

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FRM-24-L78-835-DMA-DIM-UNV_.IES_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GENERATED FROM 15746385.01
[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-24-L78-835-DMA-DIM-UNV_
[LUMINAIRE] Recessed 2 x 4 narrow aperture LED luminaire
[MORE] with center frame driver housing
[LAMP] LED
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] INDOOR
[_SEARCH_MOUNTING] RECESSED
[FILEGENINFO] 1.10000

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7866
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	85.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.06
Spacing Criterion (90-270)	0.94
Spacing Criterion (Diagonal)	1.06
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.88 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	4201	3242	3447
55	3726	2807	3032
65	3219	2408	2607
75	2600	1998	2171
85	1915	1434	1691

IES INDOOR REPORT**PHOTOMETRIC FILENAME : FRM-24-L78-835-DMA-DIM-UNV_.IES_.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	4215.535	4215.535	4215.535	4215.535	4215.535
0.5	4166.529	4211.535	4225.536	4222.536	4232.537
1.0	4164.529	4209.534	4223.536	4220.536	4229.537
1.5	4162.528	4206.534	4220.536	4215.535	4225.536
2.0	4158.528	4202.533	4215.535	4209.534	4218.536
2.5	4153.527	4196.533	4208.534	4201.533	4210.534
3.0	4148.527	4190.532	4200.533	4192.532	4201.533
3.5	4140.526	4182.531	4191.532	4181.531	4190.532
4.0	4132.525	4173.530	4180.531	4169.529	4177.530
4.5	4123.523	4163.529	4168.529	4155.528	4162.528
5.0	4113.522	4152.527	4155.528	4140.526	4147.526
5.5	4102.521	4139.525	4140.526	4123.523	4130.524
6.0	4090.519	4125.524	4123.523	4106.521	4110.522
6.5	4076.517	4112.522	4105.521	4086.519	4091.519
7.0	4062.516	4097.520	4087.519	4066.516	4069.517
7.5	4048.514	4080.518	4067.516	4045.514	4046.514
8.0	4032.512	4062.516	4047.514	4022.511	4023.511
8.5	4015.510	4044.513	4024.511	3997.507	3998.508
9.0	3998.508	4025.511	4002.508	3972.504	3972.504
9.5	3981.505	4005.508	3979.505	3947.501	3946.501
10.0	3962.503	3984.506	3954.502	3920.498	3918.497
10.5	3943.501	3963.503	3929.499	3892.494	3888.494
11.0	3923.498	3940.500	3902.495	3863.490	3859.490
11.5	3903.496	3917.497	3875.492	3833.487	3829.486
12.0	3882.493	3893.494	3847.488	3802.483	3798.482
12.5	3860.490	3868.491	3818.485	3770.479	3767.478
13.0	3838.487	3843.488	3789.481	3738.475	3735.474
13.5	3815.484	3817.485	3759.477	3706.471	3704.470
14.0	3792.481	3790.481	3728.473	3672.466	3670.466
14.5	3768.478	3764.478	3696.469	3638.462	3635.461
15.0	3744.475	3737.474	3664.465	3602.457	3601.457
15.5	3720.472	3708.471	3631.461	3567.453	3566.453
16.0	3695.469	3680.467	3598.457	3532.448	3530.448
16.5	3670.466	3651.464	3563.452	3495.444	3494.444
17.0	3645.463	3621.460	3528.448	3459.439	3457.439
17.5	3619.459	3590.456	3493.443	3422.434	3420.434
18.0	3592.456	3559.452	3457.439	3384.430	3382.429
18.5	3564.452	3528.448	3420.434	3346.425	3344.425
19.0	3537.449	3497.444	3384.430	3308.420	3306.420
19.5	3509.445	3465.440	3347.425	3270.415	3269.415
20.0	3481.442	3433.436	3309.420	3230.410	3230.410
20.5	3453.438	3400.432	3271.415	3192.405	3192.405
21.0	3424.435	3367.427	3232.410	3152.400	3154.400
21.5	3394.431	3334.423	3193.405	3113.395	3115.395
22.0	3364.427	3301.419	3154.400	3074.390	3077.391
22.5	3335.423	3268.415	3115.395	3034.385	3038.386
23.0	3306.420	3234.411	3076.391	2995.380	3000.381
23.5	3277.416	3199.406	3036.385	2955.375	2962.376
24.0	3248.412	3166.402	2997.380	2915.370	2924.371
24.5	3218.409	3131.398	2958.376	2877.365	2887.367
25.0	3188.405	3097.393	2919.371	2838.360	2850.362
25.5	3159.401	3063.389	2879.366	2800.355	2813.357
26.0	3129.397	3029.385	2841.361	2761.351	2777.353
26.5	3100.394	2994.380	2801.356	2722.346	2741.348

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27.0	3070.390	2960.376	2762.351	2684.341	2706.344
27.5	3041.386	2926.371	2723.346	2647.336	2670.339
28.0	3012.382	2892.367	2685.341	2610.331	2635.335
28.5	2982.379	2858.363	2647.336	2573.327	2602.330
29.0	2952.375	2824.359	2609.331	2537.322	2567.326
29.5	2923.371	2791.354	2572.327	2501.318	2533.322
30.0	2894.367	2757.350	2534.322	2465.313	2501.318
30.5	2866.364	2723.346	2497.317	2430.309	2468.313
31.0	2838.360	2690.342	2459.312	2395.304	2436.309
31.5	2808.356	2657.337	2423.308	2361.300	2404.305
32.0	2779.353	2623.333	2386.303	2327.295	2372.301
32.5	2750.349	2590.329	2349.298	2293.291	2341.297
33.0	2720.345	2558.325	2313.294	2259.287	2310.293
33.5	2692.342	2525.321	2277.289	2226.283	2280.289
34.0	2662.338	2492.316	2241.285	2194.279	2250.286
34.5	2633.334	2460.312	2207.280	2161.274	2220.282
35.0	2604.331	2427.308	2172.276	2130.270	2191.278
35.5	2576.327	2394.304	2137.271	2098.266	2162.274
36.0	2547.323	2362.300	2102.267	2067.262	2133.271
36.5	2518.320	2330.296	2069.263	2036.258	2105.267
37.0	2489.316	2298.292	2036.258	2005.255	2077.264
37.5	2460.312	2267.288	2003.254	1975.251	2049.260
38.0	2432.309	2236.284	1971.250	1946.247	2021.257
38.5	2403.305	2204.280	1939.246	1917.243	1994.253
39.0	2373.301	2172.276	1907.242	1889.240	1967.250
39.5	2345.298	2142.272	1876.238	1860.236	1941.246
40.0	2316.294	2111.268	1846.234	1833.233	1915.243
40.5	2288.290	2081.264	1816.231	1805.229	1889.240
41.0	2258.287	2050.260	1787.227	1778.226	1863.237
41.5	2230.283	2021.257	1758.223	1752.222	1838.233
42.0	2201.279	1991.253	1729.220	1726.219	1812.230
42.5	2173.276	1962.249	1701.216	1700.216	1787.227
43.0	2144.272	1932.245	1673.212	1673.212	1763.224
43.5	2115.269	1903.242	1646.209	1648.209	1738.221
44.0	2086.265	1874.238	1619.206	1623.206	1714.218
44.5	2058.261	1845.234	1593.202	1598.203	1690.215
45.0	2029.258	1817.231	1566.199	1573.200	1665.211
45.5	2000.254	1788.227	1540.196	1549.197	1641.208
46.0	1972.250	1759.223	1515.192	1524.193	1617.205
46.5	1944.247	1731.220	1490.189	1500.190	1593.202
47.0	1916.243	1703.216	1465.186	1476.187	1568.199
47.5	1887.240	1675.213	1440.183	1453.184	1544.196
48.0	1858.236	1647.209	1416.180	1429.181	1520.193
48.5	1829.232	1619.206	1391.177	1405.178	1496.190
49.0	1802.229	1592.202	1368.174	1381.175	1472.187
49.5	1772.225	1564.199	1344.171	1358.172	1449.184
50.0	1744.221	1537.195	1320.168	1334.169	1425.181
50.5	1716.218	1510.192	1297.165	1311.166	1402.178
51.0	1687.214	1483.188	1274.162	1288.164	1378.175
51.5	1659.211	1455.185	1252.159	1264.160	1353.172
52.0	1629.207	1428.181	1229.156	1241.158	1330.169
52.5	1601.203	1401.178	1207.153	1218.155	1306.166
53.0	1573.200	1375.175	1186.151	1196.152	1282.163
53.5	1545.196	1348.171	1164.148	1173.149	1258.160
54.0	1516.192	1322.168	1142.145	1150.146	1234.157
54.5	1488.189	1297.165	1121.142	1128.143	1210.154

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55.0	1460.185	1271.161	1100.140	1106.140	1188.151
55.5	1432.182	1245.158	1079.137	1084.138	1165.148
56.0	1404.178	1220.155	1058.134	1062.135	1141.145
56.5	1377.175	1195.152	1037.132	1041.132	1118.142
57.0	1350.171	1170.149	1017.129	1019.129	1095.139
57.5	1322.168	1145.145	997.027	997.527	1072.136
58.0	1295.164	1121.142	976.624	976.324	1050.133
58.5	1268.161	1096.139	956.721	954.821	1028.131
59.0	1241.158	1072.136	936.419	933.719	1005.128
59.5	1215.154	1048.133	916.516	912.916	982.525
60.0	1188.151	1024.130	896.414	892.113	960.822
60.5	1162.148	1000.127	876.311	871.511	939.619
61.0	1136.144	976.524	856.609	850.708	917.917
61.5	1109.141	953.221	836.106	830.305	896.714
62.0	1084.138	930.018	816.304	809.903	876.011
62.5	1058.134	907.315	796.101	789.800	854.809
63.0	1032.131	884.512	776.099	769.998	833.406
63.5	1008.128	862.409	756.196	750.395	813.403
64.0	982.125	839.907	735.693	730.793	792.801
64.5	956.121	817.704	715.591	711.490	772.598
65.0	929.418	796.101	695.388	692.788	752.796
65.5	904.015	773.998	675.586	674.386	732.993
66.0	878.812	751.895	656.083	655.783	711.490
66.5	854.308	730.393	636.781	637.981	691.688
67.0	829.805	708.590	617.778	620.379	672.185
67.5	804.802	687.287	598.976	602.677	652.983
68.0	778.799	666.285	580.874	585.274	633.580
68.5	753.396	645.982	563.372	567.872	615.078
69.0	729.293	625.279	546.069	550.570	595.976
69.5	705.790	605.177	529.067	533.568	577.073
70.0	681.987	585.574	512.265	516.866	558.371
70.5	658.984	565.772	495.663	500.464	540.369
71.0	635.381	546.269	479.361	484.061	522.166
71.5	612.878	527.067	463.259	467.859	504.464
72.0	589.975	508.165	447.157	451.757	486.862
72.5	567.672	489.062	431.055	435.855	469.360
73.0	545.369	470.260	415.353	419.853	452.157
73.5	523.666	451.557	399.551	404.051	434.855
74.0	502.264	432.955	383.849	388.149	417.653
74.5	480.761	414.553	368.347	372.547	400.751
75.0	459.658	396.250	353.245	356.945	383.949
75.5	438.556	378.148	338.143	341.743	366.947
76.0	417.853	360.146	322.741	326.341	350.544
76.5	397.450	342.143	307.839	311.139	333.842
77.0	377.548	323.941	293.137	296.038	317.440
77.5	357.645	306.439	278.235	281.436	301.138
78.0	337.943	289.737	263.433	266.734	285.036
78.5	318.440	272.935	249.032	252.332	269.034
79.0	299.538	256.633	234.630	238.030	253.432
79.5	281.436	240.631	220.428	223.728	237.930
80.0	263.433	225.329	206.226	209.427	222.528
80.5	245.831	210.127	192.124	195.325	208.326
81.0	228.629	195.225	178.223	181.923	194.625
81.5	211.927	181.023	164.421	169.422	182.023
82.0	195.925	167.121	151.119	157.420	169.622
82.5	180.623	153.820	137.918	146.219	157.320

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CANDELA TABULATION - (Cont.)

83.0	166.121	140.818	125.516	135.517	145.318
83.5	152.119	128.416	114.114	124.716	133.717
84.0	139.118	116.615	103.713	114.014	122.316
84.5	126.216	105.113	94.312	103.513	111.314
85.0	114.014	94.112	85.411	93.212	100.713
85.5	102.313	83.611	77.110	83.311	90.411
86.0	90.712	73.409	69.209	74.009	81.210
86.5	79.410	63.908	61.708	65.708	72.909
87.0	68.109	55.407	54.707	58.607	65.208
87.5	56.807	47.706	48.506	52.607	58.507
88.0	45.706	40.405	42.705	47.106	52.507
88.5	35.805	33.404	36.705	41.605	46.706
89.0	26.703	25.803	29.404	33.704	37.305
89.5	16.502	16.402	19.703	25.303	29.404
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 : FRM-24-L78-835-DMA-DIM-UNV_.IES_.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-24-L78-835-DMA-DIM-UNV_.IES_.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-24-L78-835-DMA-DIM-UNV_.IES_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1417.28	N.A.	18.00
0-30	2781.66	N.A.	35.40
0-40	4209.52	N.A.	53.50
0-60	6598.21	N.A.	83.90
0-80	7754.45	N.A.	98.60
0-90	7866.48	N.A.	100.00
10-90	7477.13	N.A.	95.10
20-40	2792.23	N.A.	35.50
20-50	4106.02	N.A.	52.20
40-70	3139.55	N.A.	39.90
60-80	1156.24	N.A.	14.70
70-80	405.39	N.A.	5.20
80-90	112.02	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	7866.48	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	389.34
10-20	1027.94
20-30	1364.38
30-40	1427.85
40-50	1313.78
50-60	1074.91
60-70	750.85
70-80	405.39
80-90	112.02
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-24-L78-835-DMA-DIM-UNV_.IES_.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	72	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	73	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	53	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-24-L78-835-DMA-DIM-UNV_.IES_.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

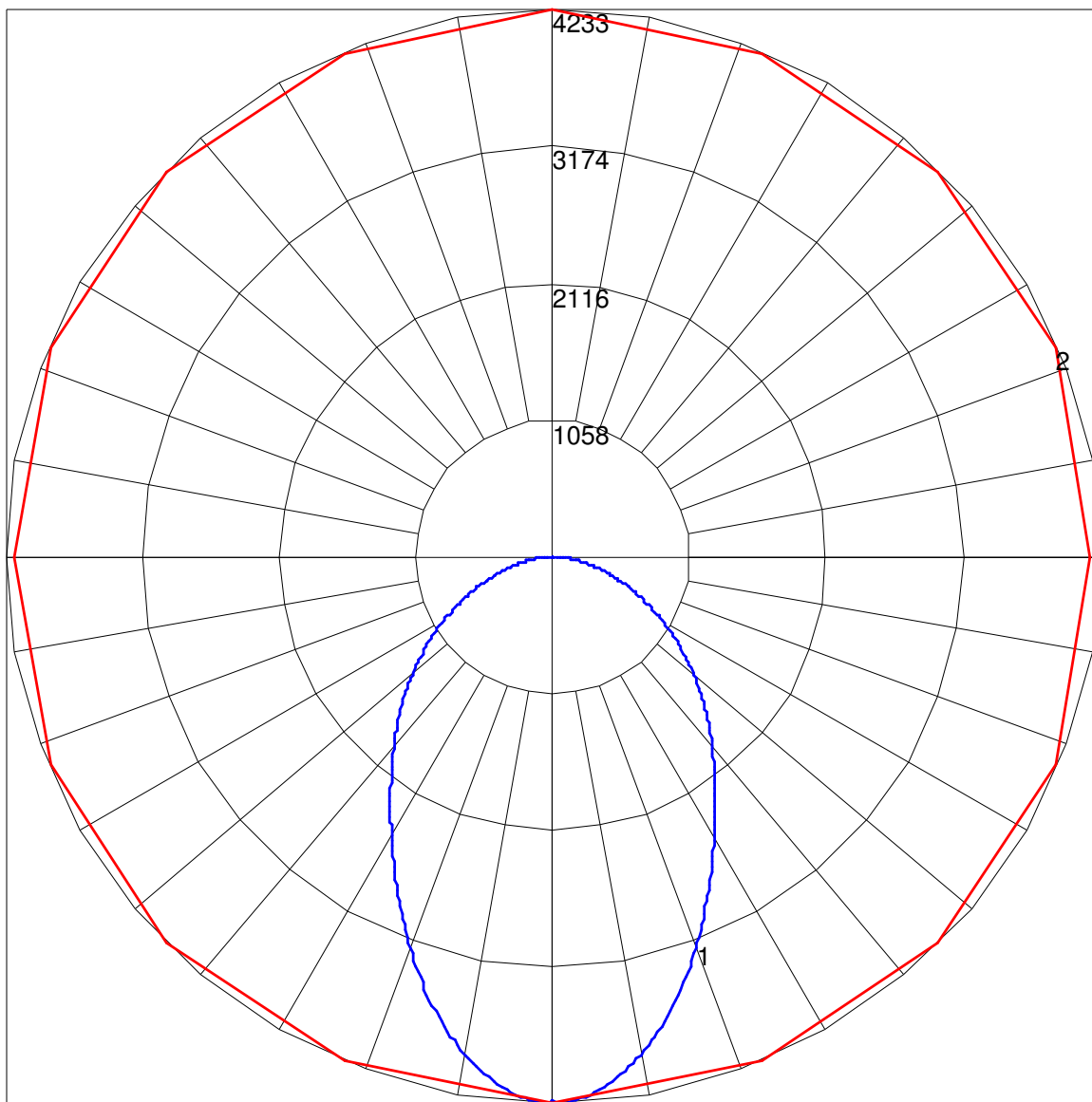
X=2H	Y=2H	16.0	17.6	16.4	17.9	18.2	15.0	16.5	15.3	16.8	17.1
	3H	17.7	19.1	18.1	19.4	19.8	16.6	18.0	17.0	18.3	18.7
	4H	18.3	19.6	18.7	20.0	20.3	17.2	18.5	17.6	18.9	19.2
	6H	18.7	19.9	19.2	20.3	20.7	17.6	18.8	18.1	19.2	19.6
	8H	18.9	20.0	19.3	20.4	20.8	17.8	18.9	18.2	19.3	19.7
	12H	19.0	20.0	19.4	20.4	20.9	17.9	19.0	18.3	19.4	19.8

UGR Viewed Endwise

4H	2H	16.4	17.7	16.8	18.0	18.4	15.5	16.8	15.9	17.1	17.5
	3H	18.3	19.3	18.7	19.7	20.1	17.3	18.4	17.7	18.8	19.2
	4H	19.0	20.0	19.4	20.4	20.8	18.0	19.0	18.5	19.4	19.9
	6H	19.5	20.4	20.0	20.8	21.3	18.6	19.4	19.1	19.9	20.4
	8H	19.7	20.5	20.2	20.9	21.4	18.8	19.6	19.2	20.0	20.5
	12H	19.8	20.5	20.3	21.0	21.5	18.9	19.6	19.4	20.1	20.6
8H	4H	19.2	19.9	19.6	20.4	20.9	18.3	19.1	18.8	19.5	20.0
	6H	19.8	20.4	20.3	20.9	21.4	19.0	19.6	19.5	20.1	20.6
	8H	20.0	20.6	20.5	21.1	21.6	19.2	19.8	19.7	20.3	20.8
	12H	20.2	20.7	20.7	21.2	21.8	19.4	19.9	19.9	20.4	21.0
12H	4H	19.2	19.9	19.6	20.3	20.8	18.3	19.0	18.8	19.5	20.0
	6H	19.8	20.4	20.3	20.9	21.4	19.0	19.6	19.5	20.1	20.6
	8H	20.1	20.6	20.6	21.1	21.7	19.3	19.8	19.8	20.3	20.9

Maximum UGR = 21.8

POLAR GRAPH



Maximum Candela = 4232.537 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.)