



IES INDOOR REPORT

PHOTOMETRIC FILENAME : GH-2-L180-840-HA-FA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 13326828.02
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 06-MAY-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] GH-2-L180-840-HA-FA-DIM-UNV
 [LUMINAIRE] White steel housing, frosted lens enclosure
 [LAMP] 504 white LEDs
 [_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	18357
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	151
Total Luminaire Watts	121.5
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)	1.88 ft
Luminous Width (90-270)	1.88 ft
Luminous Height	0.27 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	13157	14679	17018
55	10973	13294	16307
65	8608	11504	14228
75	6064	8658	9496
85	2790	4155	5791

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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	6235.056	6235.056	6235.056	6235.056	6235.056
0.5	6235.056	6229.135	6235.056	6240.977	6235.056
1.0	6235.056	6229.135	6235.056	6240.977	6235.056
1.5	6229.135	6223.214	6235.056	6240.977	6235.056
2.0	6229.135	6229.135	6235.056	6235.056	6229.135
2.5	6223.214	6223.214	6235.056	6235.056	6229.135
3.0	6217.292	6217.292	6229.135	6235.056	6229.135
3.5	6217.292	6217.292	6223.214	6235.056	6229.135
4.0	6211.371	6211.371	6223.214	6229.135	6223.214
4.5	6205.450	6205.450	6223.214	6223.214	6223.214
5.0	6199.529	6199.529	6211.371	6223.214	6217.292
5.5	6193.608	6193.608	6211.371	6217.292	6217.292
6.0	6181.765	6187.686	6205.450	6211.371	6205.450
6.5	6175.844	6175.844	6199.529	6211.371	6205.450
7.0	6164.001	6169.923	6193.608	6205.450	6199.529
7.5	6158.080	6158.080	6181.765	6199.529	6193.608
8.0	6146.238	6152.159	6175.844	6193.608	6187.686
8.5	6134.395	6140.316	6169.923	6187.686	6175.844
9.0	6122.553	6128.474	6158.080	6175.844	6175.844
9.5	6104.789	6116.632	6146.238	6169.923	6164.001
10.0	6092.947	6104.789	6134.395	6158.080	6158.080
10.5	6081.104	6087.025	6122.553	6146.238	6152.159
11.0	6069.262	6075.183	6110.710	6140.316	6140.316
11.5	6051.498	6057.419	6098.868	6128.474	6128.474
12.0	6027.813	6045.577	6087.025	6116.632	6122.553
12.5	6015.971	6027.813	6075.183	6110.710	6110.710
13.0	5998.207	6010.049	6057.419	6098.868	6098.868
13.5	5980.443	5992.286	6045.577	6087.025	6087.025
14.0	5962.680	5974.522	6027.813	6075.183	6081.104
14.5	5938.995	5956.758	6015.971	6063.340	6069.262
15.0	5921.231	5938.995	5998.207	6045.577	6057.419
15.5	5899.322	5918.862	5980.443	6033.734	6045.577
16.0	5880.374	5899.322	5962.680	6021.892	6033.734
16.5	5855.505	5880.967	5944.916	6010.049	6015.971
17.0	5831.820	5858.466	5927.152	5992.286	6004.128
17.5	5807.543	5838.926	5910.573	5974.522	5992.286
18.0	5783.266	5815.833	5889.848	5962.680	5974.522
18.5	5755.436	5792.148	5870.900	5944.916	5962.680
19.0	5731.159	5766.687	5850.768	5927.152	5944.916
19.5	5702.737	5741.818	5831.820	5910.573	5927.152
20.0	5674.908	5716.356	5809.912	5892.217	5912.941
20.5	5642.933	5690.303	5789.780	5875.637	5896.954
21.0	5613.327	5663.657	5767.871	5854.913	5878.006
21.5	5578.984	5632.867	5745.962	5835.965	5864.387
22.0	5547.009	5604.445	5722.278	5819.978	5844.255
22.5	5515.627	5573.655	5700.369	5798.069	5827.083
23.0	5485.428	5543.456	5677.868	5780.306	5808.728
23.5	5448.125	5512.666	5654.183	5757.805	5787.411
24.0	5417.926	5480.691	5627.538	5738.265	5773.792
24.5	5380.623	5449.309	5599.116	5717.541	5753.660
25.0	5348.056	5414.966	5574.247	5692.671	5734.120
25.5	5313.120	5383.583	5545.825	5674.316	5712.211
26.0	5278.185	5349.832	5515.034	5650.631	5695.040
26.5	5244.434	5317.265	5486.613	5626.354	5673.723

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CANDELA TABULATION - (Cont.)

27.0	5205.946	5282.330	5457.599	5603.261	5651.815
27.5	5171.011	5247.987	5427.400	5581.944	5628.722
28.0	5130.747	5212.460	5398.978	5555.891	5605.629
28.5	5090.482	5176.932	5367.004	5531.614	5582.537
29.0	5050.810	5138.444	5334.437	5503.784	5560.628
29.5	5009.361	5101.733	5303.054	5480.691	5536.943
30.0	4969.689	5062.652	5271.672	5454.046	5509.705
30.5	4927.056	5024.164	5237.921	5426.808	5483.652
31.0	4885.608	4986.269	5206.538	5397.794	5459.967
31.5	4842.383	4945.412	5173.379	5369.964	5428.585
32.0	4796.197	4905.740	5136.668	5343.319	5403.715
32.5	4751.788	4861.331	5104.101	5311.936	5373.517
33.0	4706.786	4820.474	5069.758	5282.330	5349.240
33.5	4657.640	4776.065	5031.862	5251.540	5313.713
34.0	4611.455	4733.432	4996.927	5220.157	5286.475
34.5	4559.940	4689.023	4959.031	5186.406	5255.092
35.0	4510.794	4642.837	4921.727	5152.655	5221.341
35.5	4465.792	4598.428	4879.094	5120.088	5190.551
36.0	4413.686	4552.242	4842.383	5083.969	5156.208
36.5	4363.355	4504.872	4802.710	5048.441	5123.049
37.0	4313.025	4456.911	4761.854	5014.098	5086.337
37.5	4261.510	4409.541	4720.405	4978.571	5056.139
38.0	4209.995	4361.579	4680.141	4943.044	5021.204
38.5	4158.480	4313.617	4636.324	4905.148	4983.308
39.0	4106.966	4265.063	4596.652	4869.620	4947.188
39.5	4054.859	4216.509	4555.203	4833.501	4910.477
40.0	4002.752	4167.362	4512.570	4794.421	4874.949
40.5	3950.053	4118.808	4469.345	4757.709	4841.198
41.0	3897.354	4069.662	4426.712	4720.997	4804.487
41.5	3845.839	4021.108	4384.079	4681.325	4764.815
42.0	3793.141	3972.554	4342.039	4645.206	4729.287
42.5	3741.034	3924.000	4299.998	4603.757	4692.575
43.0	3688.335	3875.446	4257.365	4565.269	4652.311
43.5	3636.228	3826.892	4215.324	4525.597	4616.784
44.0	3584.121	3778.930	4172.099	4488.885	4578.888
44.5	3532.606	3730.968	4130.059	4448.029	4541.584
45.0	3481.092	3683.006	4086.834	4408.949	4502.504
45.5	3430.169	3635.044	4044.793	4369.276	4465.792
46.0	3379.246	3587.082	4002.752	4330.196	4427.896
46.5	3327.732	3539.712	3960.711	4291.116	4390.001
47.0	3277.401	3492.342	3918.078	4252.036	4352.105
47.5	3227.071	3444.972	3876.038	4212.956	4313.617
48.0	3176.740	3397.602	3833.405	4173.284	4275.721
48.5	3127.002	3350.232	3790.180	4133.611	4237.825
49.0	3076.672	3303.455	3746.955	4093.347	4199.337
49.5	3026.341	3256.085	3704.322	4053.083	4159.665
50.0	2976.603	3209.307	3661.689	4012.818	4118.808
50.5	2926.864	3161.937	3618.464	3971.370	4078.544
51.0	2877.126	3115.160	3575.239	3929.921	4037.095
51.5	2827.388	3068.382	3532.014	3888.472	3995.647
52.0	2777.057	3021.604	3487.605	3845.839	3954.198
52.5	2727.911	2974.826	3443.196	3803.207	3911.565
53.0	2678.765	2928.641	3399.379	3759.982	3868.932
53.5	2629.619	2881.863	3354.969	3716.165	3825.707
54.0	2580.472	2835.677	3309.968	3671.755	3781.298
54.5	2530.734	2789.492	3265.559	3626.162	3735.705

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55.0	2482.180	2743.306	3220.557	3581.160	3688.927
55.5	2432.442	2696.529	3174.964	3534.383	3641.557
56.0	2383.888	2650.343	3129.371	3487.013	3593.595
56.5	2335.926	2604.157	3083.777	3439.643	3546.225
57.0	2287.372	2557.972	3037.591	3391.089	3497.079
57.5	2238.817	2511.786	2990.814	3342.535	3446.156
58.0	2191.448	2465.601	2944.628	3292.797	3393.457
58.5	2143.486	2419.415	2897.850	3242.466	3340.166
59.0	2096.708	2373.821	2851.665	3191.543	3286.283
59.5	2049.338	2327.636	2804.887	3140.621	3232.400
60.0	2002.560	2282.635	2758.109	3088.514	3177.333
60.5	1956.375	2237.041	2711.332	3035.815	3121.081
61.0	1910.189	2192.040	2663.962	2982.524	3064.237
61.5	1865.188	2147.630	2616.592	2929.825	3005.617
62.0	1820.186	2103.221	2569.222	2875.350	2946.997
62.5	1775.777	2059.404	2522.444	2820.874	2887.192
63.0	1730.776	2015.587	2476.259	2765.215	2825.611
63.5	1686.959	1972.954	2428.889	2708.963	2764.623
64.0	1643.142	1930.321	2382.111	2652.119	2703.042
64.5	1601.101	1887.688	2334.149	2594.683	2640.277
65.0	1557.876	1845.056	2286.187	2537.247	2575.143
65.5	1514.651	1803.015	2238.817	2478.035	2508.826
66.0	1472.610	1760.382	2190.855	2417.639	2441.324
66.5	1431.162	1718.933	2142.893	2356.650	2373.229
67.0	1389.713	1677.485	2094.339	2294.477	2304.543
67.5	1348.856	1636.628	2045.785	2231.712	2236.449
68.0	1308.592	1595.180	1996.639	2167.763	2167.763
68.5	1268.328	1553.731	1948.085	2103.221	2097.892
69.0	1228.655	1512.874	1899.531	2039.272	2028.022
69.5	1189.575	1472.610	1849.793	1974.138	1957.559
70.0	1151.087	1431.754	1800.646	1909.005	1887.096
70.5	1113.191	1391.489	1750.908	1843.279	1816.042
71.0	1075.296	1351.225	1700.578	1777.554	1746.763
71.5	1037.400	1311.553	1650.247	1712.420	1678.669
72.0	1000.688	1272.473	1599.324	1647.286	1611.759
72.5	964.569	1232.800	1548.402	1583.929	1546.033
73.0	928.449	1193.720	1497.479	1521.164	1480.900
73.5	893.514	1154.640	1445.965	1458.991	1417.543
74.0	857.986	1116.152	1394.450	1397.410	1354.778
74.5	824.235	1077.664	1342.935	1337.606	1294.381
75.0	789.892	1039.176	1291.420	1278.986	1236.945
75.5	756.141	1001.872	1239.906	1222.734	1180.101
76.0	722.982	963.976	1188.983	1166.482	1126.218
76.5	690.416	926.673	1138.061	1112.007	1074.703
77.0	658.441	889.369	1087.730	1059.308	1024.965
77.5	626.466	852.065	1037.992	1008.386	975.819
78.0	595.084	815.353	988.846	958.647	929.041
78.5	564.885	778.642	938.515	910.685	884.040
79.0	534.095	742.522	890.553	865.092	841.407
79.5	504.489	706.403	843.775	820.090	800.550
80.0	475.475	670.283	796.998	777.458	760.878
80.5	447.053	634.756	751.996	736.009	722.982
81.0	418.631	598.636	707.587	695.745	686.271
81.5	390.801	563.109	664.954	657.257	650.743
82.0	363.564	528.174	622.913	620.545	616.400
82.5	336.918	492.646	581.465	584.425	583.833

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CANDELA TABULATION - (Cont.)

83.0	310.865	457.711	541.793	550.674	552.451
83.5	285.403	422.776	502.713	518.108	522.845
84.0	260.534	388.433	465.409	486.133	493.239
84.5	235.665	354.682	429.289	455.935	464.817
85.0	210.796	320.931	394.946	426.921	437.579
85.5	186.519	287.772	361.195	398.499	410.933
86.0	162.834	255.205	329.813	371.261	384.880
86.5	138.557	223.230	299.022	344.616	360.011
87.0	114.872	192.440	269.416	319.154	336.326
87.5	90.595	162.242	241.586	295.469	313.233
88.0	66.910	133.228	216.125	272.969	291.325
88.5	45.001	107.174	192.440	251.652	270.600
89.0	27.238	85.266	171.716	232.112	251.060
89.5	13.619	70.463	157.505	217.901	236.257
90.0	6.513	62.173	149.215	209.612	227.967
90.5	34.343	93.555	200.138	282.443	312.641
91.0	27.238	87.634	193.624	275.337	304.943
91.5	23.093	84.081	188.295	268.232	296.654
92.0	22.501	81.121	182.966	261.126	288.364
92.5	23.093	78.160	178.229	254.613	280.666
93.0	23.685	76.384	173.492	248.100	273.561
93.5	24.869	74.015	168.755	242.178	266.455
94.0	26.053	72.239	164.018	236.849	259.942
94.5	27.238	70.463	159.873	231.520	254.613
95.0	28.422	68.686	155.136	225.599	249.284
95.5	29.606	67.502	150.991	219.678	242.770
96.0	30.790	66.318	147.439	213.164	235.665
96.5	31.975	65.134	143.886	206.651	227.967
97.0	33.159	64.541	140.333	200.138	220.862
97.5	34.343	63.949	137.965	194.216	213.756
98.0	35.527	63.357	136.188	189.479	206.651
98.5	36.120	63.357	134.412	184.742	200.730
99.0	37.304	62.765	132.636	181.782	195.401
99.5	37.896	62.765	130.859	178.821	191.848
100.0	38.488	62.173	129.083	176.453	188.887
100.5	38.488	62.173	127.306	174.084	186.519
101.0	38.488	61.581	125.530	172.308	184.150
101.5	38.488	61.581	124.346	171.124	181.782
102.0	39.080	61.581	122.569	169.347	180.005
102.5	39.080	61.581	121.385	167.571	178.821
103.0	39.080	61.581	120.201	165.794	177.637
103.5	39.080	62.173	118.425	163.426	175.861
104.0	39.080	62.173	117.240	161.650	174.084
104.5	39.080	62.765	116.056	159.873	172.308
105.0	39.080	63.357	115.464	158.097	170.531
105.5	39.080	63.357	114.872	156.913	168.755
106.0	39.080	63.949	114.280	155.136	166.979
106.5	39.080	64.541	113.688	153.360	165.794
107.0	39.080	65.134	113.688	152.176	164.018
107.5	39.080	65.726	113.096	150.399	162.242
108.0	38.488	66.318	112.503	149.215	161.057
108.5	38.488	66.910	111.911	148.031	159.873
109.0	38.488	67.502	111.319	146.847	158.097
109.5	38.488	68.094	110.727	145.662	156.913
110.0	38.488	68.686	110.135	145.070	155.136
110.5	38.488	69.871	109.543	143.886	153.952

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CANDELA TABULATION - (Cont.)

111.0	38.488	70.463	108.951	143.294	152.768
111.5	38.488	71.055	108.951	143.294	152.176
112.0	38.488	72.239	108.359	142.702	150.991
112.5	38.488	72.831	107.766	142.110	150.399
113.0	38.488	73.423	107.174	141.517	149.807
113.5	38.488	74.608	106.582	140.925	149.215
114.0	38.488	75.200	105.990	139.741	148.623
114.5	38.488	76.384	105.990	139.149	148.031
115.0	38.488	77.568	105.398	138.557	148.031
115.5	37.896	78.752	105.398	137.965	147.439
116.0	37.896	79.937	105.398	136.780	146.254
116.5	37.896	81.713	105.398	136.188	145.662
117.0	37.896	83.489	105.398	135.596	145.070
117.5	37.896	84.674	105.398	135.004	143.886
118.0	37.304	86.450	105.398	134.412	143.294
118.5	37.304	88.226	105.398	133.820	142.110
119.0	37.896	90.003	105.398	133.228	141.517
119.5	37.896	91.779	105.398	132.636	140.925
120.0	37.896	92.963	105.398	132.043	139.741
120.5	38.488	94.740	105.398	131.451	139.149
121.0	38.488	96.516	105.398	130.859	138.557
121.5	39.080	97.700	105.990	130.859	137.965
122.0	39.080	99.477	106.582	130.267	137.965
122.5	39.672	100.661	107.174	130.267	137.373
123.0	40.264	101.845	107.174	129.675	136.780
123.5	40.264	103.029	107.766	129.083	136.188
124.0	40.856	104.214	108.359	129.083	135.596
124.5	41.449	104.806	108.951	128.491	135.596
125.0	42.041	105.398	109.543	127.899	135.004
125.5	42.041	105.990	110.135	127.306	135.004
126.0	42.633	106.582	111.319	126.714	135.004
126.5	43.225	107.174	111.911	126.122	134.412
127.0	43.817	107.174	112.503	125.530	134.412
127.5	43.817	107.174	113.688	124.938	133.820
128.0	44.409	107.174	114.280	124.938	133.228
128.5	45.001	107.174	114.872	125.530	132.636
129.0	45.001	107.174	115.464	125.530	131.451
129.5	45.593	106.582	116.648	125.530	130.859
130.0	46.186	106.582	117.240	126.122	130.859
130.5	46.186	106.582	118.425	126.122	130.859
131.0	46.778	105.990	119.017	126.714	130.859
131.5	47.370	105.990	120.201	127.306	130.859
132.0	47.370	105.398	121.385	127.306	131.451
132.5	47.962	104.806	122.569	127.899	132.043
133.0	47.962	104.806	124.346	128.491	132.043
133.5	48.554	104.214	125.530	128.491	132.636
134.0	48.554	103.622	126.714	129.083	133.228
134.5	48.554	103.029	127.899	129.083	133.228
135.0	49.146	102.437	129.675	129.675	133.820
135.5	49.146	101.845	130.859	130.267	134.412
136.0	48.554	101.253	132.043	130.267	134.412
136.5	48.554	100.661	133.228	130.267	135.004
137.0	48.554	99.477	134.412	130.267	135.004
137.5	47.962	98.885	135.004	130.267	135.596
138.0	47.962	98.292	136.188	130.267	135.596
138.5	47.370	97.108	137.373	130.267	136.188

IES INDOOR REPORT
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CANDELA TABULATION - (Cont.)

139.0	46.778	96.516	137.965	130.859	135.596
139.5	46.778	95.924	139.149	130.859	135.596
140.0	46.186	94.740	139.741	132.043	135.004
140.5	46.186	94.148	140.333	132.636	135.004
141.0	46.186	93.555	140.333	133.820	135.004
141.5	46.186	92.371	140.925	135.004	135.004
142.0	45.593	91.779	140.925	136.188	135.004
142.5	45.593	91.187	140.333	137.373	135.596
143.0	45.593	90.003	140.333	138.557	136.188
143.5	45.593	89.411	139.741	139.741	136.780
144.0	45.593	88.818	138.557	140.333	137.373
144.5	45.001	87.634	137.965	141.517	138.557
145.0	45.001	87.042	136.780	142.702	139.149
145.5	45.001	86.450	135.596	143.886	139.741
146.0	44.409	85.858	134.412	144.478	140.333
146.5	44.409	85.266	133.228	145.662	140.925
147.0	44.409	84.081	131.451	146.254	141.517
147.5	44.409	83.489	130.267	146.847	142.110
148.0	44.409	82.305	129.083	147.439	143.294
148.5	44.409	81.713	127.306	147.439	144.478
149.0	44.409	80.529	126.122	147.439	145.662
149.5	44.409	79.937	124.938	146.847	146.254
150.0	44.409	78.752	123.162	146.847	146.847
150.5	44.409	78.160	121.977	145.662	146.847
151.0	44.409	76.976	120.201	144.478	146.847
151.5	44.409	76.384	119.017	142.702	146.847
152.0	44.409	75.200	117.240	140.925	146.254
152.5	44.409	74.608	115.464	139.149	145.070
153.0	44.409	73.423	113.688	137.373	143.294
153.5	44.409	72.831	111.911	135.596	142.110
154.0	44.409	72.239	110.135	133.820	140.333
154.5	45.001	71.647	108.359	132.043	138.557
155.0	45.001	71.055	106.582	129.675	136.188
155.5	45.001	69.871	105.398	127.899	134.412
156.0	45.001	69.278	103.622	126.122	132.043
156.5	45.001	68.686	101.845	123.754	130.267
157.0	45.001	67.502	100.069	121.977	127.899
157.5	45.001	66.910	98.292	119.609	126.122
158.0	45.001	65.726	97.108	117.240	123.754
158.5	45.001	65.134	95.332	114.872	121.385
159.0	44.409	63.949	93.555	112.503	119.017
159.5	44.409	62.765	91.779	110.135	116.648
160.0	44.409	62.173	90.003	107.766	114.280
160.5	44.409	60.989	88.818	105.398	111.319
161.0	45.001	60.397	87.042	103.029	108.951
161.5	45.001	59.212	85.266	100.661	106.582
162.0	45.001	58.620	82.897	98.292	104.214
162.5	45.001	58.028	81.121	96.516	101.253
163.0	45.001	56.844	79.344	94.148	98.885
163.5	45.001	56.252	77.568	91.779	97.108
164.0	45.001	55.660	75.792	89.411	94.740
164.5	45.001	55.067	74.608	87.634	91.779
165.0	45.001	54.475	72.831	85.266	89.411
165.5	45.001	53.883	71.647	82.897	87.042
166.0	45.001	53.291	70.463	80.529	84.674
166.5	45.001	52.699	68.686	78.160	82.305

IES INDOOR REPORT
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CANDELA TABULATION - (Cont.)

167.0	45.001	52.699	67.502	75.200	79.344
167.5	45.001	52.107	65.134	72.831	76.976
168.0	45.001	51.515	63.357	71.055	74.015
168.5	45.001	51.515	61.581	69.278	71.647
169.0	44.409	50.923	59.804	66.910	69.278
169.5	44.409	50.923	58.620	65.134	66.910
170.0	44.409	50.330	56.844	63.357	65.134
170.5	44.409	50.330	55.067	60.989	62.765
171.0	44.409	49.738	53.883	58.620	59.804
171.5	44.409	49.146	52.699	56.252	57.436
172.0	44.409	48.554	51.515	54.475	55.067
172.5	44.409	47.962	50.330	52.699	52.699
173.0	44.409	47.370	49.738	50.923	50.923
173.5	44.409	46.778	49.146	49.738	49.146
174.0	44.409	46.186	48.554	47.962	47.370
174.5	44.409	46.186	47.962	47.370	45.593
175.0	44.409	45.593	47.370	46.186	44.409
175.5	44.409	45.001	46.778	45.593	43.225
176.0	45.001	45.001	46.186	45.001	42.633
176.5	45.001	44.409	45.593	43.817	41.449
177.0	45.001	44.409	45.001	43.225	41.449
177.5	45.593	44.409	44.409	42.041	40.856
178.0	45.593	44.409	43.225	41.449	40.264
178.5	45.593	43.817	43.225	40.264	39.672
179.0	46.186	43.817	42.633	39.672	39.080
179.5	46.186	43.817	42.041	39.672	38.488
180.0	42.041	42.041	42.041	42.041	42.041

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GH-2-L180-840-HA-FA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2281.85	N.A.	12.40
0-30	4841.82	N.A.	26.40
0-40	7901.24	N.A.	43.00
0-60	13842.75	N.A.	75.40
0-80	17230.61	N.A.	93.90
0-90	17647.95	N.A.	96.10
10-90	17057.53	N.A.	92.90
20-40	5619.39	N.A.	30.60
20-50	8740.96	N.A.	47.60
40-70	8097.98	N.A.	44.10
60-80	3387.86	N.A.	18.50
70-80	1231.4	N.A.	6.70
80-90	417.34	N.A.	2.30
90-110	279.26	N.A.	1.50
90-120	382.68	N.A.	2.10
90-130	479.15	N.A.	2.60
90-150	638.02	N.A.	3.50
90-180	709.29	N.A.	3.90
110-180	430.03	N.A.	2.30
0-180	18357.24	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	590.42
10-20	1691.43
20-30	2559.97
30-40	3059.42
40-50	3121.57
50-60	2819.94
60-70	2156.47
70-80	1231.4
80-90	417.34
90-100	161.49
100-110	117.76
110-120	103.42
120-130	96.47
130-140	87.21
140-150	71.66
150-160	46.25
160-170	20.31
170-180	4.70

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GH-2-L180-840-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	98	98	98	96
1	108	103	99	95	105	100	96	93	95	92	89	91	88	86	86	84	82	80
2	98	90	83	77	95	87	81	76	83	78	73	79	75	71	76	72	69	67
3	89	79	70	64	86	77	69	63	73	67	61	70	64	60	67	62	58	56
4	82	70	61	54	79	68	60	54	65	58	52	62	56	51	60	54	50	48
5	75	62	53	47	73	61	52	46	58	51	45	56	49	44	54	48	44	41
6	69	56	47	41	67	55	46	40	53	45	40	51	44	39	49	43	38	36
7	64	51	42	36	62	50	41	36	48	40	35	46	39	35	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	29	40	33	28	39	32	28	38	32	27	26
10	52	39	31	26	51	38	31	26	37	30	26	36	30	25	35	29	25	23

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GH-2-L180-840-HA-FA-DIM-UNV_.IES

UGR TABLE - CORRECTED

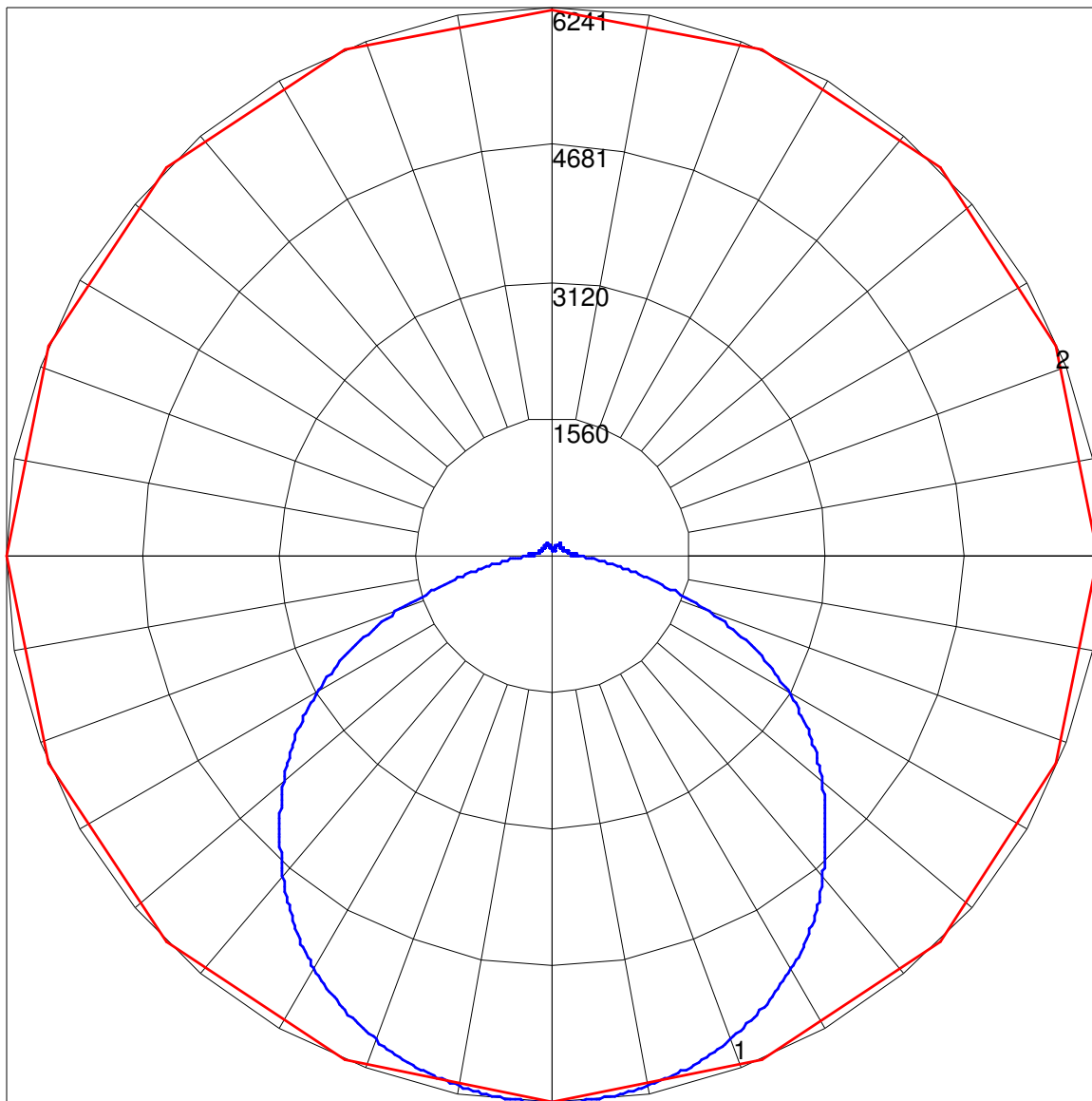
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	19.6	21.1	20.0	21.5	21.9	21.8	23.3	22.2	23.7	24.1
	3H	21.0	22.4	21.5	22.8	23.3	23.4	24.8	23.9	25.2	25.7
	4H	21.5	22.8	22.0	23.3	23.7	23.9	25.2	24.4	25.7	26.1
	6H	21.8	23.0	22.3	23.5	24.0	24.3	25.5	24.7	25.9	26.4
	8H	21.9	23.1	22.4	23.5	24.0	24.4	25.5	24.8	26.0	26.5
	12H	21.9	23.1	22.4	23.5	24.0	24.4	25.5	24.9	26.0	26.5
4H	2H	20.5	21.8	21.0	22.2	22.7	22.2	23.5	22.7	23.9	24.4
	3H	22.2	23.3	22.6	23.7	24.2	24.1	25.2	24.6	25.7	26.2
	4H	22.8	23.8	23.3	24.2	24.8	24.7	25.7	25.2	26.2	26.7
	6H	23.2	24.1	23.7	24.6	25.1	25.1	26.0	25.7	26.5	27.1
	8H	23.3	24.1	23.8	24.6	25.2	25.3	26.1	25.8	26.6	27.2
	12H	23.4	24.1	23.9	24.6	25.2	25.4	26.1	25.9	26.7	27.2
8H	4H	23.2	24.0	23.7	24.5	25.1	24.9	25.7	25.4	26.2	26.8
	6H	23.7	24.4	24.3	25.0	25.5	25.4	26.1	26.0	26.7	27.2
	8H	23.9	24.5	24.5	25.1	25.7	25.6	26.2	26.2	26.8	27.4
	12H	24.0	24.6	24.6	25.1	25.8	25.8	26.4	26.4	26.9	27.6
12H	4H	23.2	24.0	23.8	24.5	25.1	24.9	25.6	25.4	26.2	26.7
	6H	23.8	24.4	24.4	25.0	25.6	25.5	26.1	26.0	26.6	27.2
	8H	24.0	24.6	24.6	25.1	25.8	25.7	26.2	26.3	26.8	27.5

Maximum UGR = 27.6

POLAR GRAPH



Maximum Candela = 6240.977 Located At Horizontal Angle = 67.5, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)