



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : BIO2-LIN-LED35-MO-MWW-D1W.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] BIO2-LIN-LED35-SO-MWW-D1W

[TESTLAB] Intertek

[ISSUE DATE]

[MANUFAC] Prudential Lighting

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2430
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.14
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.20 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11844	13668	10483
55	10303	11118	8316
65	6295	9219	6054
75	3546	7696	3722
85	1557	4790	977

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
<b>0.0</b>	1181.194	1181.194	1181.194	1181.194	1181.194	1181.194	1181.194	1181.194	1181.194	1181.194
<b>2.5</b>	1334.362	1322.292	1274.545	1230.872	1193.750	1136.292	1083.811	1055.397	1042.270	1050.778
<b>5.0</b>	1514.399	1487.629	1394.507	1286.728	1183.539	1078.005	988.716	935.720	920.419	936.965
<b>7.5</b>	1656.440	1626.925	1514.198	1339.481	1173.572	1021.506	904.861	846.303	828.642	841.741
<b>10.0</b>	1768.753	1730.858	1609.250	1392.362	1155.926	964.306	833.447	770.656	748.519	768.153
<b>12.5</b>	1814.842	1816.572	1677.705	1437.965	1133.661	906.134	772.529	699.871	673.444	696.524
<b>15.0</b>	1693.821	1759.629	1743.713	1478.034	1107.392	855.741	709.251	637.422	607.621	632.475
<b>17.5</b>	1543.842	1615.214	1761.274	1506.505	1076.661	804.618	653.195	575.060	546.961	570.570
<b>20.0</b>	1404.846	1481.008	1685.884	1528.141	1043.056	760.646	600.428	517.360	490.490	512.569
<b>22.5</b>	1288.058	1353.881	1570.254	1532.717	1005.490	710.410	548.305	468.597	444.015	465.122
<b>25.0</b>	1189.474	1243.256	1467.008	1543.814	963.134	665.708	499.242	424.438	406.134	422.622
<b>27.5</b>	1103.045	1149.934	1354.167	1547.403	917.502	620.220	455.512	392.063	379.636	389.589
<b>30.0</b>	997.868	1066.079	1247.618	1534.190	874.259	575.303	413.871	366.066	364.521	363.420
<b>32.5</b>	914.113	963.891	1147.132	1509.808	820.076	533.090	379.679	347.318	356.856	346.317
<b>35.0</b>	854.239	881.952	1055.840	1464.534	765.865	491.677	350.750	335.993	347.919	333.519
<b>37.5</b>	792.792	821.535	983.640	1399.412	712.741	452.509	323.194	326.741	335.893	323.723
<b>40.0</b>	720.334	757.957	895.995	1311.353	655.541	413.513	299.885	313.670	319.662	311.611
<b>42.5</b>	669.955	683.554	798.269	1222.864	604.647	376.505	279.122	295.080	310.968	294.280
<b>45.0</b>	623.051	632.918	718.961	1139.352	551.451	341.999	259.574	281.781	311.225	279.350
<b>47.5</b>	579.236	586.243	653.110	1044.629	498.369	310.839	241.842	276.476	313.942	272.744
<b>50.0</b>	527.255	536.936	588.731	951.837	448.662	280.680	225.926	276.905	310.853	275.018
<b>52.5</b>	486.786	491.863	527.699	857.757	398.984	251.051	208.909	272.286	291.348	271.471
<b>55.0</b>	439.611	445.474	474.402	769.583	354.854	226.827	193.722	259.345	256.671	258.043
<b>57.5</b>	385.256	408.751	420.263	682.210	308.236	202.445	181.867	242.442	215.000	243.100
<b>60.0</b>	322.951	365.494	377.291	591.448	267.825	179.422	167.038	217.260	175.904	217.131
<b>62.5</b>	253.539	314.657	333.733	507.221	229.072	156.757	149.492	188.460	145.417	187.244
<b>65.0</b>	197.912	261.375	289.847	430.730	190.333	136.265	133.591	159.631	118.890	154.840
<b>67.5</b>	152.567	206.721	250.522	359.488	157.758	114.958	117.946	129.515	97.798	127.399
<b>70.0</b>	117.803	160.131	215.172	295.138	123.795	94.895	102.531	106.320	80.237	103.475
<b>72.5</b>	91.677	119.791	181.767	236.207	96.611	78.064	86.672	84.656	64.307	84.499
<b>75.0</b>	68.268	90.490	148.177	181.782	71.672	61.519	69.484	66.366	50.522	64.150
<b>77.5</b>	51.594	63.921	116.187	134.520	50.222	43.772	53.997	49.292	39.053	47.333
<b>80.0</b>	35.721	44.258	84.327	91.463	34.635	30.645	39.568	35.207	25.397	33.033
<b>82.5</b>	21.593	26.484	57.257	56.814	17.374	18.075	23.638	20.606	16.659	20.821
<b>85.0</b>	10.096	13.513	31.060	26.312	6.335	7.221	12.198	9.381	8.737	10.224
<b>87.5</b>	2.374	4.862	12.226	6.878	0.000	0.000	3.332	2.102	2.059	3.232
<b>90.0</b>	0.000	0.000	0.386	0.000	0.000	0.000	0.086	0.000	0.000	0.000
<b>92.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>97.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>100.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>102.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>105.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>107.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>110.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>112.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>115.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>117.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>120.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>122.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>125.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>127.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>130.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>132.5</b>	0.000	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.)**

135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.014	0.000	0.000	0.000	0.343	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.229	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	1181.194	1181.194	1181.194	1181.194	1181.194	1181.194	1181.194
2.5	1067.009	1118.732	1188.773	1248.075	1292.491	1323.393	1334.362
5.0	972.314	1061.475	1182.925	1300.413	1409.522	1488.887	1514.399
7.5	892.763	1001.915	1171.327	1352.465	1525.510	1623.579	1656.440
10.0	822.035	947.518	1155.140	1400.556	1613.998	1725.366	1768.753
12.5	761.346	889.403	1128.642	1441.011	1676.975	1805.918	1814.842
15.0	702.559	839.853	1104.961	1469.268	1743.041	1739.995	1693.821
17.5	643.371	789.732	1073.387	1492.863	1737.178	1599.155	1543.842
20.0	590.232	743.657	1041.784	1503.259	1655.811	1469.768	1404.846
22.5	538.695	701.372	998.669	1518.188	1545.801	1345.430	1288.058
25.0	490.790	647.661	956.656	1516.186	1435.463	1236.564	1189.474
27.5	450.493	604.118	910.610	1510.066	1334.190	1143.843	1103.045
30.0	409.223	560.274	857.213	1486.599	1221.592	1053.581	997.868
32.5	373.301	520.563	803.874	1448.347	1121.306	954.954	914.113
35.0	346.274	477.792	752.151	1399.298	1033.061	869.883	854.239
37.5	317.403	437.837	700.872	1331.073	956.384	810.224	792.792
40.0	294.466	399.013	647.304	1255.926	871.270	746.360	720.334
42.5	273.816	361.919	598.412	1171.456	777.763	676.790	669.955
45.0	254.097	329.915	544.272	1093.464	701.486	622.608	623.051
47.5	237.437	298.956	487.773	1000.499	633.090	575.761	579.236
50.0	222.494	268.397	436.994	916.730	567.209	530.115	527.255
52.5	205.963	240.984	393.150	819.318	508.980	482.882	486.786
55.0	189.260	217.746	343.629	735.949	456.070	438.381	439.611
57.5	176.147	192.163	303.103	644.730	407.192	398.498	385.256
60.0	162.748	170.699	261.790	559.201	361.733	355.612	322.951
62.5	147.790	148.062	222.479	481.495	319.819	308.208	253.539
65.0	130.359	130.330	187.459	407.235	278.249	253.939	197.912
67.5	113.585	110.296	153.453	337.094	240.454	202.130	152.567
70.0	99.356	92.006	123.995	274.531	204.719	159.674	117.803
72.5	82.683	74.589	95.109	219.019	171.829	120.134	91.677
75.0	69.956	55.956	71.600	168.354	139.225	88.374	68.268
77.5	53.882	43.529	51.594	122.565	106.606	64.293	51.594
80.0	39.396	29.858	33.848	82.554	77.277	44.044	35.721

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CANDELA TABULATION - (Cont.)

82.5	24.224	17.246	19.434	49.735	49.020	26.698	21.593
85.0	12.184	7.064	6.435	22.036	26.198	13.113	10.096
87.5	2.302	0.000	0.129	3.503	9.123	2.917	2.374
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	441.89	N.A.	18.20
0-30	877.23	N.A.	36.10
0-40	1337.45	N.A.	55.00
0-60	2096.08	N.A.	86.30
0-80	2410.79	N.A.	99.20
0-90	2429.88	N.A.	100.00
10-90	2315.11	N.A.	95.30
20-40	895.57	N.A.	36.90
20-50	1315.79	N.A.	54.20
40-70	974.49	N.A.	40.10
60-80	314.71	N.A.	13.00
70-80	98.85	N.A.	4.10
80-90	19.09	N.A.	0.80
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2429.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	114.77
10-20	327.12
20-30	435.34
30-40	460.22
40-50	420.23
50-60	338.40
60-70	215.87
70-80	98.85
80-90	19.09
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

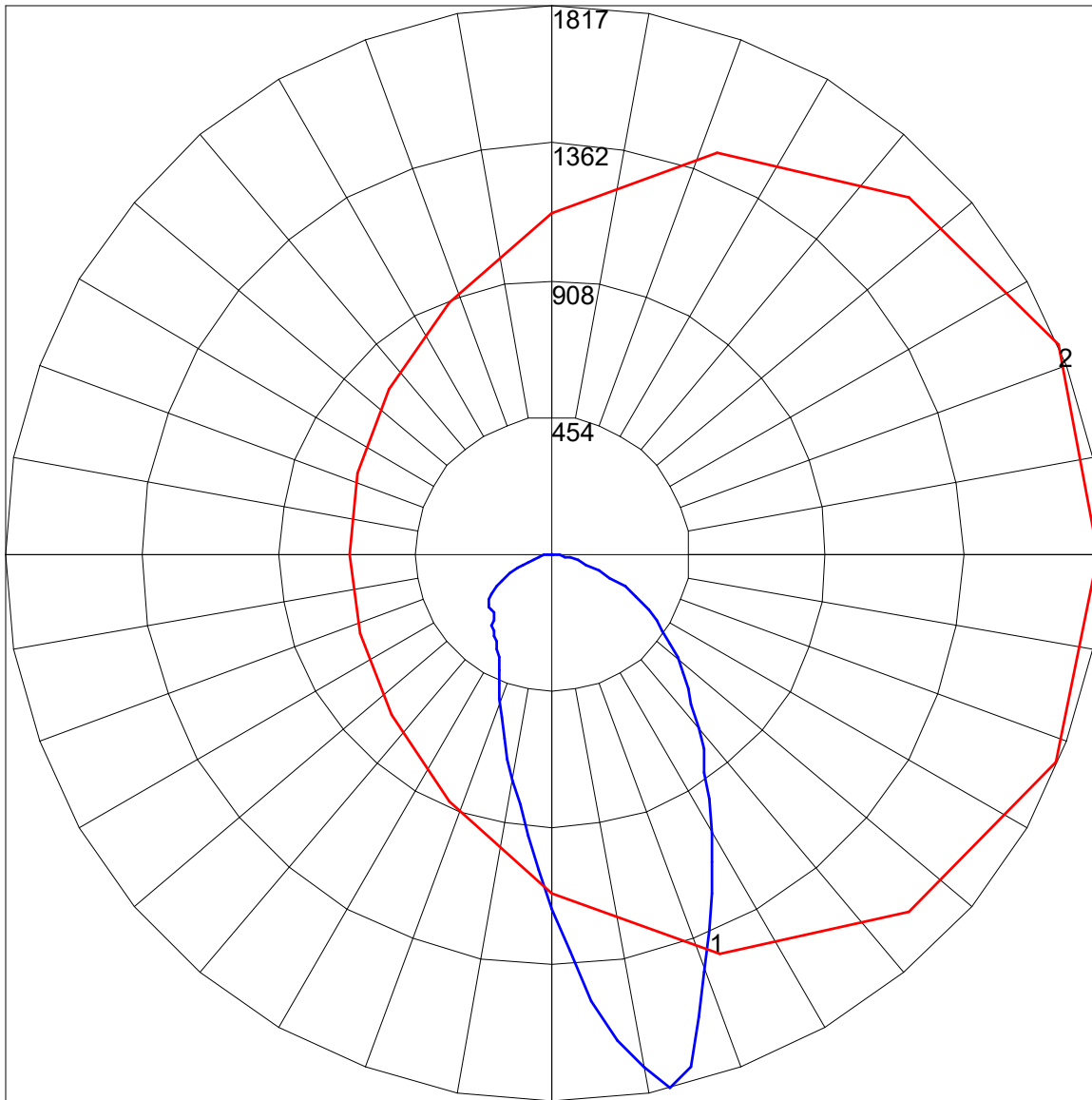
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	38	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	34	33
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

POLAR GRAPH



Maximum Candela = 1816.572 Located At Horizontal Angle = 22.5, Vertical Angle = 12.5  
# 1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (12.5) (Through Max. Cd.)