



IES INDOOR REPORT

PHOTOMETRIC FILENAME : GS-4-L480-850-HA-HE-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-L480-850-HA-HE-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	49803
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	160
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	49299	50825	51744
55	47186	49086	35307
65	42801	29936	9704
75	35038	9632	9755
85	15362	13204	12296

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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	18879.318	18879.318	18879.318	18879.318	18879.318
0.5	18646.093	18891.177	18932.683	18903.035	18940.588
1.0	18652.023	18893.153	18934.659	18903.035	18938.612
1.5	18659.929	18891.177	18936.636	18897.106	18932.683
2.0	18657.952	18895.129	18932.683	18899.082	18934.659
2.5	18653.999	18891.177	18934.659	18895.129	18928.730
3.0	18652.023	18883.271	18930.706	18897.106	18932.683
3.5	18646.093	18871.412	18928.730	18897.106	18932.683
4.0	18632.258	18865.482	18922.800	18905.012	18936.636
4.5	18614.470	18853.623	18914.894	18908.965	18940.588
5.0	18590.752	18839.788	18908.965	18905.012	18934.659
5.5	18572.964	18827.929	18901.059	18899.082	18926.753
6.0	18559.128	18816.070	18891.177	18885.247	18910.941
6.5	18539.363	18798.282	18881.294	18871.412	18889.200
7.0	18513.669	18778.517	18861.529	18851.647	18863.506
7.5	18491.928	18760.729	18843.741	18825.953	18835.835
8.0	18472.163	18738.988	18818.047	18798.282	18810.141
8.5	18462.281	18715.270	18794.329	18770.611	18790.376
9.0	18446.469	18689.576	18768.635	18742.941	18766.658
9.5	18424.728	18669.811	18746.894	18723.176	18748.870
10.0	18401.010	18652.023	18723.176	18699.458	18725.152
10.5	18379.269	18632.258	18695.505	18669.811	18697.482
11.0	18355.551	18612.493	18663.882	18636.211	18667.835
11.5	18335.786	18590.752	18632.258	18604.587	18622.376
12.0	18298.233	18563.081	18606.564	18563.081	18563.081
12.5	18256.727	18535.411	18570.987	18507.740	18515.646
13.0	18215.221	18503.787	18533.434	18452.398	18464.257
13.5	18171.739	18460.304	18495.881	18404.963	18406.939
14.0	18124.303	18418.798	18456.351	18351.598	18353.575
14.5	18061.056	18377.292	18408.916	18298.233	18308.116
15.0	18015.597	18335.786	18363.457	18244.868	18272.539
15.5	17989.903	18290.327	18310.092	18193.480	18236.962
16.0	17952.349	18238.939	18256.727	18148.021	18193.480
16.5	17912.820	18191.503	18193.480	18102.562	18153.950
17.0	17887.126	18142.091	18138.138	18057.103	18108.491
17.5	17845.620	18094.656	18078.844	18005.714	18065.009
18.0	17798.184	18039.315	18015.597	17958.279	18013.620
18.5	17746.796	17985.950	17960.255	17900.961	17946.420
19.0	17685.525	17934.561	17891.079	17841.667	17883.173
19.5	17618.325	17881.196	17825.855	17784.349	17831.784
20.0	17555.077	17827.831	17762.608	17723.078	17776.443
20.5	17493.807	17770.514	17705.290	17663.784	17721.102
21.0	17434.512	17709.243	17645.995	17608.442	17661.807
21.5	17365.336	17647.972	17584.725	17553.101	17596.583
22.0	17298.135	17586.701	17523.454	17493.807	17531.360
22.5	17240.817	17521.477	17458.230	17432.536	17472.065
23.0	17183.500	17454.277	17385.100	17361.383	17400.912
23.5	17126.182	17379.171	17313.947	17298.135	17337.665
24.0	17055.028	17311.971	17236.864	17234.888	17268.488
24.5	16993.758	17244.770	17157.805	17163.735	17203.264
25.0	16926.557	17161.758	17072.817	17098.511	17128.158
25.5	16849.475	17092.582	16997.711	17025.381	17057.005
26.0	16760.533	17023.405	16924.581	16952.252	16977.946
26.5	16663.686	16932.487	16853.428	16875.169	16900.863

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CANDELA TABULATION - (Cont.)

27.0	16574.74416843.54516776.34516800.06316823.781
27.5	16487.77916750.65116705.19216724.95716748.674
28.0	16404.76716657.75616628.10916653.80316673.568
28.5	16333.61416564.86216547.07416576.72116592.533
29.0	16254.55516473.94416464.06216485.80316513.474
29.5	16175.49616383.02616381.05016402.79116442.320
30.0	16096.43716282.22616292.10816315.82616359.308
30.5	16017.37816189.33116211.07216226.88416284.202
31.0	15932.38916086.55416130.03716143.87216201.190
31.5	15837.51815985.75416045.04816058.88416118.178
32.0	15738.69415894.83615956.10715971.91916031.213
32.5	15635.91715797.98815871.11815894.83615940.295
33.0	15529.18715703.11815794.03615809.84715857.283
33.5	15426.41115602.31715705.09415722.88215782.177
34.0	15321.65715495.58715608.24715631.96415695.212
34.5	15222.83315390.83415509.42315541.04615604.294
35.0	15131.91515282.12815400.71615452.10515507.446
35.5	15046.92715173.42115276.19815359.21015420.481
36.0	14944.15015056.80915175.39815266.31615329.563
36.5	14837.42014940.19715078.55115169.46915232.716
37.0	14714.87914823.58514971.82115074.59815137.845
37.5	14582.45514708.94914863.11414979.72715037.044
38.0	14455.96014596.29014766.26714880.90314932.291
38.5	14327.48914481.65414673.37314778.12614817.655
39.0	14214.83014367.01814564.66614667.44314710.926
39.5	14108.10014244.47714444.10114550.83114606.172
40.0	13997.41714116.00614323.53614440.14814497.466
40.5	13882.78113987.53514208.90014327.48914394.689
41.0	13776.05213859.06414092.28814204.94714289.936
41.5	13645.60413728.61613967.77014092.28814169.371
42.0	13501.32113600.14513841.27513971.72314046.829
42.5	13345.17913469.69713712.80413851.15813926.264
43.0	13192.99113337.27313590.26313730.59313809.652
43.5	13050.68413196.94313463.76813608.05113695.016
44.0	12924.19013064.51913349.13213489.46213588.286
44.5	12819.43612934.07213226.59113382.73213473.650
45.0	12710.73012795.71813104.04913272.05013341.226
45.5	12592.14112661.31812971.62513139.62613220.661
46.0	12451.81112522.96412823.38912993.36613090.214
46.5	12307.52812378.68212667.24712872.80112965.696
47.0	12155.34012240.32812534.82312748.28312845.130
47.5	12018.96312107.90412402.39912617.83512716.659
48.0	11894.44411979.43312262.06912493.31712584.235
48.5	11771.90311862.82112123.71612370.77612426.117
49.0	11641.45511702.72611993.26812244.28112224.516
49.5	11501.12511532.74911864.79712117.78611991.292
50.0	11325.21911390.44311730.39711981.41011710.632
50.5	11165.12411265.92411586.11411835.15011368.701
51.0	11014.91211117.68911441.83111657.26710975.382
51.5	10884.46410973.40611291.61911439.85510597.875
52.0	10759.94610817.26411149.31211186.86510293.497
52.5	10617.64010667.05211005.02910858.77010004.932
53.0	10453.59210504.98010856.79410483.2399572.083
53.5	10285.59110354.76810714.48710091.8978989.022
54.0	10129.45010218.39110564.2759761.825 8322.949
54.5	9999.002 10068.17910412.0869477.212 7771.511

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CANDELA TABULATION - (Cont.)

55.0	9868.555	9892.272	10265.827	9121.446	7384.122
55.5	9702.530	9730.201	10115.614	8615.468	7089.627
56.0	9522.671	9599.754	9969.355	7984.971	6803.037
56.5	9372.459	9461.400	9821.119	7397.957	6445.295
57.0	9245.964	9307.235	9664.977	6982.897	6083.599
57.5	9103.658	9135.281	9493.024	6686.425	5783.175
58.0	8939.610	8967.281	9309.211	6445.295	5597.386
58.5	8755.797	8807.186	9083.893	6150.799	5480.773
59.0	8607.562	8651.044	8824.974	5747.598	5383.926
59.5	8463.279	8483.043	8530.479	5413.573	5247.549
60.0	8277.490	8307.137	8182.619	5215.925	5065.713
60.5	8099.607	8156.925	7870.335	5099.313	4834.465
61.0	7939.512	7992.877	7575.840	5000.489	4547.876
61.5	7799.182	7822.900	7233.909	4856.206	4245.475
62.0	7631.181	7643.040	6862.332	4670.417	3943.074
62.5	7423.651	7461.204	6382.047	4427.311	3541.849
63.0	7241.815	7305.063	5840.492	4124.910	2939.023
63.5	7097.532	7150.897	5401.714	3832.391	2452.809
64.0	6921.626	6971.038	5103.266	3539.872	2164.243
64.5	6753.625	6812.920	4875.971	3105.047	1899.593
65.0	6595.507	6650.848	4613.100	2535.821	1495.403
65.5	6386.000	6467.036	4283.028	2142.502	1295.779
66.0	6208.117	6297.059	4006.321	1902.360	1251.111
66.5	6053.952	6142.894	3840.297	1548.570	1230.555
67.0	5885.951	5970.940	3709.849	1297.755	1212.569
67.5	5710.045	5800.963	3573.472	1207.035	1194.781
68.0	5528.209	5646.798	3397.566	1182.131	1178.179
68.5	5370.091	5464.962	3148.529	1162.367	1161.971
69.0	5215.925	5300.914	2863.917	1143.985	1145.764
69.5	5043.972	5132.913	2620.810	1126.790	1129.162
70.0	4875.971	4976.772	2286.785	1110.385	1112.757
70.5	4713.900	4798.889	1858.285	1093.585	1096.945
71.0	4571.594	4613.100	1582.171	1077.971	1081.133
71.5	4407.546	4419.405	1373.850	1062.357	1063.345
72.0	4243.498	4213.851	1135.487	1044.766	1046.150
72.5	4081.427	3950.979	1017.689	1027.966	1027.769
73.0	3929.238	3676.249	987.053	1010.968	1007.806
73.5	3777.049	3441.048	966.695	992.785	987.646
74.0	3624.861	3192.012	946.733	973.218	965.509
74.5	3474.648	2919.258	927.956	952.069	943.571
75.0	3306.648	2571.398	908.982	930.526	920.643
75.5	3152.482	2328.291	890.799	908.389	896.728
76.0	2998.317	2150.408	873.208	885.462	872.417
76.5	2834.269	1955.923	854.234	861.942	847.316
77.0	2670.222	1749.578	835.260	837.829	822.412
77.5	2504.198	1615.178	814.902	813.518	796.718
78.0	2318.409	1451.328	793.754	788.417	771.024
78.5	2164.243	1246.169	771.024	762.130	744.539
79.0	2027.866	1087.853	748.097	736.436	718.647
79.5	1886.351	858.780	724.577	710.741	692.163
80.0	1743.451	738.215	700.266	684.257	665.085
80.5	1600.354	625.358	675.955	656.981	638.402
81.0	1455.083	587.014	650.657	629.904	614.289
81.5	1311.788	563.099	624.172	603.221	591.165
82.0	1182.724	538.195	596.501	576.143	560.332
82.5	1067.496	513.094	568.830	549.263	533.056

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CANDELA TABULATION - (Cont.)

83.0	943.571	488.585	539.381	521.593	506.571
83.5	822.610	463.089	510.129	494.317	479.494
84.0	705.800	436.999	479.889	465.856	451.625
84.5	596.699	409.329	450.242	436.209	422.571
85.0	488.190	381.460	419.606	404.190	390.750
85.5	431.860	351.813	386.797	369.799	358.138
86.0	369.997	321.178	352.208	333.629	322.759
86.5	280.067	289.159	313.469	294.495	286.985
87.0	233.027	255.756	272.359	253.582	248.048
87.5	203.380	220.970	228.481	212.076	206.147
88.0	173.930	182.824	184.603	166.419	159.106
88.5	141.713	141.713	139.935	117.007	107.916
89.0	103.567	102.184	95.266	75.897	69.770
89.5	64.828	68.584	61.271	51.981	50.400
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-L480-850-HA-HE-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-L480-850-HA-HE-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-L480-850-HA-HE-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	6953.74	N.A.	14.00
0-30	14831.13	N.A.	29.80
0-40	24438.66	N.A.	49.10
0-60	42915.99	N.A.	86.20
0-80	49355.04	N.A.	99.10
0-90	49803.37	N.A.	100.00
10-90	48010.22	N.A.	96.40
20-40	17484.92	N.A.	35.10
20-50	27538.57	N.A.	55.30
40-70	23125.08	N.A.	46.40
60-80	6439.05	N.A.	12.90
70-80	1791.3	N.A.	3.60
80-90	448.33	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	49803.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1793.15
10-20	5160.58
20-30	7877.39
30-40	9607.53
40-50	10053.65
50-60	8423.68
60-70	4647.75
70-80	1791.3
80-90	448.33
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-L480-850-HA-HE-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-L480-850-HA-HE-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

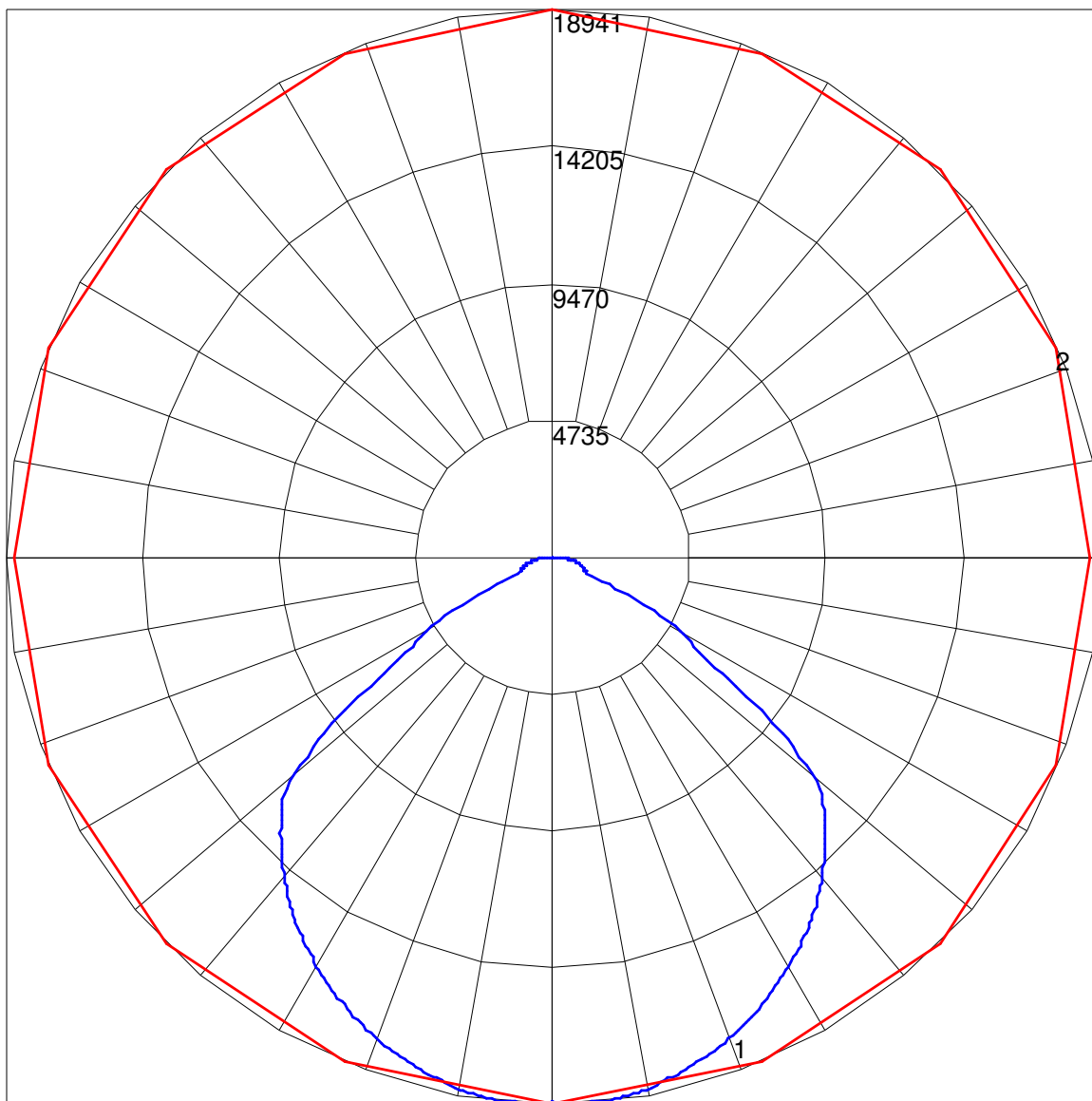
X=2H	Y=2H	26.0	27.6	26.4	27.9	28.2	23.6	25.2	24.0	25.5	25.8
	3H	27.7	29.1	28.1	29.4	29.8	23.7	25.1	24.1	25.4	25.8
	4H	28.2	29.5	28.6	29.9	30.3	23.8	25.1	24.2	25.5	25.8
	6H	28.5	29.7	28.9	30.1	30.5	23.9	25.1	24.3	25.5	25.9
	8H	28.6	29.7	29.0	30.1	30.5	24.0	25.1	24.4	25.5	25.9
	12H	28.6	29.7	29.0	30.1	30.5	24.0	25.1	24.5	25.5	25.9

UGR Viewed Endwise

4H	2H	26.2	27.5	26.6	27.9	28.3	24.2	25.5	24.6	25.9	26.2
	3H	28.1	29.2	28.5	29.6	30.0	24.4	25.5	24.8	25.9	26.3
	4H	28.7	29.7	29.1	30.1	30.5	24.5	25.5	25.0	25.9	26.3
	6H	29.0	29.9	29.5	30.3	30.8	24.7	25.6	25.2	26.0	26.5
	8H	29.1	29.9	29.6	30.3	30.8	24.8	25.6	25.3	26.0	26.5
	12H	29.1	29.8	29.6	30.3	30.8	24.9	25.6	25.4	26.1	26.6
8H	4H	28.6	29.4	29.1	29.9	30.3	24.7	25.5	25.2	25.9	26.4
	6H	29.0	29.6	29.5	30.1	30.6	25.0	25.6	25.5	26.1	26.6
	8H	29.1	29.7	29.6	30.2	30.7	25.1	25.7	25.6	26.2	26.7
	12H	29.2	29.7	29.7	30.2	30.7	25.3	25.8	25.8	26.3	26.9
12H	4H	28.6	29.3	29.1	29.8	30.3	24.7	25.4	25.2	25.9	26.4
	6H	29.0	29.6	29.5	30.0	30.6	25.0	25.6	25.5	26.0	26.6
	8H	29.1	29.6	29.6	30.1	30.6	25.2	25.7	25.7	26.2	26.8

Maximum UGR = 30.8

POLAR GRAPH



Maximum Candela = 18940.588 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.)