

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : FRM-24-L78-950-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-L78-950-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	7001
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
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	3738	2885	3068
55	3316	2499	2699
65	2865	2143	2320
75	2314	1778	1933
85	1704	1277	1505

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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	3751.827	3751.827	3751.827	3751.827	3751.827
0.5	3708.211	3748.267	3760.728	3758.058	3766.959
1.0	3706.431	3746.486	3758.948	3756.278	3764.289
1.5	3704.651	3743.816	3756.278	3751.827	3760.728
2.0	3701.091	3740.256	3751.827	3746.486	3754.497
2.5	3696.640	3734.915	3745.596	3739.365	3747.376
3.0	3692.189	3729.574	3738.475	3731.354	3739.365
3.5	3685.069	3722.453	3730.464	3721.563	3729.574
4.0	3677.948	3714.442	3720.673	3710.882	3718.003
4.5	3669.937	3705.541	3709.992	3698.420	3704.651
5.0	3661.035	3695.750	3698.420	3685.069	3691.299
5.5	3651.244	3684.178	3685.069	3669.937	3676.167
6.0	3640.563	3671.717	3669.937	3654.805	3658.365
6.5	3628.101	3660.145	3653.915	3637.002	3641.453
7.0	3615.640	3646.794	3637.893	3619.200	3621.871
7.5	3603.178	3631.662	3620.090	3600.508	3601.398
8.0	3588.936	3615.640	3602.288	3580.035	3580.925
8.5	3573.804	3599.618	3581.815	3557.782	3558.672
9.0	3558.672	3582.706	3562.233	3535.530	3535.530
9.5	3543.541	3564.903	3541.760	3513.277	3512.387
10.0	3526.628	3546.211	3519.507	3489.244	3487.463
10.5	3509.716	3527.519	3497.255	3464.320	3460.760
11.0	3491.914	3507.046	3473.222	3438.507	3434.947
11.5	3474.112	3486.573	3449.189	3411.804	3408.243
12.0	3455.419	3465.211	3424.265	3384.210	3380.650
12.5	3435.837	3442.958	3398.452	3355.727	3353.056
13.0	3416.254	3420.705	3372.639	3327.243	3324.573
13.5	3395.782	3397.562	3345.935	3298.759	3296.979
14.0	3375.309	3373.529	3318.342	3268.496	3266.715
14.5	3353.946	3350.386	3289.858	3238.232	3235.561
15.0	3332.584	3326.353	3261.375	3206.188	3205.298
15.5	3311.221	3300.540	3232.001	3175.034	3174.144
16.0	3288.968	3275.616	3202.627	3143.880	3142.100
16.5	3266.715	3249.803	3171.473	3110.946	3110.055
17.0	3244.463	3223.100	3140.319	3078.901	3077.121
17.5	3221.320	3195.506	3109.165	3045.967	3044.187
18.0	3197.287	3167.913	3077.121	3012.143	3010.363
18.5	3172.363	3140.319	3044.187	2978.319	2976.538
19.0	3148.330	3112.726	3012.143	2944.494	2942.714
19.5	3123.407	3084.242	2979.209	2910.670	2909.780
20.0	3098.484	3055.759	2945.384	2875.066	2875.066
20.5	3073.561	3026.385	2911.560	2841.241	2841.241
21.0	3047.748	2997.011	2876.846	2805.637	2807.417
21.5	3021.044	2967.637	2842.131	2770.922	2772.703
22.0	2994.341	2938.264	2807.417	2736.208	2738.878
22.5	2968.527	2908.890	2772.703	2700.603	2704.164
23.0	2942.714	2878.626	2737.988	2665.889	2670.340
23.5	2916.901	2847.472	2702.384	2630.284	2636.515
24.0	2891.088	2818.098	2667.669	2594.680	2602.691
24.5	2864.384	2786.944	2632.955	2560.856	2569.757
25.0	2837.681	2756.681	2598.240	2526.141	2536.823
25.5	2811.868	2726.417	2562.636	2492.317	2503.888
26.0	2785.164	2696.153	2528.812	2457.602	2471.844
26.5	2759.351	2664.999	2493.207	2422.888	2439.800

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**CANDELA TABULATION - (Cont.)**

27.0	2732.647	2634.735	2458.493	2389.064	2408.646
27.5	2706.834	2604.471	2423.778	2356.130	2376.602
28.0	2681.021	2574.207	2389.954	2323.195	2345.448
28.5	2654.317	2543.943	2356.130	2290.261	2316.074
29.0	2627.614	2513.680	2322.305	2258.217	2284.921
29.5	2601.801	2484.306	2289.371	2226.173	2254.657
30.0	2575.988	2454.042	2255.547	2194.129	2226.173
30.5	2551.064	2423.778	2222.613	2162.975	2196.799
31.0	2526.141	2394.404	2188.788	2131.821	2168.316
31.5	2499.438	2365.031	2156.744	2101.557	2139.832
32.0	2473.625	2334.767	2123.810	2071.293	2111.348
32.5	2447.811	2305.393	2090.876	2041.030	2083.755
33.0	2421.108	2276.910	2058.832	2010.766	2056.161
33.5	2396.185	2247.536	2026.788	1981.392	2029.458
34.0	2369.481	2218.162	1994.744	1952.908	2002.755
34.5	2343.668	2189.678	1964.480	1923.535	1976.051
35.0	2317.855	2160.305	1933.326	1895.941	1950.238
35.5	2292.932	2130.931	1902.172	1867.457	1924.425
36.0	2267.118	2102.447	1871.018	1839.864	1898.611
36.5	2241.305	2073.964	1841.644	1812.270	1873.688
37.0	2215.492	2045.480	1812.270	1784.677	1848.765
37.5	2189.678	2017.887	1782.897	1757.974	1823.842
38.0	2164.755	1990.293	1754.413	1732.160	1798.919
38.5	2138.942	1961.809	1725.929	1706.347	1774.886
39.0	2112.239	1933.326	1697.446	1681.424	1750.853
39.5	2087.315	1906.622	1669.852	1655.611	1727.710
40.0	2061.502	1879.029	1643.149	1631.577	1704.567
40.5	2036.579	1852.326	1616.446	1606.654	1681.424
41.0	2009.876	1824.732	1590.632	1582.621	1658.281
41.5	1984.952	1798.919	1564.819	1559.478	1636.028
42.0	1959.139	1772.215	1539.006	1536.335	1612.885
42.5	1934.216	1746.402	1514.083	1513.192	1590.632
43.0	1908.403	1719.699	1489.159	1489.159	1569.270
43.5	1882.589	1693.885	1465.126	1466.907	1547.017
44.0	1856.776	1668.072	1441.093	1444.654	1525.654
44.5	1831.853	1642.259	1417.950	1422.401	1504.291
45.0	1806.040	1617.336	1393.917	1400.148	1482.038
45.5	1780.226	1591.522	1370.774	1378.785	1460.676
46.0	1755.303	1565.709	1348.521	1356.532	1439.313
46.5	1730.380	1540.786	1326.269	1335.170	1417.950
47.0	1705.457	1515.863	1304.016	1313.807	1395.697
47.5	1679.644	1490.940	1281.763	1293.334	1374.335
48.0	1653.830	1466.016	1260.400	1271.972	1352.972
48.5	1628.017	1441.093	1238.147	1250.609	1331.609
49.0	1603.984	1417.060	1217.675	1229.246	1310.247
49.5	1577.281	1392.137	1196.312	1208.774	1289.774
50.0	1552.357	1368.104	1174.949	1187.411	1268.411
50.5	1527.434	1344.071	1154.477	1166.938	1247.939
51.0	1501.621	1320.038	1134.004	1146.466	1226.576
51.5	1476.698	1295.115	1114.422	1125.103	1204.323
52.0	1449.994	1271.082	1093.949	1104.630	1183.851
52.5	1425.071	1247.049	1074.367	1084.158	1162.488
53.0	1400.148	1223.906	1055.674	1064.575	1141.125
53.5	1375.225	1199.873	1036.092	1044.103	1119.762
54.0	1349.412	1176.730	1016.509	1023.630	1098.400
54.5	1324.488	1154.477	997.817	1004.048	1077.037

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55.0	1299.565	1131.334	979.124	984.465	1057.454
55.5	1274.642	1108.191	960.432	964.883	1036.982
56.0	1249.719	1085.938	941.740	945.300	1015.619
56.5	1225.686	1063.685	923.047	926.608	995.147
57.0	1201.653	1041.432	905.245	907.025	974.674
57.5	1176.730	1019.180	887.354	887.799	954.201
58.0	1152.697	997.817	869.196	868.928	934.619
58.5	1128.664	975.564	851.482	849.791	915.036
59.0	1104.630	954.201	833.413	831.010	894.564
59.5	1081.488	932.839	815.700	812.495	874.447
60.0	1057.454	911.476	797.808	793.981	855.132
60.5	1034.312	890.113	779.917	775.645	836.261
61.0	1011.169	869.107	762.382	757.130	816.946
61.5	987.136	848.367	744.135	738.972	798.075
62.0	964.883	827.716	726.510	720.814	779.650
62.5	941.740	807.511	708.530	702.922	760.780
63.0	918.597	787.216	690.728	685.298	741.731
63.5	897.234	767.545	673.015	667.852	723.929
64.0	874.091	747.517	654.767	650.406	705.593
64.5	850.948	727.757	636.876	633.227	687.612
65.0	827.182	708.530	618.896	616.581	669.988
65.5	804.573	688.859	601.271	600.203	652.364
66.0	782.142	669.187	583.914	583.647	633.227
66.5	760.335	650.050	566.735	567.803	615.602
67.0	738.527	630.645	549.823	552.137	598.245
67.5	716.274	611.686	533.089	536.382	581.155
68.0	693.131	592.993	516.978	520.894	563.887
68.5	670.522	574.924	501.401	505.406	547.420
69.0	649.071	556.499	486.002	490.007	530.418
69.5	628.153	538.607	470.870	474.875	513.595
70.0	606.968	521.161	455.916	460.010	496.950
70.5	586.496	503.537	441.140	445.413	480.928
71.0	565.489	486.180	426.631	430.815	464.728
71.5	545.461	469.090	412.300	416.395	448.973
72.0	525.078	452.267	397.970	402.064	433.307
72.5	505.228	435.265	383.639	387.911	417.730
73.0	485.379	418.531	369.664	373.670	402.420
73.5	466.063	401.886	355.600	359.606	387.021
74.0	447.015	385.330	341.625	345.453	371.711
74.5	427.877	368.952	327.829	331.567	356.668
75.0	409.096	352.663	314.388	317.681	341.714
75.5	390.315	336.552	300.947	304.152	326.583
76.0	371.889	320.530	287.240	290.444	311.985
76.5	353.731	304.508	273.977	276.914	297.120
77.0	336.018	288.308	260.892	263.473	282.522
77.5	318.304	272.731	247.629	250.478	268.013
78.0	300.769	257.866	234.456	237.393	253.682
78.5	283.412	242.912	221.638	224.576	239.440
79.0	266.589	228.403	208.821	211.847	225.555
79.5	250.478	214.161	196.181	199.118	211.758
80.0	234.456	200.542	183.541	186.390	198.050
80.5	218.790	187.013	170.991	173.839	185.411
81.0	203.480	173.750	158.618	161.912	173.216
81.5	188.615	161.110	146.335	150.785	162.001
82.0	174.373	148.738	134.496	140.104	150.963
82.5	160.754	136.899	122.747	130.135	140.015

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**CANDELA TABULATION - (Cont.)**

83.0	147.848	125.328	111.709	120.610	129.333
83.5	135.386	114.291	101.562	110.997	119.008
84.0	123.815	103.787	92.305	101.473	108.861
84.5	112.332	93.551	83.938	92.127	99.070
85.0	101.473	83.760	76.016	82.959	89.634
85.5	91.059	74.413	68.628	74.146	80.466
86.0	80.733	65.334	61.596	65.868	72.277
86.5	70.675	56.878	54.920	58.480	64.889
87.0	60.617	49.312	48.689	52.161	58.035
87.5	50.558	42.458	43.170	46.820	52.072
88.0	40.678	35.961	38.008	41.924	46.731
88.5	31.866	29.730	32.667	37.029	41.568
89.0	23.766	22.965	26.169	29.997	33.201
89.5	14.687	14.598	17.535	22.520	26.169
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-L78-950-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-L78-950-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-L78-950-DMA-DIM-UNV\_.IES\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1261.38	N.A.	18.00
0-30	2475.68	N.A.	35.40
0-40	3746.47	N.A.	53.50
0-60	5872.41	N.A.	83.90
0-80	6901.46	N.A.	98.60
0-90	7001.17	N.A.	100.00
10-90	6654.65	N.A.	95.10
20-40	2485.09	N.A.	35.50
20-50	3654.36	N.A.	52.20
40-70	2794.2	N.A.	39.90
60-80	1029.05	N.A.	14.70
70-80	360.79	N.A.	5.20
80-90	99.70	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	7001.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	346.52
10-20	914.86
20-30	1214.3
30-40	1270.79
40-50	1169.27
50-60	956.67
60-70	668.26
70-80	360.79
80-90	99.70
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-L78-950-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-L78-950-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	15.6	17.2	16.0	17.5	17.8	14.6	16.1	14.9	16.4	16.7
	3H	17.3	18.7	17.7	19.0	19.4	16.2	17.6	16.6	17.9	18.3
	4H	17.9	19.2	18.3	19.6	19.9	16.8	18.1	17.2	18.5	18.8
	6H	18.3	19.5	18.8	19.9	20.3	17.2	18.4	17.7	18.8	19.2
	8H	18.5	19.6	18.9	20.0	20.4	17.4	18.5	17.8	18.9	19.3
	12H	18.6	19.6	19.0	20.0	20.5	17.5	18.6	17.9	19.0	19.4

### UGR Viewed Endwise

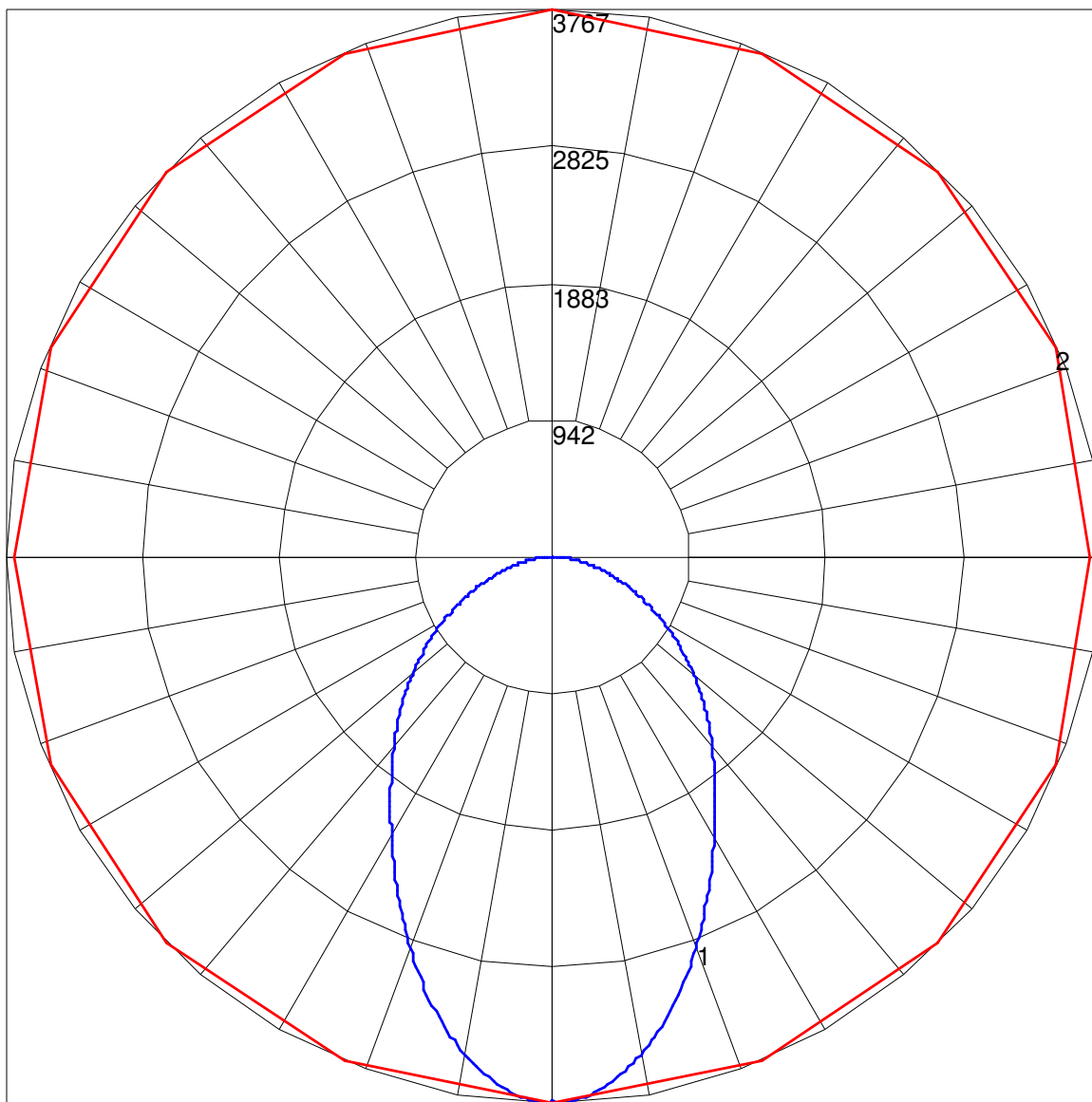
4H	2H	16.0	17.3	16.4	17.6	18.0	15.1	16.4	15.5	16.7	17.1
	3H	17.9	18.9	18.3	19.3	19.7	16.9	18.0	17.3	18.4	18.8
	4H	18.6	19.6	19.0	20.0	20.4	17.6	18.6	18.1	19.0	19.5
	6H	19.1	20.0	19.6	20.4	20.9	18.2	19.1	18.7	19.5	20.0
	8H	19.3	20.1	19.8	20.5	21.0	18.4	19.2	18.8	19.6	20.1
	12H	19.4	20.1	19.9	20.6	21.1	18.5	19.2	19.0	19.7	20.2

8H	4H	18.8	19.5	19.2	20.0	20.5	17.9	18.7	18.4	19.1	19.6
	6H	19.4	20.0	19.9	20.5	21.0	18.6	19.2	19.1	19.7	20.2
	8H	19.6	20.2	20.1	20.7	21.2	18.8	19.4	19.3	19.9	20.4
	12H	19.8	20.3	20.3	20.8	21.4	19.0	19.5	19.5	20.0	20.6

12H	4H	18.8	19.5	19.2	19.9	20.4	17.9	18.6	18.4	19.1	19.6
	6H	19.4	20.0	19.9	20.5	21.0	18.6	19.2	19.1	19.7	20.2
	8H	19.7	20.2	20.2	20.7	21.3	18.9	19.4	19.4	19.9	20.5

Maximum UGR = 21.4

POLAR GRAPH



Maximum Candela = 3766.959 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.)