

# Photometric Test Report



## Smart BatPlusNeo

60W Outdoor battery uplighter with  
RGB+WW LED source

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## **TESTING PROCESS**

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

### **Prolights measurement instrument**

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

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

### **Prolights measurement software**

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

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



Total lumen output:

2927 lm

Peak candela output:

37318 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

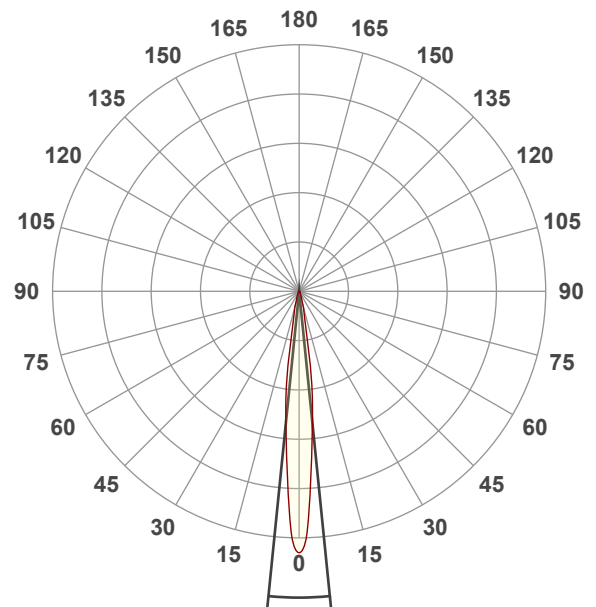
**MEASUREMENT CONDITIONS:**

Beam angle:  
10Deg Lens

Target:  
Full On - Runtime 3H

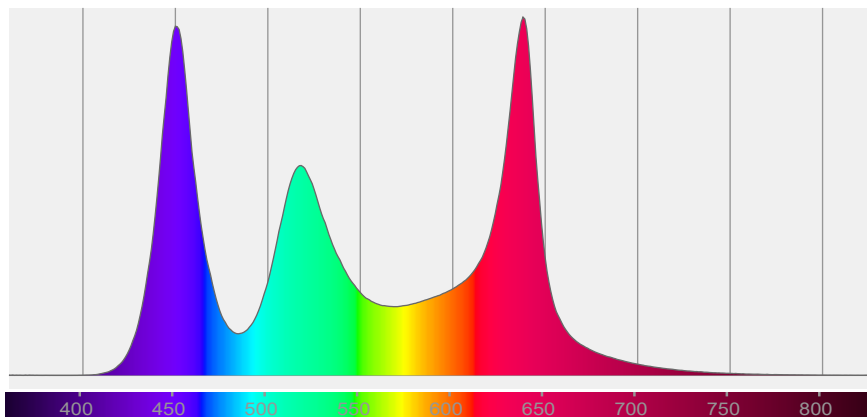
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 14:10:25



Beam angle 50%: 11,5°  
Field angle 10%: 24,9°  
Cut off angle 2.5%: 41,9°

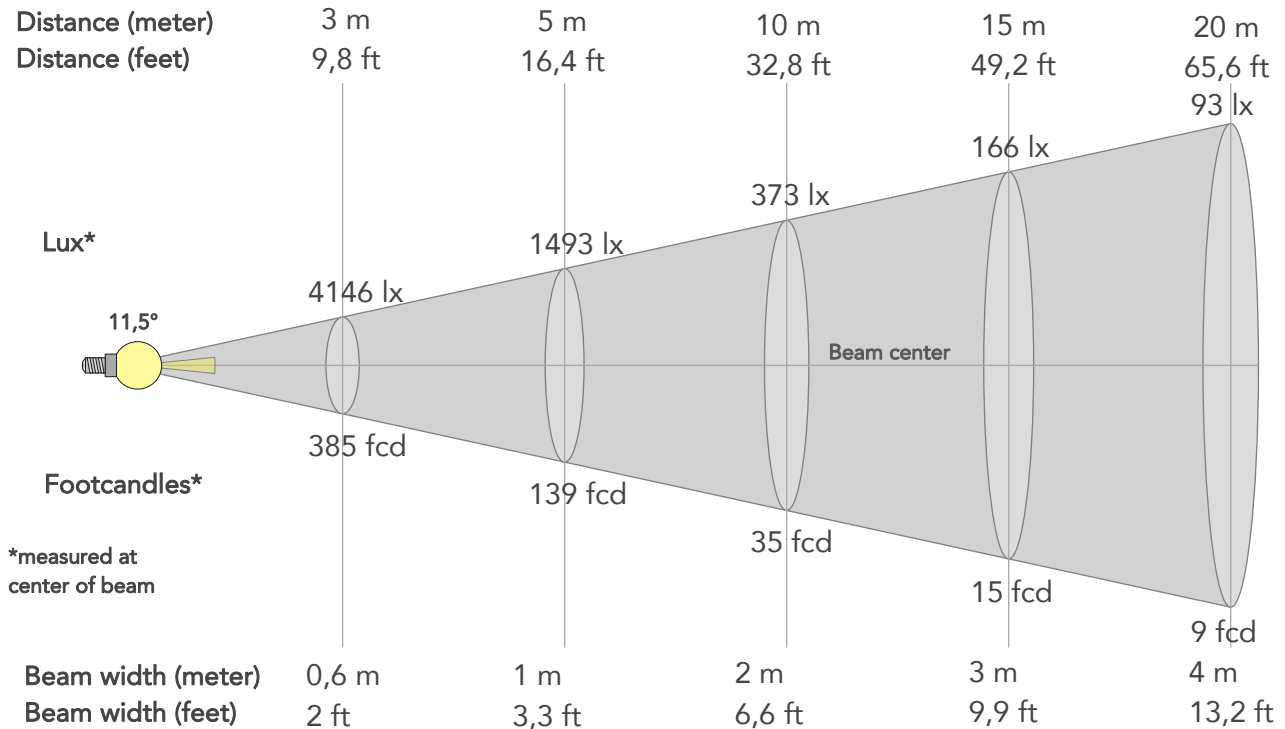
Spectra



# BEAM DETAILS



Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,5°	24,9°	41,9°	99,9%	98,6%

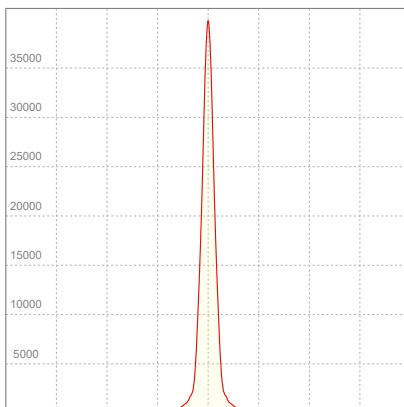


\*measured at center of beam

## 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	37318lx	9329lx	4146lx	2332lx	1493lx	663lx	373lx	166lx	93lx	60lx	41lx	23lx	15lx
Footcand.	3467fcd	867fcd	385fcd	217fcd	139fcd	62fcd	35fcd	15fcd	9fcd	6fcd	4fcd	2fcd	1fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	2m	3m	4m	5m	6m	8,1m	10,1m
Beam wid.	0,7ft	1,3ft	2ft	2,6ft	3,3ft	5ft	6,6ft	9,9ft	13,2ft	16,5ft	19,8ft	26,4ft	33ft

## LINEAR DISTRIBUTION DIAGRAM

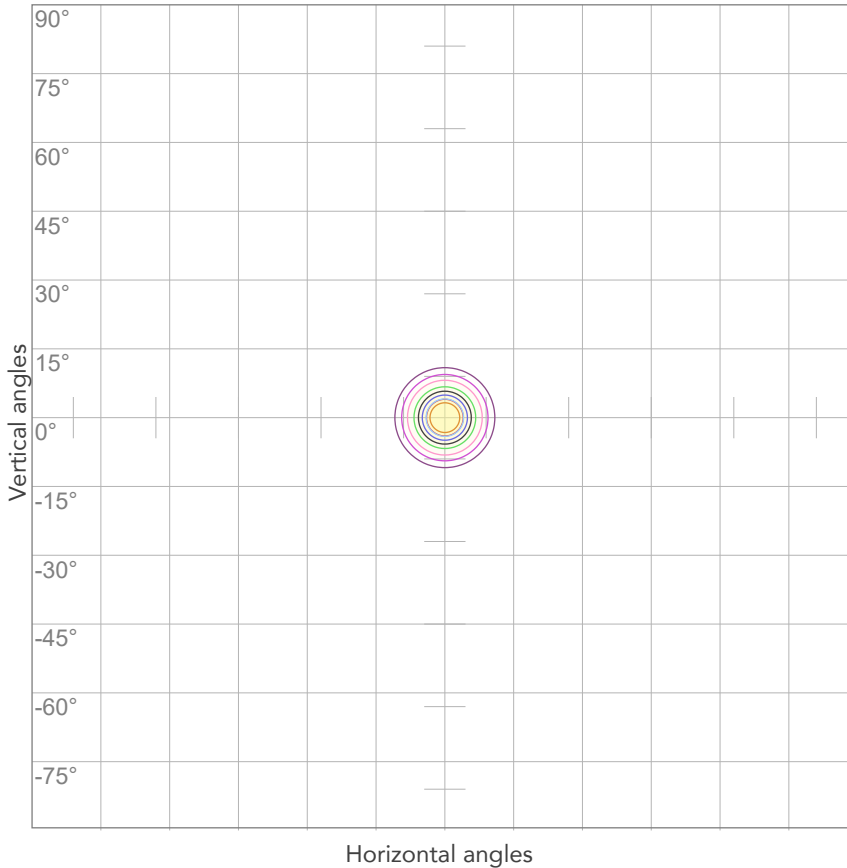


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
227V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



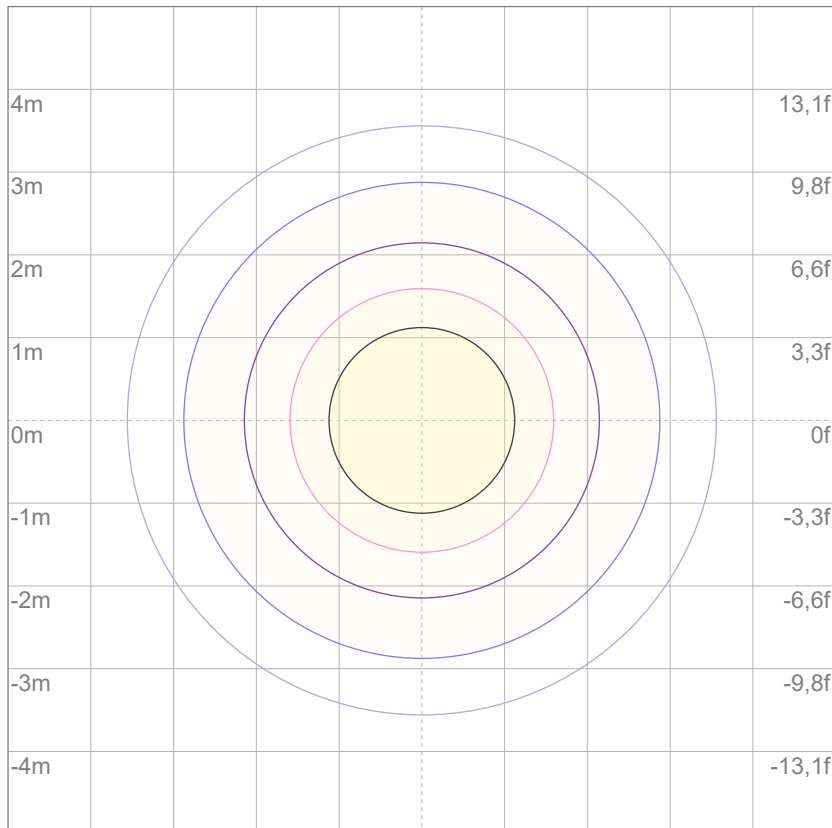
10%	3732 cd
20%	7464 cd
30%	11195 cd
40%	14927 cd
50%	18659 cd
60%	22391 cd
70%	26122 cd
80%	29854 cd

Conditions:

Number of c-planes: 2

Candela at center: 37318 cd

## ISO LUX DIAGRAM



3%	11,2 lx
5%	18,7 lx
10%	37,3 lx
30%	112 lx
50%	187 lx

Conditions:

Number of c-planes: 2

Lux at center: 373 lx

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



Total lumen output:

783 lm

Peak candela output:

9994 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

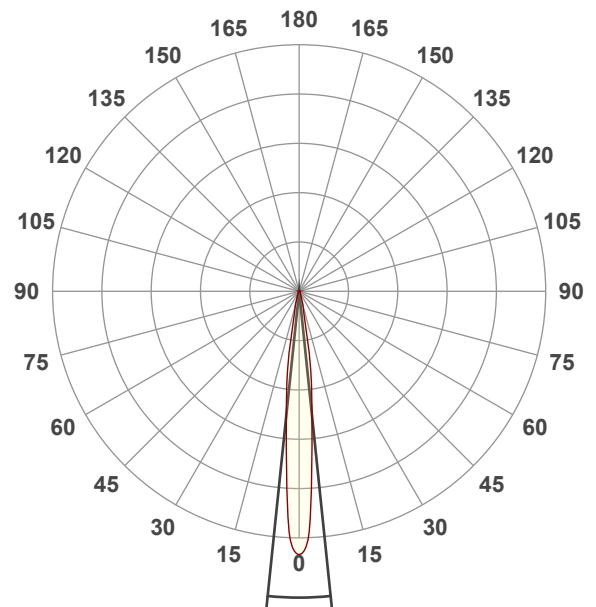
**MEASUREMENT CONDITIONS:**

Beam angle:  
10Deg Lens

Target:  
Red - Runtime 3H

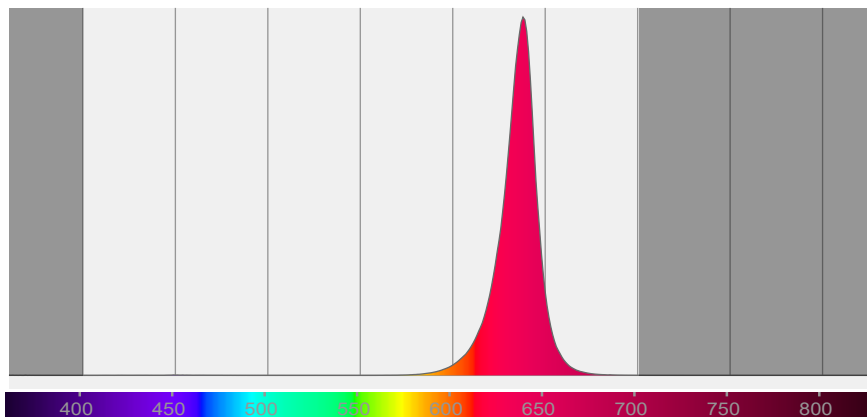
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 17:50:48



Beam angle 50%: 11,8°  
Field angle 10%: 24,1°  
Cut off angle 2.5%: 41,6°

Spectra

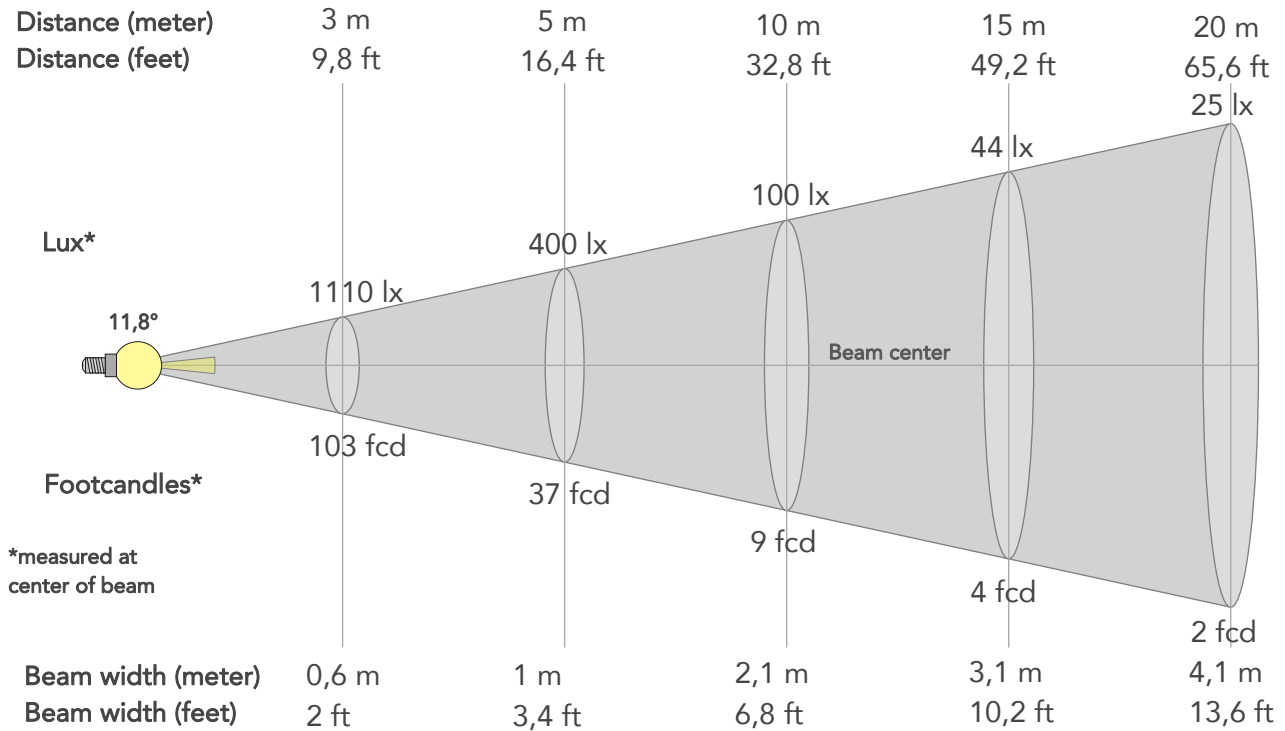




# BEAM DETAILS



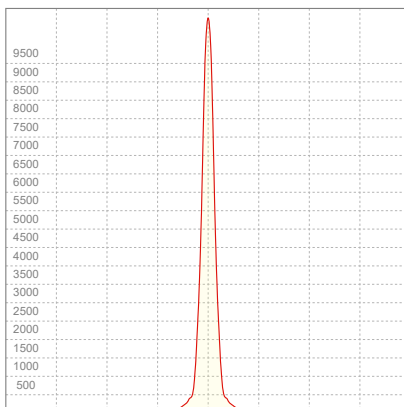
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,8°	24,1°	41,6°	99,5%	97,9%



## 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	9994lx	2499lx	1110lx	625lx	400lx	178lx	100lx	44lx	25lx	16lx	11lx	6lx	4lx
Footcand.	928fcd	232fcd	103fcd	58fcd	37fcd	17fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,6m	2,1m	3,1m	4,1m	5,2m	6,2m	8,3m	10,3m
Beam wid.	0,7ft	1,4ft	2ft	2,7ft	3,4ft	5,1ft	6,8ft	10,2ft	13,6ft	16,9ft	20,3ft	27,1ft	33,9ft

## LINEAR DISTRIBUTION DIAGRAM

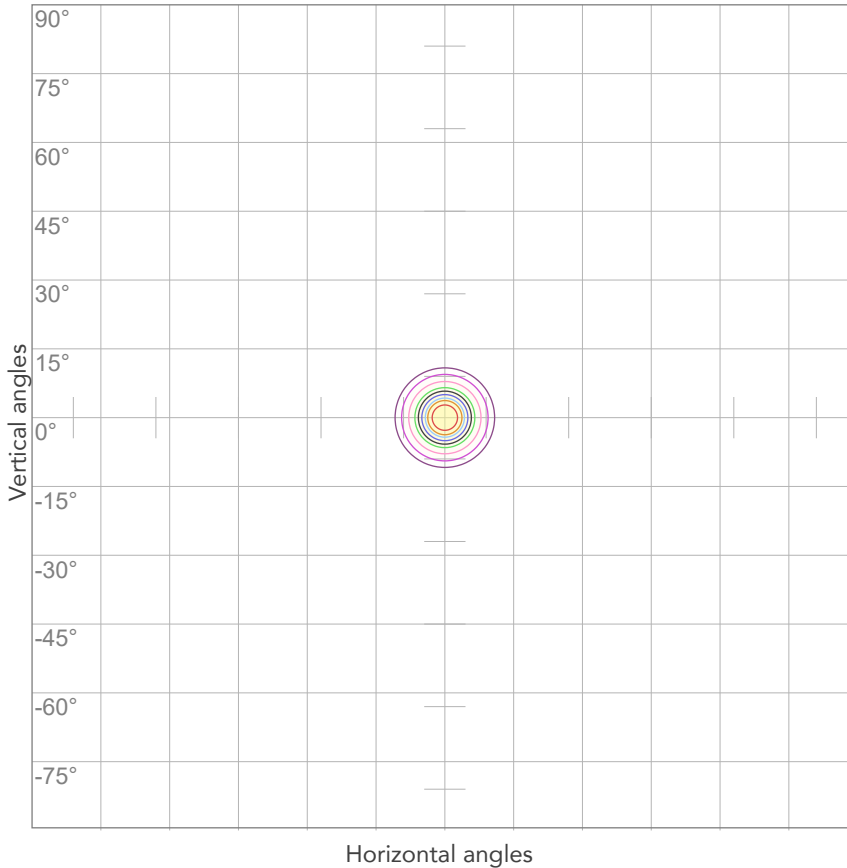


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



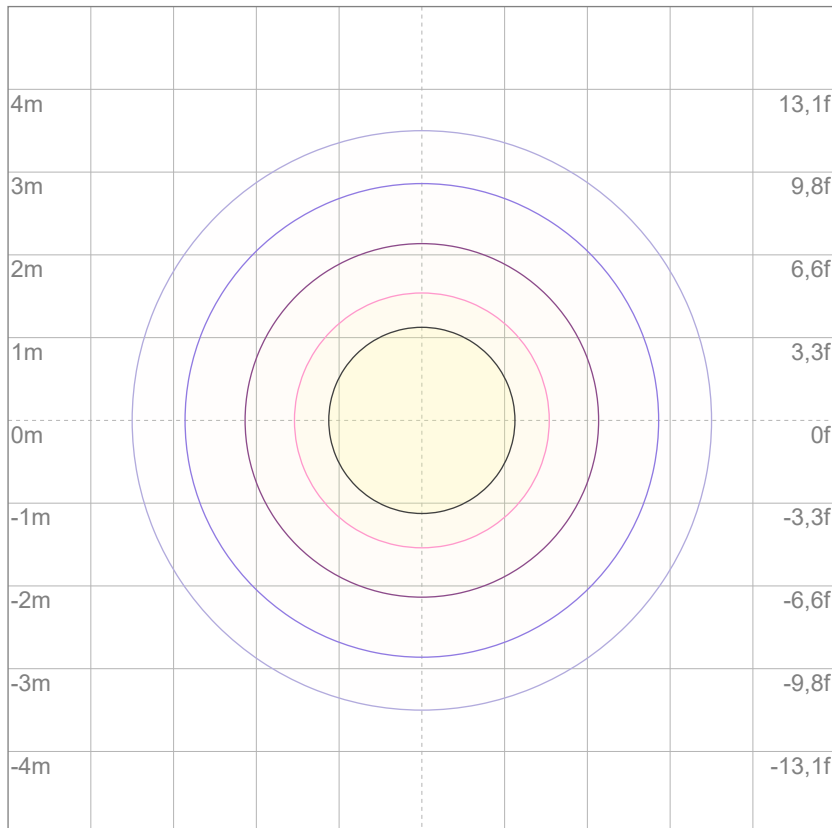
10%	999 cd
20%	1999 cd
30%	2998 cd
40%	3998 cd
50%	4997 cd
60%	5996 cd
70%	6996 cd
80%	7995 cd

Conditions:

Number of c-planes: 2

Candela at center: 9994 cd

## ISO LUX DIAGRAM



3%	3,00 lx
5%	5,00 lx
10%	9,99 lx
30%	30,0 lx
50%	50,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 99,9 lx

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



Total lumen output:

1354 lm

Peak candela output:

16449 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

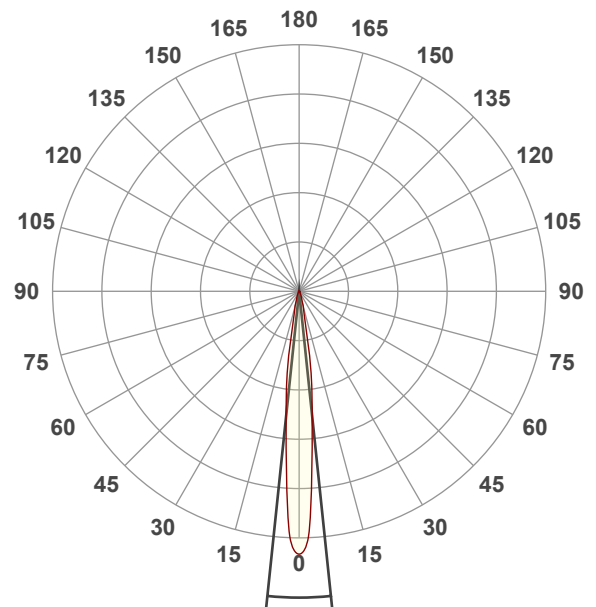
**MEASURAMENT CONDITIONS:**

Beam angle:  
10Deg Lens

Target:  
Green - Runtime 3H

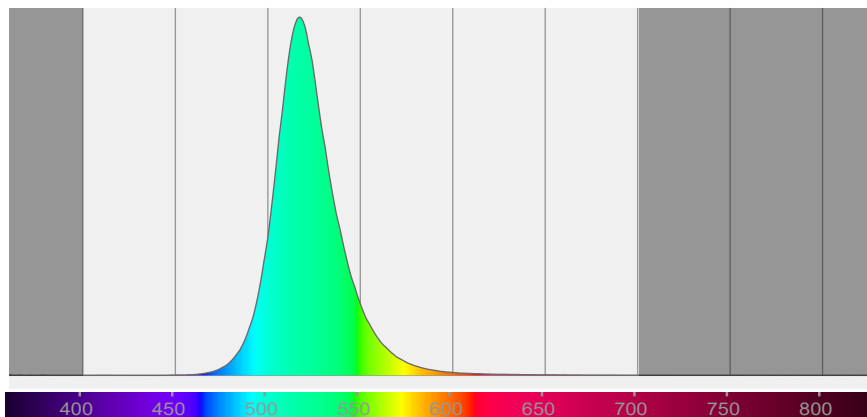
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 17:29:12



Beam angle 50%: 11,9°  
Field angle 10%: 24,3°  
Cut off angle 2.5%: 42,9°

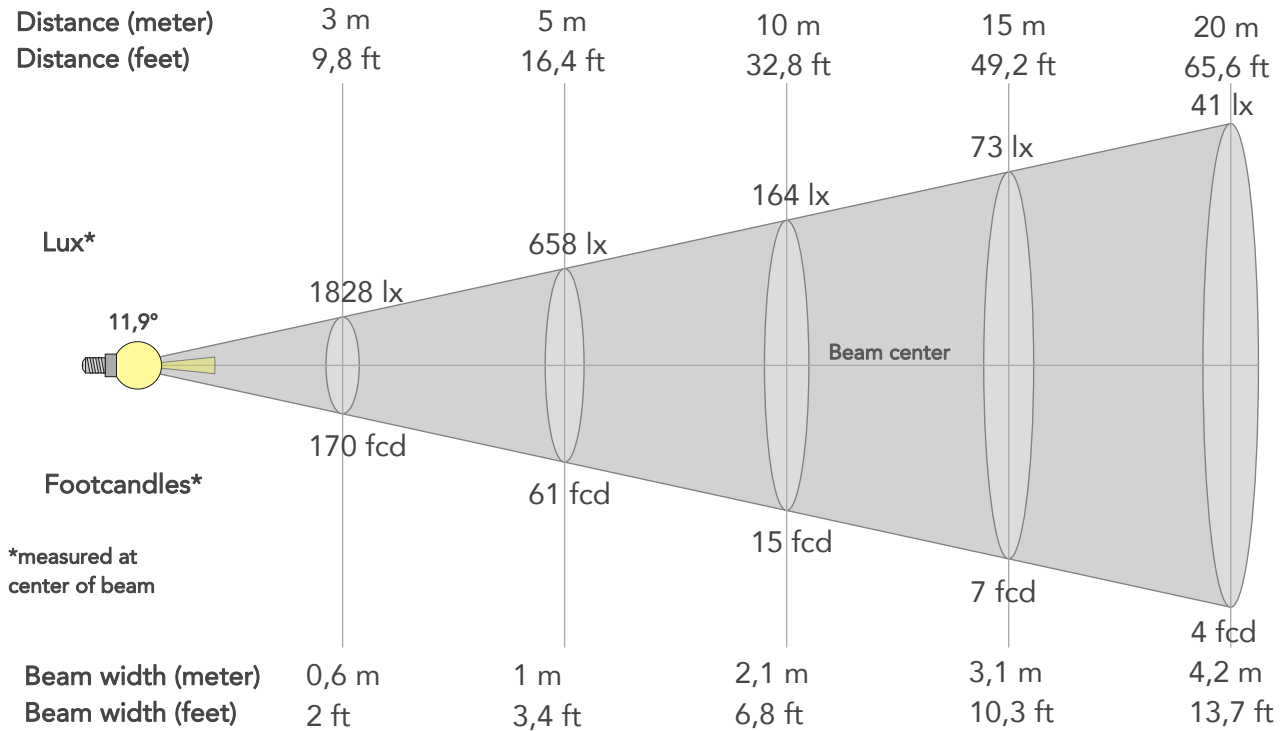
Spectra



# BEAM DETAILS



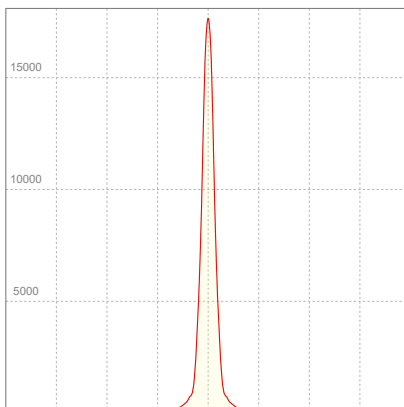
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,9°	24,3°	42,9°	99,3%	97,2%



## 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	16449lx	4112lx	1828lx	1028lx	658lx	292lx	164lx	73lx	41lx	26lx	18lx	10lx	7lx
Footcand.	1528fcd	382fcd	170fcd	96fcd	61fcd	27fcd	15fcd	7fcd	4fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,6m	2,1m	3,1m	4,2m	5,2m	6,3m	8,3m	10,4m
Beam wid.	0,7ft	1,4ft	2ft	2,7ft	3,4ft	5,1ft	6,8ft	10,3ft	13,7ft	17,1ft	20,5ft	27,3ft	34,2ft

## LINEAR DISTRIBUTION DIAGRAM

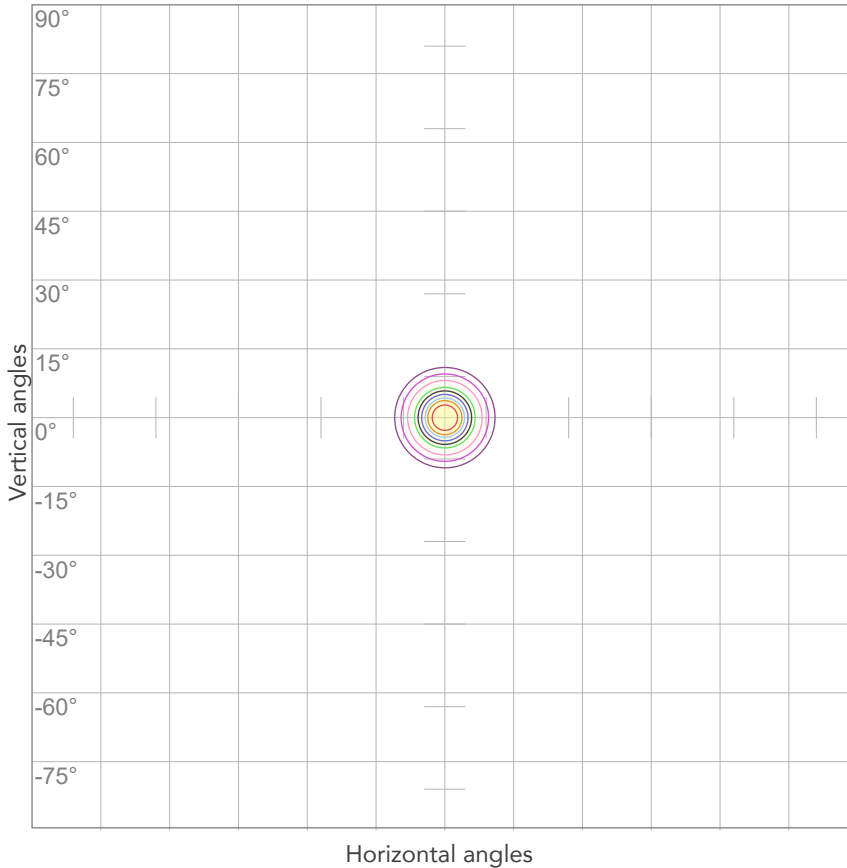


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
225V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



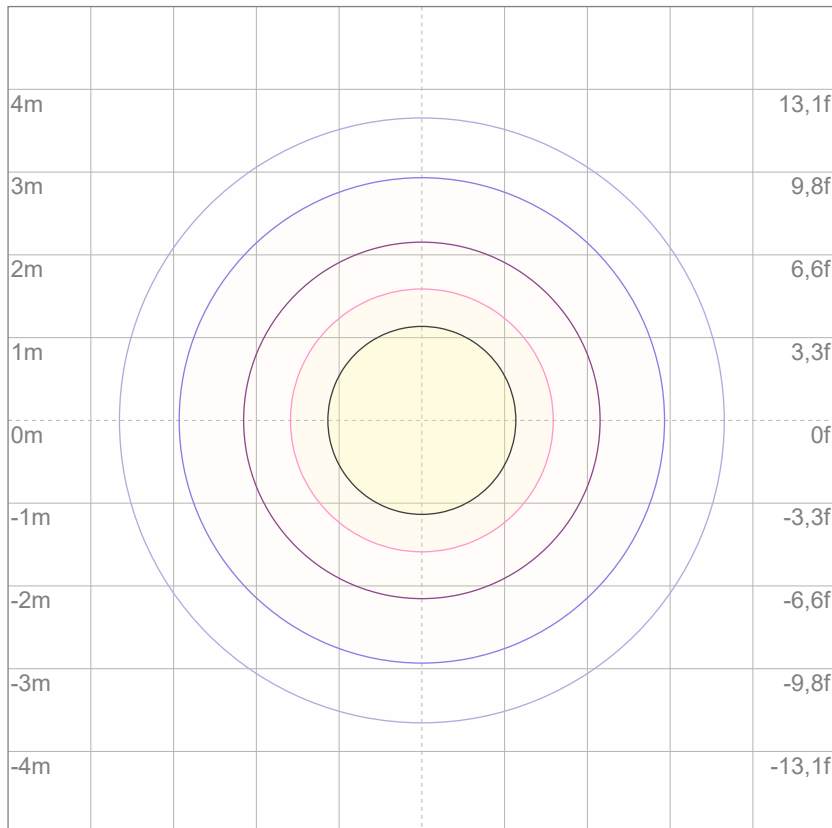
10%	1645 cd
20%	3290 cd
30%	4935 cd
40%	6580 cd
50%	8225 cd
60%	9870 cd
70%	11515 cd
80%	13159 cd

Conditions:

Number of c-planes: 2

Candela at center: 16449 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	4,93 lx
5%	8,22 lx
10%	16,4 lx
30%	49,3 lx
50%	82,2 lx

Conditions:

Number of c-planes: 2

Lux at center: 164 lx

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



Total lumen output:

292 lm

Peak candela output:

3567 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

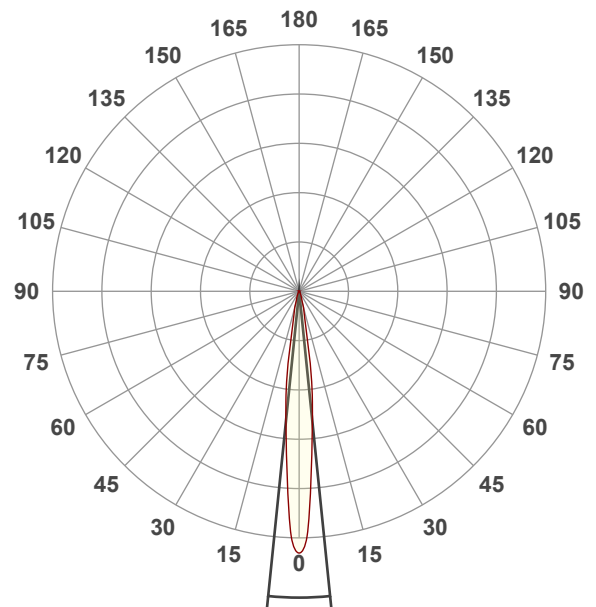
**MEASUREMENT CONDITIONS:**

Beam angle:  
10Deg Lens

Target:  
Blue - Runtime 3H

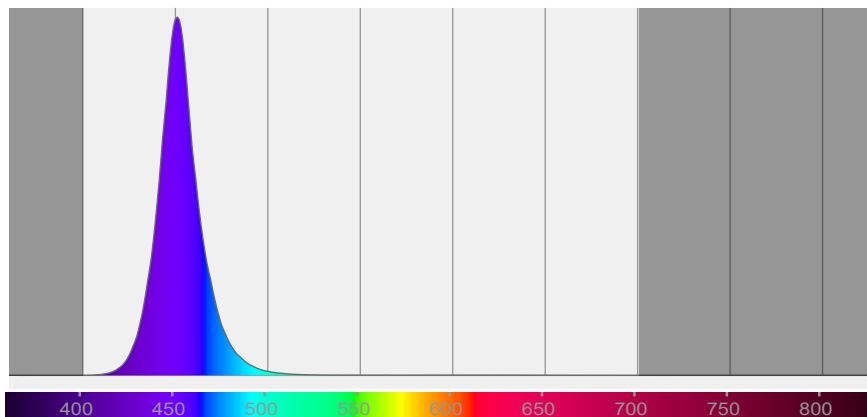
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 17:48:01



Beam angle 50%: 11,6°  
Field angle 10%: 25,1°  
Cut off angle 2.5%: 42,3°

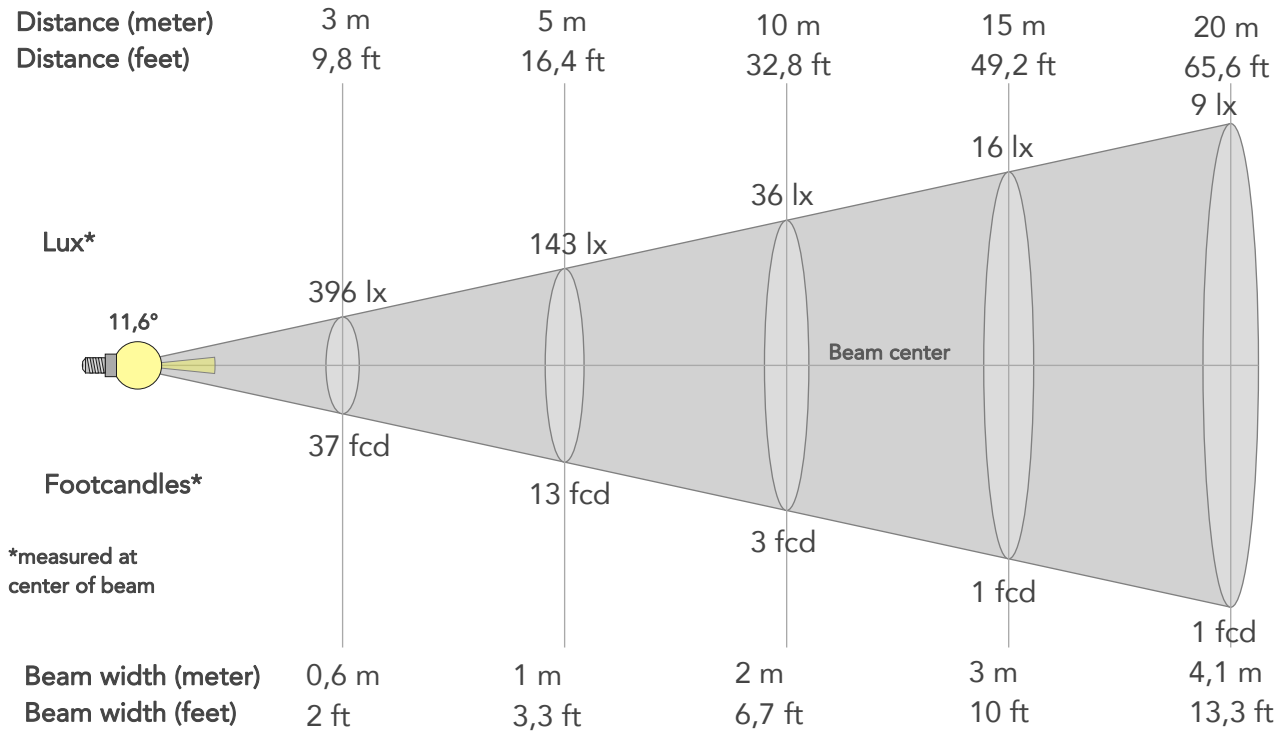
Spectra



# BEAM DETAILS



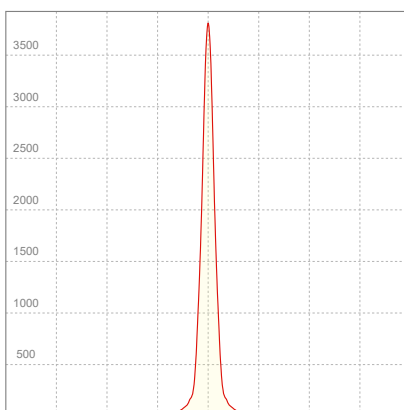
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,6°	25,1°	42,3°	98,9%	96,8%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	3567lx	892lx	396lx	223lx	143lx	63lx	36lx	16lx	9lx	6lx	4lx	2lx	1lx
Footcand.	331fcd	83fcd	37fcd	21fcd	13fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	2m	3m	4,1m	5,1m	6,1m	8,1m	10,2m
Beam wid.	0,7ft	1,3ft	2ft	2,7ft	3,3ft	5ft	6,7ft	10ft	13,3ft	16,7ft	20ft	26,7ft	33,3ft

## LINEAR DISTRIBUTION DIAGRAM

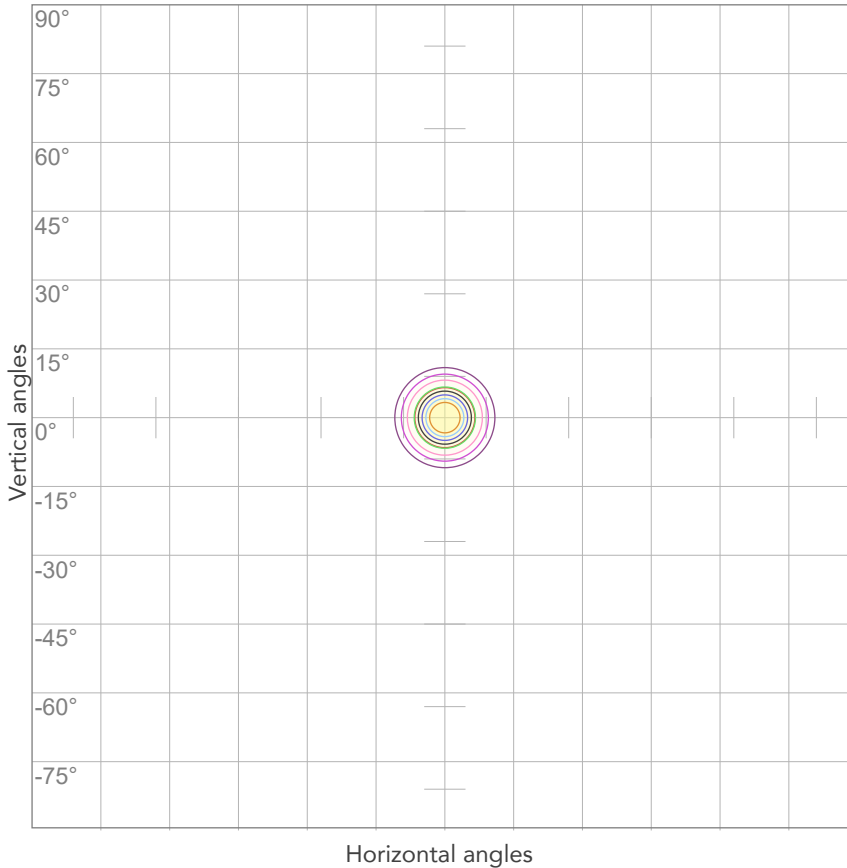


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



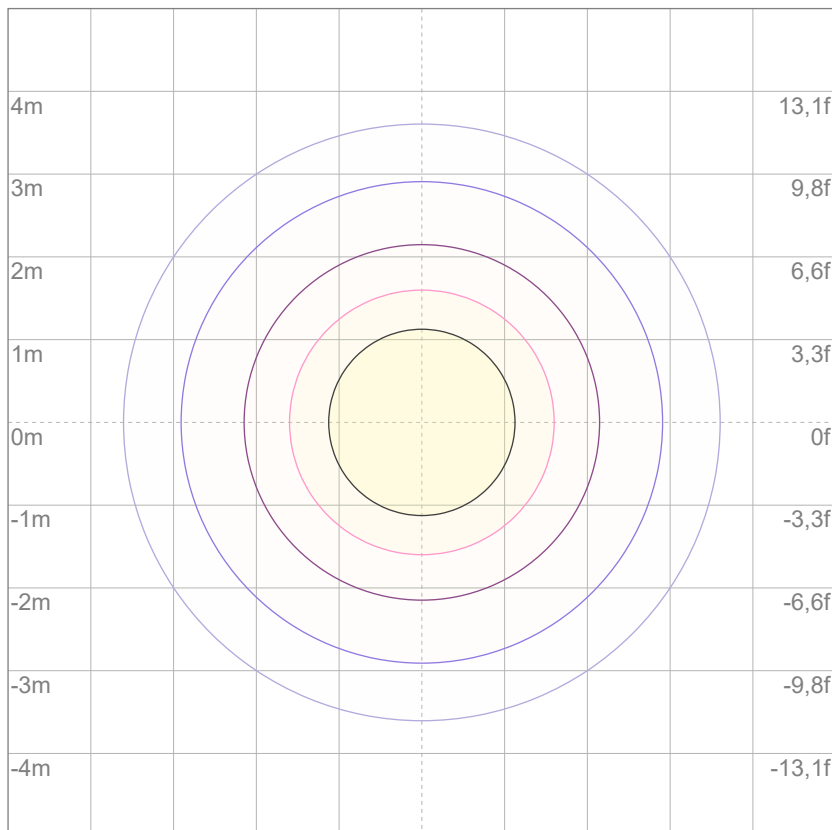
10%	357 cd
20%	713 cd
30%	1070 cd
40%	1427 cd
50%	1784 cd
60%	2140 cd
70%	2497 cd
80%	2854 cd

Conditions:

Number of c-planes: 2

Candela at center: 3567 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	1,07 lx
5%	1,78 lx
10%	3,57 lx
30%	10,7 lx
50%	17,8 lx

Conditions:

Number of c-planes: 2

Lux at center: 35,7 lx

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





Total lumen output:

1508 lm

Peak candela output:

18825 cd

Light quality:

CRI: 82,1

Color temperature:

3050 K

**PRODUCT NAME:**  
SMARTBATPLUSNEO

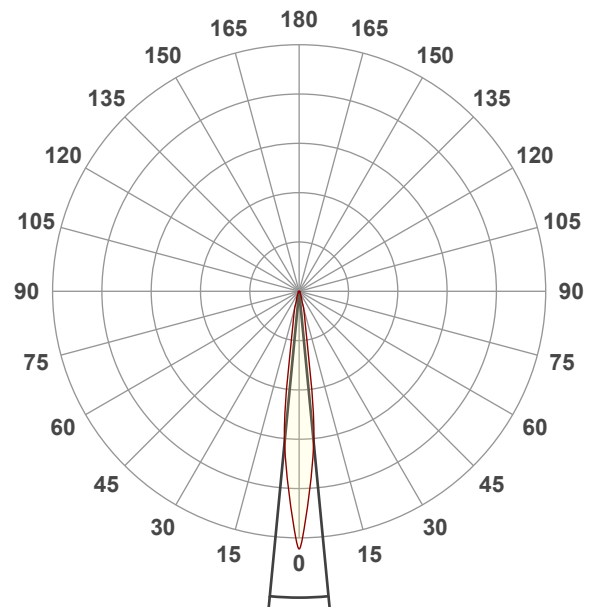
**MEASURAMENT CONDITIONS:**

Beam angle:  
10Deg Lens

Target:  
White - Runtime 3H

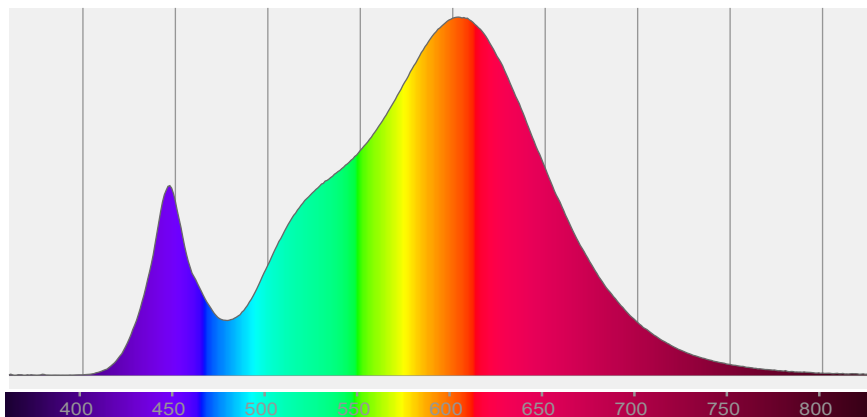
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 17:32:14

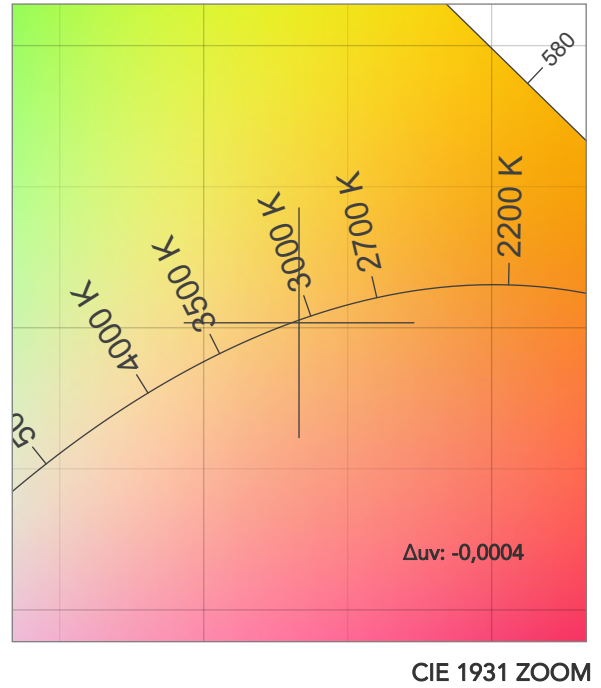
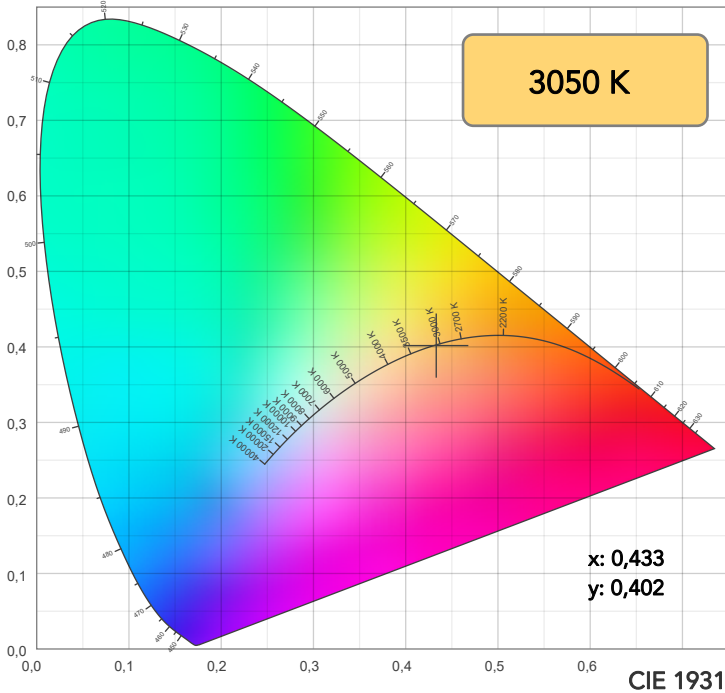


Beam angle 50%: 11°  
Field angle 10%: 25,2°  
Cut off angle 2.5%: 41,7°

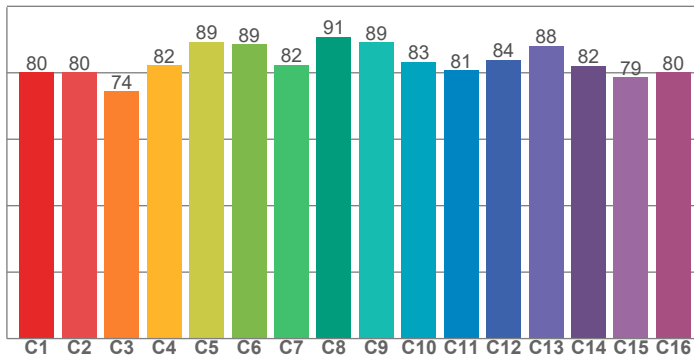
Spectra



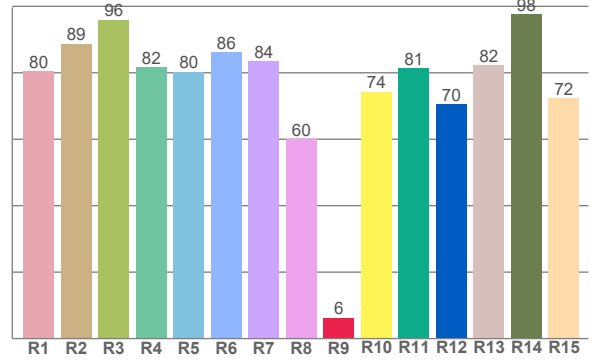
# COLOR DETAILS



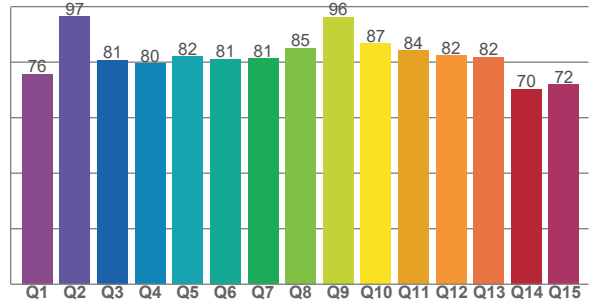
**TM30: 83,3**



**CRI: 82,1 (R1-R8)**



**CQS: 80,9**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80,4	88,8	96,0	81,6	80,3	86,2	83,6	60,0	6,3	74,3	81,3	70,5	82,2	97,7	72,5

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
80,1	80,2	74,4	82,2	89,3	88,6	82,4	90,9	89,2	83,3	80,7	83,9	88,2	82,1	78,7	80,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
75,8	96,5	80,8	79,5	82,0	81,1	81,3	85,2	96,2	86,8	84,3	82,3	81,8	70,3	72,0

## COLOR PARAMETERS

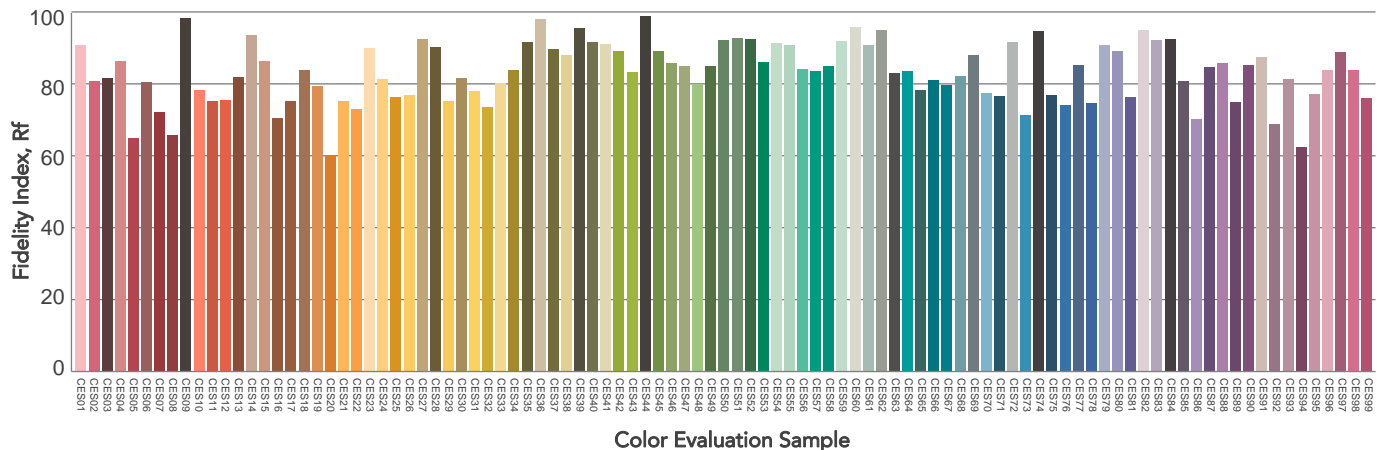
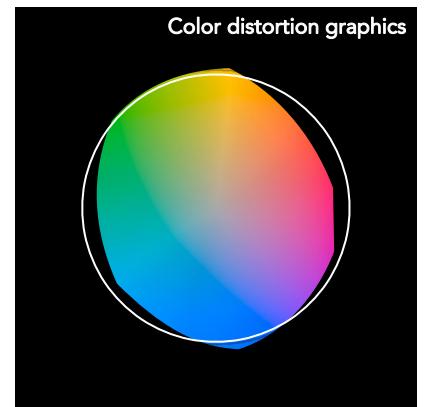
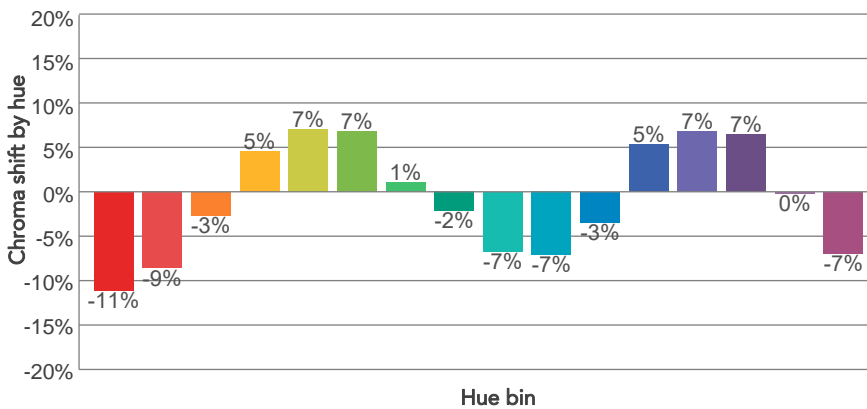
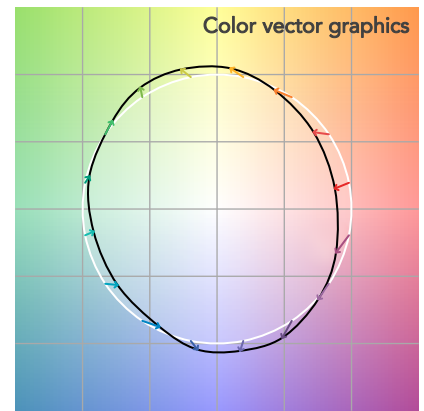
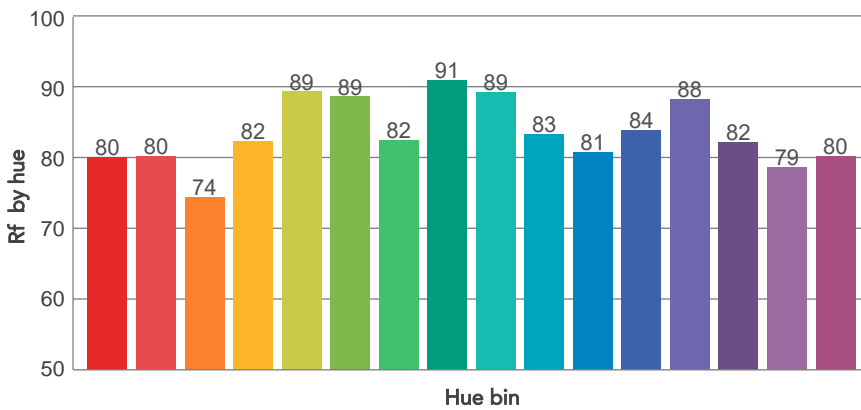
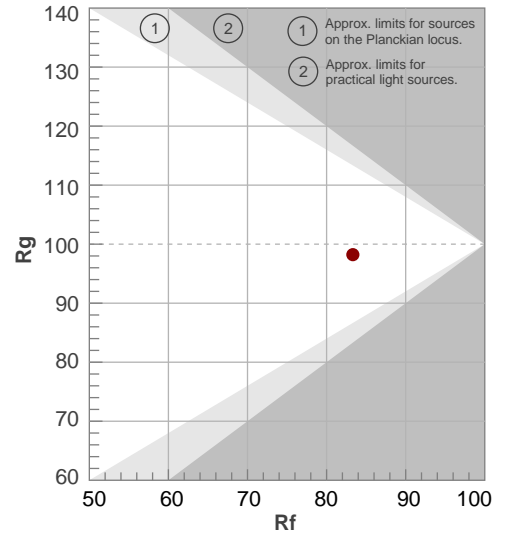
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3050 K	82,1	6,3	83,3	98,2	80,9	64	0,433	0,402	-0,0004

# TM30 DETAILS

**Rf 83,3**  
Fidelity index Rf

**Rg 98,2**  
Gammut index

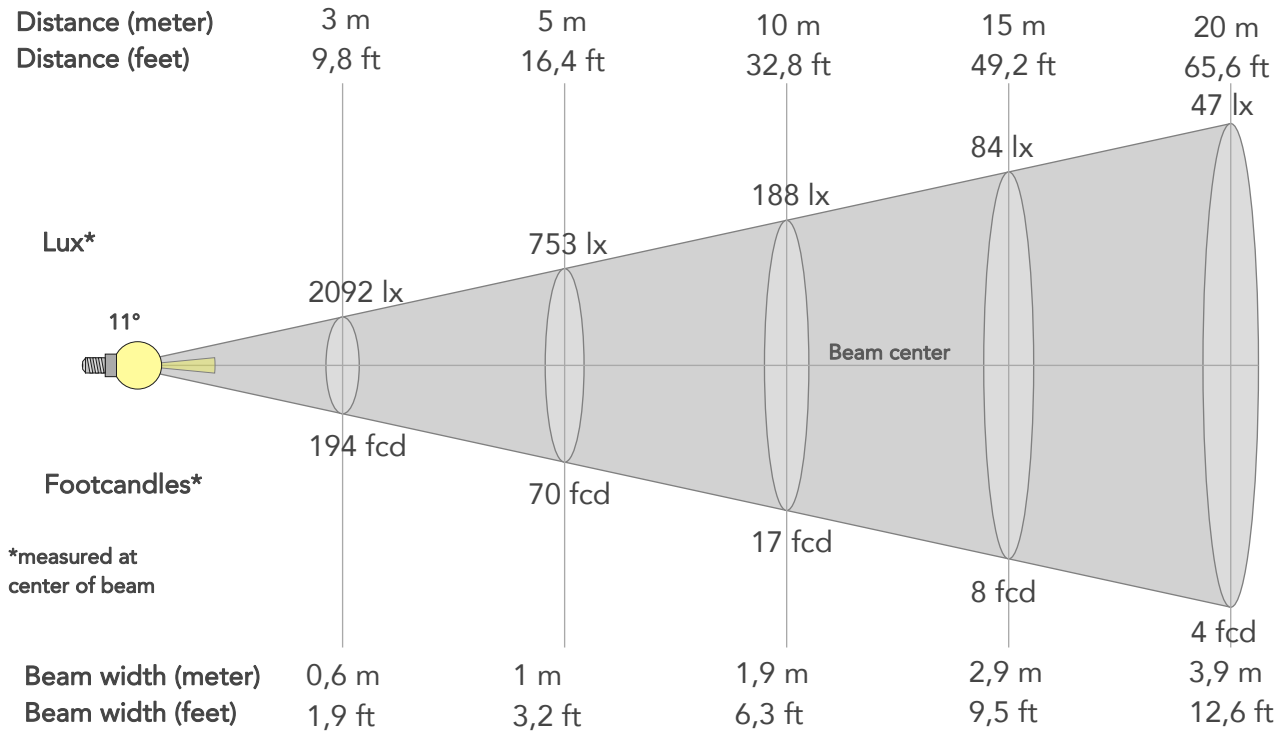
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	80	-11%	-2%
2	80	-9%	8%
3	74	-3%	13%
4	82	5%	11%
5	89	7%	6%
6	89	7%	-3%
7	82	1%	-11%
8	91	-2%	-5%
9	89	-7%	-1%
10	83	-7%	6%
11	81	-3%	13%
12	84	5%	6%
13	88	7%	-4%
14	82	7%	-13%
15	79	0%	-14%
16	80	-7%	-14%



# BEAM DETAILS



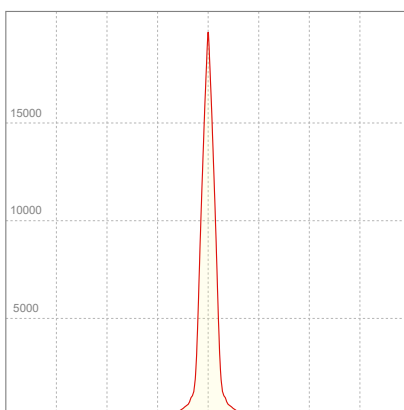
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11°	25,2°	41,7°	99,1%	96,8%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	18825lx	4706lx	2092lx	1177lx	753lx	335lx	188lx	84lx	47lx	30lx	21lx	12lx	8lx
Footcand.	1749fcd	437fcd	194fcd	109fcd	70fcd	31fcd	17fcd	8fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,4m	1,9m	2,9m	3,9m	4,8m	5,8m	7,7m	9,6m
Beam wid.	0,6ft	1,3ft	1,9ft	2,5ft	3,2ft	4,7ft	6,3ft	9,5ft	12,6ft	15,8ft	18,9ft	25,3ft	31,6ft

## LINEAR DISTRIBUTION DIAGRAM

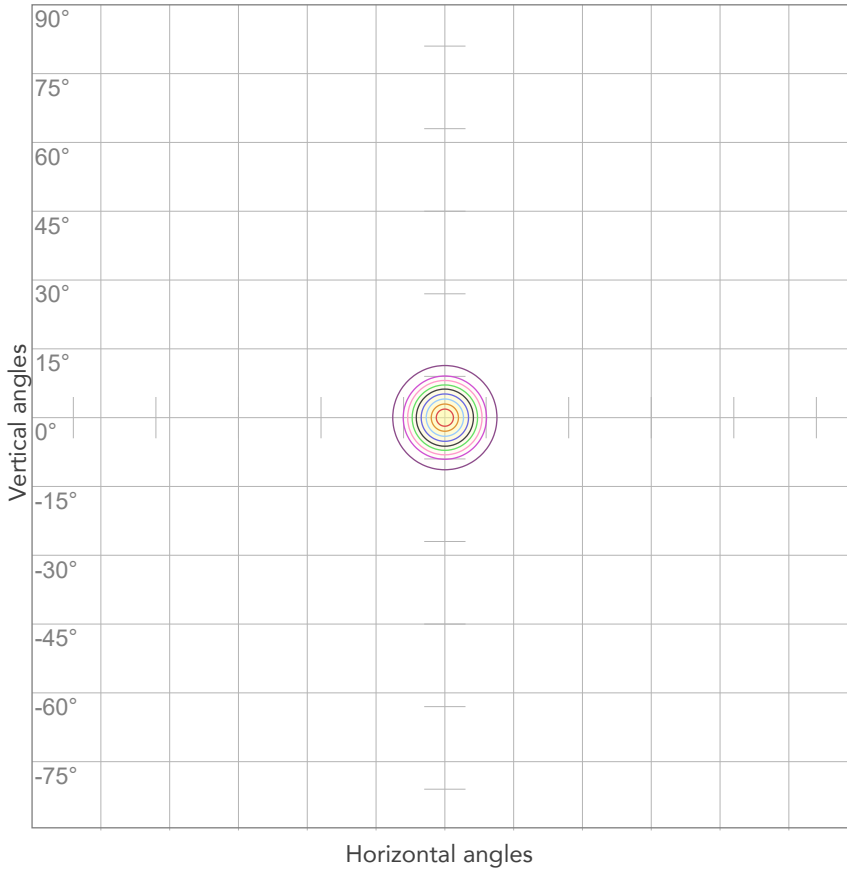


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
225V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



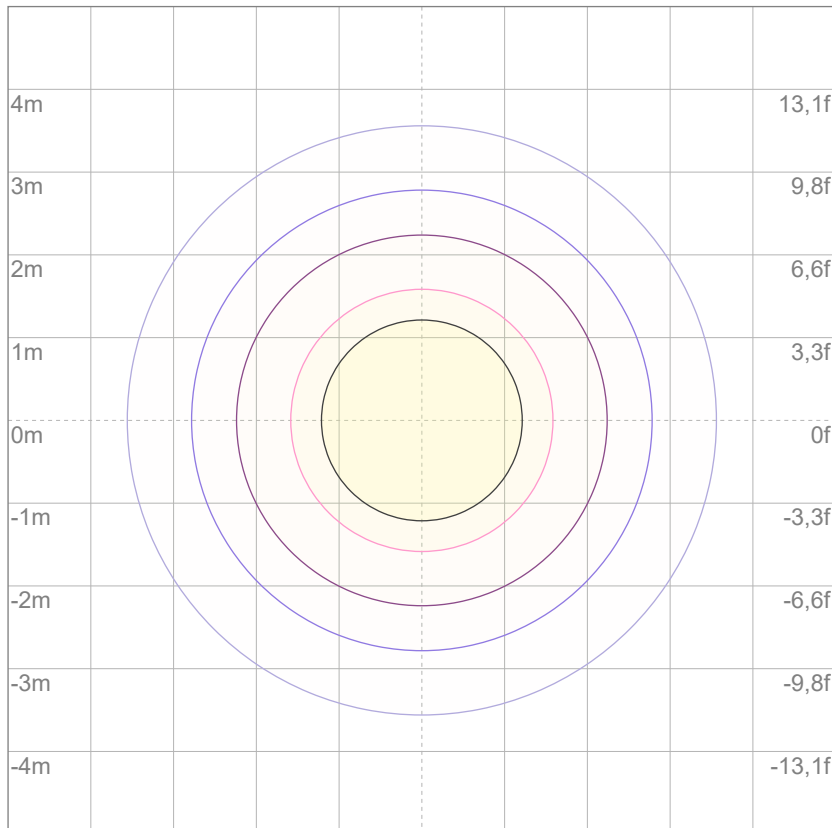
10%	1882 cd
20%	3765 cd
30%	5647 cd
40%	7530 cd
50%	9412 cd
60%	11295 cd
70%	13177 cd
80%	15060 cd

Conditions:

Number of c-planes: 2

Candela at center: 18825 cd

## ISO LUX DIAGRAM



3%	5,65 lx
5%	9,41 lx
10%	18,8 lx
30%	56,5 lx
50%	94,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 188 lx

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



Total lumen output:

1886 lm

Peak candela output:

23664 cd

Light quality:

CRI: 89,9

Color temperature:

2754 K

**PRODUCT NAME:**  
SMARTBATPLUSNEO

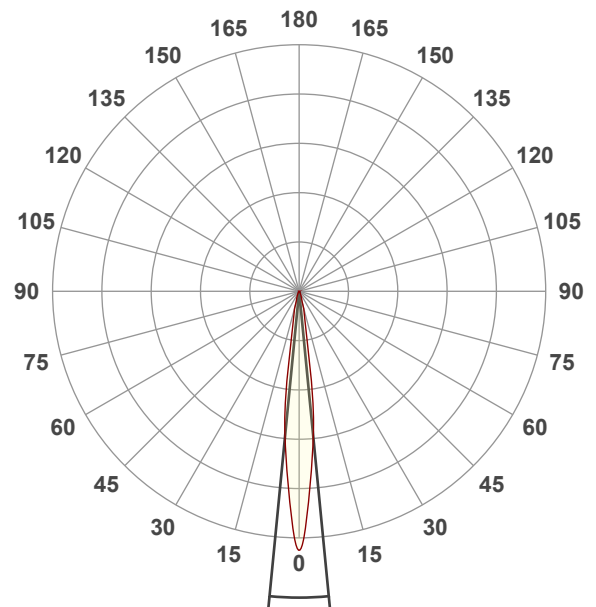
**MEASURAMENT CONDITIONS:**

Beam angle:  
10Deg Lens

Target:  
2800K - Runtime 3H

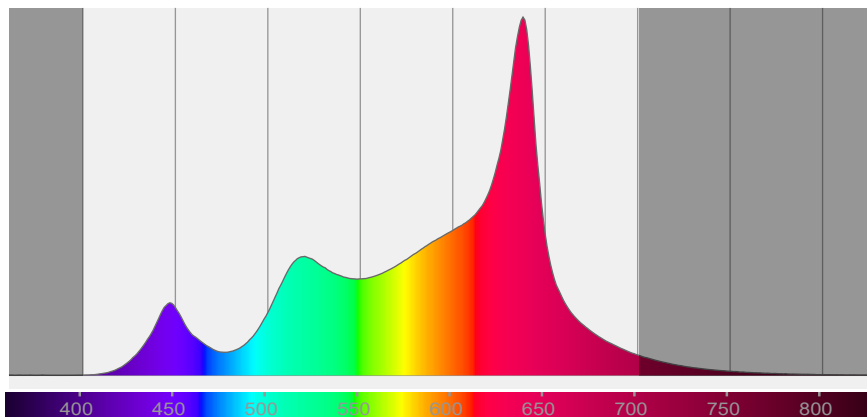
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 17:46:44

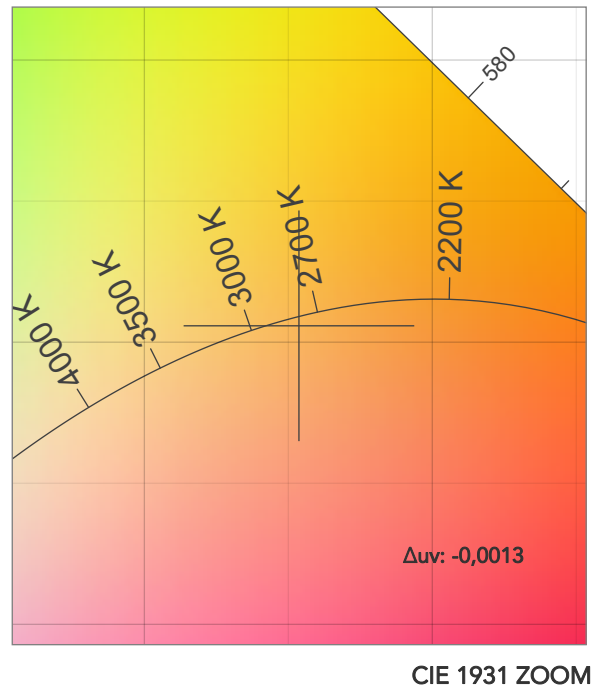
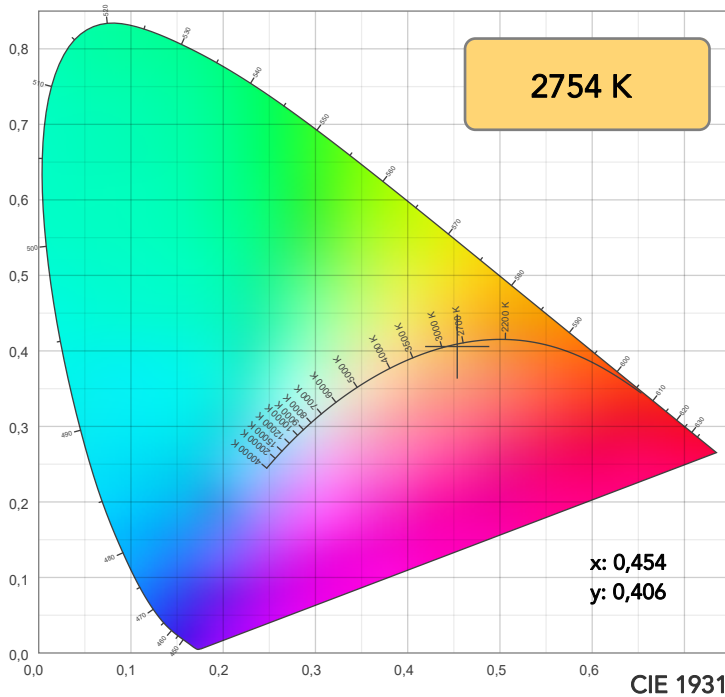


Beam angle 50%: 11,1°  
Field angle 10%: 25,2°  
Cut off angle 2.5%: 41,7°

Spectra

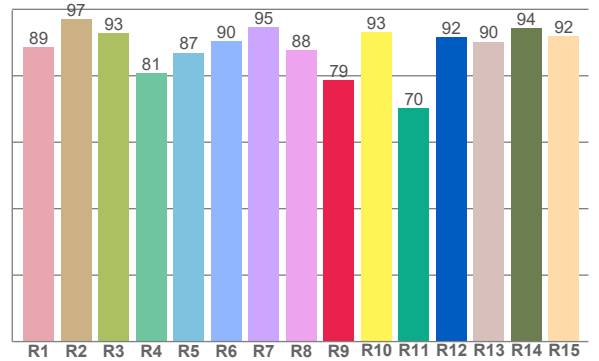
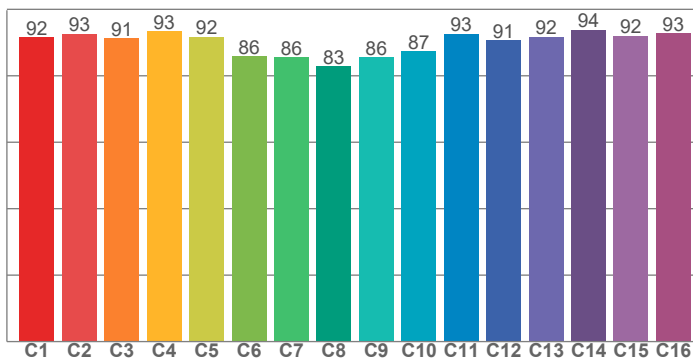


# COLOR DETAILS



TM30: 90,6

CRI: 89,9 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
88,6	97,0	92,9	80,9	86,9	90,3	94,6	87,7	78,7	93,1	70,2	91,6	90,2	94,4	92,0

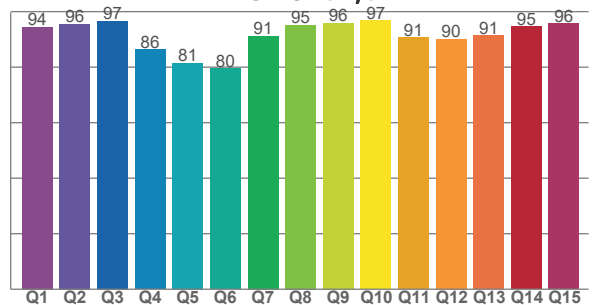
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91,7	92,7	91,4	93,4	91,7	85,8	85,6	82,8	85,6	87,3	92,7	90,7	91,8	93,8	92,1	92,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,5	95,6	96,6	86,4	81,5	79,6	91,2	95,1	96,0	96,7	90,7	90,2	91,4	94,7	95,8

CQS: 89,8



## COLOR PARAMETERS

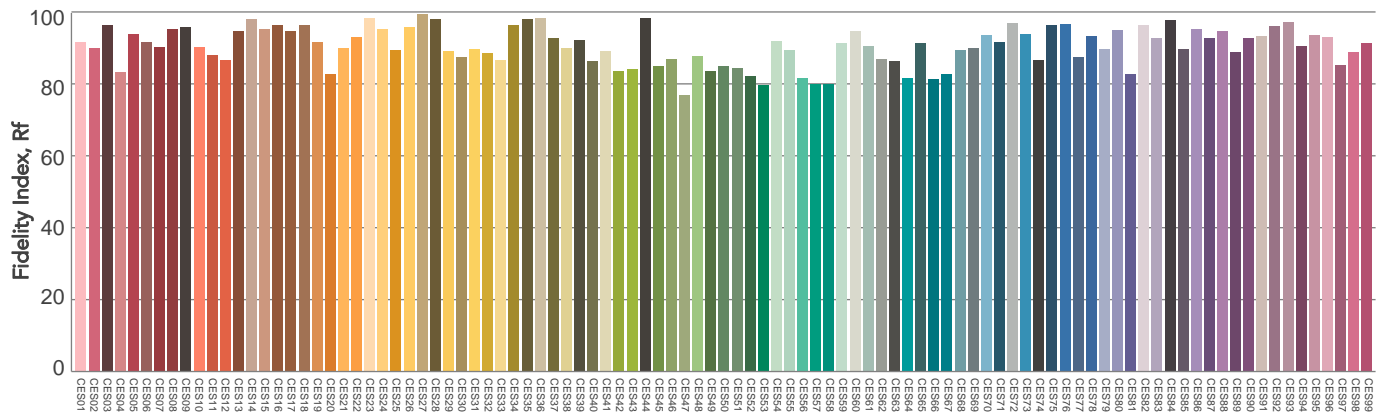
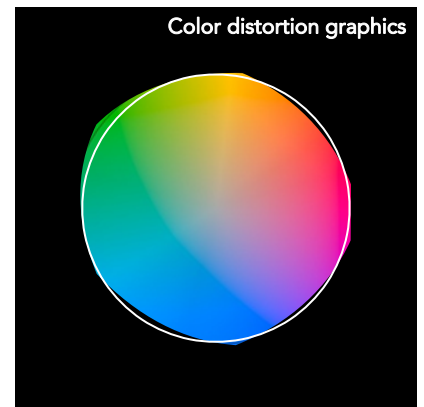
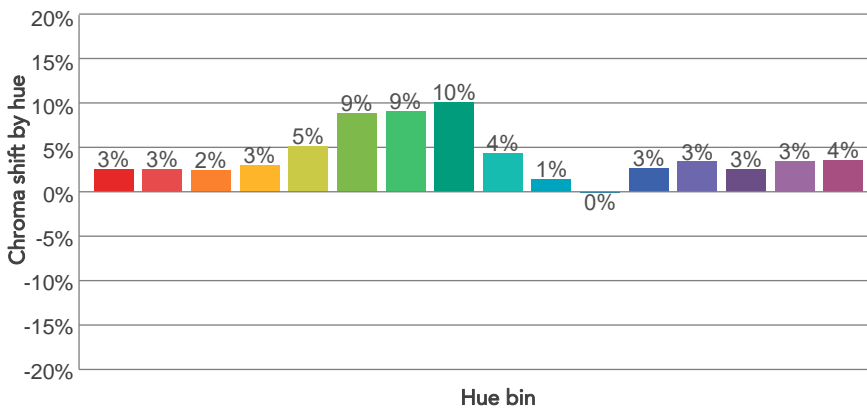
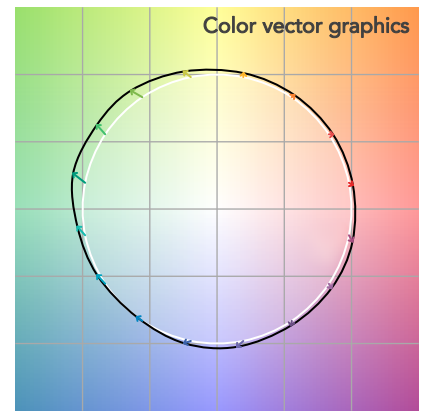
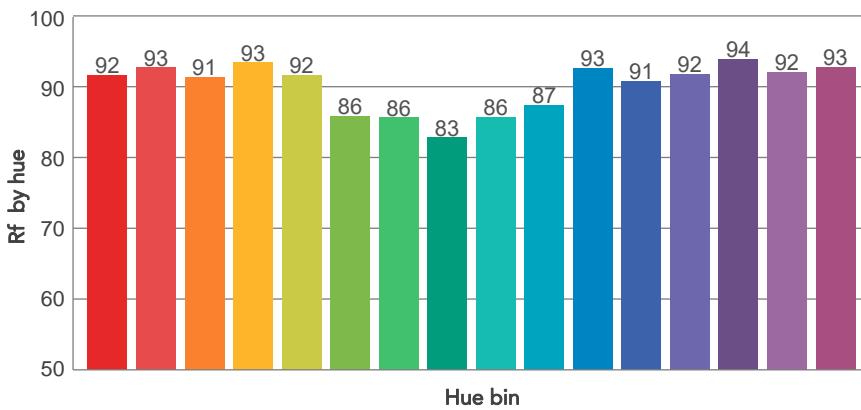
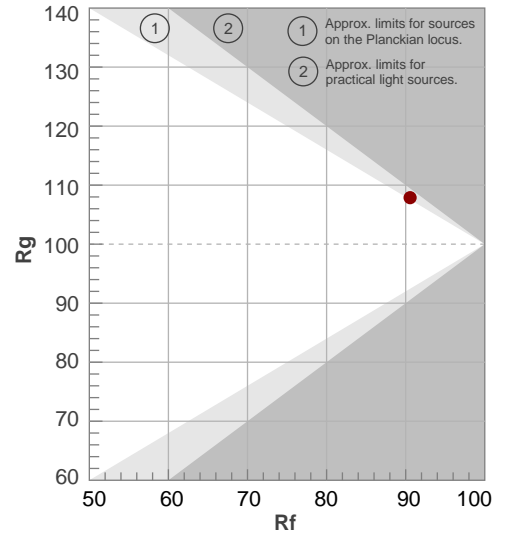
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2754 K	89,9	78,7	90,6	107,9	89,8	77	0,454	0,406	-0,0013

# TM30 DETAILS

**Rf 90,6**  
Fidelity index Rf

**Rg 107,9**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	3%	-2%
2	93	3%	-2%
3	91	2%	-1%
4	93	3%	0%
5	92	5%	4%
6	86	9%	4%
7	86	9%	-2%
8	83	10%	-5%
9	86	4%	-7%
10	87	1%	-9%
11	93	0%	-5%
12	91	3%	-5%
13	92	3%	-5%
14	94	3%	-2%
15	92	3%	-2%
16	93	4%	-4%

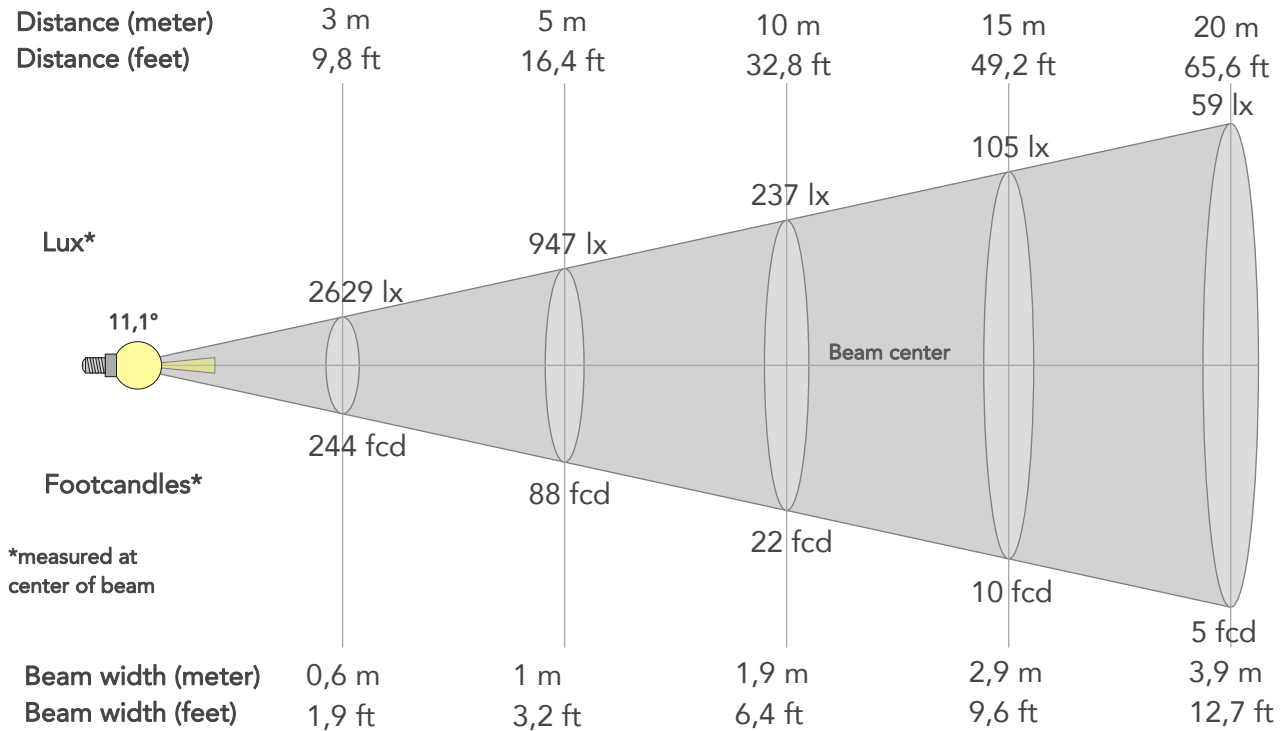




# BEAM DETAILS



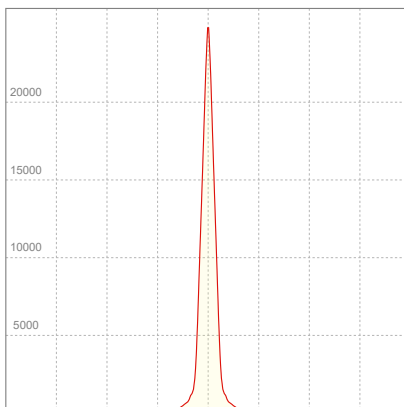
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,1°	25,2°	41,7°	99,5%	97,5%



## 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	23664lx	5916lx	2629lx	1479lx	947lx	421lx	237lx	105lx	59lx	38lx	26lx	15lx	9lx
Footcand.	2199fcd	550fcd	244fcd	137fcd	88fcd	39fcd	22fcd	10fcd	5fcd	4fcd	2fcd	1fcd	1fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	1,9m	2,9m	3,9m	4,9m	5,8m	7,8m	9,7m
Beam wid.	0,6ft	1,3ft	1,9ft	2,5ft	3,2ft	4,8ft	6,4ft	9,6ft	12,7ft	15,9ft	19,1ft	25,5ft	31,9ft

## LINEAR DISTRIBUTION DIAGRAM

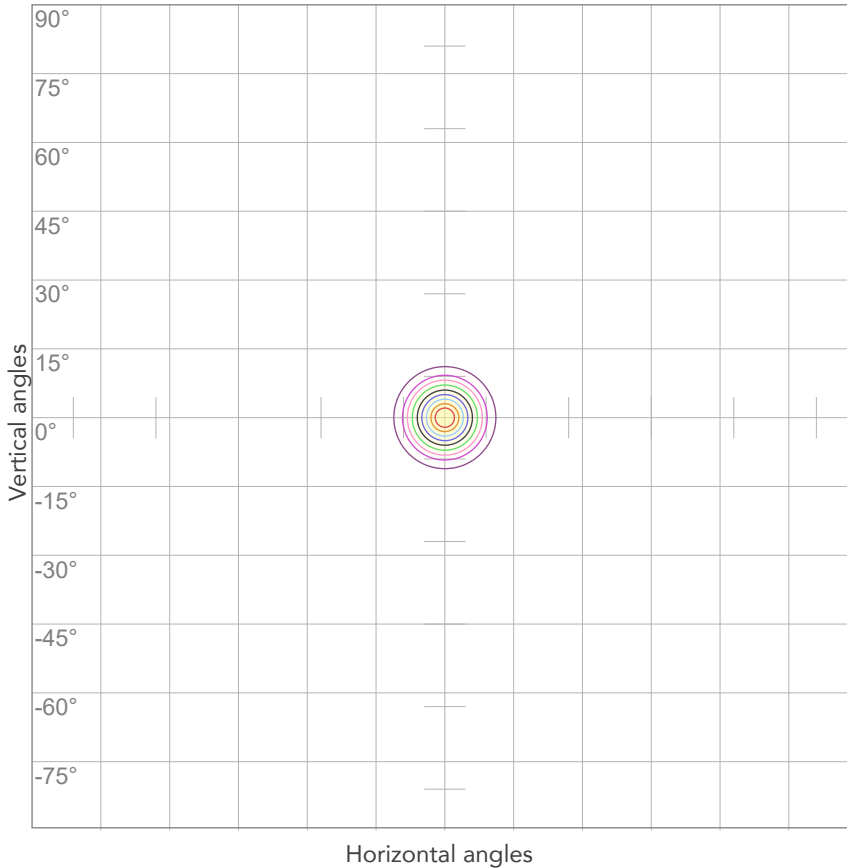


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
225V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



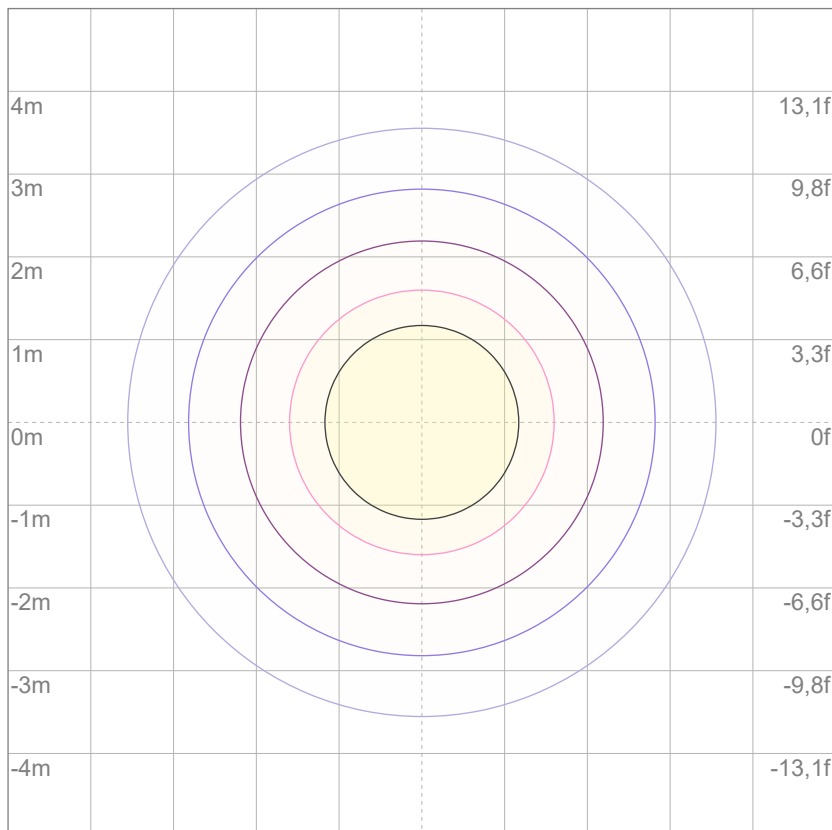
10%	2366 cd
20%	4733 cd
30%	7099 cd
40%	9466 cd
50%	11832 cd
60%	14199 cd
70%	16565 cd
80%	18932 cd

Conditions:

Number of c-planes: 2

Candela at center: 23664 cd

## ISO LUX DIAGRAM



3%	7,10 lx
5%	11,8 lx
10%	23,7 lx
30%	71,0 lx
50%	118 lx

Conditions:

Number of c-planes: 2

Lux at center: 237 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

1944 lm

Peak candela output:

25124 cd

Light quality:

CRI: 90,9

Color temperature:

3202 K

**PRODUCT NAME:**  
SMARTBATPLUSNEO

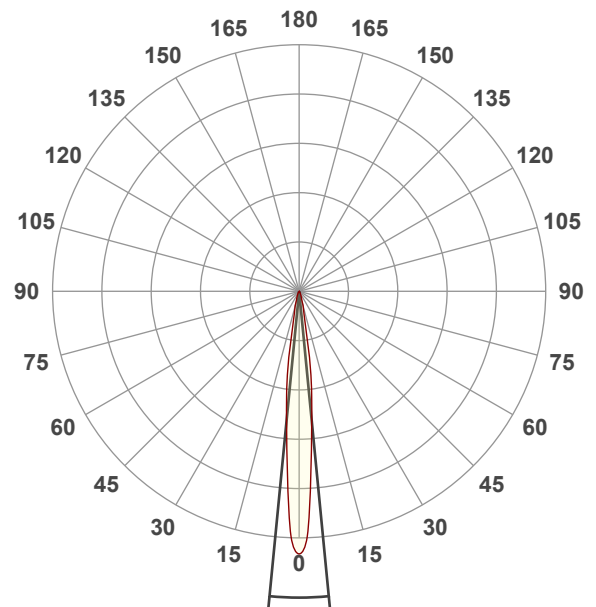
**MEASURAMENT CONDITIONS:**

Beam angle:  
10Deg Lens

Target:  
3200K - Runtime 3H

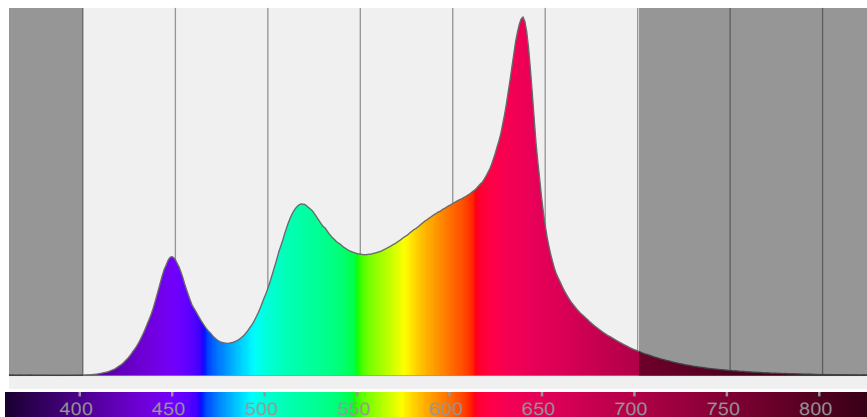
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 17:45:29

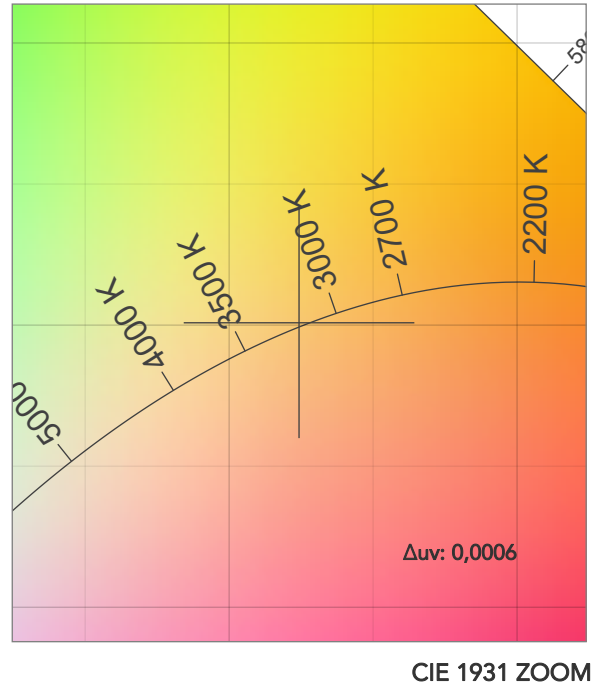
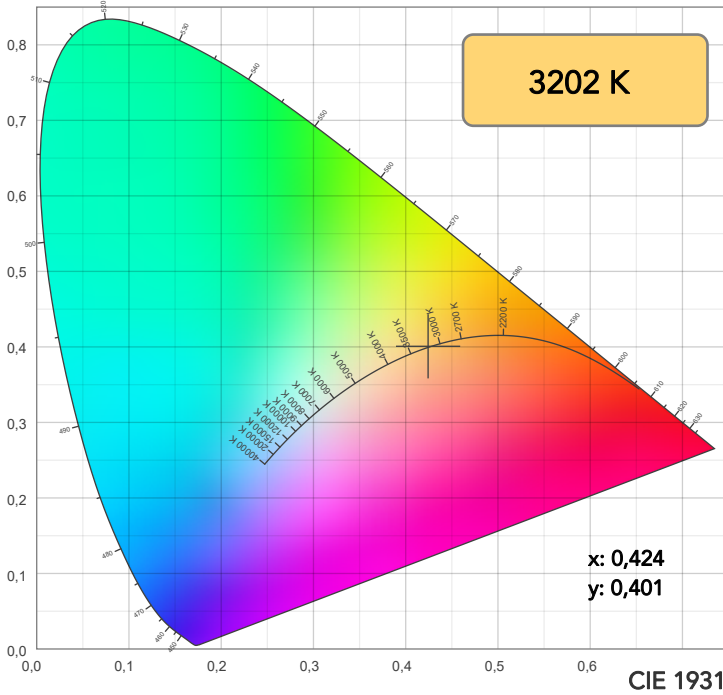


Beam angle 50%: 11,1°  
Field angle 10%: 23,8°  
Cut off angle 2.5%: 41,6°

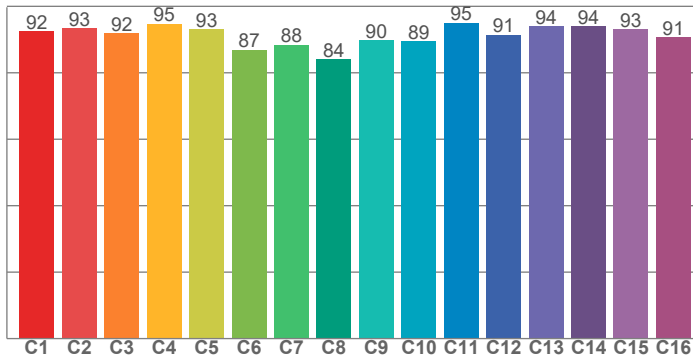
Spectra



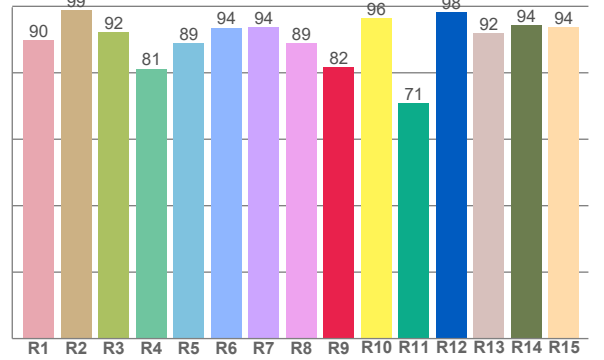
# COLOR DETAILS



**TM30: 91,8**



**CRI: 90,9 (R1-R8)**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
89,8	98,9	92,1	81,2	88,9	93,5	93,8	88,9	81,7	96,4	70,9	98,2	91,9	94,3	93,8

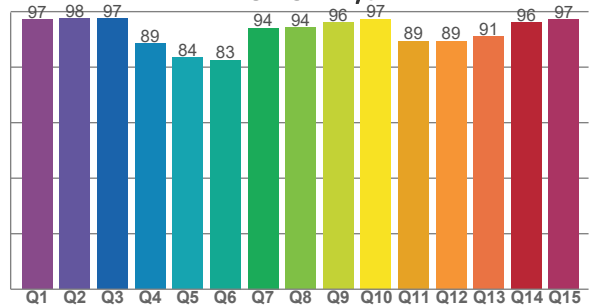
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,5	93,3	91,8	94,7	93,0	87,0	88,4	84,1	89,7	89,4	95,0	91,4	94,0	94,1	93,0	90,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,1	97,5	97,4	88,5	83,5	82,5	94,1	94,2	96,2	97,4	89,4	89,4	91,1	96,1	97,1

**CQS: 91,0**



## COLOR PARAMETERS

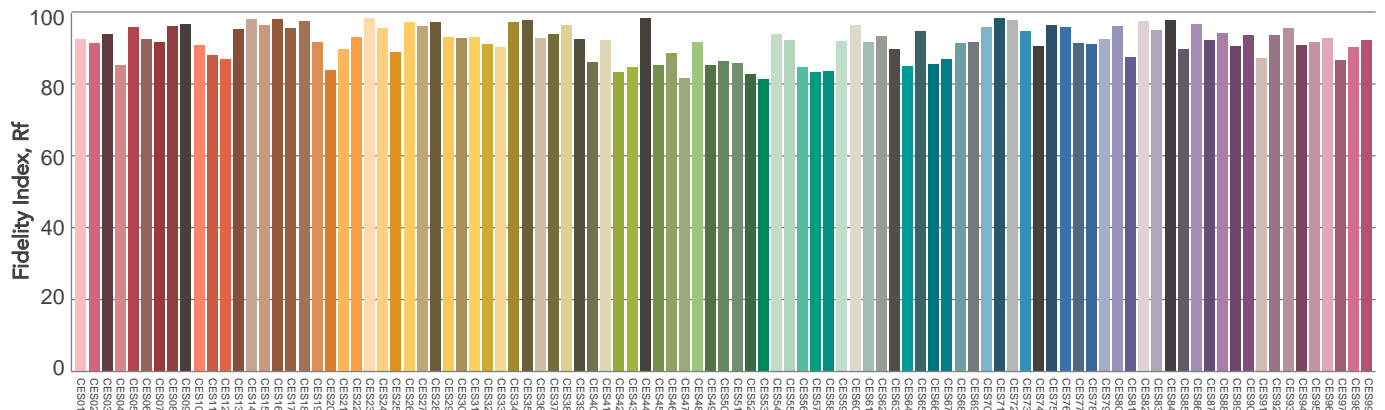
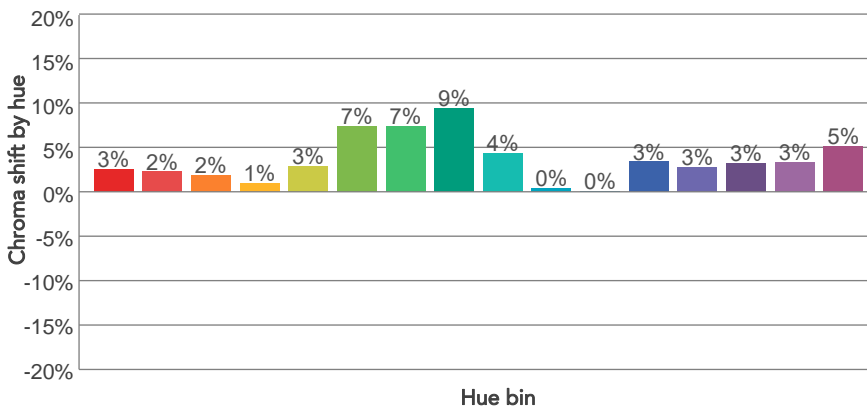
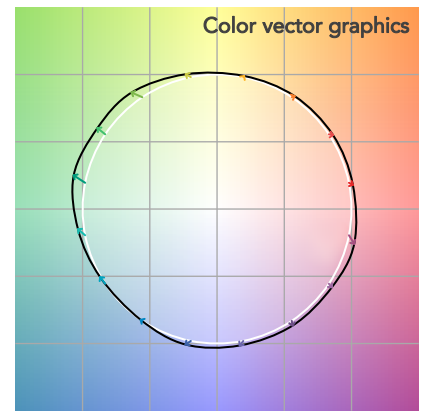
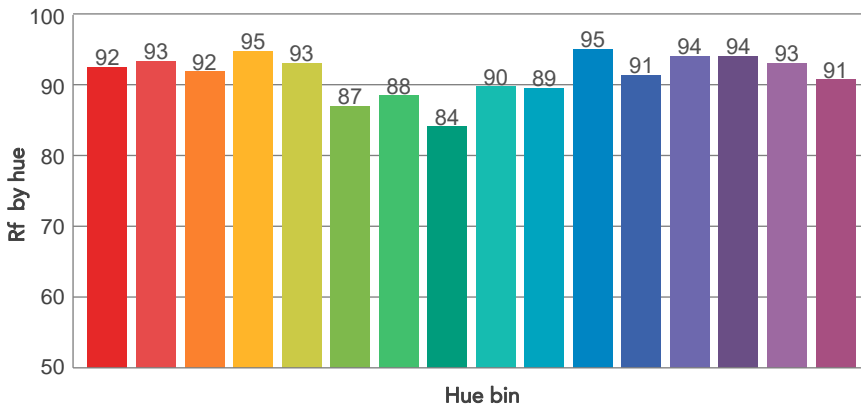
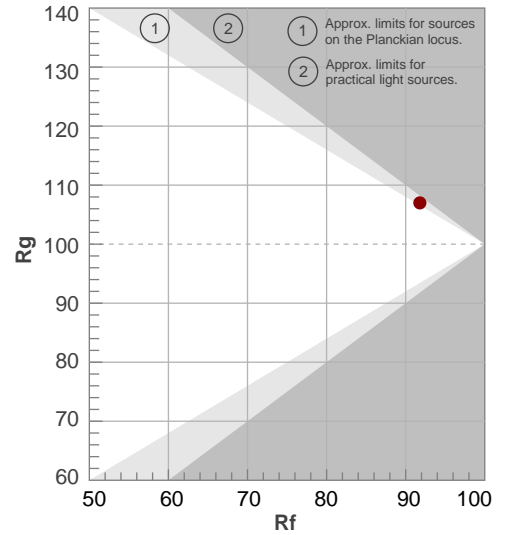
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3202 K	90,9	81,7	91,8	107,0	91,0	78	0,424	0,401	0,0006

# TM30 DETAILS

**Rf 91,8**  
Fidelity index Rf

**Rg 107,0**  
Gammut index

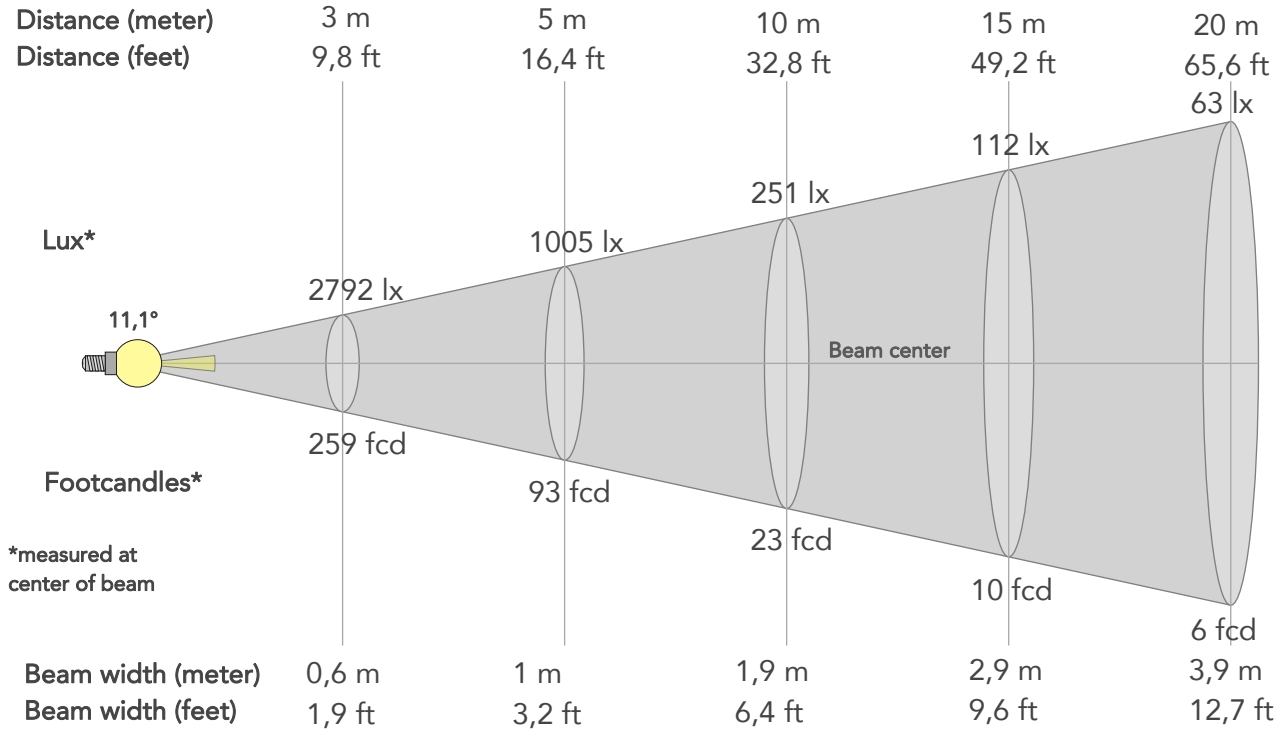
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	3%	-2%
2	93	2%	-2%
3	92	2%	-1%
4	95	1%	0%
5	93	3%	3%
6	87	7%	5%
7	88	7%	-1%
8	84	9%	-4%
9	90	4%	-5%
10	89	0%	-6%
11	95	0%	-1%
12	91	3%	-3%
13	94	3%	-3%
14	94	3%	-1%
15	93	3%	-1%
16	91	5%	-5%



# BEAM DETAILS



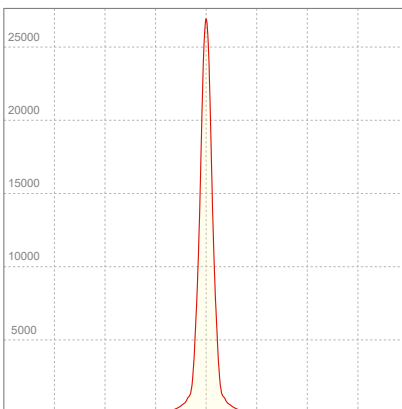
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,1°	23,8°	41,6°	99,6%	97,6%



## 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	25124lx	6281lx	2792lx	1570lx	1005lx	447lx	251lx	112lx	63lx	40lx	28lx	16lx	10lx
Footcand.	2334fcd	584fcd	259fcd	146fcd	93fcd	41fcd	23fcd	10fcd	6fcd	4fcd	3fcd	1fcd	1fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	1,9m	2,9m	3,9m	4,9m	5,8m	7,8m	9,7m
Beam wid.	0,6ft	1,3ft	1,9ft	2,5ft	3,2ft	4,8ft	6,4ft	9,6ft	12,7ft	15,9ft	19,1ft	25,5ft	31,9ft

## LINEAR DISTRIBUTION DIAGRAM

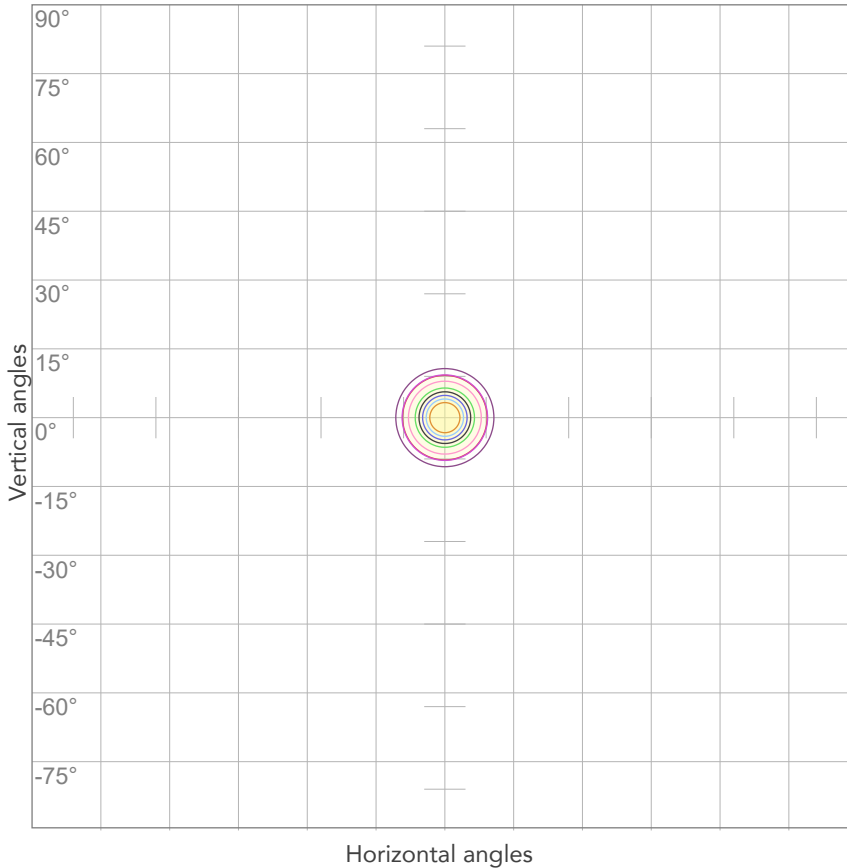


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
225V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



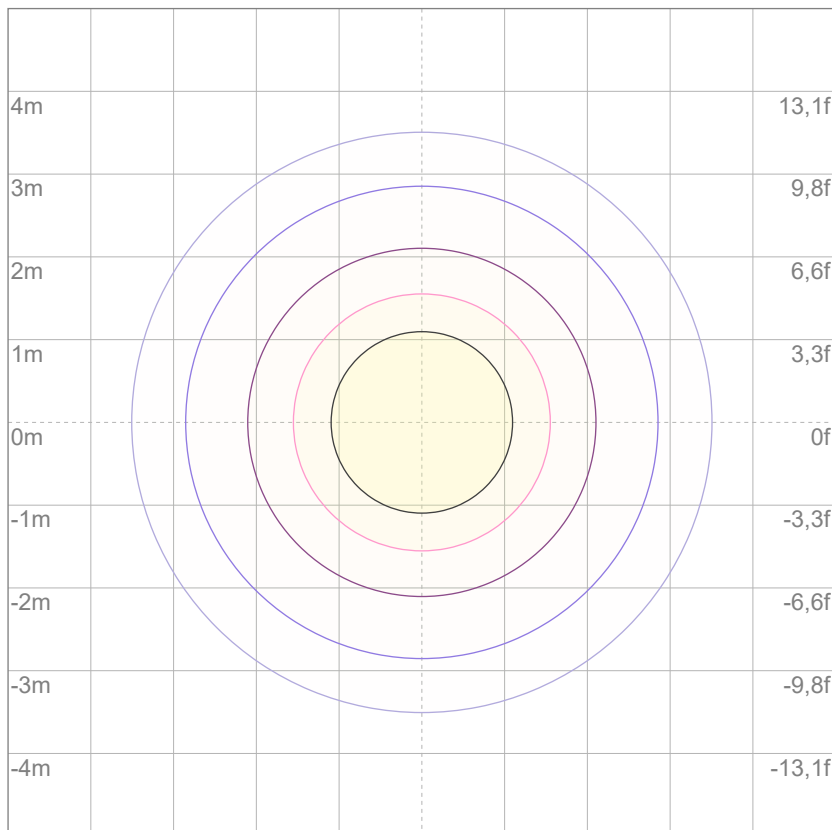
10%	2512 cd
20%	5025 cd
30%	7537 cd
40%	10050 cd
50%	12562 cd
60%	15075 cd
70%	17587 cd
80%	20099 cd

Conditions:

Number of c-planes: 2

Candela at center: 25124 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	7,54 lx
5%	12,6 lx
10%	25,1 lx
30%	75,4 lx
50%	126 lx

Conditions:

Number of c-planes: 2

Lux at center: 251 lx

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



Total lumen output:

2099 lm

Peak candela output:

26327 cd

Light quality:

CRI: 91,1

Color temperature:

4083 K

**PRODUCT NAME:**  
SMARTBATPLUSNEO

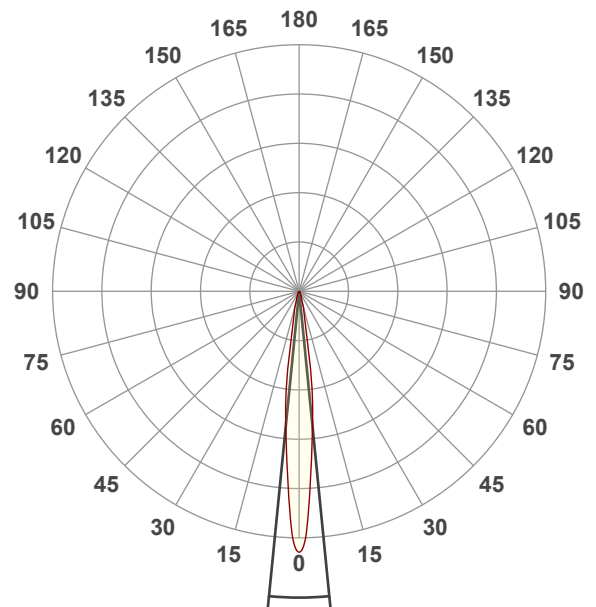
**MEASUREMENT CONDITIONS:**

Beam angle:  
10Deg Lens

Target:  
4000K - Runtime 3H

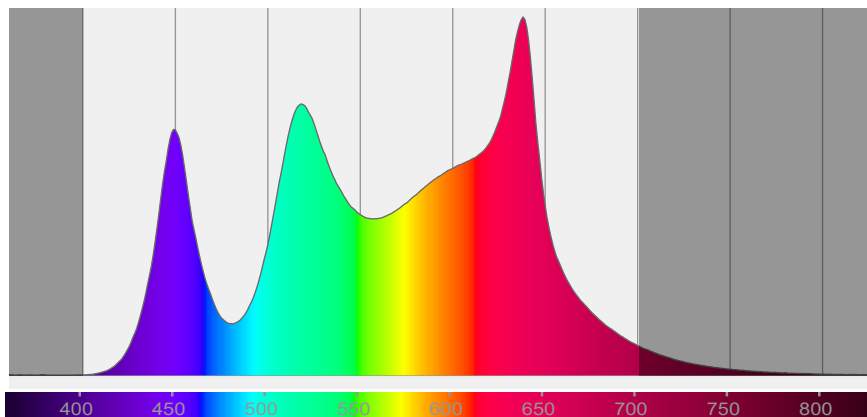
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 17:41:15



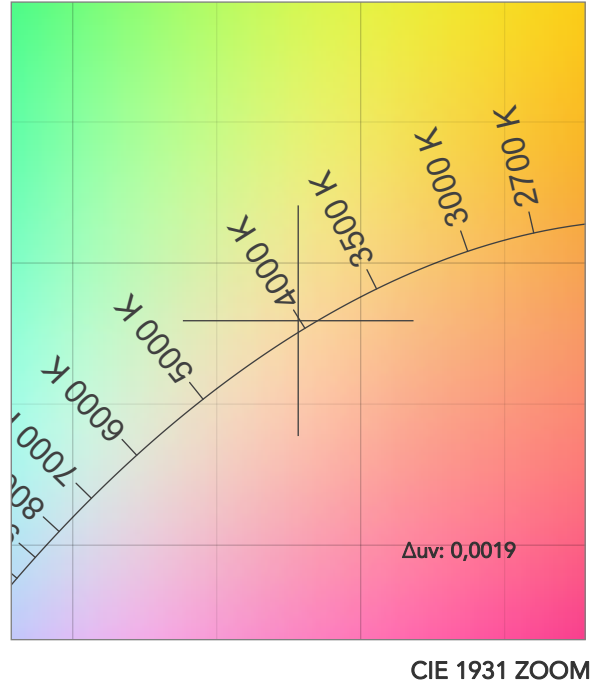
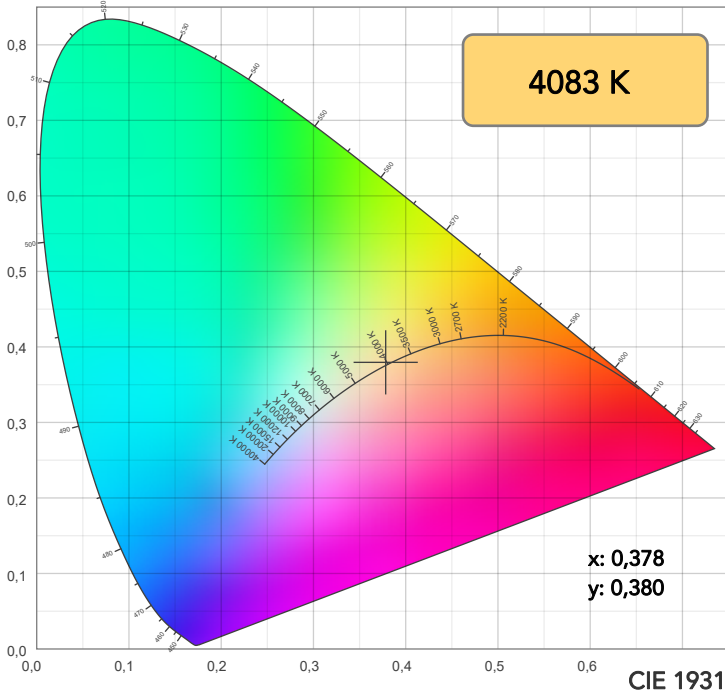
Beam angle 50%: 11,3°  
Field angle 10%: 24,8°  
Cut off angle 2.5%: 41,9°

Spectra

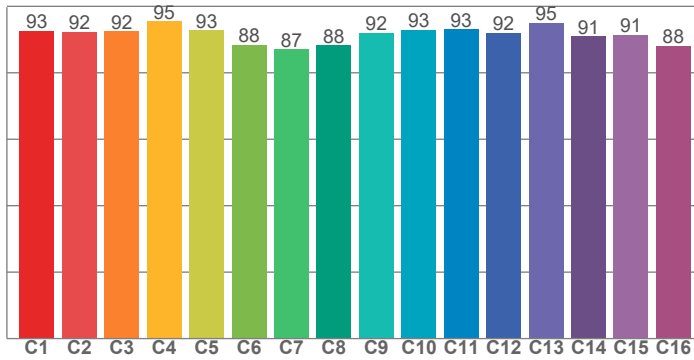




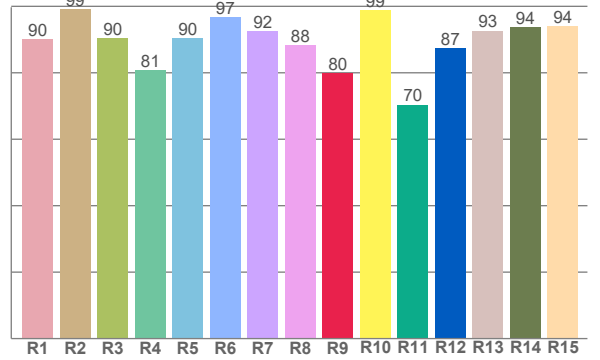
# COLOR DETAILS



TM30: 91,9



CRI: 91,1 (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
90,1	99,1	90,5	80,8	90,5	96,6	92,5	88,3	79,8	98,8	70,4	87,3	92,7	93,7	94,1

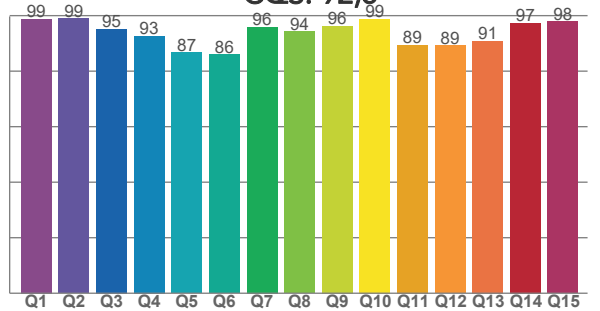
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,6	92,3	92,4	95,5	92,8	88,4	87,1	88,3	92,0	93,0	93,2	92,0	95,0	90,9	91,5	88,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,8	99,0	95,2	92,6	86,8	86,0	96,0	94,3	96,3	98,7	89,4	89,2	90,9	97,4	97,9

CQS: 92,5



## COLOR PARAMETERS

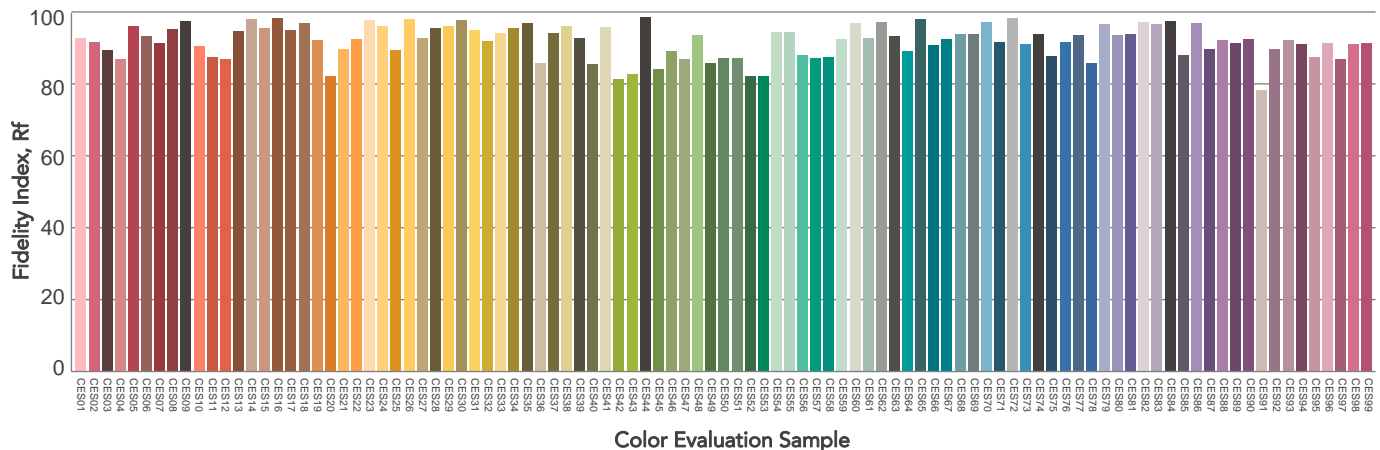
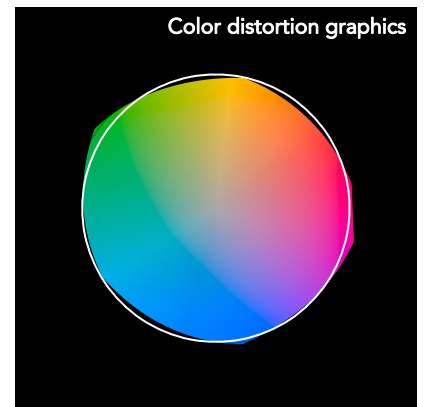
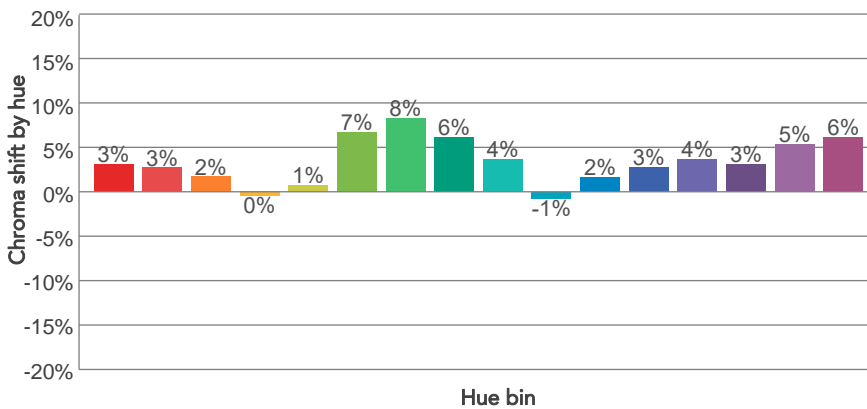
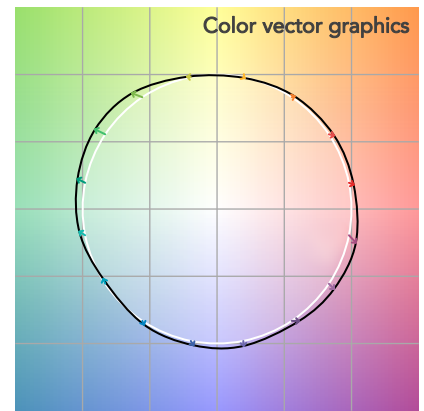
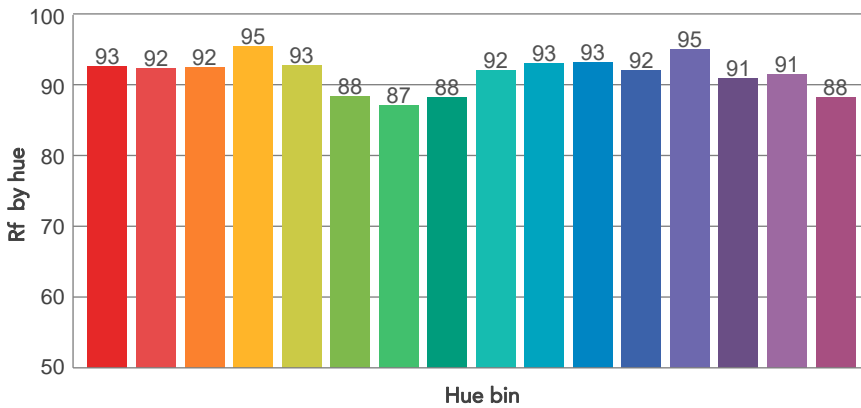
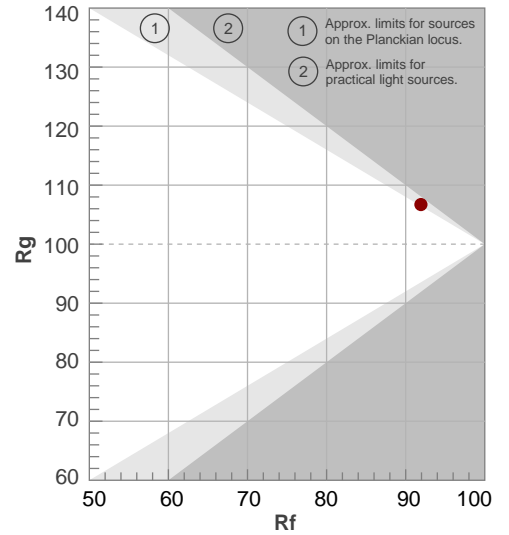
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4083 K	91,1	79,8	91,9	106,7	92,5	78	0,378	0,380	0,0019

# TM30 DETAILS

**Rf 91,9**  
Fidelity index Rf

**Rg 106,7**  
Gammut index

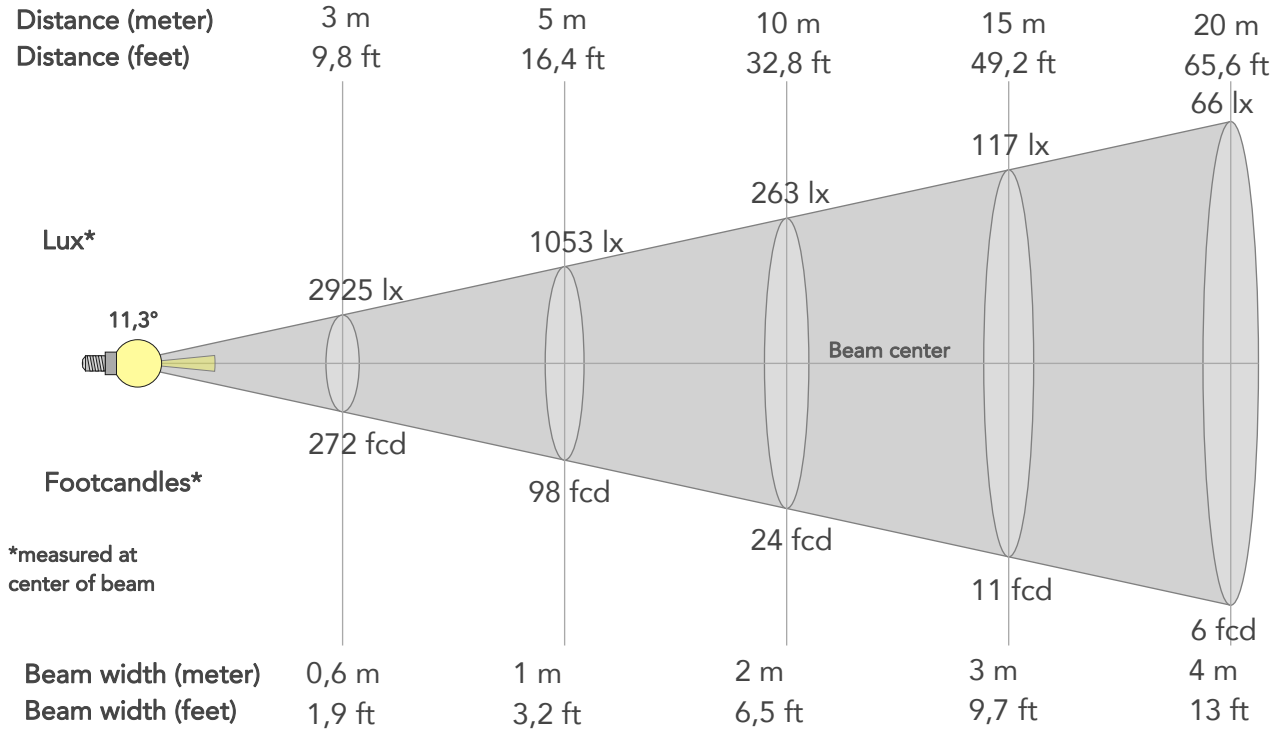
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	3%	-2%
2	92	3%	-3%
3	92	2%	-1%
4	95	0%	-1%
5	93	1%	3%
6	88	7%	5%
7	87	8%	1%
8	88	6%	-2%
9	92	4%	-3%
10	93	-1%	-4%
11	93	2%	3%
12	92	3%	3%
13	95	4%	0%
14	91	3%	4%
15	91	5%	-1%
16	88	6%	-4%



# BEAM DETAILS



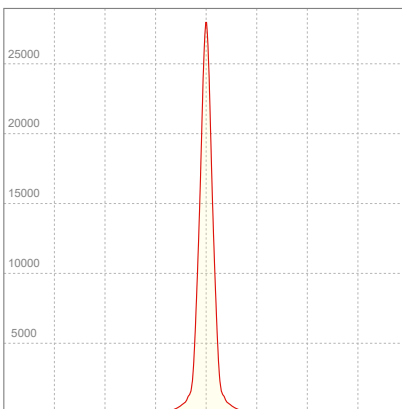
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,3°	24,8°	41,9°	99,4%	97,2%



## 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	26327lx	6582lx	2925lx	1645lx	1053lx	468lx	263lx	117lx	66lx	42lx	29lx	16lx	11lx
Footcand.	2446fcd	611fcd	272fcd	153fcd	98fcd	43fcd	24fcd	11fcd	6fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	2m	3m	4m	4,9m	5,9m	7,9m	9,9m
Beam wid.	0,7ft	1,3ft	1,9ft	2,6ft	3,2ft	4,9ft	6,5ft	9,7ft	13ft	16,2ft	19,5ft	26ft	32,4ft

## LINEAR DISTRIBUTION DIAGRAM

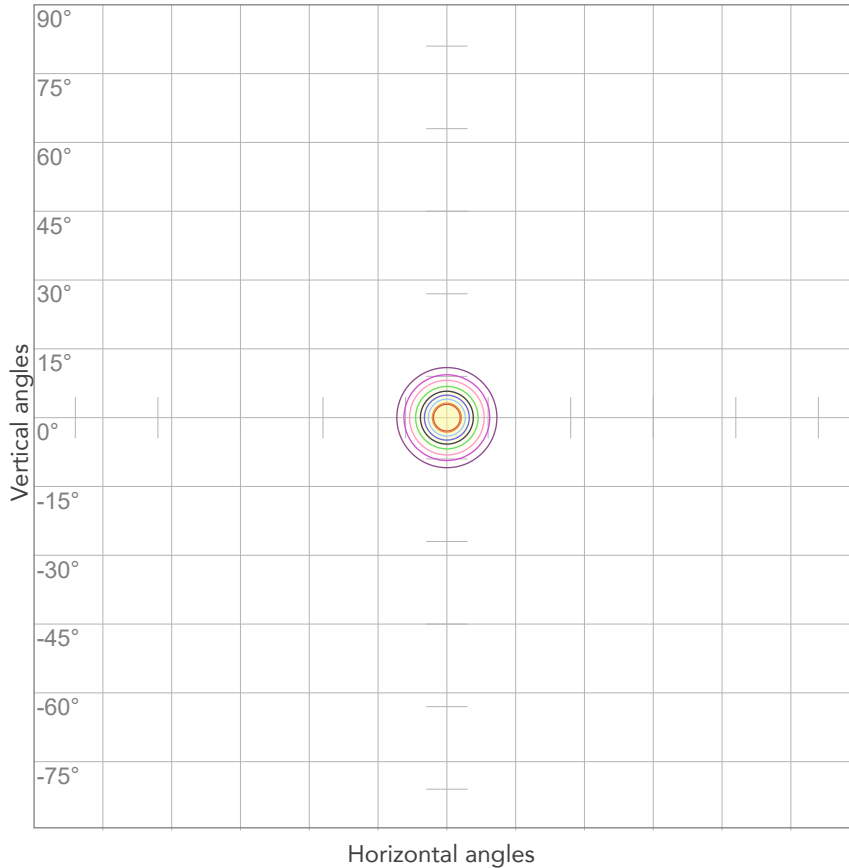


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
225V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



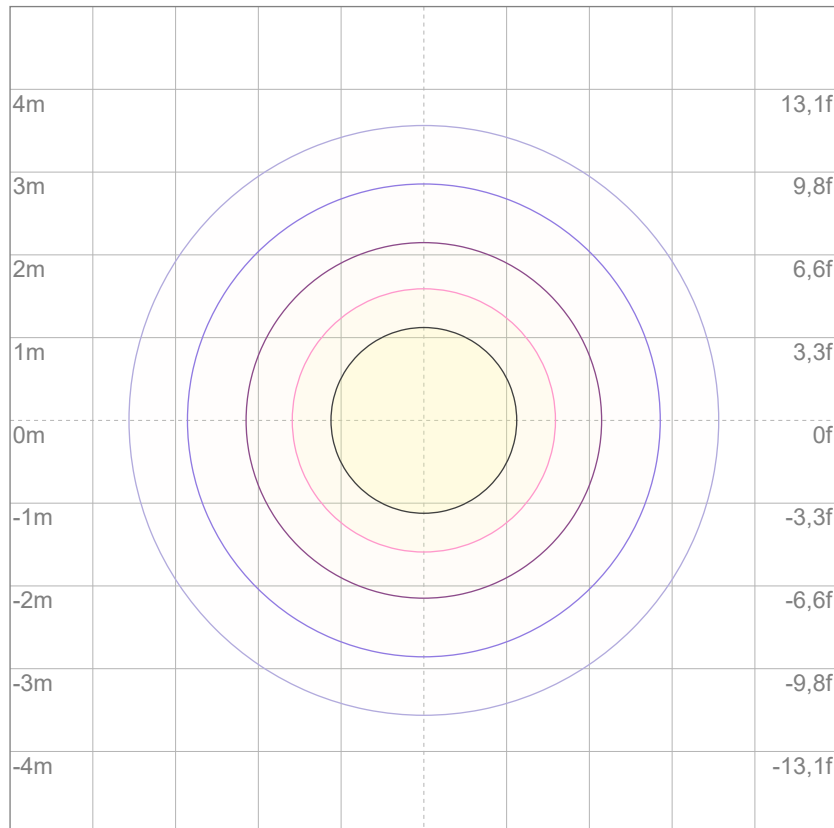
10%	2633 cd
20%	5265 cd
30%	7898 cd
40%	10531 cd
50%	13163 cd
60%	15796 cd
70%	18429 cd
80%	21061 cd

Conditions:

Number of c-planes: 2

Candela at center: 26327 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	7,90 lx
5%	13,2 lx
10%	26,3 lx
30%	79,0 lx
50%	132 lx

Conditions:

Number of c-planes: 2

Lux at center: 263 lx

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



Total lumen output:

2293 lm

Peak candela output:

28653 cd

Light quality:

CRI: 91,1

Color temperature:

5832 K

**PRODUCT NAME:**  
SMARTBATPLUSNEO

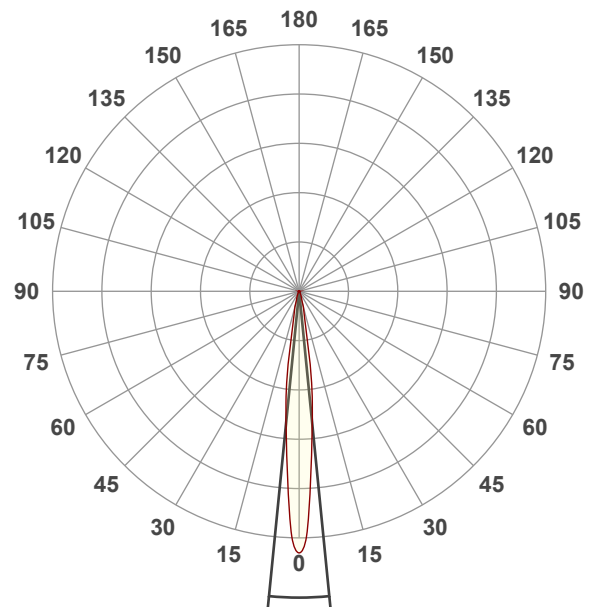
**MEASURAMENT CONDITIONS:**

Beam angle:  
10Deg Lens

Target:  
4000K - Runtime 3H

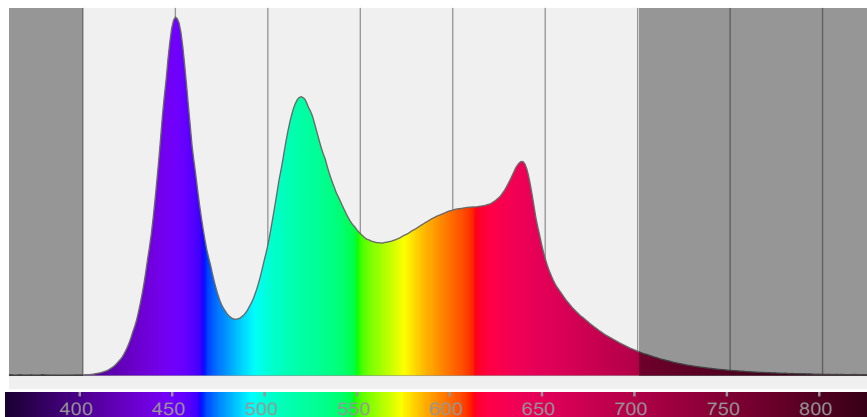
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 17:38:23

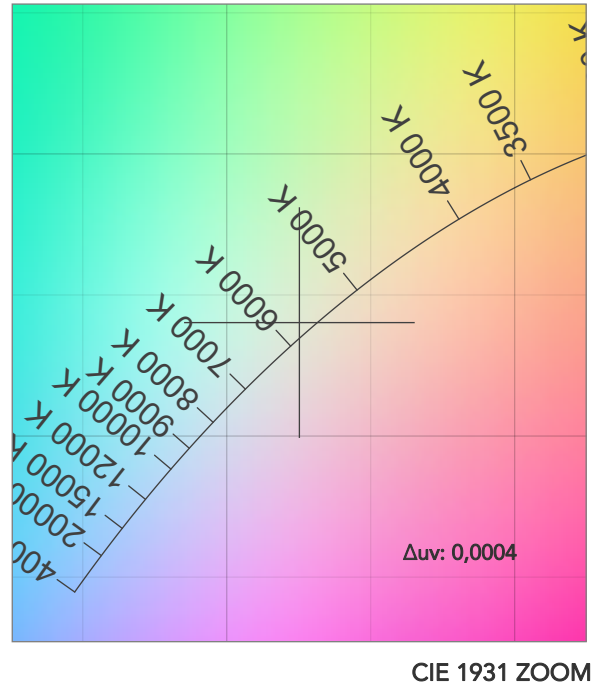
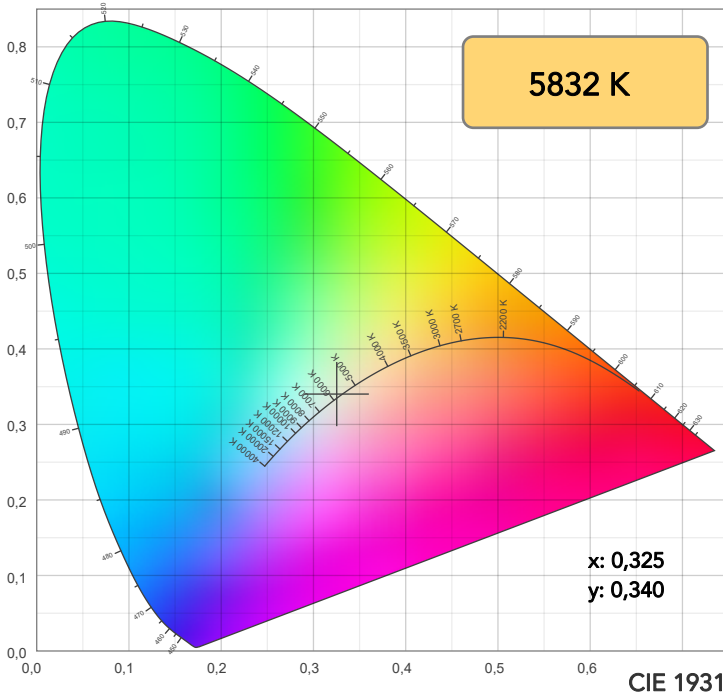


Beam angle 50%: 11,3°  
Field angle 10%: 24,6°  
Cut off angle 2.5%: 42,1°

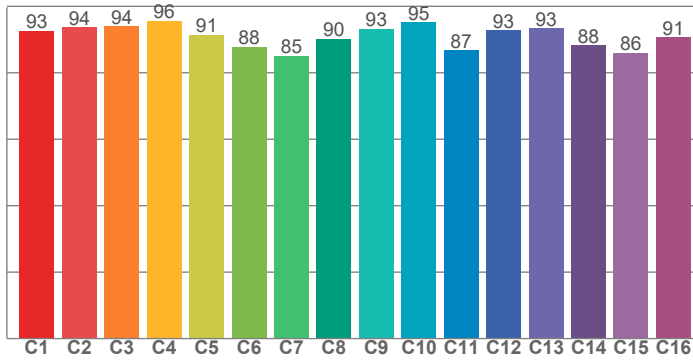
Spectra



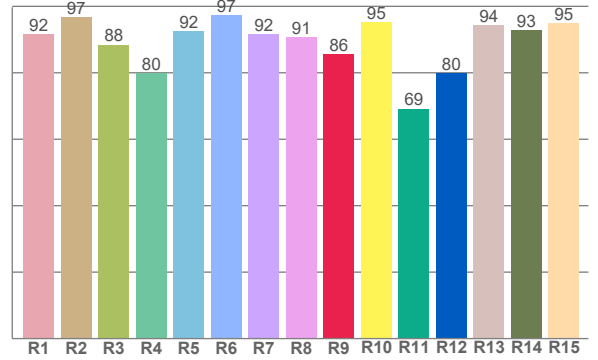
# COLOR DETAILS



**TM30: 91,1**



**CRI: 91,1 (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
91,5	96,8	88,5	79,8	92,4	97,3	91,7	90,6	85,7	95,2	69,2	79,9	94,2	92,9	95,0

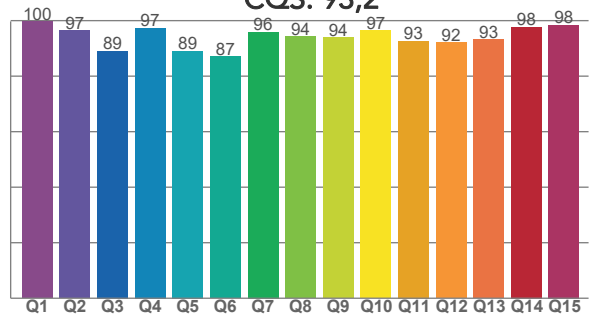
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,7	93,7	93,9	95,6	91,4	87,8	85,1	90,2	93,3	95,3	86,7	92,8	93,4	88,2	86,0	90,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,7	96,5	89,1	97,3	89,0	87,1	95,8	94,2	94,0	96,5	92,6	92,2	93,2	97,7	98,5

**CQS: 93,2**



## COLOR PARAMETERS

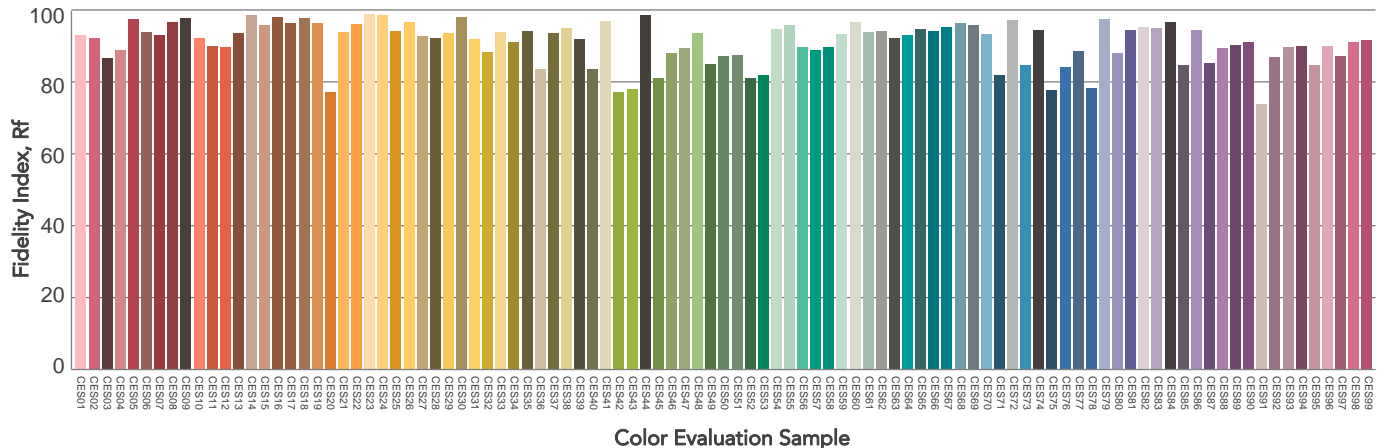
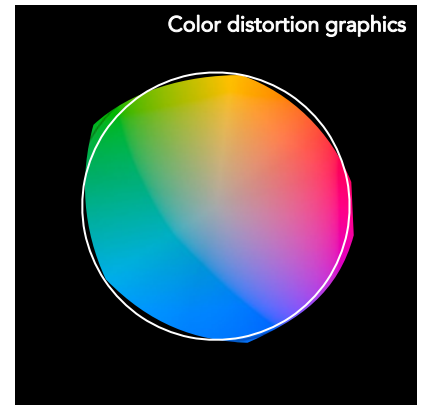
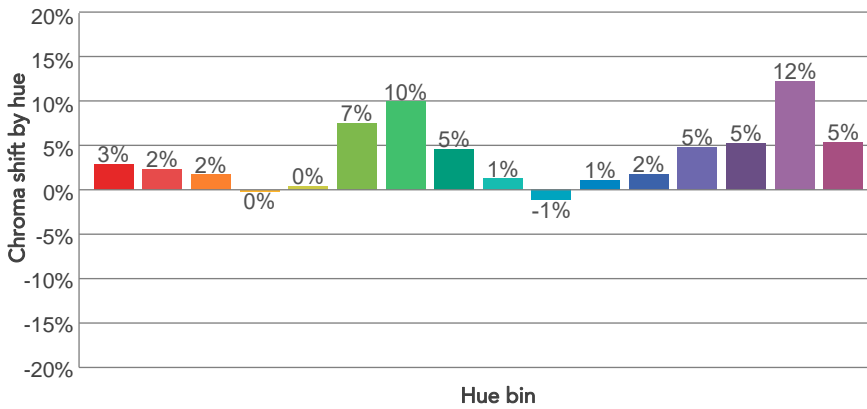
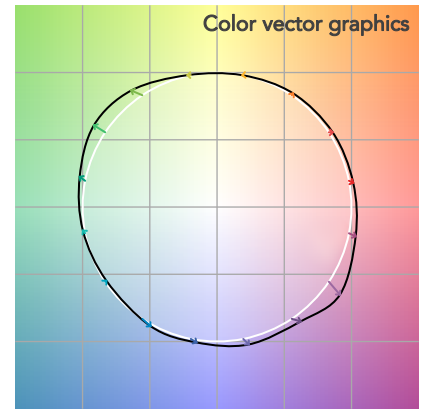
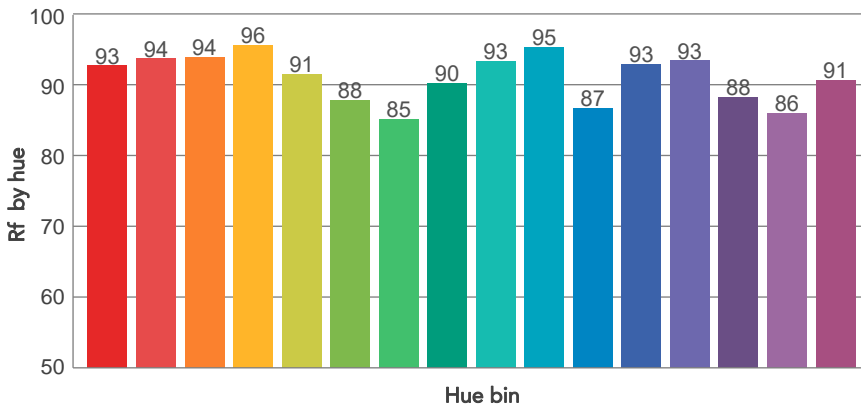
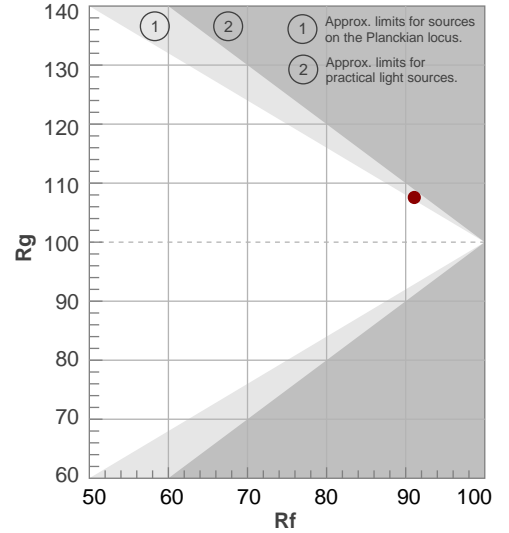
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5832 K	91,1	85,7	91,1	107,6	93,2	82	0,325	0,340	0,0004

# TM30 DETAILS

**Rf 91,1**  
Fidelity index Rf

**Rg 107,6**  
Gammut index

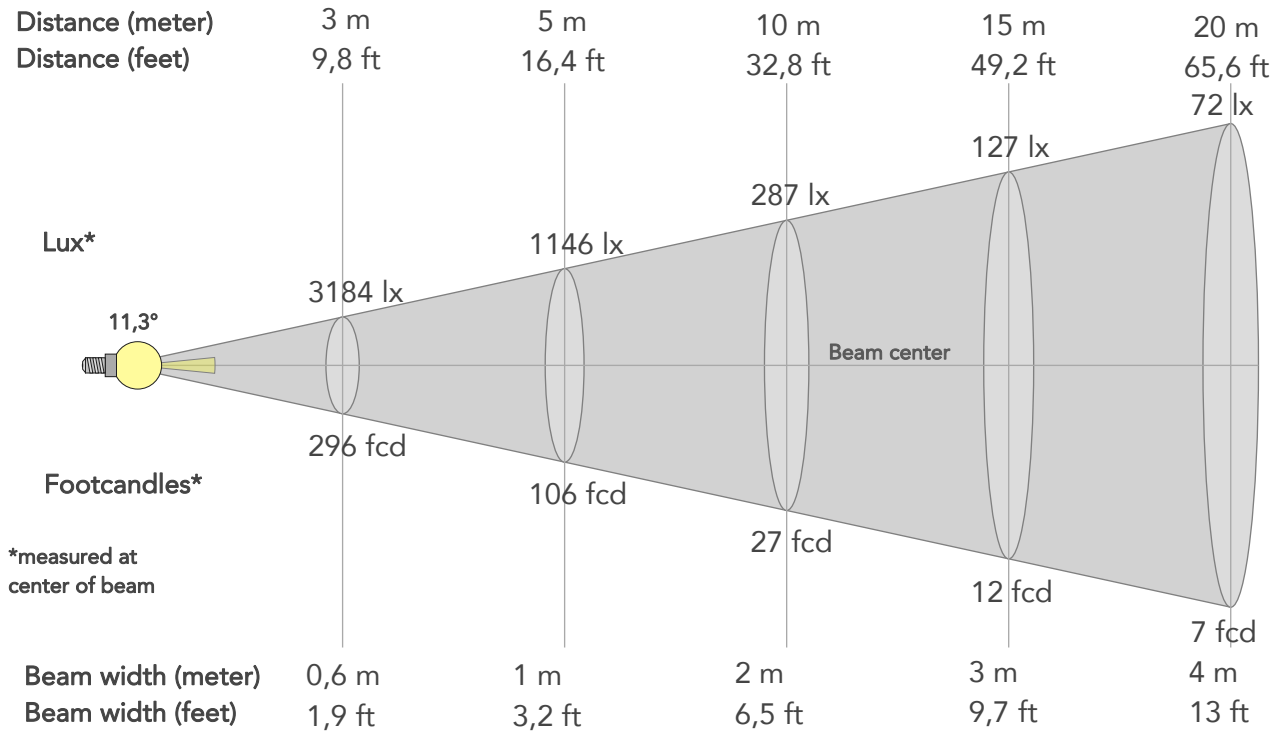
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	3%	-2%
2	94	2%	-2%
3	94	2%	0%
4	96	0%	1%
5	91	0%	2%
6	88	7%	5%
7	85	10%	0%
8	90	5%	-2%
9	93	1%	-2%
10	95	-1%	0%
11	87	1%	8%
12	93	2%	5%
13	93	5%	3%
14	88	5%	4%
15	86	12%	-3%
16	91	5%	-1%



# BEAM DETAILS



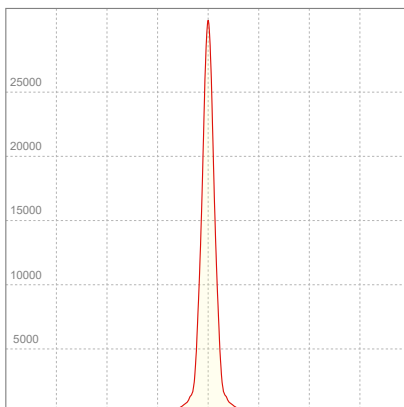
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,3°	24,6°	42,1°	99,2%	97,0%



## 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	28653lx	7163lx	3184lx	1791lx	1146lx	509lx	287lx	127lx	72lx	46lx	32lx	18lx	11lx
Footcand.	2662fcd	665fcd	296fcd	166fcd	106fcd	47fcd	27fcd	12fcd	7fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	2m	3m	4m	4,9m	5,9m	7,9m	9,9m
Beam wid.	0,7ft	1,3ft	1,9ft	2,6ft	3,2ft	4,9ft	6,5ft	9,7ft	13ft	16,2ft	19,5ft	26ft	32,4ft

## LINEAR DISTRIBUTION DIAGRAM



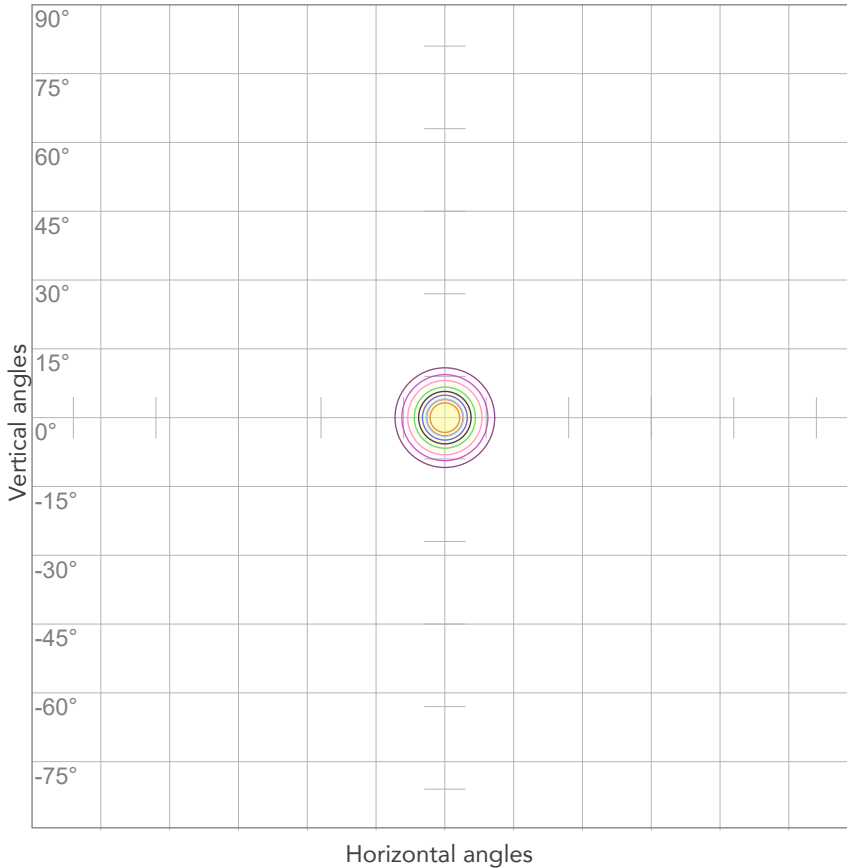
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	0,000A	0,00W	n/a	n/alm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



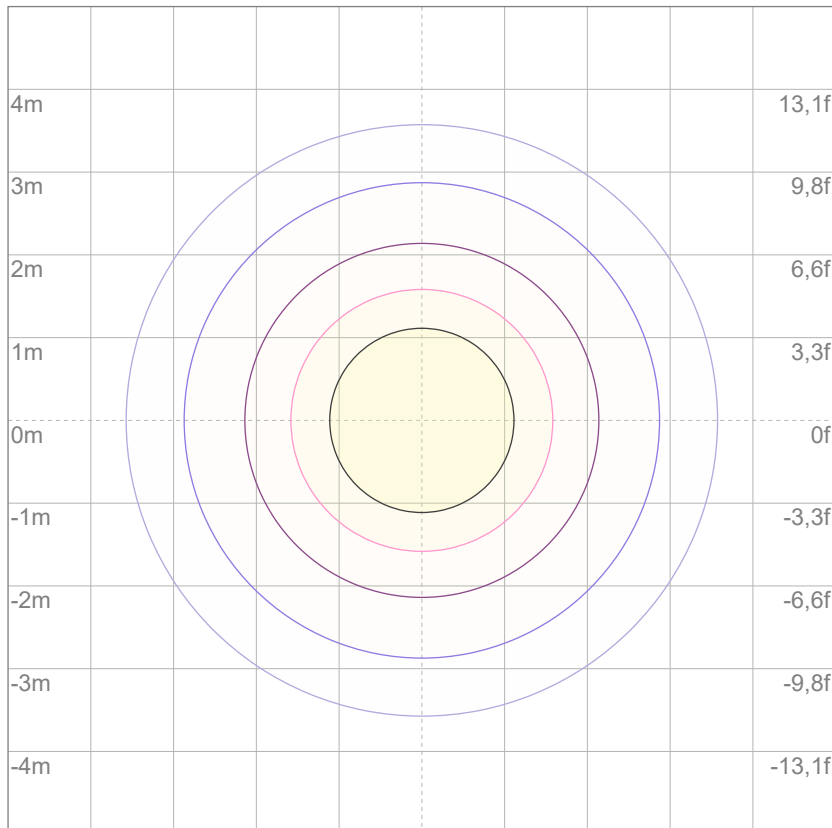
10%	2865 cd
20%	5731 cd
30%	8596 cd
40%	11461 cd
50%	14327 cd
60%	17192 cd
70%	20057 cd
80%	22923 cd

Conditions:

Number of c-planes: 2

Candela at center: 28653 cd

## ISO LUX DIAGRAM



3%	8,60 lx
5%	14,3 lx
10%	28,7 lx
30%	86,0 lx
50%	143 lx

Conditions:

Number of c-planes: 2

Lux at center: 287 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

2324 lm

Peak candela output:

28488 cd

Light quality:

CRI: 91,2

Color temperature:

6343 K

**PRODUCT NAME:**  
SMARTBATPLUSNEO

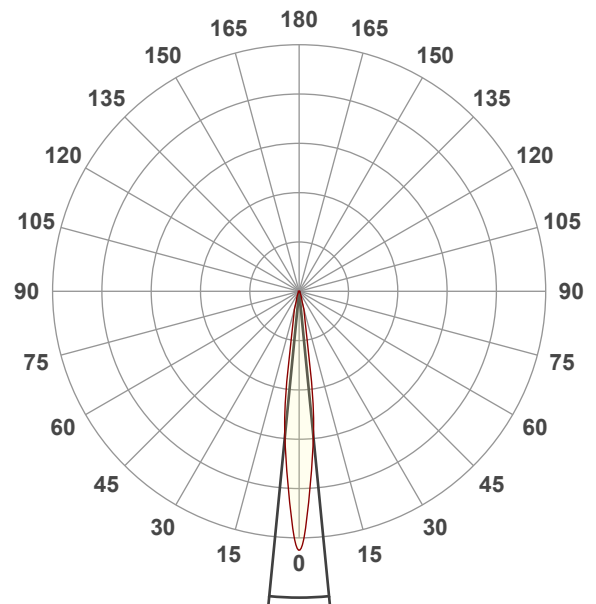
**MEASURAMENT CONDITIONS:**

Beam angle:  
10Deg Lens

Target:  
6000K - Runtime 3H

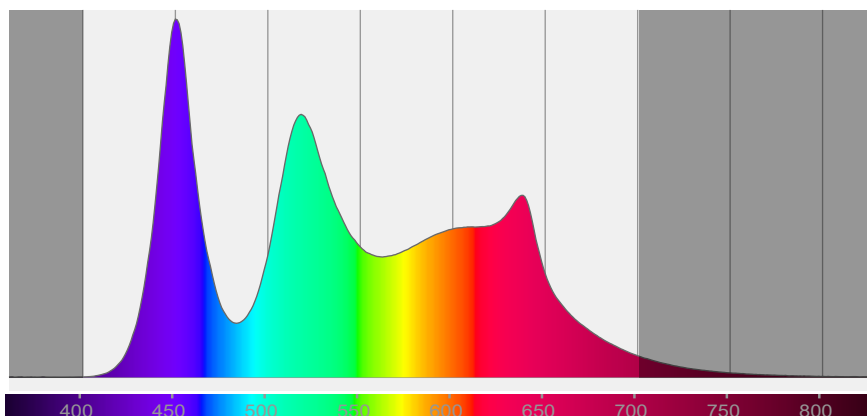
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 17:39:59

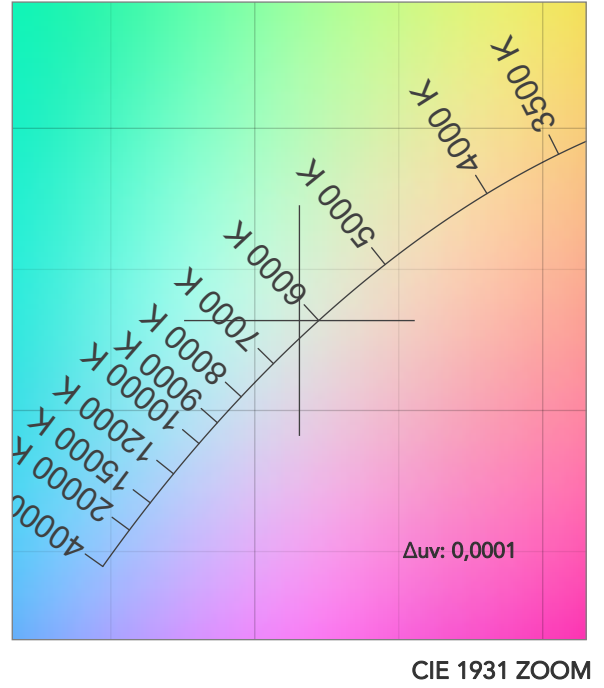
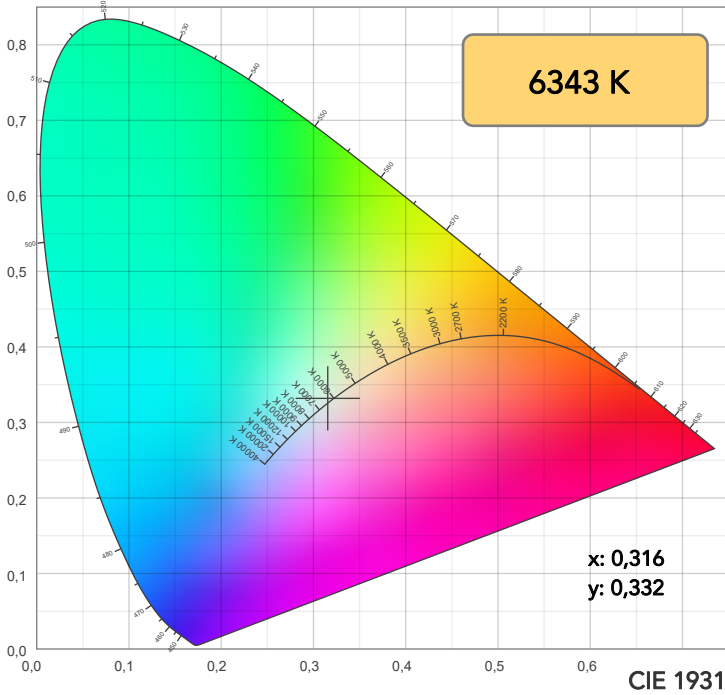


Beam angle 50%: 11,2°  
Field angle 10%: 25,6°  
Cut off angle 2.5%: 42,1°

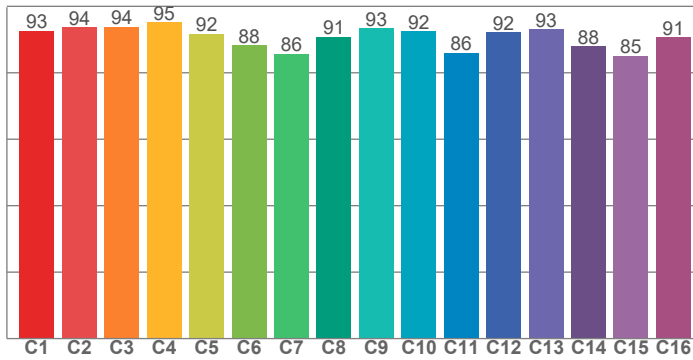
Spectra



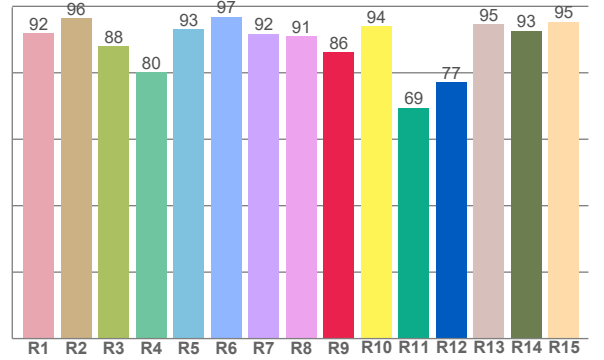
# COLOR DETAILS



TM30: 90,9



CRI: 91,2 (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
92,0	96,3	87,9	80,3	93,2	96,9	91,8	91,0	86,2	94,0	69,5	77,1	94,7	92,7	95,4

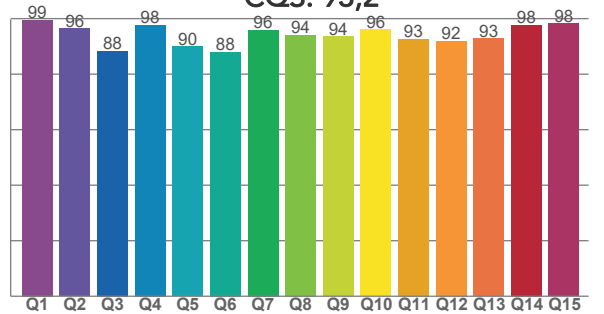
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,6	93,7	93,9	95,2	91,8	88,2	85,7	90,8	93,4	92,5	86,0	92,2	93,0	88,0	85,0	90,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,4	96,5	88,3	97,8	90,0	87,9	95,9	94,1	93,6	96,2	92,7	92,0	92,9	97,8	98,3

CQS: 93,2



## COLOR PARAMETERS

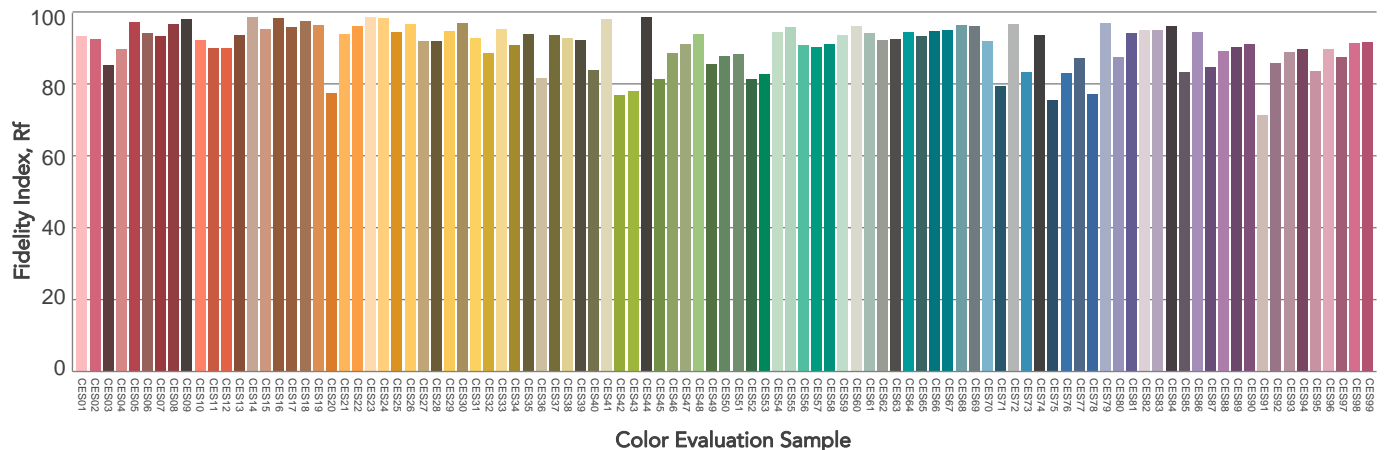
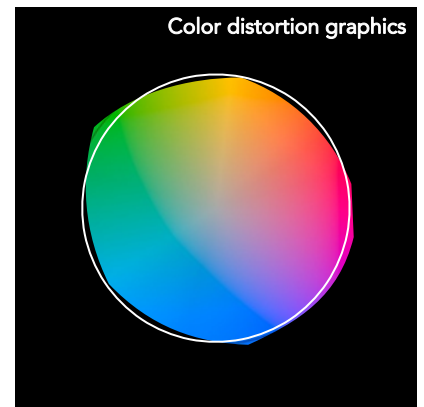
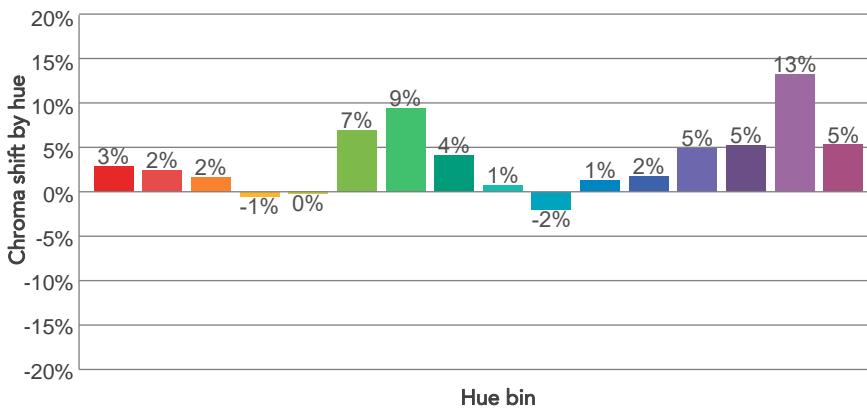
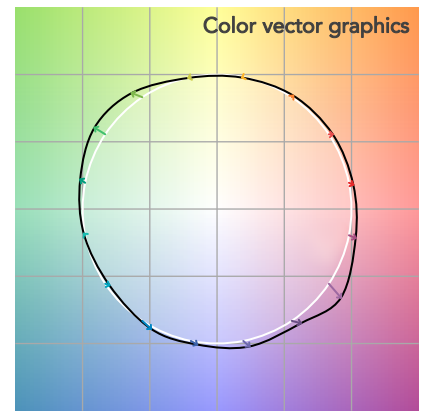
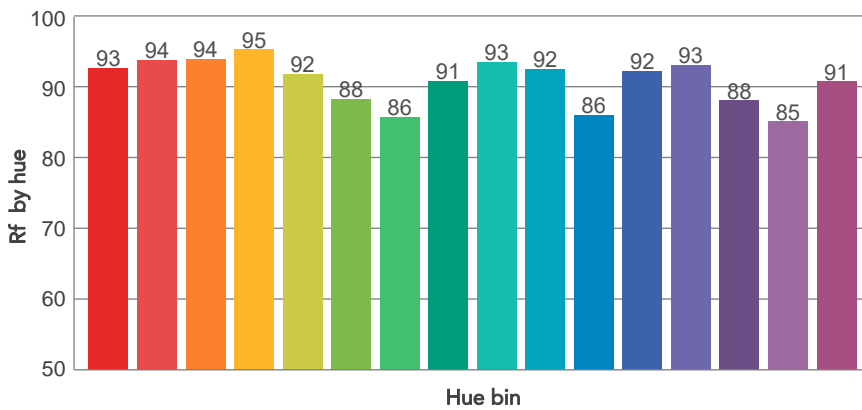
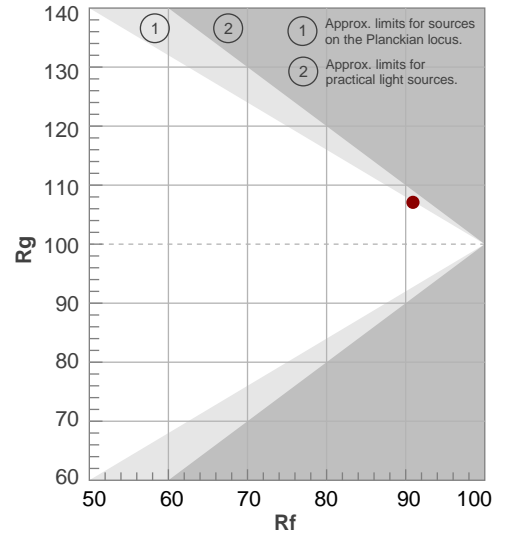
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6343 K	91,2	86,2	90,9	107,1	93,2	83	0,316	0,332	0,0001

# TM30 DETAILS

**Rf 90,9**  
Fidelity index Rf

**Rg 107,1**  
Gammut index

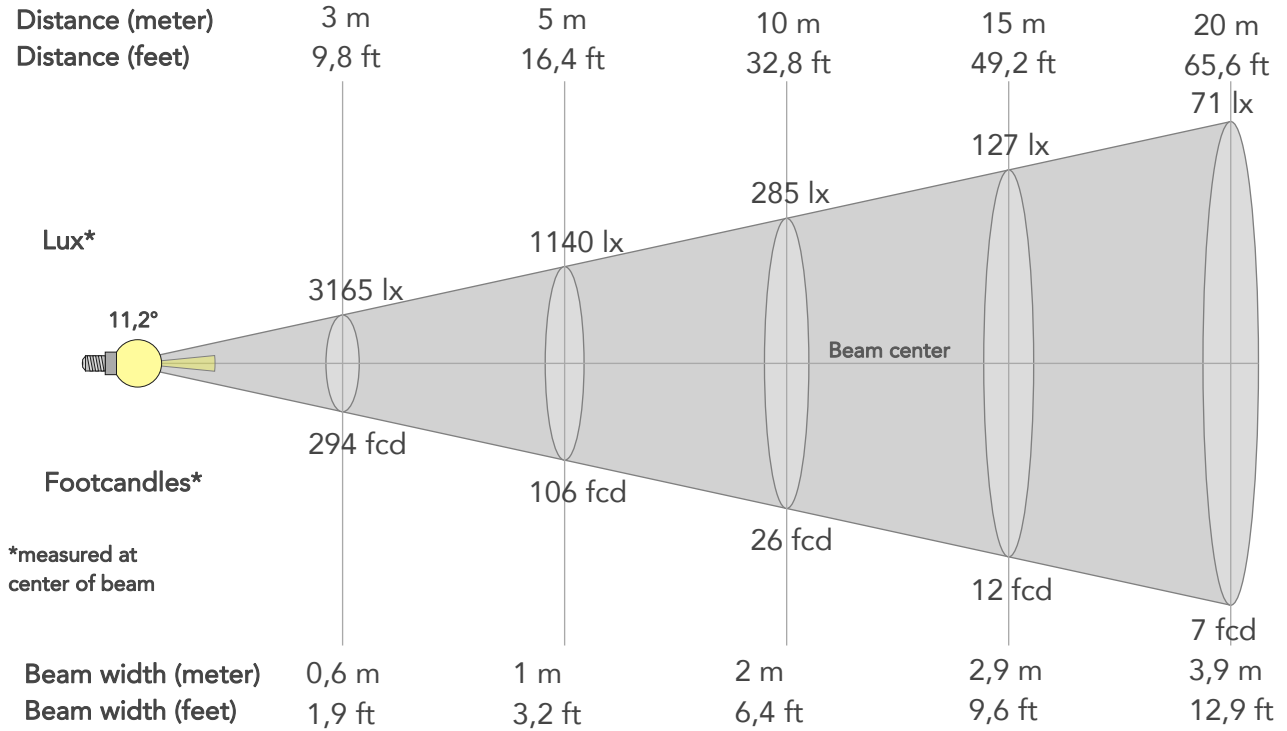
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	3%	-2%
2	94	2%	-2%
3	94	2%	0%
4	95	-1%	1%
5	92	0%	2%
6	88	7%	5%
7	86	9%	0%
8	91	4%	-2%
9	93	1%	-1%
10	92	-2%	3%
11	86	1%	9%
12	92	2%	5%
13	93	5%	4%
14	88	5%	5%
15	85	13%	-4%
16	91	5%	-1%



# BEAM DETAILS



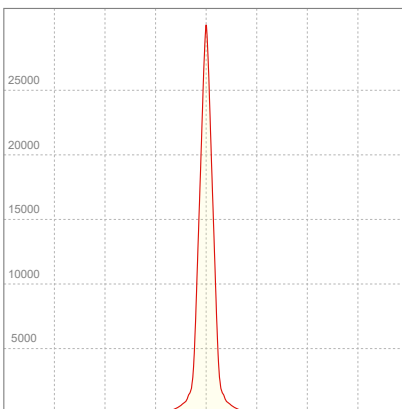
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11,2°	25,6°	42,1°	99,3%	97,1%



## 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	28488lx	7122lx	3165lx	1780lx	1140lx	506lx	285lx	127lx	71lx	46lx	32lx	18lx	11lx
Footcand.	2647fcd	662fcd	294fcd	165fcd	106fcd	47fcd	26fcd	12fcd	7fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,5m	2m	2,9m	3,9m	4,9m	5,9m	7,8m	9,8m
Beam wid.	0,6ft	1,3ft	1,9ft	2,6ft	3,2ft	4,8ft	6,4ft	9,6ft	12,9ft	16,1ft	19,3ft	25,7ft	32,2ft

## LINEAR DISTRIBUTION DIAGRAM

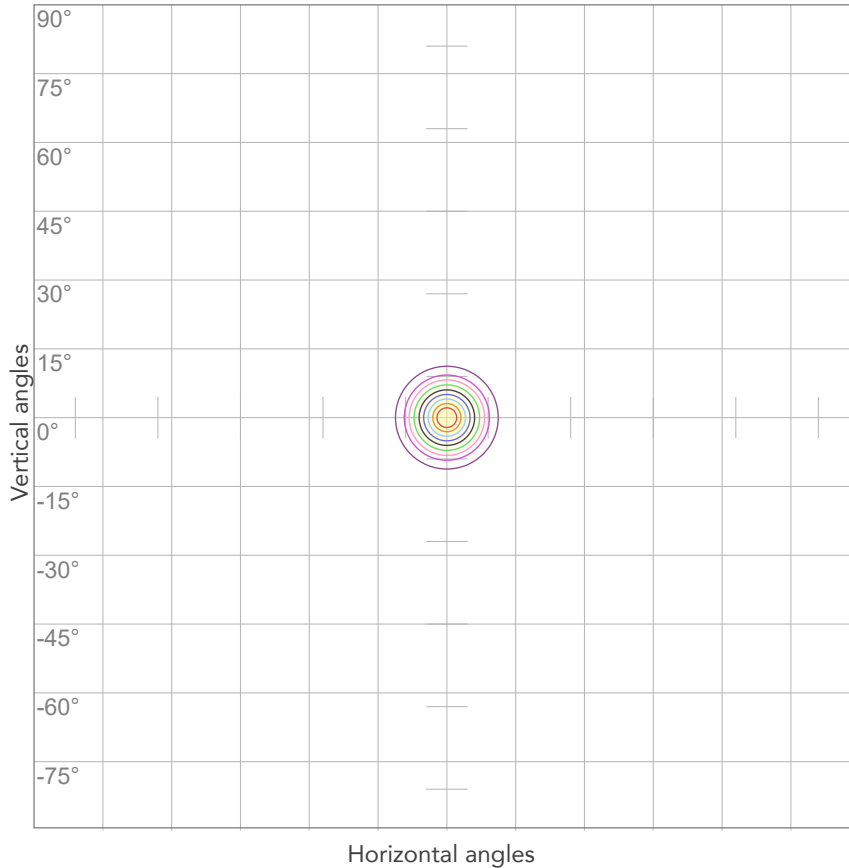


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
225V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



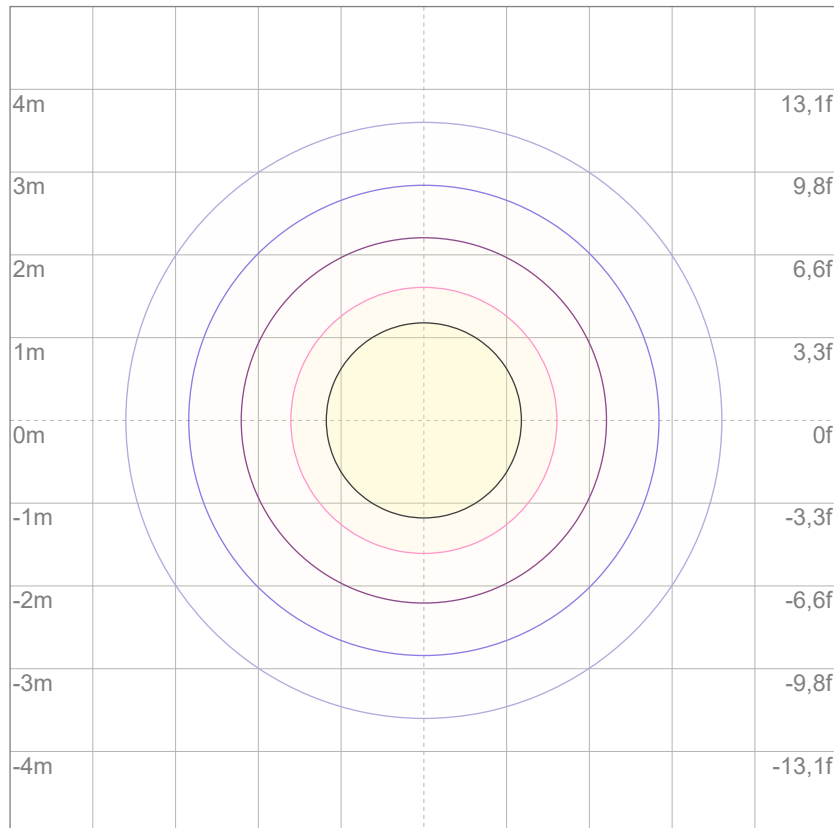
10%	2849 cd
20%	5698 cd
30%	8546 cd
40%	11395 cd
50%	14244 cd
60%	17093 cd
70%	19941 cd
80%	22790 cd

Conditions:

Number of c-planes: 2

Candela at center: 28488 cd

## ISO LUX DIAGRAM



3%	8,55 lx
5%	14,2 lx
10%	28,5 lx
30%	85,5 lx
50%	142 lx

Conditions:

Number of c-planes: 2

Lux at center: 285 lx

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



Total lumen output:

2417 lm

Peak candela output:

8362 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

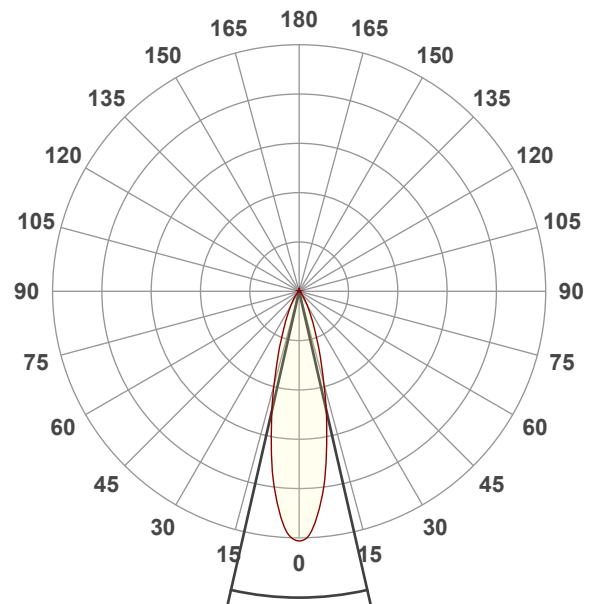
**MEASUREMENT CONDITIONS:**

Beam angle:  
10Deg Lens + 20Deg Filter

Target:  
Full On

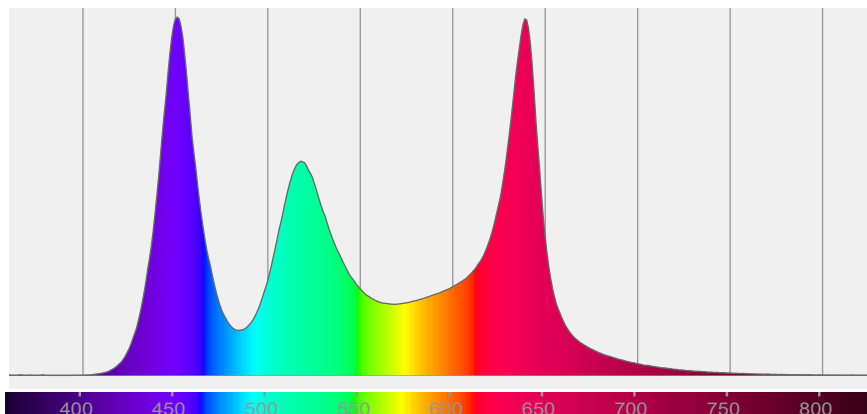
Operator:  
Giuseppe della Peruta

Date and time:  
20/12/2024 11:39:12



Beam angle 50%: 25,7°  
Field angle 10%: 53,5°  
Cut off angle 2.5%: 77,2°

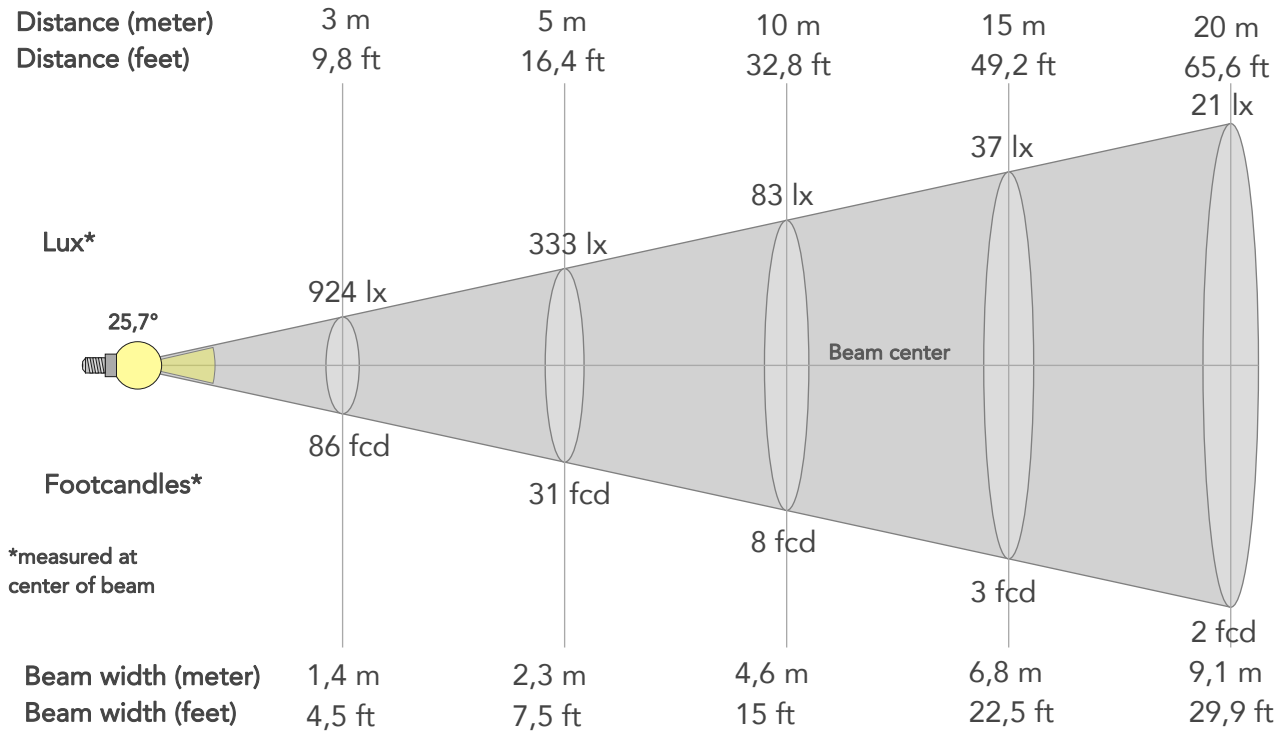
Spectra



# BEAM DETAILS



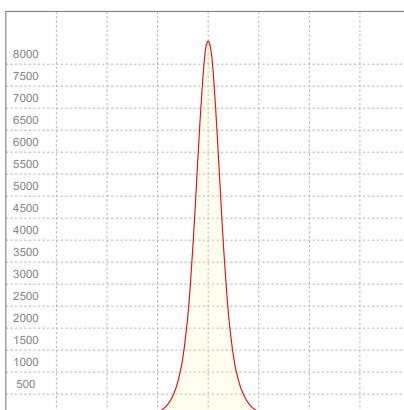
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
25,7°	53,5°	77,2°	97,8%	95,5%



## 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	8313lx	2078lx	924lx	520lx	333lx	148lx	83lx	37lx	21lx	13lx	9lx	5lx	3lx
Footcand.	772fcd	193fcd	86fcd	48fcd	31fcd	14fcd	8fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,5m	0,9m	1,4m	1,8m	2,3m	3,4m	4,6m	6,8m	9,1m	11,4m	13,7m	18,3m	22,8m
Beam wid.	1,5ft	3ft	4,5ft	6ft	7,5ft	11,2ft	15ft	22,5ft	29,9ft	37,4ft	44,9ft	59,9ft	74,9ft

## LINEAR DISTRIBUTION DIAGRAM



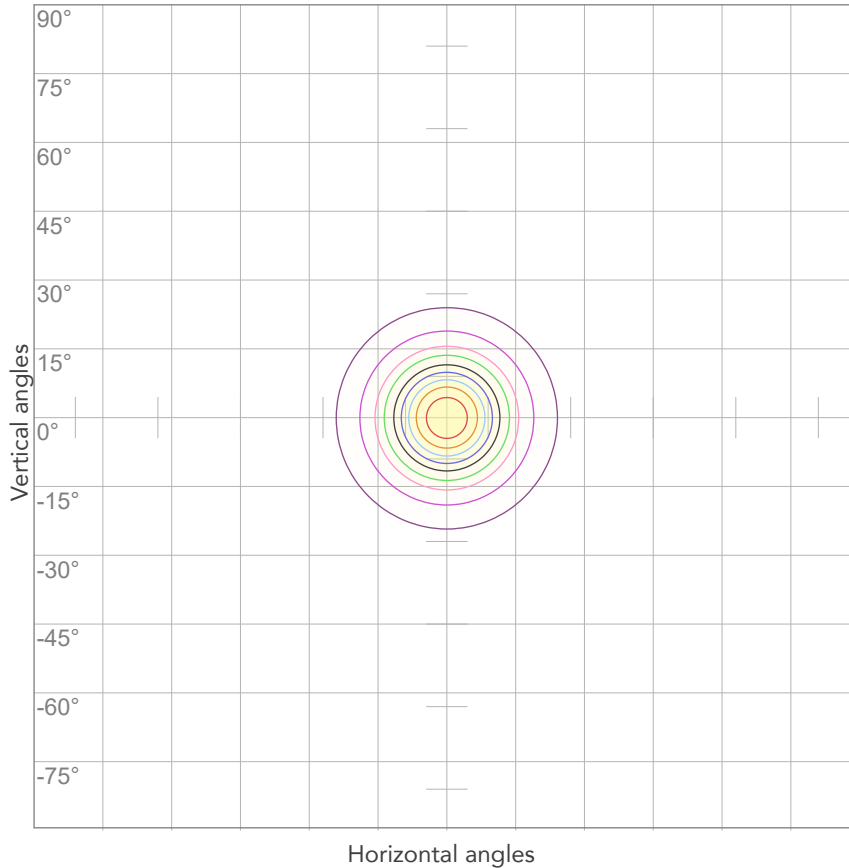
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
227V	0,001A	0,00W	0,0	-6009109lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



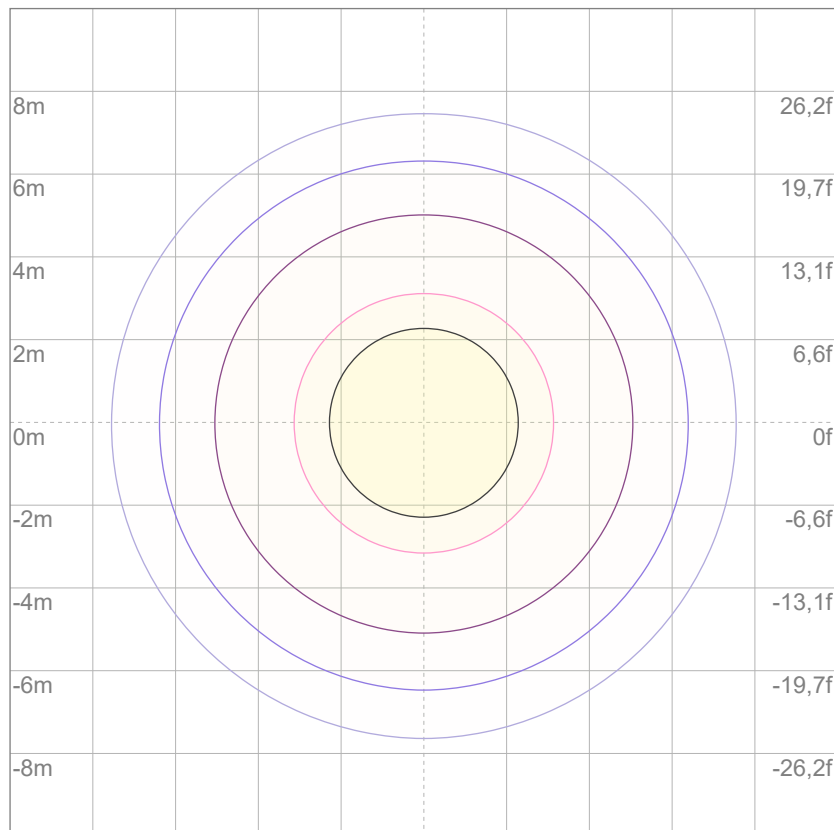
10%	831 cd
20%	1663 cd
30%	2494 cd
40%	3325 cd
50%	4156 cd
60%	4988 cd
70%	5819 cd
80%	6650 cd

Conditions:

Number of c-planes: 2

Candela at center: 8313 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2,49 lx
5%	4,16 lx
10%	8,31 lx
30%	24,9 lx
50%	41,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 83,1 lx

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



Total lumen output:

2328 lm

Peak candela output:

2880 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

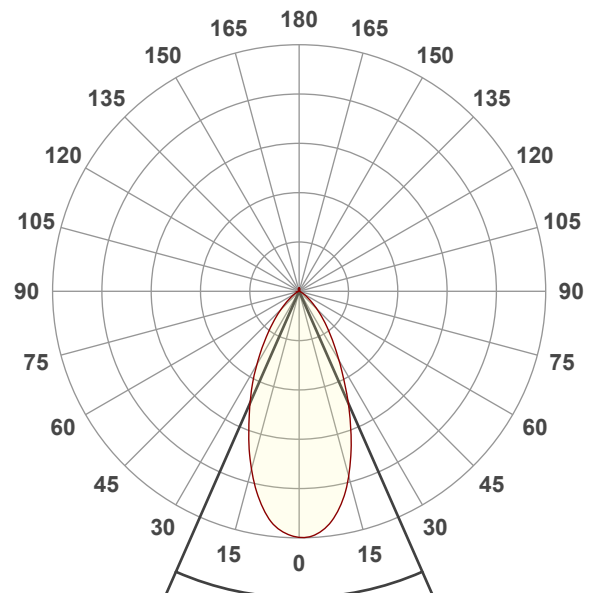
**MEASUREMENT CONDITIONS:**

Beam angle:  
10Deg Lens + 40Deg Filter

Target:  
Full On

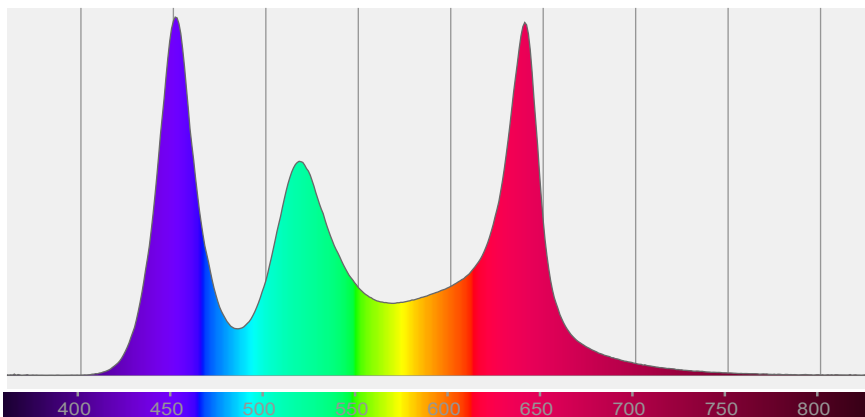
Operator:  
Giuseppe della Peruta

Date and time:  
20/12/2024 11:43:55



Beam angle 50%: 47,4°  
Field angle 10%: 91,3°  
Cut off angle 2.5%: 116,3°

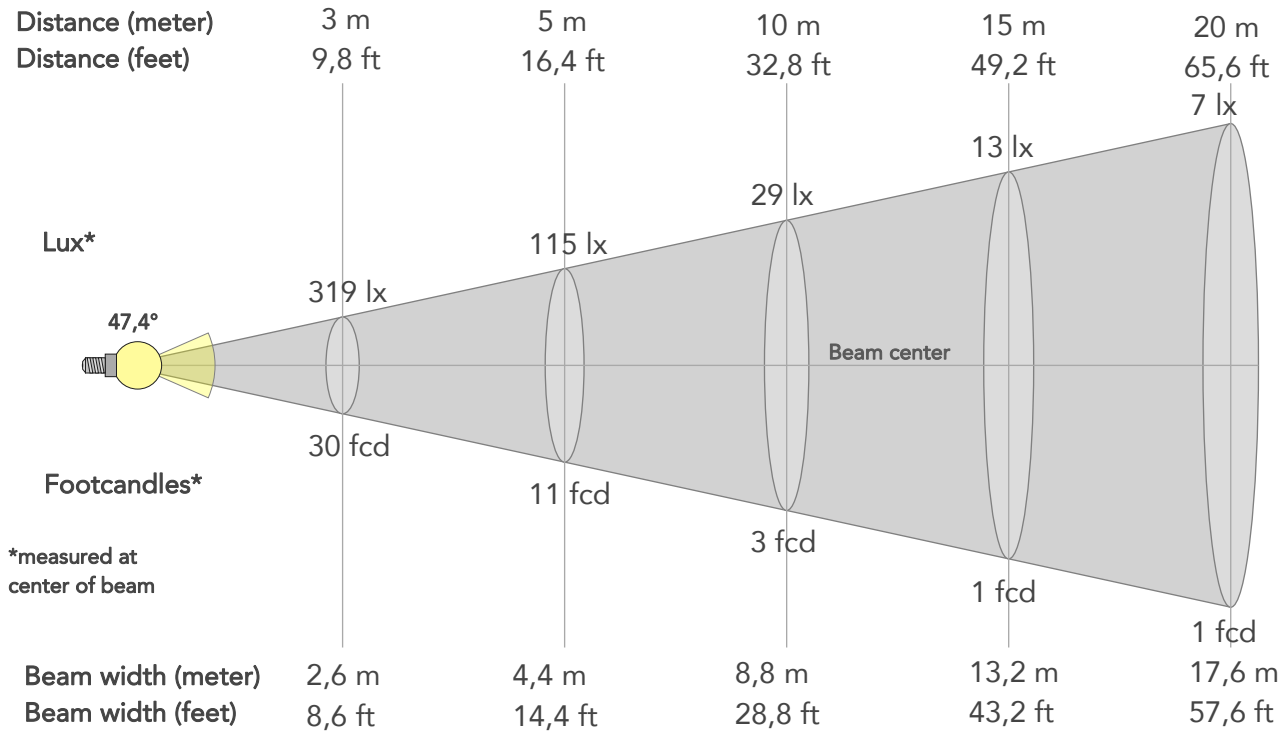
Spectra



# BEAM DETAILS



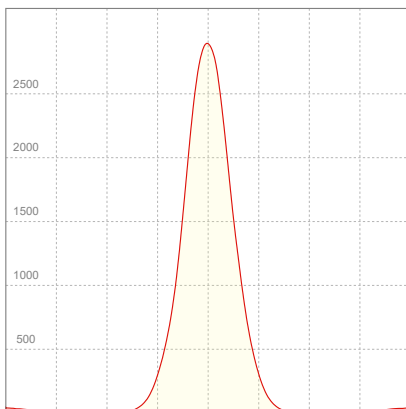
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
47,4°	91,3°	116,3°	96,4%	88,2%



## 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	2875lx	719lx	319lx	180lx	115lx	51lx	29lx	13lx	7lx	5lx	3lx	2lx	1lx
Footcand.	267fcd	67fcd	30fcd	17fcd	11fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,8m	2,6m	3,5m	4,4m	6,6m	8,8m	13,2m	17,6m	22m	26,4m	35,1m	43,9m
Beam wid.	2,9ft	5,8ft	8,6ft	11,5ft	14,4ft	21,6ft	28,8ft	43,2ft	57,6ft	72,1ft	86,5ft	115,3ft	144,1ft

## LINEAR DISTRIBUTION DIAGRAM

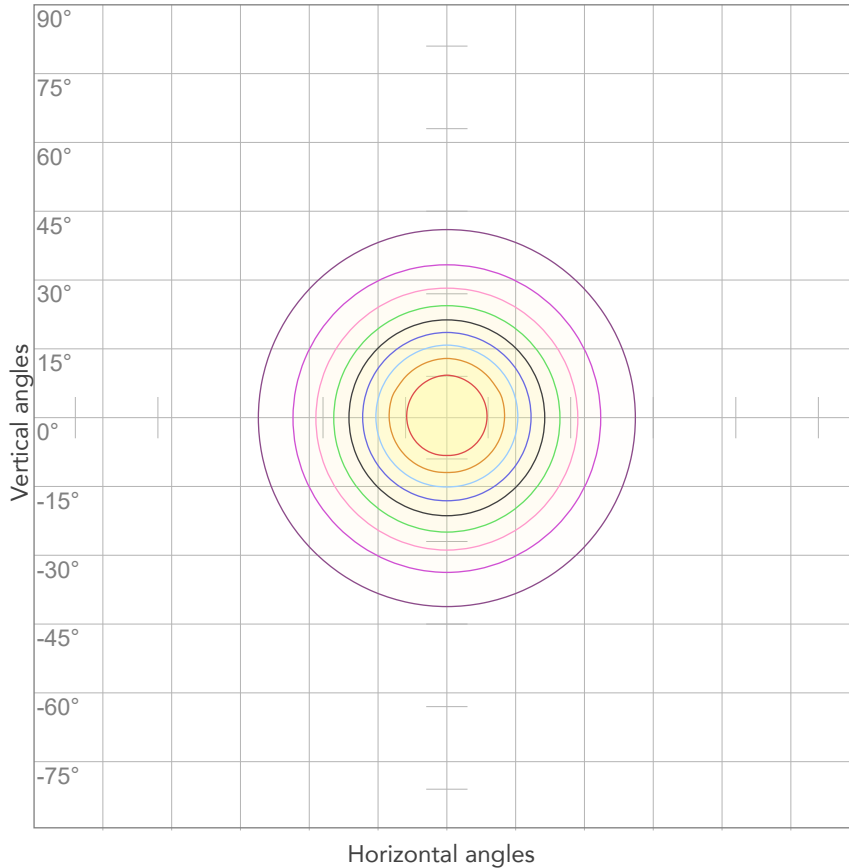


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
228V	0,001A	0,00W	0,0	-7163035lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



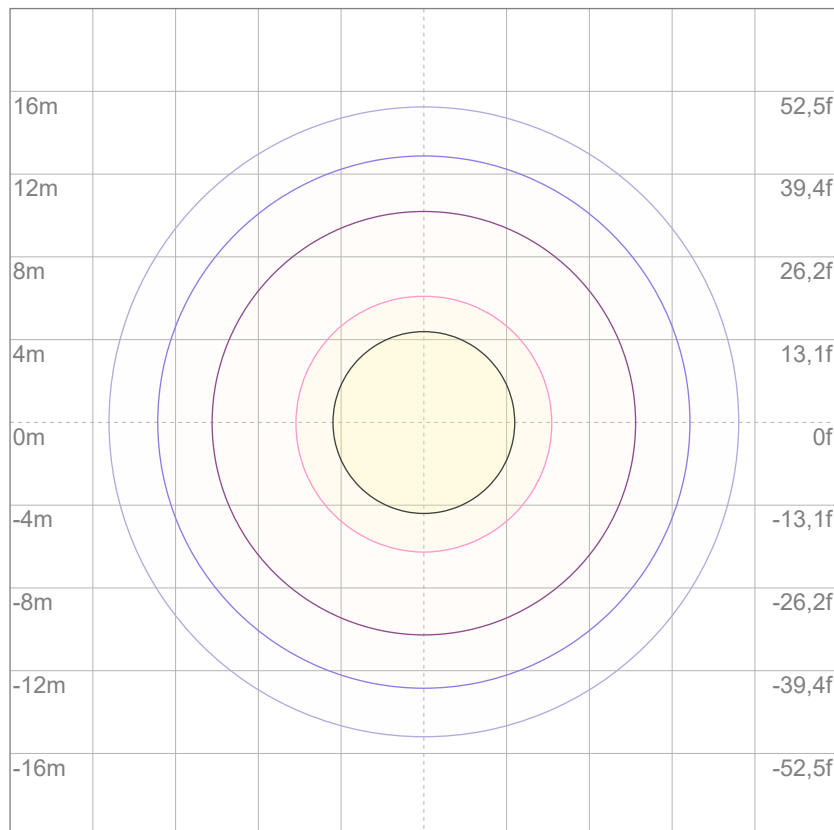
10%	287 cd
20%	575 cd
30%	862 cd
40%	1150 cd
50%	1437 cd
60%	1725 cd
70%	2012 cd
80%	2300 cd

Conditions:

Number of c-planes: 2

Candela at center: 2875 cd

## ISO LUX DIAGRAM



3%	0,862 lx
5%	1,44 lx
10%	2,87 lx
30%	8,62 lx
50%	14,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 28,7 lx

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



Total lumen output:

2241 lm

Peak candela output:

2238 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

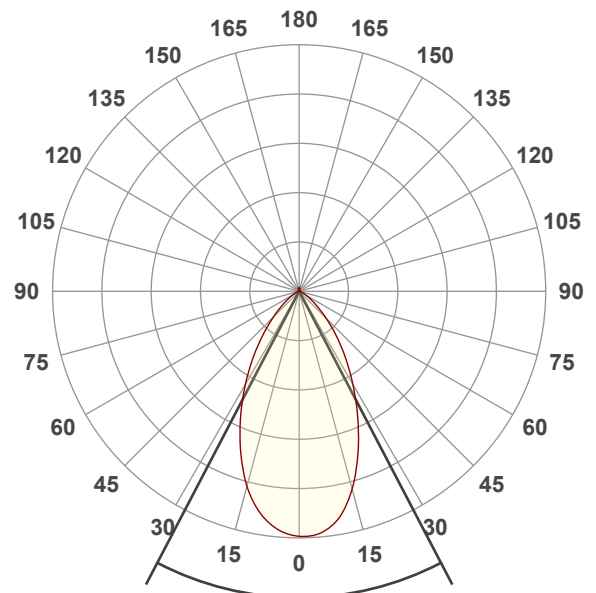
**MEASUREMENT CONDITIONS:**

Beam angle:  
10Deg Lens + 60Deg Filter

Target:  
Full On

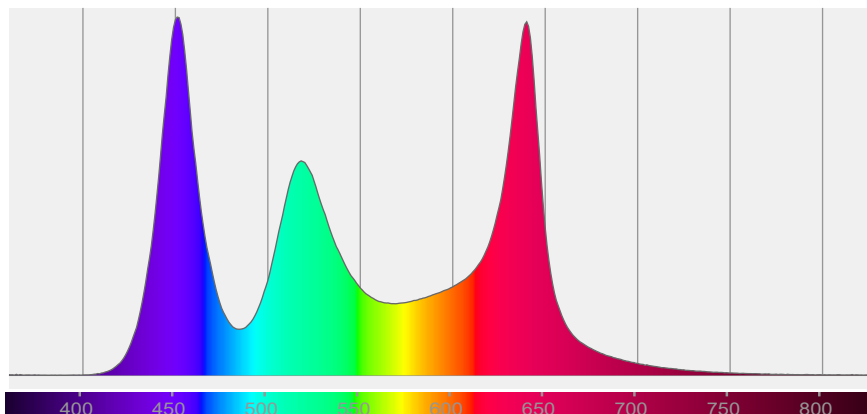
Operator:  
Giuseppe della Peruta

Date and time:  
20/12/2024 11:41:41



Beam angle 50%: 55,2°  
Field angle 10%: 99,2°  
Cut off angle 2.5%: 125°

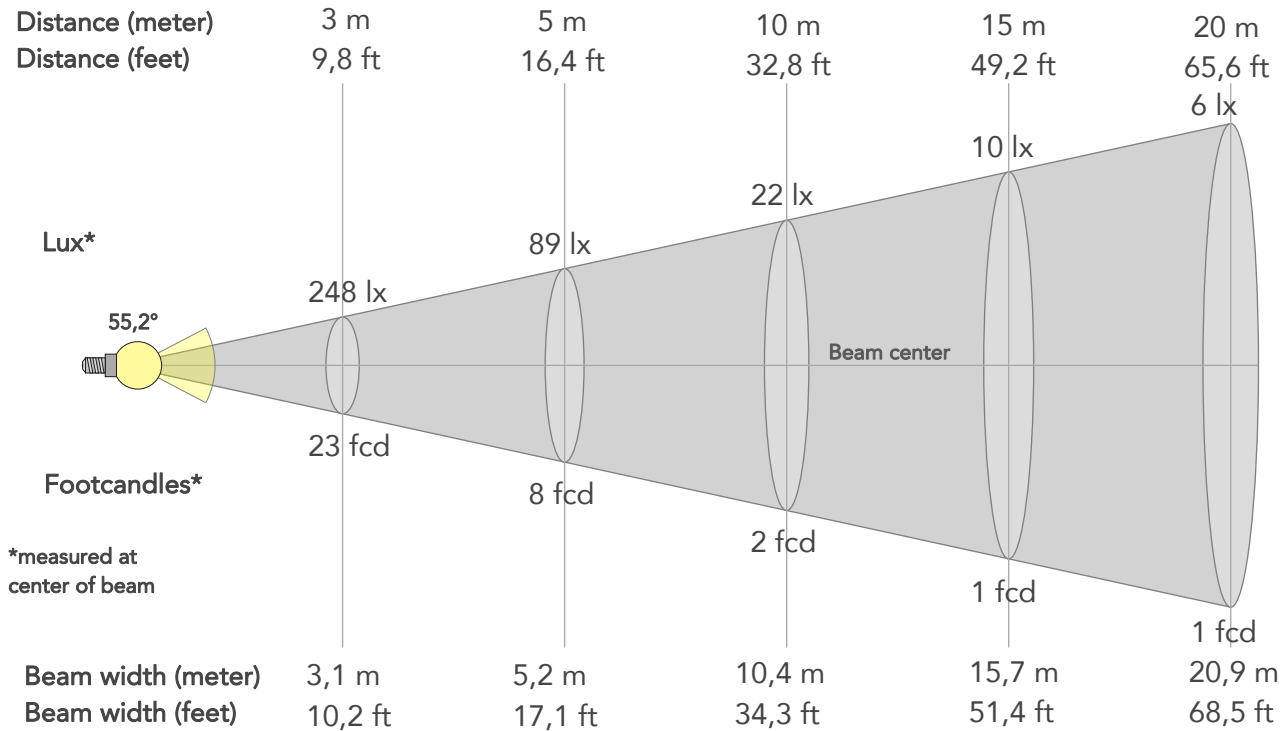
Spectra



# BEAM DETAILS



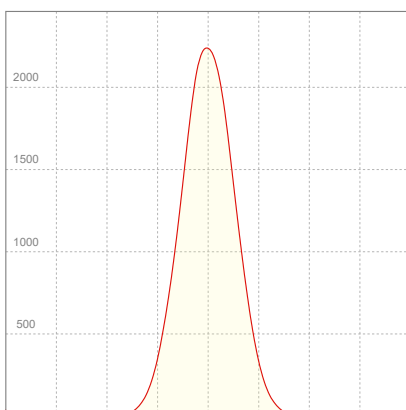
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
55,2°	99,2°	125°	95,6%	85,3%



## 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	2236lx	559lx	248lx	140lx	89lx	40lx	22lx	10lx	6lx	4lx	2lx	1lx	1lx
Footcand.	208fcd	52fcd	23fcd	13fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1m	2,1m	3,1m	4,2m	5,2m	7,8m	10,4m	15,7m	20,9m	26,1m	31,3m	41,8m	52,2m
Beam wid.	3,4ft	6,9ft	10,2ft	13,7ft	17,1ft	25,7ft	34,3ft	51,4ft	68,5ft	85,7ft	102,8ft	137,1ft	171,3ft

## LINEAR DISTRIBUTION DIAGRAM

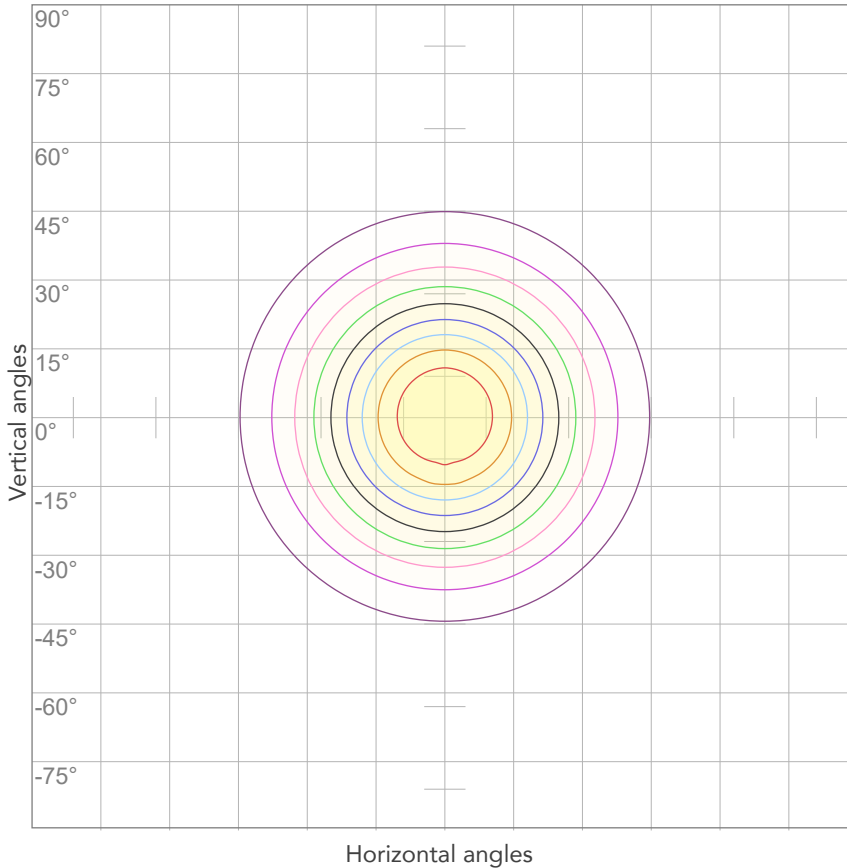


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
227V	0,001A	0,00W	0,0	-4973623lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



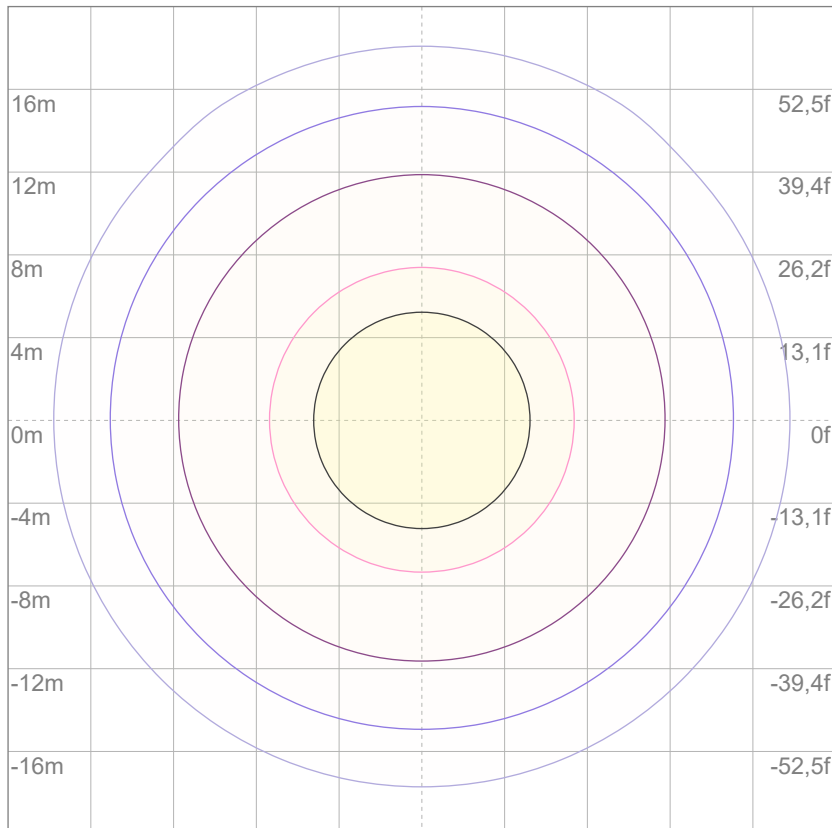
10%	224 cd
20%	447 cd
30%	671 cd
40%	894 cd
50%	1118 cd
60%	1341 cd
70%	1565 cd
80%	1788 cd

**Conditions:**

Number of c-planes: 2

Candela at center: 2236 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,671 lx
5%	1,12 lx
10%	2,24 lx
30%	6,71 lx
50%	11,2 lx

**Conditions:**

Number of c-planes: 2

Lux at center: 22,4 lx

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



Total lumen output:

3337 lm

Peak candela output:

7067 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

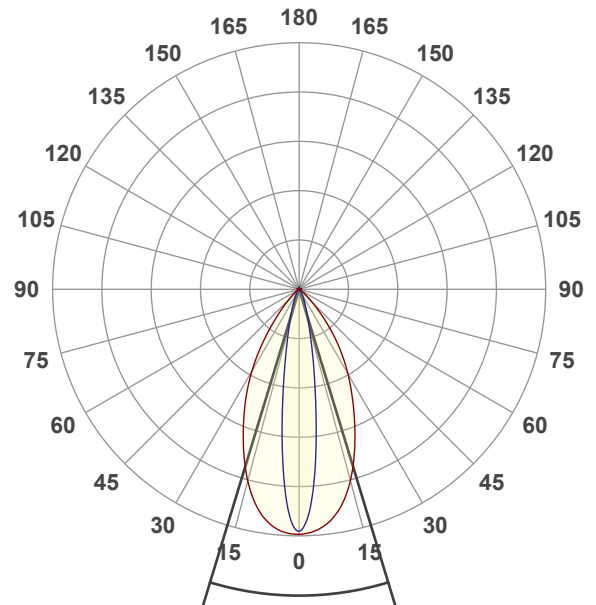
**MEASUREMENT CONDITIONS:**

Beam angle:  
10Deg Lens + 10x60Deg Filter

Target:  
Full On

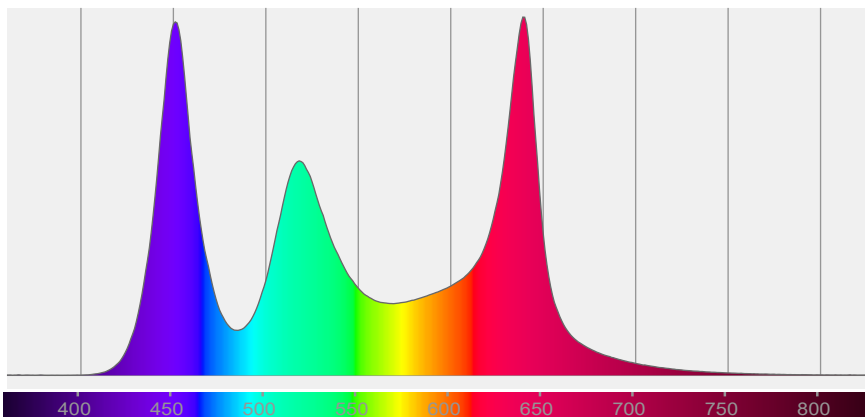
Operator:  
Giuseppe della Peruta

Date and time:  
20/12/2024 12:30:15



Beam angle 50%: 33,8°  
Field angle 10%: 61,2°  
Cut off angle 2.5%: 82,5°

Spectra

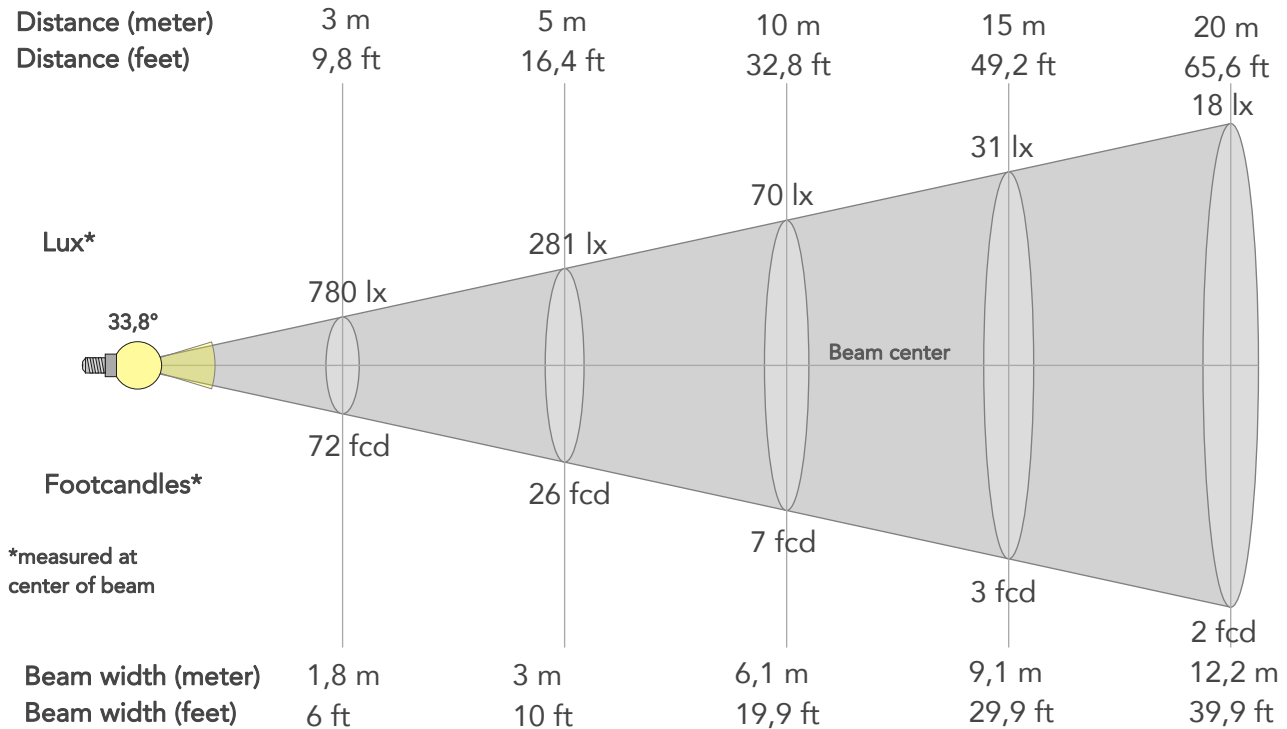




# BEAM DETAILS



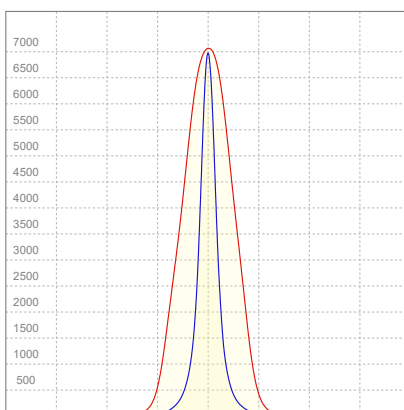
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,8°	61,2°	82,5°	98,8%	94,7%



## 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	7020lx	1755lx	780lx	439lx	281lx	125lx	70lx	31lx	18lx	11lx	8lx	4lx	3lx
Footcand.	652fcd	163fcd	72fcd	41fcd	26fcd	12fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,6m	6,1m	9,1m	12,2m	15,2m	18,2m	24,3m	30,4m
Beam wid.	2ft	4ft	6ft	8ft	10ft	15ft	19,9ft	29,9ft	39,9ft	49,9ft	59,8ft	79,8ft	99,7ft

## LINEAR DISTRIBUTION DIAGRAM

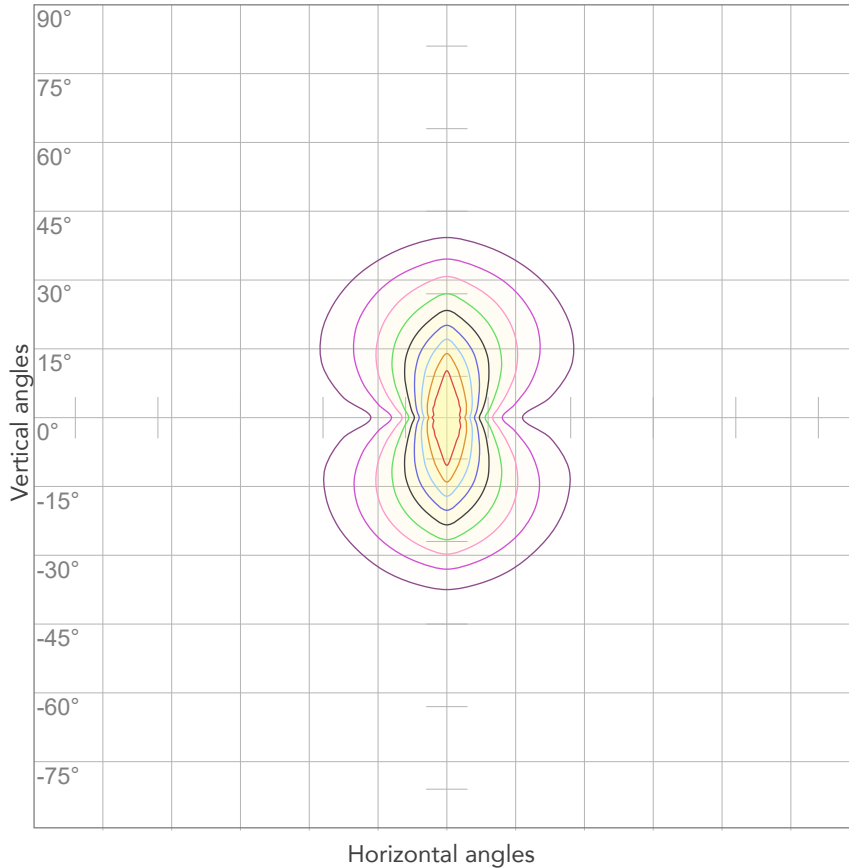


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	0,001A	0,00W	0,0	-9302327lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



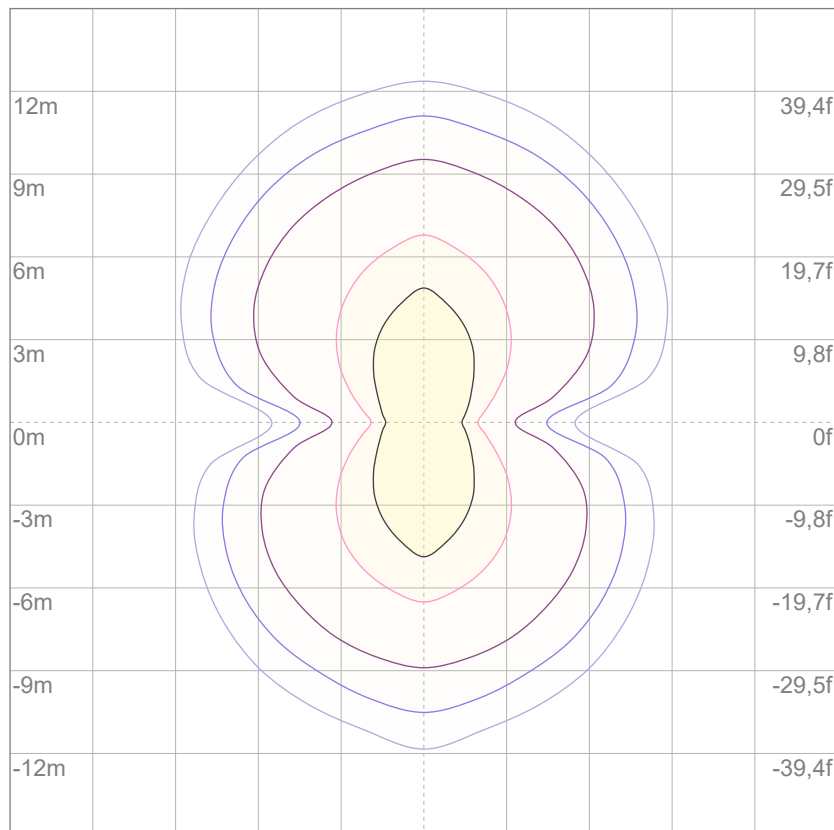
10%	702 cd
20%	1404 cd
30%	2106 cd
40%	2808 cd
50%	3510 cd
60%	4212 cd
70%	4914 cd
80%	5616 cd

Conditions:

Number of c-planes: 4

Candela at center: 7020 cd

## ISO LUX DIAGRAM



3%	2,11 lx
5%	3,51 lx
10%	7,02 lx
30%	21,1 lx
50%	35,1 lx

Conditions:

Number of c-planes: 4

Lux at center: 70,2 lx

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



Total lumen output:

2412 lm

Peak candela output:

3430 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

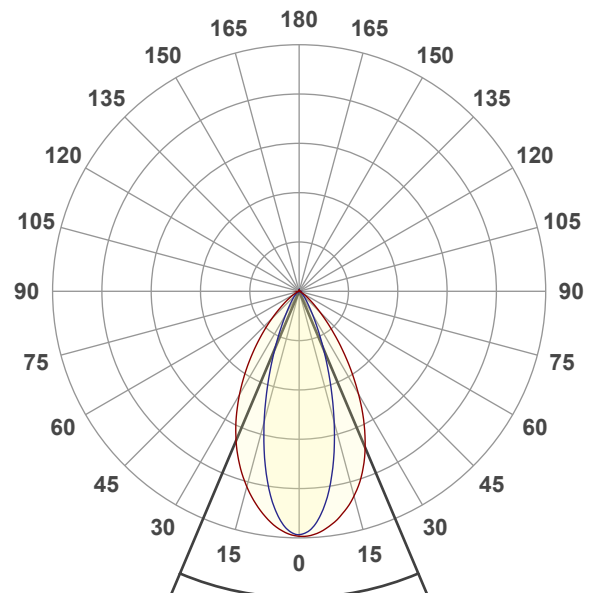
**MEASUREMENT CONDITIONS:**

Beam angle:  
10Deg Lens + 30x60Deg Filter

Target:  
Full On

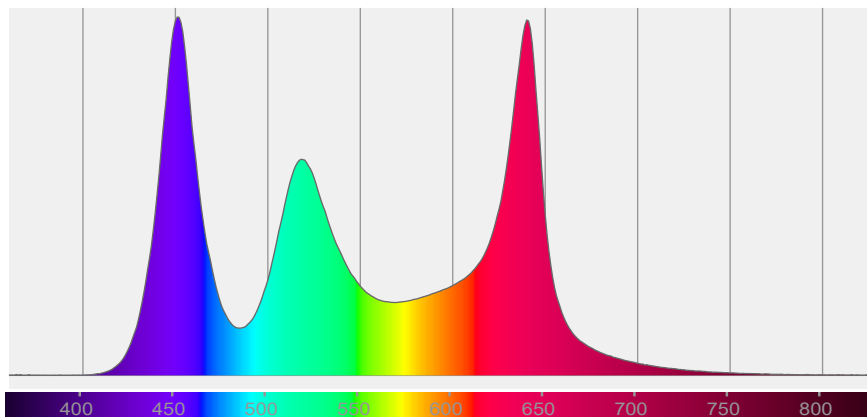
Operator:  
Giuseppe della Peruta

Date and time:  
20/12/2024 12:35:15



Beam angle 50%: 45,8°  
Field angle 10%: 78,6°  
Cut off angle 2.5%: 104°

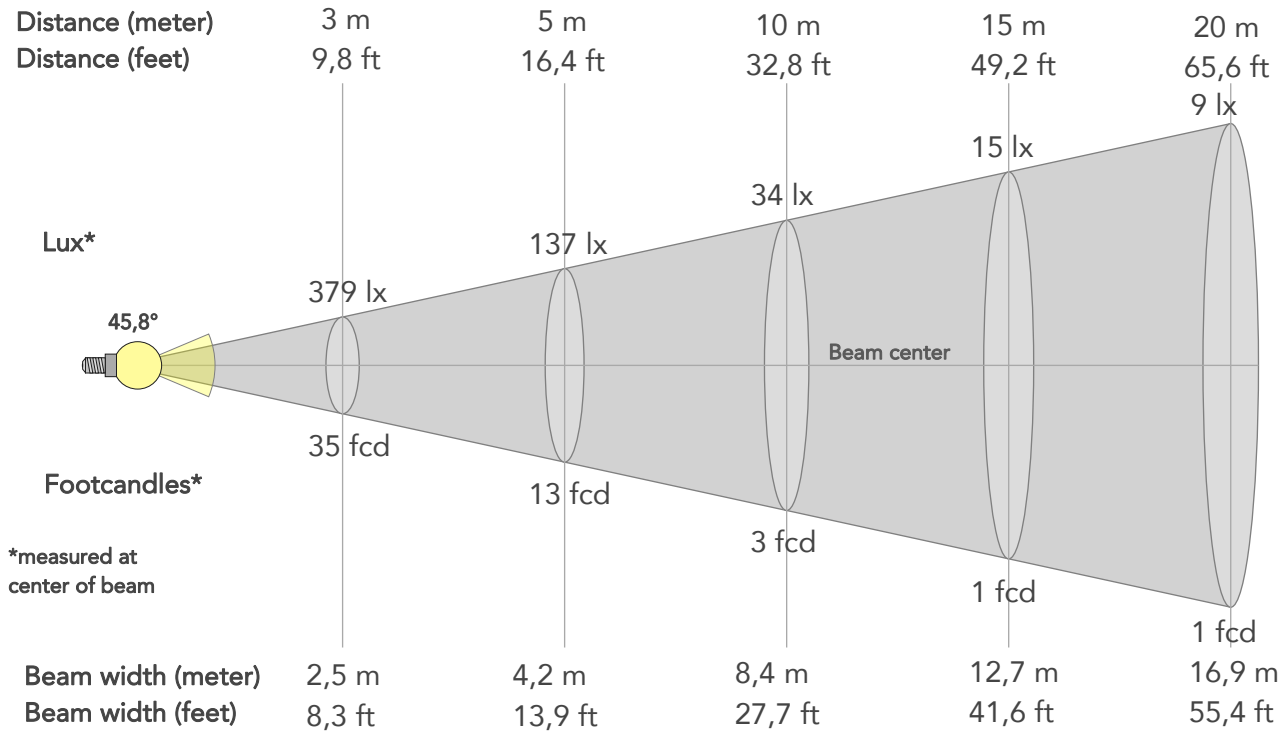
Spectra



# BEAM DETAILS



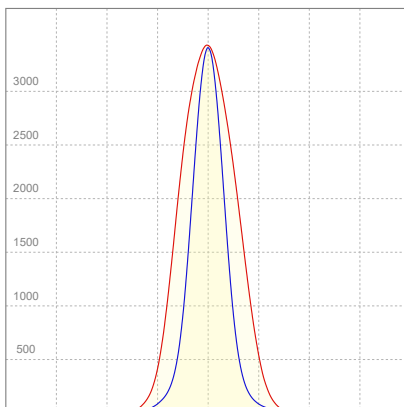
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
45,8°	78,6°	104°	97,8%	90,7%



## 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	3415lx	854lx	379lx	213lx	137lx	61lx	34lx	15lx	9lx	5lx	4lx	2lx	1lx
Footcand.	317fcd	79fcd	35fcd	20fcd	13fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,8m	1,7m	2,5m	3,4m	4,2m	6,3m	8,4m	12,7m	16,9m	21,1m	25,3m	33,8m	42,2m
Beam wid.	2,8ft	5,6ft	8,3ft	11,1ft	13,9ft	20,8ft	27,7ft	41,6ft	55,4ft	69,3ft	83,1ft	110,8ft	138,5ft

## LINEAR DISTRIBUTION DIAGRAM

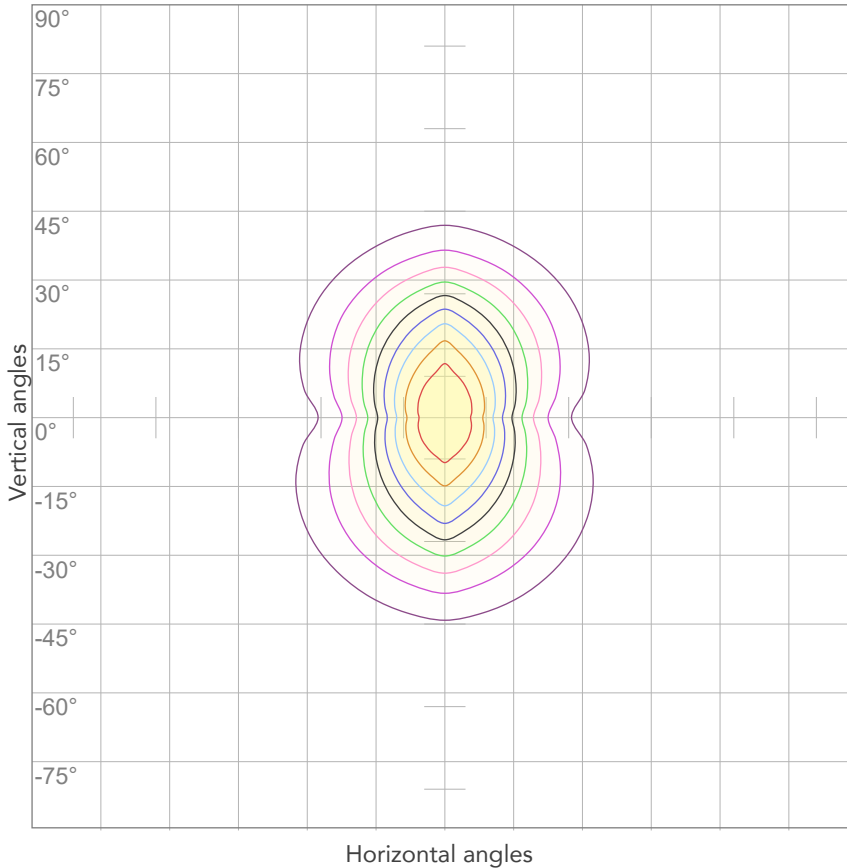


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	0,001A	0,00W	0,0	-5097023lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



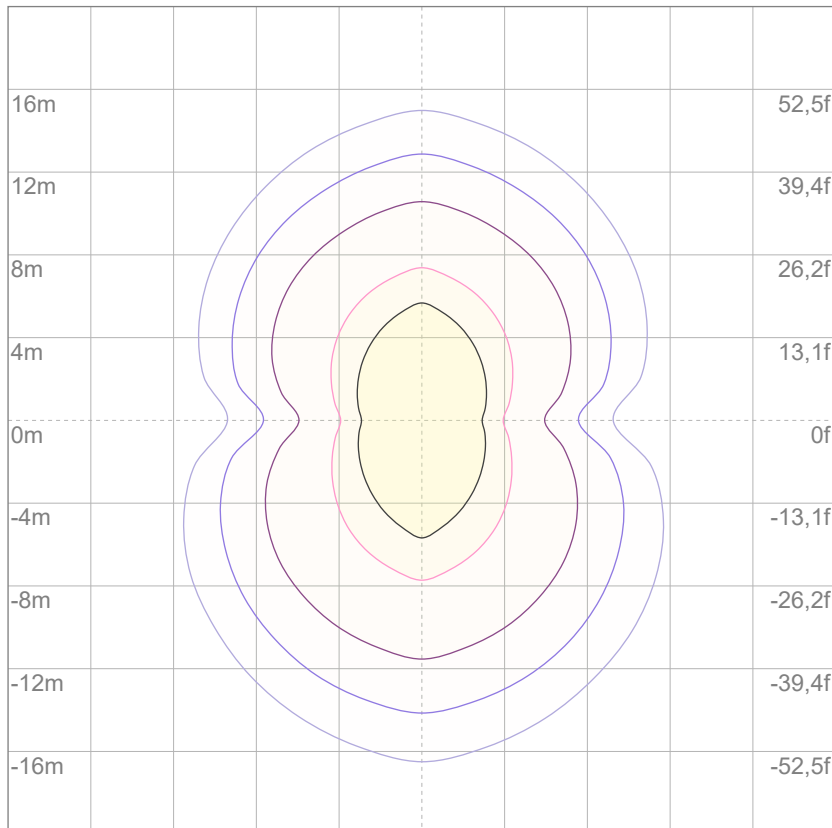
10%	341 cd
20%	683 cd
30%	1024 cd
40%	1366 cd
50%	1707 cd
60%	2049 cd
70%	2390 cd
80%	2732 cd

Conditions:

Number of c-planes: 4

Candela at center: 3415 cd

## ISO LUX DIAGRAM



3%	1,02 lx
5%	1,71 lx
10%	3,41 lx
30%	10,2 lx
50%	17,1 lx

Conditions:

Number of c-planes: 4

Lux at center: 34,1 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

2688 lm

Peak candela output:

13068 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

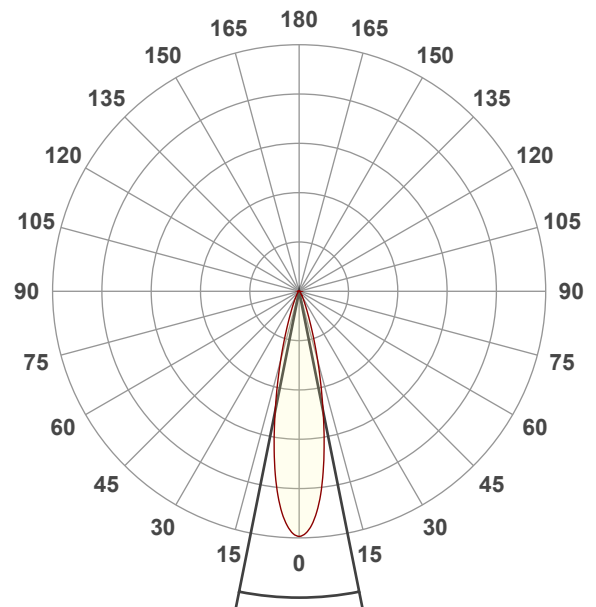
**MEASUREMENT CONDITIONS:**

Beam angle:  
20Deg Lens

Target:  
Full On - Runtime 3H

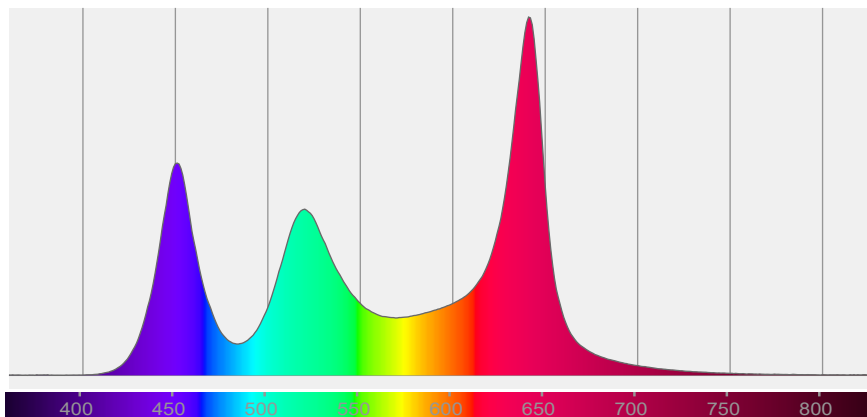
Operator:  
Giacomo Matteo

Date and time:  
13/06/2024 15:06:20



Beam angle 50%: 22,6°  
Field angle 10%: 42,1°  
Cut off angle 2.5%: 62,1°

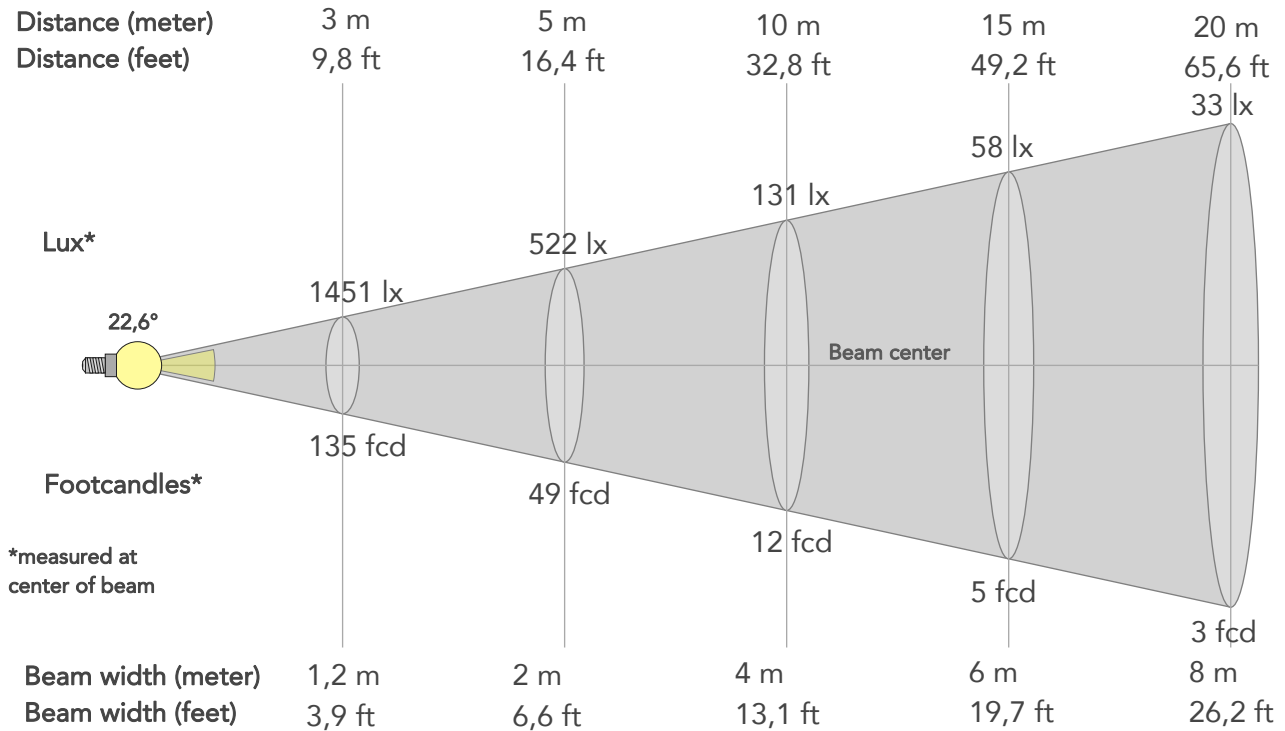
Spectra



# BEAM DETAILS



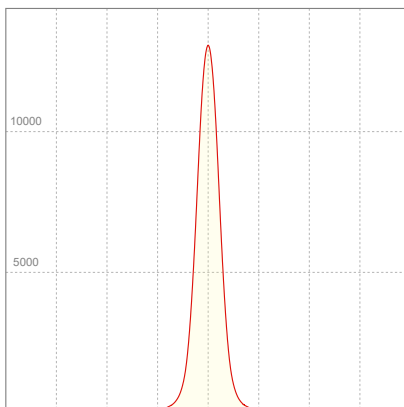
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,6°	42,1°	62,1°	98,8%	95,8%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	13061lx	3265lx	1451lx	816lx	522lx	232lx	131lx	58lx	33lx	21lx	15lx	8lx	5lx
Footcand.	1213fcd	303fcd	135fcd	76fcd	49fcd	22fcd	12fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4m	6m	8m	10m	12m	16m	20m
Beam wid.	1,3ft	2,6ft	3,9ft	5,2ft	6,6ft	9,8ft	13,1ft	19,7ft	26,2ft	32,8ft	39,3ft	52,5ft	65,6ft

## LINEAR DISTRIBUTION DIAGRAM

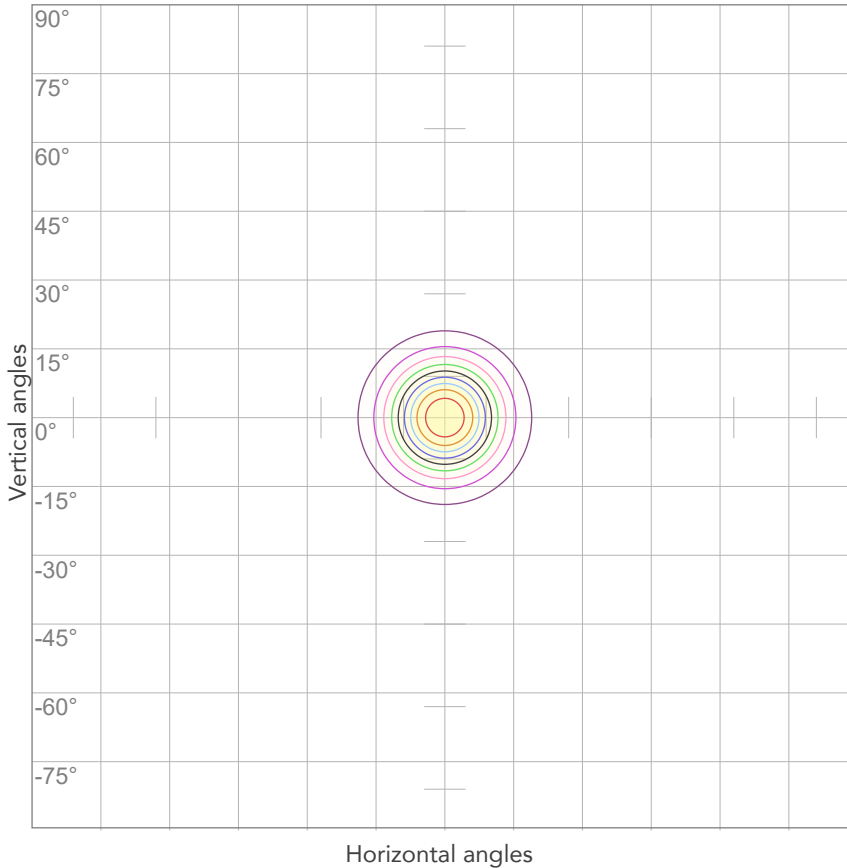


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
228V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



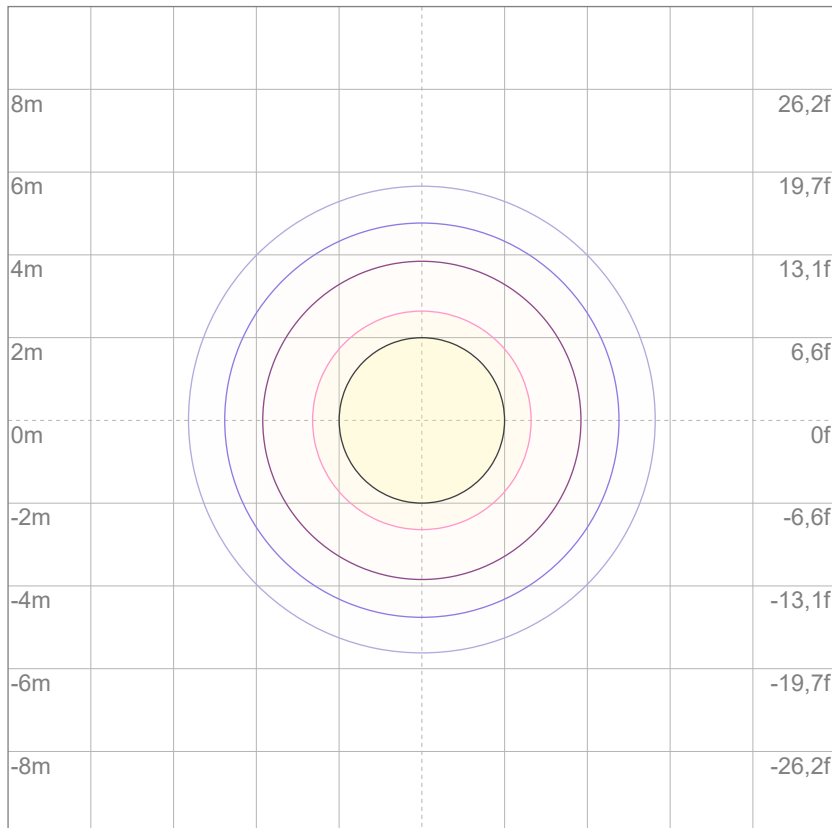
10%	1306 cd
20%	2612 cd
30%	3918 cd
40%	5224 cd
50%	6530 cd
60%	7836 cd
70%	9142 cd
80%	10449 cd

Conditions:

Number of c-planes: 2

Candela at center: 13061 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	3,92 lx
5%	6,53 lx
10%	13,1 lx
30%	39,2 lx
50%	65,3 lx

Conditions:

Number of c-planes: 2

Lux at center: 131 lx

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





Total lumen output:

726 lm

Peak candela output:

3608 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

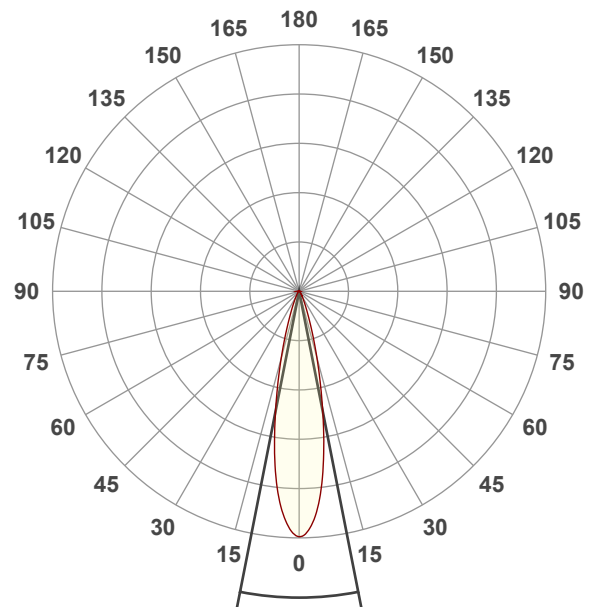
**MEASUREMENT CONDITIONS:**

Beam angle:  
20Deg Lens

Target:  
Red- Runtime 3H

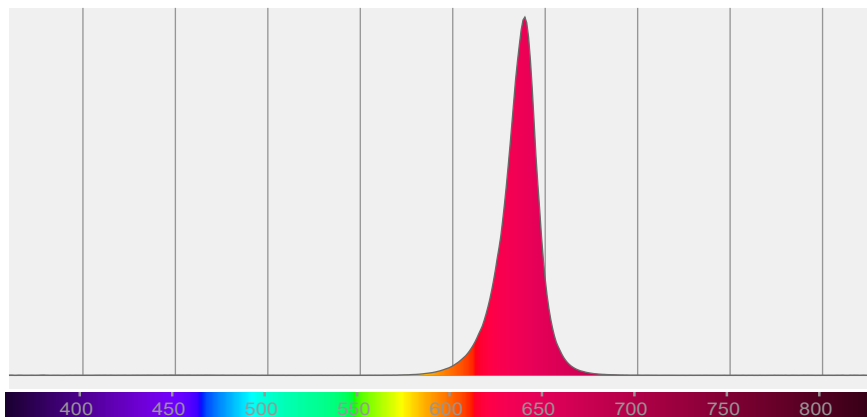
Operator:  
Giacomo Matteo

Date and time:  
13/06/2024 15:08:04



Beam angle 50%: 22,2°  
Field angle 10%: 41,7°  
Cut off angle 2.5%: 61,2°

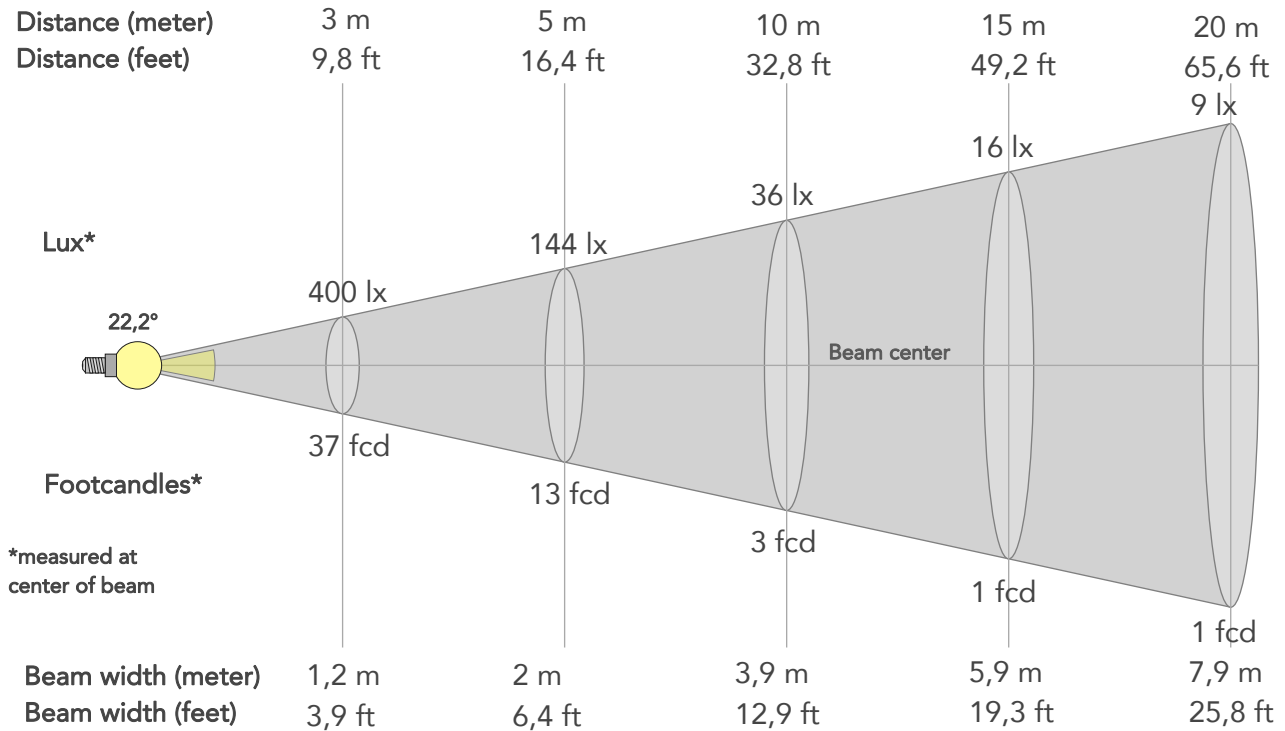
Spectra



# BEAM DETAILS



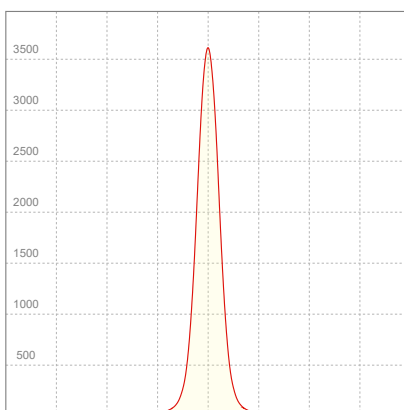
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,2°	41,7°	61,2°	98,3%	95,5%



## 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	3604lx	901lx	400lx	225lx	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	1,2m	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

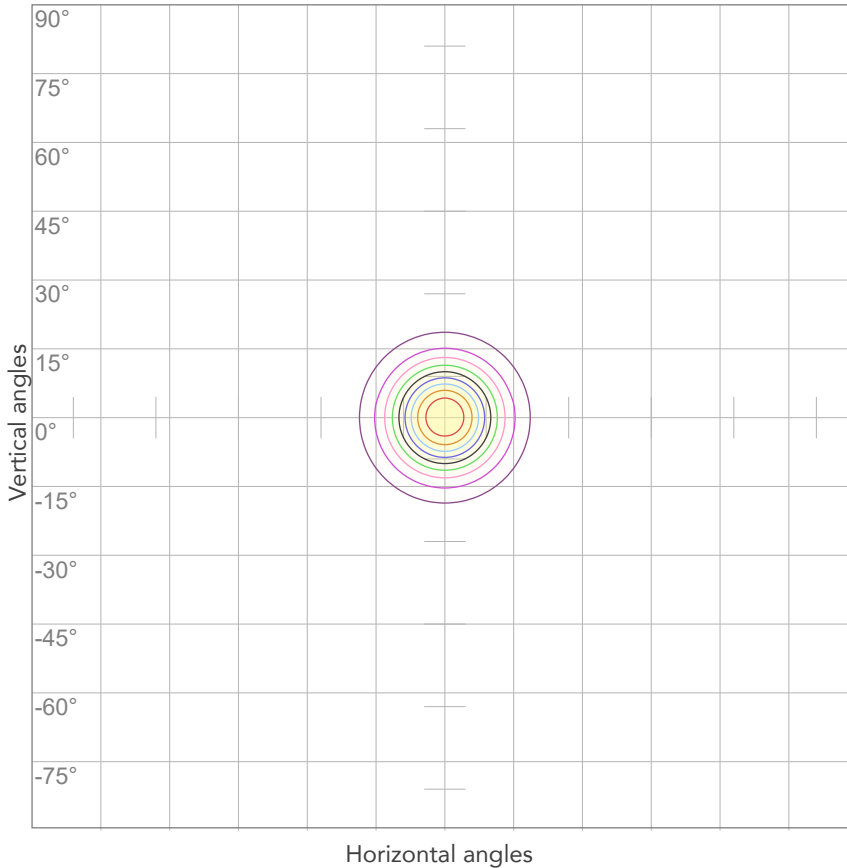


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
229V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



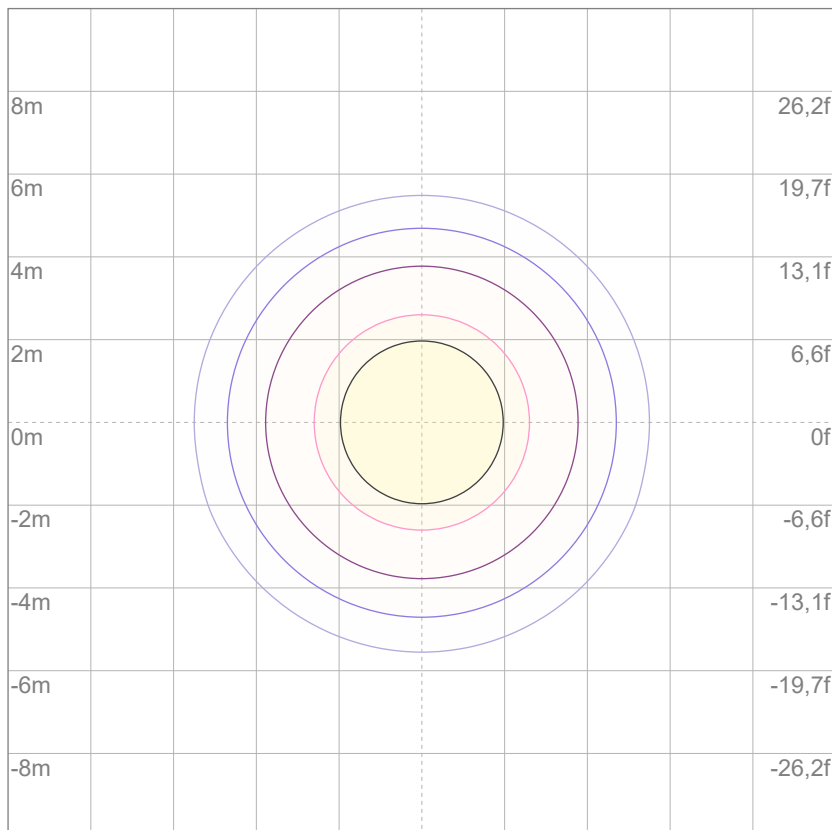
10%	360 cd
20%	721 cd
30%	1081 cd
40%	1442 cd
50%	1802 cd
60%	2163 cd
70%	2523 cd
80%	2883 cd

Conditions:

Number of c-planes: 2

Candela at center: 3604 cd

## ISO LUX DIAGRAM



3%	1,08 lx
5%	1,80 lx
10%	3,60 lx
30%	10,8 lx
50%	18,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 36,0 lx

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



Total lumen output:

1235 lm

Peak candela output:

5995 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

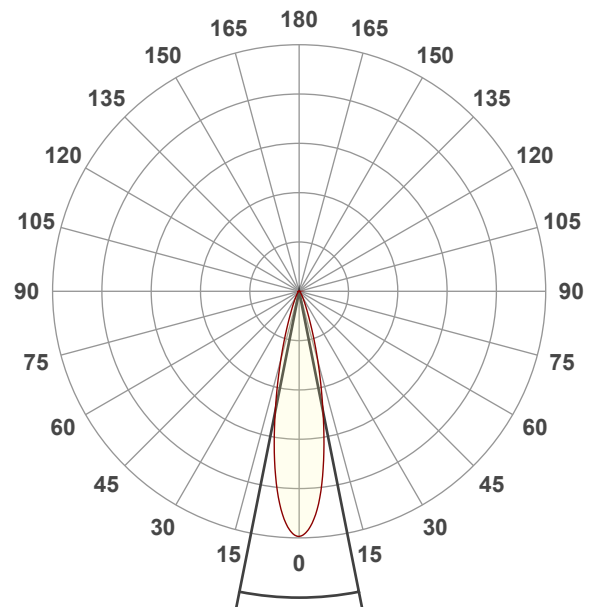
**MEASUREMENT CONDITIONS:**

Beam angle:  
20Deg Lens

Target:  
Green- Runtime 3H

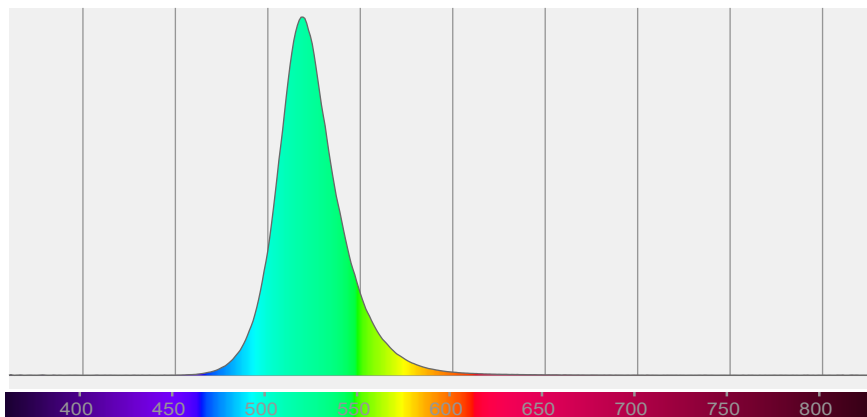
Operator:  
Giacomo Matteo

Date and time:  
13/06/2024 15:09:36



Beam angle 50%: 22,5°  
Field angle 10%: 42,2°  
Cut off angle 2.5%: 62,6°

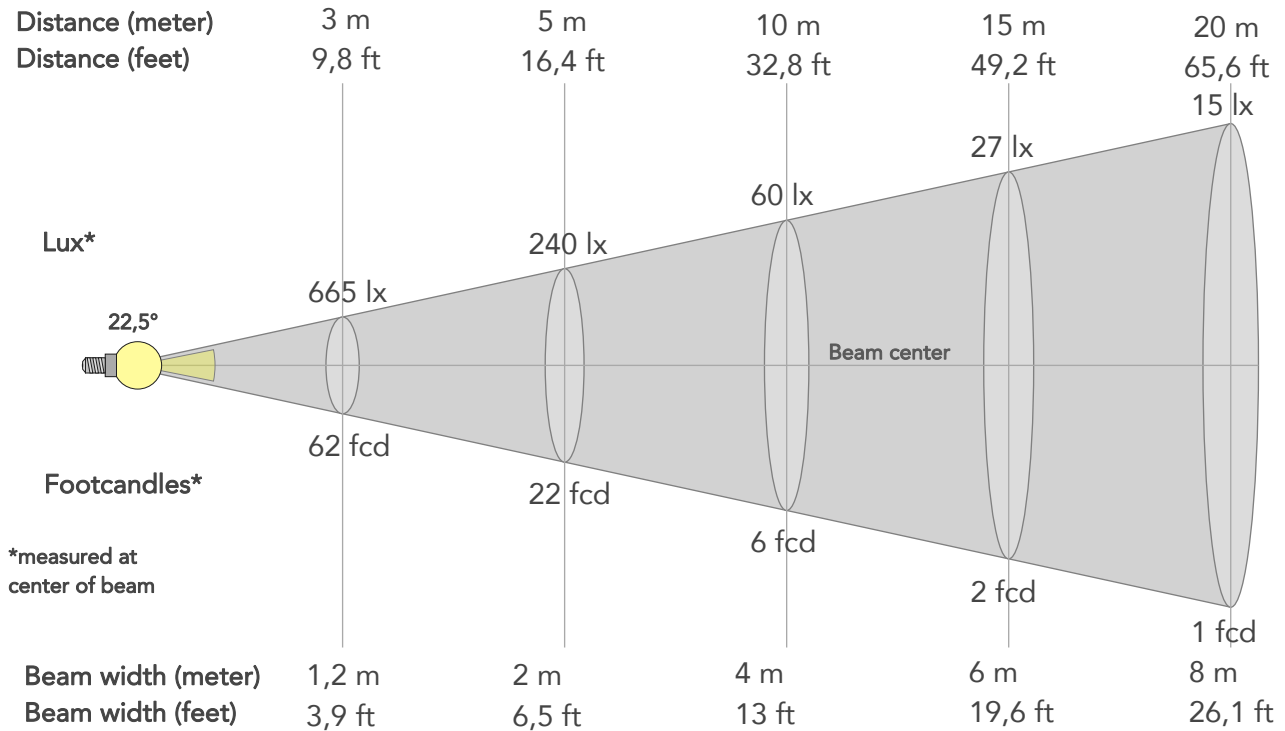
Spectra



# BEAM DETAILS



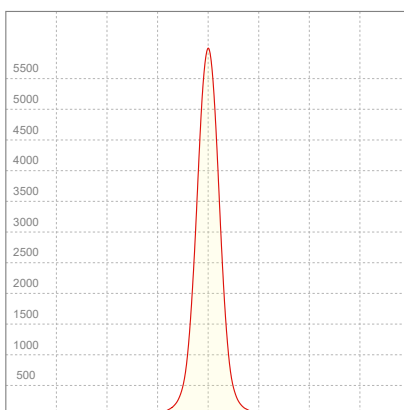
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,5°	42,2°	62,6°	98,7%	95,8%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	5989lx	1497lx	665lx	374lx	240lx	106lx	60lx	27lx	15lx	10lx	7lx	4lx	2lx
Footcand.	556fcd	139fcd	62fcd	35fcd	22fcd	10fcd	6fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4m	6m	8m	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	52,2ft	65,2ft

## LINEAR DISTRIBUTION DIAGRAM

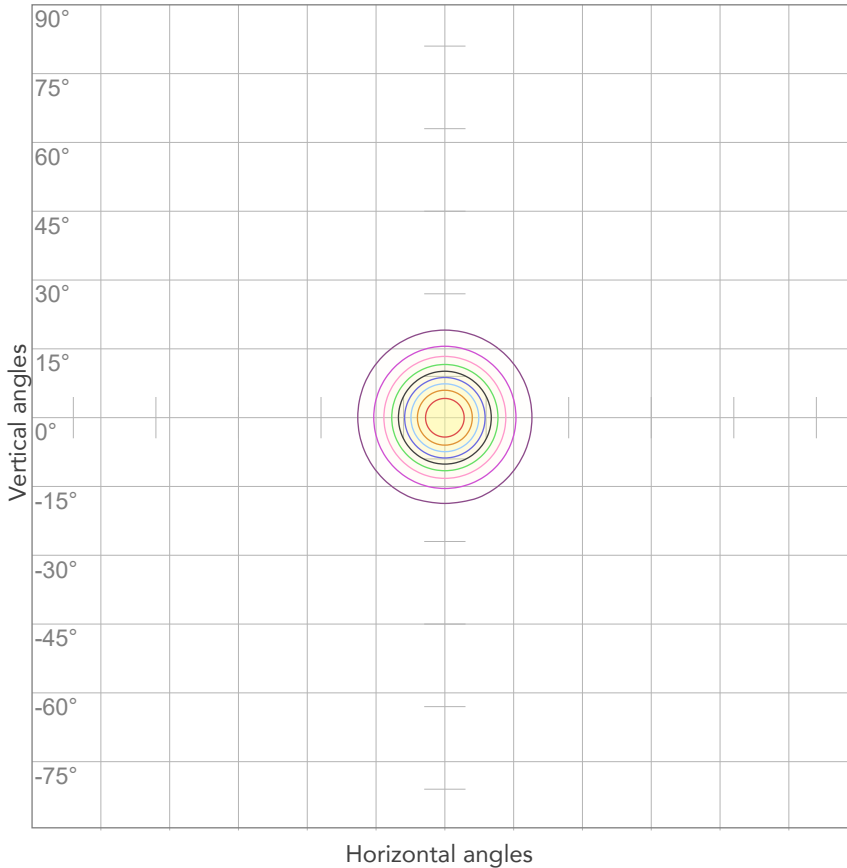


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
228V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



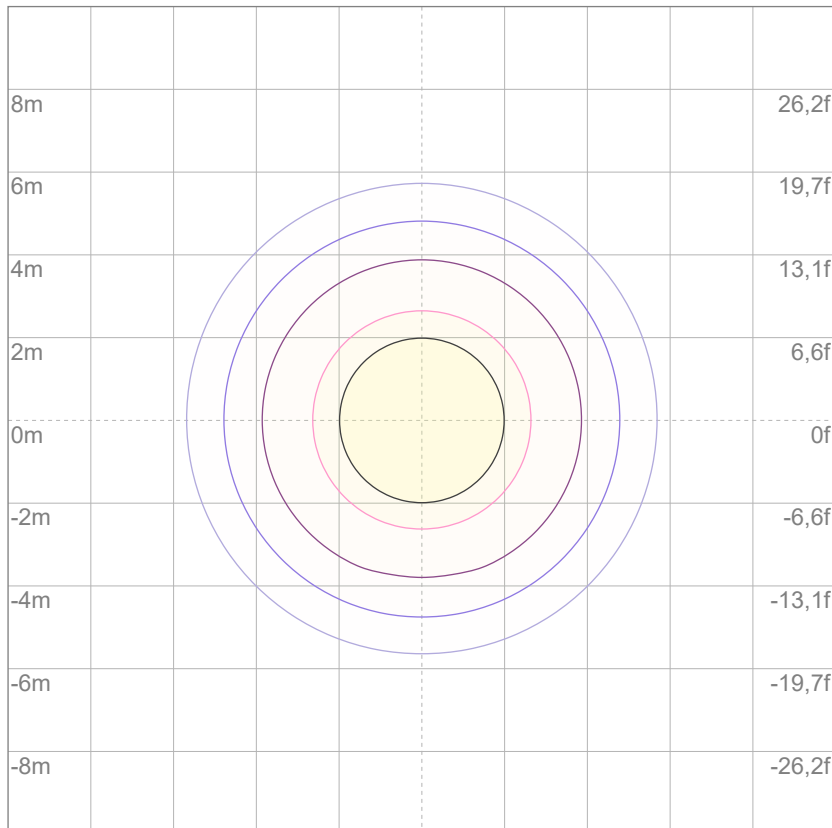
10%	599 cd
20%	1198 cd
30%	1797 cd
40%	2395 cd
50%	2994 cd
60%	3593 cd
70%	4192 cd
80%	4791 cd

### Conditions:

Number of c-planes: 2

Candela at center: 5989 cd

## ISO LUX DIAGRAM



3%	1,80 lx
5%	2,99 lx
10%	5,99 lx
30%	18,0 lx
50%	29,9 lx

### Conditions:

Number of c-planes: 2

Lux at center: 59,9 lx

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



Total lumen output:

277 lm

Peak candela output:

1276 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

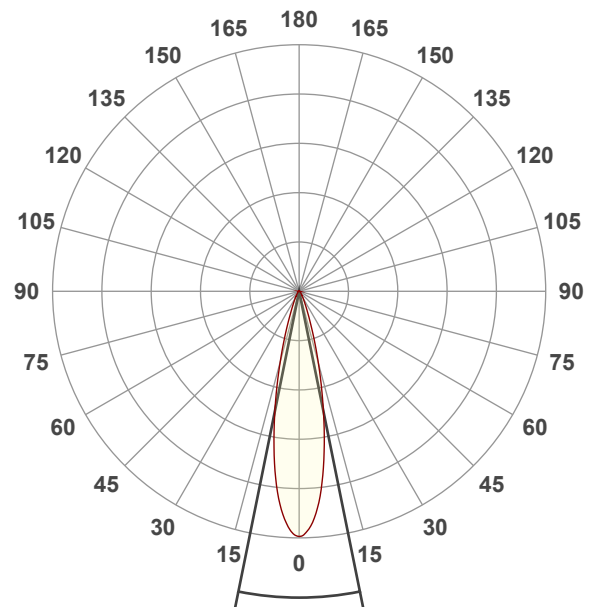
**MEASUREMENT CONDITIONS:**

Beam angle:  
20Deg Lens

Target:  
Blue- Runtime 3H

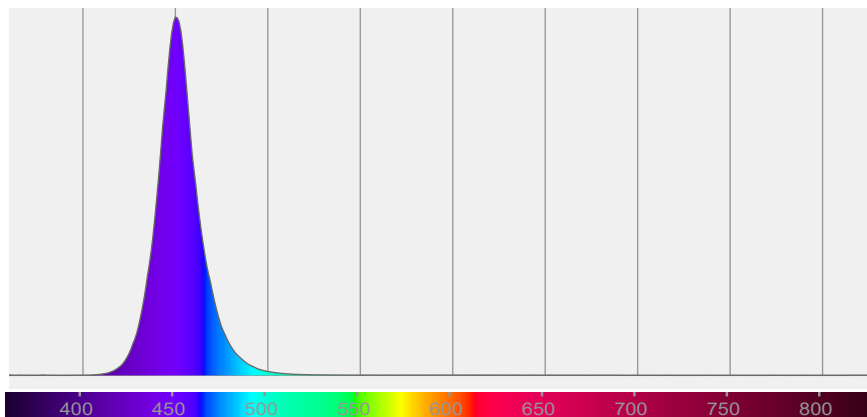
Operator:  
Giacomo Matteo

Date and time:  
13/06/2024 15:11:09



Beam angle 50%: 22,9°  
Field angle 10%: 42,6°  
Cut off angle 2.5%: 64,4°

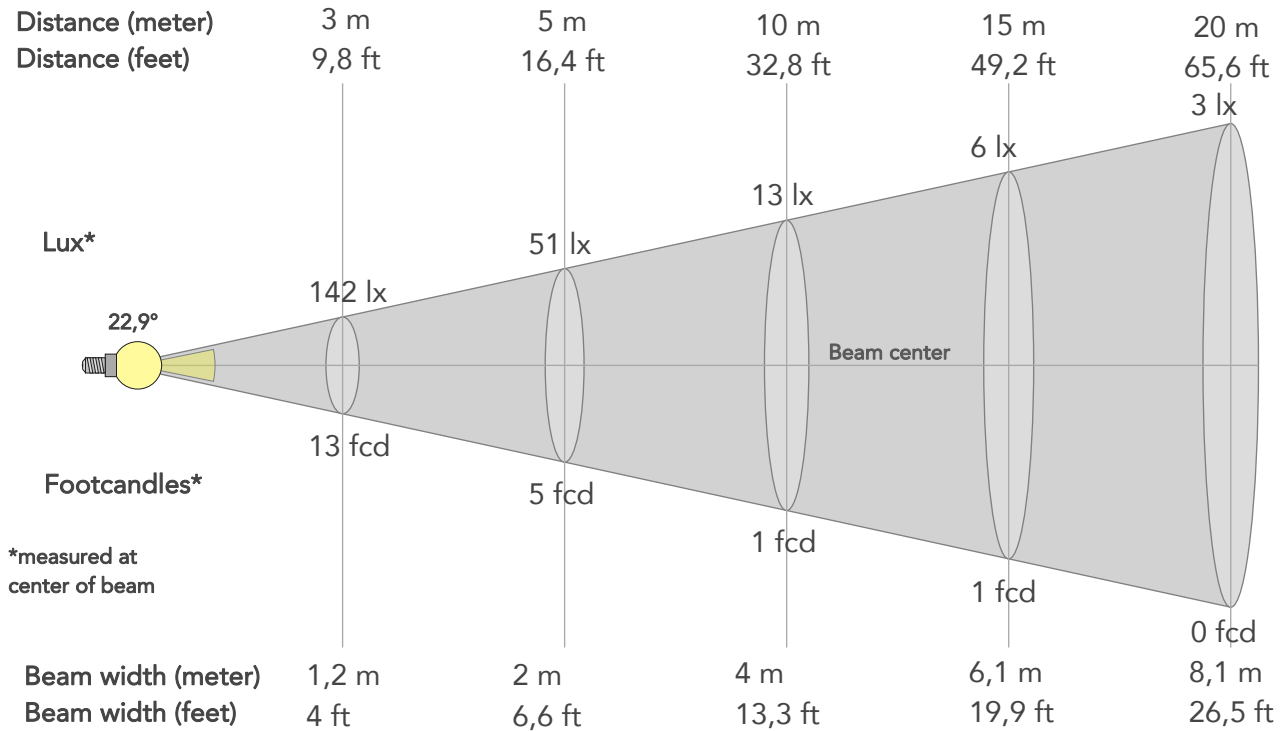
Spectra



# BEAM DETAILS



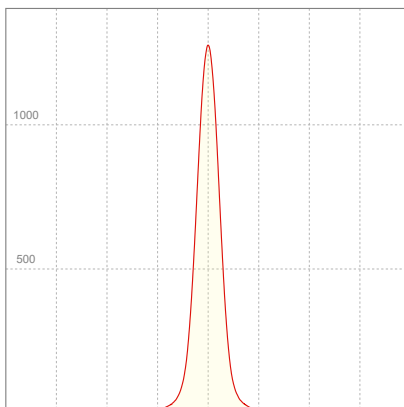
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,9°	42,6°	64,4°	97,3%	93,7%



## 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	1275lx	319lx	142lx	80lx	51lx	23lx	13lx	6lx	3lx	2lx	1lx	1lx	1lx
Footcand.	118fcd	30fcd	13fcd	7fcd	5fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4m	6,1m	8,1m	10,1m	12,1m	16,2m	20,2m
Beam wid.	1,3ft	2,7ft	4ft	5,3ft	6,6ft	10ft	13,3ft	19,9ft	26,5ft	33,2ft	39,8ft	53,1ft	66,4ft

## LINEAR DISTRIBUTION DIAGRAM



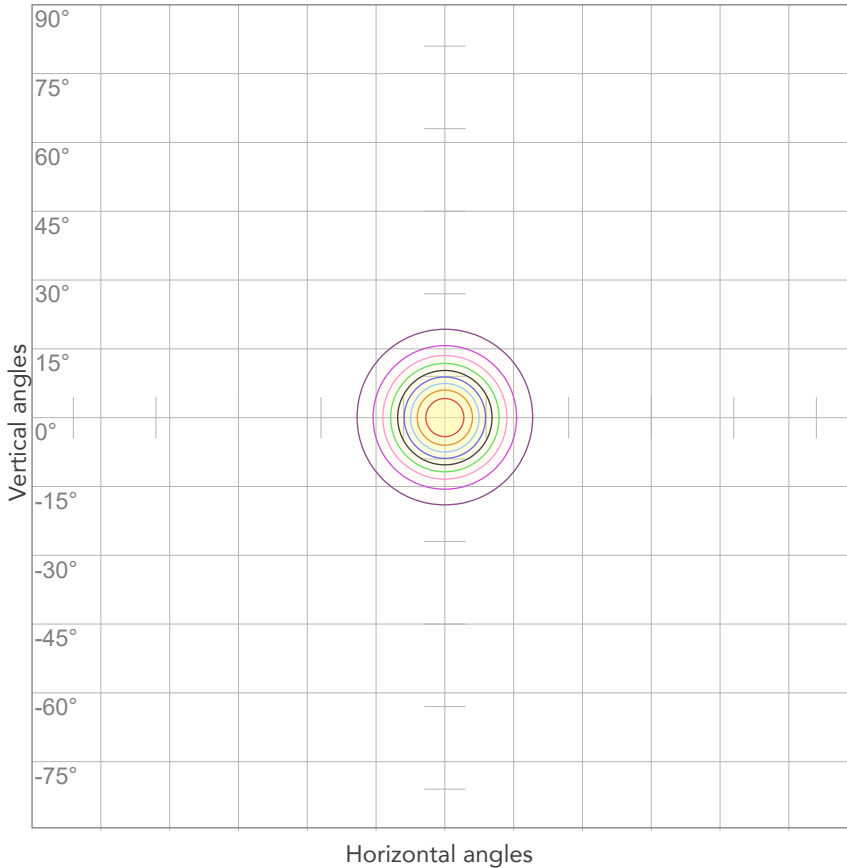
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
228V	0,000A	0,00W	n/a	n/alm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



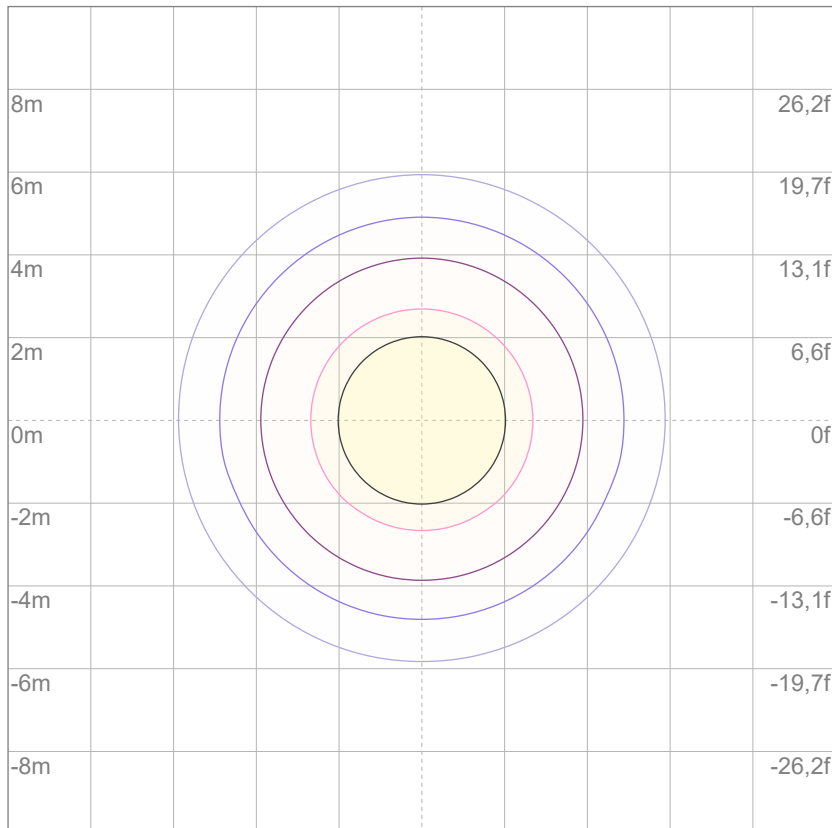
10%	128 cd
20%	255 cd
30%	383 cd
40%	510 cd
50%	638 cd
60%	765 cd
70%	893 cd
80%	1020 cd

### Conditions:

Number of c-planes: 2

Candela at center: 1275 cd

## ISO LUX DIAGRAM



3%	0,383 lx
5%	0,638 lx
10%	1,28 lx
30%	3,83 lx
50%	6,38 lx

### Conditions:

Number of c-planes: 2

Lux at center: 12,8 lx

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



Total lumen output:

1455 lm

Peak candela output:

7030 cd

Light quality:

CRI: 81,5

Color temperature:

3001 K

**PRODUCT NAME:**  
SMARTBATPLUSNEO

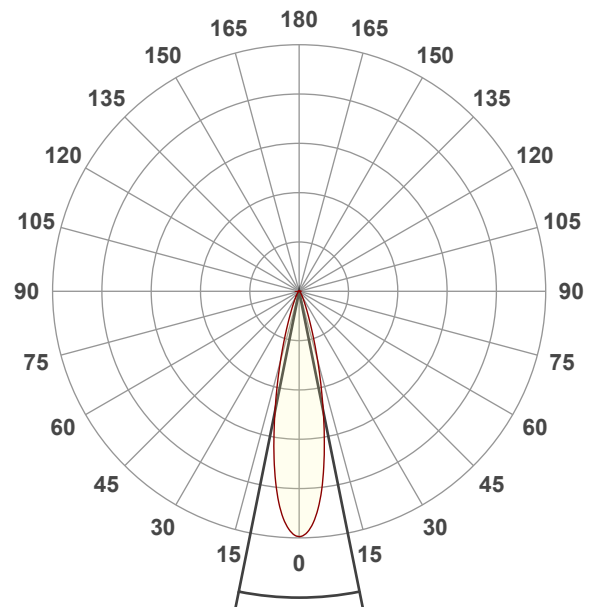
**MEASURAMENT CONDITIONS:**

Beam angle:  
20Deg Lens

Target:  
White- Runtime 3H

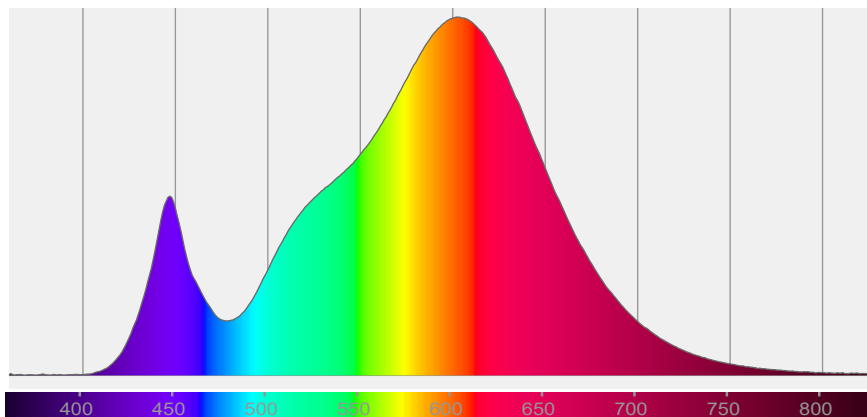
Operator:  
Giacomo Matteo

Date and time:  
13/06/2024 15:12:30

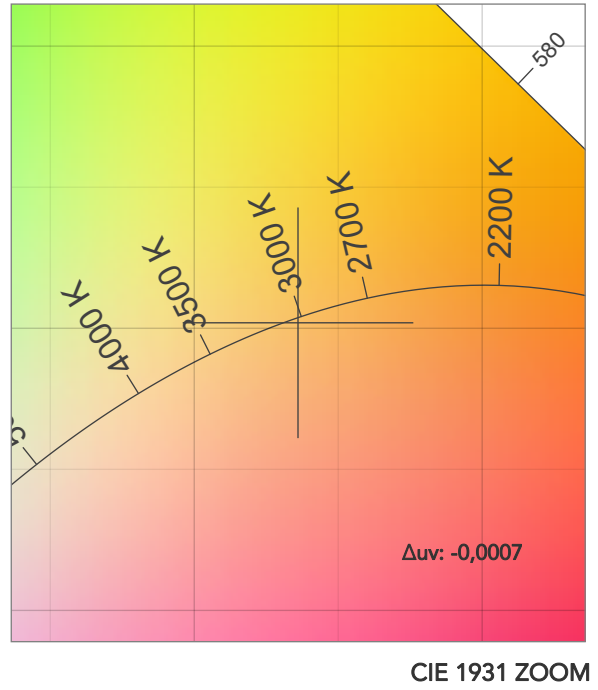
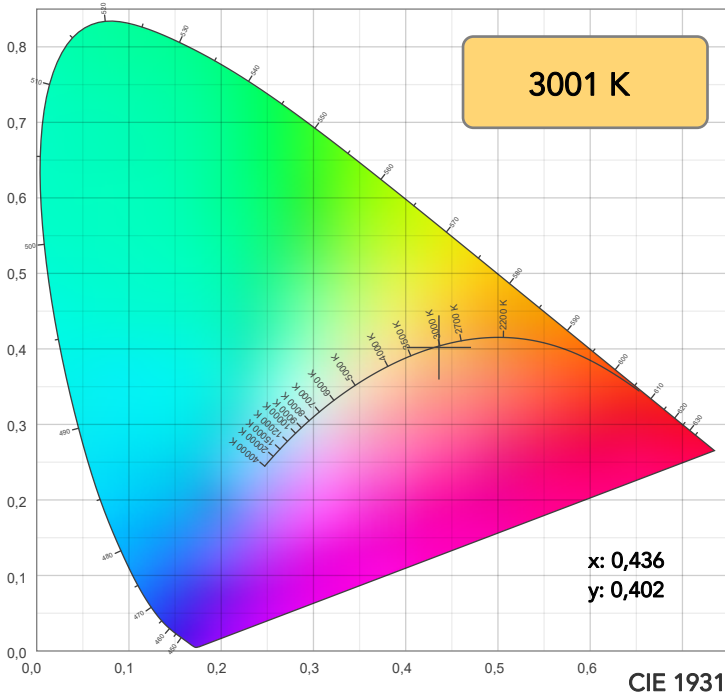


Beam angle 50%: 22,7°  
Field angle 10%: 42,1°  
Cut off angle 2.5%: 62,1°

Spectra

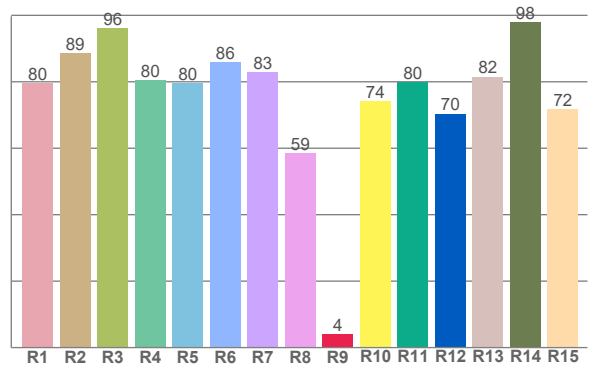
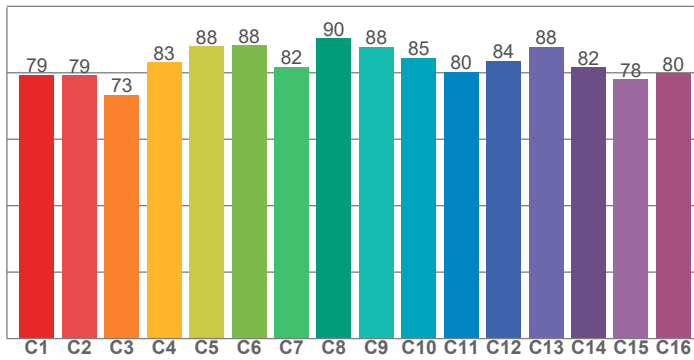


# COLOR DETAILS



TM30: 82,8

CRI: 81,5 (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
79,6	88,6	96,1	80,5	79,5	85,9	82,9	58,6	4,0	74,1	79,8	70,4	81,5	97,9	71,7

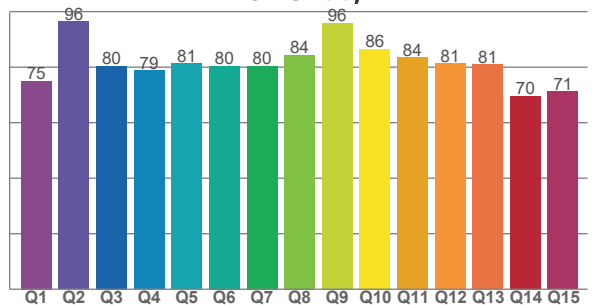
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79,4	79,3	73,4	83,2	87,9	88,3	81,7	90,3	87,8	84,5	80,3	83,6	87,9	81,7	78,1	79,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
75,0	96,4	80,4	78,7	81,3	80,3	80,4	84,3	96,0	86,5	83,5	81,3	80,9	69,5	71,2

CQS: 80,2



## COLOR PARAMETERS

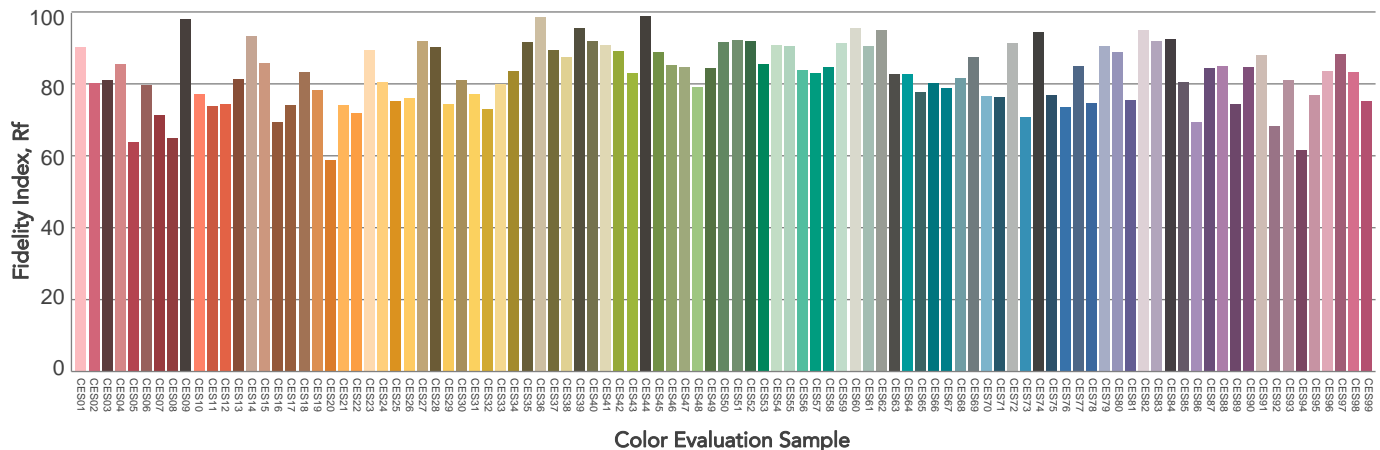
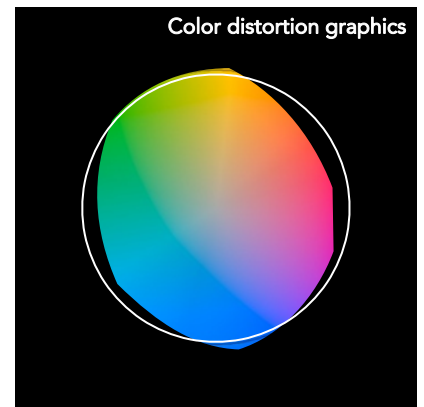
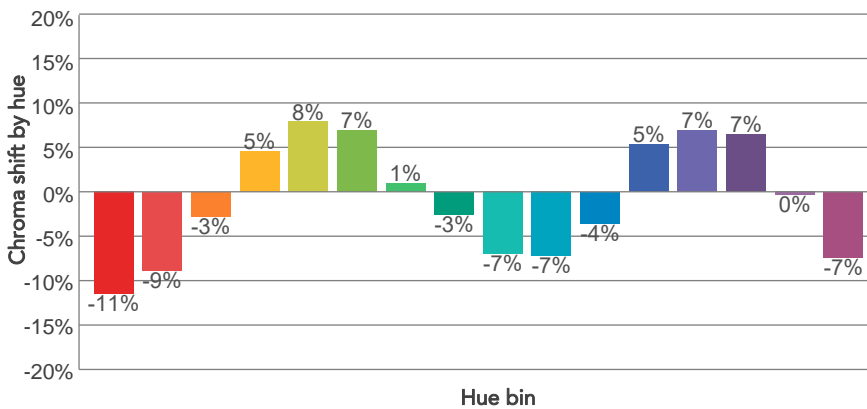
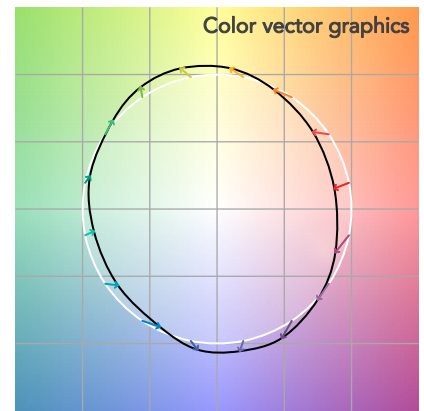
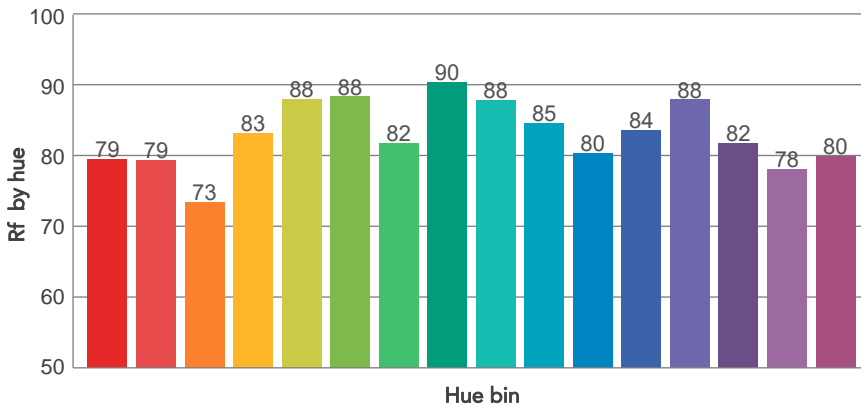
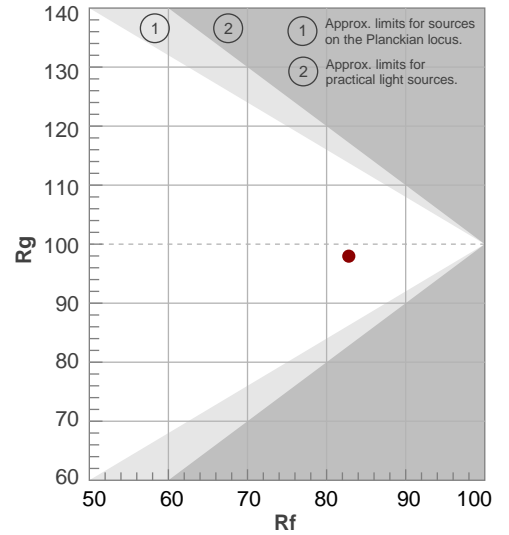
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3001 K	81,5	4,0	82,8	98,0	80,2	63	0,436	0,402	-0,0007

# TM30 DETAILS

**Rf 82,8**  
Fidelity index Rf

**Rg 98,0**  
Gammut index

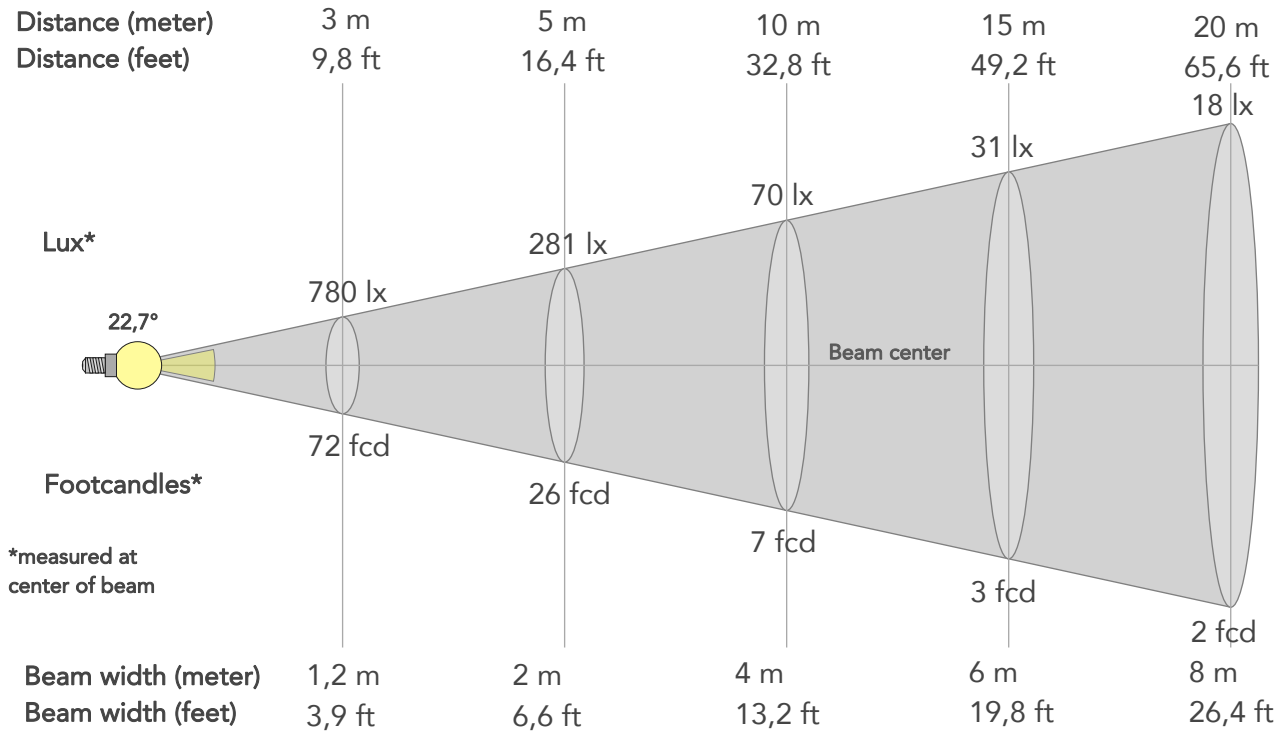
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	79	-11%	-2%
2	79	-9%	8%
3	73	-3%	14%
4	83	5%	11%
5	88	8%	6%
6	88	7%	-3%
7	82	1%	-12%
8	90	-3%	-5%
9	88	-7%	-2%
10	85	-7%	6%
11	80	-4%	13%
12	84	5%	6%
13	88	7%	-4%
14	82	7%	-13%
15	78	0%	-14%
16	80	-7%	-14%



# BEAM DETAILS



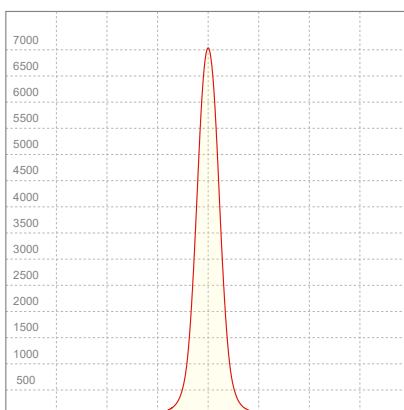
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,7°	42,1°	62,1°	98,7%	95,7%



## 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	7020lx	1755lx	780lx	439lx	281lx	125lx	70lx	31lx	18lx	11lx	8lx	4lx	3lx
Footcand.	652fcd	163fcd	72fcd	41fcd	26fcd	12fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
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

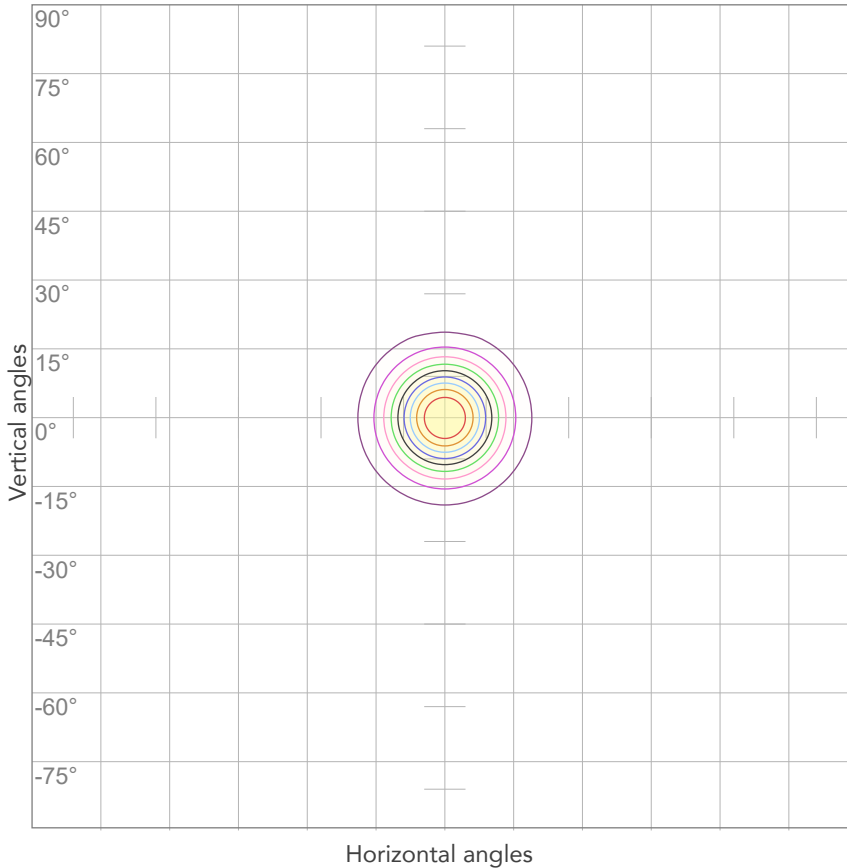


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
228V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



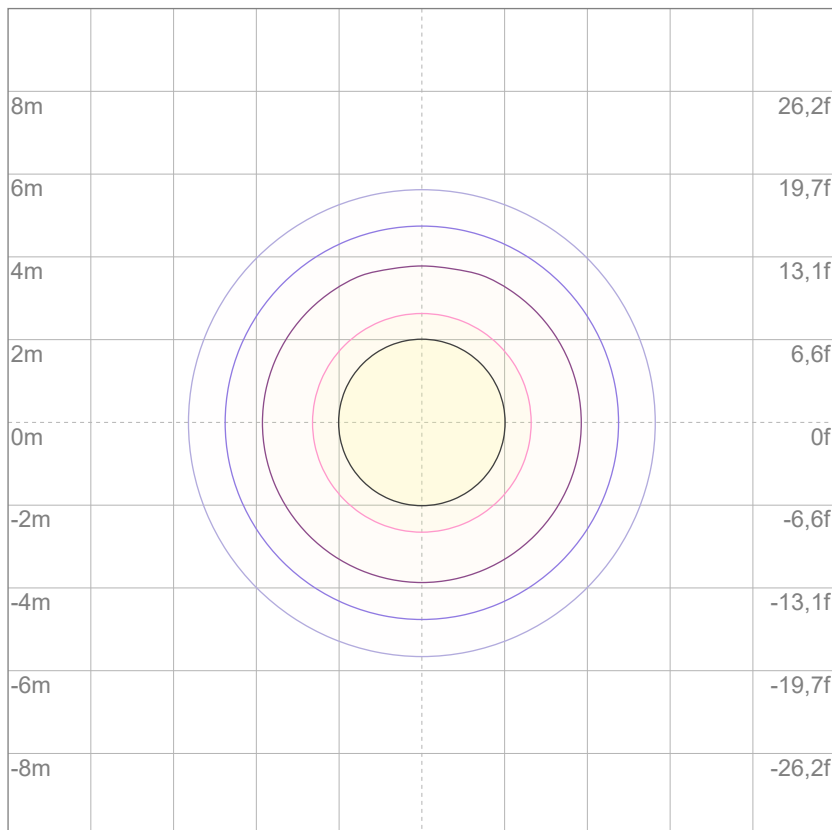
10%	702 cd
20%	1404 cd
30%	2106 cd
40%	2808 cd
50%	3510 cd
60%	4212 cd
70%	4914 cd
80%	5616 cd

Conditions:

Number of c-planes: 2

Candela at center: 7020 cd

## ISO LUX DIAGRAM



3%	2,11 lx
5%	3,51 lx
10%	7,02 lx
30%	21,1 lx
50%	35,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 70,2 lx

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



Total lumen output:

1868 lm

Peak candela output:

5303 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

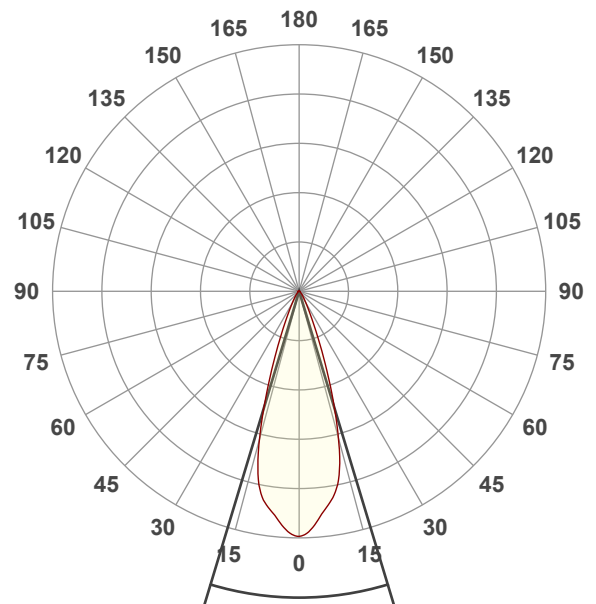
**MEASUREMENT CONDITIONS:**

Beam angle:  
35Deg Lens

Target:  
Full On - Runtime 3H

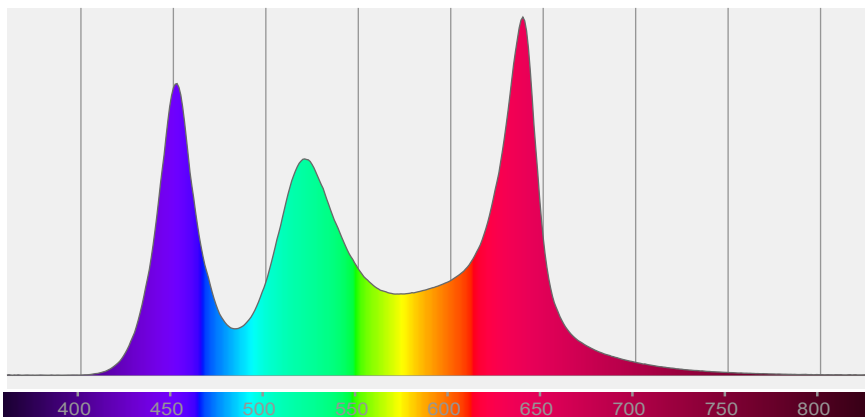
Operator:  
Salvatore Giglio

Date and time:  
07/08/2024 10:15:17



Beam angle 50%: 33,6°  
Field angle 10%: 52,3°  
Cut off angle 2.5%: 74,7°

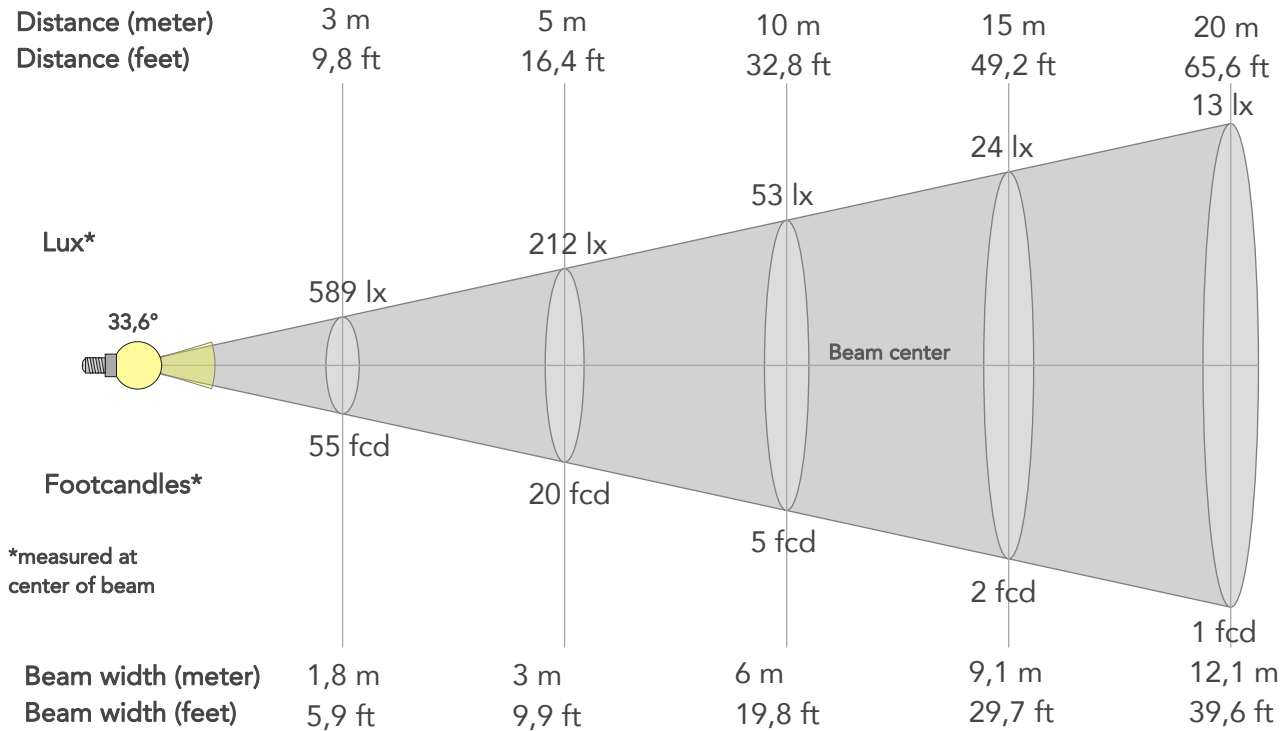
Spectra



# BEAM DETAILS



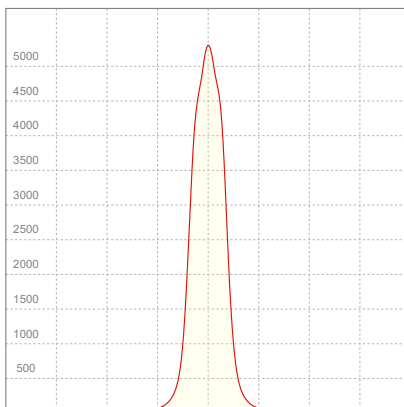
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,6°	52,3°	74,7°	98,4%	95,9%



## 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	5297lx	1324lx	589lx	331lx	212lx	94lx	53lx	24lx	13lx	8lx	6lx	3lx	2lx
Footcand.	492fcd	123fcd	55fcd	31fcd	20fcd	9fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,5m	6m	9,1m	12,1m	15,1m	18,1m	24,2m	30,2m
Beam wid.	2ft	4ft	5,9ft	7,9ft	9,9ft	14,9ft	19,8ft	29,7ft	39,6ft	49,6ft	59,5ft	79,3ft	99,1ft

## LINEAR DISTRIBUTION DIAGRAM



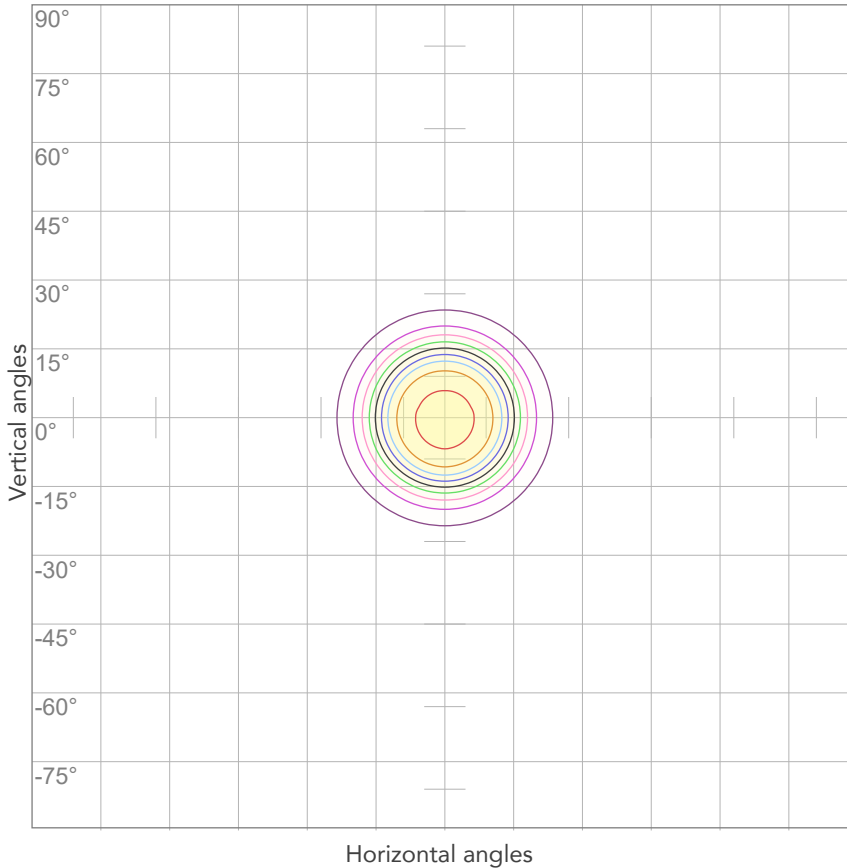
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	0,000A	0,00W	n/a	n/alm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



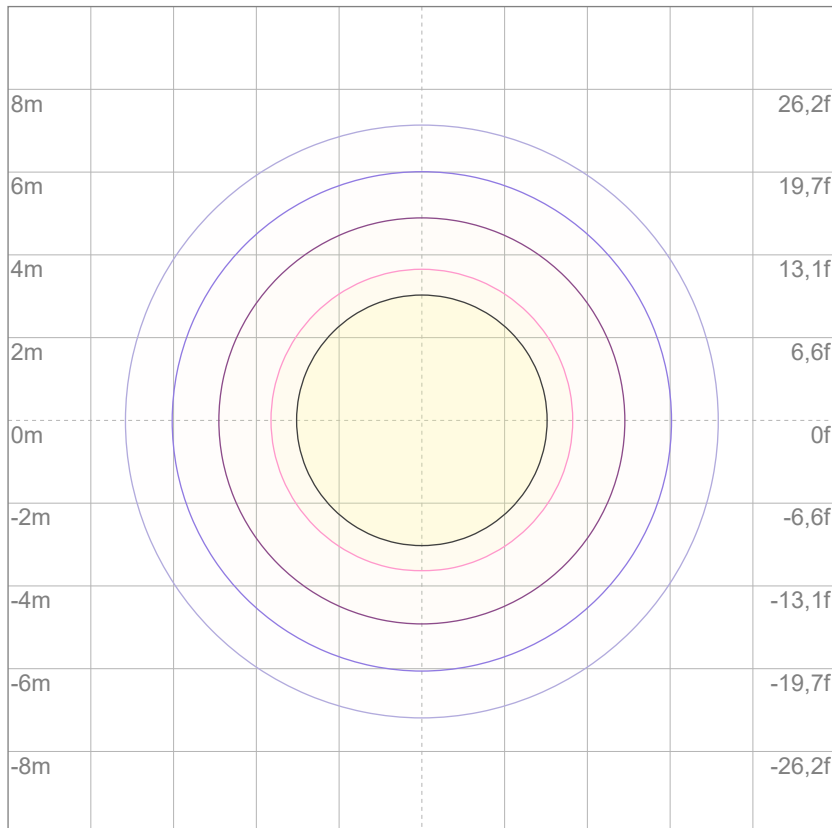
10%	530 cd
20%	1059 cd
30%	1589 cd
40%	2119 cd
50%	2648 cd
60%	3178 cd
70%	3708 cd
80%	4237 cd

Conditions:

Number of c-planes: 2

Candela at center: 5297 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	1,59 lx
5%	2,65 lx
10%	5,30 lx
30%	15,9 lx
50%	26,5 lx

Conditions:

Number of c-planes: 2

Lux at center: 53,0 lx

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



Total lumen output:

469 lm

Peak candela output:

1362 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

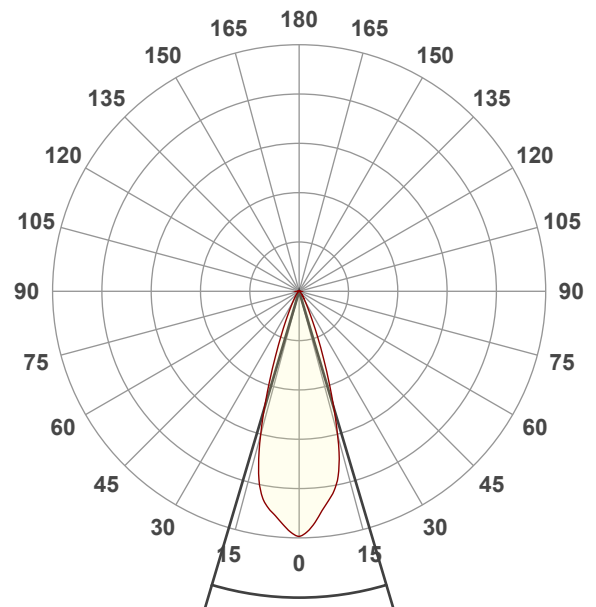
**MEASUREMENT CONDITIONS:**

Beam angle:  
35Deg Lens

Target:  
Red - Runtime 3H

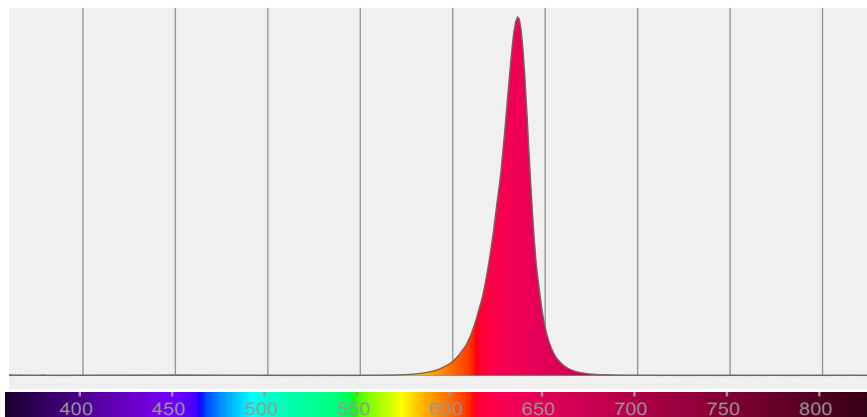
Operator:  
Salvatore Giglio

Date and time:  
07/08/2024 10:16:42



Beam angle 50%: 33,1°  
Field angle 10%: 51,8°  
Cut off angle 2.5%: 73,9°

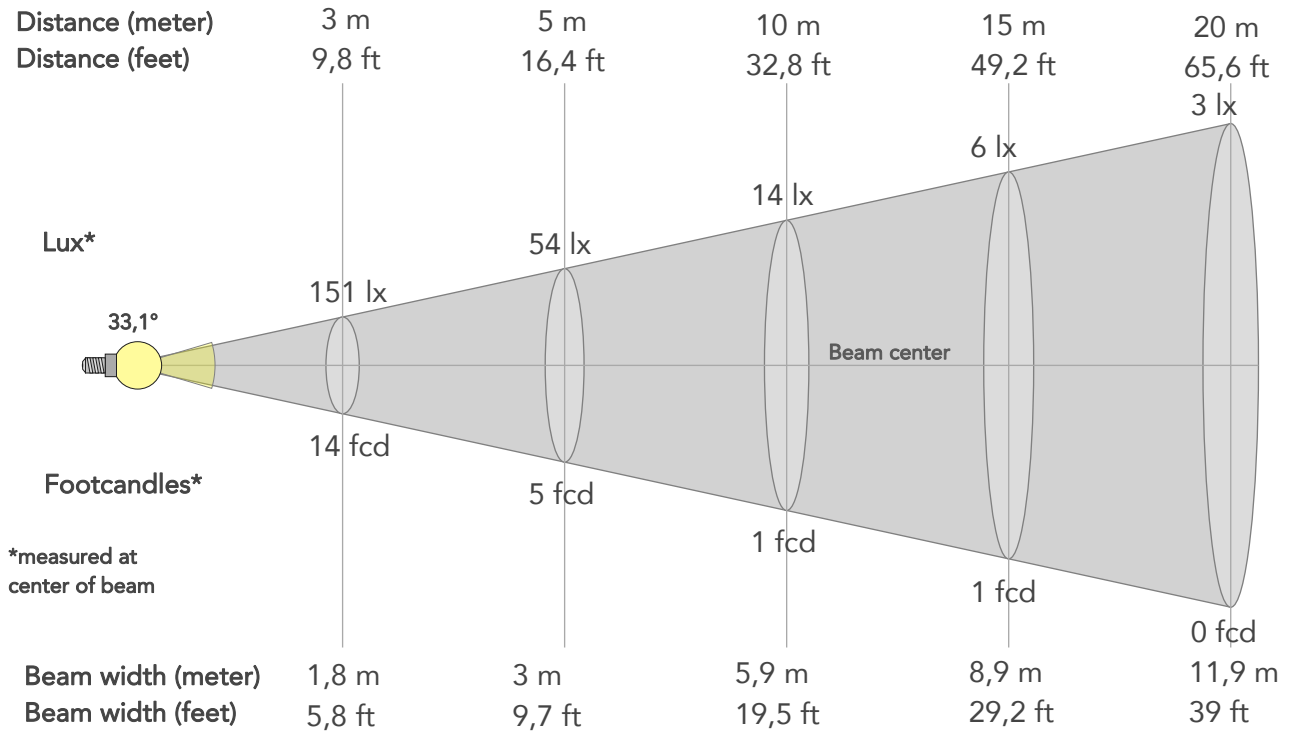
Spectra



# BEAM DETAILS



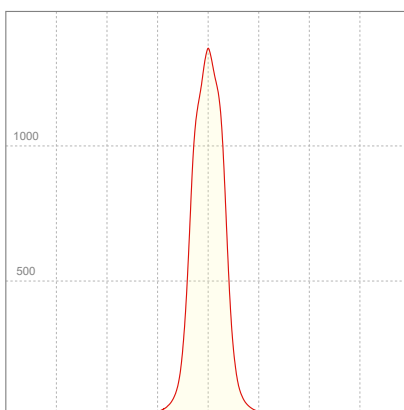
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,1°	51,8°	73,9°	98,2%	95,6%



## 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	1361lx	340lx	151lx	85lx	54lx	24lx	14lx	6lx	3lx	2lx	2lx	1lx	1lx
Footcand.	126fcd	32fcd	14fcd	8fcd	5fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,5m	5,9m	8,9m	11,9m	14,9m	17,8m	23,8m	29,7m
Beam wid.	2ft	3,9ft	5,8ft	7,8ft	9,7ft	14,6ft	19,5ft	29,2ft	39ft	48,7ft	58,5ft	78ft	97,5ft

## LINEAR DISTRIBUTION DIAGRAM

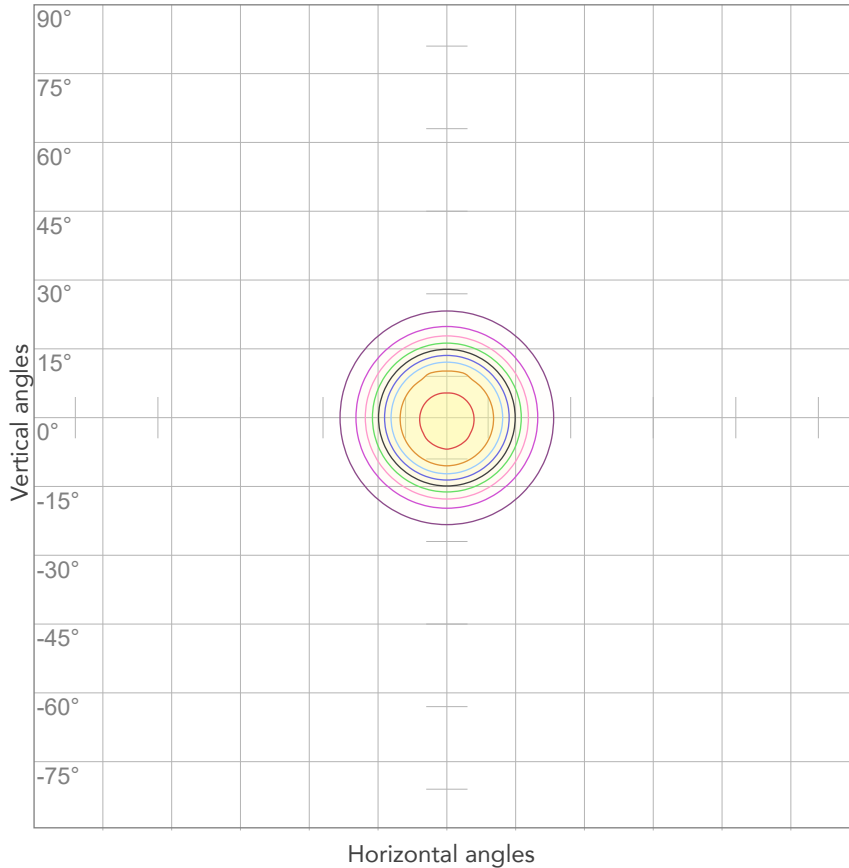


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



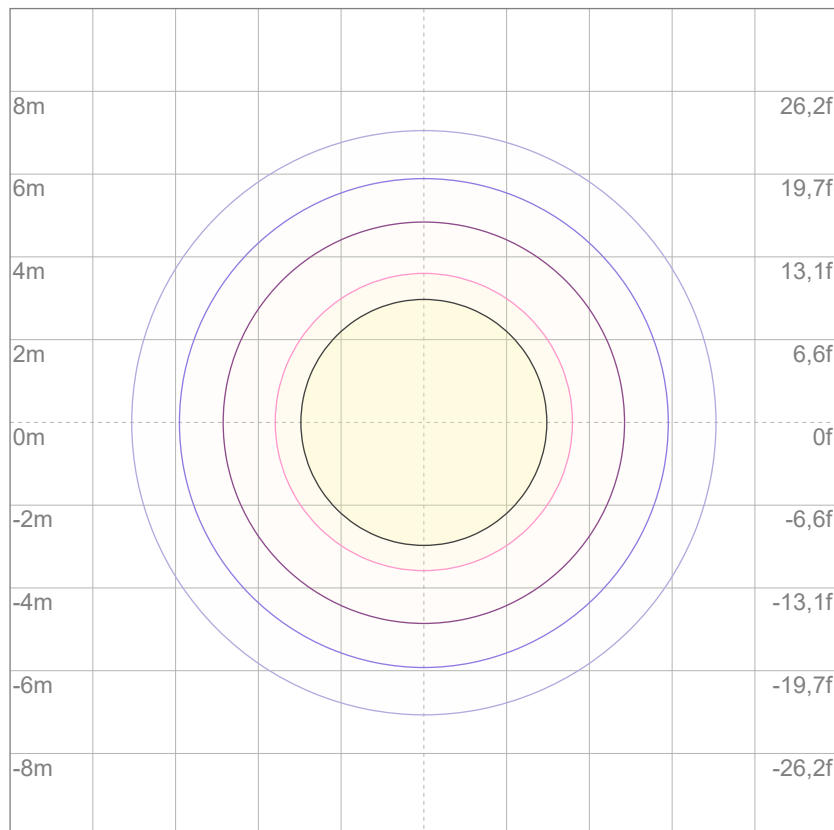
10%	136 cd
20%	272 cd
30%	408 cd
40%	544 cd
50%	680 cd
60%	817 cd
70%	953 cd
80%	1089 cd

Conditions:

Number of c-planes: 2

Candela at center: 1361 cd

## ISO LUX DIAGRAM



3%	0,408 lx
5%	0,680 lx
10%	1,36 lx
30%	4,08 lx
50%	6,80 lx

Conditions:

Number of c-planes: 2

Lux at center: 13,6 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

938 lm

Peak candela output:

2662 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

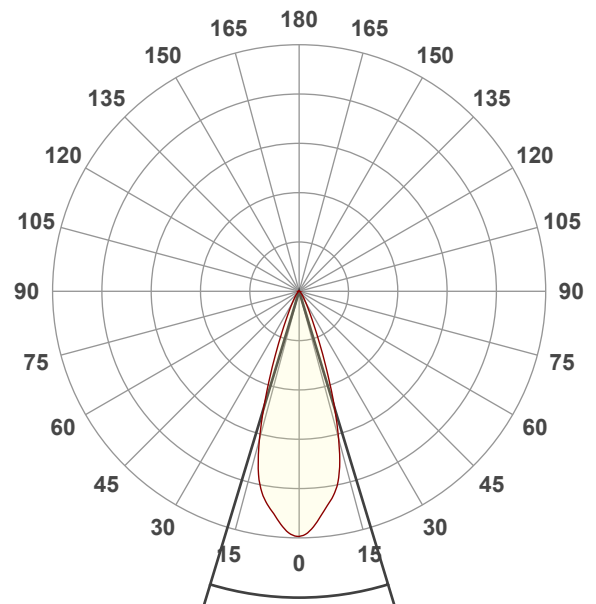
**MEASUREMENT CONDITIONS:**

Beam angle:  
35Deg Lens

Target:  
Green - Runtime 3H

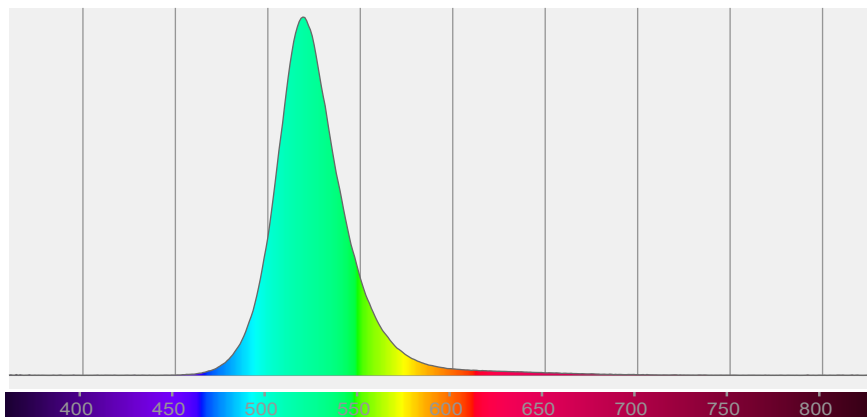
Operator:  
Salvatore Giglio

Date and time:  
07/08/2024 10:18:23



Beam angle 50%: 33,7°  
Field angle 10%: 52,3°  
Cut off angle 2.5%: 75,2°

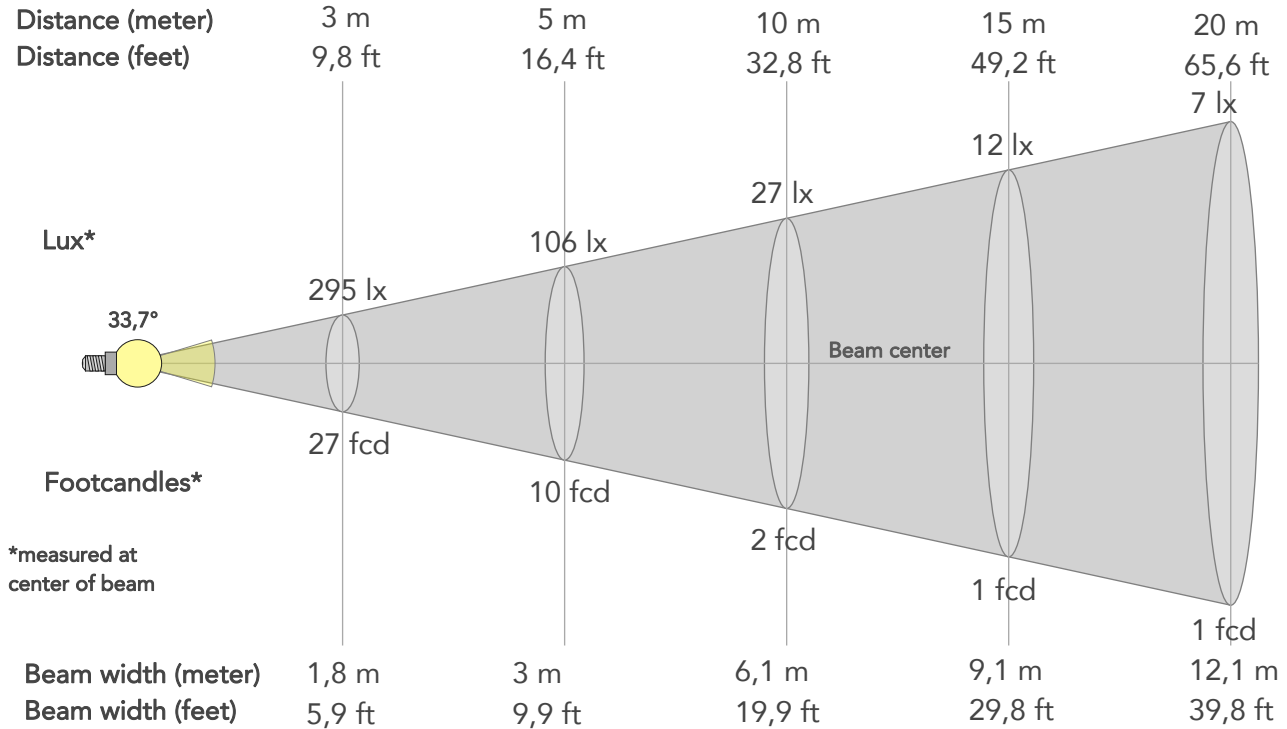
Spectra



# BEAM DETAILS



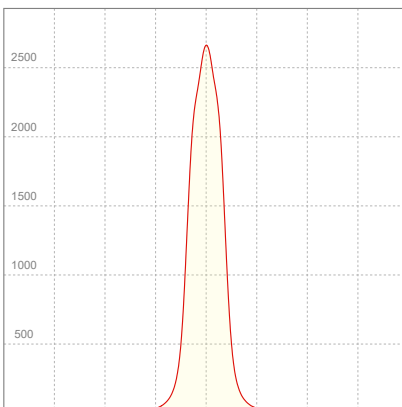
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,7°	52,3°	75,2°	98,4%	95,9%



## 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	2657lx	664lx	295lx	166lx	106lx	47lx	27lx	12lx	7lx	4lx	3lx	2lx	1lx
Footcand.	247fcd	62fcd	27fcd	15fcd	10fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,5m	6,1m	9,1m	12,1m	15,2m	18,2m	24,3m	30,3m
Beam wid.	2ft	4ft	5,9ft	7,9ft	9,9ft	14,9ft	19,9ft	29,8ft	39,8ft	49,7ft	59,7ft	79,6ft	99,5ft

## LINEAR DISTRIBUTION DIAGRAM

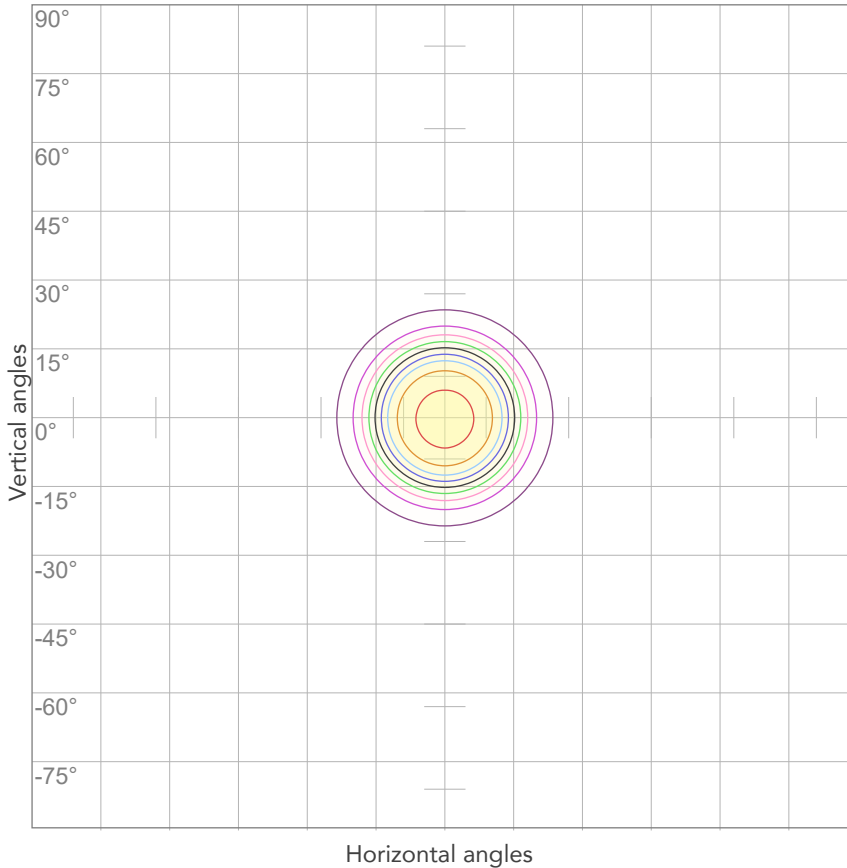


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



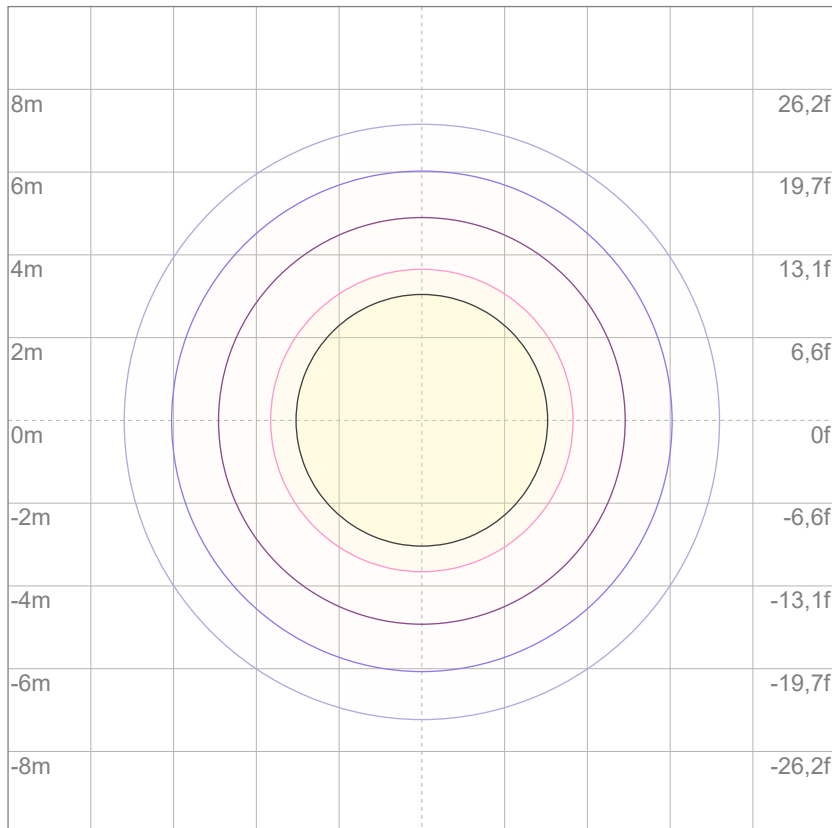
10%	266 cd
20%	531 cd
30%	797 cd
40%	1063 cd
50%	1329 cd
60%	1594 cd
70%	1860 cd
80%	2126 cd

Conditions:

Number of c-planes: 2

Candela at center: 2657 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,797 lx
5%	1,33 lx
10%	2,66 lx
30%	7,97 lx
50%	13,3 lx

Conditions:

Number of c-planes: 2

Lux at center: 26,6 lx

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



Total lumen output:

219 lm

Peak candela output:

627 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

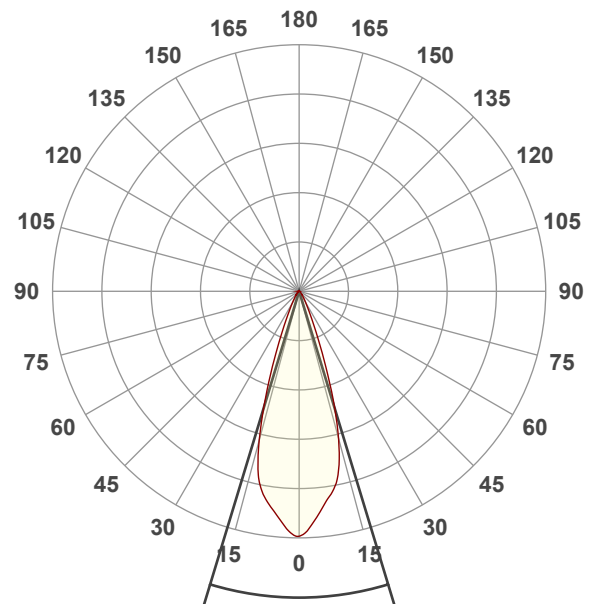
**MEASUREMENT CONDITIONS:**

Beam angle:  
35Deg Lens

Target:  
Blue - Runtime 3H

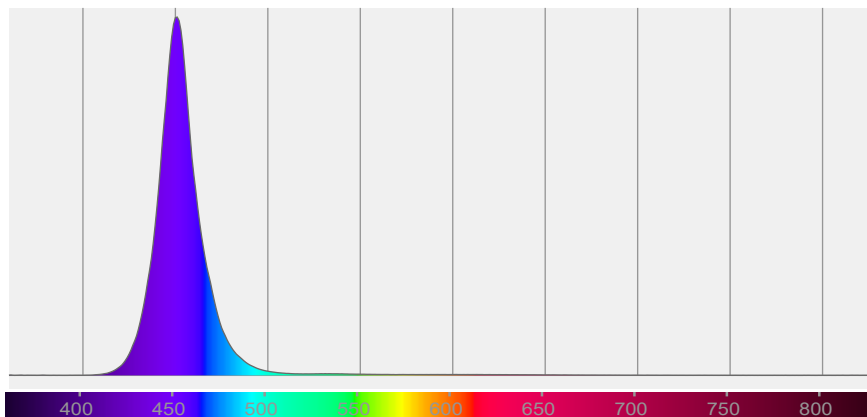
Operator:  
Salvatore Giglio

Date and time:  
07/08/2024 10:20:07



Beam angle 50%: 33,8°  
Field angle 10%: 51,9°  
Cut off angle 2.5%: 74,8°

Spectra

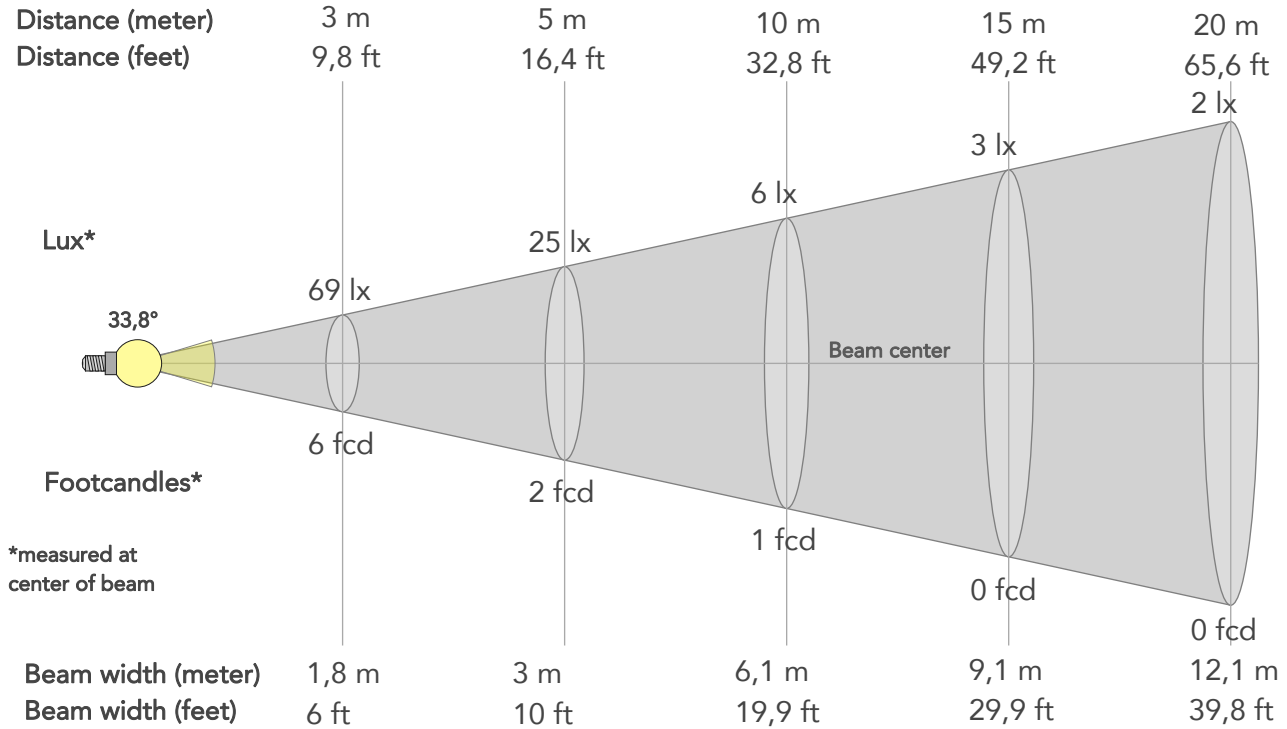




# BEAM DETAILS



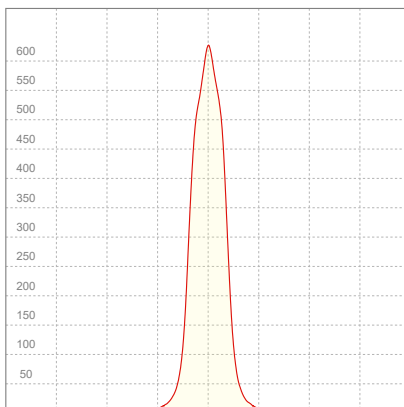
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,8°	51,9°	74,8°	98,0%	95,4%



## 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	625lx	156lx	69lx	39lx	25lx	11lx	6lx	3lx	2lx	1lx	1lx	0lx	0lx
Footcand.	58fcd	15fcd	6fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,6m	6,1m	9,1m	12,1m	15,2m	18,2m	24,3m	30,4m
Beam wid.	2ft	4ft	6ft	8ft	10ft	14,9ft	19,9ft	29,9ft	39,8ft	49,8ft	59,8ft	79,7ft	99,6ft

## LINEAR DISTRIBUTION DIAGRAM

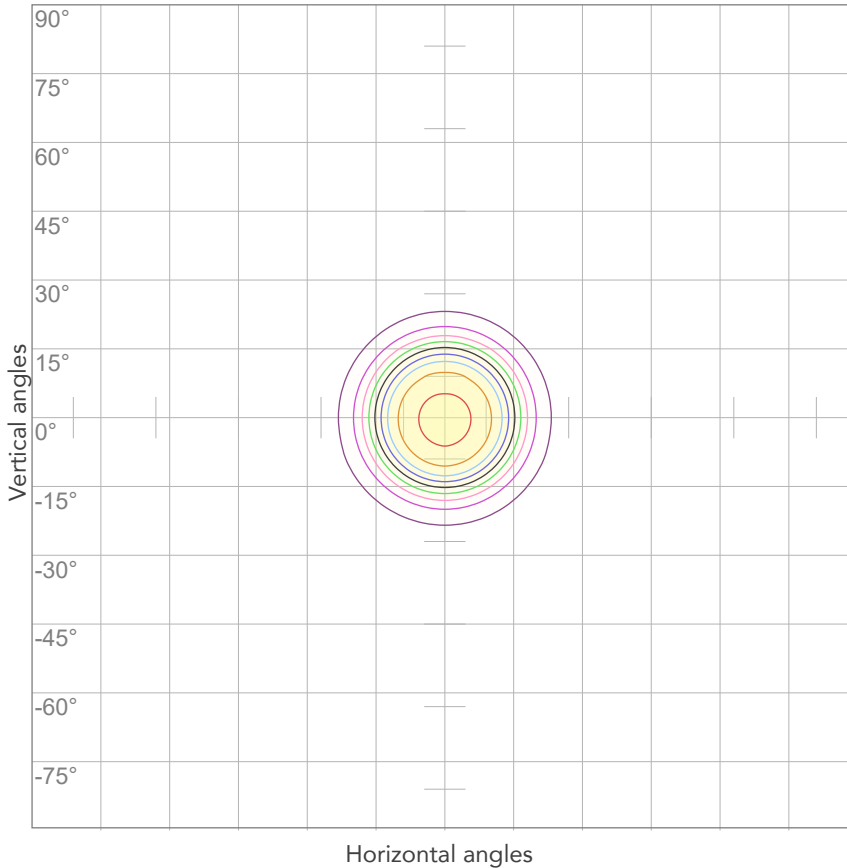


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



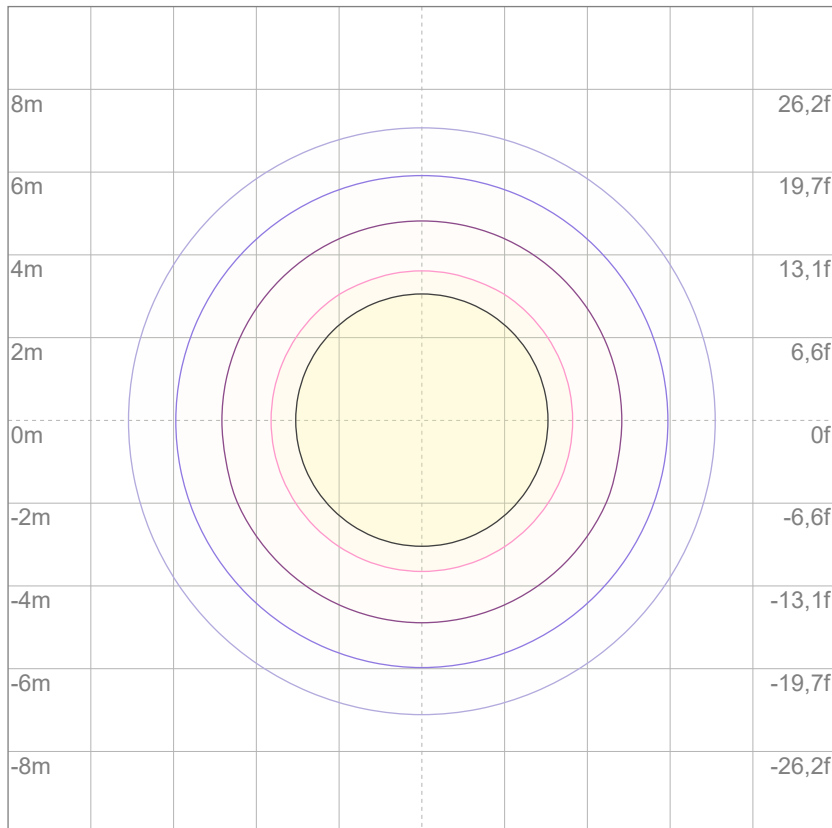
10%	62 cd
20%	125 cd
30%	187 cd
40%	250 cd
50%	312 cd
60%	375 cd
70%	437 cd
80%	500 cd

### Conditions:

Number of c-planes: 2

Candela at center: 625 cd

## ISO LUX DIAGRAM



3%	0,187 lx
5%	0,312 lx
10%	0,625 lx
30%	1,87 lx
50%	3,12 lx

### Conditions:

Number of c-planes: 2

Lux at center: 6,25 lx

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



Total lumen output:

1019 lm

Peak candela output:

2872 cd

Light quality:

CRI: 80,5

Color temperature:

3084 K

**PRODUCT NAME:**  
SMARTBATPLUSNEO

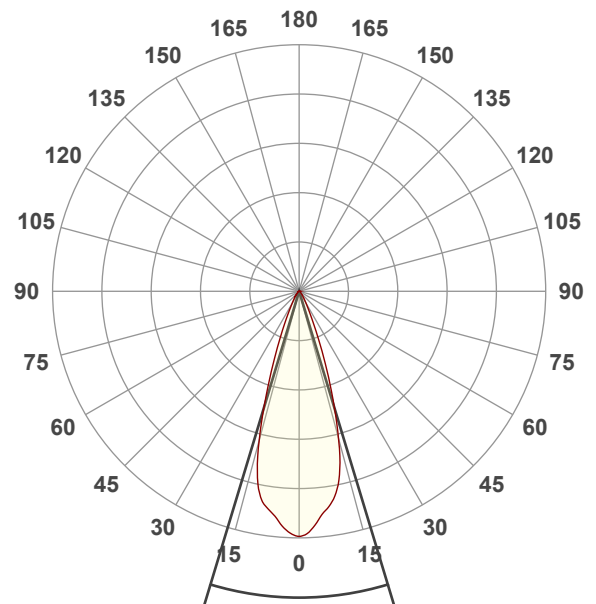
**MEASURAMENT CONDITIONS:**

Beam angle:  
35Deg Lens

Target:  
White - Runtime 3H

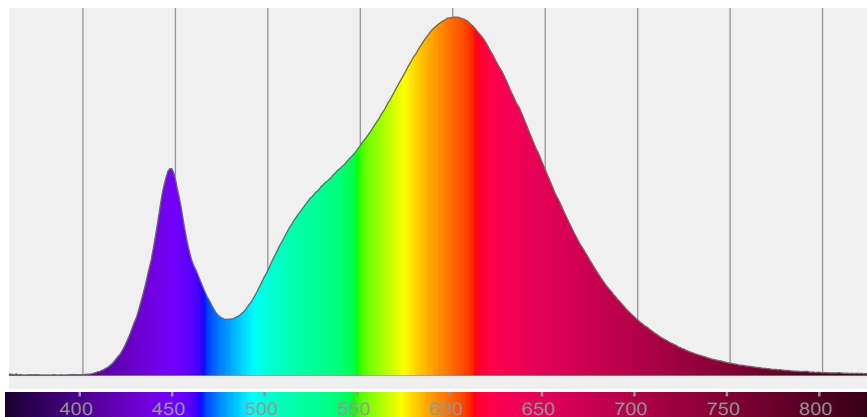
Operator:  
Salvatore Giglio

Date and time:  
07/08/2024 10:21:42

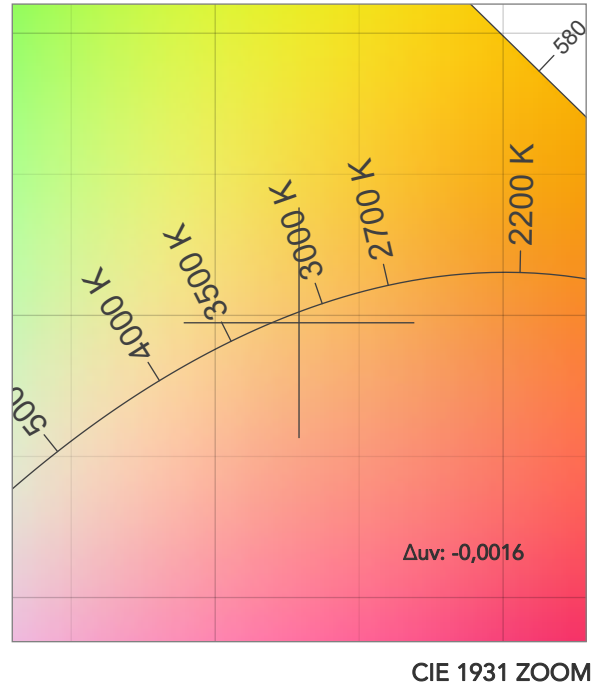
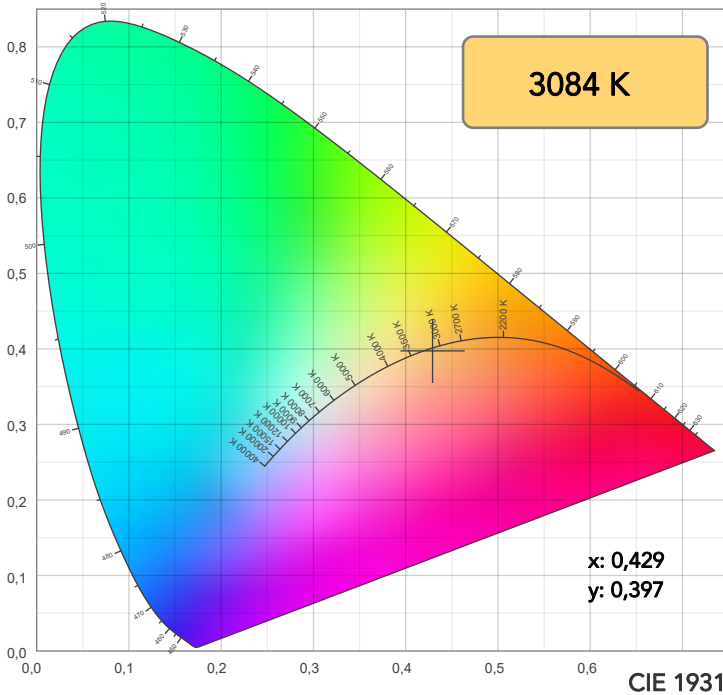


Beam angle 50%: 33,7°  
Field angle 10%: 52,4°  
Cut off angle 2.5%: 74,8°

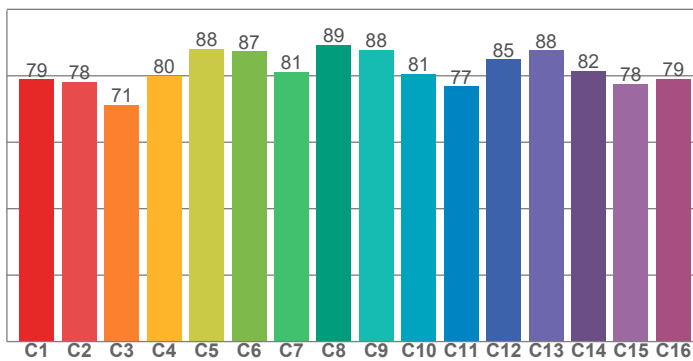
Spectra



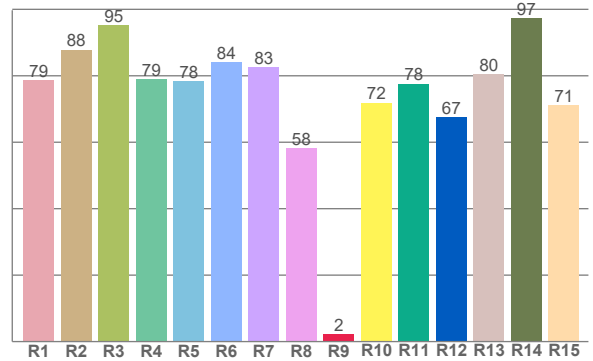
# COLOR DETAILS



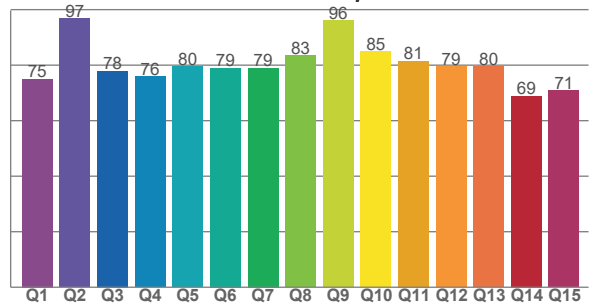
**TM30: 81,6**



**CRI: 80,5 (R1-R8)**



**CQS: 79,0**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
78,6	87,8	95,3	79,1	78,3	84,2	82,6	58,1	2,1	71,9	77,6	67,4	80,5	97,3	71,2

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
78,9	78,2	71,3	80,0	88,2	87,4	81,1	89,3	87,8	80,6	76,8	85,0	87,7	81,5	77,7	79,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
75,1	96,8	77,8	75,9	79,5	78,9	78,9	83,4	96,0	85,0	81,5	79,4	79,5	68,8	70,8

## COLOR PARAMETERS

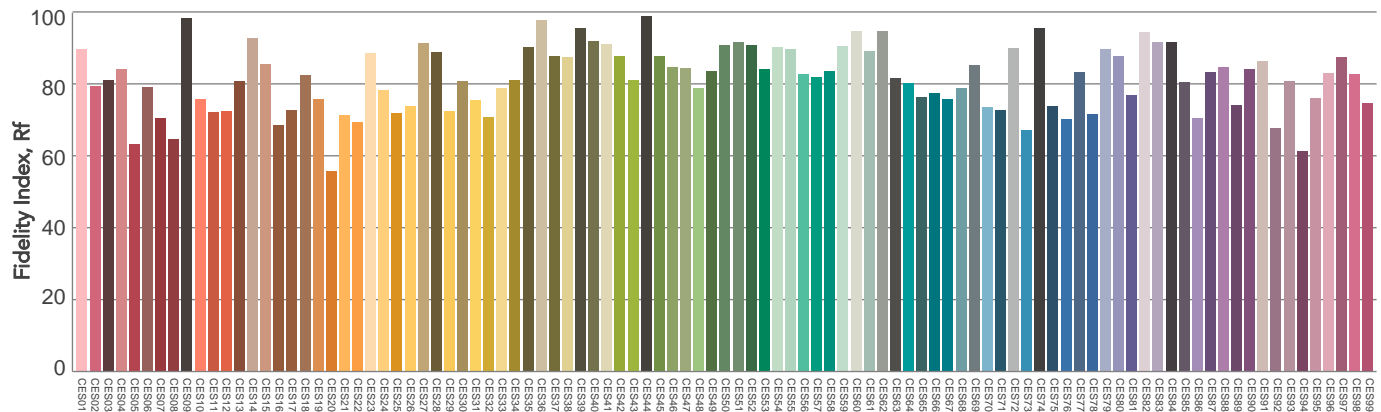
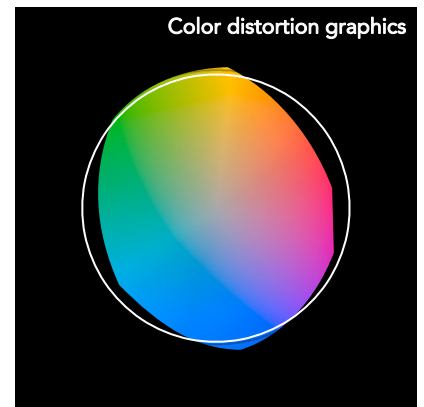
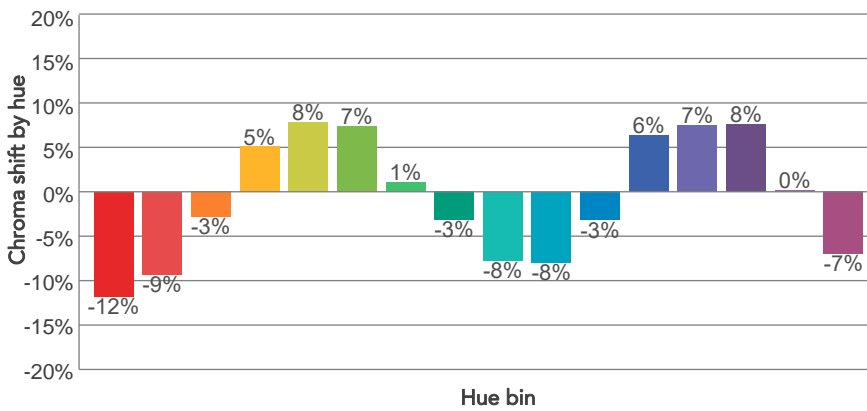
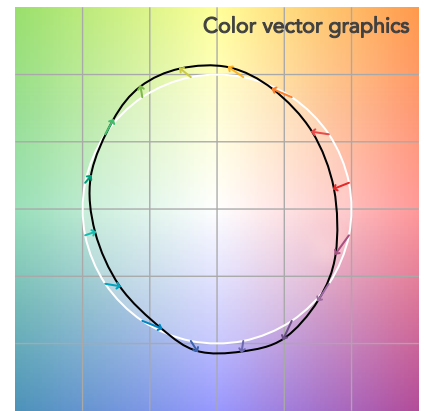
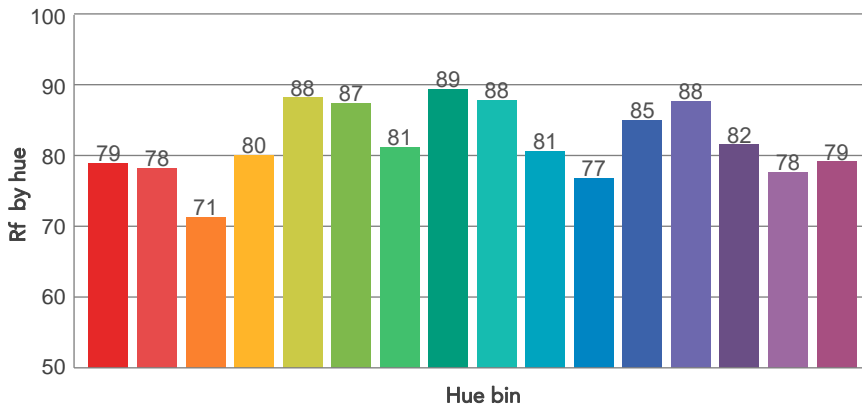
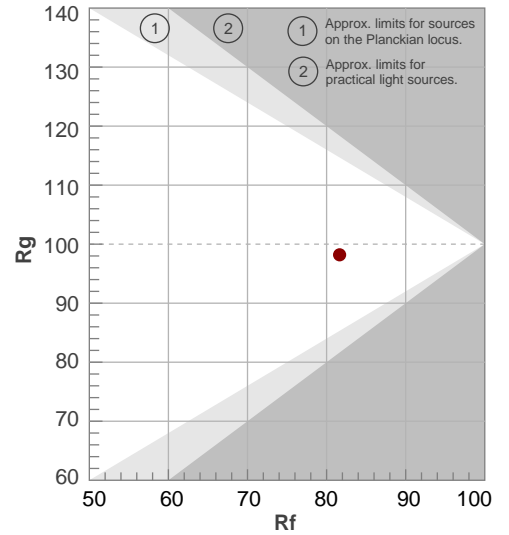
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3084 K	80,5	2,1	81,6	98,2	79,0	61	0,429	0,397	-0,0016

# TM30 DETAILS

**Rf 81,6**  
Fidelity index Rf

**Rg 98,2**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	79	-12%	-2%
2	78	-9%	8%
3	71	-3%	15%
4	80	5%	12%
5	88	8%	7%
6	87	7%	-3%
7	81	1%	-12%
8	89	-3%	-6%
9	88	-8%	-1%
10	81	-8%	7%
11	77	-3%	15%
12	85	6%	6%
13	88	7%	-3%
14	82	8%	-13%
15	78	0%	-15%
16	79	-7%	-15%

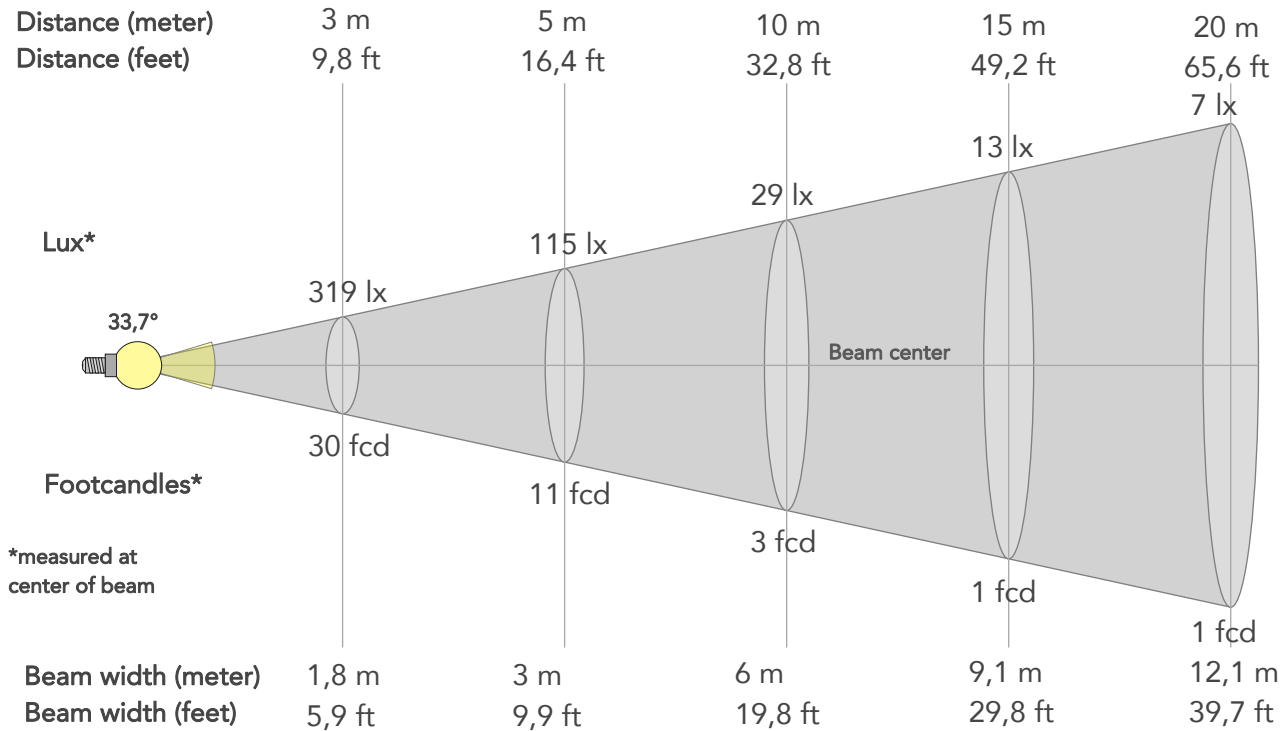


Color Evaluation Sample

# BEAM DETAILS



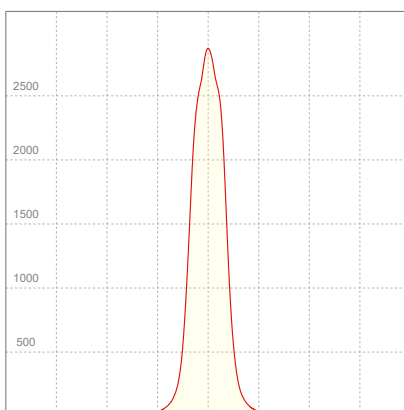
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,7°	52,4°	74,8°	98,4%	95,8%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	2870lx	717lx	319lx	179lx	115lx	51lx	29lx	13lx	7lx	5lx	3lx	2lx	1lx
Footcand.	267fcd	67fcd	30fcd	17fcd	11fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,5m	6m	9,1m	12,1m	15,1m	18,1m	24,2m	30,2m
Beam wid.	2ft	4ft	5,9ft	7,9ft	9,9ft	14,9ft	19,8ft	29,8ft	39,7ft	49,6ft	59,5ft	79,4ft	99,2ft

## LINEAR DISTRIBUTION DIAGRAM

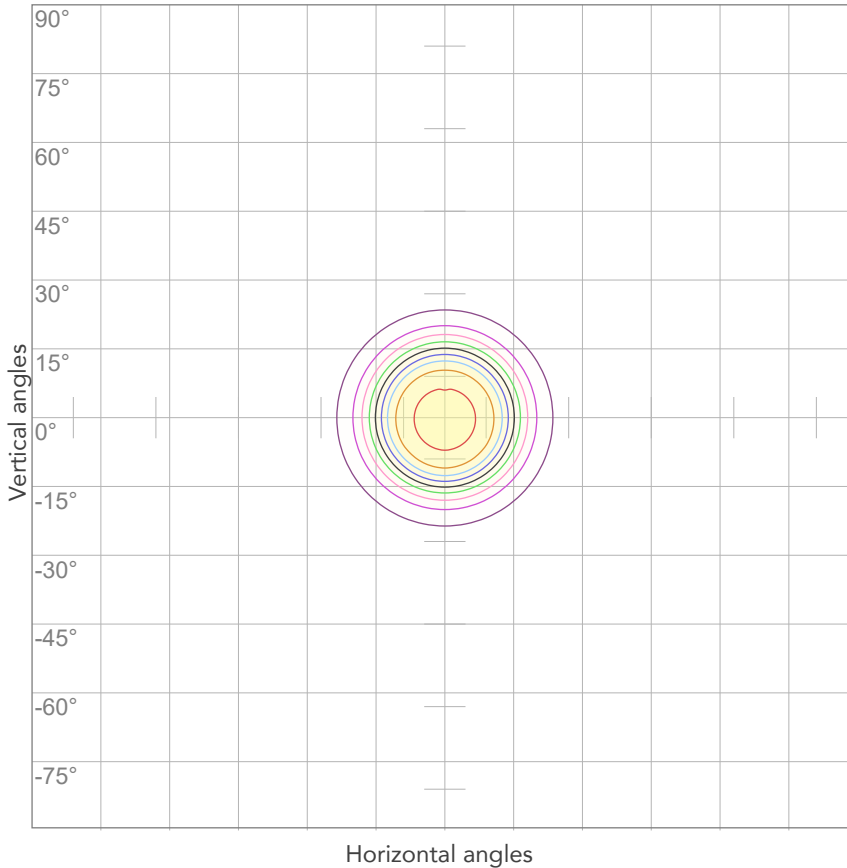


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



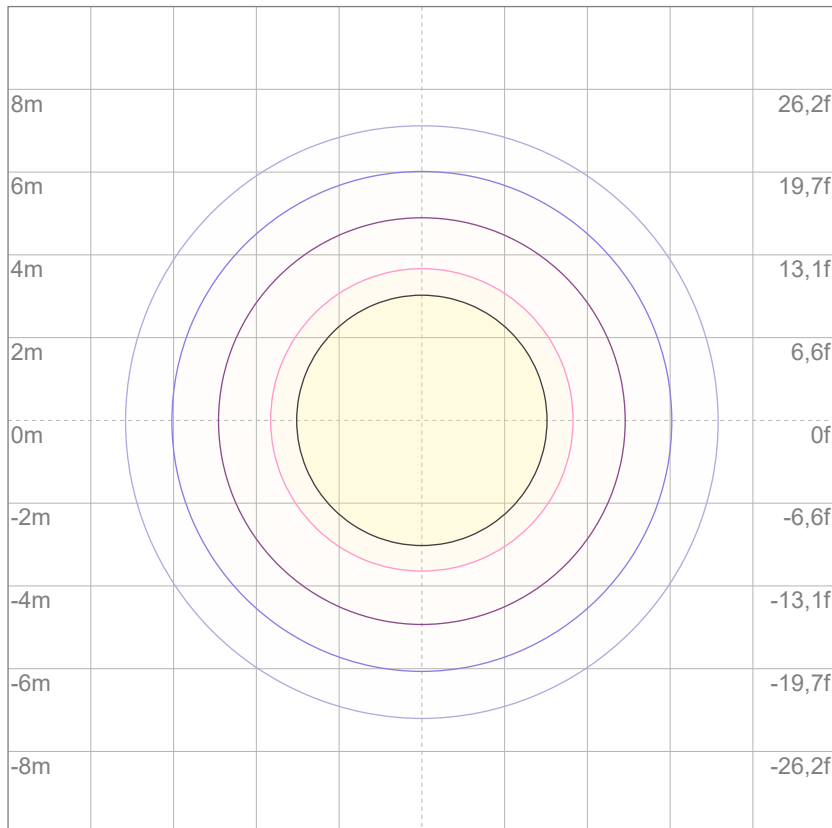
10%	287 cd
20%	574 cd
30%	861 cd
40%	1148 cd
50%	1435 cd
60%	1722 cd
70%	2009 cd
80%	2296 cd

Conditions:

Number of c-planes: 2

Candela at center: 2870 cd

## ISO LUX DIAGRAM



3%	0,861 lx
5%	1,43 lx
10%	2,87 lx
30%	8,61 lx
50%	14,3 lx

Conditions:

Number of c-planes: 2

Lux at center: 28,7 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

1930 lm

Peak candela output:

1885 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

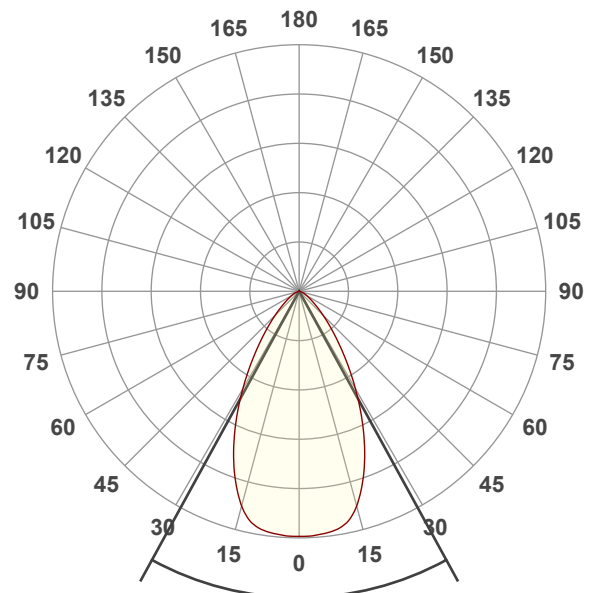
**MEASUREMENT CONDITIONS:**

Beam angle:  
60Deg Lens

Target:  
Full On - Runtime 3H

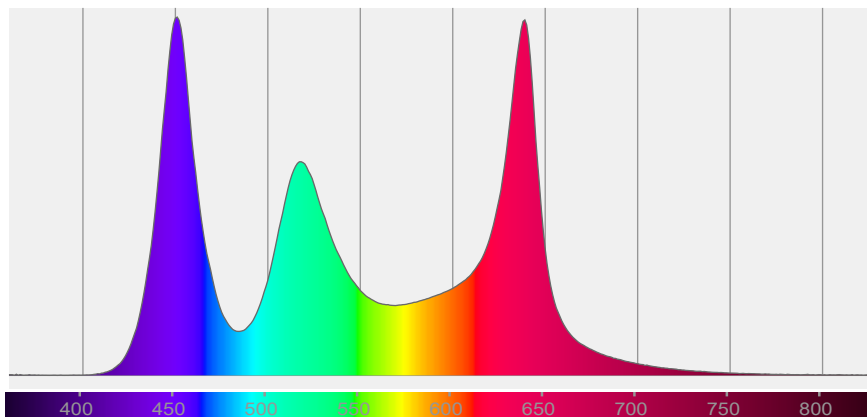
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 14:23:07



Beam angle 50%: 57,4°  
Field angle 10%: 97,2°  
Cut off angle 2.5%: 129,4°

Spectra

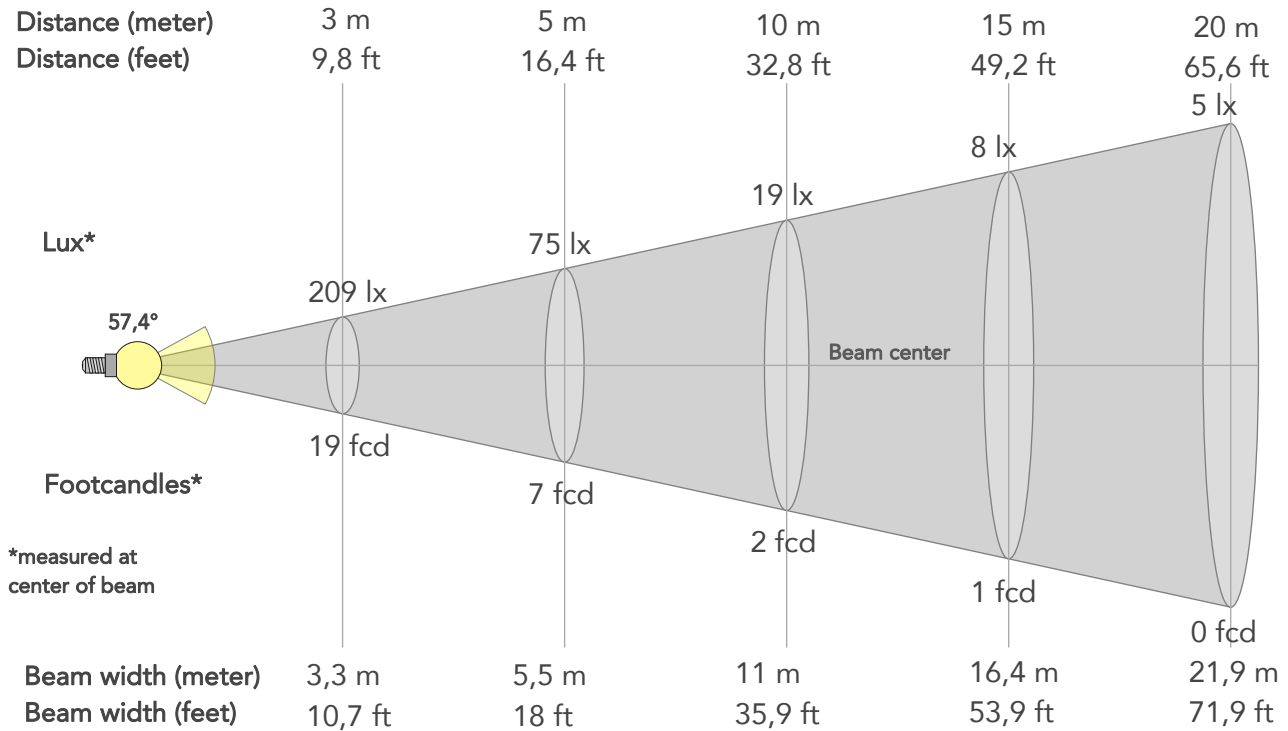




# BEAM DETAILS



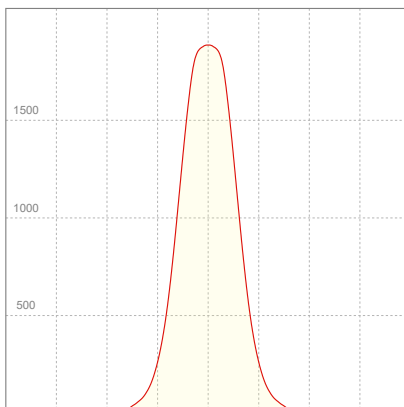
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
57,4°	97,2°	129,4°	96,6%	87,1%



## 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	1885lx	471lx	209lx	118lx	75lx	34lx	19lx	8lx	5lx	3lx	2lx	1lx	1lx
Footcand.	175fcd	44fcd	19fcd	11fcd	7fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,1m	2,2m	3,3m	4,4m	5,5m	8,2m	11m	16,4m	21,9m	27,4m	32,9m	43,8m	54,8m
Beam wid.	3,6ft	7,2ft	10,7ft	14,4ft	18ft	27ft	35,9ft	53,9ft	71,9ft	89,8ft	107,8ft	143,7ft	179,7ft

## LINEAR DISTRIBUTION DIAGRAM

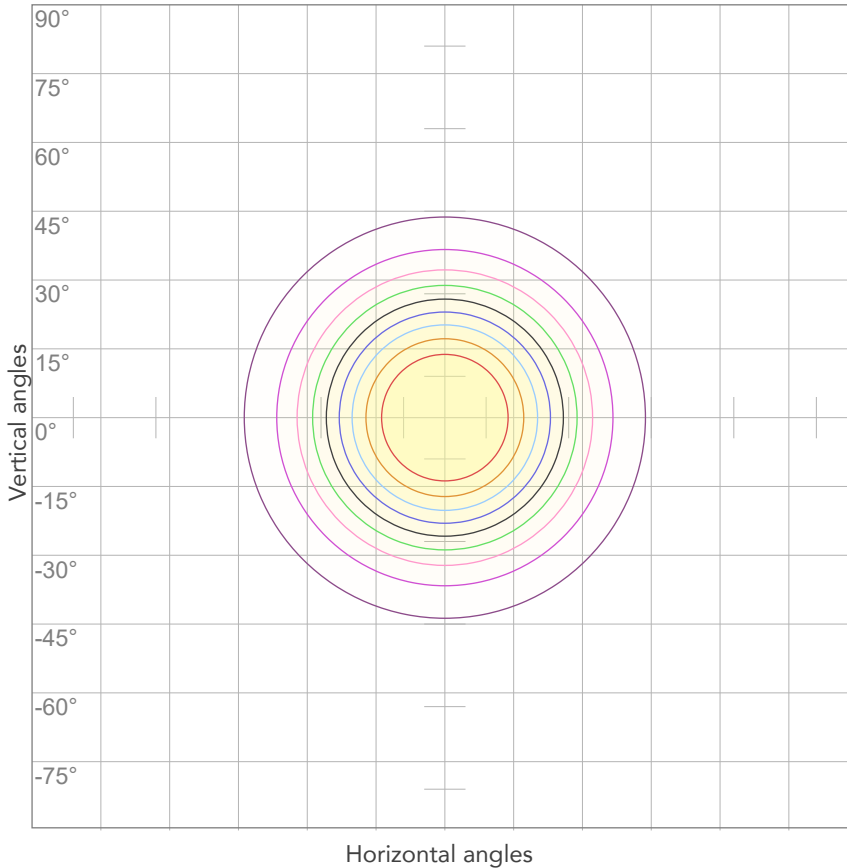


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



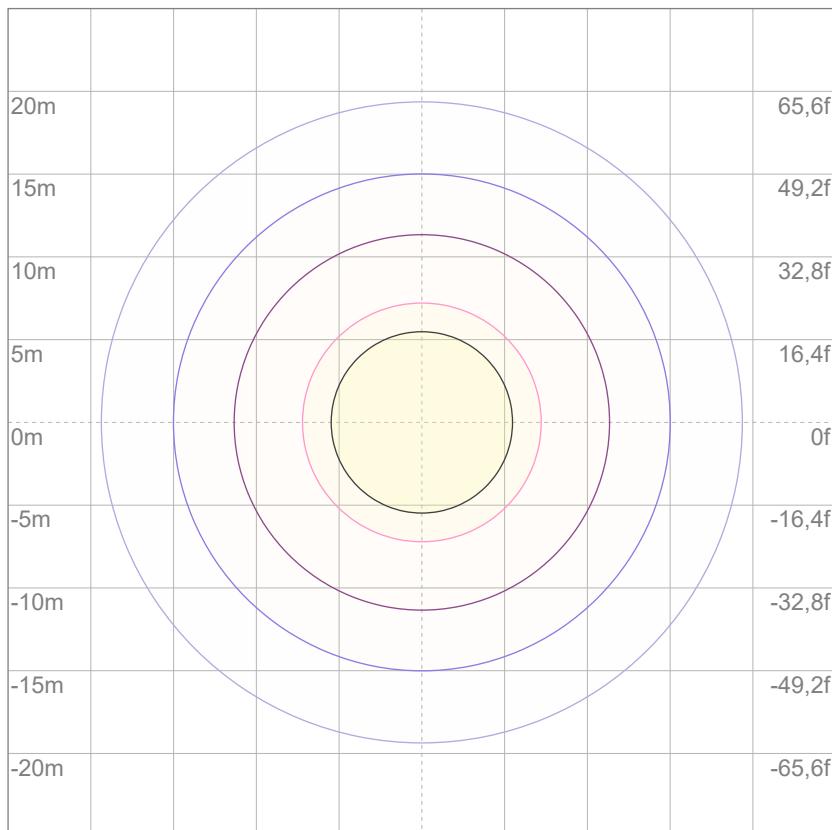
10%	188 cd
20%	377 cd
30%	565 cd
40%	754 cd
50%	942 cd
60%	1131 cd
70%	1319 cd
80%	1508 cd

Conditions:

Number of c-planes: 2

Candela at center: 1885 cd

## ISO LUX DIAGRAM



3%	0,565 lx
5%	0,942 lx
10%	1,88 lx
30%	5,65 lx
50%	9,42 lx

Conditions:

Number of c-planes: 2

Lux at center: 18,8 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

552 lm

Peak candela output:

536 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

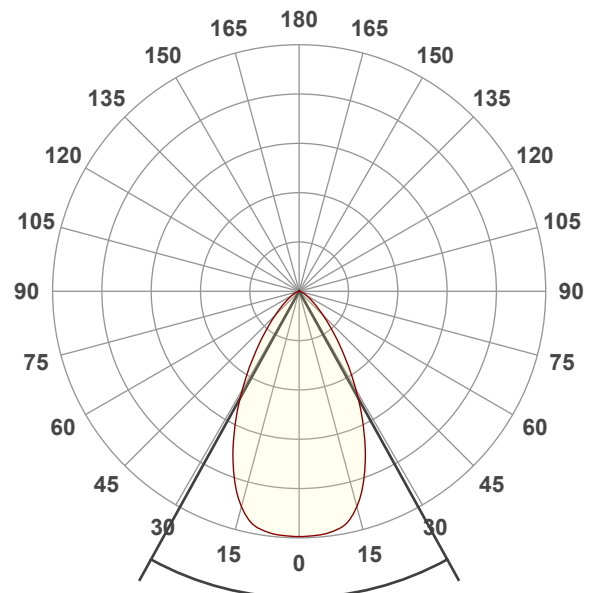
**MEASUREMENT CONDITIONS:**

Beam angle:  
60Deg Lens

Target:  
Red - Runtime 3H

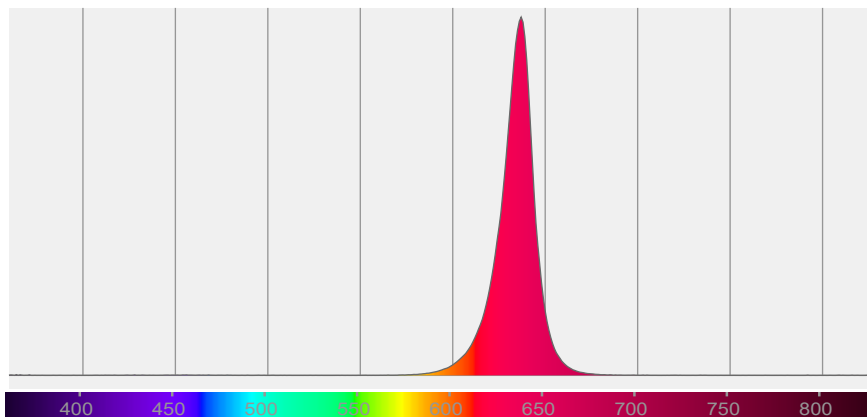
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 14:32:41



Beam angle 50%: 57,8°  
Field angle 10%: 97,5°  
Cut off angle 2.5%: 129,1°

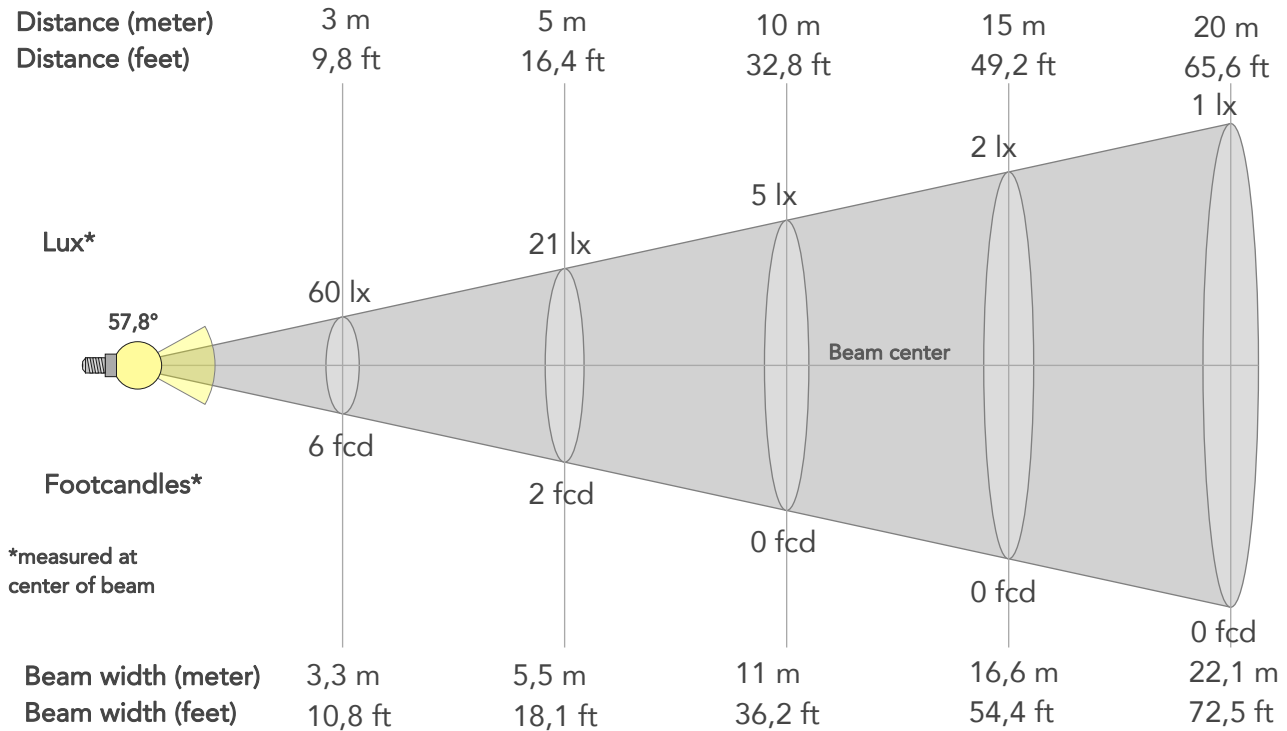
Spectra



# BEAM DETAILS



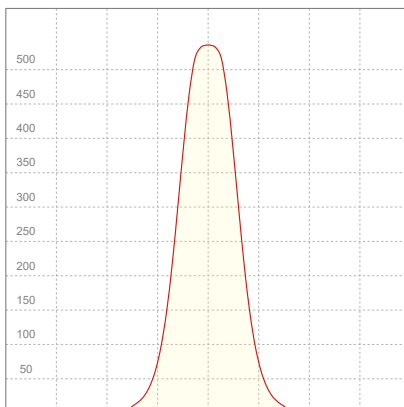
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
57,8°	97,5°	129,1°	96,5%	87,2%



## 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	536lx	134lx	60lx	33lx	21lx	10lx	5lx	2lx	1lx	1lx	1lx	0lx	0lx
Footcand.	50fcd	12fcd	6fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,1m	2,2m	3,3m	4,4m	5,5m	8,3m	11m	16,6m	22,1m	27,6m	33,1m	44,2m	55,2m
Beam wid.	3,6ft	7,3ft	10,8ft	14,5ft	18,1ft	27,2ft	36,2ft	54,4ft	72,5ft	90,6ft	108,7ft	145ft	181,2ft

## LINEAR DISTRIBUTION DIAGRAM

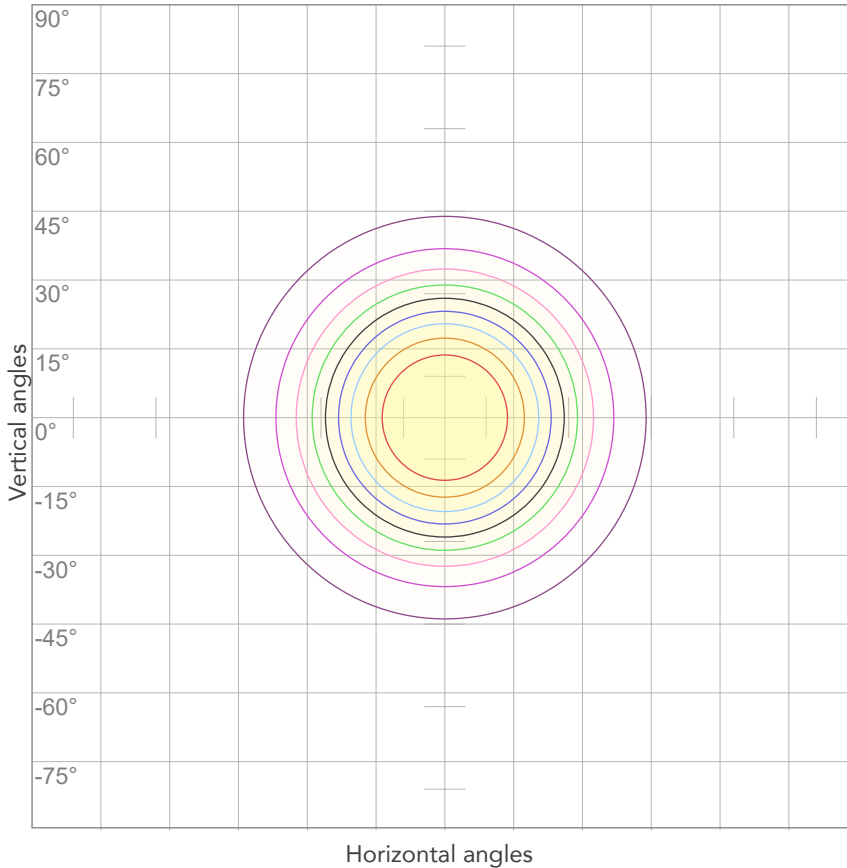


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
227V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM

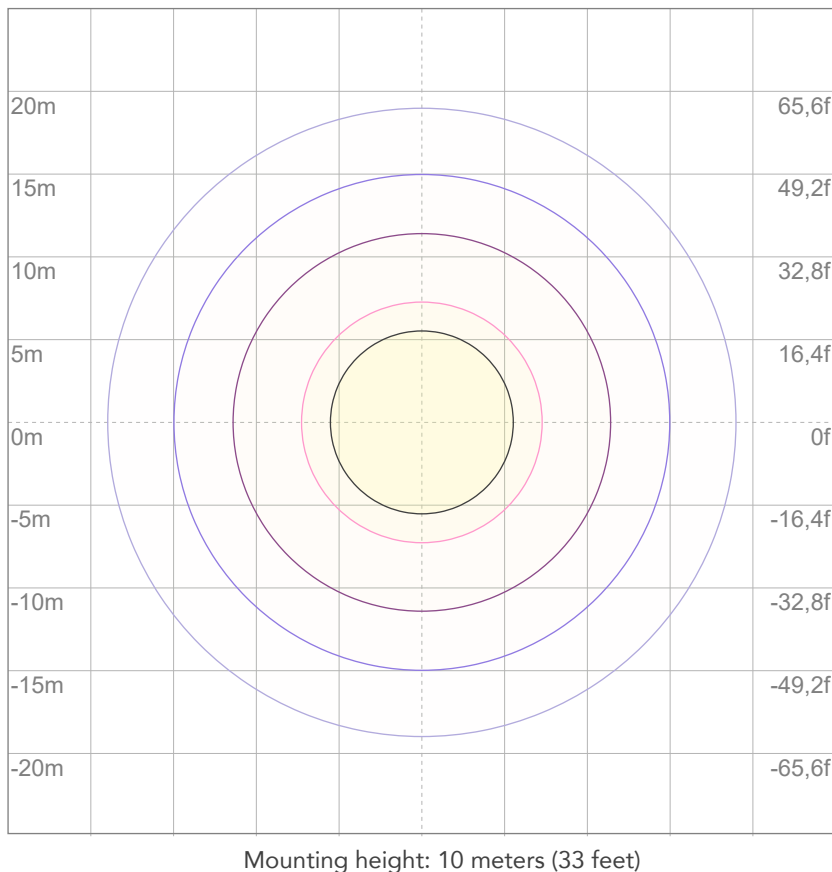


10%	54 cd
20%	107 cd
30%	161 cd
40%	214 cd
50%	268 cd
60%	321 cd
70%	375 cd
80%	428 cd

Conditions:

Number of c-planes: 2  
Candela at center: 536 cd

## ISO LUX DIAGRAM



3%	0,161 lx
5%	0,268 lx
10%	0,536 lx
30%	1,61 lx
50%	2,68 lx

Conditions:

Number of c-planes: 2  
Lux at center: 5,36 lx

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



Total lumen output:

904 lm

Peak candela output:

891 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

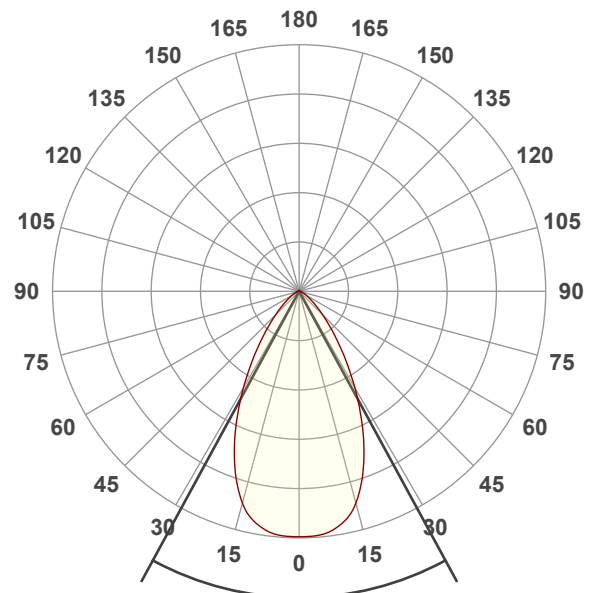
**MEASUREMENT CONDITIONS:**

Beam angle:  
60Deg Lens

Target:  
Green - Runtime 3H

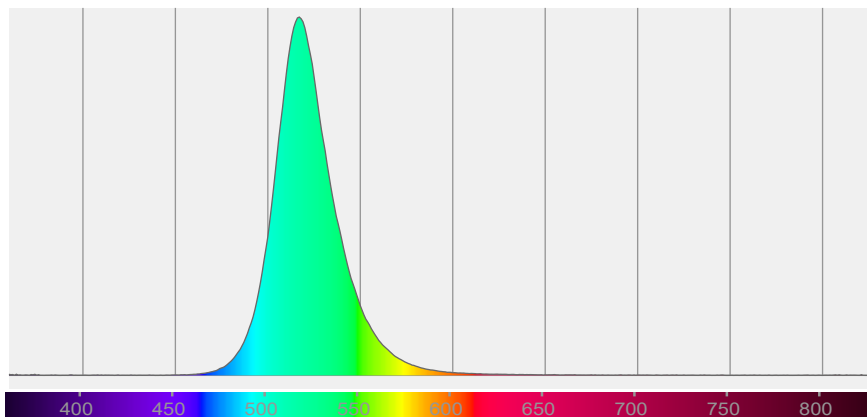
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 14:41:04



Beam angle 50%: 57,1°  
Field angle 10%: 96,9°  
Cut off angle 2.5%: 128,9°

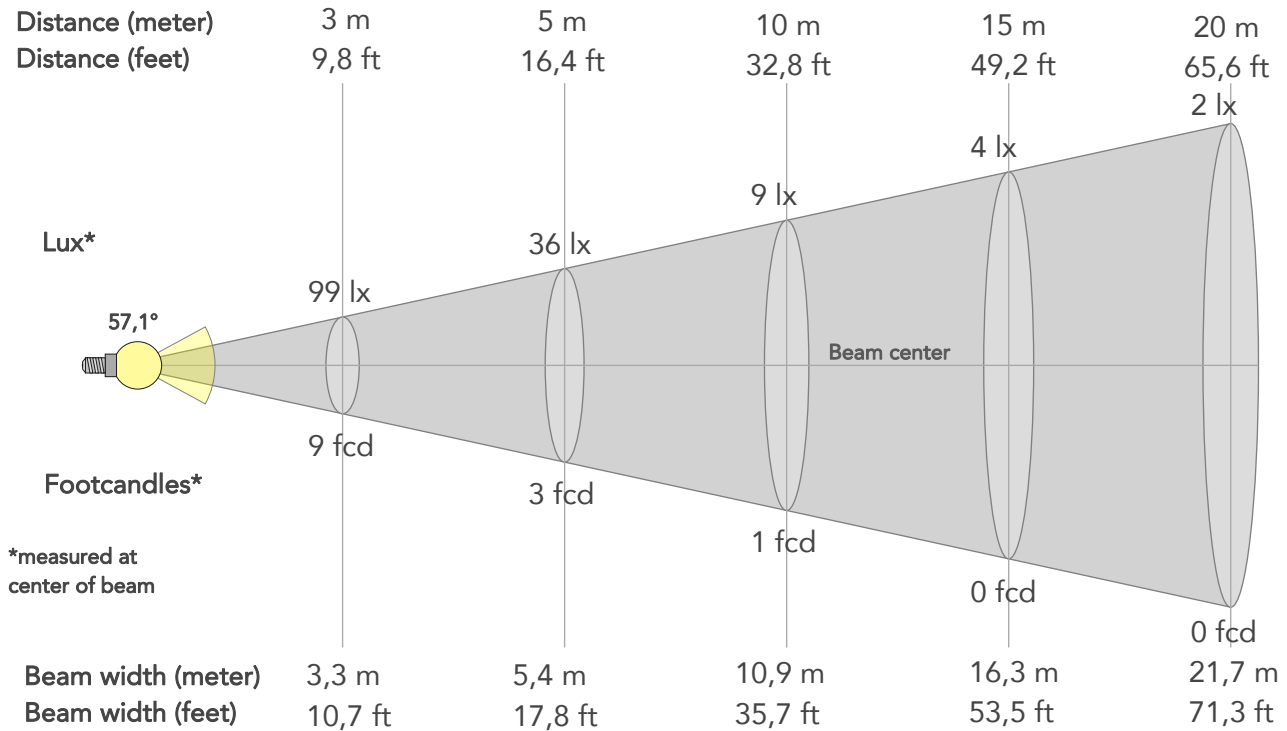
Spectra



# BEAM DETAILS



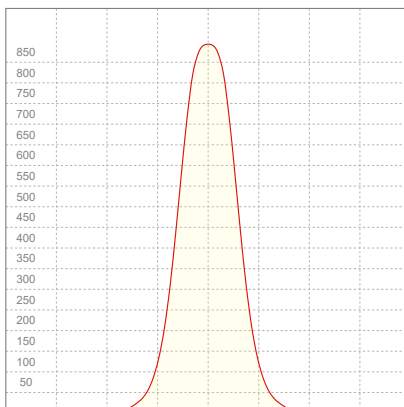
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
57,1°	96,9°	128,9°	96,5%	87,0%



## 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	891lx	223lx	99lx	56lx	36lx	16lx	9lx	4lx	2lx	1lx	1lx	1lx	0lx
Footcand.	83fcd	21fcd	9fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,1m	2,2m	3,3m	4,3m	5,4m	8,2m	10,9m	16,3m	21,7m	27,2m	32,6m	43,5m	54,4m
Beam wid.	3,6ft	7,2ft	10,7ft	14,2ft	17,8ft	26,7ft	35,7ft	53,5ft	71,3ft	89,2ft	107ft	142,6ft	178,3ft

## LINEAR DISTRIBUTION DIAGRAM

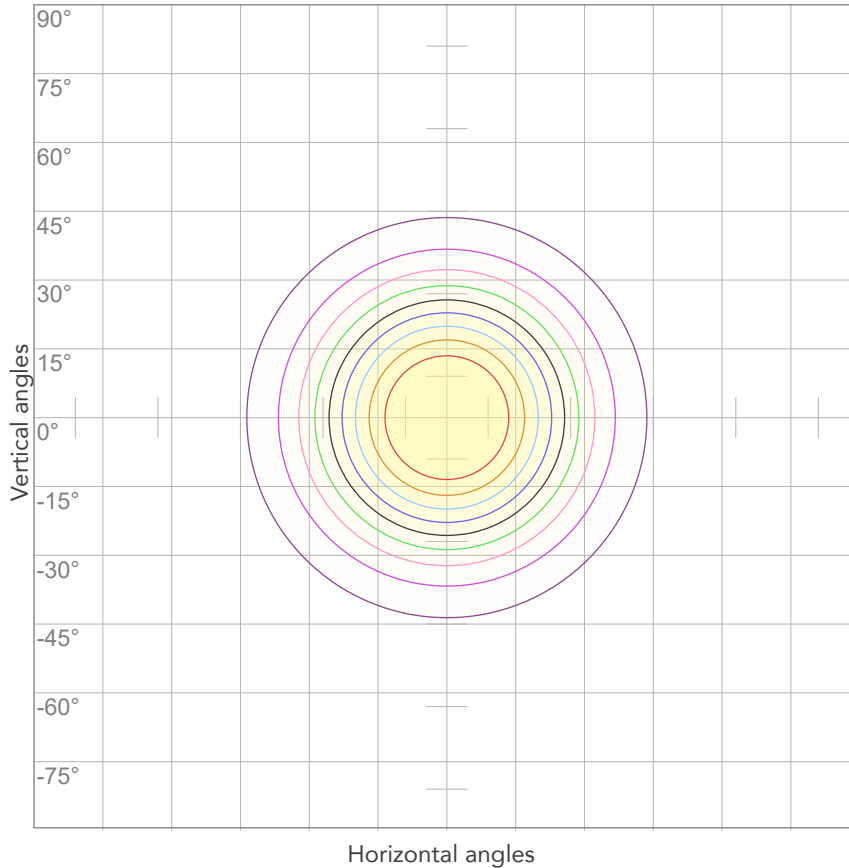


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



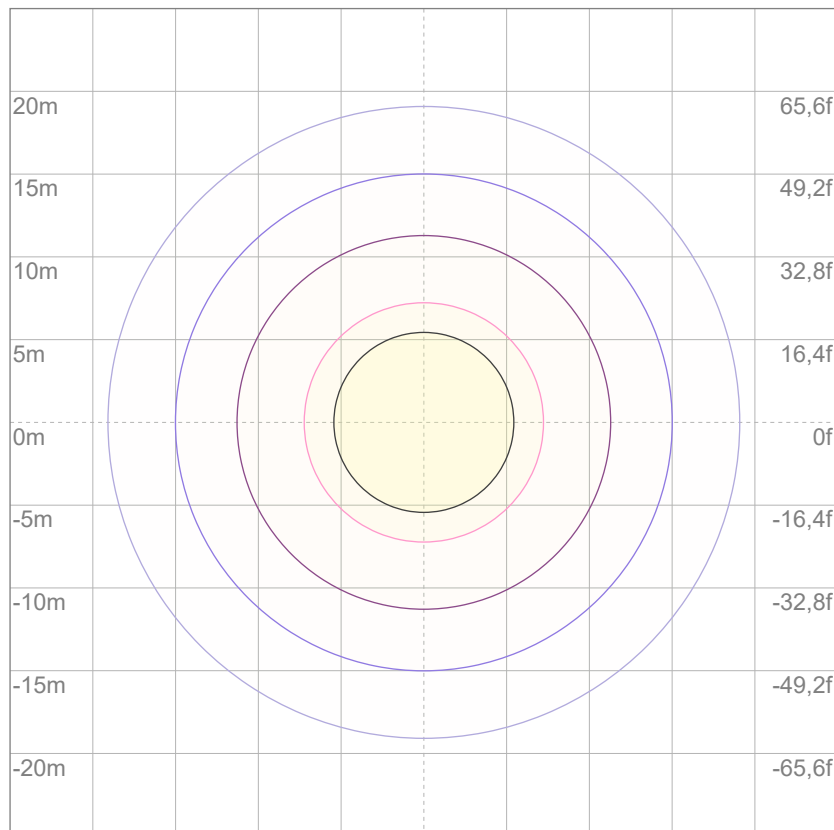
10%	89 cd
20%	178 cd
30%	267 cd
40%	356 cd
50%	446 cd
60%	535 cd
70%	624 cd
80%	713 cd

Conditions:

Number of c-planes: 2

Candela at center: 891 cd

## ISO LUX DIAGRAM



3%	0,267 lx
5%	0,446 lx
10%	0,891 lx
30%	2,67 lx
50%	4,46 lx

Conditions:

Number of c-planes: 2

Lux at center: 8,91 lx

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

Mounting height: 10 meters (33 feet)





Total lumen output:

194 lm

Peak candela output:

191 cd

**PRODUCT NAME:**  
SMARTBATPLUSNEO

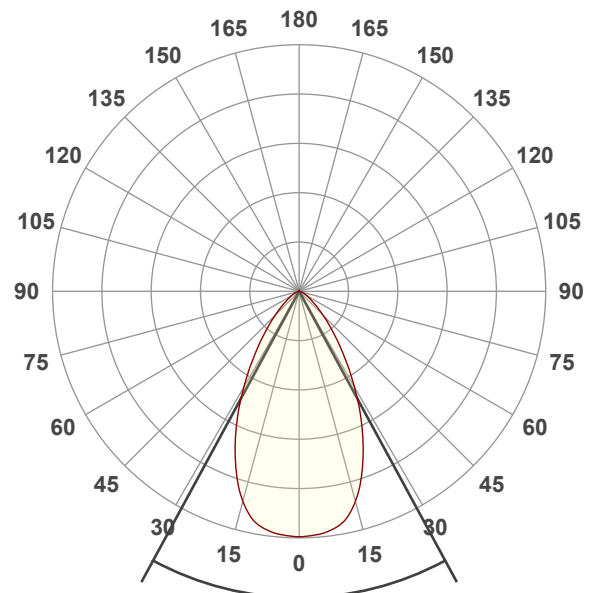
**MEASURAMENT CONDITIONS:**

Beam angle:  
60Deg Lens

Target:  
Blue - Runtime 3H

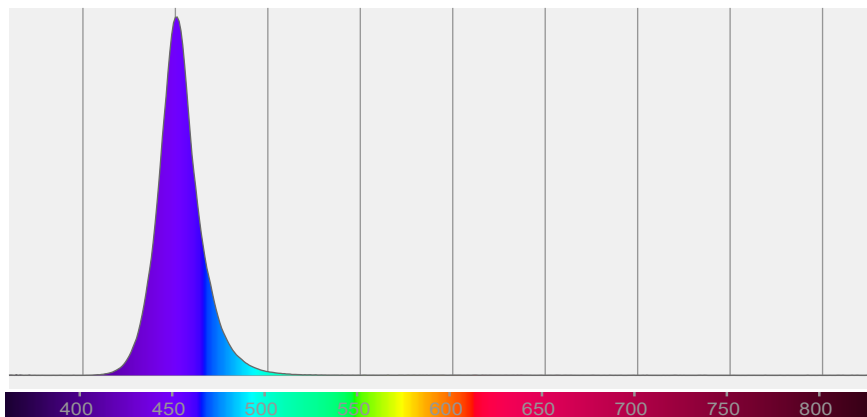
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 14:42:24



Beam angle 50%: 56,9°  
Field angle 10%: 97,6°  
Cut off angle 2.5%: 129,9°

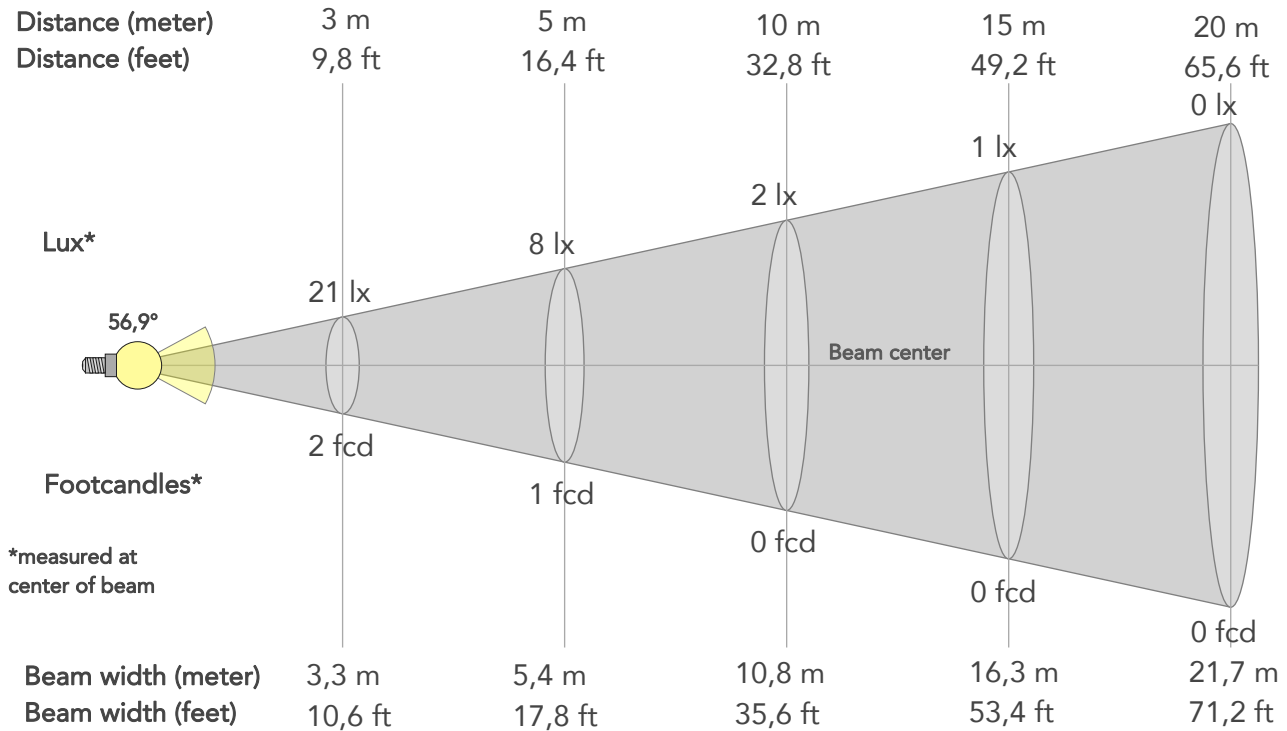
Spectra



# BEAM DETAILS



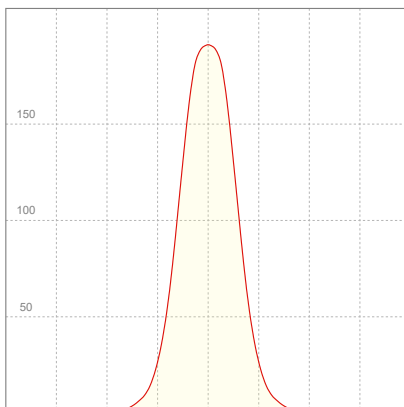
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
56,9°	97,6°	129,9°	96,2%	86,7%



## 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	191lx	48lx	21lx	12lx	8lx	3lx	2lx	1lx	0lx	0lx	0lx	0lx	0lx
Footcand.	18fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,1m	2,2m	3,3m	4,3m	5,4m	8,1m	10,8m	16,3m	21,7m	27,1m	32,5m	43,4m	54,2m
Beam wid.	3,6ft	7,2ft	10,6ft	14,2ft	17,8ft	26,7ft	35,6ft	53,4ft	71,2ft	88,9ft	106,7ft	142,3ft	177,9ft

## LINEAR DISTRIBUTION DIAGRAM

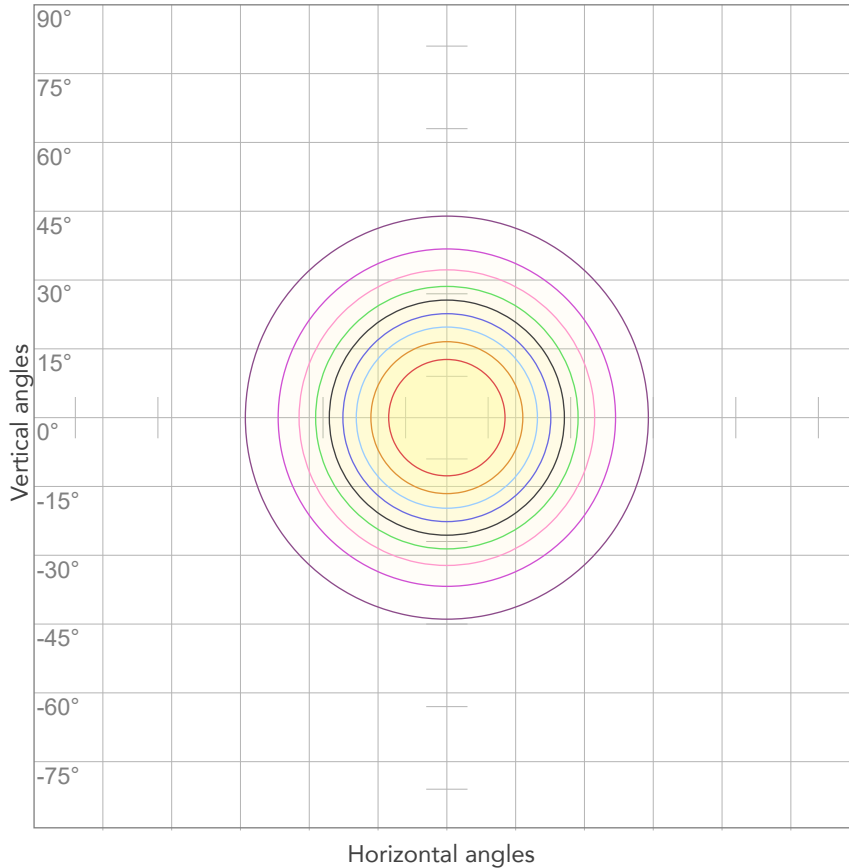


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
227V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



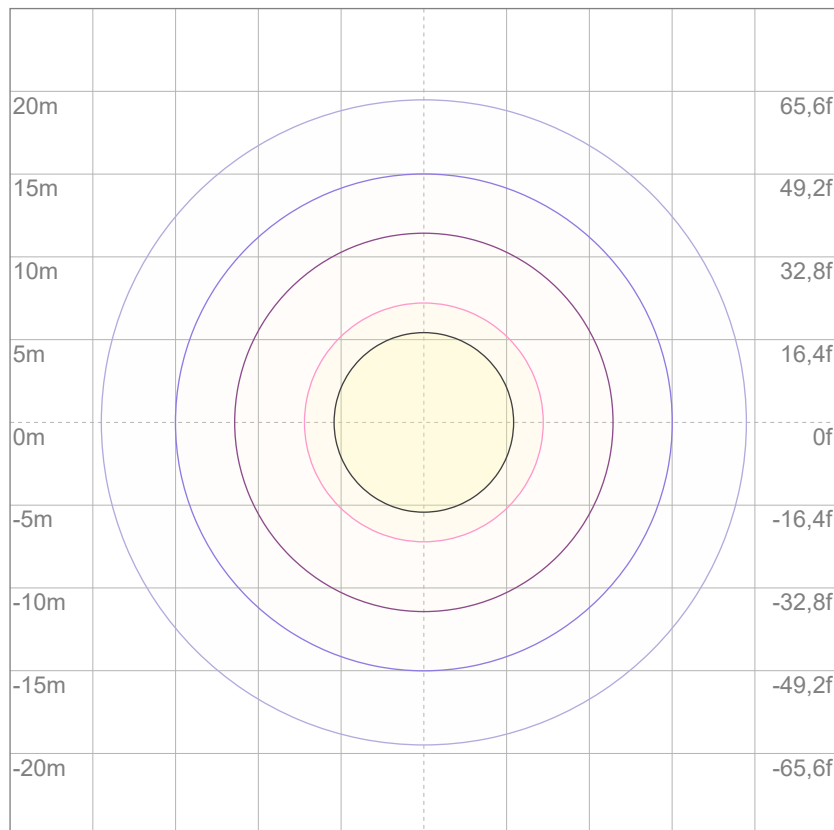
10%	19 cd
20%	38 cd
30%	57 cd
40%	76 cd
50%	95 cd
60%	115 cd
70%	134 cd
80%	153 cd

Conditions:

Number of c-planes: 2

Candela at center: 191 cd

## ISO LUX DIAGRAM



3%	57,3m lx
5%	95,5m lx
10%	0,191 lx
30%	0,573 lx
50%	0,955 lx

Conditions:

Number of c-planes: 2

Lux at center: 1,91 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

992 lm

Peak candela output:

943 cd

Light quality:

CRI: 82,3

Color temperature:

3085 K

**PRODUCT NAME:**  
SMARTBATPLUSNEO

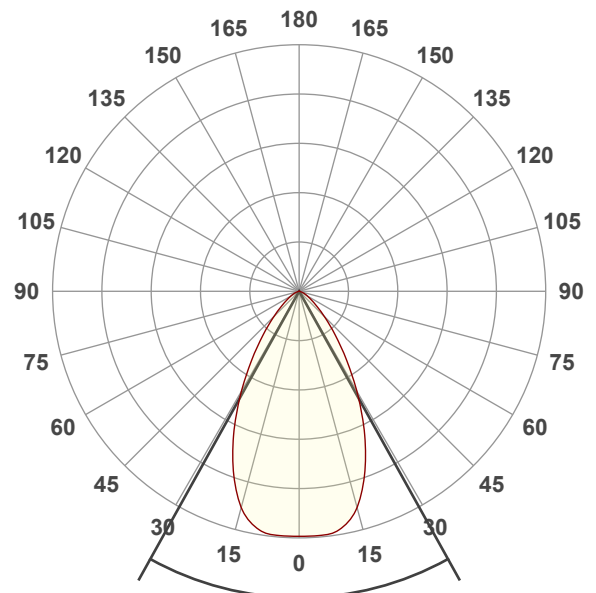
**MEASUREMENT CONDITIONS:**

Beam angle:  
60Deg Lens

Target:  
White - Runtime 3H

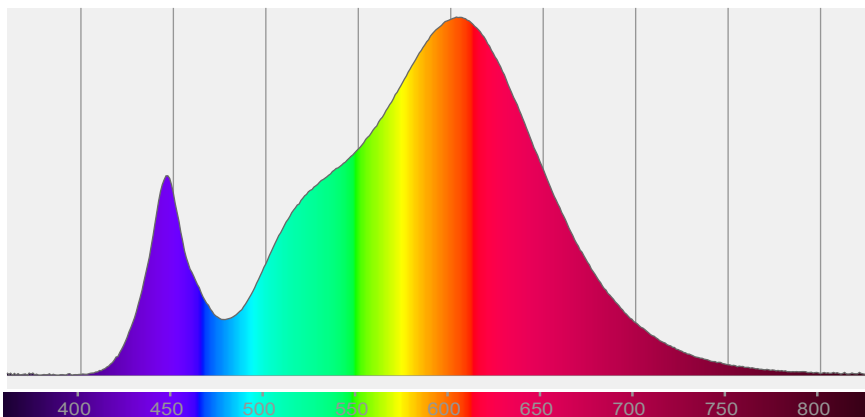
Operator:  
Salvatore Giglio

Date and time:  
17/10/2024 14:43:59

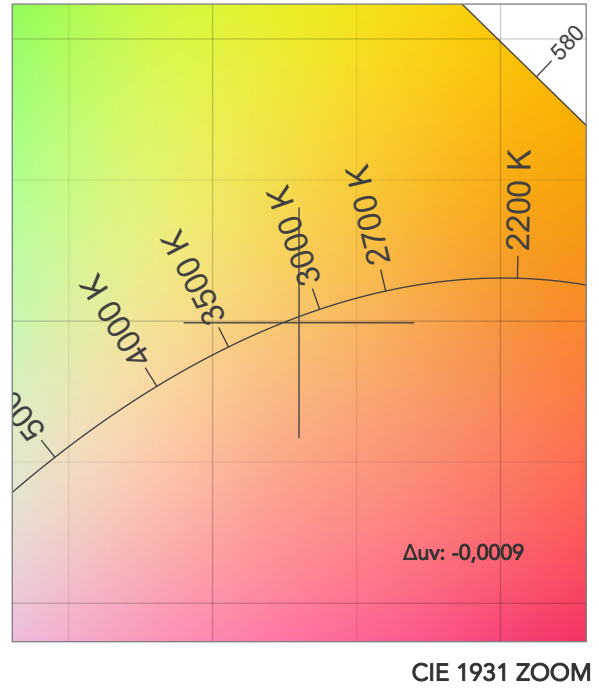
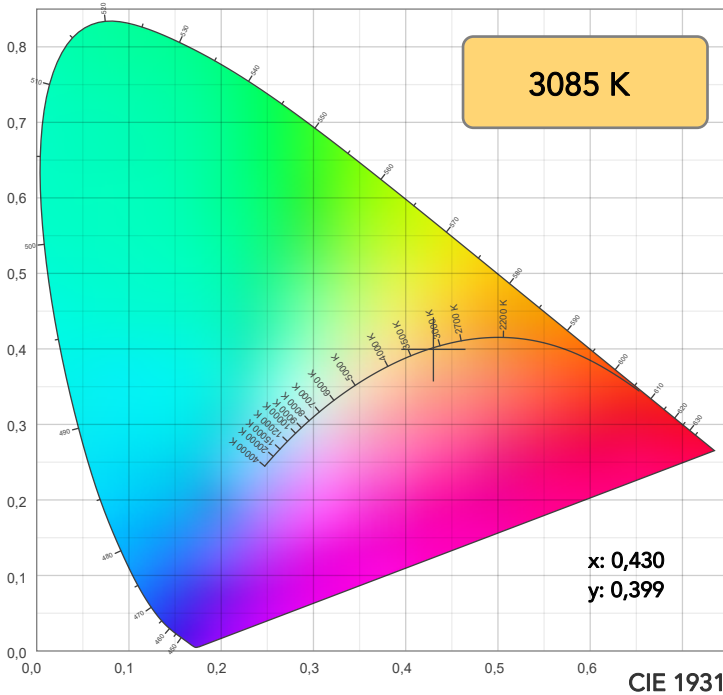


Beam angle 50%: 58,1°  
Field angle 10%: 98,4°  
Cut off angle 2.5%: 131,3°

Spectra

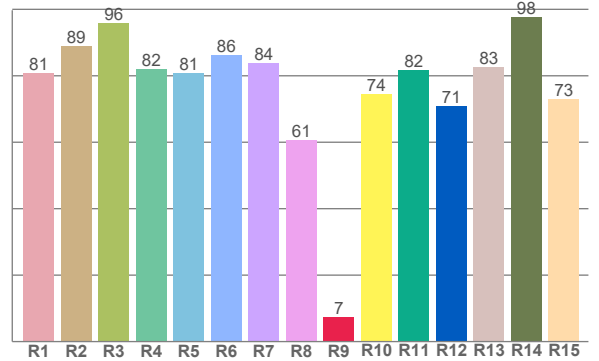
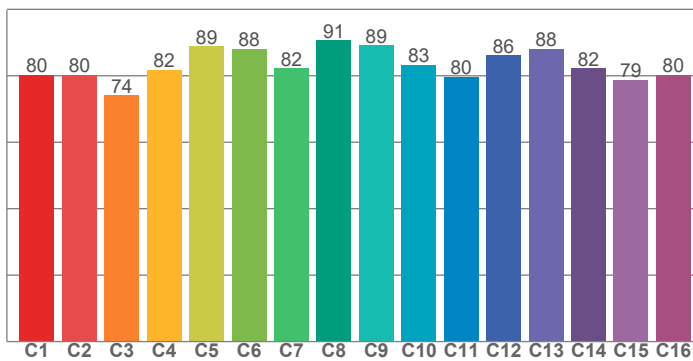


# COLOR DETAILS



TM30: 83,2

CRI: 82,3 (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
80,8	88,9	95,8	82,0	80,8	86,3	83,7	60,5	7,3	74,5	81,7	70,8	82,5	97,5	73,0

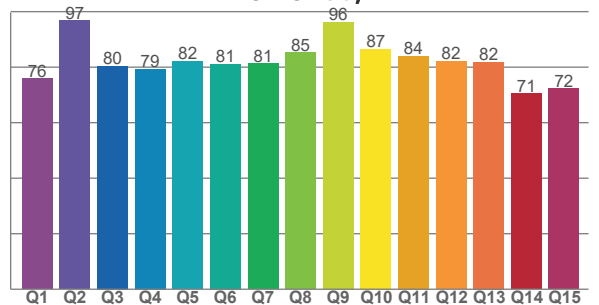
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80,3	80,3	74,2	81,8	88,9	88,2	82,3	90,8	89,2	83,4	79,7	86,2	88,2	82,3	78,8	80,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
76,0	96,7	80,4	79,4	82,1	81,1	81,3	85,2	96,3	86,5	84,0	82,1	81,8	70,6	72,3

CQS: 80,9



## COLOR PARAMETERS

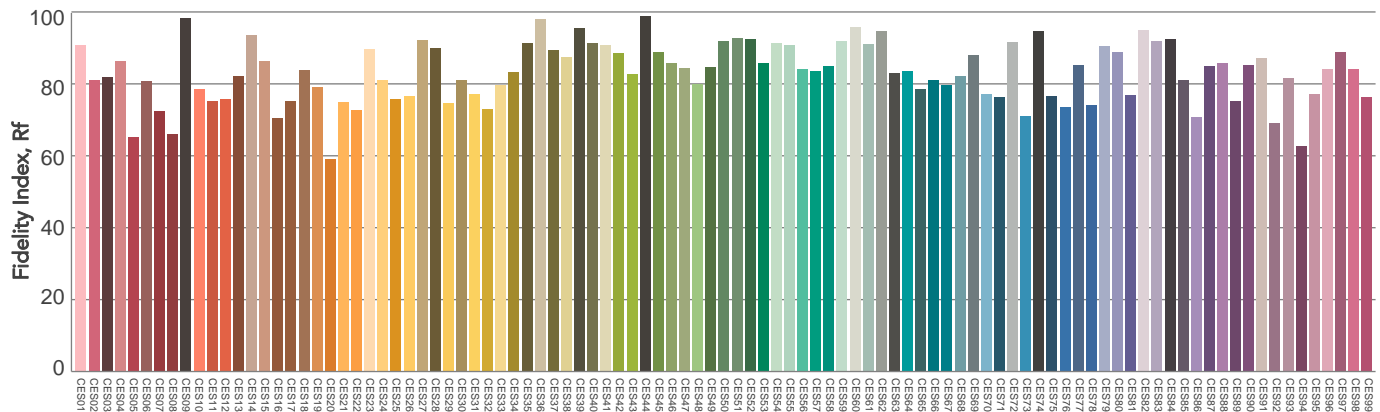
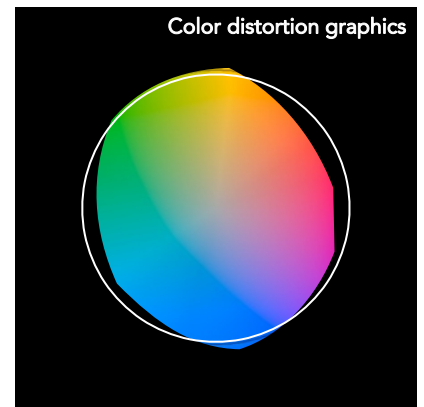
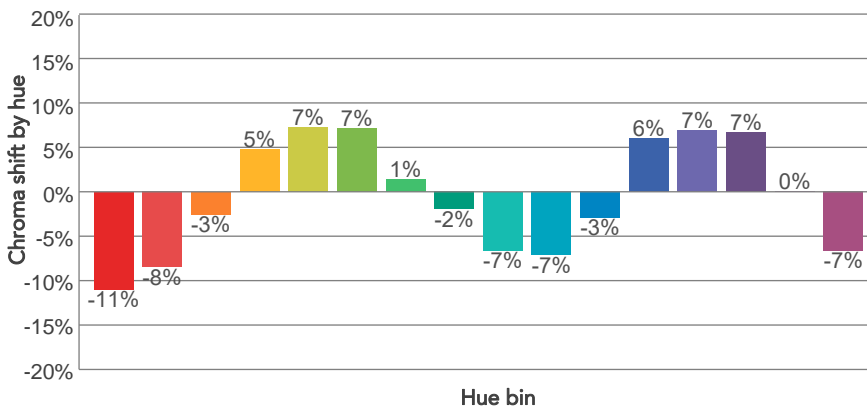
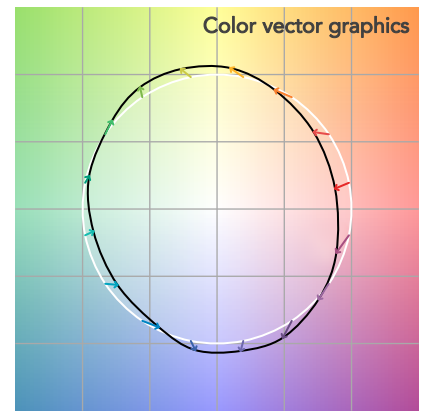
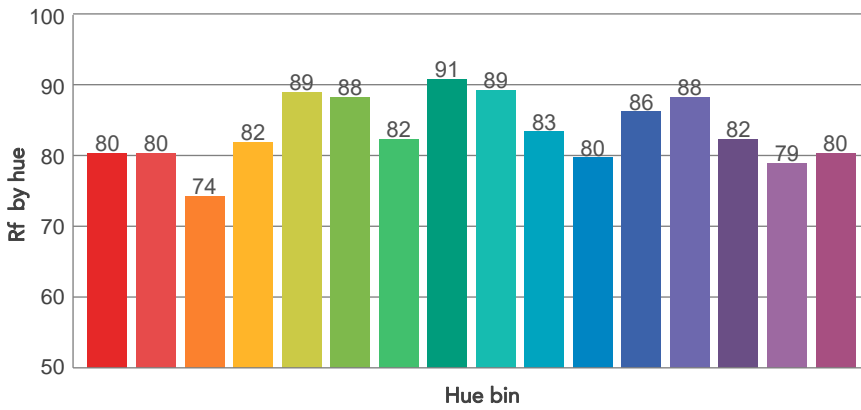
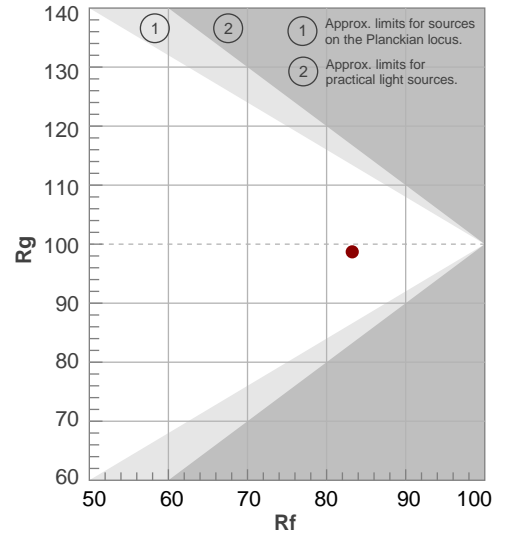
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3085 K	82,3	7,3	83,2	98,7	80,9	64	0,430	0,399	-0,0009

# TM30 DETAILS

**Rf 83,2**  
Fidelity index Rf

**Rg 98,7**  
Gammut index

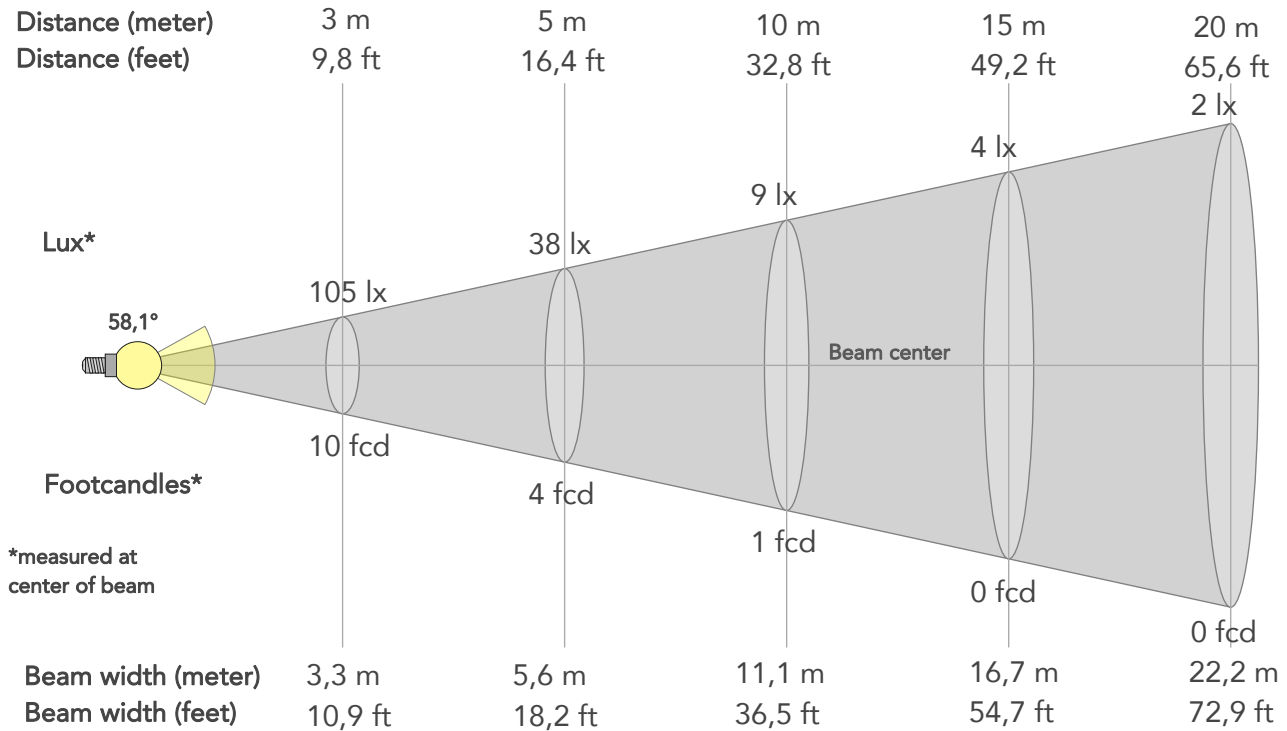
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	80	-11%	-2%
2	80	-8%	8%
3	74	-3%	14%
4	82	5%	11%
5	89	7%	6%
6	88	7%	-3%
7	82	1%	-11%
8	91	-2%	-5%
9	89	-7%	-2%
10	83	-7%	6%
11	80	-3%	13%
12	86	6%	5%
13	88	7%	-3%
14	82	7%	-12%
15	79	0%	-14%
16	80	-7%	-15%



# BEAM DETAILS



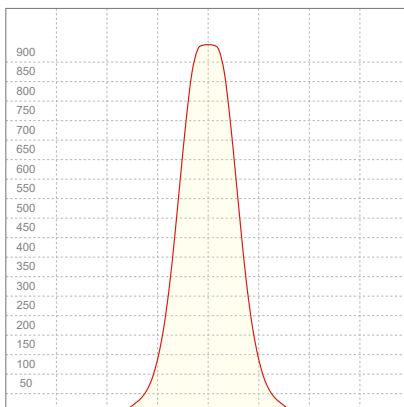
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
58,1°	98,4°	131,3°	96,3%	86,4%



## 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	943lx	236lx	105lx	59lx	38lx	17lx	9lx	4lx	2lx	2lx	1lx	1lx	0lx
Footcand.	88fcd	22fcd	10fcd	5fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,1m	2,2m	3,3m	4,4m	5,6m	8,3m	11,1m	16,7m	22,2m	27,8m	33,4m	44,5m	55,6m
Beam wid.	3,7ft	7,3ft	10,9ft	14,6ft	18,2ft	27,4ft	36,5ft	54,7ft	72,9ft	91,2ft	109,4ft	145,9ft	182,3ft

## LINEAR DISTRIBUTION DIAGRAM

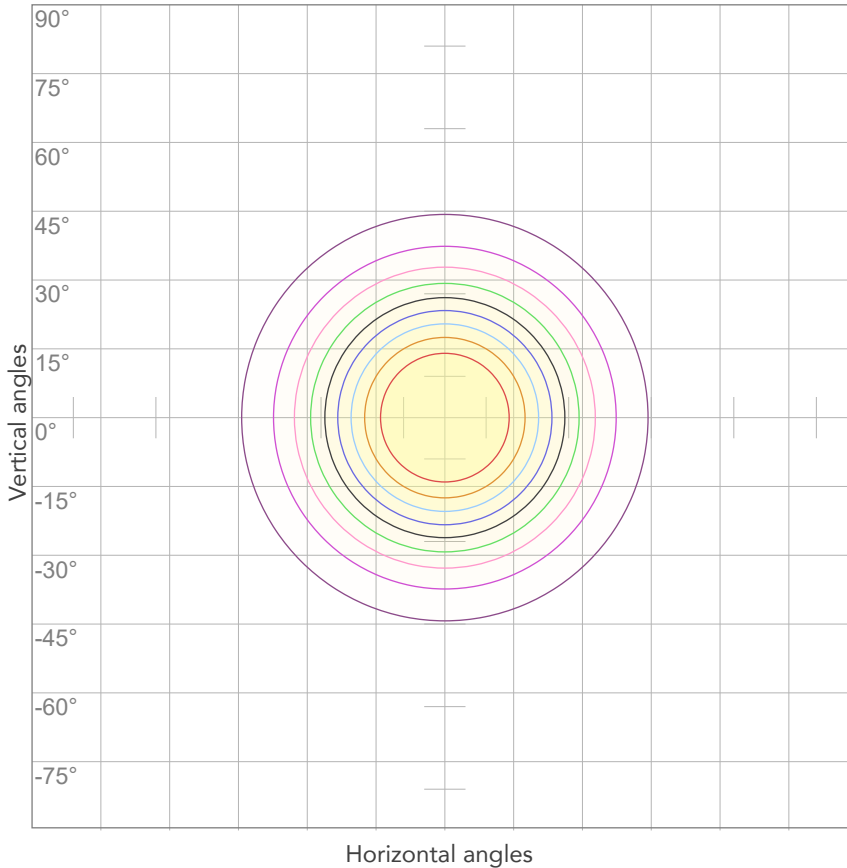


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
227V	0,000A	0,00W	n/a	n/alm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM

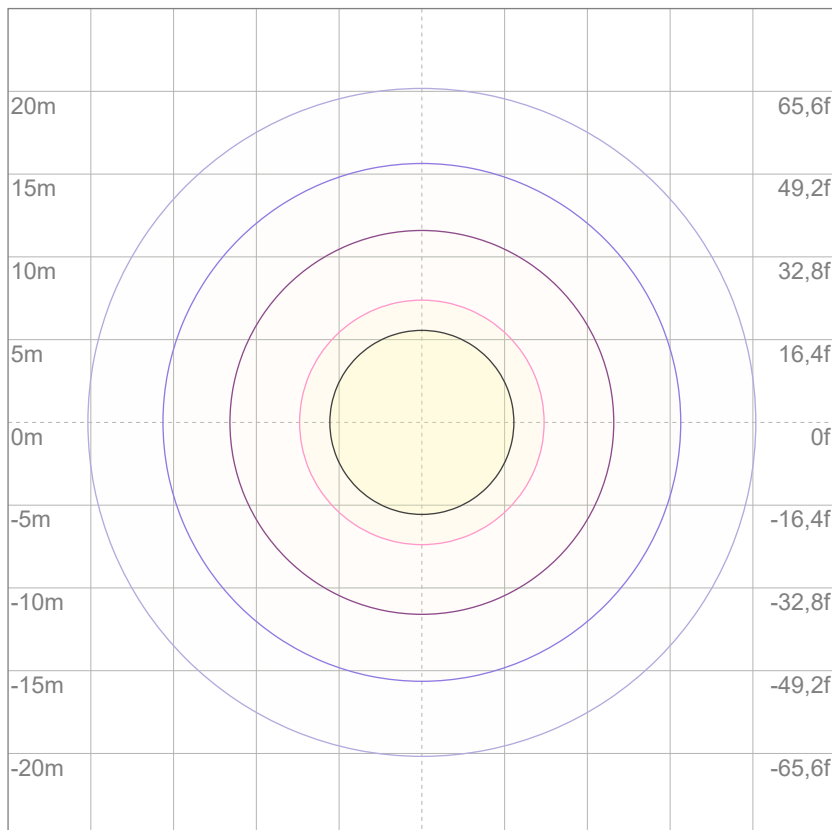


10%	94 cd
20%	189 cd
30%	283 cd
40%	377 cd
50%	472 cd
60%	566 cd
70%	660 cd
80%	755 cd

Conditions:

Number of c-planes: 2  
Candela at center: 943 cd

## ISO LUX DIAGRAM



3%	0,283 lx
5%	0,472 lx
10%	0,943 lx
30%	2,83 lx
50%	4,72 lx

Conditions:

Number of c-planes: 2  
Lux at center: 9,43 lx

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

Mounting height: 10 meters (33 feet)