



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV\_42W\_3500K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 15180278.01  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUE DATE] 10 May, 2024  
 [TEST DATE] 2/23/2024  
 [MANUFAC] H.E. WILLIAMS, INC.  
 [LUMCAT] FS-4-LS-8CS-DIM-UNV\_42W\_3500K  
 [LUMINAIRE] 45 inch Lumen/Wattage selectable, CCT selectable, LED stri  
 [MORE] p w/frosted acrylic lens  
 [LAMP] LED  
 [BALLAST] 0-10V DIMMING DRIVER

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5909
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
Total Luminaire Watts	41.9
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)	3.71 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.04 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	25470	24100	24983
55	23183	22312	23771
65	20423	20354	22484
75	16817	18248	20903
85	11629	16799	19896

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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	1859.576	1859.576	1859.576	1859.576	1859.576	1859.576	1859.576	1859.576	1859.576
0.5	1835.107	1866.772	1862.454	1862.454	1853.818	1863.893	1862.454	1869.651	1836.547
1.0	1833.668	1865.333	1859.576	1863.893	1852.379	1863.893	1859.576	1868.211	1836.547
1.5	1836.547	1865.333	1856.697	1862.454	1853.818	1863.893	1859.576	1866.772	1836.547
2.0	1836.547	1863.893	1859.576	1863.893	1852.379	1866.772	1859.576	1868.211	1835.107
2.5	1835.107	1862.454	1856.697	1862.454	1852.379	1861.015	1859.576	1865.333	1832.229
3.0	1830.790	1862.454	1855.258	1862.454	1852.379	1862.454	1858.136	1866.772	1832.229
3.5	1832.229	1859.576	1853.818	1858.136	1849.500	1859.576	1856.697	1862.454	1833.668
4.0	1827.911	1856.697	1850.940	1859.576	1850.940	1858.136	1855.258	1863.893	1829.350
4.5	1829.350	1852.379	1850.940	1856.697	1848.061	1858.136	1852.379	1861.015	1826.472
5.0	1822.154	1850.940	1846.622	1855.258	1848.061	1856.697	1850.940	1858.136	1826.472
5.5	1820.714	1850.940	1845.183	1853.818	1848.061	1855.258	1850.940	1855.258	1822.154
6.0	1817.836	1846.622	1842.304	1852.379	1843.743	1852.379	1846.622	1855.258	1820.714
6.5	1814.957	1843.743	1840.865	1848.061	1840.865	1850.940	1845.183	1852.379	1817.836
7.0	1810.639	1839.425	1837.986	1843.743	1837.986	1848.061	1843.743	1850.940	1819.275
7.5	1809.200	1837.986	1833.668	1843.743	1835.107	1845.183	1839.425	1848.061	1813.518
8.0	1806.321	1833.668	1830.790	1839.425	1835.107	1843.743	1837.986	1845.183	1810.639
8.5	1802.004	1829.350	1826.472	1835.107	1829.350	1839.425	1835.107	1840.865	1804.882
9.0	1799.125	1825.032	1820.714	1833.668	1826.472	1835.107	1830.790	1839.425	1802.004
9.5	1790.489	1820.714	1820.714	1830.790	1823.593	1833.668	1827.911	1833.668	1797.686
10.0	1789.050	1819.275	1813.518	1822.154	1822.154	1829.350	1825.032	1830.790	1796.246
10.5	1778.975	1810.639	1810.639	1822.154	1814.957	1826.472	1820.714	1825.032	1789.050
11.0	1777.535	1809.200	1806.321	1816.397	1812.079	1822.154	1813.518	1817.836	1789.050
11.5	1771.778	1802.004	1800.564	1812.079	1809.200	1816.397	1810.639	1816.397	1781.853
12.0	1766.021	1796.246	1797.686	1807.761	1803.443	1813.518	1804.882	1810.639	1774.657
12.5	1758.825	1790.489	1791.928	1804.882	1803.443	1806.321	1800.564	1803.443	1771.778
13.0	1755.946	1787.611	1784.732	1799.125	1797.686	1803.443	1796.246	1800.564	1763.142
13.5	1751.628	1780.414	1781.853	1791.928	1791.928	1797.686	1791.928	1796.246	1757.385
14.0	1742.992	1773.218	1774.657	1787.611	1786.171	1793.368	1784.732	1790.489	1751.628
14.5	1732.917	1766.021	1767.460	1781.853	1780.414	1786.171	1780.414	1784.732	1747.310
15.0	1728.599	1761.703	1764.582	1778.975	1774.657	1781.853	1773.218	1777.535	1740.114
15.5	1722.842	1757.385	1755.946	1771.778	1768.900	1774.657	1768.900	1770.339	1734.356
16.0	1718.524	1747.310	1750.189	1767.460	1761.703	1768.900	1760.264	1764.582	1724.281
16.5	1705.570	1741.553	1741.553	1761.703	1755.946	1763.142	1753.067	1757.385	1722.842
17.0	1698.374	1734.356	1737.235	1754.507	1750.189	1754.507	1747.310	1751.628	1712.767
17.5	1691.177	1725.721	1728.599	1745.871	1742.992	1747.310	1738.674	1745.871	1708.449
18.0	1686.860	1715.646	1719.963	1737.235	1737.235	1738.674	1732.917	1734.356	1699.813
18.5	1678.224	1709.888	1712.767	1732.917	1730.039	1732.917	1724.281	1728.599	1692.617
19.0	1666.709	1701.253	1704.131	1724.281	1721.403	1725.721	1718.524	1719.963	1683.981
19.5	1660.952	1694.056	1696.935	1717.085	1712.767	1717.085	1711.328	1712.767	1673.906
20.0	1652.316	1683.981	1688.299	1708.449	1705.570	1711.328	1702.692	1704.131	1666.709
20.5	1642.241	1675.345	1681.102	1701.253	1698.374	1701.253	1695.495	1695.495	1659.513
21.0	1635.045	1666.709	1671.027	1691.177	1689.738	1695.495	1683.981	1689.738	1647.998
21.5	1623.530	1658.074	1662.391	1682.542	1683.981	1688.299	1678.224	1679.663	1640.802
22.0	1616.334	1650.877	1655.195	1673.906	1675.345	1678.224	1669.588	1671.027	1632.166
22.5	1603.380	1637.923	1645.120	1666.709	1669.588	1673.906	1660.952	1660.952	1620.652
23.0	1594.744	1629.288	1636.484	1656.634	1660.952	1663.831	1653.756	1652.316	1614.895
23.5	1587.548	1619.212	1629.288	1649.438	1655.195	1659.513	1645.120	1643.681	1604.819
24.0	1573.155	1610.577	1619.212	1640.802	1646.559	1650.877	1636.484	1630.727	1590.426
24.5	1567.398	1601.941	1609.137	1633.605	1639.363	1643.681	1626.409	1622.091	1581.791
25.0	1555.883	1587.548	1600.502	1626.409	1635.045	1636.484	1617.773	1613.455	1573.155
25.5	1542.930	1578.912	1587.548	1619.212	1627.848	1627.848	1610.577	1604.819	1564.519
26.0	1531.415	1570.276	1578.912	1607.698	1619.212	1619.212	1600.502	1594.744	1551.565
26.5	1521.340	1557.323	1570.276	1601.941	1612.016	1610.577	1590.426	1583.230	1542.930

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**CANDELA TABULATION - (Cont.)**

27.0	1512.704	1547.247	1561.640	1591.866	1600.502	1601.941	1580.351	1573.155	1531.415
27.5	1499.751	1538.612	1551.565	1584.669	1593.305	1591.866	1571.716	1563.080	1519.901
28.0	1489.675	1524.219	1538.612	1576.033	1586.109	1583.230	1560.201	1551.565	1509.826
28.5	1479.600	1514.144	1529.976	1565.958	1577.473	1574.594	1551.565	1541.490	1499.751
29.0	1468.086	1502.629	1519.901	1557.323	1568.837	1564.519	1541.490	1531.415	1486.797
29.5	1456.572	1492.554	1509.826	1547.247	1558.762	1555.883	1532.854	1518.461	1475.282
30.0	1442.179	1481.040	1499.751	1537.172	1550.126	1547.247	1521.340	1508.386	1462.329
30.5	1430.808	1469.525	1488.236	1528.537	1541.490	1537.172	1511.265	1496.872	1450.814
31.0	1418.718	1456.572	1478.161	1518.461	1532.854	1528.537	1499.751	1485.358	1442.179
31.5	1409.650	1443.618	1468.086	1508.386	1522.779	1519.901	1491.115	1473.843	1426.634
32.0	1394.538	1434.694	1456.572	1499.751	1514.144	1511.265	1481.040	1462.329	1415.983
32.5	1384.750	1421.740	1445.057	1489.675	1505.508	1501.190	1468.086	1449.375	1406.052
33.0	1370.645	1410.226	1432.391	1481.040	1498.311	1492.554	1456.572	1436.709	1389.932
33.5	1357.979	1397.992	1421.597	1472.404	1488.236	1481.040	1446.496	1425.627	1379.713
34.0	1346.465	1385.902	1413.249	1460.889	1479.600	1472.404	1437.285	1414.832	1369.206
34.5	1333.080	1372.372	1401.015	1450.814	1470.965	1462.329	1425.914	1400.295	1354.525
35.0	1322.573	1360.714	1390.796	1442.179	1460.889	1452.254	1415.120	1389.068	1344.882
35.5	1309.475	1347.329	1380.577	1432.823	1453.693	1442.179	1402.886	1375.539	1329.337
36.0	1294.075	1333.511	1368.199	1422.604	1443.618	1434.406	1391.371	1363.593	1318.974
36.5	1280.689	1321.565	1358.699	1411.953	1435.126	1423.899	1380.720	1351.071	1307.028
37.0	1270.326	1307.892	1345.745	1403.893	1426.346	1414.400	1368.774	1338.549	1297.097
37.5	1256.509	1296.665	1335.239	1393.386	1416.991	1403.030	1359.131	1327.035	1284.575
38.0	1241.684	1283.568	1323.292	1384.031	1407.779	1392.954	1347.617	1315.232	1269.750
38.5	1229.738	1270.470	1313.649	1373.524	1397.416	1383.023	1334.951	1303.574	1255.645
39.0	1215.345	1256.509	1301.559	1363.305	1387.629	1372.660	1324.876	1292.347	1241.972
39.5	1201.672	1242.404	1290.620	1352.654	1378.705	1362.585	1312.642	1279.682	1225.996
40.0	1186.991	1231.033	1279.250	1342.867	1370.357	1353.518	1301.271	1268.023	1211.027
40.5	1174.613	1218.080	1268.023	1332.504	1359.275	1343.155	1290.045	1253.198	1196.922
41.0	1158.924	1203.543	1256.077	1323.005	1348.192	1333.080	1278.530	1240.101	1182.817
41.5	1145.971	1189.294	1246.290	1313.217	1340.708	1321.709	1266.152	1224.412	1168.568
42.0	1131.002	1176.628	1233.768	1302.423	1330.777	1313.649	1254.782	1209.588	1155.758
42.5	1117.616	1163.098	1221.822	1292.923	1321.277	1302.135	1241.972	1196.346	1141.653
43.0	1103.223	1151.152	1210.307	1282.128	1311.490	1291.052	1231.177	1180.514	1127.548
43.5	1090.701	1138.774	1198.217	1271.334	1302.710	1280.401	1220.526	1166.553	1115.170
44.0	1078.467	1124.093	1186.991	1261.834	1292.779	1271.190	1207.429	1151.584	1100.345
44.5	1061.340	1110.276	1173.173	1250.752	1282.848	1261.402	1197.641	1138.342	1087.247
45.0	1048.818	1096.603	1163.674	1240.677	1273.061	1249.024	1186.271	1123.374	1073.718
45.5	1035.864	1083.217	1150.289	1230.026	1261.259	1239.813	1174.325	1111.283	1060.188
46.0	1021.615	1071.847	1139.206	1218.367	1251.471	1229.882	1163.098	1097.034	1044.932
46.5	1009.093	1058.317	1126.828	1206.421	1242.116	1217.792	1151.584	1084.225	1032.410
47.0	994.412	1043.780	1115.170	1197.929	1231.753	1209.444	1140.933	1070.983	1019.456
47.5	980.019	1030.827	1103.223	1185.983	1222.541	1199.225	1129.275	1057.310	1002.904
48.0	968.793	1017.441	1092.285	1177.491	1210.739	1186.127	1117.904	1043.492	991.678
48.5	953.104	1004.056	1080.482	1164.394	1201.384	1176.484	1106.102	1030.251	975.126
49.0	943.893	992.829	1069.544	1154.462	1191.021	1165.977	1093.868	1017.441	962.172
49.5	931.515	977.860	1057.885	1143.956	1179.794	1155.902	1078.899	1003.192	949.362
50.0	916.978	966.346	1046.227	1133.161	1170.583	1145.107	1068.104	989.519	938.280
50.5	902.585	956.127	1031.978	1122.222	1160.220	1133.880	1055.727	976.709	926.046
51.0	889.056	943.605	1022.191	1111.140	1150.576	1123.086	1042.053	962.604	910.213
51.5	875.670	931.083	1009.381	1101.640	1141.653	1112.435	1030.107	954.400	896.540
52.0	861.565	917.122	998.730	1091.133	1130.426	1101.928	1017.153	941.302	882.003
52.5	848.611	904.456	986.784	1080.051	1119.919	1090.845	1005.783	929.644	868.761
53.0	834.074	890.495	974.262	1069.544	1109.125	1081.490	994.124	915.539	855.808
53.5	820.977	877.541	962.604	1058.317	1098.330	1069.976	981.171	902.009	840.695
54.0	806.728	865.451	952.097	1047.379	1086.815	1059.181	970.664	888.768	826.014
54.5	792.910	851.346	943.605	1035.288	1077.892	1048.962	957.998	874.950	812.917

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55.0	778.086	838.104	932.522	1024.925	1067.097	1037.303	950.802	862.429	798.380
55.5	764.556	826.302	920.288	1013.123	1055.439	1026.221	939.575	849.187	783.987
56.0	751.027	811.909	908.198	1001.609	1045.651	1015.858	927.197	835.514	771.177
56.5	738.073	798.524	896.108	991.246	1033.561	1002.616	914.243	820.833	756.496
57.0	723.968	784.994	884.450	979.444	1023.198	991.678	902.153	808.023	741.096
57.5	710.726	772.760	873.511	968.505	1010.820	979.731	889.775	793.630	727.566
58.0	697.773	759.231	860.414	957.278	999.018	968.217	877.109	780.820	713.893
58.5	683.811	745.845	848.323	949.506	988.079	958.718	865.163	767.435	699.356
59.0	671.002	732.892	837.529	941.158	977.429	949.506	852.066	753.186	686.546
59.5	657.184	720.226	824.863	927.629	965.338	938.711	840.407	740.664	671.865
60.0	643.943	707.416	811.765	916.402	958.286	926.765	827.885	727.566	659.487
60.5	630.557	694.318	799.531	906.183	947.923	915.251	816.803	713.461	644.231
61.0	616.020	681.365	788.161	893.230	937.272	902.873	803.993	701.371	630.701
61.5	602.923	668.267	776.646	881.283	926.046	891.071	792.335	686.978	617.028
62.0	589.537	655.457	764.844	870.057	913.524	880.420	778.949	674.312	603.067
62.5	576.296	642.935	753.042	858.398	901.290	867.466	767.723	660.783	589.537
63.0	563.486	629.838	741.096	846.740	889.775	856.096	755.345	648.117	576.296
63.5	549.957	617.604	729.005	834.218	878.405	844.149	742.679	634.875	563.054
64.0	535.995	604.794	717.491	822.560	866.602	832.635	731.020	621.778	548.661
64.5	521.602	591.984	704.681	810.326	853.937	821.552	718.355	609.112	535.276
65.0	509.080	580.182	692.735	798.668	842.278	808.887	706.840	596.158	521.746
65.5	496.558	567.372	680.933	787.873	831.484	797.228	695.326	583.204	508.649
66.0	482.885	554.706	669.706	774.343	819.393	784.850	682.372	570.107	495.119
66.5	470.939	542.472	657.328	763.261	806.728	772.760	671.002	557.297	481.878
67.0	457.841	530.526	645.382	751.171	795.069	759.950	658.048	544.919	469.356
67.5	445.463	518.148	634.012	738.505	782.403	748.580	647.109	532.685	456.546
68.0	432.654	506.202	621.202	727.998	770.889	736.778	634.587	520.019	444.168
68.5	420.132	494.400	610.263	714.900	758.943	723.968	622.353	507.641	430.351
69.0	407.610	481.590	598.461	704.249	746.853	712.741	610.551	495.983	418.117
69.5	394.368	469.644	586.803	691.584	734.619	700.939	599.181	483.461	404.443
70.0	382.422	457.841	574.569	679.925	722.385	688.129	586.803	470.651	392.209
70.5	370.476	445.175	563.198	667.547	710.582	676.903	575.000	458.273	379.831
71.0	357.378	433.949	551.684	656.609	698.636	664.813	563.486	446.039	367.021
71.5	345.576	421.859	540.889	644.806	686.690	653.730	551.252	433.949	354.356
72.0	333.342	410.920	528.511	632.284	674.600	641.352	540.313	422.435	341.114
72.5	321.252	399.118	517.428	620.914	663.373	630.126	528.367	410.057	328.736
73.0	309.018	388.035	505.626	608.536	650.995	617.460	516.997	398.110	317.510
73.5	297.503	376.809	494.543	596.302	638.617	605.801	505.626	386.452	304.988
74.0	285.701	365.150	483.461	585.939	627.247	593.999	493.824	374.794	293.185
74.5	273.179	353.348	471.371	573.705	614.869	582.629	483.173	362.704	280.663
75.0	261.233	342.553	460.576	562.766	603.930	570.538	472.090	351.621	269.293
75.5	250.438	331.615	450.069	550.676	591.984	559.024	460.432	339.819	257.491
76.0	238.492	320.676	438.986	539.881	580.326	547.941	449.925	329.024	245.832
76.5	227.697	310.025	428.192	528.367	568.523	535.995	438.555	317.366	235.182
77.0	217.046	299.374	417.397	516.709	556.721	524.913	427.184	306.571	223.811
77.5	206.108	288.867	406.890	505.914	545.926	513.254	416.389	295.200	212.872
78.0	194.881	278.361	396.527	494.687	533.836	502.316	406.027	284.981	201.934
78.5	184.230	268.429	385.876	483.749	522.898	491.377	395.520	274.474	191.139
79.0	173.724	258.210	375.945	472.666	511.383	480.150	384.725	264.399	180.920
79.5	164.080	248.135	366.158	462.159	500.876	470.363	374.794	254.036	169.981
80.0	154.293	238.060	356.083	451.077	490.369	458.993	364.431	243.961	160.194
80.5	144.218	228.417	346.152	441.002	478.855	448.774	354.787	234.894	150.119
81.0	134.431	219.205	336.508	430.351	468.492	437.835	345.000	224.963	140.764
81.5	125.075	209.850	326.721	420.276	457.841	427.616	335.357	215.895	131.264
82.0	115.864	200.926	317.366	410.200	446.471	417.541	325.714	206.971	122.053
82.5	107.372	191.715	308.010	400.989	436.108	406.890	315.926	198.192	113.273

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**CANDELA TABULATION - (Cont.)**

83.0	98.304	183.079	298.799	390.914	426.321	396.815	307.147	189.412	104.493
83.5	89.812	174.731	289.731	381.127	415.958	387.460	297.647	180.920	96.001
84.0	81.464	166.527	280.951	371.483	406.170	377.960	289.155	172.572	87.653
84.5	73.404	158.467	272.172	362.416	396.383	368.317	280.232	164.512	79.881
85.0	65.920	150.983	263.392	352.916	386.884	358.674	271.452	156.740	71.821
85.5	58.436	143.066	255.332	343.561	377.241	349.750	263.104	148.392	64.337
86.0	50.951	135.726	247.272	335.069	367.885	340.826	254.468	140.907	56.708
86.5	43.899	128.529	239.500	326.289	358.961	331.615	246.552	133.279	49.368
87.0	36.846	121.477	231.439	317.797	349.894	323.267	238.780	126.083	42.028
87.5	30.369	114.856	223.955	310.025	341.258	315.063	230.720	119.030	34.975
88.0	24.036	107.660	216.903	302.109	333.342	307.003	223.379	111.834	27.922
88.5	17.703	101.471	210.426	294.913	325.282	299.662	216.471	104.781	20.726
89.0	11.370	95.570	204.381	287.860	318.229	292.178	209.706	98.592	13.961
89.5	5.613	90.676	198.623	281.383	311.177	285.701	203.949	93.123	7.340
90.0	2.015	86.214	193.586	275.050	304.412	279.080	198.623	88.373	2.303
90.5	1.295	82.472	188.692	269.005	297.647	272.603	193.298	84.343	1.295
91.0	1.295	79.305	183.799	263.104	291.314	266.846	187.829	81.177	1.151
91.5	1.295	77.003	179.625	257.347	285.269	261.233	183.655	78.730	1.151
92.0	1.295	74.988	175.307	252.309	279.800	256.195	179.625	76.715	1.151
92.5	1.295	73.116	172.284	247.704	274.474	251.302	176.170	74.844	1.151
93.0	1.295	71.389	169.118	243.242	269.437	246.840	173.004	72.973	1.151
93.5	1.295	69.662	166.239	239.356	265.119	242.666	169.981	71.245	1.151
94.0	1.295	68.079	163.504	235.326	260.801	238.780	167.391	69.518	1.151
94.5	1.295	66.496	161.058	231.871	256.915	235.182	164.656	67.791	1.151
95.0	1.295	64.912	158.611	228.417	253.173	231.296	161.921	66.208	1.151
95.5	1.295	63.473	155.876	224.963	248.999	227.985	159.331	64.768	1.151
96.0	1.295	62.034	153.573	221.508	245.401	224.387	156.740	63.329	1.151
96.5	1.295	60.595	150.983	218.342	241.802	221.220	154.005	61.746	1.151
97.0	1.295	59.155	148.680	214.744	238.060	217.478	151.702	60.307	1.151
97.5	1.295	57.716	146.089	211.865	234.462	214.456	149.255	59.011	1.151
98.0	1.295	56.421	143.786	208.411	231.152	211.145	146.665	57.572	1.151
98.5	1.295	55.269	141.627	205.388	227.841	207.835	144.362	56.133	1.151
99.0	1.295	53.830	139.036	202.510	224.531	204.668	141.915	54.837	1.151
99.5	1.295	52.534	136.877	199.487	221.076	201.646	139.612	53.542	1.151
100.0	1.295	51.383	134.431	196.464	217.766	198.623	137.165	52.247	1.151
100.5	1.295	50.088	132.272	193.442	214.312	195.745	135.006	51.095	1.295
101.0	1.295	49.080	130.113	190.419	211.289	192.866	132.847	49.800	1.295
101.5	1.295	47.785	127.810	187.541	208.267	189.700	130.401	48.648	1.295
102.0	1.439	46.777	125.795	184.662	204.812	187.109	128.386	47.497	1.295
102.5	1.439	45.626	123.636	181.928	201.502	184.374	126.083	46.345	1.295
103.0	1.439	44.618	121.477	179.049	198.479	181.496	123.924	45.194	1.295
103.5	1.439	43.467	119.318	176.602	195.601	178.617	121.909	44.043	1.295
104.0	1.439	42.459	117.447	174.011	192.722	175.882	119.606	42.891	1.295
104.5	1.439	41.452	115.288	170.989	189.988	173.148	117.591	41.884	1.439
105.0	1.439	40.444	113.417	168.542	186.821	170.557	115.576	40.876	1.439
105.5	1.439	39.437	111.546	165.951	184.086	167.678	113.561	39.869	1.439
106.0	1.439	38.429	109.531	163.217	181.352	165.088	111.402	38.861	1.439
106.5	1.439	37.566	107.660	160.914	178.185	162.497	109.531	37.998	1.439
107.0	1.583	36.558	105.789	158.323	175.739	159.762	107.516	36.990	1.439
107.5	1.583	35.695	103.774	155.588	173.148	157.315	105.789	36.126	1.439
108.0	1.583	34.831	101.902	153.429	170.413	154.869	103.917	35.263	1.439
108.5	1.583	33.824	100.319	150.839	167.822	152.566	101.902	34.255	1.583
109.0	1.583	32.960	98.448	148.392	165.232	150.119	100.031	33.392	1.583
109.5	1.583	32.096	96.577	145.945	162.785	147.672	98.304	32.528	1.583
110.0	1.583	31.377	94.994	143.642	160.194	145.225	96.577	31.665	1.583
110.5	1.583	30.513	93.267	141.483	157.603	142.779	94.706	30.801	1.583

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**CANDELA TABULATION - (Cont.)**

111.0	1.583	29.650	91.539	139.180	155.300	140.764	92.979	30.081	1.583
111.5	1.727	28.930	89.956	137.021	152.854	138.317	91.108	29.218	1.583
112.0	1.727	28.066	88.229	134.575	150.551	136.014	89.524	28.354	1.583
112.5	1.727	27.347	86.502	132.703	148.104	133.855	87.797	27.635	1.727
113.0	1.727	26.627	85.063	130.257	145.657	131.696	86.070	26.771	1.727
113.5	1.727	25.907	83.192	128.098	143.210	129.249	84.487	26.051	1.727
114.0	1.727	25.044	81.752	126.083	141.195	127.090	82.904	25.332	1.727
114.5	1.727	24.324	80.169	123.924	138.749	125.075	81.177	24.468	1.727
115.0	1.727	23.748	78.586	121.909	136.590	122.916	79.449	23.748	1.727
115.5	1.727	22.885	77.003	119.894	134.287	120.757	77.866	23.029	1.727
116.0	1.727	22.309	75.563	117.591	132.128	118.742	76.283	22.309	1.871
116.5	1.727	21.589	73.980	115.720	129.969	116.727	74.844	21.733	1.871
117.0	1.727	20.870	72.397	113.561	127.666	114.568	73.260	21.014	1.871
117.5	1.727	20.150	70.957	111.690	125.651	112.553	71.677	20.294	1.871
118.0	1.727	19.574	69.662	109.531	123.492	110.538	70.238	19.574	1.871
118.5	1.727	18.855	68.223	107.660	121.477	108.523	68.799	18.999	1.871
119.0	1.727	18.279	66.784	105.789	119.318	106.652	67.359	18.279	1.871
119.5	1.727	17.559	65.344	103.917	117.159	104.781	65.920	17.703	1.871
120.0	1.727	16.984	63.905	101.759	115.144	102.622	64.337	16.984	1.871
120.5	1.727	16.408	62.466	100.175	112.985	100.751	63.041	16.408	2.015
121.0	1.727	15.688	61.170	98.160	110.826	98.880	61.602	15.832	2.015
121.5	1.727	14.969	59.875	96.289	109.099	97.009	60.307	15.113	2.015
122.0	1.727	14.393	58.580	94.418	106.796	95.138	59.011	14.537	2.015
122.5	1.727	13.817	57.140	92.547	104.925	93.123	57.716	13.961	2.015
123.0	1.727	13.242	55.845	90.820	102.910	91.396	56.277	13.385	2.015
123.5	1.727	12.666	54.549	88.949	100.895	89.668	54.981	12.810	2.015
124.0	1.727	12.090	53.398	87.078	99.024	87.797	53.686	12.234	2.015
124.5	1.727	11.514	52.103	85.350	97.153	85.782	52.391	11.658	2.159
125.0	1.727	10.939	50.807	83.623	95.282	84.055	51.095	11.083	2.159
125.5	1.727	10.363	49.512	81.896	93.267	82.328	49.800	10.507	2.159
126.0	1.727	9.931	48.217	80.313	91.396	80.601	48.504	9.931	2.159
126.5	1.727	9.355	47.065	78.586	89.524	78.874	47.353	9.355	2.159
127.0	1.727	8.780	45.914	76.859	87.509	77.146	46.202	8.924	2.159
127.5	1.727	8.348	44.762	75.275	85.782	75.419	44.906	8.348	2.159
128.0	1.727	7.772	43.467	73.548	84.055	73.980	43.755	7.916	2.303
128.5	1.727	7.340	42.171	71.965	82.328	72.397	42.603	7.484	2.303
129.0	1.727	6.909	41.020	70.238	80.457	70.670	41.452	7.053	2.303
129.5	1.727	6.621	40.013	68.655	78.730	69.086	40.300	6.765	2.303
130.0	1.871	6.189	39.005	67.071	77.003	67.503	39.293	6.333	2.303
130.5	1.871	5.901	37.710	65.632	75.275	66.064	38.141	6.045	2.447
131.0	1.871	5.613	36.702	64.193	73.548	64.337	36.990	5.757	2.447
131.5	1.871	5.325	35.695	62.610	71.821	62.897	35.982	5.469	2.447
132.0	1.871	5.038	34.543	61.170	70.094	61.314	34.831	5.181	2.447
132.5	1.871	4.750	33.536	59.587	68.511	59.875	33.824	4.894	2.447
133.0	1.871	4.606	32.528	58.004	66.927	58.292	32.816	4.750	2.591
133.5	1.871	4.462	31.377	56.564	65.200	56.852	31.665	4.606	2.591
134.0	1.871	4.318	30.225	55.125	63.761	55.269	30.657	4.462	2.591
134.5	1.871	4.174	29.074	53.686	62.034	53.830	29.650	4.318	2.591
135.0	1.871	4.030	27.922	52.247	60.451	52.391	28.642	4.174	2.591
135.5	1.871	3.886	26.915	50.663	58.867	50.951	27.635	4.030	2.591
136.0	1.871	3.742	25.763	49.224	57.284	49.512	26.627	3.886	2.591
136.5	1.871	3.742	24.756	47.929	55.701	48.073	25.763	3.886	2.735
137.0	1.871	3.598	23.605	46.633	54.118	46.633	24.756	3.742	2.735
137.5	1.871	3.598	22.597	45.194	52.678	45.338	23.748	3.742	2.735
138.0	1.871	3.454	21.589	43.755	51.239	43.899	22.885	3.598	2.735
138.5	1.871	3.454	20.726	42.459	49.800	42.603	22.021	3.598	2.735

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**CANDELA TABULATION - (Cont.)**

139.0	2.015	3.454	19.718	41.164	48.360	41.164	21.158	3.454	2.879
139.5	2.015	3.310	18.711	39.869	46.921	40.013	20.294	3.454	2.879
140.0	2.015	3.310	17.847	38.573	45.482	38.573	19.287	3.454	2.879
140.5	2.015	3.310	16.984	37.134	44.043	37.278	18.423	3.310	2.879
141.0	2.015	3.166	16.264	35.982	42.603	35.982	17.559	3.310	2.879
141.5	2.015	3.166	15.401	34.687	41.164	34.831	16.696	3.310	3.023
142.0	2.015	3.166	14.681	33.536	39.869	33.536	15.832	3.310	3.023
142.5	2.015	3.023	13.961	32.240	38.429	32.240	14.969	3.166	3.023
143.0	2.015	3.023	13.242	31.089	37.134	30.945	14.249	3.166	3.023
143.5	2.159	3.023	12.522	29.794	35.839	29.794	13.385	3.166	3.023
144.0	2.159	3.023	11.802	28.642	34.399	28.642	12.666	3.023	3.023
144.5	2.159	3.023	11.083	27.491	33.104	27.347	11.802	3.023	3.166
145.0	2.159	2.879	10.507	26.195	31.809	26.195	11.083	3.023	3.166
145.5	2.159	2.879	9.787	25.044	30.513	25.044	10.363	3.023	3.166
146.0	2.159	2.879	9.212	24.036	29.218	23.892	9.643	3.023	3.166
146.5	2.159	2.879	8.636	22.885	27.922	22.741	9.068	3.023	3.166
147.0	2.159	2.879	8.060	21.733	26.771	21.589	8.492	2.879	3.166
147.5	2.159	2.879	7.484	20.582	25.476	20.582	7.916	2.879	3.310
148.0	2.303	2.879	7.053	19.431	24.324	19.431	7.484	2.879	3.310
148.5	2.303	2.879	6.621	18.279	23.029	18.423	7.053	2.879	3.310
149.0	2.303	2.879	6.333	16.984	21.877	17.272	6.621	2.879	3.310
149.5	2.303	2.879	5.901	15.976	20.726	16.264	6.333	2.879	3.310
150.0	2.303	2.879	5.613	14.825	19.574	15.257	6.045	3.023	3.310
150.5	2.303	2.879	5.469	13.817	18.423	14.249	5.757	2.879	3.454
151.0	2.303	2.879	5.181	12.810	17.272	13.242	5.469	2.879	3.454
151.5	2.447	2.879	5.038	11.946	16.264	12.378	5.325	3.023	3.454
152.0	2.447	3.023	4.894	10.939	15.113	11.370	5.038	3.023	3.454
152.5	2.447	3.023	4.750	10.219	14.105	10.507	4.894	3.023	3.454
153.0	2.447	3.023	4.606	9.499	12.954	9.643	4.750	3.023	3.454
153.5	2.447	3.023	4.462	8.780	11.946	8.924	4.606	3.023	3.454
154.0	2.447	3.023	4.318	8.060	10.939	8.348	4.462	3.023	3.598
154.5	2.591	3.023	4.174	7.484	10.075	7.628	4.318	3.023	3.598
155.0	2.591	3.023	4.030	6.909	9.212	7.053	4.174	3.023	3.598
155.5	2.591	3.166	4.030	6.477	8.492	6.621	4.174	3.023	3.598
156.0	2.591	3.166	3.886	6.045	7.772	6.189	4.030	3.166	3.598
156.5	2.735	3.166	3.886	5.613	7.196	5.757	3.886	3.166	3.598
157.0	2.735	3.166	3.742	5.325	6.621	5.469	3.886	3.166	3.598
157.5	2.735	3.166	3.742	5.181	6.045	5.181	3.742	3.166	3.598
158.0	2.735	3.166	3.598	4.894	5.757	4.894	3.742	3.166	3.742
158.5	2.735	3.310	3.598	4.750	5.325	4.750	3.598	3.166	3.742
159.0	2.879	3.310	3.454	4.462	5.038	4.462	3.598	3.310	3.742
159.5	2.879	3.310	3.454	4.318	4.750	4.318	3.454	3.310	3.742
160.0	2.879	3.310	3.454	4.174	4.606	4.174	3.454	3.310	3.742
160.5	2.879	3.310	3.310	4.030	4.318	4.030	3.454	3.310	3.742
161.0	2.879	3.310	3.310	3.886	4.174	3.886	3.310	3.310	3.742
161.5	3.023	3.310	3.310	3.886	4.030	3.886	3.310	3.310	3.742
162.0	3.023	3.454	3.310	3.742	3.886	3.742	3.310	3.310	3.742
162.5	3.023	3.454	3.310	3.598	3.742	3.598	3.310	3.454	3.742
163.0	3.023	3.454	3.310	3.454	3.598	3.598	3.310	3.454	3.886
163.5	3.023	3.454	3.310	3.454	3.454	3.454	3.310	3.454	3.886
164.0	3.166	3.454	3.310	3.310	3.454	3.310	3.310	3.454	3.886
164.5	3.166	3.454	3.310	3.310	3.310	3.310	3.310	3.454	3.886
165.0	3.166	3.598	3.310	3.310	3.310	3.310	3.310	3.454	3.886
165.5	3.166	3.598	3.310	3.310	3.166	3.310	3.310	3.598	3.886
166.0	3.310	3.598	3.454	3.310	3.166	3.166	3.454	3.598	3.886
166.5	3.310	3.598	3.454	3.310	3.166	3.166	3.454	3.598	3.886

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**CANDELA TABULATION - (Cont.)**

167.0	3.310	3.598	3.454	3.166	3.023	3.166	3.454	3.598	3.886
167.5	3.310	3.598	3.454	3.166	3.023	3.166	3.454	3.598	3.886
168.0	3.310	3.598	3.454	3.166	3.023	3.166	3.454	3.598	3.886
168.5	3.454	3.742	3.454	3.166	3.023	3.166	3.454	3.598	3.886
169.0	3.454	3.742	3.454	3.310	3.023	3.310	3.454	3.742	3.886
169.5	3.454	3.742	3.454	3.310	3.023	3.310	3.454	3.742	3.886
170.0	3.454	3.742	3.454	3.310	3.023	3.166	3.454	3.742	3.886
170.5	3.454	3.742	3.454	3.310	3.023	3.310	3.454	3.742	3.886
171.0	3.454	3.742	3.598	3.310	3.023	3.310	3.454	3.742	3.886
171.5	3.454	3.742	3.598	3.310	3.023	3.310	3.598	3.742	3.886
172.0	3.454	3.742	3.598	3.310	3.023	3.310	3.598	3.742	3.886
172.5	3.598	3.742	3.598	3.310	3.166	3.310	3.598	3.742	3.886
173.0	3.598	3.742	3.598	3.310	3.166	3.310	3.598	3.742	3.886
173.5	3.598	3.742	3.598	3.310	3.166	3.310	3.598	3.742	3.886
174.0	3.598	3.742	3.598	3.310	3.166	3.310	3.598	3.742	3.886
174.5	3.598	3.742	3.598	3.310	3.166	3.310	3.598	3.742	3.886
175.0	3.598	3.742	3.598	3.310	3.166	3.310	3.598	3.742	3.886
175.5	3.742	3.742	3.598	3.310	3.166	3.310	3.598	3.742	3.886
176.0	3.742	3.742	3.598	3.310	3.166	3.310	3.598	3.742	3.886
176.5	3.742	3.742	3.598	3.454	3.166	3.310	3.598	3.742	3.886
177.0	3.742	3.886	3.598	3.454	3.166	3.310	3.598	3.886	3.886
177.5	3.742	3.886	3.598	3.454	3.166	3.310	3.598	3.886	3.886
178.0	3.742	3.886	3.598	3.454	3.166	3.454	3.598	3.886	3.886
178.5	3.742	3.886	3.598	3.454	3.166	3.454	3.598	3.886	3.886
179.0	3.886	3.886	3.598	3.454	3.166	3.454	3.742	3.886	3.886
179.5	3.886	3.886	3.598	3.454	3.166	3.454	3.598	3.886	3.886
180.0	3.598	3.598	3.598	3.598	3.598	3.598	3.598	3.598	3.598



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV\_42W\_3500K\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	673.78	N.A.	11.40
0-30	1415.35	N.A.	24.00
0-40	2294.78	N.A.	38.80
0-60	4039.59	N.A.	68.40
0-80	5206.37	N.A.	88.10
0-90	5483.78	N.A.	92.80
10-90	5308.21	N.A.	89.80
20-40	1620.99	N.A.	27.40
20-50	2527.77	N.A.	42.80
40-70	2431.08	N.A.	41.10
60-80	1166.78	N.A.	19.70
70-80	480.51	N.A.	8.10
80-90	277.41	N.A.	4.70
90-110	271.97	N.A.	4.60
90-120	345.44	N.A.	5.80
90-130	389.44	N.A.	6.60
90-150	421.52	N.A.	7.10
90-180	425.46	N.A.	7.20
110-180	153.49	N.A.	2.60
0-180	5909.24	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	175.57
10-20	498.21
20-30	741.57
30-40	879.43
40-50	906.78
50-60	838.03
60-70	686.27
70-80	480.51
80-90	277.41
90-100	160.64
100-110	111.33
110-120	73.47
120-130	44.00
130-140	22.81
140-150	9.28
150-160	2.62
160-170	0.98
170-180	0.34

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV\_42W\_3500K\_.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	103	103	103	103	100	100	100	100	94	94	94	89	89	89	84	84	84	82
1	93	88	84	80	90	86	82	78	81	78	75	76	74	71	72	70	68	66
2	84	76	70	65	81	74	68	63	70	65	61	66	62	59	63	59	56	54
3	77	67	59	53	74	65	58	52	61	56	51	58	53	49	55	51	47	45
4	70	59	51	45	67	57	50	44	54	48	43	52	46	42	49	44	41	38
5	64	53	45	39	62	51	44	38	49	42	37	46	41	36	44	39	35	33
6	59	47	39	34	57	46	39	33	44	37	32	42	36	32	40	35	31	29
7	55	43	35	30	53	42	35	29	40	33	29	38	32	28	36	31	27	26
8	51	39	32	26	49	38	31	26	37	30	26	35	29	25	34	28	25	23
9	48	36	29	24	46	35	28	23	34	27	23	32	27	23	31	26	22	20
10	45	33	26	21	43	32	26	21	31	25	21	30	24	21	29	24	20	19

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV\_42W\_3500K\_.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

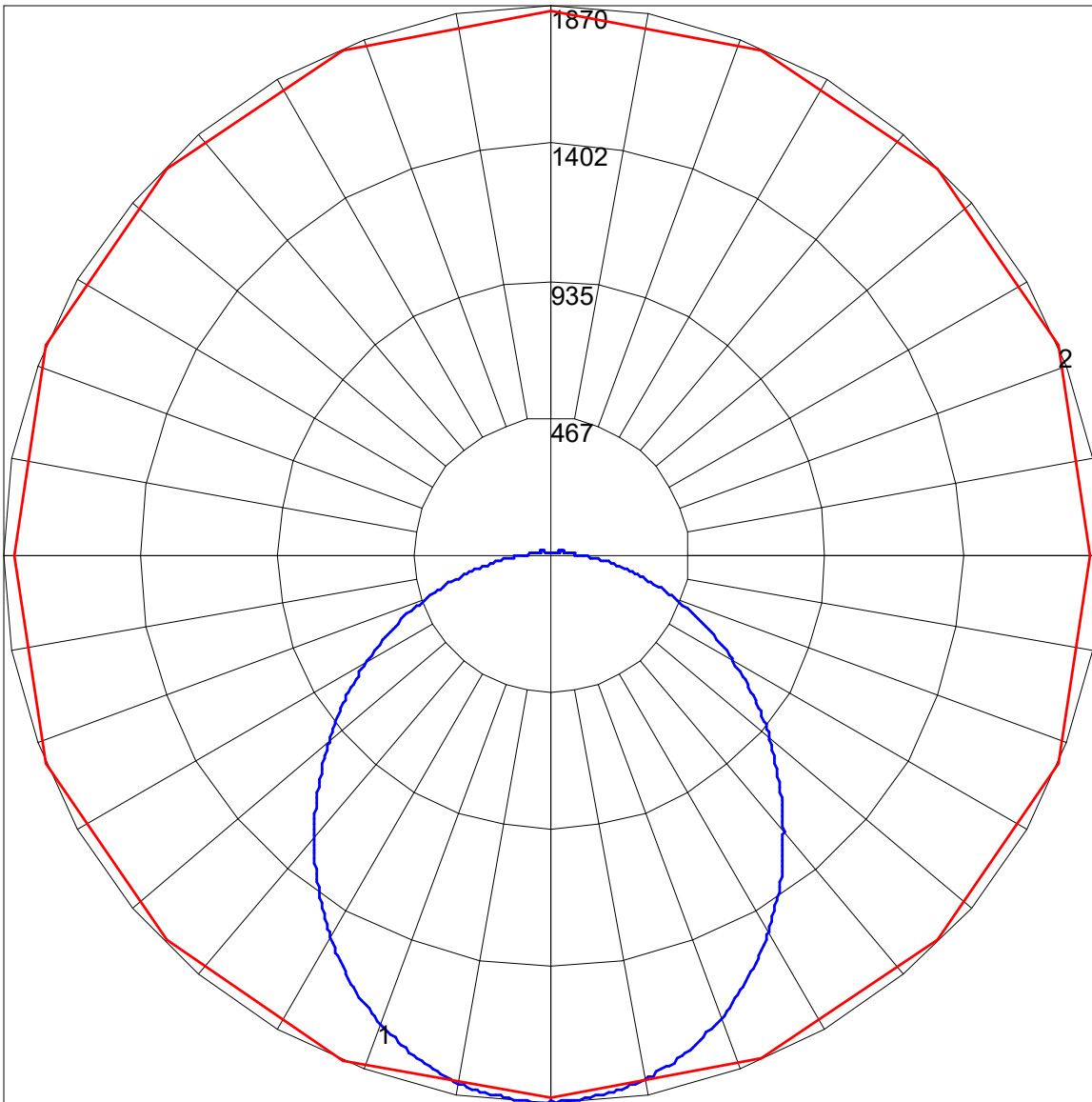
X=2H	Y=2H	21.4	23.0	21.9	23.4	23.9	23.9	25.4	24.3	25.9	26.3
	3H	22.9	24.3	23.4	24.8	25.3	26.3	27.7	26.8	28.1	28.7
	4H	23.4	24.7	23.9	25.2	25.7	27.4	28.7	27.9	29.2	29.8
	6H	23.7	24.9	24.2	25.4	26.0	28.5	29.8	29.1	30.3	30.8
	8H	23.8	24.9	24.3	25.5	26.0	29.1	30.3	29.6	30.8	31.4
	12H	23.8	24.9	24.3	25.4	26.0	29.7	30.9	30.3	31.4	32.0

### UGR Viewed Endwise

4H	2H	22.4	23.7	22.9	24.2	24.7	24.3	25.6	24.8	26.1	26.6
	3H	24.1	25.2	24.6	25.8	26.3	27.0	28.1	27.5	28.6	29.2
	4H	24.7	25.7	25.2	26.3	26.9	28.2	29.3	28.8	29.8	30.4
	6H	25.1	26.0	25.7	26.6	27.2	29.6	30.5	30.1	31.0	31.6
	8H	25.2	26.1	25.8	26.7	27.3	30.2	31.1	30.8	31.6	32.3
	12H	25.3	26.1	25.9	26.7	27.3	31.0	31.7	31.5	32.3	33.0
8H	4H	25.4	26.3	26.0	26.8	27.4	28.4	29.3	29.0	29.9	30.5
	6H	26.0	26.7	26.6	27.3	28.0	29.9	30.7	30.5	31.3	31.9
	8H	26.2	26.9	26.8	27.5	28.1	30.8	31.4	31.4	32.0	32.6
	12H	26.3	26.9	27.0	27.5	28.2	31.7	32.2	32.3	32.8	33.5
12H	4H	25.6	26.4	26.2	27.0	27.6	28.4	29.2	29.0	29.8	30.4
	6H	26.3	27.0	26.9	27.5	28.2	30.0	30.6	30.6	31.2	31.9
	8H	26.6	27.2	27.2	27.8	28.5	30.8	31.4	31.4	32.0	32.7

Maximum UGR = 33.5

POLAR GRAPH



Maximum Candela = 1869.651 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.)