

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-8-LS-8CS-DIM-UNV_81W_4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 15180278.01

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 2025-03-19

[TEST DATE] 2/23/2024

[MANUFAC] WILLIAMS INDOOR, H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMCAT] FS-8-LS-8CS-DIM-UNV_81W_4000K_

[LUMINAIRE] 89 INCH, 448 LEDS, LUMEN/WATTAGE/CCT SELECTABLE, LED STRIP

[MORE] WITH FROSTED ACRYLIC LENS

[SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, Utility, Warehouse, Linear

[SEARCH_MOUNTING] Surface, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11719
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	145
Total Luminaire Watts	81
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	7.44 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.20 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	24793	15041	13954
55	22420	12380	11676
65	19541	9757	9488
75	15729	7140	7237
85	9899	4698	5118

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	3687.832	3687.832	3687.832	3687.832	3687.832	3687.832	3687.832	3687.832	3687.832
0.5	3639.308	3702.104	3693.540	3693.540	3676.414	3696.395	3693.540	3707.812	3642.162
1.0	3636.453	3699.249	3687.832	3696.395	3673.560	3696.395	3687.832	3704.958	3642.162
1.5	3642.162	3699.249	3682.123	3693.540	3676.414	3696.395	3687.832	3702.104	3642.162
2.0	3642.162	3696.395	3687.832	3696.395	3673.560	3702.104	3687.832	3704.958	3639.308
2.5	3639.308	3693.540	3682.123	3693.540	3673.560	3690.686	3687.832	3699.249	3633.599
3.0	3630.745	3693.540	3679.269	3693.540	3673.560	3693.540	3684.977	3702.104	3633.599
3.5	3633.599	3687.832	3676.414	3684.977	3667.851	3687.832	3682.123	3693.540	3636.453
4.0	3625.036	3682.123	3670.706	3687.832	3670.706	3684.977	3679.269	3696.395	3627.890
4.5	3627.890	3673.560	3670.706	3682.123	3664.997	3684.977	3673.560	3690.686	3622.181
5.0	3613.618	3670.706	3662.142	3679.269	3664.997	3682.123	3670.706	3684.977	3622.181
5.5	3610.764	3670.706	3659.288	3676.414	3664.997	3679.269	3670.706	3679.269	3613.618
6.0	3605.055	3662.142	3653.579	3673.560	3656.434	3673.560	3662.142	3679.269	3610.764
6.5	3599.347	3656.434	3650.725	3664.997	3650.725	3670.706	3659.288	3673.560	3605.055
7.0	3590.784	3647.871	3645.016	3656.434	3645.016	3664.997	3656.434	3670.706	3607.910
7.5	3587.929	3645.016	3636.453	3656.434	3639.308	3659.288	3647.871	3664.997	3596.492
8.0	3582.220	3636.453	3630.745	3647.871	3639.308	3656.434	3645.016	3659.288	3590.784
8.5	3573.657	3627.890	3622.181	3639.308	3627.890	3647.871	3639.308	3650.725	3579.366
9.0	3567.949	3619.327	3610.764	3636.453	3622.181	3639.308	3630.745	3647.871	3573.657
9.5	3550.822	3610.764	3610.764	3630.745	3616.473	3636.453	3625.036	3636.453	3565.094
10.0	3547.968	3607.910	3596.492	3613.618	3613.618	3627.890	3619.327	3630.745	3562.240
10.5	3527.988	3590.784	3590.784	3613.618	3599.347	3622.181	3610.764	3619.327	3547.968
11.0	3525.133	3587.929	3582.220	3602.201	3593.638	3613.618	3596.492	3605.055	3547.968
11.5	3513.716	3573.657	3570.803	3593.638	3587.929	3602.201	3590.784	3602.201	3533.696
12.0	3502.298	3562.240	3565.094	3585.075	3576.512	3596.492	3579.366	3590.784	3519.425
12.5	3488.027	3550.822	3553.677	3579.366	3576.512	3582.220	3570.803	3576.512	3513.716
13.0	3482.318	3545.114	3539.405	3567.949	3565.094	3576.512	3562.240	3570.803	3496.590
13.5	3473.755	3530.842	3533.696	3553.677	3553.677	3565.094	3553.677	3562.240	3485.172
14.0	3456.629	3516.570	3519.425	3545.114	3542.259	3556.531	3539.405	3550.822	3473.755
14.5	3436.648	3502.298	3505.153	3533.696	3530.842	3542.259	3530.842	3539.405	3465.192
15.0	3428.085	3493.735	3499.444	3527.988	3519.425	3533.696	3516.570	3525.133	3450.920
15.5	3416.668	3485.172	3482.318	3513.716	3508.007	3519.425	3508.007	3510.861	3439.502
16.0	3408.105	3465.192	3470.900	3505.153	3493.735	3508.007	3490.881	3499.444	3419.522
16.5	3382.415	3453.774	3453.774	3493.735	3482.318	3496.590	3476.609	3485.172	3416.668
17.0	3368.144	3439.502	3445.211	3479.464	3470.900	3479.464	3465.192	3473.755	3396.687
17.5	3353.872	3422.376	3428.085	3462.337	3456.629	3465.192	3448.066	3462.337	3388.124
18.0	3345.309	3402.396	3410.959	3445.211	3445.211	3448.066	3436.648	3439.502	3370.998
18.5	3328.182	3390.978	3396.687	3436.648	3430.939	3436.648	3419.522	3428.085	3356.726
19.0	3305.348	3373.852	3379.561	3419.522	3413.813	3422.376	3408.105	3410.959	3339.600
19.5	3293.930	3359.580	3365.289	3405.250	3396.687	3405.250	3393.833	3396.687	3319.619
20.0	3276.804	3339.600	3348.163	3388.124	3382.415	3393.833	3376.707	3379.561	3305.348
20.5	3256.824	3322.474	3333.891	3373.852	3368.144	3373.852	3362.435	3362.435	3291.076
21.0	3242.552	3305.348	3313.911	3353.872	3351.017	3362.435	3339.600	3351.017	3268.241
21.5	3219.717	3288.221	3296.785	3336.746	3339.600	3348.163	3328.182	3331.037	3253.969
22.0	3205.445	3273.950	3282.513	3319.619	3322.474	3328.182	3311.056	3313.911	3236.843
22.5	3179.756	3248.260	3262.532	3305.348	3311.056	3319.619	3293.930	3293.930	3214.008
23.0	3162.630	3231.134	3245.406	3285.367	3293.930	3299.639	3279.658	3276.804	3202.591
23.5	3148.358	3211.154	3231.134	3271.095	3282.513	3291.076	3262.532	3259.678	3182.610
24.0	3119.814	3194.028	3211.154	3253.969	3265.387	3273.950	3245.406	3233.989	3154.067
24.5	3108.397	3176.901	3191.173	3239.697	3251.115	3259.678	3225.426	3216.862	3136.940
25.0	3085.562	3148.358	3174.047	3225.426	3242.552	3245.406	3208.299	3199.736	3119.814
25.5	3059.873	3131.232	3148.358	3211.154	3228.280	3228.280	3194.028	3182.610	3102.688
26.0	3037.038	3114.106	3131.232	3188.319	3211.154	3211.154	3174.047	3162.630	3076.999
26.5	3017.057	3088.416	3114.106	3176.901	3196.882	3194.028	3154.067	3139.795	3059.873

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27.0	2999.931	3068.436	3096.979	3156.921	3174.047	3176.901	3134.086	3119.814	3037.038
27.5	2974.242	3051.310	3076.999	3142.649	3159.775	3156.921	3116.960	3099.834	3014.203
28.0	2954.261	3022.766	3051.310	3125.523	3145.504	3139.795	3094.125	3076.999	2994.222
28.5	2934.281	3002.786	3034.184	3105.542	3128.377	3122.669	3076.999	3057.018	2974.242
29.0	2911.446	2979.951	3014.203	3088.416	3111.251	3102.688	3057.018	3037.038	2948.553
29.5	2888.611	2959.970	2994.222	3068.436	3091.271	3085.562	3039.892	3011.349	2925.718
30.0	2860.068	2937.135	2974.242	3048.455	3074.145	3068.436	3017.057	2991.368	2900.029
30.5	2837.518	2914.300	2951.407	3031.329	3057.018	3048.455	2997.077	2968.533	2877.194
31.0	2813.542	2888.611	2931.427	3011.349	3039.892	3031.329	2974.242	2945.698	2860.068
31.5	2795.559	2862.922	2911.446	2991.368	3019.912	3014.203	2957.116	2922.864	2829.241
32.0	2765.588	2845.225	2888.611	2974.242	3002.786	2997.077	2937.135	2900.029	2808.118
32.5	2746.179	2819.536	2865.776	2954.261	2985.659	2977.096	2911.446	2874.339	2788.423
33.0	2718.206	2796.701	2840.658	2937.135	2971.388	2959.970	2888.611	2849.221	2756.454
33.5	2693.088	2772.439	2819.250	2920.009	2951.407	2937.135	2868.631	2827.243	2736.188
34.0	2670.253	2748.462	2802.695	2897.174	2934.281	2920.009	2850.363	2805.835	2715.352
34.5	2643.707	2721.631	2778.433	2877.194	2917.155	2900.029	2827.813	2777.006	2686.237
35.0	2622.870	2698.511	2758.167	2860.068	2897.174	2880.048	2806.406	2754.742	2667.113
35.5	2596.896	2671.965	2737.901	2841.514	2882.903	2860.068	2782.144	2727.911	2636.286
36.0	2566.354	2644.564	2713.354	2821.248	2862.922	2844.654	2759.309	2704.220	2615.735
36.5	2539.809	2620.872	2694.515	2800.126	2846.081	2823.817	2738.187	2679.387	2592.043
37.0	2519.257	2593.756	2668.826	2784.142	2828.670	2804.979	2714.495	2654.554	2572.348
37.5	2491.855	2571.492	2647.989	2763.305	2810.116	2782.429	2695.371	2631.719	2547.515
38.0	2462.455	2545.517	2624.298	2744.752	2791.848	2762.449	2672.536	2608.313	2518.115
38.5	2438.764	2519.543	2605.173	2723.915	2771.297	2742.753	2647.418	2585.193	2490.143
39.0	2410.221	2491.855	2581.197	2703.649	2751.887	2722.202	2627.437	2562.929	2463.026
39.5	2383.104	2463.883	2559.504	2682.527	2734.190	2702.222	2603.175	2537.811	2431.343
40.0	2353.990	2441.333	2536.954	2663.117	2717.635	2684.239	2580.626	2514.690	2401.658
40.5	2329.442	2415.644	2514.690	2642.565	2695.657	2663.688	2558.362	2485.290	2373.685
41.0	2298.330	2386.815	2490.999	2623.727	2673.678	2643.707	2535.527	2459.316	2345.712
41.5	2272.641	2358.557	2471.589	2604.317	2658.835	2621.158	2510.980	2428.203	2317.454
42.0	2242.955	2333.438	2446.756	2582.909	2639.140	2605.173	2488.430	2398.803	2292.050
42.5	2216.410	2306.607	2423.065	2564.071	2620.301	2582.339	2463.026	2372.543	2264.077
43.0	2187.866	2282.916	2400.230	2542.663	2600.892	2560.360	2441.619	2341.145	2236.105
43.5	2163.033	2258.369	2376.254	2521.255	2583.480	2539.238	2420.496	2313.458	2211.557
44.0	2138.771	2229.254	2353.990	2502.416	2563.785	2520.970	2394.522	2283.773	2182.157
44.5	2104.804	2201.852	2326.588	2480.438	2544.090	2501.560	2375.112	2257.512	2156.183
45.0	2079.971	2174.736	2307.749	2460.457	2524.680	2477.013	2352.563	2227.827	2129.352
45.5	2054.282	2148.191	2281.204	2439.335	2501.275	2458.745	2328.871	2203.851	2102.521
46.0	2026.024	2125.641	2259.225	2416.215	2481.865	2439.050	2306.607	2175.592	2072.265
46.5	2001.191	2098.810	2234.678	2392.524	2463.312	2415.073	2283.773	2150.189	2047.432
47.0	1972.077	2069.981	2211.557	2375.683	2442.760	2398.518	2262.650	2123.928	2021.742
47.5	1943.533	2044.292	2187.866	2351.992	2424.492	2378.252	2239.530	2096.812	1988.917
48.0	1921.269	2017.746	2166.173	2335.151	2401.087	2352.277	2216.981	2069.410	1966.653
48.5	1890.156	1991.201	2142.767	2309.176	2382.533	2333.153	2193.575	2043.150	1933.828
49.0	1871.889	1968.937	2121.074	2289.481	2361.982	2312.316	2169.313	2017.746	1908.139
49.5	1847.341	1939.251	2097.954	2268.644	2339.718	2292.336	2139.627	1989.488	1882.735
50.0	1818.512	1916.417	2074.833	2247.237	2321.450	2270.928	2118.220	1962.372	1860.757
50.5	1789.968	1896.151	2046.575	2225.544	2300.899	2248.664	2093.672	1936.968	1836.495
51.0	1763.137	1871.318	2027.166	2203.565	2281.775	2227.256	2066.556	1908.995	1805.097
51.5	1736.592	1846.485	2001.762	2184.726	2264.077	2206.134	2042.865	1892.725	1777.980
52.0	1708.619	1818.797	1980.640	2163.889	2241.813	2185.297	2017.175	1866.751	1749.151
52.5	1682.930	1793.679	1956.948	2141.911	2220.977	2163.319	1994.626	1843.630	1722.891
53.0	1654.101	1765.992	1932.116	2121.074	2199.569	2144.765	1971.506	1815.658	1697.202
53.5	1628.126	1740.303	1908.995	2098.810	2178.161	2121.930	1945.816	1788.827	1667.231
54.0	1599.868	1716.326	1888.158	2077.117	2155.326	2100.523	1924.980	1762.567	1638.117
54.5	1572.466	1688.353	1871.318	2053.140	2137.629	2080.257	1899.861	1735.165	1612.142

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55.0	1543.066	1662.093	1849.339	2032.589	2116.222	2057.136	1885.589	1710.332	1583.313
55.5	1516.235	1638.687	1825.077	2009.183	2093.101	2035.158	1863.325	1684.072	1554.769
56.0	1489.404	1610.144	1801.100	1986.348	2073.692	2014.607	1838.778	1656.955	1529.366
56.5	1463.715	1583.598	1777.124	1965.797	2049.715	1988.346	1813.089	1627.841	1500.251
57.0	1435.743	1556.767	1754.004	1942.391	2029.164	1966.653	1789.112	1602.437	1469.709
57.5	1409.482	1532.505	1732.310	1920.698	2004.616	1942.962	1764.565	1573.894	1442.878
58.0	1383.793	1505.674	1706.336	1898.434	1981.211	1920.127	1739.446	1548.490	1415.762
58.5	1356.106	1479.129	1682.359	1883.021	1959.517	1901.288	1715.755	1521.944	1386.933
59.0	1330.702	1453.440	1660.951	1866.465	1938.395	1883.021	1689.780	1493.686	1361.529
59.5	1303.300	1428.321	1635.833	1839.634	1914.419	1861.613	1666.660	1468.853	1332.415
60.0	1277.040	1402.917	1609.858	1817.370	1900.432	1837.922	1641.827	1442.878	1307.867
60.5	1250.495	1376.943	1585.596	1797.104	1879.881	1815.087	1619.849	1414.906	1277.611
61.0	1221.666	1351.254	1563.047	1771.415	1858.759	1790.539	1594.445	1390.929	1250.780
61.5	1195.691	1325.279	1540.212	1747.724	1836.495	1767.134	1571.325	1362.386	1223.664
62.0	1169.145	1299.875	1516.806	1725.460	1811.662	1746.011	1544.779	1337.267	1195.976
62.5	1142.885	1275.042	1493.401	1702.340	1787.400	1720.322	1522.515	1310.436	1169.145
63.0	1117.482	1249.067	1469.709	1679.219	1764.565	1697.773	1497.968	1285.318	1142.885
63.5	1090.651	1224.805	1445.733	1654.386	1742.015	1674.082	1472.849	1259.058	1116.625
64.0	1062.963	1199.402	1422.898	1631.266	1718.610	1651.247	1449.729	1233.083	1088.082
64.5	1034.420	1173.998	1397.494	1607.004	1693.491	1629.268	1424.611	1207.965	1061.536
65.0	1009.587	1150.592	1373.803	1583.884	1670.371	1604.150	1401.776	1182.275	1034.705
65.5	984.754	1125.188	1350.397	1562.476	1648.963	1581.029	1378.941	1156.586	1008.730
66.0	957.637	1100.070	1328.133	1535.645	1624.987	1556.482	1353.252	1130.612	981.899
66.5	933.946	1075.808	1303.586	1513.667	1599.868	1532.505	1330.702	1105.208	955.639
67.0	907.972	1052.117	1279.895	1489.690	1576.748	1507.102	1305.013	1080.660	930.806
67.5	883.424	1027.569	1257.345	1464.572	1551.630	1484.552	1283.320	1056.398	905.403
68.0	858.020	1003.878	1231.941	1443.735	1528.795	1461.146	1258.487	1031.280	880.855
68.5	833.187	980.472	1210.248	1417.760	1505.103	1435.743	1234.225	1006.732	853.453
69.0	808.354	955.068	1186.842	1396.638	1481.127	1413.479	1210.819	983.612	829.191
69.5	782.094	931.377	1163.722	1371.519	1456.865	1390.073	1188.270	958.779	802.075
70.0	758.403	907.972	1139.460	1348.399	1432.603	1364.669	1163.722	933.375	777.813
70.5	734.712	882.853	1116.911	1323.852	1409.197	1342.405	1140.316	908.828	753.265
71.0	708.737	860.589	1094.076	1302.159	1385.506	1318.428	1117.482	884.566	727.862
71.5	685.332	836.613	1072.668	1278.753	1361.815	1296.450	1093.219	860.589	702.743
72.0	661.070	814.919	1048.121	1253.920	1337.838	1271.902	1071.526	837.754	676.483
72.5	637.093	791.514	1026.142	1231.370	1315.574	1249.638	1047.835	813.207	651.936
73.0	612.831	769.535	1002.736	1206.823	1291.027	1224.520	1025.286	789.516	629.672
73.5	589.996	747.271	980.758	1182.561	1266.479	1201.400	1002.736	766.395	604.839
74.0	566.590	724.151	958.779	1162.010	1243.930	1177.994	979.331	743.275	581.433
74.5	541.757	700.745	934.803	1137.747	1219.382	1155.444	958.208	719.298	556.600
75.0	518.066	679.337	913.395	1116.054	1197.689	1131.468	936.230	697.320	534.051
75.5	496.658	657.644	892.558	1092.078	1173.998	1108.633	913.109	673.914	510.645
76.0	472.967	635.951	870.579	1070.670	1150.878	1086.654	892.273	652.506	487.525
76.5	451.560	614.829	849.172	1047.835	1127.472	1062.963	869.723	629.386	466.402
77.0	430.437	593.707	827.764	1024.715	1104.066	1040.985	847.174	607.978	443.853
77.5	408.744	572.870	806.927	1003.307	1082.658	1017.864	825.766	585.429	422.160
78.0	386.480	552.033	786.376	981.043	1058.682	996.171	805.215	565.163	400.467
78.5	365.358	532.338	765.254	959.350	1036.989	974.478	784.378	544.326	379.059
79.0	344.521	512.072	745.559	937.371	1014.154	952.214	762.970	524.346	358.793
79.5	325.397	492.091	726.149	916.535	993.317	932.804	743.275	503.794	337.100
80.0	305.987	472.111	706.168	894.556	972.480	910.255	722.724	483.814	317.690
80.5	286.007	452.987	686.473	874.576	949.645	889.989	703.599	465.831	297.710
81.0	266.597	434.719	667.349	853.453	929.094	868.296	684.190	446.136	279.156
81.5	248.044	416.166	647.939	833.473	907.972	848.030	665.066	428.154	260.318
82.0	229.776	398.469	629.386	813.492	885.422	828.050	645.941	410.457	242.050
82.5	212.935	380.201	610.833	795.224	864.871	806.927	626.532	393.045	224.638

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CANDELA TABULATION - (Cont.)

83.0	194.953	363.074	592.565	775.244	845.461	786.947	609.120	375.634	207.226
83.5	178.112	346.519	574.582	755.834	824.910	768.393	590.281	358.793	190.386
84.0	161.557	330.249	557.171	736.710	805.500	749.555	573.441	342.238	173.830
84.5	145.572	314.265	539.759	718.728	786.090	730.430	555.744	326.253	158.417
85.0	130.730	299.422	522.348	699.889	767.252	711.306	538.332	310.840	142.433
85.5	115.887	283.723	506.363	681.335	748.127	693.609	521.777	294.284	127.590
86.0	101.044	269.166	490.379	664.495	729.574	675.912	504.651	279.442	112.462
86.5	87.058	254.894	474.965	647.083	711.877	657.644	488.952	264.314	97.905
87.0	73.072	240.908	458.981	630.242	693.895	641.089	473.538	250.042	83.347
87.5	60.227	227.778	444.138	614.829	676.768	624.819	457.554	236.055	69.361
88.0	47.668	213.506	430.152	599.130	661.070	608.835	442.997	221.784	55.375
88.5	35.109	201.232	417.307	584.858	645.085	594.278	429.296	207.797	41.103
89.0	22.549	189.529	405.319	570.872	631.099	579.435	415.880	195.524	27.687
89.5	11.132	179.825	393.902	558.027	617.112	566.590	404.463	184.677	14.557
90.0	3.996	170.976	383.911	545.468	603.697	553.460	393.902	175.258	4.567
90.5	2.569	163.555	374.206	533.480	590.281	540.616	383.340	167.265	2.569
91.0	2.569	157.275	364.502	521.777	577.722	529.198	372.494	160.986	2.283
91.5	2.569	152.708	356.224	510.359	565.734	518.066	364.216	156.133	2.283
92.0	2.569	148.712	347.661	500.369	554.887	508.076	356.224	152.137	2.283
92.5	2.569	145.001	341.667	491.235	544.326	498.371	349.374	148.427	2.283
93.0	2.569	141.576	335.387	482.387	534.336	489.523	343.094	144.716	2.283
93.5	2.569	138.151	329.678	474.680	525.773	481.245	337.100	141.291	2.283
94.0	2.569	135.011	324.255	466.688	517.210	473.538	331.962	137.866	2.283
94.5	2.569	131.871	319.403	459.837	509.503	466.402	326.539	134.440	2.283
95.0	2.569	128.732	314.550	452.987	502.082	458.695	321.115	131.301	2.283
95.5	2.569	125.877	309.127	446.136	493.804	452.130	315.978	128.446	2.283
96.0	2.569	123.023	304.560	439.286	486.668	444.995	310.840	125.592	2.283
96.5	2.569	120.169	299.422	433.006	479.532	438.715	305.416	122.452	2.283
97.0	2.569	117.314	294.855	425.870	472.111	431.294	300.849	119.598	2.283
97.5	2.569	114.460	289.717	420.162	464.975	425.299	295.997	117.029	2.283
98.0	2.569	111.891	285.150	413.311	458.410	418.734	290.859	114.174	2.283
98.5	2.569	109.607	280.869	407.317	451.845	412.169	286.292	111.320	2.283
99.0	2.569	106.753	275.731	401.608	445.280	405.890	281.440	108.751	2.283
99.5	2.569	104.184	271.450	395.614	438.430	399.896	276.873	106.182	2.283
100.0	2.569	101.901	266.597	389.620	431.865	393.902	272.020	103.613	2.283
100.5	2.569	99.332	262.316	383.626	425.014	388.193	267.739	101.330	2.569
101.0	2.569	97.334	258.034	377.632	419.020	382.484	263.457	98.761	2.569
101.5	2.569	94.765	253.467	371.923	413.026	376.205	258.605	96.477	2.569
102.0	2.854	92.767	249.471	366.214	406.175	371.067	254.609	94.194	2.569
102.5	2.854	90.483	245.189	360.791	399.610	365.643	250.042	91.910	2.569
103.0	2.854	88.485	240.908	355.082	393.616	359.935	245.760	89.627	2.569
103.5	2.854	86.202	236.626	350.230	387.907	354.226	241.764	87.343	2.569
104.0	2.854	84.204	232.916	345.092	382.199	348.803	237.197	85.060	2.569
104.5	2.854	82.206	228.634	339.098	376.775	343.379	233.201	83.062	2.854
105.0	2.854	80.207	224.923	334.245	370.496	338.242	229.205	81.064	2.854
105.5	2.854	78.209	221.213	329.108	365.073	332.533	225.209	79.066	2.854
106.0	2.854	76.211	217.217	323.684	359.649	327.395	220.927	77.068	2.854
106.5	2.854	74.499	213.506	319.117	353.370	322.257	217.217	75.355	2.854
107.0	3.140	72.501	209.795	313.979	348.517	316.834	213.221	73.357	2.854
107.5	3.140	70.788	205.799	308.556	343.379	311.981	209.795	71.644	2.854
108.0	3.140	69.075	202.089	304.275	337.956	307.129	206.085	69.932	2.854
108.5	3.140	67.077	198.949	299.137	332.818	302.562	202.089	67.934	3.140
109.0	3.140	65.365	195.238	294.284	327.680	297.710	198.378	66.221	3.140
109.5	3.140	63.652	191.527	289.432	322.828	292.857	194.953	64.509	3.140
110.0	3.140	62.225	188.388	284.865	317.690	288.005	191.527	62.796	3.140
110.5	3.140	60.512	184.962	280.583	312.552	283.152	187.817	61.083	3.140

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CANDELA TABULATION - (Cont.)

111.0	3.140	58.800	181.537	276.017	307.985	279.156	184.392	59.656	3.140
111.5	3.425	57.373	178.397	271.735	303.133	274.304	180.681	57.943	3.140
112.0	3.425	55.660	174.972	266.883	298.566	269.737	177.541	56.231	3.140
112.5	3.425	54.233	171.547	263.172	293.714	265.455	174.116	54.804	3.425
113.0	3.425	52.806	168.693	258.319	288.861	261.174	170.691	53.091	3.425
113.5	3.425	51.378	164.982	254.038	284.009	256.321	167.551	51.664	3.425
114.0	3.425	49.666	162.128	250.042	280.013	252.040	164.411	50.237	3.425
114.5	3.425	48.239	158.988	245.760	275.160	248.044	160.986	48.524	3.425
115.0	3.425	47.097	155.848	241.764	270.879	243.762	157.561	47.097	3.425
115.5	3.425	45.384	152.708	237.768	266.312	239.481	154.421	45.670	3.425
116.0	3.425	44.243	149.854	233.201	262.030	235.485	151.281	44.243	3.711
116.5	3.425	42.815	146.714	229.490	257.749	231.489	148.427	43.101	3.711
117.0	3.425	41.388	143.574	225.209	253.182	227.207	145.287	41.674	3.711
117.5	3.425	39.961	140.720	221.498	249.186	223.211	142.147	40.246	3.711
118.0	3.425	38.819	138.151	217.217	244.904	219.215	139.293	38.819	3.711
118.5	3.425	37.392	135.297	213.506	240.908	215.219	136.438	37.678	3.711
119.0	3.425	36.250	132.442	209.795	236.626	211.508	133.584	36.250	3.711
119.5	3.425	34.823	129.588	206.085	232.345	207.797	130.730	35.109	3.711
120.0	3.425	33.681	126.734	201.803	228.349	203.516	127.590	33.681	3.711
120.5	3.425	32.540	123.879	198.663	224.067	199.805	125.021	32.540	3.996
121.0	3.425	31.113	121.310	194.667	219.786	196.094	122.167	31.398	3.996
121.5	3.425	29.685	118.741	190.957	216.360	192.384	119.598	29.971	3.996
122.0	3.425	28.544	116.172	187.246	211.793	188.673	117.029	28.829	3.996
122.5	3.425	27.402	113.318	183.535	208.083	184.677	114.460	27.687	3.996
123.0	3.425	26.260	110.749	180.110	204.087	181.252	111.605	26.546	3.996
123.5	3.425	25.118	108.180	176.399	200.091	177.827	109.037	25.404	3.996
124.0	3.425	23.977	105.897	172.689	196.380	174.116	106.468	24.262	3.996
124.5	3.425	22.835	103.328	169.263	192.669	170.120	103.899	23.120	4.282
125.0	3.425	21.693	100.759	165.838	188.959	166.695	101.330	21.979	4.282
125.5	3.425	20.551	98.190	162.413	184.962	163.269	98.761	20.837	4.282
126.0	3.425	19.695	95.621	159.273	181.252	159.844	96.192	19.695	4.282
126.5	3.425	18.553	93.338	155.848	177.541	156.419	93.908	18.553	4.282
127.0	3.425	17.412	91.054	152.423	173.545	152.994	91.625	17.697	4.282
127.5	3.425	16.555	88.771	149.283	170.120	149.568	89.056	16.555	4.282
128.0	3.425	15.414	86.202	145.858	166.695	146.714	86.773	15.699	4.567
128.5	3.425	14.557	83.633	142.718	163.269	143.574	84.489	14.843	4.567
129.0	3.425	13.701	81.349	139.293	159.559	140.149	82.206	13.986	4.567
129.5	3.425	13.130	79.351	136.153	156.133	137.009	79.922	13.415	4.567
130.0	3.711	12.274	77.353	133.013	152.708	133.869	77.924	12.559	4.567
130.5	3.711	11.703	74.784	130.159	149.283	131.015	75.641	11.988	4.852
131.0	3.711	11.132	72.786	127.304	145.858	127.590	73.357	11.417	4.852
131.5	3.711	10.561	70.788	124.165	142.433	124.735	71.359	10.847	4.852
132.0	3.711	9.990	68.505	121.310	139.007	121.596	69.075	10.276	4.852
132.5	3.711	9.419	66.507	118.170	135.867	118.741	67.077	9.705	4.852
133.0	3.711	9.134	64.509	115.031	132.728	115.602	65.079	9.419	5.138
133.5	3.711	8.849	62.225	112.176	129.302	112.747	62.796	9.134	5.138
134.0	3.711	8.563	59.942	109.322	126.448	109.607	60.798	8.849	5.138
134.5	3.711	8.278	57.658	106.468	123.023	106.753	58.800	8.563	5.138
135.0	3.711	7.992	55.375	103.613	119.883	103.899	56.802	8.278	5.138
135.5	3.711	7.707	53.377	100.473	116.743	101.044	54.804	7.992	5.138
136.0	3.711	7.421	51.093	97.619	113.603	98.190	52.806	7.707	5.138
136.5	3.711	7.421	49.095	95.050	110.464	95.336	51.093	7.707	5.423
137.0	3.711	7.136	46.811	92.481	107.324	92.481	49.095	7.421	5.423
137.5	3.711	7.136	44.813	89.627	104.470	89.912	47.097	7.421	5.423
138.0	3.711	6.850	42.815	86.773	101.615	87.058	45.384	7.136	5.423
138.5	3.711	6.850	41.103	84.204	98.761	84.489	43.672	7.136	5.423

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CANDELA TABULATION - (Cont.)

139.0	3.996	6.850	39.105	81.635	95.906	81.635	41.959	6.850	5.709
139.5	3.996	6.565	37.107	79.066	93.052	79.351	40.246	6.850	5.709
140.0	3.996	6.565	35.394	76.497	90.198	76.497	38.248	6.850	5.709
140.5	3.996	6.565	33.681	73.642	87.343	73.928	36.536	6.565	5.709
141.0	3.996	6.280	32.254	71.359	84.489	71.359	34.823	6.565	5.709
141.5	3.996	6.280	30.542	68.790	81.635	69.075	33.111	6.565	5.994
142.0	3.996	6.280	29.114	66.507	79.066	66.507	31.398	6.565	5.994
142.5	3.996	5.994	27.687	63.938	76.211	63.938	29.685	6.280	5.994
143.0	3.996	5.994	26.260	61.654	73.642	61.369	28.258	6.280	5.994
143.5	4.282	5.994	24.833	59.085	71.074	59.085	26.546	6.280	5.994
144.0	4.282	5.994	23.406	56.802	68.219	56.802	25.118	5.994	5.994
144.5	4.282	5.994	21.979	54.518	65.650	54.233	23.406	5.994	6.280
145.0	4.282	5.709	20.837	51.949	63.081	51.949	21.979	5.994	6.280
145.5	4.282	5.709	19.410	49.666	60.512	49.666	20.551	5.994	6.280
146.0	4.282	5.709	18.268	47.668	57.943	47.382	19.124	5.994	6.280
146.5	4.282	5.709	17.126	45.384	55.375	45.099	17.982	5.994	6.280
147.0	4.282	5.709	15.984	43.101	53.091	42.815	16.841	5.709	6.280
147.5	4.282	5.709	14.843	40.817	50.522	40.817	15.699	5.709	6.565
148.0	4.567	5.709	13.986	38.534	48.239	38.534	14.843	5.709	6.565
148.5	4.567	5.709	13.130	36.250	45.670	36.536	13.986	5.709	6.565
149.0	4.567	5.709	12.559	33.681	43.386	34.252	13.130	5.709	6.565
149.5	4.567	5.709	11.703	31.683	41.103	32.254	12.559	5.709	6.565
150.0	4.567	5.709	11.132	29.400	38.819	30.256	11.988	5.994	6.565
150.5	4.567	5.709	10.847	27.402	36.536	28.258	11.417	5.709	6.850
151.0	4.567	5.709	10.276	25.404	34.252	26.260	10.847	5.709	6.850
151.5	4.852	5.709	9.990	23.691	32.254	24.547	10.561	5.994	6.850
152.0	4.852	5.994	9.705	21.693	29.971	22.549	9.990	5.994	6.850
152.5	4.852	5.994	9.419	20.266	27.973	20.837	9.705	5.994	6.850
153.0	4.852	5.994	9.134	18.839	25.689	19.124	9.419	5.994	6.850
153.5	4.852	5.994	8.849	17.412	23.691	17.697	9.134	5.994	6.850
154.0	4.852	5.994	8.563	15.984	21.693	16.555	8.849	5.994	7.136
154.5	5.138	5.994	8.278	14.843	19.981	15.128	8.563	5.994	7.136
155.0	5.138	5.994	7.992	13.701	18.268	13.986	8.278	5.994	7.136
155.5	5.138	6.280	7.992	12.845	16.841	13.130	8.278	5.994	7.136
156.0	5.138	6.280	7.707	11.988	15.414	12.274	7.992	6.280	7.136
156.5	5.423	6.280	7.707	11.132	14.272	11.417	7.707	6.280	7.136
157.0	5.423	6.280	7.421	10.561	13.130	10.847	7.707	6.280	7.136
157.5	5.423	6.280	7.421	10.276	11.988	10.276	7.421	6.280	7.136
158.0	5.423	6.280	7.136	9.705	11.417	9.705	7.421	6.280	7.421
158.5	5.423	6.565	7.136	9.419	10.561	9.419	7.136	6.280	7.421
159.0	5.709	6.565	6.850	8.849	9.990	8.849	7.136	6.565	7.421
159.5	5.709	6.565	6.850	8.563	9.419	8.563	6.850	6.565	7.421
160.0	5.709	6.565	6.850	8.278	9.134	8.278	6.850	6.565	7.421
160.5	5.709	6.565	6.565	7.992	8.563	7.992	6.850	6.565	7.421
161.0	5.709	6.565	6.565	7.707	8.278	7.707	6.565	6.565	7.421
161.5	5.994	6.565	6.565	7.707	7.992	7.707	6.565	6.565	7.421
162.0	5.994	6.850	6.565	7.421	7.707	7.421	6.565	6.565	7.421
162.5	5.994	6.850	6.565	7.136	7.421	7.136	6.565	6.850	7.421
163.0	5.994	6.850	6.565	6.850	7.136	7.136	6.565	6.850	7.707
163.5	5.994	6.850	6.565	6.850	6.850	6.850	6.565	6.850	7.707
164.0	6.280	6.850	6.565	6.565	6.850	6.565	6.565	6.850	7.707
164.5	6.280	6.850	6.565	6.565	6.565	6.565	6.565	6.850	7.707
165.0	6.280	7.136	6.565	6.565	6.565	6.565	6.565	6.850	7.707
165.5	6.280	7.136	6.565	6.565	6.280	6.565	6.565	7.136	7.707
166.0	6.565	7.136	6.850	6.565	6.280	6.280	6.850	7.136	7.707
166.5	6.565	7.136	6.850	6.565	6.280	6.280	6.850	7.136	7.707

IES INDOOR REPORT
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CANDELA TABULATION - (Cont.)

167.0	6.565	7.136	6.850	6.280	5.994	6.280	6.850	7.136	7.707
167.5	6.565	7.136	6.850	6.280	5.994	6.280	6.850	7.136	7.707
168.0	6.565	7.136	6.850	6.280	5.994	6.280	6.850	7.136	7.707
168.5	6.850	7.421	6.850	6.280	5.994	6.280	6.850	7.136	7.707
169.0	6.850	7.421	6.850	6.565	5.994	6.565	6.850	7.421	7.707
169.5	6.850	7.421	6.850	6.565	5.994	6.565	6.850	7.421	7.707
170.0	6.850	7.421	6.850	6.565	5.994	6.280	6.850	7.421	7.707
170.5	6.850	7.421	6.850	6.565	5.994	6.565	6.850	7.421	7.707
171.0	6.850	7.421	7.136	6.565	5.994	6.565	6.850	7.421	7.707
171.5	6.850	7.421	7.136	6.565	5.994	6.565	7.136	7.421	7.707
172.0	6.850	7.421	7.136	6.565	5.994	6.565	7.136	7.421	7.707
172.5	7.136	7.421	7.136	6.565	6.280	6.565	7.136	7.421	7.707
173.0	7.136	7.421	7.136	6.565	6.280	6.565	7.136	7.421	7.707
173.5	7.136	7.421	7.136	6.565	6.280	6.565	7.136	7.421	7.707
174.0	7.136	7.421	7.136	6.565	6.280	6.565	7.136	7.421	7.707
174.5	7.136	7.421	7.136	6.565	6.280	6.565	7.136	7.421	7.707
175.0	7.136	7.421	7.136	6.565	6.280	6.565	7.136	7.421	7.707
175.5	7.421	7.421	7.136	6.565	6.280	6.565	7.136	7.421	7.707
176.0	7.421	7.421	7.136	6.565	6.280	6.565	7.136	7.421	7.707
176.5	7.421	7.421	7.136	6.850	6.280	6.565	7.136	7.421	7.707
177.0	7.421	7.707	7.136	6.850	6.280	6.565	7.136	7.707	7.707
177.5	7.421	7.707	7.136	6.850	6.280	6.565	7.136	7.707	7.707
178.0	7.421	7.707	7.136	6.850	6.280	6.850	7.136	7.707	7.707
178.5	7.421	7.707	7.136	6.850	6.280	6.850	7.136	7.707	7.707
179.0	7.707	7.707	7.136	6.850	6.280	6.850	7.421	7.707	7.707
179.5	7.707	7.707	7.136	6.850	6.280	6.850	7.136	7.707	7.707
180.0	7.136	7.136	7.136	7.136	7.136	7.136	7.136	7.136	7.136

IES INDOOR REPORT
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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1336.22	N.A.	11.40
0-30	2806.87	N.A.	24.00
0-40	4550.91	N.A.	38.80
0-60	8011.14	N.A.	68.40
0-80	10325.05	N.A.	88.10
0-90	10875.2	N.A.	92.80
10-90	10527.02	N.A.	89.80
20-40	3214.69	N.A.	27.40
20-50	5012.98	N.A.	42.80
40-70	4821.21	N.A.	41.10
60-80	2313.91	N.A.	19.70
70-80	952.93	N.A.	8.10
80-90	550.15	N.A.	4.70
90-110	539.36	N.A.	4.60
90-120	685.06	N.A.	5.80
90-130	772.32	N.A.	6.60
90-150	835.95	N.A.	7.10
90-180	843.75	N.A.	7.20
110-180	304.39	N.A.	2.60
0-180	11718.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	348.18
10-20	988.04
20-30	1470.65
30-40	1744.04
40-50	1798.29
50-60	1661.94
60-70	1360.98
70-80	952.93
80-90	550.15
90-100	318.57
100-110	220.79
110-120	145.70
120-130	87.25
130-140	45.23
140-150	18.40
150-160	5.20
160-170	1.95
170-180	0.67

IES INDOOR REPORT
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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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	93
1	106	100	96	91	102	97	93	89	92	88	85	87	84	81	82	79	77	75
2	96	87	80	73	92	84	78	72	80	74	69	75	71	66	71	67	64	61
3	87	76	67	61	84	74	66	60	70	63	58	66	60	56	63	58	54	51
4	80	67	58	51	77	65	57	50	62	55	49	59	52	47	56	50	46	44
5	73	60	51	44	70	58	50	43	55	48	42	53	46	41	50	44	40	38
6	67	54	45	38	65	53	44	38	50	42	37	48	41	36	45	40	35	33
7	63	49	40	34	60	48	39	33	45	38	33	43	37	32	41	36	31	29
8	58	44	36	30	56	43	35	30	42	34	29	40	33	28	38	32	28	26
9	54	41	33	27	53	40	32	27	38	31	26	37	30	26	35	29	25	23
10	51	38	30	24	49	37	29	24	35	28	24	34	28	23	33	27	23	21

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-8-LS-8CS-DIM-UNV_81W_4000K_.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	18.5	20.0	19.0	20.5	21.0	22.2	23.7	22.6	24.2	24.6
	3H	19.8	21.2	20.2	21.6	22.1	24.6	26.0	25.1	26.4	27.0
	4H	20.1	21.5	20.6	21.9	22.5	25.7	27.0	26.2	27.5	28.0
	6H	20.3	21.6	20.9	22.1	22.6	26.8	28.0	27.3	28.5	29.1
	8H	20.4	21.6	20.9	22.1	22.6	27.4	28.5	27.9	29.1	29.6
	12H	20.4	21.5	20.9	22.0	22.6	28.0	29.1	28.5	29.6	30.2

UGR Viewed Endwise

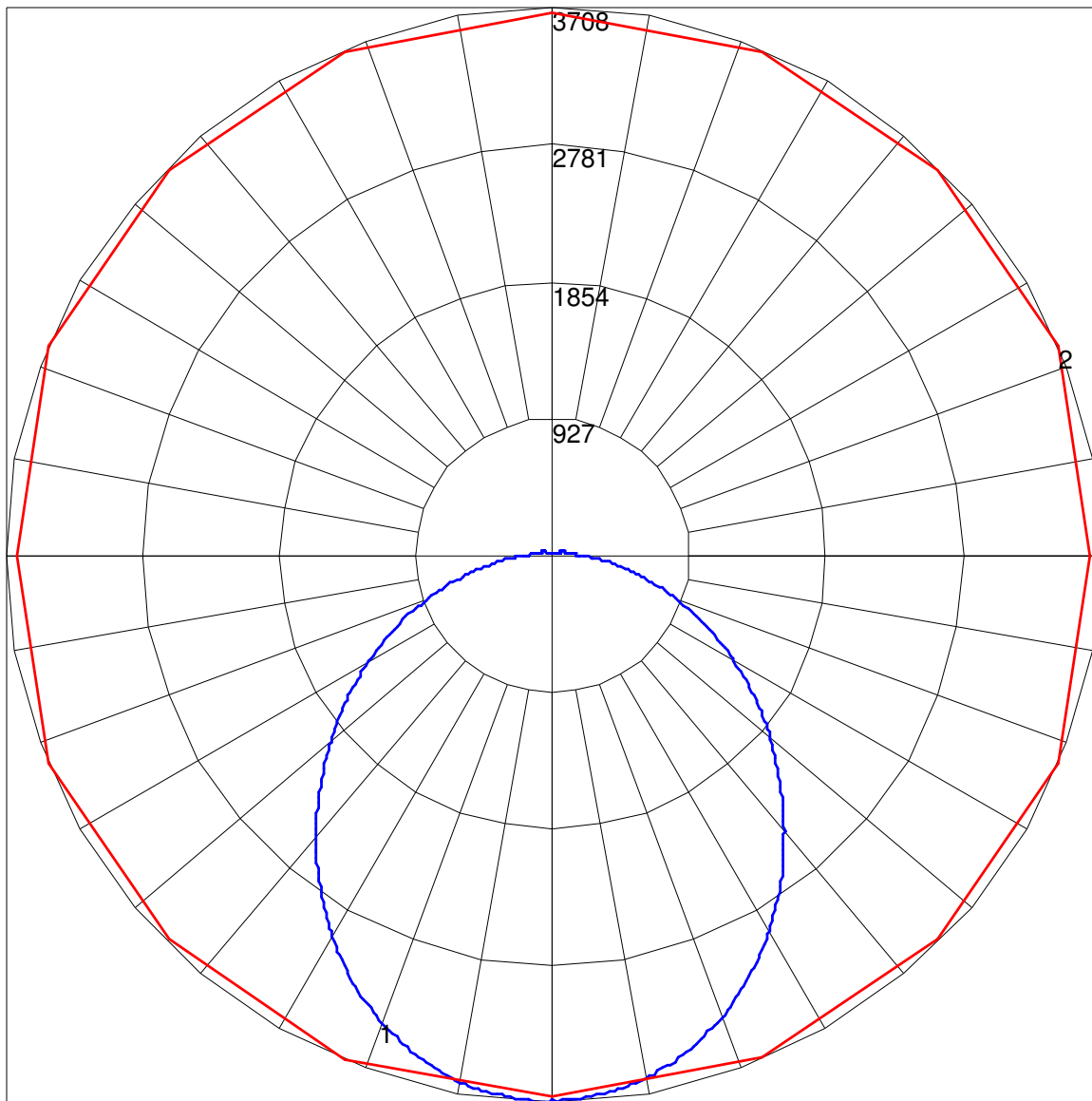
4H	2H	19.5	20.8	20.0	21.3	21.8	22.4	23.7	22.9	24.2	24.8
	3H	20.9	22.1	21.5	22.6	23.1	25.0	26.1	25.5	26.7	27.2
	4H	21.4	22.4	21.9	23.0	23.6	26.2	27.3	26.8	27.8	28.4
	6H	21.7	22.6	22.3	23.2	23.8	27.5	28.4	28.1	29.0	29.6
	8H	21.8	22.6	22.3	23.2	23.8	28.1	29.0	28.7	29.6	30.2
	12H	21.8	22.6	22.4	23.2	23.8	28.8	29.6	29.4	30.2	30.8

8H	4H	22.1	22.9	22.6	23.5	24.1	26.3	27.2	26.9	27.8	28.4
	6H	22.5	23.2	23.1	23.8	24.5	27.7	28.4	28.3	29.0	29.7
	8H	22.7	23.3	23.3	23.9	24.5	28.5	29.1	29.1	29.7	30.3
	12H	22.7	23.3	23.3	23.9	24.6	29.3	29.8	29.9	30.4	31.1

12H	4H	22.2	23.0	22.8	23.6	24.2	26.3	27.1	26.9	27.7	28.3
	6H	22.8	23.4	23.4	24.0	24.7	27.7	28.4	28.3	29.0	29.6
	8H	23.0	23.5	23.6	24.1	24.8	28.5	29.1	29.1	29.7	30.4

Maximum UGR = 31.1

POLAR GRAPH



Maximum Candela = 3707.812 Located At Horizontal Angle = 157.5, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (157.5 - 337.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)