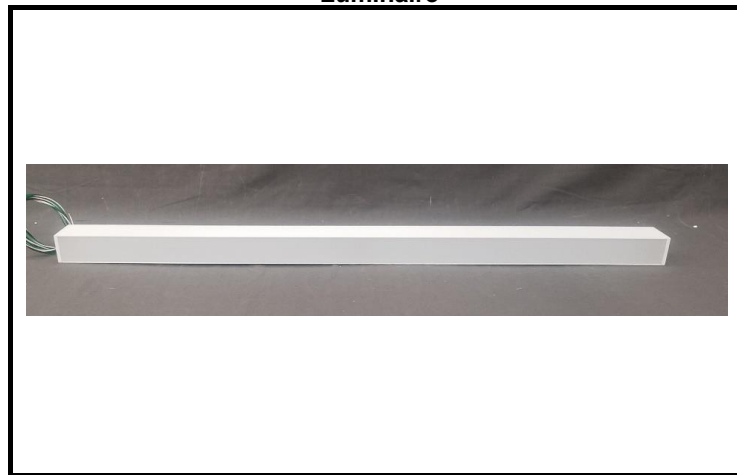




# HCB01-4-BS35-ND-R-SM-SN-AW

**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.

## Summary of Results

### Integrating Sphere

Luminous Flux: 2291 Lumens  
Efficacy: 63.72 lm/w  
CCT: 3457 K  
CRI (Ra): 83.7

### Distribution

Total Luminaire Output: 2201 Lumens  
Luminaire Efficacy: 61.2 lm/w  
Maximum Candela: 844 Candela

### Electrical Data at 120 VAC

Test Temperature: 25.7 °C  
Voltage: 120.1 VAC  
Current: 0.3003 A  
Power: 35.96 W  
Power Factor: 0.997  
Frequency: 60 Hz  
Current THD: 6.37 %



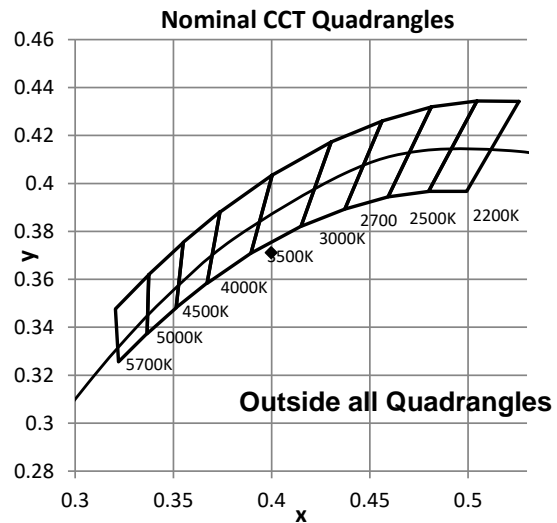
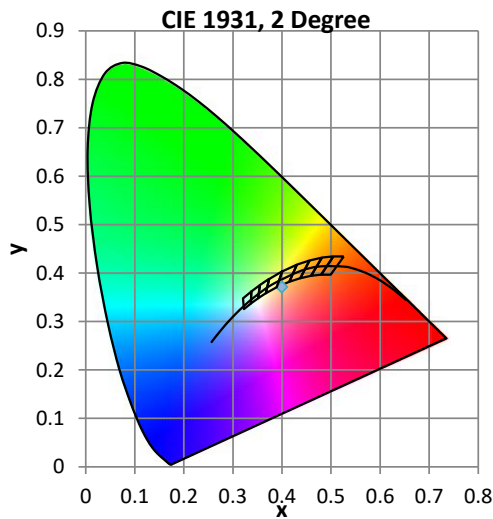
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.1 VAC	0.3003 A	35.96 W	0.997	60 Hz	6.37 %

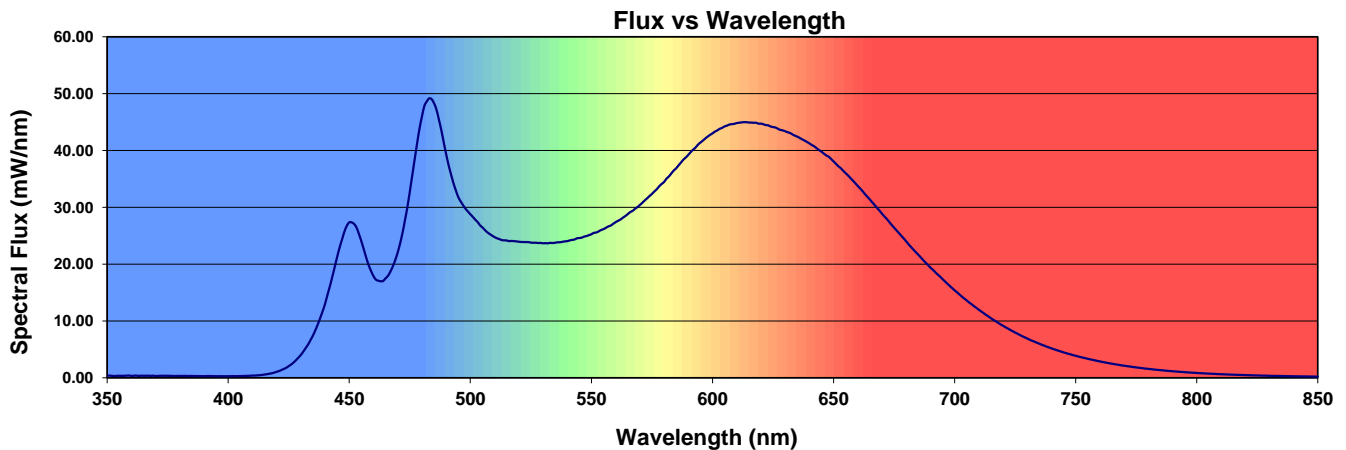
### Summary of Results

<b>Total Output:</b>	2291 Lumens	<b>Chromaticity (x):</b>	0.3997
<b>Efficacy:</b>	63.7 lm/w	<b>Chromaticity (y):</b>	0.3711
<b>CCT:</b>	3457 K	<b>Chromaticity (u'):</b>	0.2403
<b>CRI (Ra):</b>	83.7	<b>Chromaticity (v'):</b>	0.5019
<b>CRI (R9):</b>	94.9	<b>TM-30 Rf:</b>	83.6
<b>Peak Wavelength:</b>	483 nm	<b>TM-30 Rg:</b>	94.3
<b>Dominant Wavelength:</b>	585 nm	<b>Duv:</b>	-0.0079
<b>S/P Ratio:</b>	1.94		



### Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83.7	89.3	82.9	76.9	89.9	85.5	73.2	83.4	88.6	94.9	60.8	89.1	55.6	85.9	87.6	92.5





## Distribution - Goniophotometer

### Distribution Test Conditions

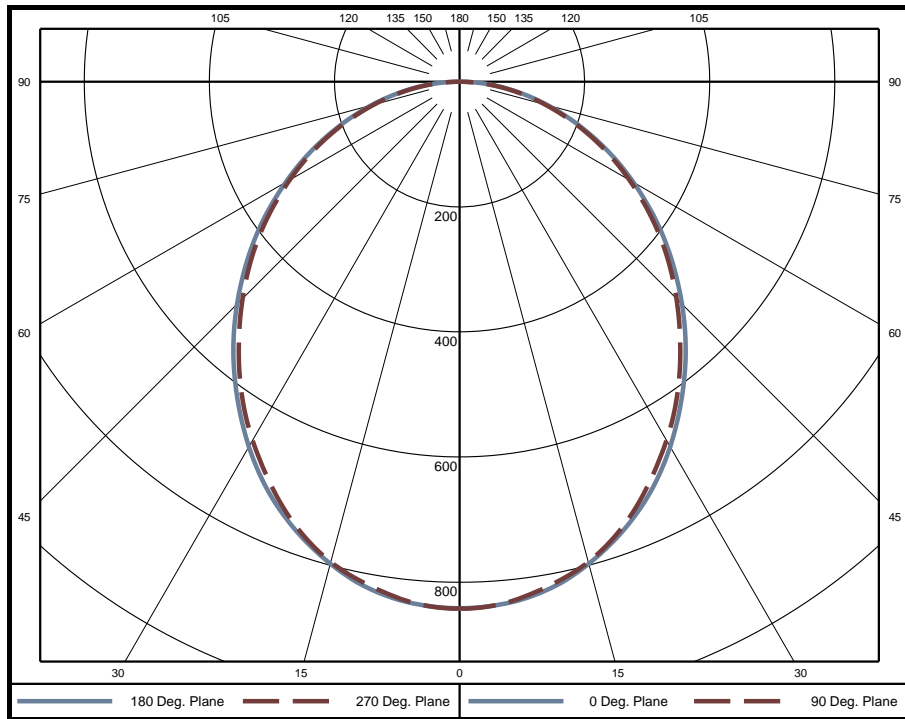
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.1 VAC	0.3003 A	35.95 W	0.997	60 Hz	6.35 %

### Summary of Results

**Spacing Criteria**  
 0-180: 1.19  
 90-270: 1.18

**Total Lumen Output:** 2201 Lumens  
**Luminaire Efficacy:** 61.2 lm/w  
**Maximum Candela:** 844 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	20.1	0.9%	60-65	140.3	6.4%	120-125	0	0.0%
5-10	59.3	2.7%	65-70	116.4	5.3%	125-130	0	0.0%
10-15	95.9	4.4%	70-75	90.2	4.1%	130-135	0	0.0%
15-20	128.4	5.8%	75-80	63.5	2.9%	135-140	0	0.0%
20-25	155.2	7.1%	80-85	37.2	1.7%	140-145	0	0.0%
25-30	175.3	8.0%	85-90	12.0	0.5%	145-150	0	0.0%
30-35	188.7	8.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	195.3	8.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	195.2	8.9%	100-105	0	0.0%	160-165	0	0.0%
45-50	189.2	8.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	177.7	8.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	160.9	7.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1018	46.3%
0-60	1741	79.1%
0-90	2201	100.0%
90-180	0	0.0%



**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	842.1	842.1	842.1	842.1	842.1	842.1	842.1	842.1	842.1	842.1	842.1	842.1	842.1	842.1	842.1	842.1
5	837.6	835.1	836.7	837.0	836.5	837.0	836.7	835.1	837.6	835.1	836.7	837.0	836.5	837.0	836.7	835.1
10	823.5	820.6	821.2	820.5	818.9	820.5	821.2	820.6	823.5	820.6	821.2	820.5	818.9	820.5	821.2	820.6
15	797.9	795.7	796.3	795.7	795.1	795.7	796.3	795.7	797.9	795.7	796.3	795.7	795.1	795.7	796.3	795.7
20	764.0	761.9	762.0	760.5	758.9	760.5	762.0	761.9	764.0	761.9	762.0	760.5	758.9	760.5	762.0	761.9
25	722.9	720.7	718.4	714.9	712.6	714.9	718.4	720.7	722.9	720.7	718.4	714.9	712.6	714.9	718.4	720.7
30	673.7	671.7	668.3	664.4	662.1	664.4	668.3	671.7	673.7	671.7	668.3	664.4	662.1	664.4	668.3	671.7
35	618.9	617.8	614.8	610.2	607.9	610.2	614.8	617.8	618.9	617.8	614.8	610.2	607.9	610.2	614.8	617.8
40	562.4	561.7	558.0	551.7	549.2	551.7	558.0	561.7	562.4	561.7	558.0	551.7	549.2	551.7	558.0	561.7
45	502.9	503.1	499.5	493.1	490.8	493.1	499.5	503.1	502.9	503.1	499.5	493.1	490.8	493.1	499.5	503.1
50	442.5	443.4	440.1	434.6	432.7	434.6	440.1	443.4	442.5	443.4	440.1	434.6	432.7	434.6	440.1	443.4
55	381.7	382.8	379.7	374.7	372.9	374.7	379.7	382.8	381.7	382.8	379.7	374.7	372.9	374.7	379.7	382.8
60	320.4	321.9	319.5	315.0	313.4	315.0	319.5	321.9	320.4	321.9	319.5	315.0	313.4	315.0	319.5	321.9
65	260.8	261.9	260.2	256.7	255.4	256.7	260.2	261.9	260.8	261.9	260.2	256.7	255.4	256.7	260.2	261.9
70	202.0	203.6	201.8	199.0	197.4	199.0	201.8	203.6	202.0	203.6	201.8	199.0	197.4	199.0	201.8	203.6
75	146.4	147.3	145.3	143.1	142.0	143.1	145.3	147.3	146.4	147.3	145.3	143.1	142.0	143.1	145.3	147.3
80	94.1	95.1	93.3	91.9	90.9	91.9	93.3	95.1	94.1	95.1	93.3	91.9	90.9	91.9	93.3	95.1
85	45.7	45.7	44.7	43.4	42.8	43.4	44.7	45.7	45.7	45.7	44.7	43.4	42.8	43.4	44.7	45.7
90	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
95	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
100	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
105	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
110	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
115	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
120	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
125	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
130	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
135	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
140	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
145	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
150	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
155	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
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

Vertical Angle (Degrees)

**Average Luminance (cd/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

	0	45	90
0	14830	14830	14830
45	12530	12440	12220
55	11720	11660	11450
65	10870	10840	10640
75	9961	9890	9665
85	9234	9025	8645

Vertical Angle (Degrees)

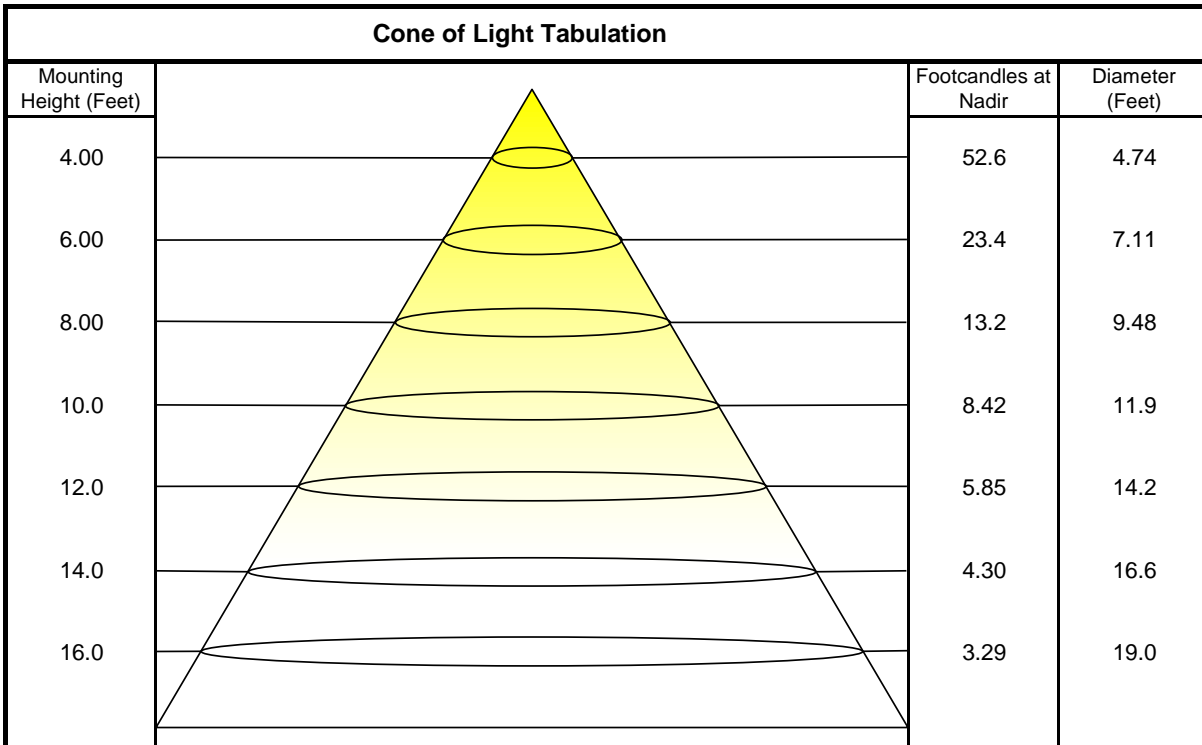


### Coefficients of Utilization - Zonal Cavity Method

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

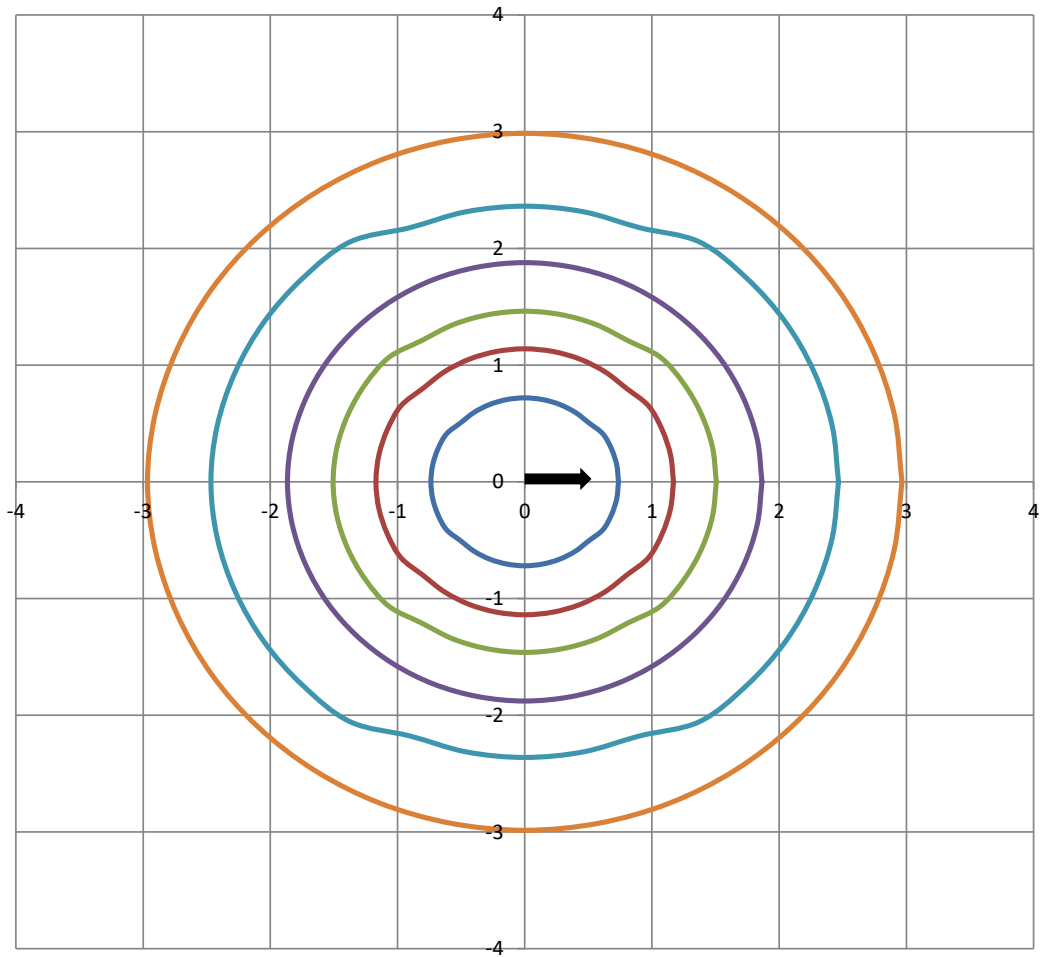
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	842.1 Candela
Central Cone Intensity:	840 Candela
Beam Flux:	1456.4 Lumens
Beam Angle (0-180):	103.5 Degrees
Beam Angle (90-270):	102.0 Degrees
Field Angle (0-180):	162.0 Degrees
Field Angle (90-270):	161.3 Degrees





# ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

