

IES INDOOR REPORT

PHOTOMETRIC FILENAME : P59-A6-LED35-SO_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

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

[TESTLAB]

[ISSUE DATE]

[MANUFAC] Prudential Ltg

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2402
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	72
Total Luminaire Watts	33.4
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	2741	2603	1936
55	2581	2412	1691
65	2461	2237	1352
75	2420	2101	837
85	2462	2062	116

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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>
0.0	474.734	474.734	474.734	474.734	474.734	474.734	474.734	474.734	474.734	474.734
2.5	511.905	509.661	502.999	491.480	471.988	452.813	436.656	425.322	418.458	425.322
5.0	538.507	534.662	521.426	501.838	468.767	429.176	395.252	372.865	361.425	372.865
7.5	574.825	566.702	541.059	508.825	465.379	404.818	355.784	326.295	311.221	326.295
10.0	609.435	599.702	562.945	514.448	460.962	379.685	317.918	281.644	264.229	281.644
12.5	645.638	629.860	584.786	519.086	455.048	355.863	282.181	240.926	223.599	240.926
15.0	679.923	660.660	605.088	526.601	449.178	332.068	249.128	203.034	184.897	203.034
17.5	714.534	691.918	624.457	532.796	442.332	307.727	217.721	168.168	150.269	168.168
20.0	748.308	720.535	643.289	537.750	433.057	284.610	188.373	137.412	118.184	137.412
22.5	780.551	748.440	661.496	542.423	424.838	262.029	161.049	108.662	91.115	108.662
25.0	811.791	775.430	678.066	545.486	412.729	238.471	134.737	83.644	65.472	83.644
27.5	842.274	800.976	693.220	547.378	403.014	216.436	112.033	60.685	41.598	60.685
30.0	872.027	826.030	708.321	548.231	391.090	194.577	90.165	39.723	20.979	39.723
32.5	898.744	847.968	720.887	548.363	378.259	174.029	69.775	21.375	6.195	21.375
35.0	910.237	867.002	731.949	548.434	364.012	153.912	51.110	5.878	0.000	5.878
37.5	912.551	871.570	742.738	545.670	349.026	134.578	34.170	0.475	0.000	0.475
40.0	911.134	868.806	751.555	540.989	334.558	115.632	19.466	0.000	0.000	0.000
42.5	905.951	863.394	755.559	537.222	319.167	98.358	7.691	0.062	0.000	0.062
45.0	901.138	856.786	750.851	532.462	302.315	79.534	3.282	0.000	0.000	0.000
47.5	893.350	847.572	739.517	525.554	284.390	64.143	2.587	0.000	0.000	0.000
50.0	885.861	836.915	726.000	519.728	266.649	50.952	2.649	0.000	0.000	0.000
52.5	876.594	825.730	711.031	511.509	248.028	37.752	2.147	0.000	0.000	0.000
55.0	865.216	814.194	695.640	501.785	228.686	25.265	1.901	0.000	0.000	0.000
57.5	853.002	800.413	679.369	492.246	209.590	15.162	0.766	0.000	0.000	0.000
60.0	841.676	786.210	662.050	478.773	189.297	7.286	0.546	0.000	0.000	0.000
62.5	827.974	772.754	644.582	456.975	169.233	6.002	0.607	0.000	0.000	0.000
65.0	815.654	757.944	625.786	432.793	148.940	5.166	0.801	0.000	0.000	0.000
67.5	802.824	744.418	606.795	409.191	128.410	4.154	0.669	0.000	0.000	0.000
70.0	790.249	731.245	587.796	385.836	108.618	3.406	0.000	0.000	0.000	0.000
72.5	779.530	717.578	569.589	363.150	87.736	1.830	0.000	0.000	0.000	0.000
75.0	768.618	704.097	551.619	341.396	68.446	2.059	0.818	0.000	0.000	0.000
77.5	756.228	692.173	534.970	320.223	48.866	0.519	0.422	0.000	1.399	0.000
80.0	745.826	680.354	518.936	298.452	30.879	0.282	0.000	0.405	0.906	0.405
82.5	735.346	668.325	503.545	276.417	16.236	0.000	0.000	0.000	0.202	0.000
85.0	724.117	656.753	489.359	254.628	5.905	0.000	0.000	0.141	0.211	0.141
87.5	712.756	645.982	476.027	236.350	1.690	0.000	0.000	0.422	1.047	0.422
90.0	706.578	639.382	466.963	221.822	0.000	0.000	0.035	0.308	0.950	0.308
92.5	696.159	626.692	451.290	202.206	0.000	0.000	0.000	0.704	0.106	0.704
95.0	665.236	593.868	423.790	173.897	0.000	0.000	0.000	0.088	1.549	0.088
97.5	635.703	567.160	392.436	141.979	0.000	0.000	0.158	0.563	1.232	0.563
100.0	604.428	529.338	355.282	92.321	0.000	0.000	0.290	0.035	3.062	0.035
102.5	560.287	486.754	313.887	55.361	0.000	0.000	0.000	0.167	0.950	0.167
105.0	512.486	440.387	261.659	30.290	0.000	0.000	0.000	1.135	1.954	1.135
107.5	464.666	388.485	191.074	15.664	0.000	0.000	0.000	0.000	1.188	0.000
110.0	408.003	323.998	110.475	10.243	0.000	0.000	0.000	0.000	0.000	0.000
112.5	334.858	240.117	79.429	6.785	0.000	0.000	0.000	0.000	0.502	0.000
115.0	241.754	149.908	110.150	2.446	0.000	0.000	0.000	0.000	0.000	0.000
117.5	146.555	105.415	20.777	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	110.308	110.783	15.497	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	107.474	135.362	10.164	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	161.146	26.506	6.125	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	25.793	21.270	1.980	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	19.263	16.984	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	15.066	12.038	0.000	0.282	0.000	0.000	0.000	0.000	0.000	0.000

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135.0	10.886	7.216	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	8.166	3.854	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	4.866	0.150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	1.707	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	0.097	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	474.734	474.734	474.734	474.734	474.734	474.734	474.734
2.5	436.656	452.813	471.988	491.480	502.999	509.661	511.905
5.0	395.252	429.176	468.767	501.838	521.426	534.662	538.507
7.5	355.784	404.818	465.379	508.825	541.059	566.702	574.825
10.0	317.918	379.685	460.962	514.448	562.945	599.702	609.435
12.5	282.181	355.863	455.048	519.086	584.786	629.860	645.638
15.0	249.128	332.068	449.178	526.601	605.088	660.660	679.923
17.5	217.721	307.727	442.332	532.796	624.457	691.918	714.534
20.0	188.373	284.610	433.057	537.750	643.289	720.535	748.308
22.5	161.049	262.029	424.838	542.423	661.496	748.440	780.551
25.0	134.737	238.471	412.729	545.486	678.066	775.430	811.791
27.5	112.033	216.436	403.014	547.378	693.220	800.976	842.274
30.0	90.165	194.577	391.090	548.231	708.321	826.030	872.027
32.5	69.775	174.029	378.259	548.363	720.887	847.968	898.744
35.0	51.110	153.912	364.012	548.434	731.949	867.002	910.237
37.5	34.170	134.578	349.026	545.670	742.738	871.570	912.551
40.0	19.466	115.632	334.558	540.989	751.555	868.806	911.134
42.5	7.691	98.358	319.167	537.222	755.559	863.394	905.951
45.0	3.282	79.534	302.315	532.462	750.851	856.786	901.138
47.5	2.587	64.143	284.390	525.554	739.517	847.572	893.350
50.0	2.649	50.952	266.649	519.728	726.000	836.915	885.861
52.5	2.147	37.752	248.028	511.509	711.031	825.730	876.594
55.0	1.901	25.265	228.686	501.785	695.640	814.194	865.216
57.5	0.766	15.162	209.590	492.246	679.369	800.413	853.002
60.0	0.546	7.286	189.297	478.773	662.050	786.210	841.676
62.5	0.607	6.002	169.233	456.975	644.582	772.754	827.974
65.0	0.801	5.166	148.940	432.793	625.786	757.944	815.654
67.5	0.669	4.154	128.410	409.191	606.795	744.418	802.824
70.0	0.000	3.406	108.618	385.836	587.796	731.245	790.249
72.5	0.000	1.830	87.736	363.150	569.589	717.578	779.530
75.0	0.818	2.059	68.446	341.396	551.619	704.097	768.618
77.5	0.422	0.519	48.866	320.223	534.970	692.173	756.228
80.0	0.000	0.282	30.879	298.452	518.936	680.354	745.826

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82.5	0.000	0.000	16.236	276.417	503.545	668.325	735.346
85.0	0.000	0.000	5.905	254.628	489.359	656.753	724.117
87.5	0.000	0.000	1.690	236.350	476.027	645.982	712.756
90.0	0.035	0.000	0.000	221.822	466.963	639.382	706.578
92.5	0.000	0.000	0.000	202.206	451.290	626.692	696.159
95.0	0.000	0.000	0.000	173.897	423.790	593.868	665.236
97.5	0.158	0.000	0.000	141.979	392.436	567.160	635.703
100.0	0.290	0.000	0.000	92.321	355.282	529.338	604.428
102.5	0.000	0.000	0.000	55.361	313.887	486.754	560.287
105.0	0.000	0.000	0.000	30.290	261.659	440.387	512.486
107.5	0.000	0.000	0.000	15.664	191.074	388.485	464.666
110.0	0.000	0.000	0.000	10.243	110.475	323.998	408.003
112.5	0.000	0.000	0.000	6.785	79.429	240.117	334.858
115.0	0.000	0.000	0.000	2.446	110.150	149.908	241.754
117.5	0.000	0.000	0.000	0.000	20.777	105.415	146.555
120.0	0.000	0.000	0.000	0.000	15.497	110.783	110.308
122.5	0.000	0.000	0.000	0.000	10.164	135.362	107.474
125.0	0.000	0.000	0.000	0.000	6.125	26.506	161.146
127.5	0.000	0.000	0.000	0.000	1.980	21.270	25.793
130.0	0.000	0.000	0.000	0.000	0.625	16.984	19.263
132.5	0.000	0.000	0.000	0.282	0.000	12.038	15.066
135.0	0.000	0.000	0.000	0.000	0.000	7.216	10.886
137.5	0.000	0.000	0.000	0.000	0.000	3.854	8.166
140.0	0.000	0.000	0.000	0.000	0.000	0.150	4.866
142.5	0.000	0.000	0.000	0.000	0.000	0.000	1.707
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	165.74	N.A.	6.90
0-30	357.01	N.A.	14.90
0-40	605.90	N.A.	25.20
0-60	1195.56	N.A.	49.80
0-80	1761.97	N.A.	73.40
0-90	2004.39	N.A.	83.40
10-90	1960.97	N.A.	81.60
20-40	440.16	N.A.	18.30
20-50	727.52	N.A.	30.30
40-70	884.60	N.A.	36.80
60-80	566.41	N.A.	23.60
70-80	271.46	N.A.	11.30
80-90	242.42	N.A.	10.10
90-110	336.48	N.A.	14.00
90-120	383.17	N.A.	16.00
90-130	396.10	N.A.	16.50
90-150	397.52	N.A.	16.60
90-180	397.52	N.A.	16.60
110-180	61.04	N.A.	2.50
0-180	2401.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	43.42
10-20	122.32
20-30	191.27
30-40	248.89
40-50	287.36
50-60	302.30
60-70	294.94
70-80	271.46
80-90	242.42
90-100	206.57
100-110	129.91
110-120	46.69
120-130	12.94
130-140	1.37
140-150	0.05
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	82	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	18.7	20.1	19.3	20.8	21.5	10.4	11.8	11.0	12.4	13.1
	3H	21.9	23.2	22.5	23.8	24.5	11.6	12.9	12.2	13.5	14.3
	4H	23.5	24.7	24.1	25.4	26.1	11.9	13.2	12.6	13.8	14.6
	6H	25.2	26.4	25.8	27.0	27.8	12.1	13.3	12.8	13.9	14.7
	8H	26.1	27.2	26.7	27.9	28.6	12.1	13.3	12.8	13.9	14.7
	12H	27.0	28.1	27.7	28.8	29.6	12.1	13.2	12.8	13.9	14.7

UGR Viewed Endwise

4H	2H	19.0	20.3	19.6	20.9	21.6	12.4	13.6	13.0	14.3	15.0
	3H	22.3	23.4	23.0	24.1	24.9	14.0	15.1	14.7	15.8	16.6
	4H	24.1	25.1	24.8	25.8	26.6	14.6	15.7	15.3	16.3	17.1
	6H	26.0	27.0	26.7	27.7	28.5	15.0	15.9	15.7	16.6	17.4
	8H	27.0	27.9	27.7	28.6	29.4	15.1	16.0	15.8	16.7	17.5
	12H	28.1	28.9	28.8	29.6	30.4	15.1	15.9	15.8	16.7	17.5

8H	4H	24.3	25.1	25.0	25.8	26.7	16.2	17.1	16.9	17.8	18.6
	6H	26.4	27.1	27.1	27.8	28.7	17.0	17.7	17.7	18.5	19.3
	8H	27.5	28.2	28.2	28.9	29.7	17.3	17.9	18.0	18.7	19.5
	12H	28.7	29.3	29.5	30.1	31.0	17.4	18.0	18.1	18.8	19.7

12H	4H	24.3	25.1	25.0	25.8	26.6	16.7	17.5	17.4	18.3	19.1
	6H	26.4	27.1	27.1	27.8	28.7	17.7	18.4	18.4	19.1	20.0
	8H	27.6	28.2	28.3	28.9	29.8	18.1	18.7	18.8	19.4	20.3

Maximum UGR = 31.0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : P59-A6-LED35-SO_.IES

POLAR GRAPH