



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : GS-4-L240-840-HA-ND-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] 14629546.01  
[TESTLAB] UL Verification Services Inc.  
[ISSUE DATE] 2023-03-14  
[TEST DATE] 1/5/2023  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMCAT] GS-4-L240-840-HA-ND-DIM-UNV  
[LUMINAIRE] White aluminum housing, prismatic lense enclosure  
[LAMP] 448 White LEDs  
[BALLAST] ULT D21CC80UNVPW-C

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	23444
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	139
Total Luminaire Watts	169
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.22
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	20985	20657	20795
55	19331	19126	18771
65	17261	17103	15688
75	14427	13747	11190
85	10639	8460	6890

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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	10315.784	10315.784	10315.784	10315.784	10315.784
0.5	10224.134	10315.784	10336.151	10315.784	10336.151
1.0	10213.950	10305.601	10336.151	10305.601	10336.151
1.5	10213.950	10305.601	10325.968	10305.601	10325.968
2.0	10203.767	10295.417	10315.784	10295.417	10315.784
2.5	10203.767	10285.234	10315.784	10285.234	10305.601
3.0	10193.583	10275.051	10305.601	10275.051	10295.417
3.5	10177.290	10264.867	10285.234	10254.684	10264.867
4.0	10166.088	10254.684	10275.051	10244.500	10264.867
4.5	10153.868	10244.500	10264.867	10224.134	10244.500
5.0	10139.611	10224.134	10254.684	10213.950	10224.134
5.5	10122.300	10213.950	10234.317	10193.583	10203.767
6.0	10102.951	10193.583	10213.950	10171.180	10193.583
6.5	10082.584	10169.143	10193.583	10147.758	10166.088
7.0	10058.144	10144.703	10166.088	10124.336	10141.648
7.5	10028.612	10117.208	10136.556	10095.823	10116.189
8.0	10002.135	10087.676	10106.006	10066.291	10086.658
8.5	9972.604	10055.089	10073.419	10035.741	10056.107
9.0	9938.998	10020.466	10037.777	10003.154	10023.521
9.5	9903.356	9982.787	10003.154	9968.530	9987.879
10.0	9862.623	9944.090	9963.438	9932.888	9951.218
10.5	9821.889	9901.320	9923.723	9894.191	9910.485
11.0	9778.101	9858.549	9880.953	9853.458	9866.696
11.5	9733.294	9813.742	9838.183	9810.687	9824.944
12.0	9686.450	9766.899	9790.321	9764.862	9777.082
12.5	9640.625	9717.000	9741.440	9719.037	9729.220
13.0	9593.781	9667.102	9689.505	9668.120	9679.322
13.5	9543.882	9615.166	9636.551	9612.111	9625.350
14.0	9490.929	9559.158	9582.579	9553.047	9572.396
14.5	9436.957	9502.130	9526.571	9501.112	9515.369
15.0	9379.930	9446.122	9468.525	9445.103	9458.342
15.5	9320.866	9388.076	9409.462	9384.003	9400.296
16.0	9261.802	9327.994	9346.324	9321.884	9338.178
16.5	9198.665	9268.931	9284.206	9260.784	9273.004
17.0	9133.491	9206.812	9227.179	9196.628	9206.812
17.5	9068.318	9143.675	9160.987	9131.455	9139.601
18.0	9004.162	9078.501	9092.758	9065.263	9072.391
18.5	8936.952	9014.346	9027.584	8998.052	9003.144
19.0	8870.760	8949.172	8960.374	8929.823	8932.878
19.5	8803.549	8882.980	8894.181	8859.558	8864.650
20.0	8737.357	8814.751	8825.953	8790.311	8796.421
20.5	8670.147	8747.541	8757.724	8720.045	8726.155
21.0	8600.900	8680.330	8690.513	8649.780	8656.908
21.5	8535.726	8611.083	8621.266	8579.514	8585.624
22.0	8466.479	8543.873	8552.019	8509.249	8516.377
22.5	8400.287	8476.662	8481.754	8438.984	8446.112
23.0	8333.076	8407.415	8410.470	8366.681	8372.791
23.5	8265.866	8339.186	8337.150	8292.343	8299.471
24.0	8199.674	8272.994	8263.829	8218.004	8227.169
24.5	8137.555	8202.729	8187.454	8143.665	8152.830
25.0	8071.363	8133.482	8112.096	8069.326	8081.546
25.5	8003.134	8063.216	8036.739	7997.024	8009.244
26.0	7936.942	7992.951	7961.382	7924.722	7939.997
26.5	7870.750	7921.667	7886.025	7851.401	7869.731

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**CANDELA TABULATION - (Cont.)**

27.0	7804.558	7857.511	7810.668	7779.099	7800.484
27.5	7737.347	7796.411	7736.329	7705.779	7731.237
28.0	7670.137	7714.944	7663.008	7633.477	7661.990
28.5	7603.945	7644.678	7589.688	7562.193	7593.761
29.0	7530.624	7581.541	7517.386	7490.909	7525.533
29.5	7463.414	7509.239	7446.102	7421.662	7457.304
30.0	7396.203	7436.937	7375.837	7352.415	7386.020
30.5	7331.030	7368.708	7306.589	7285.204	7316.773
31.0	7264.837	7300.479	7236.324	7217.994	7247.526
31.5	7200.682	7232.251	7166.059	7149.765	7177.260
32.0	7137.545	7164.022	7096.811	7082.555	7108.013
32.5	7073.390	7097.830	7027.564	7016.363	7040.803
33.0	7010.253	7030.619	6958.317	6948.134	6973.592
33.5	6948.134	6965.446	6889.070	6880.923	6908.419
34.0	6884.997	6898.235	6820.841	6812.695	6843.245
34.5	6821.860	6831.025	6744.466	6743.447	6777.053
35.0	6757.704	6764.833	6678.274	6674.200	6710.861
35.5	6694.567	6698.640	6613.100	6604.953	6644.668
36.0	6630.412	6632.448	6543.853	6536.724	6577.458
36.5	6566.256	6564.220	6475.624	6467.477	6511.266
37.0	6503.119	6497.009	6407.395	6398.230	6443.037
37.5	6448.129	6427.762	6337.130	6328.983	6375.827
38.0	6387.028	6359.533	6268.901	6259.736	6308.616
38.5	6304.543	6290.286	6200.672	6191.507	6242.424
39.0	6236.314	6220.021	6135.498	6123.278	6175.214
39.5	6168.085	6150.774	6071.343	6055.050	6106.985
40.0	6097.820	6080.508	5998.023	5986.821	6038.756
40.5	6028.573	6011.261	5926.739	5918.592	5970.527
41.0	5959.326	5943.032	5859.528	5850.363	5902.299
41.5	5890.079	5872.767	5792.318	5781.116	5833.051
42.0	5819.813	5803.520	5724.089	5711.869	5763.804
42.5	5751.584	5734.272	5657.897	5642.622	5696.594
43.0	5682.337	5665.025	5591.705	5574.393	5630.402
43.5	5614.108	5595.778	5524.494	5504.128	5563.191
44.0	5545.880	5527.549	5459.321	5434.881	5494.963
44.5	5477.651	5455.247	5392.110	5366.652	5428.770
45.0	5410.440	5381.927	5325.918	5297.405	5361.560
45.5	5343.230	5316.753	5259.726	5228.158	5291.295
46.0	5275.001	5248.524	5193.534	5158.910	5223.066
46.5	5209.827	5173.167	5126.324	5089.663	5152.800
47.0	5142.617	5110.030	5060.131	5020.416	5082.535
47.5	5074.388	5045.875	4992.921	4952.187	5012.269
48.0	5007.178	4977.646	4926.729	4882.940	4939.967
48.5	4939.967	4908.399	4859.518	4814.711	4868.683
49.0	4872.757	4840.170	4793.326	4745.464	4798.418
49.5	4805.546	4771.941	4727.134	4679.272	4726.116
50.0	4737.318	4702.694	4660.942	4612.062	4654.832
50.5	4669.089	4633.447	4595.768	4541.796	4583.548
51.0	4599.842	4565.218	4529.576	4472.549	4511.246
51.5	4531.613	4496.989	4464.403	4406.357	4439.962
52.0	4462.366	4429.779	4398.210	4338.128	4366.642
52.5	4391.082	4361.550	4333.037	4269.900	4293.321
53.0	4320.817	4293.321	4266.845	4202.689	4220.001
53.5	4251.569	4225.093	4200.652	4135.479	4146.680
54.0	4182.322	4157.882	4134.460	4068.268	4073.360
54.5	4113.075	4090.672	4067.250	3999.021	4000.039

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**CANDELA TABULATION - (Cont.)**

55.0	4042.810	4023.461	4000.039	3930.792	3925.701
55.5	3974.581	3955.233	3933.847	3860.527	3852.380
56.0	3905.334	3887.004	3865.619	3791.280	3779.060
56.5	3836.087	3818.775	3793.316	3721.014	3705.739
57.0	3766.840	3751.565	3722.033	3650.749	3631.400
57.5	3698.611	3683.336	3659.914	3579.465	3557.062
58.0	3629.364	3615.107	3593.722	3508.181	3483.741
58.5	3560.117	3546.878	3525.493	3435.879	3408.384
59.0	3490.869	3477.631	3457.264	3362.559	3334.045
59.5	3421.622	3409.402	3389.035	3290.257	3260.725
60.0	3353.394	3340.155	3319.788	3216.936	3196.569
60.5	3284.146	3270.908	3252.578	3144.634	3116.120
61.0	3214.899	3201.661	3185.367	3072.332	3030.580
61.5	3145.652	3133.432	3116.120	2999.011	2953.186
62.0	3077.423	3063.167	3046.873	2925.691	2876.810
62.5	3007.158	2993.920	2977.626	2853.389	2799.417
63.0	2937.911	2925.691	2909.397	2780.068	2723.041
63.5	2867.645	2856.444	2842.187	2708.784	2645.647
64.0	2797.380	2788.215	2773.958	2636.482	2569.272
64.5	2728.133	2719.986	2704.711	2565.198	2492.896
65.0	2659.904	2651.757	2635.464	2492.896	2417.539
65.5	2591.675	2583.529	2568.253	2421.612	2343.200
66.0	2523.446	2515.300	2500.025	2350.329	2268.862
66.5	2455.218	2449.108	2431.796	2279.045	2194.523
67.0	2386.989	2381.897	2363.567	2201.651	2121.202
67.5	2319.779	2314.687	2295.338	2133.422	2048.900
68.0	2252.568	2247.476	2226.091	2065.194	1976.598
68.5	2186.376	2181.284	2157.862	1994.928	1905.314
69.0	2120.184	2114.074	2088.615	1923.644	1834.030
69.5	2055.010	2048.900	2020.387	1853.379	1764.783
70.0	1989.836	1982.708	1952.158	1783.113	1695.536
70.5	1925.681	1916.516	1883.929	1713.866	1627.307
71.0	1861.526	1850.324	1816.719	1644.619	1560.097
71.5	1797.370	1786.168	1749.508	1577.409	1492.886
72.0	1734.233	1720.995	1682.298	1510.198	1427.713
72.5	1671.096	1656.839	1616.106	1444.006	1363.557
73.0	1608.977	1592.684	1551.950	1378.832	1299.402
73.5	1546.858	1529.547	1486.776	1314.677	1237.283
74.0	1483.721	1466.410	1422.621	1252.558	1175.164
74.5	1423.639	1404.291	1359.484	1190.439	1115.082
75.0	1361.521	1343.190	1297.365	1129.339	1056.019
75.5	1301.439	1282.090	1234.228	1069.257	997.973
76.0	1242.375	1223.026	1173.128	1011.212	942.983
76.5	1183.311	1163.963	1113.046	954.185	887.992
77.0	1125.266	1105.917	1052.964	899.194	831.984
77.5	1068.239	1049.909	994.918	845.222	778.012
78.0	1012.230	993.900	936.873	792.269	731.168
78.5	957.240	938.909	879.846	741.352	685.343
79.0	903.268	884.937	824.855	691.453	639.518
79.5	850.314	831.984	769.865	642.573	594.711
80.0	798.379	780.048	715.893	595.729	551.940
80.5	747.462	730.150	663.958	553.977	510.188
81.0	698.581	680.251	612.022	514.262	471.491
81.5	650.719	631.371	562.124	467.418	434.831
82.0	602.857	584.527	515.280	426.684	399.189
82.5	556.014	537.684	469.455	389.006	364.566

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**CANDELA TABULATION - (Cont.)**

83.0	510.188	491.858	425.666	353.364	331.979
83.5	466.400	448.070	382.896	319.759	301.429
84.0	422.611	405.299	342.162	288.190	272.915
84.5	379.841	362.529	304.484	257.640	245.420
85.0	338.089	321.795	268.842	230.145	218.943
85.5	296.337	282.080	235.237	202.650	192.466
86.0	256.622	244.402	204.686	176.173	165.989
86.5	215.888	206.723	174.136	150.714	143.586
87.0	177.191	171.081	145.623	130.348	125.256
87.5	140.531	138.494	120.164	112.017	108.962
88.0	106.926	107.944	99.797	92.669	91.651
88.5	76.375	81.467	79.431	78.412	77.394
89.0	47.862	59.064	64.155	68.229	68.229
89.5	28.514	41.752	51.935	59.064	59.064
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-L240-840-HA-ND-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-L240-840-HA-ND-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-L240-840-HA-ND-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	3618.78	N.A.	15.40
0-30	7346.21	N.A.	31.30
0-40	11545.58	N.A.	49.20
0-60	19232.53	N.A.	82.00
0-80	23115.15	N.A.	98.60
0-90	23443.61	N.A.	100.00
10-90	22477.01	N.A.	95.90
20-40	7926.81	N.A.	33.80
20-50	12054.05	N.A.	51.40
40-70	10241.5	N.A.	43.70
60-80	3882.63	N.A.	16.60
70-80	1328.07	N.A.	5.70
80-90	328.45	N.A.	1.40
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	23443.61	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	966.60
10-20	2652.18
20-30	3727.43
30-40	4199.38
40-50	4127.25
50-60	3559.7
60-70	2554.55
70-80	1328.07
80-90	328.45
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-L240-840-HA-ND-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	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72
3	92	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61
4	84	73	64	58	82	71	63	57	69	62	56	66	60	56	64	59	55	53
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	43	36	32	42	36	31	41	36	31	29
10	55	42	34	29	53	41	34	29	40	34	29	39	33	29	39	33	29	27

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GS-4-L240-840-HA-ND-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	22.3	23.9	22.7	24.2	24.5	22.1	23.7	22.4	24.0	24.3
	3H	24.0	25.4	24.3	25.7	26.1	23.5	25.0	23.9	25.3	25.6
	4H	24.6	25.9	25.0	26.3	26.6	24.0	25.3	24.4	25.7	26.0
	6H	25.0	26.2	25.4	26.6	27.0	24.2	25.5	24.7	25.8	26.2
	8H	25.1	26.3	25.5	26.7	27.1	24.3	25.5	24.7	25.9	26.3
	12H	25.2	26.3	25.6	26.7	27.2	24.3	25.5	24.8	25.8	26.3

UGR Viewed Endwise

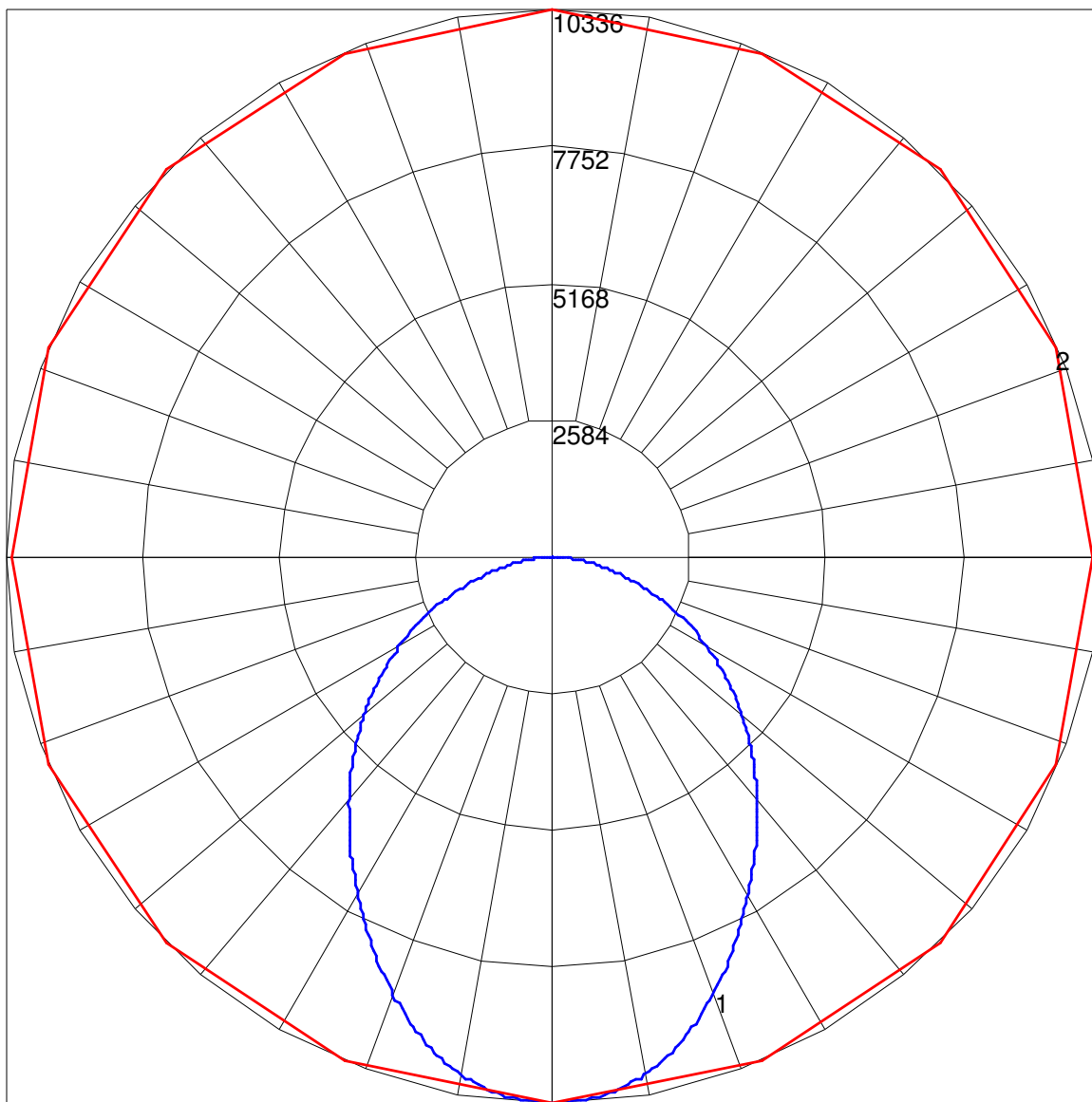
4H	2H	22.9	24.2	23.3	24.6	24.9	22.7	24.0	23.1	24.4	24.8
	3H	24.7	25.9	25.2	26.3	26.7	24.4	25.5	24.8	25.9	26.3
	4H	25.5	26.5	25.9	26.9	27.3	24.9	25.9	25.3	26.3	26.8
	6H	26.0	26.9	26.5	27.3	27.8	25.3	26.1	25.7	26.6	27.0
	8H	26.2	27.0	26.6	27.5	27.9	25.3	26.2	25.8	26.6	27.1
	12H	26.3	27.1	26.8	27.5	28.0	25.4	26.1	25.9	26.6	27.1

8H	4H	25.7	26.5	26.2	27.0	27.4	25.2	26.0	25.7	26.5	26.9
	6H	26.4	27.0	26.9	27.5	28.0	25.6	26.3	26.1	26.8	27.3
	8H	26.6	27.2	27.1	27.7	28.2	25.8	26.4	26.3	26.9	27.4
	12H	26.8	27.3	27.3	27.8	28.4	25.9	26.4	26.4	26.9	27.5

12H	4H	25.7	26.5	26.2	26.9	27.4	25.2	26.0	25.7	26.4	26.9
	6H	26.4	27.0	26.9	27.5	28.0	25.7	26.3	26.2	26.8	27.3
	8H	26.7	27.2	27.2	27.7	28.3	25.9	26.4	26.4	26.9	27.5

Maximum UGR = 28.4

POLAR GRAPH



Maximum Candela = 10336.151 Located At Horizontal Angle = 45, Vertical Angle = .5  
# 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)