



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : BIO-SUS-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	3636
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
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>	175.075	181.654	197.628	230.717	280.167	350.493	422.131	442.255	378.056	258.172
<b>100</b>	1035.634	1057.972	1086.653	1125.289	1139.178	1079.558	913.084	685.098	457.907	264.472
<b>105</b>	1254.805	1249.021	1215.331	1159.689	1062.143	925.876	767.765	611.439	461.003	316.072
<b>110</b>	1237.927	1227.543	1192.928	1129.911	1033.140	911.385	773.398	633.498	505.465	390.290
<b>115</b>	1181.812	1169.987	1140.876	1079.300	998.546	899.926	785.180	668.951	559.688	467.819
<b>120</b>	1146.767	1137.694	1108.454	1059.606	989.989	905.172	810.120	711.371	616.771	536.232
<b>125</b>	1127.267	1119.720	1091.448	1049.308	992.053	920.200	838.780	751.920	670.886	597.679
<b>130</b>	1103.875	1097.145	1074.119	1033.548	983.862	924.629	852.841	780.106	710.124	648.397
<b>135</b>	1063.433	1056.188	1036.709	1001.879	960.083	908.698	849.100	788.749	731.839	682.754
<b>140</b>	1001.406	992.892	973.972	947.914	915.857	875.244	828.718	784.836	741.600	704.018
<b>145</b>	926.887	921.125	907.021	888.036	864.773	835.813	805.154	774.000	742.804	713.650
<b>150</b>	862.000	857.506	848.756	837.382	823.665	804.960	784.535	762.369	740.245	716.101
<b>155</b>	816.936	815.431	809.454	801.241	792.318	780.708	766.475	750.157	733.623	714.983
<b>160</b>	781.052	782.665	777.376	772.624	766.712	758.735	748.394	737.321	725.625	712.682
<b>165</b>	751.640	751.468	748.501	745.427	741.363	736.719	730.506	723.841	717.004	709.952
<b>170</b>	728.442	727.560	724.378	724.013	722.228	720.551	718.251	715.069	712.553	709.651
<b>175</b>	715.370	713.005	713.843	712.553	712.102	712.209	712.790	712.123	711.693	710.941
<b>180</b>	709.500	709.500	709.500	709.500	709.500	709.500	709.500	709.500	709.500	709.500

**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>	153.080	96.299	69.940	58.373	53.901	53.363	49.257	36.937	30.659
<b>100</b>	196.295	146.587	127.882	120.723	114.875	104.576	91.117	76.089	68.521
<b>105</b>	257.312	210.528	188.211	176.773	167.593	154.994	137.170	120.637	113.606
<b>110</b>	318.394	280.747	256.560	242.864	229.190	209.496	187.394	170.495	163.787
<b>115</b>	396.202	356.126	334.626	314.868	291.970	265.117	240.929	224.267	218.204
<b>120</b>	474.914	434.107	402.093	374.466	348.365	319.039	294.228	278.232	272.577
<b>125</b>	541.714	500.929	467.776	436.085	399.341	369.628	348.537	333.422	328.542
<b>130</b>	599.162	559.452	524.815	490.329	456.166	423.077	400.674	388.892	384.614
<b>135</b>	641.173	604.688	570.460	535.157	501.660	473.366	451.715	439.159	435.547
<b>140</b>	668.887	635.454	603.032	569.320	539.070	513.463	495.016	484.245	481.192
<b>145</b>	683.528	654.740	625.070	596.217	570.675	550.056	535.135	526.987	524.708
<b>150</b>	691.698	667.188	642.700	619.480	600.108	584.392	574.136	568.181	566.504
<b>155</b>	695.590	677.680	658.803	642.807	629.348	617.609	610.557	607.375	606.257
<b>160</b>	699.417	687.635	675.466	664.737	655.750	647.344	644.011	641.818	641.732
<b>165</b>	703.072	695.547	689.720	683.636	678.003	673.552	671.789	670.112	669.338
<b>170</b>	705.501	703.502	700.943	697.654	694.902	691.634	691.849	691.182	691.483
<b>175</b>	709.522	709.070	707.458	706.361	705.501	702.900	703.373	703.738	703.222
<b>180</b>	709.500	709.500	709.500	709.500	709.500	709.500	709.500	709.500	709.500

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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	824.17	N.A.	22.70
90-120	1426.23	N.A.	39.20
90-130	2030.32	N.A.	55.80
90-150	3037.09	N.A.	83.50
90-180	3635.8	N.A.	100.00
110-180	2811.63	N.A.	77.30
0-180	3635.8	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	244.49
100-110	579.68
110-120	602.05
120-130	604.10
130-140	555.64
140-150	451.12
150-160	329.67
160-170	201.34
170-180	67.70

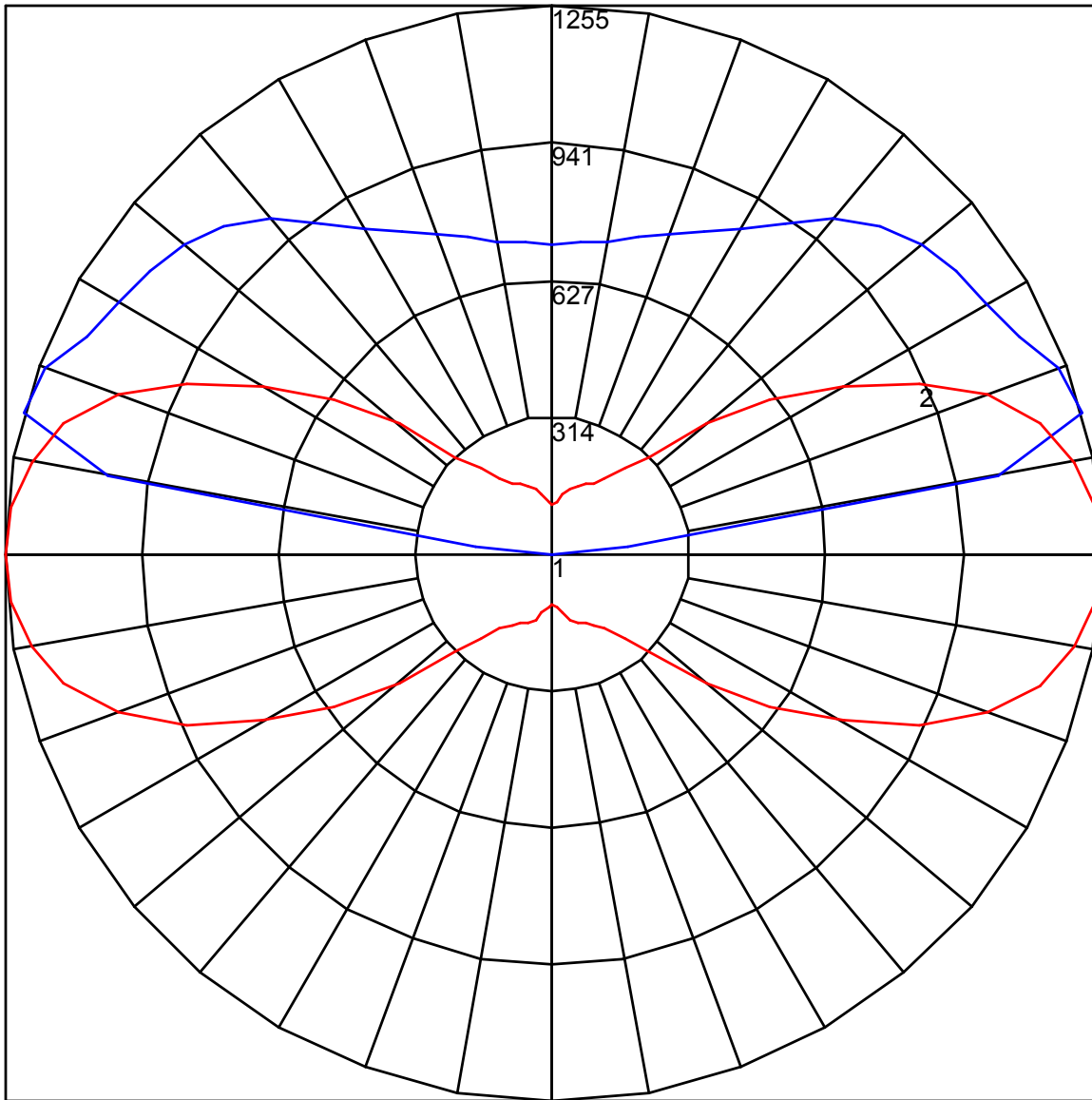
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 = 1254.805 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.)