



IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_3500K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 15180278.01
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] May 10, 2024
 [TEST DATE] 2/23/2024
 [MANUFAC] H.E. WILLIAMS, INC.
 [LUMCAT] FS-4-LS-8CS-DIM-UNV_32W_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	4677
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	144
Total Luminaire Watts	32.5
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	20159	19075	19774
55	18349	17660	18815
65	16165	16110	17796
75	13311	14443	16545
85	9204	13296	15747

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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	1471.846	1471.846	1471.846	1471.846	1471.846	1471.846	1471.846	1471.846	1471.846
0.5	1452.480	1477.542	1474.125	1474.125	1467.290	1475.264	1474.125	1479.821	1453.619
1.0	1451.341	1476.403	1471.846	1475.264	1466.150	1475.264	1471.846	1478.682	1453.619
1.5	1453.619	1476.403	1469.568	1474.125	1467.290	1475.264	1471.846	1477.542	1453.619
2.0	1453.619	1475.264	1471.846	1475.264	1466.150	1477.542	1471.846	1478.682	1452.480
2.5	1452.480	1474.125	1469.568	1474.125	1466.150	1472.986	1471.846	1476.403	1450.202
3.0	1449.062	1474.125	1468.429	1474.125	1466.150	1474.125	1470.707	1477.542	1450.202
3.5	1450.202	1471.846	1467.290	1470.707	1463.872	1471.846	1469.568	1474.125	1451.341
4.0	1446.784	1469.568	1465.011	1471.846	1465.011	1470.707	1468.429	1475.264	1447.923
4.5	1447.923	1466.150	1465.011	1469.568	1462.733	1470.707	1466.150	1472.986	1445.645
5.0	1442.227	1465.011	1461.594	1468.429	1462.733	1469.568	1465.011	1470.707	1445.645
5.5	1441.088	1465.011	1460.454	1467.290	1462.733	1468.429	1465.011	1468.429	1442.227
6.0	1438.810	1461.594	1458.176	1466.150	1459.315	1466.150	1461.594	1468.429	1441.088
6.5	1436.531	1459.315	1457.037	1462.733	1457.037	1465.011	1460.454	1466.150	1438.810
7.0	1433.114	1455.898	1454.758	1459.315	1454.758	1462.733	1459.315	1465.011	1439.949
7.5	1431.974	1454.758	1451.341	1459.315	1452.480	1460.454	1455.898	1462.733	1435.392
8.0	1429.696	1451.341	1449.062	1455.898	1452.480	1459.315	1454.758	1460.454	1433.114
8.5	1426.278	1447.923	1445.645	1452.480	1447.923	1455.898	1452.480	1457.037	1428.557
9.0	1424.000	1444.506	1441.088	1451.341	1445.645	1452.480	1449.062	1455.898	1426.278
9.5	1417.165	1441.088	1441.088	1449.062	1443.366	1451.341	1446.784	1451.341	1422.861
10.0	1416.026	1439.949	1435.392	1442.227	1442.227	1447.923	1444.506	1449.062	1421.722
10.5	1408.051	1433.114	1433.114	1442.227	1436.531	1445.645	1441.088	1444.506	1416.026
11.0	1406.912	1431.974	1429.696	1437.670	1434.253	1442.227	1435.392	1438.810	1416.026
11.5	1402.355	1426.278	1425.139	1434.253	1431.974	1437.670	1433.114	1437.670	1410.330
12.0	1397.798	1421.722	1422.861	1430.835	1427.418	1435.392	1428.557	1433.114	1404.634
12.5	1392.102	1417.165	1418.304	1428.557	1427.418	1429.696	1425.139	1427.418	1402.355
13.0	1389.824	1414.886	1412.608	1424.000	1422.861	1427.418	1421.722	1425.139	1395.520
13.5	1386.406	1409.190	1410.330	1418.304	1418.304	1422.861	1418.304	1421.722	1390.963
14.0	1379.571	1403.494	1404.634	1414.886	1413.747	1419.443	1412.608	1417.165	1386.406
14.5	1371.597	1397.798	1398.938	1410.330	1409.190	1413.747	1409.190	1412.608	1382.989
15.0	1368.179	1394.381	1396.659	1408.051	1404.634	1410.330	1403.494	1406.912	1377.293
15.5	1363.622	1390.963	1389.824	1402.355	1400.077	1404.634	1400.077	1401.216	1372.736
16.0	1360.205	1382.989	1385.267	1398.938	1394.381	1400.077	1393.242	1396.659	1364.762
16.5	1349.952	1378.432	1378.432	1394.381	1389.824	1395.520	1387.546	1390.963	1363.622
17.0	1344.256	1372.736	1375.014	1388.685	1385.267	1388.685	1382.989	1386.406	1355.648
17.5	1338.560	1365.901	1368.179	1381.850	1379.571	1382.989	1376.154	1381.850	1352.230
18.0	1335.142	1357.926	1361.344	1375.014	1375.014	1376.154	1371.597	1372.736	1345.395
18.5	1328.307	1353.370	1355.648	1371.597	1369.318	1371.597	1364.762	1368.179	1339.699
19.0	1319.194	1346.534	1348.813	1364.762	1362.483	1365.901	1360.205	1361.344	1332.864
19.5	1314.637	1340.838	1343.117	1359.066	1355.648	1359.066	1354.509	1355.648	1324.890
20.0	1307.802	1332.864	1336.282	1352.230	1349.952	1354.509	1347.674	1348.813	1319.194
20.5	1299.827	1326.029	1330.586	1346.534	1344.256	1346.534	1341.978	1341.978	1313.498
21.0	1294.131	1319.194	1322.611	1338.560	1337.421	1341.978	1332.864	1337.421	1304.384
21.5	1285.018	1312.358	1315.776	1331.725	1332.864	1336.282	1328.307	1329.446	1298.688
22.0	1279.322	1306.662	1310.080	1324.890	1326.029	1328.307	1321.472	1322.611	1291.853
22.5	1269.069	1296.410	1302.106	1319.194	1321.472	1324.890	1314.637	1314.637	1282.739
23.0	1262.234	1289.574	1295.270	1311.219	1314.637	1316.915	1308.941	1307.802	1278.182
23.5	1256.538	1281.600	1289.574	1305.523	1310.080	1313.498	1302.106	1300.966	1270.208
24.0	1245.146	1274.765	1281.600	1298.688	1303.245	1306.662	1295.270	1290.714	1258.816
24.5	1240.589	1267.930	1273.626	1292.992	1297.549	1300.966	1287.296	1283.878	1251.981
25.0	1231.475	1256.538	1266.790	1287.296	1294.131	1295.270	1280.461	1277.043	1245.146
25.5	1221.222	1249.702	1256.538	1281.600	1288.435	1288.435	1274.765	1270.208	1238.310
26.0	1212.109	1242.867	1249.702	1272.486	1281.600	1281.600	1266.790	1262.234	1228.058
26.5	1204.134	1232.614	1242.867	1267.930	1275.904	1274.765	1258.816	1253.120	1221.222

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27.0	1197.299	1224.640	1236.032	1259.955	1266.790	1267.930	1250.842	1245.146	1212.109
27.5	1187.046	1217.805	1228.058	1254.259	1261.094	1259.955	1244.006	1237.171	1202.995
28.0	1179.072	1206.413	1217.805	1247.424	1255.398	1253.120	1234.893	1228.058	1195.021
28.5	1171.098	1198.438	1210.970	1239.450	1248.563	1246.285	1228.058	1220.083	1187.046
29.0	1161.984	1189.325	1202.995	1232.614	1241.728	1238.310	1220.083	1212.109	1176.794
29.5	1152.870	1181.350	1195.021	1224.640	1233.754	1231.475	1213.248	1201.856	1167.680
30.0	1141.478	1172.237	1187.046	1216.666	1226.918	1224.640	1204.134	1193.882	1157.427
30.5	1132.479	1163.123	1177.933	1209.830	1220.083	1216.666	1196.160	1184.768	1148.314
31.0	1122.909	1152.870	1169.958	1201.856	1213.248	1209.830	1187.046	1175.654	1141.478
31.5	1115.732	1142.618	1161.984	1193.882	1205.274	1202.995	1180.211	1166.541	1129.175
32.0	1103.771	1135.555	1152.870	1187.046	1198.438	1196.160	1172.237	1157.427	1120.745
32.5	1096.024	1125.302	1143.757	1179.072	1191.603	1188.186	1161.984	1147.174	1112.884
33.0	1084.860	1116.188	1133.732	1172.237	1185.907	1181.350	1152.870	1137.149	1100.125
33.5	1074.835	1106.505	1125.188	1165.402	1177.933	1172.237	1144.896	1128.378	1092.037
34.0	1065.722	1096.936	1118.580	1156.288	1171.098	1165.402	1137.605	1119.834	1083.721
34.5	1055.127	1086.227	1108.897	1148.314	1164.262	1157.427	1128.605	1108.328	1072.101
35.0	1046.811	1077.000	1100.809	1141.478	1156.288	1149.453	1120.061	1099.442	1064.468
35.5	1036.444	1066.405	1092.721	1134.074	1150.592	1141.478	1110.378	1088.733	1052.165
36.0	1024.255	1055.469	1082.923	1125.985	1142.618	1135.327	1101.265	1079.278	1043.963
36.5	1013.660	1046.013	1075.405	1117.555	1135.896	1127.011	1092.835	1069.367	1034.507
37.0	1005.458	1035.191	1065.152	1111.176	1128.947	1119.492	1083.379	1059.456	1026.647
37.5	994.522	1026.305	1056.836	1102.859	1121.542	1110.492	1075.747	1050.342	1016.736
38.0	982.788	1015.939	1047.380	1095.455	1114.251	1102.518	1066.633	1041.001	1005.002
38.5	973.332	1005.572	1039.748	1087.139	1106.049	1094.657	1056.608	1031.773	993.838
39.0	961.940	994.522	1030.179	1079.050	1098.303	1086.455	1048.634	1022.888	983.016
39.5	951.118	983.357	1021.521	1070.620	1091.240	1078.481	1038.950	1012.863	970.371
40.0	939.498	974.358	1012.521	1062.874	1084.632	1071.304	1029.951	1003.635	958.523
40.5	929.701	964.105	1003.635	1054.671	1075.860	1063.101	1021.065	991.901	947.359
41.0	917.284	952.599	994.180	1047.153	1067.089	1055.127	1011.951	981.535	936.195
41.5	907.031	941.321	986.433	1039.406	1061.165	1046.127	1002.154	969.117	924.916
42.0	895.183	931.296	976.522	1030.862	1053.304	1039.748	993.155	957.384	914.778
42.5	884.589	920.587	967.067	1023.343	1045.786	1030.634	983.016	946.903	903.613
43.0	873.197	911.132	957.953	1014.799	1038.039	1021.862	974.472	934.372	892.449
43.5	863.286	901.335	948.384	1006.255	1031.090	1013.432	966.042	923.322	882.652
44.0	853.603	889.715	939.498	998.737	1023.229	1006.141	955.675	911.474	870.918
44.5	840.046	878.779	928.562	989.965	1015.369	998.395	947.928	900.993	860.552
45.0	830.135	867.956	921.043	981.990	1007.622	988.598	938.929	889.146	849.843
45.5	819.882	857.362	910.449	973.560	998.281	981.307	929.473	879.576	839.135
46.0	808.604	848.362	901.677	964.333	990.534	973.446	920.587	868.298	827.059
46.5	798.693	837.654	891.880	954.877	983.130	963.877	911.474	858.159	817.148
47.0	787.073	826.148	882.652	948.156	974.927	957.270	903.044	847.679	806.895
47.5	775.681	815.895	873.197	938.701	967.636	949.181	893.816	836.856	793.795
48.0	766.796	805.300	864.539	931.979	958.295	938.815	884.817	825.920	784.909
48.5	754.378	794.706	855.197	921.613	950.890	931.182	875.475	815.439	771.808
49.0	747.087	785.820	846.539	913.752	942.688	922.866	865.792	805.300	761.555
49.5	737.290	773.972	837.312	905.436	933.802	914.891	853.944	794.022	751.416
50.0	725.784	764.859	828.084	896.892	926.511	906.347	845.400	783.200	742.644
50.5	714.392	756.771	816.806	888.234	918.309	897.462	835.603	773.061	732.961
51.0	703.684	746.860	809.060	879.462	910.676	888.918	824.781	761.897	720.430
51.5	693.089	736.948	798.921	871.944	903.613	880.488	815.325	755.404	709.608
52.0	681.925	725.898	790.491	863.627	894.728	872.171	805.073	745.037	698.102
52.5	671.672	715.873	781.036	854.856	886.411	863.400	796.073	735.809	687.621
53.0	660.166	704.823	771.124	846.539	877.867	855.995	786.845	724.645	677.368
53.5	649.800	694.570	761.897	837.654	869.323	846.881	776.593	713.937	665.407
54.0	638.522	685.001	753.581	828.996	860.210	838.337	768.276	703.456	653.787
54.5	627.585	673.837	746.860	819.427	853.147	830.249	758.252	692.520	643.420

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CANDELA TABULATION - (Cont.)

55.0	615.852	663.356	738.088	811.224	844.603	821.021	752.556	682.609	631.914
55.5	605.143	654.015	728.404	801.883	835.375	812.250	743.670	672.128	620.522
56.0	594.435	642.623	718.835	792.769	827.629	804.047	733.873	661.306	610.383
56.5	584.182	632.028	709.266	784.567	818.060	793.567	723.620	649.686	598.764
57.0	573.018	621.320	700.038	775.226	809.857	784.909	714.051	639.547	586.574
57.5	562.537	611.636	691.380	766.568	800.060	775.453	704.253	628.155	575.866
58.0	552.284	600.928	681.014	757.682	790.719	766.340	694.228	618.016	565.043
58.5	541.234	590.333	671.444	751.530	782.061	758.821	684.773	607.421	553.537
59.0	531.095	580.081	662.900	744.923	773.631	751.530	674.406	596.143	543.398
59.5	520.159	570.056	652.876	734.214	764.061	742.986	665.179	586.232	531.779
60.0	509.678	559.917	642.509	725.329	758.479	733.531	655.268	575.866	521.981
60.5	499.084	549.550	632.826	717.240	750.277	724.417	646.496	564.701	509.906
61.0	487.578	539.297	623.826	706.988	741.847	714.620	636.357	555.132	499.197
61.5	477.211	528.931	614.712	697.532	732.961	705.279	627.130	543.740	488.375
62.0	466.616	518.792	605.371	688.646	723.050	696.849	616.535	533.715	477.325
62.5	456.136	508.881	596.029	679.419	713.367	686.596	607.649	523.007	466.616
63.0	445.997	498.514	586.574	670.191	704.253	677.596	597.852	512.982	456.136
63.5	435.288	488.831	577.005	660.280	695.254	668.141	587.827	502.501	445.655
64.0	424.238	478.692	567.891	651.053	685.912	659.027	578.600	492.134	434.263
64.5	412.846	468.553	557.752	641.370	675.887	650.255	568.575	482.109	423.668
65.0	402.935	459.212	548.297	632.142	666.660	640.230	559.461	471.857	412.960
65.5	393.024	449.073	538.956	623.598	658.116	631.003	550.348	461.604	402.593
66.0	382.202	439.048	530.070	612.890	648.547	621.206	540.095	451.237	391.885
66.5	372.746	429.364	520.273	604.118	638.522	611.636	531.095	441.098	381.404
67.0	362.380	419.909	510.817	594.548	629.294	601.498	520.842	431.301	371.493
67.5	352.582	410.112	501.818	584.524	619.269	592.498	512.184	421.618	361.354
68.0	342.444	400.657	491.679	576.207	610.156	583.156	502.273	411.593	351.557
68.5	332.532	391.315	483.021	565.841	600.700	573.018	492.590	401.796	340.621
69.0	322.621	381.176	473.679	557.411	591.131	564.132	483.249	392.568	330.938
69.5	312.141	371.721	464.452	547.386	581.448	554.790	474.249	382.657	320.115
70.0	302.685	362.380	454.769	538.158	571.764	544.652	464.452	372.518	310.432
70.5	293.230	352.355	445.769	528.361	562.423	535.766	455.110	362.721	300.635
71.0	282.863	343.469	436.655	519.703	552.968	526.196	445.997	353.038	290.496
71.5	273.522	333.900	428.111	510.362	543.512	517.425	436.314	343.469	280.471
72.0	263.839	325.242	418.314	500.451	533.943	507.628	427.656	334.355	269.990
72.5	254.269	315.900	409.542	491.451	525.057	498.742	418.200	324.558	260.193
73.0	244.586	307.128	400.201	481.654	515.260	488.717	409.201	315.103	251.308
73.5	235.473	298.243	391.429	471.971	505.463	479.489	400.201	305.875	241.396
74.0	226.131	289.015	382.657	463.768	496.463	470.148	390.860	296.648	232.055
74.5	216.220	279.674	373.088	454.085	486.666	461.148	382.429	287.078	222.144
75.0	206.765	271.130	364.544	445.427	478.008	451.579	373.658	278.307	213.144
75.5	198.221	262.472	356.228	435.858	468.553	442.465	364.430	268.965	203.803
76.0	188.765	253.814	347.456	427.314	459.325	433.693	356.114	260.421	194.575
76.5	180.221	245.384	338.912	418.200	449.984	424.238	347.114	251.194	186.145
77.0	171.791	236.954	330.368	408.973	440.643	415.466	338.115	242.650	177.146
77.5	163.133	228.637	322.052	400.429	432.099	406.239	329.571	233.650	168.488
78.0	154.248	220.321	313.850	391.543	422.529	397.581	321.368	225.562	159.830
78.5	145.818	212.461	305.420	382.885	413.871	388.923	313.052	217.245	151.286
79.0	137.501	204.372	297.559	374.113	404.758	380.037	304.508	209.271	143.197
79.5	129.869	196.398	289.812	365.797	396.442	372.291	296.648	201.069	134.540
80.0	122.122	188.424	281.838	357.025	388.125	363.291	288.445	193.094	126.793
80.5	114.148	180.791	273.978	349.051	379.012	355.203	280.813	185.917	118.819
81.0	106.401	173.500	266.345	340.621	370.810	346.545	273.066	178.057	111.414
81.5	98.996	166.095	258.598	332.646	362.380	338.456	265.434	170.880	103.895
82.0	91.706	159.032	251.194	324.672	353.380	330.482	257.801	163.817	96.604
82.5	84.984	151.741	243.789	317.381	345.178	322.052	250.054	156.868	89.655

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CANDELA TABULATION - (Cont.)

83.0	77.807	144.906	236.498	309.407	337.431	314.077	243.105	149.919	82.706
83.5	71.086	138.299	229.321	301.660	329.229	306.673	235.587	143.197	75.985
84.0	64.479	131.805	222.372	294.028	321.482	299.154	228.865	136.590	69.377
84.5	58.099	125.426	215.423	286.851	313.736	291.521	221.802	130.211	63.226
85.0	52.175	119.502	208.474	279.332	306.217	283.889	214.853	124.059	56.846
85.5	46.252	113.236	202.094	271.927	298.584	276.826	208.246	117.452	50.922
86.0	40.328	107.427	195.715	265.206	291.180	269.763	201.411	111.528	44.884
86.5	34.746	101.731	189.563	258.257	284.116	262.472	195.145	105.490	39.075
87.0	29.164	96.148	183.183	251.535	276.940	255.864	188.993	99.794	33.265
87.5	24.037	90.908	177.260	245.384	270.104	249.371	182.614	94.212	27.683
88.0	19.025	85.212	171.677	239.118	263.839	242.991	176.804	88.516	22.100
88.5	14.012	80.314	166.551	233.422	257.459	237.181	171.336	82.934	16.404
89.0	9.000	75.643	161.766	227.840	251.877	231.258	165.981	78.035	11.050
89.5	4.443	71.770	157.210	222.714	246.295	226.131	161.425	73.706	5.810
90.0	1.595	68.238	153.222	217.701	240.941	220.891	157.210	69.947	1.823
90.5	1.025	65.276	149.349	212.916	235.587	215.764	152.995	66.757	1.025
91.0	1.025	62.770	145.476	208.246	230.574	211.208	148.666	64.251	0.911
91.5	1.025	60.947	142.172	203.689	225.789	206.765	145.362	62.314	0.911
92.0	1.025	59.352	138.755	199.702	221.460	202.778	142.172	60.719	0.911
92.5	1.025	57.871	136.362	196.056	217.245	198.904	139.438	59.238	0.911
93.0	1.025	56.504	133.856	192.525	213.258	195.373	136.932	57.757	0.911
93.5	1.025	55.137	131.578	189.449	209.841	192.069	134.540	56.390	0.911
94.0	1.025	53.884	129.413	186.259	206.423	188.993	132.489	55.023	0.911
94.5	1.025	52.631	127.476	183.525	203.347	186.145	130.324	53.656	0.911
95.0	1.025	51.378	125.540	180.791	200.385	183.069	128.160	52.403	0.911
95.5	1.025	50.239	123.375	178.057	197.082	180.449	126.109	51.264	0.911
96.0	1.025	49.100	121.553	175.323	194.234	177.601	124.059	50.125	0.911
96.5	1.025	47.960	119.502	172.817	191.386	175.095	121.894	48.872	0.911
97.0	1.025	46.821	117.679	169.969	188.424	172.133	120.072	47.732	0.911
97.5	1.025	45.682	115.629	167.690	185.576	169.741	118.135	46.707	0.911
98.0	1.025	44.657	113.806	164.956	182.956	167.121	116.084	45.568	0.911
98.5	1.025	43.745	112.097	162.564	180.335	164.500	114.262	44.429	0.911
99.0	1.025	42.606	110.047	160.285	177.715	161.994	112.325	43.404	0.911
99.5	1.025	41.581	108.338	157.893	174.981	159.602	110.502	42.378	0.911
100.0	1.025	40.669	106.401	155.501	172.361	157.210	108.566	41.353	0.911
100.5	1.025	39.644	104.692	153.108	169.627	154.931	106.857	40.442	1.025
101.0	1.025	38.847	102.984	150.716	167.235	152.653	105.148	39.416	1.025
101.5	1.025	37.821	101.161	148.438	164.842	150.147	103.212	38.505	1.025
102.0	1.139	37.024	99.566	146.159	162.108	148.096	101.617	37.594	1.025
102.5	1.139	36.113	97.857	143.995	159.488	145.932	99.794	36.682	1.025
103.0	1.139	35.315	96.148	141.716	157.096	143.653	98.085	35.771	1.025
103.5	1.139	34.404	94.440	139.780	154.817	141.375	96.490	34.860	1.025
104.0	1.139	33.606	92.959	137.729	152.539	139.210	94.668	33.948	1.025
104.5	1.139	32.809	91.250	135.337	150.374	137.046	93.073	33.151	1.139
105.0	1.139	32.012	89.769	133.400	147.868	134.995	91.478	32.353	1.139
105.5	1.139	31.214	88.288	131.350	145.704	132.717	89.883	31.556	1.139
106.0	1.139	30.417	86.693	129.185	143.539	130.666	88.174	30.758	1.139
106.5	1.139	29.733	85.212	127.363	141.033	128.616	86.693	30.075	1.139
107.0	1.253	28.936	83.731	125.312	139.096	126.451	85.098	29.277	1.139
107.5	1.253	28.252	82.136	123.148	137.046	124.515	83.731	28.594	1.139
108.0	1.253	27.569	80.655	121.439	134.881	122.578	82.250	27.910	1.139
108.5	1.253	26.771	79.402	119.388	132.831	120.755	80.655	27.113	1.253
109.0	1.253	26.088	77.921	117.452	130.780	118.819	79.174	26.429	1.253
109.5	1.253	25.404	76.440	115.515	128.844	116.882	77.807	25.746	1.253
110.0	1.253	24.835	75.187	113.692	126.793	114.945	76.440	25.062	1.253
110.5	1.253	24.151	73.820	111.983	124.742	113.009	74.959	24.379	1.253

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111.0	1.253	23.468	72.453	110.161	122.920	111.414	73.592	23.809	1.253
111.5	1.367	22.898	71.200	108.452	120.983	109.477	72.111	23.126	1.253
112.0	1.367	22.214	69.833	106.515	119.160	107.654	70.858	22.442	1.253
112.5	1.367	21.645	68.466	105.034	117.224	105.946	69.491	21.873	1.367
113.0	1.367	21.075	67.327	103.098	115.287	104.237	68.124	21.189	1.367
113.5	1.367	20.506	65.846	101.389	113.350	102.300	66.871	20.620	1.367
114.0	1.367	19.822	64.707	99.794	111.756	100.591	65.618	20.050	1.367
114.5	1.367	19.252	63.453	98.085	109.819	98.996	64.251	19.366	1.367
115.0	1.367	18.797	62.200	96.490	108.110	97.288	62.884	18.797	1.367
115.5	1.367	18.113	60.947	94.895	106.287	95.579	61.631	18.227	1.367
116.0	1.367	17.658	59.808	93.073	104.579	93.984	60.378	17.658	1.481
116.5	1.367	17.088	58.555	91.592	102.870	92.389	59.238	17.202	1.481
117.0	1.367	16.518	57.302	89.883	101.047	90.680	57.985	16.632	1.481
117.5	1.367	15.949	56.163	88.402	99.452	89.085	56.732	16.063	1.481
118.0	1.367	15.493	55.137	86.693	97.743	87.491	55.593	15.493	1.481
118.5	1.367	14.924	53.998	85.212	96.148	85.896	54.454	15.037	1.481
119.0	1.367	14.468	52.859	83.731	94.440	84.415	53.315	14.468	1.481
119.5	1.367	13.898	51.720	82.250	92.731	82.934	52.175	14.012	1.481
120.0	1.367	13.443	50.580	80.541	91.136	81.225	50.922	13.443	1.481
120.5	1.367	12.987	49.441	79.288	89.427	79.744	49.897	12.987	1.595
121.0	1.367	12.417	48.416	77.693	87.718	78.263	48.758	12.531	1.595
121.5	1.367	11.848	47.391	76.212	86.351	76.782	47.732	11.962	1.595
122.0	1.367	11.392	46.365	74.732	84.529	75.301	46.707	11.506	1.595
122.5	1.367	10.936	45.226	73.251	83.048	73.706	45.682	11.050	1.595
123.0	1.367	10.481	44.201	71.884	81.453	72.339	44.543	10.595	1.595
123.5	1.367	10.025	43.176	70.403	79.858	70.972	43.517	10.139	1.595
124.0	1.367	9.569	42.264	68.922	78.377	69.491	42.492	9.683	1.595
124.5	1.367	9.114	41.239	67.555	76.896	67.896	41.467	9.228	1.709
125.0	1.367	8.658	40.214	66.188	75.415	66.529	40.442	8.772	1.709
125.5	1.367	8.202	39.188	64.820	73.820	65.162	39.416	8.316	1.709
126.0	1.367	7.860	38.163	63.567	72.339	63.795	38.391	7.860	1.709
126.5	1.367	7.405	37.252	62.200	70.858	62.428	37.480	7.405	1.709
127.0	1.367	6.949	36.340	60.833	69.263	61.061	36.568	7.063	1.709
127.5	1.367	6.607	35.429	59.580	67.896	59.694	35.543	6.607	1.709
128.0	1.367	6.152	34.404	58.213	66.529	58.555	34.632	6.266	1.823
128.5	1.367	5.810	33.379	56.960	65.162	57.302	33.720	5.924	1.823
129.0	1.367	5.468	32.467	55.593	63.681	55.935	32.809	5.582	1.823
129.5	1.367	5.240	31.670	54.340	62.314	54.682	31.898	5.354	1.823
130.0	1.481	4.899	30.872	53.087	60.947	53.428	31.100	5.012	1.823
130.5	1.481	4.671	29.847	51.948	59.580	52.289	30.189	4.785	1.937
131.0	1.481	4.443	29.050	50.808	58.213	50.922	29.277	4.557	1.937
131.5	1.481	4.215	28.252	49.555	56.846	49.783	28.480	4.329	1.937
132.0	1.481	3.987	27.341	48.416	55.479	48.530	27.569	4.101	1.937
132.5	1.481	3.759	26.543	47.163	54.226	47.391	26.771	3.873	1.937
133.0	1.481	3.645	25.746	45.910	52.973	46.138	25.974	3.759	2.051
133.5	1.481	3.532	24.835	44.771	51.606	44.998	25.062	3.645	2.051
134.0	1.481	3.418	23.923	43.631	50.467	43.745	24.265	3.532	2.051
134.5	1.481	3.304	23.012	42.492	49.100	42.606	23.468	3.418	2.051
135.0	1.481	3.190	22.100	41.353	47.846	41.467	22.670	3.304	2.051
135.5	1.481	3.076	21.303	40.100	46.593	40.328	21.873	3.190	2.051
136.0	1.481	2.962	20.392	38.961	45.340	39.188	21.075	3.076	2.051
136.5	1.481	2.962	19.594	37.935	44.087	38.049	20.392	3.076	2.164
137.0	1.481	2.848	18.683	36.910	42.834	36.910	19.594	2.962	2.164
137.5	1.481	2.848	17.885	35.771	41.695	35.885	18.797	2.962	2.164
138.0	1.481	2.734	17.088	34.632	40.556	34.746	18.113	2.848	2.164
138.5	1.481	2.734	16.404	33.606	39.416	33.720	17.430	2.848	2.164

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CANDELA TABULATION - (Cont.)

139.0	1.595	2.734	15.607	32.581	38.277	32.581	16.746	2.734	2.278
139.5	1.595	2.620	14.810	31.556	37.138	31.670	16.063	2.734	2.278
140.0	1.595	2.620	14.126	30.531	35.999	30.531	15.265	2.734	2.278
140.5	1.595	2.620	13.443	29.391	34.860	29.505	14.582	2.620	2.278
141.0	1.595	2.506	12.873	28.480	33.720	28.480	13.898	2.620	2.278
141.5	1.595	2.506	12.189	27.455	32.581	27.569	13.215	2.620	2.392
142.0	1.595	2.506	11.620	26.543	31.556	26.543	12.531	2.620	2.392
142.5	1.595	2.392	11.050	25.518	30.417	25.518	11.848	2.506	2.392
143.0	1.595	2.392	10.481	24.607	29.391	24.493	11.278	2.506	2.392
143.5	1.709	2.392	9.911	23.581	28.366	23.581	10.595	2.506	2.392
144.0	1.709	2.392	9.341	22.670	27.227	22.670	10.025	2.392	2.392
144.5	1.709	2.392	8.772	21.759	26.202	21.645	9.341	2.392	2.506
145.0	1.709	2.278	8.316	20.733	25.176	20.733	8.772	2.392	2.506
145.5	1.709	2.278	7.747	19.822	24.151	19.822	8.202	2.392	2.506
146.0	1.709	2.278	7.291	19.025	23.126	18.911	7.633	2.392	2.506
146.5	1.709	2.278	6.835	18.113	22.100	17.999	7.177	2.392	2.506
147.0	1.709	2.278	6.380	17.202	21.189	17.088	6.721	2.278	2.506
147.5	1.709	2.278	5.924	16.291	20.164	16.291	6.266	2.278	2.620
148.0	1.823	2.278	5.582	15.379	19.252	15.379	5.924	2.278	2.620
148.5	1.823	2.278	5.240	14.468	18.227	14.582	5.582	2.278	2.620
149.0	1.823	2.278	5.012	13.443	17.316	13.670	5.240	2.278	2.620
149.5	1.823	2.278	4.671	12.645	16.404	12.873	5.012	2.278	2.620
150.0	1.823	2.278	4.443	11.734	15.493	12.076	4.785	2.392	2.620
150.5	1.823	2.278	4.329	10.936	14.582	11.278	4.557	2.278	2.734
151.0	1.823	2.278	4.101	10.139	13.670	10.481	4.329	2.278	2.734
151.5	1.937	2.278	3.987	9.455	12.873	9.797	4.215	2.392	2.734
152.0	1.937	2.392	3.873	8.658	11.962	9.000	3.987	2.392	2.734
152.5	1.937	2.392	3.759	8.088	11.164	8.316	3.873	2.392	2.734
153.0	1.937	2.392	3.645	7.519	10.253	7.633	3.759	2.392	2.734
153.5	1.937	2.392	3.532	6.949	9.455	7.063	3.645	2.392	2.734
154.0	1.937	2.392	3.418	6.380	8.658	6.607	3.532	2.392	2.848
154.5	2.051	2.392	3.304	5.924	7.974	6.038	3.418	2.392	2.848
155.0	2.051	2.392	3.190	5.468	7.291	5.582	3.304	2.392	2.848
155.5	2.051	2.506	3.190	5.126	6.721	5.240	3.304	2.392	2.848
156.0	2.051	2.506	3.076	4.785	6.152	4.899	3.190	2.506	2.848
156.5	2.164	2.506	3.076	4.443	5.696	4.557	3.076	2.506	2.848
157.0	2.164	2.506	2.962	4.215	5.240	4.329	3.076	2.506	2.848
157.5	2.164	2.506	2.962	4.101	4.785	4.101	2.962	2.506	2.848
158.0	2.164	2.506	2.848	3.873	4.557	3.873	2.962	2.506	2.962
158.5	2.164	2.620	2.848	3.759	4.215	3.759	2.848	2.506	2.962
159.0	2.278	2.620	2.734	3.532	3.987	3.532	2.848	2.620	2.962
159.5	2.278	2.620	2.734	3.418	3.759	3.418	2.734	2.620	2.962
160.0	2.278	2.620	2.734	3.304	3.645	3.304	2.734	2.620	2.962
160.5	2.278	2.620	2.620	3.190	3.418	3.190	2.734	2.620	2.962
161.0	2.278	2.620	2.620	3.076	3.304	3.076	2.620	2.620	2.962
161.5	2.392	2.620	2.620	3.076	3.190	3.076	2.620	2.620	2.962
162.0	2.392	2.734	2.620	2.962	3.076	2.962	2.620	2.620	2.962
162.5	2.392	2.734	2.620	2.848	2.962	2.848	2.620	2.734	2.962
163.0	2.392	2.734	2.620	2.734	2.848	2.848	2.620	2.734	3.076
163.5	2.392	2.734	2.620	2.734	2.734	2.734	2.620	2.734	3.076
164.0	2.506	2.734	2.620	2.620	2.734	2.620	2.620	2.734	3.076
164.5	2.506	2.734	2.620	2.620	2.620	2.620	2.620	2.734	3.076
165.0	2.506	2.848	2.620	2.620	2.620	2.620	2.620	2.734	3.076
165.5	2.506	2.848	2.620	2.620	2.506	2.620	2.620	2.848	3.076
166.0	2.620	2.848	2.734	2.620	2.506	2.506	2.734	2.848	3.076
166.5	2.620	2.848	2.734	2.620	2.506	2.506	2.734	2.848	3.076

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167.0	2.620	2.848	2.734	2.506	2.392	2.506	2.734	2.848	3.076
167.5	2.620	2.848	2.734	2.506	2.392	2.506	2.734	2.848	3.076
168.0	2.620	2.848	2.734	2.506	2.392	2.506	2.734	2.848	3.076
168.5	2.734	2.962	2.734	2.506	2.392	2.506	2.734	2.848	3.076
169.0	2.734	2.962	2.734	2.620	2.392	2.620	2.734	2.962	3.076
169.5	2.734	2.962	2.734	2.620	2.392	2.620	2.734	2.962	3.076
170.0	2.734	2.962	2.734	2.620	2.392	2.506	2.734	2.962	3.076
170.5	2.734	2.962	2.734	2.620	2.392	2.620	2.734	2.962	3.076
171.0	2.734	2.962	2.848	2.620	2.392	2.620	2.734	2.962	3.076
171.5	2.734	2.962	2.848	2.620	2.392	2.620	2.848	2.962	3.076
172.0	2.734	2.962	2.848	2.620	2.392	2.620	2.848	2.962	3.076
172.5	2.848	2.962	2.848	2.620	2.506	2.620	2.848	2.962	3.076
173.0	2.848	2.962	2.848	2.620	2.506	2.620	2.848	2.962	3.076
173.5	2.848	2.962	2.848	2.620	2.506	2.620	2.848	2.962	3.076
174.0	2.848	2.962	2.848	2.620	2.506	2.620	2.848	2.962	3.076
174.5	2.848	2.962	2.848	2.620	2.506	2.620	2.848	2.962	3.076
175.0	2.848	2.962	2.848	2.620	2.506	2.620	2.848	2.962	3.076
175.5	2.962	2.962	2.848	2.620	2.506	2.620	2.848	2.962	3.076
176.0	2.962	2.962	2.848	2.620	2.506	2.620	2.848	2.962	3.076
176.5	2.962	2.962	2.848	2.734	2.506	2.620	2.848	2.962	3.076
177.0	2.962	3.076	2.848	2.734	2.506	2.620	2.848	3.076	3.076
177.5	2.962	3.076	2.848	2.734	2.506	2.620	2.848	3.076	3.076
178.0	2.962	3.076	2.848	2.734	2.506	2.734	2.848	3.076	3.076
178.5	2.962	3.076	2.848	2.734	2.506	2.734	2.848	3.076	3.076
179.0	3.076	3.076	2.848	2.734	2.506	2.734	2.962	3.076	3.076
179.5	3.076	3.076	2.848	2.734	2.506	2.734	2.848	3.076	3.076
180.0	2.848	2.848	2.848	2.848	2.848	2.848	2.848	2.848	2.848

IES INDOOR REPORT
PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_3500K_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	533.30	N.A.	11.40
0-30	1120.25	N.A.	24.00
0-40	1816.31	N.A.	38.80
0-60	3197.32	N.A.	68.40
0-80	4120.82	N.A.	88.10
0-90	4340.39	N.A.	92.80
10-90	4201.43	N.A.	89.80
20-40	1283.01	N.A.	27.40
20-50	2000.72	N.A.	42.80
40-70	1924.19	N.A.	41.10
60-80	923.50	N.A.	19.70
70-80	380.32	N.A.	8.10
80-90	219.57	N.A.	4.70
90-110	215.26	N.A.	4.60
90-120	273.42	N.A.	5.80
90-130	308.24	N.A.	6.60
90-150	333.63	N.A.	7.10
90-180	336.75	N.A.	7.20
110-180	121.49	N.A.	2.60
0-180	4677.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	138.96
10-20	394.34
20-30	586.95
30-40	696.06
40-50	717.71
50-60	663.29
60-70	543.18
70-80	380.32
80-90	219.57
90-100	127.14
100-110	88.12
110-120	58.15
120-130	34.82
130-140	18.05
140-150	7.34
150-160	2.07
160-170	0.78
170-180	0.27

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_3500K_.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	96	96	96	96	93	93	93	93	87	87	87	82	82	82	78	78	78	76
1	86	82	78	74	83	79	76	73	75	72	69	71	68	66	67	65	63	61
2	78	71	65	60	75	69	63	59	65	60	56	61	58	54	58	55	52	50
3	71	62	55	49	68	60	54	49	57	51	47	54	49	45	51	47	44	42
4	65	55	47	42	63	53	46	41	50	45	40	48	43	39	45	41	38	36
5	60	49	41	36	57	48	41	35	45	39	34	43	38	33	41	36	33	31
6	55	44	36	31	53	43	36	31	41	35	30	39	33	29	37	32	29	27
7	51	40	33	27	49	39	32	27	37	31	27	35	30	26	34	29	25	24
8	47	36	29	24	46	35	29	24	34	28	24	32	27	23	31	26	23	21
9	44	33	27	22	43	33	26	22	31	25	21	30	25	21	29	24	21	19
10	42	31	24	20	40	30	24	20	29	23	19	28	23	19	27	22	19	17

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_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

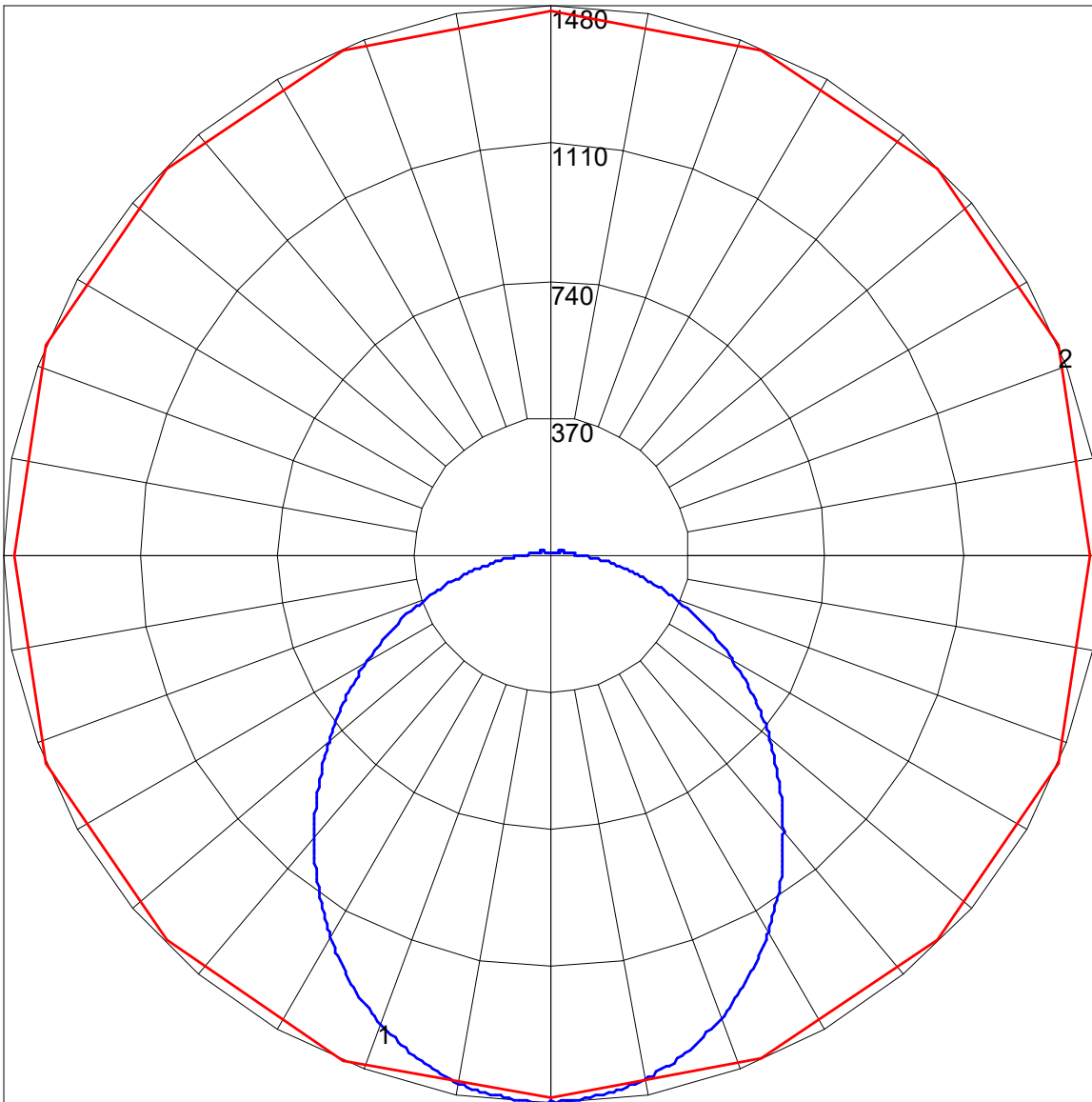
X=2H	Y=2H	20.9	22.5	21.4	22.9	23.4	23.4	24.9	23.8	25.4	25.8
	3H	22.4	23.8	22.9	24.3	24.8	25.8	27.2	26.3	27.6	28.2
	4H	22.9	24.2	23.4	24.7	25.2	26.9	28.2	27.4	28.7	29.3
	6H	23.2	24.4	23.7	24.9	25.5	28.0	29.3	28.6	29.8	30.3
	8H	23.3	24.4	23.8	25.0	25.5	28.6	29.8	29.2	30.3	30.9
	12H	23.3	24.4	23.8	24.9	25.5	29.2	30.4	29.8	30.9	31.5

UGR Viewed Endwise

4H	2H	21.9	23.2	22.4	23.7	24.2	23.8	25.1	24.3	25.6	26.1
	3H	23.6	24.7	24.1	25.3	25.8	26.5	27.6	27.0	28.1	28.7
	4H	24.2	25.2	24.7	25.8	26.4	27.7	28.8	28.3	29.3	29.9
	6H	24.6	25.5	25.2	26.1	26.7	29.1	30.0	29.6	30.5	31.1
	8H	24.7	25.6	25.3	26.2	26.8	29.7	30.6	30.3	31.1	31.8
	12H	24.8	25.6	25.4	26.2	26.8	30.5	31.2	31.0	31.8	32.5
8H	4H	24.9	25.8	25.5	26.3	26.9	27.9	28.8	28.5	29.4	30.0
	6H	25.5	26.2	26.1	26.8	27.5	29.4	30.2	30.0	30.8	31.4
	8H	25.7	26.4	26.3	27.0	27.6	30.3	30.9	30.9	31.5	32.1
	12H	25.8	26.4	26.5	27.0	27.7	31.2	31.7	31.8	32.3	33.0
12H	4H	25.1	25.9	25.7	26.5	27.1	27.9	28.7	28.5	29.3	29.9
	6H	25.8	26.5	26.4	27.0	27.7	29.5	30.1	30.1	30.7	31.4
	8H	26.1	26.7	26.7	27.3	28.0	30.3	30.9	30.9	31.5	32.2

Maximum UGR = 33.0

POLAR GRAPH



Maximum Candela = 1479.821 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.)