



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : GH-4-L400-840-HA-FA-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 13326828.05  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 06-MAY-2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] GH-4-L400-840-HA-FA-DIM-UNV  
 [LUMINAIRE] Formed white steel housing, frosted lens enclosure  
 [\_SEARCH\_SOURCETYPE] LED  
 [\_SEARCH\_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, High Bay  
 [\_SEARCH\_MOUNTING] Pendant, Suspended

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	40267
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	150
Total Luminaire Watts	268.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.73 ft
Luminous Width (90-270)	1.96 ft
Luminous Height	0.27 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	15149	16458	18101
55	12913	15153	17299
65	10464	13489	15132
75	7783	10668	10434
85	4354	6000	6717

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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	13602.9041	3602.9041	3602.9041	3602.9041	3602.904
0.5	13602.9041	3602.9041	3608.9661	3596.8421	3602.904
1.0	13602.9041	3602.9041	3602.9041	3590.7801	3602.904
1.5	13602.9041	3602.9041	3602.9041	3590.7801	3602.904
2.0	13590.7801	3596.8421	3596.8421	3584.7181	3602.904
2.5	13590.7801	3584.7181	3596.8421	3584.7181	3602.904
3.0	13578.6571	3578.6571	3584.7181	3578.6571	3590.780
3.5	13566.5331	3566.5331	3578.6571	3566.5331	3584.718
4.0	13554.4091	3554.4091	3566.5331	3572.5951	3590.780
4.5	13542.2851	3548.3471	3554.4091	3554.4091	3578.657
5.0	13524.0991	3536.2231	3548.3471	3548.3471	3560.471
5.5	13518.0381	3518.0381	3530.1611	3536.2231	3554.409
6.0	13487.7281	3505.9141	3518.0381	3524.0991	3554.409
6.5	13481.6661	3487.7281	3499.8521	3511.9761	3536.223
7.0	13457.4191	3463.4801	3487.7281	3493.7901	3518.038
7.5	13439.2331	3445.2951	3469.5421	3481.6661	3499.852
8.0	13421.0471	3427.1091	3457.4191	3469.5421	3487.728
8.5	13390.7381	3402.8611	3427.1091	3451.3571	3475.604
9.0	13366.4901	3378.6141	3414.9851	3433.1711	3451.357
9.5	13336.1811	3348.3041	3390.7381	3408.9231	3433.171
10.0	13311.9331	3324.0571	3366.4901	3396.8001	3414.985
10.5	13269.5001	3299.8091	3342.2421	3378.6141	3402.861
11.0	13245.2521	3263.4381	3317.9951	3354.3661	3384.676
11.5	13208.8811	3233.1281	3293.7471	3342.2421	3360.428
12.0	13172.5091	3196.7571	3263.4381	3317.9951	3342.242
12.5	13136.1381	3166.4471	3233.1281	3293.7471	3324.057
13.0	13093.7051	3130.0761	3202.8191	3269.5001	3299.809
13.5	13057.3331	3093.7051	3178.5711	3239.1901	3275.562
14.0	13014.9001	3057.3331	3142.2001	3208.8811	3245.252
14.5	12972.4671	3008.8381	3111.8901	3184.6331	3221.004
15.0	12923.9711	2972.4671	3075.5191	3154.3241	3190.695
15.5	12887.6001	2923.9711	3033.0861	3130.0761	3166.447
16.0	12833.0431	2887.6001	3002.7761	3093.7051	3130.076
16.5	12790.6101	2839.1051	2960.3431	3063.3951	3111.890
17.0	12736.0521	2790.6101	2923.9711	3027.0241	3075.519
17.5	12687.5571	2742.1141	2881.5381	2996.7141	3045.209
18.0	12626.9381	2693.6191	2845.1671	2954.2811	3008.838
18.5	12572.3811	2645.1241	2802.7331	2923.9711	2978.528
19.0	12517.8241	2590.5671	2754.2381	2887.6001	2948.219
19.5	12457.2051	2529.9481	2711.8051	2851.2291	2899.724
20.0	12396.5861	2481.4531	2663.3101	2808.7951	2875.476
20.5	12329.9051	2420.8341	2620.8761	2772.4241	2826.981
21.0	12269.2861	2360.2151	2566.3191	2729.9911	2796.671
21.5	12208.6671	2299.5961	2517.8241	2693.6191	2760.300
22.0	12135.9241	2238.9771	2469.3291	2645.1241	2729.991
22.5	12075.3051	2172.2961	2414.7721	2602.6911	2681.495
23.0	12002.5631	2117.7391	2360.2151	2560.2571	2639.062
23.5	11929.8201	2051.0581	2305.6581	2517.8241	2596.629
24.0	11863.1391	1978.3151	2245.0391	2469.3291	2554.195
24.5	11790.3961	1917.6961	2190.4811	2420.8341	2511.762
25.0	11723.7151	1844.9531	2141.9861	2372.3381	2469.329
25.5	11644.9101	1778.2721	2075.3051	2329.9051	2426.896
26.0	11572.1681	1705.5291	2014.6861	2275.3481	2378.400
26.5	11493.3631	1632.7871	1954.0671	2226.8531	2329.905

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**CANDELA TABULATION - (Cont.)**

27.0	11402.43411560.04411893.44812178.35812275.348
27.5	11329.69211487.30111826.76712123.80112232.915
28.0	11244.82511408.49611766.14812075.30512178.358
28.5	11159.95811335.75311693.40612014.68612129.862
29.0	11062.96811250.88711632.78711960.12912075.305
29.5	10972.03911172.08211560.04411899.51012014.686
30.0	10881.11111087.21611499.42511844.95311960.129
30.5	10790.18211002.34911426.68211784.33411905.572
31.0	10699.25410917.48211360.00111729.77711851.015
31.5	10602.26410832.61611287.25811669.15811802.520
32.0	10511.33510747.74911214.51511608.53911741.901
32.5	10420.40710656.82111147.83511547.92011681.282
33.0	10323.41610571.95411075.09211481.23911626.725
33.5	10232.48810481.02611002.34911420.62011553.982
34.0	10135.49710396.15910929.60611353.93911493.363
34.5	10038.50710305.23010850.80111293.32011432.744
35.0	9941.516 10214.30210778.05911226.63911372.125
35.5	9844.526 10123.37310699.25411166.02011299.382
36.0	9747.536 10032.44510620.44911099.33911238.763
36.5	9644.483 9941.516 10541.64511026.59711172.082
37.0	9541.431 9844.526 10462.84010953.85411105.401
37.5	9432.317 9753.598 10384.03510887.17311032.658
38.0	9329.264 9656.607 10299.16910814.43010965.978
38.5	9220.150 9559.617 10220.36410741.68710899.297
39.0	9111.036 9462.626 10135.49710668.94410826.554
39.5	9001.922 9365.636 10050.63110596.20210753.811
40.0	8892.808 9268.645 9971.826 10523.45910681.068
40.5	8783.693 9165.593 9886.959 10444.65410602.264
41.0	8674.579 9062.541 9796.031 10371.91110529.521
41.5	8565.465 8965.550 9711.164 10293.10710450.716
42.0	8456.351 8862.498 9626.298 10214.30210377.973
42.5	8347.237 8759.446 9535.369 10135.49710299.169
43.0	8238.122 8656.394 9444.441 10056.69310220.364
43.5	8135.070 8553.341 9353.512 9977.888 10135.497
44.0	8025.956 8450.289 9262.584 9893.021 10056.693
44.5	7910.780 8347.237 9171.655 9808.155 9977.888
45.0	7801.666 8244.184 9080.727 9729.350 9893.021
45.5	7686.490 8141.132 8989.798 9644.483 9814.217
46.0	7577.375 8038.080 8892.808 9559.617 9729.350
46.5	7462.199 7928.966 8801.879 9474.750 9638.421
47.0	7347.023 7825.913 8704.889 9383.822 9553.555
47.5	7231.847 7722.861 8613.960 9298.955 9462.626
48.0	7116.671 7613.747 8523.032 9208.026 9377.760
48.5	7001.495 7510.694 8426.041 9123.160 9286.831
49.0	6892.381 7401.580 8335.113 9032.231 9195.903
49.5	6777.204 7298.528 8238.122 8941.303 9104.974
50.0	6662.028 7189.414 8141.132 8850.374 9014.046
50.5	6552.914 7080.300 8044.142 8759.446 8929.179
51.0	6437.738 6977.247 7947.151 8662.455 8838.251
51.5	6328.624 6868.133 7850.161 8571.527 8747.322
52.0	6213.448 6765.081 7753.170 8474.537 8656.394
52.5	6104.334 6655.966 7656.180 8377.546 8559.403
53.0	5991.582 6552.914 7559.190 8280.556 8468.475
53.5	5879.437 6449.862 7456.137 8183.565 8371.484
54.0	5769.110 6346.810 7359.147 8086.575 8268.432
54.5	5660.602 6243.757 7256.095 7983.523 8171.442

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**CANDELA TABULATION - (Cont.)**

55.0	5550.882	6134.643	7159.104	7880.470	8068.389
55.5	5445.405	6034.016	7056.052	7777.418	7965.337
56.0	5338.716	5930.357	6959.061	7674.366	7856.223
56.5	5231.420	5826.699	6856.009	7571.313	7747.109
57.0	5122.306	5724.252	6752.957	7468.261	7637.994
57.5	5011.979	5621.200	6655.966	7359.147	7522.818
58.0	4903.471	5518.754	6552.914	7256.095	7413.704
58.5	4796.175	5415.702	6449.862	7146.980	7298.528
59.0	4688.274	5313.256	6346.810	7031.804	7183.352
59.5	4584.009	5210.809	6243.757	6922.690	7068.176
60.0	4479.138	5108.970	6140.705	6807.514	6946.938
60.5	4375.480	5008.342	6040.684	6698.400	6825.700
61.0	4270.609	4907.714	5938.844	6583.224	6704.462
61.5	4164.525	4807.693	5837.610	6461.986	6577.162
62.0	4061.473	4708.884	5735.770	6346.810	6443.800
62.5	3959.633	4611.288	5632.112	6225.572	6310.438
63.0	3860.824	4513.691	5529.059	6098.272	6183.138
63.5	3764.440	4416.701	5425.401	5975.821	6047.958
64.0	3666.843	4320.923	5320.530	5850.340	5911.565
64.5	3568.034	4226.357	5216.265	5723.646	5772.748
65.0	3470.438	4131.791	5109.576	5594.528	5630.899
65.5	3375.266	4037.832	5002.280	5464.197	5489.051
66.0	3281.913	3945.085	4894.378	5332.047	5345.990
66.5	3188.560	3851.731	4786.476	5197.473	5202.929
67.0	3094.600	3758.984	4677.362	5062.899	5057.443
67.5	3002.459	3667.450	4568.854	4928.325	4911.352
68.0	2911.531	3575.309	4459.740	4791.326	4761.623
68.5	2819.996	3483.168	4351.232	4652.508	4610.681
69.0	2728.461	3392.239	4242.118	4513.085	4457.921
69.5	2638.745	3301.311	4132.397	4373.661	4306.980
70.0	2550.241	3210.382	4022.677	4234.237	4155.433
70.5	2462.344	3120.666	3913.563	4094.207	4005.704
71.0	2376.265	3031.556	3804.449	3954.784	3857.793
71.5	2292.004	2942.446	3694.122	3815.966	3713.520
72.0	2208.350	2853.943	3583.189	3676.543	3572.884
72.5	2126.515	2767.257	3472.863	3539.544	3432.854
73.0	2047.104	2680.572	3361.324	3403.757	3296.461
73.5	1967.087	2595.100	3249.785	3269.789	3161.281
74.0	1888.888	2510.839	3140.064	3138.246	3030.344
74.5	1813.721	2427.791	3029.132	3008.521	2905.469
75.0	1738.553	2345.349	2918.805	2881.221	2780.594
75.5	1665.810	2263.514	2808.478	2756.952	2662.387
76.0	1593.674	2182.890	2698.152	2637.533	2545.998
76.5	1522.143	2102.873	2589.644	2519.932	2430.822
77.0	1453.037	2022.250	2481.136	2405.968	2320.495
77.5	1382.719	1942.839	2373.840	2295.035	2213.806
78.0	1314.826	1864.034	2266.545	2187.134	2109.541
78.5	1248.145	1784.623	2161.067	2082.869	2011.339
79.0	1182.677	1705.819	2056.197	1981.635	1916.167
79.5	1116.602	1626.408	1953.144	1884.645	1825.844
80.0	1051.740	1547.603	1850.698	1791.292	1739.159
80.5	988.696	1468.192	1750.677	1699.757	1656.111
81.0	926.865	1389.994	1653.686	1612.465	1576.094
81.5	865.639	1313.008	1557.302	1526.993	1497.896
82.0	805.020	1234.809	1465.161	1444.551	1422.728
82.5	746.220	1157.823	1374.839	1365.140	1351.198

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**CANDELA TABULATION - (Cont.)**

83.0	689.844	1080.837	1286.335	1289.366	1281.486
83.5	633.469	1003.851	1201.469	1216.017	1214.805
84.0	578.911	928.683	1119.027	1145.699	1150.549
84.5	523.748	854.122	1039.010	1077.200	1088.111
85.0	471.616	780.167	960.811	1011.731	1026.280
85.5	418.877	706.211	885.644	947.475	966.267
86.0	367.957	635.287	812.901	886.250	907.466
86.5	317.644	564.363	742.583	826.843	852.909
87.0	267.330	495.863	675.296	771.074	799.565
87.5	216.410	435.851	616.495	719.548	751.676
88.0	166.096	381.294	563.757	674.689	709.242
88.5	116.388	331.586	518.292	636.500	672.871
89.0	78.805	291.577	478.284	601.341	638.924
89.5	52.739	254.600	442.519	567.394	606.190
90.0	27.279	220.047	408.572	536.478	576.487
90.5	24.248	152.760	319.462	440.700	481.315
91.0	23.035	147.304	322.493	447.368	483.133
91.5	23.035	143.667	321.887	449.793	483.133
92.0	23.641	141.242	321.887	446.762	479.496
92.5	25.460	141.242	320.068	441.306	471.616
93.0	27.279	137.605	314.613	433.426	465.554
93.5	29.097	133.968	308.551	426.152	457.673
94.0	30.916	130.331	302.489	418.877	450.399
94.5	32.734	127.906	296.427	412.209	443.125
95.0	33.947	124.875	290.971	404.935	435.851
95.5	35.159	121.844	285.516	398.267	429.183
96.0	35.159	120.026	280.060	391.599	422.514
96.5	35.765	118.207	275.210	384.931	415.846
97.0	35.765	116.995	270.361	378.263	409.178
97.5	36.371	115.176	265.511	372.201	402.510
98.0	36.371	113.358	260.662	366.139	396.448
98.5	36.371	112.145	256.418	360.077	389.780
99.0	36.371	111.539	252.175	354.621	383.112
99.5	36.978	110.933	247.932	349.165	377.050
100.0	36.978	110.327	244.295	344.316	370.988
100.5	36.978	109.720	241.264	339.466	366.139
101.0	36.978	109.720	238.233	334.011	361.289
101.5	36.978	110.327	234.596	329.161	356.440
102.0	36.978	110.327	231.565	324.312	351.590
102.5	36.371	110.933	228.534	320.068	346.135
103.0	36.371	111.539	225.503	315.825	341.285
103.5	36.371	112.145	222.472	312.188	337.042
104.0	36.978	112.145	220.047	308.551	333.405
104.5	36.978	113.358	217.622	304.307	329.767
105.0	36.978	113.964	215.197	300.670	326.130
105.5	36.978	114.570	213.379	296.427	321.887
106.0	36.978	115.782	210.954	292.184	317.644
106.5	37.584	116.388	209.136	288.546	313.400
107.0	37.584	117.601	207.923	284.909	309.157
107.5	37.584	118.813	206.105	281.272	305.520
108.0	37.584	120.026	204.892	278.241	301.883
108.5	37.584	121.238	203.680	275.816	298.245
109.0	38.190	122.450	203.074	272.786	294.608
109.5	38.190	123.663	201.861	270.361	292.184
110.0	38.190	124.875	201.255	268.542	289.153
110.5	38.190	126.694	200.649	266.117	286.728

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**CANDELA TABULATION - (Cont.)**

111.0	38.796	128.512	200.043	264.299	284.303
111.5	38.796	130.331	198.830	261.874	281.878
112.0	38.796	132.756	198.224	260.056	280.060
112.5	38.796	134.574	197.012	258.237	277.635
113.0	38.796	136.999	196.406	256.418	275.816
113.5	38.796	139.424	195.799	254.600	273.392
114.0	38.796	142.455	195.193	253.387	271.573
114.5	38.796	145.486	194.587	251.569	270.361
115.0	39.402	148.517	194.587	250.356	269.148
115.5	39.402	151.548	193.981	249.144	267.330
116.0	39.402	154.578	193.981	247.932	266.117
116.5	39.402	157.609	193.981	246.719	264.905
117.0	40.009	160.640	193.981	245.507	263.693
117.5	40.009	163.671	193.981	244.295	262.480
118.0	40.009	166.702	193.981	243.082	261.268
118.5	40.009	169.733	193.981	241.870	259.449
119.0	40.615	173.370	194.587	240.657	258.237
119.5	40.615	176.401	194.587	240.051	257.025
120.0	40.615	178.826	195.193	238.839	255.812
120.5	41.221	181.857	195.193	238.233	254.600
121.0	41.221	184.282	195.799	237.626	253.387
121.5	41.221	186.707	195.799	237.020	252.781
122.0	41.827	188.525	196.406	235.808	252.175
122.5	41.827	190.950	197.012	235.808	251.569
123.0	41.827	192.768	197.618	235.202	250.356
123.5	42.433	193.981	198.830	234.596	249.750
124.0	42.433	195.193	199.437	233.989	249.144
124.5	42.433	195.799	200.649	233.383	247.932
125.0	43.039	196.406	201.861	233.383	247.326
125.5	43.039	197.012	203.074	232.777	246.719
126.0	43.646	197.012	204.892	232.777	246.113
126.5	43.646	196.406	206.105	232.171	245.507
127.0	44.252	195.799	207.923	231.565	245.507
127.5	44.252	195.193	209.742	231.565	245.507
128.0	44.858	193.981	212.167	231.565	244.901
128.5	44.858	193.375	214.591	231.565	244.901
129.0	45.464	192.162	217.016	231.565	244.295
129.5	45.464	190.344	219.441	231.565	244.295
130.0	46.070	189.131	221.866	232.171	244.295
130.5	46.677	187.919	224.896	232.171	243.688
131.0	46.677	186.100	227.321	232.171	243.688
131.5	46.677	184.888	230.352	232.777	243.688
132.0	47.283	183.069	233.383	233.383	243.688
132.5	47.283	181.857	235.808	234.596	243.688
133.0	47.889	180.038	238.839	235.202	243.688
133.5	47.889	178.826	241.870	236.414	244.295
134.0	47.889	177.007	244.295	237.626	244.901
134.5	47.889	175.795	247.326	238.839	245.507
135.0	47.889	173.977	250.356	240.051	246.113
135.5	48.495	172.158	252.781	241.870	246.719
136.0	47.889	170.946	255.812	243.688	247.932
136.5	47.889	169.127	258.237	245.507	248.538
137.0	47.889	167.308	260.662	247.932	250.356
137.5	47.889	166.096	263.086	249.750	251.569
138.0	47.889	164.277	265.511	252.175	253.387
138.5	47.889	162.459	267.330	254.600	255.206

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GH-4-L400-840-HA-FA-DIM-UNV\_.IES**

**CANDELA TABULATION - (Cont.)**

139.0	47.889	160.640	269.148	257.025	257.025
139.5	47.889	158.822	269.755	259.449	259.449
140.0	47.889	157.609	270.967	261.874	261.268
140.5	47.889	155.791	270.967	264.299	263.693
141.0	48.495	153.972	271.573	266.724	266.117
141.5	48.495	152.154	270.967	269.755	268.542
142.0	48.495	150.335	270.361	272.179	270.967
142.5	49.101	148.517	269.148	275.210	273.392
143.0	49.101	146.698	267.330	277.635	275.816
143.5	49.101	144.879	265.511	280.060	278.241
144.0	49.101	143.667	263.086	282.485	281.272
144.5	49.708	141.848	260.662	284.909	284.303
145.0	49.708	140.636	257.631	287.334	287.334
145.5	49.708	139.424	254.600	289.759	289.759
146.0	49.708	138.211	251.569	291.577	292.184
146.5	49.708	136.999	247.932	293.396	295.215
147.0	49.708	135.787	244.901	294.002	298.245
147.5	49.708	134.574	241.264	294.002	300.670
148.0	49.708	133.968	238.233	293.396	303.095
148.5	49.708	132.756	234.596	292.790	304.914
149.0	49.708	131.543	231.565	291.577	305.520
149.5	49.708	130.331	228.534	290.365	306.126
150.0	49.708	128.512	225.503	287.940	305.520
150.5	49.708	127.300	222.472	285.516	304.307
151.0	49.708	126.088	218.835	281.878	303.095
151.5	49.708	124.875	215.804	278.241	301.276
152.0	49.708	123.057	212.773	273.998	298.852
152.5	49.708	121.238	209.136	269.755	295.821
153.0	50.314	119.419	206.105	265.511	292.184
153.5	50.314	117.601	202.467	260.662	287.940
154.0	50.314	115.782	199.437	255.812	283.091
154.5	50.314	113.964	195.799	250.963	277.635
155.0	50.920	112.145	192.768	246.719	272.179
155.5	50.920	109.720	189.131	241.870	266.724
156.0	50.920	107.902	186.100	237.020	260.662
156.5	51.526	106.083	182.463	232.777	255.206
157.0	51.526	104.265	178.826	227.927	249.144
157.5	52.132	102.446	175.795	223.078	243.688
158.0	52.132	100.021	172.158	218.228	237.626
158.5	52.132	98.809	169.127	213.379	231.565
159.0	52.739	96.990	166.096	208.529	226.109
159.5	52.739	95.172	163.065	203.680	220.047
160.0	52.739	93.353	160.034	198.224	214.591
160.5	52.739	92.141	157.609	193.375	209.136
161.0	53.345	90.322	155.185	188.525	203.074
161.5	53.345	88.504	152.760	183.676	197.012
162.0	53.345	87.291	149.729	178.220	191.556
162.5	53.345	85.473	146.698	173.370	185.494
163.0	53.951	83.654	143.667	168.521	180.038
163.5	53.345	82.442	140.030	163.671	173.977
164.0	53.951	81.229	136.393	159.428	168.521
164.5	53.951	79.411	132.756	155.791	163.065
165.0	53.951	78.199	129.118	151.548	158.216
165.5	53.951	76.986	124.875	147.910	153.972
166.0	53.951	75.774	121.238	143.667	149.729
166.5	53.951	73.955	116.995	139.424	144.879

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GH-4-L400-840-HA-FA-DIM-UNV\_.IES**

**CANDELA TABULATION - (Cont.)**

167.0	53.951	72.743	113.358	135.180	140.636
167.5	53.951	71.530	109.720	130.331	135.787
168.0	54.557	70.924	106.083	125.481	130.937
168.5	54.557	69.712	102.446	120.632	126.088
169.0	54.557	68.499	98.809	115.782	121.238
169.5	54.557	67.287	95.172	110.933	115.782
170.0	54.557	66.681	92.141	106.083	110.327
170.5	54.557	65.469	89.110	101.234	104.871
171.0	54.557	64.862	86.079	96.384	100.021
171.5	54.557	63.650	83.048	92.141	95.172
172.0	55.163	63.044	80.623	87.898	89.716
172.5	55.163	62.438	77.592	84.260	84.867
173.0	55.163	61.831	75.168	80.623	80.623
173.5	55.769	61.225	72.743	76.986	76.986
174.0	55.769	60.619	70.318	73.955	73.349
174.5	55.769	60.013	68.499	70.924	69.712
175.0	55.769	60.013	66.681	67.893	66.681
175.5	55.769	59.407	64.862	65.469	64.256
176.0	55.769	58.800	63.650	63.044	61.831
176.5	55.769	58.800	62.438	61.225	59.407
177.0	55.769	58.800	61.225	59.407	56.982
177.5	56.376	58.194	60.619	58.194	55.163
178.0	56.376	58.194	60.013	56.982	53.951
178.5	56.376	58.194	59.407	56.376	52.739
179.0	56.376	57.588	58.800	55.769	52.132
179.5	56.376	57.588	58.800	55.769	51.526
180.0	56.376	56.376	56.376	56.376	56.376



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GH-4-L400-840-HA-FA-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	4973.99	N.A.	12.40
0-30	10554.64	N.A.	26.20
0-40	17258.1	N.A.	42.90
0-60	30431.4	N.A.	75.60
0-80	37990.15	N.A.	94.30
0-90	38986.61	N.A.	96.80
10-90	37699.59	N.A.	93.60
20-40	12284.11	N.A.	30.50
20-50	19205.74	N.A.	47.70
40-70	17961.45	N.A.	44.60
60-80	7558.75	N.A.	18.80
70-80	2770.6	N.A.	6.90
80-90	996.45	N.A.	2.50
90-110	505.87	N.A.	1.30
90-120	692.39	N.A.	1.70
90-130	866.34	N.A.	2.20
90-150	1156.81	N.A.	2.90
90-180	1280.58	N.A.	3.20
110-180	774.72	N.A.	1.90
0-180	40267.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1287.02
10-20	3686.97
20-30	5580.65
30-40	6703.46
40-50	6921.63
50-60	6251.67
60-70	4788.15
70-80	2770.6
80-90	996.45
90-100	289.70
100-110	216.17
110-120	186.52
120-130	173.95
130-140	157.33
140-150	133.15
150-160	83.01
160-170	33.93
170-180	6.84

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GH-4-L400-840-HA-FA-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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	108	103	98	95	105	100	96	93	95	92	89	91	88	86	87	85	83	80
2	98	89	83	77	95	87	81	76	83	78	73	79	75	71	76	72	69	67
3	89	78	70	64	86	77	69	63	73	67	61	70	65	60	67	62	58	56
4	82	69	61	54	79	68	60	53	65	58	52	62	56	51	60	55	50	48
5	75	62	53	46	73	61	52	46	58	51	45	56	49	44	54	48	44	41
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	38	36
7	64	51	42	36	62	50	41	35	48	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	32	44	36	31	42	36	31	41	35	30	28
9	56	42	34	29	54	42	34	28	40	33	28	39	32	28	38	32	27	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GH-4-L400-840-HA-FA-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	20.0	21.6	20.4	22.0	22.4	22.3	23.8	22.7	24.2	24.6
	3H	21.5	22.9	21.9	23.3	23.7	24.0	25.4	24.4	25.8	26.3
	4H	21.9	23.3	22.4	23.7	24.1	24.6	25.9	25.0	26.3	26.8
	6H	22.3	23.5	22.7	23.9	24.4	25.0	26.2	25.4	26.6	27.1
	8H	22.3	23.5	22.8	24.0	24.5	25.1	26.3	25.6	26.7	27.2
	12H	22.4	23.5	22.8	24.0	24.5	25.2	26.4	25.7	26.8	27.3

UGR Viewed Endwise

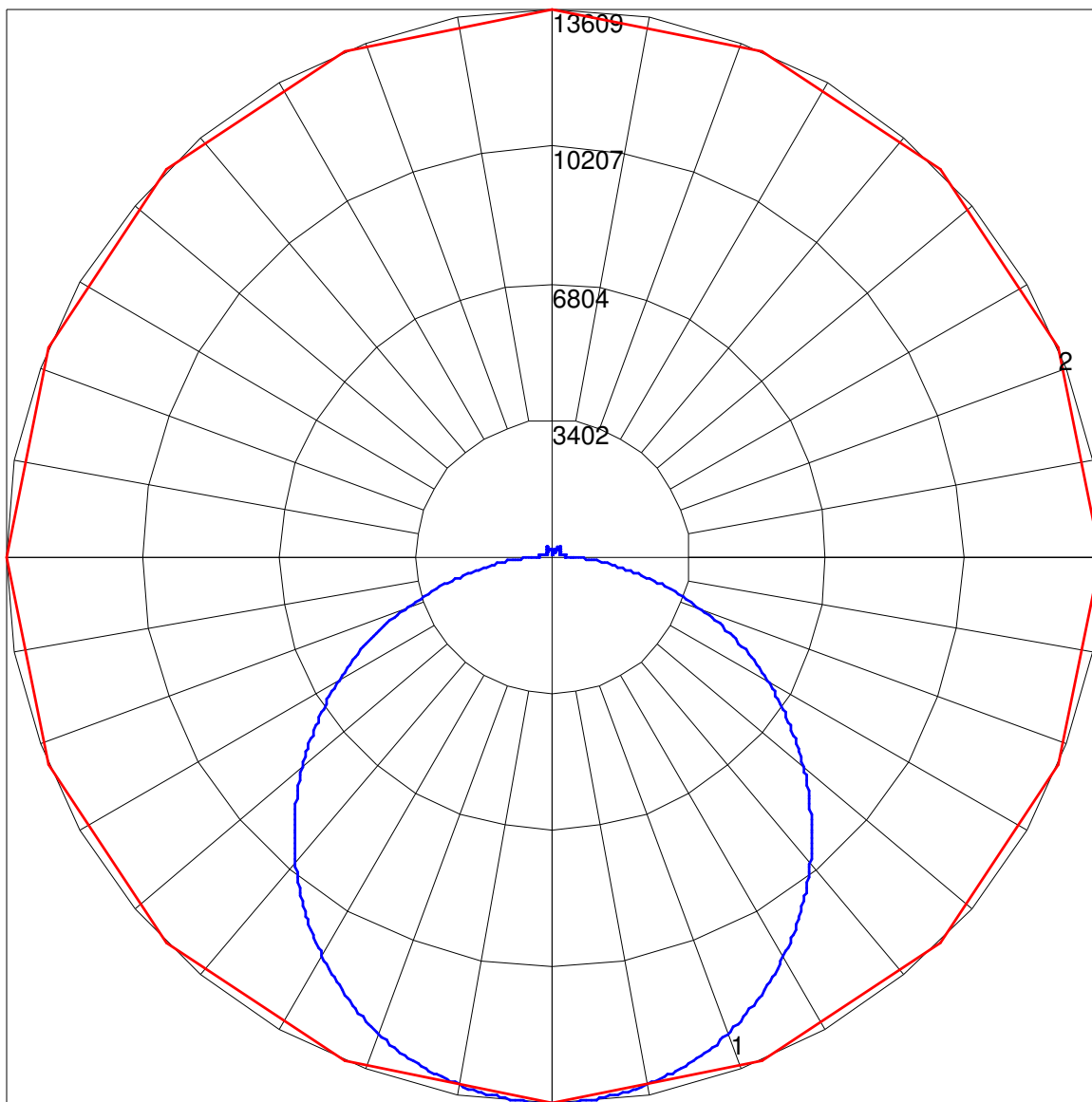
4H	2H	21.0	22.3	21.4	22.7	23.2	22.7	24.1	23.2	24.5	24.9
	3H	22.7	23.8	23.1	24.2	24.7	24.7	25.8	25.1	26.3	26.7
	4H	23.3	24.3	23.7	24.8	25.3	25.4	26.4	25.8	26.9	27.4
	6H	23.7	24.6	24.2	25.1	25.6	25.9	26.8	26.4	27.3	27.8
	8H	23.8	24.6	24.3	25.1	25.7	26.1	26.9	26.6	27.4	27.9
	12H	23.9	24.6	24.4	25.2	25.7	26.2	27.0	26.8	27.5	28.1

8H	4H	23.7	24.6	24.2	25.1	25.6	25.6	26.4	26.1	26.9	27.5
	6H	24.3	25.0	24.8	25.5	26.1	26.2	26.9	26.7	27.5	28.0
	8H	24.5	25.1	25.0	25.7	26.2	26.4	27.1	27.0	27.6	28.2
	12H	24.6	25.2	25.2	25.7	26.4	26.7	27.3	27.3	27.8	28.4

12H	4H	23.8	24.5	24.3	25.1	25.6	25.6	26.4	26.1	26.9	27.4
	6H	24.4	25.0	25.0	25.6	26.2	26.2	26.9	26.8	27.4	28.0
	8H	24.6	25.2	25.2	25.8	26.4	26.5	27.1	27.1	27.6	28.3

Maximum UGR = 28.4

POLAR GRAPH



Maximum Candela = 13608.966 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.)