

IES INDOOR REPORT

PHOTOMETRIC FILENAME : P59-A9-LED35-SO_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] P59-A9-LED35-SO

[TESTLAB] Intertek

[ISSUE DATE] 2/12/2016

[MANUFAC] Prudential Lighting

[_CONVERT] Luminaire test position and photometric web converted from original test data

[_CONVERT] Photometric web converted from original test data

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2413
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	73
Total Luminaire Watts	33.2
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	2.20
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.48
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.75 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	2199	2032	1491
55	2126	1915	1339
65	2059	1803	1120
75	2005	1709	780
85	1993	1629	365

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CANDELA TABULATION

	<u>0.0</u>	<u>2.5</u>	<u>5.0</u>	<u>7.5</u>	<u>10.0</u>	<u>12.5</u>	<u>15.0</u>	<u>17.5</u>	<u>20.0</u>	<u>22.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	650.715	649.519	648.322	647.126	645.930	644.733	643.537	642.341	641.144	639.948
20	777.135	774.185	771.235	768.285	765.335	762.386	759.436	756.486	753.536	750.586
30	879.402	874.999	870.597	866.194	861.791	857.389	852.986	848.583	844.181	839.778
40	883.049	879.262	875.474	871.687	867.900	864.112	860.325	856.538	852.750	848.963
50	852.077	847.343	842.610	837.876	833.143	828.409	823.676	818.942	814.209	809.475
60	799.581	794.261	788.941	783.621	778.301	772.982	767.662	762.342	757.022	751.702
70	726.879	721.417	715.955	710.493	705.031	699.568	694.106	688.644	683.182	677.720
80	643.459	637.925	632.390	626.856	621.322	615.787	610.253	604.719	599.184	593.650
90	561.397	555.538	549.679	543.821	537.962	532.103	526.244	520.386	514.527	508.668
100	480.441	474.308	468.176	462.043	455.911	449.778	443.646	437.513	431.381	425.248
110	284.113	276.751	269.388	262.026	254.664	247.301	239.939	232.577	225.214	217.852
120	36.230	35.788	35.346	34.904	34.462	34.021	33.579	33.137	32.695	32.253
130	11.766	11.602	11.438	11.275	11.111	10.947	10.783	10.620	10.456	10.292
140	1.203	1.395	1.587	1.778	1.970	2.162	2.354	2.545	2.737	2.929
150	0.475	0.560	0.645	0.731	0.816	0.901	0.986	1.072	1.157	1.242
160	1.930	1.804	1.678	1.552	1.426	1.299	1.173	1.047	0.921	0.795
170	1.407	1.358	1.310	1.261	1.213	1.164	1.116	1.067	1.019	0.970
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles **Horizontal Angles**

	<u>25.0</u>	<u>27.5</u>	<u>30.0</u>	<u>32.5</u>	<u>35.0</u>	<u>37.5</u>	<u>40.0</u>	<u>42.5</u>	<u>45.0</u>	<u>47.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	636.263	632.578	628.893	625.208	621.524	617.839	614.154	610.469	606.784	601.808
20	742.652	734.719	726.785	718.852	710.918	702.985	695.051	687.118	679.184	668.813
30	828.254	816.731	805.207	793.683	782.160	770.636	759.112	747.589	736.065	720.137
40	839.504	830.046	820.587	811.129	801.670	792.212	782.753	773.295	763.836	743.701
50	798.554	787.633	776.712	765.791	754.869	743.948	733.027	722.106	711.185	693.644
60	738.907	726.111	713.316	700.520	687.725	674.929	662.134	649.338	636.543	620.019
70	664.027	650.334	636.640	622.947	609.254	595.561	581.867	568.174	554.481	534.372
80	579.424	565.199	550.973	536.747	522.522	508.296	494.070	479.845	465.619	443.944
90	493.692	478.717	463.741	448.765	433.790	418.814	403.838	388.863	373.887	352.533
100	409.623	393.999	378.374	362.750	347.125	331.501	315.876	300.252	284.627	261.048
110	244.582	271.312	298.042	324.772	351.502	378.232	404.962	431.692	458.422	408.946
120	30.698	29.142	27.587	26.032	24.476	22.921	21.366	19.810	18.255	16.653
130	9.470	8.647	7.825	7.003	6.180	5.358	4.536	3.713	2.891	2.641
140	2.634	2.339	2.043	1.748	1.453	1.158	0.862	0.567	0.272	0.423
150	1.164	1.087	1.009	0.931	0.854	0.776	0.698	0.621	0.543	0.692
160	0.896	0.998	1.099	1.200	1.302	1.403	1.504	1.606	1.707	1.668
170	0.983	0.996	1.009	1.022	1.034	1.047	1.060	1.073	1.086	1.107
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles **Horizontal Angles**

	<u>50.0</u>	<u>52.5</u>	<u>55.0</u>	<u>57.5</u>	<u>60.0</u>	<u>62.5</u>	<u>65.0</u>	<u>67.5</u>	<u>70.0</u>	<u>72.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	596.832	591.856	586.880	581.903	576.927	571.951	566.975	561.999	557.161	552.323
20	658.441	648.070	637.698	627.327	616.955	606.584	596.212	585.841	575.030	564.219
30	704.208	688.280	672.351	656.423	640.494	624.566	608.637	592.709	576.163	559.617
40	723.566	703.431	683.296	663.161	643.026	622.891	602.756	582.621	560.703	538.786
50	676.103	658.562	641.021	623.481	605.940	588.399	570.858	553.317	526.638	499.958
60	603.494	586.970	570.445	553.921	537.396	520.872	504.347	487.823	459.171	430.520
70	514.263	494.154	474.045	453.935	433.826	413.717	393.608	373.499	347.581	321.662

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CANDELA TABULATION - (Cont.)

80	422.269	400.594	378.919	357.243	335.568	313.893	292.218	270.543	246.181	221.819
90	331.179	309.825	288.471	267.116	245.762	224.408	203.054	181.700	162.006	142.312
100	237.470	213.891	190.313	166.734	143.156	119.577	95.999	72.420	64.882	57.344
110	359.469	309.993	260.516	211.040	161.563	112.087	62.610	13.134	12.182	11.231
120	15.052	13.450	11.849	10.247	8.646	7.044	5.443	3.841	3.920	3.998
130	2.391	2.141	1.891	1.640	1.390	1.140	0.890	0.640	1.081	1.522
140	0.574	0.725	0.876	1.026	1.177	1.328	1.479	1.630	1.976	2.322
150	0.841	0.989	1.138	1.287	1.436	1.584	1.733	1.882	2.229	2.576
160	1.629	1.591	1.552	1.513	1.474	1.436	1.397	1.358	1.789	2.220
170	1.127	1.148	1.168	1.189	1.209	1.230	1.250	1.271	1.737	2.202
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles **Horizontal Angles**

	<u>75.0</u>	<u>77.5</u>	<u>80.0</u>	<u>82.5</u>	<u>85.0</u>	<u>87.5</u>	<u>90.0</u>	<u>92.5</u>	<u>95.0</u>	<u>97.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	547.484	542.646	537.808	532.970	528.131	523.293	518.455	512.678	506.901	501.124
20	553.408	542.597	531.785	520.974	510.163	499.352	488.541	475.497	462.452	449.408
30	543.071	526.525	509.978	493.432	476.886	460.340	443.794	425.148	406.503	387.857
40	516.868	494.950	473.033	451.115	429.197	407.280	385.362	363.249	341.136	319.024
50	473.279	446.600	419.920	393.241	366.562	339.882	313.203	290.395	267.587	244.779
60	401.868	373.216	344.565	315.913	287.261	258.610	229.958	209.622	189.287	168.951
70	295.744	269.825	243.907	217.988	192.070	166.151	140.233	126.151	112.069	97.986
80	197.457	173.095	148.732	124.370	100.008	75.646	51.284	46.503	41.722	36.941
90	122.617	102.923	83.229	63.535	43.840	24.146	4.452	4.461	4.469	4.478
100	49.806	42.268	34.730	27.192	19.654	12.116	4.578	4.616	4.654	4.691
110	10.279	9.327	8.376	7.424	6.472	5.521	4.569	4.595	4.621	4.647
120	4.077	4.156	4.234	4.313	4.392	4.470	4.549	4.562	4.575	4.588
130	1.963	2.404	2.844	3.285	3.726	4.167	4.608	4.611	4.614	4.618
140	2.668	3.014	3.359	3.705	4.051	4.397	4.743	4.738	4.732	4.727
150	2.923	3.270	3.617	3.964	4.311	4.658	5.005	4.993	4.981	4.970
160	2.651	3.082	3.514	3.945	4.376	4.807	5.238	5.220	5.201	5.183
170	2.668	3.133	3.599	4.064	4.530	4.995	5.461	5.428	5.394	5.361
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles **Horizontal Angles**

	<u>100.0</u>	<u>102.5</u>	<u>105.0</u>	<u>107.5</u>	<u>110.0</u>	<u>112.5</u>	<u>115.0</u>	<u>117.5</u>	<u>120.0</u>	<u>122.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	495.347	489.571	483.794	478.017	472.240	466.463	459.371	452.279	445.188	438.096
20	436.363	423.319	410.274	397.230	384.185	371.141	360.155	349.169	338.184	327.198
30	369.212	350.566	331.921	313.275	294.630	275.984	263.704	251.424	239.144	226.864
40	296.911	274.798	252.685	230.573	208.460	186.347	174.927	163.507	152.087	140.667
50	221.971	199.164	176.356	153.548	130.740	107.932	98.927	89.922	80.917	71.912
60	148.616	128.280	107.945	87.609	67.274	46.938	42.662	38.387	34.111	29.836
70	83.904	69.822	55.740	41.657	27.575	13.493	12.831	12.169	11.508	10.846
80	32.160	27.379	22.598	17.817	13.036	8.255	7.909	7.563	7.217	6.871
90	4.487	4.495	4.504	4.513	4.521	4.530	4.560	4.590	4.621	4.651
100	4.729	4.767	4.805	4.842	4.880	4.918	4.954	4.989	5.025	5.060
110	4.673	4.698	4.724	4.750	4.776	4.802	4.707	4.612	4.517	4.422
120	4.601	4.614	4.627	4.640	4.653	4.666	4.626	4.586	4.546	4.506
130	4.621	4.624	4.627	4.631	4.634	4.637	4.585	4.533	4.482	4.430
140	4.722	4.716	4.711	4.706	4.700	4.695	4.617	4.540	4.462	4.384
150	4.958	4.946	4.934	4.923	4.911	4.899	4.818	4.737	4.656	4.575
160	5.165	5.146	5.128	5.110	5.091	5.073	5.016	4.959	4.902	4.845
170	5.327	5.294	5.260	5.227	5.193	5.160	5.052	4.944	4.837	4.729

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CANDELA TABULATION - (Cont.)

180 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000

Vert. Horizontal Angles
Angles

	<u>125.0</u>	<u>127.5</u>	<u>130.0</u>	<u>132.5</u>	<u>135.0</u>	<u>137.5</u>	<u>140.0</u>	<u>142.5</u>	<u>145.0</u>	<u>147.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	431.004	423.912	416.821	409.729	402.637	398.450	394.263	390.076	385.889	381.701
20	316.212	305.226	294.241	283.255	272.269	266.389	260.508	254.628	248.748	242.867
30	214.583	202.303	190.023	177.743	165.463	159.525	153.588	147.650	141.713	135.775
40	129.246	117.826	106.406	94.986	83.566	78.645	73.724	68.802	63.881	58.960
50	62.908	53.903	44.898	35.893	26.888	24.459	22.030	19.600	17.171	14.742
60	25.560	21.285	17.009	12.734	8.458	8.009	7.559	7.110	6.661	6.211
70	10.184	9.522	8.861	8.199	7.537	7.167	6.798	6.428	6.058	5.689
80	6.525	6.179	5.833	5.487	5.141	5.021	4.902	4.782	4.662	4.543
90	4.681	4.711	4.742	4.772	4.802	4.641	4.481	4.320	4.159	3.999
100	5.096	5.131	5.167	5.202	5.238	5.069	4.900	4.730	4.561	4.392
110	4.328	4.233	4.138	4.043	3.948	3.857	3.767	3.676	3.586	3.495
120	4.467	4.427	4.387	4.347	4.307	4.145	3.984	3.822	3.660	3.499
130	4.378	4.326	4.275	4.223	4.171	4.008	3.845	3.683	3.520	3.357
140	4.307	4.229	4.151	4.074	3.996	3.818	3.640	3.463	3.285	3.107
150	4.495	4.414	4.333	4.252	4.171	4.065	3.960	3.854	3.748	3.643
160	4.787	4.730	4.673	4.616	4.559	4.399	4.240	4.080	3.921	3.761
170	4.621	4.513	4.406	4.298	4.190	4.093	3.996	3.899	3.802	3.705
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Horizontal Angles
Angles

	<u>150.0</u>	<u>152.5</u>	<u>155.0</u>	<u>157.5</u>	<u>160.0</u>	<u>162.5</u>	<u>165.0</u>	<u>167.5</u>	<u>170.0</u>	<u>172.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	377.514	373.327	369.140	364.953	363.321	361.689	360.058	358.426	356.794	355.162
20	236.987	231.107	225.226	219.346	217.364	215.382	213.400	211.418	209.436	207.454
30	129.838	123.900	117.963	112.025	110.178	108.331	106.483	104.636	102.789	100.942
40	54.039	49.117	44.196	39.275	37.607	35.938	34.270	32.602	30.933	29.265
50	12.313	9.883	7.454	5.025	4.646	4.266	3.887	3.507	3.128	2.748
60	5.762	5.313	4.863	4.414	4.143	3.873	3.602	3.332	3.061	2.791
70	5.319	4.949	4.580	4.210	4.073	3.936	3.799	3.662	3.526	3.389
80	4.423	4.303	4.184	4.064	3.978	3.892	3.805	3.719	3.633	3.547
90	3.838	3.677	3.517	3.356	3.268	3.179	3.091	3.003	2.914	2.826
100	4.223	4.053	3.884	3.715	3.642	3.569	3.495	3.422	3.349	3.276
110	3.405	3.314	3.224	3.133	3.006	2.879	2.752	2.625	2.497	2.370
120	3.337	3.175	3.014	2.852	2.747	2.643	2.538	2.434	2.329	2.225
130	3.194	3.032	2.869	2.706	2.619	2.532	2.444	2.357	2.270	2.183
140	2.929	2.752	2.574	2.396	2.312	2.228	2.144	2.060	1.975	1.891
150	3.537	3.431	3.326	3.220	3.055	2.890	2.725	2.560	2.396	2.231
160	3.602	3.442	3.283	3.123	2.959	2.795	2.632	2.468	2.304	2.140
170	3.608	3.511	3.414	3.317	3.105	2.893	2.680	2.468	2.256	2.044
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Horizontal Angles
Angles

	<u>175.0</u>	<u>177.5</u>	<u>180.0</u>	<u>182.5</u>	<u>185.0</u>	<u>187.5</u>	<u>190.0</u>	<u>192.5</u>	<u>195.0</u>	<u>197.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	353.531	351.899	350.267	351.782	353.298	354.813	356.328	357.844	359.359	360.874
20	205.472	203.490	201.508	203.422	205.336	207.250	209.164	211.079	212.993	214.907
30	99.094	97.247	95.400	97.258	99.116	100.974	102.832	104.690	106.548	108.406
40	27.597	25.928	24.260	25.865	27.470	29.074	30.679	32.284	33.889	35.493

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CANDELA TABULATION - (Cont.)

50	2.369	1.989	1.610	1.940	2.270	2.599	2.929	3.259	3.589	3.918
60	2.520	2.250	1.979	2.167	2.354	2.542	2.729	2.917	3.104	3.292
70	3.252	3.115	2.978	3.063	3.148	3.233	3.318	3.404	3.489	3.574
80	3.460	3.374	3.288	3.279	3.271	3.262	3.254	3.245	3.237	3.228
90	2.738	2.649	2.561	2.523	2.485	2.448	2.410	2.372	2.334	2.297
100	3.202	3.129	3.056	3.074	3.092	3.111	3.129	3.147	3.165	3.184
110	2.243	2.116	1.989	1.988	1.987	1.986	1.985	1.983	1.982	1.981
120	2.120	2.016	1.911	1.910	1.909	1.908	1.907	1.905	1.904	1.903
130	2.095	2.008	1.921	1.889	1.856	1.824	1.792	1.759	1.727	1.695
140	1.807	1.723	1.639	1.598	1.557	1.516	1.475	1.435	1.394	1.353
150	2.066	1.901	1.736	1.774	1.812	1.849	1.887	1.925	1.963	2.000
160	1.977	1.813	1.649	1.638	1.627	1.617	1.606	1.595	1.584	1.574
170	1.831	1.619	1.407	1.421	1.435	1.449	1.463	1.477	1.491	1.505
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles	Horizontal Angles									
	<u>200.0</u>	<u>202.5</u>	<u>205.0</u>	<u>207.5</u>	<u>210.0</u>	<u>212.5</u>	<u>215.0</u>	<u>217.5</u>	<u>220.0</u>	<u>222.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	362.390	363.905	367.801	371.697	375.594	379.490	383.386	387.282	391.179	395.075
20	216.821	218.735	224.362	229.989	235.616	241.243	246.871	252.498	258.125	263.752
30	110.264	112.122	117.875	123.628	129.382	135.135	140.888	146.641	152.395	158.148
40	37.098	38.703	43.628	48.554	53.479	58.405	63.330	68.256	73.181	78.107
50	4.248	4.578	6.962	9.346	11.730	14.114	16.499	18.883	21.267	23.651
60	3.479	3.667	4.060	4.454	4.847	5.240	5.634	6.027	6.420	6.814
70	3.659	3.744	3.900	4.057	4.213	4.369	4.526	4.682	4.838	4.995
80	3.220	3.211	3.261	3.310	3.360	3.409	3.459	3.508	3.558	3.607
90	2.259	2.221	2.184	2.148	2.111	2.075	2.038	2.002	1.965	1.929
100	3.202	3.220	3.108	2.996	2.884	2.772	2.660	2.548	2.436	2.324
110	1.980	1.979	1.982	1.985	1.989	1.992	1.995	1.998	2.002	2.005
120	1.902	1.901	1.892	1.884	1.875	1.867	1.858	1.850	1.841	1.833
130	1.662	1.630	1.577	1.524	1.471	1.418	1.366	1.313	1.260	1.207
140	1.312	1.271	1.286	1.301	1.316	1.331	1.347	1.362	1.377	1.392
150	2.038	2.076	1.970	1.865	1.759	1.653	1.548	1.442	1.336	1.231
160	1.563	1.552	1.538	1.524	1.510	1.496	1.482	1.468	1.454	1.440
170	1.519	1.533	1.508	1.483	1.459	1.434	1.409	1.384	1.360	1.335
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles	Horizontal Angles									
	<u>225.0</u>	<u>227.5</u>	<u>230.0</u>	<u>232.5</u>	<u>235.0</u>	<u>237.5</u>	<u>240.0</u>	<u>242.5</u>	<u>245.0</u>	<u>247.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	398.971	405.682	412.394	419.105	425.816	432.528	439.239	445.950	452.662	459.373
20	269.379	280.105	290.831	301.557	312.283	323.009	333.735	344.461	355.187	365.913
30	163.901	175.926	187.951	199.975	212.000	224.025	236.050	248.074	260.099	272.124
40	83.032	94.230	105.428	116.626	127.824	139.023	150.221	161.419	172.617	183.815
50	26.035	34.948	43.861	52.775	61.688	70.601	79.514	88.428	97.341	106.254
60	7.207	11.419	15.631	19.843	24.055	28.267	32.479	36.691	40.903	45.115
70	5.151	5.771	6.390	7.010	7.630	8.249	8.869	9.489	10.108	10.728
80	3.657	3.852	4.047	4.242	4.437	4.633	4.828	5.023	5.218	5.413
90	1.892	1.879	1.866	1.853	1.840	1.827	1.814	1.801	1.788	1.775
100	2.212	2.086	1.960	1.834	1.708	1.581	1.455	1.329	1.203	1.077
110	2.008	1.877	1.745	1.614	1.482	1.351	1.219	1.088	0.956	0.825
120	1.824	1.753	1.682	1.610	1.539	1.468	1.397	1.325	1.254	1.183
130	1.154	1.155	1.156	1.157	1.158	1.160	1.161	1.162	1.163	1.164
140	1.407	1.376	1.344	1.313	1.282	1.250	1.219	1.188	1.156	1.125

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CANDELA TABULATION - (Cont.)

150	1.125	1.135	1.145	1.154	1.164	1.174	1.184	1.193	1.203	1.213
160	1.426	1.403	1.381	1.358	1.335	1.313	1.290	1.267	1.245	1.222
170	1.310	1.367	1.424	1.481	1.538	1.596	1.653	1.710	1.767	1.824
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles Horizontal Angles

	<u>250.0</u>	<u>252.5</u>	<u>255.0</u>	<u>257.5</u>	<u>260.0</u>	<u>262.5</u>	<u>265.0</u>	<u>267.5</u>	<u>270.0</u>	<u>272.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	466.322	473.272	480.221	487.171	494.120	501.070	508.019	514.969	521.918	527.562
20	380.230	394.547	408.865	423.182	437.499	451.816	466.134	480.451	494.768	506.002
30	292.018	311.911	331.805	351.698	371.592	391.485	411.379	431.272	451.166	467.963
40	207.306	230.797	254.289	277.780	301.271	324.762	348.254	371.745	395.236	417.098
50	130.329	154.405	178.480	202.555	226.631	250.706	274.781	298.857	322.932	349.266
60	66.793	88.472	110.150	131.829	153.507	175.186	196.864	218.543	240.221	268.449
70	26.327	41.925	57.524	73.123	88.721	104.320	119.919	135.517	151.116	176.677
80	11.498	17.583	23.668	29.753	35.839	41.924	48.009	54.094	60.179	84.401
90	2.084	2.394	2.703	3.012	3.322	3.631	3.940	4.250	4.559	24.760
100	1.392	1.706	2.021	2.336	2.650	2.965	3.280	3.594	3.909	11.707
110	1.196	1.566	1.937	2.308	2.678	3.049	3.420	3.790	4.161	5.679
120	1.549	1.916	2.282	2.649	3.015	3.382	3.748	4.115	4.481	5.175
130	1.577	1.990	2.402	2.815	3.228	3.641	4.053	4.466	4.879	5.239
140	1.582	2.039	2.496	2.953	3.410	3.867	4.324	4.781	5.238	5.416
150	1.690	2.168	2.645	3.123	3.600	4.078	4.555	5.033	5.510	5.576
160	1.712	2.203	2.693	3.184	3.674	4.165	4.655	5.146	5.636	5.633
170	2.254	2.684	3.114	3.544	3.974	4.404	4.834	5.264	5.694	5.656
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles Horizontal Angles

	<u>275.0</u>	<u>277.5</u>	<u>280.0</u>	<u>282.5</u>	<u>285.0</u>	<u>287.5</u>	<u>290.0</u>	<u>292.5</u>	<u>295.0</u>	<u>297.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	533.207	538.851	544.495	550.140	555.784	561.428	567.073	572.717	577.097	581.477
20	517.235	528.469	539.703	550.936	562.170	573.404	584.637	595.871	605.790	615.709
30	484.760	501.558	518.355	535.152	551.949	568.747	585.544	602.341	617.753	633.166
40	438.959	460.821	482.683	504.544	526.406	548.268	570.129	591.991	611.846	631.701
50	375.601	401.935	428.270	454.604	480.939	507.273	533.608	559.942	577.518	595.095
60	296.677	324.905	353.133	381.361	409.589	437.817	466.045	494.273	510.947	527.622
70	202.237	227.798	253.359	278.919	304.480	330.041	355.601	381.162	401.273	421.385
80	108.623	132.845	157.067	181.289	205.511	229.733	253.955	278.177	299.631	321.086
90	44.961	65.161	85.362	105.563	125.764	145.965	166.165	186.366	207.569	228.772
100	19.505	27.302	35.100	42.898	50.696	58.493	66.291	74.089	97.576	121.063
110	7.196	8.714	10.231	11.749	13.266	14.784	16.301	17.819	47.784	77.750
120	5.869	6.563	7.257	7.952	8.646	9.340	10.034	10.728	11.887	13.045
130	5.599	5.959	6.319	6.679	7.039	7.399	7.759	8.119	8.246	8.373
140	5.594	5.772	5.950	6.127	6.305	6.483	6.661	6.839	6.857	6.875
150	5.641	5.707	5.773	5.838	5.904	5.970	6.035	6.101	6.076	6.051
160	5.630	5.626	5.623	5.620	5.617	5.613	5.610	5.607	5.488	5.370
170	5.618	5.581	5.543	5.505	5.467	5.430	5.392	5.354	5.294	5.233
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles Horizontal Angles

	<u>300.0</u>	<u>302.5</u>	<u>305.0</u>	<u>307.5</u>	<u>310.0</u>	<u>312.5</u>	<u>315.0</u>	<u>317.5</u>	<u>320.0</u>	<u>322.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	585.857	590.237	594.618	598.998	603.378	607.758	612.138	615.536	618.934	622.333

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CANDELA TABULATION - (Cont.)

20	625.627	635.546	645.465	655.384	665.302	675.221	685.140	693.086	701.033	708.979
30	648.578	663.990	679.402	694.814	710.227	725.639	741.051	752.666	764.281	775.897
40	651.555	671.410	691.265	711.120	730.974	750.829	770.684	780.206	789.728	799.251
50	612.671	630.248	647.824	665.401	682.977	700.554	718.130	729.055	739.981	750.906
60	544.296	560.970	577.645	594.319	610.993	627.668	644.342	657.123	669.905	682.686
70	441.496	461.607	481.719	501.830	521.941	542.053	562.164	575.597	589.031	602.464
80	342.540	363.994	385.448	406.902	428.357	449.811	471.265	485.338	499.410	513.483
90	249.975	271.179	292.382	313.585	334.788	355.991	377.194	392.250	407.305	422.361
100	144.550	168.037	191.523	215.010	238.497	261.984	285.471	301.331	317.190	333.050
110	107.715	137.681	167.646	197.612	227.577	257.543	287.508	279.096	270.684	262.272
120	14.204	15.363	16.521	17.680	18.839	19.997	21.156	22.582	24.008	25.434
130	8.501	8.628	8.755	8.882	9.010	9.137	9.264	9.537	9.809	10.082
140	6.894	6.912	6.930	6.948	6.967	6.985	7.003	6.756	6.509	6.263
150	6.027	6.002	5.977	5.952	5.928	5.903	5.878	5.624	5.369	5.115
160	5.251	5.133	5.014	4.896	4.777	4.659	4.540	4.303	4.066	3.829
170	5.173	5.113	5.052	4.992	4.932	4.871	4.811	4.599	4.386	4.174
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles Horizontal Angles

	<u>325.0</u>	<u>327.5</u>	<u>330.0</u>	<u>332.5</u>	<u>335.0</u>	<u>337.5</u>	<u>340.0</u>	<u>342.5</u>	<u>345.0</u>	<u>347.5</u>
0	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906	524.906
10	625.731	629.129	632.527	635.926	639.324	642.722	643.610	644.498	645.386	646.274
20	716.926	724.872	732.819	740.765	748.712	756.658	758.933	761.208	763.484	765.759
30	787.512	799.127	810.742	822.358	833.973	845.588	849.345	853.102	856.859	860.616
40	808.773	818.295	827.817	837.340	846.862	856.384	859.347	862.310	865.272	868.235
50	761.832	772.757	783.683	794.608	805.533	816.459	820.417	824.374	828.332	832.289
60	695.467	708.249	721.030	733.811	746.593	759.374	763.841	768.309	772.776	777.244
70	615.897	629.331	642.764	656.197	669.631	683.064	687.932	692.801	697.669	702.537
80	527.555	541.628	555.700	569.773	583.845	597.918	602.978	608.038	613.098	618.158
90	437.416	452.472	467.527	482.583	497.638	512.694	518.105	523.517	528.928	534.340
100	348.909	364.769	380.628	396.488	412.347	428.207	434.011	439.815	445.618	451.422
110	253.860	245.448	237.036	228.624	220.212	211.800	219.835	227.870	235.904	243.939
120	26.860	28.285	29.711	31.137	32.563	33.989	34.238	34.487	34.736	34.985
130	10.355	10.627	10.900	11.173	11.445	11.718	11.723	11.729	11.734	11.739
140	6.016	5.769	5.522	5.276	5.029	4.782	4.384	3.987	3.589	3.191
150	4.861	4.606	4.352	4.098	3.843	3.589	3.243	2.897	2.551	2.205
160	3.592	3.354	3.117	2.880	2.643	2.406	2.353	2.300	2.247	2.194
170	3.962	3.749	3.537	3.325	3.112	2.900	2.734	2.568	2.402	2.236
180	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Vert. Angles Horizontal Angles

	<u>350.0</u>	<u>352.5</u>	<u>355.0</u>	<u>357.5</u>	<u>360.0</u>
0	524.906	524.906	524.906	524.906	524.906
10	647.163	648.051	648.939	649.827	650.715
20	768.034	770.309	772.585	774.860	777.135
30	864.374	868.131	871.888	875.645	879.402
40	871.198	874.161	877.123	880.086	883.049
50	836.247	840.204	844.162	848.119	852.077
60	781.711	786.179	790.646	795.114	799.581
70	707.406	712.274	717.142	722.011	726.879
80	623.219	628.279	633.339	638.399	643.459
90	539.751	545.163	550.574	555.986	561.397
100	457.226	463.030	468.833	474.637	480.441
110	251.974	260.009	268.043	276.078	284.113

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CANDELA TABULATION - (Cont.)

120	35.234	35.483	35.732	35.981	36.230
130	11.745	11.750	11.755	11.761	11.766
140	2.794	2.396	1.998	1.601	1.203
150	1.859	1.513	1.167	0.821	0.475
160	2.142	2.089	2.036	1.983	1.930
170	2.071	1.905	1.739	1.573	1.407
180	2.000	2.000	2.000	2.000	2.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	189.86	N.A.	7.90
0-30	407.71	N.A.	16.90
0-40	683.45	N.A.	28.30
0-60	1300.76	N.A.	53.90
0-80	1850.85	N.A.	76.70
0-90	2062.15	N.A.	85.50
10-90	2012.83	N.A.	83.40
20-40	493.59	N.A.	20.50
20-50	799.79	N.A.	33.10
40-70	910.74	N.A.	37.70
60-80	550.09	N.A.	22.80
70-80	256.65	N.A.	10.60
80-90	211.30	N.A.	8.80
90-110	283.18	N.A.	11.70
90-120	335.99	N.A.	13.90
90-130	343.43	N.A.	14.20
90-150	348.61	N.A.	14.40
90-180	351.09	N.A.	14.50
110-180	67.90	N.A.	2.80
0-180	2413.23	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	49.32
10-20	140.55
20-30	217.85
30-40	275.74
40-50	306.20
50-60	311.11
60-70	293.43
70-80	256.65
80-90	211.30
90-100	164.15
100-110	119.03
110-120	52.80
120-130	7.45
130-140	3.21
140-150	1.96
150-160	1.40
160-170	0.85
170-180	0.24

IES INDOOR REPORT
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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	116	116	116	116	111	111	111	111	103	103	103	96	96	96	89	89	89	85
1	102	95	90	85	97	92	87	82	85	80	77	78	75	72	72	69	67	64
2	91	81	73	66	87	78	71	64	72	66	60	66	61	57	61	57	53	50
3	82	70	61	53	78	67	59	52	62	55	49	57	52	46	53	48	44	41
4	75	62	52	44	71	59	50	43	55	47	41	51	44	39	47	41	37	34
5	68	55	45	38	65	53	43	37	49	41	35	45	38	33	42	36	32	29
6	63	49	39	32	60	47	38	32	44	36	30	41	34	29	38	32	27	25
7	58	44	35	28	56	42	34	28	40	32	26	37	30	25	34	28	24	22
8	54	40	31	25	52	39	30	24	36	29	23	34	27	22	31	26	21	19
9	50	37	28	22	48	35	27	22	33	26	21	31	25	20	29	23	19	17
10	47	34	25	20	45	33	25	20	31	24	19	29	22	18	27	21	17	15

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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	17.6	19.1	18.2	19.7	20.3	10.4	11.8	10.9	12.4	13.1
	3H	20.6	21.9	21.2	22.5	23.2	11.7	13.0	12.3	13.6	14.3
	4H	22.1	23.4	22.7	24.0	24.7	12.1	13.3	12.7	14.0	14.7
	6H	23.6	24.8	24.3	25.4	26.2	12.3	13.5	12.9	14.1	14.8
	8H	24.4	25.6	25.0	26.2	26.9	12.3	13.5	13.0	14.1	14.9
	12H	25.2	26.3	25.8	26.9	27.7	12.4	13.5	13.0	14.1	14.9

UGR Viewed Endwise

4H	2H	18.0	19.2	18.6	19.9	20.6	12.0	13.3	12.6	13.9	14.6
	3H	21.2	22.3	21.8	22.9	23.7	13.7	14.8	14.3	15.5	16.2
	4H	22.8	23.9	23.5	24.5	25.3	14.4	15.4	15.0	16.0	16.8
	6H	24.6	25.5	25.2	26.2	26.9	14.8	15.7	15.4	16.3	17.1
	8H	25.5	26.3	26.1	27.0	27.8	14.9	15.7	15.5	16.4	17.2
	12H	26.4	27.2	27.1	27.9	28.7	14.9	15.7	15.6	16.4	17.2

8H	4H	23.0	23.9	23.7	24.6	25.3	15.7	16.6	16.4	17.3	18.0
	6H	24.9	25.7	25.6	26.4	27.2	16.4	17.2	17.1	17.9	18.7
	8H	26.0	26.6	26.7	27.4	28.2	16.7	17.4	17.4	18.1	18.9
	12H	27.1	27.7	27.8	28.4	29.3	16.9	17.5	17.6	18.2	19.1

12H	4H	23.0	23.8	23.7	24.5	25.3	16.1	16.9	16.8	17.6	18.4
	6H	25.0	25.7	25.7	26.4	27.2	17.0	17.7	17.8	18.4	19.2
	8H	26.1	26.7	26.8	27.4	28.2	17.4	18.0	18.2	18.8	19.6

Maximum UGR = 29.3

IES INDOOR REPORT
PHOTOMETRIC FILENAME : P59-A9-LED35-SO_.IES

POLAR GRAPH