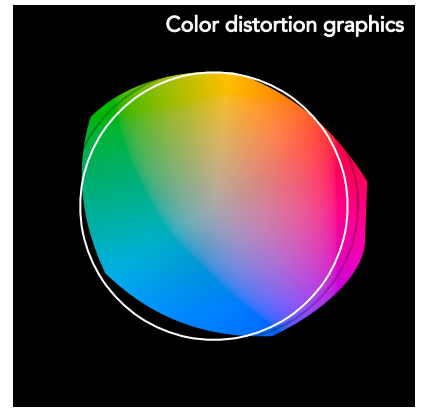
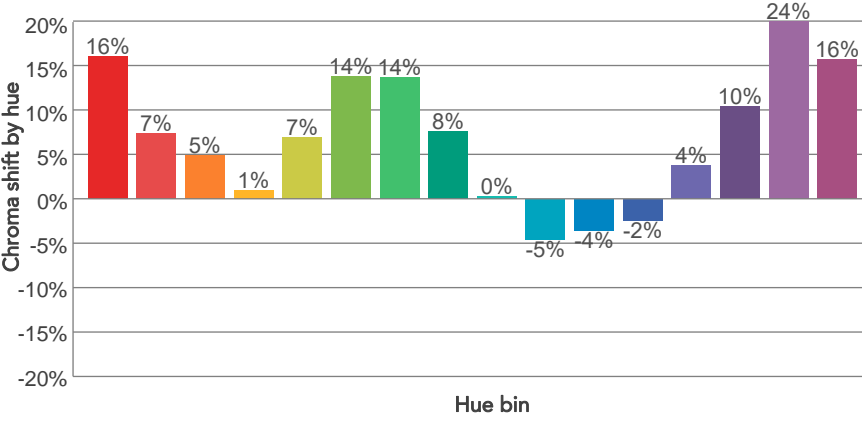
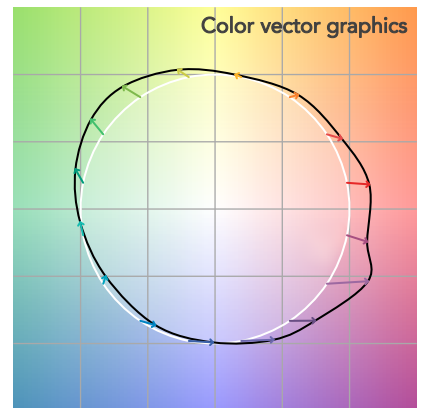
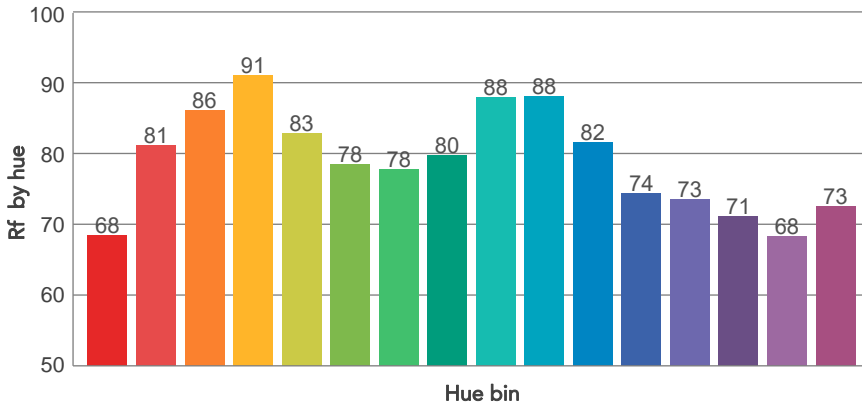
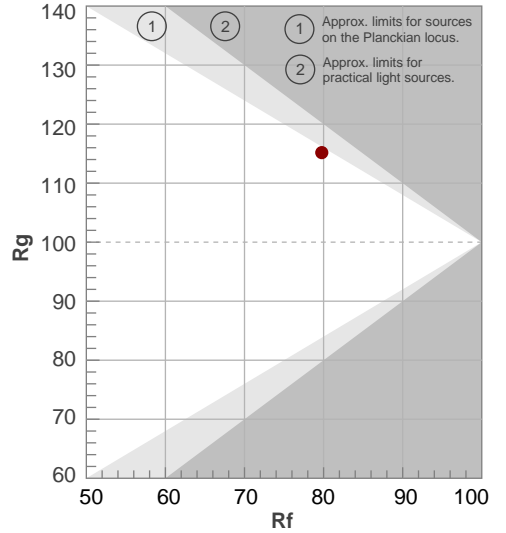
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6018 K	73,3	-23,6	79,8	115,2	84,5	58	0,321	0,344	0,0037

TM30 DETAILS

Rf 79,8
Fidelity index Rf

Rg 115,2
Gammut index

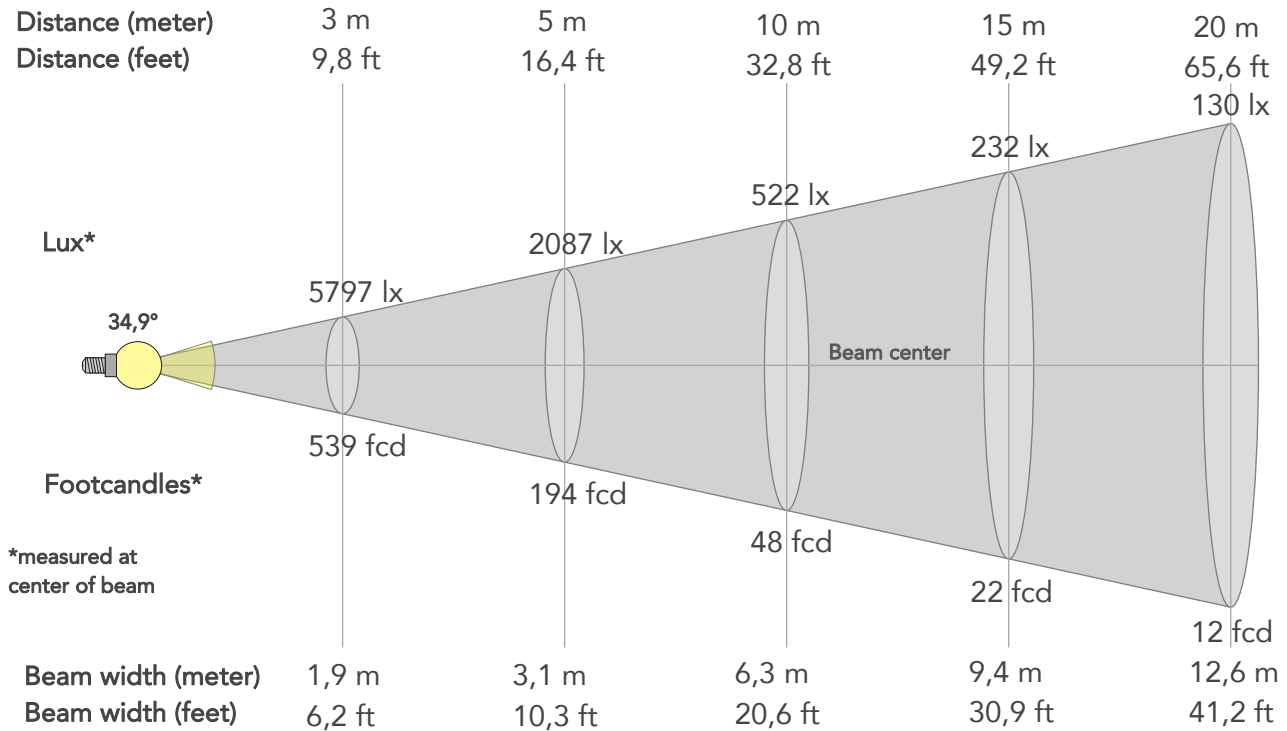
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	68	16%	-4%
2	81	7%	-9%
3	86	5%	-4%
4	91	1%	5%
5	83	7%	7%
6	78	14%	6%
7	78	14%	-4%
8	80	8%	-9%
9	88	0%	-10%
10	88	-5%	-4%
11	82	-4%	11%
12	74	-2%	18%
13	73	4%	24%
14	71	10%	16%
15	68	24%	19%
16	73	16%	-2%



BEAM DETAILS



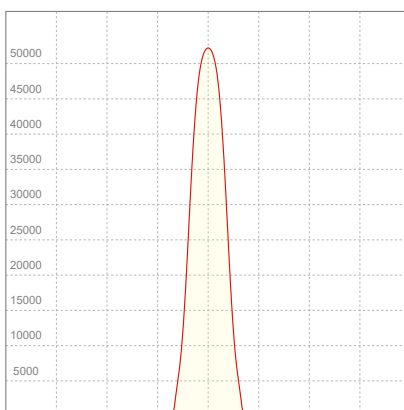
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,9°	53,6°	60,4°	100,0%	100,0%



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	52177lx	13044lx	5797lx	3261lx	2087lx	928lx	522lx	232lx	130lx	83lx	58lx	33lx	21lx
Footcand.	4847fcd	1212fcd	539fcd	303fcd	194fcd	86fcd	48fcd	22fcd	12fcd	8fcd	5fcd	3fcd	2fcd
Beam wid.	0,6m	1,3m	1,9m	2,5m	3,1m	4,7m	6,3m	9,4m	12,6m	15,7m	18,9m	25,1m	31,4m
Beam wid.	2,1ft	4,1ft	6,2ft	8,2ft	10,3ft	15,5ft	20,6ft	30,9ft	41,2ft	51,5ft	61,8ft	82,4ft	103,1ft

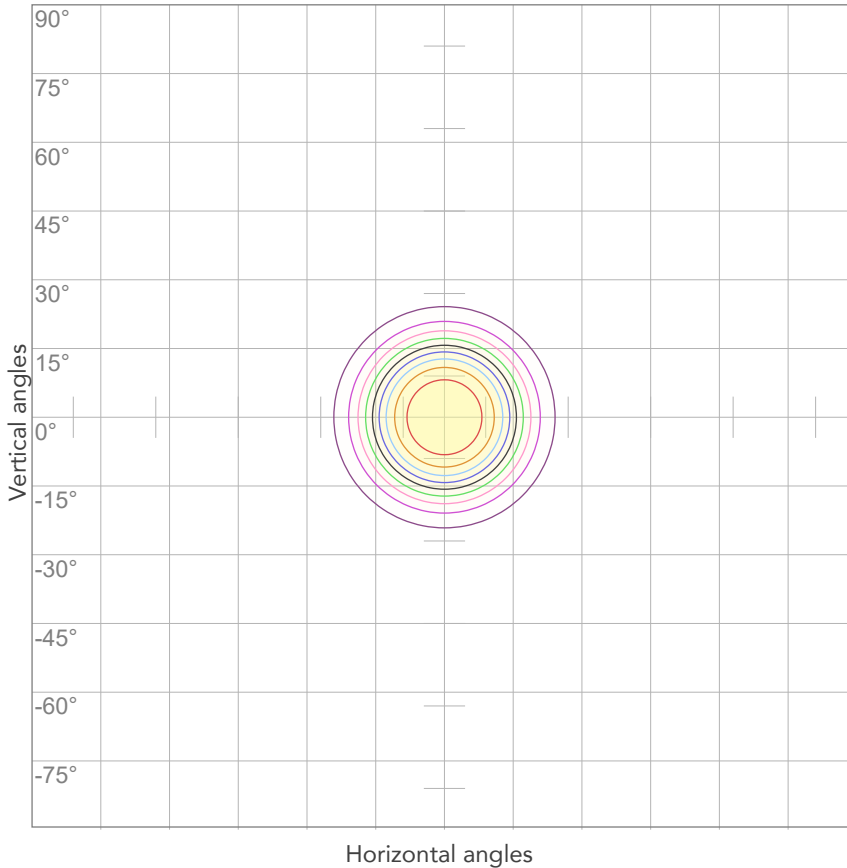
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
221V	3,90A	831,2W	21lm/W

ISO CANDELA DIAGRAM



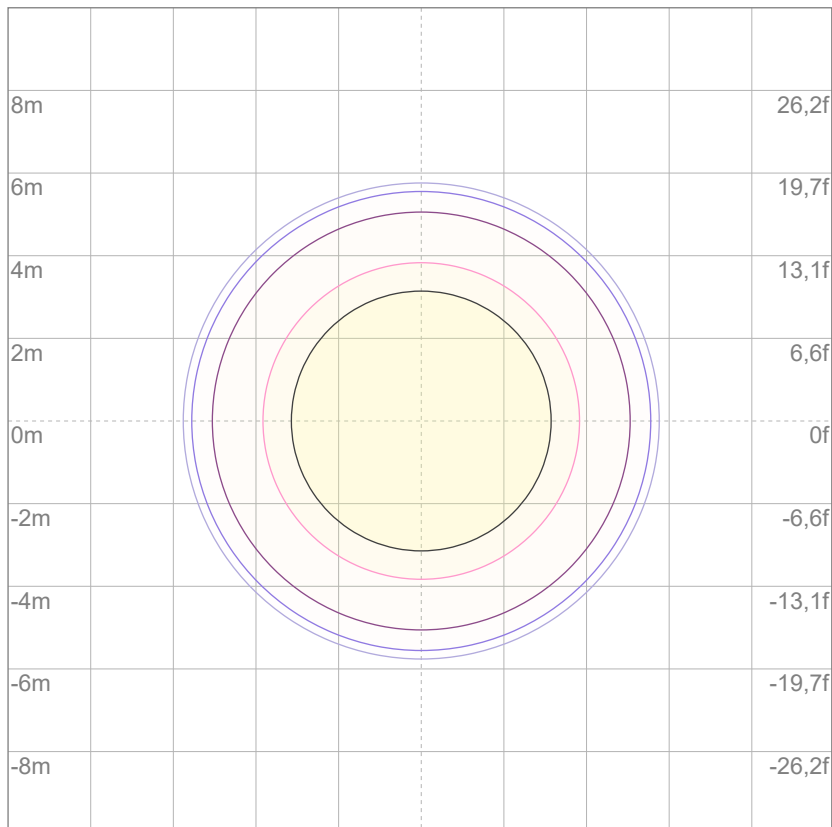
10%	5218 cd
20%	10435 cd
30%	15653 cd
40%	20871 cd
50%	26088 cd
60%	31306 cd
70%	36524 cd
80%	41741 cd

Conditions:

Number of c-planes: 2

Candela at center: 52177 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	15,7 lx
5%	26,1 lx
10%	52,2 lx
30%	157 lx
50%	261 lx

Conditions:

Number of c-planes: 2

Lux at center: 522 lx

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



Total lumen output:

12969 lm

Peak candela output:

172955 cd

Light quality:

CRI: 72,9

Color temperature:

5978 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

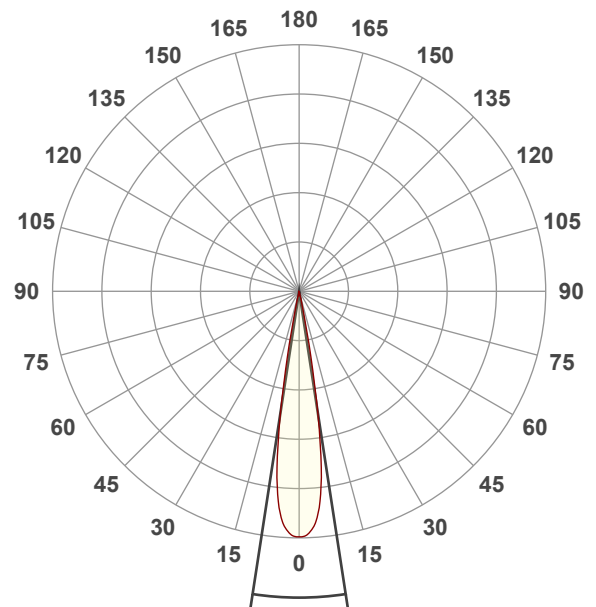
6000K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:28:43

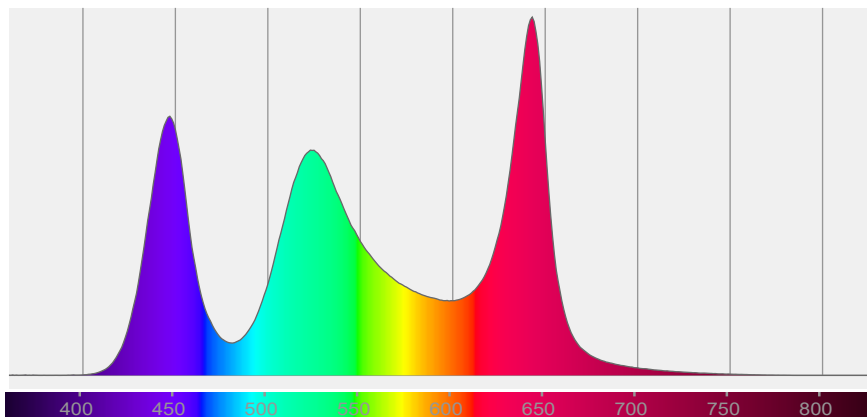


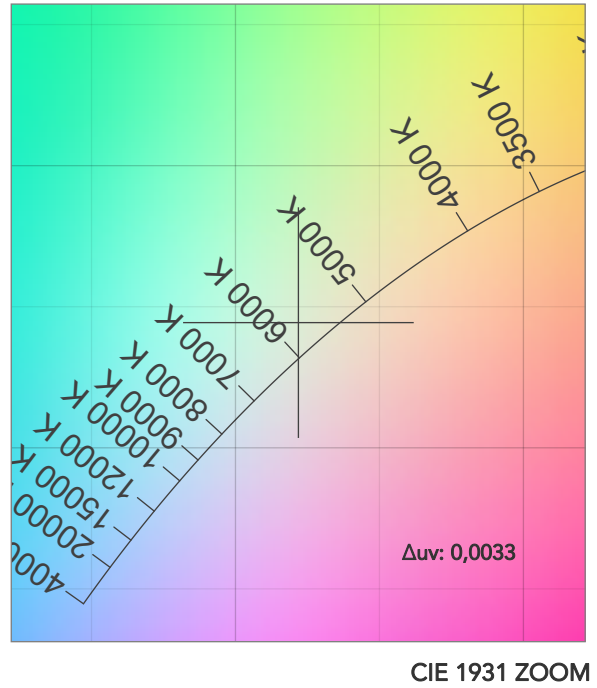
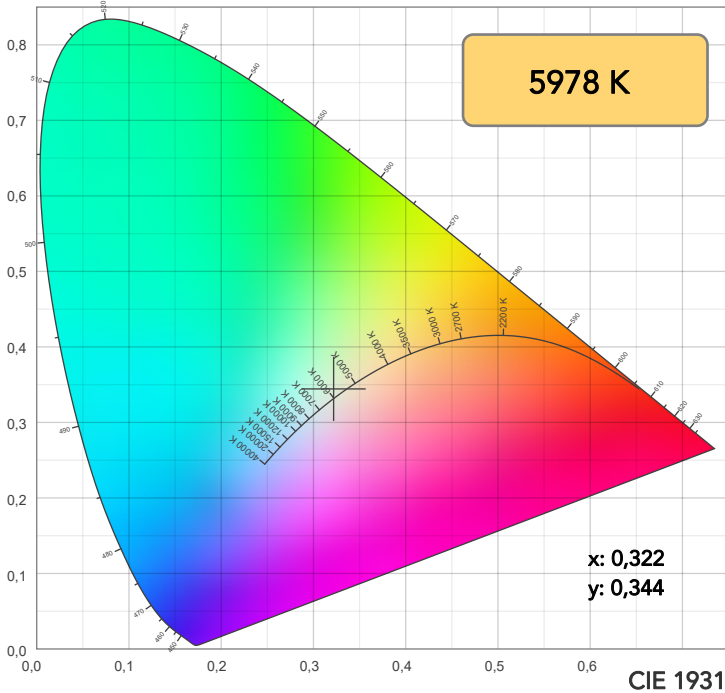
Beam angle 50%: 17,5°

Field angle 10%: 23,1°

Cut off angle 2.5%: 25,8°

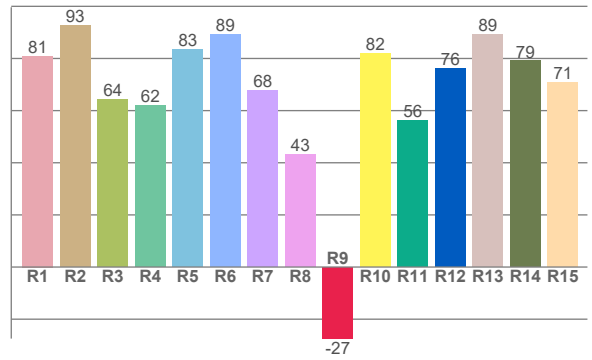
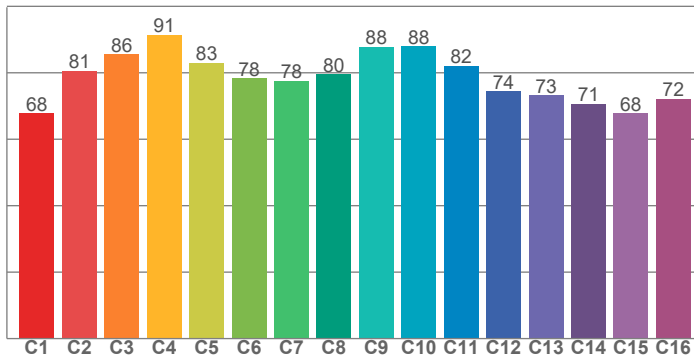
Spectra





TM30: 79,6

CRI: 72,9 (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
81,0	92,7	64,3	61,9	83,4	89,2	67,7	43,2	-27,4	82,0	56,2	76,2	89,3	79,1	70,9

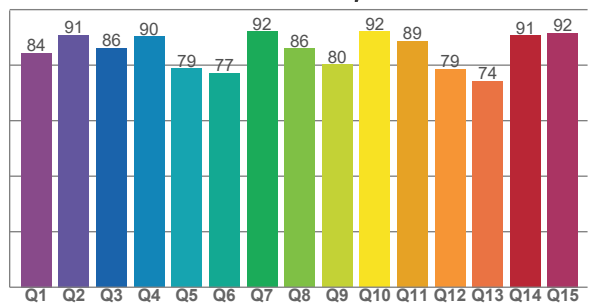
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
67,8	80,6	85,5	91,3	82,9	78,3	77,5	79,6	87,8	88,0	82,0	74,4	73,2	70,7	67,8	72,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,3	90,9	86,1	90,3	78,7	77,2	92,1	86,0	80,2	92,0	88,7	78,5	74,2	90,6	91,6

CQS: 84,3



COLOR PARAMETERS

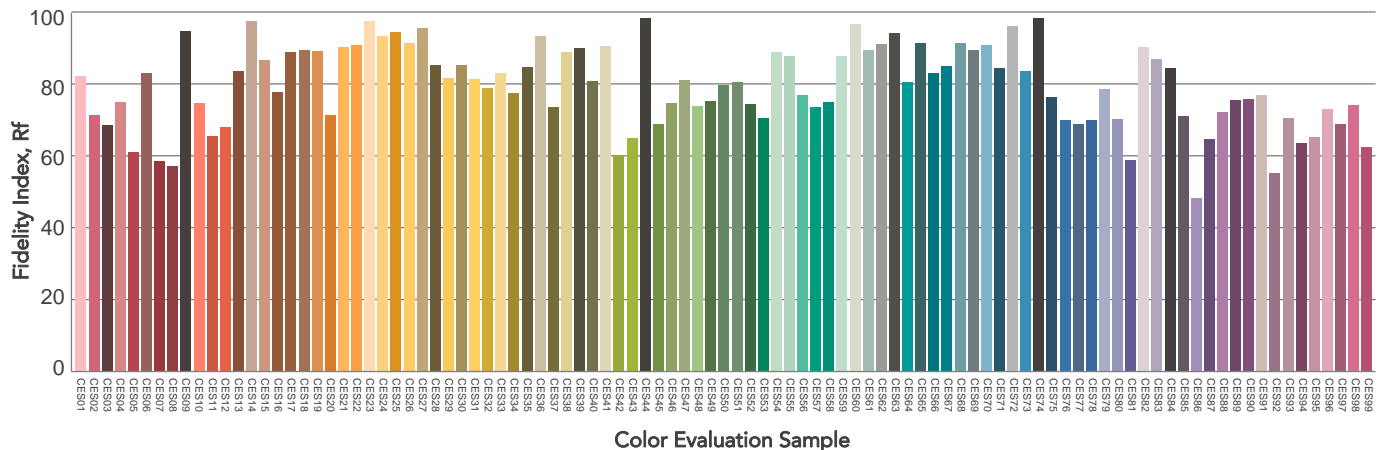
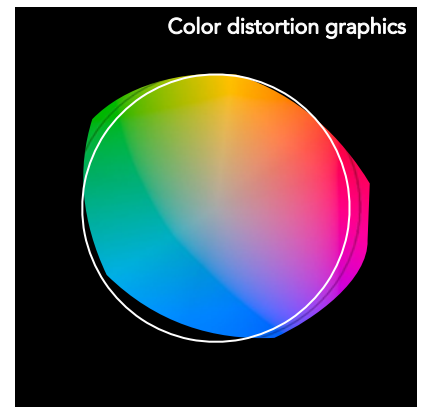
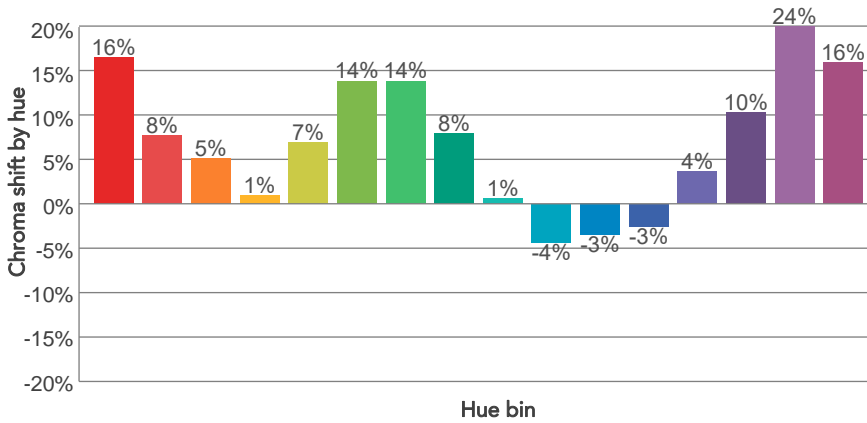
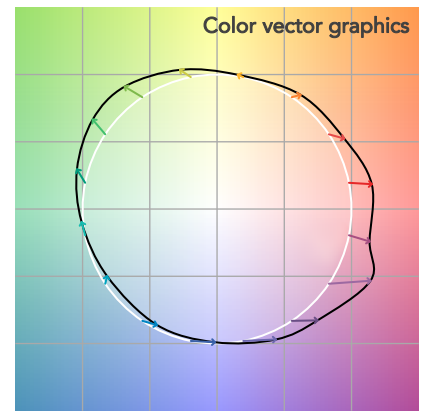
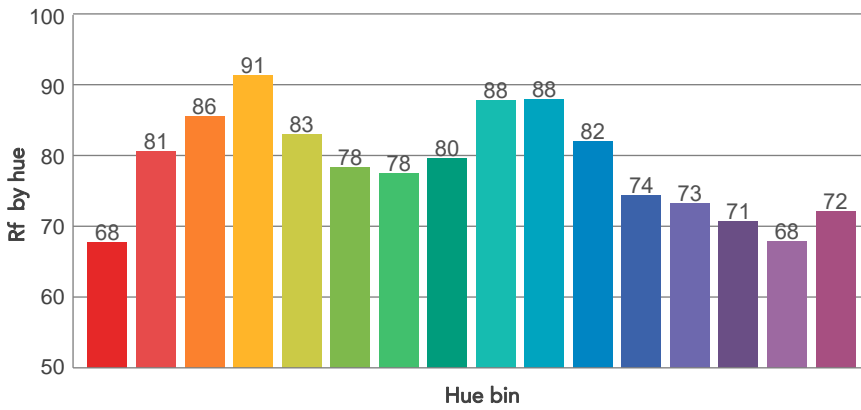
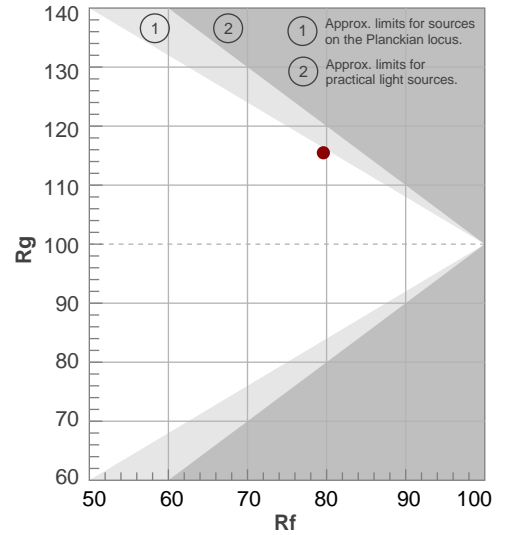
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5978 K	72,9	-27,4	79,6	115,5	84,3	57	0,322	0,344	0,0033

TM30 DETAILS

Rf 79,6
Fidelity index Rf

Rg 115,5
Gammut index

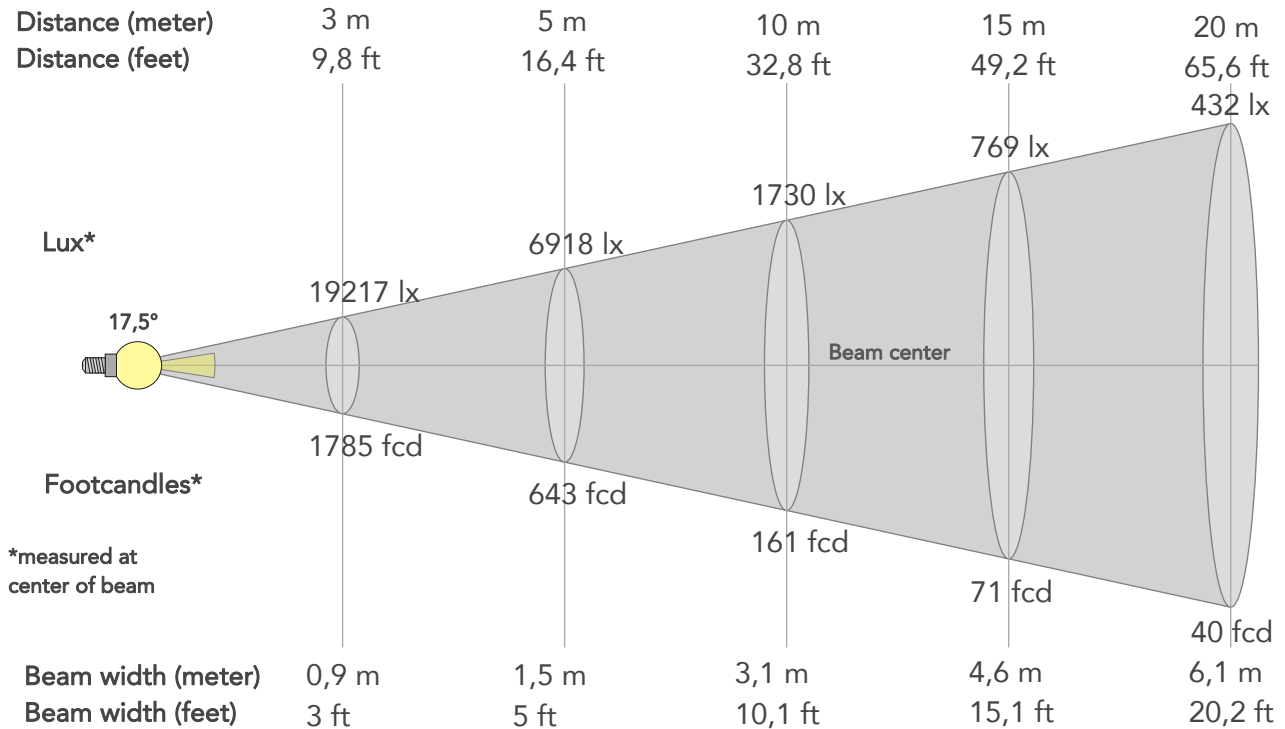
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	68	16%	-4%
2	81	8%	-9%
3	86	5%	-4%
4	91	1%	4%
5	83	7%	7%
6	78	14%	7%
7	78	14%	-4%
8	80	8%	-9%
9	88	1%	-10%
10	88	-4%	-4%
11	82	-3%	11%
12	74	-3%	18%
13	73	4%	24%
14	71	10%	16%
15	68	24%	19%
16	72	16%	-2%



BEAM DETAILS



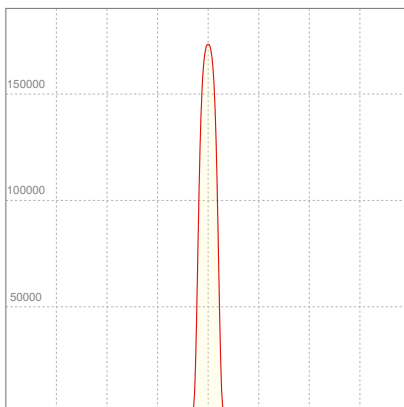
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,5°	23,1°	25,8°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	172955lx	43239lx	19217lx	10810lx	6918lx	3075lx	1730lx	769lx	432lx	277lx	192lx	108lx	69lx
Footcand.	16068fcd	4017fcd	1785fcd	1004fcd	643fcd	286fcd	161fcd	71fcd	40fcd	26fcd	18fcd	10fcd	6fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3,1m	4,6m	6,1m	7,7m	9,2m	12,3m	15,4m
Beam wid.	1ft	2ft	3ft	4ft	5ft	7,6ft	10,1ft	15,1ft	20,2ft	25,2ft	30,3ft	40,3ft	50,4ft

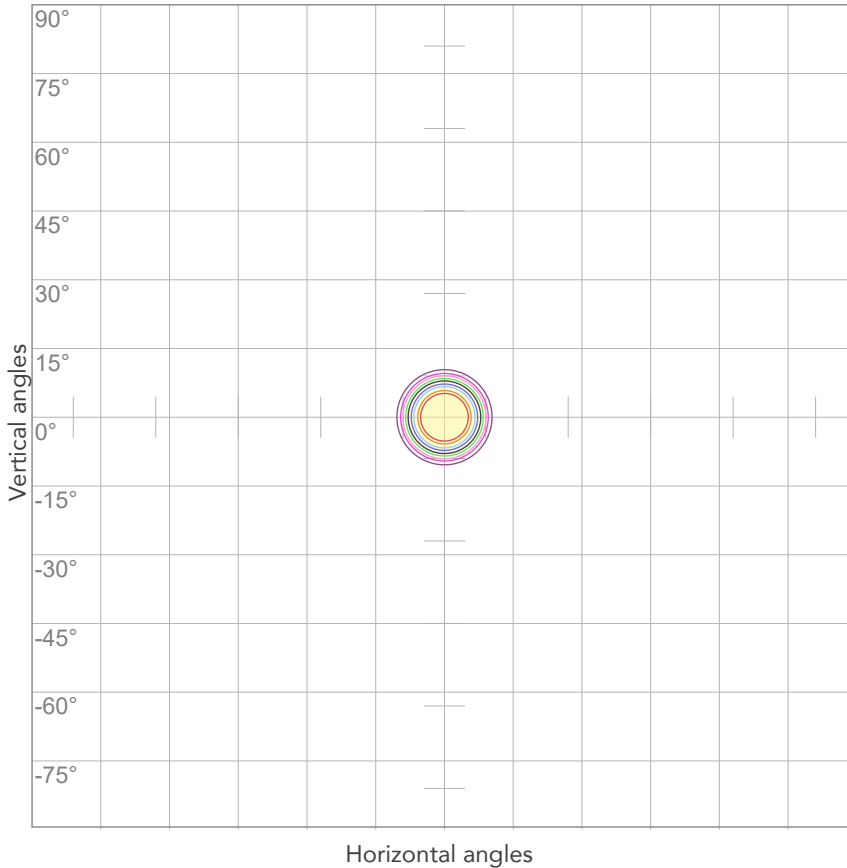
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
221V	3,92A	835,7W	16lm/W

ISO CANDELA DIAGRAM



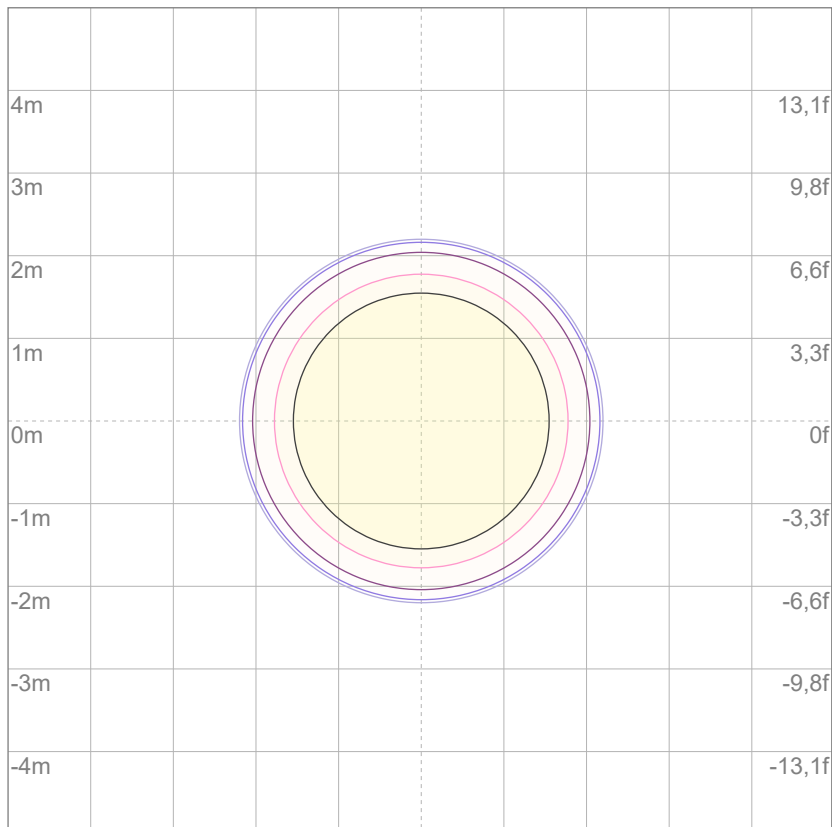
10%	17295 cd
20%	34591 cd
30%	51886 cd
40%	69182 cd
50%	86477 cd
60%	103773 cd
70%	121068 cd
80%	138364 cd

Conditions:

Number of c-planes: 2

Candela at center: 172955 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	51,9 lx
5%	86,5 lx
10%	173 lx
30%	519 lx
50%	865 lx

Conditions:

Number of c-planes: 2

Lux at center: 1730 lx

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



Total lumen output:

7989 lm

Peak candela output:

1737023 cd

Light quality:

CRI: 72,3

Color temperature:

6046 K

PRODUCT NAME:

ASTRAWASH37PIX

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

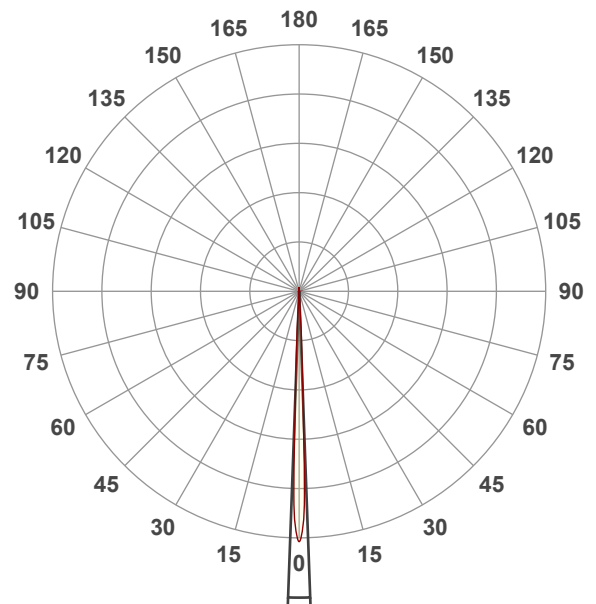
6000K

Operator:

Paolo Carvone

Date and time:

03/09/2021 10:27:14

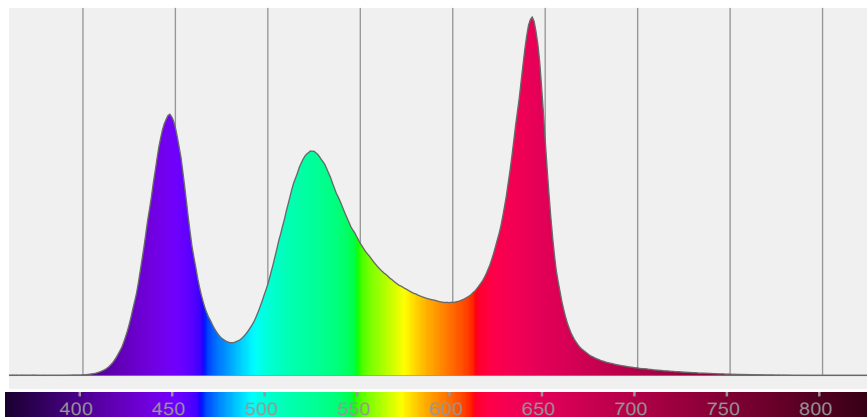


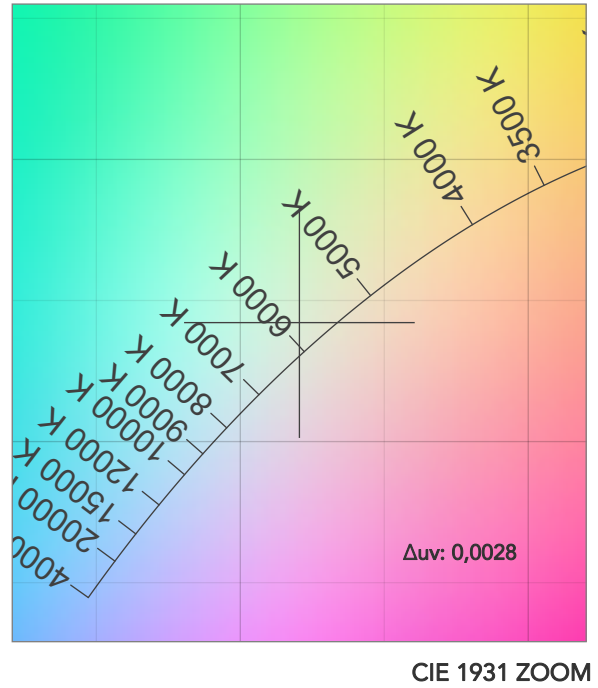
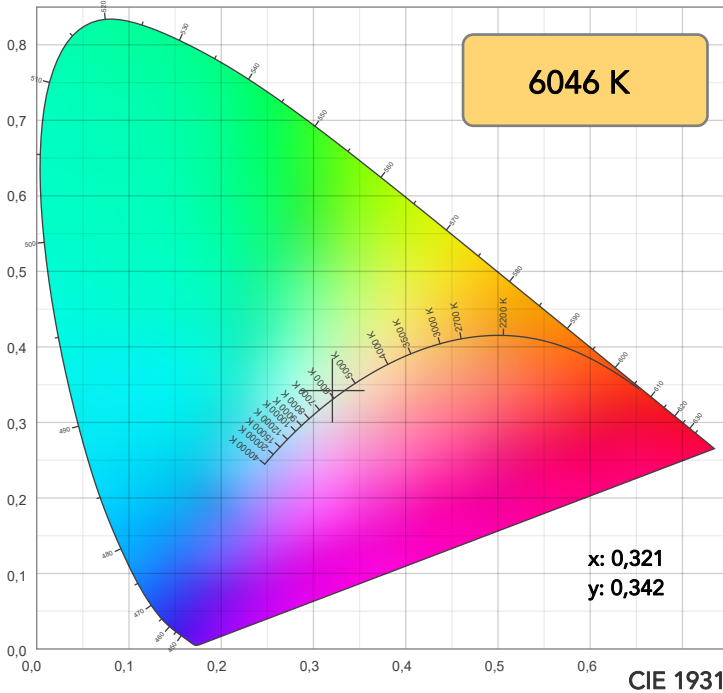
Beam angle 50%: 4,1°

Field angle 10%: 6,2°

Cut off angle 2.5%: 6,9°

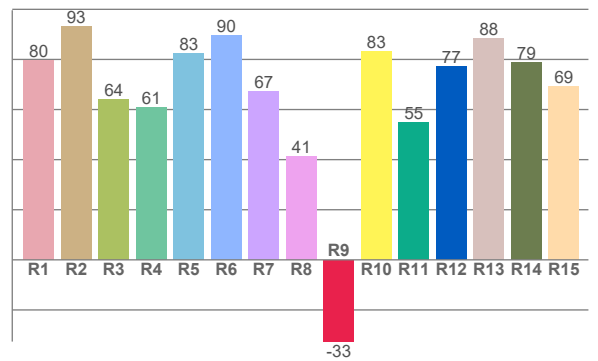
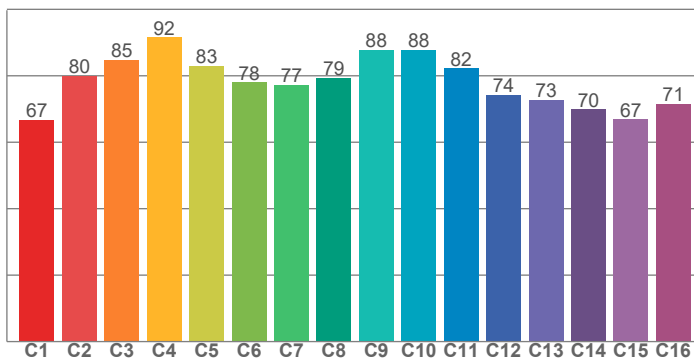
Spectra





TM30: 79,3

CRI: 72,3 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
79,8	93,2	64,0	60,9	82,5	89,8	67,2	41,3	-32,6	83,2	54,9	77,1	88,3	78,8	69,3

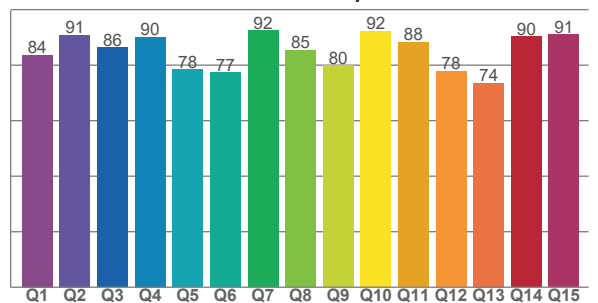
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
66,8	80,0	84,8	91,6	83,1	78,1	77,3	79,4	87,7	87,8	82,2	74,2	72,7	69,9	66,9	71,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,6	90,8	86,3	90,1	78,4	77,3	92,4	85,3	79,8	92,3	88,3	77,8	73,6	90,3	91,0

CQS: 84,0



COLOR PARAMETERS

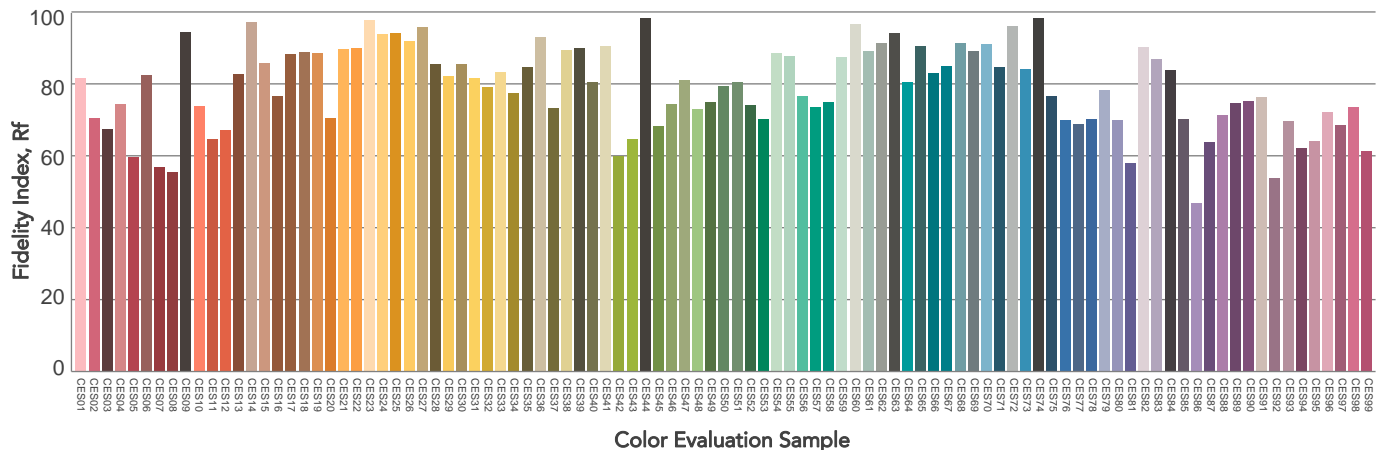
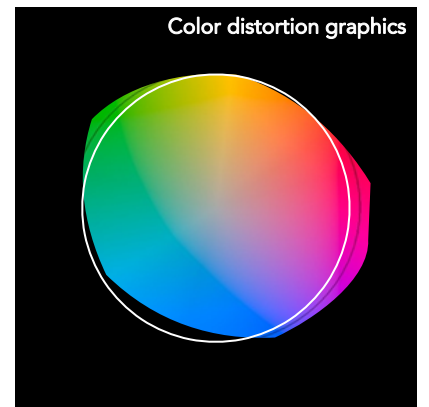
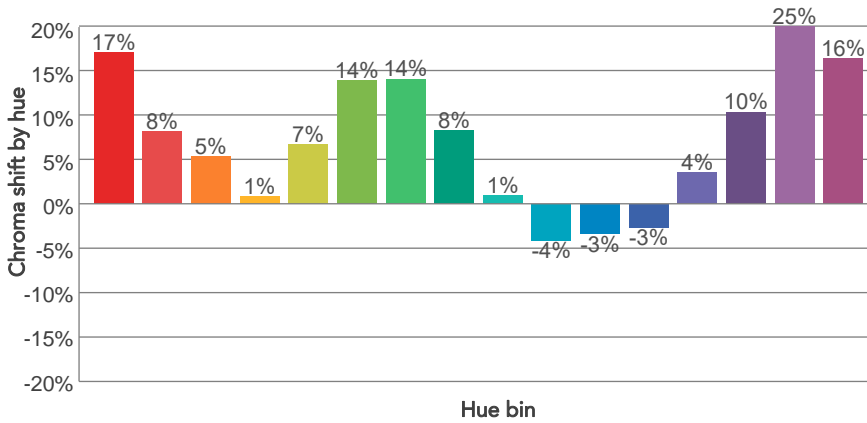
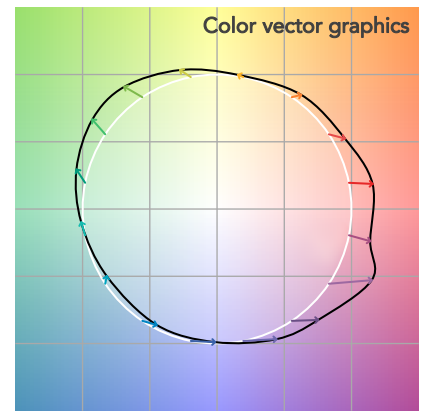
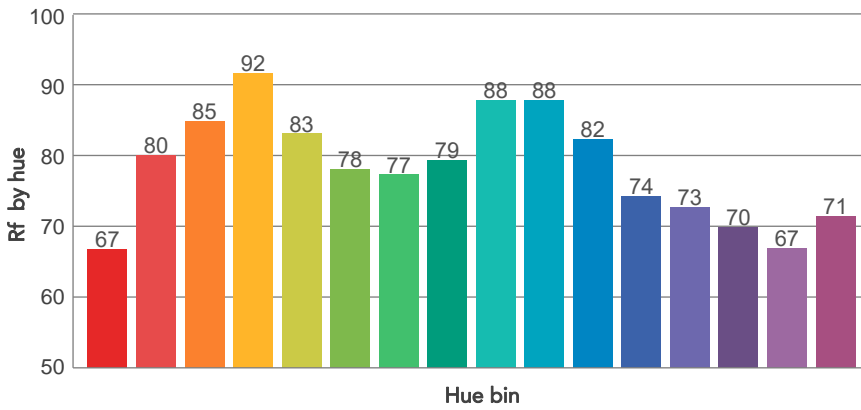
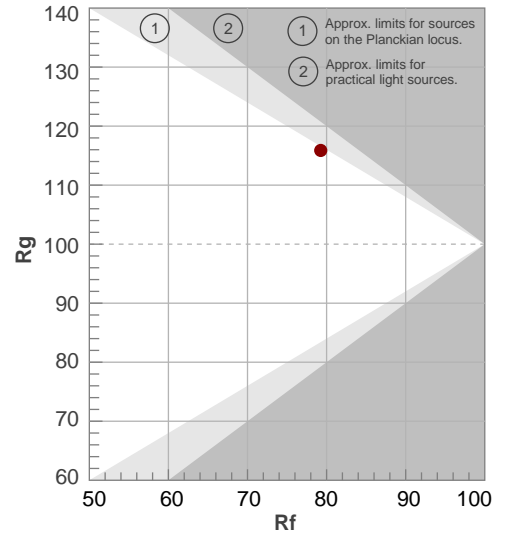
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6046 K	72,3	-32,6	79,3	115,9	84,0	56	0,321	0,342	0,0028

TM30 DETAILS

Rf 79,3
Fidelity index Rf

Rg 115,9
Gammut index

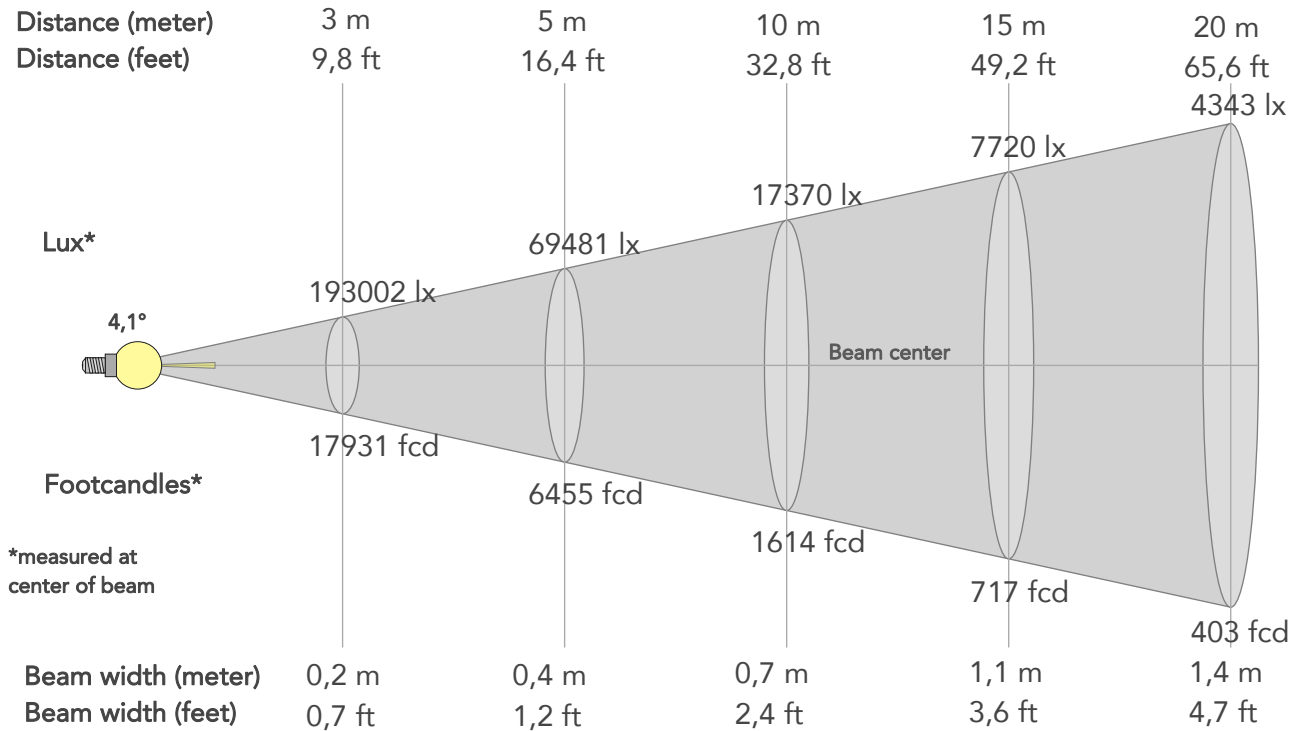
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	67	17%	-4%
2	80	8%	-9%
3	85	5%	-5%
4	92	1%	4%
5	83	7%	7%
6	78	14%	7%
7	77	14%	-4%
8	79	8%	-8%
9	88	1%	-10%
10	88	-4%	-4%
11	82	-3%	11%
12	74	-3%	18%
13	73	4%	24%
14	70	10%	17%
15	67	25%	20%
16	71	16%	-1%



BEAM DETAILS



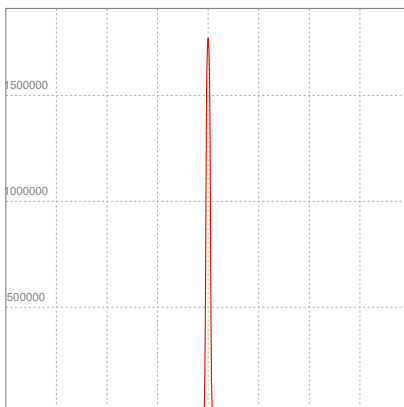
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,1°	6,2°	6,9°	100,0%	99,9%



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	1737022lx	434256lx	193002lx	108564lx	69481lx	30880lx	17370lx	7720lx	4343lx	2779lx	1930lx	1086lx	695lx
Footcand.	161375fcd	40344fcd	17931fcd	10086fcd	6455fcd	2869fcd	1614fcd	717fcd	403fcd	258fcd	179fcd	101fcd	65fcd
Beam wid.	0,1m	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1,1m	1,4m	1,8m	2,2m	2,9m	3,6m
Beam wid.	0,2ft	0,5ft	0,7ft	0,9ft	1,2ft	1,8ft	2,4ft	3,6ft	4,7ft	5,9ft	7,1ft	9,5ft	11,8ft

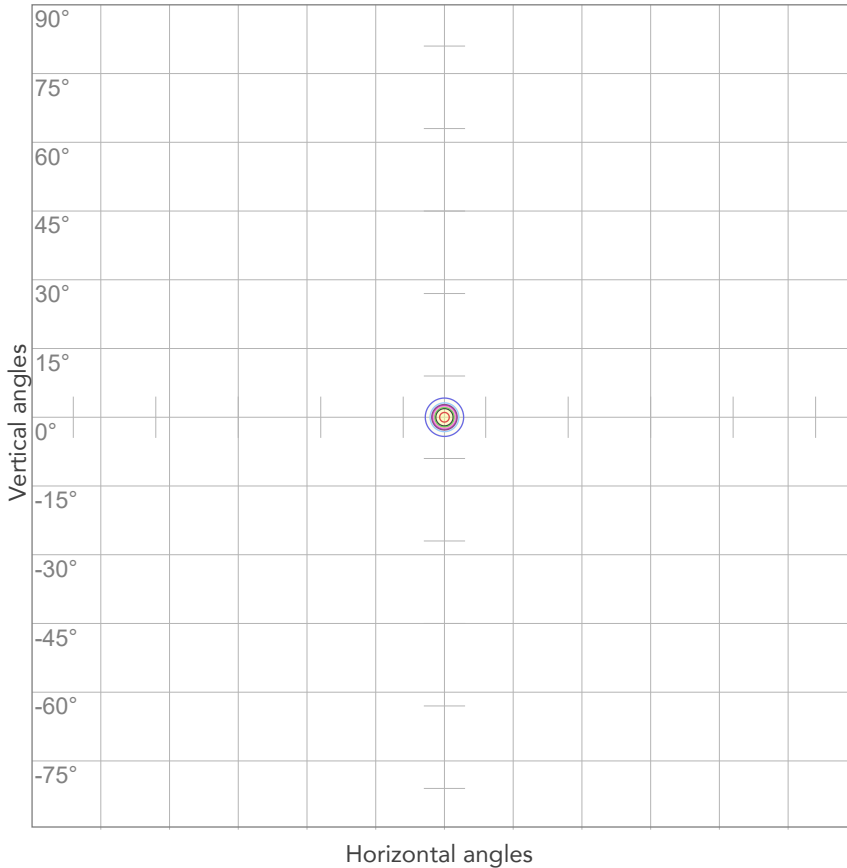
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	3,89A	831,2W	10lm/W

ISO CANDELA DIAGRAM



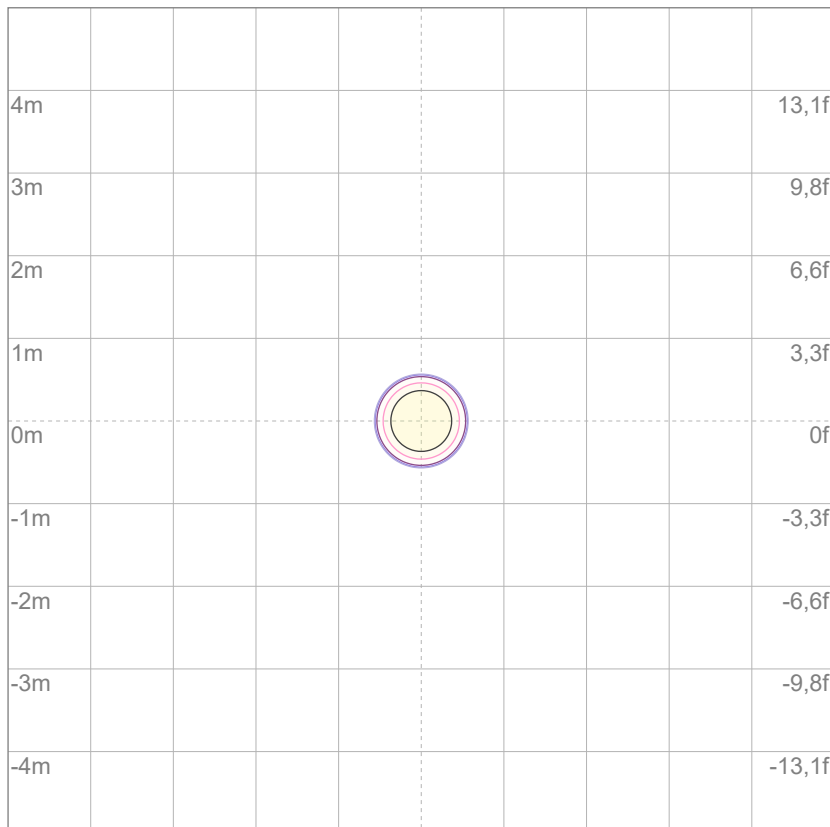
10%	173702 cd
20%	347404 cd
30%	521107 cd
40%	694809 cd
50%	868511 cd
60%	1042213 cd
70%	1215916 cd
80%	1389618 cd

Conditions:

Number of c-planes: 2

Candela at center: 1737022 cd

ISO LUX DIAGRAM



3%	521 lx
5%	869 lx
10%	1737 lx
30%	5211 lx
50%	8685 lx

Conditions:

Number of c-planes: 2

Lux at center: 17,4K lx

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

Mounting height: 10 meters (33 feet)