



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HBULED180DMVWH50.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]
 [ISSUEDATE] 2018-1-8 16:34
 [MANUFAC] Mobern Lighting Co.
 [LUMCAT]
 [LUMINAIRE] HBULED180DMVWH50
 [LAMPCAT] L130-5070-Q
 [LAMP] DIM100A12S-2270
 [MORE] 120.6 V; 1.460 A; 0.995
 [TESTLAB]
 [TESTINST] GPM-1800B
 [TESTDIST] 11.672 m

CHARACTERISTICS

Lumens Per Lamp	22955.2 (1 lamp)
Total Lamp Lumens	22955.2
Luminaire Lumens	22955
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	175.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Point
Luminous Length (0-180)	0.00 m
Luminous Width (90-270)	0.00 m
Luminous Height	0.00 m

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	0	0	0
55	0	0	0
65	0	0	0
75	0	0	0
85	0	0	0

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CANDELA TABULATION

	<u>0</u>	<u>30</u>	<u>60</u>	<u>90</u>	<u>120</u>	<u>150</u>	<u>180</u>	<u>210</u>	<u>240</u>	<u>270</u>
0	7226.836	7226.836	7226.836	7226.836	7226.836	7226.836	7226.836	7226.836	7226.836	7226.836
1	7244.730	7233.610	7228.870	7217.750	7211.600	7205.920	7235.740	7231.480	7229.820	7225.320
2	7245.680	7233.610	7224.380	7214.910	7205.920	7199.530	7230.530	7227.220	7230.770	7227.450
3	7245.200	7230.530	7220.590	7209.710	7199.530	7194.090	7225.560	7223.430	7228.400	7228.160
4	7239.760	7225.320	7213.970	7202.840	7191.250	7189.120	7217.520	7218.460	7225.090	7226.030
5	7231.710	7215.860	7206.630	7195.030	7187.220	7182.730	7211.600	7211.360	7218.940	7222.250
6	7218.940	7204.260	7195.270	7188.410	7181.550	7177.520	7204.260	7204.030	7212.310	7212.550
7	7202.840	7189.830	7182.490	7178.940	7174.210	7171.130	7197.870	7193.850	7201.660	7202.840
8	7184.860	7171.130	7168.290	7167.110	7165.450	7163.560	7189.350	7182.490	7188.410	7186.990
9	7161.900	7150.310	7151.020	7151.020	7152.670	7155.510	7178.470	7168.770	7174.210	7169.710
10	7136.820	7126.880	7129.010	7132.560	7141.080	7142.260	7164.510	7153.380	7153.860	7149.360
11	7109.840	7103.450	7106.530	7111.260	7123.090	7125.930	7146.990	7134.450	7133.510	7124.040
12	7083.340	7077.890	7082.630	7092.330	7102.270	7107.240	7128.540	7113.390	7111.260	7100.370
13	7055.410	7048.310	7056.830	7064.400	7077.890	7084.280	7105.340	7090.440	7086.890	7074.340
14	7021.330	7020.860	7027.960	7038.850	7053.760	7058.020	7081.920	7066.300	7061.560	7046.660
15	6991.280	6991.520	6996.010	7011.160	7021.810	7030.560	7054.470	7039.320	7032.220	7017.310
16	6960.280	6960.990	6965.960	6981.100	6991.520	6996.720	7026.300	7008.320	7003.590	6984.420
17	6927.620	6930.230	6934.480	6949.630	6957.200	6963.590	6997.200	6979.450	6973.300	6955.070
18	6895.910	6896.380	6902.060	6916.260	6922.650	6929.040	6965.960	6948.450	6942.060	6922.420
19	6856.860	6859.470	6867.280	6878.870	6883.610	6895.670	6932.830	6917.920	6907.980	6888.810
20	6821.130	6821.600	6827.990	6843.380	6846.450	6855.210	6895.200	6884.790	6873.190	6850.710
21	6782.320	6784.210	6788.470	6805.750	6809.540	6818.760	6858.520	6845.510	6836.990	6814.740
22	6742.330	6743.040	6748.950	6766.230	6770.250	6781.370	6821.840	6809.060	6798.180	6777.350
23	6695.470	6694.760	6702.570	6720.080	6726.940	6742.330	6782.790	6772.850	6759.370	6736.880
24	6646.720	6648.140	6657.370	6678.670	6685.060	6696.180	6738.540	6731.200	6714.400	6692.390
25	6598.450	6598.210	6609.090	6632.760	6642.460	6656.190	6695.000	6684.820	6669.910	6640.810
26	6543.070	6544.250	6558.690	6584.010	6597.740	6614.300	6650.980	6639.390	6622.580	6591.820
27	6480.590	6482.720	6506.630	6528.400	6548.280	6569.570	6603.650	6590.640	6571.230	6537.390
28	6419.070	6424.980	6443.200	6474.680	6496.450	6522.950	6554.430	6540.230	6513.490	6482.490
29	6356.120	6362.270	6382.390	6417.170	6443.680	6466.400	6498.340	6484.140	6456.690	6418.830
30	6290.090	6299.800	6317.780	6355.640	6388.780	6413.390	6442.730	6427.110	6398.000	6356.120
31	6222.890	6230.690	6254.360	6293.880	6329.610	6355.880	6384.040	6368.420	6335.770	6291.990
32	6145.270	6154.260	6180.760	6220.990	6262.880	6295.540	6320.380	6306.900	6264.540	6225.020
33	6072.380	6079.710	6110.950	6154.730	6198.510	6228.800	6251.050	6234.720	6198.040	6147.390
34	5996.180	6004.460	6037.350	6084.920	6128.940	6163.720	6185.260	6166.560	6129.410	6074.740
35	5917.370	5916.430	5962.100	6010.380	6060.780	6094.620	6117.810	6096.040	6056.760	6000.200
36	5826.500	5836.910	5875.010	5928.260	5980.320	6023.860	6047.060	6024.570	5976.540	5923.290
37	5742.490	5750.770	5794.320	5850.640	5903.880	5942.690	5966.830	5949.560	5900.100	5835.490
38	5656.350	5663.690	5710.070	5769.710	5825.790	5866.970	5889.690	5865.310	5819.870	5753.380
39	5568.550	5565.720	5623.690	5685.700	5742.020	5786.740	5809.700	5784.140	5738.470	5668.660
40	5474.840	5474.130	5533.290	5590.560	5658.950	5705.100	5727.580	5701.310	5654.930	5582.520
41	5371.660	5381.840	5432.010	5499.450	5563.350	5619.910	5636.240	5608.080	5559.330	5484.070
42	5274.170	5283.870	5338.300	5409.760	5476.500	5524.300	5550.100	5521.230	5470.820	5391.540
43	5173.590	5184.240	5240.560	5314.160	5383.500	5435.560	5460.880	5430.830	5379.470	5298.300
44	5073.250	5072.070	5142.830	5219.260	5290.970	5345.160	5367.880	5336.640	5283.870	5200.570
45	4956.820	4967.470	5031.130	5109.460	5185.660	5242.220	5272.040	5240.560	5176.430	5099.520
46	4848.200	4862.640	4927.240	5007.460	5085.790	5144.480	5165.780	5133.600	5077.270	4986.640
47	4738.630	4752.360	4819.570	4903.100	4985.690	5044.380	5065.920	5034.440	4974.570	4880.620
48	4616.050	4629.770	4710.710	4786.670	4870.440	4941.200	4964.630	4930.550	4868.550	4774.130
49	4501.750	4516.420	4590.250	4677.340	4760.400	4825.950	4848.910	4827.370	4752.120	4654.150
50	4385.080	4399.990	4475.480	4563.990	4650.600	4716.620	4743.600	4709.520	4645.630	4542.920
51	4269.120	4283.090	4359.760	4449.450	4537.720	4607.060	4631.900	4599.960	4535.110	4427.910
52	4150.090	4165.000	4243.800	4334.200	4424.130	4492.990	4521.860	4489.210	4424.840	4315.030
53	4029.160	4032.480	4125.710	4216.350	4308.640	4379.160	4400.230	4366.860	4301.070	4189.610

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54	3898.530	3912.970	3996.740	4088.560	4180.620	4252.790	4285.450	4253.500	4187.010	4072.940
55	3776.190	3791.800	3875.340	3970.240	4064.420	4139.200	4171.390	4140.860	4072.230	3956.270
56	3656.440	3669.220	3753.940	3850.970	3945.860	4020.170	4054.010	4024.430	3953.670	3837.240
57	3536.460	3538.360	3634.670	3730.040	3827.300	3902.320	3936.870	3906.580	3824.460	3717.730
58	3405.600	3420.270	3503.330	3600.590	3697.620	3773.580	3808.130	3778.790	3707.080	3588.520
59	3286.560	3302.650	3383.110	3481.090	3579.300	3655.500	3690.050	3660.470	3589.000	3471.150
60	3168.470	3182.670	3263.610	3360.160	3459.310	3536.700	3575.040	3544.740	3472.090	3354.480
61	3038.320	3051.330	3132.500	3228.820	3327.740	3418.370	3454.580	3426.660	3354.480	3237.340
62	2921.410	2934.190	3014.420	3111.440	3209.890	3287.040	3325.610	3296.740	3226.220	3109.550
63	2808.060	2819.180	2898.700	2994.540	3095.820	3169.890	3209.650	3181.250	3111.680	2994.780
64	2693.760	2705.360	2782.030	2877.870	2978.920	3052.520	3092.980	3066.010	2997.140	2881.420
65	2580.880	2582.770	2668.200	2763.100	2862.730	2936.090	2969.220	2942.000	2873.610	2760.970
66	2462.320	2472.970	2545.620	2639.800	2739.670	2824.860	2856.340	2828.180	2760.730	2649.030
67	2353.700	2363.870	2434.870	2529.050	2627.970	2702.520	2744.880	2718.840	2651.640	2540.410
68	2249.100	2247.210	2328.850	2418.540	2521.240	2592.240	2634.360	2606.200	2541.360	2431.790
69	2133.610	2141.900	2222.120	2303.290	2401.970	2484.090	2513.430	2496.870	2422.560	2315.120
70	2030.670	2040.140	2106.870	2197.040	2295.480	2376.180	2406.940	2380.200	2317.250	2211.950
71	1933.410	1940.270	2004.640	2096.220	2191.360	2261.880	2300.920	2273.950	2212.420	2108.060
72	1834.490	1832.130	1905.960	1993.520	2090.310	2160.360	2195.850	2170.770	2110.900	2007.250
73	1729.180	1736.520	1808.460	1883.950	1989.500	2057.650	2095.040	2069.010	1999.440	1909.510
74	1634.050	1641.620	1703.630	1788.110	1881.820	1949.270	1983.820	1958.970	1901.700	1802.310
75	1542.230	1550.990	1610.860	1691.790	1784.090	1852.240	1885.130	1859.810	1803.730	1707.890
76	1452.780	1460.590	1519.990	1599.970	1688.720	1756.400	1788.820	1764.210	1708.120	1614.880
77	1361.430	1360.960	1431.950	1508.630	1595.950	1661.740	1687.300	1661.270	1608.020	1515.490
78	1262.040	1272.690	1334.690	1411.370	1494.430	1571.100	1594.530	1569.450	1515.730	1426.280
79	1172.120	1184.420	1250.920	1323.330	1408.760	1472.660	1504.610	1479.760	1427.930	1337.770
80	1085.030	1097.570	1165.020	1236.960	1319.550	1383.920	1415.630	1391.720	1337.770	1249.030
81	999.360	1005.280	1082.190	1150.340	1229.150	1297.540	1319.550	1301.560	1240.510	1160.990
82	903.520	921.270	997.230	1059.230	1139.460	1207.610	1229.150	1206.190	1153.420	1066.810
83	811.700	834.890	902.100	973.800	1045.270	1110.820	1140.400	1118.160	1067.520	980.900
84	720.120	741.890	812.650	891.210	960.790	1027.520	1052.610	1035.100	983.270	896.180
85	629.010	642.500	719.650	793.240	875.830	938.540	957.480	948.250	887.900	797.500
86	537.190	558.020	623.570	699.770	771.940	848.380	871.340	851.930	794.900	706.160
87	455.550	477.080	540.270	615.050	681.780	741.890	778.100	757.980	704.970	617.180
88	368.930	390.000	456.020	530.090	597.540	650.310	688.640	668.530	611.730	533.640
89	328.940	335.800	368.220	444.420	515.660	566.530	594.220	576.470	528.910	441.580
90	301.020	309.300	334.620	358.280	423.130	485.130	511.400	494.830	446.080	362.540
91	277.350	284.450	309.300	332.490	352.600	392.360	428.330	409.870	369.880	334.860
92	256.530	261.730	286.110	307.410	329.650	349.060	361.360	355.680	340.300	309.540
93	236.410	239.250	264.810	282.790	302.910	322.080	333.200	328.470	314.980	284.920
94	217.240	221.500	242.330	259.370	279.240	299.600	307.640	301.490	292.020	261.730
95	199.730	203.520	222.920	239.010	256.050	274.270	283.500	278.530	269.780	241.380
96	183.880	187.190	205.880	220.320	236.170	252.030	262.680	258.180	249.430	222.210
97	168.730	168.490	189.080	201.150	217.950	232.860	240.910	238.540	228.360	203.520
98	155.950	155.240	172.990	185.530	200.200	212.510	223.160	219.140	211.090	187.190
99	142.940	140.330	154.770	171.810	184.590	193.810	205.650	201.150	194.050	171.570
100	132.520	128.740	139.860	155.950	168.260	177.010	190.500	185.770	179.140	157.130
101	120.930	117.380	125.660	142.940	153.350	162.100	173.460	168.490	162.340	141.990
102	110.750	106.730	112.880	128.030	137.730	147.900	160.450	156.660	145.300	128.260
103	102.230	97.740	99.870	116.900	121.640	136.070	147.190	143.650	128.970	113.830
104	93.240	90.870	88.030	104.360	109.800	122.580	134.420	130.630	115.010	98.680
105	86.380	81.880	78.800	93.710	96.550	113.830	124.950	119.740	101.520	86.850
106	77.150	74.540	71.230	81.410	87.090	104.600	113.830	109.330	89.220	73.600
107	70.990	68.390	61.060	70.760	77.150	95.840	105.070	101.290	81.170	62.240
108	65.790	62.470	55.380	62.710	68.860	86.140	95.840	91.580	74.070	52.770
109	60.350	56.800	51.350	54.430	63.180	79.510	87.800	84.010	67.440	46.860

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110	54.430	52.060	48.280	46.620	59.400	72.180	80.700	75.730	61.060	43.310
111	49.930	47.330	44.730	40.470	54.670	66.730	74.070	70.050	56.320	39.280
112	45.670	43.540	42.360	39.050	50.410	59.870	66.260	63.180	51.590	36.680
113	42.120	40.700	39.050	36.440	46.150	54.670	61.770	57.740	47.800	35.260
114	39.520	37.390	35.260	32.890	43.540	50.640	55.610	53.250	44.730	32.180
115	35.260	33.840	33.370	31.950	40.940	45.910	52.060	48.510	41.410	30.050
116	34.310	31.470	31.470	30.050	38.570	41.650	49.220	44.250	39.760	30.050
117	35.500	31.000	28.630	29.110	35.970	39.520	47.800	39.990	36.210	30.530
118	34.790	30.050	27.690	28.870	34.310	38.100	43.540	35.970	35.020	30.290
119	34.080	29.580	27.450	28.870	32.420	35.970	41.410	33.840	32.660	30.050
120	33.840	29.580	27.920	31.000	33.130	32.660	39.280	31.000	32.660	31.000
121	34.550	31.240	29.580	31.240	31.470	31.950	37.390	30.050	31.470	31.710
122	36.210	31.710	30.760	32.420	30.530	30.290	37.150	30.050	32.890	31.710
123	37.150	33.130	30.760	33.130	31.240	31.710	39.520	31.470	32.890	32.180
124	37.390	33.600	31.470	33.600	32.420	31.710	39.520	32.660	33.370	33.840
125	37.390	33.840	31.950	35.500	33.130	31.470	40.940	32.890	35.260	34.550
126	38.100	34.790	32.890	36.210	34.080	32.890	41.180	33.130	34.790	36.680
127	39.280	35.500	34.310	36.440	35.020	32.890	40.940	35.020	35.730	37.630
128	39.760	36.920	35.730	36.680	35.020	34.310	40.700	35.500	36.440	38.340
129	40.470	35.970	35.970	37.630	35.970	34.310	41.890	36.680	37.390	38.340
130	42.120	35.730	36.210	38.340	36.440	34.310	41.180	37.630	37.630	39.280
131	42.830	36.680	36.920	38.570	37.150	35.970	41.650	39.990	38.340	43.070
132	42.360	36.920	37.860	38.340	39.280	35.500	43.070	40.940	39.520	41.890
133	43.540	37.630	38.810	38.810	39.520	37.630	45.200	40.940	40.230	42.360
134	44.490	40.230	38.810	39.990	40.230	37.860	44.960	41.180	41.890	43.540
135	44.730	39.760	39.050	38.810	40.700	38.810	45.670	39.990	40.700	44.730
136	46.150	40.470	40.700	41.180	42.120	39.520	45.670	40.700	41.890	45.910
137	46.860	41.410	41.410	42.120	41.890	41.650	46.860	41.180	42.830	46.380
138	47.330	41.890	43.540	42.830	42.600	42.120	47.090	42.830	42.600	46.150
139	46.860	42.360	44.020	43.310	42.830	43.310	47.090	45.440	42.830	46.380
140	48.280	41.890	45.440	44.020	44.730	43.070	49.460	45.910	43.540	47.800
141	47.570	42.600	45.200	45.440	45.670	44.020	49.930	46.620	44.490	47.330
142	48.280	43.310	44.960	46.150	45.440	44.250	50.170	47.800	44.730	48.510
143	48.990	44.020	47.800	46.860	46.860	44.960	50.880	47.330	46.150	48.750
144	49.700	44.490	46.380	46.860	47.330	44.490	49.700	48.040	46.150	49.220
145	51.590	44.250	46.860	48.280	46.620	46.150	51.120	48.510	47.800	50.410
146	53.480	44.490	47.800	48.510	48.280	48.040	52.060	49.700	47.800	51.350
147	53.250	46.150	48.750	49.700	49.460	48.280	52.770	49.460	47.090	52.770
148	53.720	45.670	48.750	51.120	50.170	48.510	53.720	49.460	47.570	53.010
149	53.250	45.670	49.700	50.880	49.930	48.990	53.250	49.930	48.280	53.720
150	55.140	47.570	50.410	50.640	51.350	50.170	53.480	51.590	49.930	53.250
151	56.090	48.040	51.120	51.350	52.540	49.700	54.670	52.300	51.120	53.960
152	55.380	48.990	51.590	51.590	52.770	49.700	55.140	53.480	50.640	54.900
153	54.900	49.930	52.770	51.350	51.830	51.830	56.800	53.960	51.830	55.850
154	56.560	50.640	51.350	51.590	51.830	52.060	57.030	53.480	52.770	57.510
155	57.030	51.590	53.010	53.250	52.060	53.960	59.160	55.140	52.300	56.800
156	57.510	52.300	53.480	52.060	52.540	53.250	57.740	55.380	54.900	57.270
157	57.740	52.060	54.190	53.250	53.010	55.610	57.030	56.090	54.190	57.510
158	58.450	52.770	56.800	53.720	54.190	55.380	58.450	58.450	54.430	60.110
159	57.980	55.140	57.270	54.190	55.140	55.380	57.740	59.640	54.430	61.290
160	58.690	53.720	56.560	55.380	55.380	56.800	58.930	58.930	55.850	62.240
161	59.160	53.960	58.930	54.670	55.140	56.560	61.530	59.400	57.030	62.240
162	59.640	54.190	59.160	55.850	56.800	57.980	61.770	59.640	56.800	62.470
163	60.820	56.800	59.160	56.320	57.030	59.640	62.470	58.450	58.450	63.180
164	60.820	54.190	60.350	55.610	57.030	59.640	62.470	58.450	59.870	62.950
165	61.060	54.670	61.290	55.610	57.980	58.930	62.470	59.870	59.870	63.890

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CANDELA TABULATION - (Cont.)

166	62.240	56.320	60.820	57.980	58.930	59.400	62.710	57.980	59.160	63.890
167	62.710	56.090	60.580	59.160	58.220	60.820	63.420	58.450	59.640	64.840
168	64.840	56.090	62.240	57.740	57.980	62.710	64.130	58.930	61.060	64.840
169	63.420	60.350	61.290	57.980	59.160	63.890	64.840	58.690	60.350	66.260
170	63.180	59.400	60.110	58.450	58.450	64.370	64.600	60.580	60.350	65.310
171	62.470	59.640	59.640	60.350	58.930	63.890	64.840	62.710	61.530	66.260
172	63.660	56.320	61.060	60.350	60.820	63.890	65.080	62.240	60.580	63.420
173	64.130	55.850	61.530	59.400	60.350	63.660	67.920	62.710	59.870	63.660
174	65.550	57.270	63.420	60.110	61.060	64.130	66.970	62.470	60.820	63.660
175	64.370	56.560	62.240	60.350	59.160	64.130	66.500	62.710	61.060	64.600
176	64.370	57.740	62.710	61.060	60.110	65.080	66.500	62.000	62.470	64.840
177	63.890	59.400	62.710	61.060	60.350	64.600	65.790	62.470	61.530	65.310
178	64.600	59.400	64.130	60.110	61.530	64.600	66.260	62.470	60.820	64.130
179	62.950	60.350	62.950	60.820	62.000	63.660	66.500	62.950	59.870	63.180
180	62.621	62.621	62.621	62.621	62.621	62.621	62.621	62.621	62.621	62.621

Vert. Horizontal Angles

	<u>300</u>	<u>330</u>	<u>360</u>
0	7226.836	7226.836	7226.836
1	7223.900	7217.520	7244.730
2	7226.980	7221.540	7245.680
3	7228.640	7222.490	7245.200
4	7226.030	7219.170	7239.760
5	7220.120	7212.780	7231.710
6	7208.760	7201.900	7218.940
7	7195.270	7187.220	7202.840
8	7177.520	7165.930	7184.860
9	7156.220	7141.550	7161.900
10	7132.560	7115.050	7136.820
11	7104.630	7087.830	7109.840
12	7076.000	7058.960	7083.340
13	7045.240	7028.200	7055.410
14	7016.370	6996.720	7021.330
15	6981.810	6965.720	6991.280
16	6950.340	6935.900	6960.280
17	6919.340	6903.480	6927.620
18	6888.580	6867.750	6895.910
19	6856.860	6835.570	6856.860
20	6819.470	6801.960	6821.130
21	6782.560	6765.990	6782.320
22	6745.400	6730.020	6742.330
23	6704.460	6683.640	6695.470
24	6657.130	6638.680	6646.720
25	6609.800	6590.870	6598.450
26	6559.400	6538.340	6543.070
27	6504.260	6476.570	6480.590
28	6447.460	6416.940	6419.070
29	6380.490	6356.350	6356.120
30	6315.890	6290.090	6290.090
31	6248.920	6221.230	6222.890
32	6180.290	6143.610	6145.270
33	6099.360	6070.250	6072.380
34	6026.470	5993.810	5996.180
35	5947.430	5914.530	5917.370
36	5861.290	5827.210	5826.500

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CANDELA TABULATION - (Cont.)

37	5780.350	5746.510	5742.490
38	5695.400	5661.560	5656.350
39	5608.550	5573.290	5568.550
40	5520.520	5474.370	5474.840
41	5420.180	5383.260	5371.660
42	5325.750	5288.600	5274.170
43	5230.620	5180.450	5173.590
44	5129.810	5078.690	5073.250
45	5016.690	4974.810	4956.820
46	4910.440	4868.080	4848.200
47	4803.000	4759.690	4738.630
48	4694.850	4649.890	4616.050
49	4573.450	4527.070	4501.750
50	4460.570	4412.530	4385.080
51	4345.560	4294.210	4269.120
52	4229.600	4176.830	4150.090
53	4100.870	4049.510	4029.160
54	3983.490	3931.660	3898.530
55	3865.400	3811.920	3776.190
56	3744.950	3679.630	3656.440
57	3625.910	3558.940	3536.460
58	3495.050	3440.150	3405.600
59	3376.960	3321.110	3286.560
60	3259.820	3202.320	3168.470
61	3142.920	3072.870	3038.320
62	3015.130	2956.440	2921.410
63	2901.300	2841.900	2808.060
64	2788.890	2729.020	2693.760
65	2667.970	2607.860	2580.880
66	2557.450	2497.340	2462.320
67	2450.490	2389.670	2353.700
68	2342.340	2273.240	2249.100
69	2224.720	2166.750	2133.610
70	2122.260	2064.750	2030.670
71	2019.790	1963.470	1933.410
72	1920.630	1854.130	1834.490
73	1812.480	1756.640	1729.180
74	1717.830	1661.980	1634.050
75	1624.350	1569.920	1542.230
76	1533.710	1471.470	1452.780
77	1435.270	1386.050	1361.430
78	1346.050	1296.120	1262.040
79	1256.360	1207.610	1172.120
80	1166.440	1112.240	1085.030
81	1069.650	1024.920	999.360
82	985.870	937.830	903.520
83	898.080	847.440	811.700
84	811.700	740.230	720.120
85	710.180	648.650	629.010
86	620.730	564.400	537.190
87	537.430	481.580	455.550
88	453.890	390.000	368.930
89	359.700	336.040	328.940
90	328.230	310.480	301.020
91	301.960	284.690	277.350
92	276.640	262.210	256.530

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CANDELA TABULATION - (Cont.)

93	254.870	243.040	236.410
94	234.990	224.340	217.240
95	218.430	206.590	199.730
96	199.730	187.190	183.880
97	180.800	172.040	168.730
98	165.180	158.320	155.950
99	148.610	145.770	142.940
100	132.290	133.470	132.520
101	118.800	122.580	120.930
102	106.020	112.170	110.750
103	93.950	101.050	102.230
104	83.060	92.290	93.240
105	74.780	84.480	86.380
106	67.680	77.150	77.150
107	61.770	69.340	70.990
108	57.030	62.950	65.790
109	54.190	58.220	60.350
110	48.750	53.480	54.430
111	45.200	48.040	49.930
112	41.890	44.490	45.670
113	38.570	42.600	42.120
114	37.150	38.570	39.520
115	34.550	35.020	35.260
116	32.660	32.660	34.310
117	31.470	32.420	35.500
118	31.000	31.950	34.790
119	30.530	31.710	34.080
120	31.000	32.180	33.840
121	30.760	34.080	34.550
122	32.180	35.500	36.210
123	33.370	36.210	37.150
124	33.600	37.150	37.390
125	33.840	36.680	37.390
126	35.730	37.860	38.100
127	35.500	39.280	39.280
128	35.500	40.940	39.760
129	36.440	40.230	40.470
130	37.390	41.650	42.120
131	39.760	40.470	42.830
132	39.280	40.940	42.360
133	40.230	42.830	43.540
134	40.940	44.250	44.490
135	41.650	44.020	44.730
136	42.120	44.490	46.150
137	42.830	45.440	46.860
138	43.540	46.620	47.330
139	44.250	47.090	46.860
140	46.150	48.280	48.280
141	46.380	48.750	47.570
142	47.570	49.460	48.280
143	48.040	49.930	48.990
144	48.750	52.060	49.700
145	49.930	51.120	51.590
146	48.510	51.590	53.480
147	50.170	52.300	53.250
148	51.120	53.250	53.720

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CANDELA TABULATION - (Cont.)

149	52.300	55.380	53.250
150	53.960	54.670	55.140
151	52.770	54.670	56.090
152	54.190	55.380	55.380
153	54.190	55.850	54.900
154	53.960	55.610	56.560
155	56.090	56.320	57.030
156	56.800	55.610	57.510
157	57.030	57.030	57.740
158	57.740	58.450	58.450
159	57.030	60.110	57.980
160	56.800	59.870	58.690
161	58.450	61.060	59.160
162	58.450	59.160	59.640
163	59.640	58.930	60.820
164	60.350	60.110	60.820
165	59.400	61.290	61.060
166	60.110	60.350	62.240
167	59.400	62.240	62.710
168	61.530	61.770	64.840
169	61.060	61.060	63.420
170	60.110	62.000	63.180
171	58.690	62.000	62.470
172	60.350	62.710	63.660
173	60.580	63.180	64.130
174	60.350	63.890	65.550
175	61.530	63.660	64.370
176	62.000	64.370	64.370
177	61.770	63.420	63.890
178	62.000	62.950	64.600
179	59.400	63.660	62.950
180	62.621	62.621	62.621

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2667.29	11.60	11.60
0-30	5726.38	24.90	24.90
0-40	9483.01	41.30	41.30
0-60	16965.73	73.90	73.90
0-80	21522.84	93.80	93.80
0-90	22394.72	97.60	97.60
10-90	21708.68	94.60	94.60
20-40	6815.72	29.70	29.70
20-50	10750.75	46.80	46.80
40-70	10229.57	44.60	44.60
60-80	4557.11	19.90	19.90
70-80	1810.26	7.90	7.90
80-90	871.88	3.80	3.80
90-110	377.55	1.60	1.60
90-120	418.36	1.80	1.80
90-130	449.64	2.00	2.00
90-150	512.51	2.20	2.20
90-180	560.48	2.40	2.40
110-180	182.93	0.80	0.80
0-180	22955.2	100.00	100.00

Total Luminaire Efficiency = 100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	686.04
10-20	1981.25
20-30	3059.09
30-40	3756.63
40-50	3935.03
50-60	3547.68
60-70	2746.85
70-80	1810.26
80-90	871.88
90-100	272.13
100-110	105.42
110-120	40.81
120-130	31.28
130-140	32.40
140-150	30.47
150-160	25.17
160-170	16.87
170-180	5.92

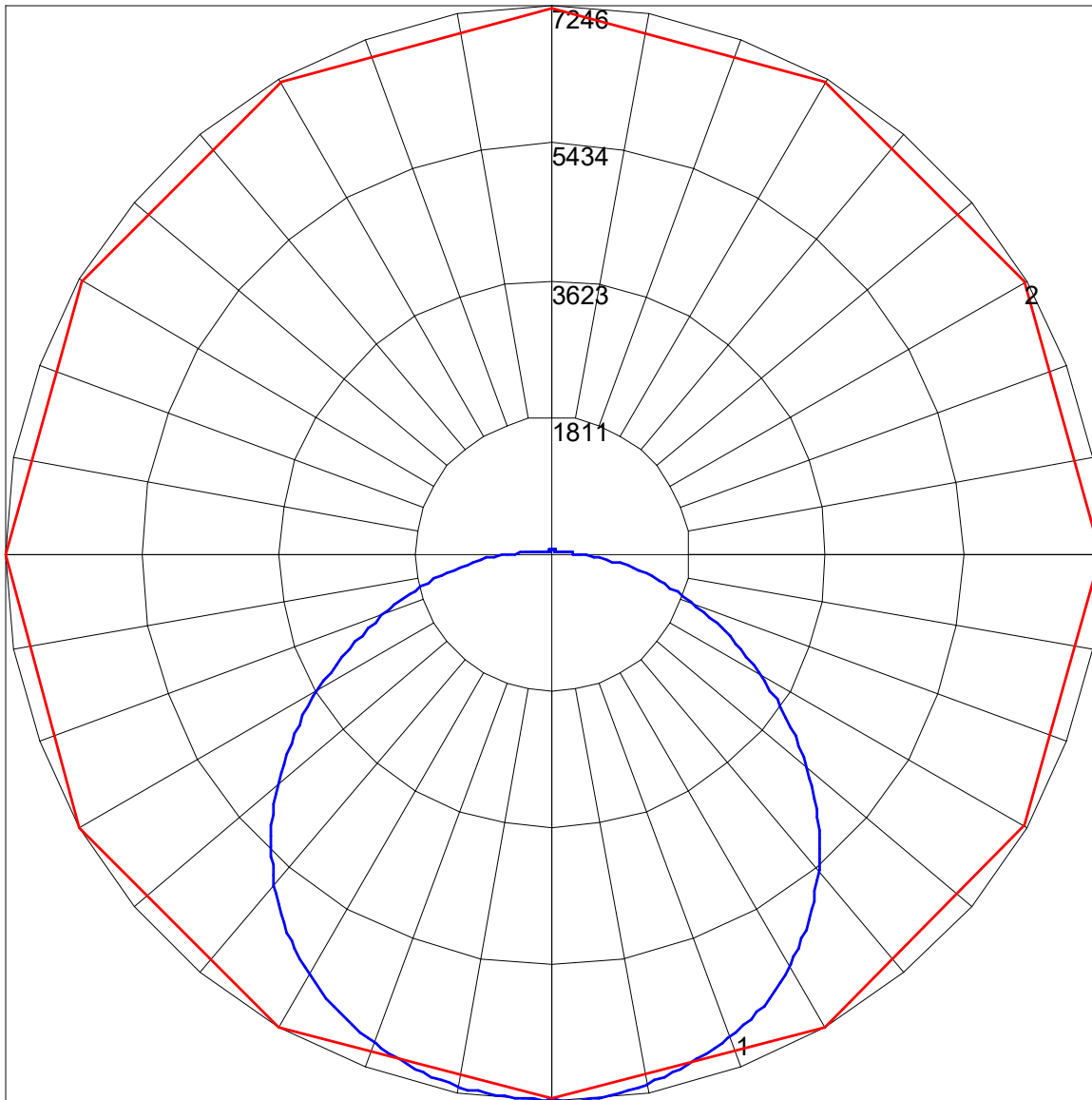
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	107	102	97	93	104	99	95	91	95	91	88	90	88	85	86	84	82	80
2	97	88	81	75	94	86	80	74	82	77	72	79	74	70	75	71	68	66
3	88	77	69	62	86	76	68	61	72	65	60	69	63	59	66	61	57	55
4	81	68	59	52	78	67	58	52	64	57	51	61	55	50	59	53	49	47
5	74	61	52	45	72	60	51	45	57	50	44	55	48	43	53	47	42	40
6	68	55	46	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35
7	63	50	41	34	61	49	40	34	47	39	34	45	38	33	44	38	33	31
8	59	45	37	31	57	44	36	30	43	35	30	41	35	30	40	34	29	27
9	55	41	33	27	53	41	33	27	39	32	27	38	32	27	37	31	26	25
10	52	38	30	25	50	38	30	25	36	29	24	35	29	24	34	28	24	22

POLAR GRAPH



Maximum Candela = 7245.68 Located At Horizontal Angle = 0, Vertical Angle = 2
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2) (Through Max. Cd.)