

# Photometric Test Report



## Eclipse HDTWC PRL26

91 X 3,5 W Tunable White and colour LED  
profile with 6 colour Led source

## CONTENTS

Table of contents	2
Testing process	3
Color preset Full on	4
Color preset Red	7
Color preset Orange	10
Color preset Green	13
Color preset Blue	16
Color preset Royal Blue	19
Color preset Lime	22
Color temperature 2800K	25
Color temperature 3200K	30
Color temperature 4000K	35
Color temperature 5600K	40
Color temperature 6000K	45

## 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:

5669 lm

Peak candela output:

50458 cd

**PRODUCT NAME:**

ECLHDTWC

**MEASURAMENT CONDITIONS:**

Beam angle:

PRL26

Target:

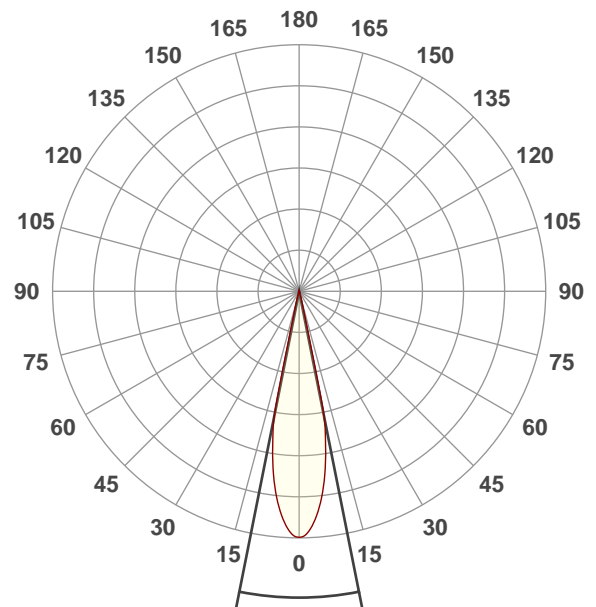
Full on

Operator:

Paolo Carvone

Date and time:

03/03/2020 12:55:58

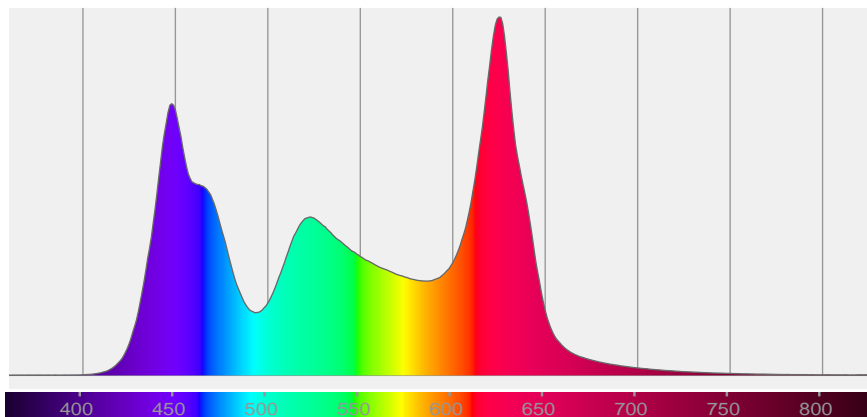


Beam angle 50%: 22,5°

Field angle 10%: 26,2°

Cut off angle 2.5%: 28,8°

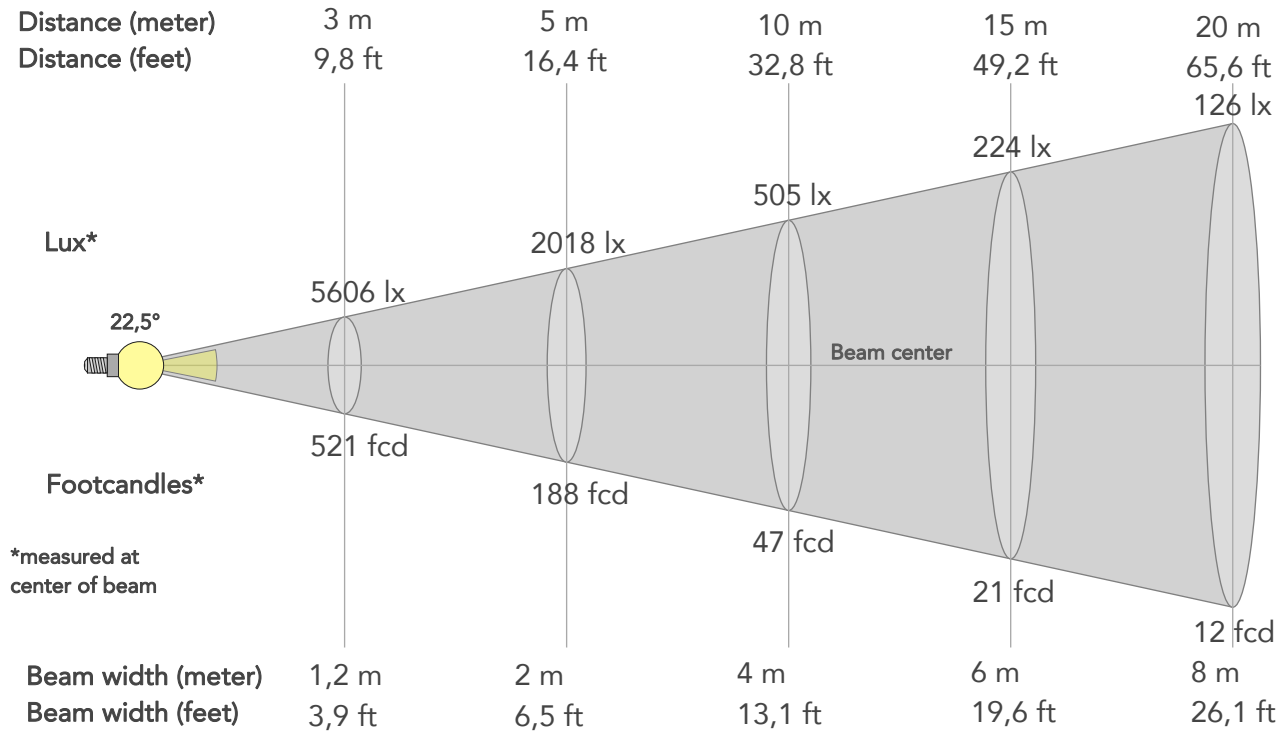
**Spectra**



## BEAM DETAILS



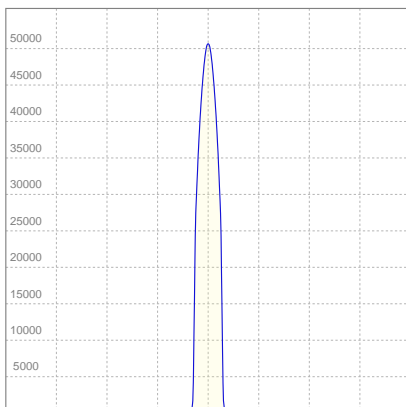
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,5°	26,2°	28,8°	95,8%	95,2%



### 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	50458lx	12614lx	5606lx	3154lx	2018lx	897lx	505lx	224lx	126lx	81lx	56lx	32lx	20lx
Footcand.	4688fcd	1172fcd	521fcd	293fcd	188fcd	83fcd	47fcd	21fcd	12fcd	8fcd	5fcd	3fcd	2fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4m	6m	8m	10m	11,9m	15,9m	19,9m
Beam wid.	1,3ft	2,6ft	3,9ft	5,2ft	6,5ft	9,8ft	13,1ft	19,6ft	26,1ft	32,6ft	39,2ft	52,2ft	65,3ft

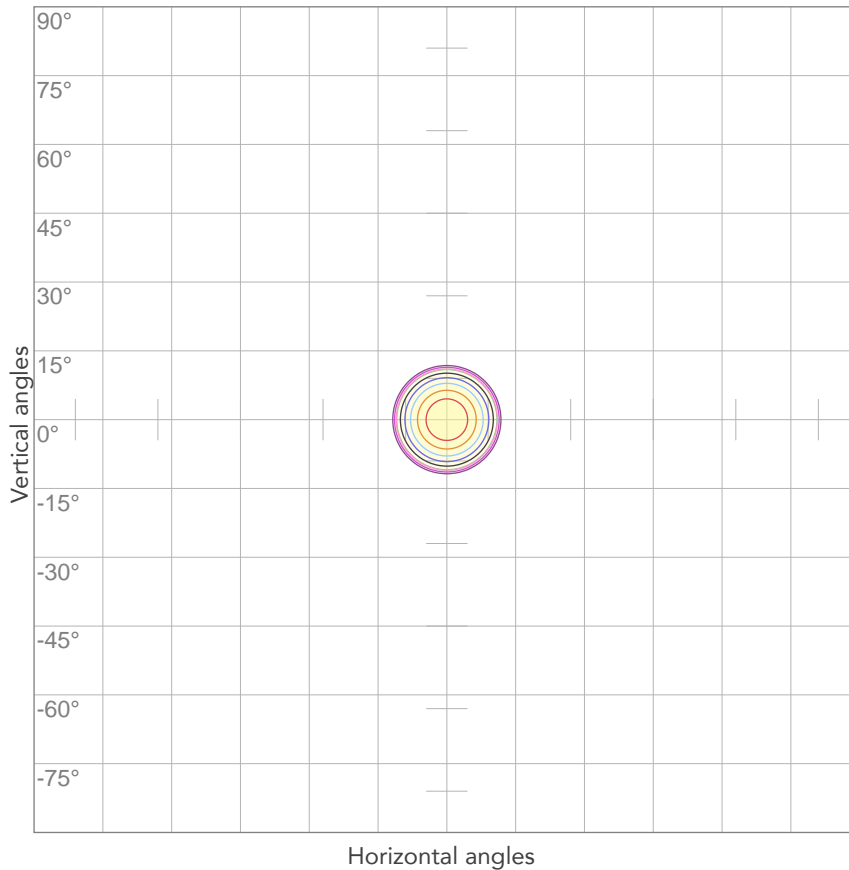
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,15A	243,2W	23lm/W
Power FC			
0,94			

## ISO CANDELA DIAGRAM



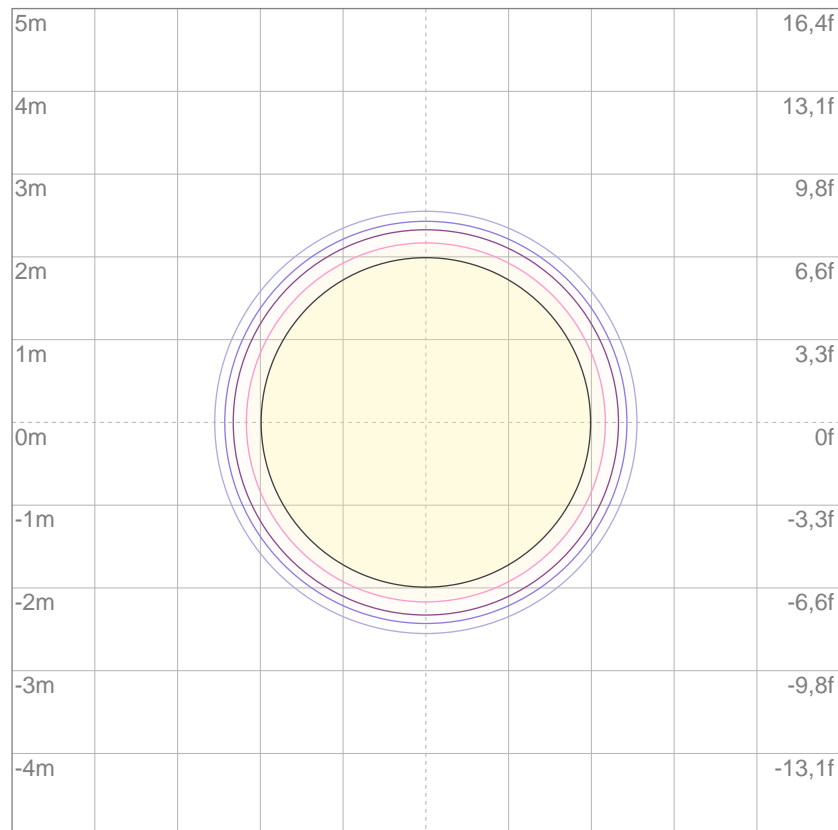
10%	5046 cd
20%	10092 cd
30%	15137 cd
40%	20183 cd
50%	25229 cd
60%	30275 cd
70%	35320 cd
80%	40366 cd

### Conditions:

Number of c-planes: 2

Candela at center: 50458 cd

## ISO LUX DIAGRAM



3%	15,1 lx
5%	25,2 lx
10%	50,5 lx
30%	151 lx
50%	252 lx

### Conditions:

Number of c-planes: 2

Lux at center: 505 lx

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



Total lumen output:

260 lm

Peak candela output:

2203 cd

PRODUCT NAME:

ECLHDTWC

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

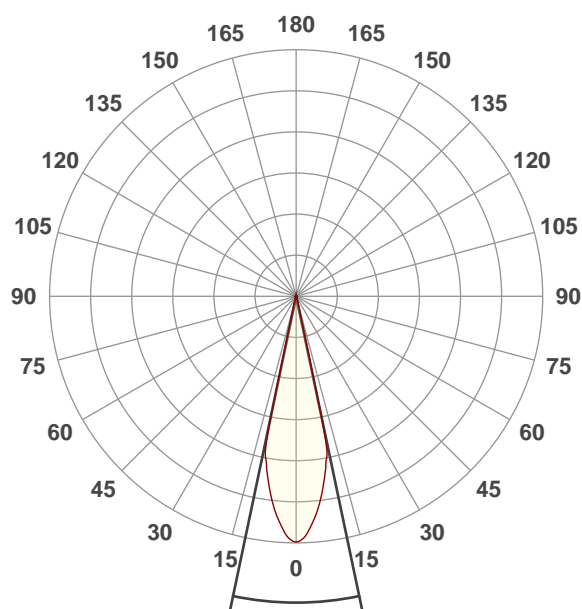
Red

Operator:

Paolo Carvone

Date and time:

03/03/2020 13:19:46

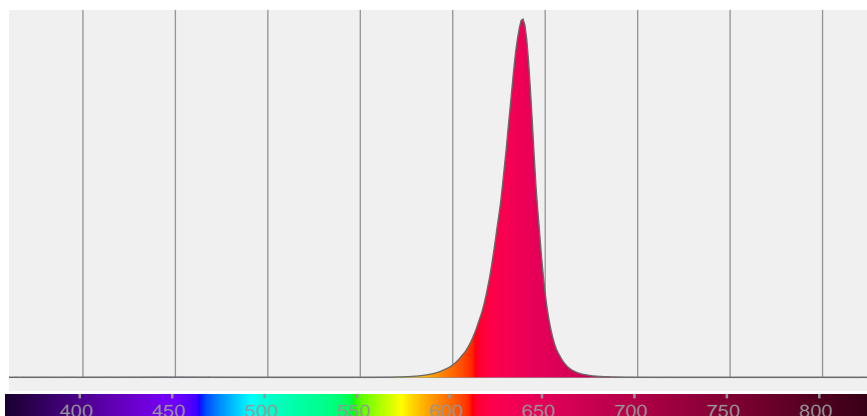


Beam angle 50%: 23,8°

Field angle 10%: 26,2°

Cut off angle 2.5%: 28,5°

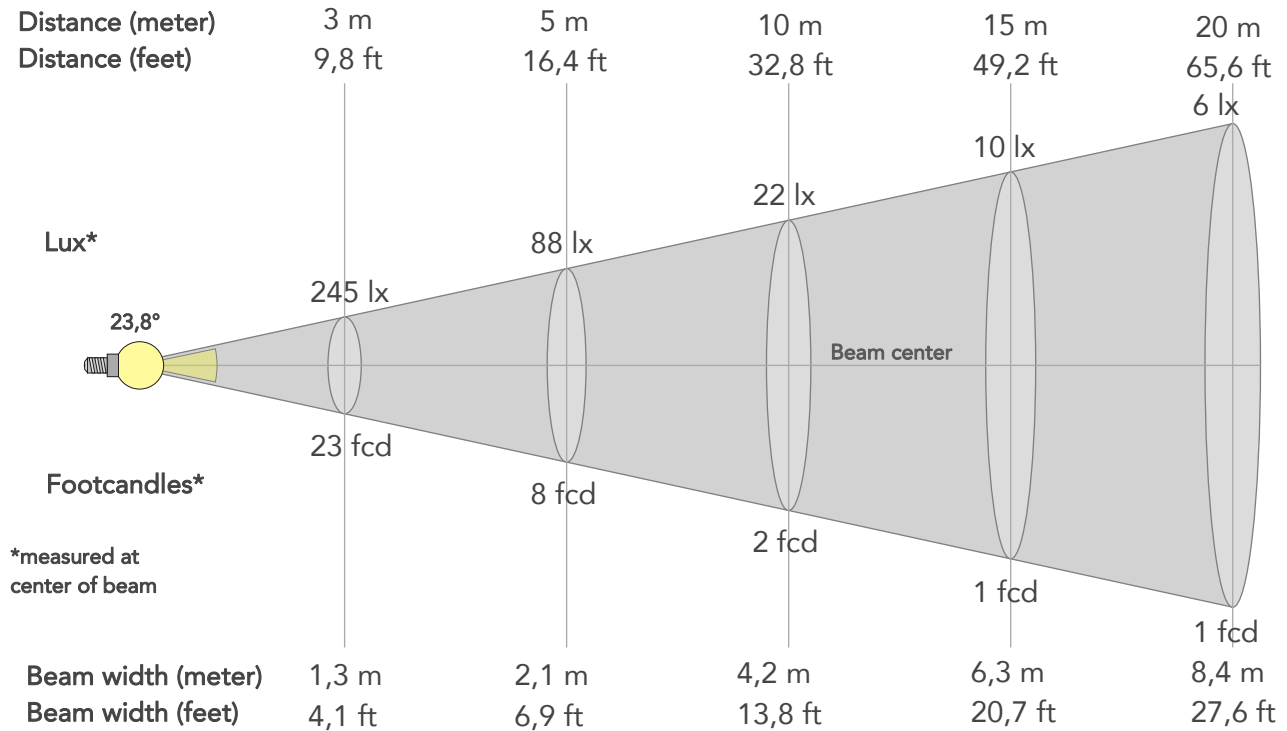
Spectra



# BEAM DETAILS



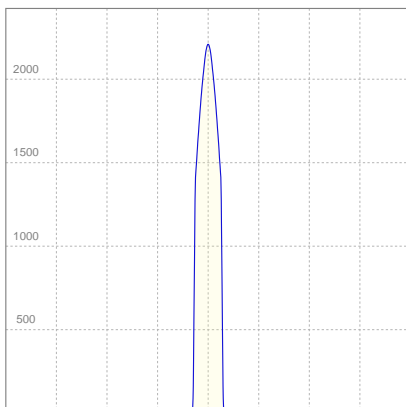
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,8°	26,2°	28,5°	98,3%	97,7%



## 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	2203lx	551lx	245lx	138lx	88lx	39lx	22lx	10lx	6lx	4lx	2lx	1lx	1lx
Footcand.	205fcd	51fcd	23fcd	13fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,2m	4,2m	6,3m	8,4m	10,5m	12,6m	16,8m	21m
Beam wid.	1,4ft	2,8ft	4,1ft	5,5ft	6,9ft	10,4ft	13,8ft	20,7ft	27,6ft	34,5ft	41,4ft	55,2ft	69ft

## LINEAR DISTRIBUTION DIAGRAM

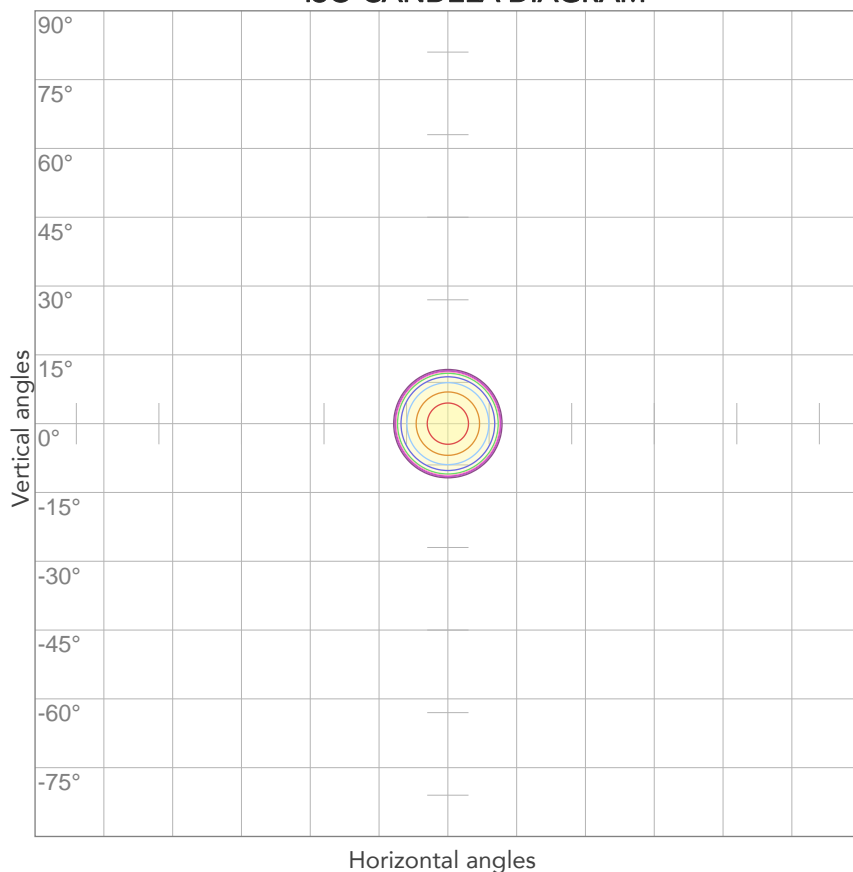


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,215A	20,7W	13lm/W
Power FC			
0,94			



## ISO CANDELA DIAGRAM



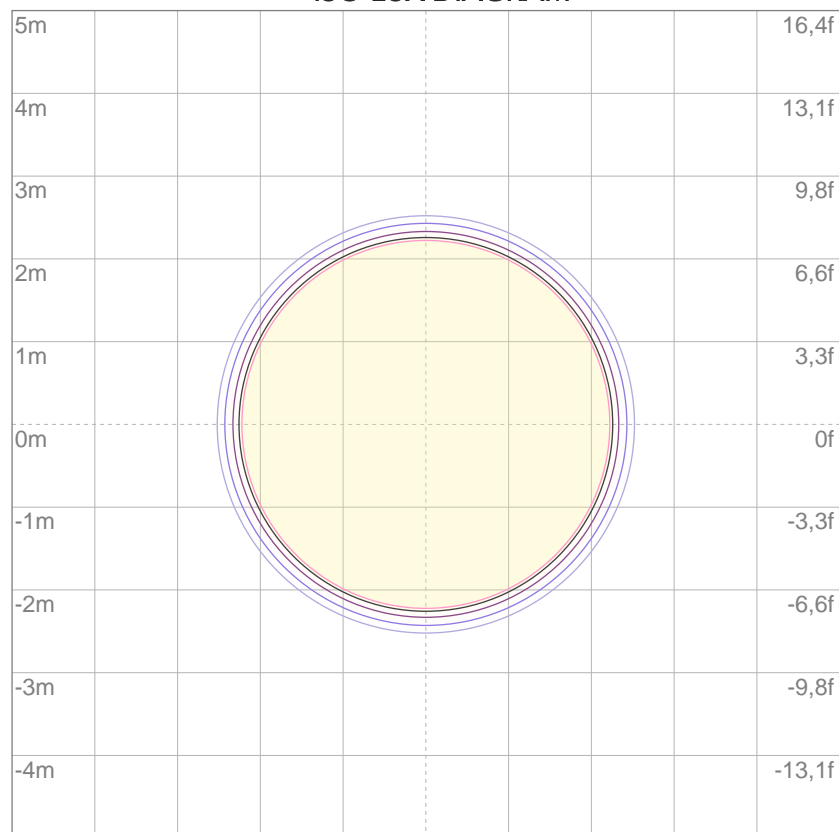
10%	220 cd
20%	441 cd
30%	661 cd
40%	881 cd
50%	1102 cd
60%	1322 cd
70%	1542 cd
80%	1763 cd

### Conditions:

Number of c-planes: 2

Candela at center: 2203 cd

## ISO LUX DIAGRAM



3%	0,661 lx
5%	1,10 lx
10%	2,20 lx
30%	6,61 lx
50%	11,0 lx

### Conditions:

Number of c-planes: 2

Lux at center: 22,0 lx

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



Total lumen output:

1041 lm

Peak candela output:

10027 cd

PRODUCT NAME:

ECLHDTWC

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

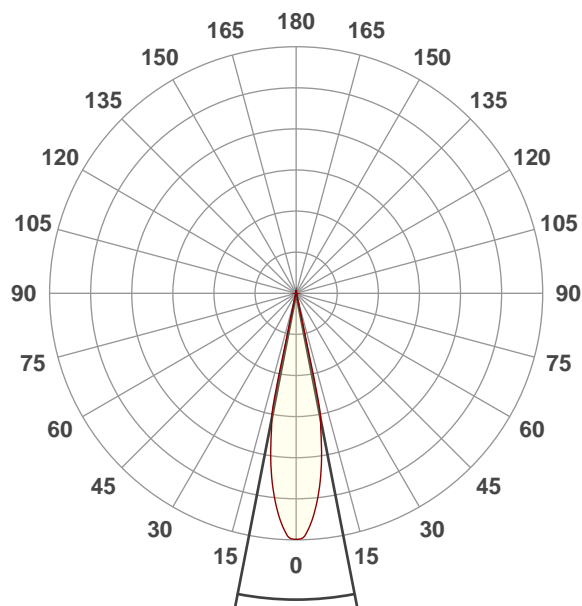
Orange

Operator:

Paolo Carvone

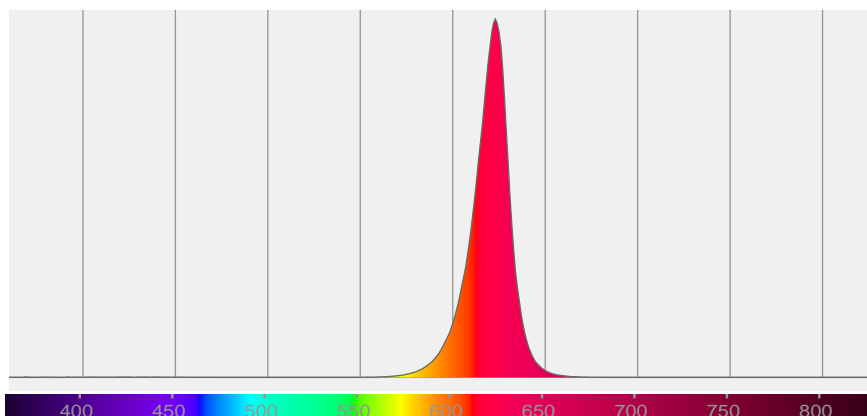
Date and time:

03/03/2020 13:22:25



Beam angle 50%: 22°  
Field angle 10%: 25,9°  
Cut off angle 2.5%: 27,5°

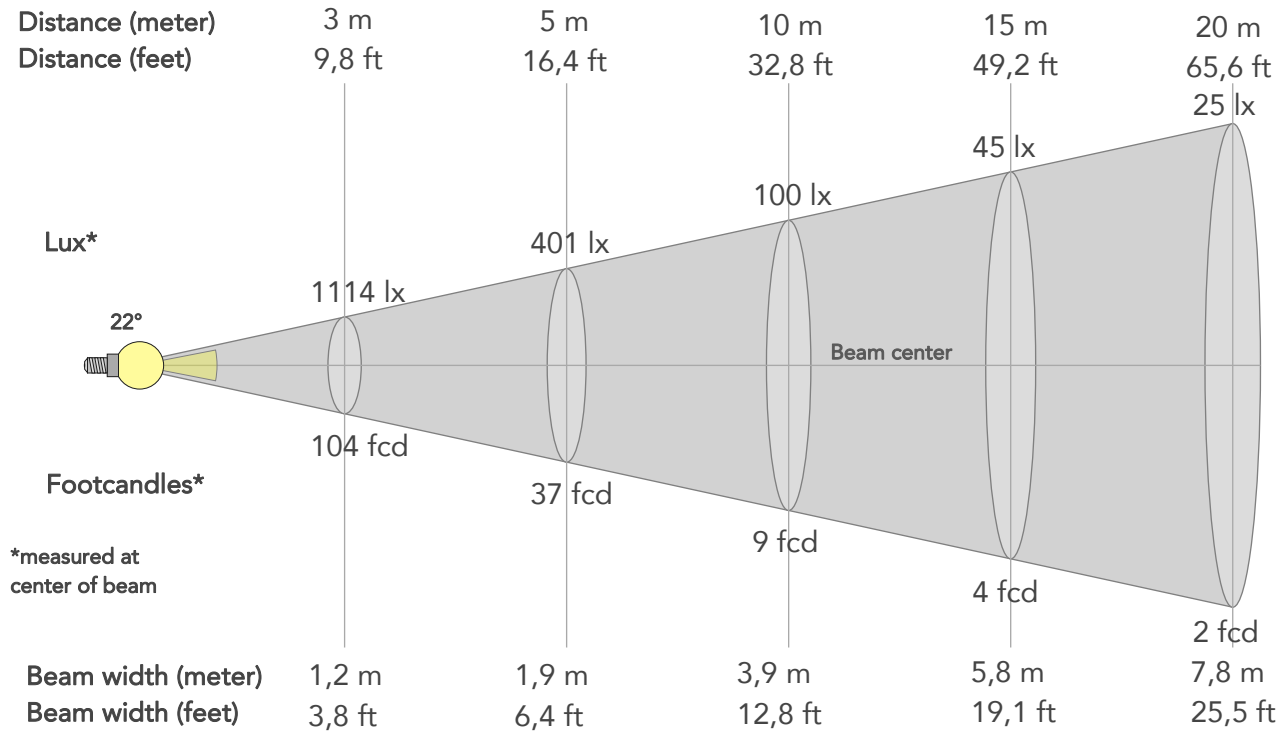
Spectra



# BEAM DETAILS



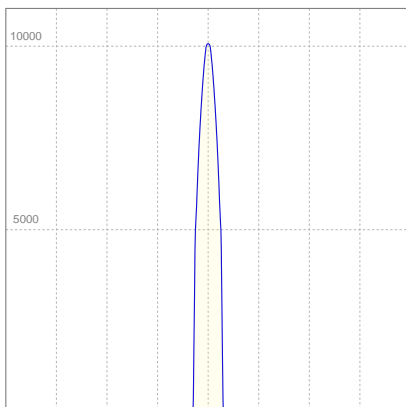
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22°	25,9°	27,5°	99,0%	98,7%



## 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	10027lx	2507lx	1114lx	627lx	401lx	178lx	100lx	45lx	25lx	16lx	11lx	6lx	4lx
Footcand.	932fcd	233fcd	104fcd	58fcd	37fcd	17fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	1,9m	2,9m	3,9m	5,8m	7,8m	9,7m	11,7m	15,6m	19,5m
Beam wid.	1,3ft	2,6ft	3,8ft	5,1ft	6,4ft	9,6ft	12,8ft	19,1ft	25,5ft	31,9ft	38,3ft	51ft	63,8ft

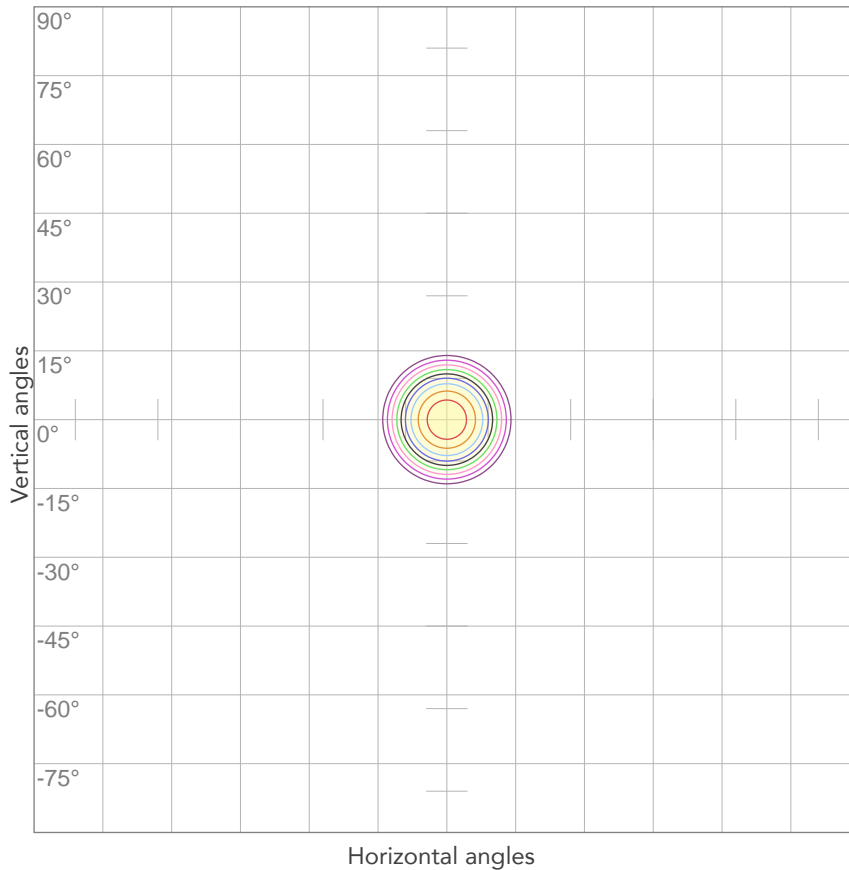
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,321A	50,0W	21lm/W
Power FC			
0,94			

## ISO CANDELA DIAGRAM



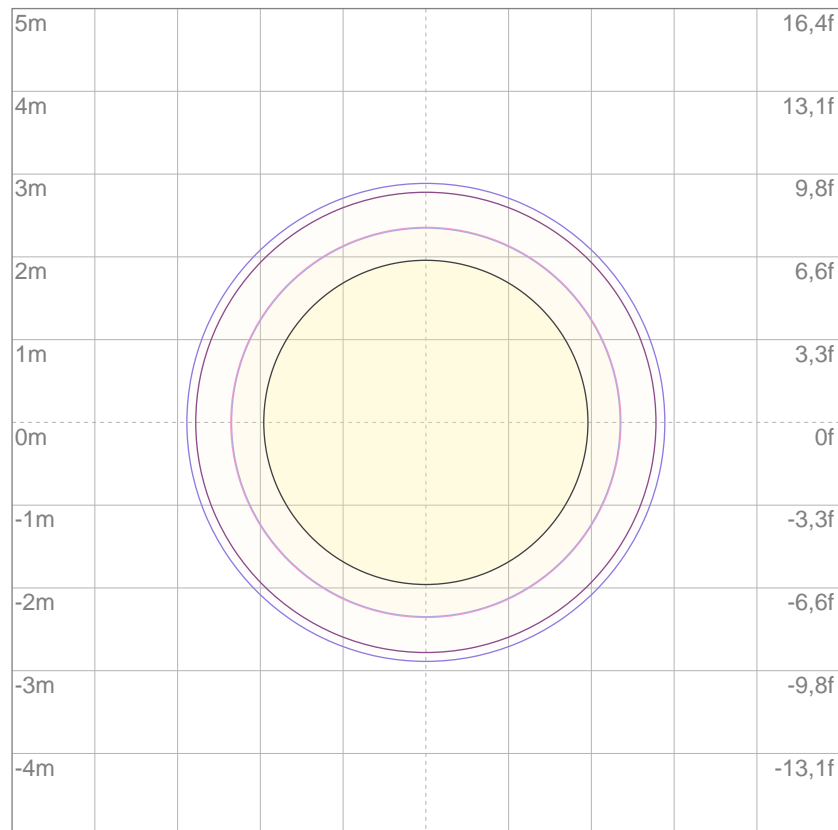
10%	1003 cd
20%	2005 cd
30%	3008 cd
40%	4011 cd
50%	5013 cd
60%	6016 cd
70%	7019 cd
80%	8021 cd

### Conditions:

Number of c-planes: 2

Candela at center: 10027 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	3,01 lx
5%	5,01 lx
10%	10,0 lx
30%	30,1 lx
50%	50,1 lx

### Conditions:

Number of c-planes: 2

Lux at center: 100 lx

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



Total lumen output:

803 lm

Peak candela output:

7542 cd

PRODUCT NAME:

ECLHDTWC

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

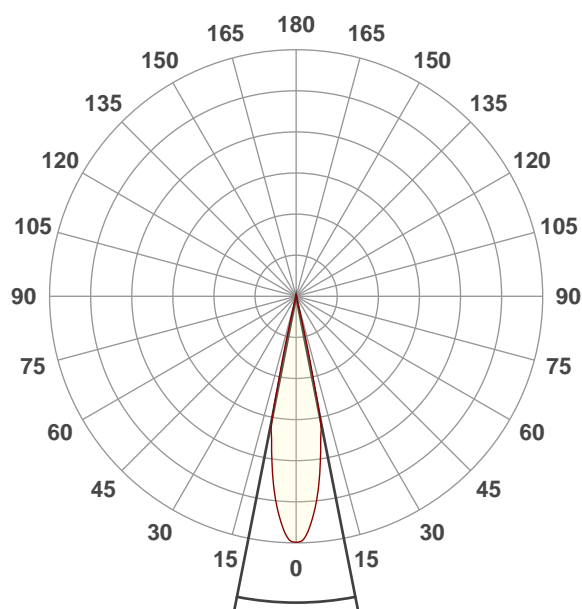
Green

Operator:

Paolo Carvone

Date and time:

03/03/2020 13:24:01

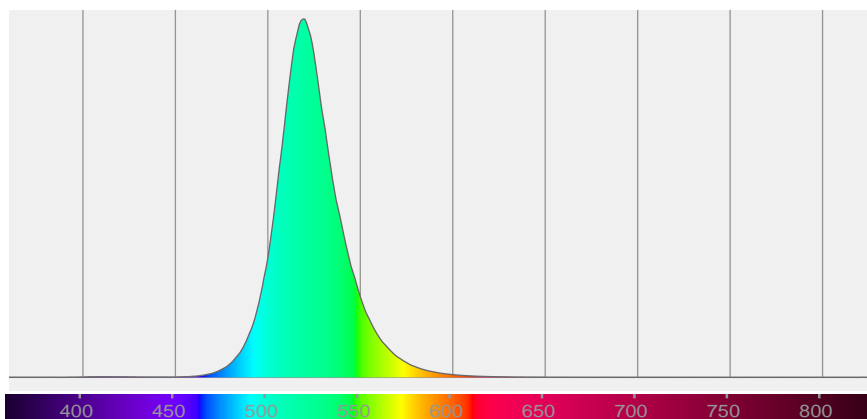


Beam angle 50%: 22,3°

Field angle 10%: 26,7°

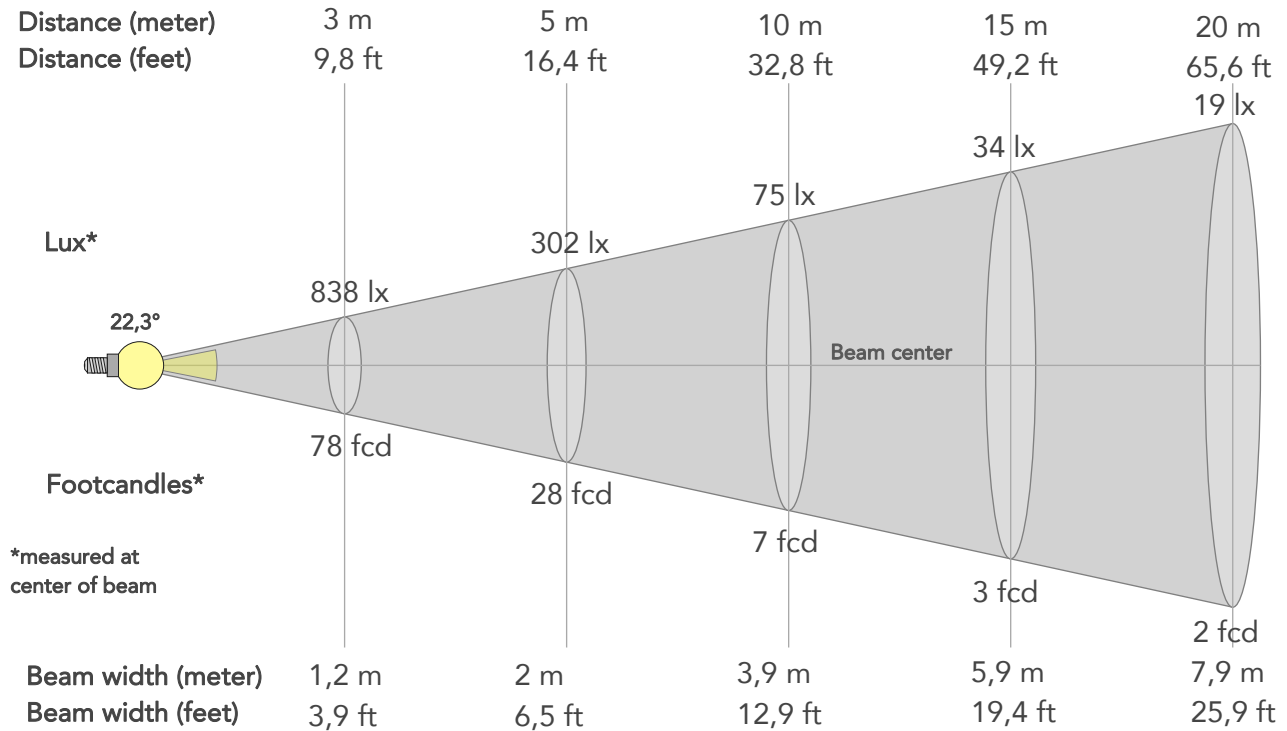
Cut off angle 2.5%: 27,8°

Spectra



## BEAM DETAILS

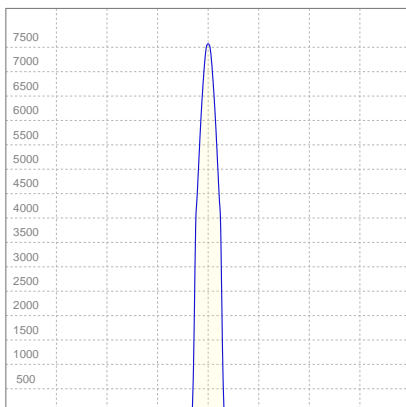
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,3°	26,7°	27,8°	96,2%	95,9%



### 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	7542lx	1885lx	838lx	471lx	302lx	134lx	75lx	34lx	19lx	12lx	8lx	5lx	3lx
Footcand.	701fcd	175fcd	78fcd	44fcd	28fcd	12fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	3,9m	5,9m	7,9m	9,9m	11,8m	15,8m	19,7m
Beam wid.	1,3ft	2,6ft	3,9ft	5,2ft	6,5ft	9,7ft	12,9ft	19,4ft	25,9ft	32,3ft	38,8ft	51,7ft	64,6ft

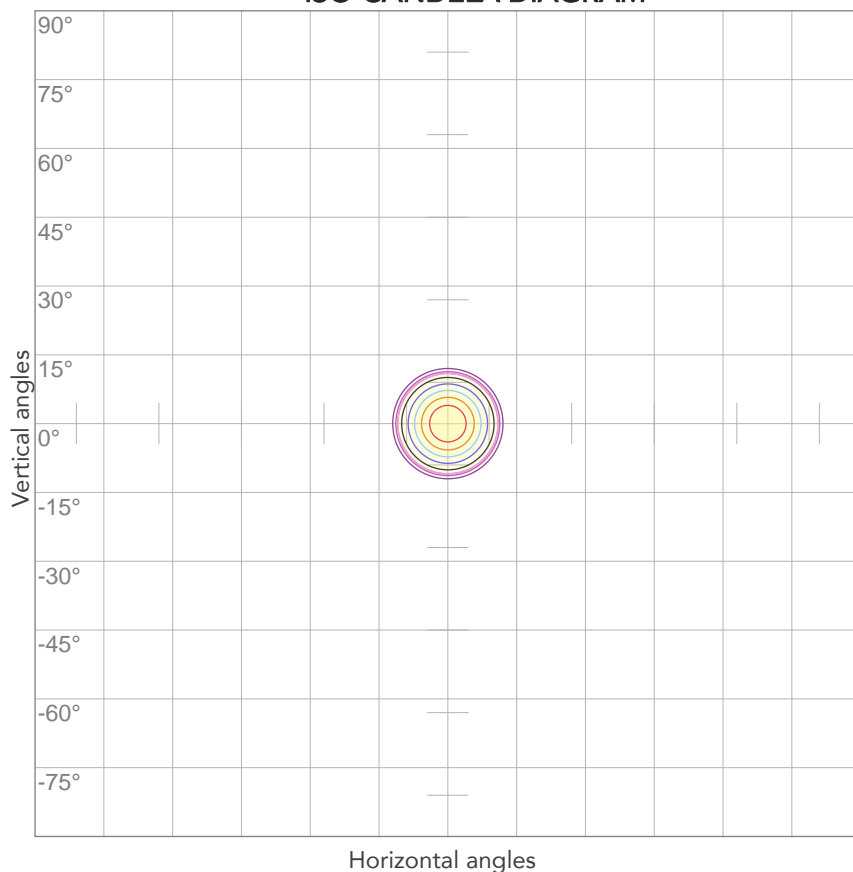
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,261A	33,9W	24lm/W
Power FC			
0,94			

## ISO CANDELA DIAGRAM



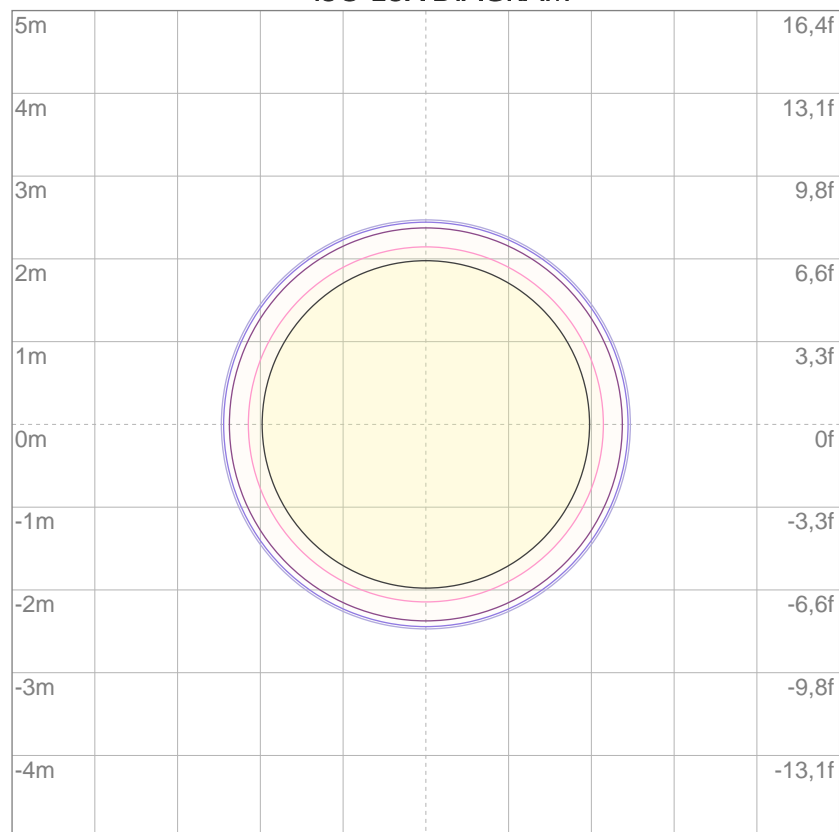
10%	754 cd
20%	1508 cd
30%	2263 cd
40%	3017 cd
50%	3771 cd
60%	4525 cd
70%	5279 cd
80%	6033 cd

### Conditions:

Number of c-planes: 2

Candela at center: 7542 cd

## ISO LUX DIAGRAM



3%	2,26 lx
5%	3,77 lx
10%	7,54 lx
30%	22,6 lx
50%	37,7 lx

### Conditions:

Number of c-planes: 2

Lux at center: 75,4 lx

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



Total lumen output:

118 lm

Peak candela output:

1096 cd

**PRODUCT NAME:**

ECLHDTWC

**MEASURAMENT CONDITIONS:**

Beam angle:

PRL26

Target:

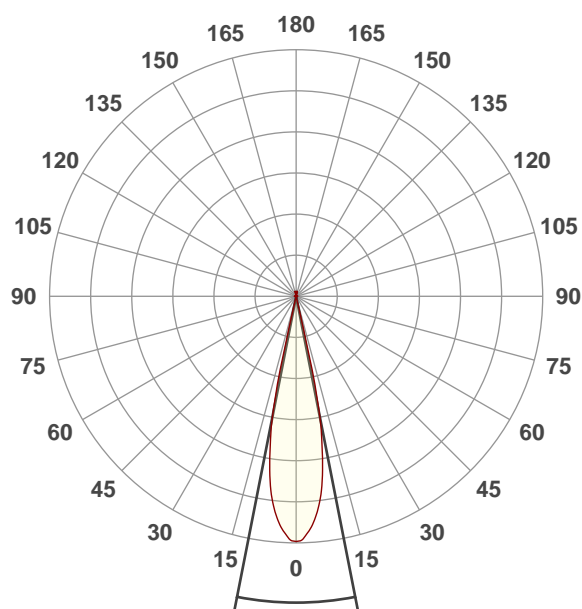
Blue

Operator:

Paolo Carvone

Date and time:

03/03/2020 13:25:33

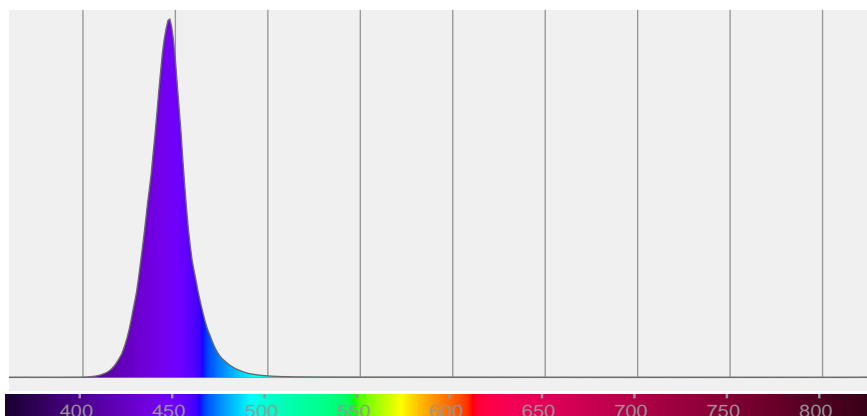


Beam angle 50%: 22,2°

Field angle 10%: 26,3°

Cut off angle 2.5%: 26,9°

**Spectra**

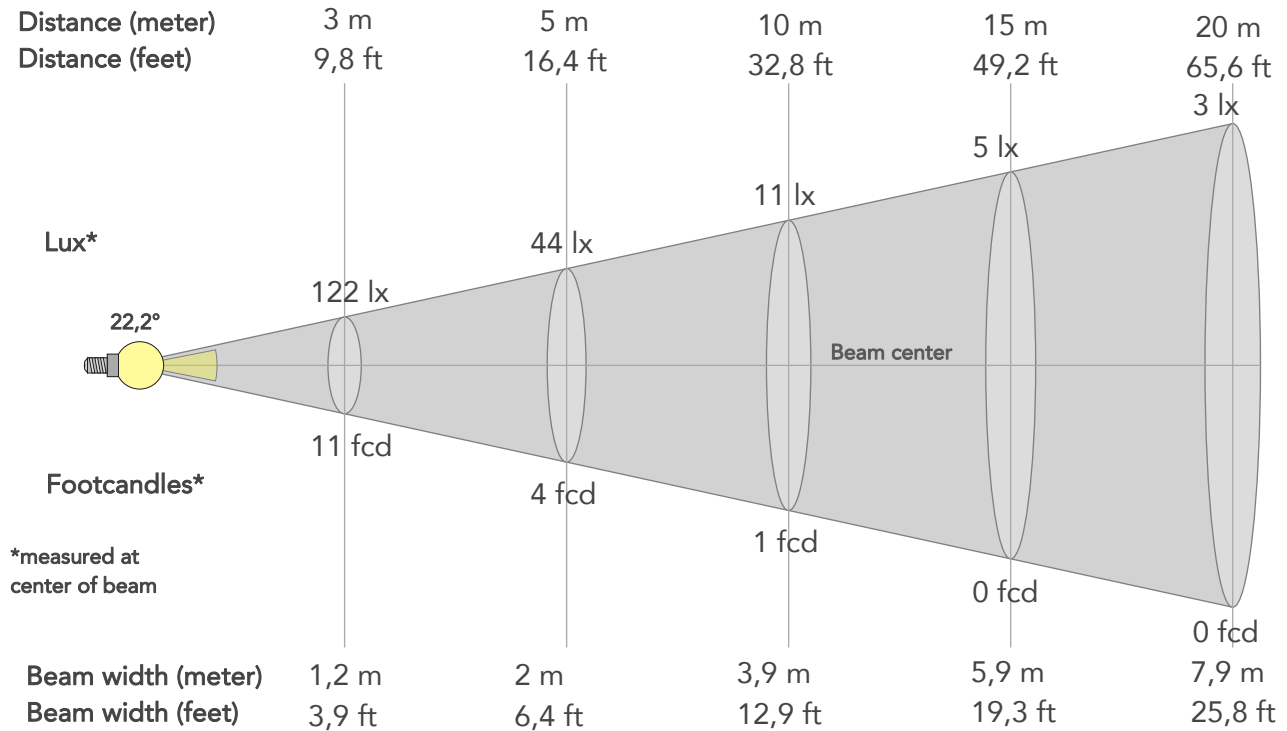




## BEAM DETAILS



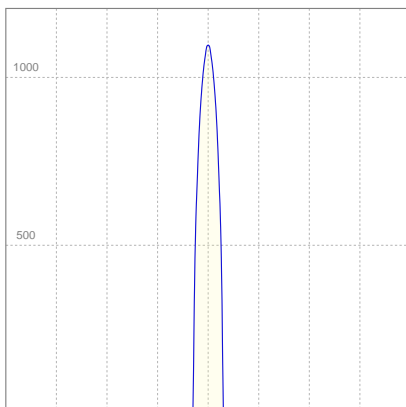
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,2°	26,3°	26,9°	98,6%	98,0%



### 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	1096lx	274lx	122lx	68lx	44lx	19lx	11lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	102fcd	25fcd	11fcd	6fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	2,9m	3,9m	5,9m	7,9m	9,8m	11,8m	15,7m	19,7m
Beam wid.	1,3ft	2,6ft	3,9ft	5,2ft	6,4ft	9,7ft	12,9ft	19,3ft	25,8ft	32,2ft	38,7ft	51,6ft	64,5ft

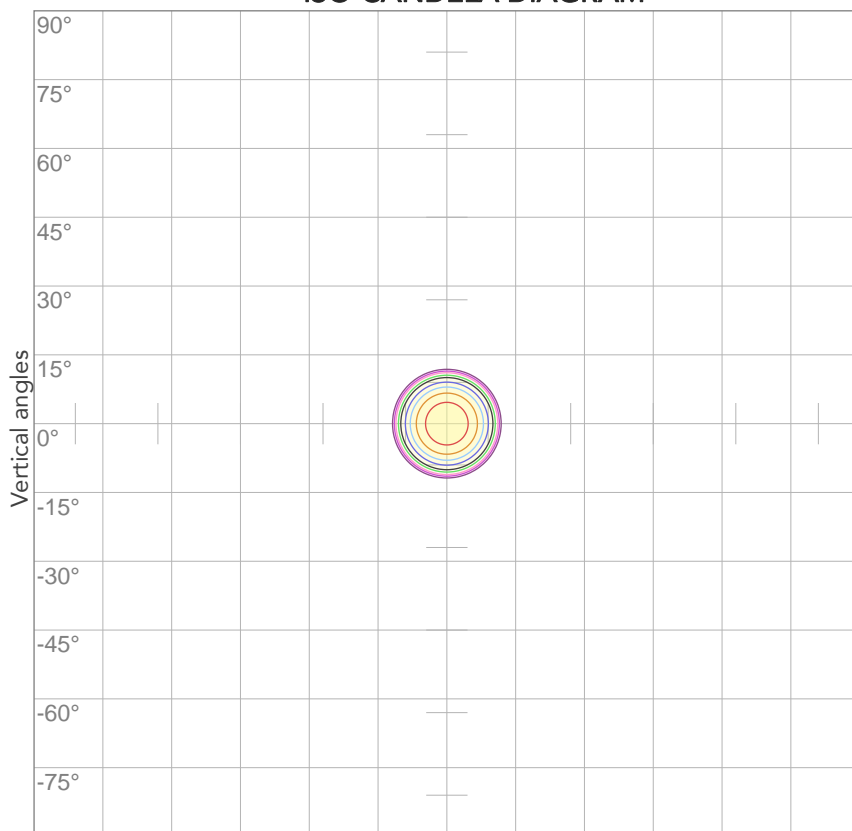
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,254A	31,7W	4lm/W
Power FC			
0,94			

## ISO CANDELA DIAGRAM



Horizontal angles

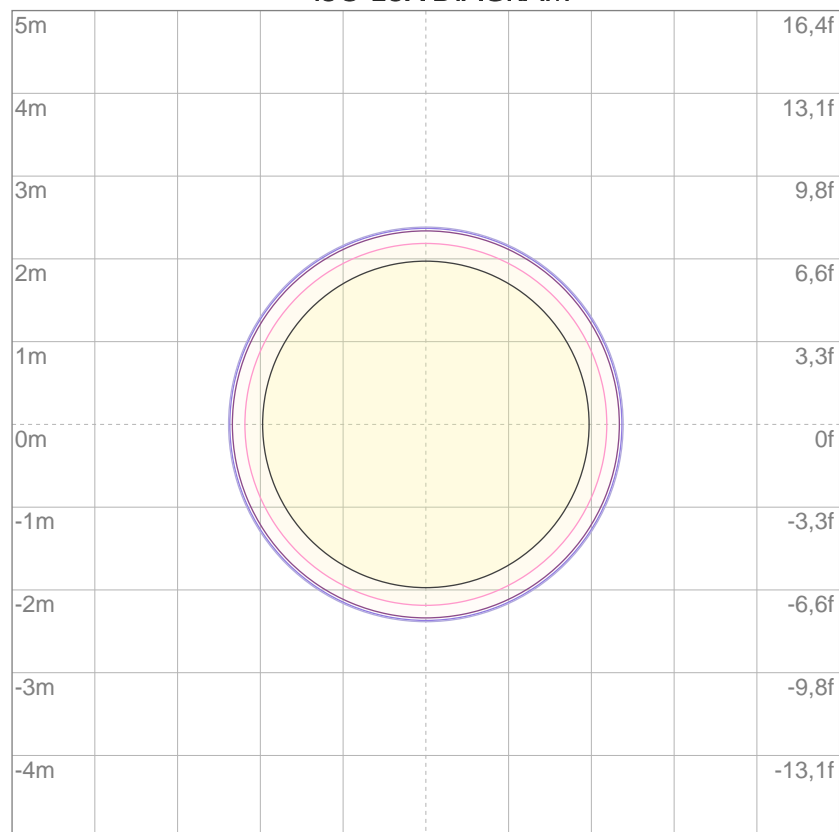
10%	110 cd
20%	219 cd
30%	329 cd
40%	438 cd
50%	548 cd
60%	658 cd
70%	767 cd
80%	877 cd

### Conditions:

Number of c-planes: 2

Candela at center: 1096 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,329 lx
5%	0,548 lx
10%	1,10 lx
30%	3,29 lx
50%	5,48 lx

### Conditions:

Number of c-planes: 2

Lux at center: 11,0 lx

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



Total lumen output:

256 lm

Peak candela output:

2507 cd

PRODUCT NAME:

ECLHDTWC

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

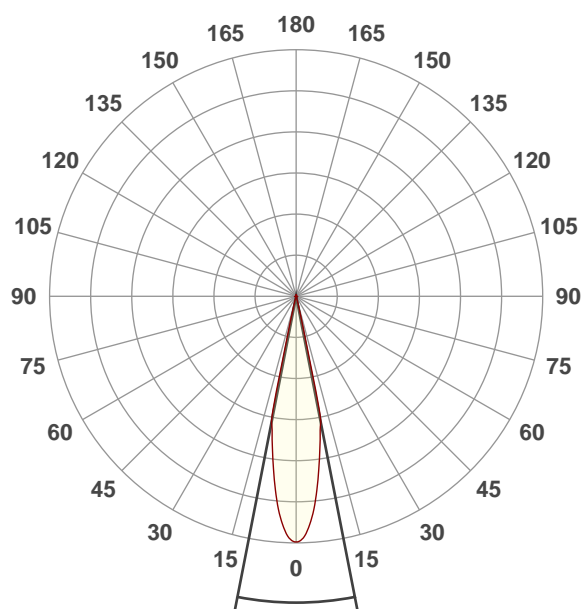
Royal Blue

Operator:

Paolo Carvone

Date and time:

03/03/2020 13:27:02

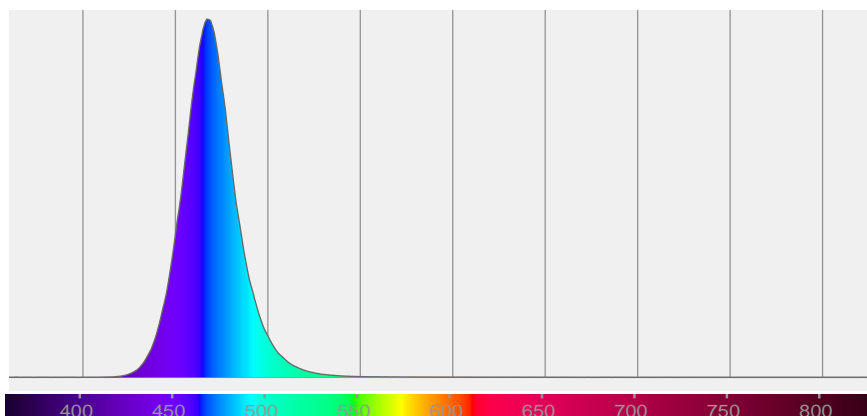


Beam angle 50%: 22,1°

Field angle 10%: 25,9°

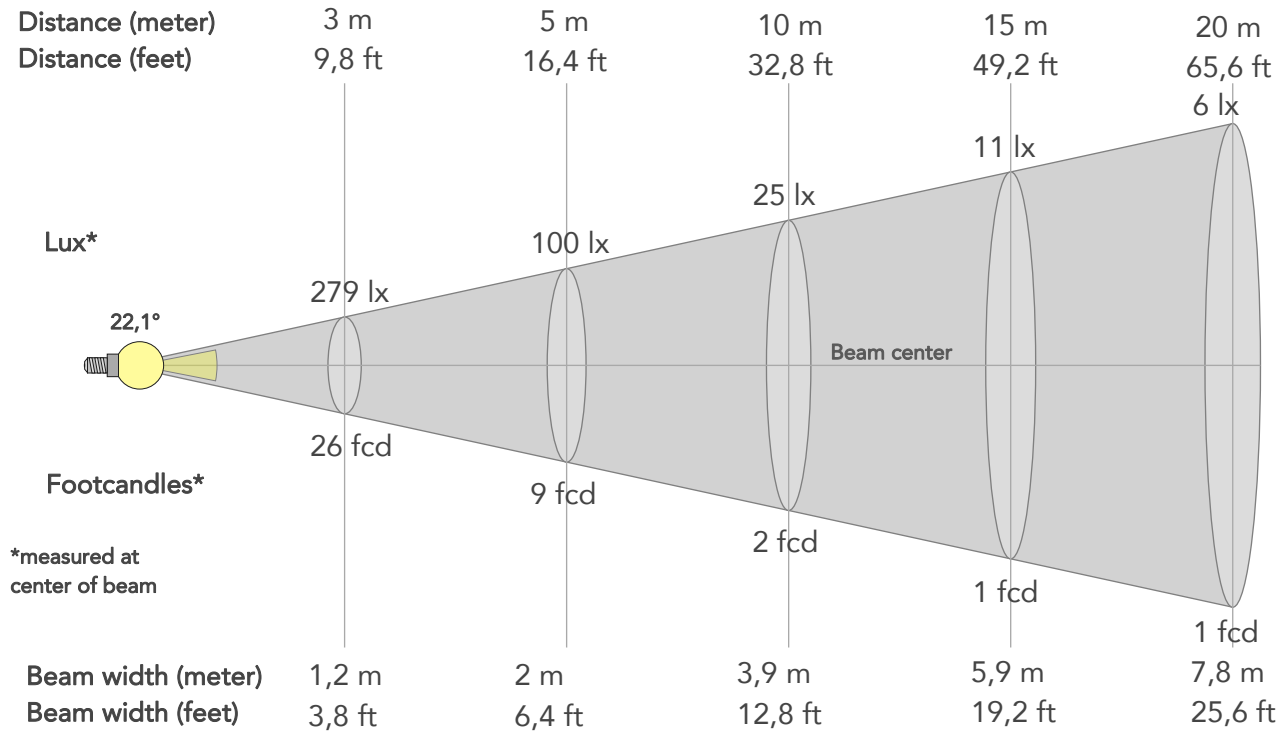
Cut off angle 2.5%: 27,9°

Spectra



## BEAM DETAILS

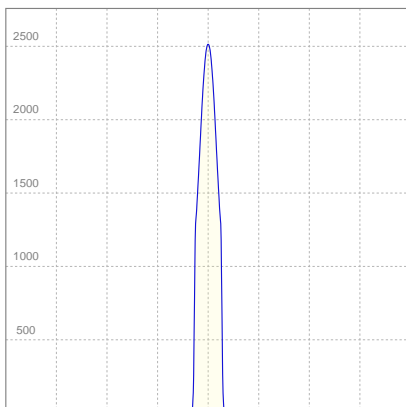
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,1°	25,9°	27,9°	98,2%	97,7%



### 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	2507lx	627lx	279lx	157lx	100lx	45lx	25lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	233fcd	58fcd	26fcd	15fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	2,9m	3,9m	5,9m	7,8m	9,8m	11,7m	15,6m	19,5m
Beam wid.	1,3ft	2,6ft	3,8ft	5,1ft	6,4ft	9,6ft	12,8ft	19,2ft	25,6ft	32ft	38,4ft	51,2ft	64ft

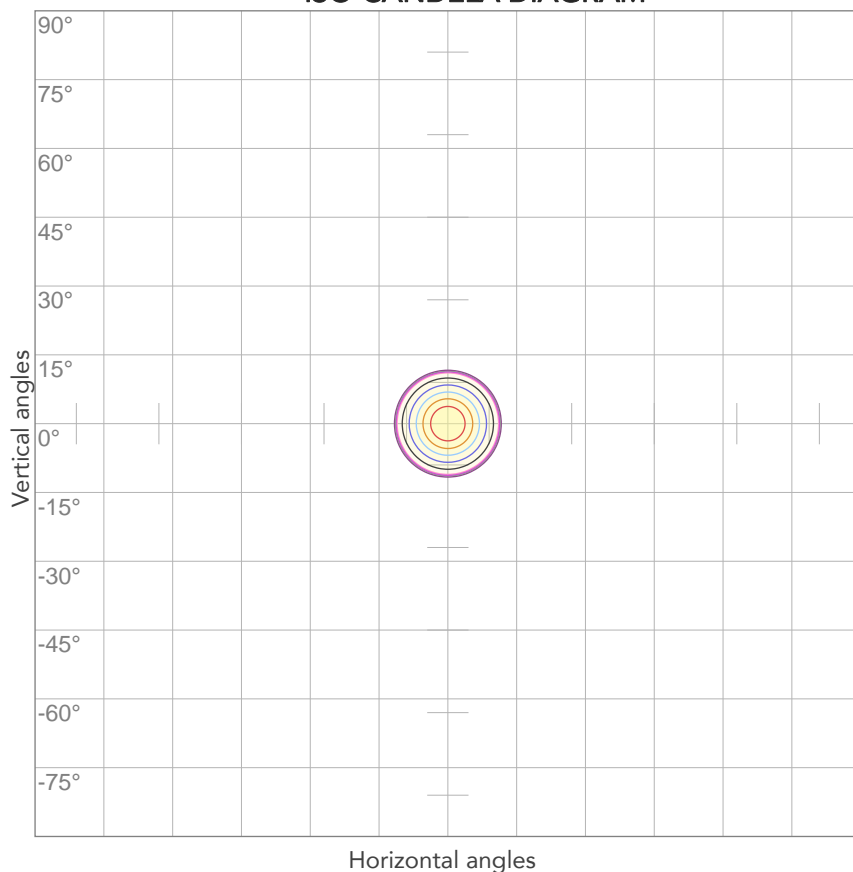
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,283A	40,1W	6lm/W
Power FC			
0,94			

## ISO CANDELA DIAGRAM



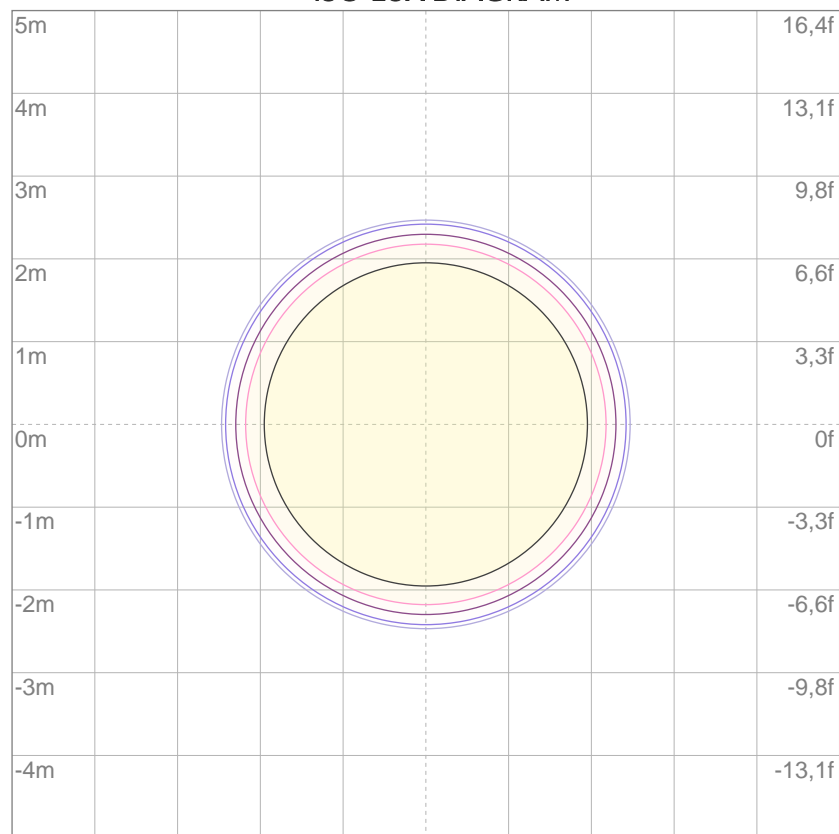
10%	251 cd
20%	501 cd
30%	752 cd
40%	1003 cd
50%	1254 cd
60%	1504 cd
70%	1755 cd
80%	2006 cd

### Conditions:

Number of c-planes: 2

Candela at center: 2507 cd

## ISO LUX DIAGRAM



3%	0,752 lx
5%	1,25 lx
10%	2,51 lx
30%	7,52 lx
50%	12,5 lx

### Conditions:

Number of c-planes: 2

Lux at center: 25,1 lx

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



Total lumen output:

3341 lm

Peak candela output:

30726 cd

PRODUCT NAME:

ECLHDTWC

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

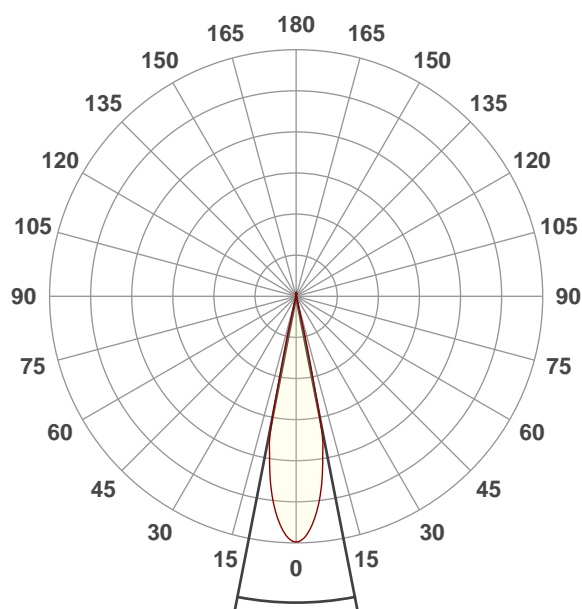
Lime

Operator:

Paolo Carvone

Date and time:

30/04/2020 16:20:20

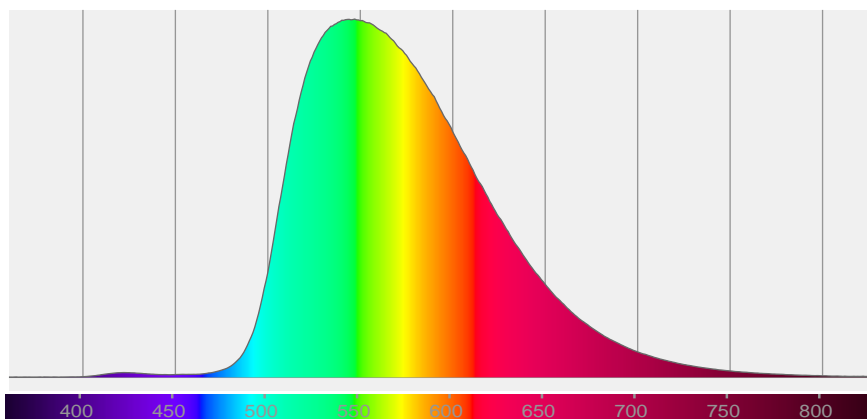


Beam angle 50%: 22,1°

Field angle 10%: 26,1°

Cut off angle 2.5%: 27,2°

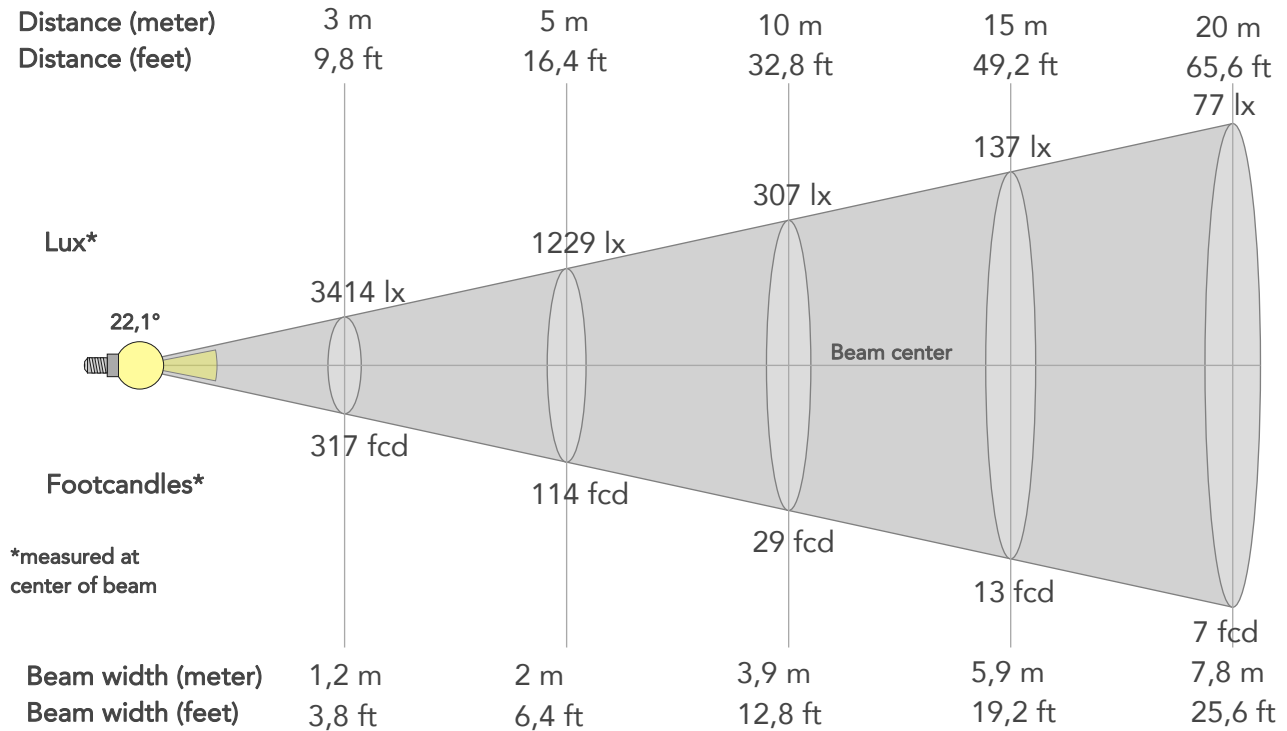
Spectra



## BEAM DETAILS



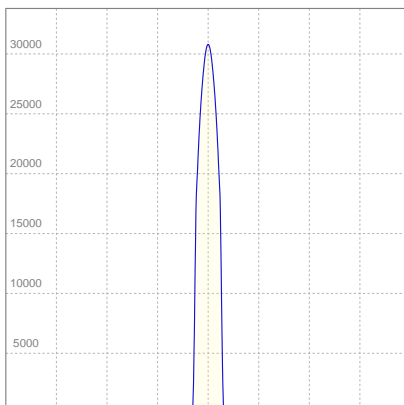
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,1°	26,1°	27,2°	95,6%	95,1%



### BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	30726lx	7681lx	3414lx	1920lx	1229lx	546lx	307lx	137lx	77lx	49lx	34lx	19lx	12lx
Footcand.	2855fcd	714fcd	317fcd	178fcd	114fcd	51fcd	29fcd	13fcd	7fcd	5fcd	3fcd	2fcd	1fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	2,9m	3,9m	5,9m	7,8m	9,8m	11,7m	15,6m	19,5m
Beam wid.	1,3ft	2,6ft	3,8ft	5,1ft	6,4ft	9,6ft	12,8ft	19,2ft	25,6ft	32ft	38,4ft	51,2ft	64,1ft

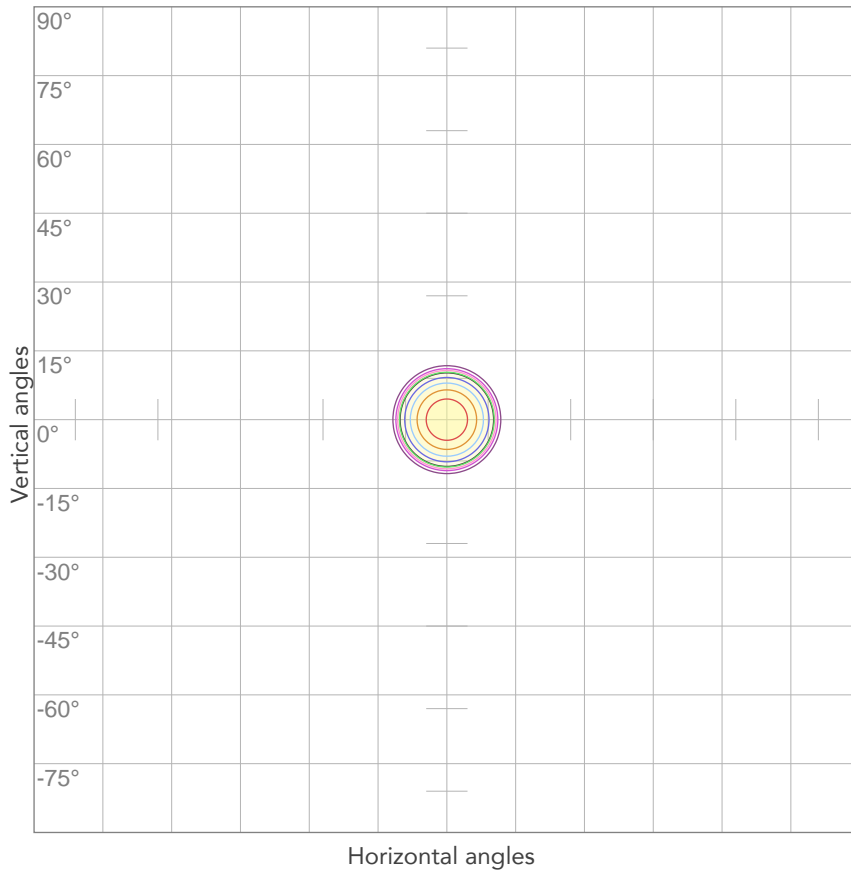
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,521A	100,7W	33lm/W
Power FC			
0,94			

## ISO CANDELA DIAGRAM



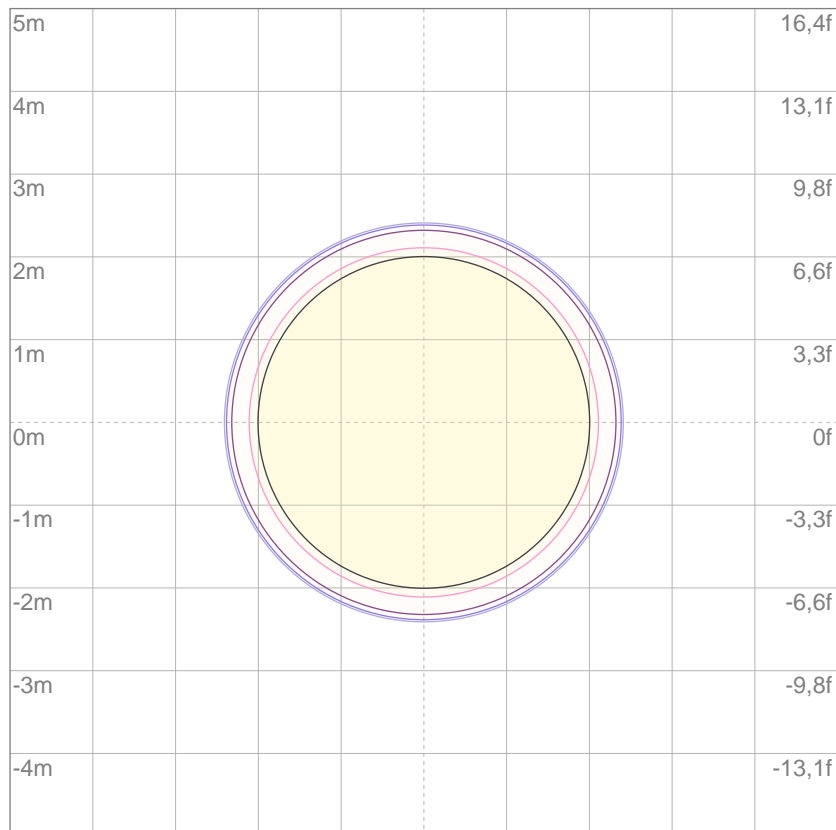
10%	3073 cd
20%	6145 cd
30%	9218 cd
40%	12290 cd
50%	15363 cd
60%	18436 cd
70%	21508 cd
80%	24581 cd

### Conditions:

Number of c-planes: 2

Candela at center: 30726 cd

## ISO LUX DIAGRAM



3%	9,22 lx
5%	15,4 lx
10%	30,7 lx
30%	92,2 lx
50%	154 lx

### Conditions:

Number of c-planes: 2

Lux at center: 307 lx

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





Total lumen output:

5038 lm

Peak candela output:

45952 cd

Light quality:

CRI: 87,7

Color temperature:

2771 K

PRODUCT NAME:

ECLHDTWC

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

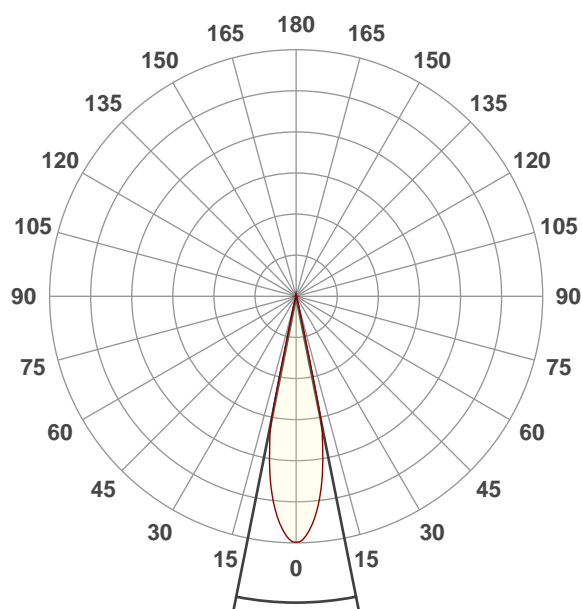
2800K

Operator:

Paolo Carvone

Date and time:

03/03/2020 13:29:54

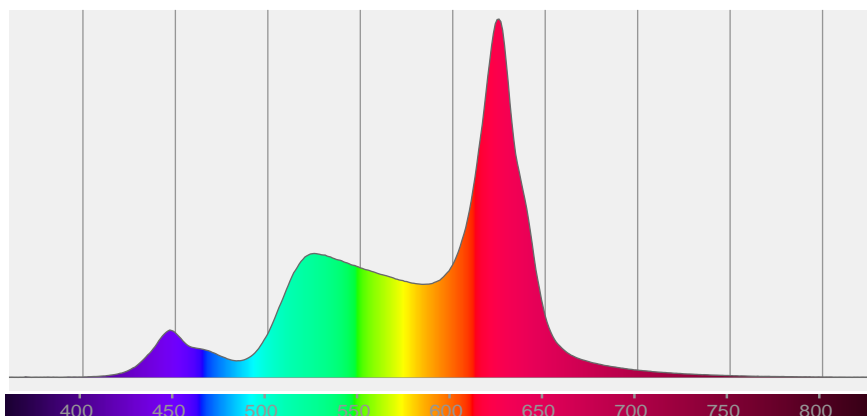


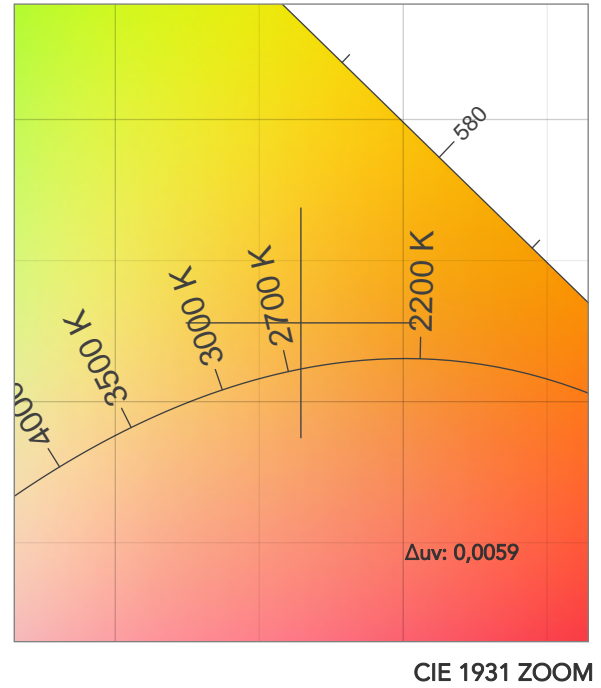
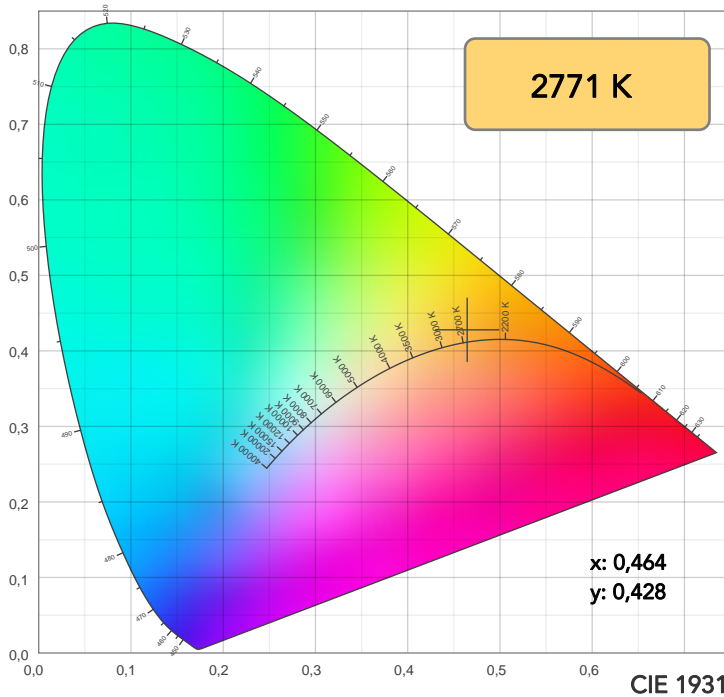
Beam angle 50%: 22,6°

Field angle 10%: 26,2°

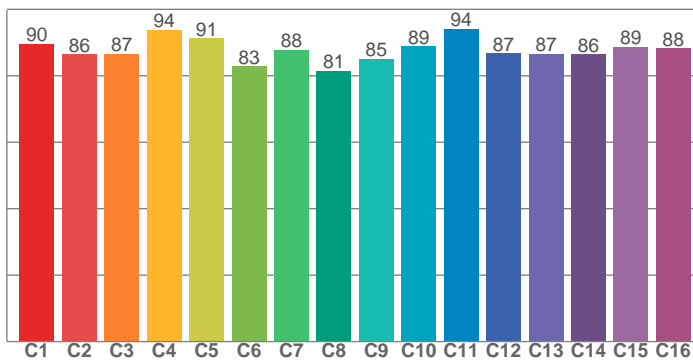
Cut off angle 2.5%: 28,8°

Spectra

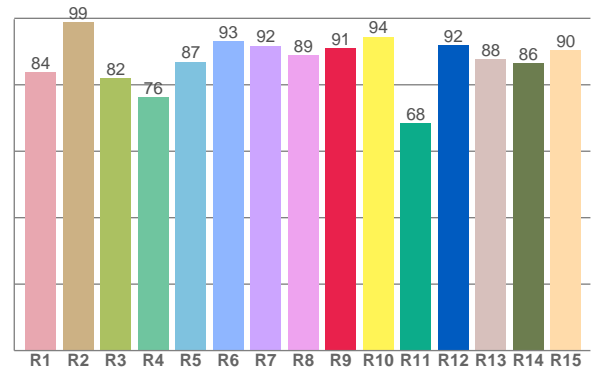




TM30: 88,5



CRI: 87,7 (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
83,8	98,9	82,0	76,2	86,9	93,1	91,7	89,0	91,1	94,4	68,4	91,9	87,6	86,4	90,5

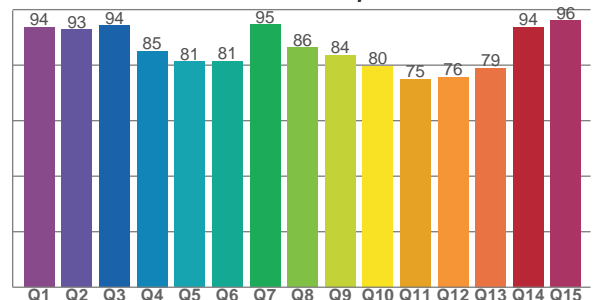
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,6	86,4	86,5	93,8	91,3	82,9	87,9	81,4	85,1	88,9	94,2	86,8	86,5	86,5	88,7	88,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,6	92,9	94,2	85,1	81,3	81,4	94,6	86,3	83,6	79,7	75,1	75,8	79,0	93,7	96,0

CQS: 84,1



## COLOR PARAMETERS

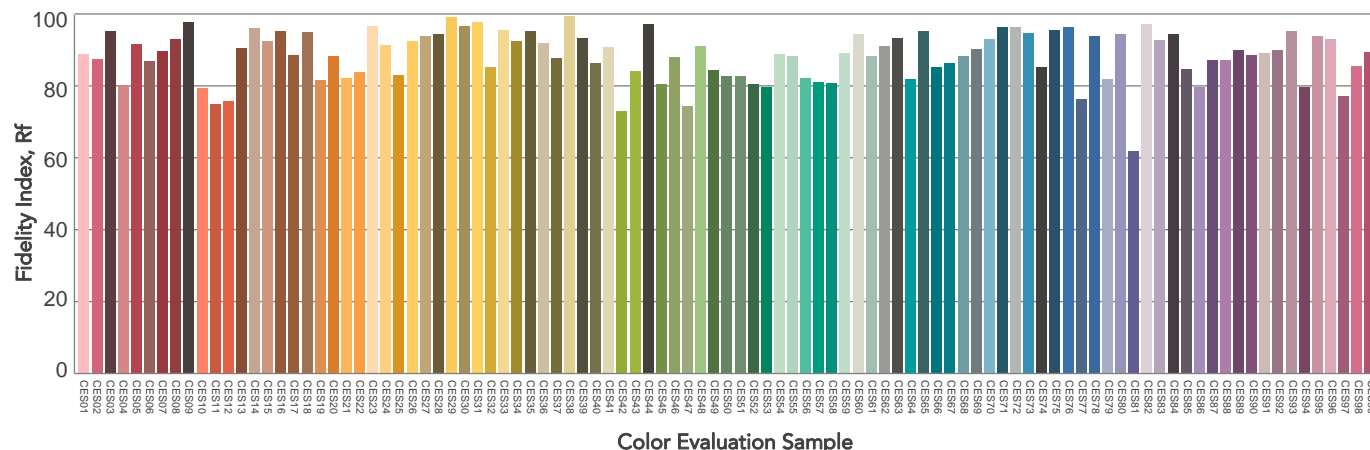
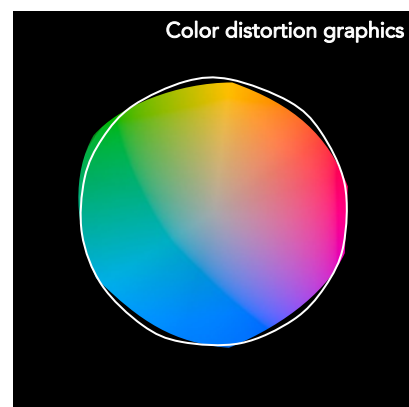
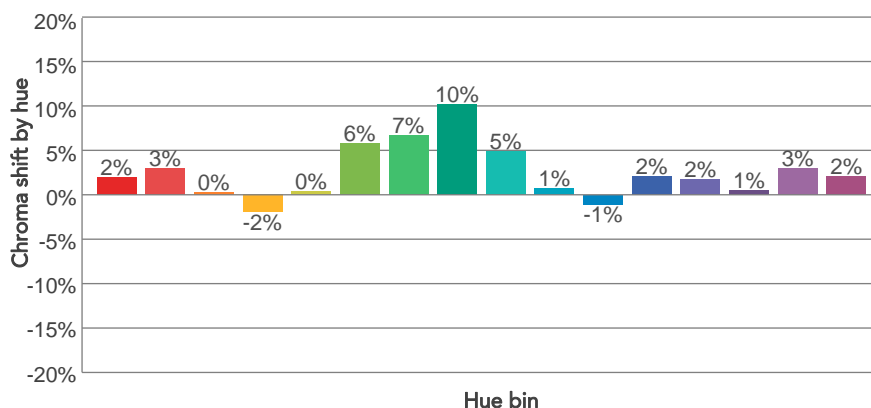
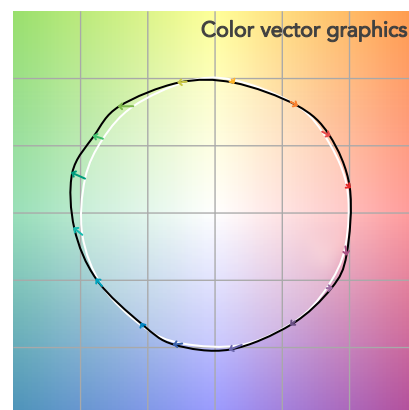
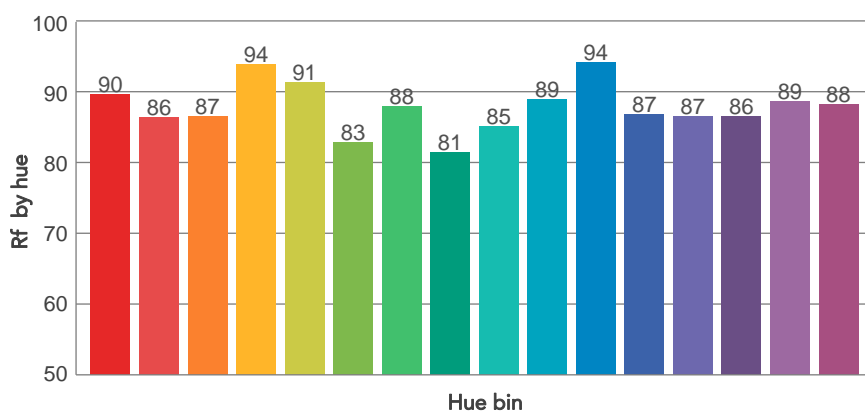
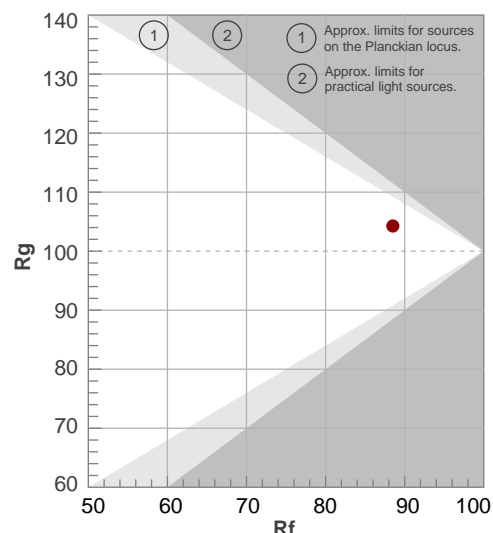
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
2771 K	87,7	91,1	88,5	104,3	84,1	78	0,464	0,428	0,0059

# TM30 DETAILS

**Rf 88,5**  
Fidelity index Rf

**Rg 104,3**  
Gammut index

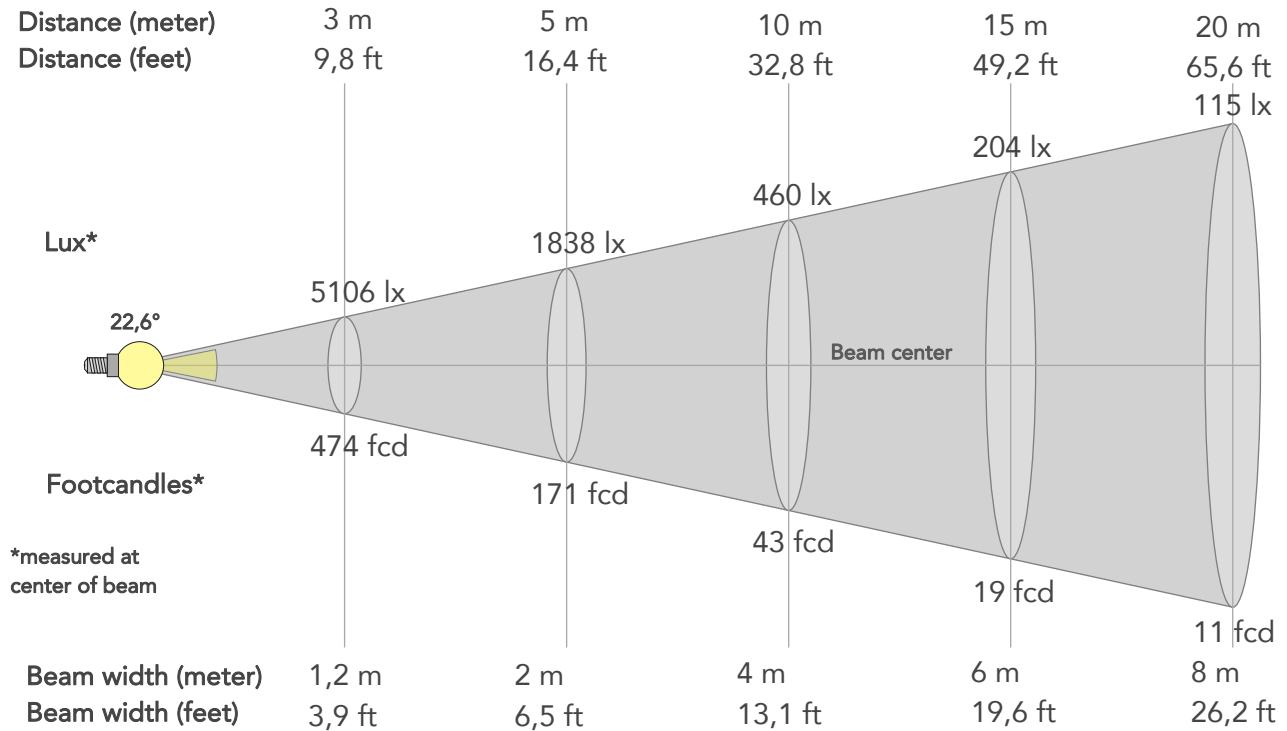
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	90	2%	-2%
2	86	3%	-5%
3	87	0%	-5%
4	94	-2%	-2%
5	91	0%	6%
6	83	6%	9%
7	88	7%	2%
8	81	10%	-2%
9	85	5%	-6%
10	89	1%	-6%
11	94	-1%	-2%
12	87	2%	-6%
13	87	2%	-9%
14	86	1%	-4%
15	89	3%	2%
16	88	2%	-6%



# BEAM DETAILS



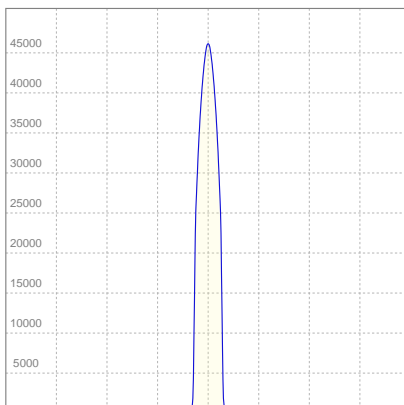
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,6°	26,2°	28,8°	97,3%	97,2%



## 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	45952lx	11488lx	5106lx	2872lx	1838lx	817lx	460lx	204lx	115lx	74lx	51lx	29lx	18lx
Footcand.	4269fcd	1067fcd	474fcd	267fcd	171fcd	76fcd	43fcd	19fcd	11fcd	7fcd	5fcd	3fcd	2fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4m	6m	8m	10m	12m	16m	19,9m
Beam wid.	1,3ft	2,6ft	3,9ft	5,2ft	6,5ft	9,8ft	13,1ft	19,6ft	26,2ft	32,7ft	39,3ft	52,3ft	65,4ft

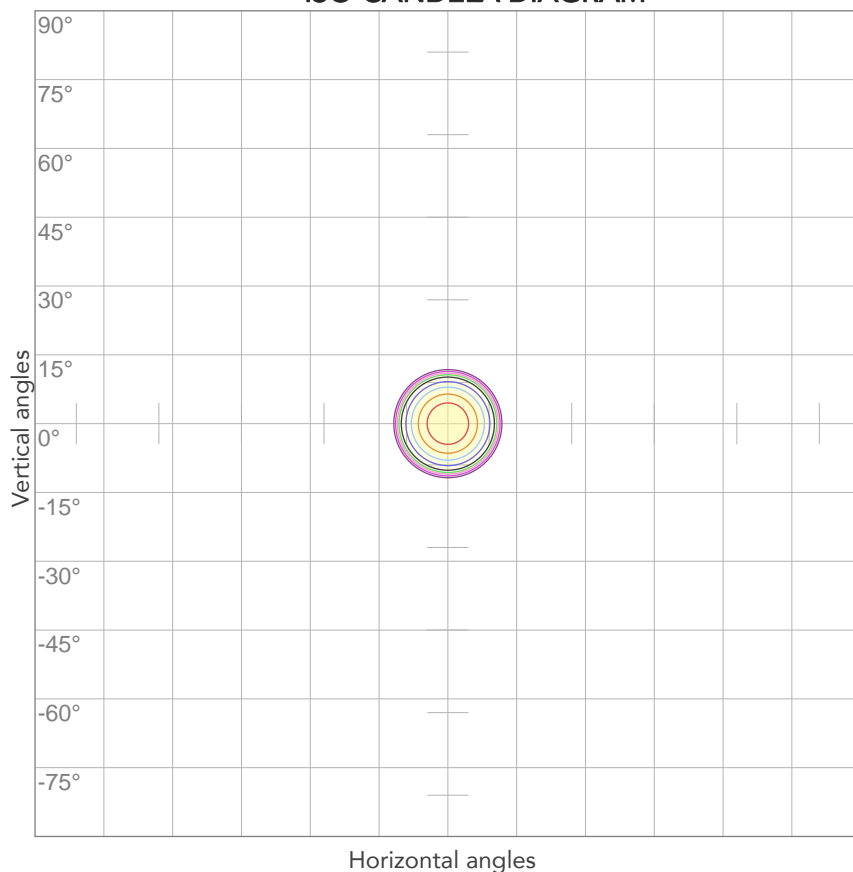
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,900A	185,4W	27lm/W
Power FC			
0,94			

## ISO CANDELA DIAGRAM



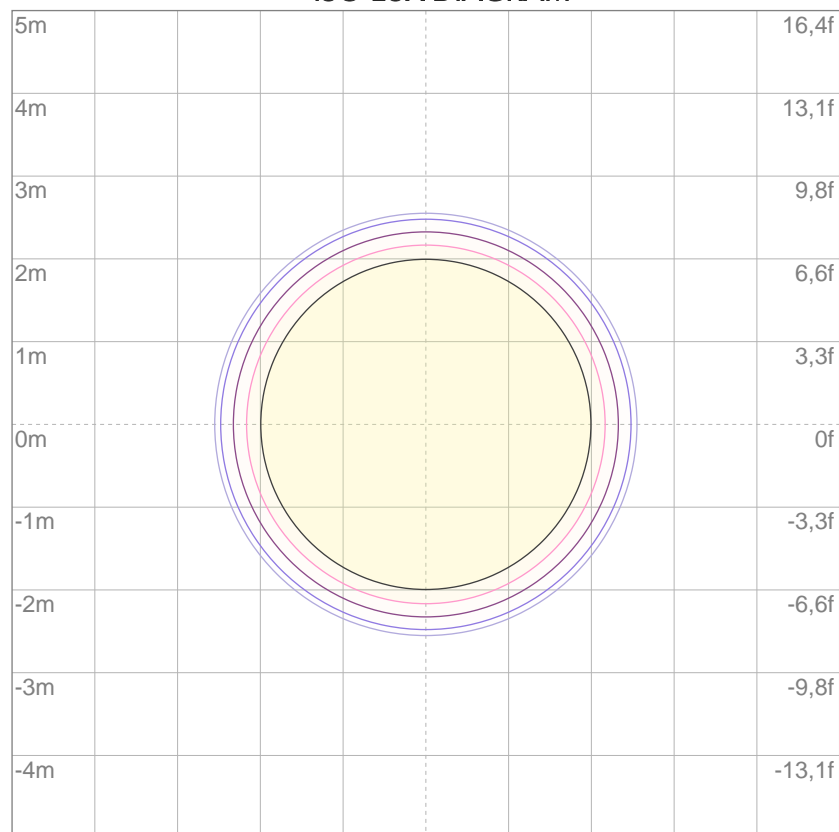
10%	4595 cd
20%	9190 cd
30%	13786 cd
40%	18381 cd
50%	22976 cd
60%	27571 cd
70%	32166 cd
80%	36761 cd

### Conditions:

Number of c-planes: 2

Candela at center: 45952 cd

## ISO LUX DIAGRAM



3%	13,8 lx
5%	23,0 lx
10%	46,0 lx
30%	138 lx
50%	230 lx

### Conditions:

Number of c-planes: 2

Lux at center: 460 lx

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



Total lumen output:

4787 lm

Peak candela output:

44127 cd

Light quality:

CRI: 89,8

Color temperature:

3135 K

PRODUCT NAME:

ECLHDTWC

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

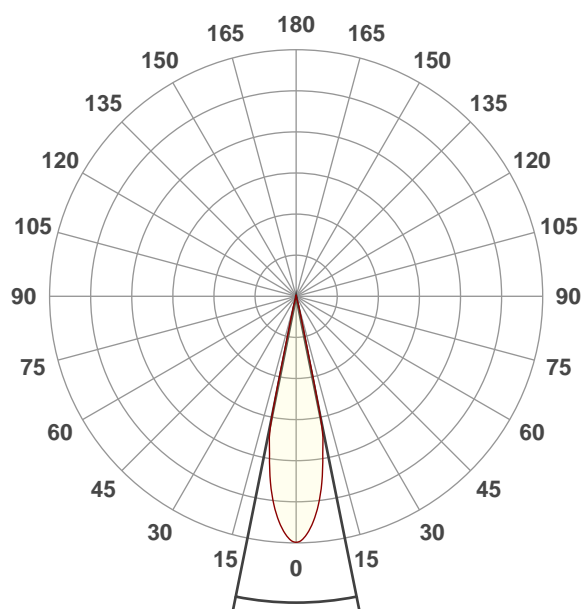
3200K

Operator:

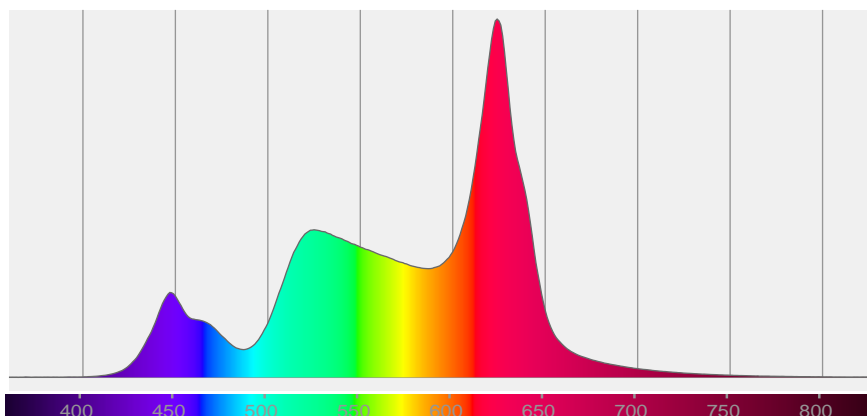
Paolo Carvone

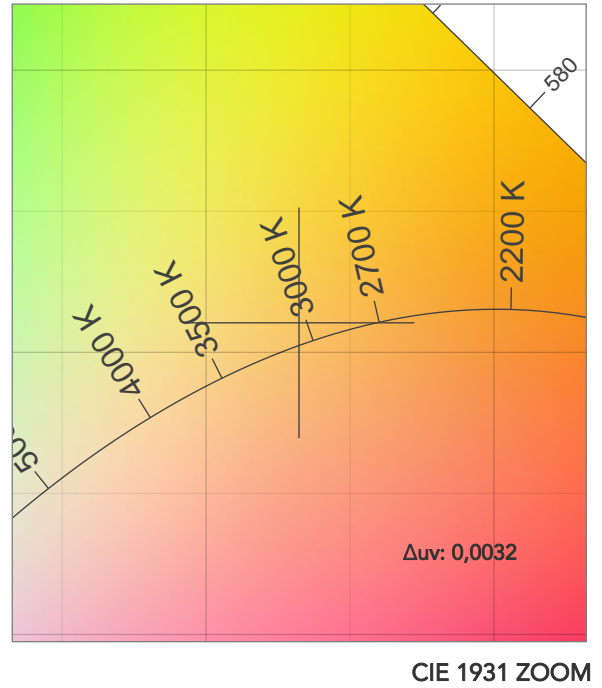
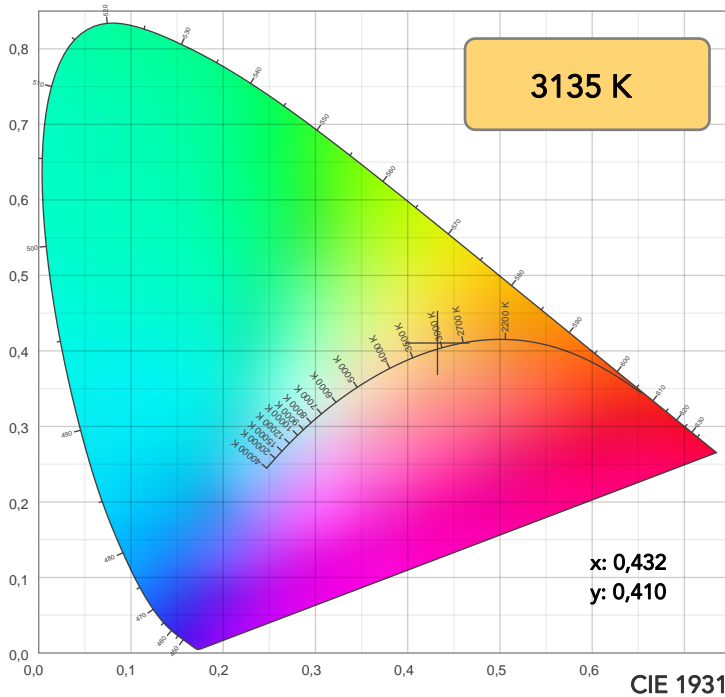
Date and time:

03/03/2020 13:31:48

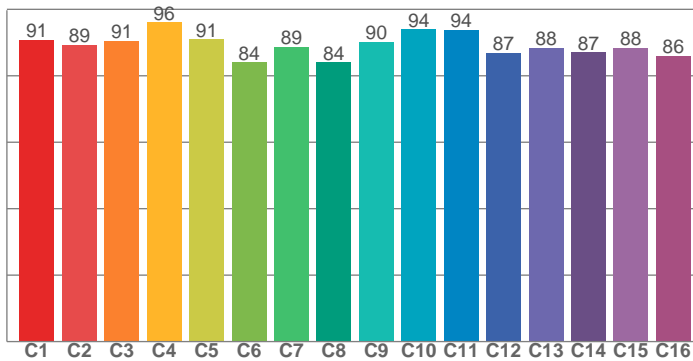


Spectra

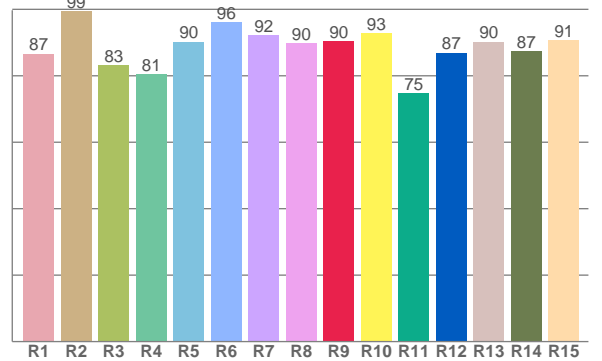




TM30: 90,1



CRI: 89,8 (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
86,6	99,4	83,1	80,5	90,2	96,1	92,3	89,8	90,3	92,8	74,7	86,9	90,2	87,4	90,7

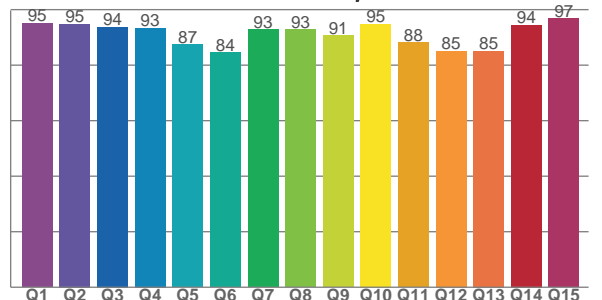
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90,8	89,4	90,5	96,1	91,0	84,0	88,7	84,1	90,2	93,9	93,9	86,9	88,4	87,0	88,5	86,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,1	94,9	93,7	93,5	87,4	84,5	92,8	92,8	90,7	94,8	88,2	85,1	85,1	94,4	96,8

CQS: 90,3



## COLOR PARAMETERS

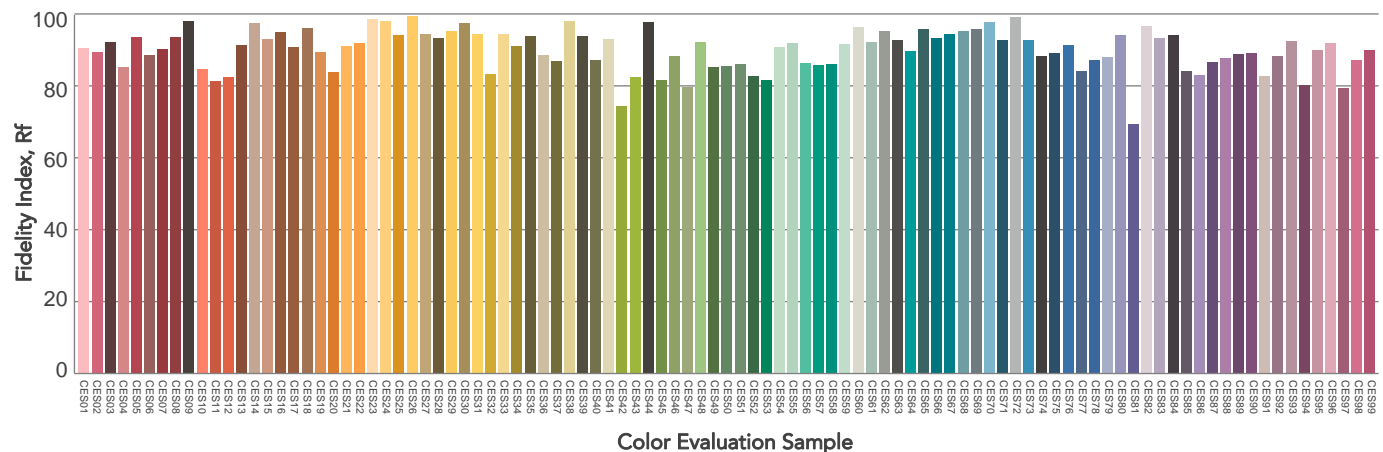
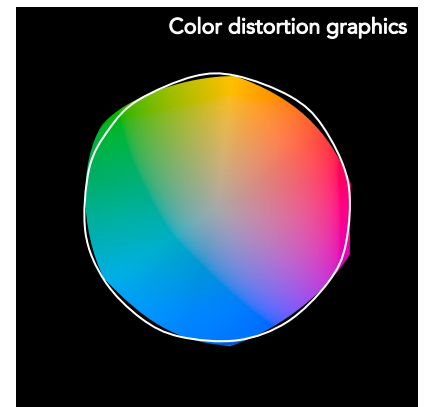
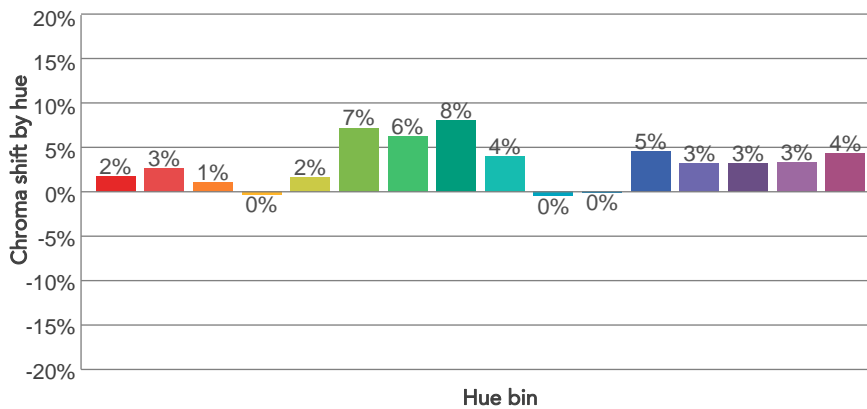
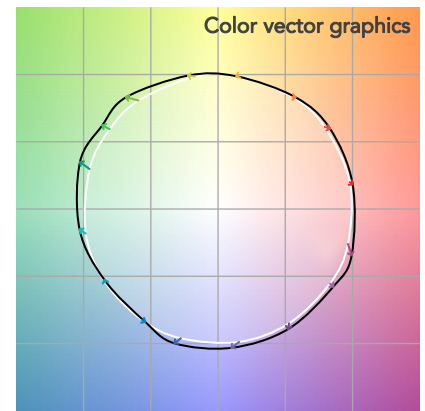
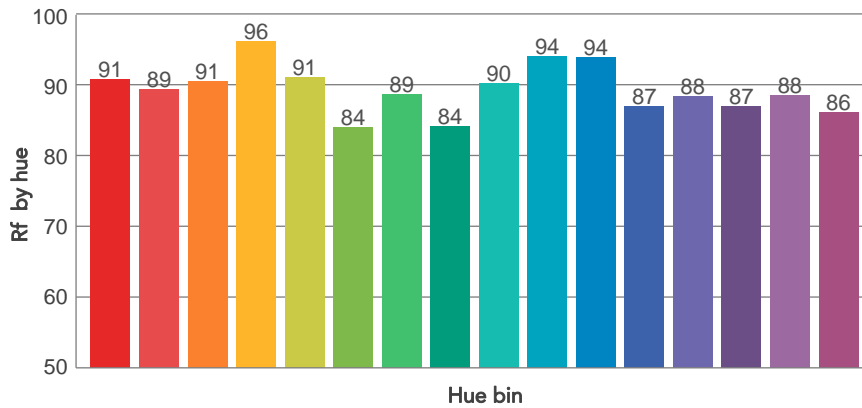
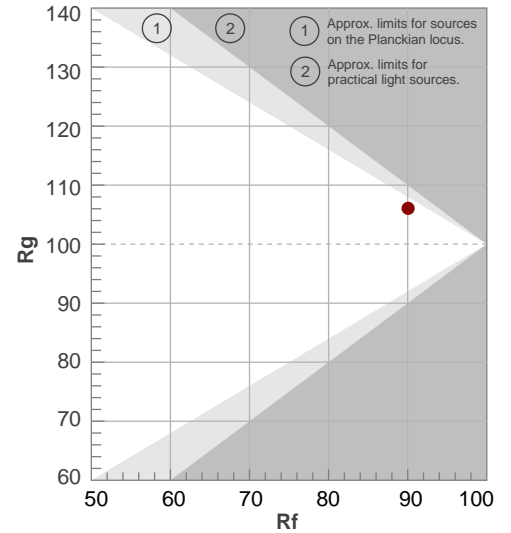
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3135 K	89,8	90,3	90,1	106,1	90,3	84	0,432	0,410	0,0032

# TM30 DETAILS

**Rf 90,1**  
Fidelity index Rf

**Rg 106,1**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	91	2%	-2%
2	89	3%	-3%
3	91	1%	-2%
4	96	0%	1%
5	91	2%	5%
6	84	7%	6%
7	89	6%	1%
8	84	8%	-4%
9	90	4%	-4%
10	94	0%	-2%
11	94	0%	3%
12	87	5%	-4%
13	88	3%	-6%
14	87	3%	-3%
15	88	3%	-1%
16	86	4%	-8%

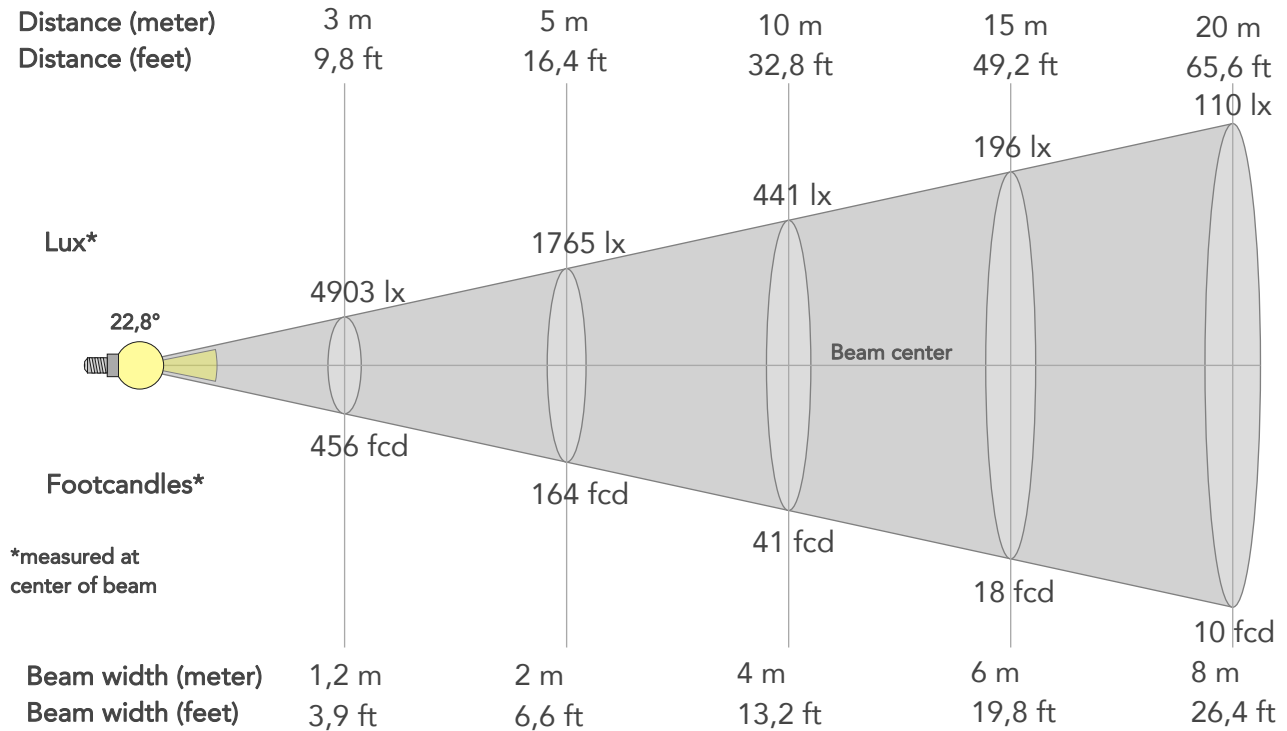




## BEAM DETAILS



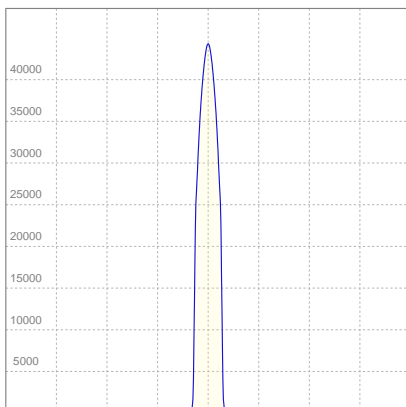
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,8°	26,1°	28,7°	98,8%	98,5%



### 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	44127lx	11032lx	4903lx	2758lx	1765lx	784lx	441lx	196lx	110lx	71lx	49lx	28lx	18lx
Footcand.	4100fcd	1025fcd	456fcd	256fcd	164fcd	73fcd	41fcd	18fcd	10fcd	7fcd	5fcd	3fcd	2fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4m	6m	8m	10,1m	12,1m	16,1m	20,1m
Beam wid.	1,3ft	2,7ft	3,9ft	5,3ft	6,6ft	9,9ft	13,2ft	19,8ft	26,4ft	33ft	39,6ft	52,8ft	66ft

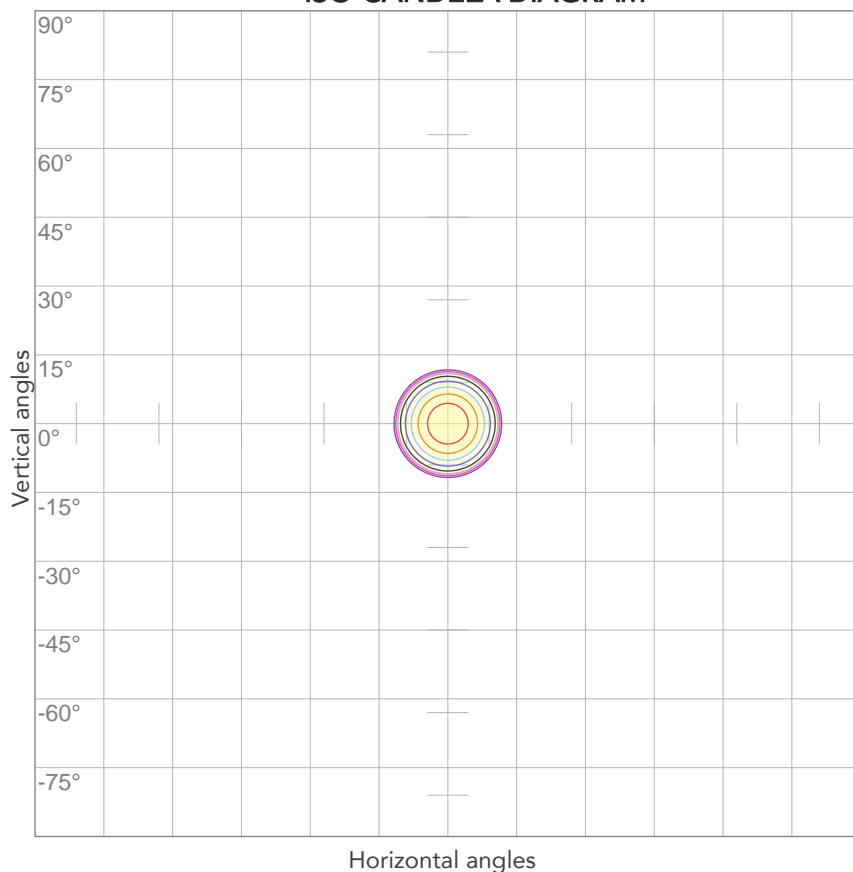
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,868A	177,5W	27lm/W
Power FC			
0,94			

## ISO CANDELA DIAGRAM



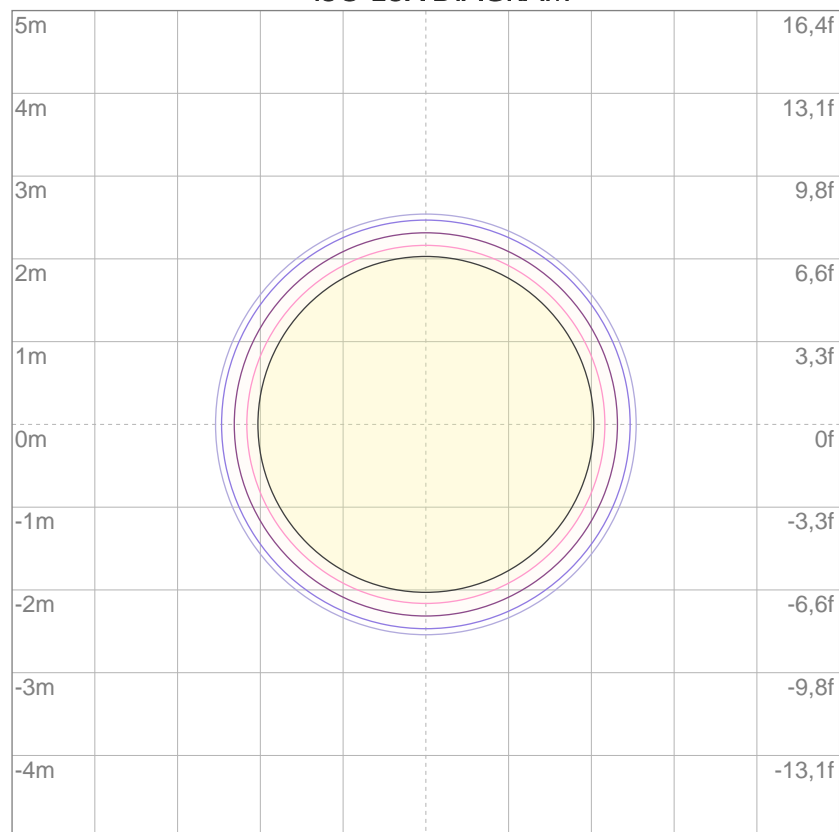
10%	4413 cd
20%	8825 cd
30%	13238 cd
40%	17651 cd
50%	22063 cd
60%	26476 cd
70%	30889 cd
80%	35301 cd

### Conditions:

Number of c-planes: 2

Candela at center: 44127 cd

## ISO LUX DIAGRAM



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

### Conditions:

Number of c-planes: 2

Lux at center: 441 lx

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



Total lumen output:

4615 lm

Peak candela output:

42420 cd

Light quality:

CRI: 91,7

Color temperature:

3871 K

**PRODUCT NAME:**

ECLHDTWC

**MEASURAMENT CONDITIONS:**

Beam angle:

PRL26

Target:

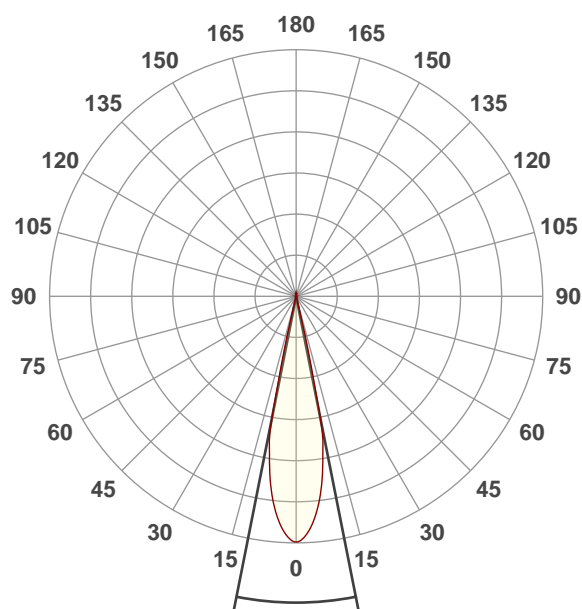
4000K

Operator:

Paolo Carvone

Date and time:

03/03/2020 13:33:41

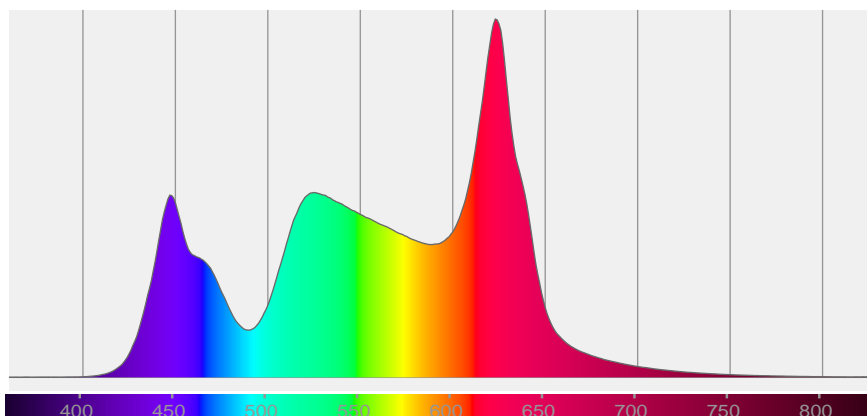


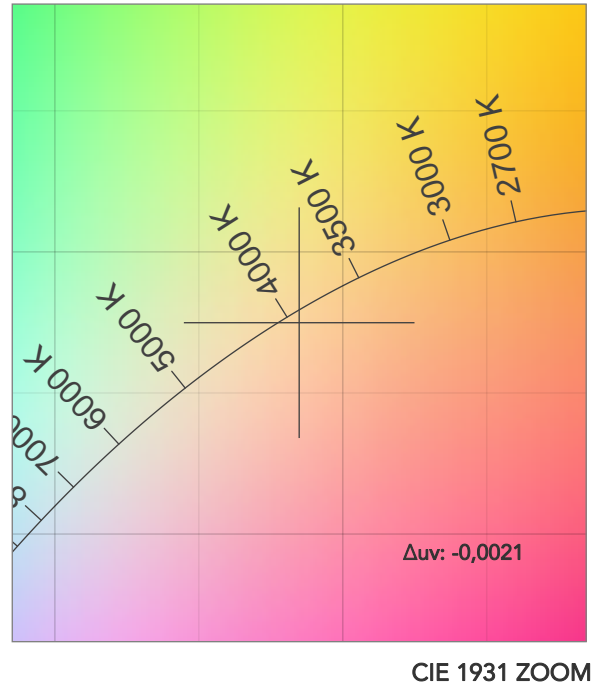
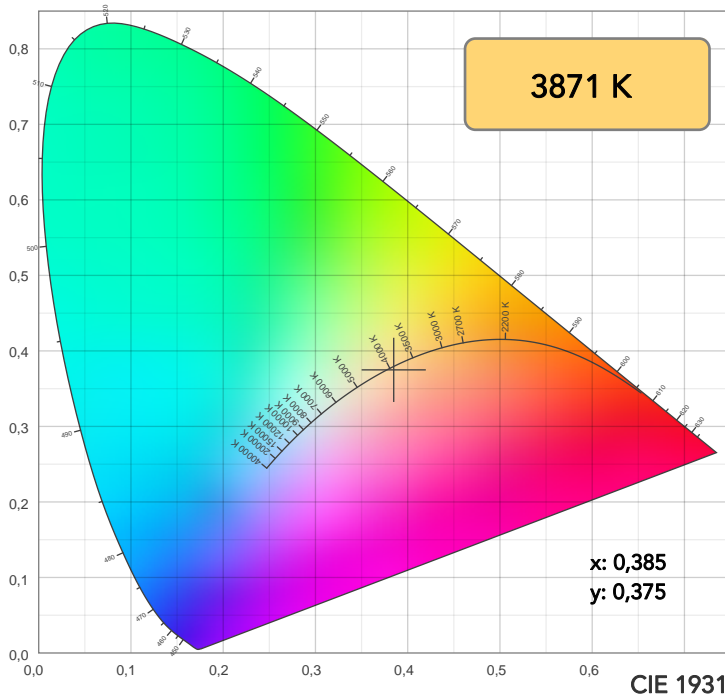
Beam angle 50%: 22,5°

Field angle 10%: 26,7°

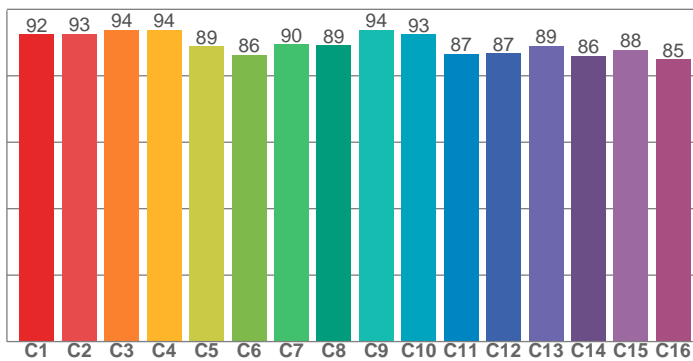
Cut off angle 2.5%: 27,8°

**Spectra**

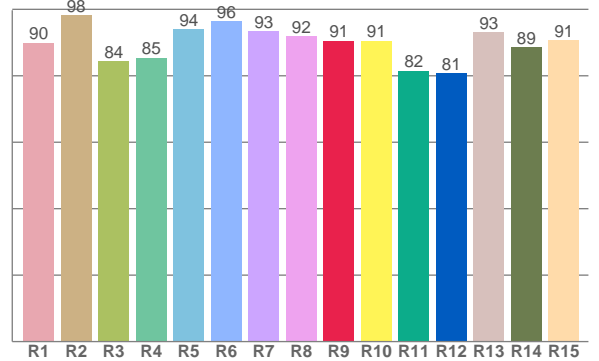




TM30: 90,0



CRI: 91,7 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
89,9	98,2	84,3	85,4	94,0	96,3	93,5	91,8	90,6	90,5	81,5	80,7	93,0	88,5	90,7

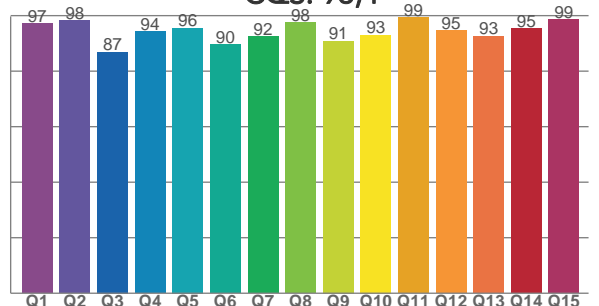
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,5	92,7	93,7	93,8	88,8	86,4	89,5	89,1	93,9	92,5	86,6	86,7	89,0	86,0	87,8	85,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,1	98,3	86,9	94,2	95,6	89,5	92,4	97,5	90,9	93,0	99,2	94,7	92,6	95,3	98,5

CQS: 93,4



## COLOR PARAMETERS

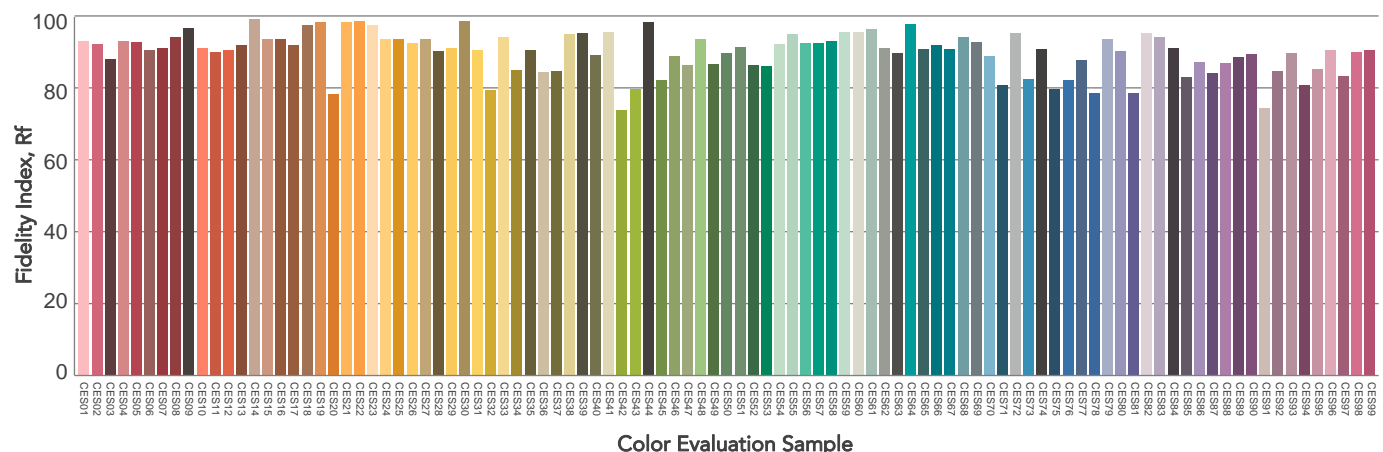
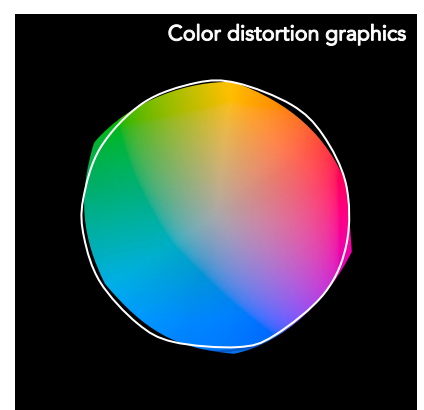
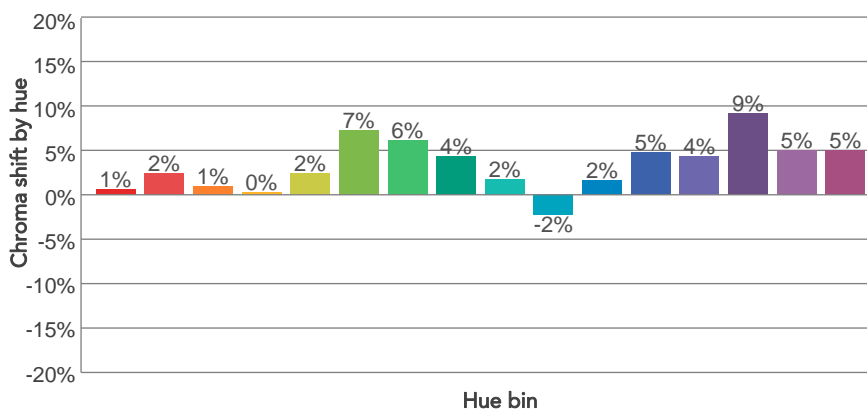
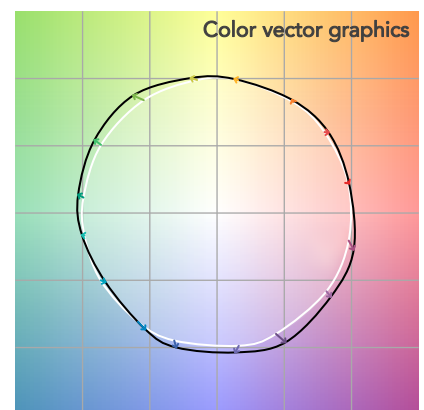
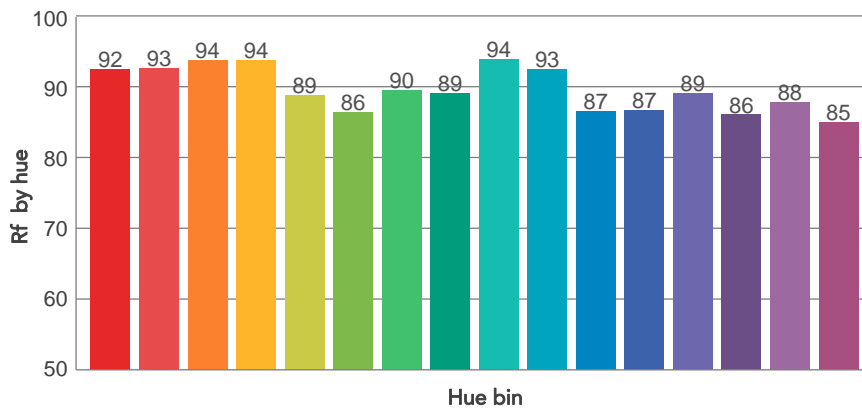
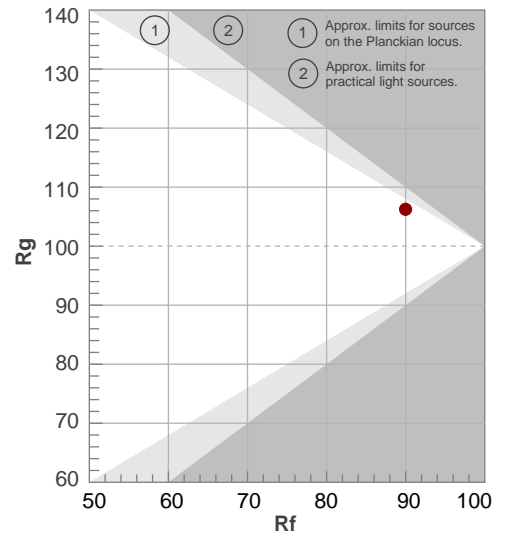
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3871 K	91,7	90,6	90,0	106,2	93,4	86	0,385	0,375	-0,0021

# TM30 DETAILS

**Rf 90,0**  
Fidelity index Rf

**Rg 106,2**  
Gammut index

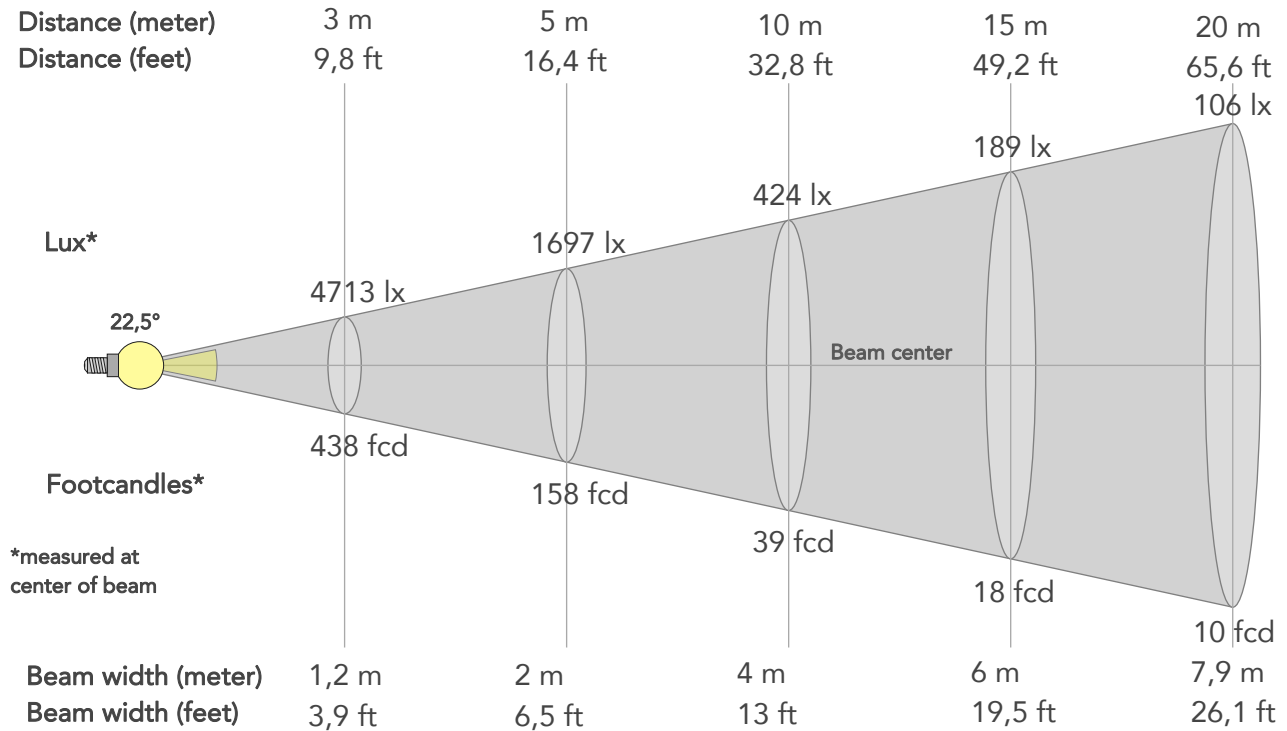
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	1%	-1%
2	93	2%	-2%
3	94	1%	2%
4	94	0%	3%
5	89	2%	4%
6	86	7%	5%
7	90	6%	0%
8	89	4%	-1%
9	94	2%	-1%
10	93	-2%	3%
11	87	2%	8%
12	87	5%	2%
13	89	4%	-4%
14	86	9%	2%
15	88	5%	-2%
16	85	5%	-6%



## BEAM DETAILS



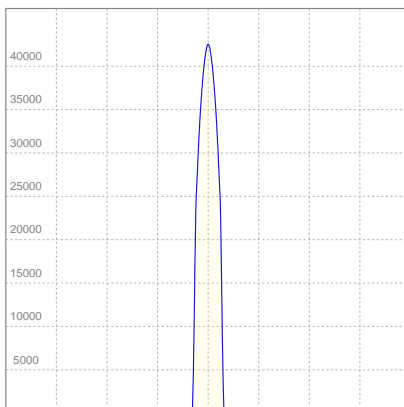
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,5°	26,7°	27,8°	98,7%	98,3%



### 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	42420lx	10605lx	4713lx	2651lx	1697lx	754lx	424lx	189lx	106lx	68lx	47lx	27lx	17lx
Footcand.	3941fcd	985fcd	438fcd	246fcd	158fcd	70fcd	39fcd	18fcd	10fcd	6fcd	4fcd	2fcd	2fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4m	6m	7,9m	9,9m	11,9m	15,9m	19,9m
Beam wid.	1,3ft	2,6ft	3,9ft	5,2ft	6,5ft	9,8ft	13ft	19,5ft	26,1ft	32,6ft	39,1ft	52,1ft	65,1ft

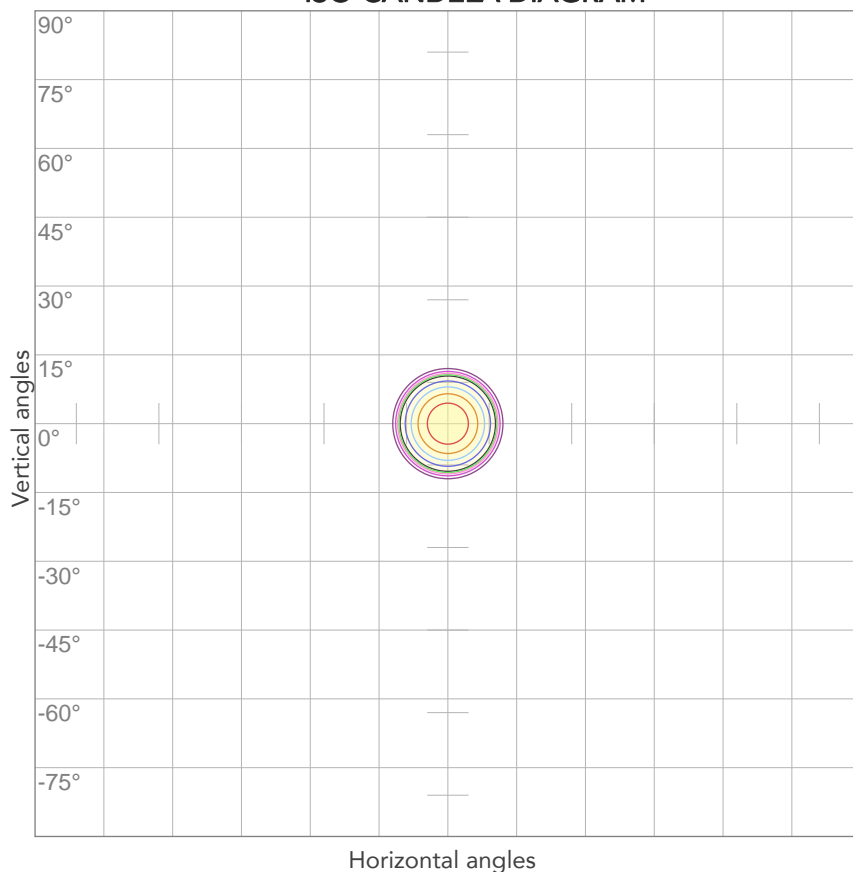
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,858A	175,2W	26lm/W
Power FC			
0,94			

## ISO CANDELA DIAGRAM



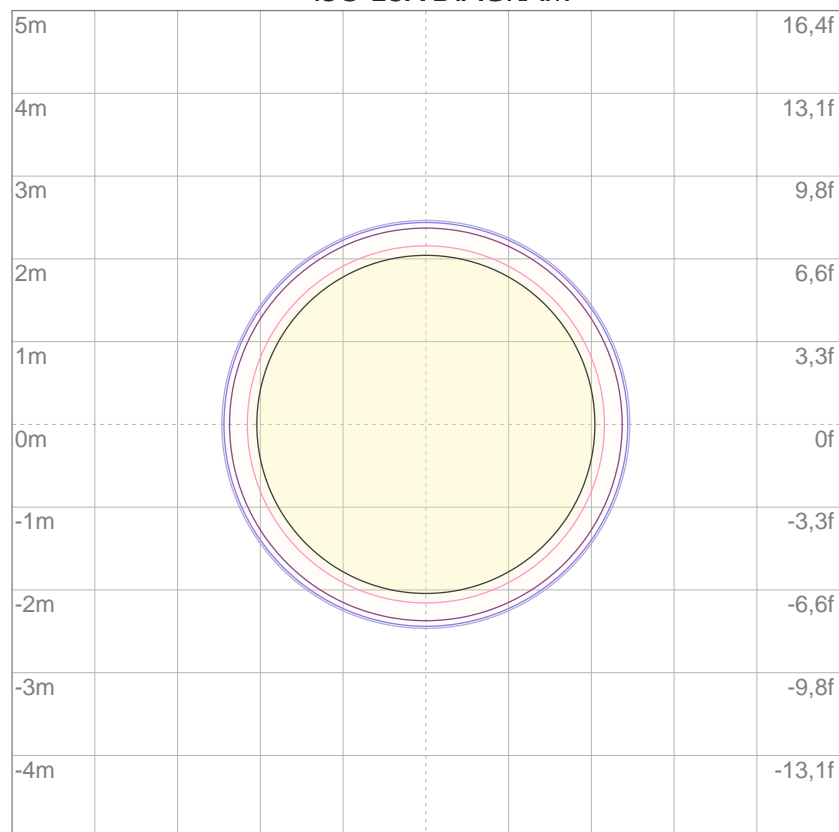
10%	4242 cd
20%	8484 cd
30%	12726 cd
40%	16968 cd
50%	21210 cd
60%	25452 cd
70%	29694 cd
80%	33936 cd

### Conditions:

Number of c-planes: 2

Candela at center: 42420 cd

## ISO LUX DIAGRAM



3%	12,7 lx
5%	21,2 lx
10%	42,4 lx
30%	127 lx
50%	212 lx

### Conditions:

Number of c-planes: 2

Lux at center: 424 lx

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



Total lumen output:

4431 lm

Peak candela output:

40539 cd

Light quality:

CRI: 93,7

Color temperature:

5214 K

PRODUCT NAME:

ECLHDTWC

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

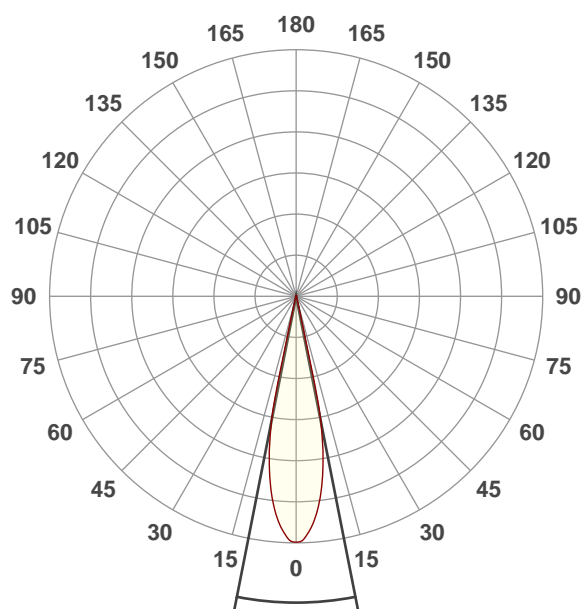
5600K

Operator:

Paolo Carvone

Date and time:

03/03/2020 13:35:23

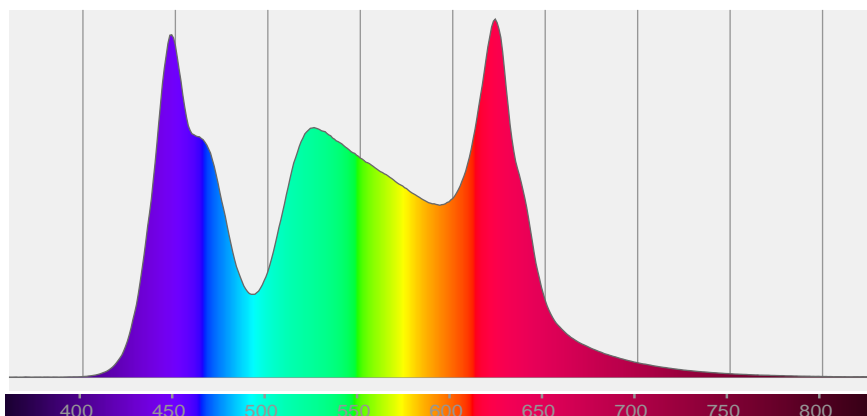


Beam angle 50%: 22,3°

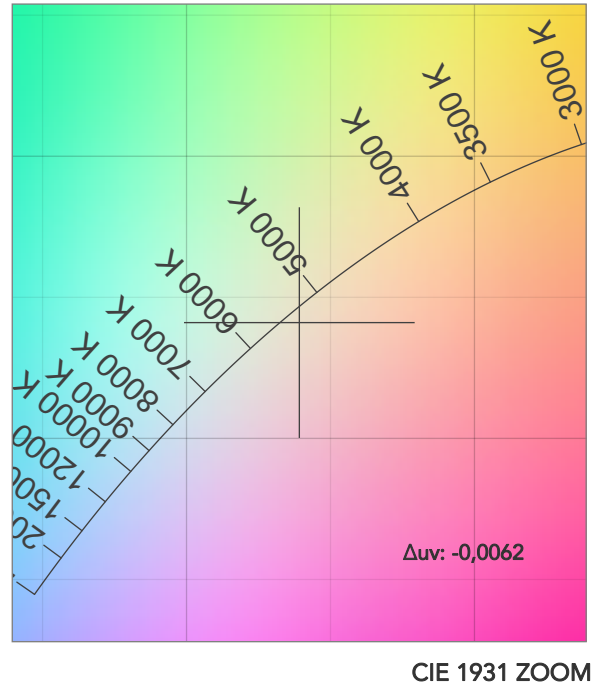
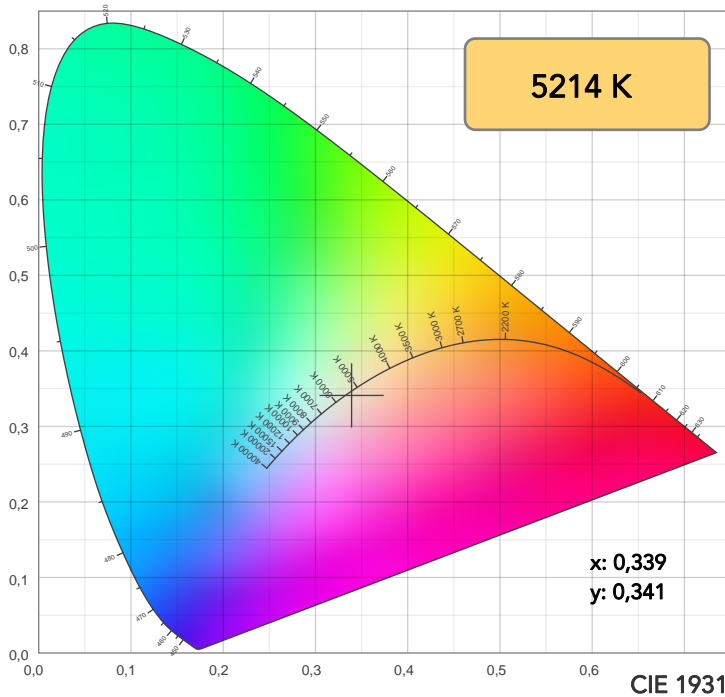
Field angle 10%: 26,2°

Cut off angle 2.5%: 28,5°

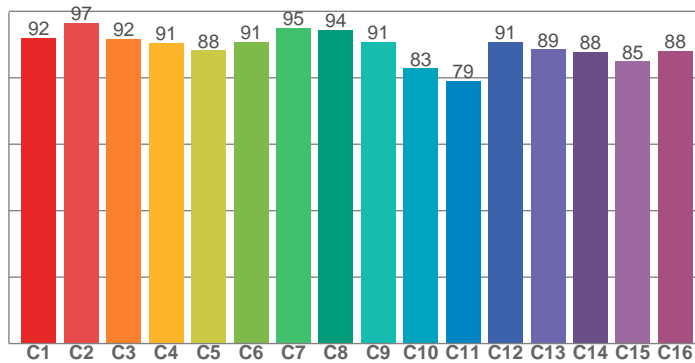
Spectra



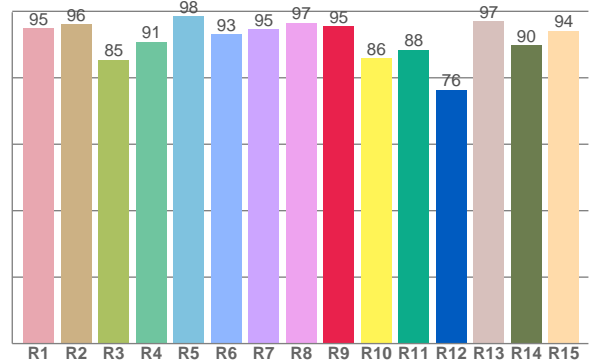




TM30: 89,3



CRI: 93,7 (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
94,8	96,1	85,4	90,8	98,4	93,0	94,7	96,5	95,4	85,9	88,4	76,4	96,9	89,8	94,1

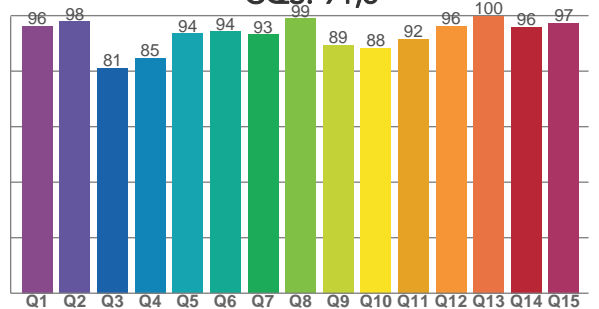
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,1	96,6	91,7	90,6	88,2	90,9	95,1	94,5	90,8	82,9	79,1	90,7	88,6	87,8	84,9	88,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,3	97,8	81,2	84,7	93,5	94,2	93,2	99,0	89,5	88,3	91,6	96,3	99,9	95,9	97,3

CQS: 91,5



## COLOR PARAMETERS

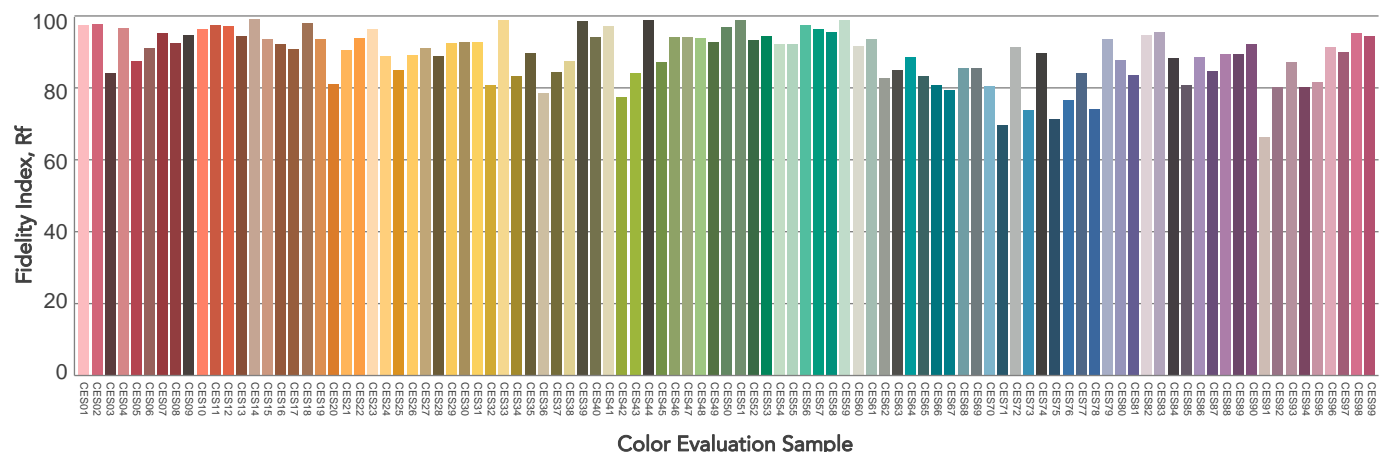
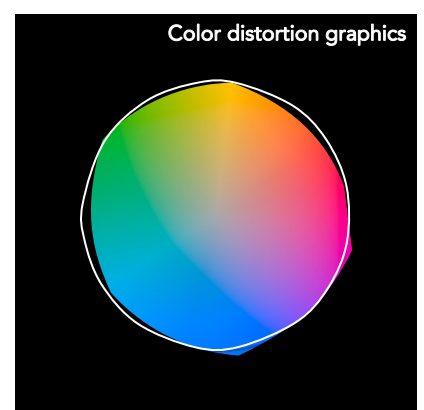
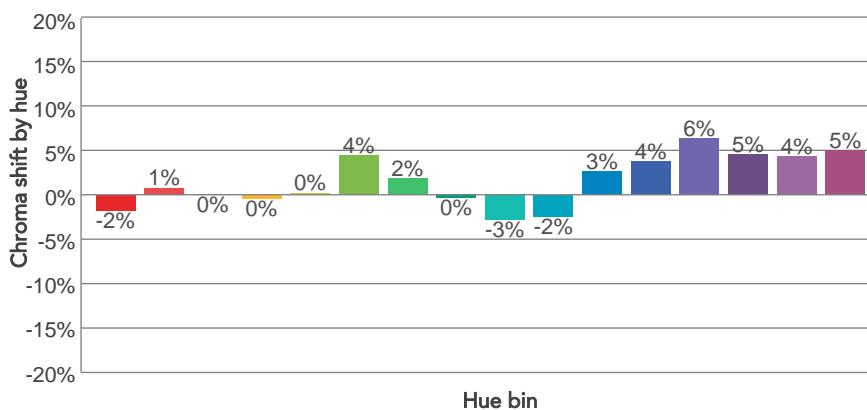
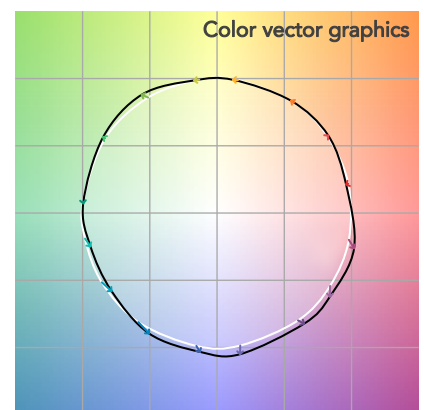
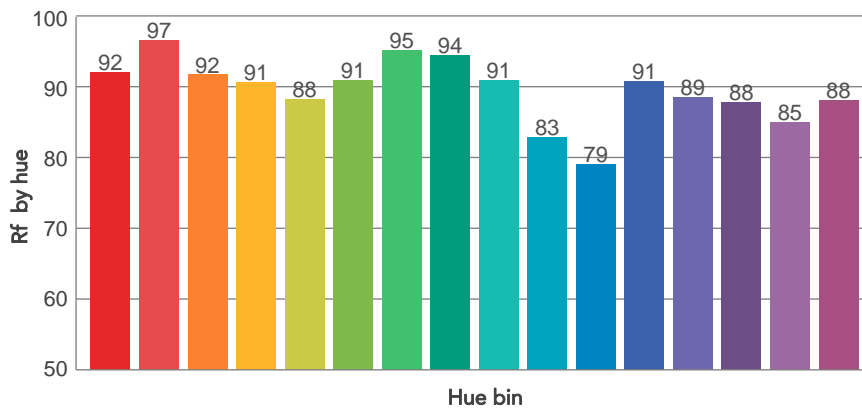
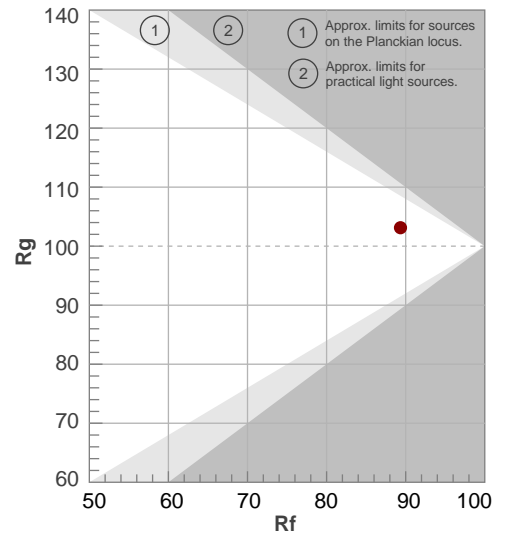
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
5214 K	93,7	95,4	89,3	103,1	91,5	89	0,339	0,341	-0,0062

# TM30 DETAILS

**Rf 89,3**  
Fidelity index Rf

**Rg 103,1**  
Gammut index

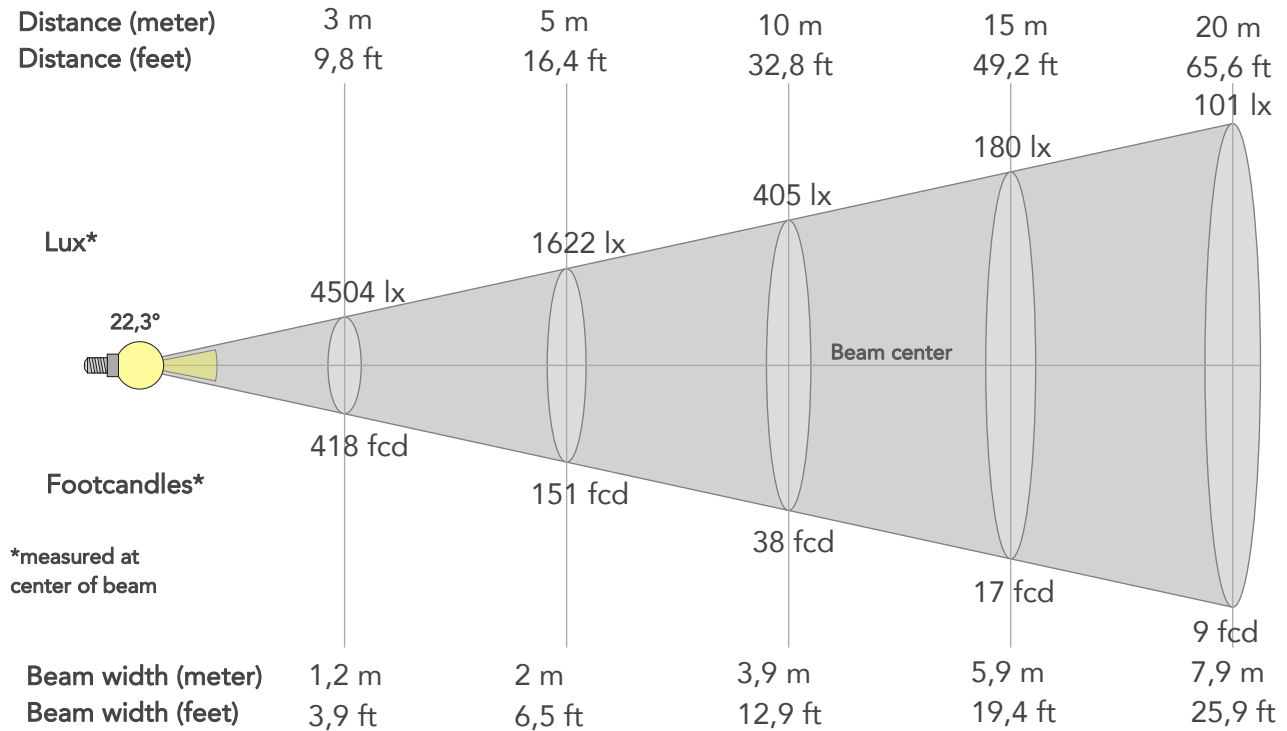
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	-2%	0%
2	97	1%	0%
3	92	0%	3%
4	91	0%	4%
5	88	0%	4%
6	91	4%	3%
7	95	2%	0%
8	94	0%	1%
9	91	-3%	6%
10	83	-2%	9%
11	79	3%	11%
12	91	4%	3%
13	89	6%	-1%
14	88	5%	2%
15	85	4%	-7%
16	88	5%	-5%



## BEAM DETAILS



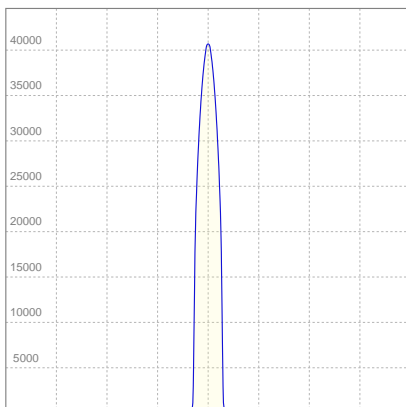
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,3°	26,2°	28,5°	98,6%	98,2%



### 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	40539lx	10135lx	4504lx	2534lx	1622lx	721lx	405lx	180lx	101lx	65lx	45lx	25lx	16lx
Footcand.	3766fcd	942fcd	418fcd	235fcd	151fcd	67fcd	38fcd	17fcd	9fcd	6fcd	4fcd	2fcd	2fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	3,9m	5,9m	7,9m	9,9m	11,8m	15,8m	19,7m
Beam wid.	1,3ft	2,6ft	3,9ft	5,2ft	6,5ft	9,7ft	12,9ft	19,4ft	25,9ft	32,3ft	38,8ft	51,8ft	64,7ft

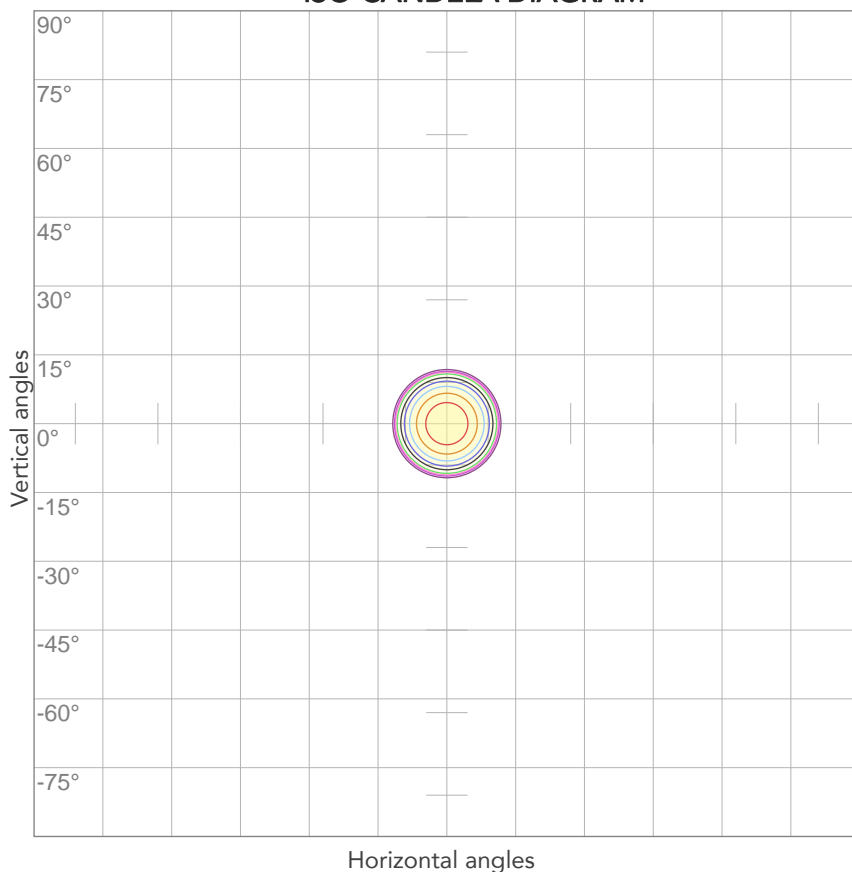
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,850A	174,3W	25lm/W
Power FC			
0,94			

## ISO CANDELA DIAGRAM



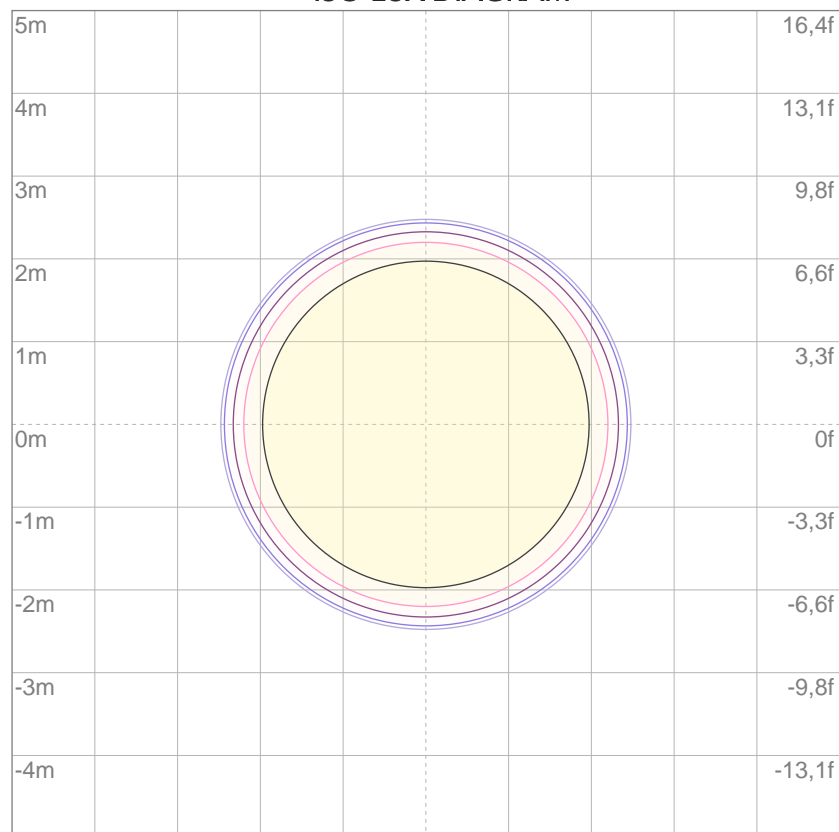
10%	4054 cd
20%	8108 cd
30%	12162 cd
40%	16216 cd
50%	20269 cd
60%	24323 cd
70%	28377 cd
80%	32431 cd

### Conditions:

Number of c-planes: 2

Candela at center: 40539 cd

## ISO LUX DIAGRAM



3%	12,2 lx
5%	20,3 lx
10%	40,5 lx
30%	122 lx
50%	203 lx

### Conditions:

Number of c-planes: 2

Lux at center: 405 lx

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



Total lumen output:

4439 lm

Peak candela output:

40837 cd

Light quality:

CRI: 94,2

Color temperature:

5535 K

**PRODUCT NAME:**

ECLHDTWC

**MEASURAMENT CONDITIONS:**

Beam angle:

PRL26

Target:

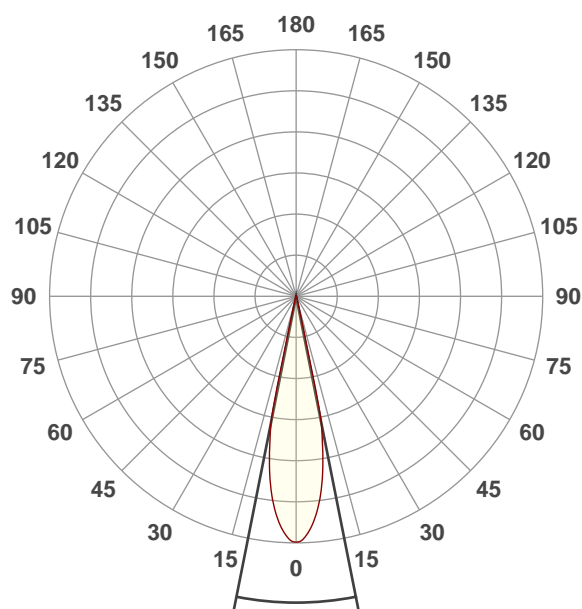
6000K

Operator:

Paolo Carvone

Date and time:

03/03/2020 13:36:56

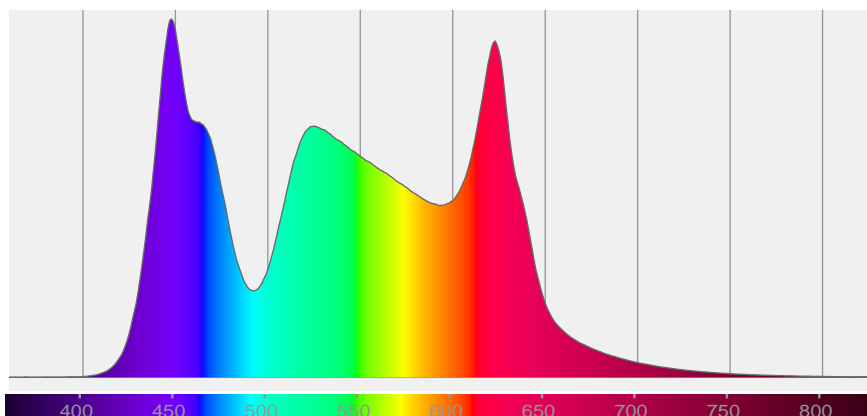


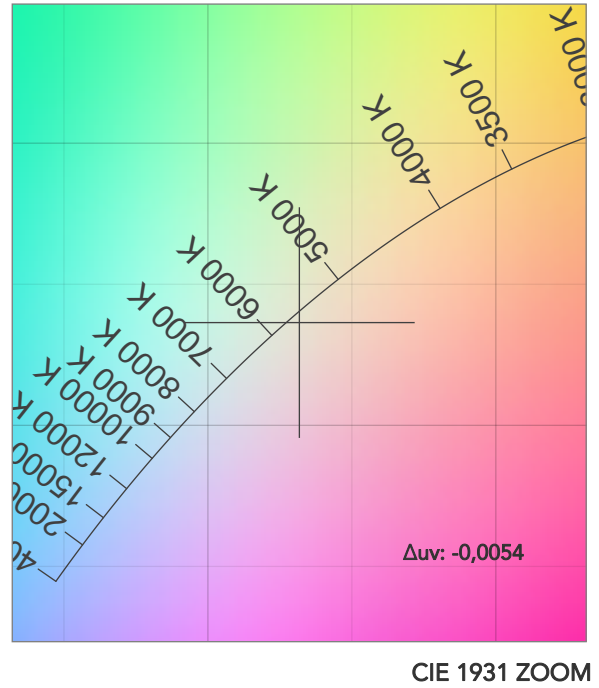
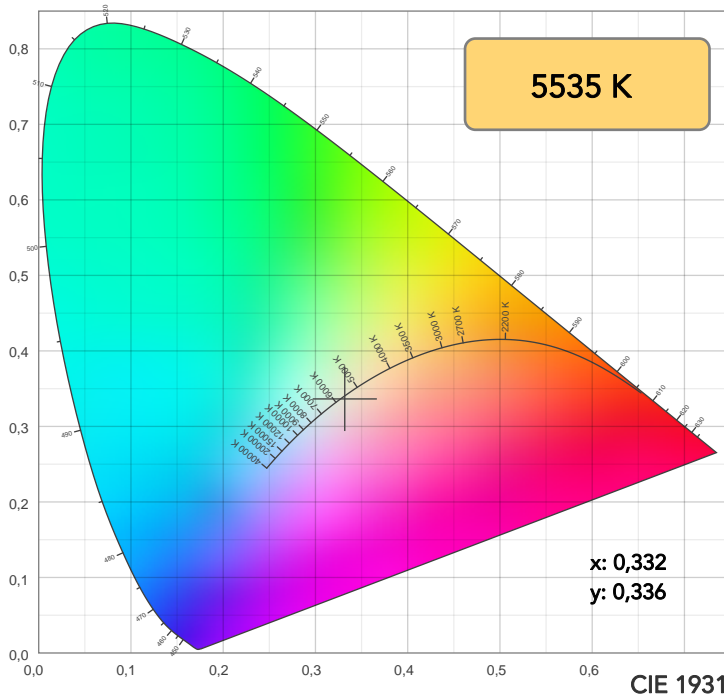
Beam angle 50%: 22,5°

Field angle 10%: 26,1°

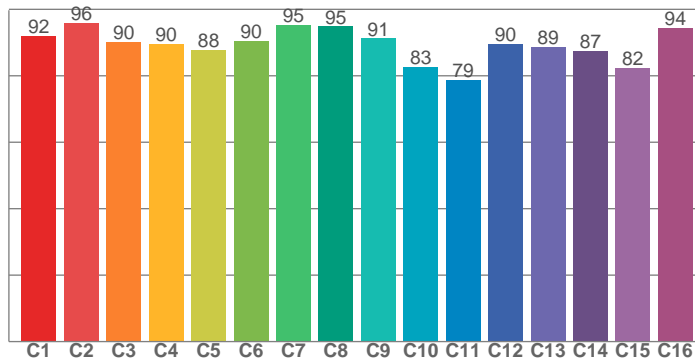
Cut off angle 2.5%: 28,4°

**Spectra**

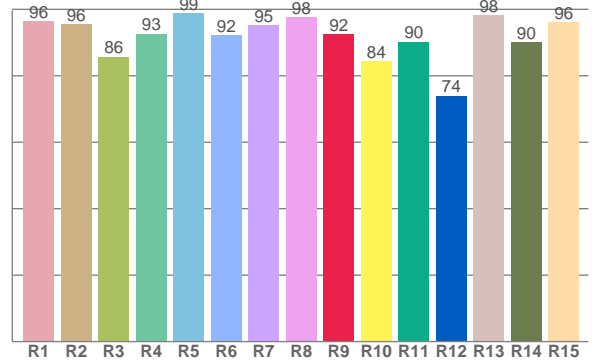




TM30: 89,1



CRI: 94,2 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96,4	95,5	85,7	92,6	98,8	92,1	95,2	97,6	92,4	84,3	90,2	74,0	98,3	90,2	96,0

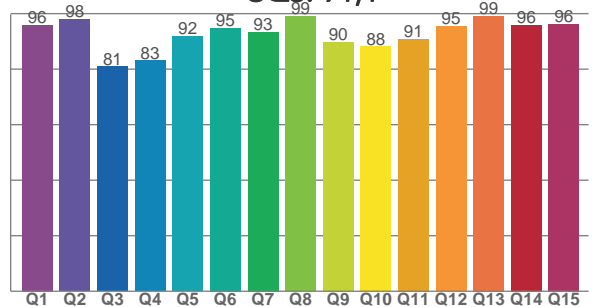
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,0	95,9	90,2	89,6	87,7	90,5	95,3	94,8	91,3	82,8	78,7	89,6	88,7	87,5	82,5	94,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,8	97,9	81,0	83,1	91,8	94,8	93,4	99,0	89,7	88,2	90,8	95,4	99,2	95,9	96,2

CQS: 91,1



## COLOR PARAMETERS

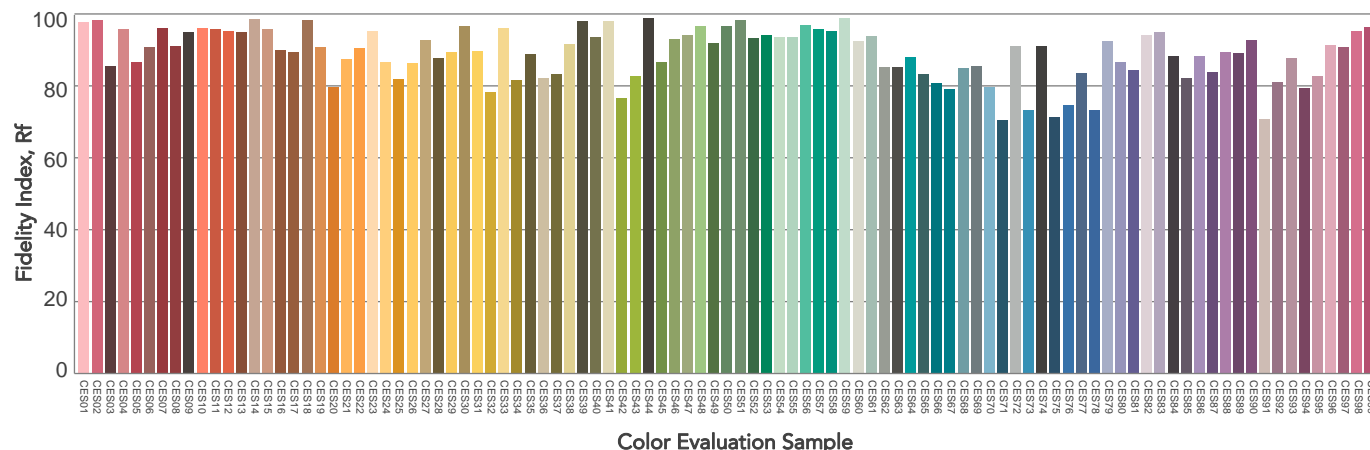
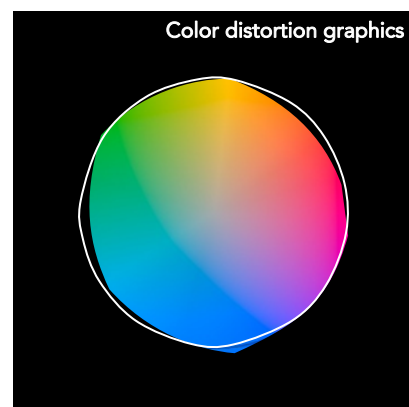
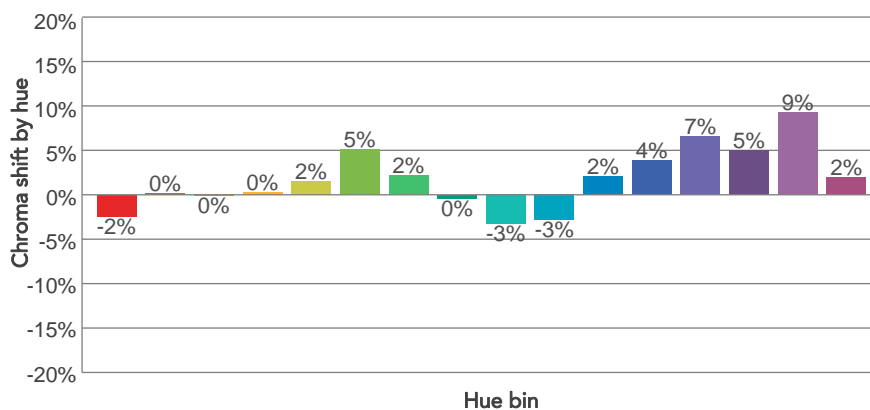
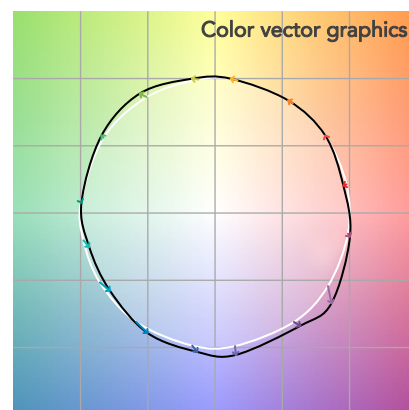
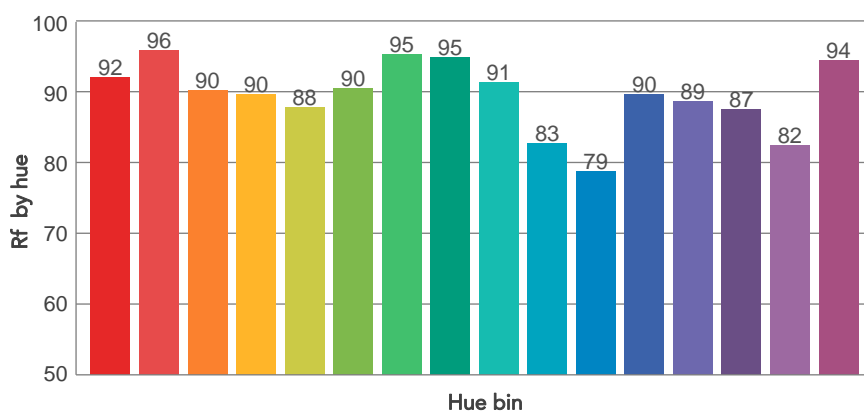
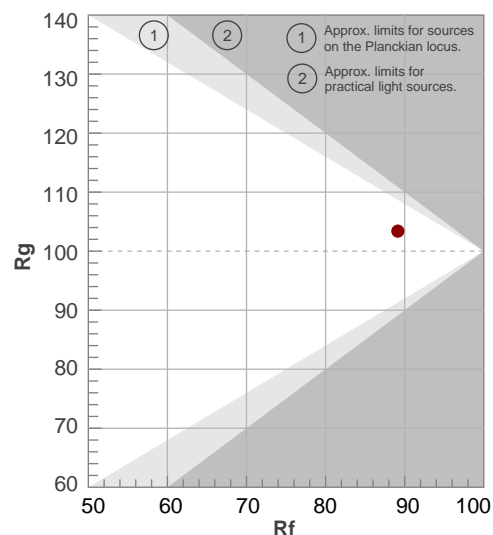
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
5535 K	94,2	92,4	89,1	103,4	91,1	90	0,332	0,336	-0,0054

# TM30 DETAILS

**Rf 89,1**  
Fidelity index Rf

**Rg 103,4**  
Gammut index

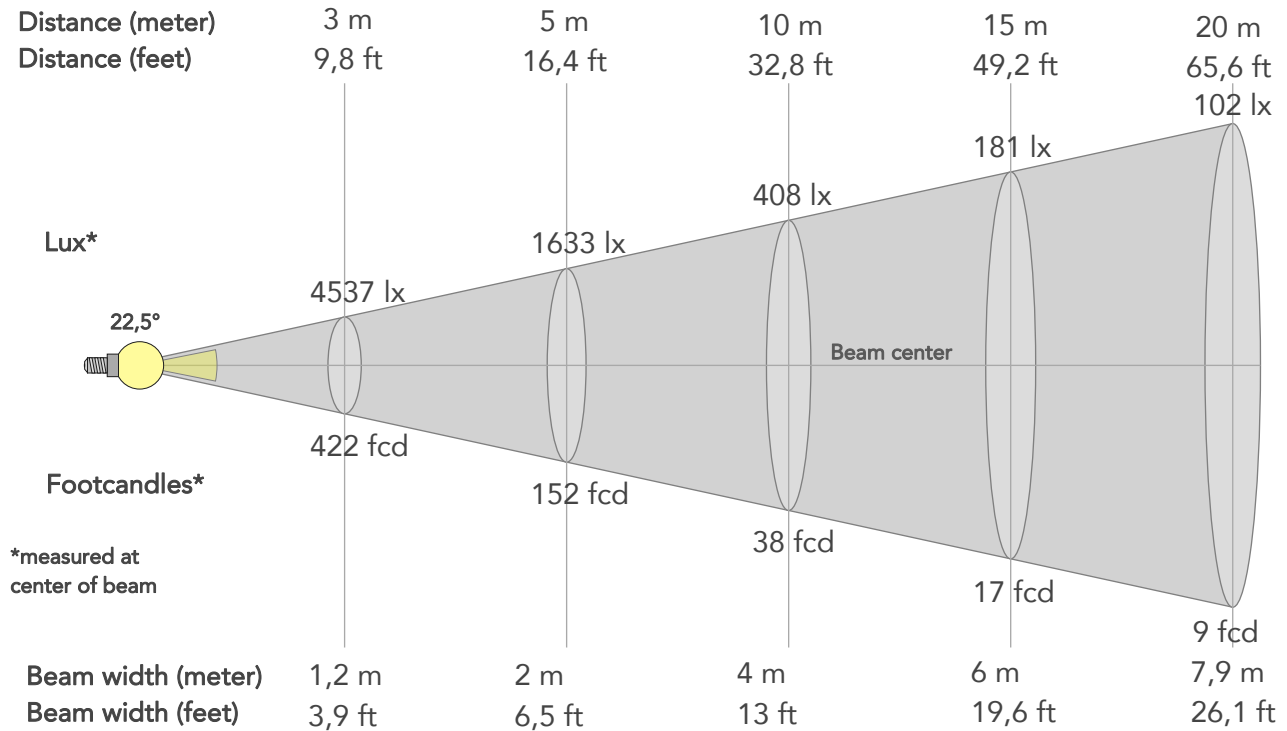
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	-2%	0%
2	96	0%	1%
3	90	0%	4%
4	90	0%	5%
5	88	2%	5%
6	90	5%	3%
7	95	2%	0%
8	95	0%	1%
9	91	-3%	6%
10	83	-3%	9%
11	79	2%	11%
12	90	4%	4%
13	89	7%	-1%
14	87	5%	2%
15	82	9%	-9%
16	94	2%	-2%



## BEAM DETAILS



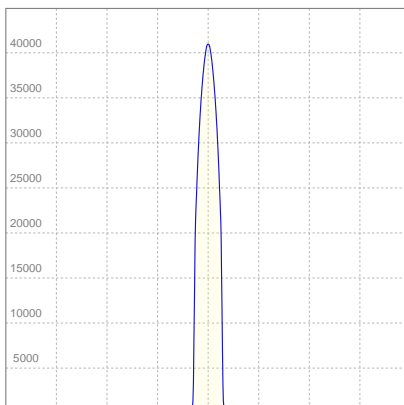
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,5°	26,1°	28,4°	98,6%	98,3%



### 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	40837lx	10209lx	4537lx	2552lx	1633lx	726lx	408lx	181lx	102lx	65lx	45lx	26lx	16lx
Footcand.	3794fcd	948fcd	422fcd	237fcd	152fcd	67fcd	38fcd	17fcd	9fcd	6fcd	4fcd	2fcd	2fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4m	6m	7,9m	9,9m	11,9m	15,9m	19,9m
Beam wid.	1,3ft	2,6ft	3,9ft	5,2ft	6,5ft	9,8ft	13ft	19,6ft	26,1ft	32,6ft	39,1ft	52,1ft	65,2ft

### LINEAR DISTRIBUTION DIAGRAM

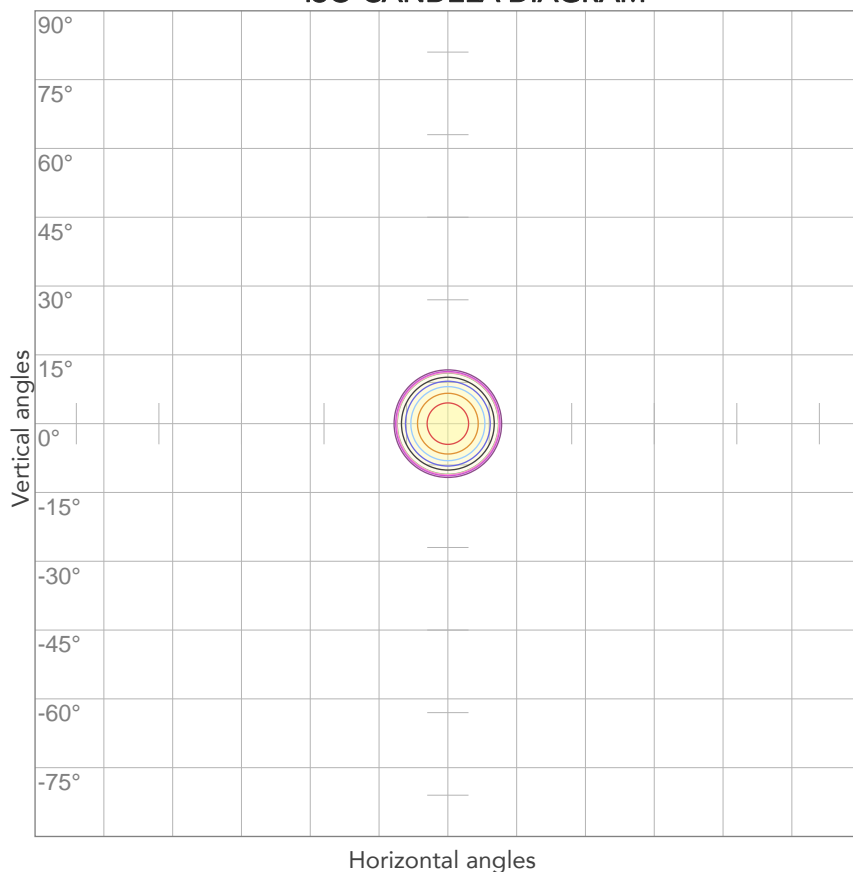


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,849A	174W	26lm/W
Power FC			
0,94			



## ISO CANDELA DIAGRAM



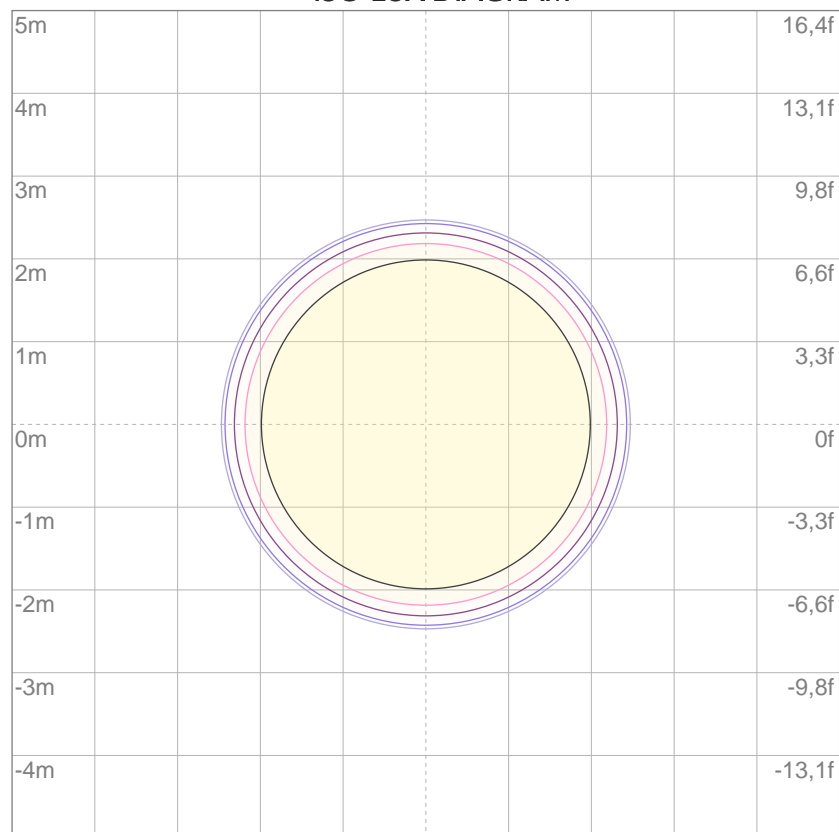
10%	4084 cd
20%	8167 cd
30%	12251 cd
40%	16335 cd
50%	20418 cd
60%	24502 cd
70%	28586 cd
80%	32669 cd

### Conditions:

Number of c-planes: 2

Candela at center: 40837 cd

## ISO LUX DIAGRAM



3%	12,3 lx
5%	20,4 lx
10%	40,8 lx
30%	123 lx
50%	204 lx

### Conditions:

Number of c-planes: 2

Lux at center: 408 lx

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