

Light Efficiency:



Light Quality:



Color Temperature:



Output: 9063 lm
Peak: 18252752
Power: 649 W
PF: 1.0



Product Name:

Proteus Hybrid

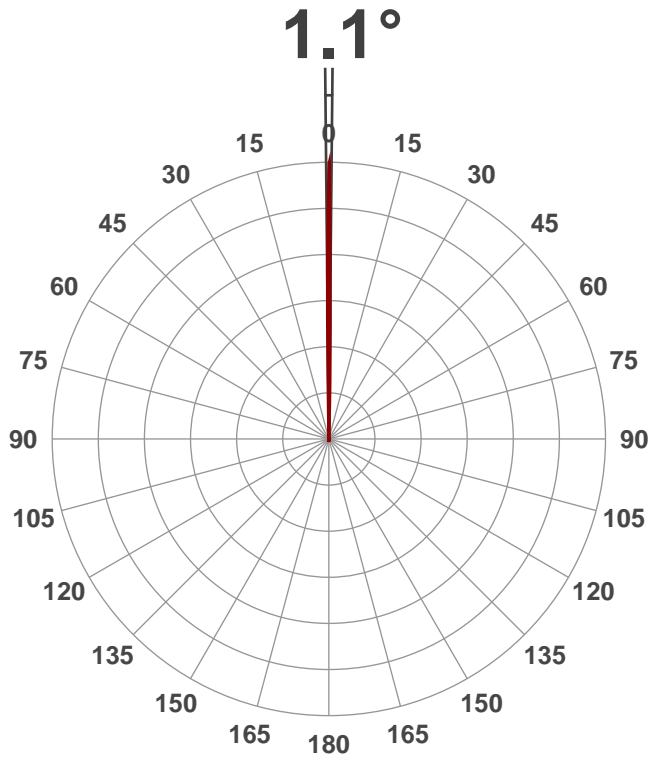
Test:

Beam CTB color wheel Zoom In

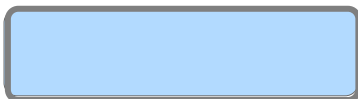
Date:

1/19/2018

Note:



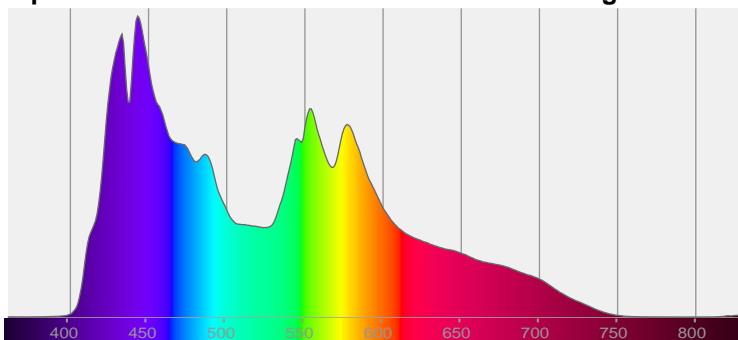
Beam Angle



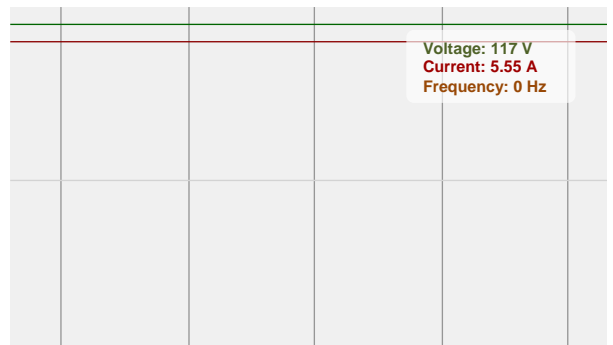
CIE 1931
x: 0.287
y: 0.284

Spectra

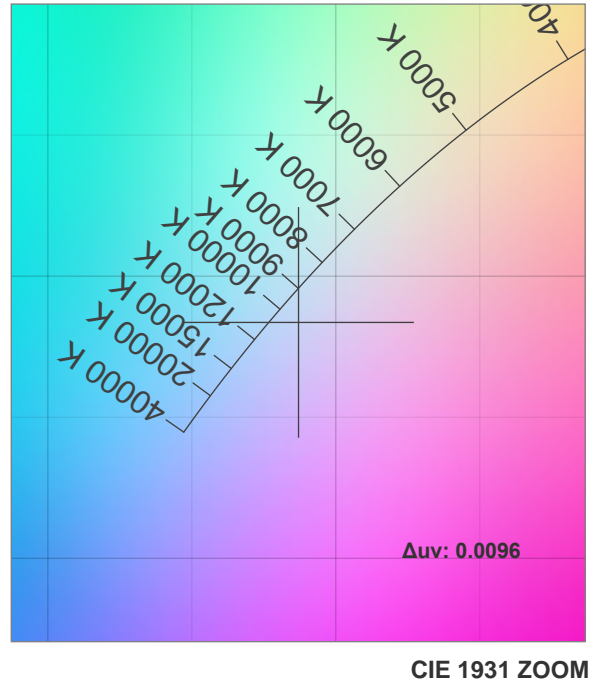
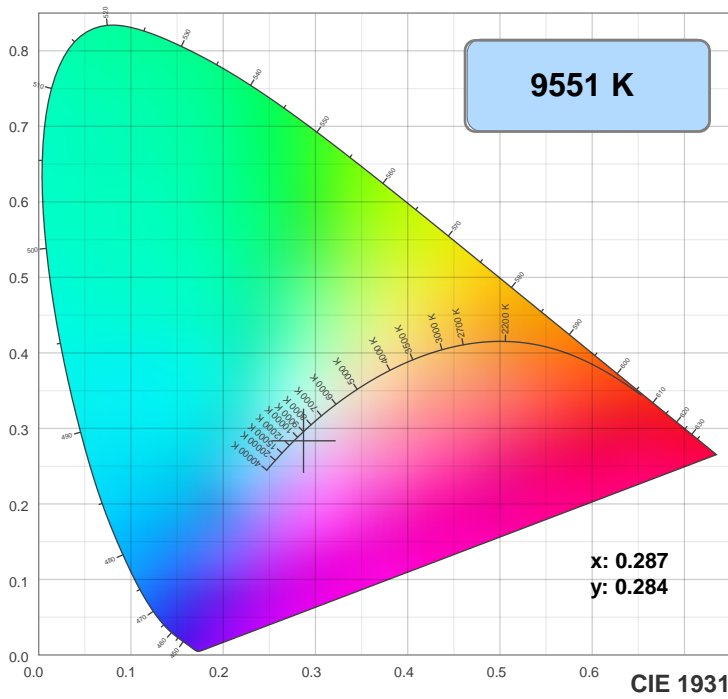
Dominant Wavelength: 460nm



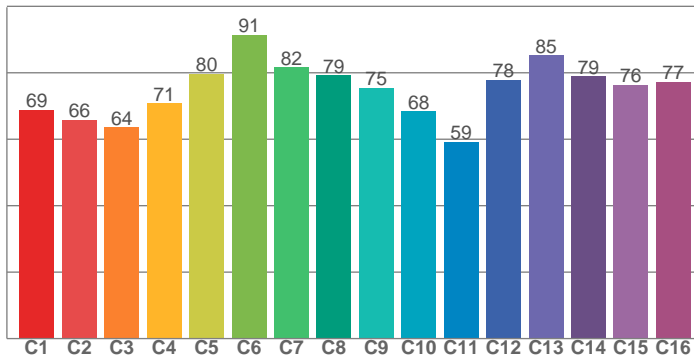
Power



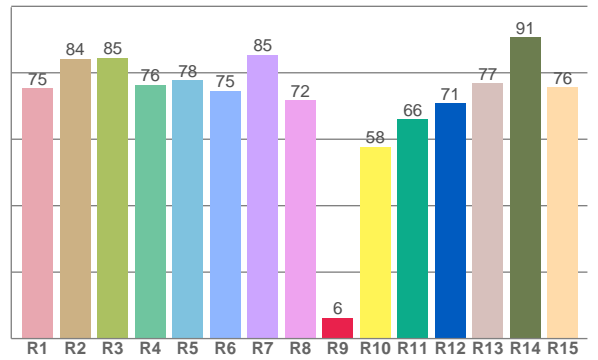
Color Details



TM30: 75.5



CRI: 78.8 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
75.3	84.3	84.6	76.4	77.9	74.6	85.5	71.7	6.3	57.7	66.1	70.9	76.9	90.8	75.6

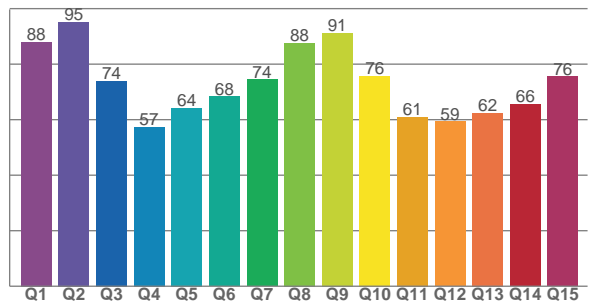
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
68.8	65.8	63.6	70.8	79.7	91.4	81.6	79.2	75.5	68.3	59.2	77.9	85.3	78.9	76.3	77.2

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.9	95.2	73.9	57.4	64.1	68.3	74.4	87.6	91.2	75.8	61.0	59.3	62.5	65.5	75.5

CQS: 70.8



Color Parameters

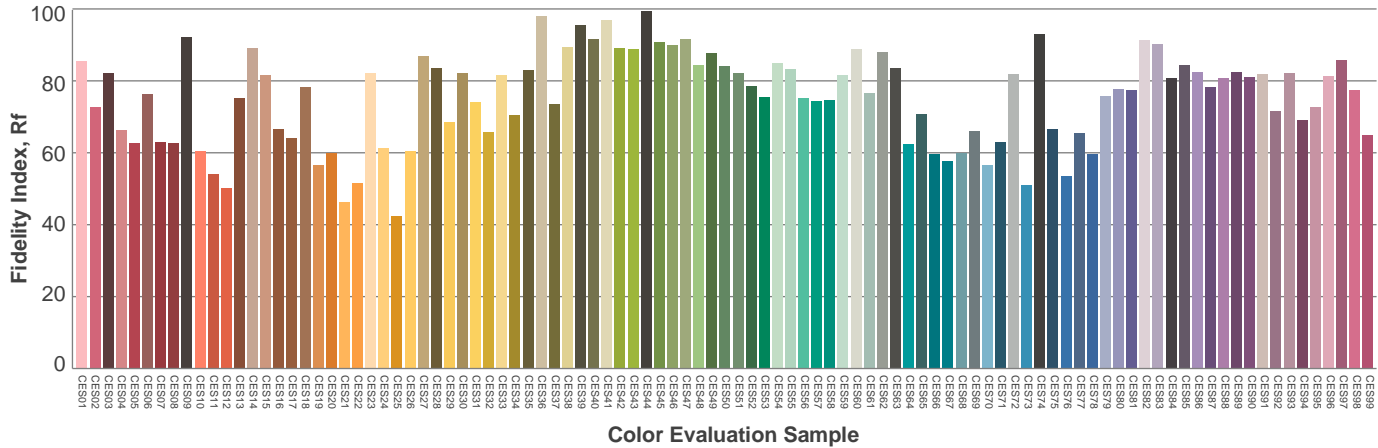
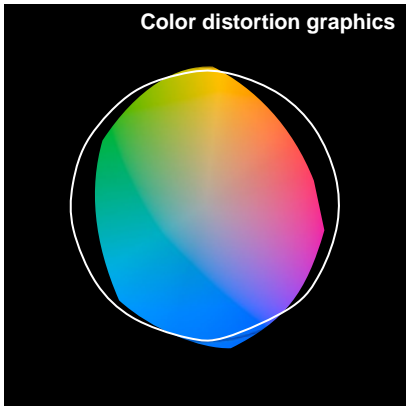
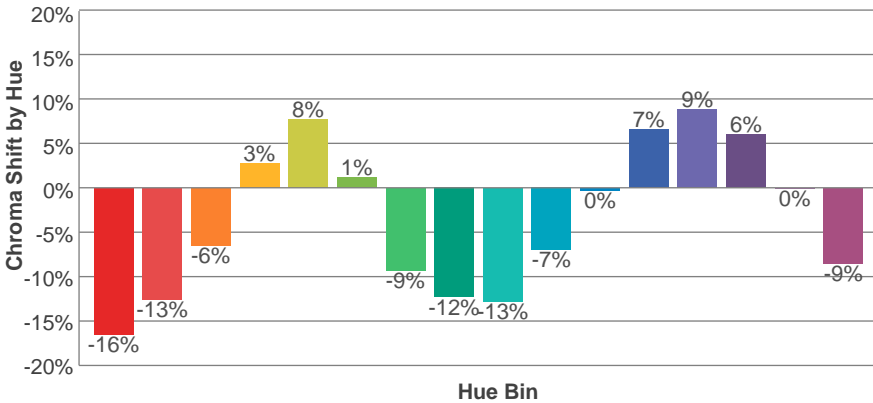
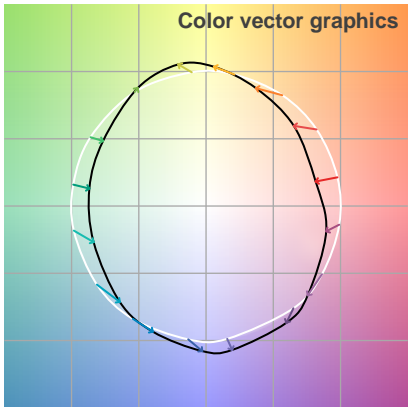
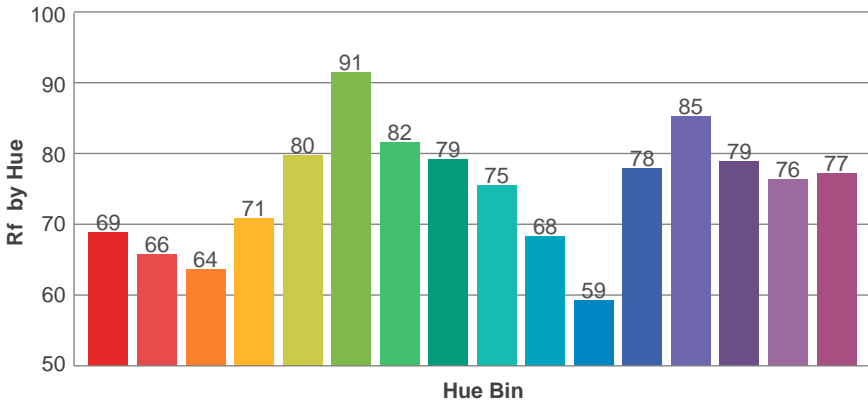
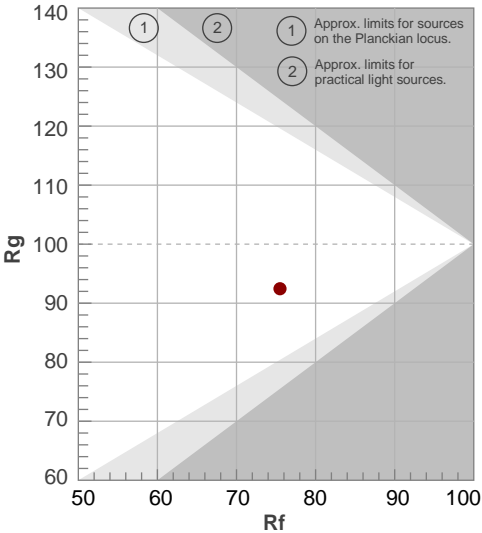
Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Deviation from Black Body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
9551 K	78.8	6.3	75.5	92.4	70.8	0.287	0.284	0.197	0.292	0.0096

TM30 Details

Rf 75.5
Fidelity Index Rf

Rg 92.4
Gammut Index Rg

		Graphic shifts (%)	
Hue Bin	Rf	Chroma	Hue
1	69	-16%	0%
2	66	-13%	12%
3	64	-6%	19%
4	71	3%	16%
5	80	8%	9%
6	91	1%	-4%
7	82	-9%	-3%
8	79	-12%	1%
9	75	-13%	11%
10	68	-7%	20%
11	59	0%	18%
12	78	7%	12%
13	85	9%	2%
14	79	6%	-10%
15	76	0%	-19%
16	77	-9%	-7%



The diagram illustrates the beam spread of a 1.1 degree light source. It shows a cone of light originating from a point source, with vertical lines indicating distances of 1, 2, 3, 4, and 5 meters (3.3, 6.6, 9.8, 13.1, and 16.4 feet). The beam width at these distances is 0, 0.1, 0.1, 0.3, and 0.3 meters (0.1, 0.1, 0.2, 0.3, and 0.3 feet) respectively. The light intensity is measured at the center of the beam in Lux* and Foot Candles*.

Distance (meter)	Distance (feet)	Beam Width (meter)	Beam Width (feet)	Lux*	Foot Candles*
1	3.3	0	0.1	16997269 lx	1579098 fcd
2	6.6	0.1	0.1	4249317 lx	394775 fcd
3	9.8	0.1	0.2	1888585 lx	175455 fcd
4	13.1	0.3	0.3	1062329 lx	98694 fcd
5	16.4	0.3	0.3	679891 lx	63164 fcd

*measured at center of beam

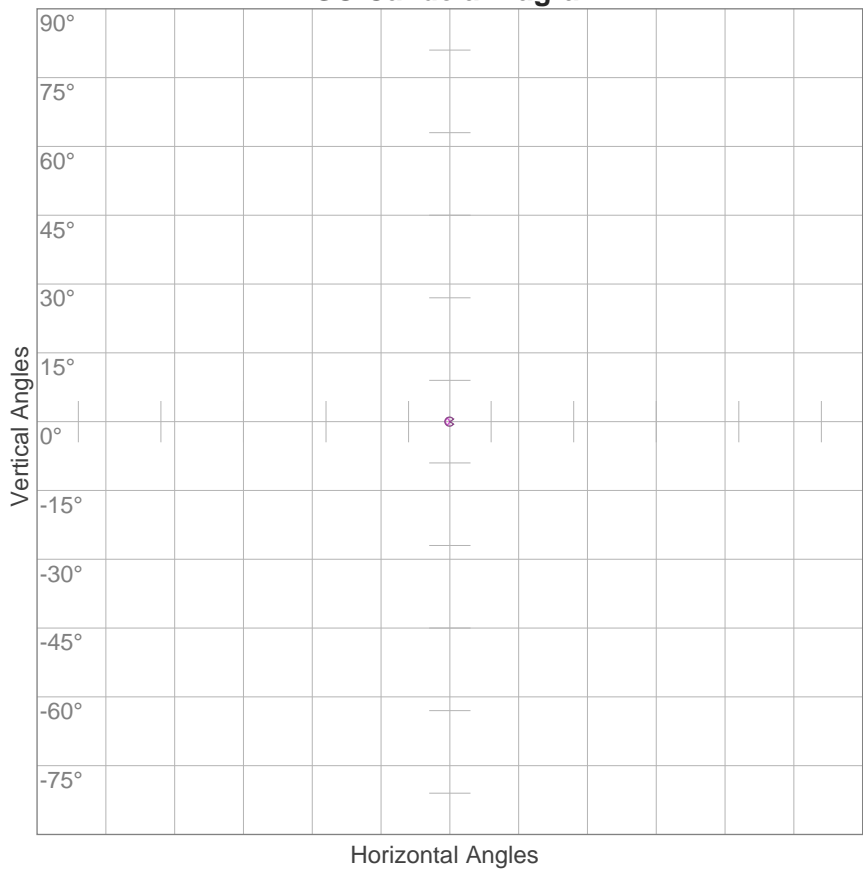
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
Lx	1699726 9	4249317	1888585	1062329	679891	47214 6	346883	265582	20984 3	16997 3	14047 3	118037	100576	86721	75543	66396	58814	52461	47084	42493
Fcd	1579098 1	394774.5	175455.3	98693.6	63163.9	43863 8	32226.5	24673.4	19495	15791	13050. 4	10966	9343.8	8056.6	7018.2	6168.4	5464	4873.8	4374.2	3947. 7

[illegible][illegible][illegible][illegible]

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
1.1°	2.3°	2.8°	100.0%	100.0%

ISO Diagrams

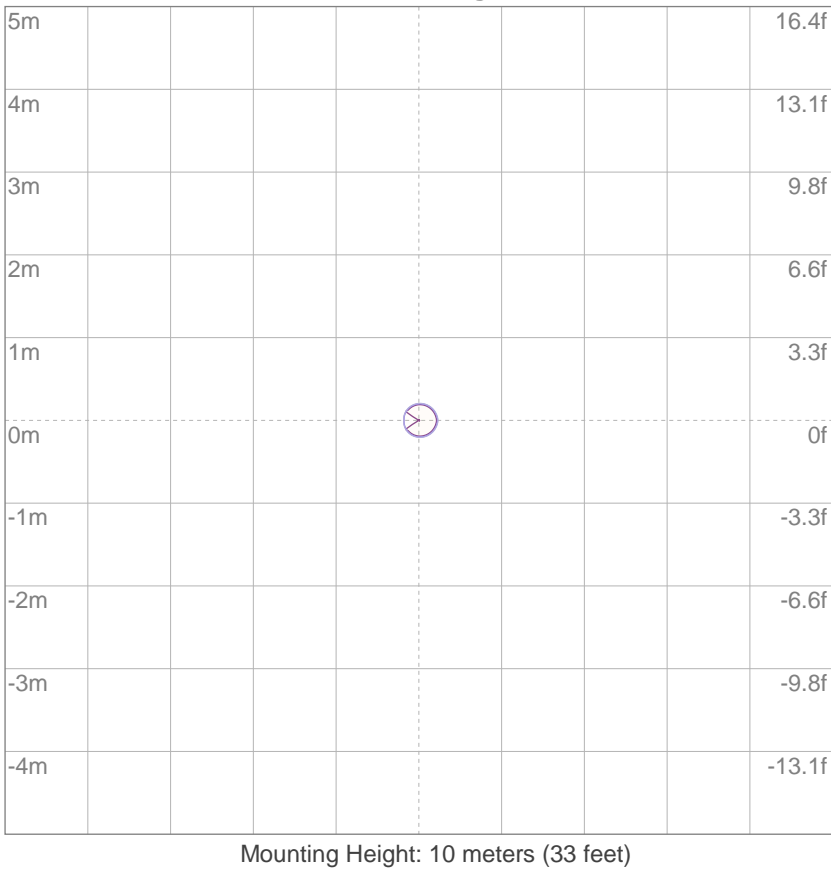
ISO Candela Diagram



10%	1699727 cd
20%	3399454 cd
30%	5099181 cd
40%	6798908 cd
50%	8498635 cd
60%	10198362 cd
70%	11898089 cd
80%	13597815 cd
90%	15297542 cd

Conditions:
Number of c-planes: 2
Candela at center: 16997269 cd

ISO Lux Diagram



3%	5099 lx
5%	8499 lx
10%	17.0K lx
30%	51.0K lx
50%	85.0K lx

Conditions:
Number of c-planes: 2
Lux at center: 170K 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	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	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°
9061 lm	0.544 lm	0.088 lm	0.043 lm	0.078 lm	0.126 lm	0.161 lm	0.156 lm	0.119 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.155 lm	0.151 lm	0.125 lm	0.152 lm	0.107 lm	0.062 lm	0.048 lm	0.030 lm	0.013 lm