

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FRM-22-L50-840-DMA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GENERATED FROM 15746385.02
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 2025-05-02
[TEST DATE] 3/20/2025
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] FRM-22-L50-840-DMA-DIM-UNV
[LUMINAIRE] Recessed 2 x 2 narrow aperture LED luminaire
[MORE] with center frame driver housing
[LAMP] LED
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] INDOOR
[_SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5198
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	53.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.98
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	1.06
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.90 ft
Luminous Width (90-270)	1.90 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5096	4417	5192
55	4489	3832	4559
65	3872	3276	3913
75	3158	2730	3239
85	2209	1669	2209

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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	2790.739	2790.739	2790.739	2790.739	2790.739
0.5	2780.080	2792.072	2796.735	2791.406	2780.080
1.0	2778.082	2790.739	2794.737	2790.739	2778.082
1.5	2776.083	2788.075	2792.738	2788.075	2776.083
2.0	2772.752	2784.744	2789.407	2784.077	2772.086
2.5	2768.088	2780.746	2784.744	2780.080	2768.088
3.0	2763.425	2775.417	2779.414	2774.750	2763.425
3.5	2757.429	2768.755	2772.752	2768.755	2756.763
4.0	2750.101	2761.426	2765.424	2762.093	2750.767
4.5	2742.106	2753.432	2757.429	2754.098	2743.439
5.0	2732.779	2744.105	2748.768	2745.437	2734.778
5.5	2722.786	2734.112	2738.775	2736.777	2726.117
6.0	2712.793	2722.786	2728.116	2726.784	2716.791
6.5	2700.802	2711.461	2716.791	2715.458	2706.131
7.0	2688.144	2698.803	2704.133	2703.466	2694.806
7.5	2674.819	2685.479	2690.808	2691.475	2682.814
8.0	2661.495	2670.822	2676.818	2678.817	2670.822
8.5	2646.839	2656.166	2662.828	2664.826	2656.832
9.0	2631.516	2640.177	2647.505	2650.170	2643.508
9.5	2616.193	2624.854	2631.516	2635.513	2628.851
10.0	2600.204	2608.199	2614.861	2619.524	2613.528
10.5	2583.549	2590.877	2598.872	2603.535	2598.872
11.0	2566.228	2573.556	2580.884	2586.880	2584.215
11.5	2548.240	2554.902	2562.897	2568.893	2567.560
12.0	2530.253	2536.249	2543.577	2551.571	2550.905
12.5	2512.265	2516.929	2524.257	2533.584	2533.584
13.0	2492.279	2497.609	2504.937	2514.930	2516.262
13.5	2474.291	2477.622	2484.951	2496.276	2498.941
14.0	2454.971	2457.636	2464.298	2477.622	2480.953
14.5	2434.319	2436.984	2442.980	2457.636	2462.300
15.0	2413.667	2416.331	2420.995	2437.650	2443.646
15.5	2393.680	2395.013	2399.010	2417.664	2424.326
16.0	2373.028	2373.028	2376.359	2397.011	2405.006
16.5	2351.709	2351.709	2354.374	2375.693	2385.020
17.0	2330.391	2329.058	2330.391	2353.708	2364.367
17.5	2309.072	2306.407	2307.073	2332.389	2345.047
18.0	2287.087	2283.756	2283.090	2309.738	2324.395
18.5	2265.102	2260.439	2259.107	2287.087	2303.076
19.0	2243.118	2236.456	2234.457	2264.436	2281.758
19.5	2221.133	2213.138	2209.807	2241.119	2259.773
20.0	2199.148	2189.155	2185.158	2217.136	2238.454
20.5	2175.831	2164.505	2159.842	2193.818	2216.469
21.0	2153.180	2140.522	2133.860	2169.835	2195.151
21.5	2129.862	2116.538	2107.878	2145.851	2172.500
22.0	2107.211	2092.555	2082.562	2121.202	2149.182
22.5	2085.227	2067.905	2056.580	2097.218	2127.198
23.0	2061.909	2043.256	2031.264	2072.569	2104.547
23.5	2039.925	2019.272	2005.282	2048.585	2081.896
24.0	2018.606	1995.289	1979.966	2024.602	2059.245
24.5	1995.955	1970.639	1953.984	1999.952	2037.260
25.0	1973.970	1946.656	1928.002	1975.303	2015.275
25.5	1951.985	1922.672	1902.020	1950.653	1993.290
26.0	1930.001	1899.355	1876.704	1927.336	1972.638
26.5	1908.682	1876.038	1851.388	1903.352	1949.987

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CANDELA TABULATION - (Cont.)

27.0	1887.363	1852.721	1826.072	1880.035	1929.334
27.5	1866.045	1829.403	1800.756	1856.718	1908.016
28.0	1846.058	1806.752	1775.441	1833.401	1886.697
28.5	1824.740	1784.101	1750.791	1810.083	1866.045
29.0	1804.754	1761.450	1726.141	1786.766	1845.392
29.5	1784.101	1739.465	1700.825	1763.449	1824.074
30.0	1763.449	1716.814	1676.176	1740.798	1803.421
30.5	1743.463	1694.830	1651.526	1718.147	1782.769
31.0	1723.476	1672.845	1626.877	1695.496	1762.783
31.5	1703.490	1650.860	1602.893	1672.845	1742.130
32.0	1682.838	1629.541	1578.910	1650.860	1722.144
32.5	1662.852	1608.223	1555.592	1628.209	1702.158
33.0	1643.532	1586.238	1531.609	1605.558	1681.505
33.5	1623.545	1565.586	1508.292	1583.573	1661.519
34.0	1604.225	1543.601	1484.975	1561.588	1640.867
34.5	1584.905	1522.948	1462.323	1538.937	1621.547
35.0	1566.252	1501.630	1439.672	1516.952	1601.561
35.5	1546.932	1480.977	1417.021	1495.634	1580.908
36.0	1528.278	1460.325	1395.037	1474.315	1561.588
36.5	1509.624	1439.672	1373.052	1452.997	1542.268
37.0	1490.970	1419.686	1351.067	1431.678	1522.282
37.5	1472.317	1399.700	1329.748	1410.359	1502.296
38.0	1454.329	1380.380	1309.096	1390.373	1482.976
38.5	1436.341	1361.060	1288.444	1369.721	1463.656
39.0	1417.688	1341.074	1267.791	1349.735	1445.002
39.5	1400.366	1321.754	1247.805	1329.748	1426.348
40.0	1382.379	1303.100	1227.819	1309.762	1407.695
40.5	1363.725	1284.446	1208.499	1289.776	1389.041
41.0	1345.737	1265.793	1189.179	1270.456	1370.387
41.5	1328.416	1247.139	1170.525	1251.802	1352.399
42.0	1310.428	1229.817	1151.205	1232.482	1334.412
42.5	1292.441	1211.164	1132.551	1214.495	1316.424
43.0	1274.453	1193.842	1114.564	1195.841	1298.437
43.5	1257.132	1175.855	1096.576	1177.853	1280.449
44.0	1239.810	1158.533	1078.588	1159.866	1262.462
44.5	1222.489	1141.212	1061.267	1141.212	1244.474
45.0	1204.502	1123.891	1043.946	1123.224	1227.153
45.5	1187.180	1105.903	1026.624	1105.903	1209.165
46.0	1169.859	1089.248	1009.303	1087.915	1191.177
46.5	1151.871	1071.926	992.648	1069.928	1173.856
47.0	1134.550	1054.605	975.993	1051.940	1155.202
47.5	1116.562	1037.284	959.338	1034.619	1137.881
48.0	1099.241	1019.962	943.349	1017.297	1119.893
48.5	1082.586	1003.307	927.360	999.976	1101.906
49.0	1065.264	985.986	911.371	982.655	1084.584
49.5	1047.943	969.331	896.048	965.333	1065.931
50.0	1030.622	952.009	880.059	948.012	1048.609
50.5	1013.300	935.354	864.736	930.691	1030.622
51.0	995.979	918.699	850.080	914.035	1013.300
51.5	978.657	901.378	835.423	897.380	995.313
52.0	962.002	885.389	820.767	880.725	977.991
52.5	944.681	868.733	806.110	864.070	960.670
53.0	928.026	852.744	791.453	847.415	942.682
53.5	910.704	836.089	776.797	831.426	925.361
54.0	893.383	820.767	762.807	815.437	908.040
54.5	877.394	804.778	748.816	799.448	890.718

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55.0	860.739	788.789	734.826	783.459	874.063
55.5	844.084	773.466	721.502	768.136	858.074
56.0	827.429	758.143	707.511	752.813	841.419
56.5	810.773	742.820	693.521	736.824	824.098
57.0	794.784	728.164	680.197	721.502	808.109
57.5	778.129	712.841	666.207	706.845	791.453
58.0	762.140	697.518	652.683	692.189	774.798
58.5	746.151	682.862	639.358	676.866	758.143
59.0	729.496	668.205	625.968	662.343	741.488
59.5	713.507	653.149	612.577	647.286	725.499
60.0	697.518	638.159	598.920	632.230	708.844
60.5	682.196	623.103	585.529	617.374	692.855
61.0	667.539	608.180	572.338	602.584	676.866
61.5	652.016	593.523	558.814	587.727	661.210
62.0	637.227	579.400	545.357	573.271	645.754
62.5	622.304	565.476	531.699	558.681	630.698
63.0	607.381	551.752	517.643	544.624	615.042
63.5	592.258	537.695	503.519	531.100	599.519
64.0	577.068	523.772	489.862	516.910	583.930
64.5	562.145	510.048	476.404	503.119	568.274
65.0	546.956	496.324	462.880	489.795	552.818
65.5	531.233	482.800	449.689	476.404	537.829
66.0	516.177	469.343	436.299	463.613	522.772
66.5	500.854	455.952	422.908	450.689	507.116
67.0	486.531	442.694	409.917	437.831	492.793
67.5	472.141	429.570	397.192	425.440	478.270
68.0	457.817	416.779	385.201	413.048	464.080
68.5	443.427	404.121	373.809	400.457	449.956
69.0	429.437	391.530	362.949	388.265	436.432
69.5	416.046	379.205	352.223	376.273	423.041
70.0	402.256	367.013	341.498	364.548	409.251
70.5	388.865	354.688	330.838	352.890	395.727
71.0	375.474	342.497	320.112	341.498	382.602
71.5	362.150	330.572	309.320	329.972	369.678
72.0	348.959	318.846	298.727	318.580	356.421
72.5	336.035	307.121	288.201	307.388	343.430
73.0	323.110	295.596	277.808	296.262	330.505
73.5	310.452	284.004	267.415	285.003	317.847
74.0	297.928	272.612	257.089	273.744	305.589
74.5	285.470	261.086	246.630	262.552	292.798
75.0	273.211	249.694	236.170	251.493	280.273
75.5	260.887	238.302	225.977	240.434	267.682
76.0	248.762	226.843	215.651	229.242	255.224
76.5	236.903	215.518	205.458	217.916	242.766
77.0	224.911	204.326	195.199	206.524	230.441
77.5	212.986	193.067	185.205	195.665	218.116
78.0	201.194	182.341	175.346	185.072	206.058
78.5	189.469	171.881	165.419	174.480	194.266
79.0	177.811	161.355	155.626	164.353	182.141
79.5	166.418	150.829	145.899	154.160	170.482
80.0	155.160	140.636	136.106	143.967	158.890
80.5	144.100	130.710	126.579	133.908	147.498
81.0	133.441	120.850	117.119	123.981	136.506
81.5	123.315	111.190	107.992	114.254	125.780
82.0	113.255	101.796	98.732	104.728	115.454
82.5	103.995	92.869	89.538	95.534	105.594

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CANDELA TABULATION - (Cont.)

83.0	95.201	84.608	80.211	86.673	96.267
83.5	87.140	77.013	71.217	78.279	87.406
84.0	79.345	70.018	62.757	70.551	79.279
84.5	71.750	63.423	55.029	63.356	71.684
85.0	64.356	57.227	48.633	56.694	64.356
85.5	56.894	50.898	43.437	50.099	57.294
86.0	49.965	44.702	39.040	43.836	50.299
86.5	43.303	38.707	34.976	37.907	44.036
87.0	37.441	32.977	31.112	32.511	38.374
87.5	31.845	27.847	27.248	27.981	33.310
88.0	26.715	23.450	23.184	24.117	28.580
88.5	21.652	19.320	18.521	20.053	23.850
89.0	15.190	13.924	12.325	13.790	17.854
89.5	5.996	6.595	5.796	6.129	8.328
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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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 : FRM-22-L50-840-DMA-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 : FRM-22-L50-840-DMA-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 : FRM-22-L50-840-DMA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	937.25	N.A.	18.00
0-30	1839.03	N.A.	35.40
0-40	2784.29	N.A.	53.60
0-60	4365.12	N.A.	84.00
0-80	5129.73	N.A.	98.70
0-90	5198.45	N.A.	100.00
10-90	4940.81	N.A.	95.00
20-40	1847.04	N.A.	35.50
20-50	2716.87	N.A.	52.30
40-70	2077.13	N.A.	40.00
60-80	764.61	N.A.	14.70
70-80	268.31	N.A.	5.20
80-90	68.72	N.A.	1.30
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	5198.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	257.64
10-20	679.61
20-30	901.77
30-40	945.26
40-50	869.83
50-60	711.00
60-70	496.30
70-80	268.31
80-90	68.72
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 : FRM-22-L50-840-DMA-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	105	102	98	107	103	100	96	99	96	93	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	93	83	75	69	90	81	74	69	78	73	68	76	71	66	73	69	65	63
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	69	56	48	42	67	55	47	42	54	46	41	52	46	41	51	45	41	39
8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32
10	57	44	37	32	55	44	36	31	43	36	31	42	36	31	41	35	31	29

IES INDOOR REPORT
PHOTOMETRIC FILENAME : FRM-22-L50-840-DMA-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	16.5	18.0	16.9	18.4	18.7	16.5	18.0	16.8	18.3	18.6
	3H	18.1	19.5	18.5	19.9	20.2	18.1	19.5	18.5	19.8	20.2
	4H	18.7	20.0	19.1	20.4	20.8	18.8	20.1	19.2	20.4	20.8
	6H	19.2	20.4	19.6	20.7	21.1	19.2	20.4	19.6	20.8	21.1
	8H	19.3	20.4	19.7	20.8	21.2	19.3	20.5	19.8	20.8	21.2
	12H	19.3	20.4	19.8	20.8	21.2	19.4	20.5	19.8	20.9	21.3

UGR Viewed Endwise

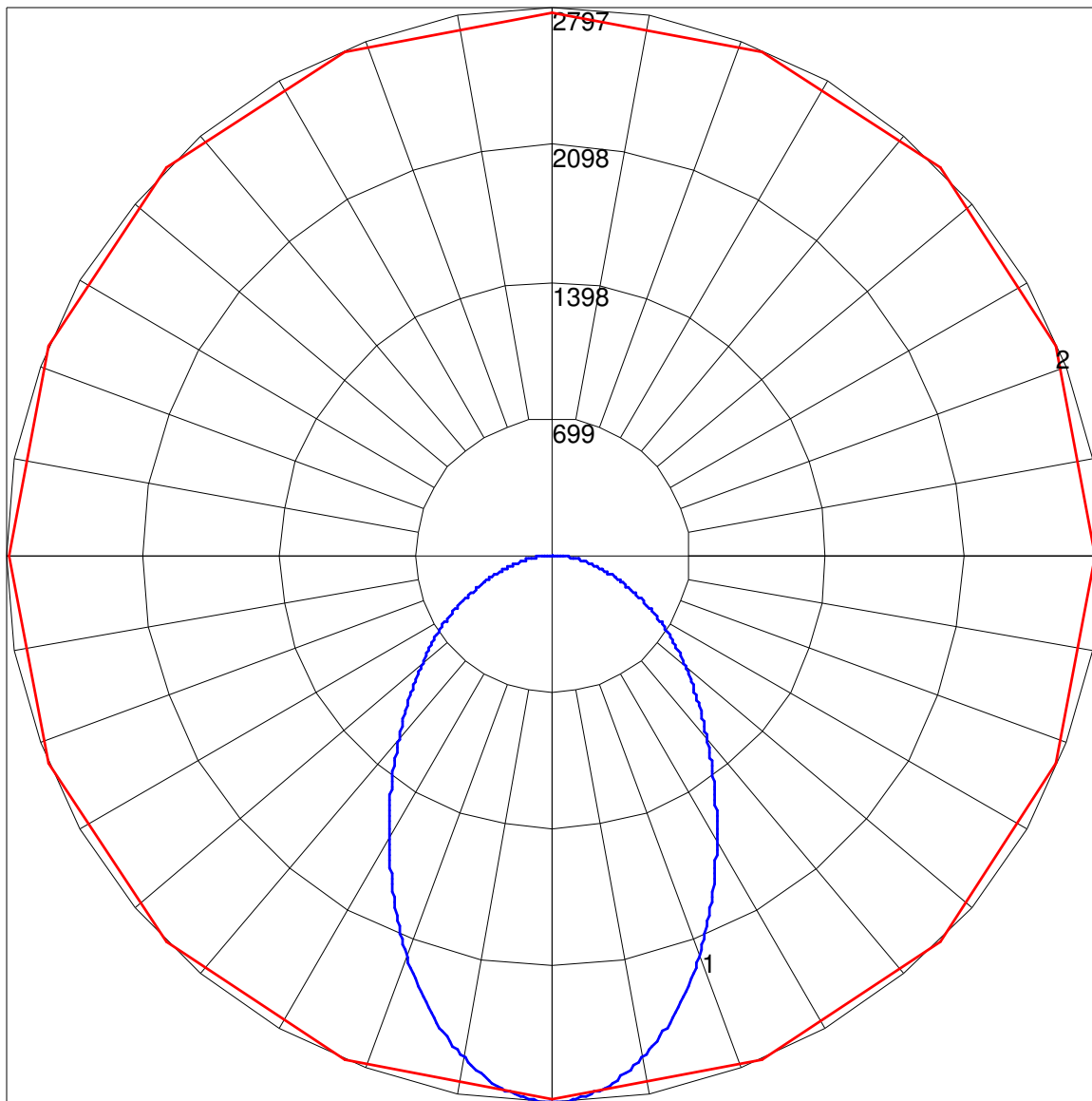
4H	2H	16.9	18.2	17.3	18.6	19.0	16.9	18.2	17.3	18.6	18.9
	3H	18.8	19.9	19.2	20.3	20.7	18.8	19.9	19.2	20.3	20.7
	4H	19.5	20.5	19.9	20.9	21.3	19.5	20.5	19.9	20.9	21.3
	6H	20.0	20.9	20.5	21.3	21.8	20.1	20.9	20.5	21.4	21.8
	8H	20.2	21.0	20.7	21.4	21.9	20.2	21.0	20.7	21.5	21.9
	12H	20.3	21.0	20.8	21.5	22.0	20.4	21.1	20.8	21.5	22.0

8H	4H	19.7	20.5	20.2	21.0	21.4	19.7	20.5	20.2	21.0	21.4
	6H	20.3	21.0	20.8	21.5	22.0	20.4	21.0	20.9	21.5	22.0
	8H	20.5	21.1	21.1	21.6	22.1	20.6	21.2	21.1	21.7	22.2
	12H	20.7	21.2	21.2	21.7	22.3	20.8	21.3	21.3	21.8	22.3

12H	4H	19.7	20.4	20.2	20.9	21.4	19.8	20.5	20.2	20.9	21.4
	6H	20.4	21.0	20.9	21.4	22.0	20.4	21.0	20.9	21.5	22.0
	8H	20.6	21.1	21.1	21.6	22.2	20.7	21.2	21.2	21.7	22.2

Maximum UGR = 22.3

POLAR GRAPH



Maximum Candela = 2796.735 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.)