



IES INDOOR REPORT

PHOTOMETRIC FILENAME : BIO-LIN-LED4-LO-ASY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L021507505R01
 [TESTLAB]
 [ISSUE DATE]
 [MANUFAC] PRUDENTIAL LTG.
 [LUMCAT] BIOS-LED4-LO-Asymmetric
 [LUMINAIRE] 4-1/2"L. X 48"W. X 5"H. LED LUMINAIRE
 [MORE] WHITE REFLECTOR
 [BALLASTCAT] OSRAM OPTOTRONIC OT30W/PRG1050C/UNV/DIM/L
 [BALLAST]
 [LAMPPOSITION] 0,0
 [LAMPCAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2005
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	16
Ballast Factor	1.00
CIE Type	Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.33 ft
Luminous Width (90-270)	3.94 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	0	0	0
55	0	0	0
65	0	0	0
75	0	0	0
85	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BIO-LIN-LED4-LO-ASY.IES

CANDELA TABULATION

	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	9.07	9.08	9.48	9.37	9.33	9.36	9.43	9.56	9.76	10.07
100	428.98	428.28	425.37	412.56	402.18	391.75	373.93	355.87	343.55	343.43
105	560.50	560.25	555.91	547.36	537.22	524.73	503.62	485.05	462.81	435.43
110	605.39	604.20	599.86	592.45	580.30	568.47	553.41	535.32	514.26	490.69
115	646.33	648.52	640.09	638.52	625.70	610.00	597.77	582.53	562.23	540.96
120	682.05	679.10	673.50	668.40	660.45	647.94	634.84	618.51	602.38	581.69
125	711.13	709.42	701.55	697.71	689.86	682.20	668.45	653.33	635.81	617.19
130	737.94	734.97	727.16	725.78	720.12	709.71	697.81	684.68	668.96	650.29
135	757.19	752.83	751.92	746.18	740.13	733.97	722.76	710.51	695.11	678.59
140	769.45	769.47	767.74	763.67	756.28	750.95	741.99	729.60	718.03	701.03
145	780.03	783.33	774.58	773.54	768.15	761.77	753.61	744.11	733.95	718.24
150	787.50	787.01	777.12	777.30	773.38	767.78	761.01	752.25	741.39	728.38
155	784.98	783.02	780.63	775.34	770.82	763.80	758.67	751.32	741.02	730.17
160	769.41	767.08	768.40	762.37	757.19	753.08	747.58	739.92	729.41	719.08
165	737.94	739.36	739.34	734.76	730.42	726.25	720.80	711.61	701.08	686.91
170	688.17	691.04	687.20	681.79	677.22	671.83	665.33	658.22	650.33	641.56
175	619.60	615.20	618.38	616.07	614.52	611.96	609.75	606.59	602.07	598.66
180	565.00	565.00	565.00	565.00	565.00	565.00	565.00	565.00	565.00	565.00

Vert. Angles **Horizontal Angles**

	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>	<u>95</u>
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BIO-LIN-LED4-LO-ASY.IES

CANDELA TABULATION - (Cont.)

65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	31.28	160.05	154.70	133.78	124.10	112.75	80.88	57.42	28.37	12.98
100	346.31	319.86	284.39	250.95	214.47	177.64	131.70	104.79	65.06	40.36
105	409.70	381.03	348.27	313.84	278.83	242.32	204.01	150.47	110.13	80.33
110	464.13	438.07	408.61	375.50	340.85	304.36	265.96	219.62	149.76	127.92
115	516.86	490.20	461.45	430.71	397.66	363.08	324.61	272.08	210.56	178.92
120	560.17	534.99	507.52	478.22	447.67	412.78	370.58	314.33	257.62	226.80
125	595.73	573.38	549.39	521.36	492.16	457.63	415.49	352.19	301.11	272.25
130	629.52	609.15	586.48	561.20	533.36	498.50	454.70	392.93	346.08	319.75
135	661.67	641.56	619.21	594.39	562.21	527.43	480.74	426.55	387.22	362.72
140	685.92	667.08	645.73	620.12	587.72	551.55	501.27	455.19	422.24	400.54
145	703.47	683.93	663.90	638.25	606.82	567.79	520.04	479.05	453.33	433.88
150	715.70	696.97	677.37	650.21	617.81	576.73	538.01	503.87	481.79	466.01
155	716.32	698.64	676.44	650.35	615.20	585.51	552.73	525.53	508.35	494.33
160	702.89	684.74	662.23	633.63	609.36	585.30	560.37	543.60	530.68	519.46
165	671.54	653.82	636.19	618.76	598.64	581.48	566.94	554.67	544.88	536.29
170	632.37	620.86	611.38	597.86	586.31	578.75	568.37	561.69	553.68	549.08
175	594.04	590.07	586.66	582.99	576.94	572.95	568.57	565.95	562.89	559.07
180	565.00	565.00	565.00	565.00	565.00	565.00	565.00	565.00	565.00	565.00

Vert. Angles **Horizontal Angles**

	100	105	110	115	120	125	130	135	140	145
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	12.65	12.93	12.96	13.14	13.37	13.69	13.84	13.88	13.79	13.75
100	26.71	20.68	20.80	21.59	22.11	21.97	21.85	21.81	21.77	21.79
105	56.66	40.56	31.57	28.65	29.49	30.14	30.79	31.38	31.69	31.55
110	99.65	74.77	56.57	44.23	38.05	37.00	37.74	38.22	38.65	39.05
115	142.66	120.10	94.94	75.43	60.24	50.31	45.53	44.42	45.13	45.51
120	198.36	161.21	139.31	114.77	94.28	77.77	65.68	57.15	52.62	50.85
125	244.32	216.70	187.95	154.92	138.01	117.13	100.08	85.90	75.08	67.05
130	294.09	267.59	242.49	216.31	189.97	160.74	146.61	129.78	115.13	103.23
135	338.62	314.01	291.50	268.09	244.79	220.92	199.72	177.36	165.91	151.99

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BIO-LIN-LED4-LO-ASY.IES

CANDELA TABULATION - (Cont.)

140	377.88	356.00	335.65	314.85	294.43	274.89	255.90	238.05	222.45	208.31
145	414.12	395.09	377.01	358.57	341.55	325.53	309.88	293.87	278.86	265.34
150	448.75	433.34	417.44	401.36	387.09	373.11	359.69	347.19	335.32	322.45
155	480.78	468.90	453.70	441.02	428.76	417.90	406.42	395.84	385.56	375.62
160	507.59	497.55	485.92	476.22	465.66	456.49	446.95	437.58	429.36	422.19
165	528.71	520.78	511.86	503.64	496.97	488.71	481.90	475.47	469.69	464.18
170	544.12	538.77	532.18	527.66	523.22	518.53	512.69	509.38	505.44	502.28
175	557.17	556.33	551.70	548.06	546.70	543.89	541.35	538.83	535.90	534.91
180	565.00	565.00	565.00	565.00	565.00	565.00	565.00	565.00	565.00	565.00

Vert. Horizontal Angles
Angles

	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	13.74	13.76	13.86	13.96	14.07	14.14	14.17
100	21.85	21.92	22.01	22.06	22.13	22.18	22.19
105	31.42	31.31	31.29	31.25	31.18	31.21	31.22
110	39.42	39.80	40.05	40.34	40.48	40.62	40.70
115	45.76	45.94	46.17	46.32	46.50	46.55	46.63
120	50.82	51.24	51.53	51.72	51.87	51.93	51.98
125	61.51	58.50	56.81	56.06	55.99	55.98	55.99
130	93.37	85.33	79.51	75.36	72.58	71.06	70.51
135	140.04	130.06	122.36	116.71	112.22	109.56	109.20
140	196.32	182.54	176.47	169.83	165.32	162.38	163.01
145	254.07	244.77	235.58	229.32	226.71	224.27	225.20
150	311.15	301.56	293.68	287.73	283.41	280.38	279.31
155	367.01	359.06	352.43	346.97	342.28	339.01	340.48
160	415.60	410.04	406.64	402.04	399.82	399.08	396.62
165	460.05	456.22	452.30	449.00	446.83	446.33	445.51
170	498.17	495.94	494.16	491.33	488.98	490.38	488.13
175	532.95	531.09	531.27	529.75	527.89	527.76	528.82
180	565.00	565.00	565.00	565.00	565.00	565.00	565.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BIO-LIN-LED4-LO-ASY.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	0.00	N.A.	0.00
0-30	0.00	N.A.	0.00
0-40	0.00	N.A.	0.00
0-60	0.00	N.A.	0.00
0-80	0.00	N.A.	0.00
0-90	0.00	N.A.	0.00
10-90	0.00	N.A.	0.00
20-40	0.00	N.A.	0.00
20-50	0.00	N.A.	0.00
40-70	0.00	N.A.	0.00
60-80	0.00	N.A.	0.00
70-80	0.00	N.A.	0.00
80-90	0.00	N.A.	0.00
90-110	291.83	N.A.	14.60
90-120	578.58	N.A.	28.90
90-130	895.66	N.A.	44.70
90-150	1534.78	N.A.	76.60
90-180	2004.68	N.A.	100.00
110-180	1712.86	N.A.	85.40
0-180	2004.68	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	0.00
10-20	0.00
20-30	0.00
30-40	0.00
40-50	0.00
50-60	0.00
60-70	0.00
70-80	0.00
80-90	0.00
90-100	63.57
100-110	228.26
110-120	286.75
120-130	317.08
130-140	329.05
140-150	310.07
150-160	253.25
160-170	162.25
170-180	54.40

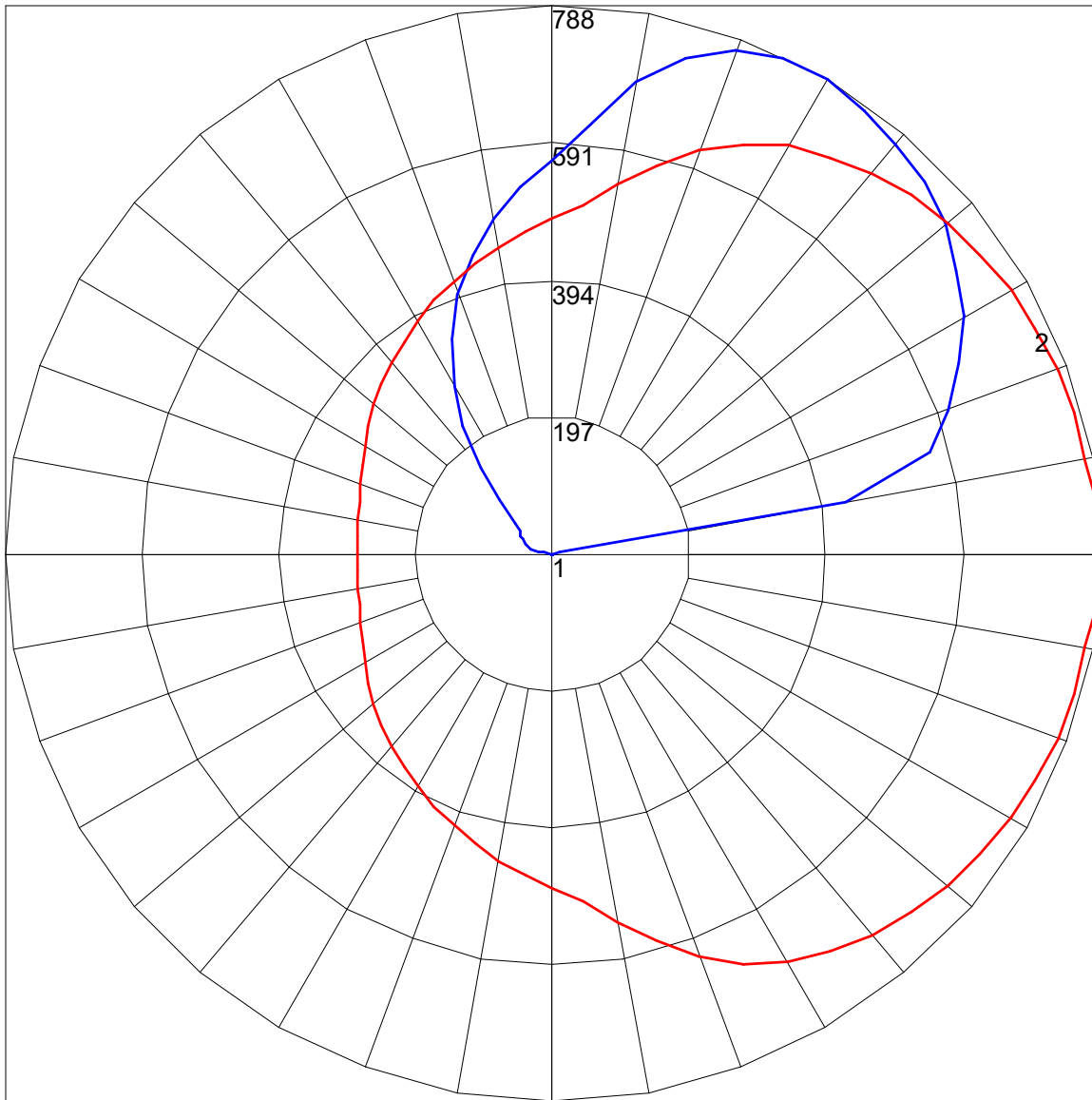
IES INDOOR REPORT
PHOTOMETRIC FILENAME : BIO-LIN-LED4-LO-ASY.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

POLAR GRAPH



Maximum Candela = 787.5 Located At Horizontal Angle = 0, Vertical Angle = 150
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (150) (Through Max. Cd.)