

# Photometric Test Report



## Diamond 19

19x15 W moving LED wash  
with pixel effects

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Color temperature 5600K

Beam angle Max Zoom 80

Beam angle Med Zoom 85

Beam angle Min Zoom 90

## TESTING PROCESS

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

### Prolights measurement instrument

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

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

### Prolights measurement software

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

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



Total lumen output:

3811 lm

Peak candela output:

21003 cd

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

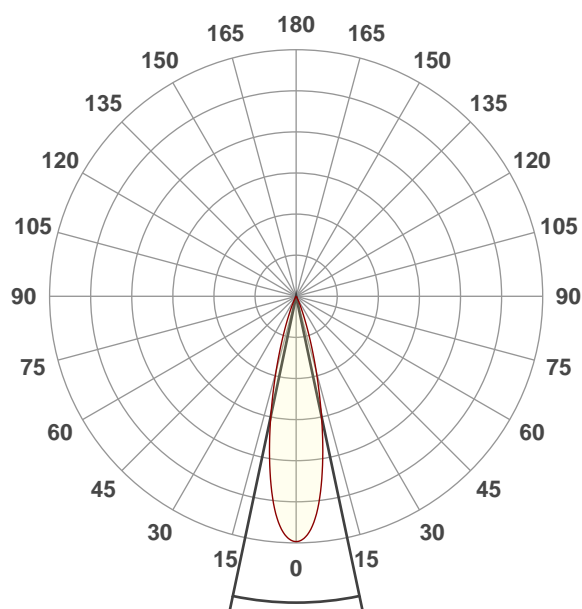
Full on

Operator:

Paolo Carvone

Date and time:

19/12/2019 16:03:54

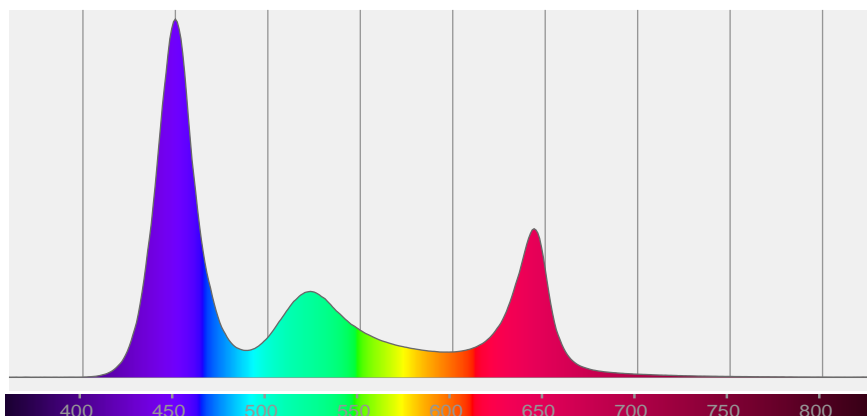


Beam angle 50%: 23,9°

Field angle 10%: 40,9°

Cut off angle 2.5%: 51,8°

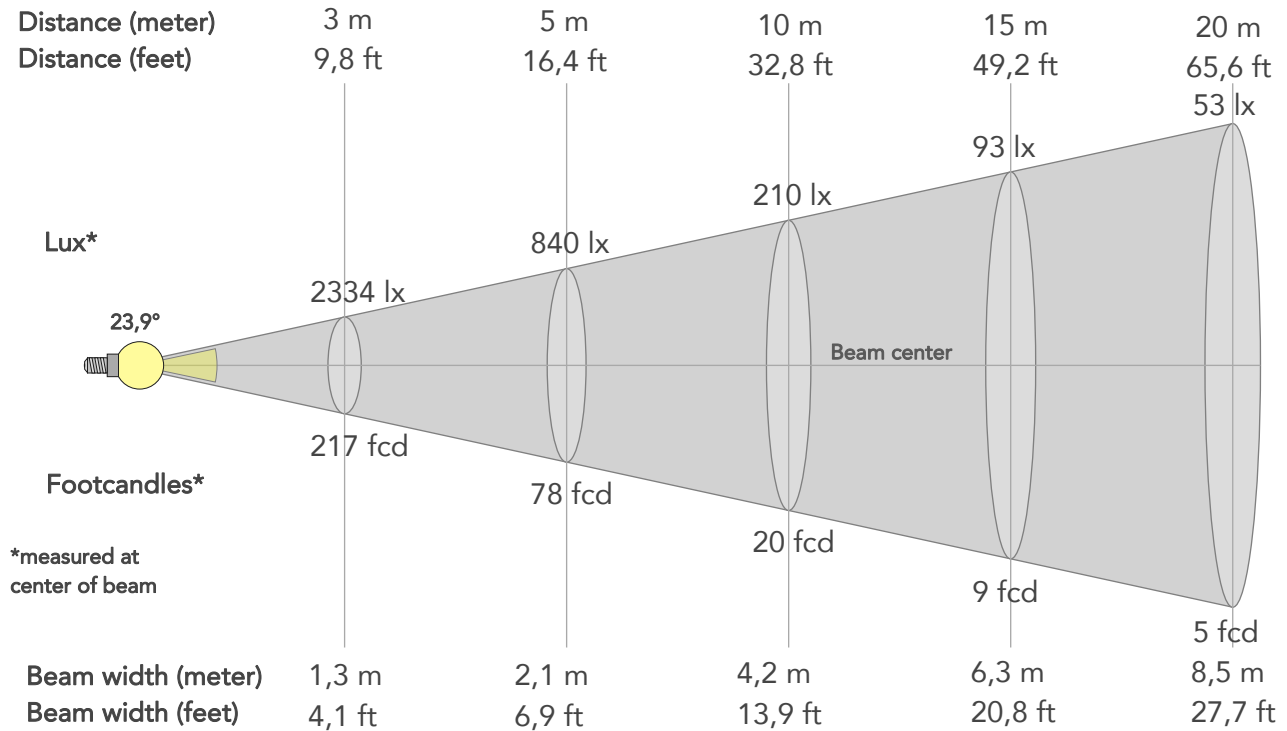
## Spectra



## BEAM DETAILS



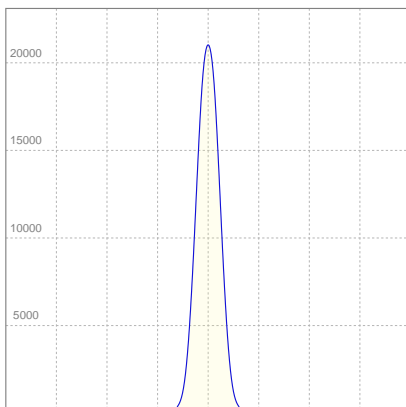
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,9°	40,9°	51,8°	100,0%	100,0%



### 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	21003lx	5251lx	2334lx	1313lx	840lx	373lx	210lx	93lx	53lx	34lx	23lx	13lx	8lx
Footcand.	1951fcd	488fcd	217fcd	122fcd	78fcd	35fcd	20fcd	9fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,2m	4,2m	6,3m	8,5m	10,6m	12,7m	16,9m	21,1m
Beam wid.	1,4ft	2,8ft	4,1ft	5,5ft	6,9ft	10,4ft	13,9ft	20,8ft	27,7ft	34,7ft	41,6ft	55,5ft	69,3ft

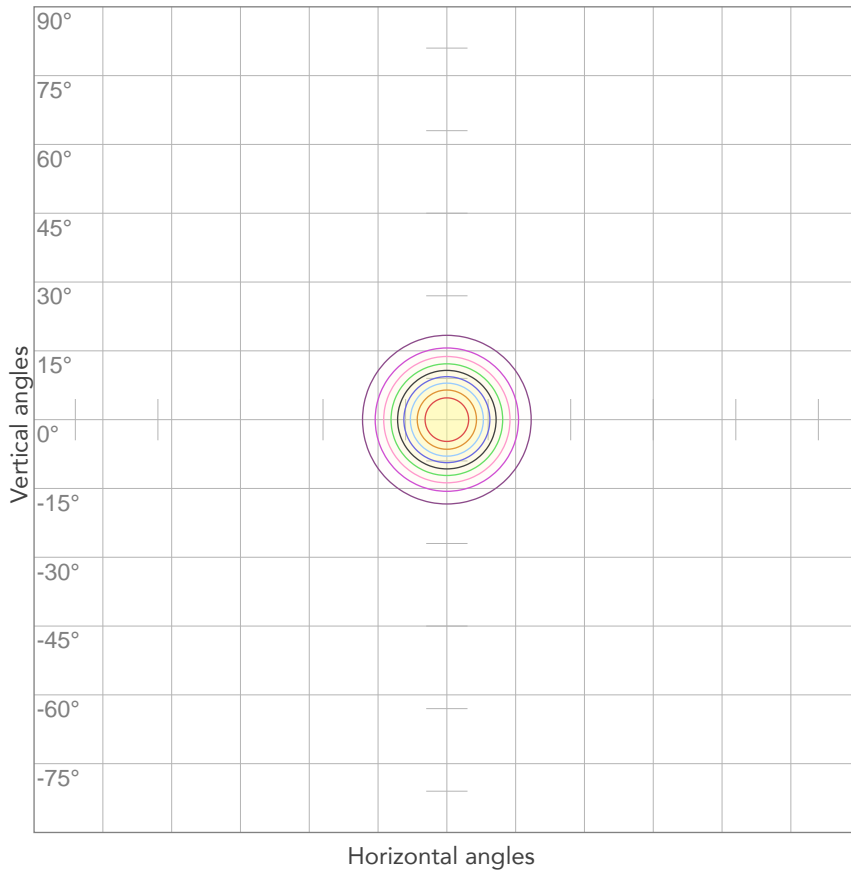
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,30A	277,4W	14lm/W

## ISO CANDELA DIAGRAM



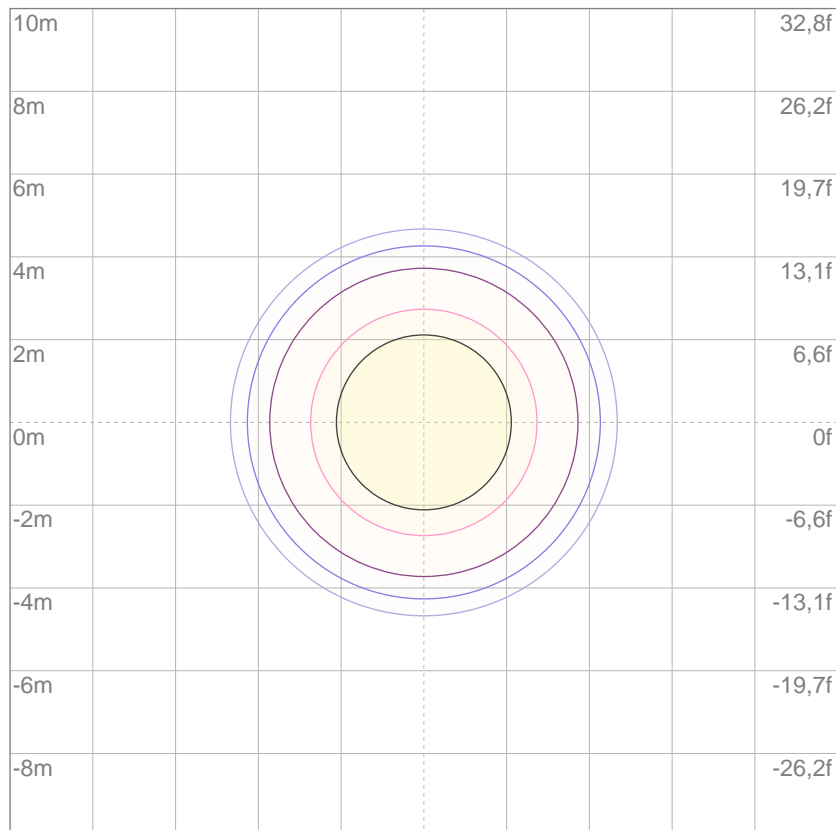
10%	2100 cd
20%	4201 cd
30%	6301 cd
40%	8401 cd
50%	10501 cd
60%	12602 cd
70%	14702 cd
80%	16802 cd

### Conditions:

Number of c-planes: 2

Candela at center: 21003 cd

## ISO LUX DIAGRAM



3%	6,30 lx
5%	10,5 lx
10%	21,0 lx
30%	63,0 lx
50%	105 lx

### Conditions:

Number of c-planes: 2

Lux at center: 210 lx

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



Total lumen output:

3400 lm

Peak candela output:

91564 cd

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

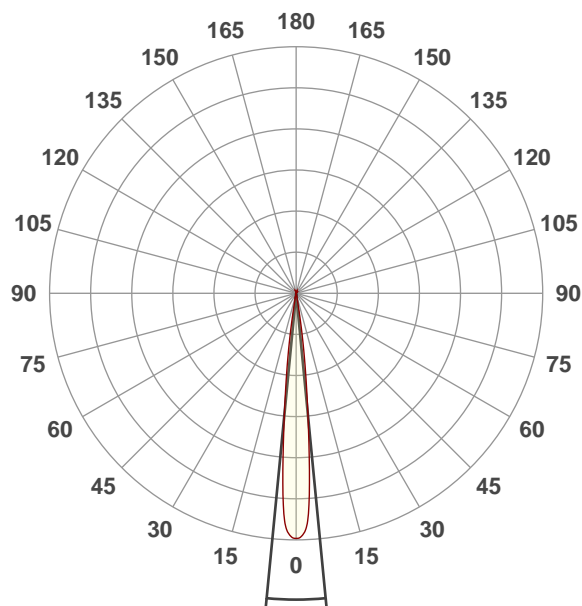
Full on

Operator:

Paolo Carvone

Date and time:

19/12/2019 15:53:49

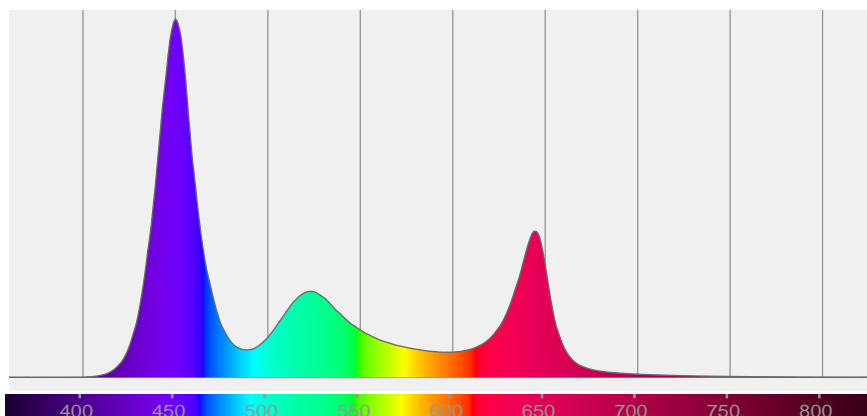


Beam angle 50%: 11,1°

Field angle 10%: 17,9°

Cut off angle 2.5%: 20,4°

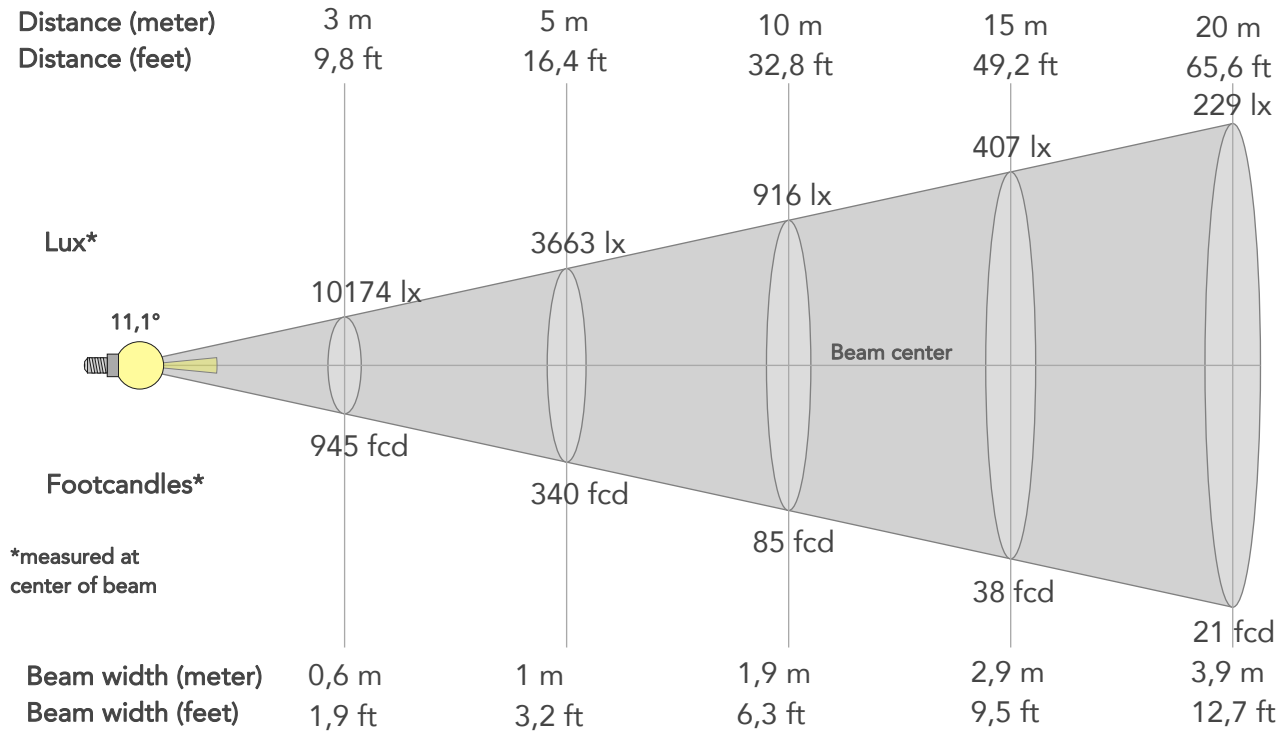
## Spectra



## BEAM DETAILS



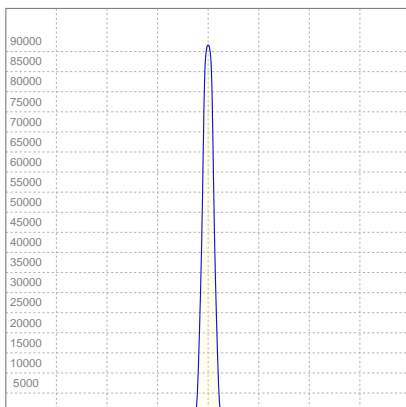
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,1°	17,9°	20,4°	100,0%	100,0%



### 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	91564lx	22891lx	10174lx	5723lx	3663lx	1628lx	916lx	407lx	229lx	147lx	102lx	57lx	37lx
Footcand.	8507fcd	2127fcd	945fcd	532fcd	340fcd	151fcd	85fcd	38fcd	21fcd	14fcd	9fcd	5fcd	3fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	1,9m	2,9m	3,9m	4,8m	5,8m	7,7m	9,7m
Beam wid.	0,6ft	1,3ft	1,9ft	2,5ft	3,2ft	4,8ft	6,3ft	9,5ft	12,7ft	15,9ft	19ft	25,4ft	31,7ft

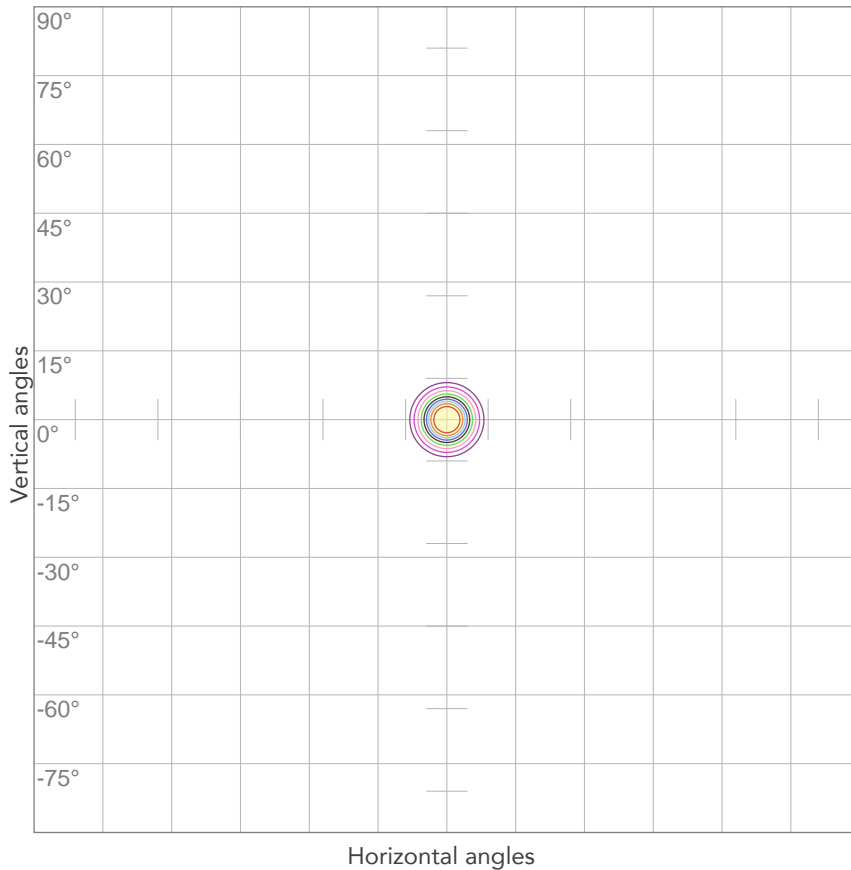
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,31A	277,6W	12lm/W

## ISO CANDELA DIAGRAM



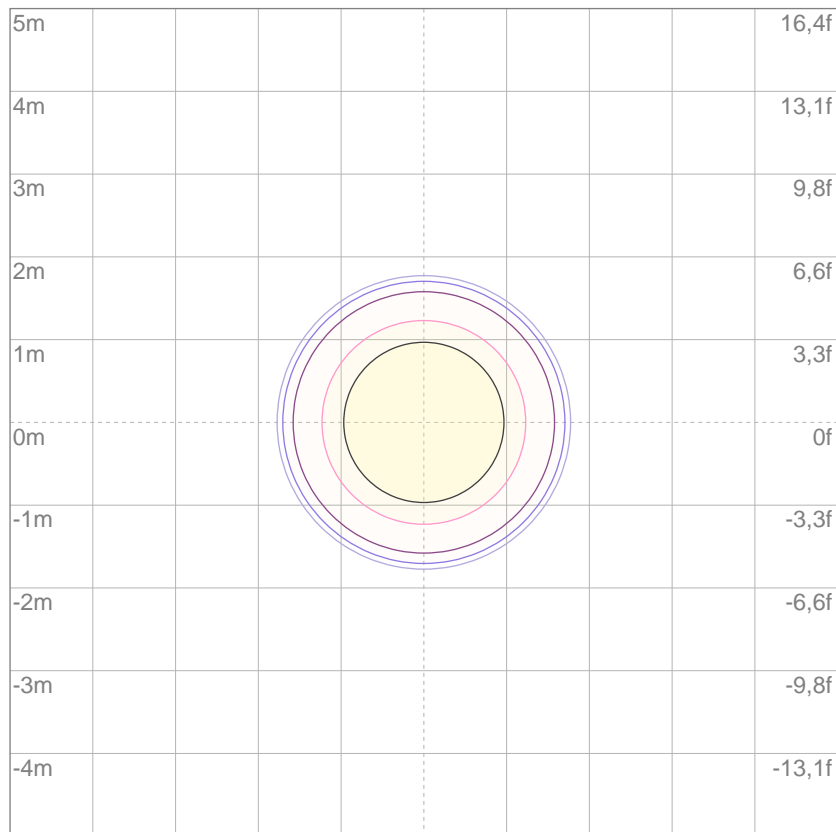
10%	9156 cd
20%	18313 cd
30%	27469 cd
40%	36625 cd
50%	45782 cd
60%	54938 cd
70%	64095 cd
80%	73251 cd

### Conditions:

Number of c-planes: 2

Candela at center: 91564 cd

## ISO LUX DIAGRAM



3%	27,5 lx
5%	45,8 lx
10%	91,6 lx
30%	275 lx
50%	458 lx

### Conditions:

Number of c-planes: 2

Lux at center: 916 lx

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



Total lumen output:

2339 lm

Peak candela output:

139373 cd

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

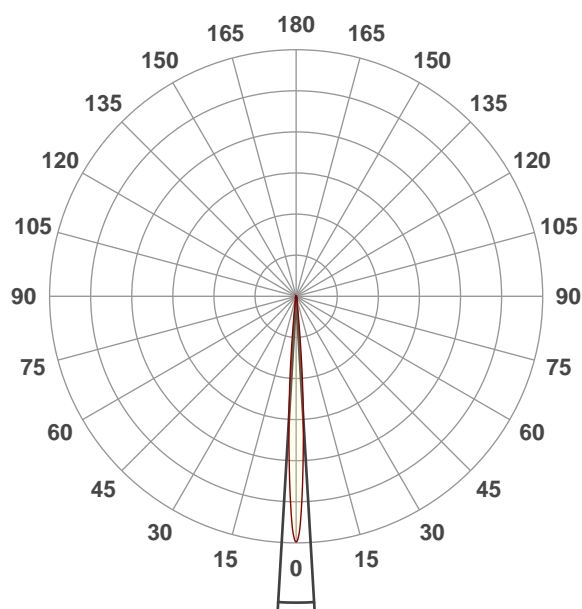
Full on

Operator:

Paolo Carvone

Date and time:

19/12/2019 14:18:44

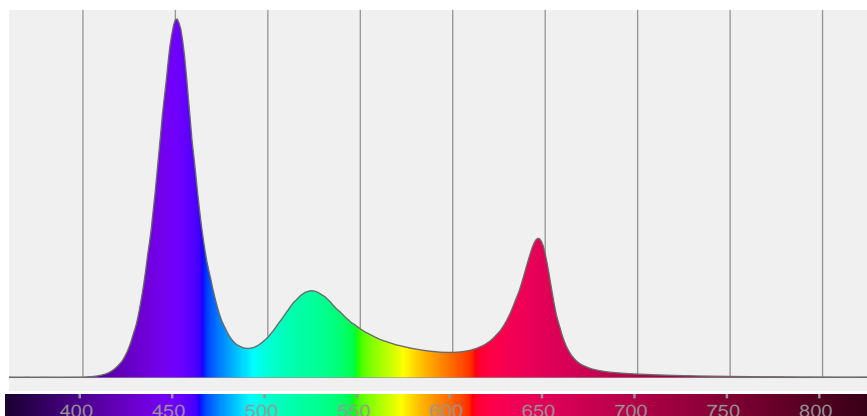


Beam angle 50%: 6,7°

Field angle 10%: 12,3°

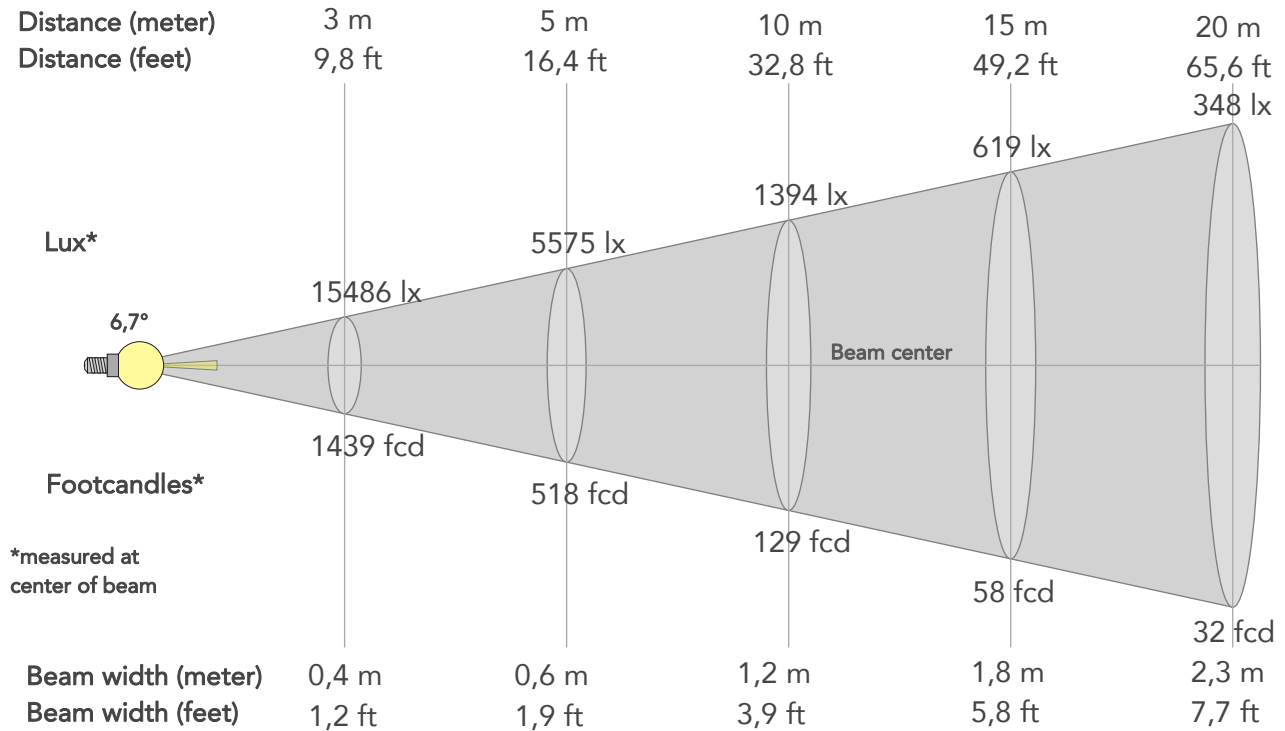
Cut off angle 2.5%: 16,7°

## Spectra



## BEAM DETAILS

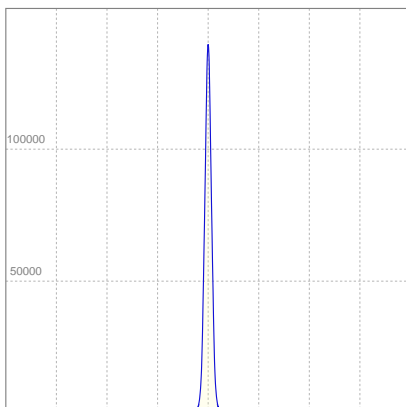
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,7°	12,3°	16,7°	99,1%	98,9%



### 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	139373lx	34843lx	15486lx	8711lx	5575lx	2478lx	1394lx	619lx	348lx	223lx	155lx	87lx	56lx
Footcand.	12948fcd	3237fcd	1439fcd	809fcd	518fcd	230fcd	129fcd	58fcd	32fcd	21fcd	14fcd	8fcd	5fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,3m	2,9m	3,5m	4,7m	5,9m
Beam wid.	0,4ft	0,8ft	1,2ft	1,5ft	1,9ft	2,9ft	3,9ft	5,8ft	7,7ft	9,6ft	11,6ft	15,4ft	19,3ft

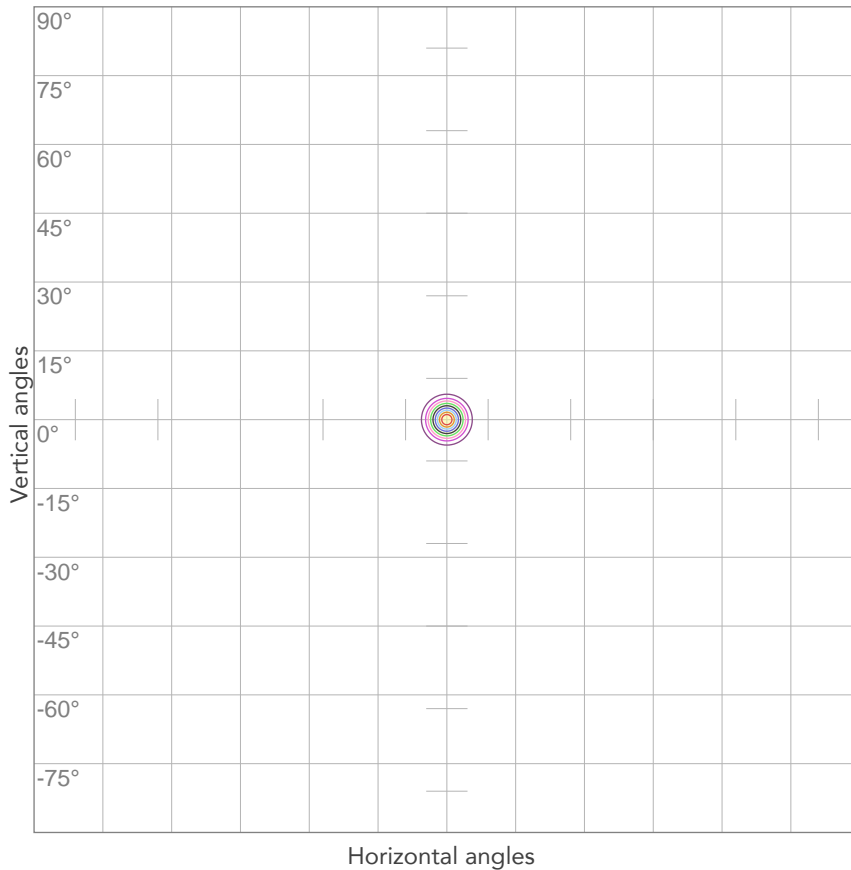
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	1,29A	272,6W	9lm/W

## ISO CANDELA DIAGRAM



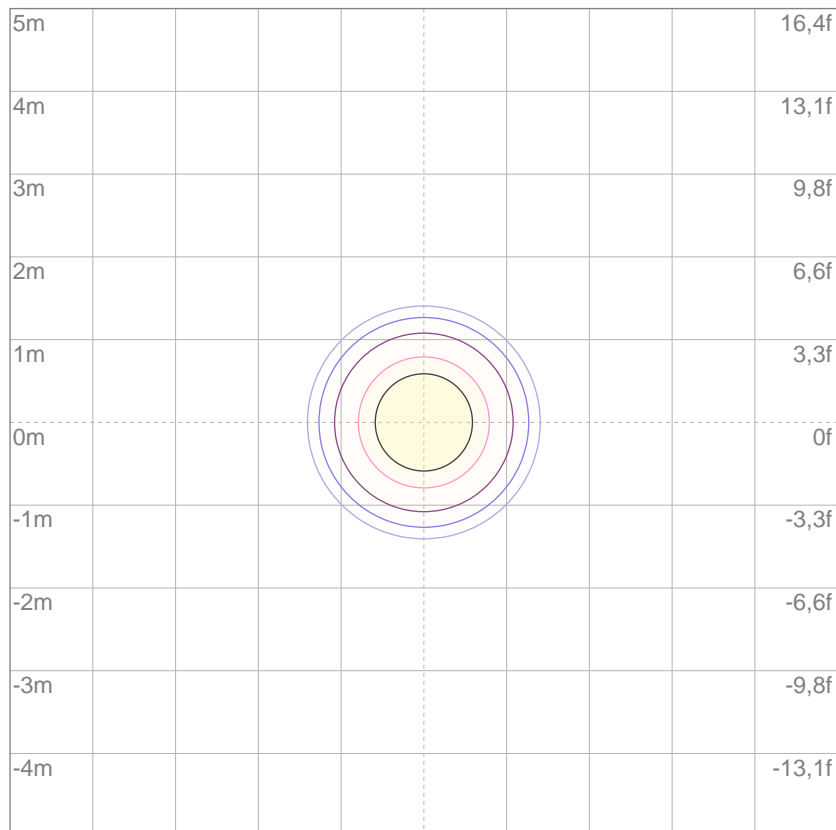
10%	13937 cd
20%	27875 cd
30%	41812 cd
40%	55749 cd
50%	69686 cd
60%	83624 cd
70%	97561 cd
80%	111498 cd

### Conditions:

Number of c-planes: 2

Candela at center: 139373 cd

## ISO LUX DIAGRAM



3%	41,8 lx
5%	69,7 lx
10%	139 lx
30%	418 lx
50%	697 lx

### Conditions:

Number of c-planes: 2

Lux at center: 1394 lx

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



Total lumen output:

654 lm

Peak candela output:

3610 cd

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

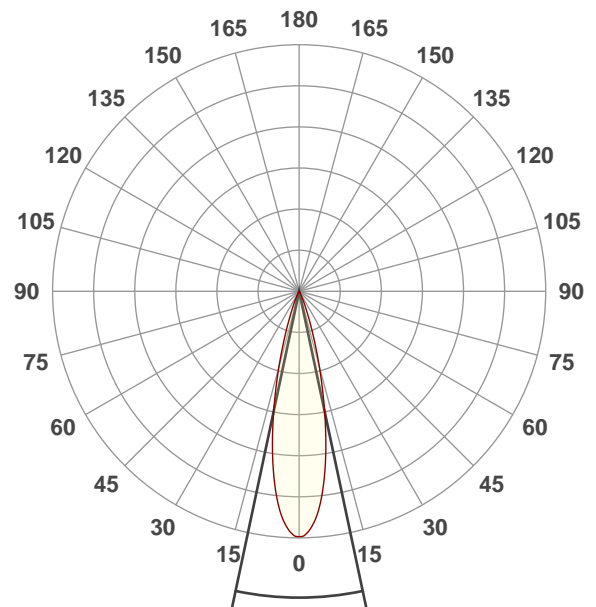
Red

Operator:

Paolo Carvone

Date and time:

19/12/2019 16:06:55

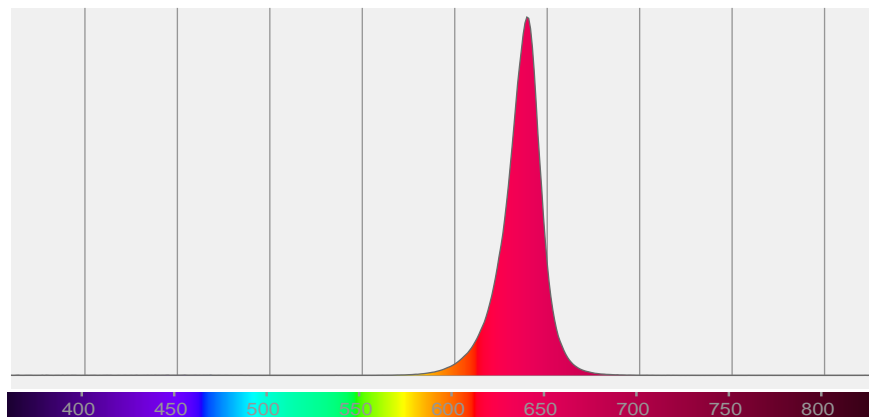


Beam angle 50%: 24°

Field angle 10%: 40,8°

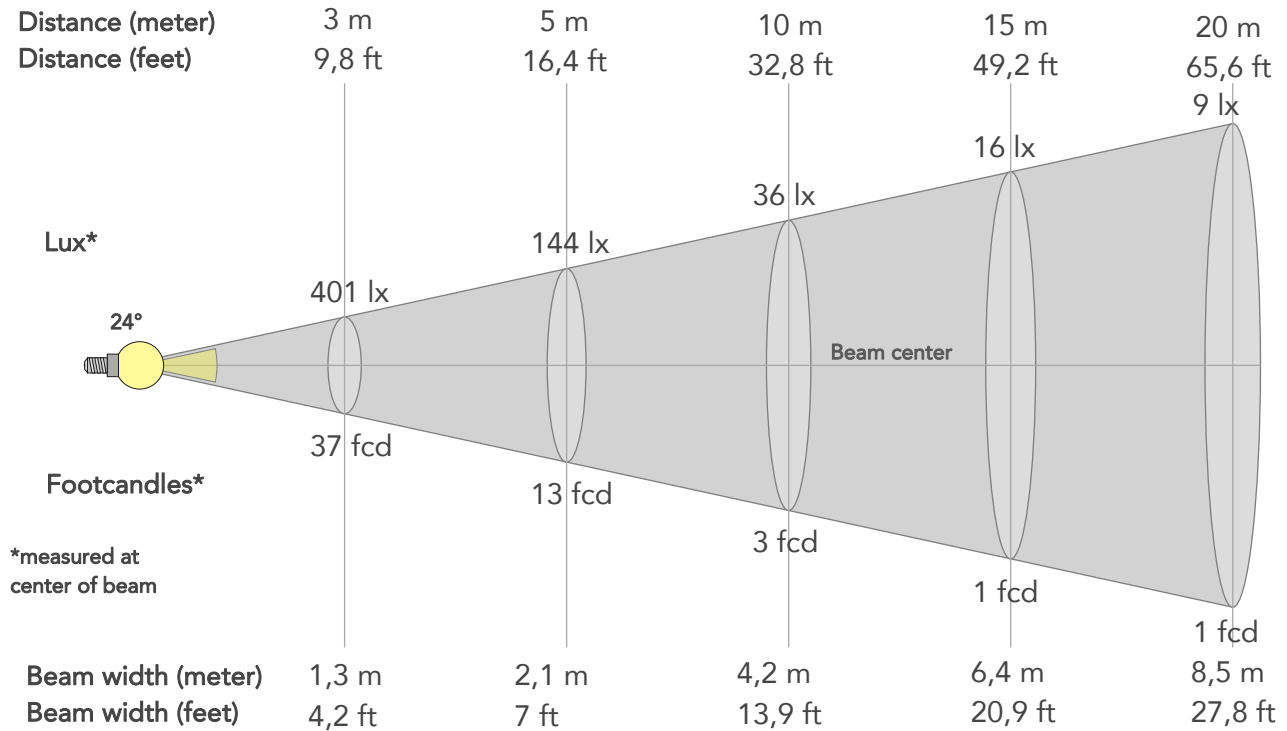
Cut off angle 2.5%: 51,7°

## Spectra



## BEAM DETAILS

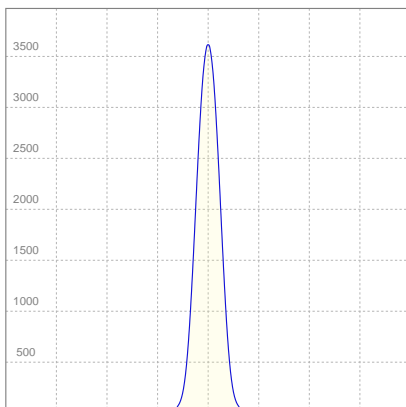
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
24°	40,8°	51,7°	100,0%	100,0%



### 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	3610lx	902lx	401lx	226lx	144lx	64lx	36lx	16lx	9lx	6lx	4lx	2lx	1lx
Footcand.	335fcd	84fcd	37fcd	21fcd	13fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,2m	4,2m	6,4m	8,5m	10,6m	12,7m	17m	21,2m
Beam wid.	1,4ft	2,8ft	4,2ft	5,6ft	7ft	10,4ft	13,9ft	20,9ft	27,8ft	34,8ft	41,7ft	55,7ft	69,6ft

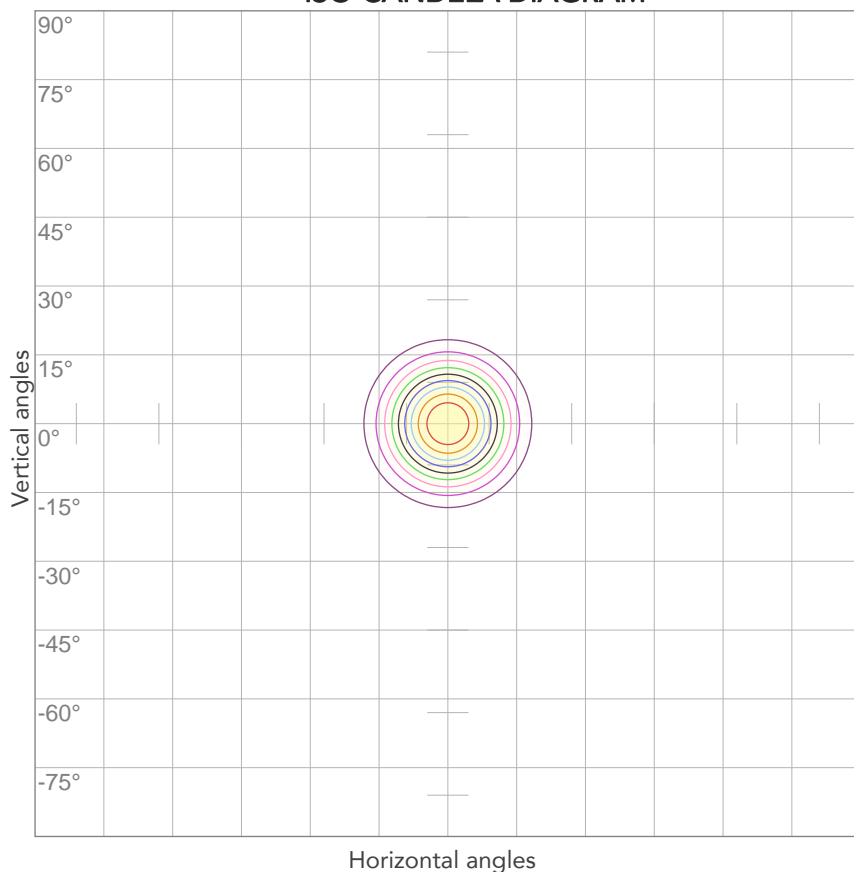
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,393A	70,8W	9lm/W

## ISO CANDELA DIAGRAM



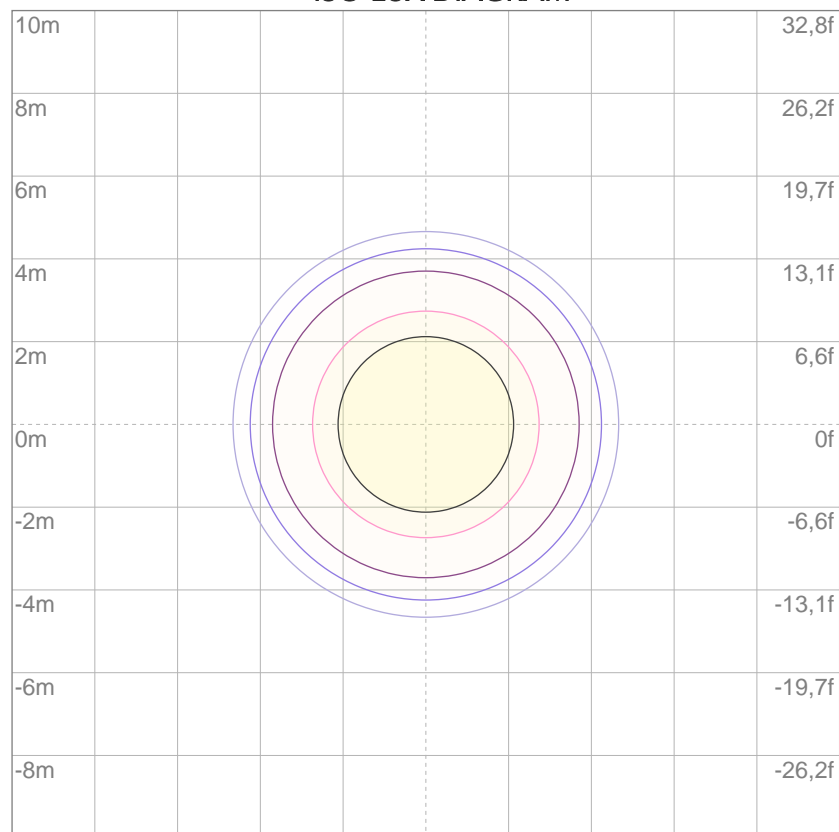
10%	361 cd
20%	722 cd
30%	1083 cd
40%	1444 cd
50%	1805 cd
60%	2166 cd
70%	2527 cd
80%	2888 cd

### Conditions:

Number of c-planes: 2

Candela at center: 3610 cd

## ISO LUX DIAGRAM



3%	1,08 lx
5%	1,80 lx
10%	3,61 lx
30%	10,8 lx
50%	18,0 lx

### Conditions:

Number of c-planes: 2

Lux at center: 36,1 lx

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



Total lumen output:

601 lm

Peak candela output:

15674 cd

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

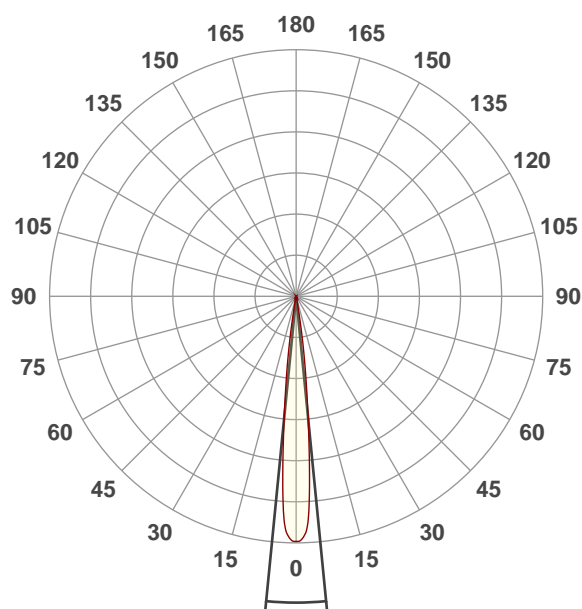
Red

Operator:

Paolo Carvone

Date and time:

19/12/2019 15:58:38

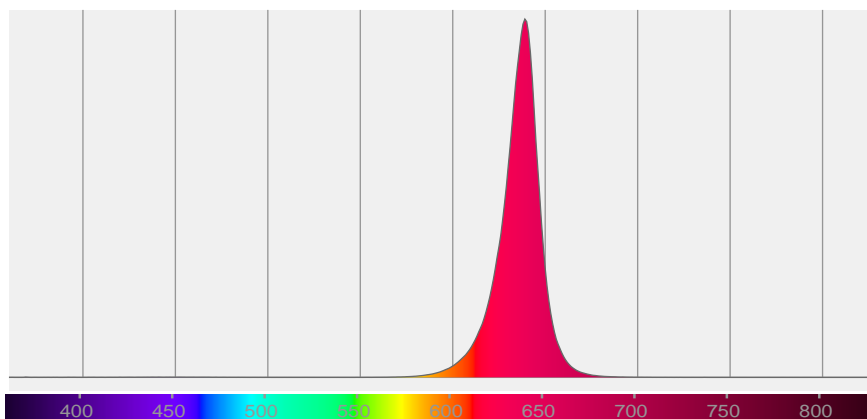


Beam angle 50%: 11,2°

Field angle 10%: 18,3°

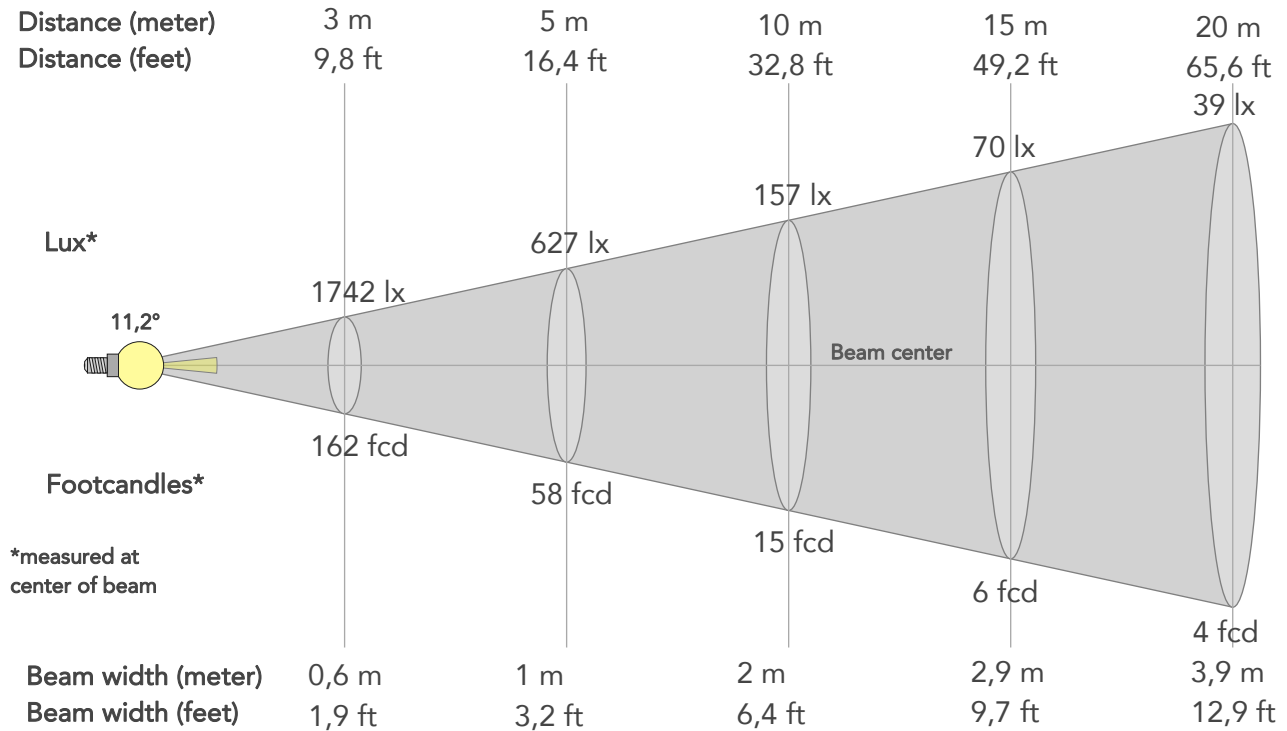
Cut off angle 2.5%: 20,7°

## Spectra



## BEAM DETAILS

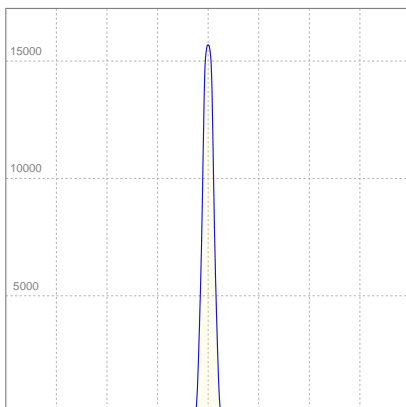
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,2°	18,3°	20,7°	100,0%	100,0%



### 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	15674lx	3918lx	1742lx	980lx	627lx	279lx	157lx	70lx	39lx	25lx	17lx	10lx	6lx
Footcand.	1456fcd	364fcd	162fcd	91fcd	58fcd	26fcd	15fcd	6fcd	4fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	2m	2,9m	3,9m	4,9m	5,9m	7,9m	9,8m
Beam wid.	0,6ft	1,3ft	1,9ft	2,6ft	3,2ft	4,8ft	6,4ft	9,7ft	12,9ft	16,1ft	19,3ft	25,8ft	32,2ft

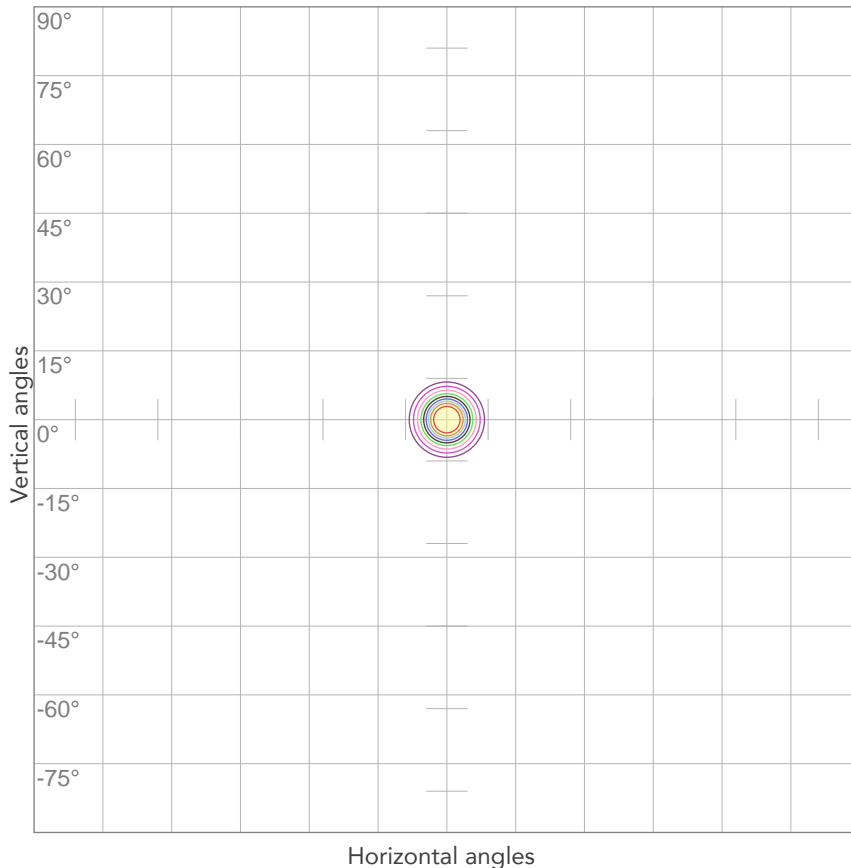
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,393A	70,8W	8lm/W

## ISO CANDELA DIAGRAM



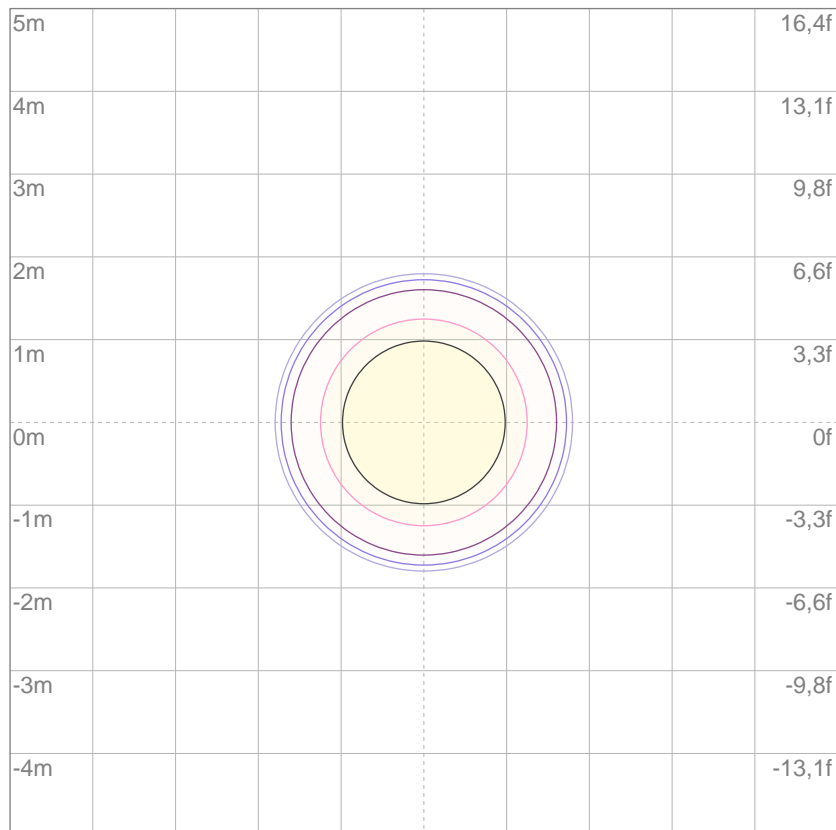
10%	1567 cd
20%	3135 cd
30%	4702 cd
40%	6270 cd
50%	7837 cd
60%	9404 cd
70%	10972 cd
80%	12539 cd

### Conditions:

Number of c-planes: 2

Candela at center: 15674 cd

## ISO LUX DIAGRAM



3%	4,70 lx
5%	7,84 lx
10%	15,7 lx
30%	47,0 lx
50%	78,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 157 lx

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



Total lumen output:

378 lm

Peak candela output:

24348 cd

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

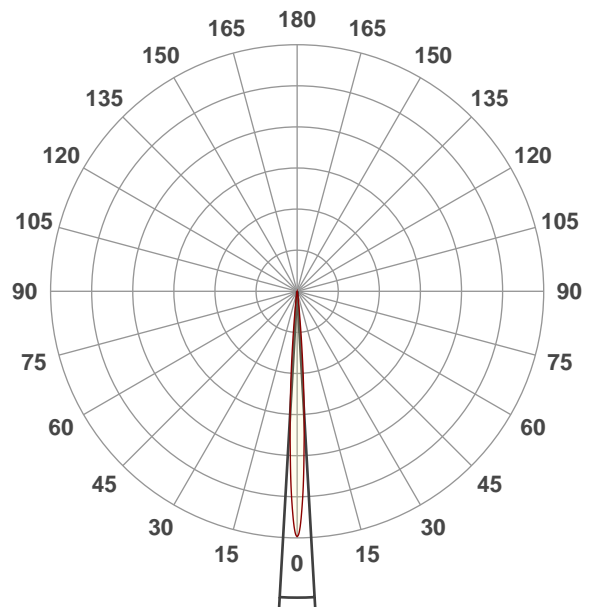
Red

Operator:

Paolo Carvone

Date and time:

19/12/2019 14:21:14

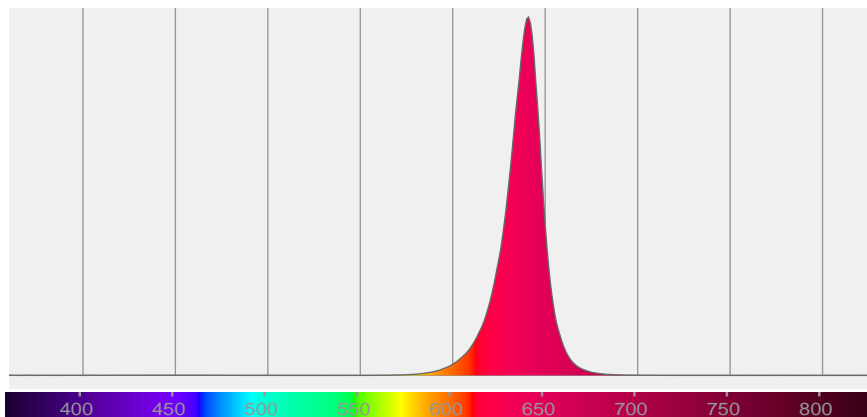


Beam angle 50%: 6,5°

Field angle 10%: 11,9°

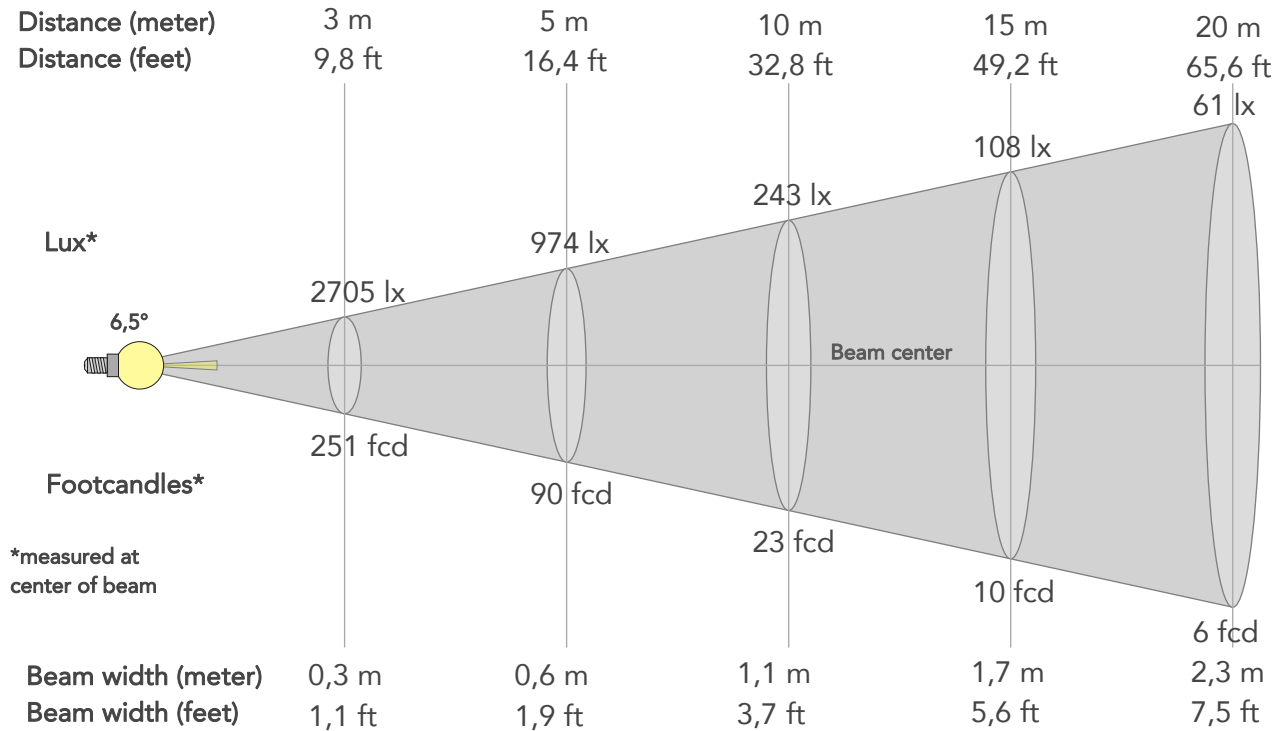
Cut off angle 2.5%: 16°

## Spectra



## BEAM DETAILS

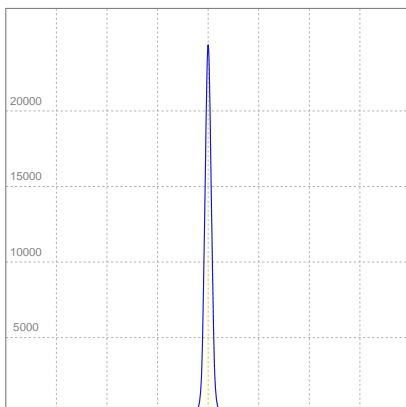
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,5°	11,9°	16°	100,0%	100,0%



### 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	24348lx	6087lx	2705lx	1522lx	974lx	433lx	243lx	108lx	61lx	39lx	27lx	15lx	10lx
Footcand.	2262fcd	565fcd	251fcd	141fcd	90fcd	40fcd	23fcd	10fcd	6fcd	4fcd	3fcd	1fcd	1fcd
Beam wid.	0,1m	0,2m	0,3m	0,5m	0,6m	0,9m	1,1m	1,7m	2,3m	2,9m	3,4m	4,6m	5,7m
Beam wid.	0,4ft	0,8ft	1,1ft	1,5ft	1,9ft	2,8ft	3,7ft	5,6ft	7,5ft	9,4ft	11,2ft	15ft	18,7ft

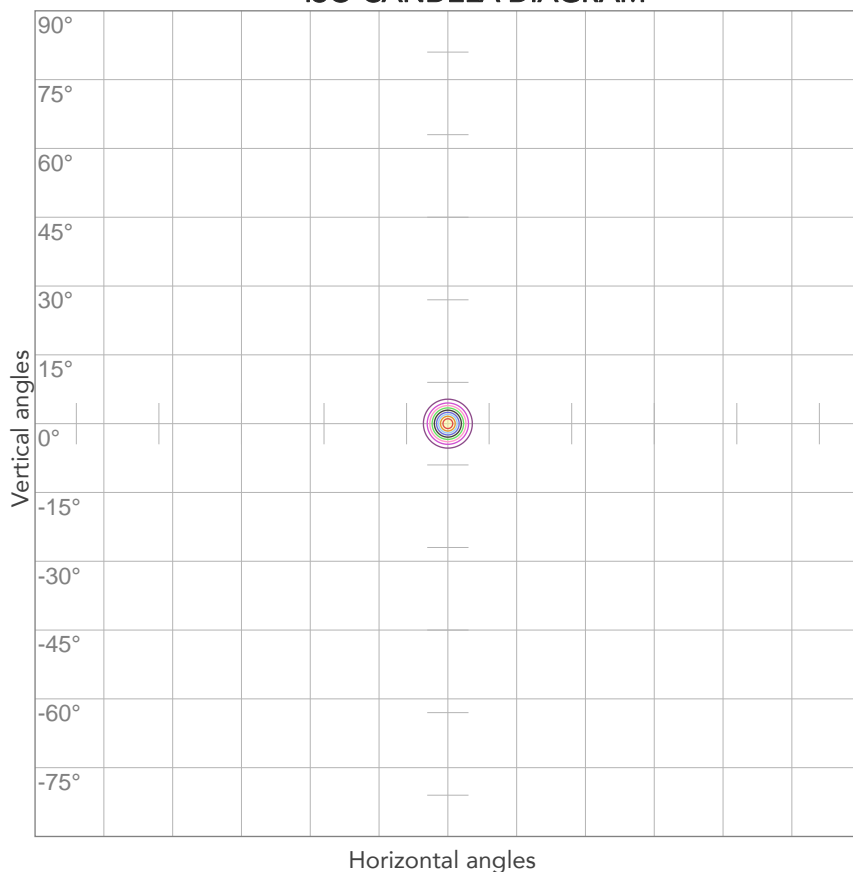
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,393A	70,3W	5lm/W

## ISO CANDELA DIAGRAM



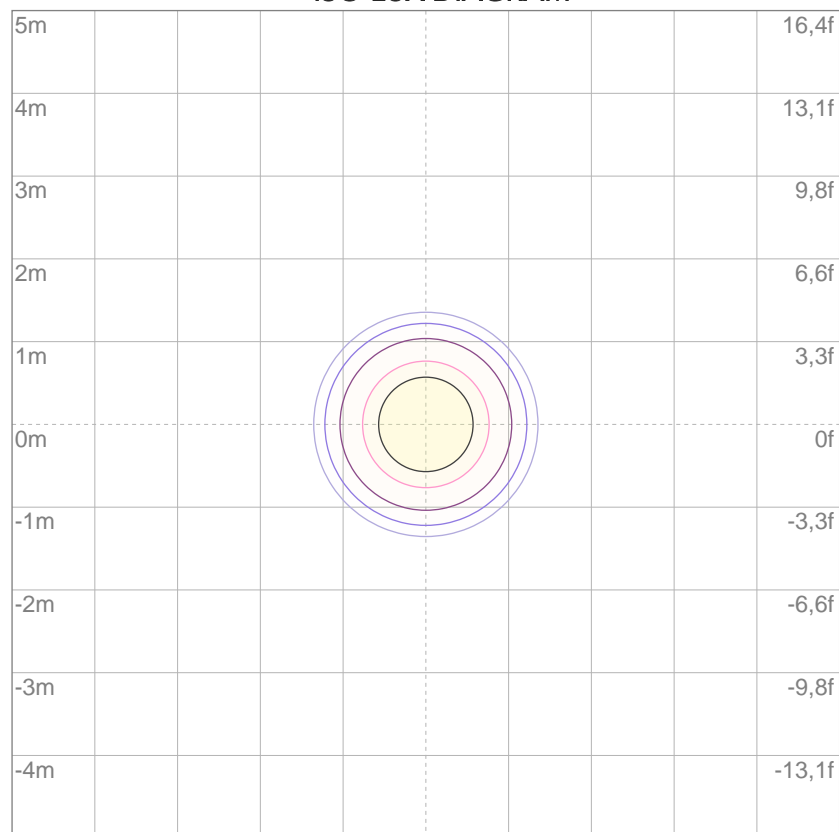
10%	2435 cd
20%	4870 cd
30%	7304 cd
40%	9739 cd
50%	12174 cd
60%	14609 cd
70%	17043 cd
80%	19478 cd

### Conditions:

Number of c-planes: 2

Candela at center: 24348 cd

## ISO LUX DIAGRAM



3%	7,30 lx
5%	12,2 lx
10%	24,3 lx
30%	73,0 lx
50%	122 lx

### Conditions:

Number of c-planes: 2

Lux at center: 243 lx

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



Total lumen output:

1341 lm

Peak candela output:

7520 cd

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

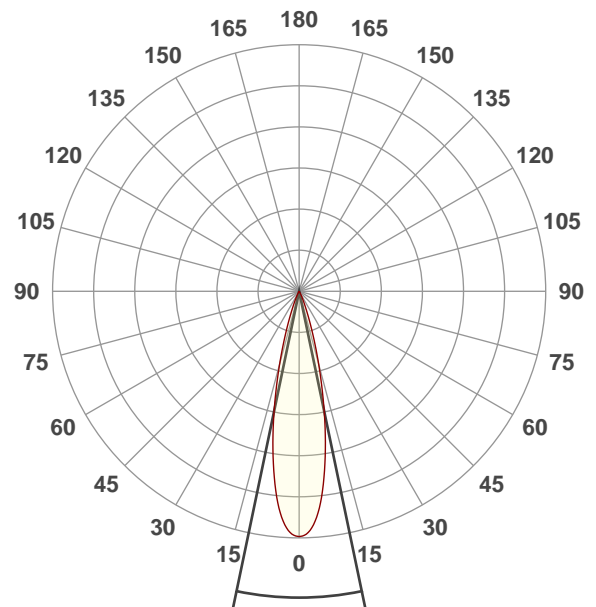
Green

Operator:

Paolo Carvone

Date and time:

19/12/2019 16:05:28

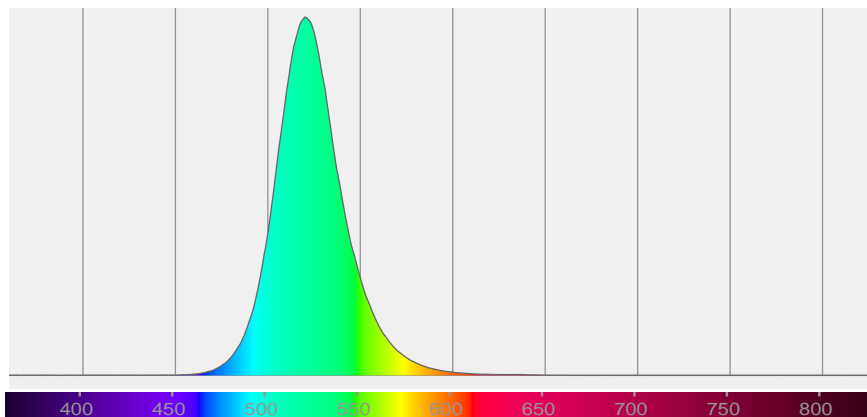


Beam angle 50%: 23,6°

Field angle 10%: 40,6°

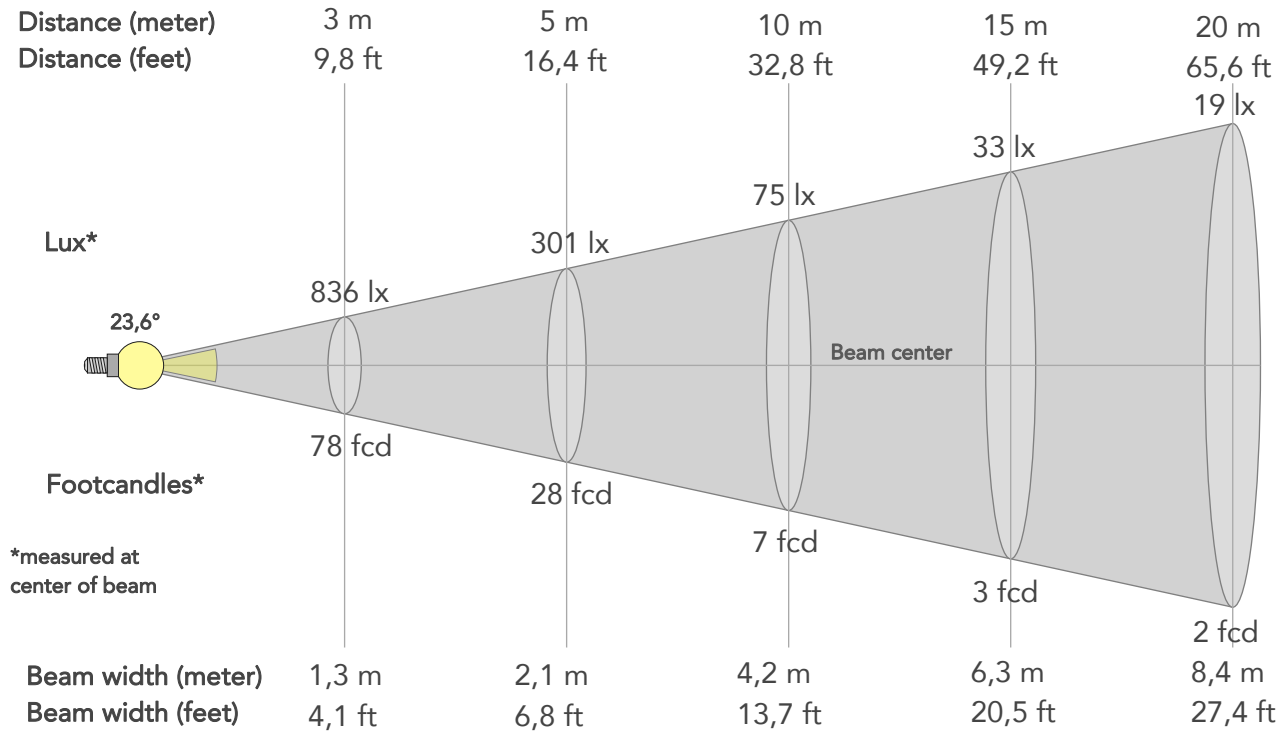
Cut off angle 2.5%: 51,7°

## Spectra



## BEAM DETAILS

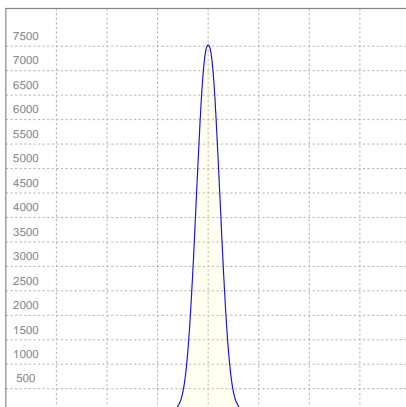
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,6°	40,6°	51,7°	100,0%	100,0%



### 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	7520lx	1880lx	836lx	470lx	301lx	134lx	75lx	33lx	19lx	12lx	8lx	5lx	3lx
Footcand.	699fcd	175fcd	78fcd	44fcd	28fcd	12fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,1m	4,2m	6,3m	8,4m	10,4m	12,5m	16,7m	20,9m
Beam wid.	1,4ft	2,8ft	4,1ft	5,5ft	6,8ft	10,3ft	13,7ft	20,5ft	27,4ft	34,2ft	41,1ft	54,8ft	68,5ft

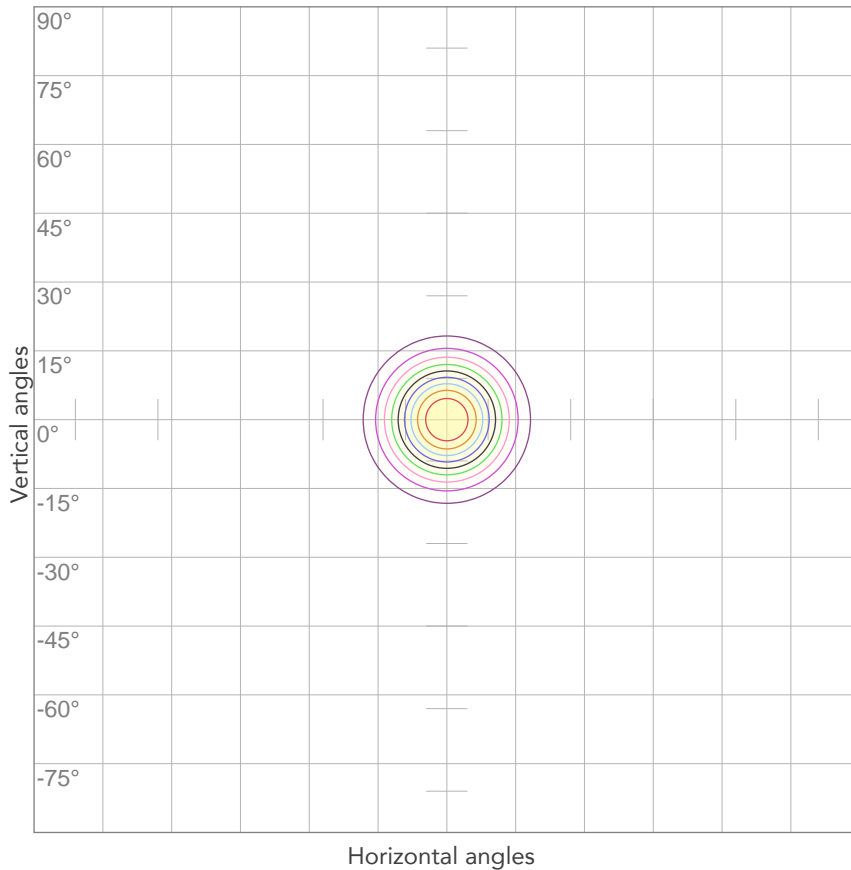
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Efficiency
224V	0,469A	89,4W	15lm/W

## ISO CANDELA DIAGRAM



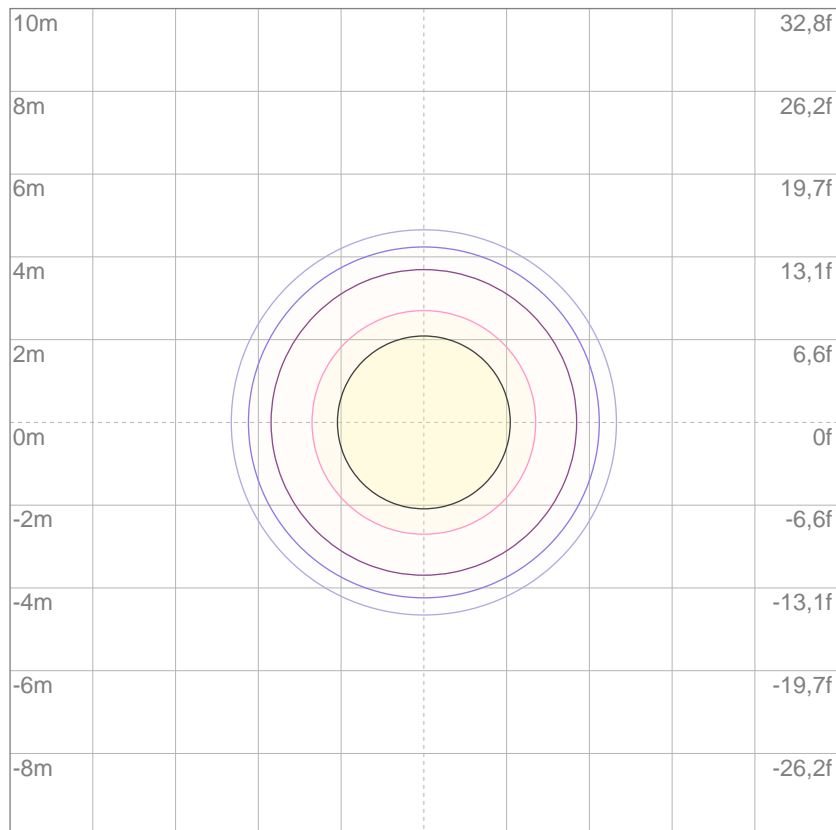
10%	752 cd
20%	1504 cd
30%	2256 cd
40%	3008 cd
50%	3760 cd
60%	4512 cd
70%	5264 cd
80%	6016 cd

### Conditions:

Number of c-planes: 2

Candela at center: 7520 cd

## ISO LUX DIAGRAM



3%	2,26 lx
5%	3,76 lx
10%	7,52 lx
30%	22,6 lx
50%	37,6 lx

### Conditions:

Number of c-planes: 2

Lux at center: 75,2 lx

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



Total lumen output:

1220 lm

Peak candela output:

33326 cd

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

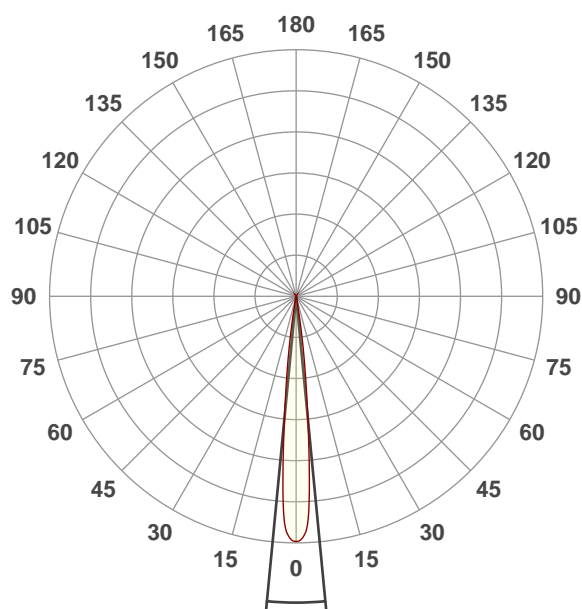
Green

Operator:

Paolo Carvone

Date and time:

19/12/2019 15:57:09

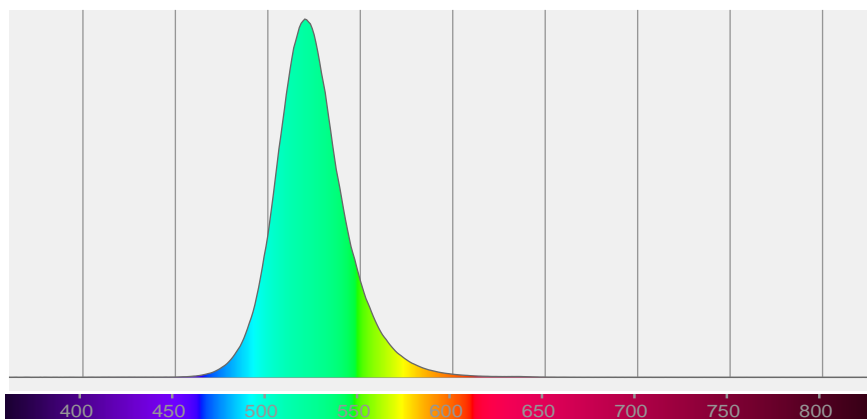


Beam angle 50%: 10,9°

Field angle 10%: 17,8°

Cut off angle 2.5%: 20,3°

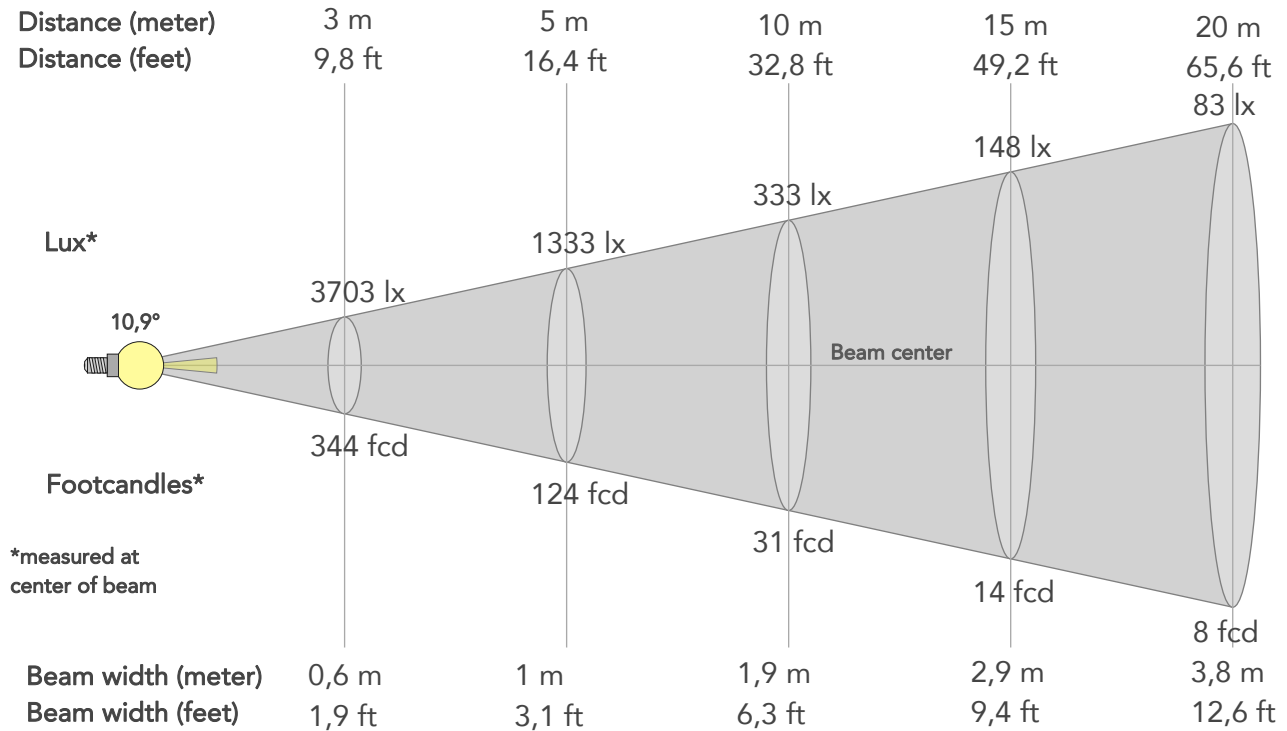
## Spectra



## BEAM DETAILS



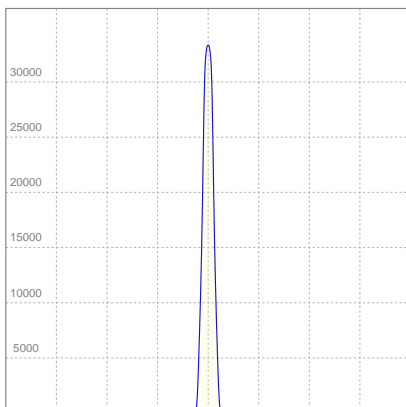
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10,9°	17,8°	20,3°	100,0%	100,0%



### 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	33326lx	8332lx	3703lx	2083lx	1333lx	592lx	333lx	148lx	83lx	53lx	37lx	21lx	13lx
Footcand.	3096fcd	774fcd	344fcd	194fcd	124fcd	55fcd	31fcd	14fcd	8fcd	5fcd	3fcd	2fcd	1fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,4m	1,9m	2,9m	3,8m	4,8m	5,7m	7,7m	9,6m
Beam wid.	0,6ft	1,3ft	1,9ft	2,5ft	3,1ft	4,7ft	6,3ft	9,4ft	12,6ft	15,7ft	18,9ft	25,1ft	31,4ft

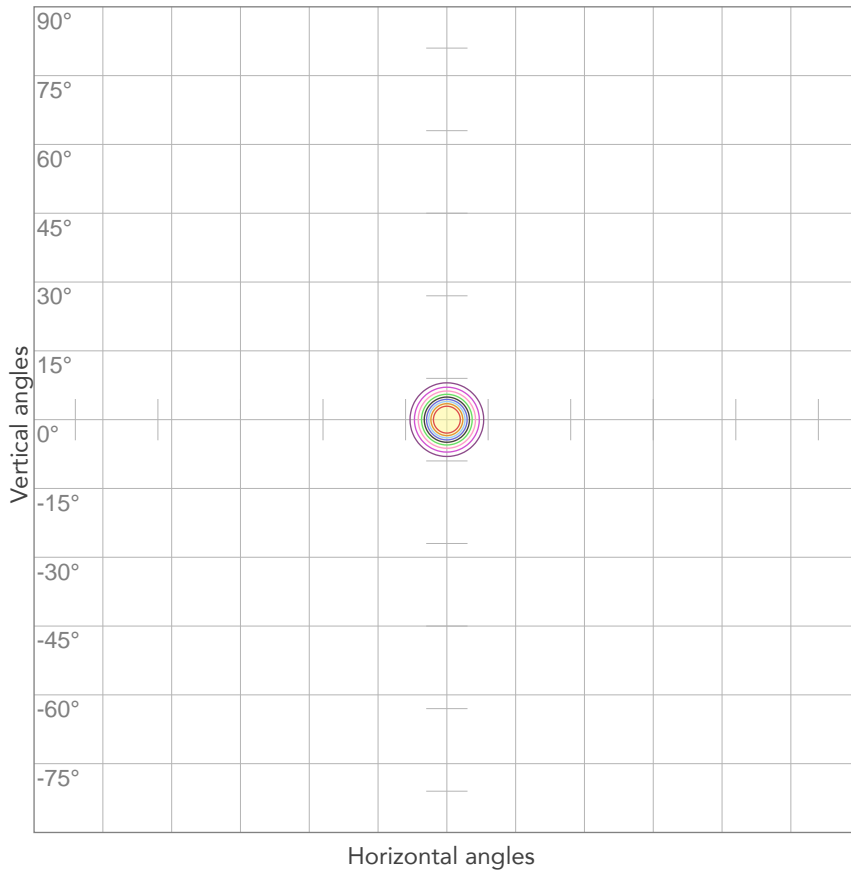
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,470A	89,6W	14lm/W

## ISO CANDELA DIAGRAM



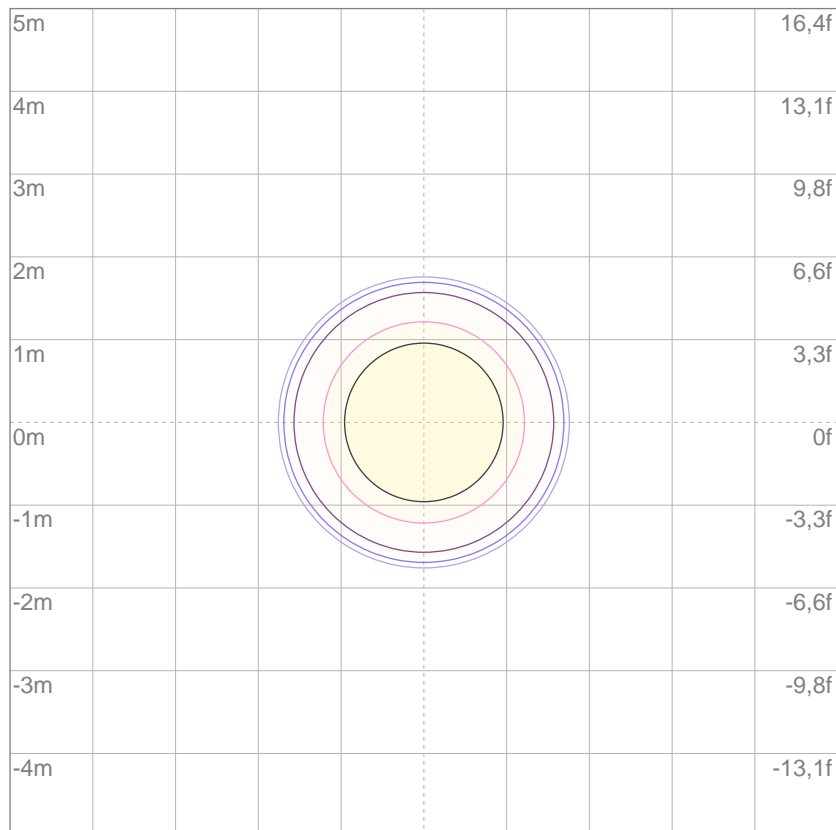
10%	3333 cd
20%	6665 cd
30%	9998 cd
40%	13330 cd
50%	16663 cd
60%	19996 cd
70%	23328 cd
80%	26661 cd

### Conditions:

Number of c-planes: 2

Candela at center: 33326 cd

## ISO LUX DIAGRAM



3%	10,00 lx
5%	16,7 lx
10%	33,3 lx
30%	100,0 lx
50%	167 lx

### Conditions:

Number of c-planes: 2

Lux at center: 333 lx

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



Total lumen output:

884 lm

Peak candela output:

51622 cd

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

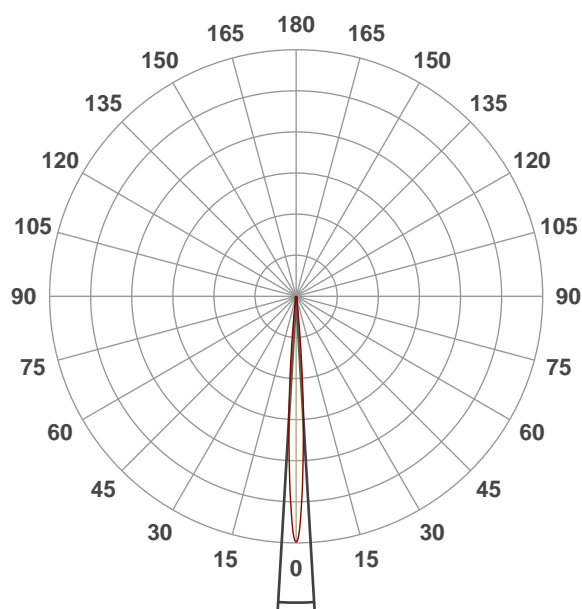
Green

Operator:

Paolo Carvone

Date and time:

19/12/2019 14:23:22

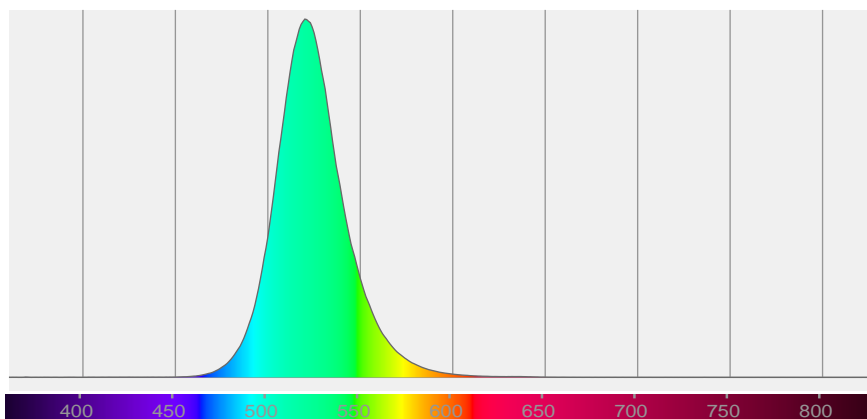


Beam angle 50%: 6,7°

Field angle 10%: 12,4°

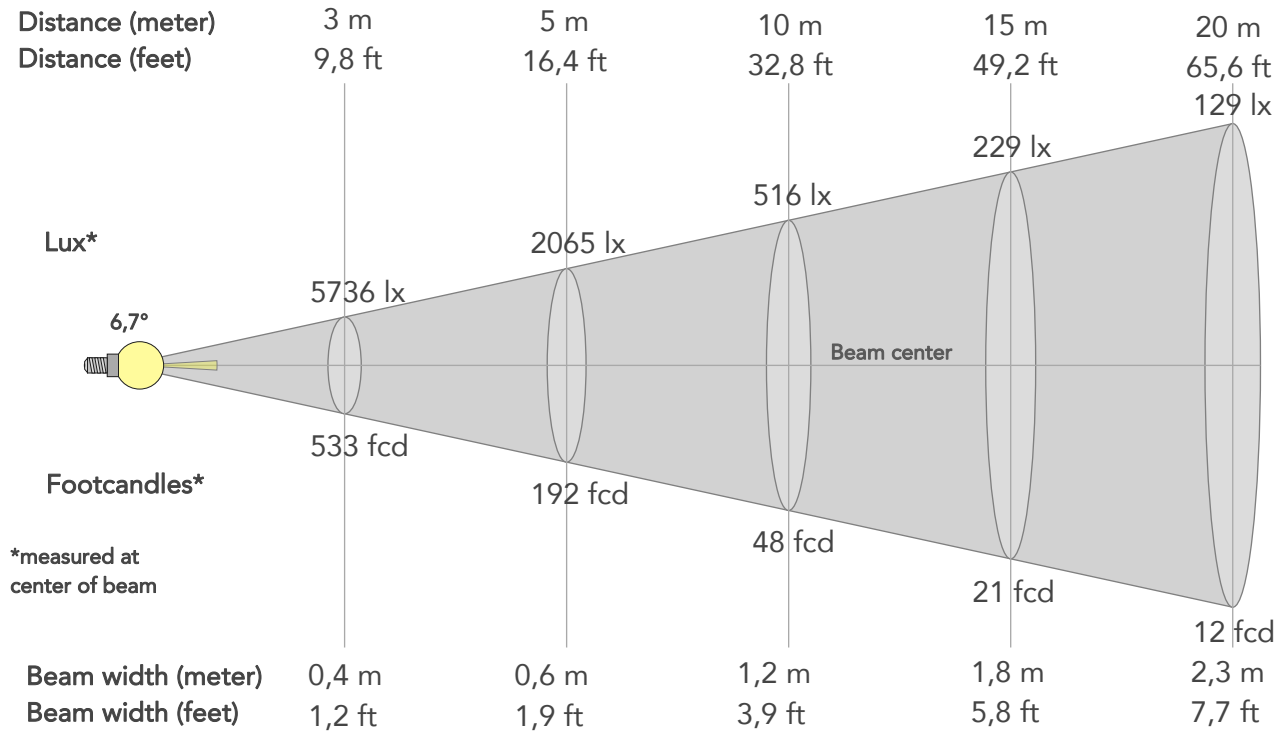
Cut off angle 2.5%: 16,7°

## Spectra



## BEAM DETAILS

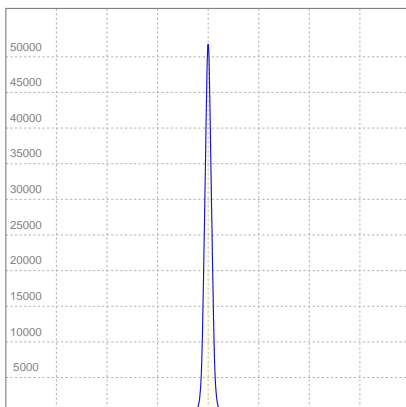
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,7°	12,4°	16,7°	98,2%	97,6%



### BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	51622lx	12905lx	5736lx	3226lx	2065lx	918lx	516lx	229lx	129lx	83lx	57lx	32lx	21lx
Footcand.	4796fcd	1199fcd	533fcd	300fcd	192fcd	85fcd	48fcd	21fcd	12fcd	8fcd	5fcd	3fcd	2fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,3m	2,9m	3,5m	4,7m	5,9m
Beam wid.	0,4ft	0,8ft	1,2ft	1,5ft	1,9ft	2,9ft	3,9ft	5,8ft	7,7ft	9,6ft	11,6ft	15,4ft	19,3ft

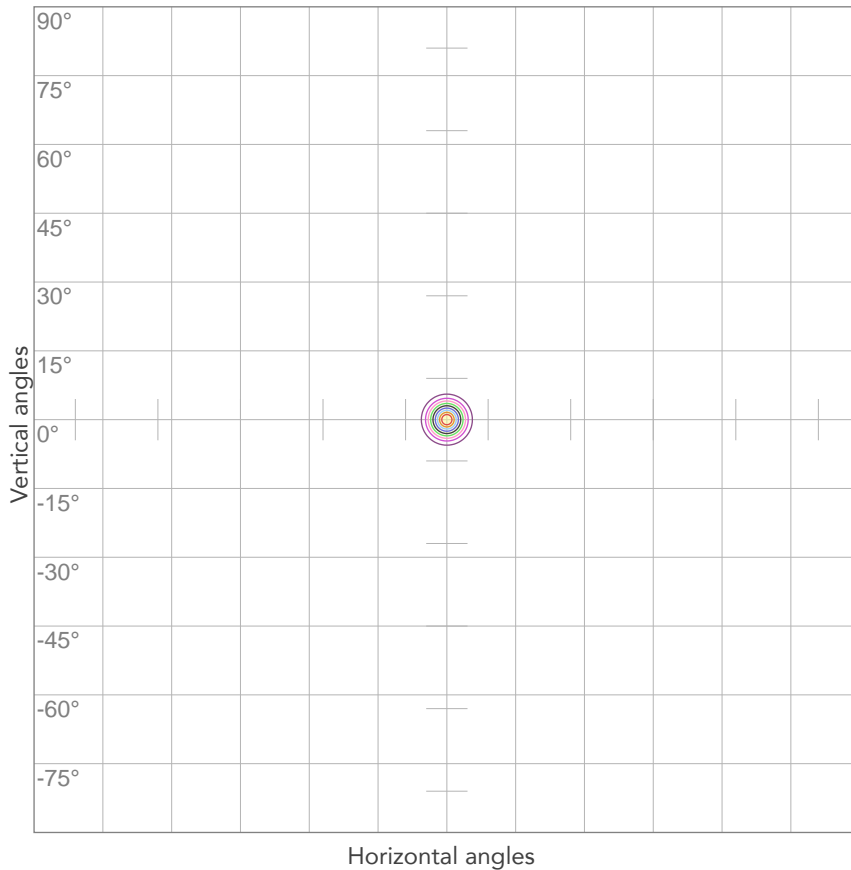
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,469A	89,2W	10lm/W

## ISO CANDELA DIAGRAM



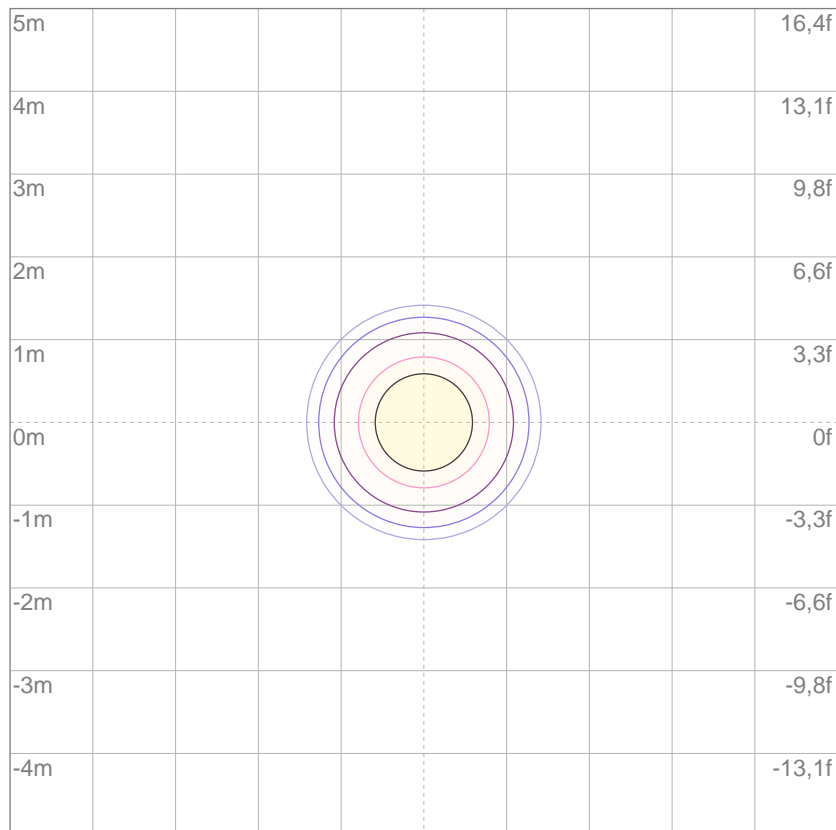
10%	5162 cd
20%	10324 cd
30%	15487 cd
40%	20649 cd
50%	25811 cd
60%	30973 cd
70%	36135 cd
80%	41297 cd

### Conditions:

Number of c-planes: 2

Candela at center: 51622 cd

## ISO LUX DIAGRAM



3%	15,5 lx
5%	25,8 lx
10%	51,6 lx
30%	155 lx
50%	258 lx

### Conditions:

Number of c-planes: 2

Lux at center: 516 lx

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



Total lumen output:

338 lm

Peak candela output:

1931 cd

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

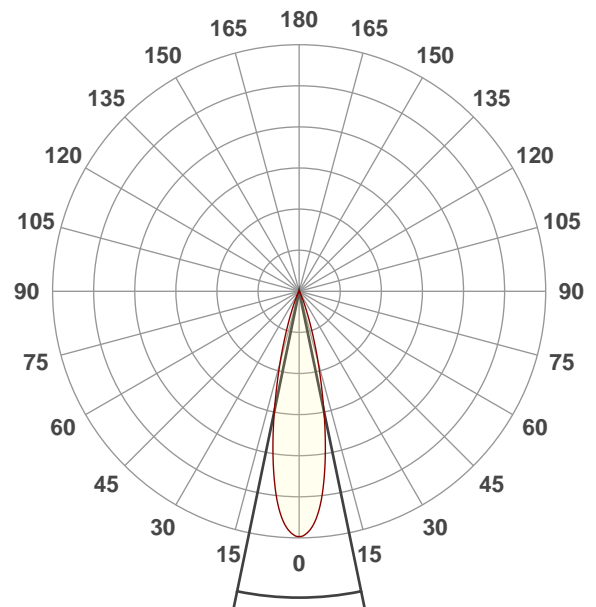
Blue

Operator:

Paolo Carvone

Date and time:

19/12/2019 16:02:15

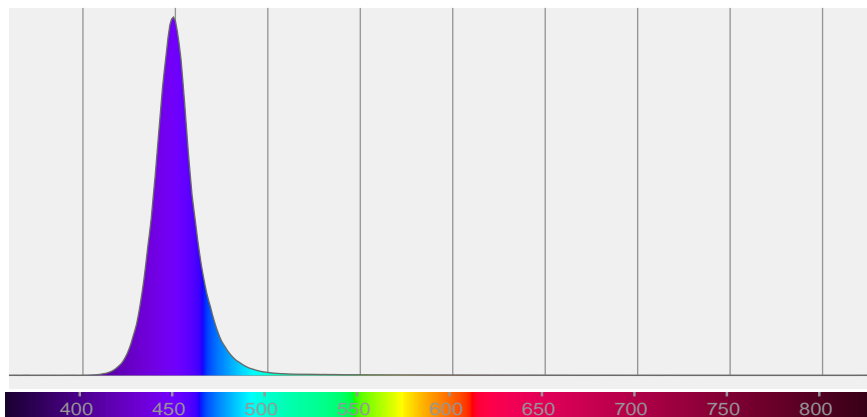


Beam angle 50%: 23,4°

Field angle 10%: 40,2°

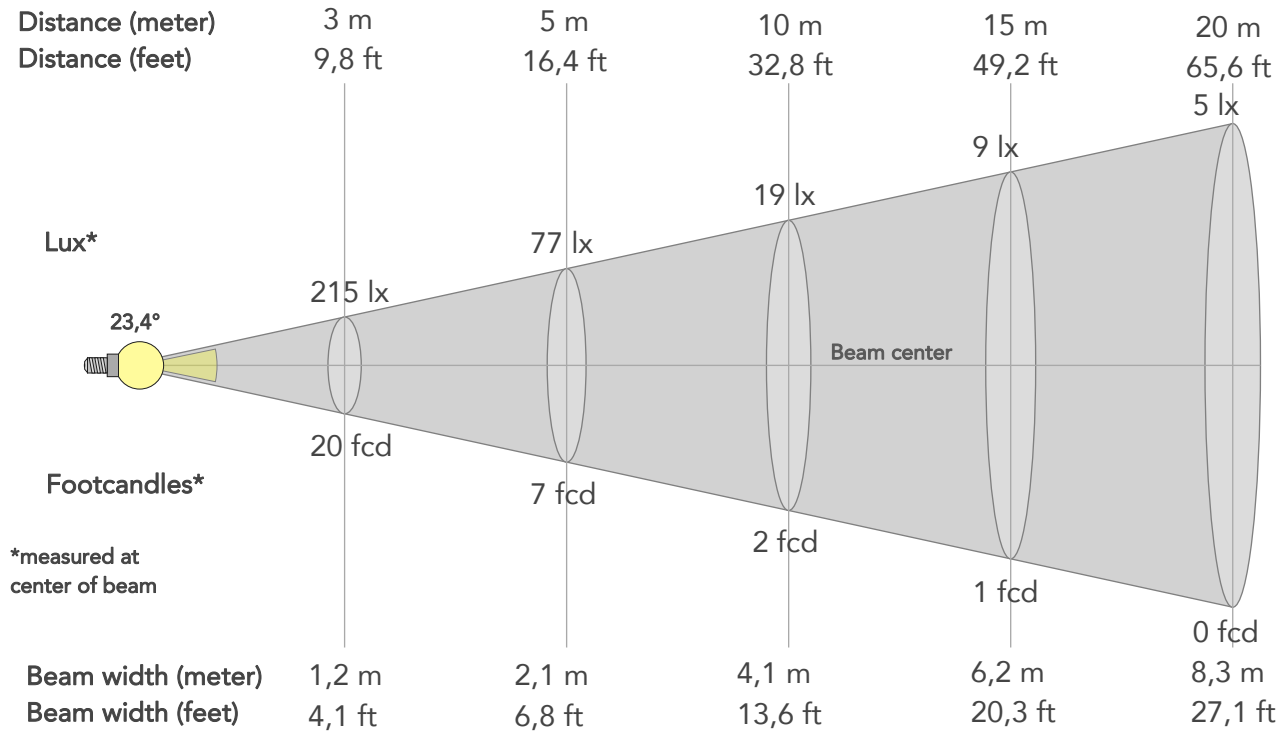
Cut off angle 2.5%: 50,9°

## Spectra



## BEAM DETAILS

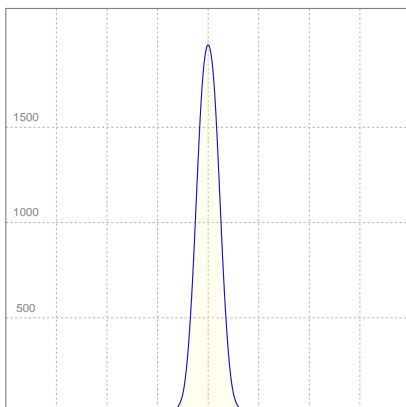
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,4°	40,2°	50,9°	100,0%	100,0%



### 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	1931lx	483lx	215lx	121lx	77lx	34lx	19lx	9lx	5lx	3lx	2lx	1lx	1lx
Footcand.	179fcd	45fcd	20fcd	11fcd	7fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,4m	0,8m	1,2m	1,7m	2,1m	3,1m	4,1m	6,2m	8,3m	10,3m	12,4m	16,5m	20,7m
Beam wid.	1,4ft	2,7ft	4,1ft	5,4ft	6,8ft	10,2ft	13,6ft	20,3ft	27,1ft	33,9ft	40,7ft	54,3ft	67,8ft

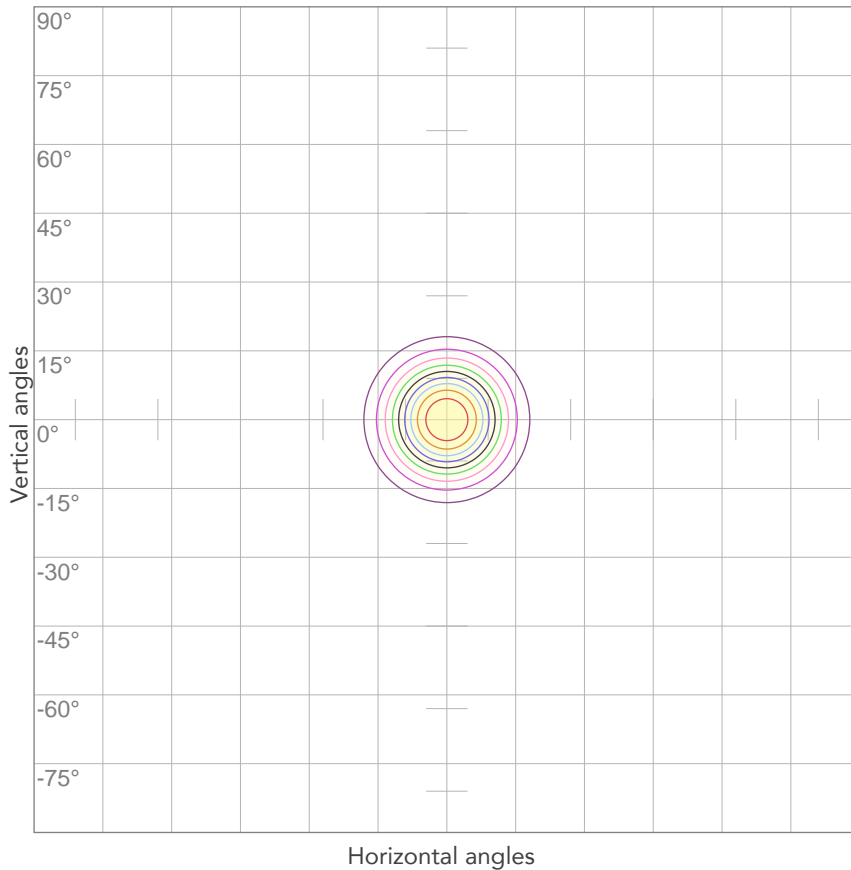
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,456A	86,4W	4lm/W

## ISO CANDELA DIAGRAM



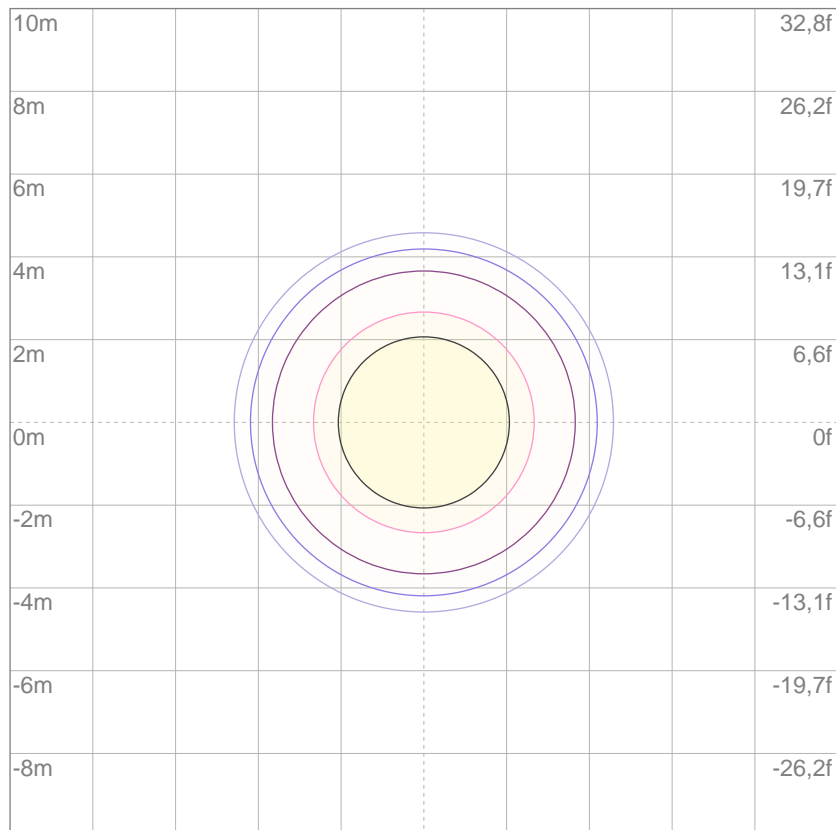
10%	193 cd
20%	386 cd
30%	579 cd
40%	772 cd
50%	965 cd
60%	1158 cd
70%	1352 cd
80%	1545 cd

### Conditions:

Number of c-planes: 2

Candela at center: 1931 cd

## ISO LUX DIAGRAM



3%	0,579 lx
5%	0,965 lx
10%	1,93 lx
30%	5,79 lx
50%	9,65 lx

### Conditions:

Number of c-planes: 2

Lux at center: 19,3 lx

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



Total lumen output:

305 lm

Peak candela output:

8791 cd

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

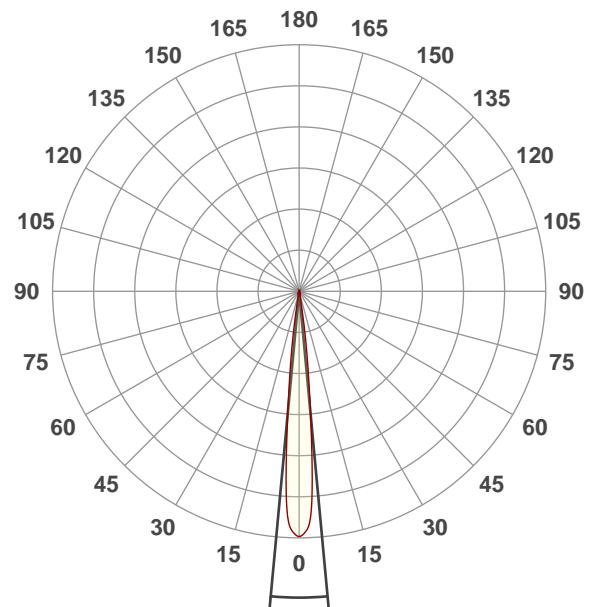
Blue

Operator:

Paolo Carvone

Date and time:

19/12/2019 15:55:34

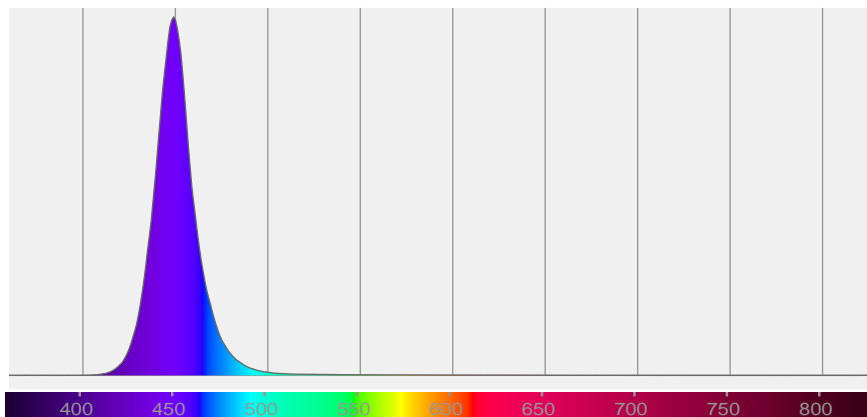


Beam angle 50%: 10,7°

Field angle 10%: 17,3°

Cut off angle 2.5%: 19,6°

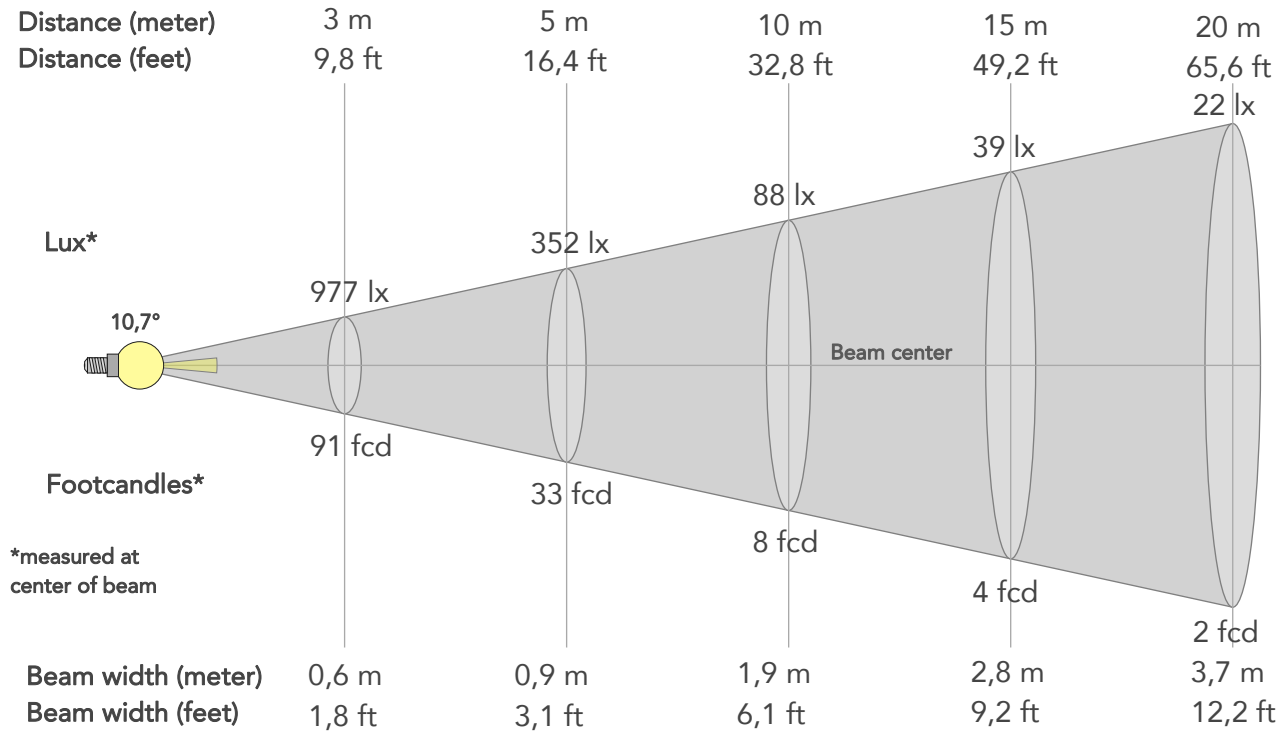
## Spectra



# BEAM DETAILS



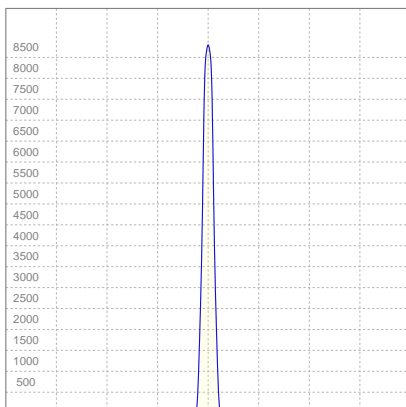
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10,7°	17,3°	19,6°	100,0%	100,0%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	8791lx	2198lx	977lx	549lx	352lx	156lx	88lx	39lx	22lx	14lx	10lx	5lx	4lx
Footcand.	817fcd	204fcd	91fcd	51fcd	33fcd	15fcd	8fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,2m	0,4m	0,6m	0,7m	0,9m	1,4m	1,9m	2,8m	3,7m	4,7m	5,6m	7,5m	9,3m
Beam wid.	0,6ft	1,2ft	1,8ft	2,4ft	3,1ft	4,6ft	6,1ft	9,2ft	12,2ft	15,3ft	18,3ft	24,5ft	30,6ft

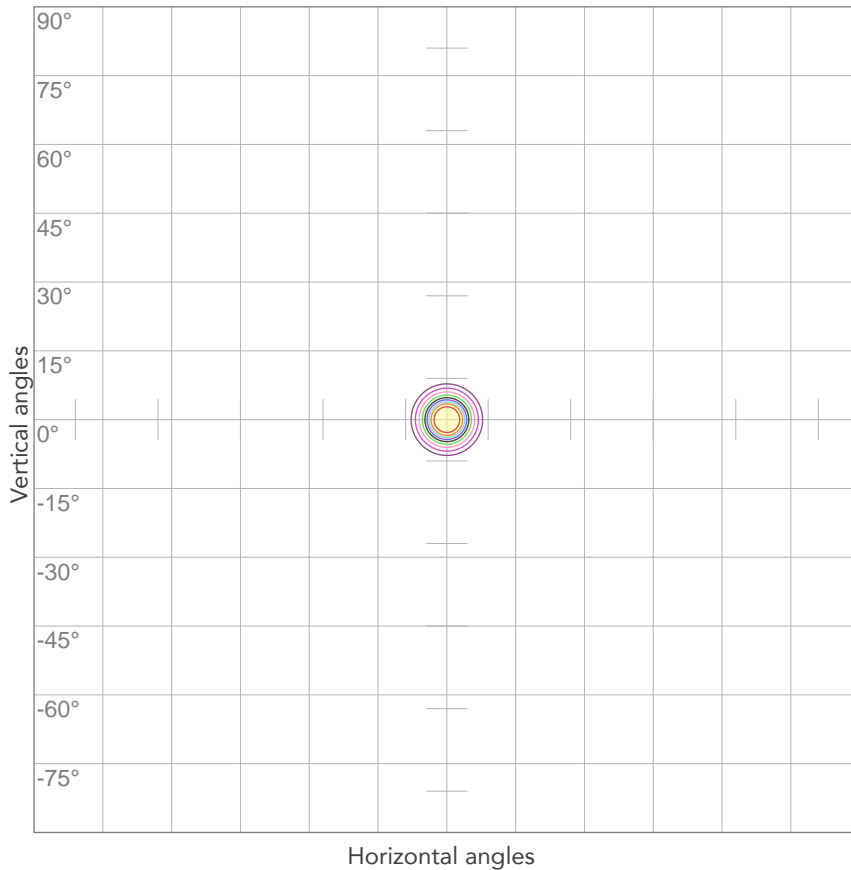
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,460A	87,2W	3lm/W

## ISO CANDELA DIAGRAM



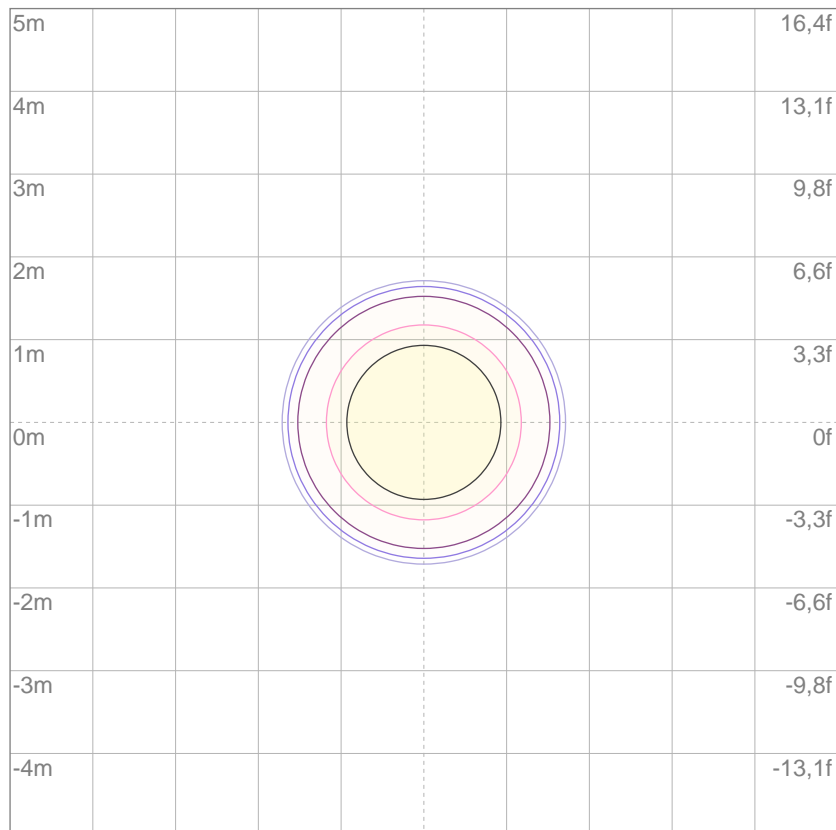
10%	879 cd
20%	1758 cd
30%	2637 cd
40%	3516 cd
50%	4395 cd
60%	5275 cd
70%	6154 cd
80%	7033 cd

### Conditions:

Number of c-planes: 2

Candela at center: 8791 cd

## ISO LUX DIAGRAM



3%	2,64 lx
5%	4,40 lx
10%	8,79 lx
30%	26,4 lx
50%	44,0 lx

### Conditions:

Number of c-planes: 2

Lux at center: 87,9 lx

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



Total lumen output:

217 lm

Peak candela output:

12051 cd

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

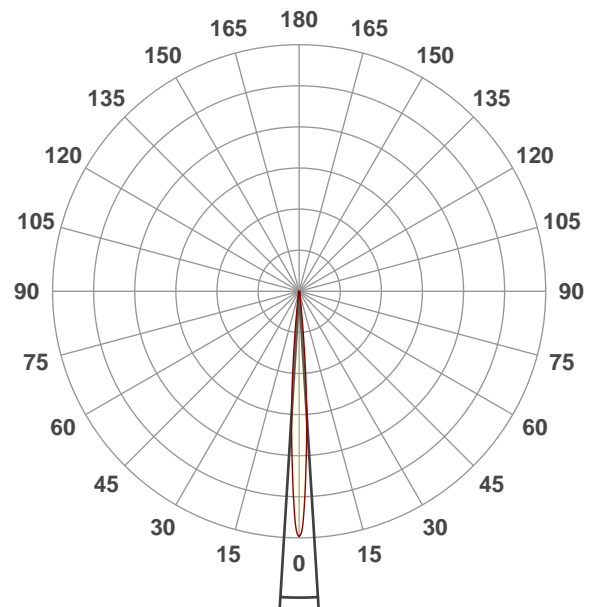
Blue

Operator:

Paolo Carvone

Date and time:

19/12/2019 14:25:32

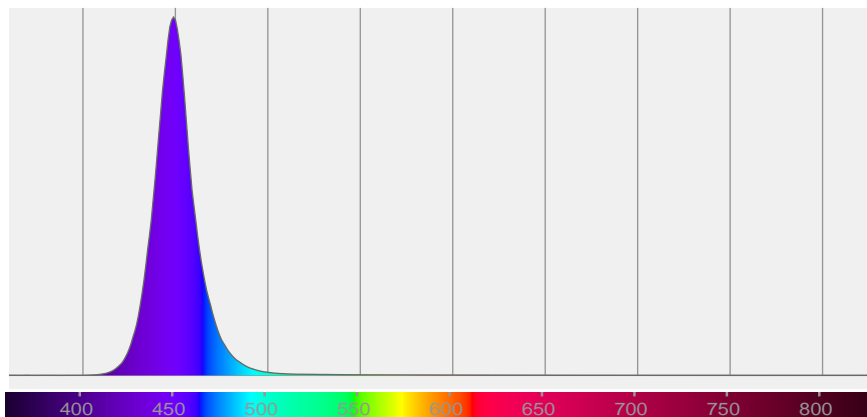


Beam angle 50%: 7°

Field angle 10%: 12,9°

Cut off angle 2.5%: 17,3°

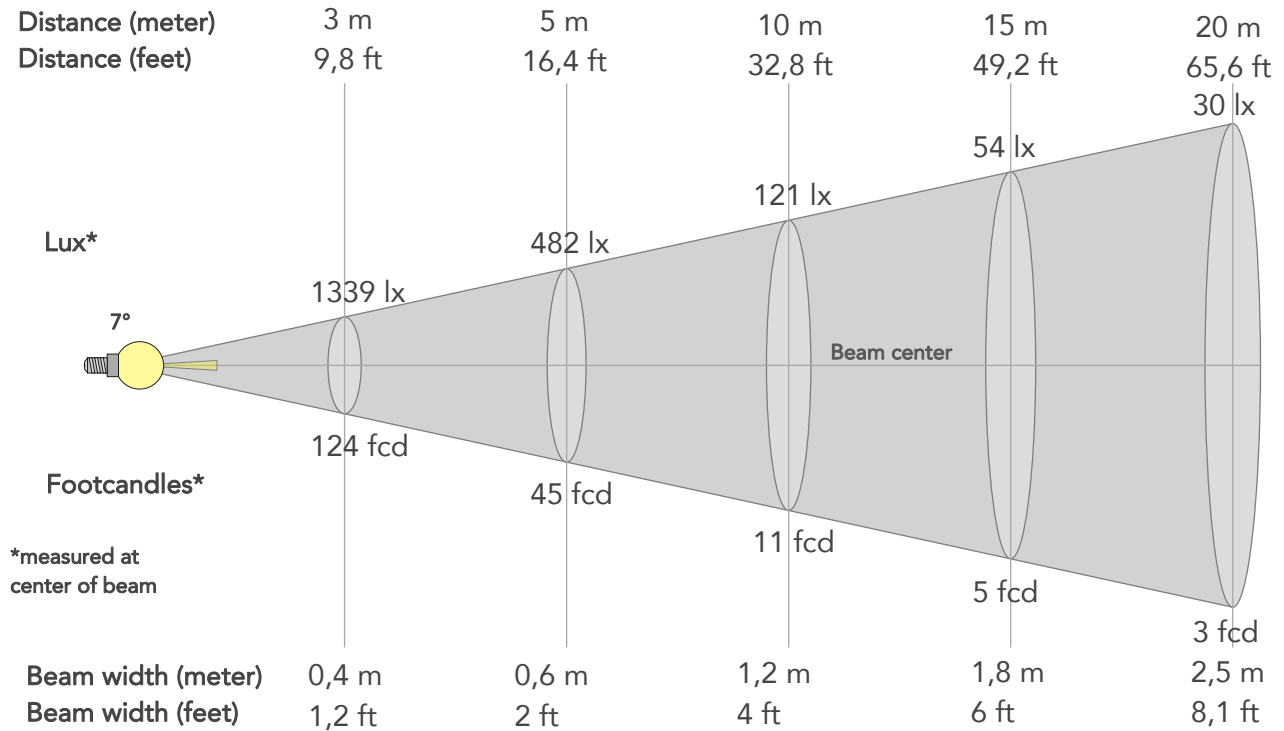
## Spectra



# BEAM DETAILS



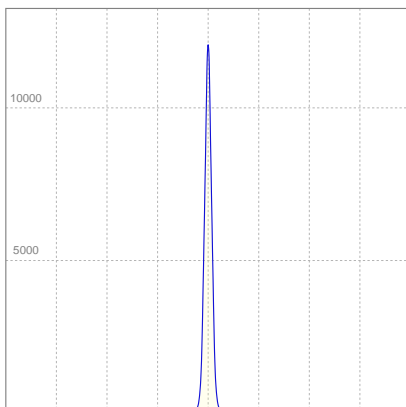
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
7°	12,9°	17,3°	100,0%	100,0%



## 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	12051lx	3013lx	1339lx	753lx	482lx	214lx	121lx	54lx	30lx	19lx	13lx	8lx	5lx
Footcand.	1120fcd	280fcd	124fcd	70fcd	45fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,5m	3,1m	3,7m	4,9m	6,1m
Beam wid.	0,4ft	0,8ft	1,2ft	1,6ft	2ft	3ft	4ft	6ft	8,1ft	10,1ft	12,1ft	16,1ft	20,1ft

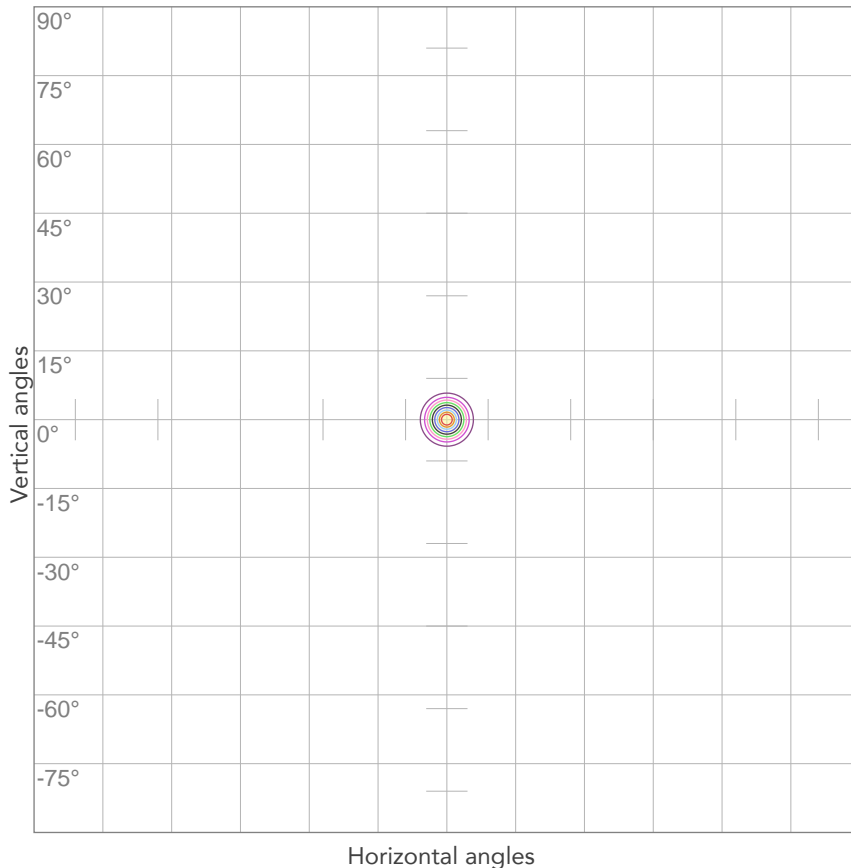
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,461A	87,4W	2lm/W

## ISO CANDELA DIAGRAM



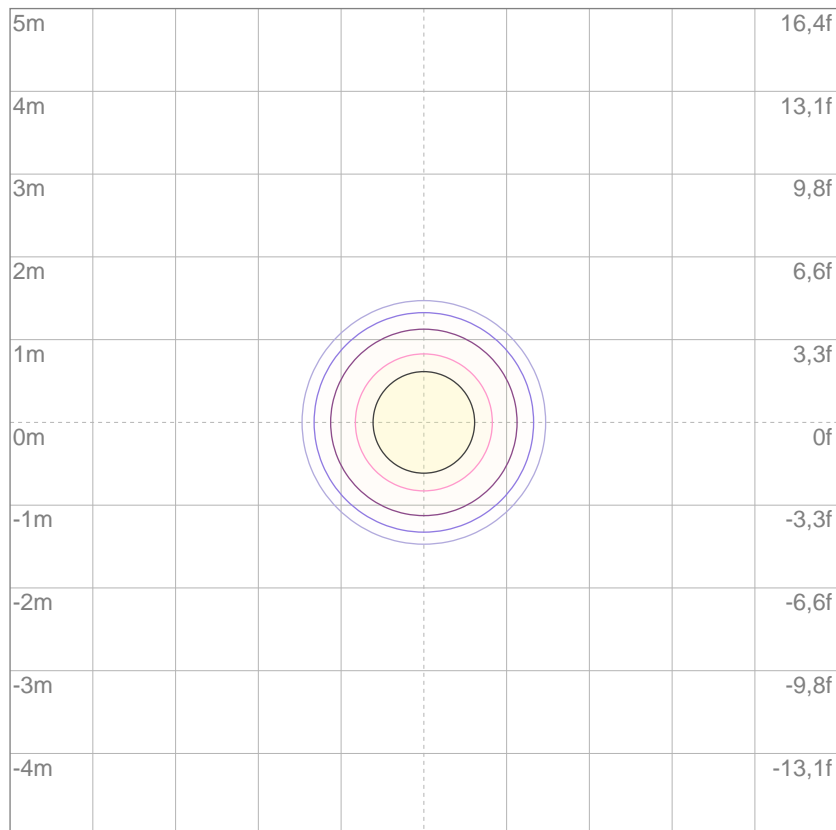
10%	1205 cd
20%	2410 cd
30%	3615 cd
40%	4820 cd
50%	6025 cd
60%	7231 cd
70%	8436 cd
80%	9641 cd

### Conditions:

Number of c-planes: 2

Candela at center: 12051 cd

## ISO LUX DIAGRAM



3%	3,62 lx
5%	6,03 lx
10%	12,1 lx
30%	36,2 lx
50%	60,3 lx

### Conditions:

Number of c-planes: 2

Lux at center: 121 lx

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



Total lumen output:

1867 lm

Peak candela output:

10135 cd

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

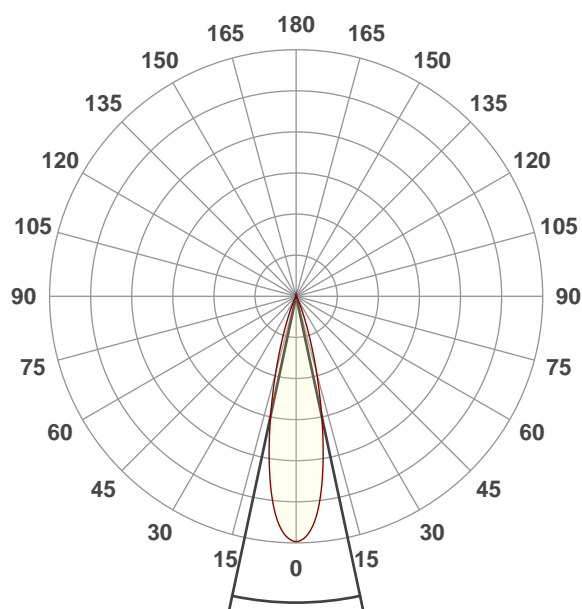
White

Operator:

Paolo Carvone

Date and time:

19/12/2019 16:08:06

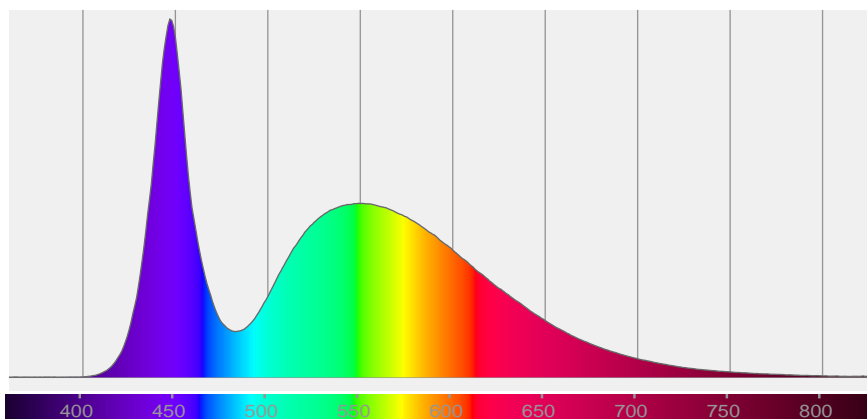


Beam angle 50%: 24,1°

Field angle 10%: 41,1°

Cut off angle 2.5%: 52,1°

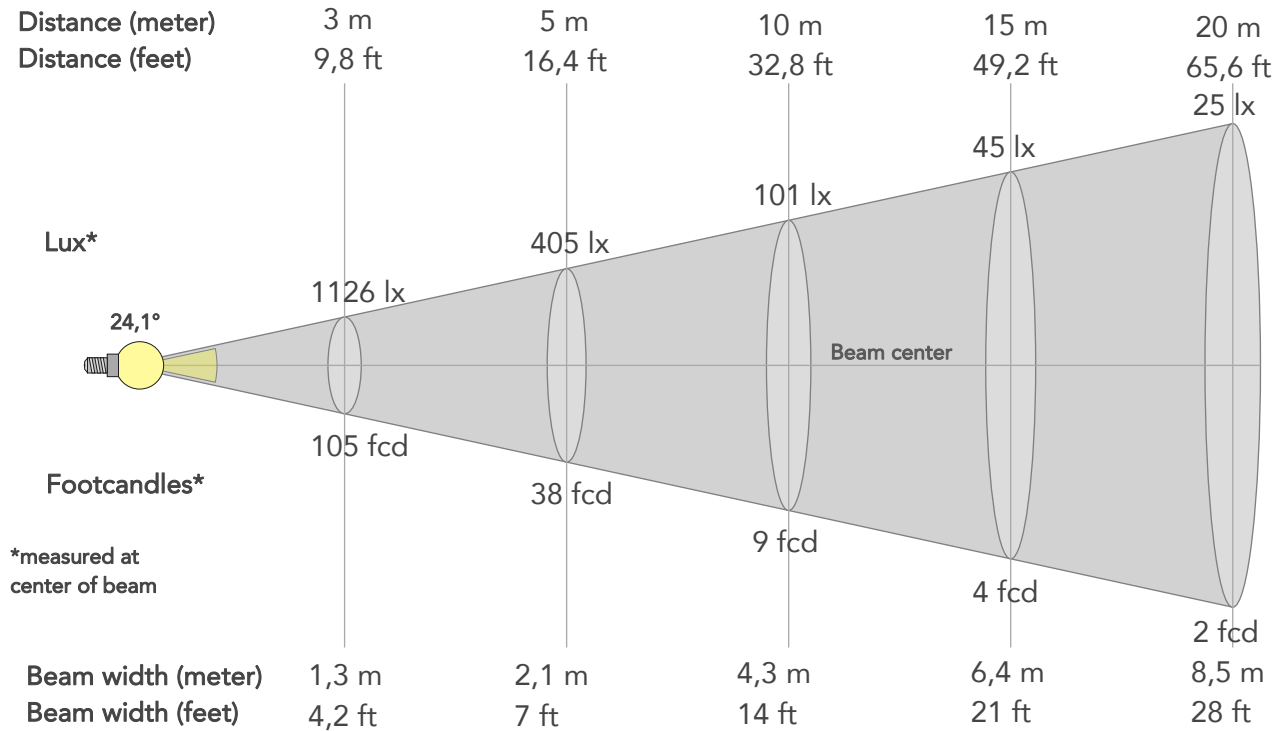
## Spectra



# BEAM DETAILS



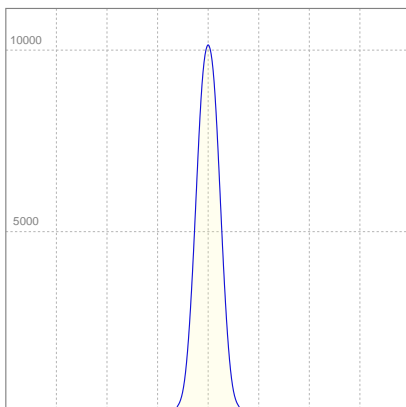
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
24,1°	41,1°	52,1°	100,0%	100,0%



## 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	10135lx	2534lx	1126lx	633lx	405lx	180lx	101lx	45lx	25lx	16lx	11lx	6lx	4lx
Footcand.	942fcd	235fcd	105fcd	59fcd	38fcd	17fcd	9fcd	4fcd	2fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,4m	0,9m	1,3m	1,7m	2,1m	3,2m	4,3m	6,4m	8,5m	10,7m	12,8m	17,1m	21,3m
Beam wid.	1,4ft	2,8ft	4,2ft	5,6ft	7ft	10,5ft	14ft	21ft	28ft	35ft	42ft	56ft	70ft

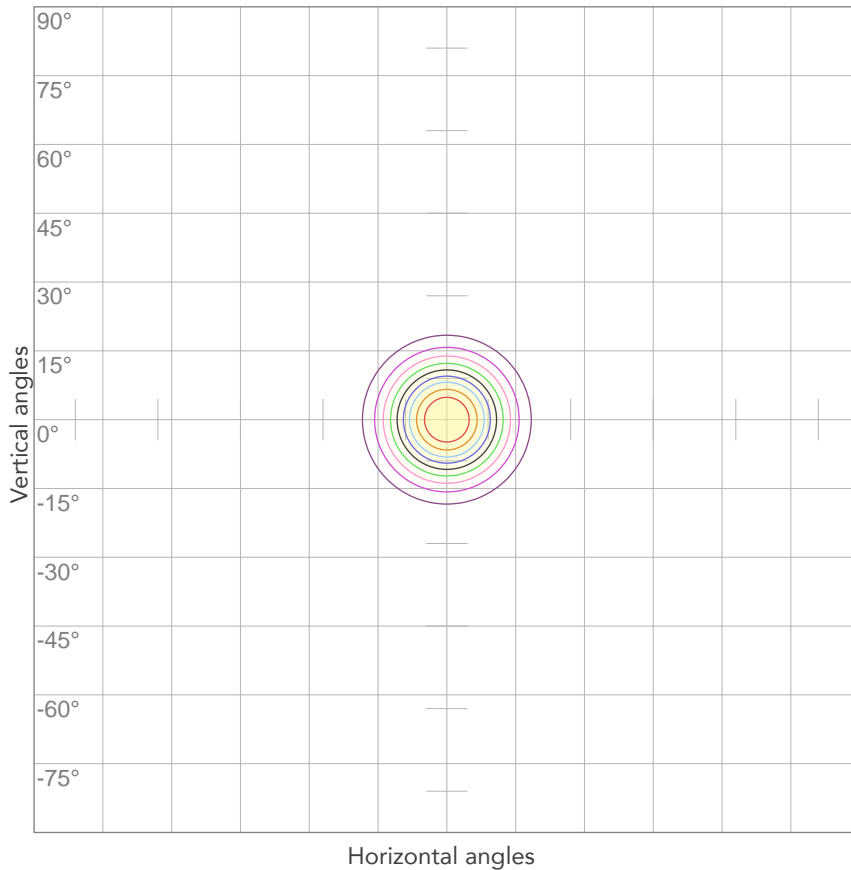
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,459A	87,2W	21lm/W

## ISO CANDELA DIAGRAM



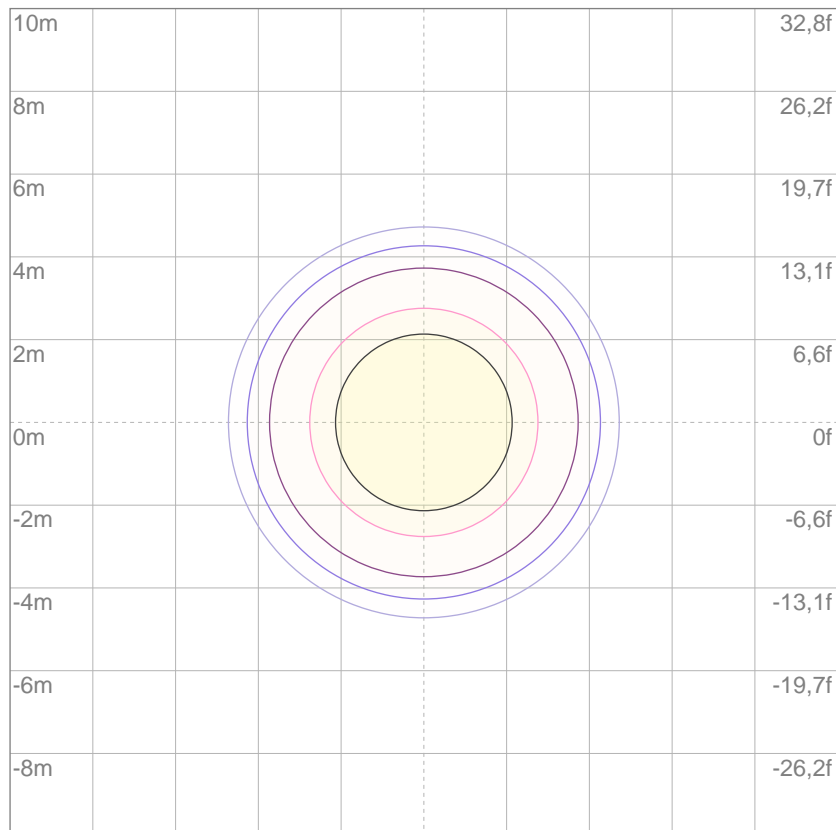
10%	1013 cd
20%	2027 cd
30%	3040 cd
40%	4054 cd
50%	5067 cd
60%	6081 cd
70%	7094 cd
80%	8108 cd

### Conditions:

Number of c-planes: 2

Candela at center: 10135 cd

## ISO LUX DIAGRAM



3%	3,04 lx
5%	5,07 lx
10%	10,1 lx
30%	30,4 lx
50%	50,7 lx

### Conditions:

Number of c-planes: 2

Lux at center: 101 lx

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



Total lumen output:

1689 lm

Peak candela output:

45132 cd

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

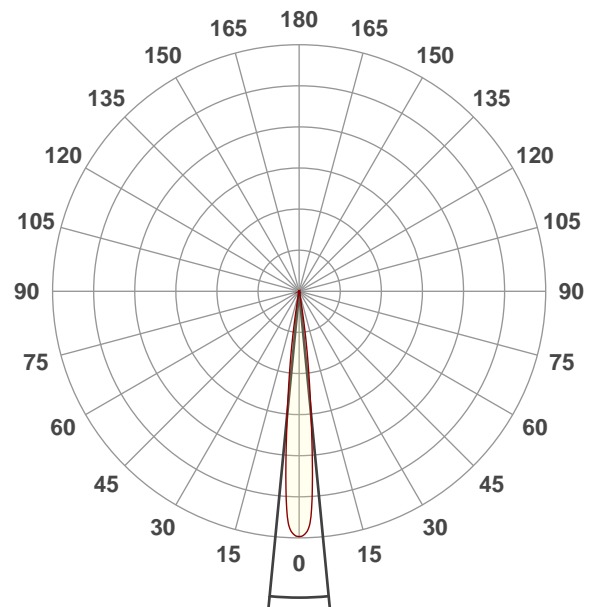
White

Operator:

Paolo Carvone

Date and time:

19/12/2019 16:00:24

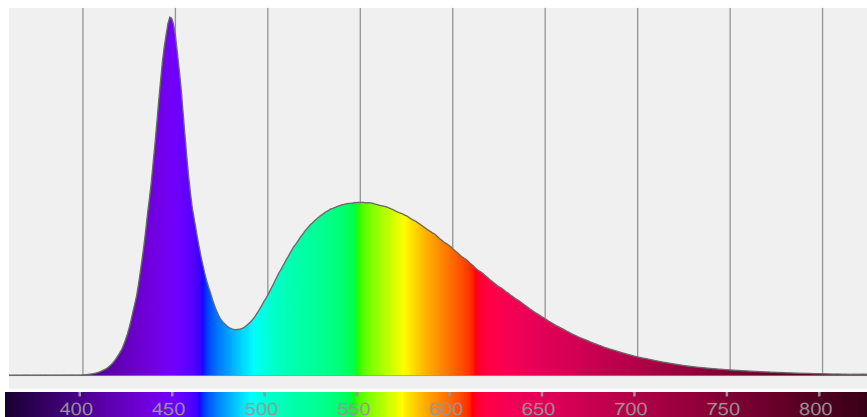


Beam angle 50%: 11,1°

Field angle 10%: 18°

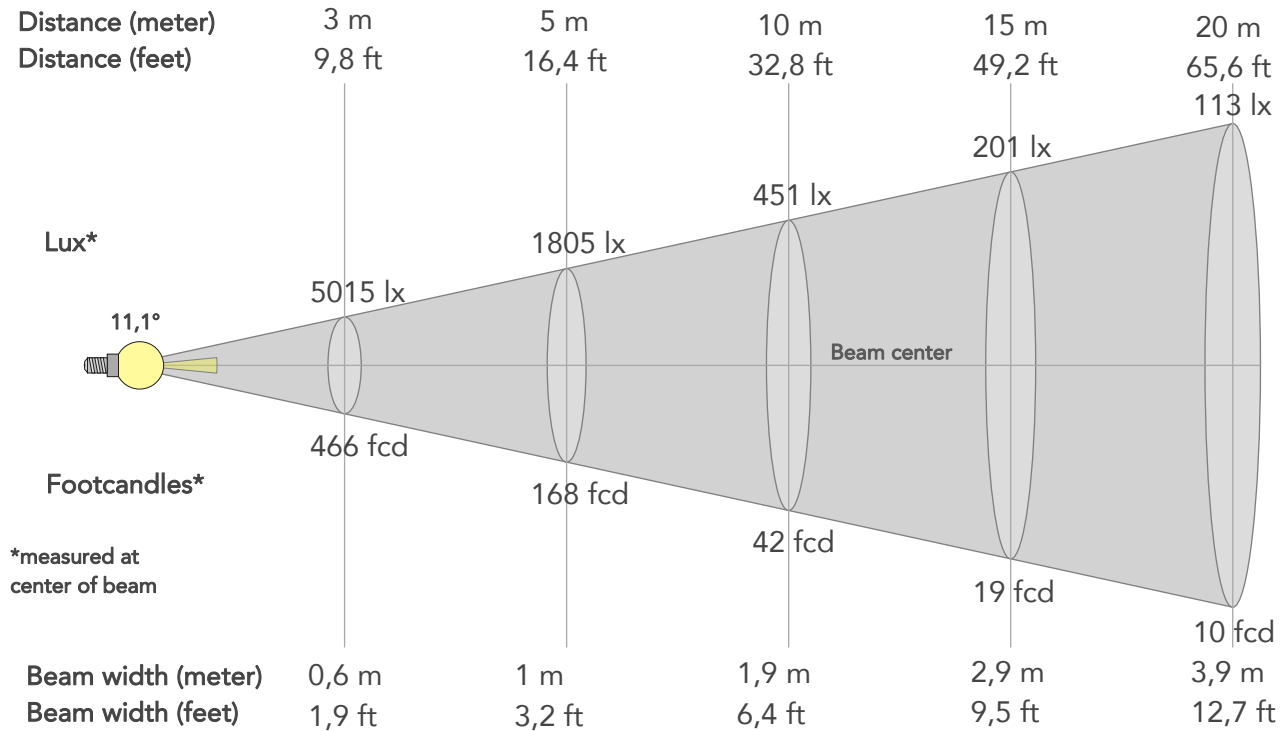
Cut off angle 2.5%: 20,4°

## Spectra



## BEAM DETAILS

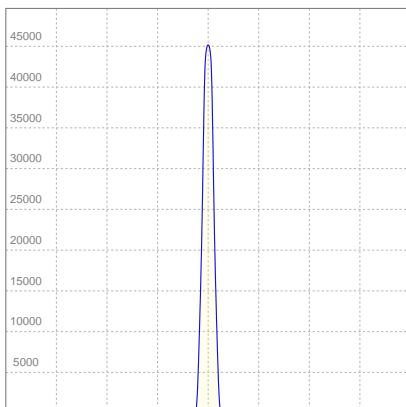
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,1°	18°	20,4°	100,0%	100,0%



### 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	45132lx	11283lx	5015lx	2821lx	1805lx	802lx	451lx	201lx	113lx	72lx	50lx	28lx	18lx
Footcand.	4193fcd	1048fcd	466fcd	262fcd	168fcd	75fcd	42fcd	19fcd	10fcd	7fcd	5fcd	3fcd	2fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	1,9m	2,9m	3,9m	4,8m	5,8m	7,7m	9,7m
Beam wid.	0,6ft	1,3ft	1,9ft	2,5ft	3,2ft	4,8ft	6,4ft	9,5ft	12,7ft	15,9ft	19,1ft	25,4ft	31,8ft

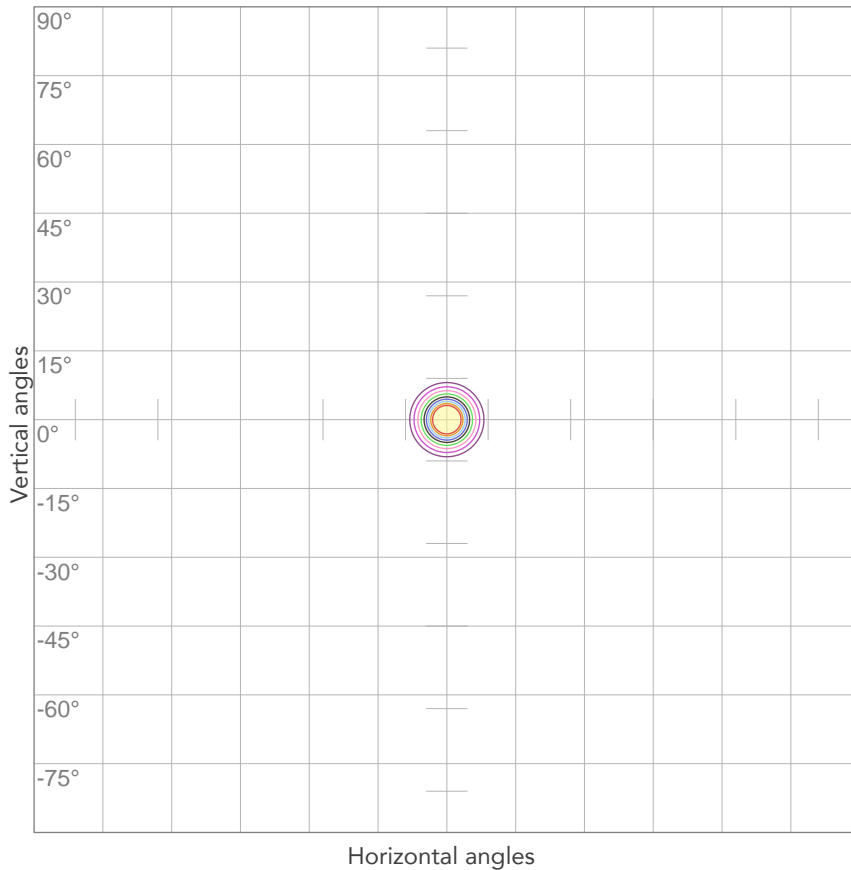
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,455A	86,0W	20lm/W

## ISO CANDELA DIAGRAM



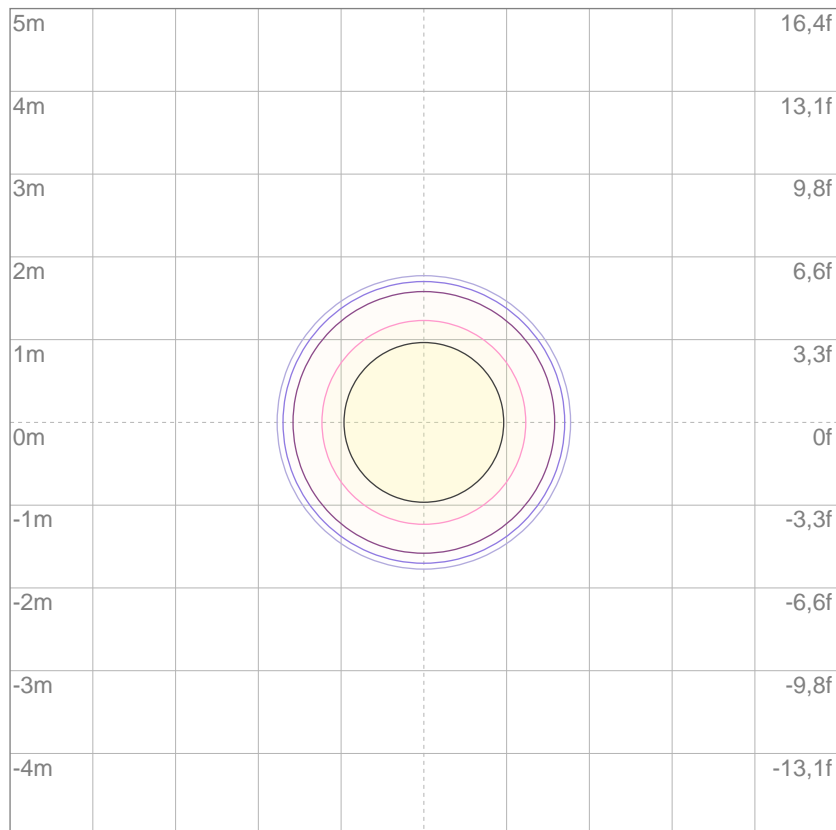
10%	4513 cd
20%	9026 cd
30%	13540 cd
40%	18053 cd
50%	22566 cd
60%	27079 cd
70%	31593 cd
80%	36106 cd

### Conditions:

Number of c-planes: 2

Candela at center: 45132 cd

## ISO LUX DIAGRAM



3%	13,5 lx
5%	22,6 lx
10%	45,1 lx
30%	135 lx
50%	226 lx

### Conditions:

Number of c-planes: 2

Lux at center: 451 lx

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



Total lumen output:

1229 lm

Peak candela output:

71466 cd

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

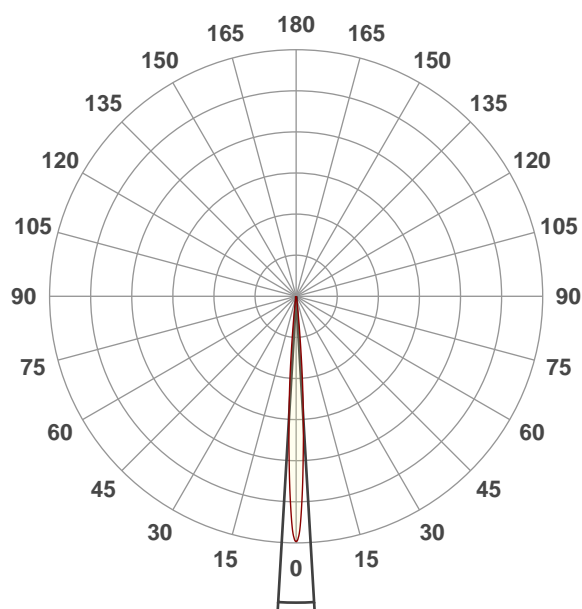
White

Operator:

Paolo Carvone

Date and time:

19/12/2019 14:27:47

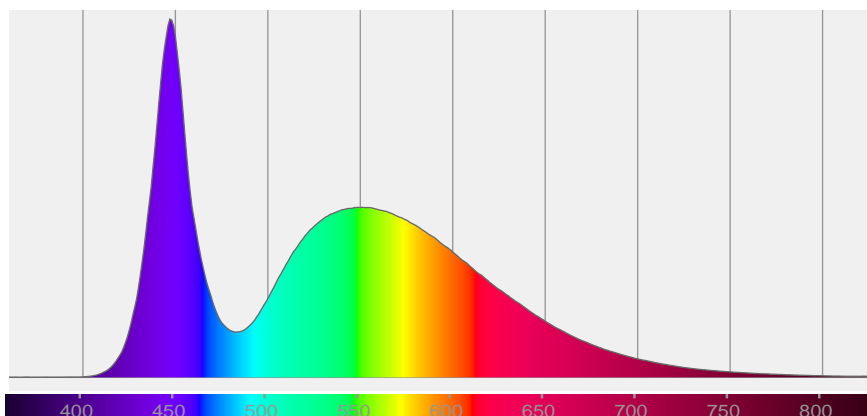


Beam angle 50%: 6,7°

Field angle 10%: 12,3°

Cut off angle 2.5%: 16,8°

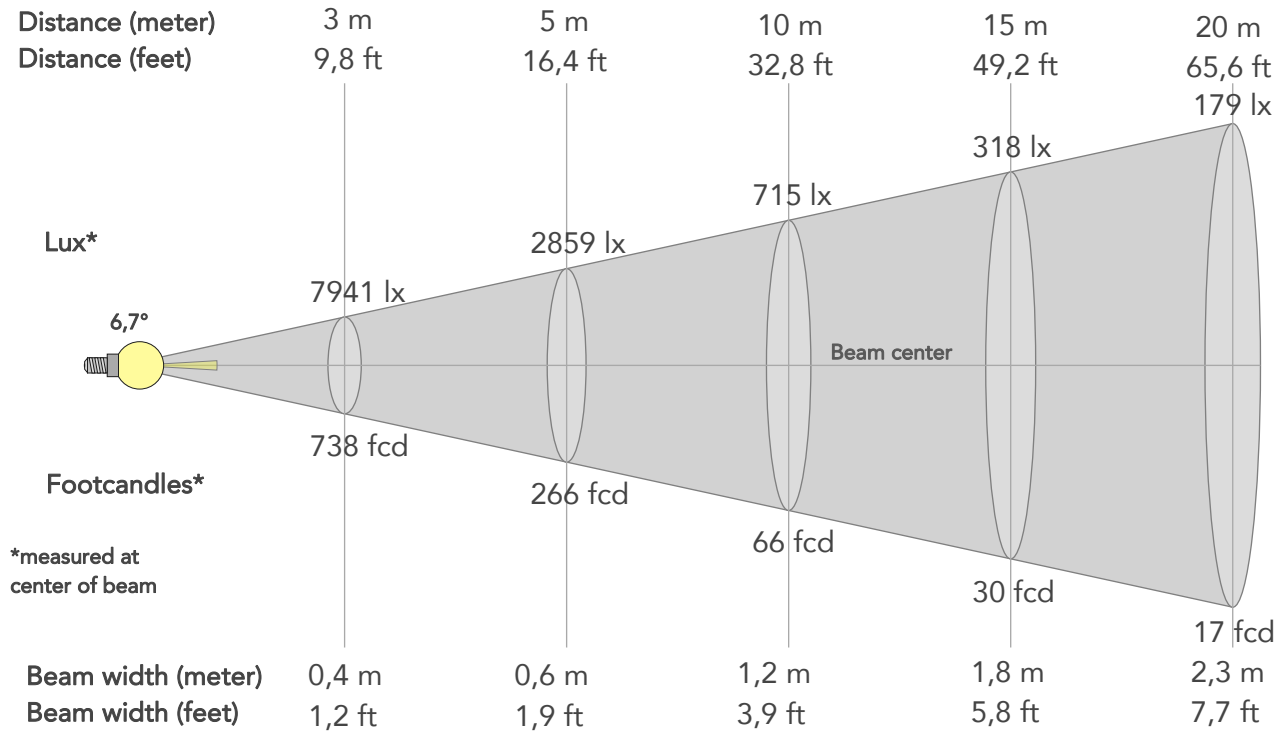
## Spectra



## BEAM DETAILS



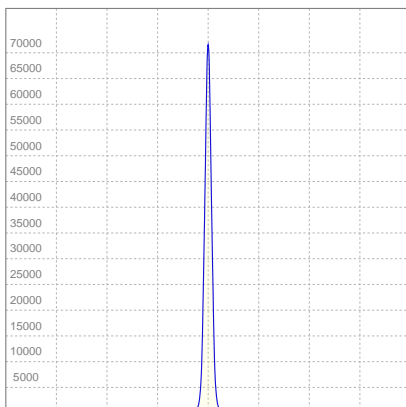
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,7°	12,3°	16,8°	98,2%	97,7%



### 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	71466lx	17867lx	7941lx	4467lx	2859lx	1271lx	715lx	318lx	179lx	114lx	79lx	45lx	29lx
Footcand.	6639fcd	1660fcd	738fcd	415fcd	266fcd	118fcd	66fcd	30fcd	17fcd	11fcd	7fcd	4fcd	3fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,3m	2,9m	3,5m	4,7m	5,9m
Beam wid.	0,4ft	0,8ft	1,2ft	1,5ft	1,9ft	2,9ft	3,9ft	5,8ft	7,7ft	9,6ft	11,6ft	15,4ft	19,3ft

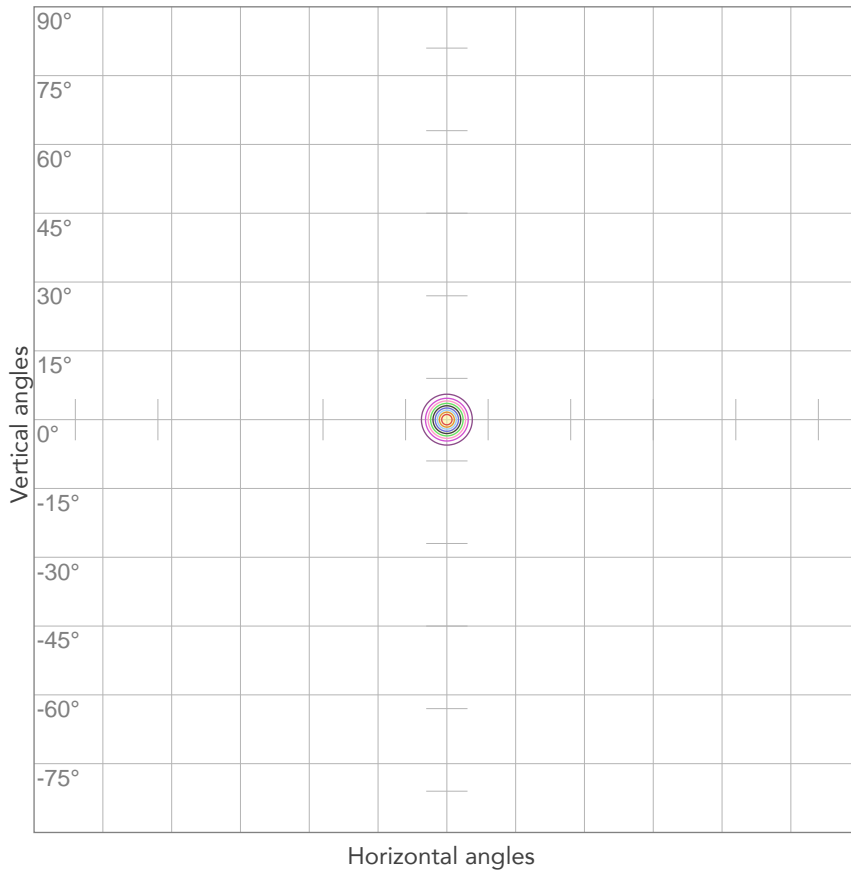
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,460A	87,1W	14lm/W

## ISO CANDELA DIAGRAM



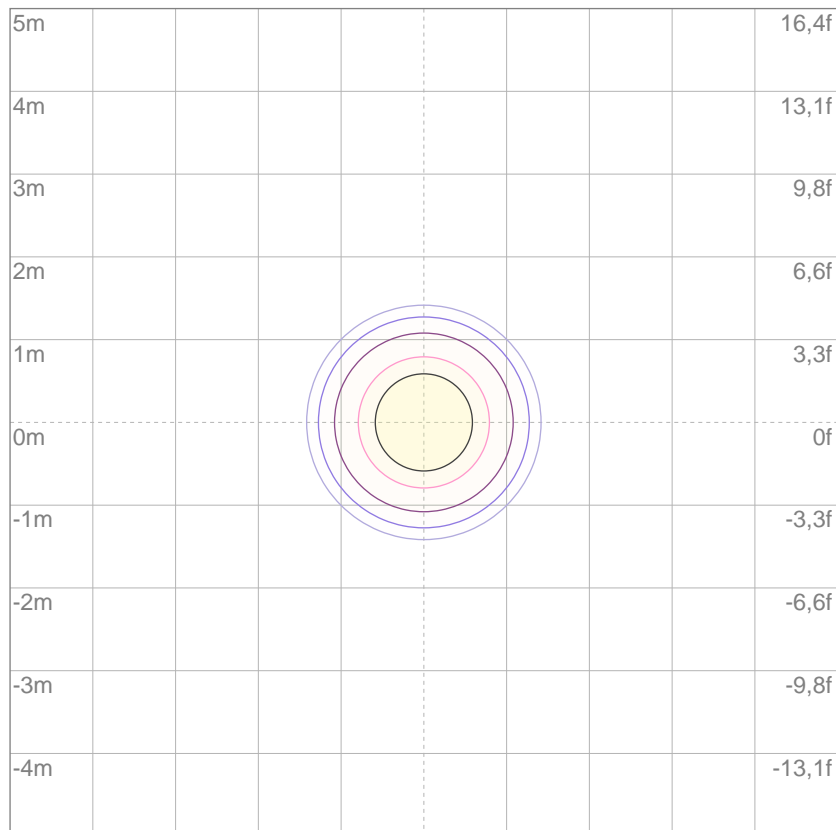
10%	7147 cd
20%	14293 cd
30%	21440 cd
40%	28587 cd
50%	35733 cd
60%	42880 cd
70%	50026 cd
80%	57173 cd

### Conditions:

Number of c-planes: 2

Candela at center: 71466 cd

## ISO LUX DIAGRAM



3%	21,4 lx
5%	35,7 lx
10%	71,5 lx
30%	214 lx
50%	357 lx

### Conditions:

Number of c-planes: 2

Lux at center: 715 lx

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



Total lumen output:

1988 lm

Peak candela output:

10872 cd

Light quality:

CRI: 37,5

Color temperature:

2972 K

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

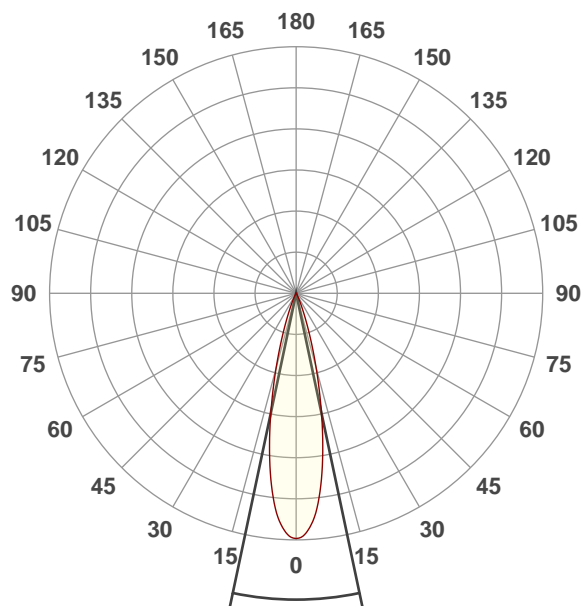
3200K

Operator:

Paolo Carvone

Date and time:

19/12/2019 15:32:38

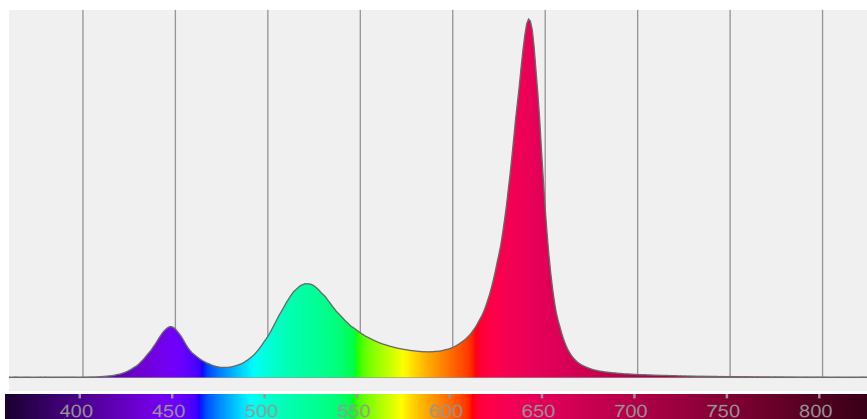


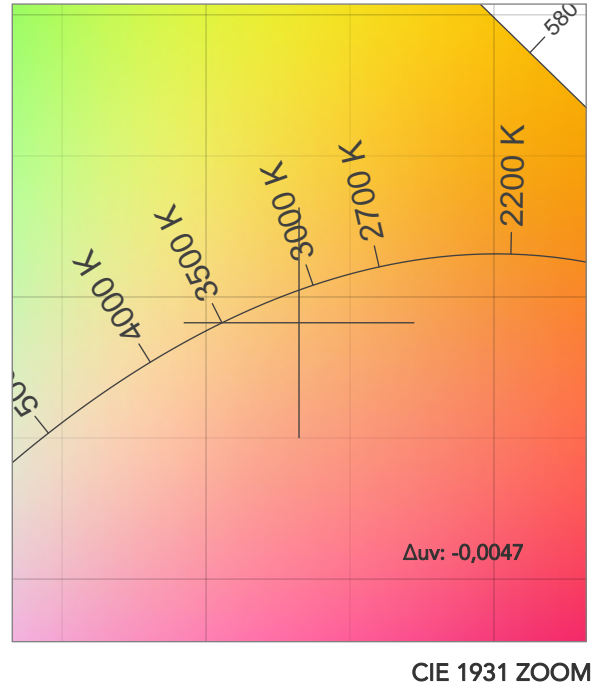
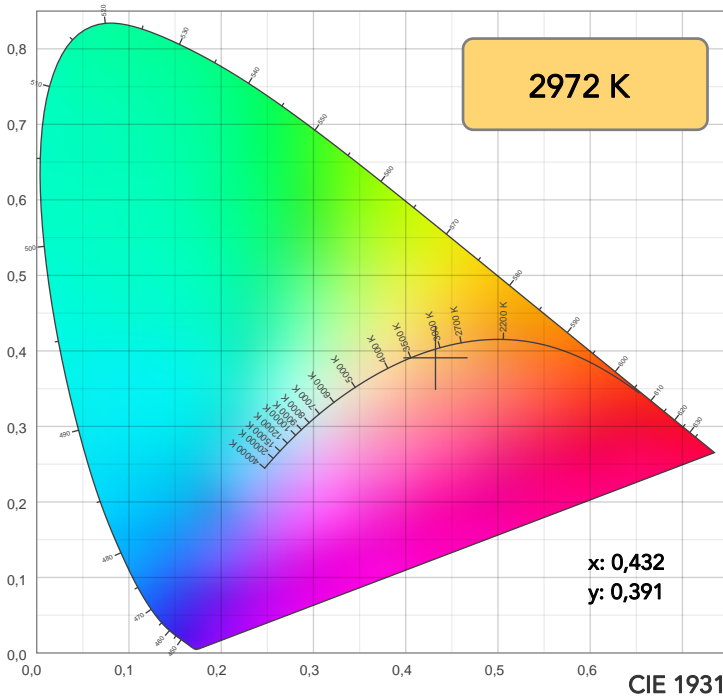
Beam angle 50%: 23,9°

Field angle 10%: 40,9°

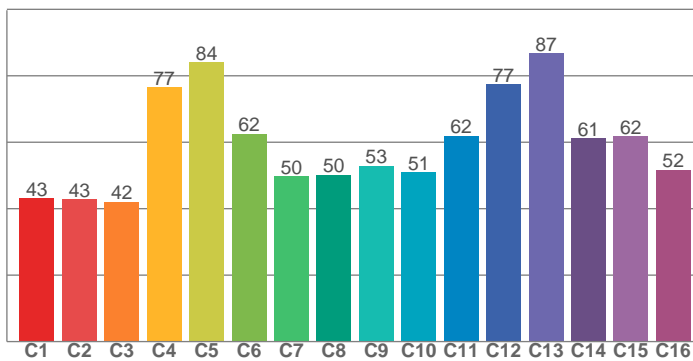
Cut off angle 2.5%: 51,8°

## Spectra

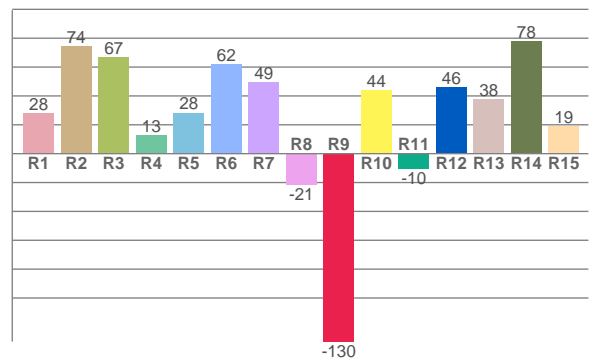




TM30: 59,6



CRI: 37,5 (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
28,0	74,4	67,0	12,6	28,4	61,9	49,4	-21,5	-130,2	44,1	-10,3	46,1	37,8	78,0	19,2

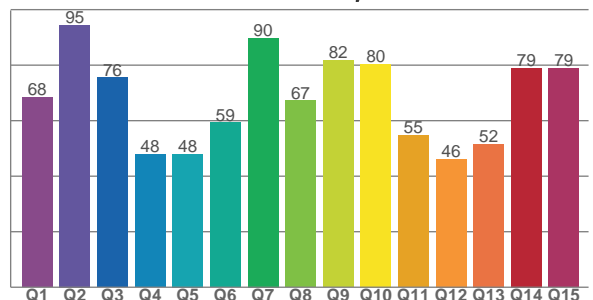
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
43,1	42,8	42,1	76,6	84,1	62,5	49,7	50,1	52,9	51,0	61,9	77,4	86,7	61,2	61,8	51,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
68,4	94,5	75,6	47,9	48,0	59,4	89,9	67,3	81,7	80,3	54,7	46,1	51,7	79,0	78,8

CQS: 64,4



## COLOR PARAMETERS

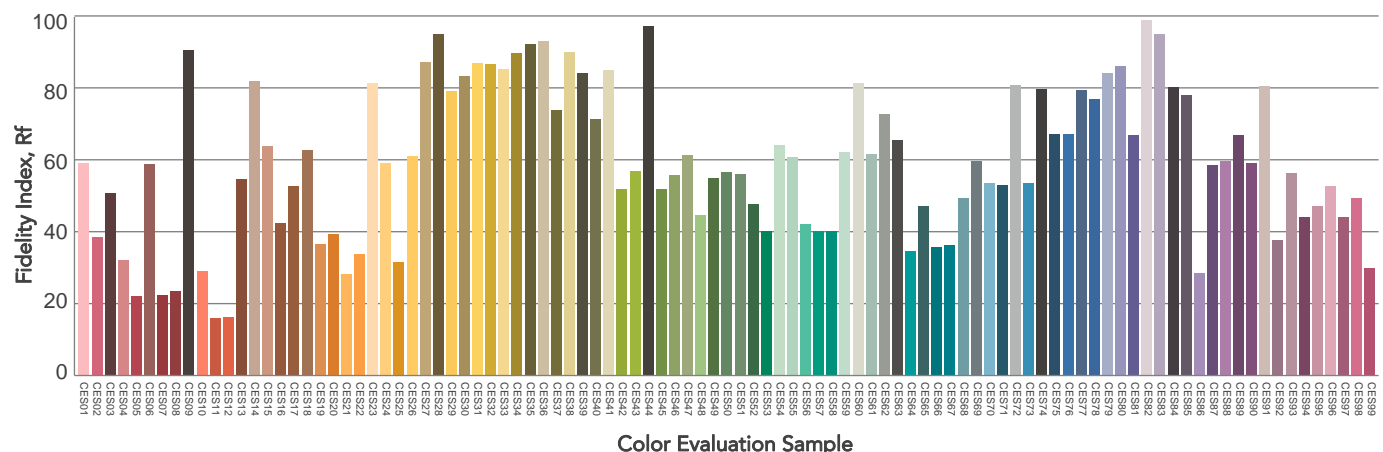
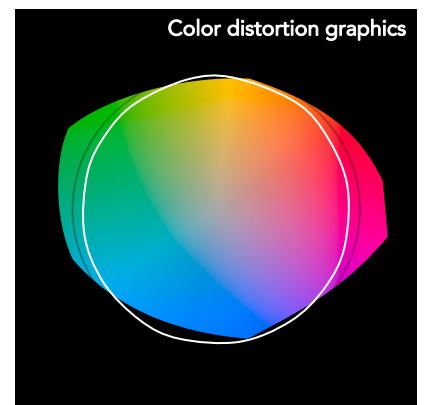
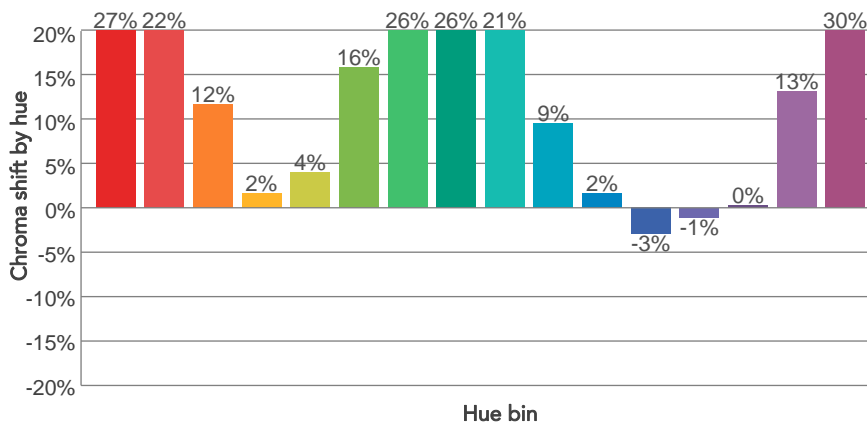
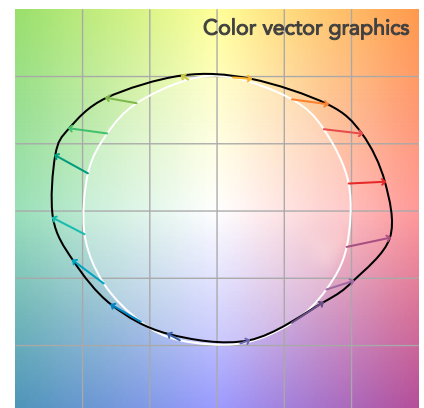
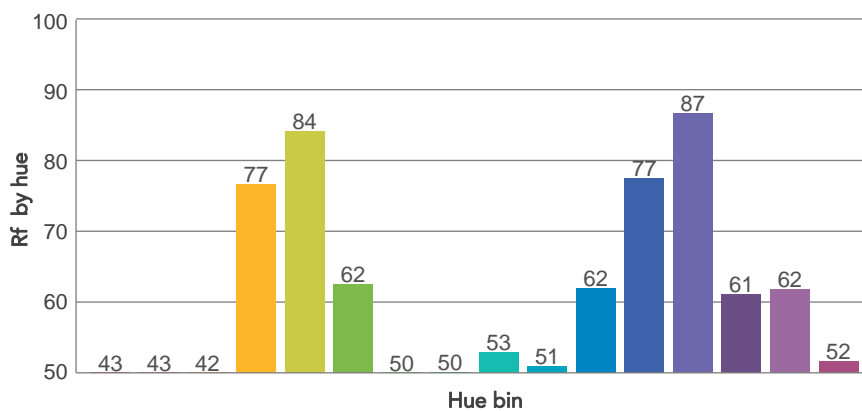
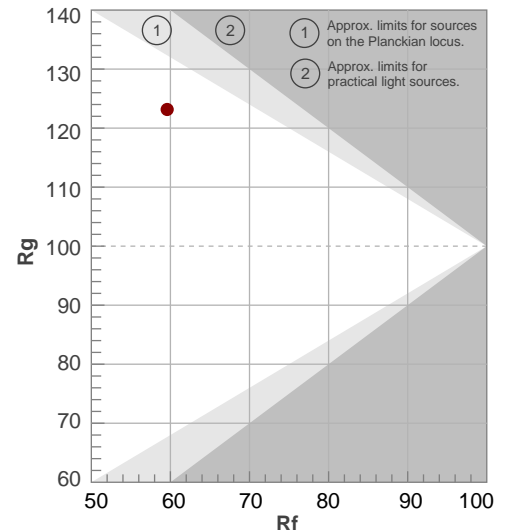
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2972 K	37,5	-130,2	59,6	123,2	64,4	25	0,432	0,391	-0,0047

# TM30 DETAILS

**Rf 59,6**  
Fidelity index Rf

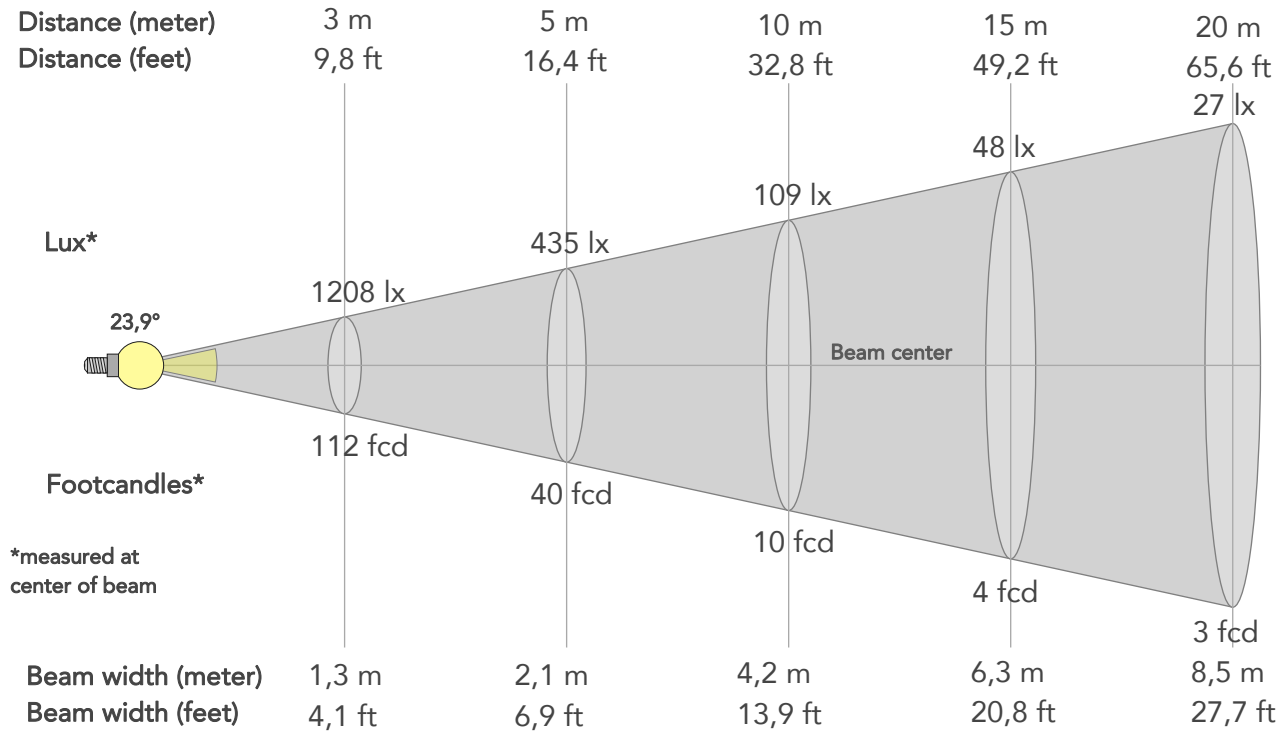
**Rg 123,2**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	43	27%	-4%
2	43	22%	-19%
3	42	12%	-24%
4	77	2%	-13%
5	84	4%	4%
6	62	16%	17%
7	50	26%	13%
8	50	26%	-8%
9	53	21%	-17%
10	51	9%	-27%
11	62	2%	-25%
12	77	-3%	-9%
13	87	-1%	7%
14	61	0%	27%
15	62	13%	16%
16	52	30%	13%



## BEAM DETAILS

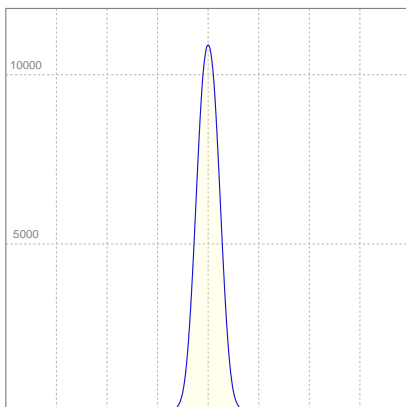
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,9°	40,9°	51,8°	99,3%	99,2%



### 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	10872lx	2718lx	1208lx	680lx	435lx	193lx	109lx	48lx	27lx	17lx	12lx	7lx	4lx
Footcand.	1010fcd	253fcd	112fcd	63fcd	40fcd	18fcd	10fcd	4fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,2m	4,2m	6,3m	8,5m	10,6m	12,7m	16,9m	21,1m
Beam wid.	1,4ft	2,8ft	4,1ft	5,5ft	6,9ft	10,4ft	13,9ft	20,8ft	27,7ft	34,7ft	41,6ft	55,5ft	69,3ft

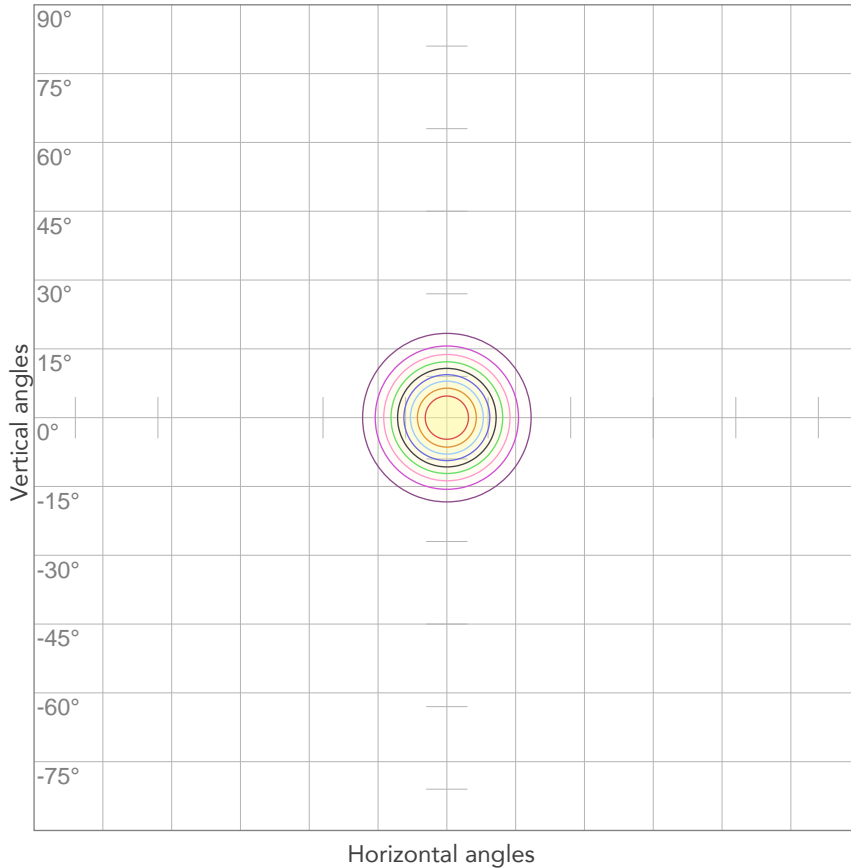
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,653A	130,7W	15lm/W

## ISO CANDELA DIAGRAM



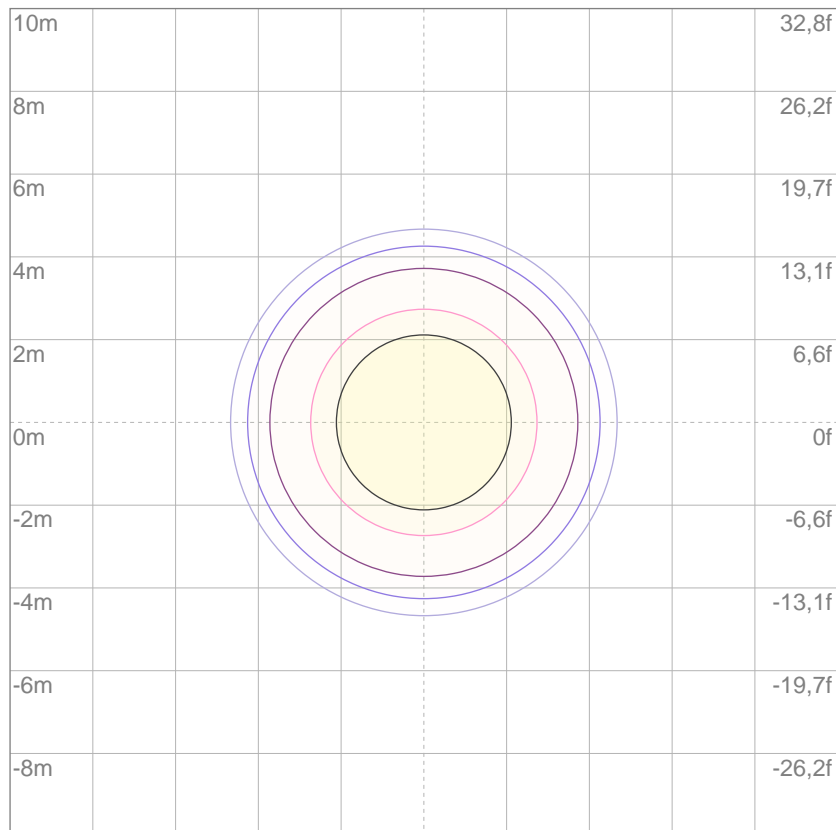
10%	1087 cd
20%	2174 cd
30%	3262 cd
40%	4349 cd
50%	5436 cd
60%	6523 cd
70%	7610 cd
80%	8698 cd

### Conditions:

Number of c-planes: 2

Candela at center: 10872 cd

## ISO LUX DIAGRAM



3%	3,26 lx
5%	5,44 lx
10%	10,9 lx
30%	32,6 lx
50%	54,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 109 lx

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



Total lumen output:

1783 lm

Peak candela output:

47941 cd

Light quality:

CRI: 37,3

Color temperature:

2965 K

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

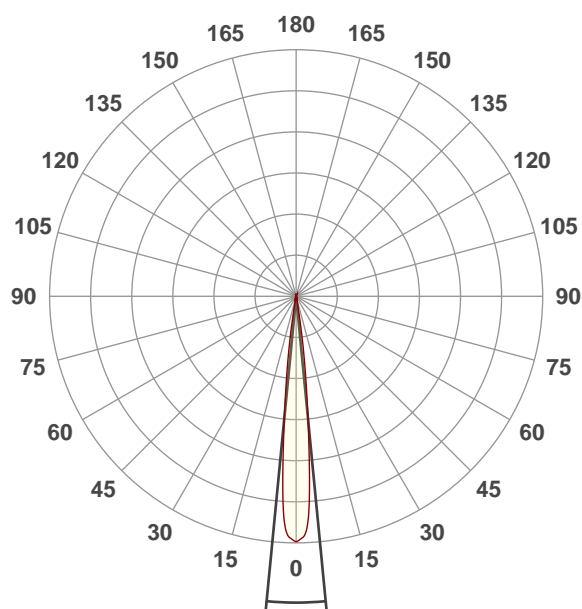
3200K

Operator:

Paolo Carvone

Date and time:

19/12/2019 15:44:14

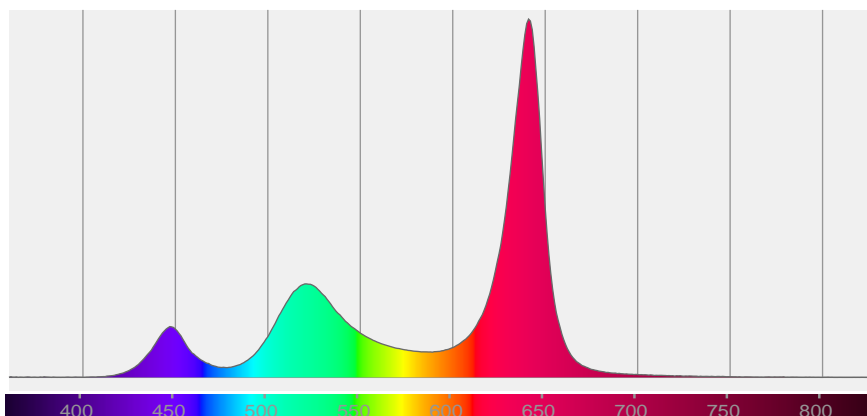


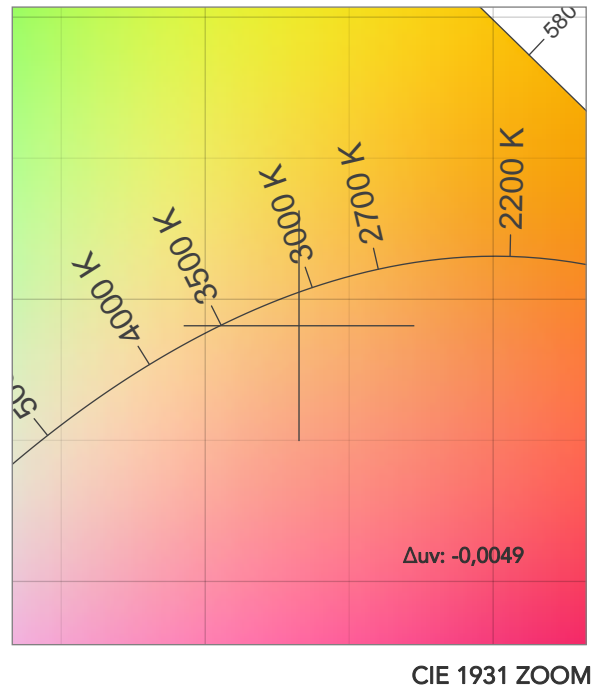
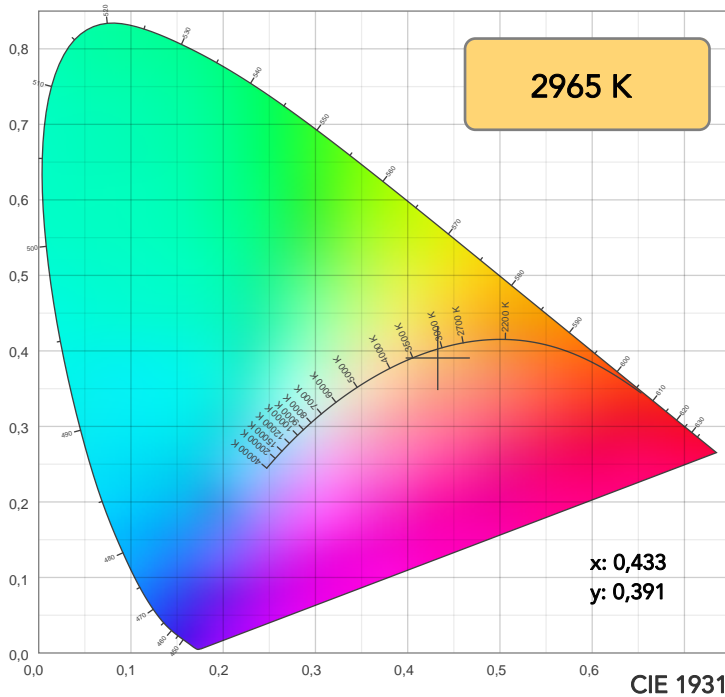
Beam angle 50%: 11,1°

Field angle 10%: 18°

Cut off angle 2.5%: 20,3°

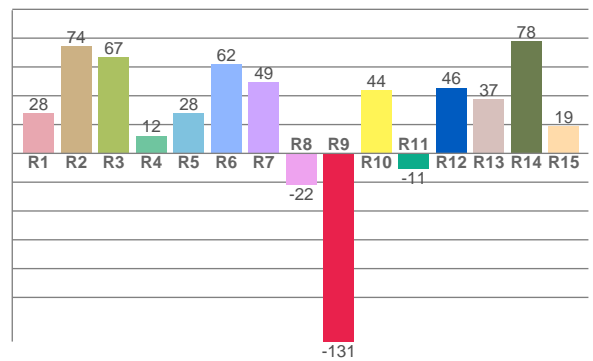
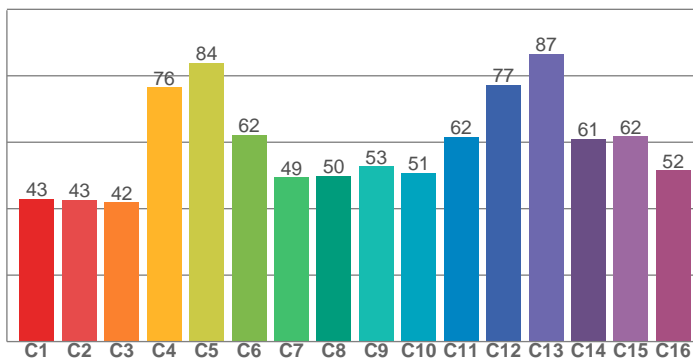
## Spectra





TM30: 59,4

CRI: 37,3 (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
27,7	74,2	66,9	12,2	28,0	61,6	49,2	-21,8	-130,7	43,7	-10,9	45,6	37,4	77,9	18,9

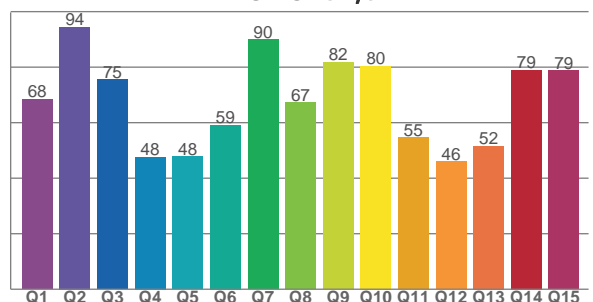
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
42,9	42,7	41,9	76,5	83,9	62,3	49,5	49,8	52,7	50,7	61,7	77,3	86,7	61,1	61,7	51,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
68,4	94,5	75,5	47,7	47,7	59,1	89,9	67,3	81,7	80,3	54,6	46,0	51,6	78,9	78,8

CQS: 64,3



## COLOR PARAMETERS

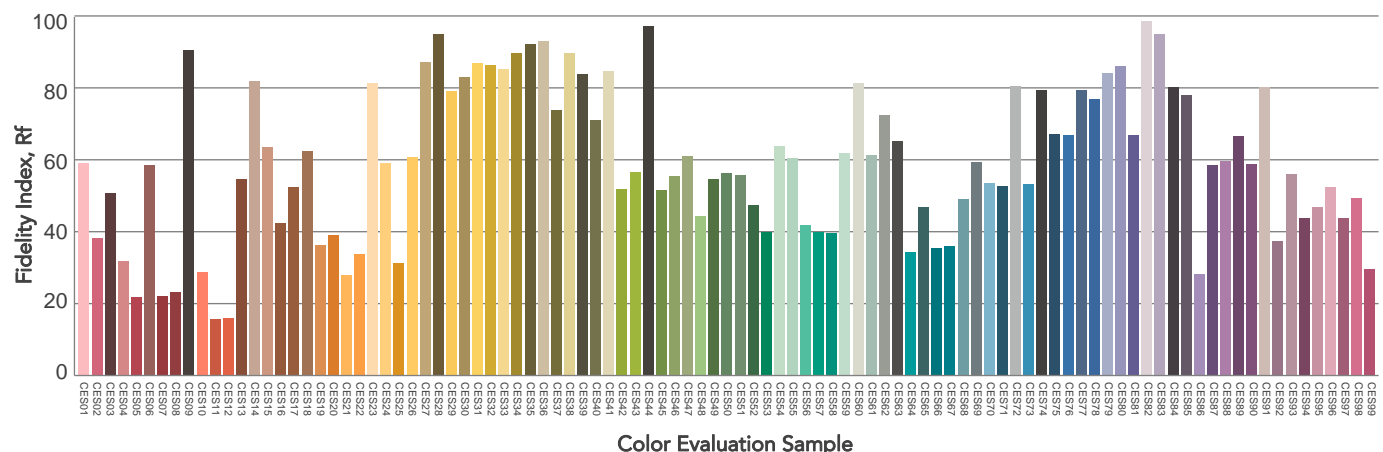
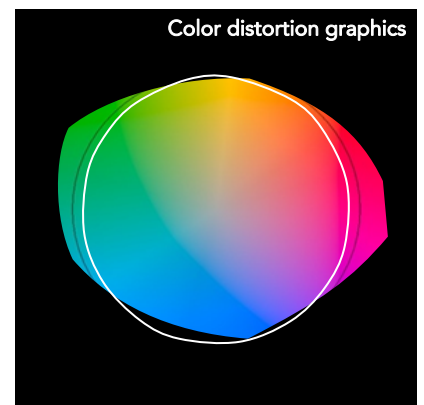
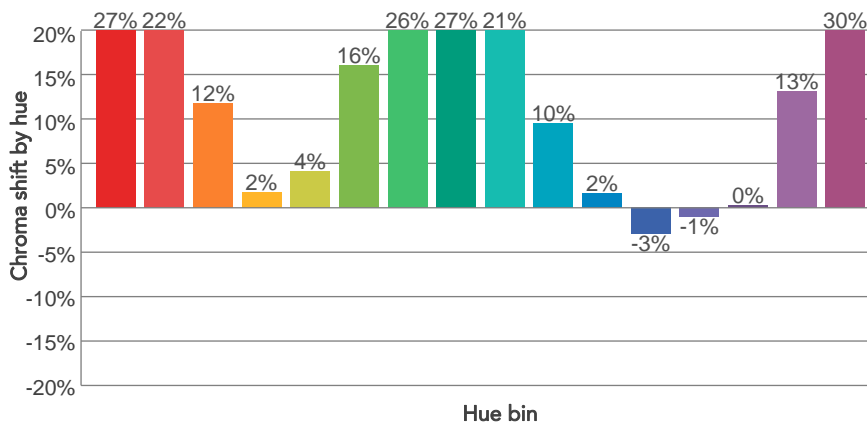
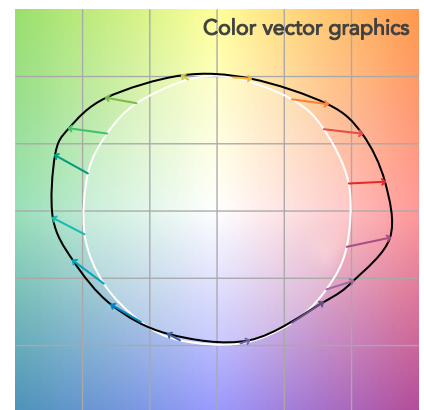
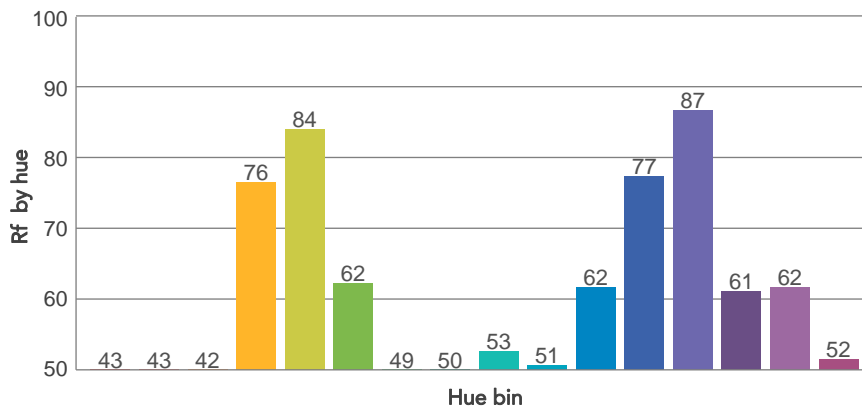
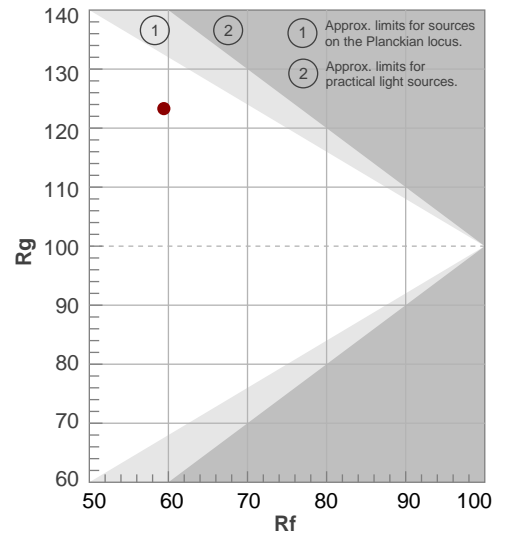
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
2965 K	37,3	-130,7	59,4	123,3	64,3	25	0,433	0,391	-0,0049

# TM30 DETAILS

**Rf 59,4**  
Fidelity index Rf

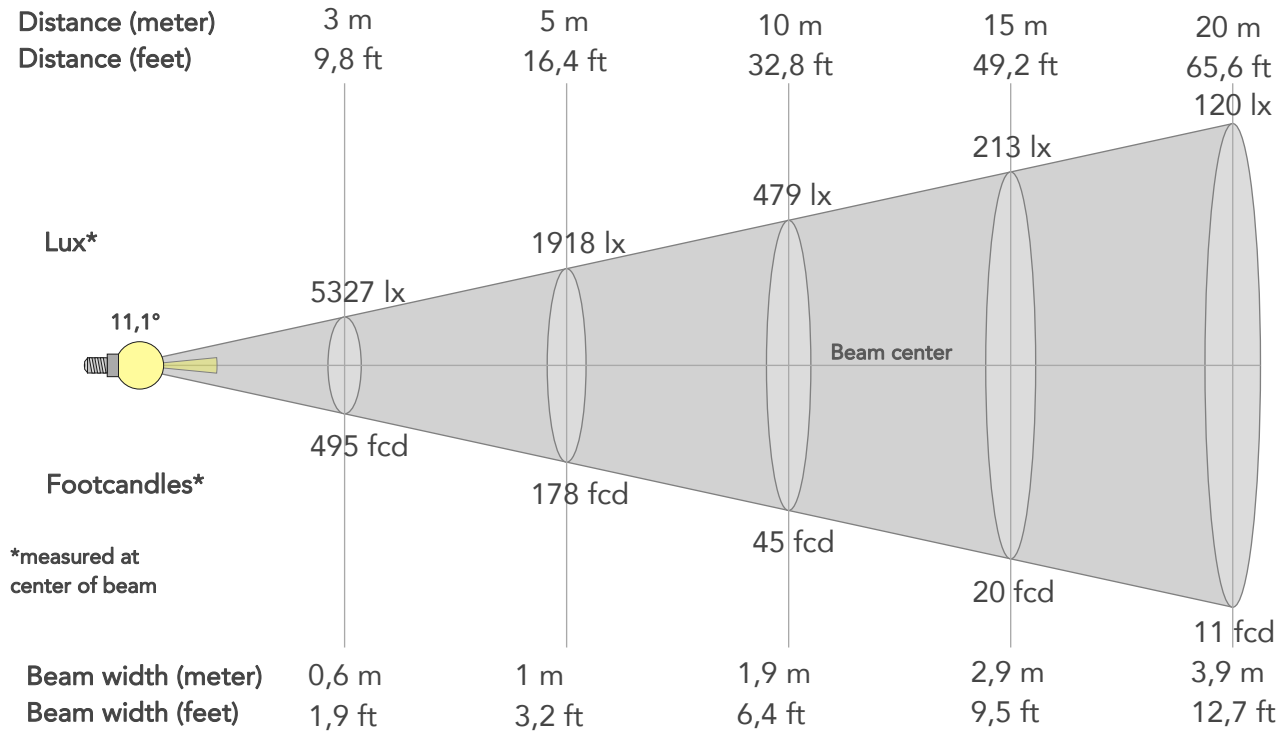
**Rg 123,3**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	43	27%	-4%
2	43	22%	-19%
3	42	12%	-24%
4	76	2%	-13%
5	84	4%	4%
6	62	16%	17%
7	49	26%	12%
8	50	27%	-9%
9	53	21%	-17%
10	51	10%	-27%
11	62	2%	-25%
12	77	-3%	-10%
13	87	-1%	7%
14	61	0%	27%
15	62	13%	16%
16	52	30%	13%



## BEAM DETAILS

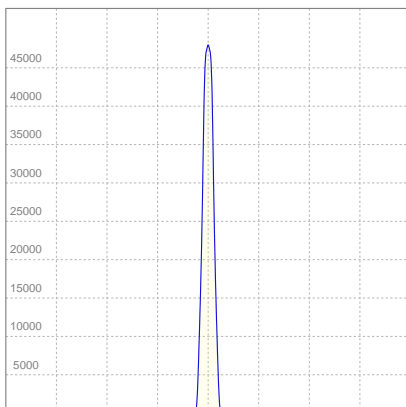
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,1°	18°	20,3°	100,0%	100,0%



### 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	47941lx	11985lx	5327lx	2996lx	1918lx	852lx	479lx	213lx	120lx	77lx	53lx	30lx	19lx
Footcand.	4454fcd	1113fcd	495fcd	278fcd	178fcd	79fcd	45fcd	20fcd	11fcd	7fcd	5fcd	3fcd	2fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	1,9m	2,9m	3,9m	4,8m	5,8m	7,8m	9,7m
Beam wid.	0,6ft	1,3ft	1,9ft	2,5ft	3,2ft	4,8ft	6,4ft	9,5ft	12,7ft	15,9ft	19,1ft	25,4ft	31,8ft

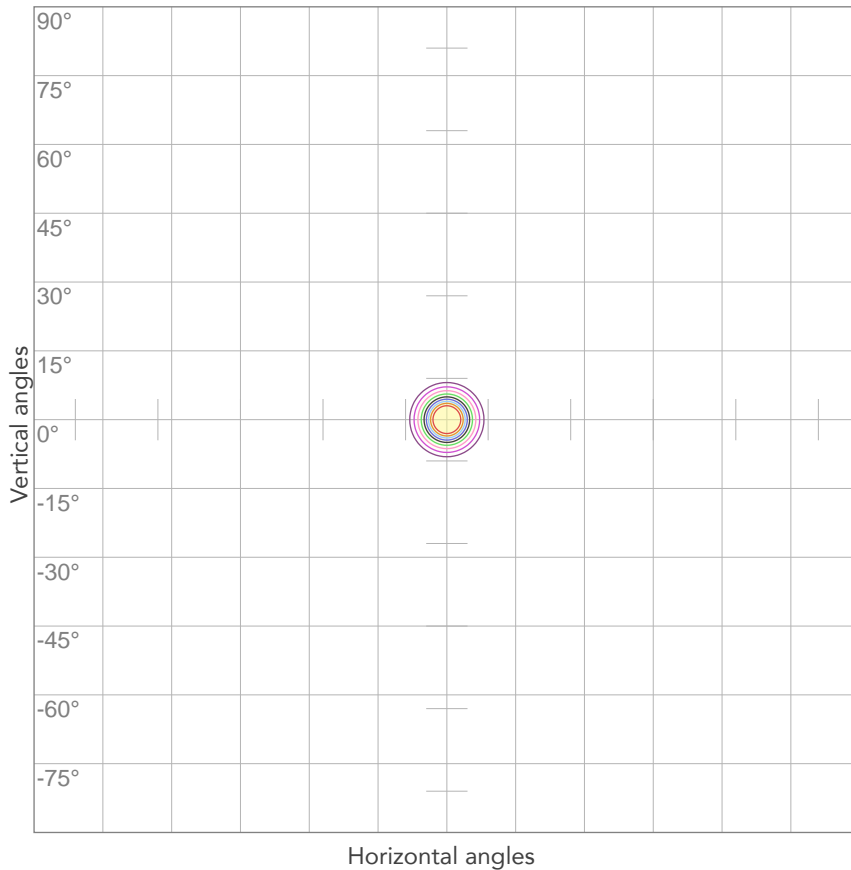
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,653A	130,5W	14lm/W

## ISO CANDELA DIAGRAM



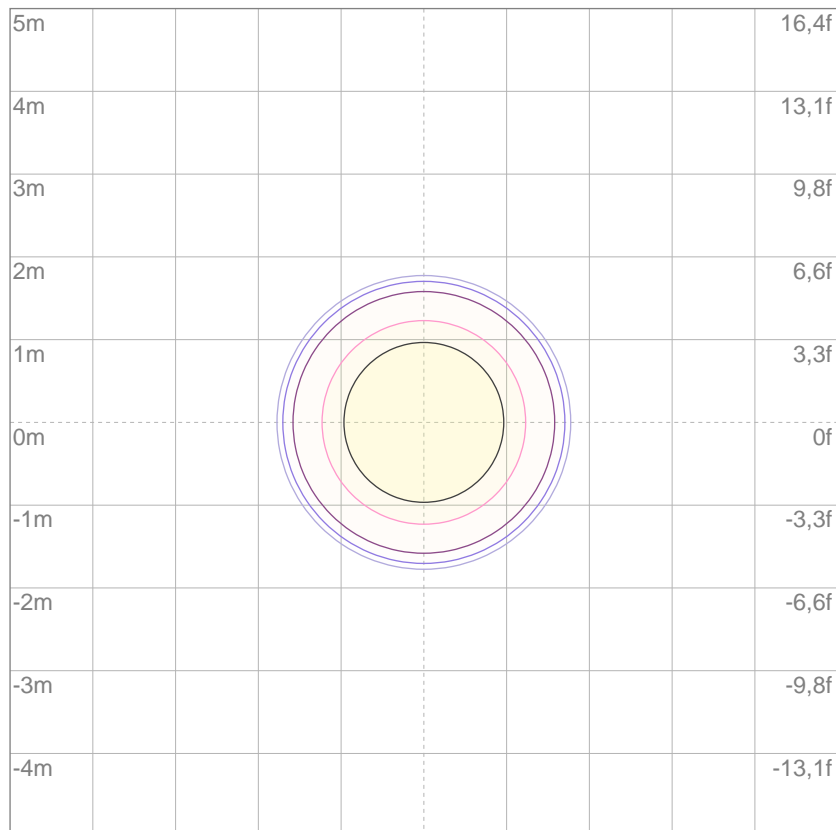
10%	4794 cd
20%	9588 cd
30%	14382 cd
40%	19177 cd
50%	23971 cd
60%	28765 cd
70%	33559 cd
80%	38353 cd

### Conditions:

Number of c-planes: 2

Candela at center: 47941 cd

## ISO LUX DIAGRAM



3%	14,4 lx
5%	24,0 lx
10%	47,9 lx
30%	144 lx
50%	240 lx

### Conditions:

Number of c-planes: 2

Lux at center: 479 lx

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



Total lumen output:

1278 lm

Peak candela output:

78794 cd

Light quality:

CRI: 36,2

Color temperature:

2880 K

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

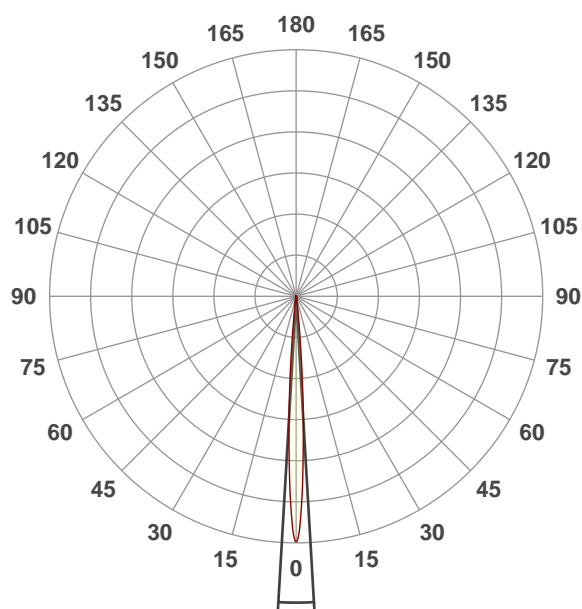
3200K

Operator:

Paolo Carvone

Date and time:

19/12/2019 14:30:55

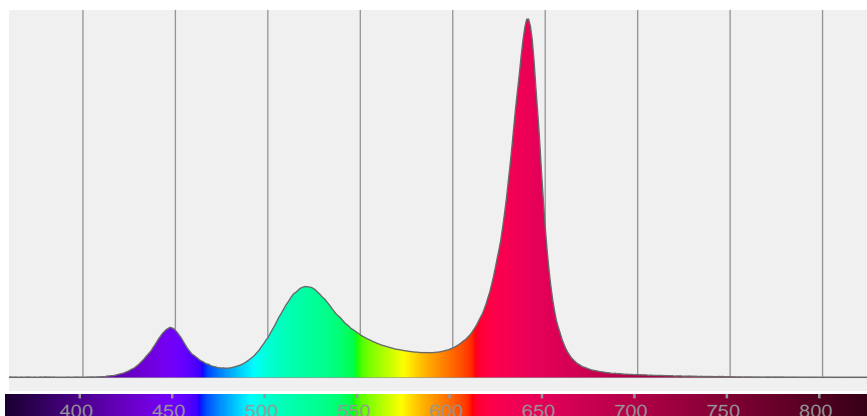


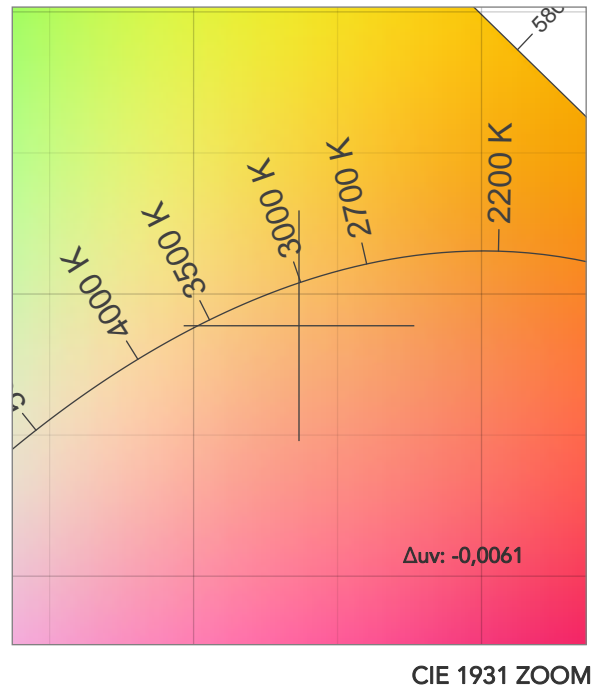
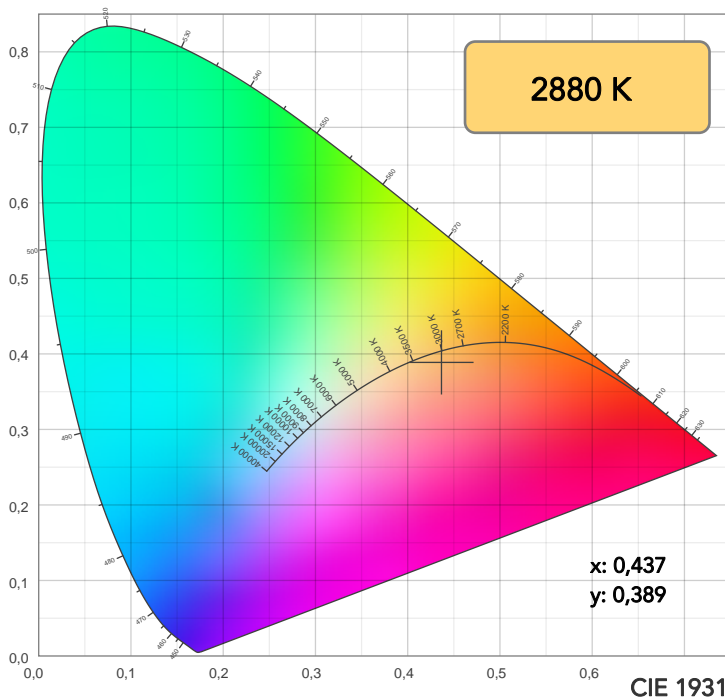
Beam angle 50%: 6,7°

Field angle 10%: 12,2°

Cut off angle 2.5%: 16,4°

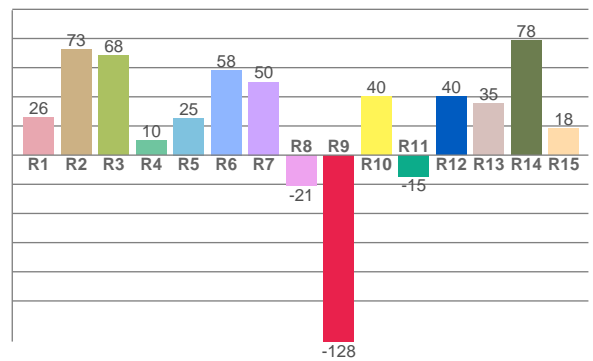
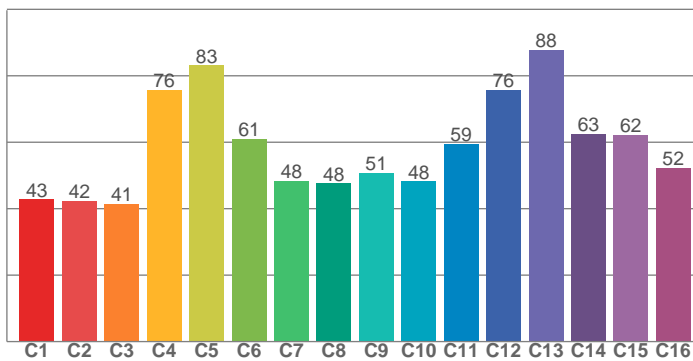
## Spectra





TM30: 58,7

CRI: 36,2 (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
25,9	72,6	68,1	10,0	25,4	58,4	50,2	-21,2	-127,9	40,3	-14,6	40,2	35,3	78,4	18,3

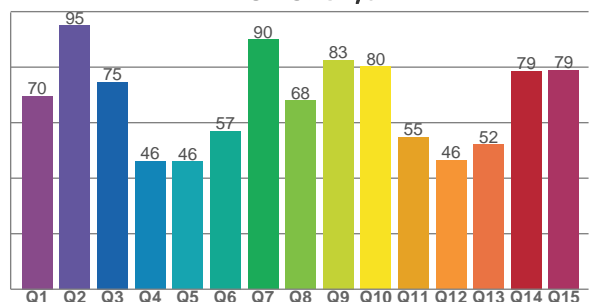
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
42,8	42,4	41,4	75,8	83,2	61,0	48,3	47,6	50,8	48,3	59,4	75,7	87,8	62,5	62,2	52,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
69,5	95,0	74,6	46,1	46,0	57,0	89,9	68,0	82,5	80,2	54,7	46,4	52,0	78,6	78,8

CQS: 64,0



## COLOR PARAMETERS

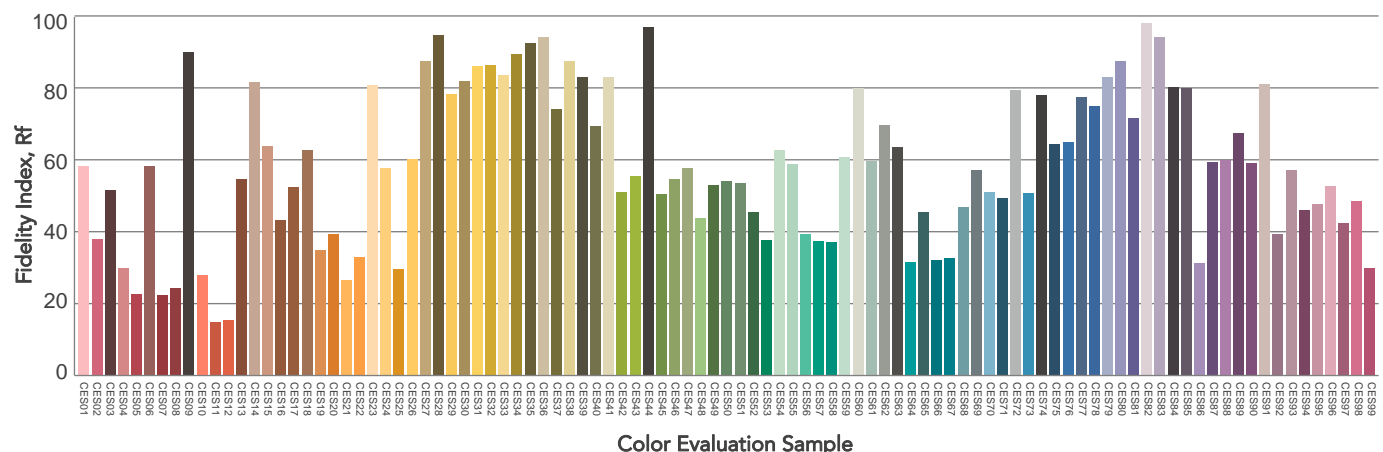
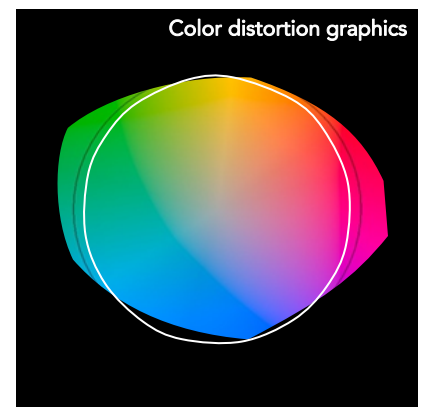
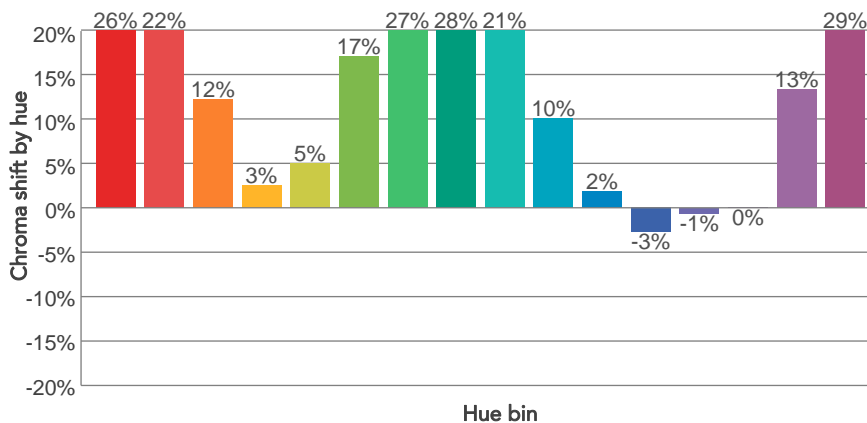
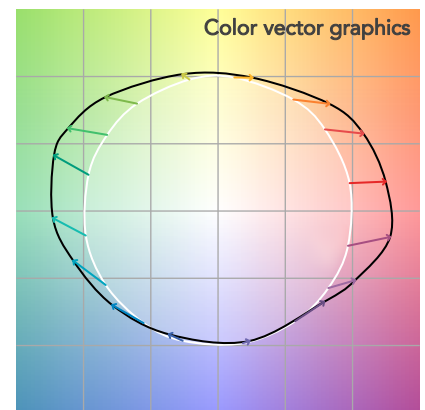
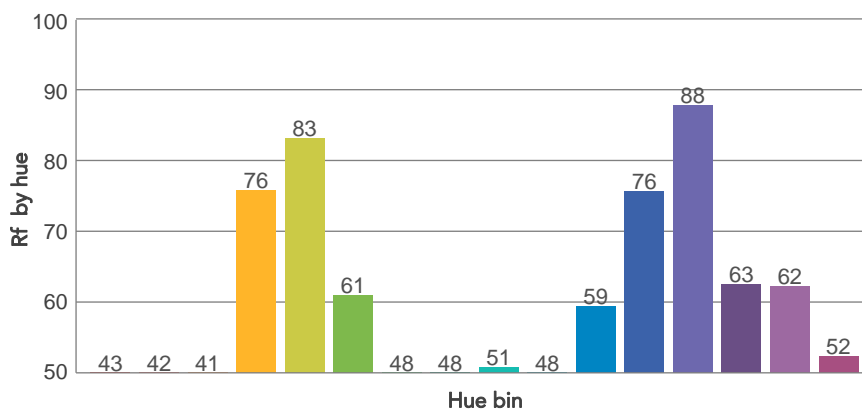
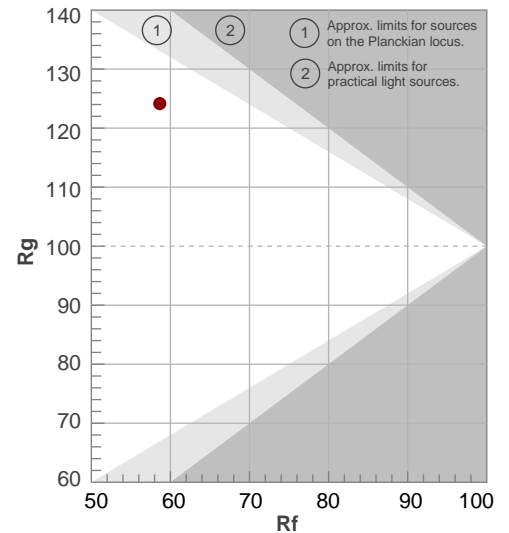
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2880 K	36,2	-127,9	58,7	124,2	64,0	24	0,437	0,389	-0,0061

# TM30 DETAILS

**Rf 58,7**  
Fidelity index Rf

**Rg 124,2**  
Gammut index

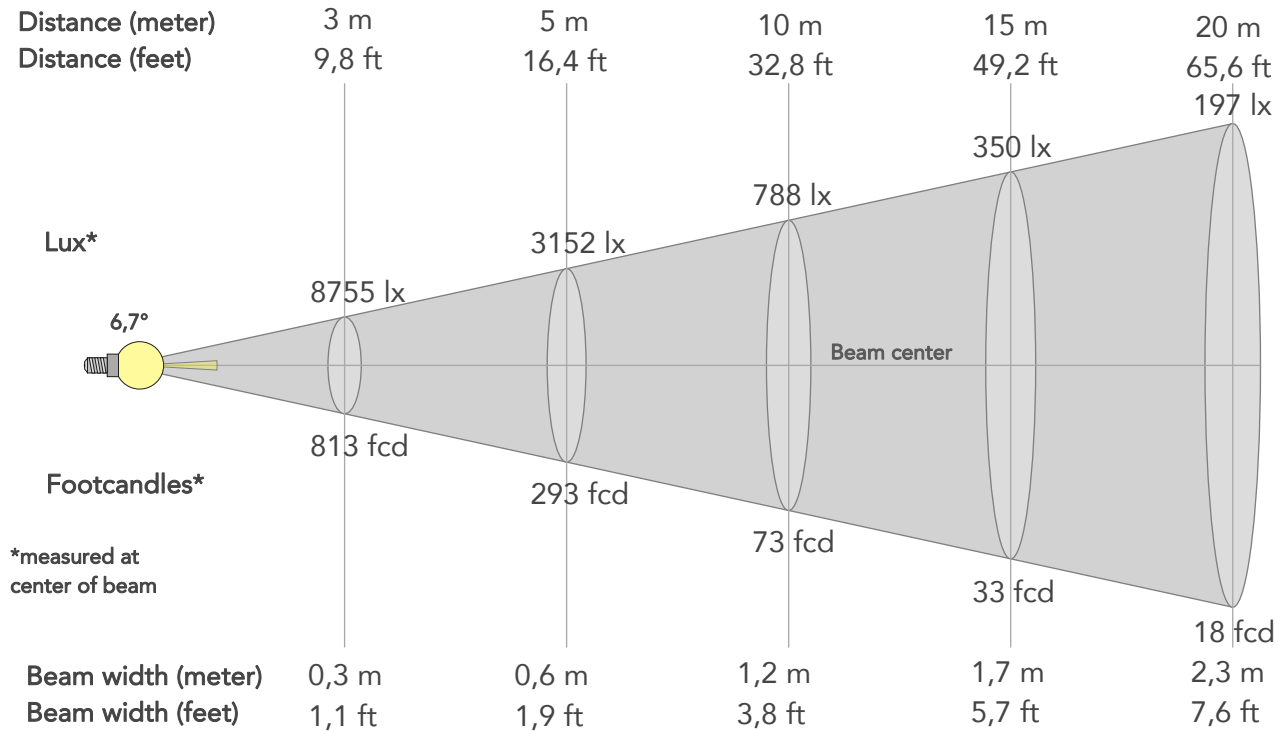
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	43	26%	-4%
2	42	22%	-18%
3	41	12%	-24%
4	76	3%	-13%
5	83	5%	4%
6	61	17%	17%
7	48	27%	12%
8	48	28%	-9%
9	51	21%	-17%
10	48	10%	-28%
11	59	2%	-27%
12	76	-3%	-11%
13	88	-1%	5%
14	63	0%	26%
15	62	13%	16%
16	52	29%	13%



## BEAM DETAILS



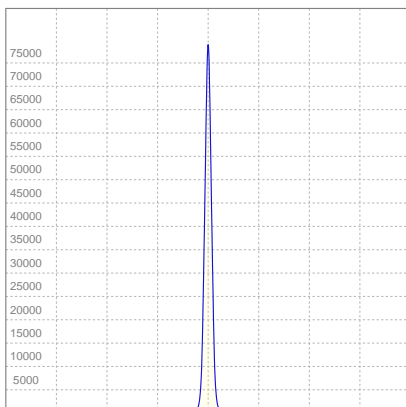
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,7°	12,2°	16,4°	99,5%	99,4%



### 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	78794lx	19699lx	8755lx	4925lx	3152lx	1401lx	788lx	350lx	197lx	126lx	88lx	49lx	32lx
Footcand.	7320fcd	1830fcd	813fcd	458fcd	293fcd	130fcd	73fcd	33fcd	18fcd	12fcd	8fcd	5fcd	3fcd
Beam wid.	0,1m	0,2m	0,3m	0,5m	0,6m	0,9m	1,2m	1,7m	2,3m	2,9m	3,5m	4,7m	5,8m
Beam wid.	0,4ft	0,8ft	1,1ft	1,5ft	1,9ft	2,9ft	3,8ft	5,7ft	7,6ft	9,5ft	11,4ft	15,3ft	19,1ft

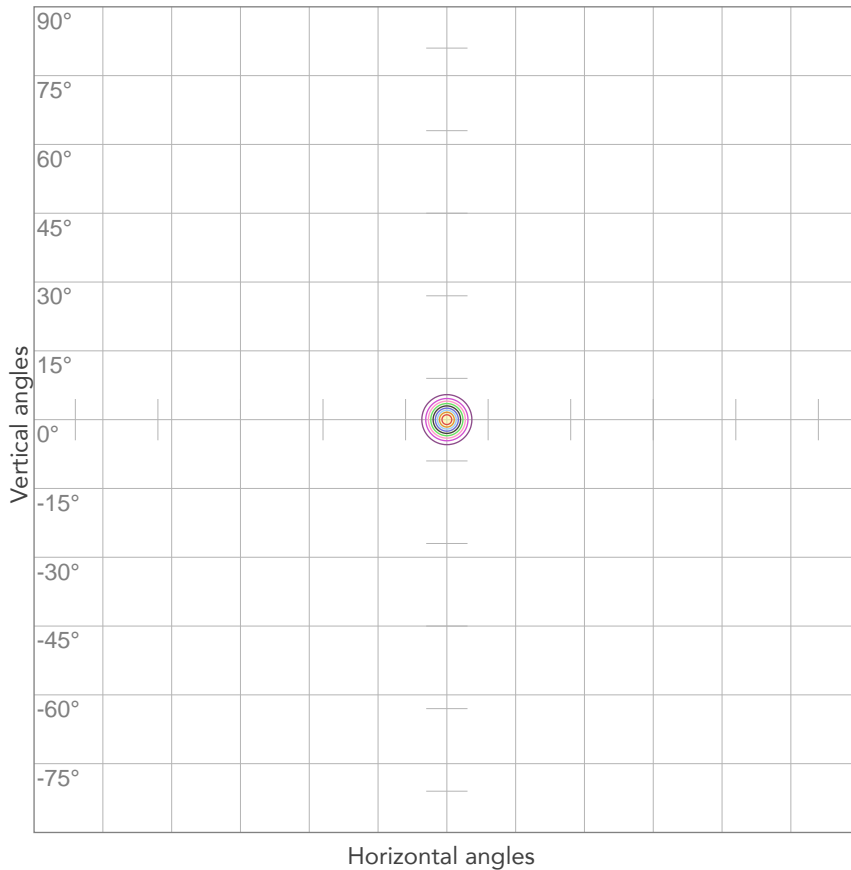
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,660A	131,7W	10lm/W

## ISO CANDELA DIAGRAM



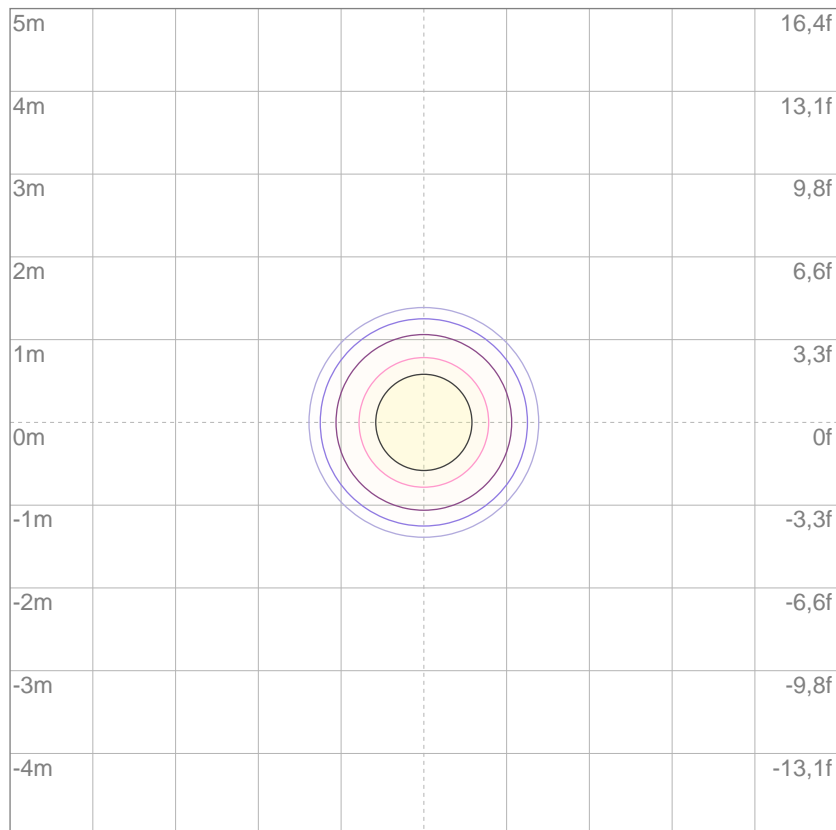
10%	7879 cd
20%	15759 cd
30%	23638 cd
40%	31518 cd
50%	39397 cd
60%	47276 cd
70%	55156 cd
80%	63035 cd

### Conditions:

Number of c-planes: 2

Candela at center: 78794 cd

## ISO LUX DIAGRAM



3%	23,6 lx
5%	39,4 lx
10%	78,8 lx
30%	236 lx
50%	394 lx

### Conditions:

Number of c-planes: 2

Lux at center: 788 lx

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



Total lumen output:

3227 lm

Peak candela output:

17747 cd

Light quality:

CRI: 70,2

Color temperature:

4564 K

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

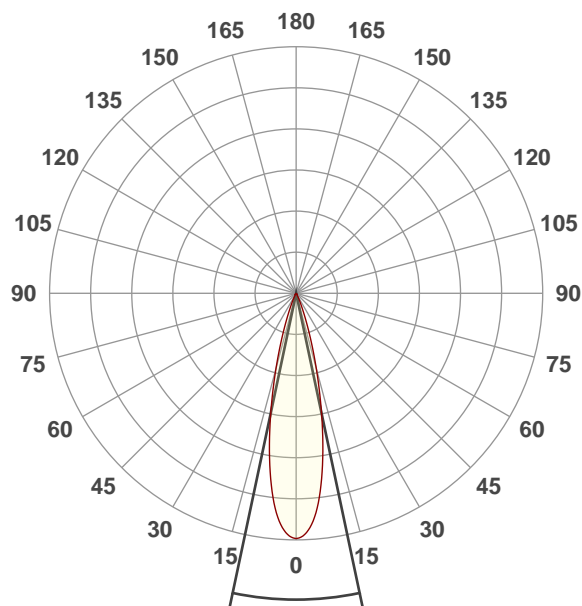
4000K

Operator:

Paolo Carvone

Date and time:

19/12/2019 15:40:29

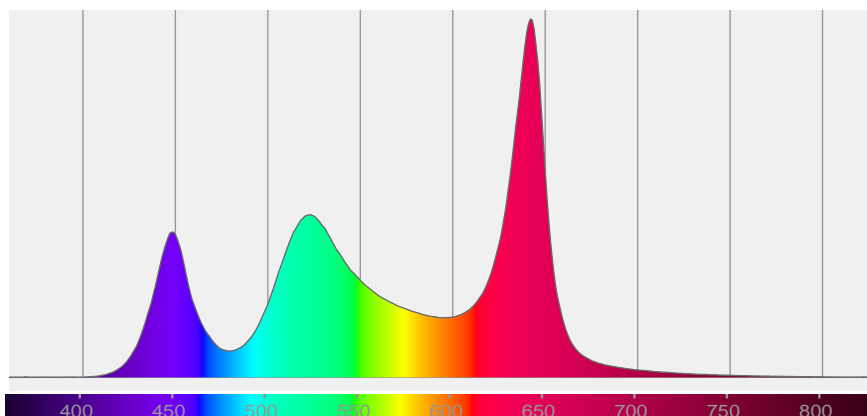


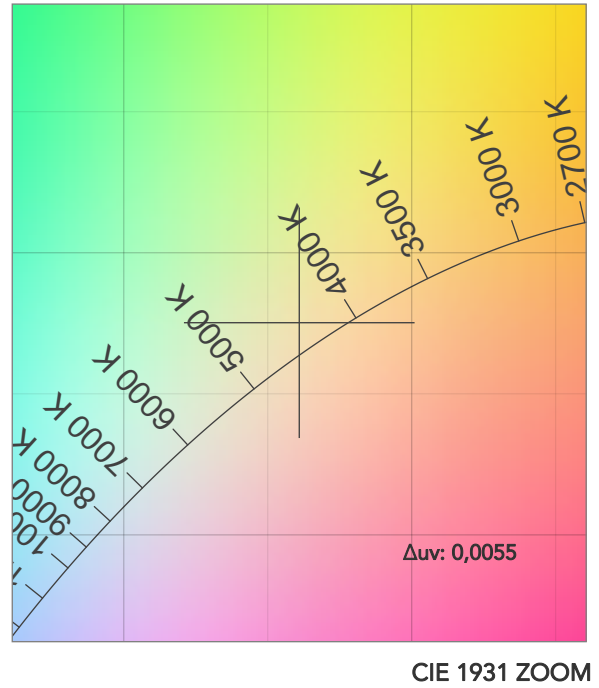
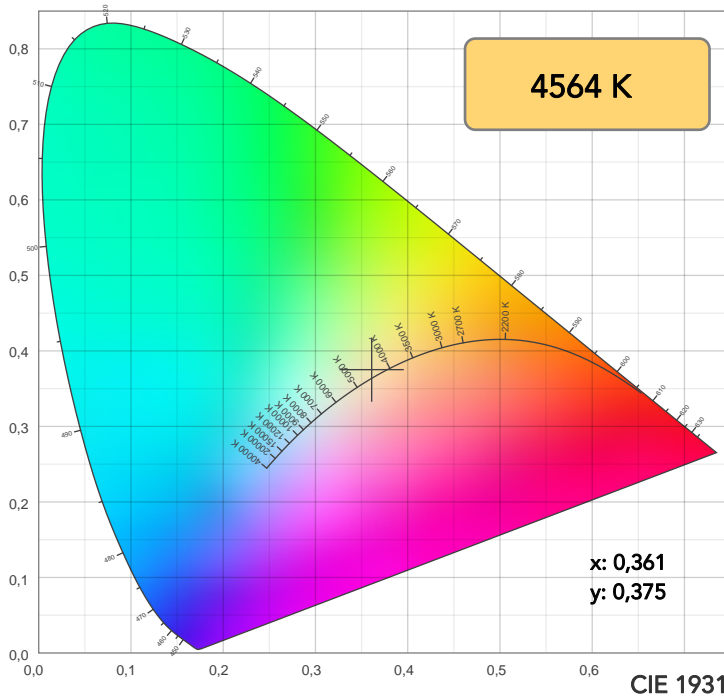
Beam angle 50%: 23,9°

Field angle 10%: 40,9°

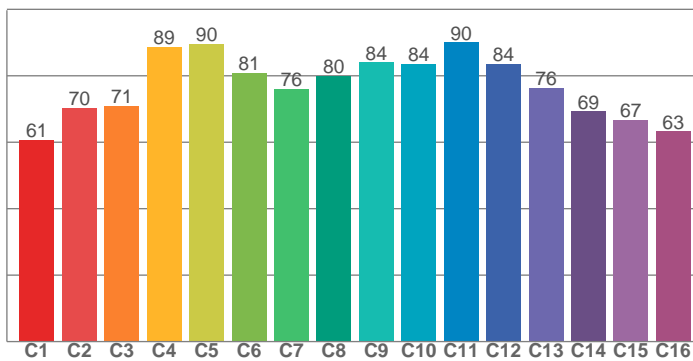
Cut off angle 2.5%: 51,8°

## Spectra

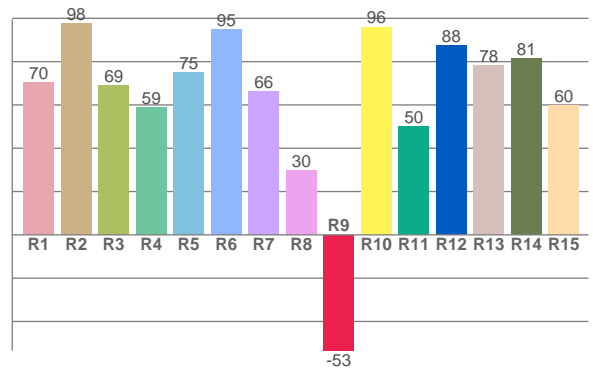




TM30: 78,0



CRI: 70,2 (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
70,4	97,7	69,2	58,8	74,9	94,7	66,3	29,6	-53,5	96,1	50,0	87,6	78,4	81,4	59,9

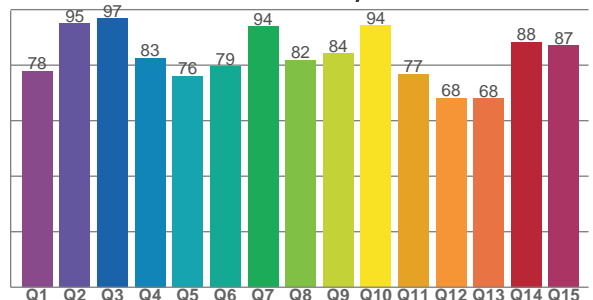
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
60,8	70,4	70,9	88,7	89,6	81,0	76,0	79,9	84,0	83,6	90,0	83,6	76,4	69,3	66,7	63,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
77,8	95,0	96,7	82,5	76,0	79,4	93,9	81,7	84,2	94,2	76,7	68,1	67,9	88,3	87,1

CQS: 81,1



## COLOR PARAMETERS

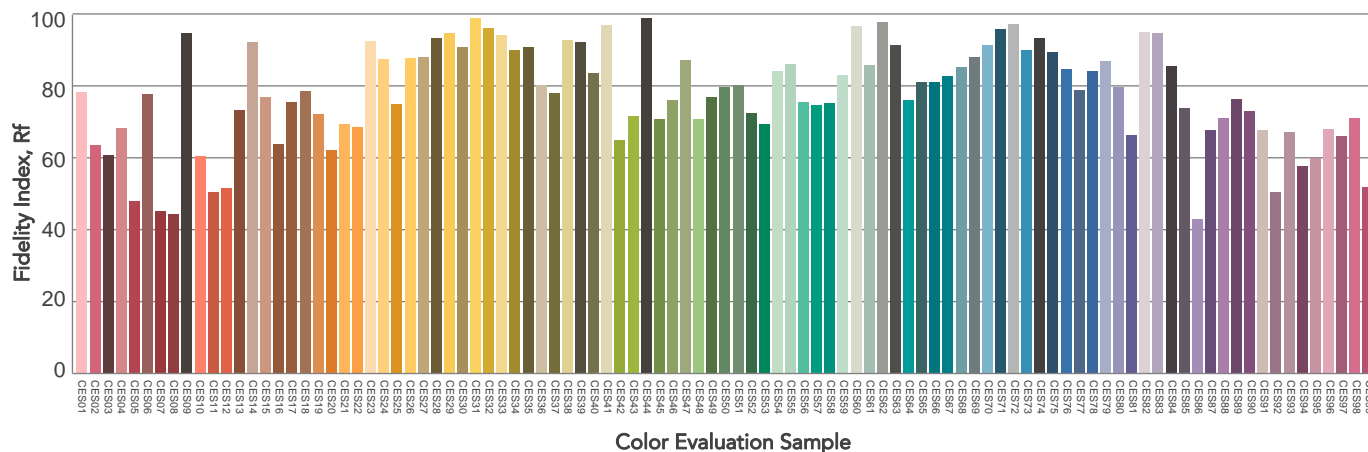
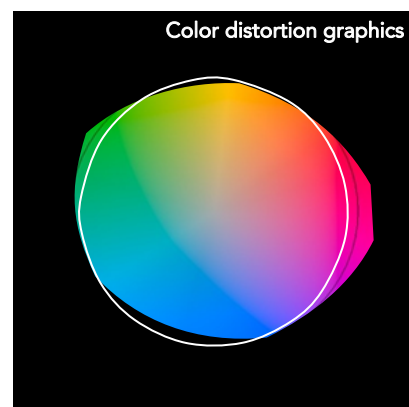
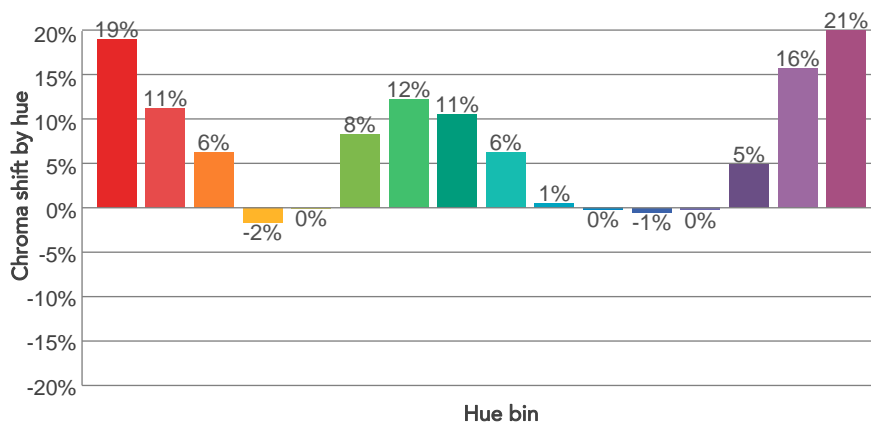
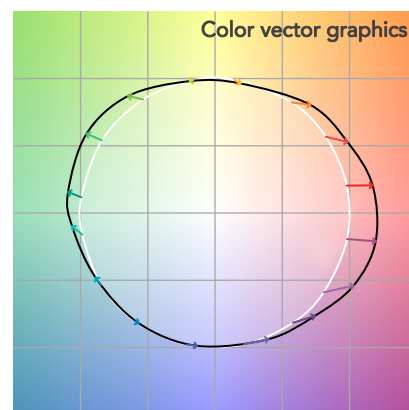
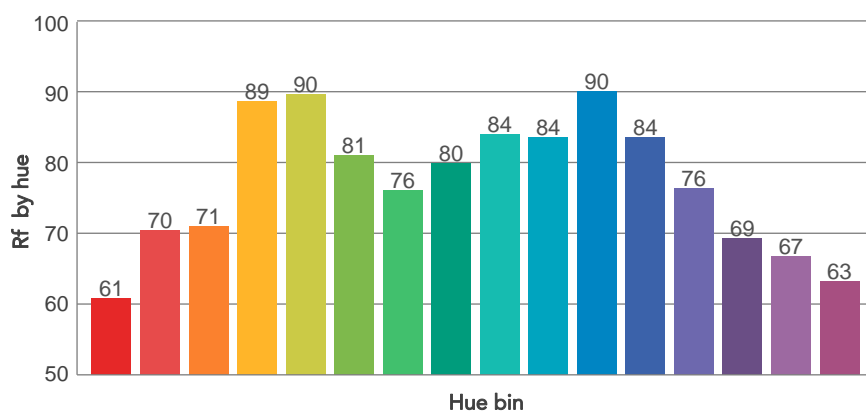
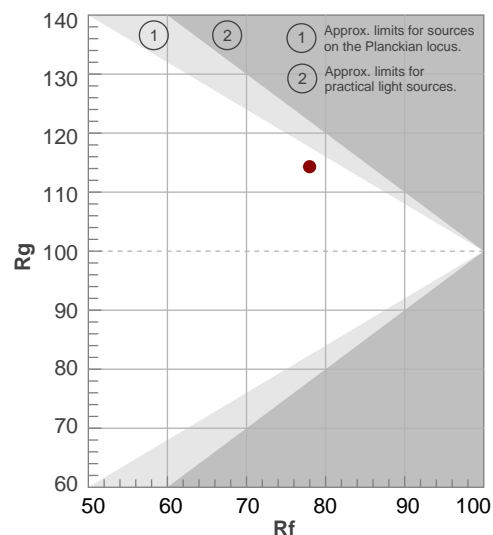
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4564 K	70,2	-53,5	78,0	114,3	81,1	56	0,361	0,375	0,0055

# TM30 DETAILS

**Rf 78,0**  
Fidelity index Rf

**Rg 114,3**  
Gammut index

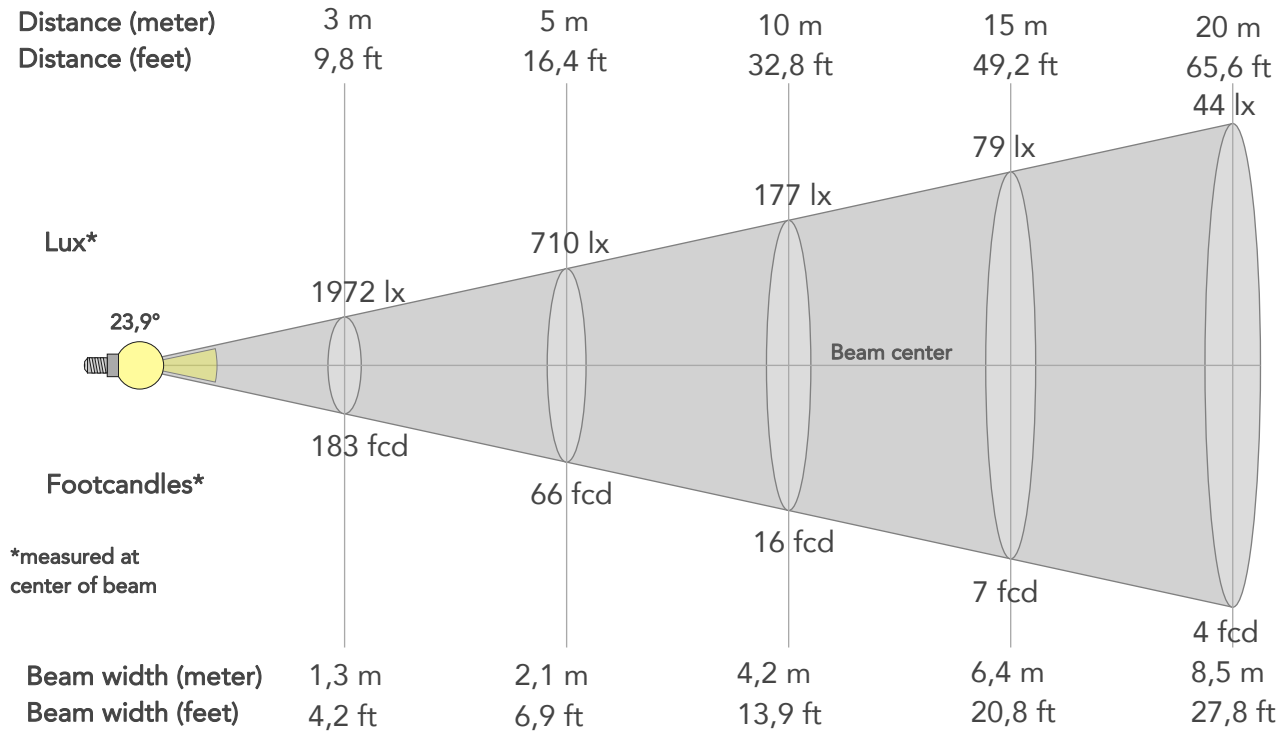
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	61	19%	-3%
2	70	11%	-12%
3	71	6%	-13%
4	89	-2%	-5%
5	90	0%	3%
6	81	8%	8%
7	76	12%	2%
8	80	11%	-2%
9	84	6%	-7%
10	84	1%	-7%
11	90	0%	3%
12	84	-1%	8%
13	76	0%	18%
14	69	5%	16%
15	67	16%	17%
16	63	21%	3%



## BEAM DETAILS



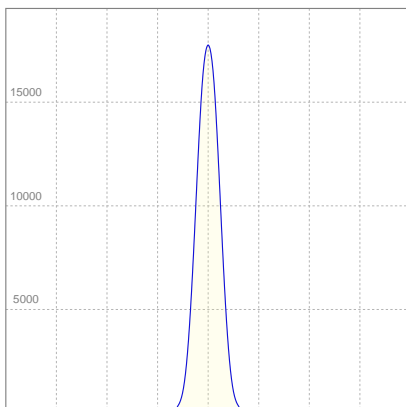
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,9°	40,9°	51,8°	100,0%	100,0%



### 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	17747lx	4437lx	1972lx	1109lx	710lx	315lx	177lx	79lx	44lx	28lx	20lx	11lx	7lx
Footcand.	1649fcd	412fcd	183fcd	103fcd	66fcd	29fcd	16fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,2m	4,2m	6,4m	8,5m	10,6m	12,7m	16,9m	21,2m
Beam wid.	1,4ft	2,8ft	4,2ft	5,6ft	6,9ft	10,4ft	13,9ft	20,8ft	27,8ft	34,7ft	41,7ft	55,6ft	69,5ft

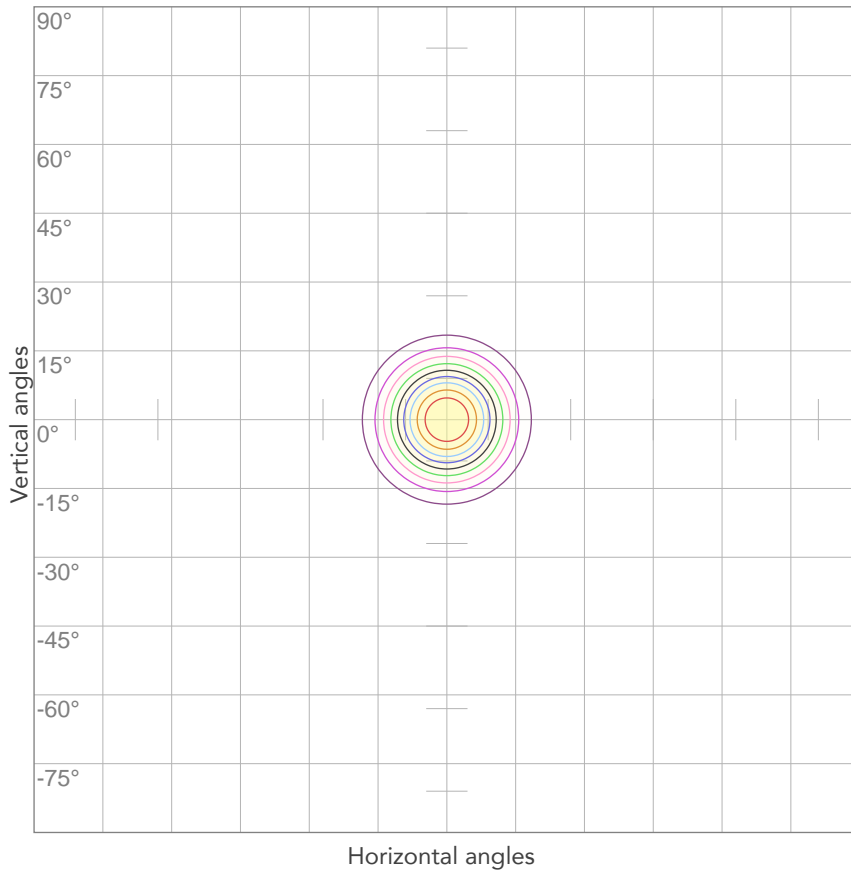
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,884A	183,4W	18lm/W

## ISO CANDELA DIAGRAM



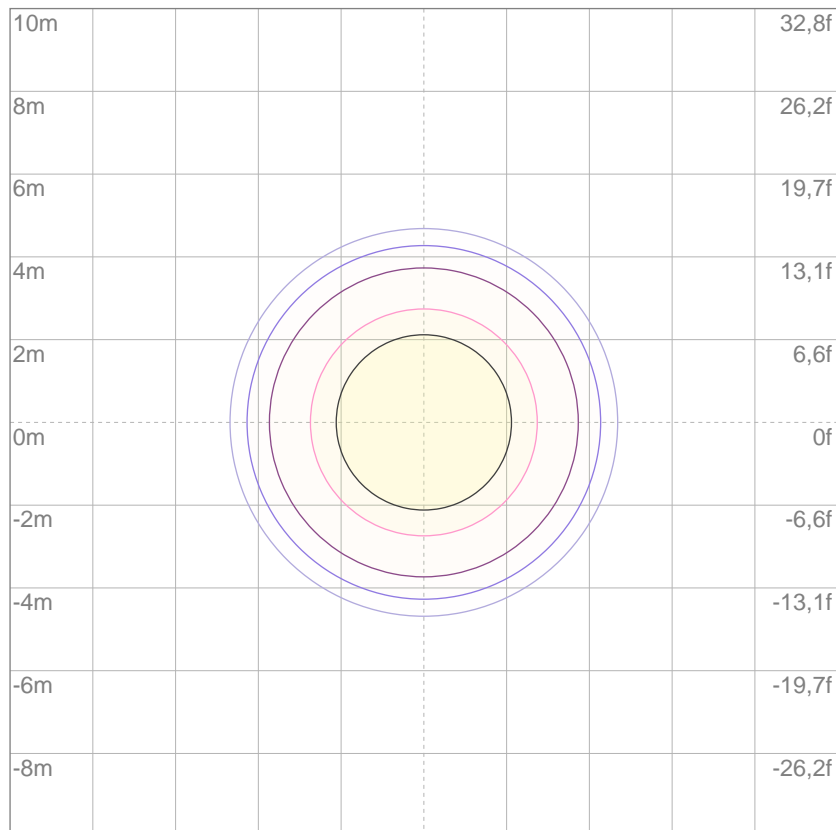
10%	1775 cd
20%	3549 cd
30%	5324 cd
40%	7099 cd
50%	8873 cd
60%	10648 cd
70%	12423 cd
80%	14197 cd

### Conditions:

Number of c-planes: 2

Candela at center: 17747 cd

## ISO LUX DIAGRAM



3%	5,32 lx
5%	8,87 lx
10%	17,7 lx
30%	53,2 lx
50%	88,7 lx

### Conditions:

Number of c-planes: 2

Lux at center: 177 lx

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



Total lumen output:

2895 lm

Peak candela output:

77501 cd

Light quality:

CRI: 70,5

Color temperature:

4609 K

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

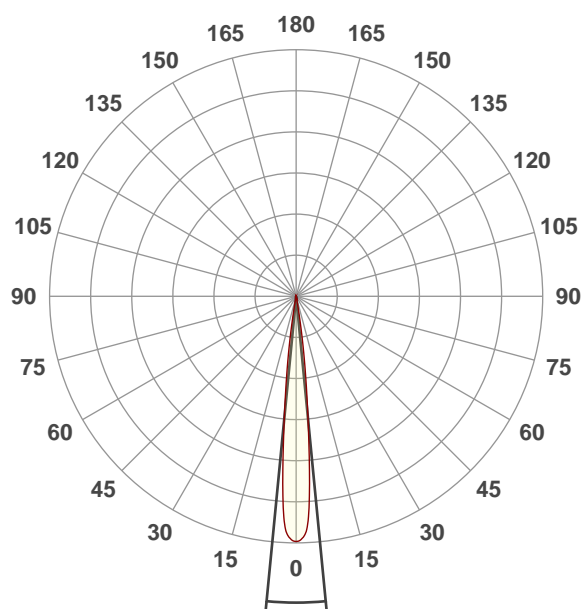
4000K

Operator:

Paolo Carvone

Date and time:

19/12/2019 15:47:05

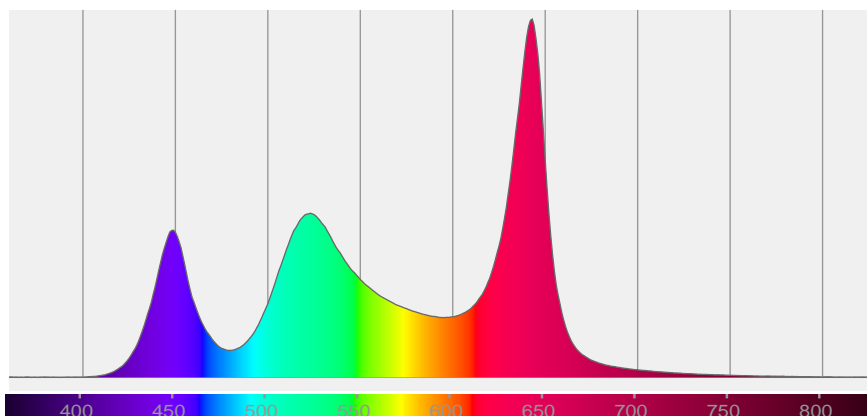


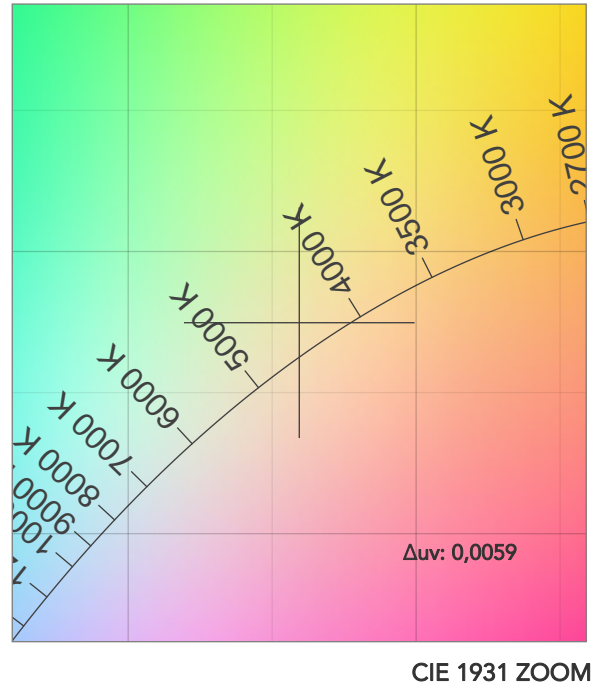
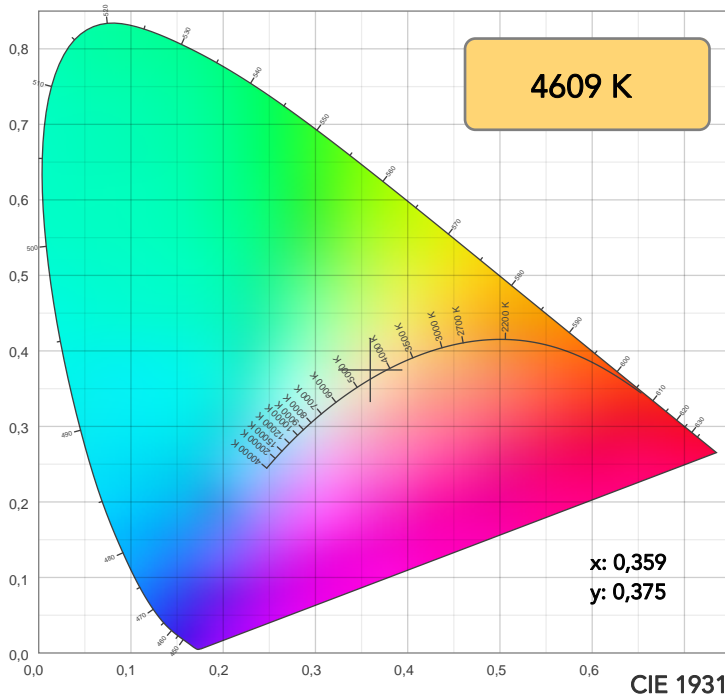
Beam angle 50%: 11,1°

Field angle 10%: 18°

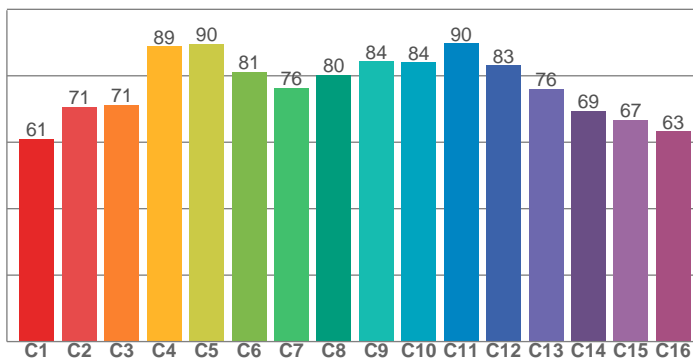
Cut off angle 2.5%: 20,4°

## Spectra

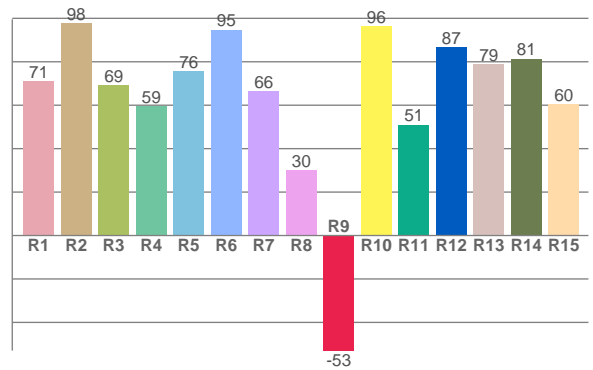




TM30: 78,1



CRI: 70,5 (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
71,0	97,8	69,2	59,5	75,6	94,7	66,4	30,1	-53,0	96,5	50,9	86,6	78,9	81,4	60,4

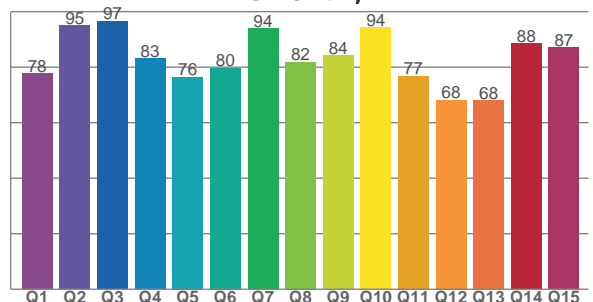
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
61,0	70,7	71,2	88,9	89,6	81,2	76,4	80,3	84,3	84,0	89,8	83,1	76,0	69,5	66,6	63,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
77,6	95,0	96,5	83,1	76,5	79,8	93,9	81,9	84,2	94,2	76,9	68,2	67,9	88,4	87,1

CQS: 81,2



## COLOR PARAMETERS

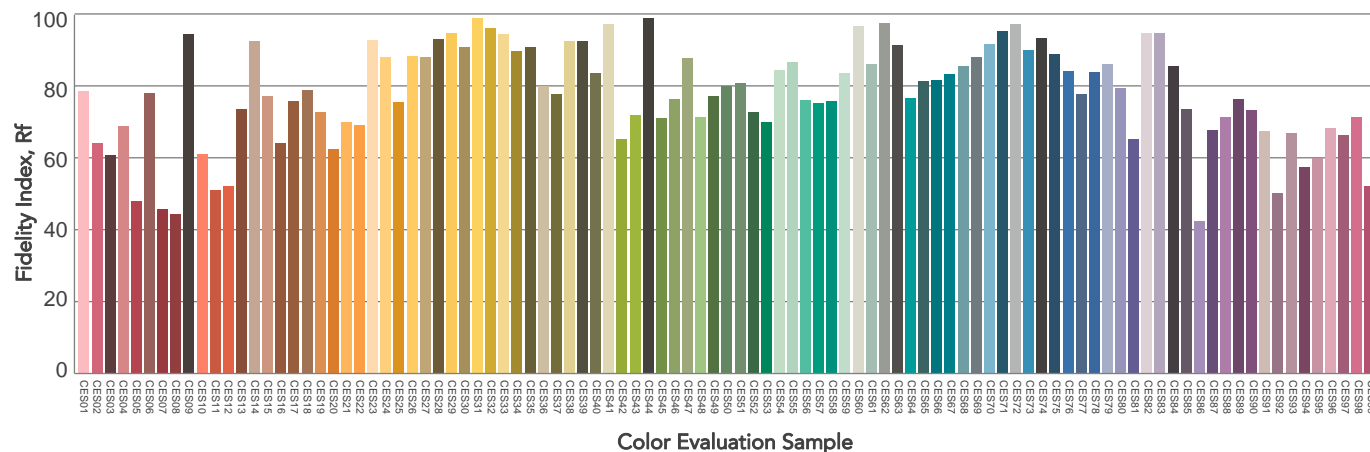
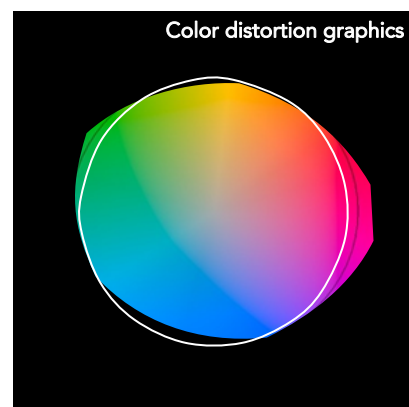
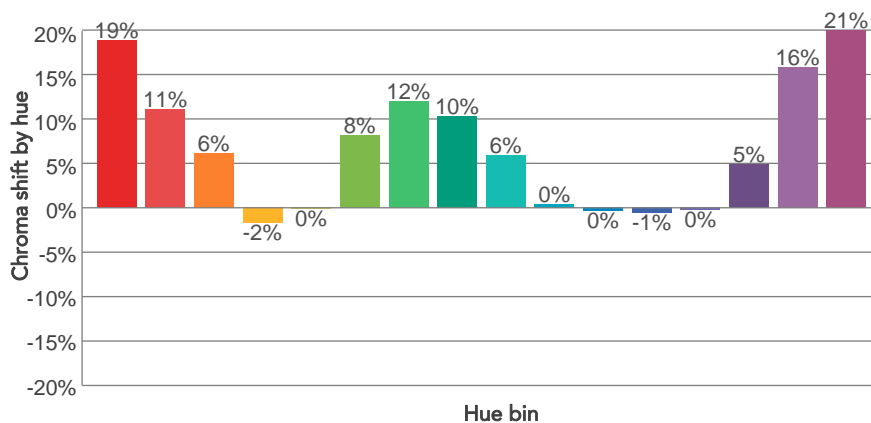
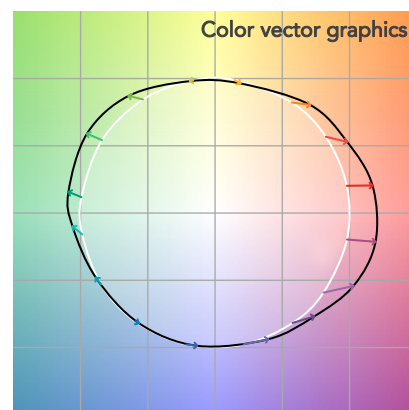
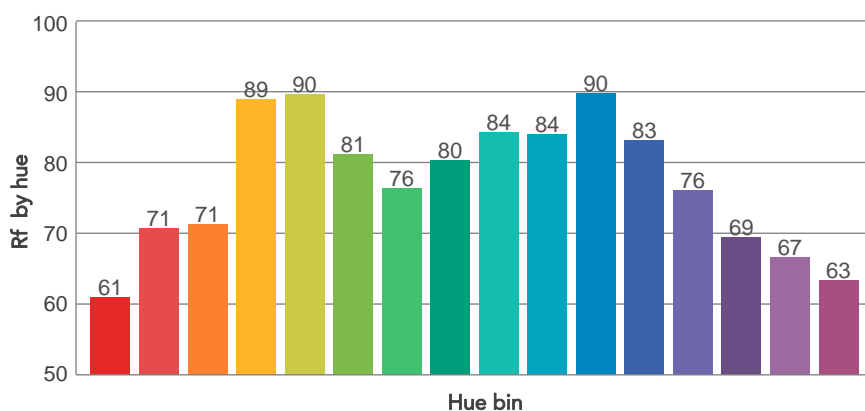
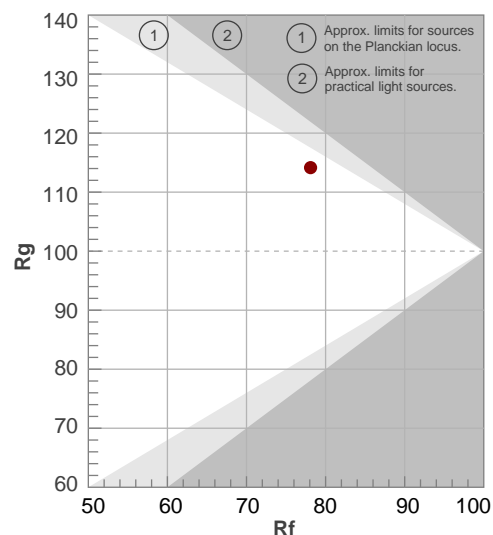
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4609 K	70,5	-53,0	78,1	114,2	81,2	56	0,359	0,375	0,0059

# TM30 DETAILS

**Rf 78,1**  
Fidelity index Rf

**Rg 114,2**  
Gammut index

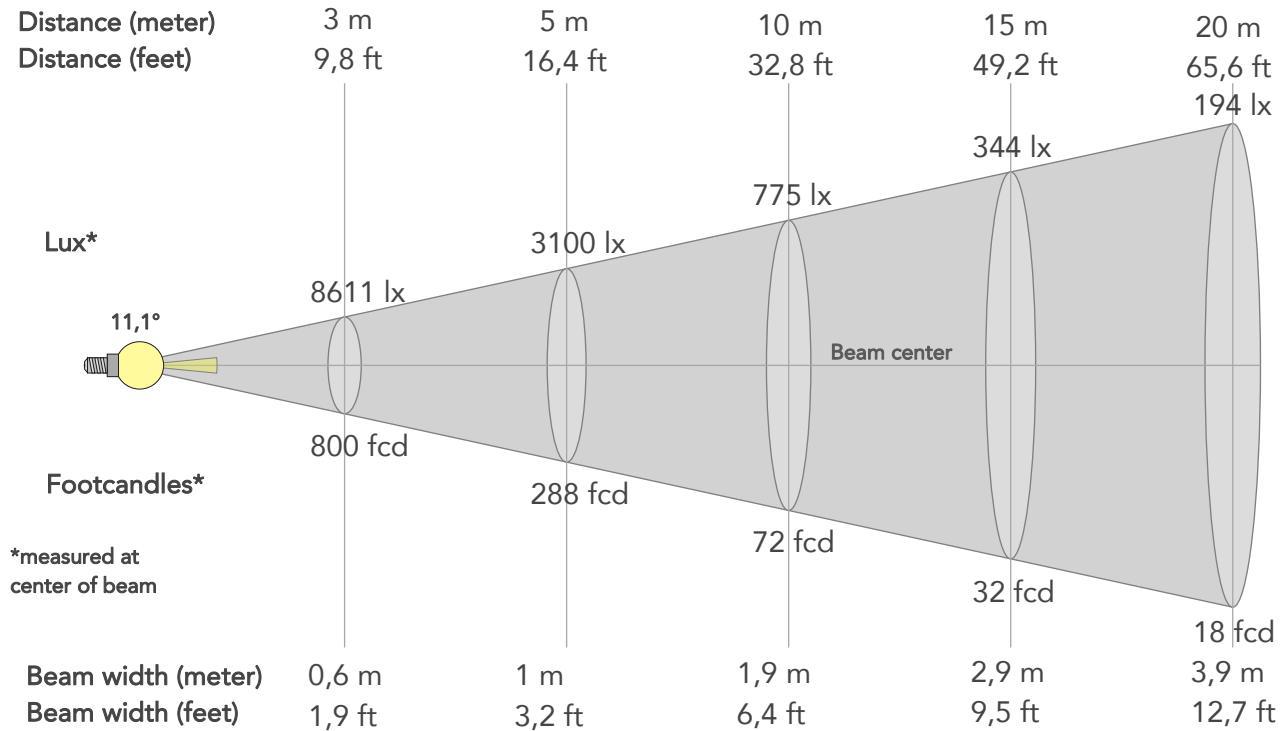
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	61	19%	-3%
2	71	11%	-12%
3	71	6%	-12%
4	89	-2%	-5%
5	90	0%	3%
6	81	8%	8%
7	76	12%	2%
8	80	10%	-2%
9	84	6%	-7%
10	84	0%	-6%
11	90	0%	3%
12	83	-1%	8%
13	76	0%	19%
14	69	5%	16%
15	67	16%	17%
16	63	21%	2%



## BEAM DETAILS



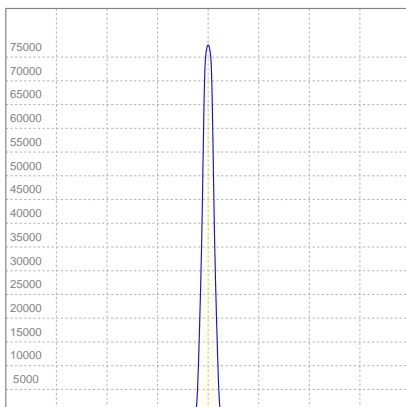
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,1°	18°	20,4°	99,9%	99,9%



### 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	77501lx	19375lx	8611lx	4844lx	3100lx	1378lx	775lx	344lx	194lx	124lx	86lx	48lx	31lx
Footcand.	7200fcd	1800fcd	800fcd	450fcd	288fcd	128fcd	72fcd	32fcd	18fcd	12fcd	8fcd	5fcd	3fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	1,9m	2,9m	3,9m	4,8m	5,8m	7,8m	9,7m
Beam wid.	0,6ft	1,3ft	1,9ft	2,5ft	3,2ft	4,8ft	6,4ft	9,5ft	12,7ft	15,9ft	19,1ft	25,4ft	31,8ft

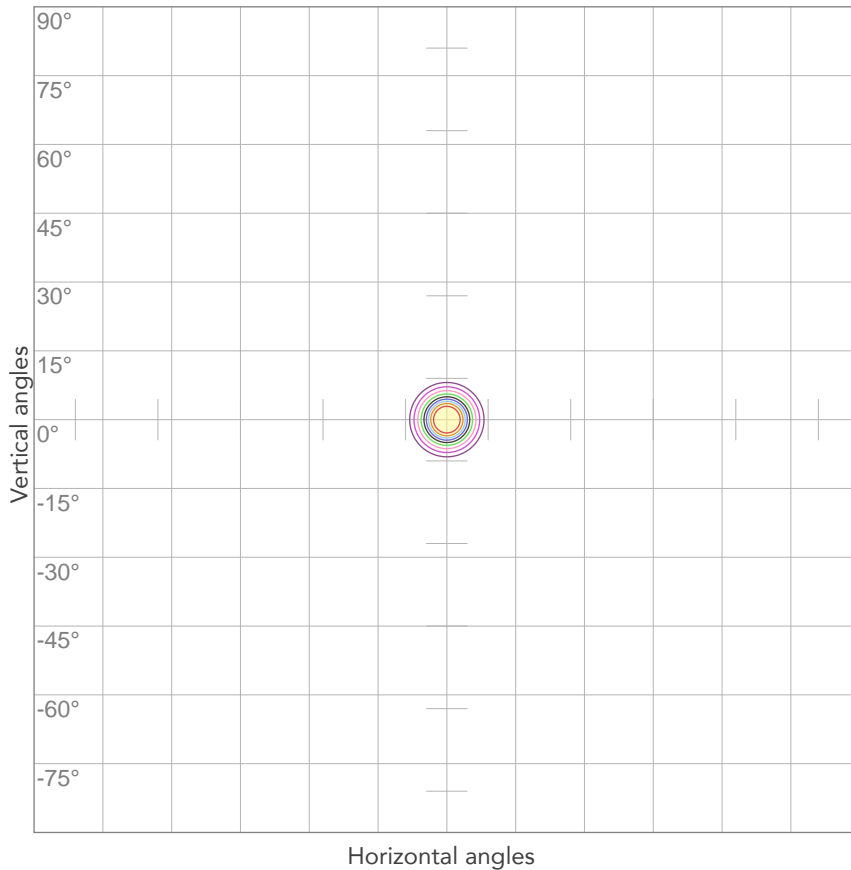
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,882A	183,1W	16lm/W

## ISO CANDELA DIAGRAM



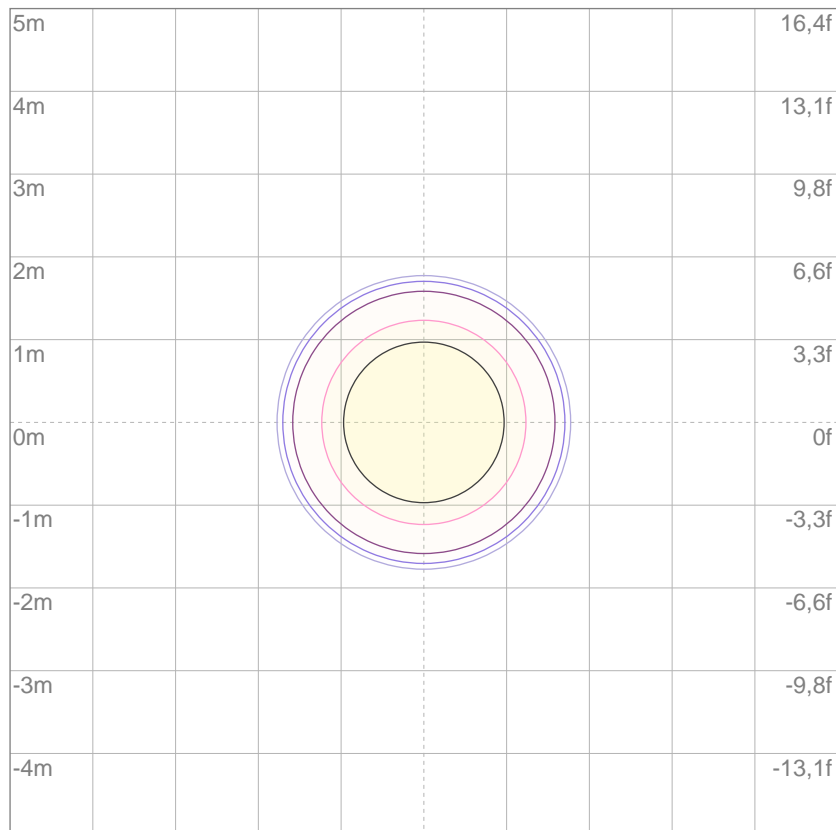
10%	7750 cd
20%	15500 cd
30%	23250 cd
40%	31000 cd
50%	38751 cd
60%	46501 cd
70%	54251 cd
80%	62001 cd

### Conditions:

Number of c-planes: 2

Candela at center: 77501 cd

## ISO LUX DIAGRAM



3%	23,3 lx
5%	38,8 lx
10%	77,5 lx
30%	233 lx
50%	388 lx

### Conditions:

Number of c-planes: 2

Lux at center: 775 lx

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



Total lumen output:

2064 lm

Peak candela output:

124430 cd

Light quality:

CRI: 69,6

Color temperature:

4542 K

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

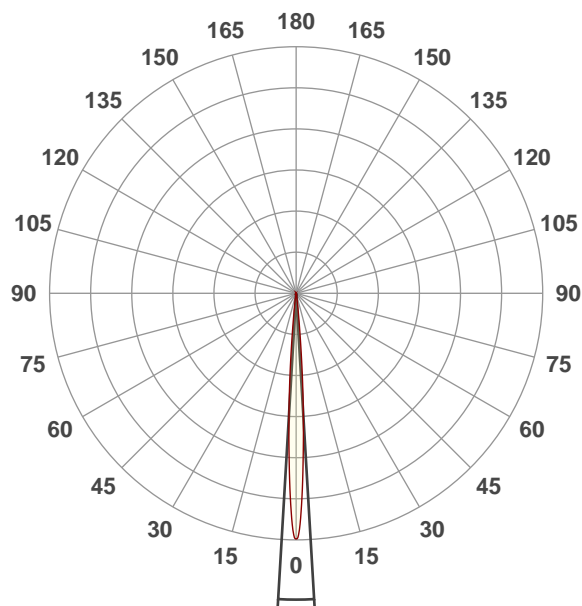
4000K

Operator:

Paolo Carvone

Date and time:

19/12/2019 14:33:57

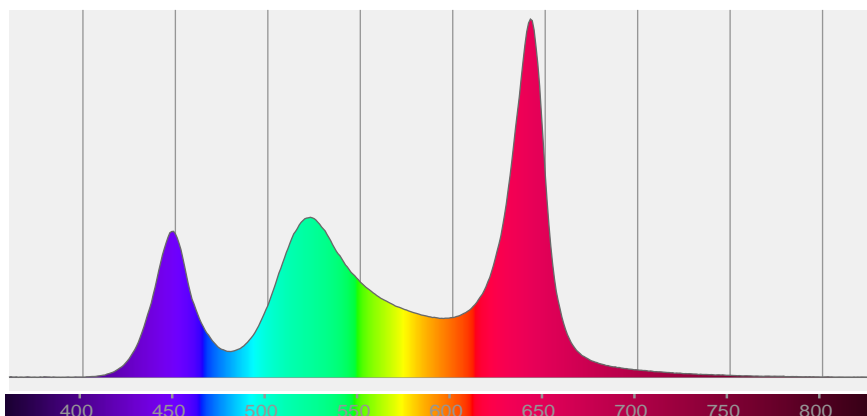


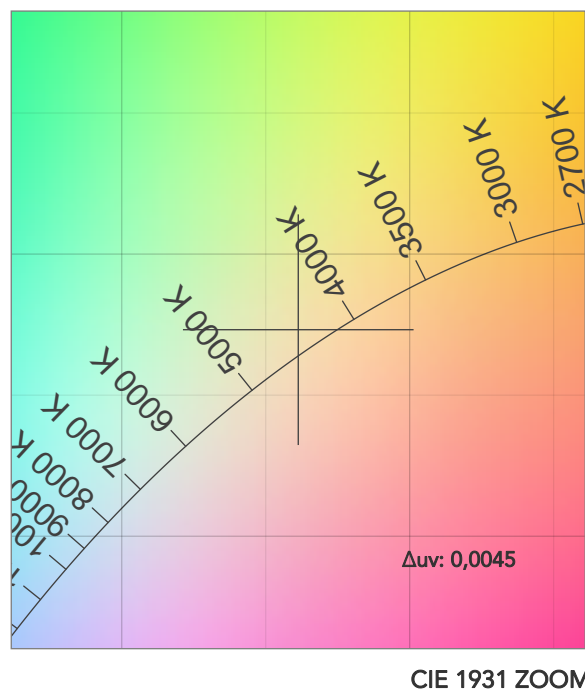
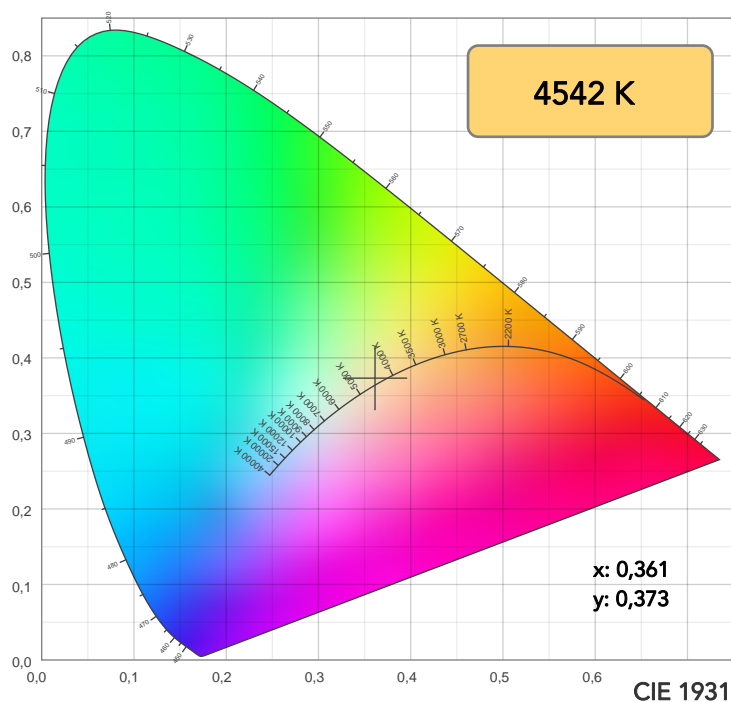
Beam angle 50%: 6,7°

Field angle 10%: 12,3°

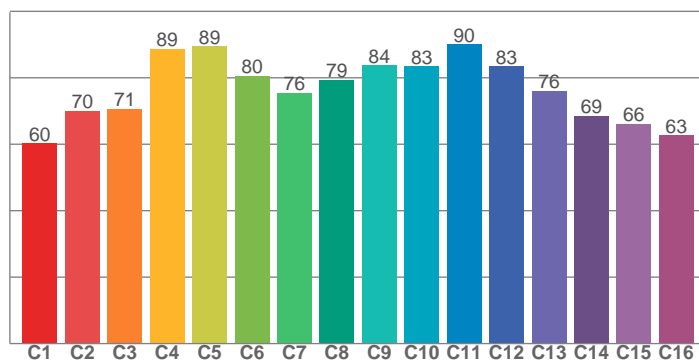
Cut off angle 2.5%: 16,6°

## Spectra

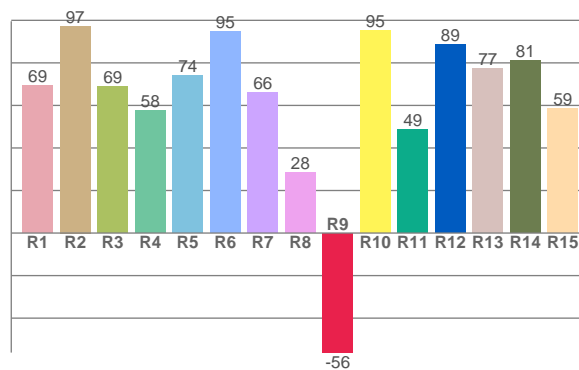




TM30: 77,7



CRI: 69,6 (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
69,3	97,3	69,0	57,7	73,9	94,8	66,0	28,3	-56,2	95,4	48,8	88,6	77,4	81,1	58,5

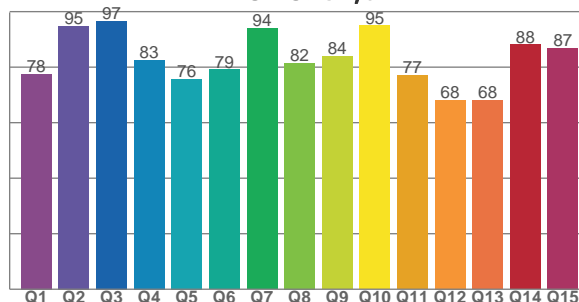
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
60,2	70,1	70,6	88,7	89,5	80,5	75,5	79,4	83,7	83,4	90,0	83,4	76,1	68,6	66,1	62,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
77,6	94,8	96,5	82,5	75,8	79,2	94,0	81,6	83,9	95,0	77,0	68,2	68,0	88,2	86,9

CQS: 81,0



## COLOR PARAMETERS

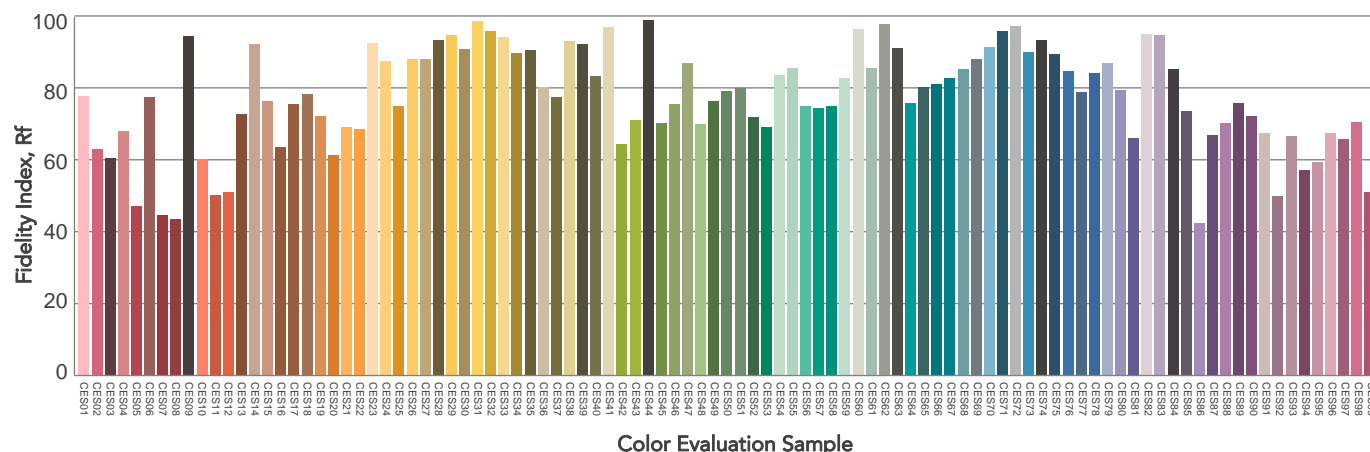
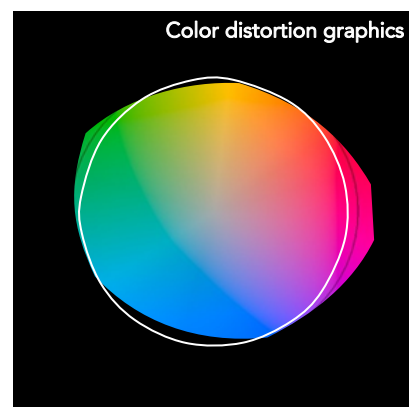
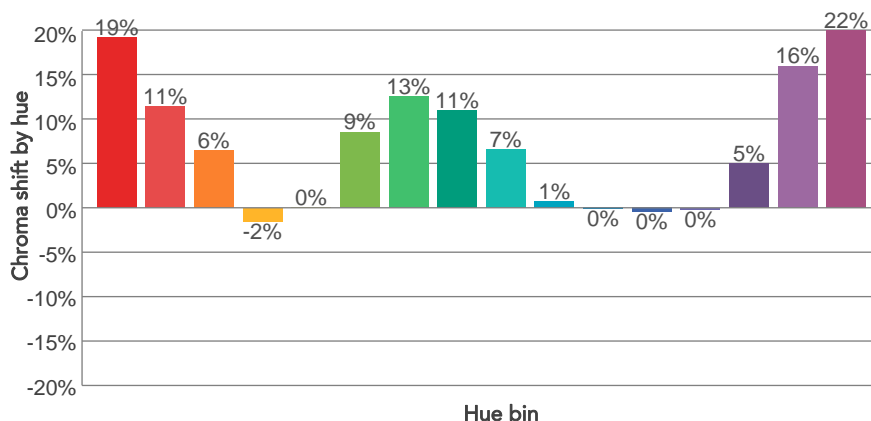
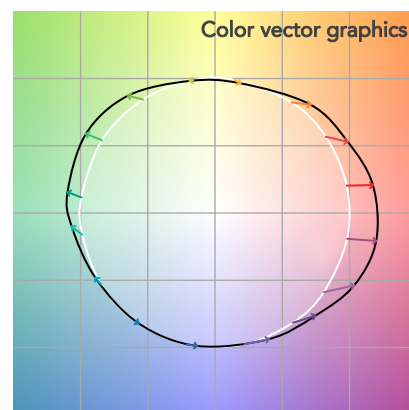
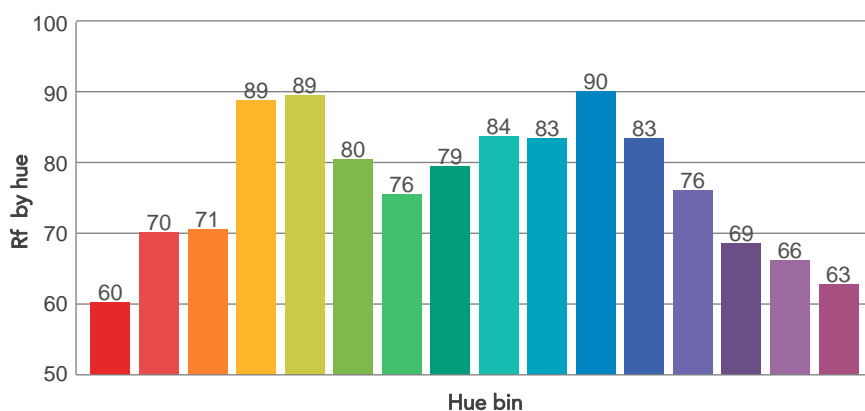
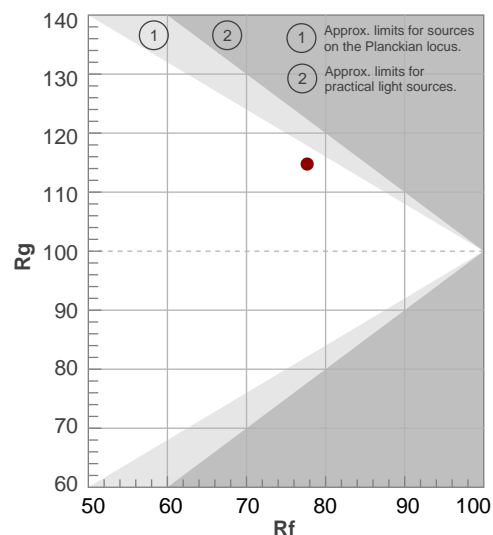
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4542 K	69,6	-56,2	77,7	114,8	81,0	55	0,361	0,373	0,0045

# TM30 DETAILS

**Rf 77,7**  
Fidelity index Rf

**Rg 114,8**  
Gammut index

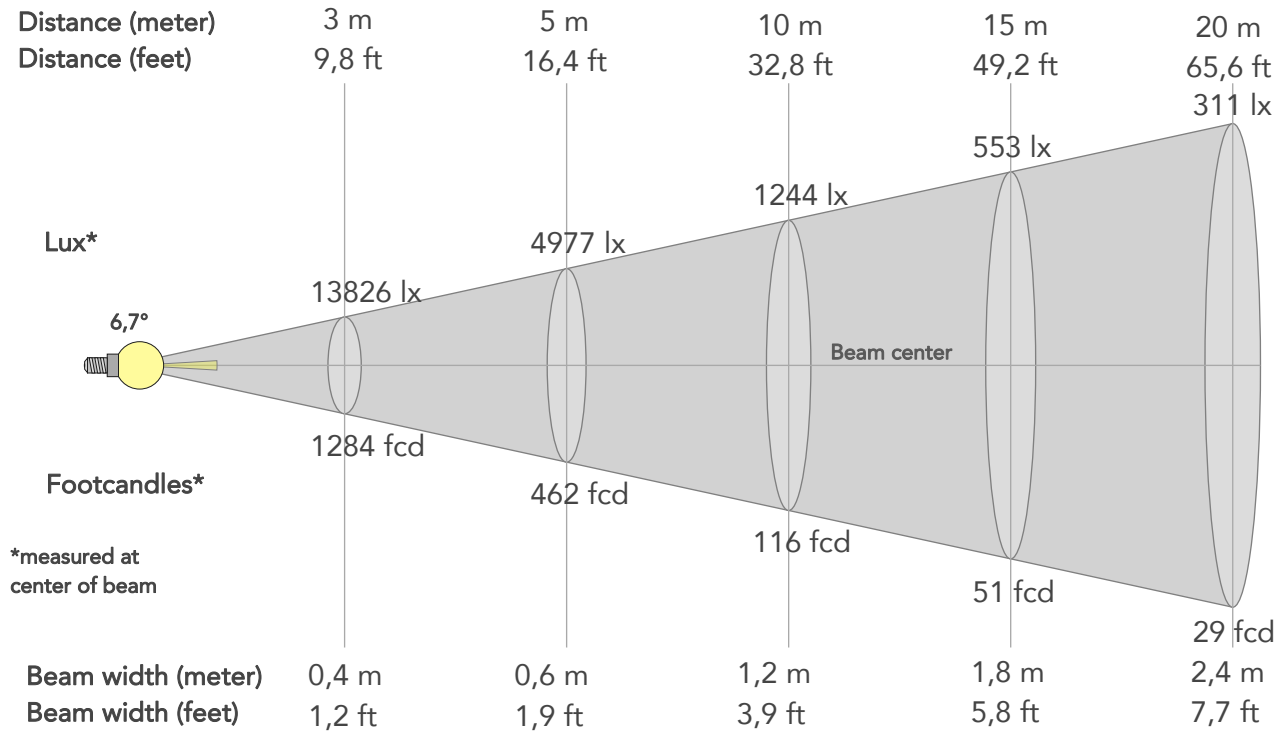
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	60	19%	-3%
2	70	11%	-12%
3	71	6%	-13%
4	89	-2%	-5%
5	89	0%	3%
6	80	9%	8%
7	76	13%	3%
8	79	11%	-2%
9	84	7%	-7%
10	83	1%	-7%
11	90	0%	3%
12	83	0%	8%
13	76	0%	19%
14	69	5%	17%
15	66	16%	17%
16	63	22%	3%



## BEAM DETAILS



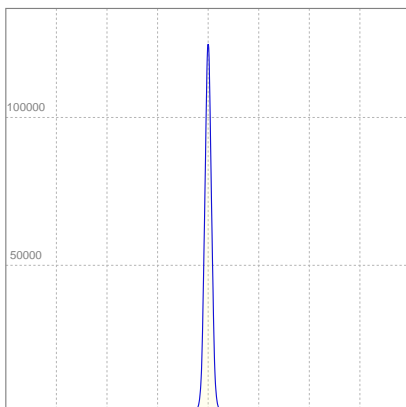
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,7°	12,3°	16,6°	99,6%	99,5%



### 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	124430lx	31107lx	13826lx	7777lx	4977lx	2212lx	1244lx	553lx	311lx	199lx	138lx	78lx	50lx
Footcand.	11560fcd	2890fcd	1284fcd	722fcd	462fcd	206fcd	116fcd	51fcd	29fcd	18fcd	13fcd	7fcd	5fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,4m	2,9m	3,5m	4,7m	5,9m
Beam wid.	0,4ft	0,8ft	1,2ft	1,5ft	1,9ft	2,9ft	3,9ft	5,8ft	7,7ft	9,6ft	11,6ft	15,4ft	19,3ft

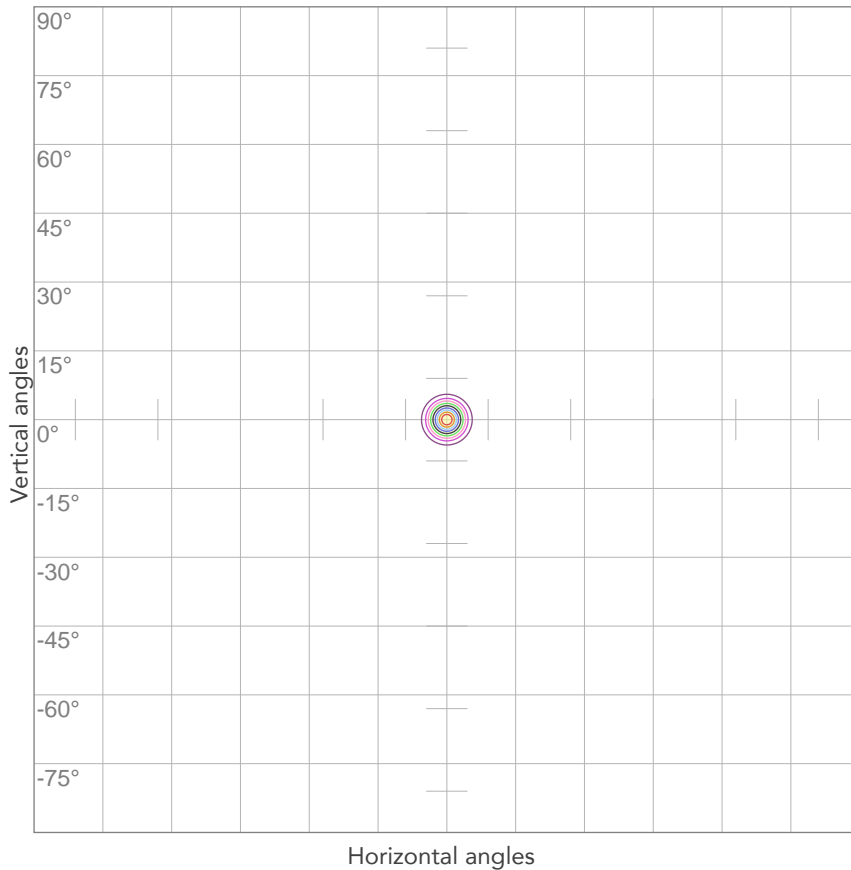
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,888A	183,7W	11lm/W

## ISO CANDELA DIAGRAM



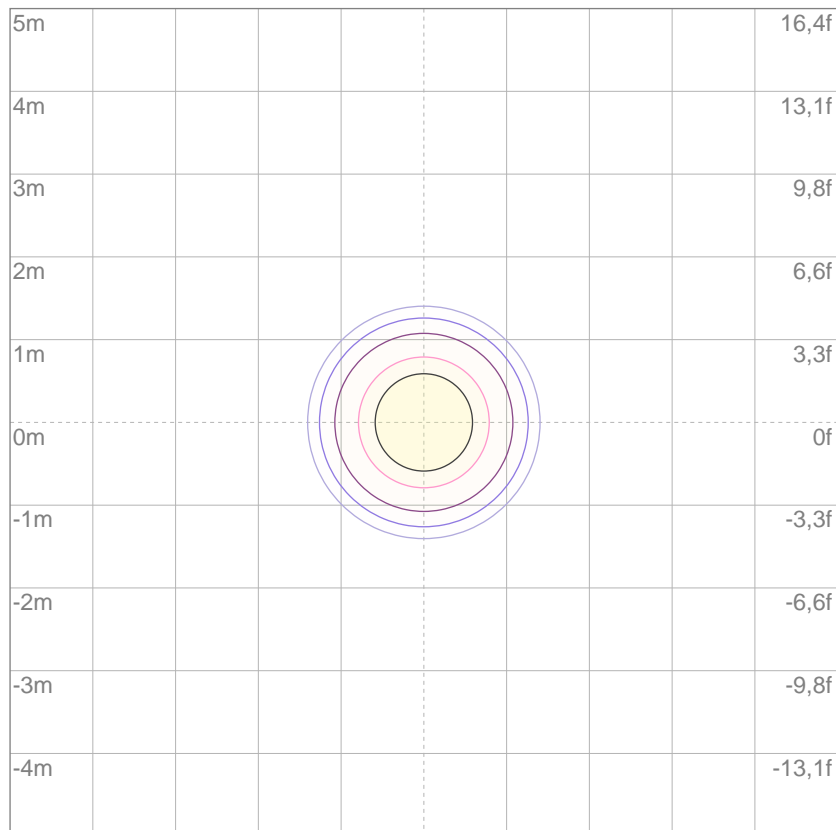
10%	12443 cd
20%	24886 cd
30%	37329 cd
40%	49772 cd
50%	62215 cd
60%	74658 cd
70%	87101 cd
80%	99544 cd

### Conditions:

Number of c-planes: 2

Candela at center: 124430 cd

## ISO LUX DIAGRAM



3%	37,3 lx
5%	62,2 lx
10%	124 lx
30%	373 lx
50%	622 lx

### Conditions:

Number of c-planes: 2

Lux at center: 1244 lx

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



Total lumen output:

3476 lm

Peak candela output:

18924 cd

Light quality:

CRI: 78,1

Color temperature:

5693 K

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

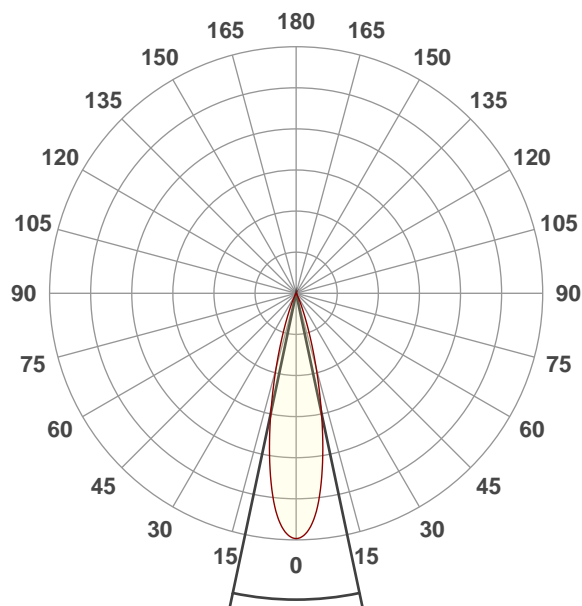
5600K

Operator:

Paolo Carvone

Date and time:

19/12/2019 15:41:49

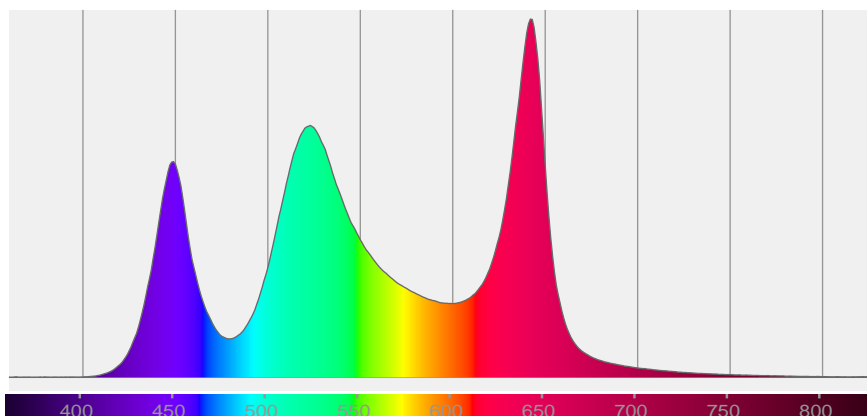


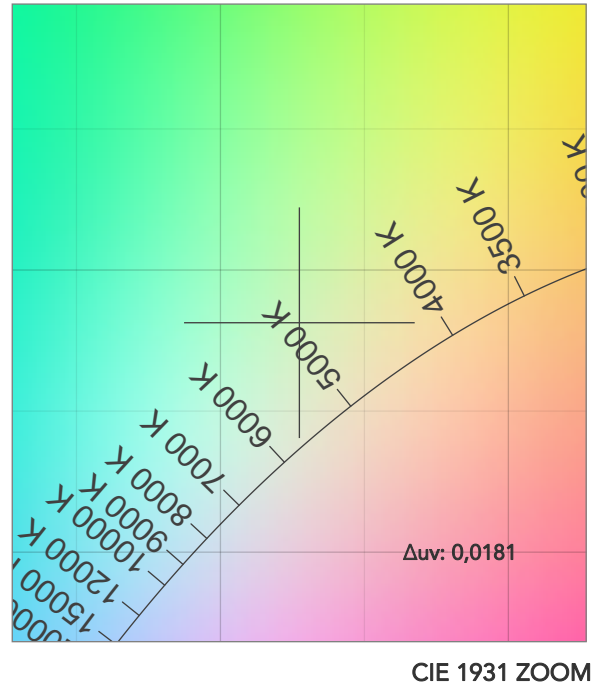
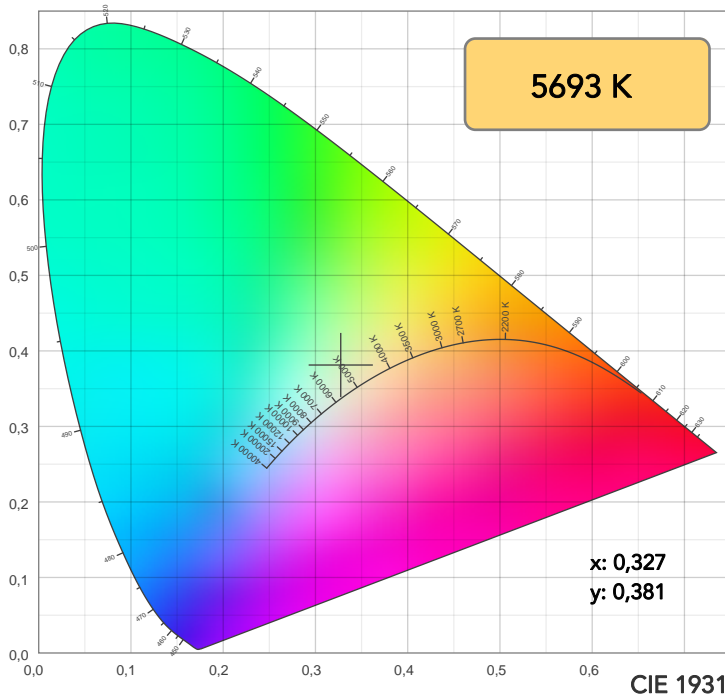
Beam angle 50%: 23,9°

Field angle 10%: 40,9°

Cut off angle 2.5%: 51,9°

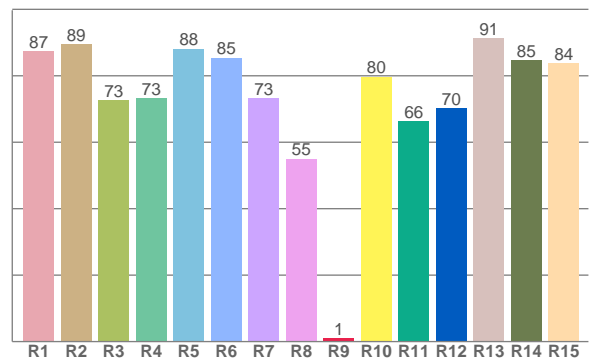
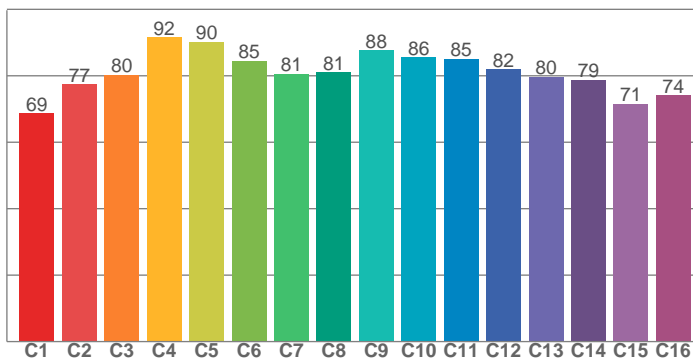
## Spectra





TM30: 81,8

CRI: 78,1 (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
87,4	89,4	72,7	73,2	88,1	85,4	73,1	55,1	1,1	79,8	66,4	70,3	91,2	84,7	83,9

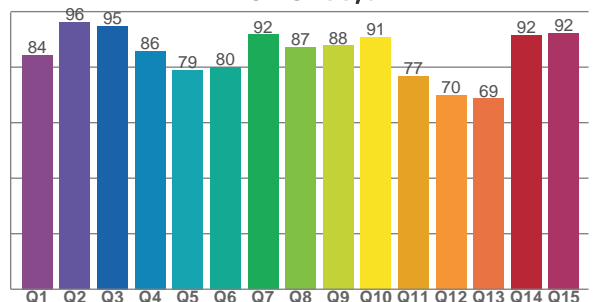
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
68,6	77,4	80,3	91,6	90,3	84,5	80,5	81,0	87,7	85,6	85,1	82,0	79,7	78,8	71,5	74,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,4	96,1	94,8	85,7	79,0	80,0	91,8	87,3	87,7	90,9	76,7	69,9	68,6	91,5	92,3

CQS: 83,0



## COLOR PARAMETERS

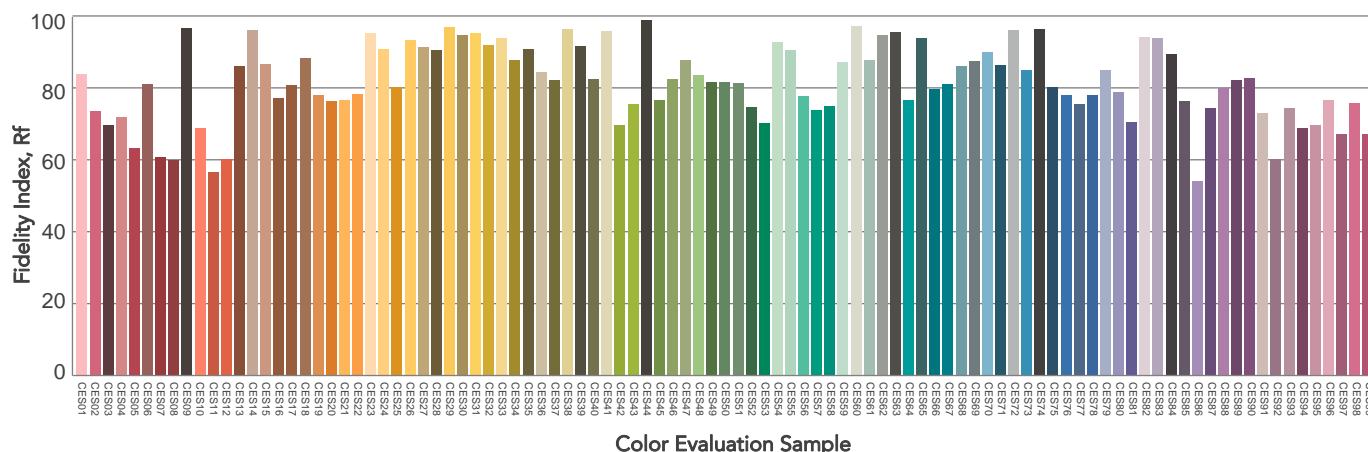
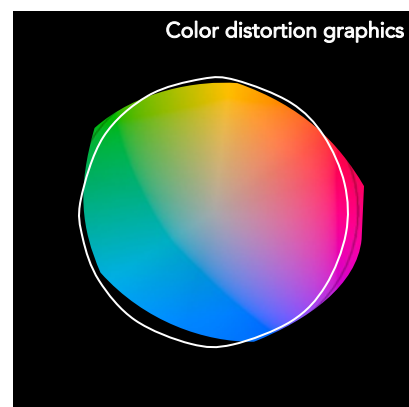
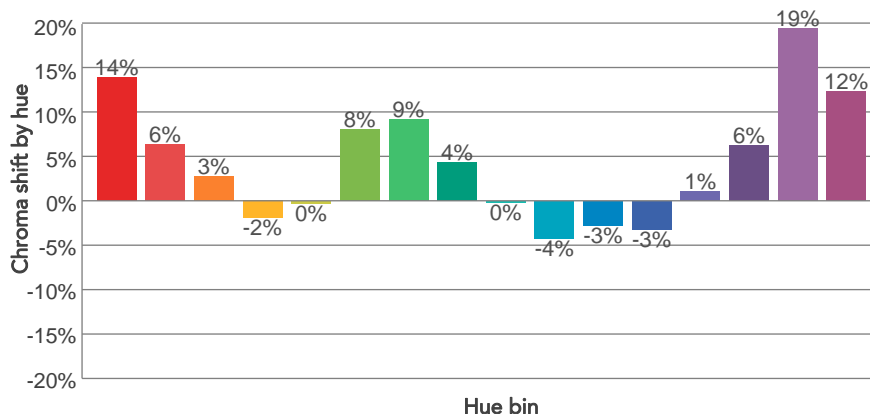
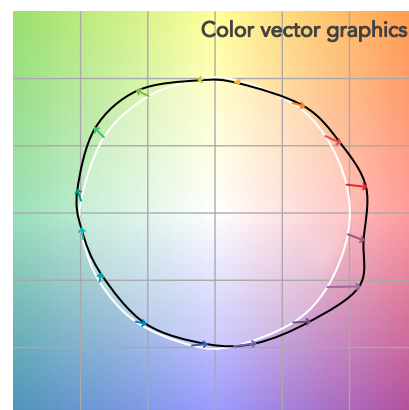
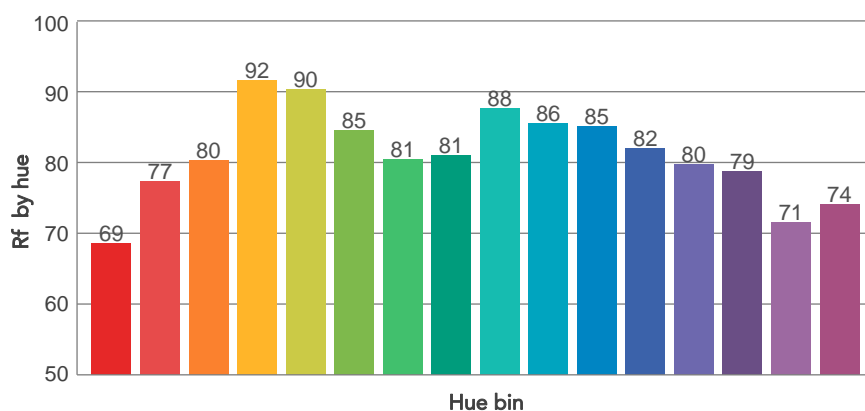
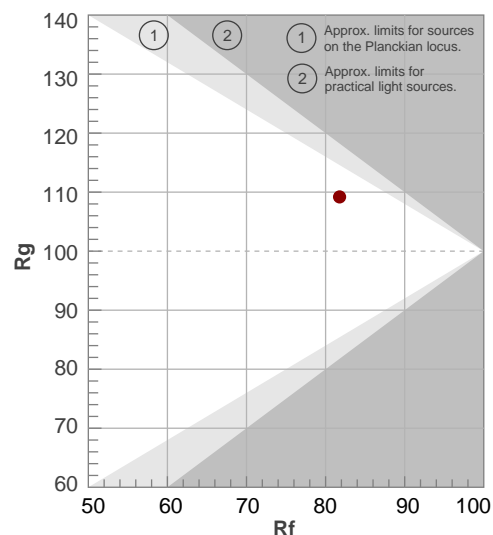
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5693 K	78,1	1,1	81,8	109,2	83,0	61	0,327	0,381	0,0181

# TM30 DETAILS

**Rf 81,8**  
Fidelity index Rf

**Rg 109,2**  
Gammut index

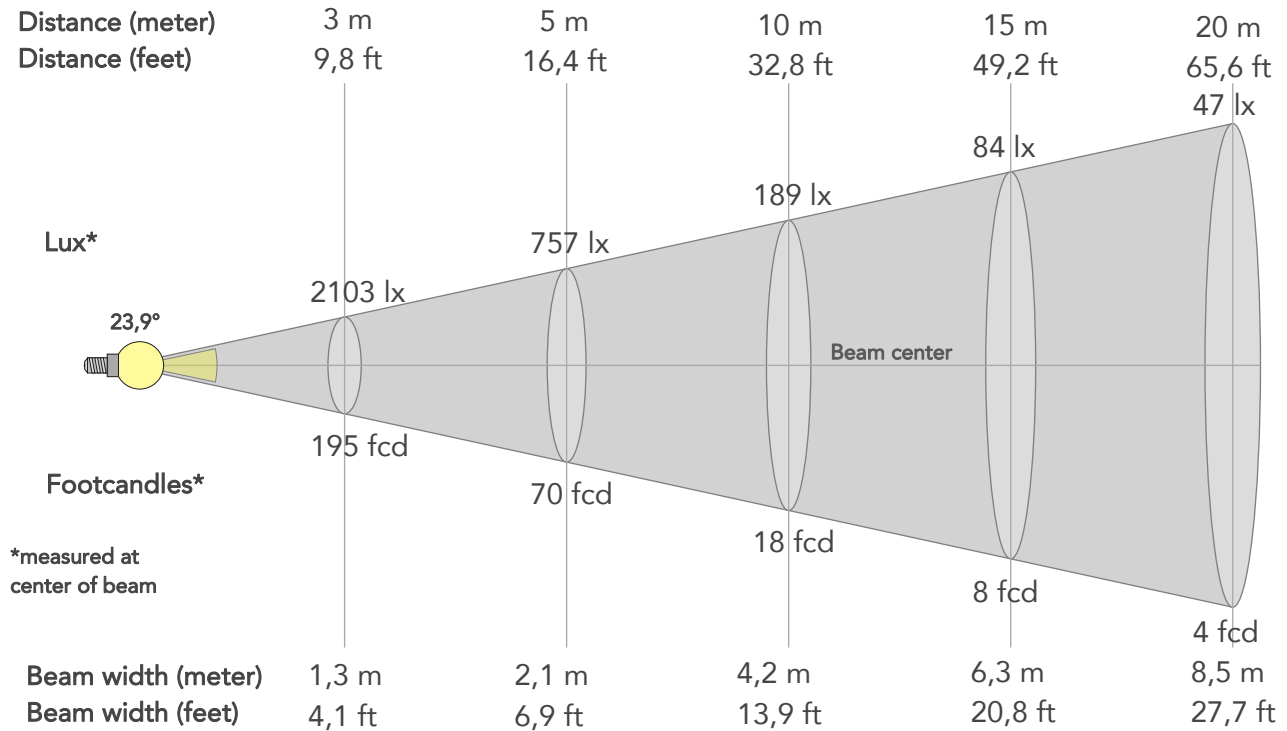
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	69	14%	-4%
2	77	6%	-10%
3	80	3%	-8%
4	92	-2%	-1%
5	90	0%	3%
6	85	8%	5%
7	81	9%	-2%
8	81	4%	-7%
9	88	0%	-8%
10	86	-4%	-4%
11	85	-3%	7%
12	82	-3%	11%
13	80	1%	16%
14	79	6%	10%
15	71	19%	13%
16	74	12%	-2%



# BEAM DETAILS



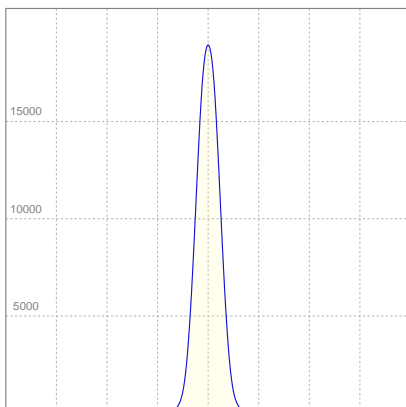
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,9°	40,9°	51,9°	99,2%	99,0%



## 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	18924lx	4731lx	2103lx	1183lx	757lx	336lx	189lx	84lx	47lx	30lx	21lx	12lx	8lx
Footcand.	1758fcd	440fcd	195fcd	110fcd	70fcd	31fcd	18fcd	8fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,2m	4,2m	6,3m	8,5m	10,6m	12,7m	16,9m	21,1m
Beam wid.	1,4ft	2,8ft	4,1ft	5,5ft	6,9ft	10,4ft	13,9ft	20,8ft	27,7ft	34,7ft	41,6ft	55,5ft	69,3ft

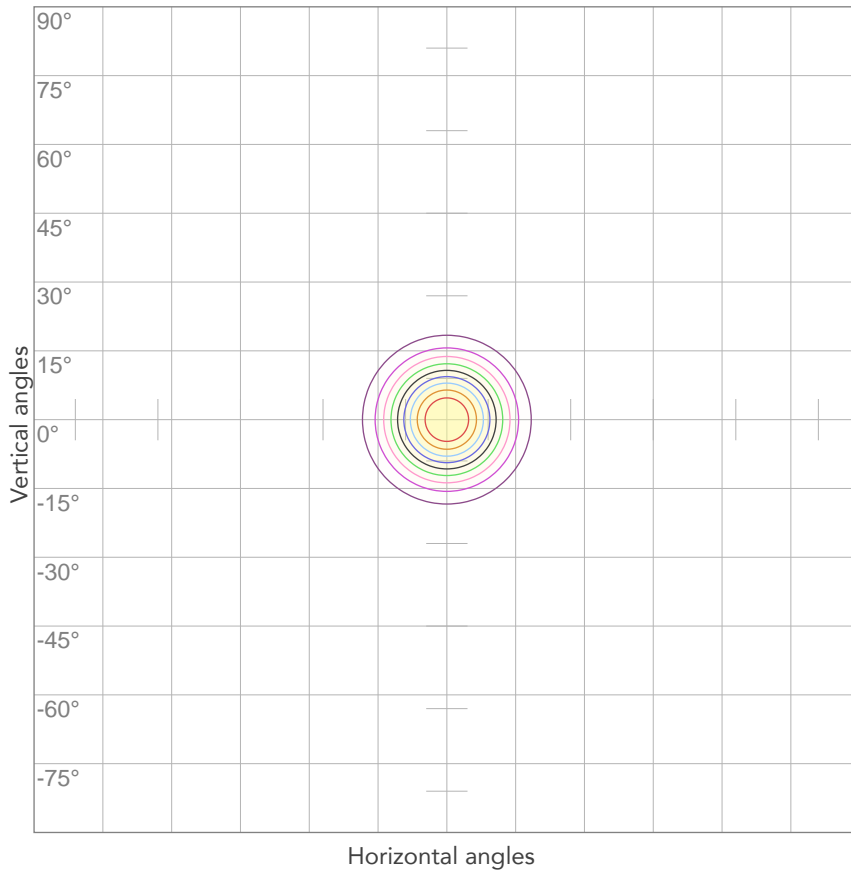
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,922A	192,5W	18lm/W

## ISO CANDELA DIAGRAM



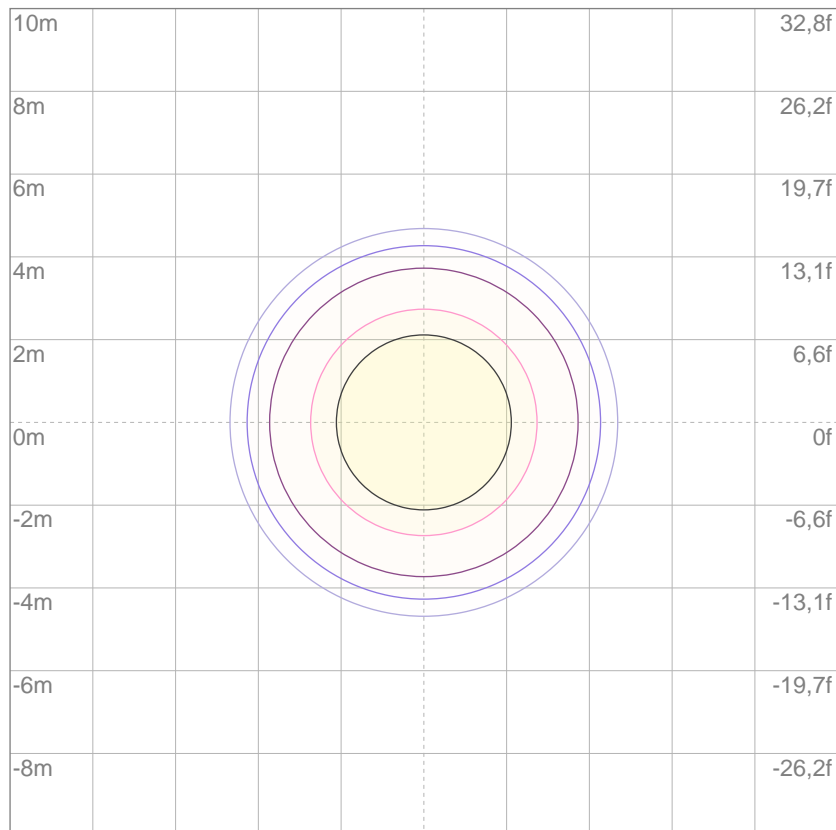
10%	1892 cd
20%	3785 cd
30%	5677 cd
40%	7569 cd
50%	9462 cd
60%	11354 cd
70%	13247 cd
80%	15139 cd

### Conditions:

Number of c-planes: 2

Candela at center: 18924 cd

## ISO LUX DIAGRAM



3%	5,68 lx
5%	9,46 lx
10%	18,9 lx
30%	56,8 lx
50%	94,6 lx

### Conditions:

Number of c-planes: 2

Lux at center: 189 lx

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



Total lumen output:

3088 lm

Peak candela output:

82770 cd

Light quality:

CRI: 78,2

Color temperature:

5737 K

## PRODUCT NAME:

Diamond 19

## MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

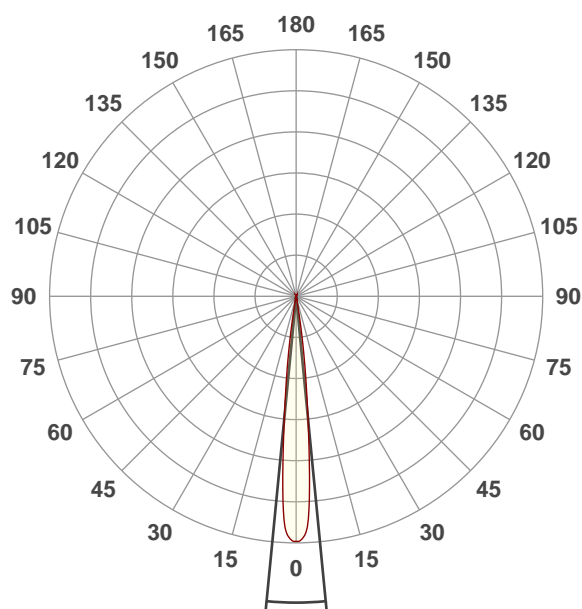
5600K

Operator:

Paolo Carvone

Date and time:

19/12/2019 15:48:42

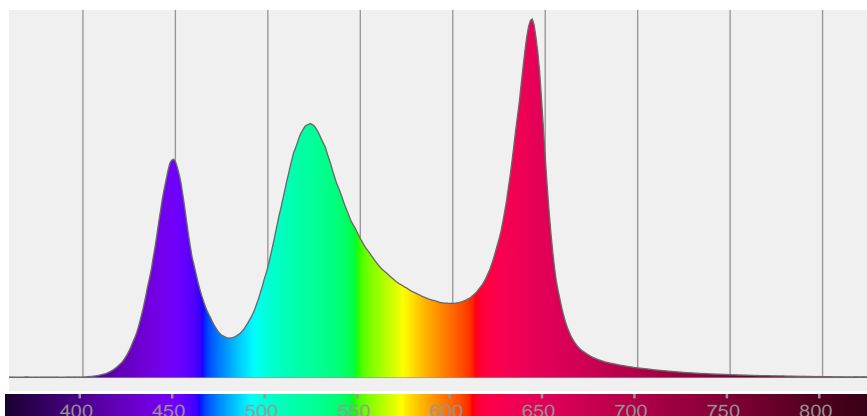


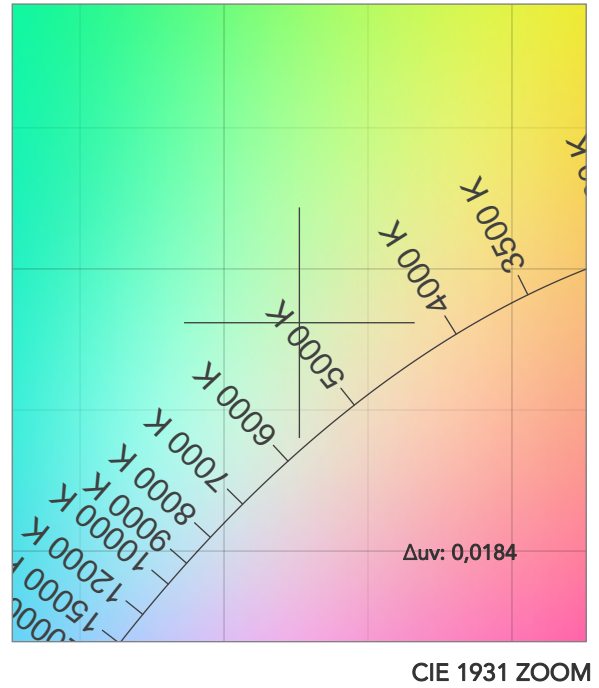
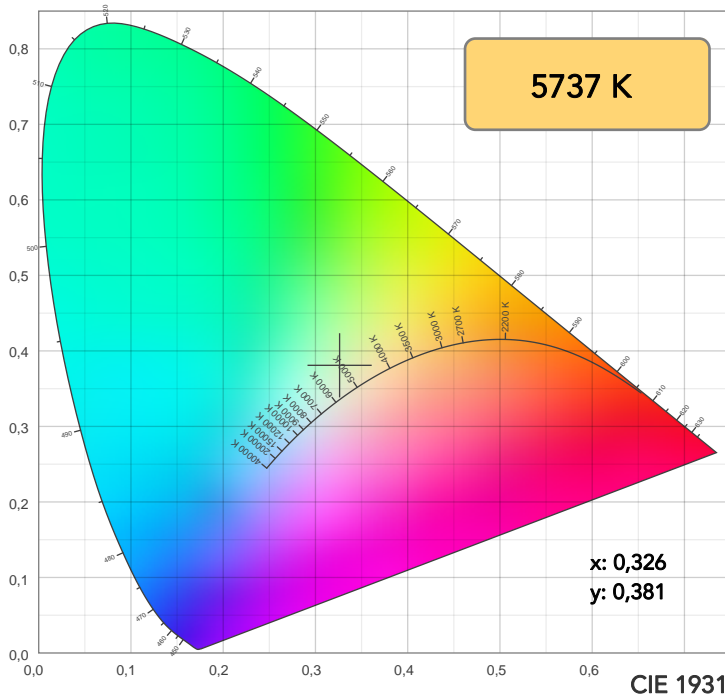
Beam angle 50%: 11,1°

Field angle 10%: 18°

Cut off angle 2.5%: 20,4°

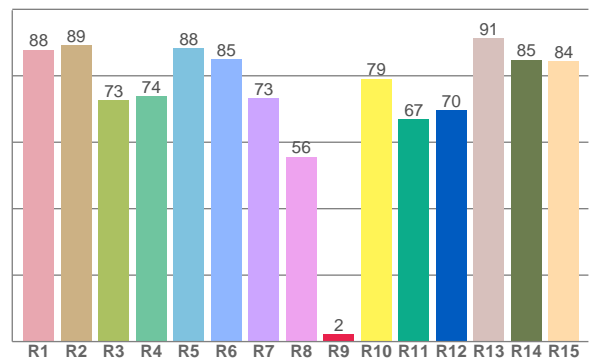
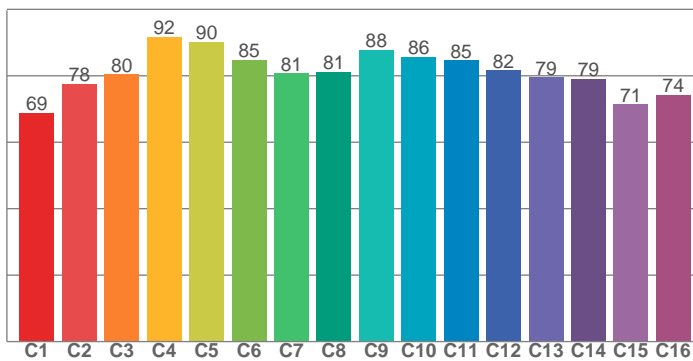
## Spectra





TM30: 81,8

CRI: 78,2 (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
87,8	89,1	72,7	73,7	88,4	85,0	73,3	55,6	2,2	79,1	66,9	69,6	91,2	84,8	84,4

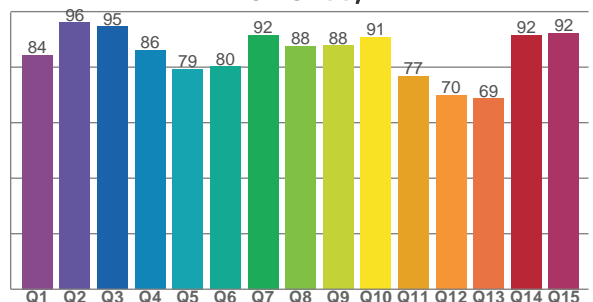
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
68,8	77,5	80,4	91,6	90,3	84,8	80,8	81,2	87,8	85,7	84,7	81,7	79,5	79,0	71,4	74,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,4	96,1	94,7	86,1	79,4	80,2	91,6	87,5	87,8	90,9	76,8	70,0	68,6	91,6	92,3

CQS: 83,1



## COLOR PARAMETERS

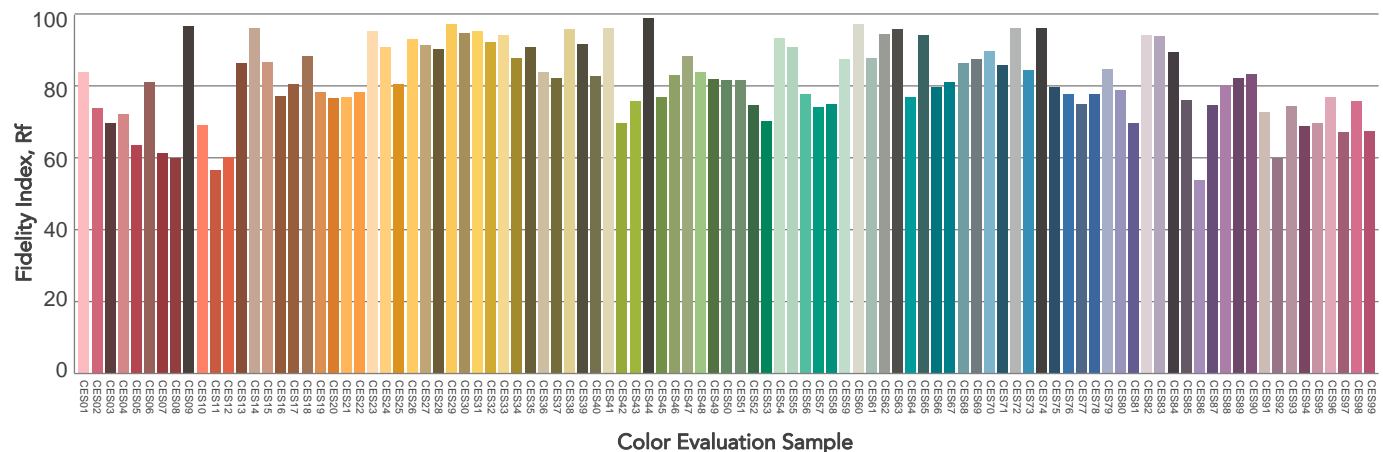
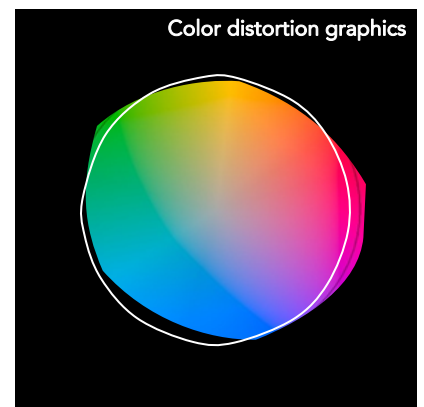
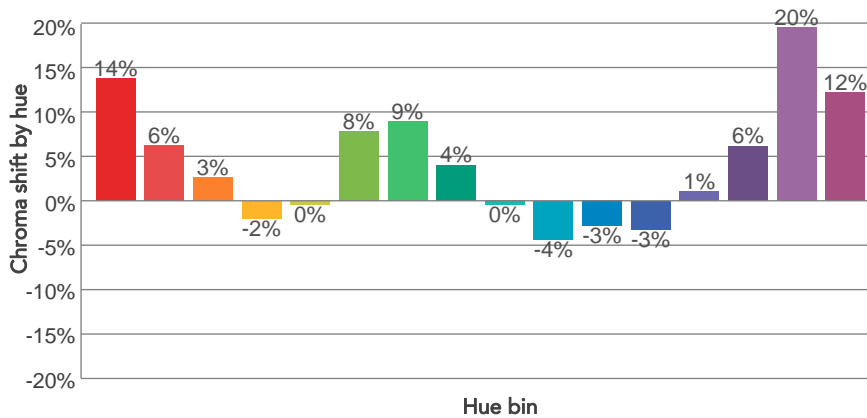
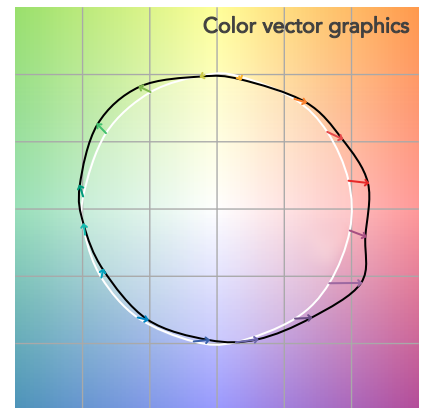
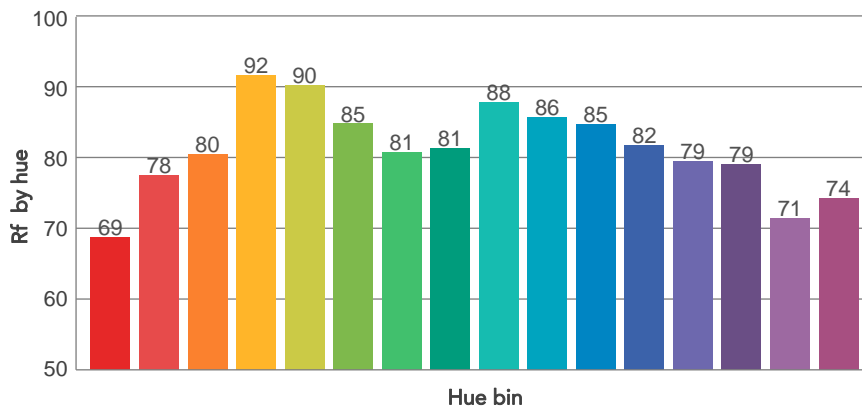
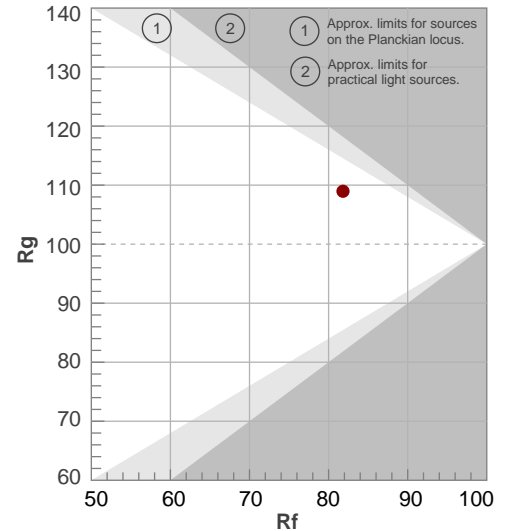
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5737 K	78,2	2,2	81,8	109,0	83,1	61	0,326	0,381	0,0184

# TM30 DETAILS

**Rf 81,8**  
Fidelity index Rf

**Rg 109,0**  
Gammut index

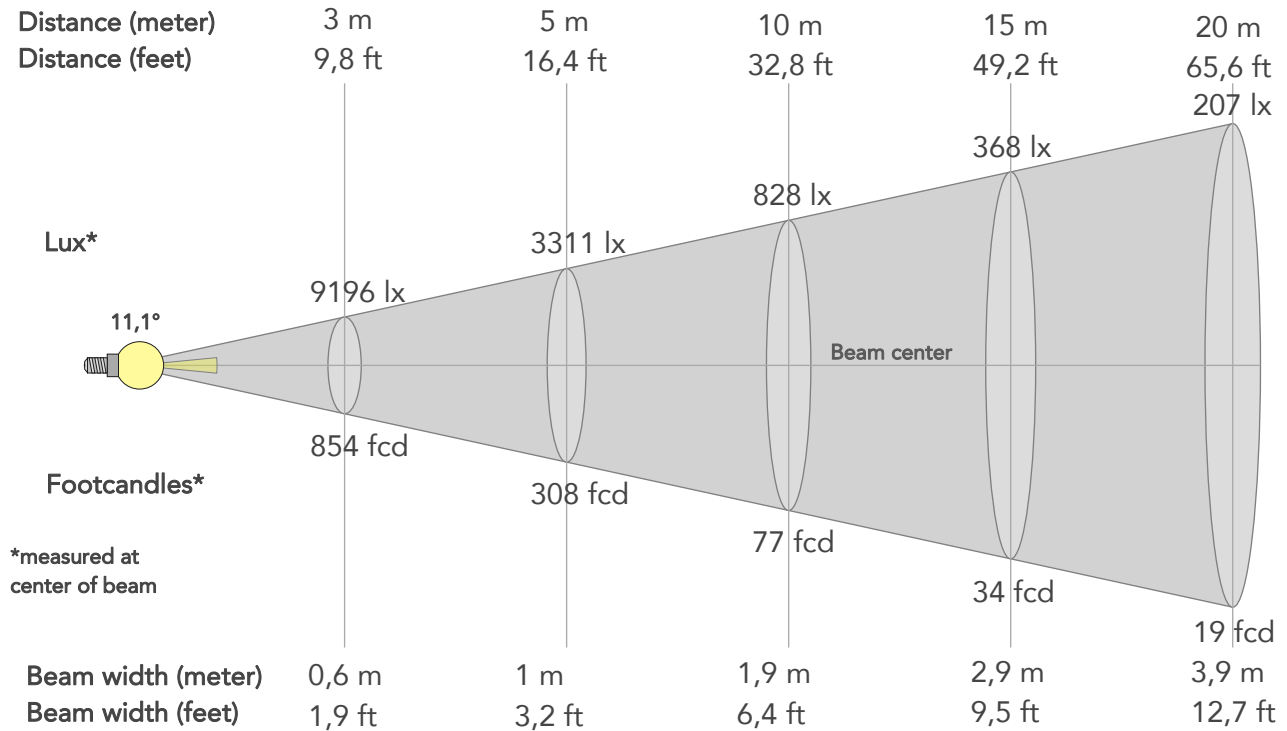
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	69	14%	-4%
2	78	6%	-10%
3	80	3%	-8%
4	92	-2%	-1%
5	90	0%	3%
6	85	8%	5%
7	81	9%	-2%
8	81	4%	-7%
9	88	0%	-8%
10	86	-4%	-4%
11	85	-3%	7%
12	82	-3%	11%
13	79	1%	16%
14	79	6%	10%
15	71	20%	13%
16	74	12%	-2%



## BEAM DETAILS



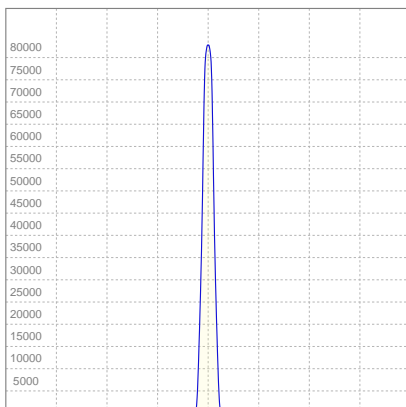
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,1°	18°	20,4°	100,0%	100,0%



### 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	82763lx	20691lx	9196lx	5173lx	3311lx	1471lx	828lx	368lx	207lx	132lx	92lx	52lx	33lx
Footcand.	7689fcd	1922fcd	854fcd	481fcd	308fcd	137fcd	77fcd	34fcd	19fcd	12fcd	9fcd	5fcd	3fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	1,9m	2,9m	3,9m	4,8m	5,8m	7,8m	9,7m
Beam wid.	0,6ft	1,3ft	1,9ft	2,5ft	3,2ft	4,8ft	6,4ft	9,5ft	12,7ft	15,9ft	19,1ft	25,4ft	31,8ft

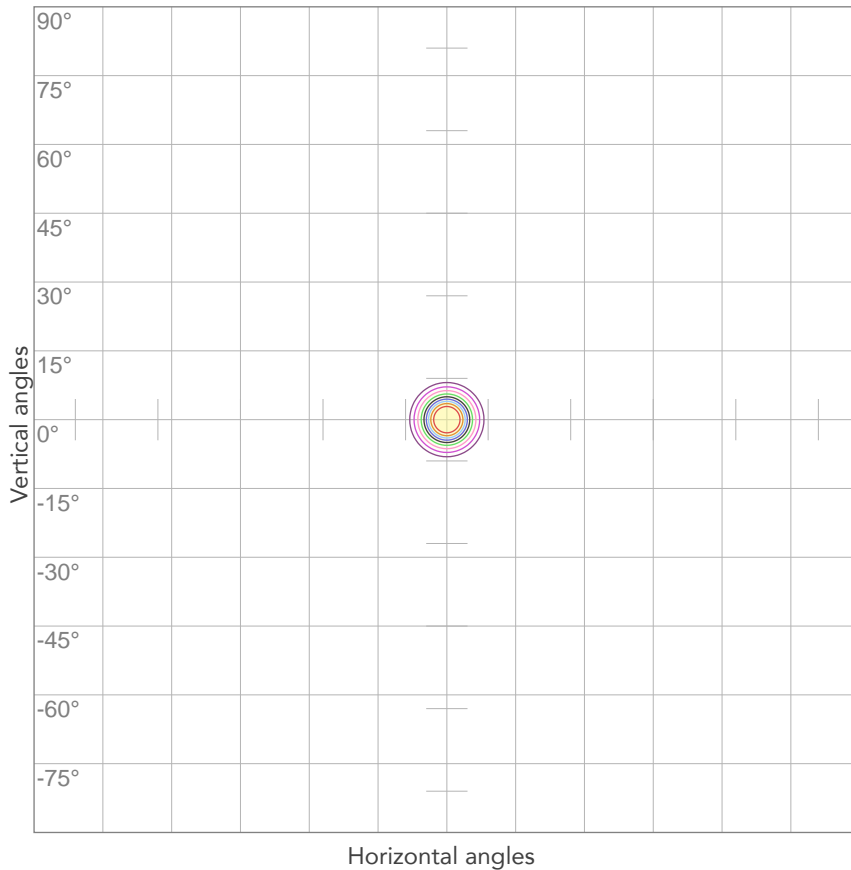
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,922A	192W	16lm/W

## ISO CANDELA DIAGRAM



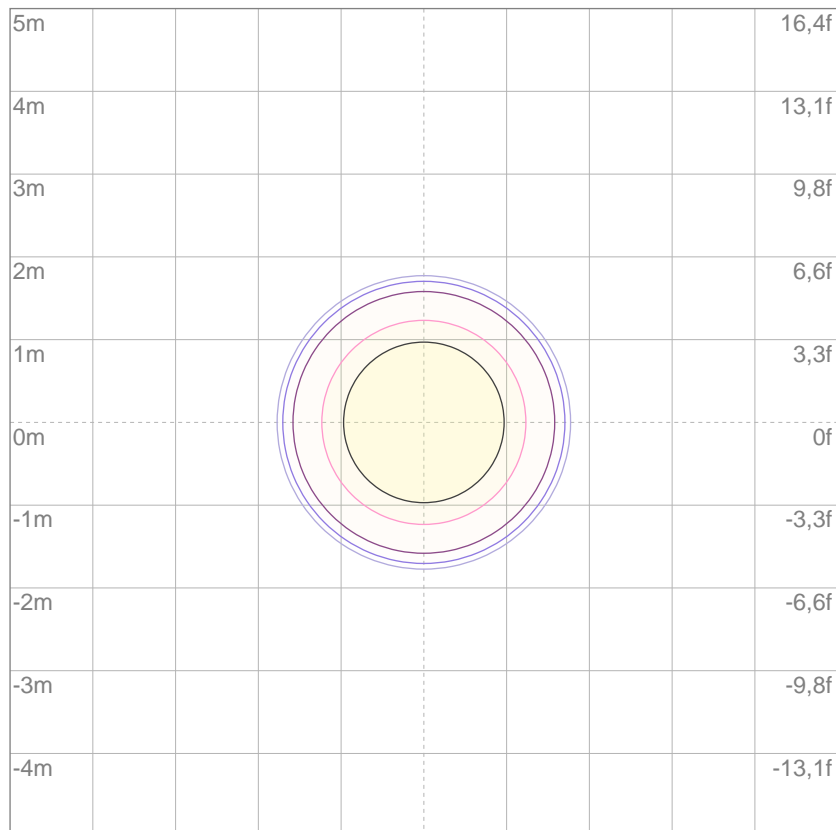
10%	8276 cd
20%	16553 cd
30%	24829 cd
40%	33105 cd
50%	41381 cd
60%	49658 cd
70%	57934 cd
80%	66210 cd

### Conditions:

Number of c-planes: 2

Candela at center: 82763 cd

## ISO LUX DIAGRAM



3%	24,8 lx
5%	41,4 lx
10%	82,8 lx
30%	248 lx
50%	414 lx

### Conditions:

Number of c-planes: 2

Lux at center: 828 lx

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



Total lumen output:

2198 lm

Peak candela output:

132567 cd

Light quality:

CRI: 77,8

Color temperature:

5695 K

## PRODUCT NAME:

Diamond 19

## MEASURAMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

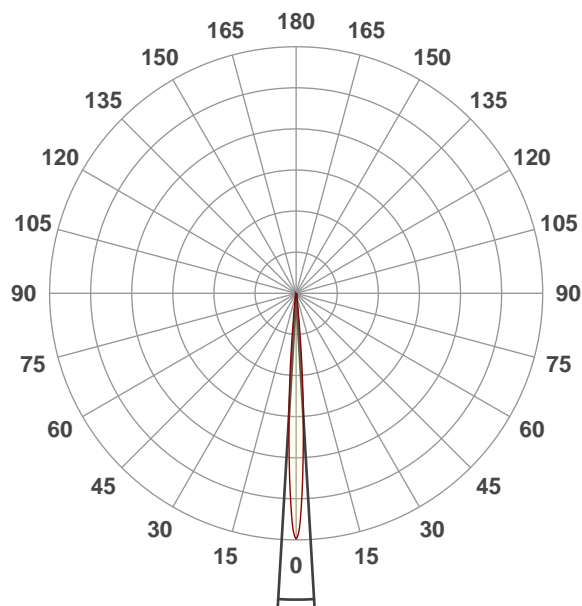
5600K

Operator:

Paolo Carvone

Date and time:

19/12/2019 14:36:06

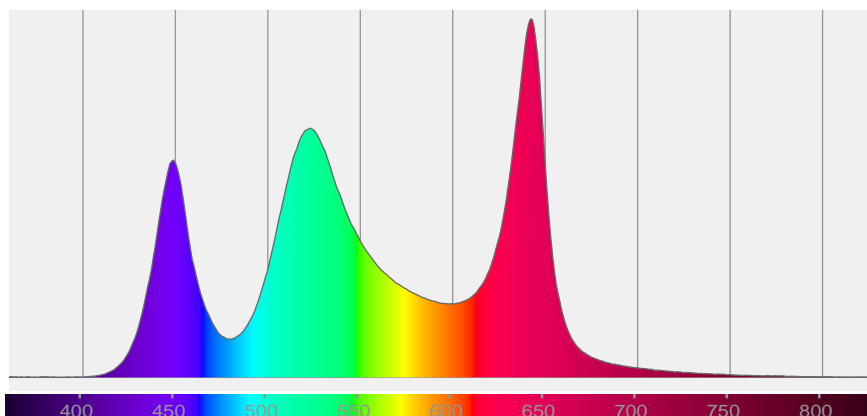


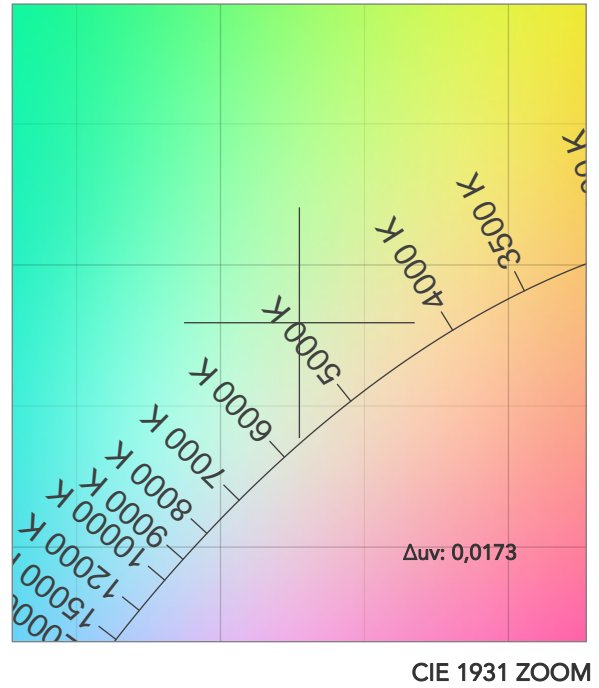
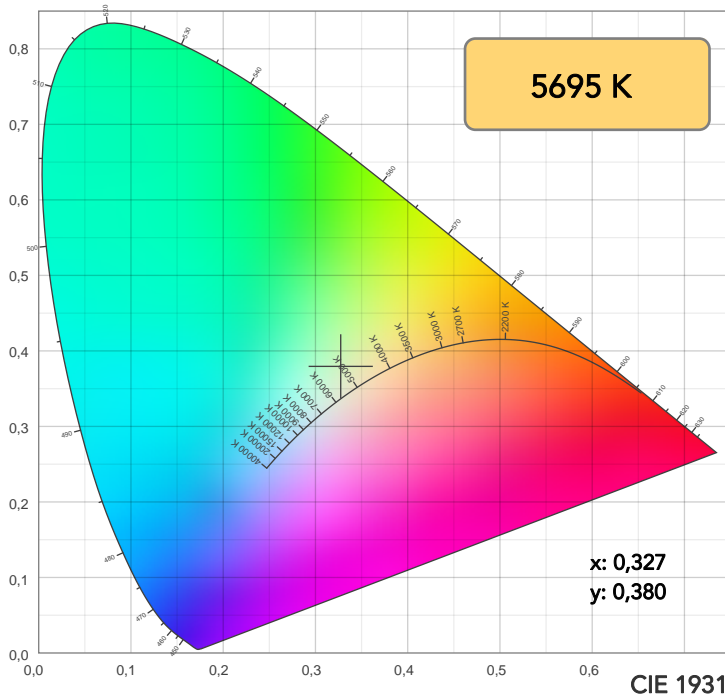
Beam angle 50%: 6,7°

Field angle 10%: 12,3°

Cut off angle 2.5%: 16,7°

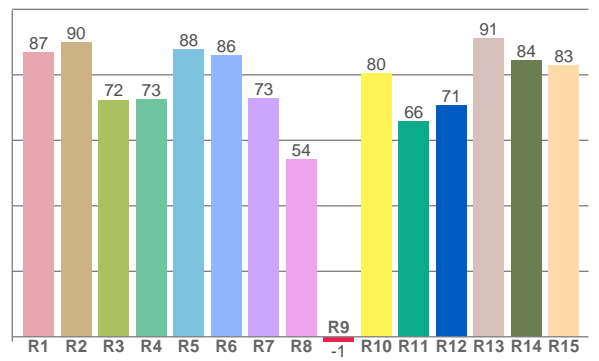
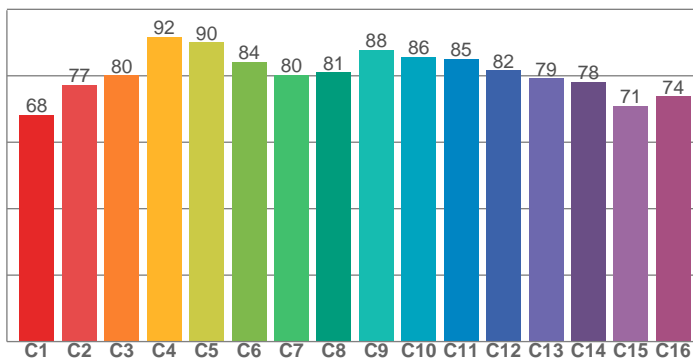
## Spectra





TM30: 81,6

CRI: 77,8 (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
86,9	89,8	72,4	72,6	87,9	85,9	72,9	54,1	-1,5	80,4	65,8	70,7	91,2	84,5	82,8

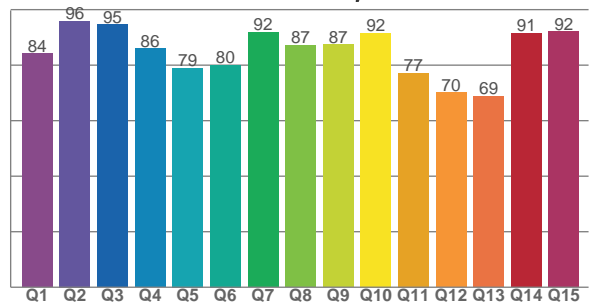
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
68,2	77,3	80,1	91,7	90,1	84,3	80,3	81,0	87,8	85,7	85,0	81,7	79,3	78,2	70,9	73,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,2	96,0	94,6	86,0	79,0	80,0	91,8	87,2	87,4	91,6	77,1	70,1	68,8	91,5	92,0

CQS: 83,0



## COLOR PARAMETERS

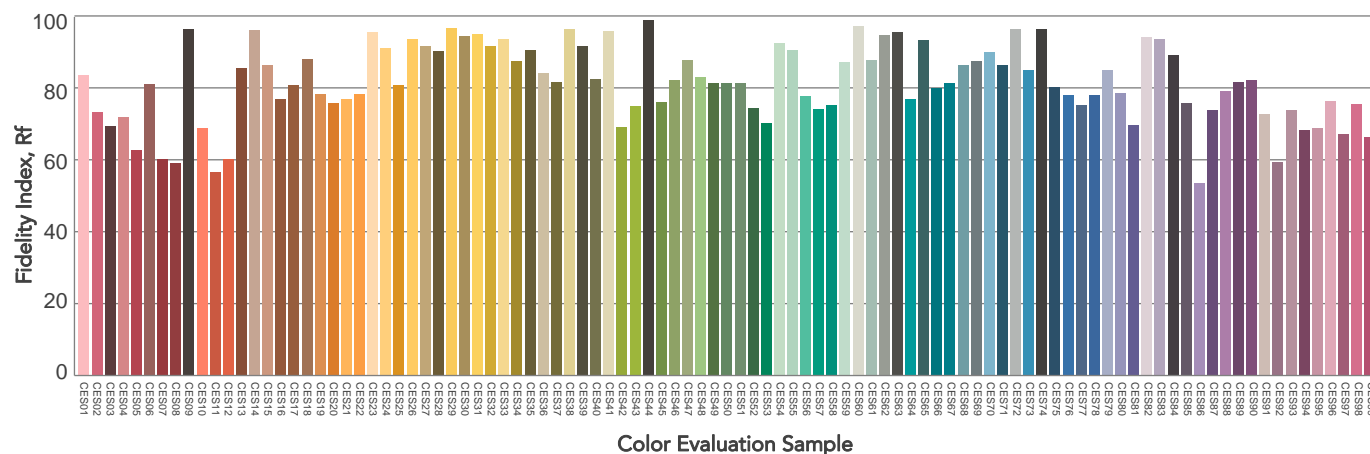
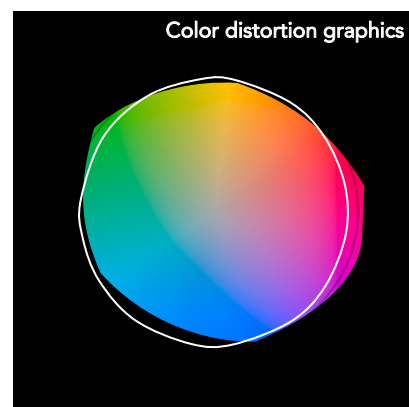
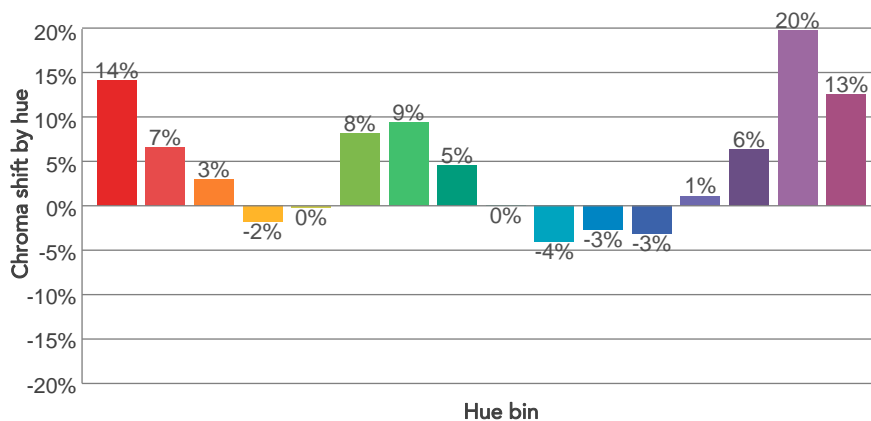
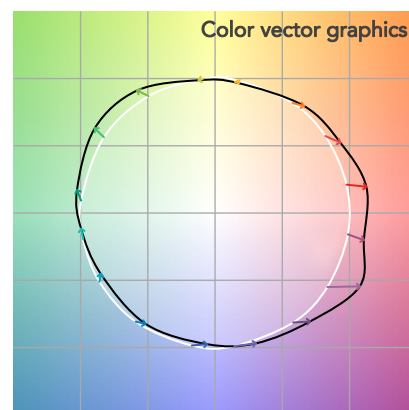
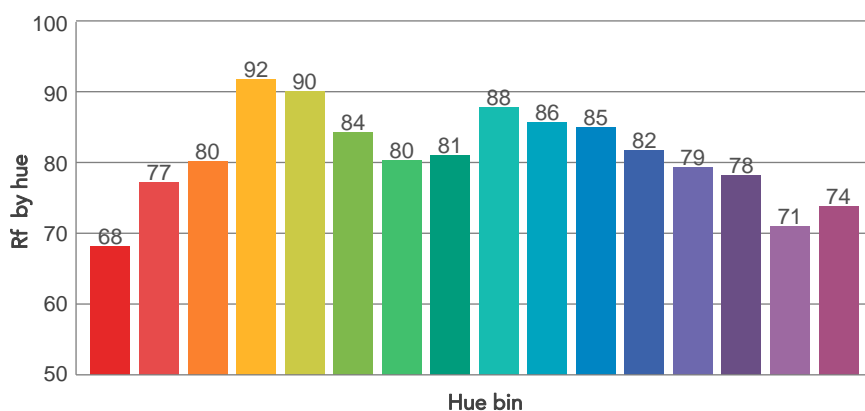
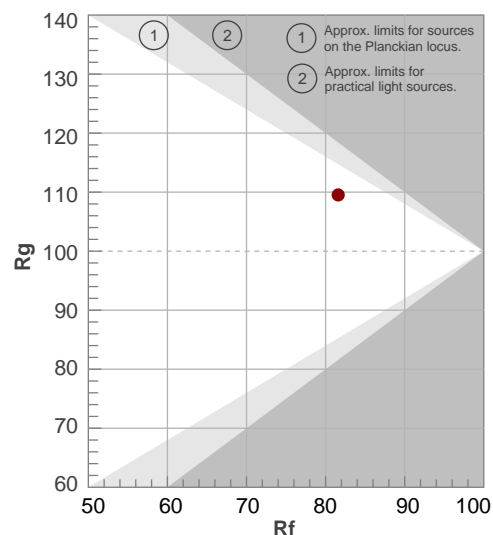
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5695 K	77,8	-1,5	81,6	109,5	83,0	61	0,327	0,380	0,0173

# TM30 DETAILS

**Rf 81,6**  
Fidelity index Rf

**Rg 109,5**  
Gammut index

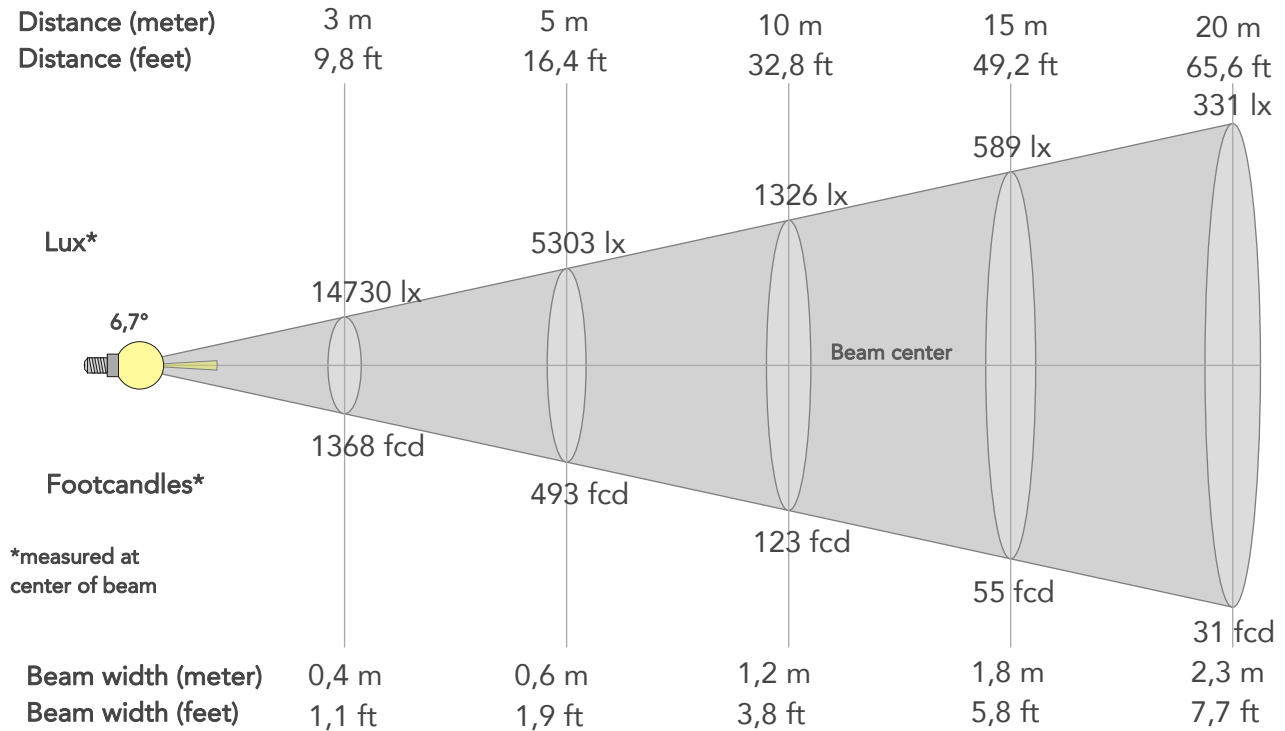
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	68	14%	-4%
2	77	7%	-10%
3	80	3%	-8%
4	92	-2%	-1%
5	90	0%	3%
6	84	8%	5%
7	80	9%	-2%
8	81	5%	-7%
9	88	0%	-8%
10	86	-4%	-4%
11	85	-3%	7%
12	82	-3%	11%
13	79	1%	16%
14	78	6%	11%
15	71	20%	14%
16	74	13%	-2%



## BEAM DETAILS



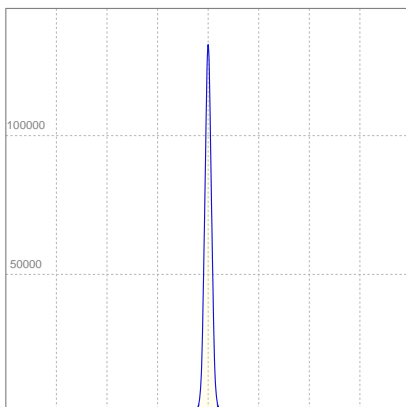
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,7°	12,3°	16,7°	99,6%	99,5%



### 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	132567lx	33142lx	14730lx	8285lx	5303lx	2357lx	1326lx	589lx	331lx	212lx	147lx	83lx	53lx
Footcand.	12316fcd	3079fcd	1368fcd	770fcd	493fcd	219fcd	123fcd	55fcd	31fcd	20fcd	14fcd	8fcd	5fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,3m	2,9m	3,5m	4,7m	5,9m
Beam wid.	0,4ft	0,8ft	1,1ft	1,5ft	1,9ft	2,9ft	3,8ft	5,8ft	7,7ft	9,6ft	11,5ft	15,4ft	19,2ft

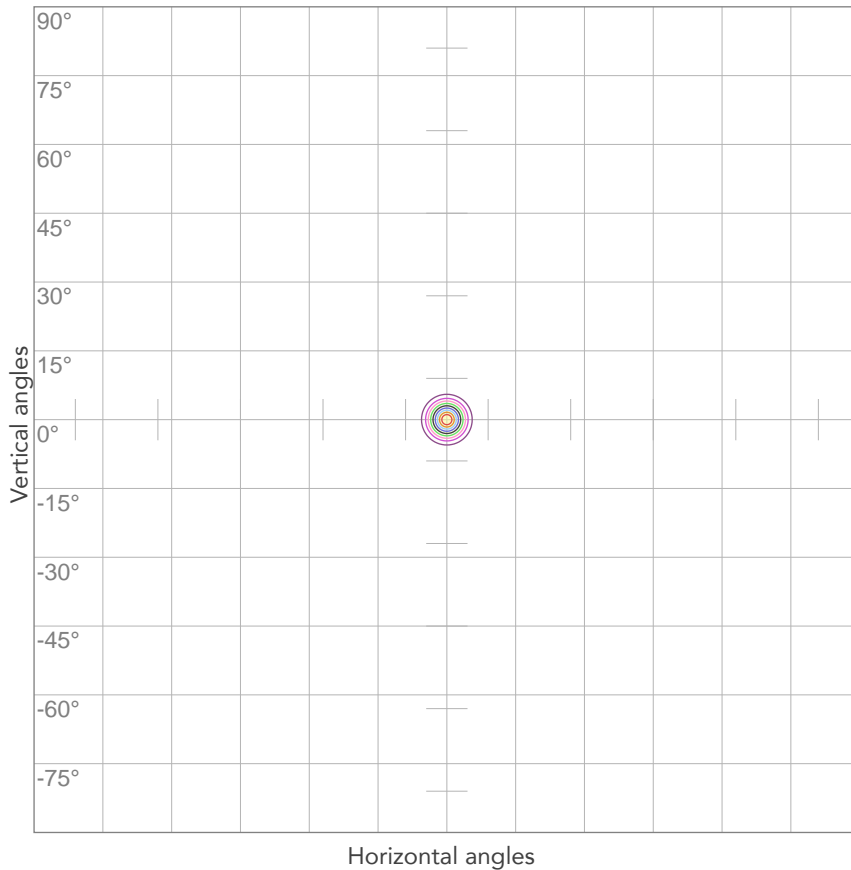
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,928A	192,5W	11lm/W

## ISO CANDELA DIAGRAM



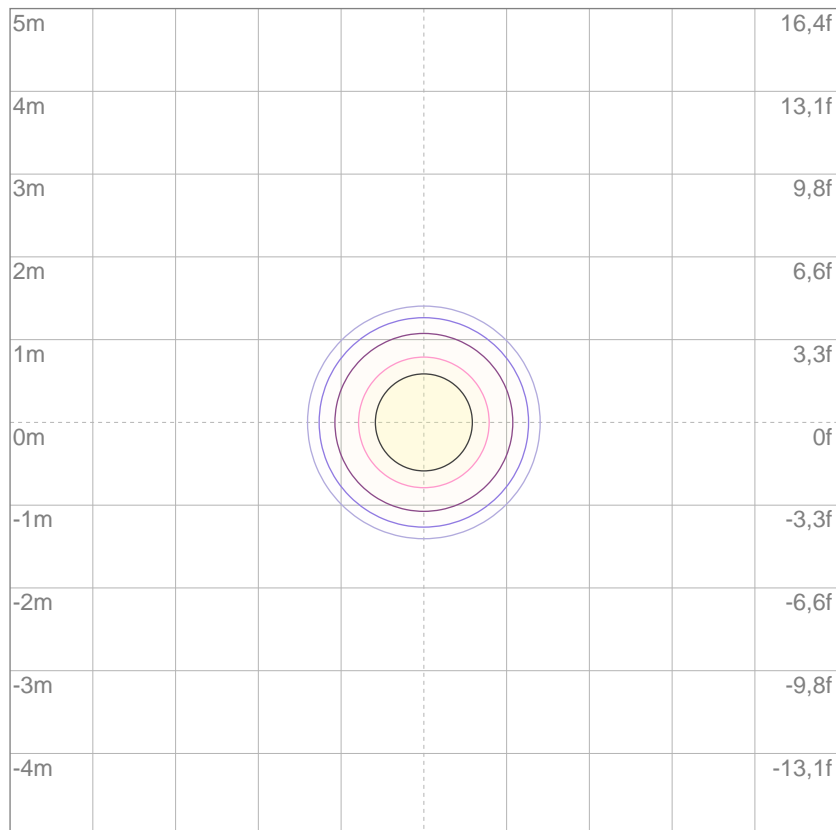
10%	13257 cd
20%	26513 cd
30%	39770 cd
40%	53027 cd
50%	66283 cd
60%	79540 cd
70%	92797 cd
80%	106053 cd

### Conditions:

Number of c-planes: 2

Candela at center: 132567 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.*