

Light Efficiency:



Light Quality:



Color Temperature:



Output: 6082 lm
Peak: 13559975
Power: 649 W
PF: 1.0



Product Name:

Proteus Hybrid

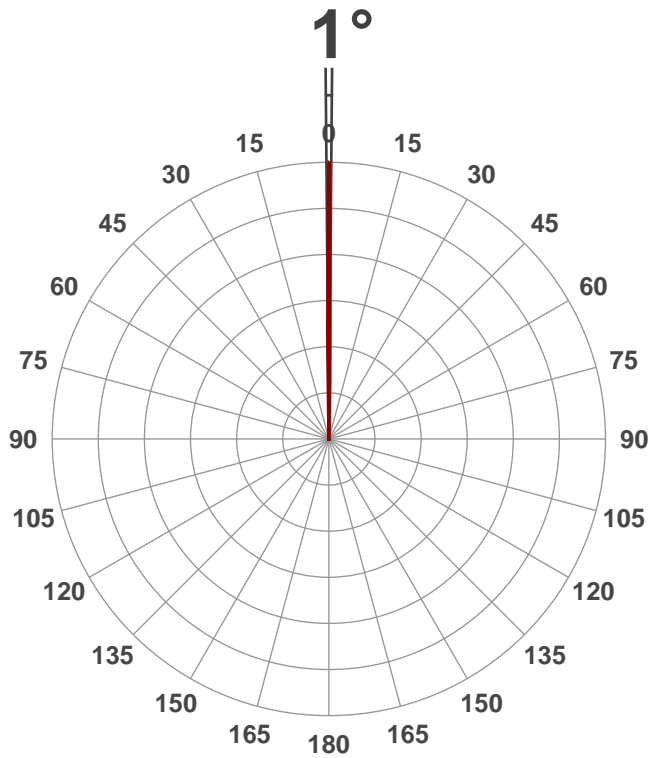
Test:

Beam CTO color Zoom In

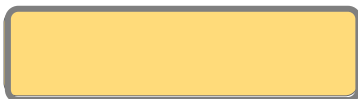
Date:

1/19/2018

Note:



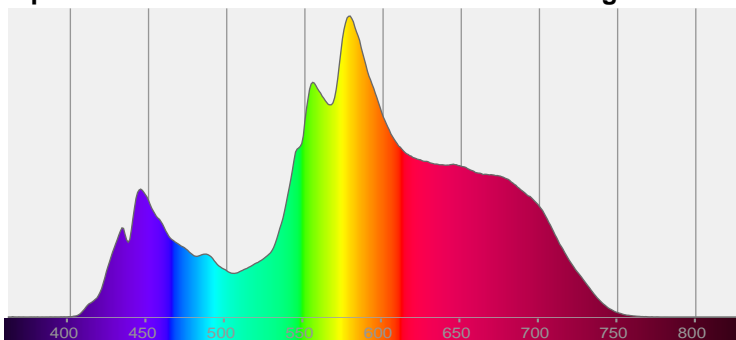
Beam Angle



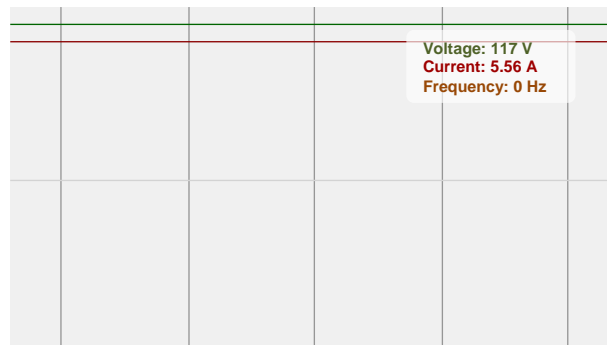
CIE 1931
x: 0.420
y: 0.389

Spectra

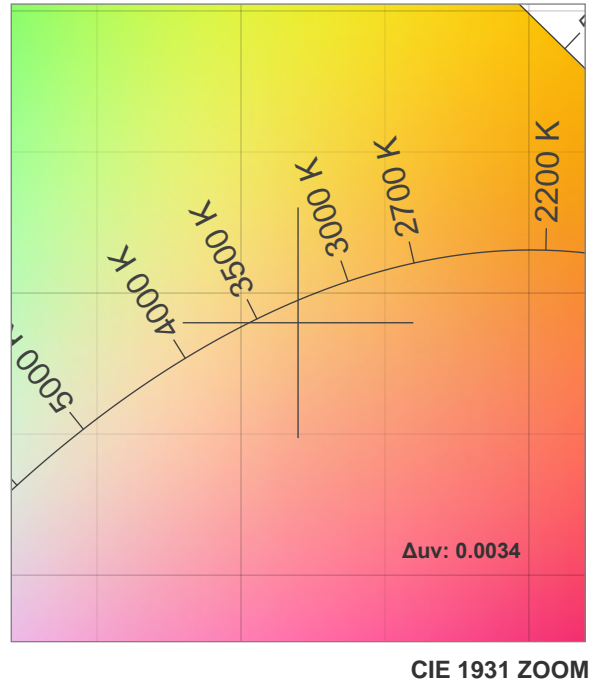
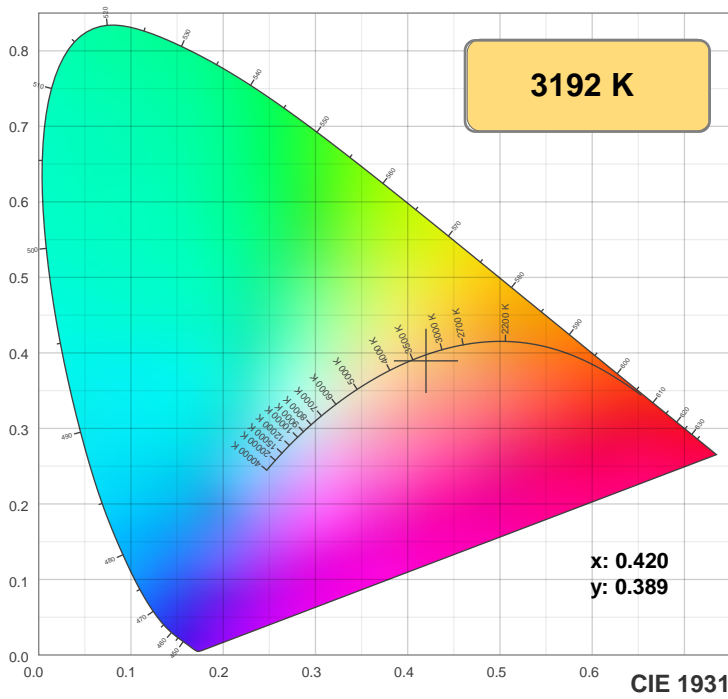
Dominant Wavelength: 584nm



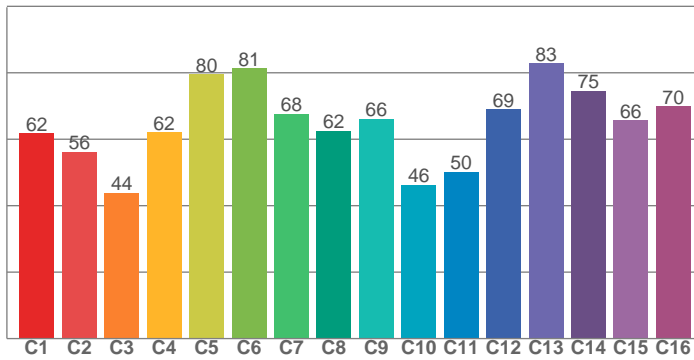
Power



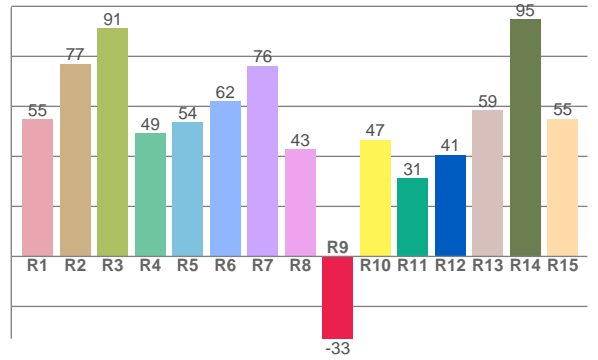
Color Details



TM30: 64.2



CRI: 63.4 (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
54.8	77.0	91.1	49.2	53.7	62.0	76.3	42.7	-32.9	46.7	31.3	40.6	58.6	94.8	55.1

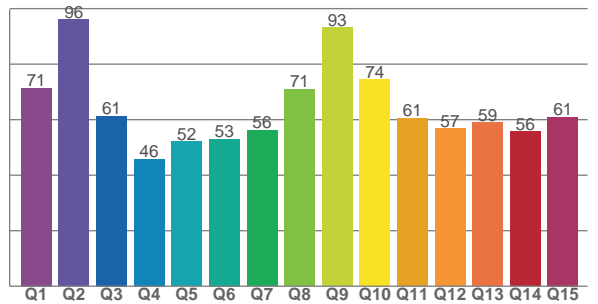
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
61.8	56.2	43.9	62.0	79.5	81.3	67.6	62.5	66.0	46.3	50.1	69.0	82.8	74.5	65.7	69.9

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
71.4	96.1	61.3	45.8	52.1	53.1	56.2	70.9	93.2	74.4	60.5	56.8	58.9	55.7	61.0

CQS: 61.7



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
3192 K	63.4	-32.9	64.2	88.9	61.7	0.420	0.389	0.246	0.342	0.0034

TM30 Details

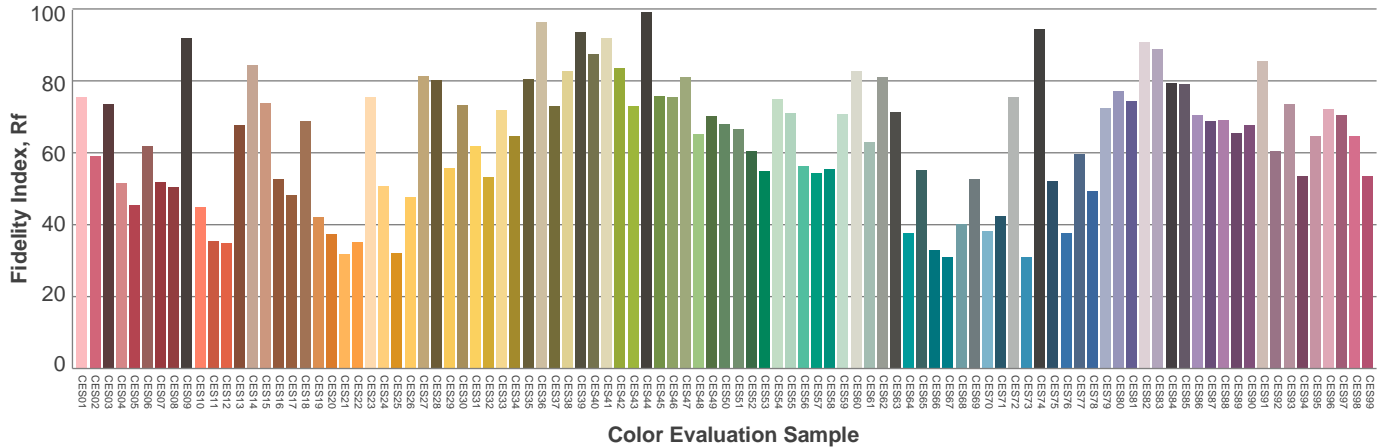
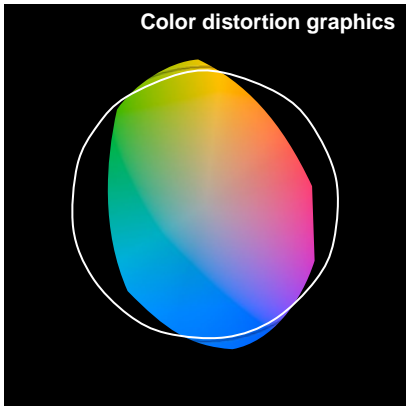
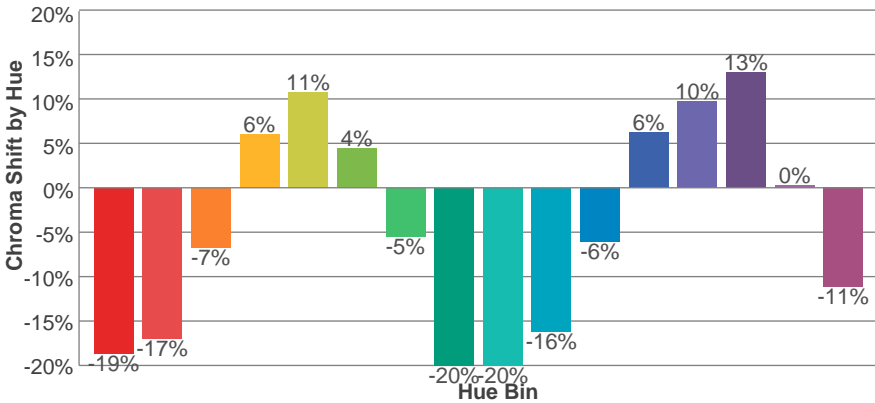
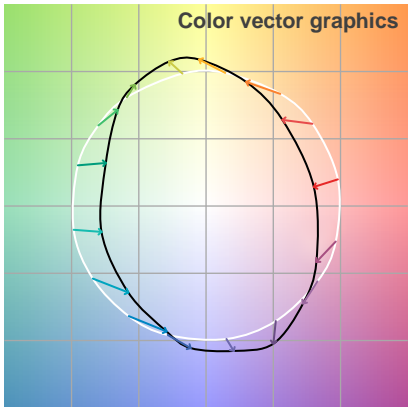
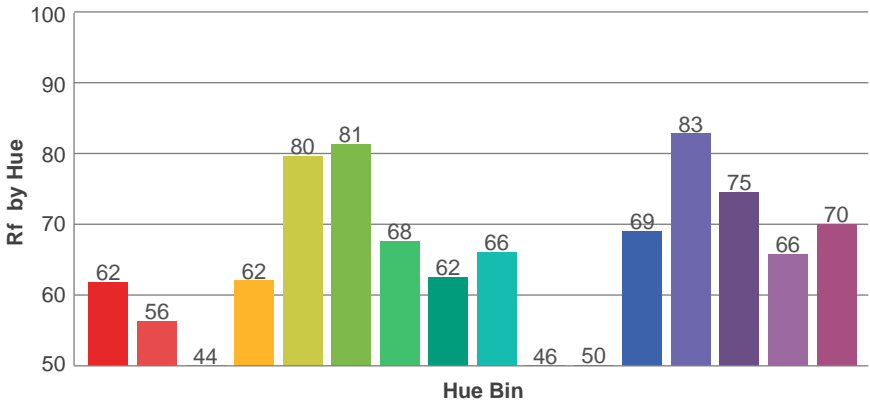
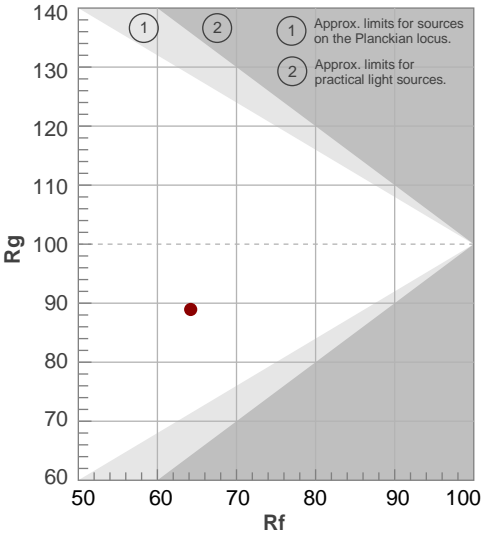
Rf 64.2

Fidelity Index Rf

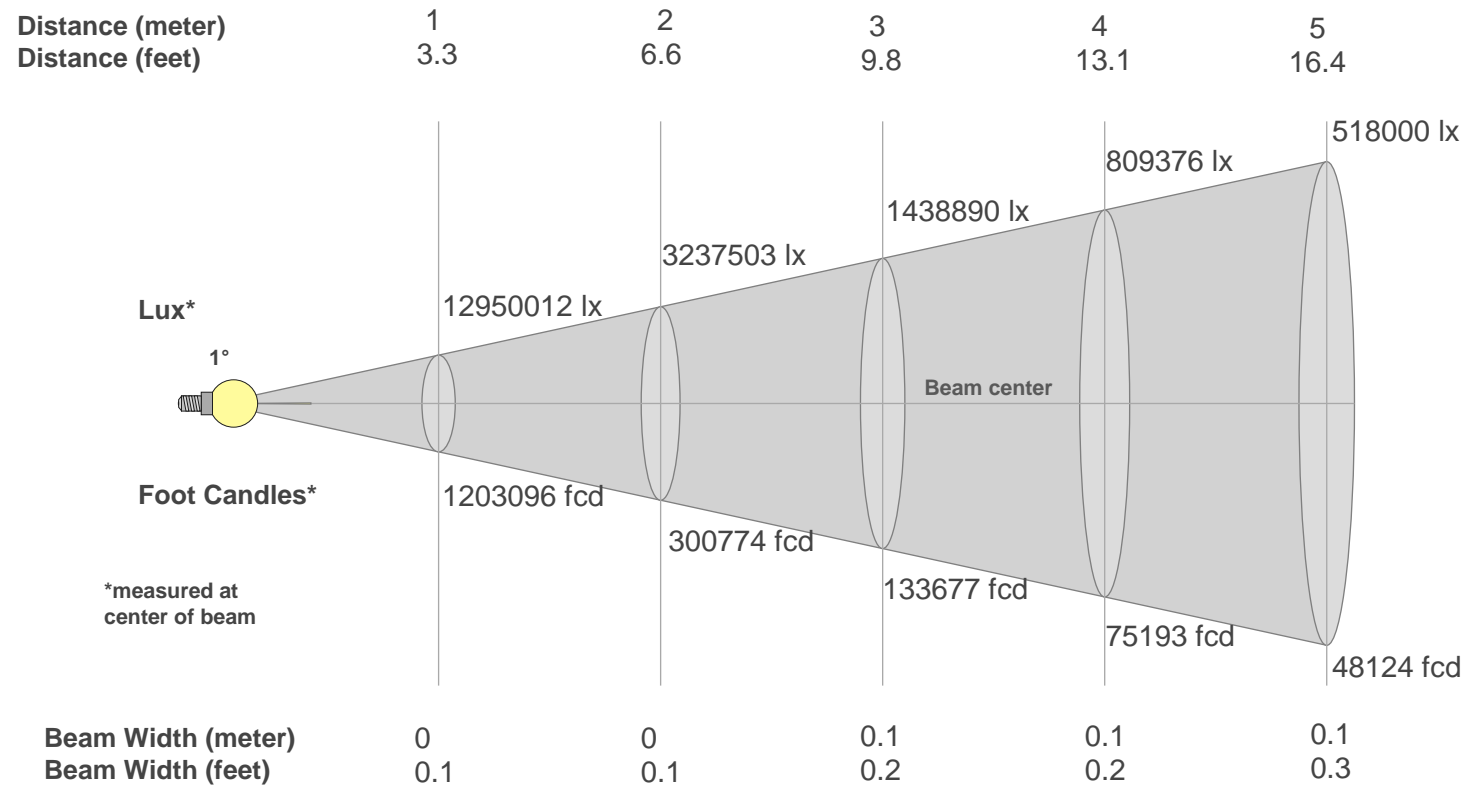
Rg 88.9

Gammut Index Rg

		Graphic shifts (%)	
Hue Bin	Rf	Chroma	Hue
1	62	-19%	-2%
2	56	-17%	15%
3	44	-7%	26%
4	62	6%	21%
5	80	11%	8%
6	81	4%	-10%
7	68	-5%	-18%
8	62	-20%	-6%
9	66	-20%	6%
10	46	-16%	23%
11	50	-6%	30%
12	69	6%	19%
13	83	10%	4%
14	75	13%	-11%
15	66	0%	-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	12950012	3237503	1438890	809376	518000	359723	264286	202344	159877	129500	107025	89931	76627	66071	57556	50586	44810	39969	35873	32375
Fcd	1203095.6	300773.9	133677.3	75193.5	48123.8	33419.3	24553	18798.4	14853	12031	9942.9	8354.8	7118.9	6138.2	5347.1	4699.6	4163	3713.3	3332.7	3007.7

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°
13M	1M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	4%	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°	
13M	1M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

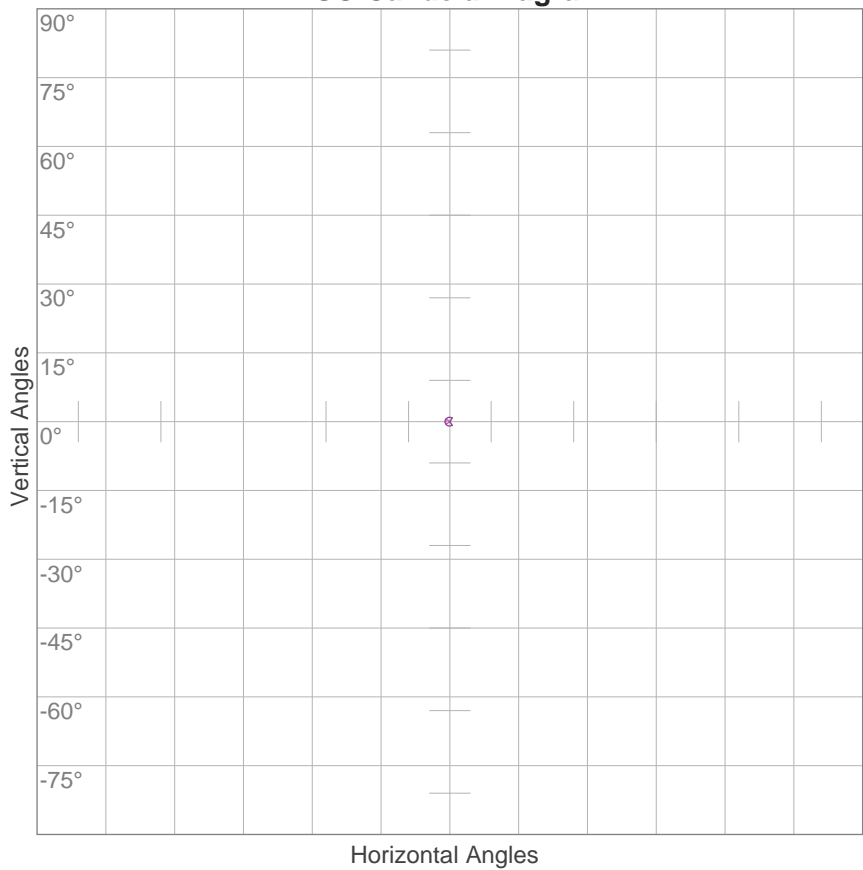
Intensities in 180° C-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
13M	3M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

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°
13M	3M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	25%	0%	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
1°	2.2°	2.5°	100.0%	100.0%

ISO Diagrams

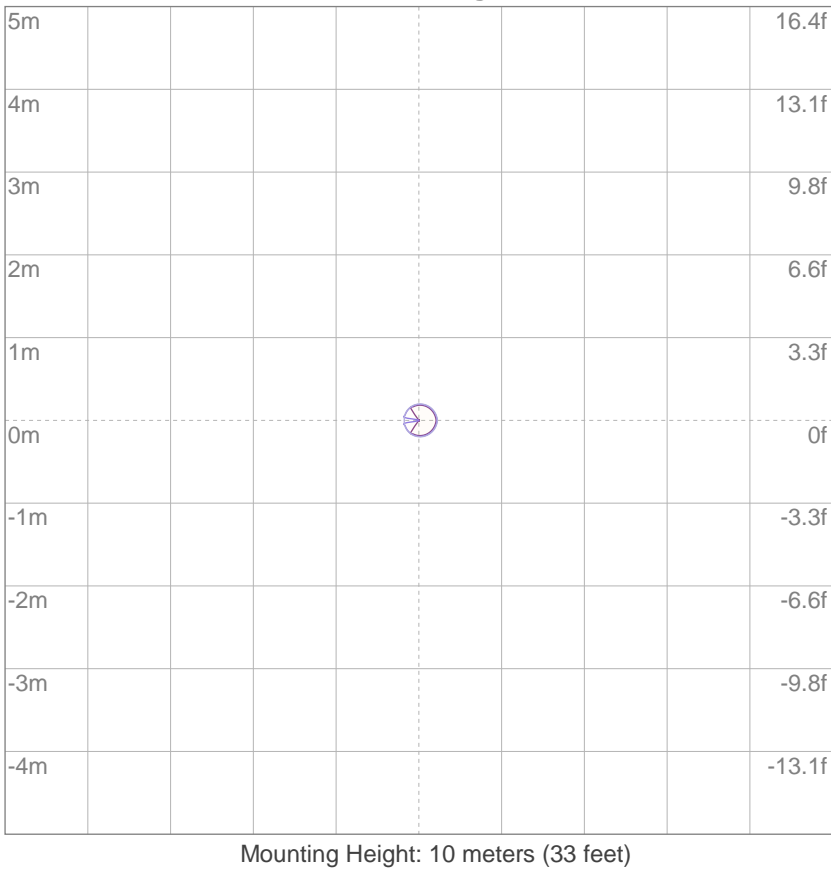
ISO Candela Diagram



10%	1295001 cd
20%	2590002 cd
30%	3885004 cd
40%	5180005 cd
50%	6475006 cd
60%	7770007 cd
70%	9065009 cd
80%	10360010 cd
90%	11655011 cd

Conditions:
Number of c-planes: 2
Candela at center: 12950012 cd

ISO Lux Diagram



3%	3885 lx
5%	6475 lx
10%	13.0K lx
30%	38.9K lx
50%	64.8K lx

Conditions:
Number of c-planes: 2
Lux at center: 130K 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	103	110	107	105	103	105	104	102	104	103	101	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	101	101	100
8	108	105	103	102	108	105	103	101	104	102	101	103	102	101	103	101	100	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°
6080 lm	0.047 lm	0.049 lm	0.091 lm	0.107 lm	0.142 lm	0.219 lm	0.130 lm	0.102 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.136 lm	0.055 lm	0.116 lm	0.127 lm	0.103 lm	0.104 lm	0.038 lm	0.036 lm	0.016 lm