



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : GS-4-L480-850-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-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	52316
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	155
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	51787	53389	54355
55	49567	51563	37089
65	44961	31447	10194
75	36806	10118	10248
85	16137	13870	12916

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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	19831.95819831.95819831.95819831.95819831.958				
0.5	19586.96519844.41519888.01619856.87319896.321				
1.0	19593.19419846.49219890.09219856.87319894.244				
1.5	19601.49919844.41519892.16819850.64419888.016				
2.0	19599.42319848.56819888.01619852.72019890.092				
2.5	19595.27019844.41519890.09219848.56819883.863				
3.0	19593.19419836.11119885.94019850.64419888.016				
3.5	19586.96519823.65319883.86319850.64419888.016				
4.0	19572.43219817.42519877.63519858.94919892.168				
4.5	19553.74619804.96719869.33019863.10119896.321				
5.0	19528.83119790.43419863.10119858.94919890.092				
5.5	19510.14619777.97719854.79619852.72019881.787				
6.0	19495.61219765.51919844.41519838.18719865.177				
6.5	19474.85019746.83419834.03419823.65319842.339				
7.0	19447.85919726.07119813.27219802.89119815.348				
7.5	19425.02119707.38619794.58619775.90019786.282				
8.0	19404.25919684.54719767.59619746.83419759.291				
8.5	19393.87819659.63319742.68119717.76719738.529				
9.0	19377.26819632.64219715.69019688.70019713.614				
9.5	19354.43019611.88019692.85219667.93819694.928				
10.0	19329.51519593.19419667.93819643.02319670.014				
10.5	19306.67719572.43219638.87119611.88019640.947				
11.0	19281.76219551.67019605.65119576.58419609.804				
11.5	19261.00019528.83119572.43219543.36519562.051				
12.0	19221.55219499.76519545.44119499.76519499.765				
12.5	19177.95219470.69819508.06919441.63119449.935				
13.0	19134.35219437.47819468.62119383.49719395.954				
13.5	19088.67519391.80219429.17319333.66819335.744				
14.0	19038.84619348.20119387.64919277.61019279.686				
14.5	18972.40719304.60119337.82019221.55219231.933				
15.0	18924.65419261.00019290.06719165.49519194.562				
15.5	18897.66419213.24819234.01019111.51319157.190				
16.0	18858.21619159.26619177.95219063.76019111.513				
16.5	18816.69119109.43719111.51319016.00819069.989				
17.0	18789.70119057.53219053.37918968.25519022.236				
17.5	18746.10019007.70318991.09318914.27318976.560				
18.0	18696.27118949.56918924.65418864.44418922.578				
18.5	18642.29018893.51118866.52018804.23418851.987				
19.0	18577.92718839.53018793.85318741.94818785.548				
19.5	18507.33618783.47218725.33818681.73818731.567				
20.0	18440.89718727.41418658.89918617.37518673.433				
20.5	18376.53518667.20418598.68918555.08918615.299				
21.0	18314.24918602.84218536.40318496.95518553.013				
21.5	18241.58118538.47918472.04118438.82118484.498				
22.0	18170.99018474.11718407.67818376.53518415.983				
22.5	18110.78018405.60218339.16318312.17218353.697				
23.0	18050.57018335.01118262.34318237.42918278.953				
23.5	17990.36018256.11518187.60018170.99018212.514				
24.0	17915.61618185.52418106.62818104.55118139.847				
24.5	17851.25418114.93218023.57918029.80818071.332				
25.0	17780.66318027.73217934.30217961.29317992.436				
25.5	17699.69017955.06417855.40617884.47317917.692				
26.0	17606.26117882.39717778.58617807.65317834.644				
26.5	17504.52717786.89117703.84317726.68117753.672				

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**CANDELA TABULATION - (Cont.)**

27.0	17411.09717693.46217622.87117647.78517672.700
27.5	17319.74417595.88017548.12717568.88917593.804
28.0	17232.54317498.29817467.15517494.14617514.908
28.5	17157.80017400.71617382.03017413.17317429.783
29.0	17074.75117305.21117294.82917317.66817346.735
29.5	16991.70317209.70517207.62917230.46717271.991
30.0	16908.65417103.81817114.19917139.11417184.790
30.5	16825.60617006.23617029.07517045.68417105.894
31.0	16736.32916898.27316943.95016958.48317018.694
31.5	16636.67116792.38716854.67316869.20616931.493
32.0	16532.86016696.88116761.24416777.85316840.139
32.5	16424.89716595.14716671.96616696.88116744.634
33.0	16312.78216495.48916590.99416607.60416657.433
33.5	16204.81916389.60216497.56516516.25116578.537
34.0	16094.78016277.48716395.83116420.74516487.184
34.5	15990.97016167.44716292.02016325.23916391.678
35.0	15895.46416053.25616177.82816231.81016289.944
35.5	15806.18715939.06416047.02716134.22816198.591
36.0	15698.22415816.56815941.14116036.64616103.085
36.5	15586.10915694.07215839.40615934.91216001.351
37.0	15457.38415571.57515727.29115835.25415901.693
37.5	15318.27815451.15515613.09915735.59615795.806
38.0	15185.40015332.81115511.36515631.78515685.767
38.5	15050.44615212.39115413.78315523.82215565.347
39.0	14932.10215091.97115299.59215407.55515453.231
39.5	14819.98714963.24615172.94315285.05815343.192
40.0	14703.71914828.29215046.29415168.79015229.001
40.5	14583.29914693.33814925.87415050.44615121.038
41.0	14471.18414558.38514803.37714921.72115010.998
41.5	14334.15414421.35514672.57614803.37714884.350
42.0	14182.59114286.40114539.69914676.72914755.625
42.5	14018.57014149.37114404.74514550.08014628.976
43.0	13858.70214010.26514276.02014423.43114506.479
43.5	13709.21513862.85414143.14314294.70614386.059
44.0	13576.33713723.74814022.72214170.13314273.944
44.5	13466.29813586.71813893.99714058.01814153.524
45.0	13352.10713441.38413765.27213941.75014014.418
45.5	13227.53413300.20113626.16613802.64413887.769
46.0	13080.12313154.86713470.45113649.00513750.739
46.5	12928.56013003.30313306.43013522.35613619.938
47.0	12768.69212857.96913167.32413391.55513493.289
47.5	12625.43312718.86313028.21813254.52513358.335
48.0	12494.63212583.90912880.80713123.72413219.229
48.5	12365.90712461.41312735.47212994.99913053.132
49.0	12228.87712293.24012598.44212862.12112841.359
49.5	12081.46612114.68512463.48912729.24412596.366
50.0	11896.68311965.19812322.30612585.98512301.544
50.5	11728.51011834.39712170.74312432.34611942.360
51.0	11570.71811678.68112019.18012245.48711529.194
51.5	11433.68911527.11811861.38812017.10411132.638
52.0	11302.88711363.09711711.90111751.34910812.902
52.5	11153.40011205.30511560.33711406.69810509.775
53.0	10981.07511035.05611404.62211012.21810055.085
53.5	10804.59710877.26411255.13510601.1289442.603
54.0	10640.57610734.00611097.34310254.4018742.920
54.5	10503.54710576.21410937.4749955.427 8163.658

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**CANDELA TABULATION - (Cont.)**

55.0	10366.51710391.43110783.8359581.709	7756.721
55.5	10192.11510221.18210626.0439050.199	7447.365
56.0	10003.18010084.15210472.4038387.888	7146.315
56.5	9845.388 9938.817 10316.6887771.254	6770.521
57.0	9712.510 9776.873 10152.6677335.250	6390.574
57.5	9563.023 9596.243 9972.037 7023.819	6074.991
58.0	9390.698 9419.765 9778.949 6770.521	5879.827
58.5	9197.610 9251.592 9542.261 6461.166	5757.330
59.0	9041.895 9087.571 9270.278 6037.619	5655.596
59.5	8890.331 8911.093 8960.922 5686.739	5512.338
60.0	8695.168 8726.311 8595.509 5479.118	5321.326
60.5	8508.309 8568.519 8267.468 5356.622	5078.410
61.0	8340.136 8396.193 7958.113 5252.811	4777.359
61.5	8192.725 8217.639 7598.929 5101.248	4459.699
62.0	8016.247 8028.704 7208.601 4906.084	4142.039
62.5	7798.245 7837.693 6704.082 4650.710	3720.568
63.0	7607.234 7673.672 6135.201 4333.050	3087.324
63.5	7455.670 7511.728 5674.282 4025.771	2576.577
64.0	7270.887 7322.793 5360.774 3718.492	2273.450
64.5	7094.410 7156.696 5122.010 3261.726	1995.445
65.0	6928.313 6986.447 4845.874 2663.777	1570.861
65.5	6708.235 6793.359 4499.147 2250.612	1361.163
66.0	6521.376 6614.805 4208.478 1998.352	1314.241
66.5	6359.431 6452.861 4034.076 1626.711	1292.648
67.0	6182.953 6272.230 3897.046 1363.240	1273.755
67.5	5998.171 6093.676 3753.788 1267.941	1255.069
68.0	5807.159 5931.732 3569.005 1241.781	1237.629
68.5	5641.063 5740.721 3307.403 1221.019	1220.604
69.0	5479.118 5568.395 3008.428 1201.710	1203.579
69.5	5298.488 5391.917 2753.054 1183.647	1186.139
70.0	5122.010 5227.897 2402.175 1166.415	1168.906
70.5	4951.761 5041.038 1952.053 1148.767	1152.297
71.0	4802.274 4845.874 1662.006 1132.365	1135.687
71.5	4629.948 4642.406 1443.174 1115.963	1117.001
72.0	4457.623 4426.480 1192.783 1097.485	1098.938
72.5	4287.374 4150.344 1069.041 1079.837	1079.629
73.0	4127.506 3861.751 1036.859 1061.981	1058.659
73.5	3967.637 3614.682 1015.474 1042.880	1037.482
74.0	3807.769 3353.079 994.505 1022.326	1014.229
74.5	3649.977 3066.562 974.781 1000.110	991.183
75.0	3473.499 2701.149 954.849 977.480	967.099
75.5	3311.555 2445.775 935.748 954.226	941.976
76.0	3149.611 2258.917 917.270 930.142	916.439
76.5	2977.285 2054.617 897.338 905.435	890.071
77.0	2804.960 1837.861 877.406 880.105	863.911
77.5	2630.558 1696.679 856.021 854.568	836.920
78.0	2435.394 1524.561 833.806 828.200	809.930
78.5	2273.450 1309.050 809.930 800.587	782.108
79.0	2130.191 1142.746 785.845 773.596	754.910
79.5	1981.535 902.113 761.139 746.605	727.089
80.0	1831.425 775.464 735.601 718.784	698.645
80.5	1681.107 656.913 710.064 690.132	670.616
81.0	1528.506 616.634 683.488 661.688	645.286
81.5	1377.981 591.512 655.667 633.659	620.994
82.0	1242.404 565.352 626.600 605.215	588.606
82.5	1121.361 538.984 597.533 576.979	559.954

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**CANDELA TABULATION - (Cont.)**

83.0	991.183	513.239	566.598	547.912	532.133
83.5	864.119	486.456	535.870	519.260	503.689
84.0	741.415	459.050	504.104	489.363	474.414
84.5	626.808	429.983	472.961	458.220	443.894
85.0	512.824	400.709	440.779	424.585	410.467
85.5	453.652	369.565	406.314	388.459	376.209
86.0	388.667	337.384	369.981	350.464	339.045
86.5	294.199	303.750	329.287	309.355	301.466
87.0	244.785	268.662	286.102	266.378	260.564
87.5	213.642	232.120	240.010	222.777	216.549
88.0	182.706	192.049	193.918	174.817	167.135
88.5	148.864	148.864	146.996	122.912	113.361
89.0	108.793	107.340	100.073	79.726	73.290
89.5	68.100	72.044	64.363	54.604	52.943
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-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-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-HE-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	7304.62	N.A.	14.00
0-30	15579.5	N.A.	29.80
0-40	25671.82	N.A.	49.10
0-60	45081.51	N.A.	86.20
0-80	51845.47	N.A.	99.10
0-90	52316.42	N.A.	100.00
10-90	50432.79	N.A.	96.40
20-40	18367.2	N.A.	35.10
20-50	28928.15	N.A.	55.30
40-70	24291.96	N.A.	46.40
60-80	6763.97	N.A.	12.90
70-80	1881.69	N.A.	3.60
80-90	470.95	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	52316.42	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1883.64
10-20	5420.98
20-30	8274.88
30-40	10092.32
40-50	10560.95
50-60	8848.73
60-70	4882.28
70-80	1881.69
80-90	470.95
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-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-HE-DIM-UNV\_.IES**

**UGR TABLE - CORRECTED**

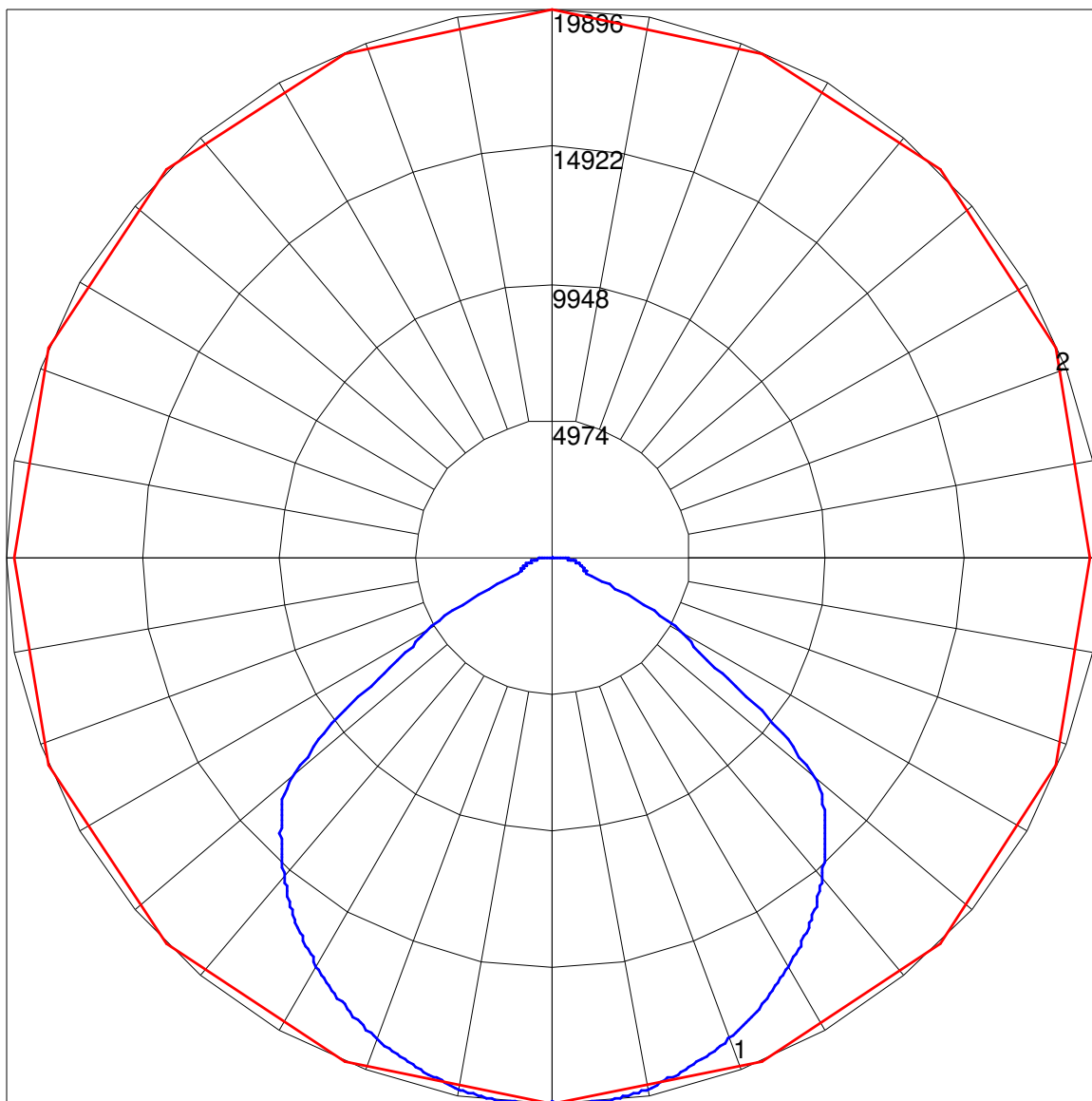
Reflectances

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	26.2	27.8	26.6	28.1	28.4	23.8	25.4	24.2	25.7	26.0
	3H	27.9	29.3	28.3	29.6	30.0	23.9	25.3	24.3	25.6	26.0
	4H	28.4	29.7	28.8	30.1	30.5	24.0	25.3	24.4	25.7	26.0
	6H	28.7	29.9	29.1	30.3	30.7	24.1	25.3	24.5	25.7	26.1
	8H	28.8	29.9	29.2	30.3	30.7	24.2	25.3	24.6	25.7	26.1
	12H	28.8	29.9	29.2	30.3	30.7	24.2	25.3	24.7	25.7	26.1
4H	2H	26.4	27.7	26.8	28.1	28.5	24.4	25.7	24.8	26.1	26.4
	3H	28.3	29.4	28.7	29.8	30.2	24.6	25.7	25.0	26.1	26.5
	4H	28.9	29.9	29.3	30.3	30.7	24.7	25.7	25.2	26.1	26.5
	6H	29.2	30.1	29.7	30.5	31.0	24.9	25.8	25.4	26.2	26.7
	8H	29.3	30.1	29.8	30.5	31.0	25.0	25.8	25.5	26.2	26.7
	12H	29.3	30.0	29.8	30.5	31.0	25.1	25.8	25.6	26.3	26.8
8H	4H	28.8	29.6	29.3	30.1	30.5	24.9	25.7	25.4	26.1	26.6
	6H	29.2	29.8	29.7	30.3	30.8	25.2	25.8	25.7	26.3	26.8
	8H	29.3	29.9	29.8	30.4	30.9	25.3	25.9	25.8	26.4	26.9
	12H	29.4	29.9	29.9	30.4	30.9	25.5	26.0	26.0	26.5	27.1
12H	4H	28.8	29.5	29.3	30.0	30.5	24.9	25.6	25.4	26.1	26.6
	6H	29.2	29.8	29.7	30.2	30.8	25.2	25.8	25.7	26.2	26.8
	8H	29.3	29.8	29.8	30.3	30.8	25.4	25.9	25.9	26.4	27.0

Maximum UGR = 31.0

POLAR GRAPH



Maximum Candela = 19896.321 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.)