



IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_39W_4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 15180278.01
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 2024-03-19
[TEST DATE] 2/23/2024
[MANUFAC] H.E. WILLIAMS, INC.
[LUMCAT] FS-4-LS-8CS-DIM-UNV_39W_4000K
[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	6019
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	153
Total Luminaire Watts	39.4
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	25945	24550	25449
55	23616	22728	24214
65	20804	20734	22904
75	17131	18588	21293
85	11846	17112	20267

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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	1894.262	1894.262	1894.262	1894.262	1894.262	1894.262	1894.262	1894.262	1894.262
0.5	1869.337	1901.593	1897.194	1897.194	1888.397	1898.660	1897.194	1904.525	1870.804
1.0	1867.871	1900.126	1894.262	1898.660	1886.931	1898.660	1894.262	1903.059	1870.804
1.5	1870.804	1900.126	1891.330	1897.194	1888.397	1898.660	1894.262	1901.593	1870.804
2.0	1870.804	1898.660	1894.262	1898.660	1886.931	1901.593	1894.262	1903.059	1869.337
2.5	1869.337	1897.194	1891.330	1897.194	1886.931	1895.728	1894.262	1900.126	1866.405
3.0	1864.939	1897.194	1889.863	1897.194	1886.931	1897.194	1892.796	1901.593	1866.405
3.5	1866.405	1894.262	1888.397	1892.796	1883.999	1894.262	1891.330	1897.194	1867.871
4.0	1862.007	1891.330	1885.465	1894.262	1885.465	1892.796	1889.863	1898.660	1863.473
4.5	1863.473	1886.931	1885.465	1891.330	1882.533	1892.796	1886.931	1895.728	1860.540
5.0	1856.142	1885.465	1881.067	1889.863	1882.533	1891.330	1885.465	1892.796	1860.540
5.5	1854.676	1885.465	1879.600	1888.397	1882.533	1889.863	1885.465	1889.863	1856.142
6.0	1851.744	1881.067	1876.668	1886.931	1878.134	1886.931	1881.067	1889.863	1854.676
6.5	1848.811	1878.134	1875.202	1882.533	1875.202	1885.465	1879.600	1886.931	1851.744
7.0	1844.413	1873.736	1872.270	1878.134	1872.270	1882.533	1878.134	1885.465	1853.210
7.5	1842.947	1872.270	1867.871	1878.134	1869.337	1879.600	1873.736	1882.533	1847.345
8.0	1840.014	1867.871	1864.939	1873.736	1869.337	1878.134	1872.270	1879.600	1844.413
8.5	1835.616	1863.473	1860.540	1869.337	1863.473	1873.736	1869.337	1875.202	1838.548
9.0	1832.684	1859.074	1854.676	1867.871	1860.540	1869.337	1864.939	1873.736	1835.616
9.5	1823.887	1854.676	1854.676	1864.939	1857.608	1867.871	1862.007	1867.871	1831.218
10.0	1822.421	1853.210	1847.345	1856.142	1856.142	1863.473	1859.074	1864.939	1829.751
10.5	1812.158	1844.413	1844.413	1856.142	1848.811	1860.540	1854.676	1859.074	1822.421
11.0	1810.691	1842.947	1840.014	1850.277	1845.879	1856.142	1847.345	1851.744	1822.421
11.5	1804.827	1835.616	1834.150	1845.879	1842.947	1850.277	1844.413	1850.277	1815.090
12.0	1798.962	1829.751	1831.218	1841.481	1837.082	1847.345	1838.548	1844.413	1807.759
12.5	1791.632	1823.887	1825.353	1838.548	1837.082	1840.014	1834.150	1837.082	1804.827
13.0	1788.699	1820.955	1818.022	1832.684	1831.218	1837.082	1829.751	1834.150	1796.030
13.5	1784.301	1813.624	1815.090	1825.353	1825.353	1831.218	1825.353	1829.751	1790.165
14.0	1775.504	1806.293	1807.759	1820.955	1819.488	1826.819	1818.022	1823.887	1784.301
14.5	1765.241	1798.962	1800.428	1815.090	1813.624	1819.488	1813.624	1818.022	1779.902
15.0	1760.842	1794.564	1797.496	1812.158	1807.759	1815.090	1806.293	1810.691	1772.572
15.5	1754.978	1790.165	1788.699	1804.827	1801.895	1807.759	1801.895	1803.361	1766.707
16.0	1750.579	1779.902	1782.835	1800.428	1794.564	1801.895	1793.098	1797.496	1756.444
16.5	1737.384	1774.038	1774.038	1794.564	1788.699	1796.030	1785.767	1790.165	1754.978
17.0	1730.053	1766.707	1769.639	1787.233	1782.835	1787.233	1779.902	1784.301	1744.715
17.5	1722.723	1757.910	1760.842	1778.436	1775.504	1779.902	1771.106	1778.436	1740.316
18.0	1718.324	1747.647	1752.046	1769.639	1769.639	1771.106	1765.241	1766.707	1731.520
18.5	1709.527	1741.783	1744.715	1765.241	1762.309	1765.241	1756.444	1760.842	1724.189
19.0	1697.798	1732.986	1735.918	1756.444	1753.512	1757.910	1750.579	1752.046	1715.392
19.5	1691.934	1725.655	1728.587	1749.113	1744.715	1749.113	1743.249	1744.715	1705.129
20.0	1683.137	1715.392	1719.790	1740.316	1737.384	1743.249	1734.452	1735.918	1697.798
20.5	1672.874	1706.595	1712.460	1732.986	1730.053	1732.986	1727.121	1727.121	1690.467
21.0	1665.543	1697.798	1702.197	1722.723	1721.257	1727.121	1715.392	1721.257	1678.738
21.5	1653.814	1689.001	1693.400	1713.926	1715.392	1719.790	1709.527	1710.993	1671.408
22.0	1646.483	1681.671	1686.069	1705.129	1706.595	1709.527	1700.730	1702.197	1662.611
22.5	1633.288	1668.475	1675.806	1697.798	1700.730	1705.129	1691.934	1691.934	1650.881
23.0	1624.491	1659.678	1667.009	1687.535	1691.934	1694.866	1684.603	1683.137	1645.017
23.5	1617.160	1649.415	1659.678	1680.204	1686.069	1690.467	1675.806	1674.340	1634.754
24.0	1602.499	1640.618	1649.415	1671.408	1677.272	1681.671	1667.009	1661.144	1620.092
24.5	1596.634	1631.822	1639.152	1664.077	1669.941	1674.340	1656.746	1652.348	1611.295
25.0	1584.905	1617.160	1630.355	1656.746	1665.543	1667.009	1647.949	1643.551	1602.499
25.5	1571.710	1608.363	1617.160	1649.415	1658.212	1658.212	1640.618	1634.754	1593.702
26.0	1559.980	1599.566	1608.363	1637.686	1649.415	1649.415	1630.355	1624.491	1580.506
26.5	1549.717	1586.371	1599.566	1631.822	1642.085	1640.618	1620.092	1612.762	1571.710

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27.0	1540.920	1576.108	1590.769	1621.559	1630.355	1631.822	1609.829	1602.499	1559.980
27.5	1527.725	1567.311	1580.506	1614.228	1623.025	1621.559	1601.032	1592.236	1548.251
28.0	1517.462	1552.650	1567.311	1605.431	1615.694	1612.762	1589.303	1580.506	1537.988
28.5	1507.199	1542.387	1558.514	1595.168	1606.897	1603.965	1580.506	1570.243	1527.725
29.0	1495.470	1530.657	1548.251	1586.371	1598.100	1593.702	1570.243	1559.980	1514.530
29.5	1483.741	1520.394	1537.988	1576.108	1587.837	1584.905	1561.446	1546.785	1502.801
30.0	1469.079	1508.665	1527.725	1565.845	1579.040	1576.108	1549.717	1536.522	1489.605
30.5	1457.497	1496.936	1515.996	1557.048	1570.243	1565.845	1539.454	1524.793	1477.876
31.0	1445.181	1483.741	1505.733	1546.785	1561.446	1557.048	1527.725	1513.064	1469.079
31.5	1435.944	1470.545	1495.470	1536.522	1551.183	1548.251	1518.928	1501.334	1453.245
32.0	1420.550	1461.455	1483.741	1527.725	1542.387	1539.454	1508.665	1489.605	1442.395
32.5	1410.580	1448.260	1472.012	1517.462	1533.590	1529.191	1495.470	1476.410	1432.279
33.0	1396.212	1436.531	1459.109	1508.665	1526.259	1520.394	1483.741	1463.508	1415.858
33.5	1383.310	1424.069	1448.113	1499.868	1515.996	1508.665	1473.478	1452.219	1405.448
34.0	1371.580	1411.753	1439.610	1488.139	1507.199	1499.868	1464.094	1441.222	1394.746
34.5	1357.945	1397.971	1427.147	1477.876	1498.402	1489.605	1452.512	1426.414	1379.791
35.0	1347.242	1386.095	1416.738	1469.079	1488.139	1479.342	1441.516	1414.978	1369.968
35.5	1333.900	1372.460	1406.328	1459.549	1480.808	1469.079	1429.053	1401.197	1354.133
36.0	1318.213	1358.385	1393.719	1449.140	1470.545	1461.162	1417.324	1389.028	1343.577
36.5	1304.578	1346.216	1384.043	1438.290	1461.895	1450.459	1406.475	1376.272	1331.408
37.0	1294.021	1332.288	1370.847	1430.080	1452.952	1440.783	1394.306	1363.517	1321.292
37.5	1279.946	1320.852	1360.145	1419.377	1443.422	1429.200	1384.483	1351.787	1308.536
38.0	1264.845	1307.510	1347.976	1409.847	1434.038	1418.937	1372.753	1339.765	1293.435
38.5	1252.676	1294.168	1338.152	1399.144	1423.482	1408.821	1359.851	1327.889	1279.067
39.0	1238.014	1279.946	1325.837	1388.734	1413.512	1398.264	1349.588	1316.453	1265.138
39.5	1224.086	1265.578	1314.694	1377.885	1404.422	1388.001	1337.126	1303.551	1248.864
40.0	1209.131	1253.995	1303.111	1367.915	1395.919	1378.765	1325.543	1291.675	1233.616
40.5	1196.523	1240.800	1291.675	1357.359	1384.629	1368.208	1314.108	1276.574	1219.248
41.0	1180.542	1225.992	1279.506	1347.682	1373.340	1357.945	1302.378	1263.232	1204.880
41.5	1167.346	1211.477	1269.537	1337.712	1365.716	1346.363	1289.769	1247.251	1190.365
42.0	1152.098	1198.575	1256.781	1326.716	1355.599	1338.152	1278.187	1232.150	1177.316
42.5	1138.463	1184.793	1244.612	1317.040	1345.923	1326.423	1265.138	1218.661	1162.948
43.0	1123.802	1172.624	1232.883	1306.044	1335.953	1315.134	1254.142	1202.534	1148.580
43.5	1111.046	1160.015	1220.567	1295.048	1327.010	1304.284	1243.293	1188.312	1135.971
44.0	1098.584	1145.061	1209.131	1285.371	1316.893	1294.901	1229.951	1173.064	1120.869
44.5	1081.137	1130.986	1195.056	1274.082	1306.777	1284.931	1219.981	1159.576	1107.527
45.0	1068.381	1117.057	1185.380	1263.819	1296.807	1272.322	1208.398	1144.328	1093.746
45.5	1055.186	1103.422	1171.745	1252.969	1284.785	1262.939	1196.229	1132.012	1079.964
46.0	1040.671	1091.840	1160.455	1241.093	1274.815	1252.823	1184.793	1117.497	1064.423
46.5	1027.916	1078.058	1147.846	1228.924	1265.285	1240.507	1173.064	1104.448	1051.667
47.0	1012.961	1063.250	1135.971	1220.274	1254.729	1232.003	1162.215	1090.960	1038.472
47.5	998.299	1050.054	1123.802	1208.105	1245.345	1221.594	1150.339	1077.032	1021.611
48.0	986.864	1036.419	1112.659	1199.455	1233.323	1208.252	1138.756	1062.957	1010.175
48.5	970.883	1022.784	1100.637	1186.113	1223.793	1198.429	1126.734	1049.468	993.315
49.0	961.499	1011.348	1089.494	1175.996	1213.237	1187.726	1114.272	1036.419	980.119
49.5	948.890	996.100	1077.618	1165.294	1201.801	1177.463	1099.024	1021.904	967.071
50.0	934.082	984.371	1065.742	1154.297	1192.417	1166.467	1088.028	1007.976	955.781
50.5	919.421	973.961	1051.227	1143.155	1181.861	1155.031	1075.419	994.927	943.319
51.0	905.639	961.206	1041.258	1131.865	1172.038	1144.034	1061.490	980.559	927.191
51.5	892.004	948.450	1028.209	1122.189	1162.948	1133.185	1049.321	972.202	913.263
52.0	877.636	934.229	1017.359	1111.486	1151.512	1122.482	1036.126	958.860	898.455
52.5	864.440	921.327	1005.190	1100.197	1140.809	1111.193	1024.543	946.984	884.966
53.0	849.632	907.105	992.435	1089.494	1129.813	1101.663	1012.668	932.616	871.771
53.5	836.290	893.910	980.559	1078.058	1118.817	1089.934	999.472	918.834	856.376
54.0	821.775	881.594	969.856	1066.915	1107.088	1078.938	988.770	905.346	841.422
54.5	807.700	867.226	961.206	1054.599	1097.997	1068.528	975.867	891.271	828.080

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55.0	792.599	853.737	949.917	1044.043	1087.001	1056.652	968.537	878.515	813.272
55.5	778.817	841.715	937.454	1032.021	1075.126	1045.363	957.101	865.027	798.610
56.0	765.035	827.053	925.139	1020.292	1065.156	1034.807	944.492	851.098	785.562
56.5	751.840	813.418	912.823	1009.735	1052.840	1021.318	931.297	836.144	770.607
57.0	737.472	799.637	900.947	997.713	1042.284	1010.175	918.981	823.095	754.919
57.5	723.983	787.174	889.805	986.570	1029.675	998.006	906.372	808.433	741.137
58.0	710.788	773.393	876.463	975.134	1017.653	986.277	893.470	795.385	727.209
58.5	696.566	759.757	864.147	967.217	1006.510	976.600	881.301	781.750	712.401
59.0	683.518	746.562	853.151	958.713	995.660	967.217	867.959	767.235	699.352
59.5	669.443	733.660	840.249	944.932	983.345	956.221	856.083	754.479	684.397
60.0	655.954	720.611	826.907	933.496	976.161	944.052	843.328	741.137	671.789
60.5	642.319	707.269	814.445	923.086	965.604	932.323	832.038	726.769	656.247
61.0	627.511	694.074	802.862	909.891	954.755	919.714	818.990	714.453	642.466
61.5	614.169	680.732	791.133	897.722	943.319	907.692	807.114	699.792	628.537
62.0	600.534	667.683	779.110	886.286	930.563	896.842	793.479	686.890	614.316
62.5	587.045	654.928	767.088	874.410	918.101	883.647	782.043	673.108	600.534
63.0	573.997	641.586	754.919	862.534	906.372	872.064	769.434	660.206	587.045
63.5	560.215	629.124	742.603	849.779	894.789	859.895	756.532	646.717	573.557
64.0	545.993	616.075	730.874	837.903	882.767	848.166	744.656	633.375	558.895
64.5	531.332	603.026	717.826	825.441	869.865	836.877	731.754	620.473	545.260
65.0	518.576	591.004	705.657	813.565	857.989	823.975	720.025	607.278	531.478
65.5	505.821	577.955	693.634	802.569	846.993	812.099	708.296	594.083	518.136
66.0	491.892	565.053	682.198	788.787	834.677	799.490	695.100	580.741	504.355
66.5	479.723	552.591	669.589	777.498	821.775	787.174	683.518	567.692	490.866
67.0	466.381	540.422	657.420	765.182	809.900	774.126	670.322	555.083	478.111
67.5	453.772	527.813	645.838	752.280	796.997	762.543	659.180	542.621	465.062
68.0	440.724	515.644	632.789	741.577	785.268	750.521	646.424	529.719	452.453
68.5	427.968	503.621	621.646	728.235	773.099	737.472	633.962	517.110	438.378
69.0	415.213	490.573	609.624	717.386	760.784	726.036	621.940	505.234	425.916
69.5	401.724	478.404	597.748	704.484	748.321	714.014	610.357	492.479	411.987
70.0	389.555	466.381	585.286	692.608	735.859	700.965	597.748	479.430	399.525
70.5	377.386	453.479	573.703	679.999	723.837	689.529	585.726	466.821	386.916
71.0	364.044	442.043	561.974	668.856	711.668	677.213	573.997	454.359	373.867
71.5	352.022	429.728	550.978	656.834	699.499	665.924	561.534	442.043	360.965
72.0	339.560	418.585	538.369	644.078	687.183	653.315	550.392	430.314	347.477
72.5	327.244	406.563	527.080	632.496	675.747	641.879	538.223	417.705	334.868
73.0	314.782	395.273	515.057	619.887	663.138	628.977	526.640	405.536	323.432
73.5	303.053	383.837	503.768	607.425	650.529	617.101	515.057	393.660	310.677
74.0	291.030	371.961	492.479	596.868	638.947	605.079	503.035	381.785	298.654
74.5	278.275	359.939	480.163	584.406	626.338	593.496	492.186	369.469	285.899
75.0	266.106	348.943	469.167	573.263	615.195	581.181	480.896	358.180	274.316
75.5	255.110	337.800	458.464	560.948	603.026	569.451	469.020	346.157	262.294
76.0	242.941	326.658	447.175	549.952	591.150	558.162	458.318	335.161	250.418
76.5	231.944	315.808	436.179	538.223	579.128	545.993	446.735	323.285	239.568
77.0	221.095	304.959	425.183	526.347	567.106	534.704	435.152	312.289	227.986
77.5	209.952	294.256	414.480	515.351	556.110	522.828	424.156	300.707	216.843
78.0	198.516	283.553	403.923	503.915	543.794	511.685	413.600	290.297	205.700
78.5	187.667	273.436	393.074	492.772	532.651	500.543	402.897	279.594	194.704
79.0	176.964	263.027	382.958	481.483	520.922	489.107	391.901	269.331	184.295
79.5	167.141	252.764	372.988	470.780	510.219	479.137	381.785	258.775	173.152
80.0	157.171	242.501	362.725	459.490	499.516	467.554	371.228	248.512	163.182
80.5	146.908	232.678	352.608	449.227	487.787	457.145	361.405	239.275	152.919
81.0	136.938	223.294	342.785	438.378	477.231	446.002	351.435	229.159	143.389
81.5	127.408	213.764	332.815	428.115	466.381	435.592	341.612	219.922	133.713
82.0	118.025	204.674	323.285	417.852	454.799	425.329	331.789	210.832	124.329
82.5	109.375	195.291	313.755	408.469	444.243	414.480	321.819	201.888	115.386

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CANDELA TABULATION - (Cont.)

83.0	100.138	186.494	304.372	398.206	434.273	404.217	312.876	192.945	106.442
83.5	91.488	177.990	295.135	388.236	423.716	394.687	303.199	184.295	97.792
84.0	82.984	169.633	286.192	378.413	413.747	385.010	294.549	175.791	89.288
84.5	74.773	161.423	277.248	369.176	403.777	375.187	285.459	167.581	81.371
85.0	67.150	153.799	268.305	359.499	394.100	365.364	276.515	159.663	73.161
85.5	59.526	145.735	260.094	349.969	384.277	356.274	268.012	151.160	65.537
86.0	51.902	138.258	251.884	341.319	374.747	347.184	259.215	143.536	57.766
86.5	44.717	130.927	243.967	332.376	365.657	337.800	251.151	135.765	50.289
87.0	37.533	123.743	235.756	323.725	356.420	329.297	243.234	128.434	42.811
87.5	30.936	116.999	228.132	315.808	347.623	320.940	235.023	121.250	35.627
88.0	24.485	109.668	220.948	307.744	339.560	312.729	227.546	113.920	28.443
88.5	18.034	103.363	214.351	300.414	331.349	305.252	220.509	106.735	21.113
89.0	11.583	97.352	208.193	293.229	324.165	297.628	213.618	100.431	14.222
89.5	5.718	92.367	202.328	286.632	316.981	291.030	207.753	94.860	7.477
90.0	2.053	87.822	197.197	280.181	310.090	284.286	202.328	90.021	2.346
90.5	1.320	84.010	192.212	274.023	303.199	277.688	196.904	85.916	1.320
91.0	1.320	80.785	187.227	268.012	296.748	271.824	191.332	82.691	1.173
91.5	1.320	78.439	182.975	262.147	290.590	266.106	187.080	80.198	1.173
92.0	1.320	76.386	178.577	257.016	285.019	260.974	182.975	78.146	1.173
92.5	1.320	74.480	175.498	252.324	279.594	255.989	179.456	76.240	1.173
93.0	1.320	72.721	172.272	247.779	274.463	251.444	176.231	74.334	1.173
93.5	1.320	70.962	169.340	243.820	270.064	247.192	173.152	72.574	1.173
94.0	1.320	69.349	166.554	239.715	265.666	243.234	170.513	70.815	1.173
94.5	1.320	67.736	164.062	236.196	261.707	239.568	167.727	69.056	1.173
95.0	1.320	66.123	161.569	232.678	257.895	235.610	164.942	67.443	1.173
95.5	1.320	64.657	158.784	229.159	253.643	232.238	162.302	65.977	1.173
96.0	1.320	63.191	156.438	225.640	249.978	228.572	159.663	64.510	1.173
96.5	1.320	61.725	153.799	222.414	246.313	225.347	156.878	62.898	1.173
97.0	1.320	60.259	151.453	218.749	242.501	221.535	154.532	61.432	1.173
97.5	1.320	58.792	148.814	215.817	238.835	218.456	152.039	60.112	1.173
98.0	1.320	57.473	146.468	212.298	235.463	215.084	149.400	58.646	1.173
98.5	1.320	56.300	144.269	209.219	232.091	211.712	147.055	57.180	1.173
99.0	1.320	54.834	141.630	206.287	228.719	208.486	144.562	55.860	1.173
99.5	1.320	53.514	139.431	203.208	225.200	205.407	142.216	54.541	1.173
100.0	1.320	52.341	136.938	200.129	221.828	202.328	139.724	53.221	1.173
100.5	1.320	51.022	134.739	197.050	218.309	199.396	137.525	52.048	1.320
101.0	1.320	49.996	132.540	193.971	215.230	196.464	135.325	50.729	1.320
101.5	1.320	48.676	130.194	191.039	212.151	193.238	132.833	49.556	1.320
102.0	1.466	47.650	128.141	188.107	208.633	190.599	130.780	48.383	1.320
102.5	1.466	46.477	125.942	185.321	205.261	187.813	128.434	47.210	1.320
103.0	1.466	45.451	123.743	182.389	202.182	184.881	126.235	46.037	1.320
103.5	1.466	44.278	121.544	179.896	199.249	181.949	124.183	44.864	1.320
104.0	1.466	43.251	119.638	177.257	196.317	179.163	121.837	43.691	1.320
104.5	1.466	42.225	117.438	174.178	193.531	176.377	119.784	42.665	1.466
105.0	1.466	41.199	115.532	171.686	190.306	173.738	117.732	41.639	1.466
105.5	1.466	40.172	113.626	169.047	187.520	170.806	115.679	40.612	1.466
106.0	1.466	39.146	111.574	166.261	184.735	168.167	113.480	39.586	1.466
106.5	1.466	38.266	109.668	163.915	181.509	165.528	111.574	38.706	1.466
107.0	1.613	37.240	107.762	161.276	179.017	162.742	109.521	37.680	1.466
107.5	1.613	36.360	105.709	158.490	176.377	160.250	107.762	36.800	1.466
108.0	1.613	35.481	103.803	156.291	173.592	157.757	105.856	35.921	1.466
108.5	1.613	34.454	102.190	153.652	170.953	155.412	103.803	34.894	1.613
109.0	1.613	33.575	100.284	151.160	168.314	152.919	101.897	34.015	1.613
109.5	1.613	32.695	98.378	148.667	165.821	150.427	100.138	33.135	1.613
110.0	1.613	31.962	96.766	146.321	163.182	147.934	98.378	32.255	1.613
110.5	1.613	31.082	95.006	144.122	160.543	145.442	96.472	31.376	1.613

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CANDELA TABULATION - (Cont.)

111.0	1.613	30.203	93.247	141.776	158.197	143.389	94.713	30.642	1.613
111.5	1.759	29.470	91.634	139.577	155.705	140.897	92.807	29.763	1.613
112.0	1.759	28.590	89.875	137.085	153.359	138.551	91.194	28.883	1.613
112.5	1.759	27.857	88.115	135.179	150.867	136.352	89.435	28.150	1.759
113.0	1.759	27.124	86.649	132.686	148.374	134.152	87.676	27.270	1.759
113.5	1.759	26.391	84.743	130.487	145.882	131.660	86.063	26.537	1.759
114.0	1.759	25.511	83.277	128.434	143.829	129.461	84.450	25.804	1.759
114.5	1.759	24.778	81.664	126.235	141.337	127.408	82.691	24.924	1.759
115.0	1.759	24.191	80.052	124.183	139.137	125.209	80.931	24.191	1.759
115.5	1.759	23.312	78.439	122.130	136.792	123.010	79.319	23.458	1.759
116.0	1.759	22.725	76.973	119.784	134.592	120.957	77.706	22.725	1.906
116.5	1.759	21.992	75.360	117.878	132.393	118.905	76.240	22.139	1.906
117.0	1.759	21.259	73.747	115.679	130.047	116.705	74.627	21.406	1.906
117.5	1.759	20.526	72.281	113.773	127.995	114.653	73.014	20.673	1.906
118.0	1.759	19.940	70.962	111.574	125.795	112.600	71.548	19.940	1.906
118.5	1.759	19.207	69.495	109.668	123.743	110.547	70.082	19.353	1.906
119.0	1.759	18.620	68.029	107.762	121.544	108.641	68.616	18.620	1.906
119.5	1.759	17.887	66.563	105.856	119.344	106.735	67.150	18.034	1.906
120.0	1.759	17.301	65.097	103.657	117.292	104.536	65.537	17.301	1.906
120.5	1.759	16.714	63.631	102.044	115.093	102.630	64.217	16.714	2.053
121.0	1.759	15.981	62.311	99.991	112.893	100.724	62.751	16.128	2.053
121.5	1.759	15.248	60.992	98.085	111.134	98.818	61.432	15.395	2.053
122.0	1.759	14.661	59.672	96.179	108.788	96.912	60.112	14.808	2.053
122.5	1.759	14.075	58.206	94.273	106.882	94.860	58.792	14.222	2.053
123.0	1.759	13.489	56.887	92.514	104.830	93.100	57.326	13.635	2.053
123.5	1.759	12.902	55.567	90.608	102.777	91.341	56.007	13.049	2.053
124.0	1.759	12.316	54.394	88.702	100.871	89.435	54.687	12.462	2.053
124.5	1.759	11.729	53.075	86.943	98.965	87.382	53.368	11.876	2.199
125.0	1.759	11.143	51.755	85.183	97.059	85.623	52.048	11.289	2.199
125.5	1.759	10.556	50.435	83.424	95.006	83.864	50.729	10.703	2.199
126.0	1.759	10.116	49.116	81.811	93.100	82.104	49.409	10.116	2.199
126.5	1.759	9.530	47.943	80.052	91.194	80.345	48.236	9.530	2.199
127.0	1.759	8.943	46.770	78.292	89.142	78.585	47.063	9.090	2.199
127.5	1.759	8.504	45.597	76.679	87.382	76.826	45.744	8.504	2.199
128.0	1.759	7.917	44.278	74.920	85.623	75.360	44.571	8.064	2.346
128.5	1.759	7.477	42.958	73.307	83.864	73.747	43.398	7.624	2.346
129.0	1.759	7.038	41.785	71.548	81.958	71.988	42.225	7.184	2.346
129.5	1.759	6.744	40.759	69.935	80.198	70.375	41.052	6.891	2.346
130.0	1.906	6.304	39.733	68.322	78.439	68.762	40.026	6.451	2.346
130.5	1.906	6.011	38.413	66.856	76.679	67.296	38.853	6.158	2.492
131.0	1.906	5.718	37.387	65.390	74.920	65.537	37.680	5.865	2.492
131.5	1.906	5.425	36.360	63.777	73.161	64.071	36.654	5.571	2.492
132.0	1.906	5.132	35.188	62.311	71.401	62.458	35.481	5.278	2.492
132.5	1.906	4.838	34.161	60.698	69.789	60.992	34.454	4.985	2.492
133.0	1.906	4.692	33.135	59.086	68.176	59.379	33.428	4.838	2.639
133.5	1.906	4.545	31.962	57.620	66.416	57.913	32.255	4.692	2.639
134.0	1.906	4.398	30.789	56.153	64.950	56.300	31.229	4.545	2.639
134.5	1.906	4.252	29.616	54.687	63.191	54.834	30.203	4.398	2.639
135.0	1.906	4.105	28.443	53.221	61.578	53.368	29.176	4.252	2.639
135.5	1.906	3.959	27.417	51.608	59.965	51.902	28.150	4.105	2.639
136.0	1.906	3.812	26.244	50.142	58.353	50.435	27.124	3.959	2.639
136.5	1.906	3.812	25.218	48.823	56.740	48.969	26.244	3.959	2.786
137.0	1.906	3.665	24.045	47.503	55.127	47.503	25.218	3.812	2.786
137.5	1.906	3.665	23.019	46.037	53.661	46.184	24.191	3.812	2.786
138.0	1.906	3.519	21.992	44.571	52.195	44.717	23.312	3.665	2.786
138.5	1.906	3.519	21.113	43.251	50.729	43.398	22.432	3.665	2.786

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CANDELA TABULATION - (Cont.)

139.0	2.053	3.519	20.086	41.932	49.263	41.932	21.552	3.519	2.932
139.5	2.053	3.372	19.060	40.612	47.796	40.759	20.673	3.519	2.932
140.0	2.053	3.372	18.180	39.293	46.330	39.293	19.646	3.519	2.932
140.5	2.053	3.372	17.301	37.827	44.864	37.973	18.767	3.372	2.932
141.0	2.053	3.226	16.567	36.654	43.398	36.654	17.887	3.372	2.932
141.5	2.053	3.226	15.688	35.334	41.932	35.481	17.007	3.372	3.079
142.0	2.053	3.226	14.955	34.161	40.612	34.161	16.128	3.372	3.079
142.5	2.053	3.079	14.222	32.842	39.146	32.842	15.248	3.226	3.079
143.0	2.053	3.079	13.489	31.669	37.827	31.522	14.515	3.226	3.079
143.5	2.199	3.079	12.755	30.349	36.507	30.349	13.635	3.226	3.079
144.0	2.199	3.079	12.022	29.176	35.041	29.176	12.902	3.079	3.079
144.5	2.199	3.079	11.289	28.003	33.721	27.857	12.022	3.079	3.226
145.0	2.199	2.932	10.703	26.684	32.402	26.684	11.289	3.079	3.226
145.5	2.199	2.932	9.970	25.511	31.082	25.511	10.556	3.079	3.226
146.0	2.199	2.932	9.383	24.485	29.763	24.338	9.823	3.079	3.226
146.5	2.199	2.932	8.797	23.312	28.443	23.165	9.237	3.079	3.226
147.0	2.199	2.932	8.210	22.139	27.270	21.992	8.650	2.932	3.226
147.5	2.199	2.932	7.624	20.966	25.951	20.966	8.064	2.932	3.372
148.0	2.346	2.932	7.184	19.793	24.778	19.793	7.624	2.932	3.372
148.5	2.346	2.932	6.744	18.620	23.458	18.767	7.184	2.932	3.372
149.0	2.346	2.932	6.451	17.301	22.285	17.594	6.744	2.932	3.372
149.5	2.346	2.932	6.011	16.274	21.113	16.567	6.451	2.932	3.372
150.0	2.346	2.932	5.718	15.101	19.940	15.541	6.158	3.079	3.372
150.5	2.346	2.932	5.571	14.075	18.767	14.515	5.865	2.932	3.519
151.0	2.346	2.932	5.278	13.049	17.594	13.489	5.571	2.932	3.519
151.5	2.492	2.932	5.132	12.169	16.567	12.609	5.425	3.079	3.519
152.0	2.492	3.079	4.985	11.143	15.395	11.583	5.132	3.079	3.519
152.5	2.492	3.079	4.838	10.410	14.368	10.703	4.985	3.079	3.519
153.0	2.492	3.079	4.692	9.677	13.195	9.823	4.838	3.079	3.519
153.5	2.492	3.079	4.545	8.943	12.169	9.090	4.692	3.079	3.519
154.0	2.492	3.079	4.398	8.210	11.143	8.504	4.545	3.079	3.665
154.5	2.639	3.079	4.252	7.624	10.263	7.771	4.398	3.079	3.665
155.0	2.639	3.079	4.105	7.038	9.383	7.184	4.252	3.079	3.665
155.5	2.639	3.226	4.105	6.598	8.650	6.744	4.252	3.079	3.665
156.0	2.639	3.226	3.959	6.158	7.917	6.304	4.105	3.226	3.665
156.5	2.786	3.226	3.959	5.718	7.331	5.865	3.959	3.226	3.665
157.0	2.786	3.226	3.812	5.425	6.744	5.571	3.959	3.226	3.665
157.5	2.786	3.226	3.812	5.278	6.158	5.278	3.812	3.226	3.665
158.0	2.786	3.226	3.665	4.985	5.865	4.985	3.812	3.226	3.812
158.5	2.786	3.372	3.665	4.838	5.425	4.838	3.665	3.226	3.812
159.0	2.932	3.372	3.519	4.545	5.132	4.545	3.665	3.372	3.812
159.5	2.932	3.372	3.519	4.398	4.838	4.398	3.519	3.372	3.812
160.0	2.932	3.372	3.519	4.252	4.692	4.252	3.519	3.372	3.812
160.5	2.932	3.372	3.372	4.105	4.398	4.105	3.519	3.372	3.812
161.0	2.932	3.372	3.372	3.959	4.252	3.959	3.372	3.372	3.812
161.5	3.079	3.372	3.372	3.959	4.105	3.959	3.372	3.372	3.812
162.0	3.079	3.519	3.372	3.812	3.959	3.812	3.372	3.372	3.812
162.5	3.079	3.519	3.372	3.665	3.812	3.665	3.372	3.519	3.812
163.0	3.079	3.519	3.372	3.519	3.665	3.665	3.372	3.519	3.959
163.5	3.079	3.519	3.372	3.519	3.519	3.519	3.372	3.519	3.959
164.0	3.226	3.519	3.372	3.372	3.519	3.372	3.372	3.519	3.959
164.5	3.226	3.519	3.372	3.372	3.372	3.372	3.372	3.519	3.959
165.0	3.226	3.665	3.372	3.372	3.372	3.372	3.372	3.519	3.959
165.5	3.226	3.665	3.372	3.372	3.226	3.372	3.372	3.665	3.959
166.0	3.372	3.665	3.519	3.372	3.226	3.226	3.519	3.665	3.959
166.5	3.372	3.665	3.519	3.372	3.226	3.226	3.519	3.665	3.959

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CANDELA TABULATION - (Cont.)

167.0	3.372	3.665	3.519	3.226	3.079	3.226	3.519	3.665	3.959
167.5	3.372	3.665	3.519	3.226	3.079	3.226	3.519	3.665	3.959
168.0	3.372	3.665	3.519	3.226	3.079	3.226	3.519	3.665	3.959
168.5	3.519	3.812	3.519	3.226	3.079	3.226	3.519	3.665	3.959
169.0	3.519	3.812	3.519	3.372	3.079	3.372	3.519	3.812	3.959
169.5	3.519	3.812	3.519	3.372	3.079	3.372	3.519	3.812	3.959
170.0	3.519	3.812	3.519	3.372	3.079	3.226	3.519	3.812	3.959
170.5	3.519	3.812	3.519	3.372	3.079	3.372	3.519	3.812	3.959
171.0	3.519	3.812	3.665	3.372	3.079	3.372	3.519	3.812	3.959
171.5	3.519	3.812	3.665	3.372	3.079	3.372	3.665	3.812	3.959
172.0	3.519	3.812	3.665	3.372	3.079	3.372	3.665	3.812	3.959
172.5	3.665	3.812	3.665	3.372	3.226	3.372	3.665	3.812	3.959
173.0	3.665	3.812	3.665	3.372	3.226	3.372	3.665	3.812	3.959
173.5	3.665	3.812	3.665	3.372	3.226	3.372	3.665	3.812	3.959
174.0	3.665	3.812	3.665	3.372	3.226	3.372	3.665	3.812	3.959
174.5	3.665	3.812	3.665	3.372	3.226	3.372	3.665	3.812	3.959
175.0	3.665	3.812	3.665	3.372	3.226	3.372	3.665	3.812	3.959
175.5	3.812	3.812	3.665	3.372	3.226	3.372	3.665	3.812	3.959
176.0	3.812	3.812	3.665	3.372	3.226	3.372	3.665	3.812	3.959
176.5	3.812	3.812	3.665	3.519	3.226	3.372	3.665	3.812	3.959
177.0	3.812	3.959	3.665	3.519	3.226	3.372	3.665	3.959	3.959
177.5	3.812	3.959	3.665	3.519	3.226	3.372	3.665	3.959	3.959
178.0	3.812	3.959	3.665	3.519	3.226	3.519	3.665	3.959	3.959
178.5	3.812	3.959	3.665	3.519	3.226	3.519	3.665	3.959	3.959
179.0	3.959	3.959	3.665	3.519	3.226	3.519	3.812	3.959	3.959
179.5	3.959	3.959	3.665	3.519	3.226	3.519	3.665	3.959	3.959
180.0	3.665	3.665	3.665	3.665	3.665	3.665	3.665	3.665	3.665

IES INDOOR REPORT
PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_39W_4000K_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	686.35	N.A.	11.40
0-30	1441.75	N.A.	24.00
0-40	2337.58	N.A.	38.80
0-60	4114.94	N.A.	68.40
0-80	5303.48	N.A.	88.10
0-90	5586.07	N.A.	92.80
10-90	5407.22	N.A.	89.80
20-40	1651.23	N.A.	27.40
20-50	2574.93	N.A.	42.80
40-70	2476.42	N.A.	41.10
60-80	1188.55	N.A.	19.70
70-80	489.47	N.A.	8.10
80-90	282.59	N.A.	4.70
90-110	277.04	N.A.	4.60
90-120	351.88	N.A.	5.80
90-130	396.70	N.A.	6.60
90-150	429.38	N.A.	7.10
90-180	433.40	N.A.	7.20
110-180	156.35	N.A.	2.60
0-180	6019.46	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	178.84
10-20	507.51
20-30	755.40
30-40	895.83
40-50	923.69
50-60	853.66
60-70	699.07
70-80	489.47
80-90	282.59
90-100	163.64
100-110	113.41
110-120	74.84
120-130	44.82
130-140	23.23
140-150	9.45
150-160	2.67
160-170	1.00
170-180	0.34

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

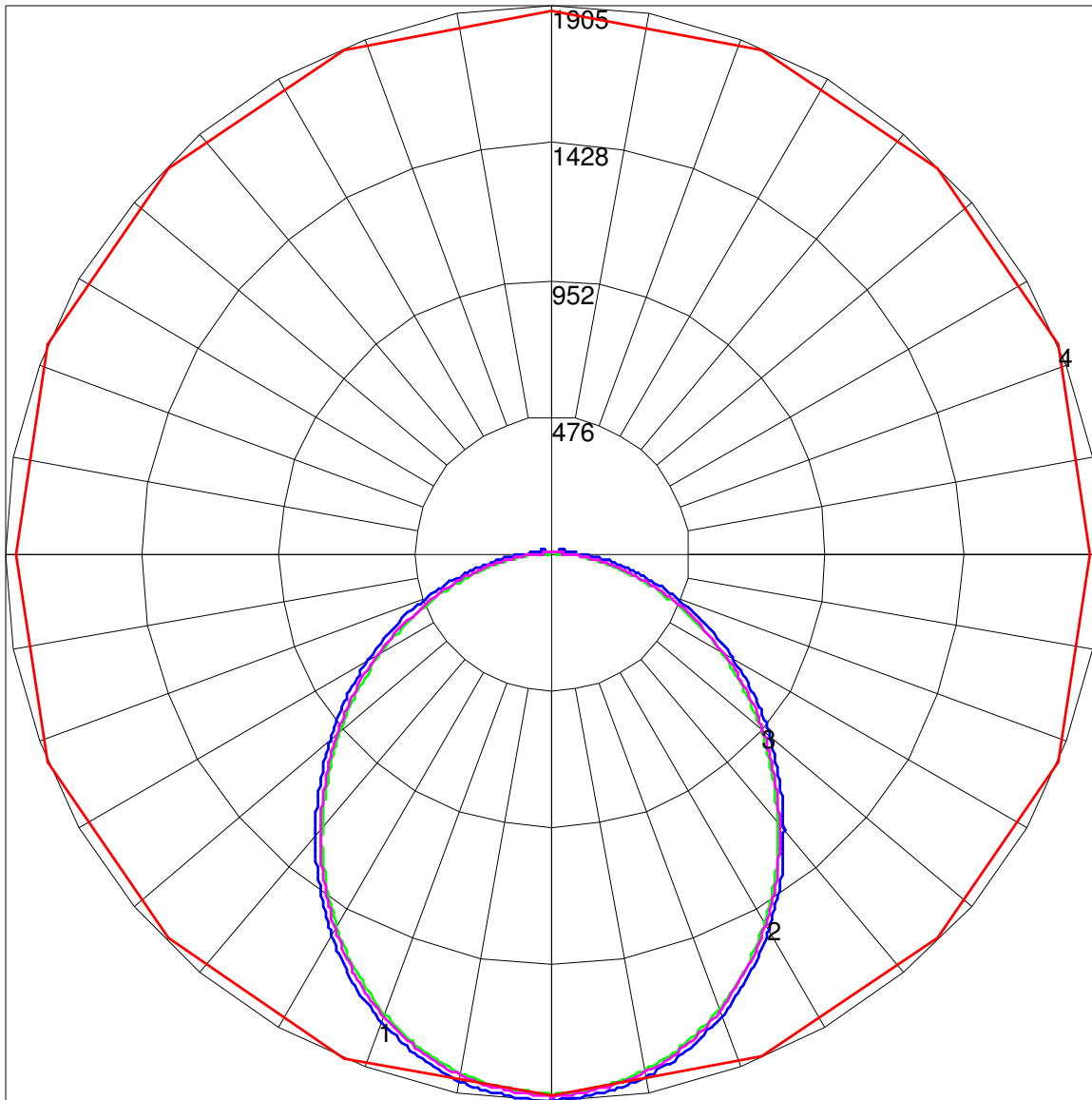
IES INDOOR REPORT
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	21.0	22.6	21.5	23.0	23.5	23.5	25.0	23.9	25.5	25.9
	3H	22.5	23.9	23.0	24.4	24.9	25.9	27.3	26.4	27.7	28.3
	4H	23.0	24.3	23.5	24.8	25.3	27.0	28.3	27.5	28.8	29.4
	6H	23.3	24.5	23.8	25.0	25.6	28.1	29.4	28.7	29.9	30.4
	8H	23.4	24.5	23.9	25.1	25.6	28.7	29.9	29.3	30.4	31.0
	12H	23.4	24.5	23.9	25.0	25.6	29.3	30.5	29.9	31.0	31.6
4H	2H	22.0	23.3	22.5	23.8	24.3	23.9	25.2	24.4	25.7	26.2
	3H	23.7	24.8	24.2	25.4	25.9	26.6	27.7	27.1	28.2	28.8
	4H	24.3	25.3	24.8	25.9	26.5	27.8	28.9	28.4	29.4	30.0
	6H	24.7	25.6	25.3	26.2	26.8	29.2	30.1	29.7	30.6	31.2
	8H	24.8	25.7	25.4	26.3	26.9	29.8	30.7	30.4	31.2	31.9
	12H	24.9	25.7	25.5	26.3	26.9	30.6	31.3	31.1	31.9	32.6
8H	4H	25.0	25.9	25.6	26.4	27.0	28.0	28.9	28.6	29.5	30.1
	6H	25.6	26.3	26.2	26.9	27.6	29.5	30.3	30.1	30.9	31.5
	8H	25.8	26.5	26.4	27.1	27.7	30.4	31.0	31.0	31.6	32.2
	12H	26.0	26.5	26.6	27.1	27.8	31.3	31.8	31.9	32.4	33.1
12H	4H	25.2	26.0	25.8	26.6	27.2	28.0	28.8	28.6	29.4	30.0
	6H	25.9	26.6	26.5	27.1	27.8	29.6	30.2	30.2	30.8	31.5
	8H	26.2	26.8	26.8	27.4	28.1	30.4	31.0	31.0	31.6	32.3

Maximum UGR = 33.1

POLAR GRAPH



Maximum Candela = 1904.525 Located At Horizontal Angle = 157.5, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (157.5 - 337.5) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (5 - 185)
3 - Vertical Plane Through Horizontal Angles (10 - 190)
4 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)