

Photometric Report

Total Lumen Output*

VISO Lab Spion 9273 lm

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
103.7°	138°	153.3°

Color Temperature: 6882 K

CRI: 77.4

TLCI: 84

TM30: 81.2

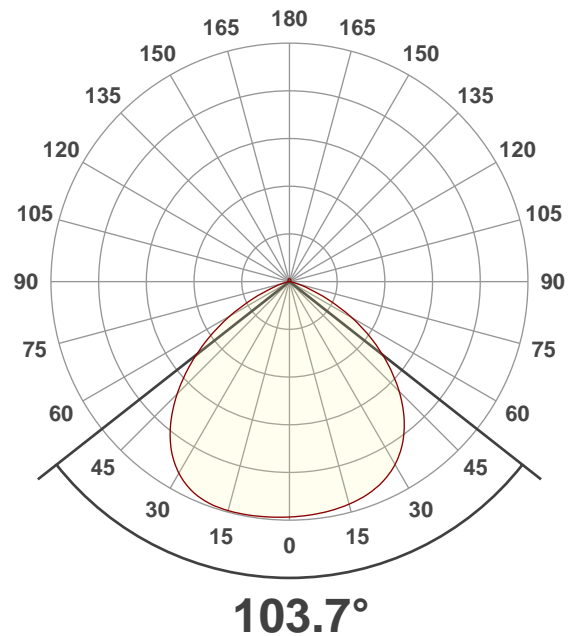
CQS: 86.4

Voltage: 117 V, Current: 1.91 A

Power: 220 W

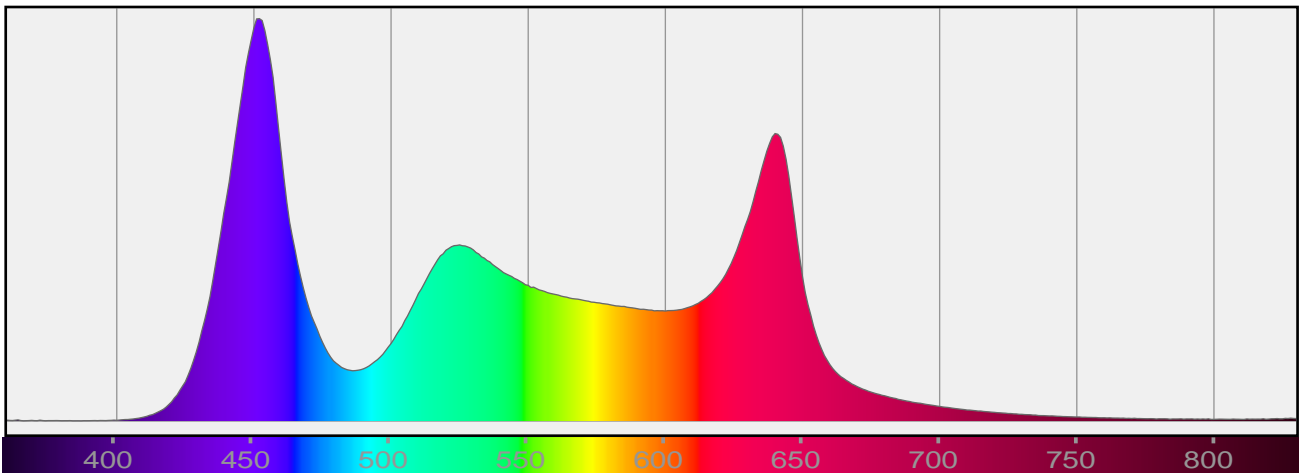
Efficacy: 42 Lumen/Watt

Measurement Date: 9/23/2020



Spectral Distribution

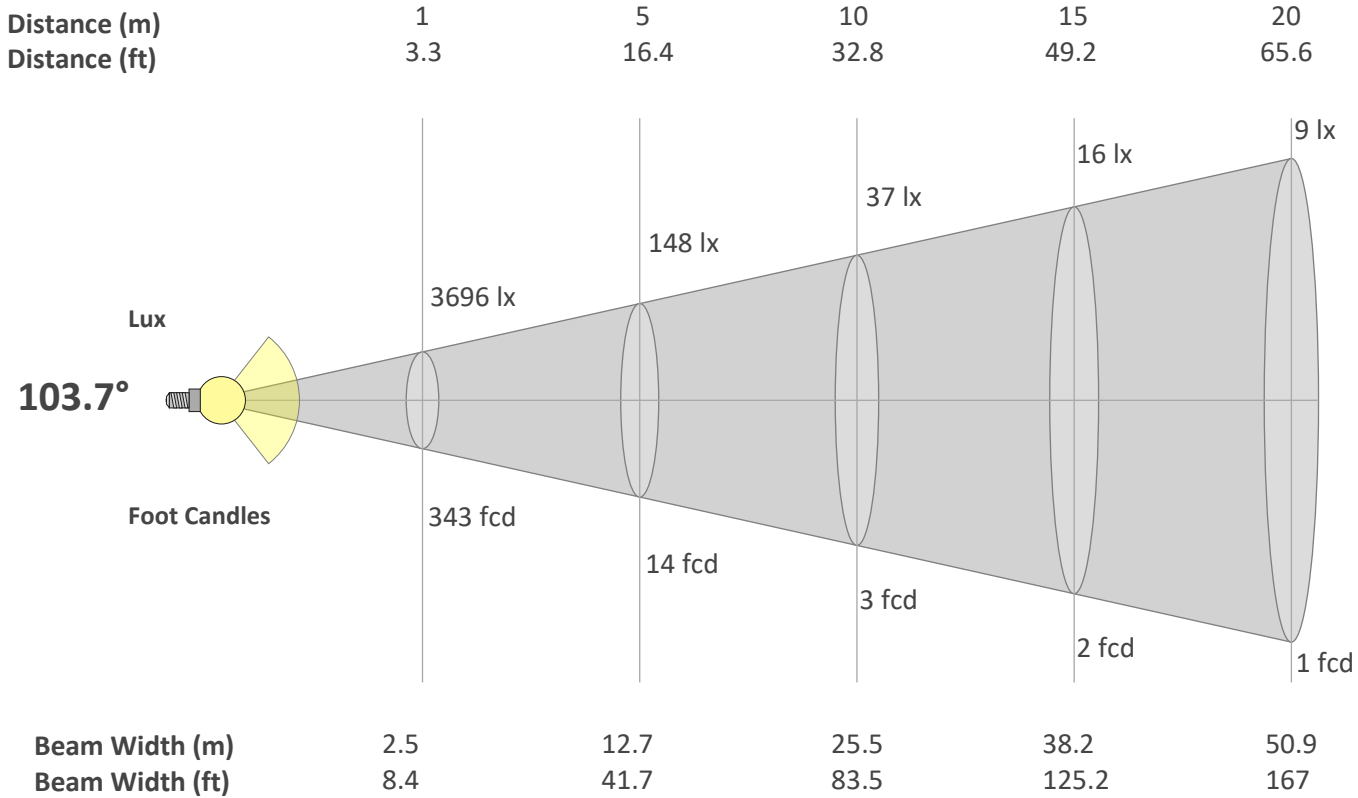
Dominant Wavelength 360 nm



*Total Lumen measurements by calibrated Everfine 2π Integrating Sphere and Viso Systems Lab Spion

Beam Details

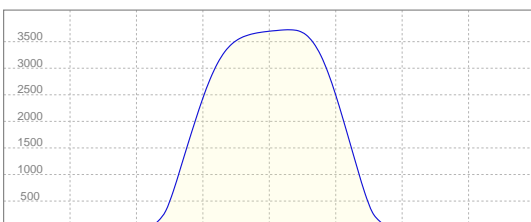
Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
103.7°	138°	153.3°



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	3696	924	411	231	148	103	75	58	46	37	31	26	22	19	16	14	13	11	10	9
FC	343.4	85.8	38.2	21.5	13.7	9.5	7	5.4	4.2	3.4	2.8	2.4	2	1.8	1.5	1.3	1.2	1.1	1	0.9

Linear Distribution



Peak Candela

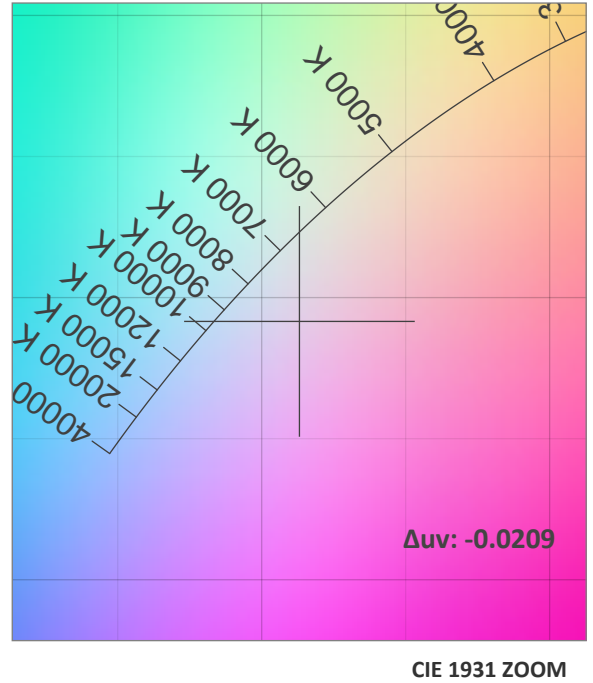
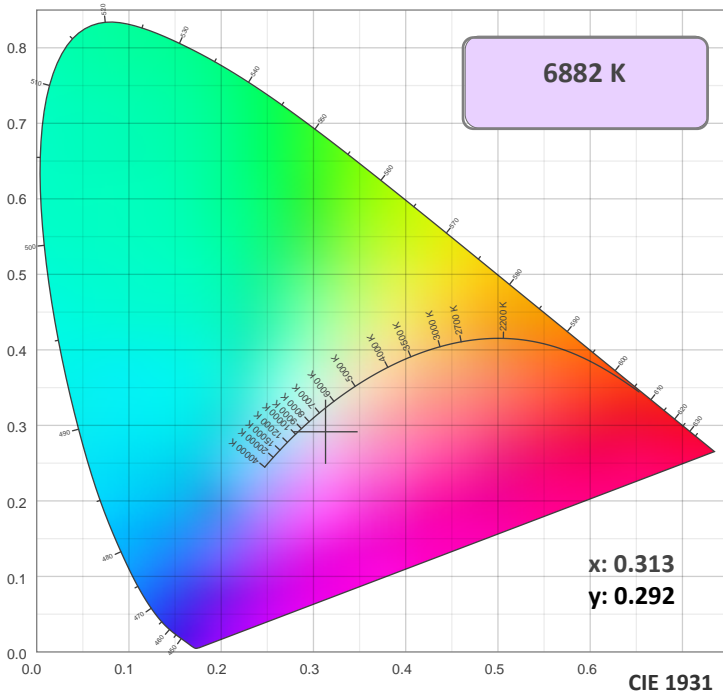
3722 cd

Calculate Center Beam Intensities

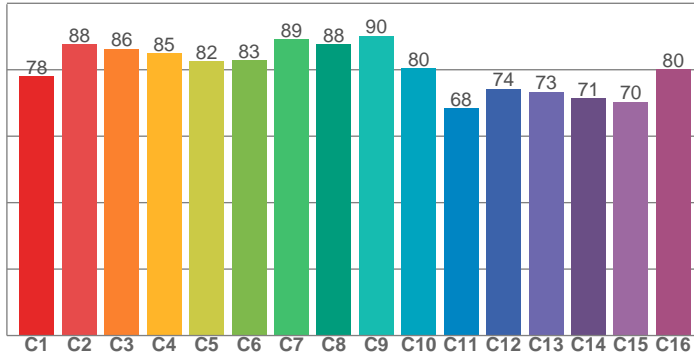
$lux = 3722 / distance(m)^2$

$fc = 3722 / distance(ft)^2$

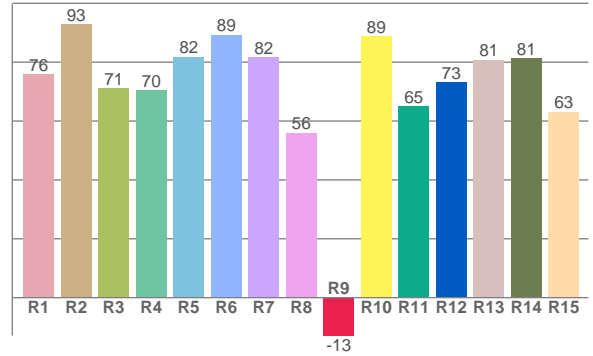
Color Details



TM30: 81.2



CRI: 77.4 (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
75.9	92.8	71.2	70.5	81.8	89.3	81.6	56.0	-12.9	88.8	65.0	73.2	80.8	81.3	63.1

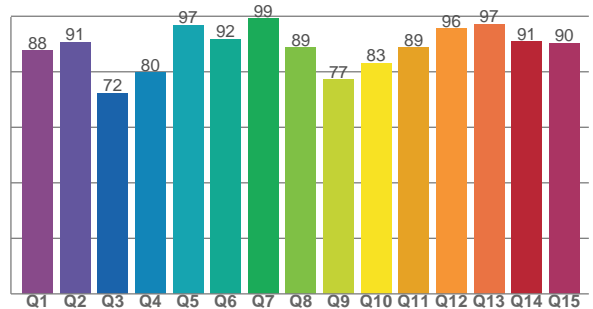
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
78.0	87.7	86.2	85.0	82.5	82.8	89.1	87.6	90.2	80.5	68.4	74.3	73.4	71.3	70.3	80.2

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.7	90.7	72.4	79.7	96.9	91.8	99.2	88.8	77.2	83.1	88.7	95.6	97.1	90.8	90.3

CQS: 86.4



Color Parameters

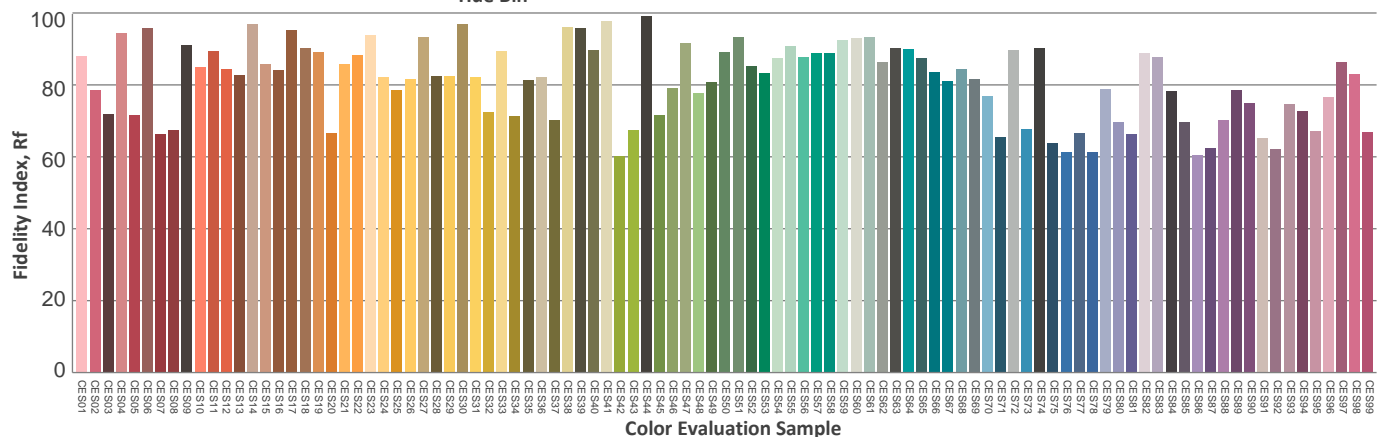
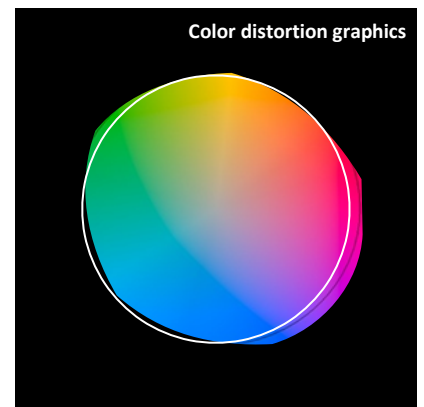
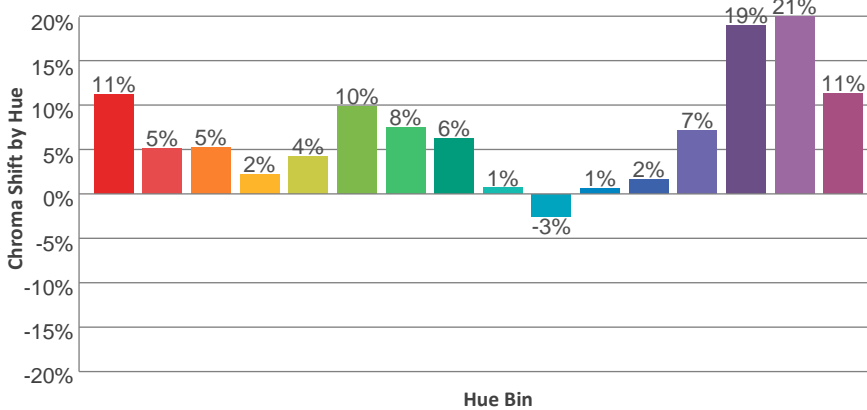
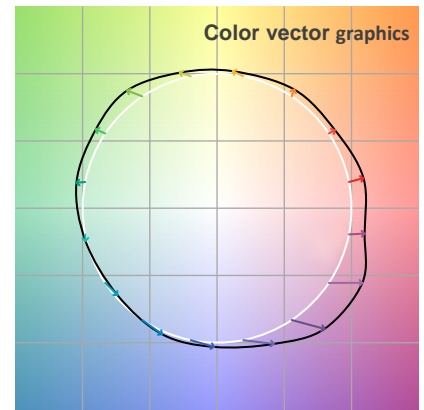
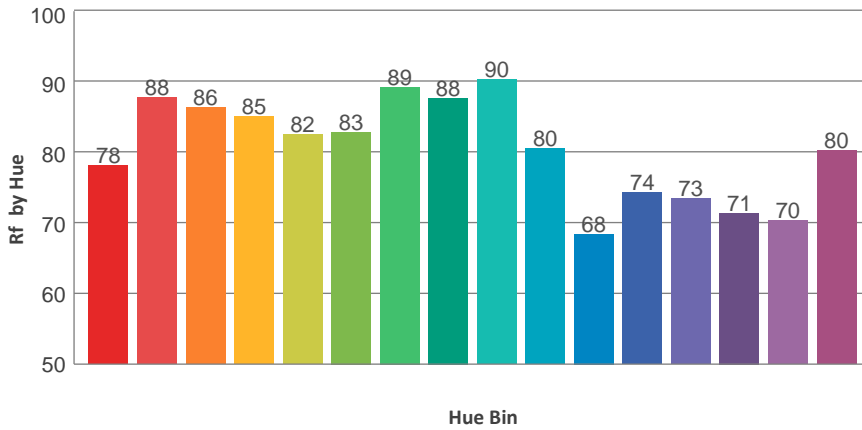
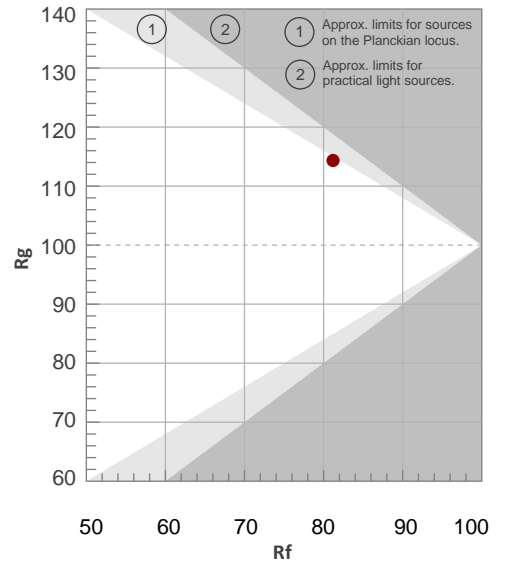
Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Diviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
6882 K	77.4	-12.9	81.2	114.3	86.4	0.313	0.292	0.213	0.298	-0.0209

TM30 Details

Rf 81.2
Fidelity Index Rf

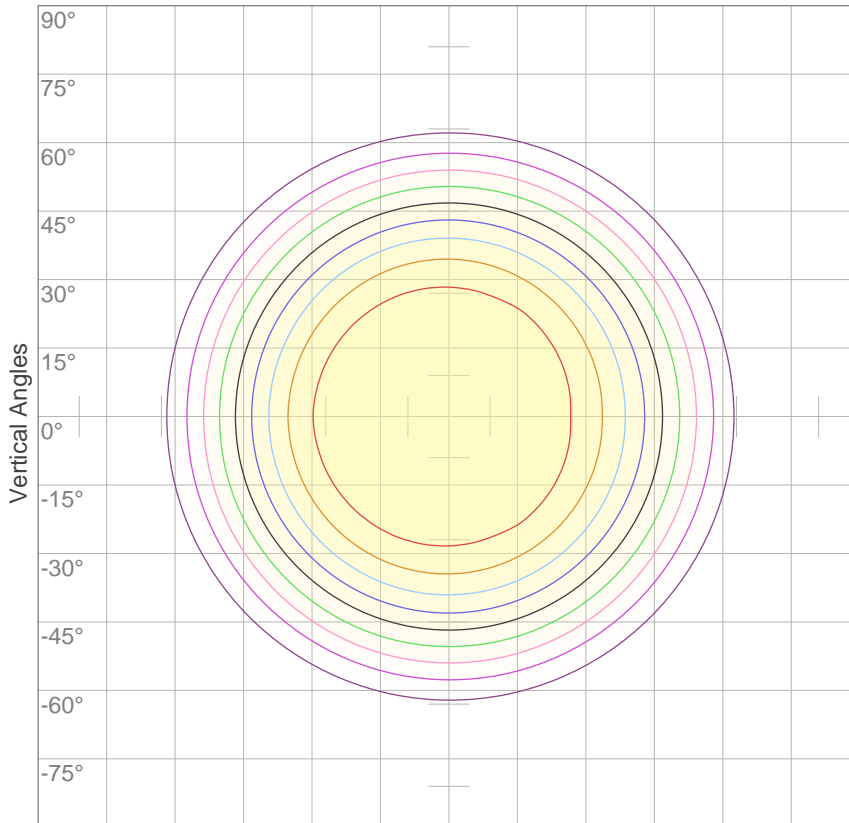
Rg 114.3
Gamut Index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	78	11%	1%
2	88	5%	0%
3	86	5%	1%
4	85	2%	8%
5	82	4%	8%
6	83	10%	7%
7	89	8%	1%
8	88	6%	2%
9	90	1%	5%
10	80	-3%	12%
11	68	1%	18%
12	74	2%	18%
13	73	7%	22%
14	71	19%	17%
15	70	21%	14%
16	80	11%	3%



ISO Diagrams

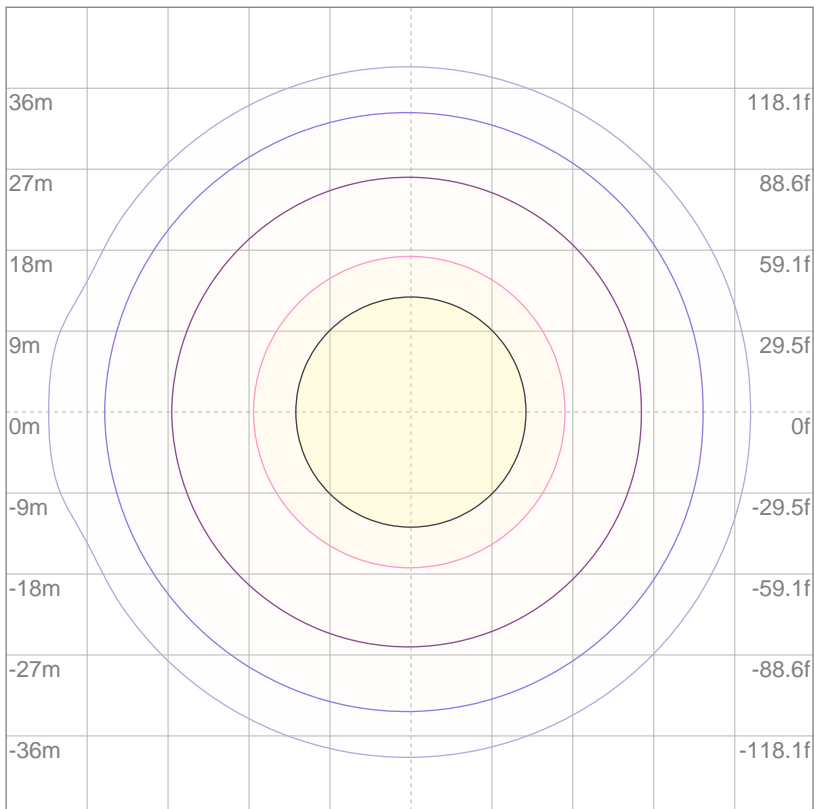
ISO Candela Diagram



10%	370 cd
20%	739 cd
30%	1109 cd
40%	1478 cd
50%	1848 cd
60%	2218 cd
70%	2587 cd
80%	2957 cd
90%	3326 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 3696 cd

ISO Lux Diagram



3%	1.11 lx
5%	1.85 lx
10%	3.70 lx
30%	11.1 lx
50%	18.5 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 37.0 lx

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