



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : BIO-LIN-LED4-SO-CW.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] L021507504R01  
 [TESTLAB] LIGHT LABORATORY, INC.  
 [ISSUE DATE] 3/4/2015  
 [MANUFACT] PRUDENTIAL LTG.  
 [LUMCAT] BIO-SUS-LED4-SO-CW  
 [LUMINAIRE] 4-1/2"L. X 48"W. X 5"H. LED LUMINAIRE  
 [MORE] LEDS WITH OPTICS  
 [BALLASTCAT] OSRAM OPTOTRONIC  
 [BALLAST] INPUT: 120-277VAC  
 [LAMPPOSITION] 0,0  
 [LAMPCAT] N/A  
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
 [ INPUT] 120VAC  
 [ TEST PROCEDURE] IESNA:LM-79-08

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4143
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	39
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

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**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

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**CANDELA TABULATION**

	<b>0</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>
<b>0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>10</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>15</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>20</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>25</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>30</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>35</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>40</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>45</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>50</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>55</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>60</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>65</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>70</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>75</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>80</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>85</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95</b>	199.504	207.001	225.204	262.910	319.260	399.399	481.033	503.965	430.808	294.196
<b>100</b>	1180.141	1205.596	1238.279	1282.306	1298.133	1230.194	1040.491	780.693	521.801	301.375
<b>105</b>	1429.894	1423.303	1384.912	1321.506	1210.349	1055.068	874.895	696.756	525.329	360.175
<b>110</b>	1410.661	1398.828	1359.383	1287.573	1177.299	1038.555	881.314	721.893	575.995	444.749
<b>115</b>	1346.716	1333.241	1300.068	1229.900	1137.878	1025.497	894.740	762.293	637.784	533.096
<b>120</b>	1306.781	1296.442	1263.122	1207.458	1128.127	1031.475	923.160	810.632	702.832	611.055
<b>125</b>	1284.560	1275.960	1243.743	1195.723	1130.479	1048.600	955.819	856.839	764.498	681.076
<b>130</b>	1257.904	1250.235	1223.996	1177.764	1121.145	1053.647	971.842	888.958	809.211	738.871
<b>135</b>	1211.819	1203.563	1181.366	1141.676	1094.048	1035.493	967.579	898.807	833.956	778.022
<b>140</b>	1141.137	1131.435	1109.875	1080.181	1043.651	997.371	944.353	894.348	845.079	802.253
<b>145</b>	1056.220	1049.654	1033.582	1011.948	985.439	952.438	917.501	882.000	846.451	813.229
<b>150</b>	982.279	977.158	967.187	954.226	938.595	917.280	894.005	868.746	843.535	816.022
<b>155</b>	930.927	929.212	922.401	913.042	902.874	889.644	873.425	854.830	835.989	814.748
<b>160</b>	890.036	891.874	885.847	880.432	873.695	864.605	852.821	840.203	826.875	812.126
<b>165</b>	856.520	856.324	852.943	849.440	844.809	839.517	832.437	824.842	817.051	809.015
<b>170</b>	830.085	829.080	825.454	825.038	823.004	821.093	818.472	814.846	811.979	808.672
<b>175</b>	815.189	812.494	813.449	811.979	811.465	811.587	812.249	811.489	810.999	810.142
<b>180</b>	808.500	808.500	808.500	808.500	808.500	808.500	808.500	808.500	808.500	808.500

**Vert. Angles**      **Horizontal Angles**

	<b>50</b>	<b>55</b>	<b>60</b>	<b>65</b>	<b>70</b>	<b>75</b>	<b>80</b>	<b>85</b>	<b>90</b>
<b>0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>10</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>15</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>20</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>25</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>30</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>35</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>40</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>45</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>50</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>55</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>60</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**CANDELA TABULATION - (Cont.)**

<b>65</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>70</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>75</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>80</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>85</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95</b>	174.440	109.736	79.699	66.518	61.422	60.809	56.130	42.091	34.937
<b>100</b>	223.685	167.041	145.726	137.568	130.904	119.168	103.831	86.706	78.082
<b>105</b>	293.216	239.904	214.473	201.439	190.978	176.621	156.310	137.470	129.458
<b>110</b>	362.821	319.921	292.359	276.752	261.170	238.728	213.542	194.285	186.641
<b>115</b>	451.486	405.818	381.318	358.803	332.710	302.110	274.547	255.560	248.651
<b>120</b>	541.181	494.680	458.199	426.717	396.974	363.556	335.283	317.055	310.611
<b>125</b>	617.302	570.826	533.047	496.934	455.063	421.204	397.170	379.946	374.385
<b>130</b>	682.766	637.515	598.045	558.747	519.817	482.111	456.582	443.156	438.281
<b>135</b>	730.639	689.063	650.059	609.830	571.659	539.417	514.745	500.437	496.321
<b>140</b>	762.220	724.122	687.176	648.760	614.289	585.109	564.088	551.814	548.335
<b>145</b>	778.904	746.099	712.289	679.410	650.304	626.808	609.805	600.520	597.923
<b>150</b>	788.214	760.284	732.379	705.919	683.844	665.935	654.248	647.462	645.551
<b>155</b>	792.649	772.240	750.729	732.501	717.164	703.787	695.751	692.125	690.851
<b>160</b>	797.010	783.584	769.717	757.491	747.250	737.671	733.873	731.374	731.276
<b>165</b>	801.175	792.600	785.960	779.027	772.608	767.536	765.527	763.616	762.734
<b>170</b>	803.943	801.665	798.749	795.001	791.865	788.141	788.386	787.626	787.969
<b>175</b>	808.525	808.010	806.173	804.923	803.943	800.979	801.518	801.934	801.346
<b>180</b>	808.500	808.500	808.500	808.500	808.500	808.500	808.500	808.500	808.500

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**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	939.18	N.A.	22.70
90-120	1625.23	N.A.	39.20
90-130	2313.62	N.A.	55.80
90-150	3460.87	N.A.	83.50
90-180	4143.12	N.A.	100.00
110-180	3203.95	N.A.	77.30
0-180	4143.12	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	278.61
100-110	660.57
110-120	686.06
120-130	688.39
130-140	633.18
140-150	514.07
150-160	375.67
160-170	229.44
170-180	77.15

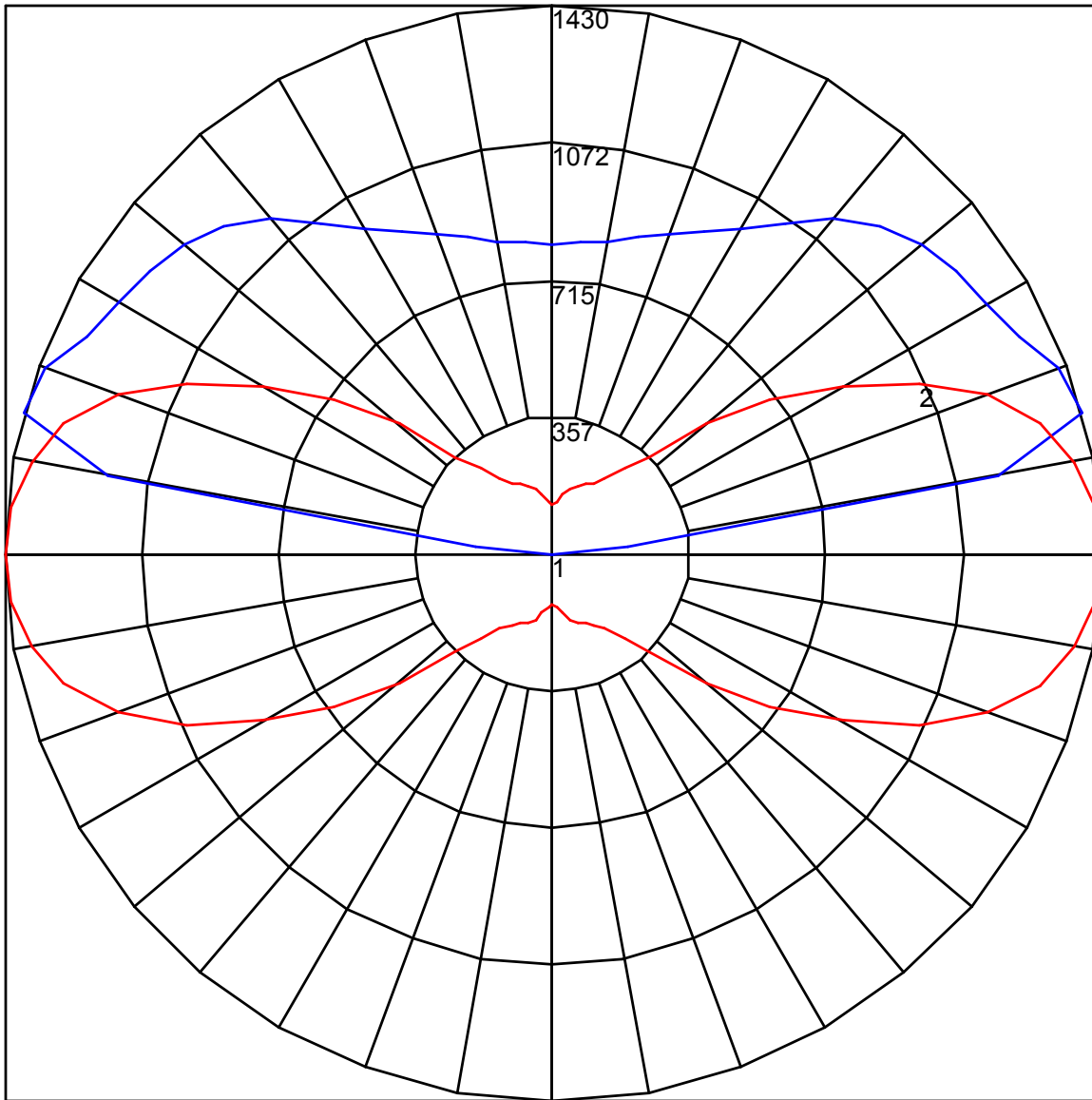
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	28	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 = 1429.894 Located At Horizontal Angle = 0, Vertical Angle = 105  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (105) (Through Max. Cd.)