

Light Efficiency:



Light Quality:



Color Temperature:



Output: 6027 lm

Peak: 4239751 cd

Power: 649 W

PF: 1.0



Product Name:

Proteus Hybrid

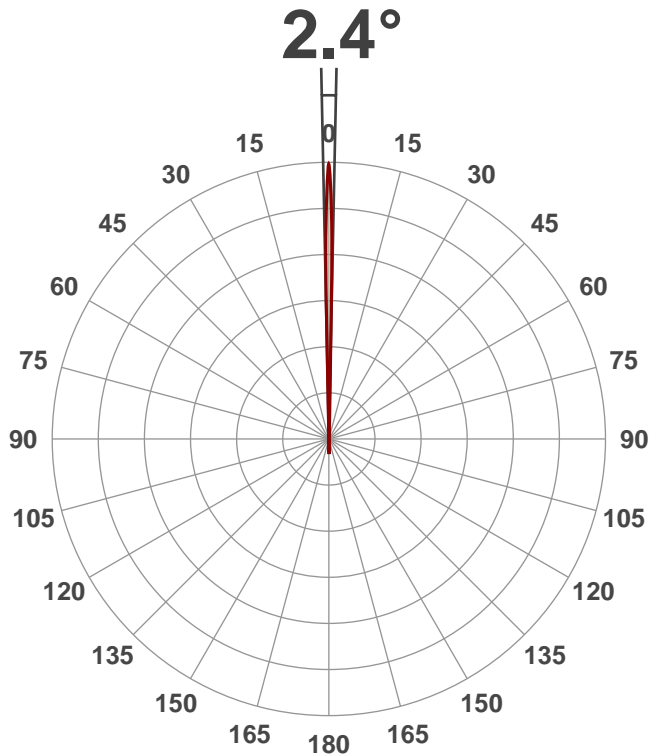
Test:

Spot CTO color Zoom In

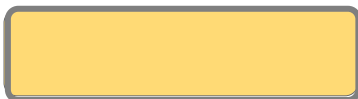
Date:

1/22/2018

Note:



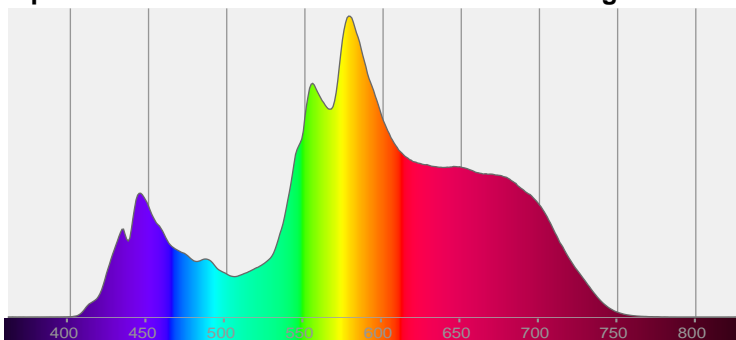
Beam Angle



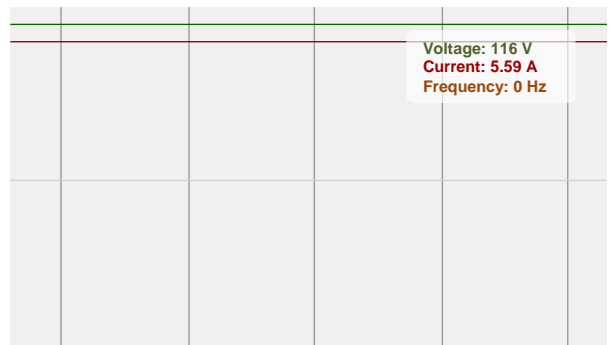
CIE 1931
x: 0.423
y: 0.391

Spectra

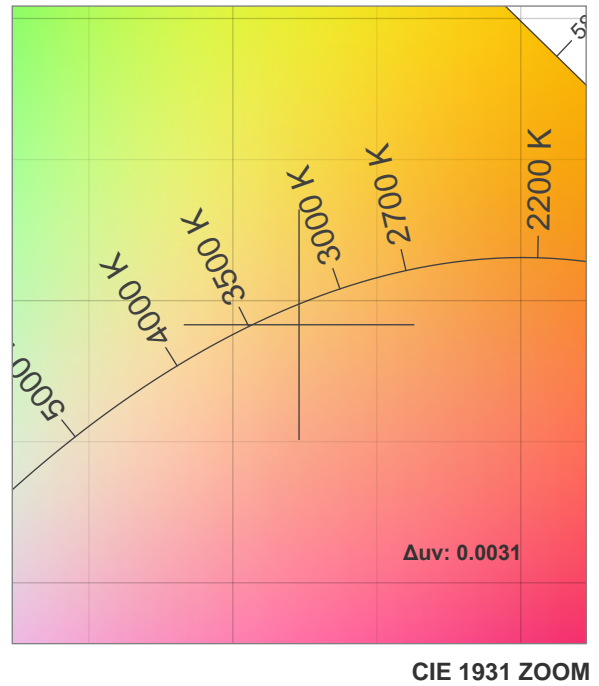
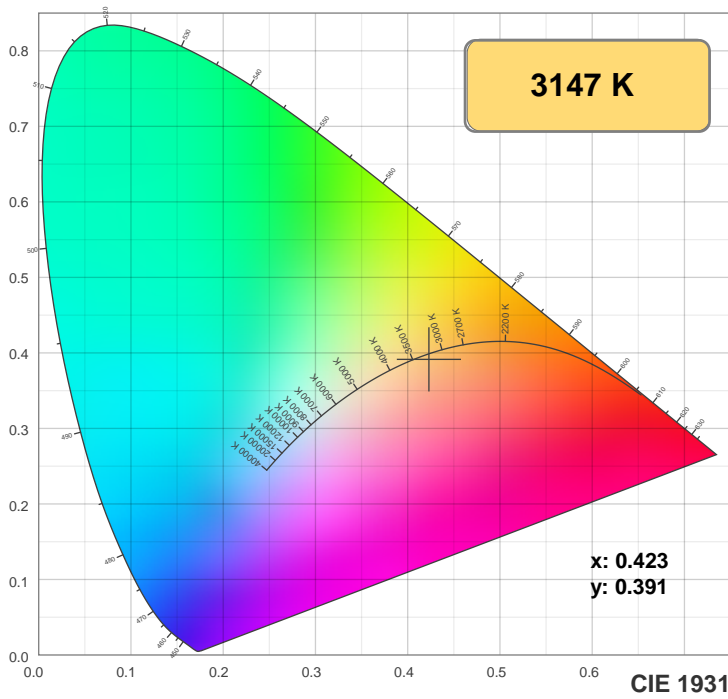
Dominant Wavelength: 584nm



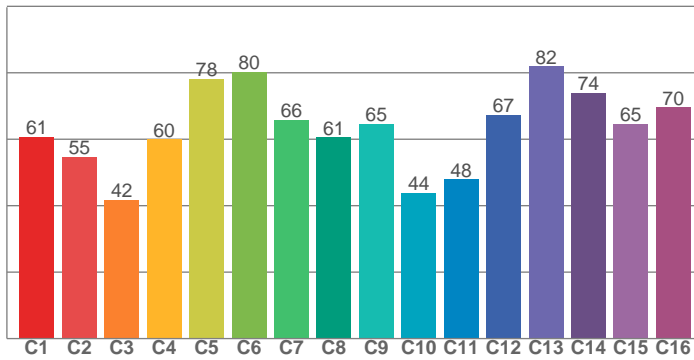
Power



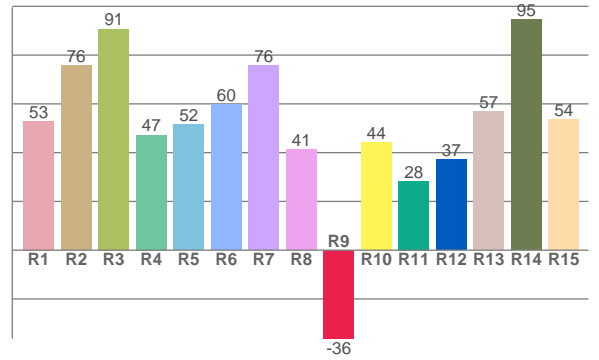
Color Details



TM30: 62.7



CRI: 61.9 (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
53.0	75.8	90.8	47.3	51.7	59.9	75.8	41.2	-36.2	44.1	28.3	37.3	56.8	94.6	53.5

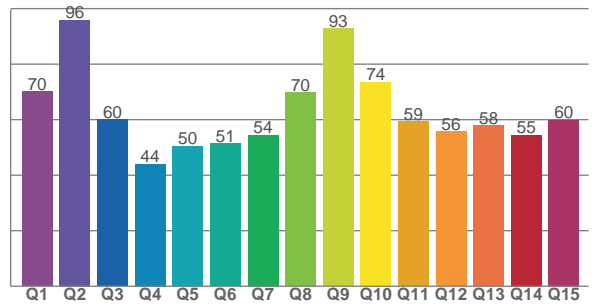
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
60.6	54.7	41.7	59.9	78.1	80.3	65.8	60.6	64.6	43.9	47.9	67.4	81.9	73.9	64.7	69.5

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
70.1	95.9	60.0	44.0	50.5	51.4	54.5	69.8	92.9	73.5	59.4	55.7	57.9	54.5	59.8

CQS: 60.5



Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Deviation from Black Body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3147 K	61.9	-36.2	62.7	88.5	60.5	0.423	0.391	0.247	0.343	0.0031

TM30 Details

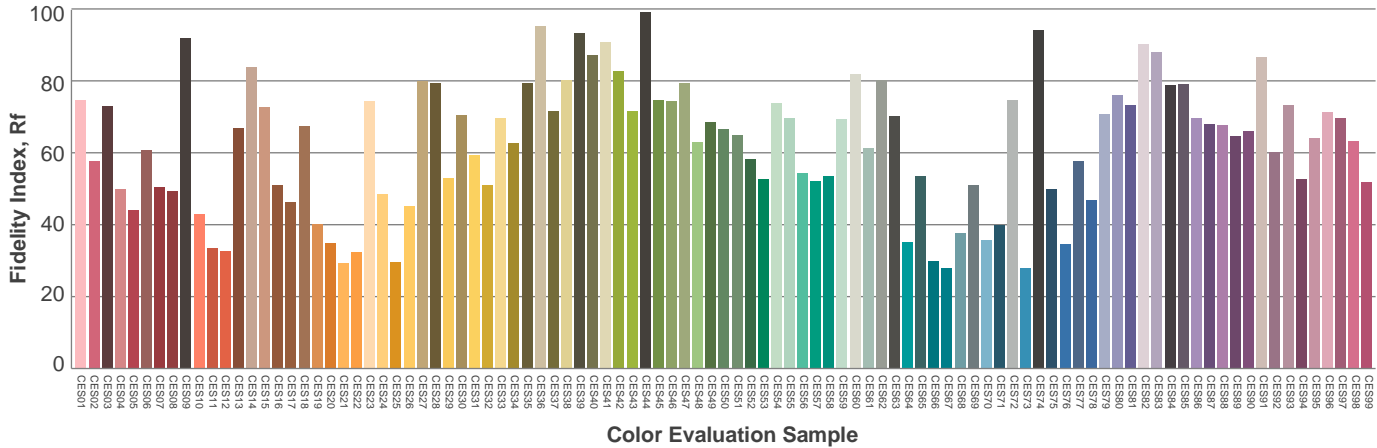
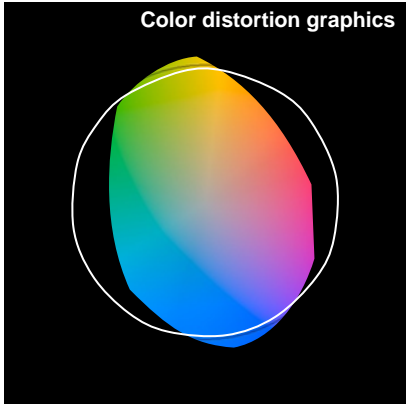
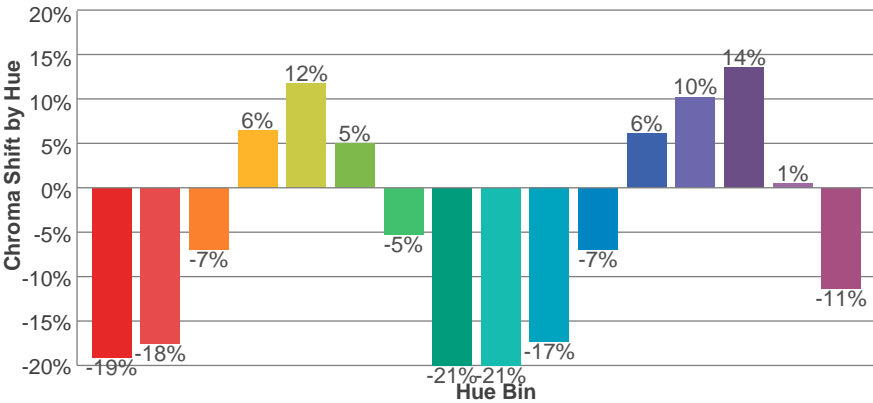
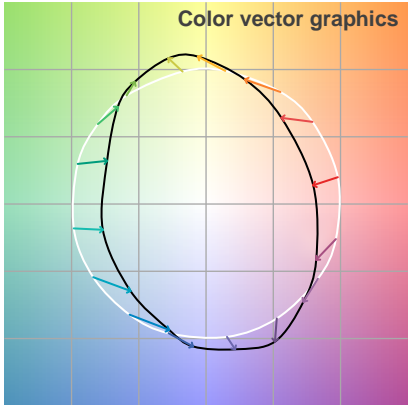
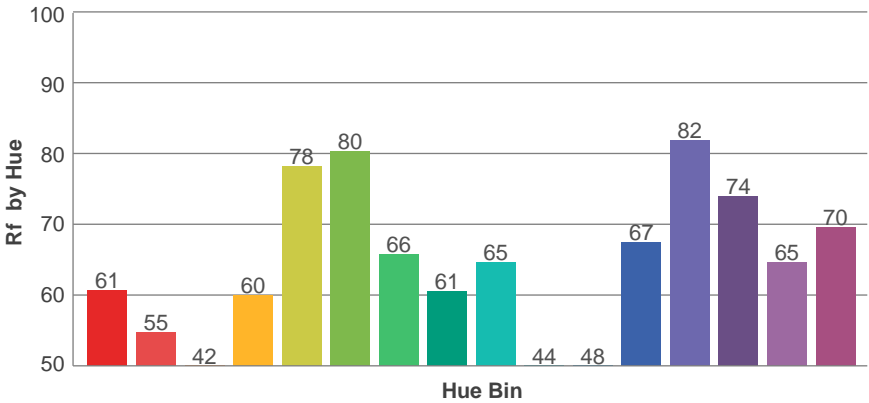
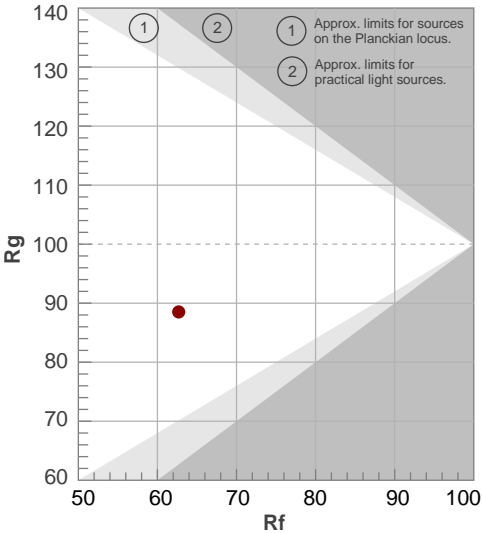
Rf 62.7

Fidelity Index Rf

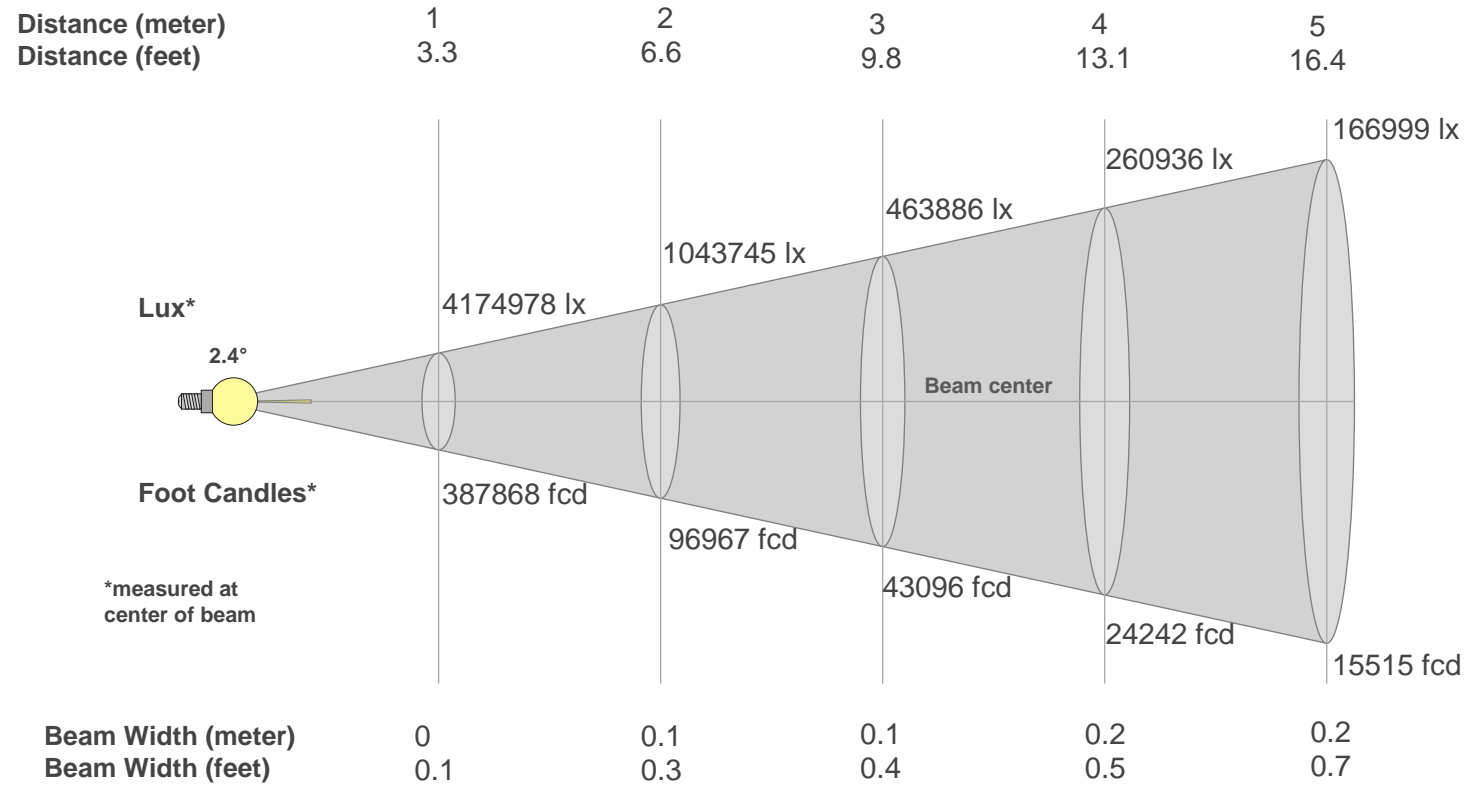
Rg 88.5

Gammut Index Rg

		Graphic shifts (%)	
Hue Bin	R _f	Chroma	Hue
1	61	-19%	-2%
2	55	-18%	15%
3	42	-7%	27%
4	60	6%	22%
5	78	12%	8%
6	80	5%	-10%
7	66	-5%	-19%
8	61	-21%	-6%
9	65	-21%	5%
10	44	-17%	24%
11	48	-7%	31%
12	67	6%	20%
13	82	10%	4%
14	74	14%	-11%
15	65	1%	-20%
16	70	-11%	-18%



Beam Details



Beam Intensities from 1-20m																				
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
Lx	4174978	1043745	463886	260936	166999	115972	85204	65234	51543	41750	34504	28993	24704	21301	18555	16309	14446	12886	11565	10437
Fcd	387868.2	96967	43096.5	24241.8	15514.7	10774.1	7915.7	6060.4	4788.5	3878.7	3205.5	2693.5	2295.1	1978.9	1723.9	1515.1	1342.1	1197.1	1074.4	969.7

Intensities in 0° C-plane																				
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	
4.2M	2.7M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	
100%	64%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

Intensities in 90° C-plane																				
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	
4.2M	2.7M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	
100%	64%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

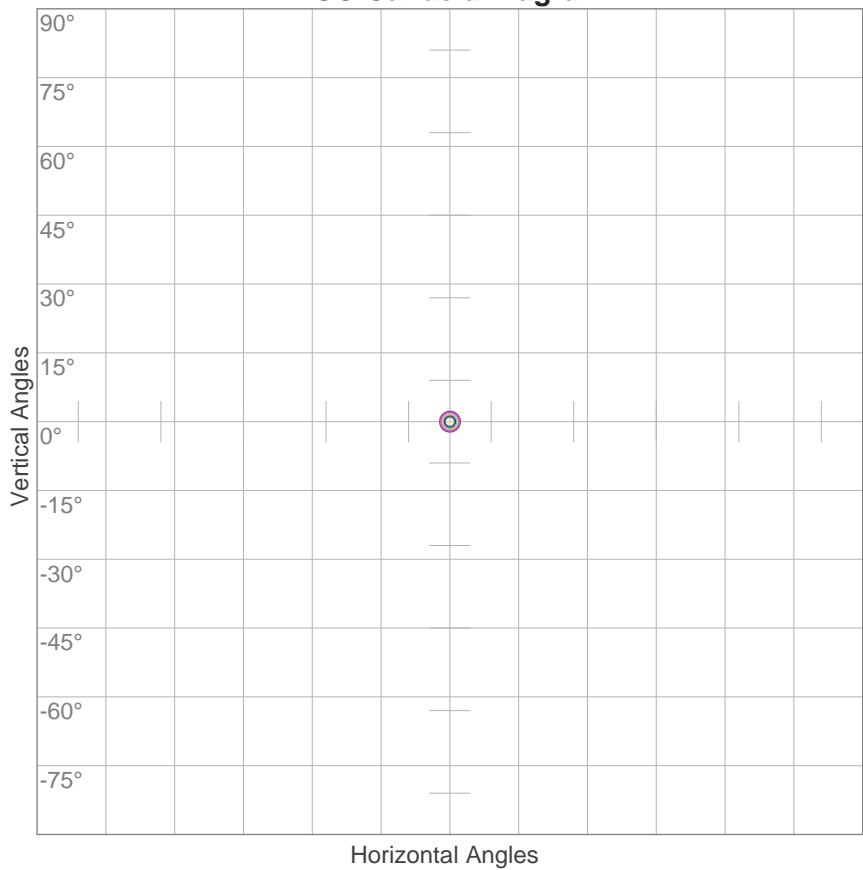
Intensities in 180° C-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4.2M	2.7M	0.3M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
100%	63%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Intensities in 270° C-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4.2M	2.7M	0.3M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
100%	63%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
2.4°	3.5°	4.3°	100.0%	100.0%

ISO Diagrams

ISO Candela Diagram



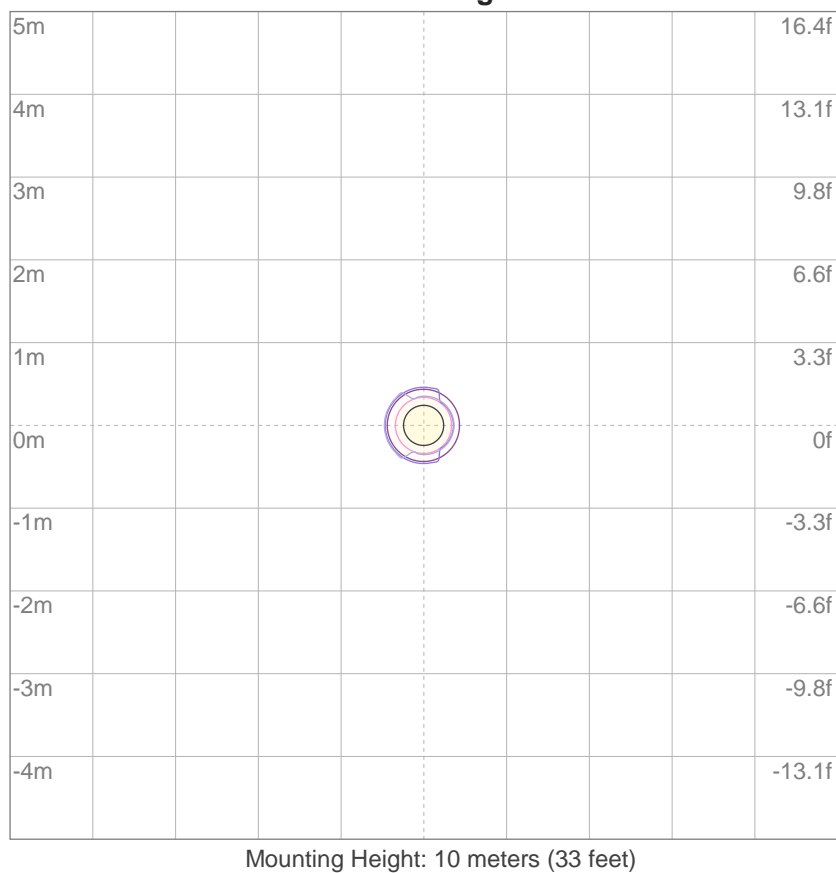
10%	417498 cd
20%	834996 cd
30%	1252494 cd
40%	1669991 cd
50%	2087489 cd
60%	2504987 cd
70%	2922485 cd
80%	3339983 cd
90%	3757481 cd

Conditions:

Number of c-planes: 2

Candela at center: 4174978 cd

ISO Lux Diagram



3%	1252 lx
5%	2087 lx
10%	4175 lx
30%	12.5K lx
50%	20.9K lx

Conditions:

Number of c-planes: 2

Lux at center: 41.7K lx

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

Light Planning

Coefficients of Utilization

Ceiling Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Floor Reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0
RCR	(RCR: Room Cavity Ratio) Room Values are expressed as percentage of Lumens delivered to the task surface																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	117	115	114	113	114	113	112	111	109	108	108	106	105	105	102	102	102	100
2	115	112	111	109	113	111	109	108	108	107	105	105	104	103	103	102	101	100
3	113	110	108	106	112	109	107	106	107	105	104	105	103	102	103	102	101	100
4	112	109	106	105	111	108	106	104	106	104	103	104	103	102	103	102	101	100
5	111	107	105	104	110	107	105	103	105	104	102	104	103	102	103	102	101	100
6	110	106	104	103	109	106	104	102	105	103	102	104	102	101	103	102	101	100
7	109	106	104	102	108	105	103	102	104	103	101	104	102	101	103	102	101	100
8	108	105	103	102	108	105	103	102	104	102	101	103	102	101	103	101	101	100
9	108	105	103	101	107	104	102	101	104	102	101	103	102	101	103	101	100	100
10	107	104	102	101	107	104	102	101	103	102	101	103	102	101	103	101	100	100

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
6027 lm	0.000 lm	0.001 lm	0.001 lm	0.001 lm	0.001 lm	0.001 lm	0.002 lm	0.001 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.002 lm	0.001 lm	0.001 lm	0.001 lm	0.001 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm