



IES INDOOR REPORT

PHOTOMETRIC FILENAME : QD-44-LED35-MO-D9.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

IESNA:LM-63-2002[ISSUE DATE][TEST] [TEST LAB] LIGHT LABORATORY, INC.[MANUFACTURER] PRUDENTIAL LTG.[LUMCAT] QUALITY

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	17110
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	182
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 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	3111	3103	3089
55	2993	2979	2958
65	2835	2813	2795
75	2615	2582	2570
85	2260	2194	2223

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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	4965.251	4965.251	4965.251	4965.251	4965.251	4965.251	4965.251	4965.251	4965.251	4965.251
2.5	4958.962	4960.216	4958.791	4957.100	4957.917	4957.100	4958.791	4960.216	4958.962	4960.216
5.0	4941.406	4941.520	4940.247	4939.810	4938.252	4939.810	4940.247	4941.520	4941.406	4941.520
7.5	4911.063	4911.367	4910.569	4909.847	4909.315	4909.847	4910.569	4911.367	4911.063	4911.367
10.0	4869.396	4870.137	4867.648	4867.002	4865.786	4867.002	4867.648	4870.137	4869.396	4870.137
12.5	4816.177	4817.811	4814.695	4813.878	4812.225	4813.878	4814.695	4817.811	4816.177	4817.811
15.0	4755.225	4754.370	4752.394	4749.886	4749.354	4749.886	4752.394	4754.370	4755.225	4754.370
17.5	4681.030	4681.201	4679.643	4675.178	4674.000	4675.178	4679.643	4681.201	4681.030	4681.201
20.0	4599.045	4597.734	4595.359	4591.673	4587.892	4591.673	4595.359	4597.734	4599.045	4597.734
22.5	4505.280	4504.634	4500.815	4495.115	4493.443	4495.115	4500.815	4504.634	4505.280	4504.634
25.0	4402.680	4401.730	4396.733	4392.401	4390.387	4392.401	4396.733	4401.730	4402.680	4401.730
27.5	4290.428	4288.509	4281.802	4276.653	4273.252	4276.653	4281.802	4288.509	4290.428	4288.509
30.0	4166.149	4165.902	4160.259	4154.388	4150.303	4154.388	4160.259	4165.902	4166.149	4165.902
32.5	4036.037	4035.771	4028.779	4022.186	4021.825	4022.186	4028.779	4035.771	4036.037	4035.771
35.0	3900.909	3898.667	3891.143	3882.004	3882.954	3882.004	3891.143	3898.667	3900.909	3898.667
37.5	3756.300	3752.690	3744.140	3735.229	3735.742	3735.229	3744.140	3752.690	3756.300	3752.690
40.0	3605.706	3599.607	3591.304	3581.538	3578.460	3581.538	3591.304	3599.607	3605.706	3599.607
42.5	3441.641	3439.722	3428.854	3420.038	3418.670	3420.038	3428.854	3439.722	3441.641	3439.722
45.0	3272.503	3274.441	3264.143	3251.907	3249.684	3251.907	3264.143	3274.441	3272.503	3274.441
47.5	3099.508	3100.686	3090.445	3078.893	3075.986	3078.893	3090.445	3100.686	3099.508	3100.686
50.0	2921.630	2920.775	2911.237	2901.433	2895.657	2901.433	2911.237	2920.775	2921.630	2920.775
52.5	2739.553	2737.805	2728.989	2718.045	2712.364	2718.045	2728.989	2737.805	2739.553	2737.805
55.0	2553.866	2552.460	2541.915	2530.458	2524.359	2530.458	2541.915	2552.460	2553.866	2552.460
57.5	2361.149	2362.023	2350.851	2339.033	2334.283	2339.033	2350.851	2362.023	2361.149	2362.023
60.0	2168.394	2169.515	2159.027	2146.905	2144.530	2146.905	2159.027	2169.515	2168.394	2169.515
62.5	1975.582	1973.948	1963.859	1955.119	1951.072	1955.119	1963.859	1973.948	1975.582	1973.948
65.0	1782.694	1777.526	1768.919	1758.697	1757.766	1758.697	1768.919	1777.526	1782.694	1777.526
67.5	1586.861	1583.764	1573.333	1564.156	1563.624	1564.156	1573.333	1583.764	1586.861	1583.764
70.0	1389.641	1387.817	1375.714	1368.665	1369.596	1368.665	1375.714	1387.817	1389.641	1387.817
72.5	1196.297	1193.561	1182.446	1176.442	1177.582	1176.442	1182.446	1193.561	1196.297	1193.561
75.0	1007.152	1002.744	994.251	988.627	989.501	988.627	994.251	1002.744	1007.152	1002.744
77.5	821.617	815.860	806.949	804.099	803.833	804.099	806.949	815.860	821.617	815.860
80.0	638.419	633.783	624.492	622.839	622.478	622.839	624.492	633.783	638.419	633.783
82.5	459.781	459.401	449.350	447.906	451.782	447.906	449.350	459.401	459.781	459.401
85.0	293.056	291.840	284.449	285.323	288.325	285.323	284.449	291.840	293.056	291.840
87.5	139.061	139.441	128.307	130.131	131.290	130.131	128.307	139.441	139.061	139.441
90.0	140.163	144.628	125.571	67.089	16.758	67.089	125.571	144.628	140.163	144.628
92.5	190.247	176.947	133.475	76.912	35.207	76.912	133.475	176.947	190.247	176.947
95.0	190.969	179.911	141.151	90.269	62.909	90.269	141.151	179.911	190.969	179.911
97.5	212.496	201.210	160.816	109.193	86.051	109.193	160.816	201.210	212.496	201.210
100.0	238.108	226.138	185.592	132.829	116.470	132.829	185.592	226.138	238.108	226.138
102.5	265.582	254.410	210.653	158.555	147.687	158.555	210.653	254.410	265.582	254.410
105.0	295.431	284.088	237.310	187.359	176.586	187.359	237.310	284.088	295.431	284.088
107.5	322.962	309.358	264.860	217.759	210.254	217.759	264.860	309.358	322.962	309.358
110.0	348.441	335.502	294.652	249.793	244.853	249.793	294.652	335.502	348.441	335.502
112.5	374.509	363.109	323.893	283.575	268.565	283.575	323.893	363.109	374.509	363.109
115.0	405.897	393.946	356.497	315.267	313.120	315.267	356.497	393.946	405.897	393.946
117.5	438.976	426.930	389.747	350.740	346.142	350.740	389.747	426.930	438.976	426.930
120.0	471.257	462.251	422.294	385.168	375.877	385.168	422.294	462.251	471.257	462.251
122.5	504.317	495.026	458.660	427.044	409.906	427.044	458.660	495.026	504.317	495.026
125.0	536.104	527.573	494.494	459.496	455.411	459.496	494.494	527.573	536.104	527.573
127.5	571.197	561.697	528.523	492.670	480.548	492.670	528.523	561.697	571.197	561.697
130.0	604.808	595.992	565.991	530.575	518.472	530.575	565.991	595.992	604.808	595.992
132.5	639.027	629.147	605.739	563.654	562.362	563.654	605.739	629.147	639.027	629.147

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135.0	671.897	661.257	637.526	598.614	596.961	598.614	637.526	661.257	671.897	661.257
137.5	701.784	691.543	668.306	635.379	623.960	635.379	668.306	691.543	701.784	691.543
140.0	733.400	721.468	698.668	678.889	658.350	678.889	698.668	721.468	733.400	721.468
142.5	759.715	750.652	727.928	714.039	702.031	714.039	727.928	750.652	759.715	750.652
145.0	788.310	777.404	760.475	741.285	739.974	741.285	760.475	777.404	788.310	777.404
147.5	812.003	803.586	788.671	769.576	765.320	769.576	788.671	803.586	812.003	803.586
150.0	837.805	827.754	813.580	795.093	791.350	795.093	813.580	827.754	837.805	827.754
152.5	859.085	851.504	836.076	823.992	814.188	823.992	836.076	851.504	859.085	851.504
155.0	881.752	872.556	860.035	848.787	844.322	848.787	860.035	872.556	881.752	872.556
157.5	899.935	893.076	880.441	869.421	868.528	869.421	880.441	893.076	899.935	893.076
160.0	915.572	911.012	900.296	889.048	887.186	889.048	900.296	911.012	915.572	911.012
162.5	931.000	926.478	919.790	910.005	907.345	910.005	919.790	926.478	931.000	926.478
165.0	944.167	940.367	933.451	926.630	925.566	926.630	933.451	940.367	944.167	940.367
167.5	954.446	951.957	947.036	941.868	943.996	941.868	947.036	951.957	954.446	951.957
170.0	963.718	962.160	957.410	952.299	955.092	952.299	957.410	962.160	963.718	962.160
172.5	970.178	969.076	966.587	962.901	962.616	962.901	966.587	969.076	970.178	969.076
175.0	975.821	975.156	971.831	970.824	972.648	970.824	971.831	975.156	975.821	975.156
177.5	978.861	977.740	976.505	974.757	975.099	974.757	976.505	977.740	978.861	977.740
180.0	977.189	977.189	977.189	977.189	977.189	977.189	977.189	977.189	977.189	977.189

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	4965.251	4965.251	4965.251	4965.251	4965.251	4965.251	4965.251
2.5	4958.791	4957.100	4957.917	4957.100	4958.791	4960.216	4958.962
5.0	4940.247	4939.810	4938.252	4939.810	4940.247	4941.520	4941.406
7.5	4910.569	4909.847	4909.315	4909.847	4910.569	4911.367	4911.063
10.0	4867.648	4867.002	4865.786	4867.002	4867.648	4870.137	4869.396
12.5	4814.695	4813.878	4812.225	4813.878	4814.695	4817.811	4816.177
15.0	4752.394	4749.886	4749.354	4749.886	4752.394	4754.370	4755.225
17.5	4679.643	4675.178	4674.000	4675.178	4679.643	4681.201	4681.030
20.0	4595.359	4591.673	4587.892	4591.673	4595.359	4597.734	4599.045
22.5	4500.815	4495.115	4493.443	4495.115	4500.815	4504.634	4505.280
25.0	4396.733	4392.401	4390.387	4392.401	4396.733	4401.730	4402.680
27.5	4281.802	4276.653	4273.252	4276.653	4281.802	4288.509	4290.428
30.0	4160.259	4154.388	4150.303	4154.388	4160.259	4165.902	4166.149
32.5	4028.779	4022.186	4021.825	4022.186	4028.779	4035.771	4036.037
35.0	3891.143	3882.004	3882.954	3882.004	3891.143	3898.667	3900.909
37.5	3744.140	3735.229	3735.742	3735.229	3744.140	3752.690	3756.300
40.0	3591.304	3581.538	3578.460	3581.538	3591.304	3599.607	3605.706
42.5	3428.854	3420.038	3418.670	3420.038	3428.854	3439.722	3441.641
45.0	3264.143	3251.907	3249.684	3251.907	3264.143	3274.441	3272.503
47.5	3090.445	3078.893	3075.986	3078.893	3090.445	3100.686	3099.508
50.0	2911.237	2901.433	2895.657	2901.433	2911.237	2920.775	2921.630
52.5	2728.989	2718.045	2712.364	2718.045	2728.989	2737.805	2739.553
55.0	2541.915	2530.458	2524.359	2530.458	2541.915	2552.460	2553.866
57.5	2350.851	2339.033	2334.283	2339.033	2350.851	2362.023	2361.149
60.0	2159.027	2146.905	2144.530	2146.905	2159.027	2169.515	2168.394
62.5	1963.859	1955.119	1951.072	1955.119	1963.859	1973.948	1975.582
65.0	1768.919	1758.697	1757.766	1758.697	1768.919	1777.526	1782.694
67.5	1573.333	1564.156	1563.624	1564.156	1573.333	1583.764	1586.861
70.0	1375.714	1368.665	1369.596	1368.665	1375.714	1387.817	1389.641
72.5	1182.446	1176.442	1177.582	1176.442	1182.446	1193.561	1196.297
75.0	994.251	988.627	989.501	988.627	994.251	1002.744	1007.152
77.5	806.949	804.099	803.833	804.099	806.949	815.860	821.617
80.0	624.492	622.839	622.478	622.839	624.492	633.783	638.419

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CANDELA TABULATION - (Cont.)

82.5	449.350	447.906	451.782	447.906	449.350	459.401	459.781
85.0	284.449	285.323	288.325	285.323	284.449	291.840	293.056
87.5	128.307	130.131	131.290	130.131	128.307	139.441	139.061
90.0	125.571	67.089	16.758	67.089	125.571	144.628	140.163
92.5	133.475	76.912	35.207	76.912	133.475	176.947	190.247
95.0	141.151	90.269	62.909	90.269	141.151	179.911	190.969
97.5	160.816	109.193	86.051	109.193	160.816	201.210	212.496
100.0	185.592	132.829	116.470	132.829	185.592	226.138	238.108
102.5	210.653	158.555	147.687	158.555	210.653	254.410	265.582
105.0	237.310	187.359	176.586	187.359	237.310	284.088	295.431
107.5	264.860	217.759	210.254	217.759	264.860	309.358	322.962
110.0	294.652	249.793	244.853	249.793	294.652	335.502	348.441
112.5	323.893	283.575	268.565	283.575	323.893	363.109	374.509
115.0	356.497	315.267	313.120	315.267	356.497	393.946	405.897
117.5	389.747	350.740	346.142	350.740	389.747	426.930	438.976
120.0	422.294	385.168	375.877	385.168	422.294	462.251	471.257
122.5	458.660	427.044	409.906	427.044	458.660	495.026	504.317
125.0	494.494	459.496	455.411	459.496	494.494	527.573	536.104
127.5	528.523	492.670	480.548	492.670	528.523	561.697	571.197
130.0	565.991	530.575	518.472	530.575	565.991	595.992	604.808
132.5	605.739	563.654	562.362	563.654	605.739	629.147	639.027
135.0	637.526	598.614	596.961	598.614	637.526	661.257	671.897
137.5	668.306	635.379	623.960	635.379	668.306	691.543	701.784
140.0	698.668	678.889	658.350	678.889	698.668	721.468	733.400
142.5	727.928	714.039	702.031	714.039	727.928	750.652	759.715
145.0	760.475	741.285	739.974	741.285	760.475	777.404	788.310
147.5	788.671	769.576	765.320	769.576	788.671	803.586	812.003
150.0	813.580	795.093	791.350	795.093	813.580	827.754	837.805
152.5	836.076	823.992	814.188	823.992	836.076	851.504	859.085
155.0	860.035	848.787	844.322	848.787	860.035	872.556	881.752
157.5	880.441	869.421	868.528	869.421	880.441	893.076	899.935
160.0	900.296	889.048	887.186	889.048	900.296	911.012	915.572
162.5	919.790	910.005	907.345	910.005	919.790	926.478	931.000
165.0	933.451	926.630	925.566	926.630	933.451	940.367	944.167
167.5	947.036	941.868	943.996	941.868	947.036	951.957	954.446
170.0	957.410	952.299	955.092	952.299	957.410	962.160	963.718
172.5	966.587	962.901	962.616	962.901	966.587	969.076	970.178
175.0	971.831	970.824	972.648	970.824	971.831	975.156	975.821
177.5	976.505	974.757	975.099	974.757	976.505	977.740	978.861
180.0	977.189	977.189	977.189	977.189	977.189	977.189	977.189

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1810.2	N.A.	10.60
0-30	3835.84	N.A.	22.40
0-40	6269.4	N.A.	36.60
0-60	11056.25	N.A.	64.60
0-80	13860.35	N.A.	81.00
0-90	14197.91	N.A.	83.00
10-90	13728.61	N.A.	80.20
20-40	4459.2	N.A.	26.10
20-50	6975.32	N.A.	40.80
40-70	6537.61	N.A.	38.20
60-80	2804.1	N.A.	16.40
70-80	1053.33	N.A.	6.20
80-90	337.57	N.A.	2.00
90-110	401.49	N.A.	2.30
90-120	755.04	N.A.	4.40
90-130	1196.7	N.A.	7.00
90-150	2160.09	N.A.	12.60
90-180	2912.39	N.A.	17.00
110-180	2510.9	N.A.	14.70
0-180	17110.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	469.30
10-20	1340.9
20-30	2025.64
30-40	2433.56
40-50	2516.12
50-60	2270.72
60-70	1750.76
70-80	1053.33
80-90	337.57
90-100	151.81
100-110	249.68
110-120	353.55
120-130	441.66
130-140	488.13
140-150	475.26
150-160	396.47
160-170	263.46
170-180	92.37

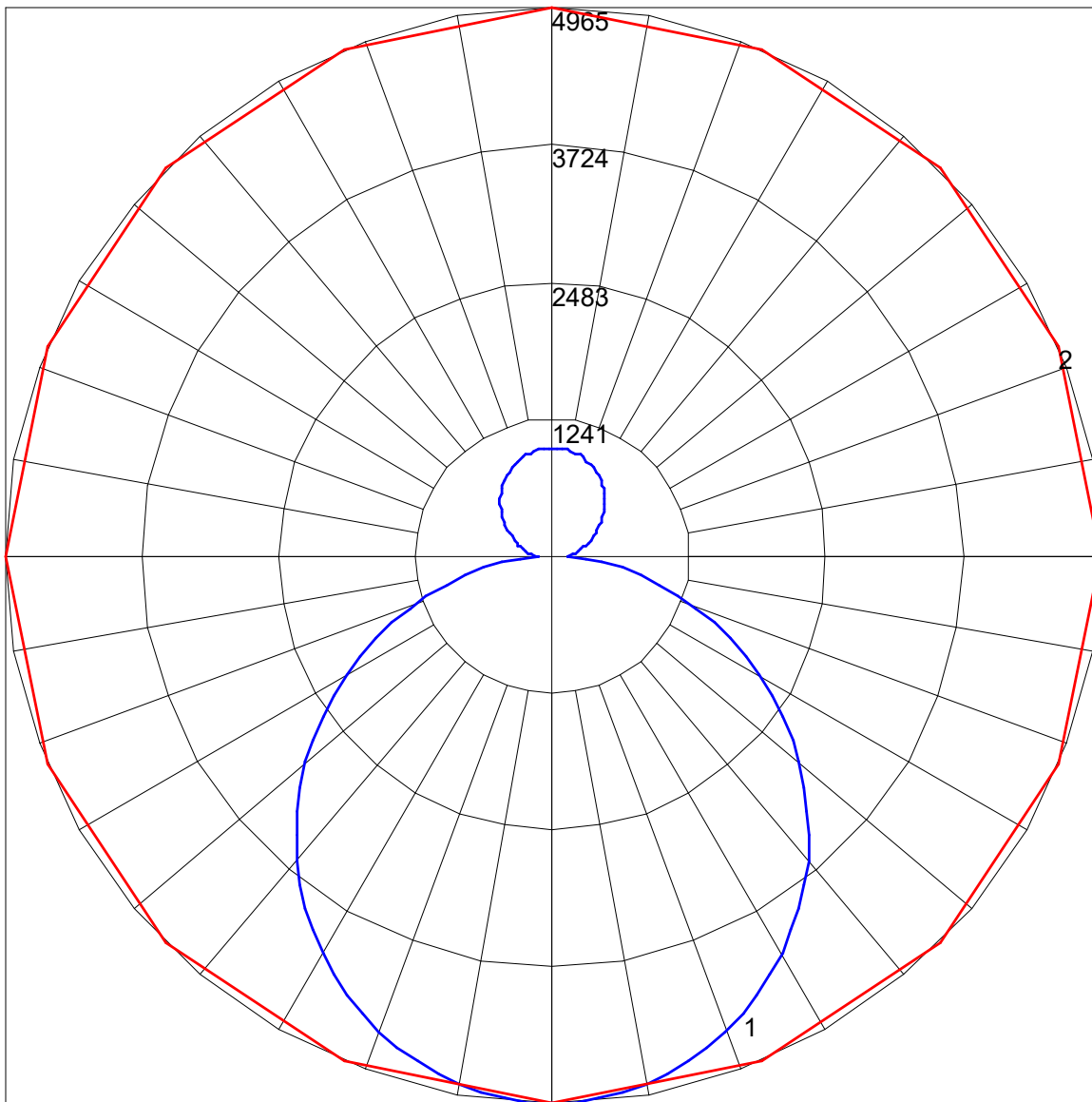
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	105	100	96	92	100	96	92	89	89	86	83	82	80	77	76	74	72	69
2	95	87	80	75	91	84	78	72	77	72	68	72	68	64	66	63	60	57
3	87	76	68	62	83	73	66	60	68	62	57	63	58	54	58	54	51	48
4	79	67	59	52	76	65	57	51	60	54	48	56	50	46	52	47	44	41
5	73	60	51	45	69	58	50	44	54	47	42	50	44	40	47	42	38	35
6	67	54	45	39	64	52	44	38	49	42	36	45	39	35	42	37	33	31
7	62	49	40	34	59	47	39	34	44	37	32	41	35	31	39	33	30	27
8	58	45	36	30	55	43	35	30	40	34	29	38	32	28	35	30	26	24
9	54	41	33	27	52	40	32	27	37	30	26	35	29	25	33	28	24	22
10	50	38	30	25	48	36	29	24	34	28	23	32	27	22	30	25	22	20

POLAR GRAPH



Maximum Candela = 4965.251 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.)