



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : GS-4-L480-835-HE-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] 14617179.01  
[TESTLAB] UL Verification Services Inc.  
[ISSUEDATE] 2023-03-14  
[TESTDATE] 1/6/2023  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMCAT] GS-4-L480-835-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	49269
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	146
Total Luminaire Watts	338
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	48770	50279	51189
55	46680	48559	34928
65	42342	29615	9600
75	34662	9529	9651
85	15197	13062	12164

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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	18676.701	18676.701	18676.701	18676.701	18676.701
0.5	18445.979	18688.432	18729.493	18700.164	18737.314
1.0	18451.845	18690.388	18731.448	18700.164	18735.359
1.5	18459.666	18688.432	18733.404	18694.298	18729.493
2.0	18457.711	18692.343	18729.493	18696.253	18731.448
2.5	18453.800	18688.432	18731.448	18692.343	18725.582
3.0	18451.845	18680.611	18727.538	18694.298	18729.493
3.5	18445.979	18668.880	18725.582	18694.298	18729.493
4.0	18432.293	18663.014	18719.717	18702.119	18733.404
4.5	18414.695	18651.282	18711.896	18706.030	18737.314
5.0	18391.232	18637.596	18706.030	18702.119	18731.448
5.5	18373.635	18625.864	18698.209	18696.253	18723.627
6.0	18359.948	18614.132	18688.432	18682.567	18707.985
6.5	18340.395	18596.535	18678.656	18668.880	18686.477
7.0	18314.977	18576.982	18659.103	18649.327	18661.059
7.5	18293.469	18559.385	18641.506	18623.909	18633.685
8.0	18273.916	18537.877	18616.088	18596.535	18608.267
8.5	18264.140	18514.414	18592.624	18569.161	18588.714
9.0	18248.498	18488.995	18567.206	18541.787	18565.251
9.5	18226.990	18469.443	18545.698	18522.235	18547.653
10.0	18203.526	18451.845	18522.235	18498.772	18524.190
10.5	18182.019	18432.293	18494.861	18469.443	18496.816
11.0	18158.555	18412.740	18463.577	18436.203	18467.487
11.5	18139.003	18391.232	18432.293	18404.919	18422.516
12.0	18101.853	18363.858	18406.874	18363.858	18363.858
12.5	18060.792	18336.485	18371.679	18309.111	18316.932
13.0	18019.731	18305.200	18334.529	18254.363	18266.095
13.5	17976.716	18262.184	18297.379	18207.437	18209.392
14.0	17929.789	18221.124	18258.274	18154.645	18156.600
14.5	17867.221	18180.063	18211.348	18101.853	18111.629
15.0	17822.250	18139.003	18166.376	18049.060	18076.434
15.5	17796.831	18094.032	18113.584	17998.224	18041.239
16.0	17759.681	18043.195	18060.792	17953.252	17998.224
16.5	17720.576	17996.268	17998.224	17908.281	17959.118
17.0	17695.157	17947.387	17943.476	17863.310	17914.147
17.5	17654.097	17900.460	17884.818	17812.473	17871.131
18.0	17607.170	17845.713	17822.250	17765.547	17820.294
18.5	17556.333	17792.921	17767.502	17708.844	17753.815
19.0	17495.720	17742.084	17699.068	17650.186	17691.247
19.5	17429.241	17689.291	17634.544	17593.483	17640.410
20.0	17366.673	17636.499	17571.976	17532.870	17585.662
20.5	17306.059	17579.797	17515.273	17474.212	17530.915
21.0	17247.401	17519.183	17456.615	17419.465	17472.257
21.5	17178.967	17458.570	17396.002	17364.717	17407.733
22.0	17112.488	17397.957	17335.388	17306.059	17343.209
22.5	17055.785	17333.433	17270.865	17245.446	17284.551
23.0	16999.083	17266.954	17198.520	17175.057	17214.162
23.5	16942.380	17192.654	17128.130	17112.488	17151.593
24.0	16871.990	17126.175	17051.875	17049.920	17083.159
24.5	16811.377	17059.696	16973.664	16979.530	17018.635
25.0	16744.898	16977.575	16889.588	16915.006	16944.335
25.5	16668.643	16909.140	16815.288	16842.661	16873.946
26.0	16580.656	16840.706	16742.943	16770.316	16795.735
26.5	16484.848	16750.764	16672.553	16694.061	16719.480

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**CANDELA TABULATION - (Cont.)**

27.0	16396.86116662.77716596.29816619.76116643.224
27.5	16310.82916570.87916525.90816545.46116568.924
28.0	16228.70816478.98216449.65316475.07116494.624
28.5	16158.31816387.08416369.48716398.81616414.458
29.0	16080.10816297.14216287.36616308.87416336.247
29.5	16001.89716207.20016205.24516226.75316265.858
30.0	15923.68616107.48116117.25816140.72116183.737
30.5	15845.47616015.58416037.09216052.73416109.437
31.0	15761.39915913.91015956.92615970.61316027.315
31.5	15667.54615814.19115872.84915886.53615945.194
32.0	15569.78315724.24915784.86215800.50515859.163
32.5	15468.10915628.44115700.78615724.24915769.220
33.0	15362.52515534.58815624.53115640.17315687.099
33.5	15260.85115434.87015536.54415554.14115612.799
34.0	15157.22215329.28515440.73615464.19915526.767
34.5	15059.45915225.65615342.97215374.25715436.825
35.0	14969.51615118.11715235.43315286.27015341.017
35.5	14885.44015010.57715112.25115194.37215254.985
36.0	14783.76614895.21615012.53215102.47515165.043
36.5	14678.18214779.85614916.72415006.66715069.235
37.0	14556.95514664.49514811.14014912.81414975.382
37.5	14425.95314551.09014703.60014818.96114875.664
38.0	14300.81614439.63914607.79214721.19814772.035
38.5	14173.72314326.23414515.89514619.52414658.629
39.0	14062.27314212.82914408.35514510.02914553.045
39.5	13956.68914091.60214289.08414394.66814449.416
40.0	13847.19413964.51014169.81314285.17314341.876
40.5	13733.78813837.41714056.40714173.72314240.202
41.0	13628.20413710.32513941.04714052.49714136.573
41.5	13499.15613581.27813817.86513941.04714017.302
42.0	13356.42213454.18513692.72813821.77513896.075
42.5	13201.95613325.13813565.63513702.50413776.804
43.0	13051.40113194.13513444.40913583.23313661.444
43.5	12910.62113055.31113319.27213462.00613548.038
44.0	12785.48412924.30813205.86713344.69013442.454
44.5	12681.85512795.26113084.64013239.10613329.048
45.0	12574.31612658.39212963.41413129.61113198.045
45.5	12457.00012525.43412832.41112998.60813078.774
46.0	12318.17612388.56512685.76612853.91912949.727
46.5	12175.44112245.83112531.30012734.64712826.545
47.0	12024.88612108.96212400.29712611.46612707.274
47.5	11889.97311977.96012269.29412482.41812580.181
48.0	11766.79111850.86712130.47012359.23612449.179
48.5	11645.56411735.50711993.60212238.01012292.757
49.0	11516.51711577.13011864.55412112.87312093.320
49.5	11377.69311408.97711737.46211987.73611862.599
50.0	11203.67411268.19811604.50411852.82211584.951
50.5	11045.29811145.01611461.76911708.13311246.690
51.0	10896.69710998.37111319.03511532.15910857.592
51.5	10767.65010855.63711170.43511317.08010484.136
52.0	10644.46810701.17111029.65511066.80610183.025
52.5	10503.68910552.57110886.92110742.2319897.556
53.0	10341.40210392.23910740.27610370.7319469.353
53.5	10175.20410243.63910599.4979983.588 8892.550
54.0	10020.73810108.72510450.8979657.059 8233.625
54.5	9891.691 9960.125 10300.3419375.500 7688.106

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**CANDELA TABULATION - (Cont.)**

55.0	9762.643	9786.106	10155.652	9023.553	7304.874
55.5	9598.401	9625.775	10007.051	8523.004	7013.539
56.0	9420.472	9496.727	9862.362	7899.275	6730.026
56.5	9271.871	9359.858	9715.717	7318.561	6376.122
57.0	9146.734	9207.348	9561.251	6907.955	6018.309
57.5	9005.955	9037.239	9391.143	6614.665	5721.108
58.0	8843.668	8871.042	9209.303	6376.122	5537.313
58.5	8661.828	8712.665	8986.403	6084.788	5421.953
59.0	8515.183	8558.199	8730.263	5685.914	5326.145
59.5	8372.449	8392.002	8438.928	5355.474	5191.231
60.0	8188.654	8217.983	8094.801	5159.947	5011.347
60.5	8012.680	8069.383	7785.869	5044.586	4782.581
61.0	7854.304	7907.096	7494.535	4946.823	4499.067
61.5	7715.480	7738.943	7156.274	4804.089	4199.911
62.0	7549.282	7561.014	6788.684	4620.294	3900.756
62.5	7343.979	7381.129	6313.554	4379.796	3503.837
63.0	7164.095	7226.663	5777.811	4080.640	2907.481
63.5	7021.360	7074.152	5343.742	3791.261	2426.485
64.0	6847.342	6896.223	5048.497	3501.881	2141.016
64.5	6681.144	6739.802	4823.641	3071.723	1879.206
65.0	6524.723	6579.470	4563.591	2508.606	1479.354
65.5	6317.464	6397.630	4237.061	2119.508	1281.872
66.0	6141.491	6229.477	3963.324	1881.944	1237.683
66.5	5988.980	6076.967	3799.082	1531.951	1217.349
67.0	5822.782	5906.859	3670.034	1283.828	1199.556
67.5	5648.763	5738.706	3535.121	1194.081	1181.958
68.0	5468.879	5586.195	3361.102	1169.445	1165.534
68.5	5312.458	5406.310	3114.739	1149.892	1149.501
69.0	5159.947	5244.023	2833.180	1131.708	1133.468
69.5	4989.839	5077.826	2592.683	1114.697	1117.043
70.0	4823.641	4923.360	2262.243	1098.468	1100.815
70.5	4663.309	4747.386	1838.341	1081.849	1085.173
71.0	4522.530	4563.591	1565.190	1066.402	1069.531
71.5	4360.243	4371.975	1359.105	1050.955	1051.933
72.0	4197.956	4168.627	1123.300	1033.554	1034.922
72.5	4037.624	3908.577	1006.766	1016.934	1016.738
73.0	3887.069	3636.795	976.460	1000.119	996.990
73.5	3736.513	3404.118	956.321	982.130	977.046
74.0	3585.958	3157.755	936.572	962.773	955.147
74.5	3437.358	2887.928	917.997	941.852	933.444
75.0	3271.160	2543.801	899.227	920.539	910.763
75.5	3118.649	2303.303	881.238	898.640	887.104
76.0	2966.139	2127.329	863.837	875.959	863.054
76.5	2803.851	1934.931	845.066	852.692	838.223
77.0	2641.564	1730.801	826.295	828.837	813.586
77.5	2477.322	1597.843	806.156	804.787	788.168
78.0	2293.527	1435.752	785.235	779.956	762.749
78.5	2141.016	1232.795	762.749	753.951	736.549
79.0	2006.103	1076.178	740.068	728.532	710.935
79.5	1866.106	849.563	716.801	703.114	684.734
80.0	1724.740	730.292	692.751	676.913	657.947
80.5	1583.179	618.646	668.701	649.930	631.551
81.0	1439.467	580.714	643.674	623.143	607.697
81.5	1297.710	557.055	617.473	596.747	584.820
82.0	1170.031	532.419	590.099	569.960	554.318
82.5	1056.039	507.587	562.726	543.368	527.335

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**CANDELA TABULATION - (Cont.)**

83.0	933.444	483.342	533.592	515.995	501.135
83.5	813.782	458.119	504.654	489.012	474.348
84.0	698.225	432.309	474.739	460.856	446.778
84.5	590.295	404.936	445.410	431.527	418.036
85.0	482.951	377.366	415.103	399.852	386.556
85.5	427.226	348.037	382.646	365.830	354.294
86.0	366.026	317.731	348.428	330.049	319.295
86.5	277.061	286.055	310.105	291.335	283.905
87.0	230.526	253.011	269.436	250.861	245.386
87.5	201.197	218.599	226.029	209.800	203.934
88.0	172.063	180.862	182.622	164.633	157.399
88.5	140.193	140.193	138.433	115.752	106.758
89.0	102.456	101.087	94.244	75.082	69.021
89.5	64.133	67.848	60.613	51.423	49.859
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-L480-835-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-L480-835-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-L480-835-HE-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	6879.11	N.A.	14.00
0-30	14671.96	N.A.	29.80
0-40	24176.38	N.A.	49.10
0-60	42455.41	N.A.	86.20
0-80	48825.36	N.A.	99.10
0-90	49268.87	N.A.	100.00
10-90	47494.96	N.A.	96.40
20-40	17297.27	N.A.	35.10
20-50	27243.02	N.A.	55.30
40-70	22876.9	N.A.	46.40
60-80	6369.95	N.A.	12.90
70-80	1772.08	N.A.	3.60
80-90	443.52	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	49268.87	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1773.91
10-20	5105.2
20-30	7792.85
30-40	9504.42
40-50	9945.75
50-60	8333.28
60-70	4597.87
70-80	1772.08
80-90	443.52
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-L480-835-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-L480-835-HE-DIM-UNV\_.IES**

**UGR TABLE - CORRECTED**

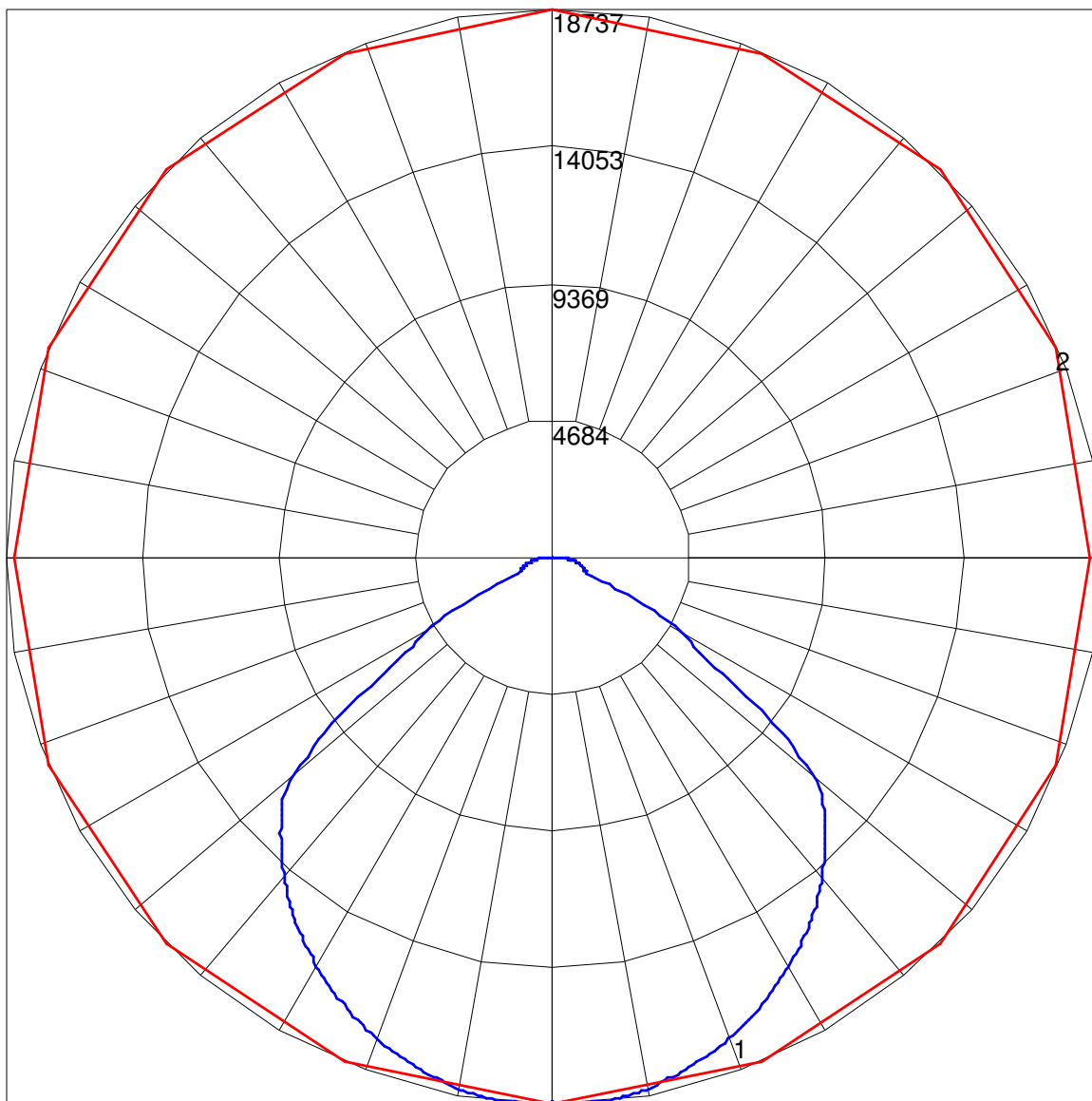
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	25.9	27.5	26.3	27.8	28.1	23.5	25.1	23.9	25.4	25.7
	3H	27.6	29.0	28.0	29.3	29.7	23.6	25.0	24.0	25.3	25.7
	4H	28.1	29.4	28.5	29.8	30.2	23.7	25.0	24.1	25.4	25.7
	6H	28.4	29.6	28.8	30.0	30.4	23.8	25.0	24.2	25.4	25.8
	8H	28.5	29.6	28.9	30.0	30.4	23.9	25.0	24.3	25.4	25.8
	12H	28.5	29.6	28.9	30.0	30.4	23.9	25.0	24.4	25.4	25.8
4H	2H	26.1	27.4	26.5	27.8	28.2	24.1	25.4	24.5	25.8	26.1
	3H	28.0	29.1	28.4	29.5	29.9	24.3	25.4	24.7	25.8	26.2
	4H	28.6	29.6	29.0	30.0	30.4	24.4	25.4	24.9	25.8	26.2
	6H	28.9	29.8	29.4	30.2	30.7	24.6	25.5	25.1	25.9	26.4
	8H	29.0	29.8	29.5	30.2	30.7	24.7	25.5	25.2	25.9	26.4
	12H	29.0	29.7	29.5	30.2	30.7	24.8	25.5	25.3	26.0	26.5
8H	4H	28.5	29.3	29.0	29.8	30.2	24.6	25.4	25.1	25.8	26.3
	6H	28.9	29.5	29.4	30.0	30.5	24.9	25.5	25.4	26.0	26.5
	8H	29.0	29.6	29.5	30.1	30.6	25.0	25.6	25.5	26.1	26.6
	12H	29.1	29.6	29.6	30.1	30.6	25.2	25.7	25.7	26.2	26.8
12H	4H	28.5	29.2	29.0	29.7	30.2	24.6	25.3	25.1	25.8	26.3
	6H	28.9	29.5	29.4	29.9	30.5	24.9	25.5	25.4	25.9	26.5
	8H	29.0	29.5	29.5	30.0	30.5	25.1	25.6	25.6	26.1	26.7

Maximum UGR = 30.7

POLAR GRAPH



Maximum Candela = 18737.314 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.)