



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : BIO2-LIN-LED35-MO-MWG-D1G.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] Bio2-LIN-LED35-MO-MWG-D1G  
 [TESTLAB] Intertek Lake Forest  
 [ISSUE DATE] April 7, 2016  
 [MANUFAC] Prudential Ltg

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2059
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	74
Total Luminaire Watts	28
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.44
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	0.70
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.23 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	4360	4663	17753
55	3944	3848	13374
65	3298	3289	8965
75	2481	2656	5466
85	1683	1589	2597

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**CANDELA TABULATION**

	<b>0.0</b>	<b>22.5</b>	<b>45.0</b>	<b>67.5</b>	<b>90.0</b>	<b>112.5</b>	<b>135.0</b>	<b>157.5</b>	<b>180.0</b>	<b>202.5</b>
<b>0.0</b>	1891.603	1891.603	1891.603	1891.603	1891.603	1891.603	1891.603	1891.603	1891.603	1891.603
<b>2.5</b>	1809.751	1816.308	1837.886	1877.410	1886.852	1877.410	1837.886	1816.308	1809.751	1825.462
<b>5.0</b>	1592.295	1620.326	1702.807	1828.229	1882.183	1828.229	1702.807	1620.326	1592.295	1633.313
<b>7.5</b>	1353.112	1394.227	1530.179	1751.536	1874.450	1751.536	1530.179	1394.227	1353.112	1408.161
<b>10.0</b>	1148.021	1191.711	1354.170	1654.825	1863.609	1654.825	1354.170	1191.711	1148.021	1203.484
<b>12.5</b>	985.377	1028.186	1195.588	1542.819	1849.149	1542.819	1195.588	1028.186	985.377	1039.493
<b>15.0</b>	853.486	894.993	1055.462	1426.454	1829.953	1426.454	1055.462	894.993	853.486	906.123
<b>17.5</b>	743.197	783.290	938.387	1313.752	1807.346	1313.752	938.387	783.290	743.197	792.577
<b>20.0</b>	649.868	690.546	836.622	1202.404	1778.057	1202.404	836.622	690.546	649.868	695.563
<b>22.5</b>	571.339	609.057	746.401	1100.032	1742.878	1100.032	746.401	609.057	571.339	613.356
<b>25.0</b>	503.984	536.130	665.541	1006.874	1705.485	1006.874	665.541	536.130	503.984	540.540
<b>27.5</b>	449.587	475.679	594.427	920.834	1654.514	920.834	594.427	475.679	449.587	479.661
<b>30.0</b>	405.083	426.344	530.225	840.847	1598.644	840.847	530.225	426.344	405.083	429.052
<b>32.5</b>	369.904	385.584	473.792	766.818	1533.946	766.818	473.792	385.584	369.904	388.352
<b>35.0</b>	340.948	351.485	423.347	695.326	1454.233	695.326	423.347	351.485	340.948	354.519
<b>37.5</b>	317.675	323.269	379.960	629.992	1370.421	629.992	379.960	323.269	317.675	325.393
<b>40.0</b>	297.162	300.618	342.576	568.283	1274.110	568.283	342.576	300.618	297.162	301.543
<b>42.5</b>	279.017	279.439	309.675	508.432	1177.192	508.432	309.675	279.439	279.017	280.778
<b>45.0</b>	262.796	260.983	281.037	455.270	1070.070	455.270	281.037	260.983	262.796	262.175
<b>47.5</b>	245.399	242.520	253.546	404.891	963.946	404.891	253.546	242.520	245.399	245.303
<b>50.0</b>	228.186	225.212	229.296	359.196	855.233	359.196	229.296	225.212	228.186	227.380
<b>52.5</b>	209.768	207.629	207.681	316.306	751.921	316.306	207.681	207.629	209.768	210.382
<b>55.0</b>	192.851	191.290	188.145	277.648	653.864	277.648	188.145	191.290	192.851	192.592
<b>57.5</b>	173.811	173.441	169.593	242.409	560.365	242.409	169.593	173.441	173.811	175.817
<b>60.0</b>	154.971	156.739	151.337	209.590	473.541	209.590	151.337	156.739	154.971	158.530
<b>62.5</b>	136.907	140.223	134.702	180.590	394.686	180.590	134.702	140.223	136.907	141.976
<b>65.0</b>	118.800	123.432	118.489	153.136	322.951	153.136	118.489	123.432	118.800	124.675
<b>67.5</b>	100.448	107.729	102.179	128.634	260.132	128.634	102.179	107.729	100.448	109.505
<b>70.0</b>	83.383	91.109	87.224	106.686	205.135	106.686	87.224	91.109	83.383	92.152
<b>72.5</b>	69.005	75.872	72.416	86.728	159.662	86.728	72.416	75.872	69.005	76.546
<b>75.0</b>	54.745	59.955	58.586	67.814	120.598	67.814	58.586	59.955	54.745	62.130
<b>77.5</b>	42.062	46.835	45.924	50.949	87.179	50.949	45.924	46.835	42.062	48.366
<b>80.0</b>	30.695	34.440	32.826	35.934	58.216	35.934	32.826	34.440	30.695	35.742
<b>82.5</b>	20.631	23.029	21.660	22.688	36.785	22.688	21.660	23.029	20.631	23.835
<b>85.0</b>	12.506	12.676	11.803	11.988	19.292	11.988	11.803	12.676	12.506	14.600
<b>87.5</b>	5.639	6.046	4.958	4.114	6.475	4.114	4.958	6.046	5.639	6.978
<b>90.0</b>	2.346	1.598	1.103	1.006	0.918	1.006	1.103	1.598	2.346	2.560
<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	0.000	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	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	0.000	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**

	<b>225.0</b>	<b>247.5</b>	<b>270.0</b>	<b>292.5</b>	<b>315.0</b>	<b>337.5</b>	<b>360.0</b>
0.0	1891.603	1891.603	1891.603	1891.603	1891.603	1891.603	1891.603
2.5	1850.844	1886.179	1885.357	1886.179	1850.844	1825.462	1809.751
5.0	1730.682	1849.445	1879.689	1849.445	1730.682	1633.313	1592.295
7.5	1562.695	1782.120	1870.491	1782.120	1562.695	1408.161	1353.112
10.0	1384.081	1692.395	1858.140	1692.395	1384.081	1203.484	1148.021
12.5	1219.764	1586.486	1840.602	1586.486	1219.764	1039.493	985.377
15.0	1078.232	1472.474	1820.304	1472.474	1078.232	906.123	853.486
17.5	958.981	1355.562	1793.804	1355.562	958.981	792.577	743.197
20.0	854.604	1242.978	1762.880	1242.978	854.604	695.563	649.868
22.5	761.719	1137.572	1727.604	1137.572	761.719	613.356	571.339
25.0	679.816	1041.765	1684.492	1041.765	679.816	540.540	503.984
27.5	606.652	953.912	1634.364	953.912	606.652	479.661	449.587
30.0	540.903	871.853	1575.948	871.853	540.903	429.052	405.083
32.5	482.465	794.575	1506.684	794.575	482.465	388.352	369.904
35.0	431.390	721.352	1428.422	721.352	431.390	354.519	340.948
37.5	387.190	652.317	1342.922	652.317	387.190	325.393	317.675
40.0	349.028	589.129	1250.593	589.129	349.028	301.543	297.162
42.5	315.381	529.685	1151.151	529.685	315.381	280.778	279.017
45.0	284.767	473.422	1047.426	473.422	284.767	262.175	262.796
47.5	258.164	421.778	942.013	421.778	258.164	245.303	245.399
50.0	233.574	374.677	836.133	374.677	233.574	227.380	228.186
52.5	212.373	330.277	734.191	330.277	212.373	210.382	209.768
55.0	191.105	290.080	635.727	290.080	191.105	192.592	192.851
57.5	172.501	252.451	543.478	252.451	172.501	175.817	173.811
60.0	154.416	219.676	457.646	219.676	154.416	158.530	154.971
62.5	137.707	189.048	379.139	189.048	137.707	141.976	136.907
65.0	121.538	161.061	310.230	161.061	121.538	124.675	118.800
67.5	105.850	135.176	249.387	135.176	105.850	109.505	100.448
70.0	90.139	113.538	195.641	113.538	90.139	92.152	83.383
72.5	75.998	92.707	151.367	92.707	75.998	76.546	69.005
75.0	61.472	73.134	114.892	73.134	61.472	62.130	54.745
77.5	47.560	55.937	82.658	55.937	47.560	48.366	42.062
80.0	35.513	39.671	57.143	39.671	35.513	35.742	30.695

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CANDELA TABULATION - (Cont.)

82.5	23.362	27.047	33.751	27.047	23.362	23.835	20.631
85.0	13.964	14.445	17.656	14.445	13.964	14.600	12.506
87.5	5.210	6.061	5.306	6.061	5.210	6.978	5.639
90.0	1.369	1.317	0.474	1.317	1.369	2.560	2.346
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	489.02	N.A.	23.70
0-30	873.58	N.A.	42.40
0-40	1246.75	N.A.	60.50
0-60	1812.49	N.A.	88.00
0-80	2041.54	N.A.	99.10
0-90	2058.88	N.A.	100.00
10-90	1903.27	N.A.	92.40
20-40	757.73	N.A.	36.80
20-50	1080.27	N.A.	52.50
40-70	720.13	N.A.	35.00
60-80	229.05	N.A.	11.10
70-80	74.66	N.A.	3.60
80-90	17.34	N.A.	0.80
90-110	0.21	N.A.	0.00
90-120	0.21	N.A.	0.00
90-130	0.21	N.A.	0.00
90-150	0.21	N.A.	0.00
90-180	0.21	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2059.09	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	155.61
10-20	333.41
20-30	384.57
30-40	373.17
40-50	322.53
50-60	243.21
60-70	154.39
70-80	74.66
80-90	17.34
90-100	0.21
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

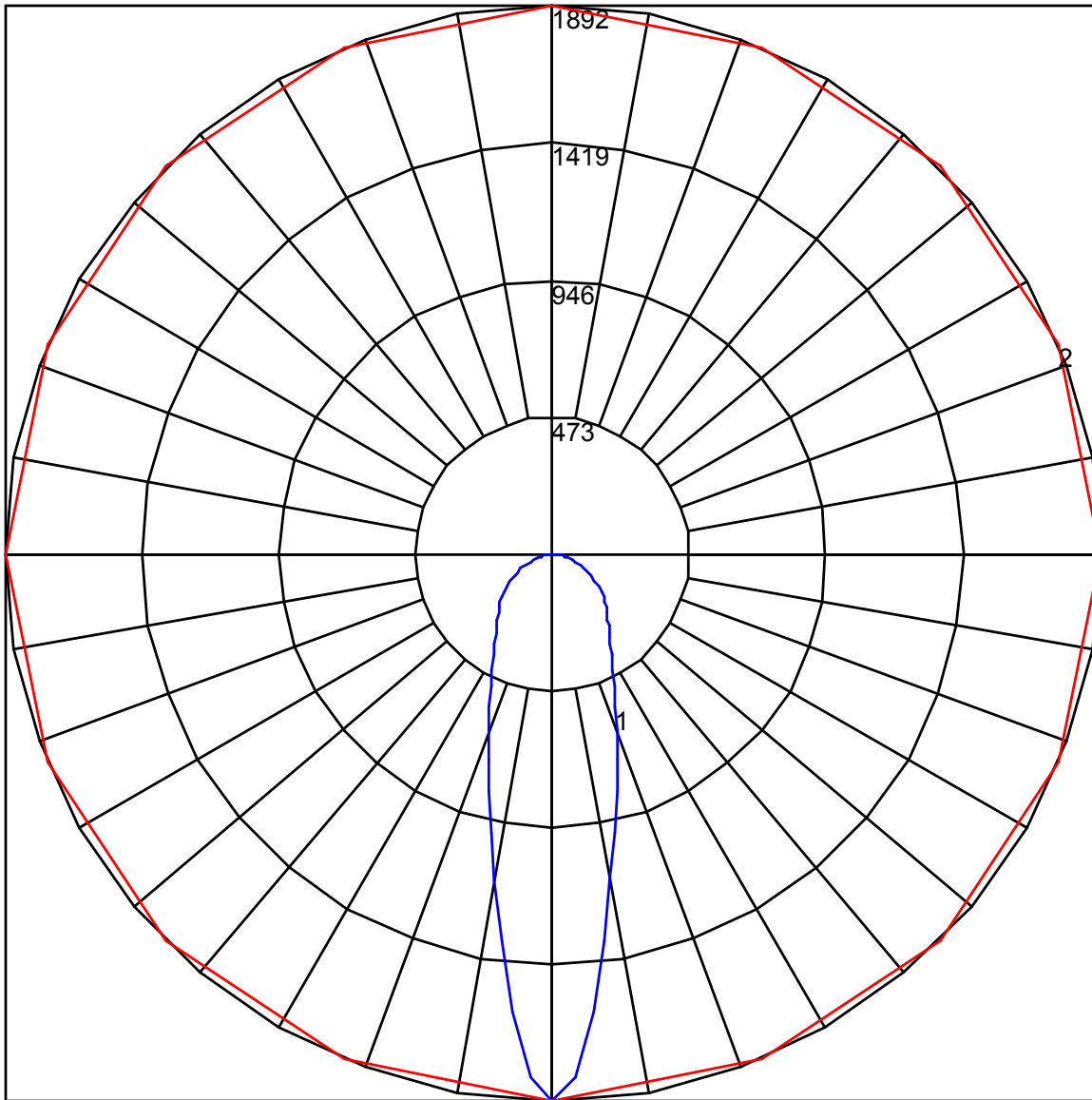
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	111	107	103	100	108	105	101	99	100	98	95	97	94	93	93	91	90	88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	65	62	60
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	55	54
6	77	65	57	52	75	64	57	51	63	56	51	61	55	51	59	54	50	48
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	42	51	46	42	40
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	37	59	48	41	36	47	41	36	46	40	36	45	40	36	34

POLAR GRAPH



Maximum Candela = 1891.603 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)