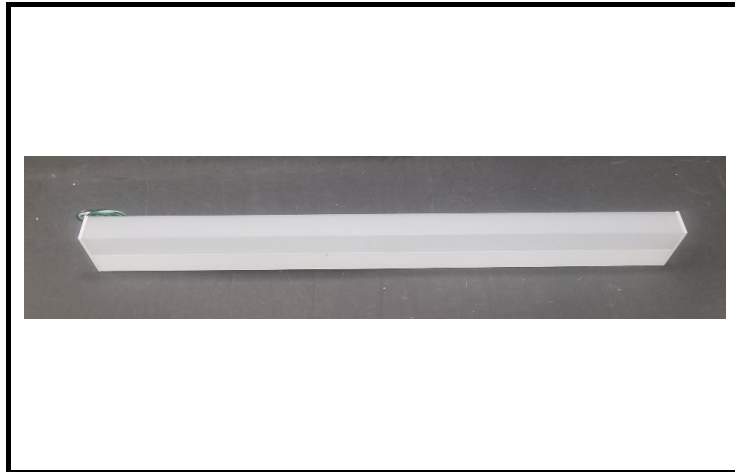




HCB07-4-BS35-ND-R-A-SM-SN-AW

Luminaire Description: White rectangular metal housing with diffuse plastic lens
Lamp: White LED array
Mounting: Surface – Ceiling
Ballast/Driver: One (1) Philips Advance XI040C110V054BST1

Luminaire



Luminaire Characteristics

Luminous Length: 44.00 in.
Luminous Width: 2.000 in.
Luminous Height: 2.00 in.

Summary of Results

Integrating Sphere

Luminous Flux: 2988 Lumens
Efficacy: 83.66 lm/w
CCT: 3411 K
CRI (Ra): 84.1

Distribution

Total Luminaire Output: 2859 Lumens
Luminaire Efficacy: 80 lm/w
Maximum Candela: 591 Candela

Electrical Data at 120 VAC

Test Temperature: 24.9 °C
Voltage: 120.0 VAC
Current: 0.2985 A
Power: 35.72 W
Power Factor: 0.997
Frequency: 60 Hz
Current THD: 6.53 %



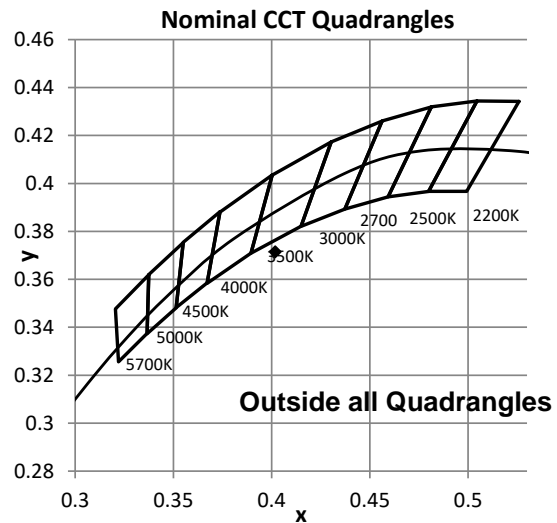
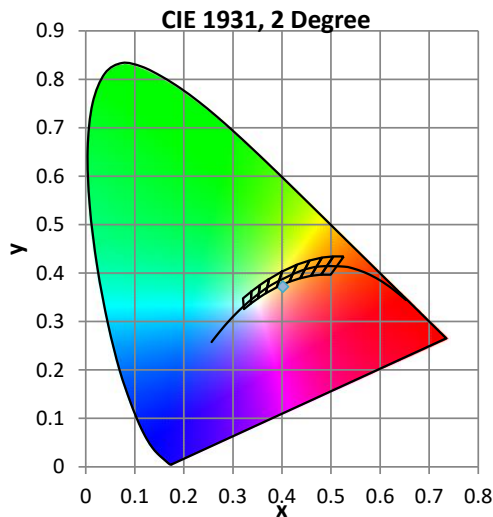
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	120.0 VAC	0.2985 A	35.72 W	0.997	60 Hz	6.53 %

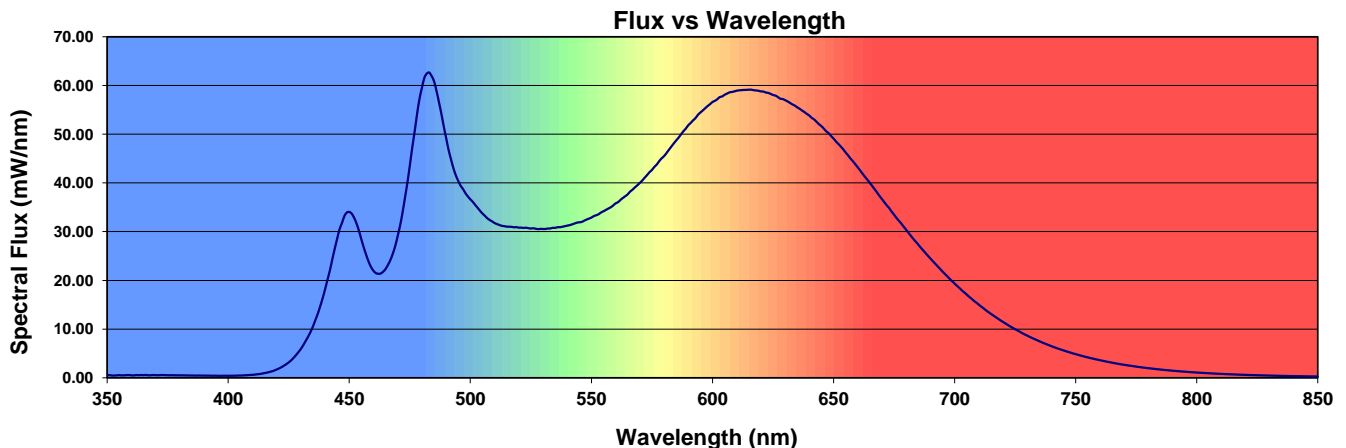
Summary of Results

Total Output:	2988 Lumens	Chromaticity (x):	0.4018
Efficacy:	83.7 lm/w	Chromaticity (y):	0.3715
CCT:	3411 K	Chromaticity (u'):	0.2415
CRI (Ra):	84.1	Chromaticity (v'):	0.5024
CRI (R9):	92.2	TM-30 Rf:	84.2
Peak Wavelength:	483 nm	TM-30 Rg:	94.6
Dominant Wavelength:	585 nm	Duv:	-0.0083
S/P Ratio:	1.91		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
84.1	90.3	83.5	77.2	90.6	86.4	73.8	83.3	87.7	92.2	62.3	90.0	56.1	86.9	87.7	93.5





Distribution - Goniophotometer

Distribution Test Conditions

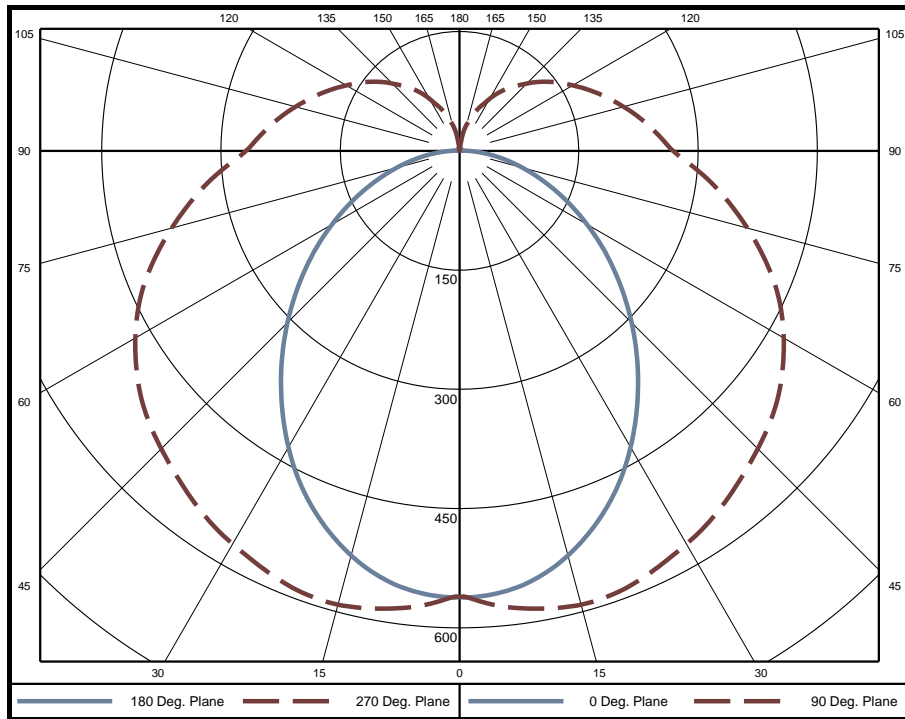
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	120.0 VAC	0.2986 A	35.72 W	0.997	60 Hz	6.53 %

Summary of Results

Spacing Criteria
 0-180: 1.15
 90-270: 1.51

Total Lumen Output: 2859 Lumens
Luminaire Efficacy: 80.0 lm/w
Maximum Candela: 591 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	13.5	0.5%	60-65	163.2	5.7%	120-125	45.1	1.6%
5-10	40.8	1.4%	65-70	153.7	5.4%	125-130	38.2	1.3%
10-15	67.5	2.4%	70-75	141.3	4.9%	130-135	31.4	1.1%
15-20	92.4	3.2%	75-80	127.2	4.4%	135-140	25.0	0.9%
20-25	114.5	4.0%	80-85	112.3	3.9%	140-145	19.3	0.7%
25-30	133.1	4.7%	85-90	96.6	3.4%	145-150	14.1	0.5%
30-35	148.2	5.2%	90-95	86.4	3.0%	150-155	9.7	0.3%
35-40	159.5	5.6%	95-100	80.4	2.8%	155-160	6.4	0.2%
40-45	167.2	5.8%	100-105	73.9	2.6%	160-165	3.7	0.1%
45-50	171.5	6.0%	105-110	66.8	2.3%	165-170	1.8	0.1%
50-55	172.4	6.0%	110-115	59.6	2.1%	170-175	0.6	0.0%
55-60	169.5	5.9%	115-120	52.3	1.8%	175-180	0.1	0.0%

Zone	Lumens	% of Luminaire
0-40	770	26.9%
0-60	1450	50.7%
0-90	2244	78.5%
90-180	615	21.5%



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	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1
5	558.6	562.1	569.7	573.8	574.5	573.8	569.7	562.1	558.6	562.1	569.7	573.8	574.5	573.8	569.7	562.1
10	547.0	558.8	573.7	582.6	584.6	582.6	573.7	558.8	547.0	558.8	573.7	582.6	584.6	582.6	573.7	558.8
15	527.0	547.8	571.0	586.1	590.9	586.1	571.0	547.8	527.0	547.8	571.0	586.1	590.9	586.1	571.0	547.8
20	500.1	529.6	561.9	582.6	589.3	582.6	561.9	529.6	500.1	529.6	561.9	582.6	589.3	582.6	561.9	529.6
25	467.9	506.0	545.2	571.8	580.8	571.8	545.2	506.0	467.9	506.0	545.2	571.8	580.8	571.8	545.2	506.0
30	430.1	476.7	524.7	558.7	570.8	558.7	524.7	476.7	430.1	476.7	524.7	558.7	570.8	558.7	524.7	476.7
35	389.4	444.4	501.9	543.9	559.4	543.9	501.9	444.4	389.4	444.4	501.9	543.9	559.4	543.9	501.9	444.4
40	347.7	410.5	477.1	526.2	544.9	526.2	477.1	410.5	347.7	410.5	477.1	526.2	544.9	526.2	477.1	410.5
45	305.7	375.7	451.0	508.1	530.2	508.1	451.0	375.7	305.7	375.7	451.0	508.1	530.2	508.1	451.0	375.7
50	264.2	340.5	424.3	489.5	514.7	489.5	424.3	340.5	264.2	340.5	424.3	489.5	514.7	489.5	424.3	340.5
55	224.2	305.3	395.9	467.1	494.5	467.1	395.9	305.3	224.2	305.3	395.9	467.1	494.5	467.1	395.9	305.3
60	184.2	270.2	366.0	441.6	470.6	441.6	366.0	270.2	184.2	270.2	366.0	441.6	470.6	441.6	366.0	270.2
65	147.4	235.8	335.1	413.8	443.3	413.8	335.1	235.8	147.4	235.8	335.1	413.8	443.3	413.8	335.1	235.8
70	112.1	202.6	302.6	381.4	410.3	381.4	302.6	202.6	112.1	202.6	302.6	381.4	410.3	381.4	302.6	202.6
75	80.3	170.5	270.0	347.2	374.4	347.2	270.0	170.5	80.3	170.5	270.0	347.2	374.4	347.2	270.0	170.5
80	51.6	141.0	238.8	313.2	338.8	313.2	238.8	141.0	51.6	141.0	238.8	313.2	338.8	313.2	238.8	141.0
85	25.6	113.2	208.7	279.0	302.4	279.0	208.7	113.2	25.6	113.2	208.7	279.0	302.4	279.0	208.7	113.2
90	5.0	90.1	181.4	247.0	268.4	247.0	181.4	90.1	5.0	90.1	181.4	247.0	268.4	247.0	181.4	90.1
95	3.0	84.9	170.1	230.0	249.0	230.0	170.1	84.9	3.0	84.9	170.1	230.0	249.0	230.0	170.1	84.9
100	2.9	80.7	160.0	214.7	231.4	214.7	160.0	80.7	2.9	80.7	160.0	214.7	231.4	214.7	160.0	80.7
105	3.0	75.6	149.2	198.5	213.6	198.5	149.2	75.6	3.0	75.6	149.2	198.5	213.6	198.5	149.2	75.6
110	3.0	69.7	138.3	182.8	196.6	182.8	138.3	69.7	3.0	69.7	138.3	182.8	196.6	182.8	138.3	69.7
115	2.9	64.4	127.1	167.7	180.3	167.7	127.1	64.4	2.9	64.4	127.1	167.7	180.3	167.7	127.1	64.4
120	2.7	57.5	115.5	153.2	164.4	153.2	115.5	57.5	2.7	57.5	115.5	153.2	164.4	153.2	115.5	57.5
125	2.6	51.0	105.2	138.5	149.7	138.5	105.2	51.0	2.6	51.0	105.2	138.5	149.7	138.5	105.2	51.0
130	2.6	44.9	93.1	125.0	135.0	125.0	93.1	44.9	2.6	44.9	93.1	125.0	135.0	125.0	93.1	44.9
135	2.6	38.7	77.3	112.1	119.5	112.1	77.3	38.7	2.6	38.7	77.3	112.1	119.5	112.1	77.3	38.7
140	2.5	33.0	66.2	98.1	105.5	98.1	66.2	33.0	2.5	33.0	66.2	98.1	105.5	98.1	66.2	33.0
145	2.5	28.1	55.6	80.4	91.3	80.4	55.6	28.1	2.5	28.1	55.6	80.4	91.3	80.4	55.6	28.1
150	2.6	22.9	45.5	63.5	75.3	63.5	45.5	22.9	2.6	22.9	45.5	63.5	75.3	63.5	45.5	22.9
155	2.6	19.1	37.4	49.5	60.9	49.5	37.4	19.1	2.6	19.1	37.4	49.5	60.9	49.5	37.4	19.1
160	2.6	14.9	27.8	37.0	47.0	37.0	27.8	14.9	2.6	14.9	27.8	37.0	47.0	37.0	27.8	14.9
165	2.7	11.2	20.5	24.0	34.0	24.0	20.5	11.2	2.7	11.2	20.5	24.0	34.0	24.0	20.5	11.2
170	2.7	7.9	13.2	14.2	16.3	14.2	13.2	7.9	2.7	7.9	13.2	14.2	16.3	14.2	13.2	7.9
175	2.7	4.4	6.6	6.5	3.3	6.5	6.6	4.4	2.7	4.4	6.6	6.5	3.3	6.5	6.6	4.4
180	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

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

	0	45	90
0	9884	9884	9884
45	7285	6460	6603
55	6464	5913	6254
65	5598	5402	5876
75	4674	4889	5385
85	3398	4463	4917

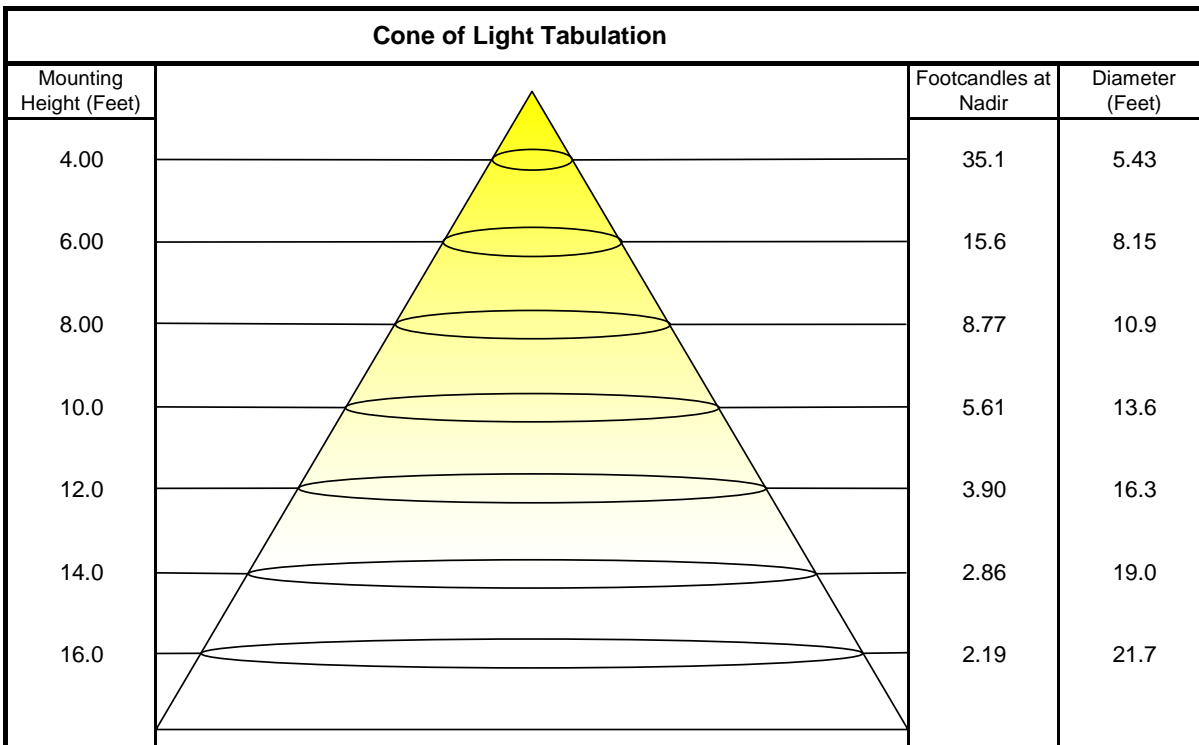


Coefficients of Utilization - Zonal Cavity Method

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 percent of total lumen output delivered to the task surface **																	
0	114	114	114	114	109	109	109	109	99	99	99	90	90	90	82	82	82	78
1	101	95	90	85	96	90	86	81	82	78	75	75	71	69	68	65	63	59
2	91	81	73	67	86	77	70	64	70	64	59	64	59	55	58	54	51	47
3	82	70	61	54	77	67	59	52	61	54	49	55	50	45	50	45	42	38
4	75	62	52	45	70	59	50	44	54	46	41	49	43	38	44	39	35	32
5	68	55	45	38	65	52	44	37	48	40	35	43	37	32	39	34	30	27
6	63	49	40	33	59	47	38	32	43	35	30	39	33	28	36	30	26	23
7	58	44	35	29	55	42	34	28	39	31	26	35	29	25	32	27	23	21
8	54	40	31	25	51	38	30	25	35	28	23	32	26	22	30	24	20	18
9	50	37	28	23	48	35	27	22	32	26	21	30	24	19	27	22	18	16
10	47	34	26	20	45	32	25	20	30	23	19	28	22	18	25	20	17	15

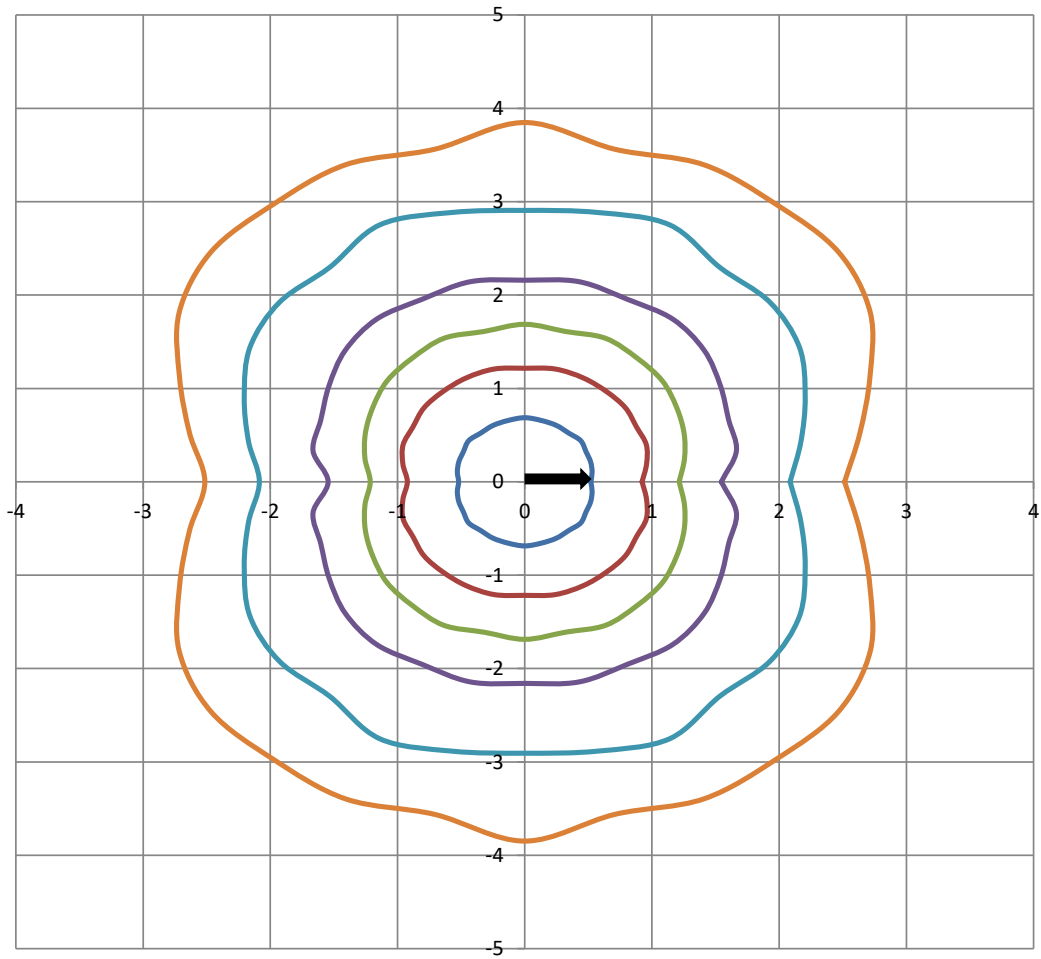
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	561.1 Candela
Central Cone Intensity:	564 Candela
Beam Flux:	1888.5 Lumens
Beam Angle (0-180):	96.0 Degrees
Beam Angle (90-270):	175.9 Degrees
Field Angle (0-180):	158.4 Degrees
Field Angle (90-270):	313.6 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

