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Photometric Test Report

Relevant Standards

IES LM-79-2008, ANSI C82.77-2002, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2015, IES TM-30-2015

Prepared For

AVID Labs

4121 Fourier Drive
Fort Wayne, IN 46818
United States

Catalog Number

LGT-RAI-CRIL04-5600

Order Number

11731583

Test Number

11731583.01

Test Date

2017-04-26 - 2017-04-27

Prepared By

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Approved By

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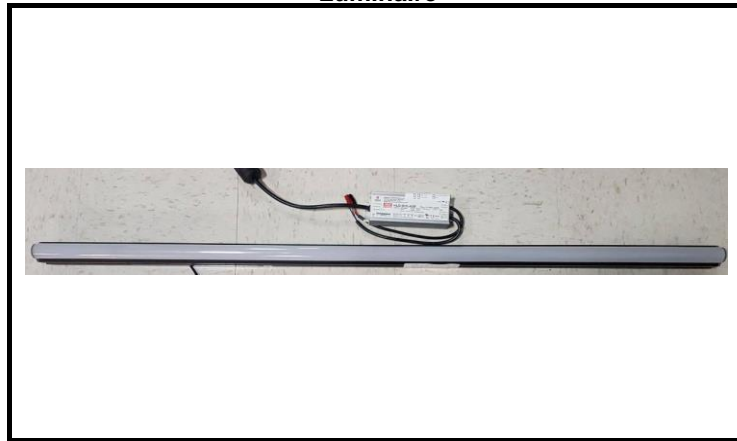
Laboratory results may not be representative of field performance
Ballast factors have not been applied

Testing was performed in a 3-meter integrating sphere using the 4π geometry method.
Absorption correction was employed for Sphere measurement



Luminaire Description: Black formed aluminum housing, frosted plastic lens enclosure
Lamp: 144 white LEDs
Mounting: Surface – Ceiling
Ballast/Driver: One Meanwell HLG-120H-42B driver

Luminaire



Luminaire Characteristics

Luminous Length: 48.25 in.
Luminous Width: 1.250 in.
Luminous Height: 0.75 in.

Summary of Results

Integrating Sphere

Luminous Flux: 3590 Lumens
Efficacy: 58.1 lm/w
CCT: 5660 K
CRI (Ra): 96.4

Distribution

Total Luminaire Output: 3440 Lumens
Luminaire Efficacy: 55.7 lm/w
Maximum Candela: 885 Candela

Electrical Data at 120 VAC

Test Temperature: 24.6 °C
Voltage: 120.0 VAC
Current: 0.5173 A
Power: 61.74 W
Power Factor: 0.995
Frequency: 60 Hz
Current THD: 4.53 %



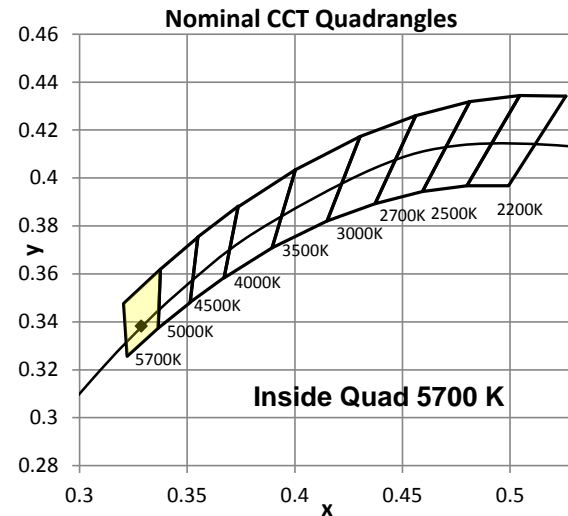
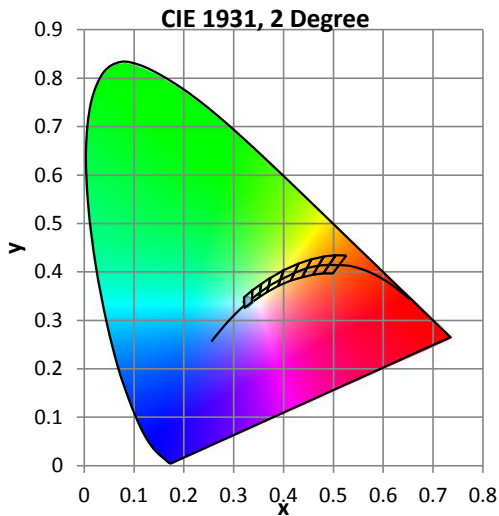
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.0 VAC	0.5173 A	61.74 W	0.995	60 Hz	4.53 %

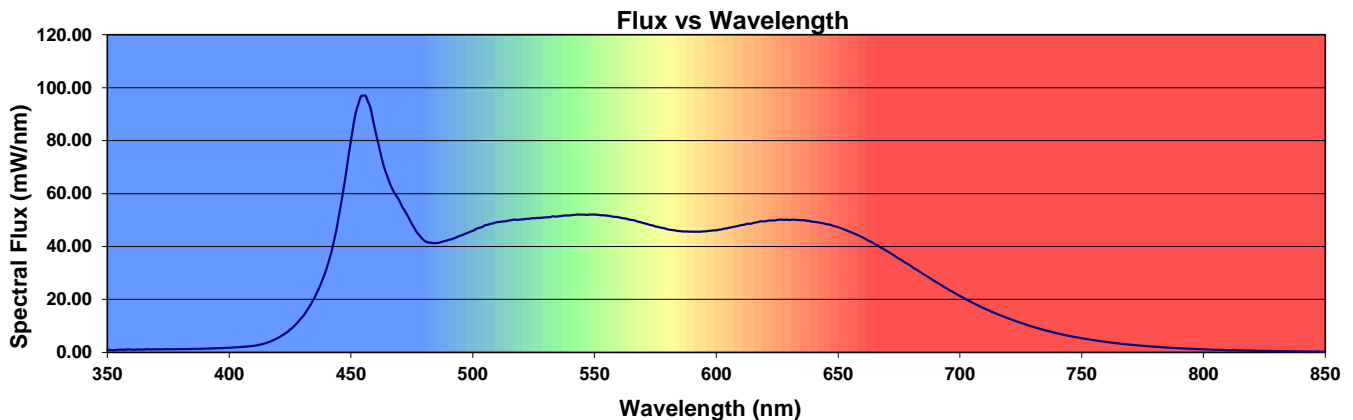
Summary of Results

Total Output:	3590 Lumens	Chromaticity (x):	0.3288
Efficacy:	58.1 lm/w	Chromaticity (y):	0.3381
CCT:	5660 K	Chromaticity (u'):	0.2055
CRI (Ra):	96.4	Chromaticity (v'):	0.4755
CRI (R9):	86.1	TM-30 R_f:	91.4
Peak Wavelength:	455.1 nm	TM-30 R_g:	99.6
Dominant Wavelength:	505.8 nm	Duv:	0.0001
S/P Ratio:	2.312		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
96.4	96.0	97.3	98.5	96.8	95.9	95.4	96.5	94.9	86.1	96.3	98.8	76.7	96.2	98.8





Distribution - Goniophotometer

Distribution Test Conditions

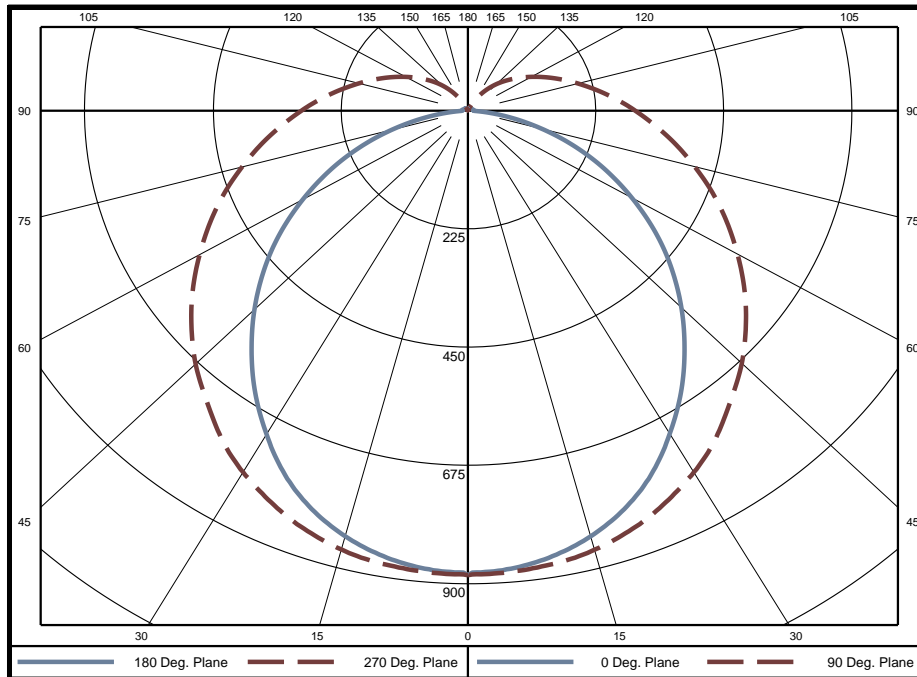
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	119.9 VAC	0.5164 A	61.78 W	0.997	60 Hz	4.52 %

Summary of Results

Spacing Criteria
 0-180: 1.20
 90-270: 1.20

Total Lumen Output: 3440 Lumens
Luminaire Efficacy: 55.7 lm/w
Maximum Candela: 885 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	21.0	0.6%	60-65	205.8	6.0%	120-125	27.5	0.8%
5-10	62.5	1.8%	65-70	188.2	5.5%	125-130	20.4	0.6%
10-15	102.0	3.0%	70-75	167.9	4.9%	130-135	14.5	0.4%
15-20	138.2	4.0%	75-80	146.5	4.3%	135-140	9.4	0.3%
20-25	169.8	4.9%	80-85	125.5	3.6%	140-145	5.3	0.2%
25-30	195.6	5.7%	85-90	106.2	3.1%	145-150	2.3	0.1%
30-35	215.2	6.3%	90-95	90.5	2.6%	150-155	0.6	0.0%
35-40	227.9	6.6%	95-100	77.0	2.2%	155-160	0.0	0.0%
40-45	234.4	6.8%	100-105	64.9	1.9%	160-165	0	0.0%
45-50	235.3	6.8%	105-110	54.2	1.6%	165-170	0	0.0%
50-55	230.5	6.7%	110-115	44.5	1.3%	170-175	0	0.0%
55-60	220.3	6.4%	115-120	35.7	1.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1132	32.9%
0-60	2053	59.7%
0-90	2993	87.0%
90-180	447	13.0%



Candela Tabulation
Horizontal Angle (Degrees)

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9
5	871.9	880.8	877.3	878.7	877.7	878.7	877.3	880.8	871.9	880.8	877.3	878.7	877.7	878.7	877.3	880.8
10	857.6	867.8	867.2	871.5	872.4	871.5	867.2	867.8	857.6	867.8	867.2	871.5	872.4	871.5	867.2	867.8
15	835.3	846.7	850.1	859.2	861.2	859.2	850.1	846.7	835.3	846.7	850.1	859.2	861.2	859.2	850.1	846.7
20	803.8	816.0	824.3	838.7	843.4	838.7	824.3	816.0	803.8	816.0	824.3	838.7	843.4	838.7	824.3	816.0
25	761.7	776.4	791.7	812.8	819.3	812.8	791.7	776.4	761.7	776.4	791.7	812.8	819.3	812.8	791.7	776.4
30	708.5	729.5	752.4	781.2	791.3	781.2	752.4	729.5	708.5	729.5	752.4	781.2	791.3	781.2	752.4	729.5
35	652.4	676.3	708.2	743.5	757.3	743.5	708.2	676.3	652.4	676.3	708.2	743.5	757.3	743.5	708.2	676.3
40	591.9	619.0	659.6	700.9	716.0	700.9	659.6	619.0	591.9	619.0	659.6	700.9	716.0	700.9	659.6	619.0
45	530.4	561.3	609.5	658.5	677.6	658.5	609.5	561.3	530.4	561.3	609.5	658.5	677.6	658.5	609.5	561.3
50	467.1	502.9	559.5	613.9	634.6	613.9	559.5	502.9	467.1	502.9	559.5	613.9	634.6	613.9	559.5	502.9
55	401.5	443.2	508.0	567.8	590.2	567.8	508.0	443.2	401.5	443.2	508.0	567.8	590.2	567.8	508.0	443.2
60	333.4	382.2	456.9	521.0	544.2	521.0	456.9	382.2	333.4	382.2	456.9	521.0	544.2	521.0	456.9	382.2
65	266.9	323.2	407.7	475.6	499.3	475.6	407.7	323.2	266.9	323.2	407.7	475.6	499.3	475.6	407.7	323.2
70	200.7	267.1	360.2	430.6	454.7	430.6	360.2	267.1	200.7	267.1	360.2	430.6	454.7	430.6	360.2	267.1
75	135.8	213.9	314.1	386.3	410.0	386.3	314.1	213.9	135.8	213.9	314.1	386.3	410.0	386.3	314.1	213.9
80	76.9	166.8	272.3	344.5	368.3	344.5	272.3	166.8	76.9	166.8	272.3	344.5	368.3	344.5	272.3	166.8
85	30.0	126.9	234.2	304.7	328.0	304.7	234.2	126.9	30.0	126.9	234.2	304.7	328.0	304.7	234.2	126.9
90	7.5	95.9	200.0	268.4	291.1	268.4	200.0	95.9	7.5	95.9	200.0	268.4	291.1	268.4	200.0	95.9
95	7.1	72.9	170.8	235.8	257.2	235.8	170.8	72.9	7.1	72.9	170.8	235.8	257.2	235.8	170.8	72.9
100	7.1	56.8	144.8	206.0	225.7	206.0	144.8	56.8	7.1	56.8	144.8	206.0	225.7	206.0	144.8	56.8
105	6.4	44.9	122.6	178.9	197.2	178.9	122.6	44.9	6.4	44.9	122.6	178.9	197.2	178.9	122.6	44.9
110	5.6	35.6	103.7	154.4	171.3	154.4	103.7	35.6	5.6	35.6	103.7	154.4	171.3	154.4	103.7	35.6
115	5.0	26.5	86.8	132.1	147.7	132.1	86.8	26.5	5.0	26.5	86.8	132.1	147.7	132.1	86.8	26.5
120	4.2	17.5	70.4	112.0	125.9	112.0	70.4	17.5	4.2	17.5	70.4	112.0	125.9	112.0	70.4	17.5
125	3.7	9.5	54.3	93.4	105.8	93.4	54.3	9.5	3.7	9.5	54.3	93.4	105.8	93.4	54.3	9.5
130	3.2	3.4	39.5	76.2	87.1	76.2	39.5	3.4	3.2	3.4	39.5	76.2	87.1	76.2	39.5	3.4
135	2.8	2.2	26.4	56.8	69.2	56.8	26.4	2.2	2.8	2.2	26.4	56.8	69.2	56.8	26.4	2.2
140	2.4	2.0	15.0	38.5	50.9	38.5	15.0	2.0	2.4	2.0	15.0	38.5	50.9	38.5	15.0	2.0
145	2.1	1.7	4.9	21.7	32.7	21.7	4.9	1.7	2.1	1.7	4.9	21.7	32.7	21.7	4.9	1.7
150	1.8	1.5	0.5	8.1	15.9	8.1	0.5	1.5	1.8	1.5	0.5	8.1	15.9	8.1	0.5	1.5
155	1.6	1.3	0.4	0.0	1.0	0.0	0.4	1.3	1.6	1.3	0.4	0.0	1.0	0.0	0.4	1.3
160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

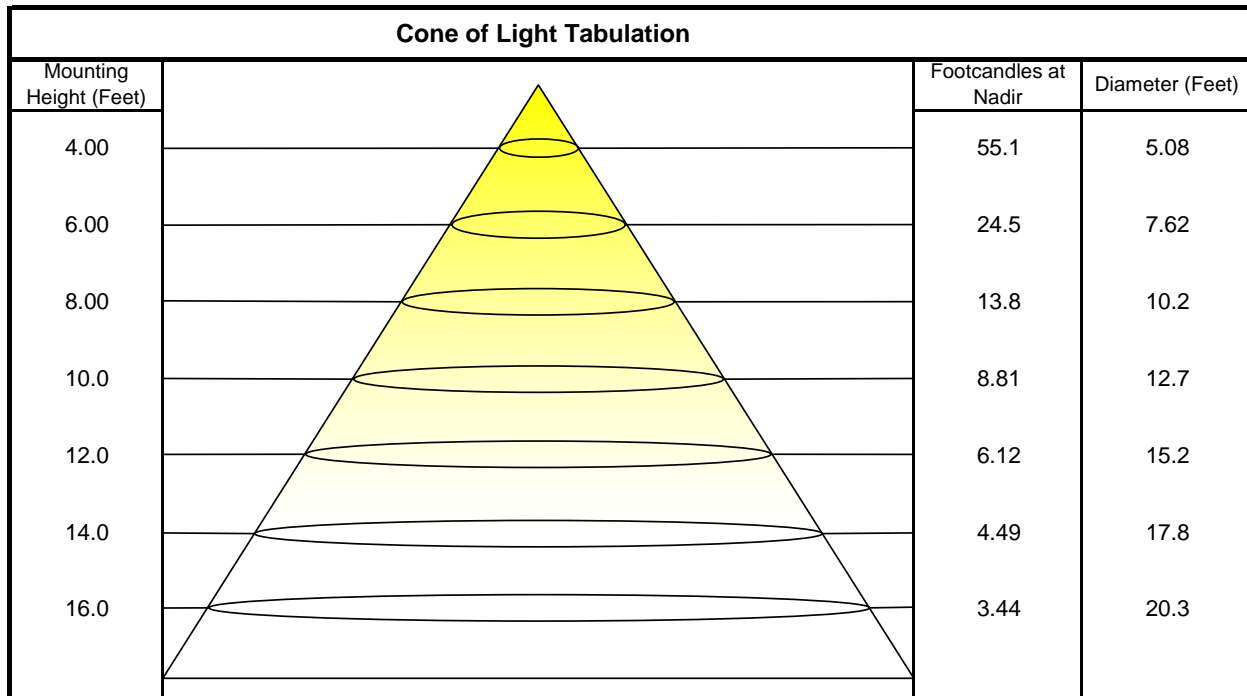
	0	45	90
0	22640	22640	22640
45	18980	15430	15390
55	17600	14040	14240
65	15710	12820	13280
75	12750	11890	12570
85	7503	11560	12310



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity 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
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	3989	3989	3989	3989	3844	3844	3844	3844	3574	3574	3574	3327	3327	3327	3100	3100	3100	2993
1	3551	3352	3173	3012	3407	3228	3067	2920	2997	2866	2745	2784	2679	2581	2589	2505	2427	2320
2	3199	2879	2614	2391	3062	2774	2532	2327	2576	2377	2205	2394	2231	2087	2226	2094	1975	1872
3	2900	2505	2200	1956	2773	2415	2135	1909	2247	2011	1818	2090	1894	1730	1945	1783	1644	1546
4	2645	2206	1884	1638	2528	2129	1832	1602	1984	1732	1531	1850	1636	1463	1724	1545	1396	1302
5	2426	1962	1637	1398	2320	1896	1595	1369	1771	1512	1313	1655	1432	1258	1546	1356	1204	1116
6	2236	1760	1440	1211	2139	1703	1405	1188	1595	1335	1142	1494	1269	1097	1399	1204	1052	970
7	2070	1591	1280	1063	1982	1541	1250	1043	1447	1191	1005	1358	1134	967	1275	1080	930	853
8	1924	1448	1148	943	1844	1404	1122	926	1322	1072	894	1244	1023	862	1171	976	830	758
9	1796	1326	1038	844	1723	1288	1016	830	1214	972	802	1146	930	775	1081	889	748	679
10	1682	1221	945	761	1616	1187	925	749	1122	887	725	1061	850	701	1003	814	678	614

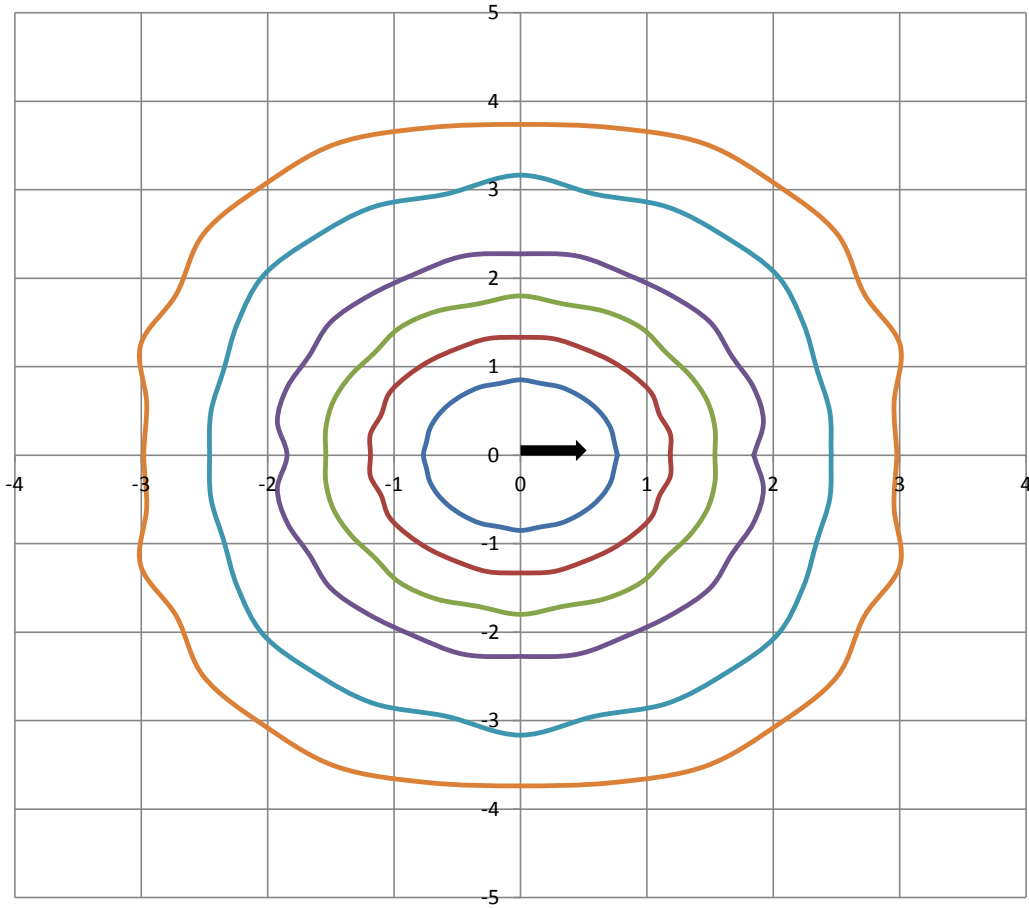
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	880.9 Candela
Central Cone Intensity:	880 Candela
Beam Flux:	2167.3 Lumens
Beam Angle (0-180):	104.1 Degrees
Beam Angle (90-270):	143.2 Degrees
Field Angle (0-180):	158.0 Degrees
Field Angle (90-270):	259.4 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

