

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : P59-A6-LED35-LO\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] P59-A6-LED35-LO-04

[TESTLAB]

[ISSUE DATE]

[MANUFAC] Prudential Ltg

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1228
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	16
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	2.38
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.52
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.50 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.75 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1402	1331	990
55	1320	1233	865
65	1258	1144	691
75	1238	1075	428
85	1259	1055	59

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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>	242.761	242.761	242.761	242.761	242.761	242.761	242.761	242.761	242.761	242.761
<b>2.5</b>	261.770	260.622	257.216	251.325	241.357	231.552	223.290	217.494	213.984	217.494
<b>5.0</b>	275.373	273.406	266.639	256.622	239.710	219.465	202.117	190.669	184.819	190.669
<b>7.5</b>	293.945	289.791	276.678	260.195	237.978	207.009	181.935	166.855	159.147	166.855
<b>10.0</b>	311.643	306.666	287.870	263.070	235.719	194.157	162.571	144.022	135.117	144.022
<b>12.5</b>	330.156	322.087	299.039	265.441	232.695	181.976	144.297	123.201	114.340	123.201
<b>15.0</b>	347.688	337.837	309.420	269.284	229.693	169.807	127.395	103.824	94.549	103.824
<b>17.5</b>	365.386	353.821	319.324	272.452	226.192	157.360	111.334	85.995	76.842	85.995
<b>20.0</b>	382.657	368.455	328.954	274.986	221.449	145.539	96.327	70.267	60.435	70.267
<b>22.5</b>	399.145	382.725	338.265	277.375	217.246	133.992	82.354	55.566	46.593	55.566
<b>25.0</b>	415.120	396.526	346.739	278.941	211.054	121.945	68.899	42.773	33.480	42.773
<b>27.5</b>	430.708	409.590	354.487	279.909	206.086	110.677	57.289	31.032	21.271	31.032
<b>30.0</b>	445.923	422.401	362.209	280.345	199.989	99.499	46.107	20.313	10.728	20.313
<b>32.5</b>	459.585	433.620	368.635	280.413	193.428	88.992	35.680	10.931	3.168	10.931
<b>35.0</b>	465.462	443.353	374.292	280.449	186.142	78.705	26.136	3.006	0.000	3.006
<b>37.5</b>	466.645	445.689	379.809	279.036	178.479	68.818	17.474	0.243	0.000	0.243
<b>40.0</b>	465.921	444.276	384.318	276.642	171.081	59.130	9.954	0.000	0.000	0.000
<b>42.5</b>	463.270	441.508	386.366	274.716	163.210	50.296	3.933	0.031	0.000	0.031
<b>45.0</b>	460.809	438.129	383.958	272.281	154.593	40.671	1.678	0.000	0.000	0.000
<b>47.5</b>	456.826	433.417	378.162	268.749	145.427	32.800	1.323	0.000	0.000	0.000
<b>50.0</b>	452.997	427.968	371.250	265.770	136.355	26.055	1.354	0.000	0.000	0.000
<b>52.5</b>	448.258	422.248	363.595	261.567	126.832	19.305	1.098	0.000	0.000	0.000
<b>55.0</b>	442.440	416.349	355.725	256.595	116.941	12.919	0.972	0.000	0.000	0.000
<b>57.5</b>	436.194	409.302	347.404	251.716	107.176	7.753	0.391	0.000	0.000	0.000
<b>60.0</b>	430.402	402.039	338.548	244.827	96.799	3.726	0.279	0.000	0.000	0.000
<b>62.5</b>	423.396	395.158	329.616	233.680	86.539	3.069	0.310	0.000	0.000	0.000
<b>65.0</b>	417.096	387.585	320.004	221.314	76.162	2.641	0.410	0.000	0.000	0.000
<b>67.5</b>	410.535	380.668	310.293	209.245	65.664	2.124	0.342	0.000	0.000	0.000
<b>70.0</b>	404.104	373.932	300.577	197.303	55.543	1.741	0.000	0.000	0.000	0.000
<b>72.5</b>	398.623	366.943	291.267	185.702	44.865	0.936	0.000	0.000	0.000	0.000
<b>75.0</b>	393.043	360.049	282.078	174.578	35.001	1.053	0.418	0.000	0.000	0.000
<b>77.5</b>	386.707	353.952	273.564	163.751	24.988	0.265	0.216	0.000	0.715	0.000
<b>80.0</b>	381.389	347.908	265.365	152.617	15.790	0.144	0.000	0.207	0.463	0.207
<b>82.5</b>	376.029	341.757	257.495	141.349	8.303	0.000	0.000	0.000	0.103	0.000
<b>85.0</b>	370.287	335.839	250.241	130.207	3.019	0.000	0.000	0.072	0.108	0.072
<b>87.5</b>	364.477	330.331	243.423	120.861	0.864	0.000	0.000	0.216	0.536	0.216
<b>90.0</b>	361.318	326.956	238.788	113.432	0.000	0.000	0.018	0.157	0.486	0.157
<b>92.5</b>	355.991	320.468	230.774	103.401	0.000	0.000	0.000	0.360	0.054	0.360
<b>95.0</b>	340.177	303.682	216.711	88.924	0.000	0.000	0.000	0.045	0.792	0.045
<b>97.5</b>	325.075	290.025	200.678	72.603	0.000	0.000	0.081	0.288	0.630	0.288
<b>100.0</b>	309.082	270.684	181.679	47.210	0.000	0.000	0.149	0.018	1.566	0.018
<b>102.5</b>	286.510	248.908	160.510	28.309	0.000	0.000	0.000	0.085	0.486	0.085
<b>105.0</b>	262.066	225.198	133.803	15.489	0.000	0.000	0.000	0.580	0.999	0.580
<b>107.5</b>	237.614	198.657	97.708	8.010	0.000	0.000	0.000	0.000	0.607	0.000
<b>110.0</b>	208.638	165.681	56.493	5.238	0.000	0.000	0.000	0.000	0.000	0.000
<b>112.5</b>	171.234	122.787	40.617	3.469	0.000	0.000	0.000	0.000	0.256	0.000
<b>115.0</b>	123.624	76.658	56.326	1.251	0.000	0.000	0.000	0.000	0.000	0.000
<b>117.5</b>	74.943	53.905	10.624	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>120.0</b>	56.407	56.650	7.925	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>122.5</b>	54.958	69.219	5.197	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>125.0</b>	82.404	13.554	3.132	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>127.5</b>	13.189	10.876	1.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>130.0</b>	9.850	8.685	0.319	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>132.5</b>	7.704	6.156	0.000	0.144	0.000	0.000	0.000	0.000	0.000	0.000

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**CANDELA TABULATION - (Cont.)**

135.0	5.566	3.690	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	4.176	1.971	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	2.489	0.076	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.873	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	0.049	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**

	<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	242.761	242.761	242.761	242.761	242.761	242.761	242.761
2.5	223.290	231.552	241.357	251.325	257.216	260.622	261.770
5.0	202.117	219.465	239.710	256.622	266.639	273.406	275.373
7.5	181.935	207.009	237.978	260.195	276.678	289.791	293.945
10.0	162.571	194.157	235.719	263.070	287.870	306.666	311.643
12.5	144.297	181.976	232.695	265.441	299.039	322.087	330.156
15.0	127.395	169.807	229.693	269.284	309.420	337.837	347.688
17.5	111.334	157.360	226.192	272.452	319.324	353.821	365.386
20.0	96.327	145.539	221.449	274.986	328.954	368.455	382.657
22.5	82.354	133.992	217.246	277.375	338.265	382.725	399.145
25.0	68.899	121.945	211.054	278.941	346.739	396.526	415.120
27.5	57.289	110.677	206.086	279.909	354.487	409.590	430.708
30.0	46.107	99.499	199.989	280.345	362.209	422.401	445.923
32.5	35.680	88.992	193.428	280.413	368.635	433.620	459.585
35.0	26.136	78.705	186.142	280.449	374.292	443.353	465.462
37.5	17.474	68.818	178.479	279.036	379.809	445.689	466.645
40.0	9.954	59.130	171.081	276.642	384.318	444.276	465.921
42.5	3.933	50.296	163.210	274.716	386.366	441.508	463.270
45.0	1.678	40.671	154.593	272.281	383.958	438.129	460.809
47.5	1.323	32.800	145.427	268.749	378.162	433.417	456.826
50.0	1.354	26.055	136.355	265.770	371.250	427.968	452.997
52.5	1.098	19.305	126.832	261.567	363.595	422.248	448.258
55.0	0.972	12.919	116.941	256.595	355.725	416.349	442.440
57.5	0.391	7.753	107.176	251.716	347.404	409.302	436.194
60.0	0.279	3.726	96.799	244.827	338.548	402.039	430.402
62.5	0.310	3.069	86.539	233.680	329.616	395.158	423.396
65.0	0.410	2.641	76.162	221.314	320.004	387.585	417.096
67.5	0.342	2.124	65.664	209.245	310.293	380.668	410.535
70.0	0.000	1.741	55.543	197.303	300.577	373.932	404.104
72.5	0.000	0.936	44.865	185.702	291.267	366.943	398.623
75.0	0.418	1.053	35.001	174.578	282.078	360.049	393.043
77.5	0.216	0.265	24.988	163.751	273.564	353.952	386.707
80.0	0.000	0.144	15.790	152.617	265.365	347.908	381.389

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**CANDELA TABULATION - (Cont.)**

82.5	0.000	0.000	8.303	141.349	257.495	341.757	376.029
85.0	0.000	0.000	3.019	130.207	250.241	335.839	370.287
87.5	0.000	0.000	0.864	120.861	243.423	330.331	364.477
90.0	0.018	0.000	0.000	113.432	238.788	326.956	361.318
92.5	0.000	0.000	0.000	103.401	230.774	320.468	355.991
95.0	0.000	0.000	0.000	88.924	216.711	303.682	340.177
97.5	0.081	0.000	0.000	72.603	200.678	290.025	325.075
100.0	0.149	0.000	0.000	47.210	181.679	270.684	309.082
102.5	0.000	0.000	0.000	28.309	160.510	248.908	286.510
105.0	0.000	0.000	0.000	15.489	133.803	225.198	262.066
107.5	0.000	0.000	0.000	8.010	97.708	198.657	237.614
110.0	0.000	0.000	0.000	5.238	56.493	165.681	208.638
112.5	0.000	0.000	0.000	3.469	40.617	122.787	171.234
115.0	0.000	0.000	0.000	1.251	56.326	76.658	123.624
117.5	0.000	0.000	0.000	0.000	10.624	53.905	74.943
120.0	0.000	0.000	0.000	0.000	7.925	56.650	56.407
122.5	0.000	0.000	0.000	0.000	5.197	69.219	54.958
125.0	0.000	0.000	0.000	0.000	3.132	13.554	82.404
127.5	0.000	0.000	0.000	0.000	1.012	10.876	13.189
130.0	0.000	0.000	0.000	0.000	0.319	8.685	9.850
132.5	0.000	0.000	0.000	0.144	0.000	6.156	7.704
135.0	0.000	0.000	0.000	0.000	0.000	3.690	5.566
137.5	0.000	0.000	0.000	0.000	0.000	1.971	4.176
140.0	0.000	0.000	0.000	0.000	0.000	0.076	2.489
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.873
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	84.75	N.A.	6.90
0-30	182.56	N.A.	14.90
0-40	309.84	N.A.	25.20
0-60	611.37	N.A.	49.80
0-80	901.00	N.A.	73.40
0-90	1024.97	N.A.	83.40
10-90	1002.77	N.A.	81.60
20-40	225.08	N.A.	18.30
20-50	372.03	N.A.	30.30
40-70	452.35	N.A.	36.80
60-80	289.64	N.A.	23.60
70-80	138.82	N.A.	11.30
80-90	123.97	N.A.	10.10
90-110	172.06	N.A.	14.00
90-120	195.94	N.A.	16.00
90-130	202.55	N.A.	16.50
90-150	203.28	N.A.	16.60
90-180	203.28	N.A.	16.60
110-180	31.21	N.A.	2.50
0-180	1228.25	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	22.20
10-20	62.55
20-30	97.81
30-40	127.27
40-50	146.94
50-60	154.59
60-70	150.82
70-80	138.82
80-90	123.97
90-100	105.63
100-110	66.43
110-120	23.87
120-130	6.62
130-140	0.70
140-150	0.02
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	115	115	115	115	111	111	111	111	102	102	102	94	94	94	87	87	87	83
1	101	94	88	83	96	90	85	80	83	78	74	76	72	69	69	67	64	61
2	90	80	71	64	85	76	68	62	70	63	58	64	59	54	58	54	50	47
3	81	69	59	51	77	66	57	50	60	53	47	55	49	44	50	45	41	38
4	73	60	50	42	70	57	48	41	53	45	39	48	42	36	44	39	34	31
5	67	53	43	36	64	51	42	35	47	39	33	43	36	31	39	34	29	26
6	62	47	38	31	59	45	36	30	42	34	28	39	32	27	35	30	25	23
7	57	43	33	27	54	41	32	26	38	30	25	35	28	23	32	26	22	20
8	53	39	30	23	50	37	29	23	34	27	22	32	25	21	30	24	20	17
9	49	35	27	21	47	34	26	20	32	24	19	29	23	18	27	22	17	15
10	46	32	24	19	44	31	24	18	29	22	17	27	21	17	25	20	16	14

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**UGR TABLE - CORRECTED**

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	16.4	17.8	17.0	18.5	19.2	8.1	9.5	8.7	10.1	10.8
	3H	19.6	20.9	20.2	21.5	22.2	9.3	10.6	9.9	11.2	12.0
	4H	21.2	22.4	21.8	23.1	23.8	9.6	10.9	10.3	11.5	12.3
	6H	22.9	24.1	23.5	24.7	25.5	9.8	11.0	10.5	11.7	12.4
	8H	23.8	24.9	24.4	25.6	26.3	9.8	11.0	10.5	11.6	12.4
	12H	24.7	25.8	25.4	26.5	27.3	9.8	10.9	10.5	11.6	12.4

UGR Viewed Endwise

4H	2H	16.7	18.0	17.3	18.6	19.3	10.1	11.3	10.7	12.0	12.7
	3H	20.0	21.1	20.7	21.8	22.6	11.7	12.8	12.4	13.5	14.3
	4H	21.8	22.8	22.5	23.5	24.3	12.3	13.4	13.0	14.0	14.8
	6H	23.7	24.7	24.4	25.4	26.2	12.7	13.6	13.4	14.3	15.1
	8H	24.7	25.6	25.4	26.3	27.1	12.8	13.7	13.5	14.4	15.2
	12H	25.8	26.6	26.5	27.3	28.1	12.9	13.7	13.6	14.4	15.2

8H	4H	22.0	22.8	22.7	23.6	24.4	13.9	14.8	14.6	15.5	16.3
	6H	24.1	24.8	24.8	25.5	26.4	14.7	15.4	15.4	16.2	17.0
	8H	25.2	25.9	25.9	26.6	27.4	15.0	15.6	15.7	16.4	17.2
	12H	26.4	27.1	27.2	27.8	28.7	15.1	15.7	15.8	16.5	17.4

12H	4H	22.0	22.8	22.7	23.5	24.3	14.4	15.2	15.1	16.0	16.8
	6H	24.1	24.8	24.8	25.5	26.4	15.4	16.1	16.1	16.8	17.7
	8H	25.3	25.9	26.0	26.6	27.5	15.8	16.4	16.5	17.1	18.0

Maximum UGR = 28.7

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : P59-A6-LED35-LO\_.IES

POLAR GRAPH