



IES INDOOR REPORT

PHOTOMETRIC FILENAME : GS-4-L480-840-HA-CA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 14617179.01
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 2023-03-14
[TEST DATE] 1/6/2023
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] GS-4-L480-840-HA-CA-DIM-UNV
[LUMINAIRE] White aluminum housing, prismatic lense enclosure
[LAMP] 448 White LEDs
[BALLAST] 0-10V LED DRIVER

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	46493
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	149
Total Luminaire Watts	312
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.36 ft
Luminous Width (90-270)	1.17 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	46022	47446	48305
55	44050	45823	32960
65	39956	27946	9059
75	32710	8992	9107
85	14341	12326	11479

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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>
0.0	17624.462	17624.462	17624.462	17624.462	17624.462
0.5	17406.739	17635.532	17674.280	17646.603	17681.660
1.0	17412.274	17637.377	17676.125	17646.603	17679.815
1.5	17419.655	17635.532	17677.970	17641.068	17674.280
2.0	17417.810	17639.223	17674.280	17642.913	17676.125
2.5	17414.119	17635.532	17676.125	17639.223	17670.589
3.0	17412.274	17628.152	17672.434	17641.068	17674.280
3.5	17406.739	17617.081	17670.589	17641.068	17674.280
4.0	17393.823	17611.546	17665.054	17648.448	17677.970
4.5	17377.217	17600.475	17657.674	17652.138	17681.660
5.0	17355.076	17587.560	17652.138	17648.448	17676.125
5.5	17338.470	17576.489	17644.758	17642.913	17668.744
6.0	17325.554	17565.418	17635.532	17629.997	17653.983
6.5	17307.103	17548.812	17626.307	17617.081	17633.687
7.0	17283.117	17530.361	17607.856	17598.630	17609.701
7.5	17262.821	17513.755	17591.250	17574.644	17583.869
8.0	17244.370	17493.459	17567.263	17548.812	17559.883
8.5	17235.144	17471.318	17545.122	17522.981	17541.432
9.0	17220.383	17447.331	17521.136	17497.149	17519.291
9.5	17200.087	17428.880	17500.840	17478.698	17502.685
10.0	17177.946	17412.274	17478.698	17456.557	17480.543
10.5	17157.650	17393.823	17452.867	17428.880	17454.712
11.0	17135.508	17375.372	17423.345	17397.514	17427.035
11.5	17117.057	17355.076	17393.823	17367.992	17384.598
12.0	17082.000	17329.245	17369.837	17329.245	17329.245
12.5	17043.253	17303.413	17336.625	17277.582	17284.962
13.0	17004.506	17273.891	17301.568	17225.919	17236.989
13.5	16963.913	17233.299	17266.511	17181.636	17183.481
14.0	16919.631	17194.552	17229.609	17131.818	17133.663
14.5	16860.587	17155.805	17185.326	17082.000	17091.226
15.0	16818.150	17117.057	17142.889	17032.182	17058.014
15.5	16794.164	17074.620	17093.071	16984.210	17024.802
16.0	16759.107	17026.647	17043.253	16941.772	16984.210
16.5	16722.204	16982.364	16984.210	16899.335	16947.307
17.0	16698.218	16936.237	16932.547	16856.897	16904.870
17.5	16659.471	16891.954	16877.193	16808.924	16864.278
18.0	16615.188	16840.291	16818.150	16764.642	16816.305
18.5	16567.215	16790.473	16766.487	16711.134	16753.571
19.0	16510.017	16742.501	16701.908	16655.781	16694.528
19.5	16447.283	16692.683	16641.020	16602.272	16646.555
20.0	16388.240	16642.865	16581.976	16545.074	16594.892
20.5	16331.042	16589.357	16528.468	16489.721	16543.229
21.0	16275.688	16532.158	16473.115	16438.058	16487.876
21.5	16211.110	16474.960	16415.917	16386.395	16426.987
22.0	16148.376	16417.762	16358.718	16331.042	16366.099
22.5	16094.868	16356.873	16297.830	16273.843	16310.746
23.0	16041.360	16294.140	16229.561	16207.420	16244.322
23.5	15987.852	16224.025	16163.137	16148.376	16185.278
24.0	15921.428	16161.292	16091.178	16089.333	16120.700
24.5	15864.230	16098.558	16017.374	16022.909	16059.811
25.0	15801.496	16021.064	15938.034	15962.020	15989.697
25.5	15729.537	15956.485	15867.920	15893.751	15923.273
26.0	15646.507	15891.906	15799.651	15825.482	15849.469
26.5	15556.097	15807.031	15733.227	15753.523	15777.510

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CANDELA TABULATION - (Cont.)

27.0	15473.06715724.00215661.26815683.40915705.550
27.5	15391.88215637.28115594.84415613.29515635.436
28.0	15314.38815550.56115522.88515546.87115565.322
28.5	15247.96415463.84115447.23515474.91215489.673
29.0	15174.16015378.96715369.74115390.03715415.869
29.5	15100.35515294.09215292.24615312.54315349.445
30.0	15026.55115199.99115209.21715231.35815271.950
30.5	14952.74715113.27115133.56715148.32815201.836
31.0	14873.40715017.32615057.91815070.83415124.342
31.5	14784.84214923.22514978.57814991.49415046.847
32.0	14692.58714838.35014895.54814910.30914965.663
32.5	14596.64114747.94014816.20914838.35014880.788
33.0	14497.00514659.37514744.25014759.01114803.293
33.5	14401.06014565.27414661.22014677.82614733.179
34.0	14303.26914465.63914570.81014592.95114651.994
34.5	14211.01414367.84814478.55414508.07614567.119
35.0	14126.13914266.36714377.07314425.04614476.709
35.5	14046.79914164.88614260.83214338.32614395.524
36.0	13950.85414056.02514166.73114251.60614310.650
36.5	13851.21813947.16414076.32114161.19614220.239
37.0	13736.82113838.30213976.68514072.63114131.674
37.5	13613.19913731.28613875.20413984.06614037.574
38.0	13495.11213626.11513784.79413891.81013939.783
38.5	13375.18013519.09913698.07413795.86513832.767
39.0	13270.00913412.08213596.59313692.53913733.131
39.5	13170.37313297.68613484.04213583.67713635.340
40.0	13067.04713177.75413371.49013480.35113533.860
40.5	12960.03113057.82213264.47413375.18013437.914
41.0	12860.39612937.89013155.61313260.78413340.123
41.5	12738.61812816.11313039.37113155.61313227.572
42.0	12603.92612696.18112921.28413043.06113113.175
42.5	12458.16212574.40412801.35212930.51013000.624
43.0	12316.08912450.78212686.95512817.95812891.762
43.5	12183.24112319.77912568.86912703.56112784.746
44.0	12065.15412196.15712461.85212592.85512685.110
44.5	11967.36412074.38012347.45612493.21912578.094
45.0	11865.88311945.22212233.05912389.89312454.472
45.5	11755.17611819.75512109.43712266.27112341.920
46.0	11624.17411690.59811971.05412129.73312220.143
46.5	11489.48111555.90511825.29112017.18212103.902
47.0	11347.40811426.74711701.66811900.94011991.350
47.5	11220.09511303.12511578.04611779.16311871.418
48.0	11103.85411183.19311447.04411662.92111747.796
48.5	10989.45711074.33211317.88611548.52411600.187
49.0	10867.68010924.87811196.10911430.43811411.987
49.5	10736.67710766.19911076.17711312.35111194.264
50.0	10572.46310633.35110950.71011185.03810932.259
50.5	10423.00910517.11010816.01711048.50010613.055
51.0	10282.78110378.72710681.32410882.44110245.879
51.5	10161.00410244.03410541.09610679.4799893.464
52.0	10044.76210098.27010408.24810443.3059609.317
52.5	9911.915 9958.042 10273.55610137.0189339.931
53.0	9758.771 9806.743 10135.1739786.447 8935.853
53.5	9601.937 9666.515 10002.3259421.116 8391.546
54.0	9456.173 9539.203 9862.097 9112.983 7769.745
54.5	9334.396 9398.975 9720.023 8847.288 7254.961

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CANDELA TABULATION - (Cont.)

55.0	9212.619	9234.760	9583.486	8515.169	6893.320
55.5	9057.630	9083.462	9443.257	8042.821	6618.399
56.0	8889.725	8961.685	9306.720	7454.232	6350.858
56.5	8749.497	8832.527	9168.336	6906.235	6016.894
57.0	8631.410	8688.609	9022.573	6518.763	5679.239
57.5	8498.563	8528.084	8862.049	6241.997	5398.783
58.0	8345.419	8371.250	8690.454	6016.894	5225.343
58.5	8173.824	8221.797	8480.112	5741.973	5116.482
59.0	8035.441	8076.033	8238.403	5365.571	5026.071
59.5	7900.748	7919.199	7963.482	5053.748	4898.759
60.0	7727.308	7754.985	7638.743	4869.237	4729.009
60.5	7561.248	7614.756	7347.216	4760.376	4513.132
61.0	7411.795	7461.613	7072.295	4668.121	4245.591
61.5	7280.792	7302.933	6753.091	4533.428	3963.290
62.0	7123.958	7135.029	6406.211	4359.988	3680.988
62.5	6930.222	6965.279	5957.850	4133.040	3306.432
63.0	6760.472	6819.515	5452.291	3850.738	2743.674
63.5	6625.779	6675.597	5042.677	3577.662	2289.778
64.0	6461.565	6507.692	4764.066	3304.587	2020.392
64.5	6304.730	6360.084	4551.879	2898.663	1773.332
65.0	6157.122	6208.785	4306.480	2367.272	1396.008
65.5	5961.541	6037.190	3998.347	2000.096	1209.652
66.0	5795.481	5878.511	3740.032	1775.915	1167.953
66.5	5651.563	5734.592	3585.043	1445.641	1148.764
67.0	5494.729	5574.068	3463.266	1211.497	1131.973
67.5	5330.514	5415.389	3335.953	1126.807	1115.367
68.0	5160.764	5271.471	3171.739	1103.558	1099.868
68.5	5013.156	5101.721	2939.255	1085.107	1084.738
69.0	4869.237	4948.577	2673.560	1067.948	1069.609
69.5	4708.713	4791.743	2446.612	1051.895	1054.110
70.0	4551.879	4645.979	2134.789	1036.581	1038.795
70.5	4400.580	4479.920	1734.770	1020.898	1024.034
71.0	4267.732	4306.480	1477.008	1006.321	1009.274
71.5	4114.589	4125.659	1282.534	991.745	992.668
72.0	3961.445	3933.768	1060.014	975.324	976.615
72.5	3810.146	3688.369	950.046	959.640	959.456
73.0	3668.073	3431.899	921.446	943.772	940.820
73.5	3525.999	3212.331	902.442	926.797	922.000
74.0	3383.926	2979.848	883.806	908.531	901.335
74.5	3243.698	2725.223	866.278	888.788	880.854
75.0	3086.864	2400.484	848.565	868.676	859.451
75.5	2942.946	2173.536	831.590	848.011	837.125
76.0	2799.027	2007.476	815.168	826.608	814.430
76.5	2645.883	1825.918	797.455	804.651	790.997
77.0	2492.740	1633.289	779.742	782.141	767.749
77.5	2337.751	1507.821	760.738	759.446	743.763
78.0	2164.310	1354.862	740.995	736.013	719.776
78.5	2020.392	1163.340	719.776	711.473	695.052
79.0	1893.080	1015.547	698.373	687.487	670.881
79.5	1760.970	801.699	676.416	663.500	646.156
80.0	1627.569	689.147	653.721	638.776	620.878
80.5	1493.983	583.792	631.027	613.314	595.970
81.0	1358.368	547.997	607.409	588.036	573.459
81.5	1224.597	525.671	582.685	563.127	551.871
82.0	1104.112	502.423	556.853	537.849	523.088
82.5	996.542	478.990	531.022	512.755	497.625

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CANDELA TABULATION - (Cont.)

83.0	880.854	456.110	503.530	486.924	472.901
83.5	767.934	432.309	476.222	461.461	447.623
84.0	658.888	407.953	447.992	434.892	421.607
84.5	557.038	382.122	420.315	407.215	394.484
85.0	455.741	356.106	391.716	377.324	364.778
85.5	403.156	328.429	361.087	345.220	334.333
86.0	345.404	299.830	328.798	311.454	301.306
86.5	261.452	269.939	292.634	274.921	267.910
87.0	217.538	238.757	254.256	236.727	231.561
87.5	189.862	206.283	213.294	197.980	192.445
88.0	162.369	170.672	172.333	155.358	148.531
88.5	132.294	132.294	130.634	109.230	100.743
89.0	96.684	95.392	88.934	70.852	65.132
89.5	60.520	64.025	57.198	48.526	47.050
90.0	0.000	0.000	0.000	0.000	0.000
90.5	0.000	0.000	0.000	0.000	0.000
91.0	0.000	0.000	0.000	0.000	0.000
91.5	0.000	0.000	0.000	0.000	0.000
92.0	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000
93.0	0.000	0.000	0.000	0.000	0.000
93.5	0.000	0.000	0.000	0.000	0.000
94.0	0.000	0.000	0.000	0.000	0.000
94.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
95.5	0.000	0.000	0.000	0.000	0.000
96.0	0.000	0.000	0.000	0.000	0.000
96.5	0.000	0.000	0.000	0.000	0.000
97.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
98.0	0.000	0.000	0.000	0.000	0.000
98.5	0.000	0.000	0.000	0.000	0.000
99.0	0.000	0.000	0.000	0.000	0.000
99.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
100.5	0.000	0.000	0.000	0.000	0.000
101.0	0.000	0.000	0.000	0.000	0.000
101.5	0.000	0.000	0.000	0.000	0.000
102.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
103.0	0.000	0.000	0.000	0.000	0.000
103.5	0.000	0.000	0.000	0.000	0.000
104.0	0.000	0.000	0.000	0.000	0.000
104.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
105.5	0.000	0.000	0.000	0.000	0.000
106.0	0.000	0.000	0.000	0.000	0.000
106.5	0.000	0.000	0.000	0.000	0.000
107.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
108.0	0.000	0.000	0.000	0.000	0.000
108.5	0.000	0.000	0.000	0.000	0.000
109.0	0.000	0.000	0.000	0.000	0.000
109.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
110.5	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

111.0	0.000	0.000	0.000	0.000	0.000
111.5	0.000	0.000	0.000	0.000	0.000
112.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
113.0	0.000	0.000	0.000	0.000	0.000
113.5	0.000	0.000	0.000	0.000	0.000
114.0	0.000	0.000	0.000	0.000	0.000
114.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
115.5	0.000	0.000	0.000	0.000	0.000
116.0	0.000	0.000	0.000	0.000	0.000
116.5	0.000	0.000	0.000	0.000	0.000
117.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
118.0	0.000	0.000	0.000	0.000	0.000
118.5	0.000	0.000	0.000	0.000	0.000
119.0	0.000	0.000	0.000	0.000	0.000
119.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
120.5	0.000	0.000	0.000	0.000	0.000
121.0	0.000	0.000	0.000	0.000	0.000
121.5	0.000	0.000	0.000	0.000	0.000
122.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
123.0	0.000	0.000	0.000	0.000	0.000
123.5	0.000	0.000	0.000	0.000	0.000
124.0	0.000	0.000	0.000	0.000	0.000
124.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
125.5	0.000	0.000	0.000	0.000	0.000
126.0	0.000	0.000	0.000	0.000	0.000
126.5	0.000	0.000	0.000	0.000	0.000
127.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
128.0	0.000	0.000	0.000	0.000	0.000
128.5	0.000	0.000	0.000	0.000	0.000
129.0	0.000	0.000	0.000	0.000	0.000
129.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
130.5	0.000	0.000	0.000	0.000	0.000
131.0	0.000	0.000	0.000	0.000	0.000
131.5	0.000	0.000	0.000	0.000	0.000
132.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000
133.0	0.000	0.000	0.000	0.000	0.000
133.5	0.000	0.000	0.000	0.000	0.000
134.0	0.000	0.000	0.000	0.000	0.000
134.5	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000
135.5	0.000	0.000	0.000	0.000	0.000
136.0	0.000	0.000	0.000	0.000	0.000
136.5	0.000	0.000	0.000	0.000	0.000
137.0	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000
138.0	0.000	0.000	0.000	0.000	0.000
138.5	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GS-4-L480-840-HA-CA-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

139.0	0.000	0.000	0.000	0.000	0.000
139.5	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000
140.5	0.000	0.000	0.000	0.000	0.000
141.0	0.000	0.000	0.000	0.000	0.000
141.5	0.000	0.000	0.000	0.000	0.000
142.0	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000
143.0	0.000	0.000	0.000	0.000	0.000
143.5	0.000	0.000	0.000	0.000	0.000
144.0	0.000	0.000	0.000	0.000	0.000
144.5	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000
145.5	0.000	0.000	0.000	0.000	0.000
146.0	0.000	0.000	0.000	0.000	0.000
146.5	0.000	0.000	0.000	0.000	0.000
147.0	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000
148.0	0.000	0.000	0.000	0.000	0.000
148.5	0.000	0.000	0.000	0.000	0.000
149.0	0.000	0.000	0.000	0.000	0.000
149.5	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000
150.5	0.000	0.000	0.000	0.000	0.000
151.0	0.000	0.000	0.000	0.000	0.000
151.5	0.000	0.000	0.000	0.000	0.000
152.0	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000
153.0	0.000	0.000	0.000	0.000	0.000
153.5	0.000	0.000	0.000	0.000	0.000
154.0	0.000	0.000	0.000	0.000	0.000
154.5	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000
155.5	0.000	0.000	0.000	0.000	0.000
156.0	0.000	0.000	0.000	0.000	0.000
156.5	0.000	0.000	0.000	0.000	0.000
157.0	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000
158.0	0.000	0.000	0.000	0.000	0.000
158.5	0.000	0.000	0.000	0.000	0.000
159.0	0.000	0.000	0.000	0.000	0.000
159.5	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000
160.5	0.000	0.000	0.000	0.000	0.000
161.0	0.000	0.000	0.000	0.000	0.000
161.5	0.000	0.000	0.000	0.000	0.000
162.0	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000
163.0	0.000	0.000	0.000	0.000	0.000
163.5	0.000	0.000	0.000	0.000	0.000
164.0	0.000	0.000	0.000	0.000	0.000
164.5	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000
165.5	0.000	0.000	0.000	0.000	0.000
166.0	0.000	0.000	0.000	0.000	0.000
166.5	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GS-4-L480-840-HA-CA-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

167.0	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000
168.0	0.000	0.000	0.000	0.000	0.000
168.5	0.000	0.000	0.000	0.000	0.000
169.0	0.000	0.000	0.000	0.000	0.000
169.5	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000
170.5	0.000	0.000	0.000	0.000	0.000
171.0	0.000	0.000	0.000	0.000	0.000
171.5	0.000	0.000	0.000	0.000	0.000
172.0	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000
173.0	0.000	0.000	0.000	0.000	0.000
173.5	0.000	0.000	0.000	0.000	0.000
174.0	0.000	0.000	0.000	0.000	0.000
174.5	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000
175.5	0.000	0.000	0.000	0.000	0.000
176.0	0.000	0.000	0.000	0.000	0.000
176.5	0.000	0.000	0.000	0.000	0.000
177.0	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000
178.0	0.000	0.000	0.000	0.000	0.000
178.5	0.000	0.000	0.000	0.000	0.000
179.0	0.000	0.000	0.000	0.000	0.000
179.5	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GS-4-L480-840-HA-CA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	6491.54	N.A.	14.00
0-30	13845.35	N.A.	29.80
0-40	22814.29	N.A.	49.10
0-60	40063.48	N.A.	86.20
0-80	46074.55	N.A.	99.10
0-90	46493.08	N.A.	100.00
10-90	44819.11	N.A.	96.40
20-40	16322.75	N.A.	35.10
20-50	25708.16	N.A.	55.30
40-70	21588.02	N.A.	46.40
60-80	6011.07	N.A.	12.90
70-80	1672.24	N.A.	3.60
80-90	418.53	N.A.	0.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	46493.08	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1673.97
10-20	4817.57
20-30	7353.81
30-40	8968.94
40-50	9385.41
50-60	7863.78
60-70	4338.83
70-80	1672.24
80-90	418.53
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GS-4-L480-840-HA-CA-DIM-UNV_.IES

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	50	62	55	50	61	54	49	59	53	49	47
6	72	59	51	44	70	58	50	44	57	49	44	55	48	43	53	48	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GS-4-L480-840-HA-CA-DIM-UNV_.IES

UGR TABLE - CORRECTED

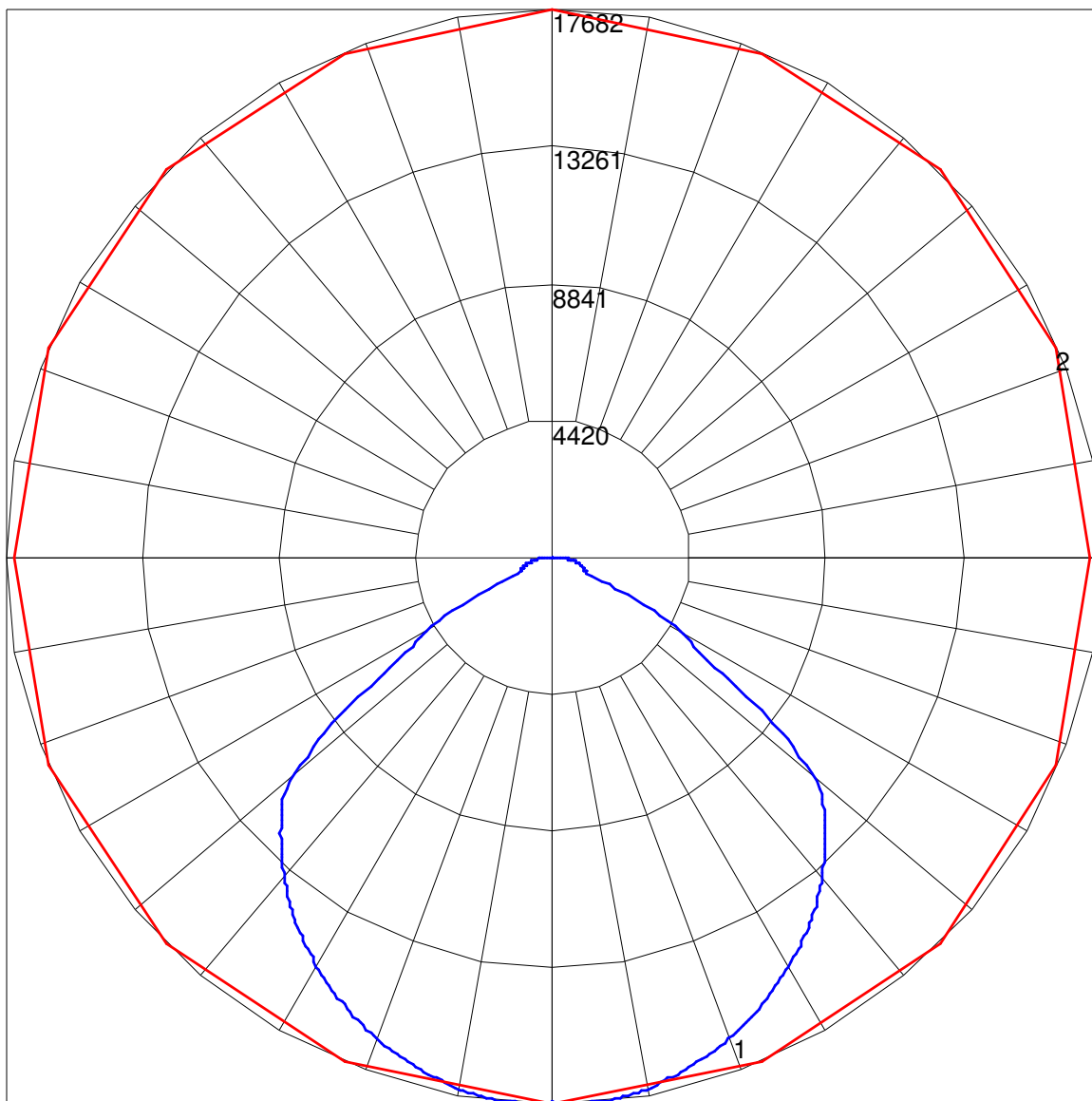
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	25.7	27.3	26.1	27.6	27.9	23.3	24.9	23.7	25.2	25.5
	3H	27.4	28.8	27.8	29.1	29.5	23.4	24.8	23.8	25.1	25.5
	4H	27.9	29.2	28.3	29.6	30.0	23.5	24.8	23.9	25.2	25.5
	6H	28.2	29.4	28.6	29.8	30.2	23.6	24.8	24.0	25.2	25.6
	8H	28.3	29.4	28.7	29.8	30.2	23.7	24.8	24.1	25.2	25.6
	12H	28.3	29.4	28.7	29.8	30.2	23.7	24.8	24.2	25.2	25.6
4H	2H	25.9	27.2	26.3	27.6	28.0	23.9	25.2	24.3	25.6	25.9
	3H	27.8	28.9	28.2	29.3	29.7	24.1	25.2	24.5	25.6	26.0
	4H	28.4	29.4	28.8	29.8	30.2	24.2	25.2	24.7	25.6	26.0
	6H	28.7	29.6	29.2	30.0	30.5	24.4	25.3	24.9	25.7	26.2
	8H	28.8	29.6	29.3	30.0	30.5	24.5	25.3	25.0	25.7	26.2
	12H	28.8	29.5	29.3	30.0	30.5	24.6	25.3	25.1	25.8	26.3
8H	4H	28.3	29.1	28.8	29.6	30.0	24.4	25.2	24.9	25.6	26.1
	6H	28.7	29.3	29.2	29.8	30.3	24.7	25.3	25.2	25.8	26.3
	8H	28.8	29.4	29.3	29.9	30.4	24.8	25.4	25.3	25.9	26.4
	12H	28.9	29.4	29.4	29.9	30.4	25.0	25.5	25.5	26.0	26.6
12H	4H	28.3	29.0	28.8	29.5	30.0	24.4	25.1	24.9	25.6	26.1
	6H	28.7	29.3	29.2	29.7	30.3	24.7	25.3	25.2	25.7	26.3
	8H	28.8	29.3	29.3	29.8	30.3	24.9	25.4	25.4	25.9	26.5

Maximum UGR = 30.5

POLAR GRAPH



Maximum Candela = 17681.66 Located At Horizontal Angle = 90, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)