



IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_4000K_.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_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	4791
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	152
Total Luminaire Watts	31.5
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	20648	19538	20253
55	18794	18088	19271
65	16557	16501	18228
75	13634	14793	16946
85	9428	13619	16129

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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	1507.543	1507.543	1507.543	1507.543	1507.543	1507.543	1507.543	1507.543	1507.543
0.5	1487.707	1513.377	1509.877	1509.877	1502.876	1511.044	1509.877	1515.711	1488.874
1.0	1486.540	1512.210	1507.543	1511.044	1501.709	1511.044	1507.543	1514.544	1488.874
1.5	1488.874	1512.210	1505.209	1509.877	1502.876	1511.044	1507.543	1513.377	1488.874
2.0	1488.874	1511.044	1507.543	1511.044	1501.709	1513.377	1507.543	1514.544	1487.707
2.5	1487.707	1509.877	1505.209	1509.877	1501.709	1508.710	1507.543	1512.210	1485.373
3.0	1484.206	1509.877	1504.043	1509.877	1501.709	1509.877	1506.376	1513.377	1485.373
3.5	1485.373	1507.543	1502.876	1506.376	1499.375	1507.543	1505.209	1509.877	1486.540
4.0	1481.873	1505.209	1500.542	1507.543	1500.542	1506.376	1504.043	1511.044	1483.040
4.5	1483.040	1501.709	1500.542	1505.209	1498.208	1506.376	1501.709	1508.710	1480.706
5.0	1477.206	1500.542	1497.042	1504.043	1498.208	1505.209	1500.542	1506.376	1480.706
5.5	1476.039	1500.542	1495.875	1502.876	1498.208	1504.043	1500.542	1504.043	1477.206
6.0	1473.705	1497.042	1493.541	1501.709	1494.708	1501.709	1497.042	1504.043	1476.039
6.5	1471.371	1494.708	1492.374	1498.208	1492.374	1500.542	1495.875	1501.709	1473.705
7.0	1467.871	1491.207	1490.041	1494.708	1490.041	1498.208	1494.708	1500.542	1474.872
7.5	1466.704	1490.041	1486.540	1494.708	1487.707	1495.875	1491.207	1498.208	1470.205
8.0	1464.370	1486.540	1484.206	1491.207	1487.707	1494.708	1490.041	1495.875	1467.871
8.5	1460.870	1483.040	1480.706	1487.707	1483.040	1491.207	1487.707	1492.374	1463.204
9.0	1458.536	1479.539	1476.039	1486.540	1480.706	1487.707	1484.206	1491.207	1460.870
9.5	1451.535	1476.039	1476.039	1484.206	1478.372	1486.540	1481.873	1486.540	1457.369
10.0	1450.368	1474.872	1470.205	1477.206	1477.206	1483.040	1479.539	1484.206	1456.203
10.5	1442.201	1467.871	1467.871	1477.206	1471.371	1480.706	1476.039	1479.539	1450.368
11.0	1441.034	1466.704	1464.370	1472.538	1469.038	1477.206	1470.205	1473.705	1450.368
11.5	1436.366	1460.870	1459.703	1469.038	1466.704	1472.538	1467.871	1472.538	1444.534
12.0	1431.699	1456.203	1457.369	1465.537	1462.037	1470.205	1463.204	1467.871	1438.700
12.5	1425.865	1451.535	1452.702	1463.204	1462.037	1464.370	1459.703	1462.037	1436.366
13.0	1423.531	1449.202	1446.868	1458.536	1457.369	1462.037	1456.203	1459.703	1429.366
13.5	1420.031	1443.367	1444.534	1452.702	1452.702	1457.369	1452.702	1456.203	1424.698
14.0	1413.030	1437.533	1438.700	1449.202	1448.035	1453.869	1446.868	1451.535	1420.031
14.5	1404.862	1431.699	1432.866	1444.534	1443.367	1448.035	1443.367	1446.868	1416.530
15.0	1401.362	1428.199	1430.532	1442.201	1438.700	1444.534	1437.533	1441.034	1410.696
15.5	1396.694	1424.698	1423.531	1436.366	1434.033	1438.700	1434.033	1435.200	1406.029
16.0	1393.194	1416.530	1418.864	1432.866	1428.199	1434.033	1427.032	1430.532	1397.861
16.5	1382.692	1411.863	1411.863	1428.199	1423.531	1429.366	1421.198	1424.698	1396.694
17.0	1376.858	1406.029	1408.363	1422.365	1418.864	1422.365	1416.530	1420.031	1388.526
17.5	1371.024	1399.028	1401.362	1415.364	1413.030	1416.530	1409.529	1415.364	1385.026
18.0	1367.524	1390.860	1394.361	1408.363	1408.363	1409.529	1404.862	1406.029	1378.025
18.5	1360.523	1386.193	1388.526	1404.862	1402.528	1404.862	1397.861	1401.362	1372.191
19.0	1351.188	1379.192	1381.526	1397.861	1395.527	1399.028	1393.194	1394.361	1365.190
19.5	1346.521	1373.358	1375.691	1392.027	1388.526	1392.027	1387.360	1388.526	1357.022
20.0	1339.520	1365.190	1368.690	1385.026	1382.692	1387.360	1380.359	1381.526	1351.188
20.5	1331.352	1358.189	1362.856	1379.192	1376.858	1379.192	1374.525	1374.525	1345.354
21.0	1325.518	1351.188	1354.688	1371.024	1369.857	1374.525	1365.190	1369.857	1336.019
21.5	1316.183	1344.187	1347.687	1364.023	1365.190	1368.690	1360.523	1361.689	1330.185
22.0	1310.349	1338.353	1341.853	1357.022	1358.189	1360.523	1353.522	1354.688	1323.184
22.5	1299.847	1327.851	1333.686	1351.188	1353.522	1357.022	1346.521	1346.521	1313.849
23.0	1292.847	1320.850	1326.685	1343.020	1346.521	1348.854	1340.687	1339.520	1309.182
23.5	1287.012	1312.683	1320.850	1337.186	1341.853	1345.354	1333.686	1332.519	1301.014
24.0	1275.344	1305.682	1312.683	1330.185	1334.852	1338.353	1326.685	1322.017	1289.346
24.5	1270.677	1298.681	1304.515	1324.351	1329.018	1332.519	1318.517	1315.016	1282.345
25.0	1261.342	1287.012	1297.514	1318.517	1325.518	1326.685	1311.516	1308.015	1275.344
25.5	1250.841	1280.011	1287.012	1312.683	1319.684	1319.684	1305.682	1301.014	1268.343
26.0	1241.506	1273.010	1280.011	1303.348	1312.683	1312.683	1297.514	1292.847	1257.842
26.5	1233.338	1262.509	1273.010	1298.681	1306.848	1305.682	1289.346	1283.512	1250.841

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27.0	1226.337	1254.341	1266.009	1290.513	1297.514	1298.681	1281.178	1275.344	1241.506
27.5	1215.836	1247.340	1257.842	1284.679	1291.680	1290.513	1274.177	1267.176	1232.171
28.0	1207.668	1235.672	1247.340	1277.678	1285.846	1283.512	1264.843	1257.842	1224.004
28.5	1199.500	1227.504	1240.339	1269.510	1278.845	1276.511	1257.842	1249.674	1215.836
29.0	1190.166	1218.169	1232.171	1262.509	1271.844	1268.343	1249.674	1241.506	1205.334
29.5	1180.831	1210.002	1224.004	1254.341	1263.676	1261.342	1242.673	1231.005	1196.000
30.0	1169.163	1200.667	1215.836	1246.173	1256.675	1254.341	1233.338	1222.837	1185.498
30.5	1159.945	1191.332	1206.501	1239.172	1249.674	1246.173	1225.170	1213.502	1176.164
31.0	1150.143	1180.831	1198.333	1231.005	1242.673	1239.172	1215.836	1204.168	1169.163
31.5	1142.792	1170.329	1190.166	1222.837	1234.505	1232.171	1208.835	1194.833	1156.561
32.0	1130.541	1163.095	1180.831	1215.836	1227.504	1225.170	1200.667	1185.498	1147.926
32.5	1122.606	1152.594	1171.496	1207.668	1220.503	1217.003	1190.166	1174.997	1139.875
33.0	1111.171	1143.259	1161.228	1200.667	1214.669	1210.002	1180.831	1164.729	1126.807
33.5	1100.903	1133.341	1152.477	1193.666	1206.501	1200.667	1172.663	1155.744	1118.522
34.0	1091.569	1123.540	1145.709	1184.331	1199.500	1193.666	1165.195	1146.993	1110.004
34.5	1080.717	1112.571	1135.791	1176.164	1192.499	1185.498	1155.977	1135.208	1098.103
35.0	1072.199	1103.120	1127.507	1169.163	1184.331	1177.330	1147.226	1126.107	1090.285
35.5	1061.581	1092.269	1119.222	1161.578	1178.497	1169.163	1137.308	1115.138	1077.683
36.0	1049.096	1081.067	1109.188	1153.294	1170.329	1162.862	1127.974	1105.454	1069.282
36.5	1038.244	1071.382	1101.487	1144.659	1163.445	1154.344	1119.339	1095.302	1059.597
37.0	1029.843	1060.298	1090.985	1138.125	1156.328	1146.643	1109.654	1085.151	1051.546
37.5	1018.642	1051.196	1082.467	1129.607	1148.743	1137.425	1101.837	1075.816	1041.395
38.0	1006.623	1040.578	1072.783	1122.023	1141.275	1129.257	1092.502	1066.248	1029.377
38.5	996.939	1029.960	1064.965	1113.505	1132.874	1121.206	1082.234	1056.797	1017.942
39.0	985.270	1018.642	1055.163	1105.220	1124.940	1112.805	1074.066	1047.696	1006.857
39.5	974.186	1007.207	1046.296	1096.586	1117.705	1104.637	1064.148	1037.428	993.905
40.0	962.284	997.989	1037.078	1088.651	1110.938	1097.286	1054.930	1027.976	981.770
40.5	952.249	987.487	1027.976	1080.250	1101.953	1088.885	1045.829	1015.958	970.335
41.0	939.531	975.702	1018.292	1072.549	1092.969	1080.717	1036.494	1005.340	958.900
41.5	929.029	964.151	1010.357	1064.615	1086.901	1071.499	1026.459	992.621	947.348
42.0	916.894	953.883	1000.206	1055.864	1078.850	1064.965	1017.242	980.603	936.964
42.5	906.043	942.915	990.521	1048.162	1071.149	1055.630	1006.857	969.868	925.529
43.0	894.374	933.230	981.186	1039.411	1063.215	1046.646	998.106	957.033	914.094
43.5	884.223	923.195	971.385	1030.660	1056.097	1038.011	989.471	945.715	904.059
44.0	874.305	911.293	962.284	1022.959	1048.046	1030.543	978.853	933.580	892.041
44.5	860.420	900.092	951.082	1013.974	1039.995	1022.609	970.918	922.845	881.423
45.0	850.268	889.007	943.381	1005.807	1032.060	1012.574	961.700	910.710	870.454
45.5	839.767	878.155	932.530	997.172	1022.492	1005.106	952.016	900.909	859.486
46.0	828.215	868.938	923.545	987.721	1014.558	997.055	942.915	889.357	847.118
46.5	818.064	857.969	913.510	978.036	1006.973	987.254	933.580	878.972	836.966
47.0	806.162	846.184	904.059	971.152	998.572	980.486	924.945	868.237	826.465
47.5	794.494	835.683	894.374	961.467	991.105	972.202	915.494	857.153	813.046
48.0	785.393	824.831	885.507	954.583	981.537	961.584	906.276	845.951	803.945
48.5	772.674	813.980	875.939	943.965	973.952	953.766	896.708	835.216	790.527
49.0	765.206	804.879	867.071	935.914	965.551	945.248	886.790	824.831	780.025
49.5	755.172	792.744	857.619	927.396	956.450	937.080	874.655	813.280	769.640
50.0	743.387	783.409	848.168	918.644	948.982	928.329	865.904	802.195	760.656
50.5	731.718	775.124	836.616	909.777	940.581	919.228	855.869	791.810	750.738
51.0	720.750	764.973	828.682	900.792	932.763	910.477	844.784	780.375	737.903
51.5	709.899	754.822	818.297	893.091	925.529	901.842	835.100	773.724	726.818
52.0	698.464	743.503	809.663	884.573	916.427	893.324	824.598	763.106	715.033
52.5	687.962	733.235	799.978	875.588	907.910	884.340	815.380	753.655	704.298
53.0	676.177	721.917	789.827	867.071	899.158	876.755	805.929	742.220	693.797
53.5	665.559	711.416	780.375	857.969	890.407	867.421	795.427	731.252	681.545
54.0	654.008	701.614	771.857	849.101	881.073	858.669	786.909	720.517	669.643
54.5	642.806	690.179	764.973	839.300	873.838	850.385	776.641	709.315	659.025

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55.0	630.788	679.445	755.989	830.899	865.087	840.934	770.807	699.164	647.240
55.5	619.820	669.877	746.070	821.331	855.636	831.949	761.706	688.429	635.572
56.0	608.851	658.208	736.269	811.996	847.701	823.548	751.671	677.344	625.187
56.5	598.350	647.357	726.468	803.595	837.900	812.813	741.170	665.443	613.285
57.0	586.915	636.389	717.016	794.027	829.499	803.945	731.368	655.058	600.800
57.5	576.180	626.470	708.149	785.159	819.464	794.260	721.334	643.390	589.832
58.0	565.679	615.502	697.530	776.058	809.896	784.926	711.066	633.005	578.747
58.5	554.360	604.651	687.729	769.757	801.028	777.225	701.381	622.153	566.962
59.0	543.976	594.149	678.978	762.989	792.394	769.757	690.763	610.602	556.577
59.5	532.774	583.881	668.710	752.021	782.592	761.006	681.311	600.450	544.676
60.0	522.039	573.496	658.092	742.920	776.875	751.321	671.160	589.832	534.641
60.5	511.188	562.878	648.174	734.636	768.474	741.987	662.175	578.397	522.273
61.0	499.403	552.377	638.956	724.134	759.839	731.952	651.791	568.596	511.304
61.5	488.785	541.759	629.621	714.449	750.738	722.384	642.339	556.927	500.220
62.0	477.933	531.374	620.053	705.348	740.586	713.749	631.488	546.659	488.901
62.5	467.198	521.223	610.485	695.897	730.668	703.248	622.387	535.691	477.933
63.0	456.814	510.604	600.800	686.445	721.334	694.030	612.352	525.423	467.198
63.5	445.845	500.686	590.999	676.294	712.116	684.345	602.084	514.688	456.464
64.0	434.527	490.302	581.664	666.843	702.548	675.011	592.632	504.070	444.795
64.5	422.859	479.917	571.279	656.925	692.280	666.026	582.364	493.802	433.944
65.0	412.707	470.349	561.595	647.473	682.828	655.758	573.030	483.301	422.976
65.5	402.556	459.964	552.027	638.722	674.077	646.307	563.695	472.799	412.357
66.0	391.471	449.696	542.926	627.754	664.276	636.272	553.194	462.181	401.389
66.5	381.786	439.778	532.891	618.769	654.008	626.470	543.976	451.796	390.654
67.0	371.168	430.093	523.206	608.968	644.556	616.086	533.474	441.761	380.503
67.5	361.134	420.058	513.988	598.700	634.288	606.868	524.606	431.843	370.118
68.0	350.749	410.374	503.603	590.182	624.954	597.300	514.455	421.575	360.083
68.5	340.597	400.806	494.735	579.564	615.269	586.915	504.537	411.541	348.882
69.0	330.446	390.421	485.167	570.929	605.468	577.814	494.969	402.089	338.964
69.5	319.711	380.736	475.716	560.661	595.550	568.246	485.751	391.938	327.879
70.0	310.026	371.168	465.798	551.210	585.631	557.861	475.716	381.553	317.961
70.5	300.342	360.900	456.580	541.175	576.063	548.760	466.148	371.518	307.926
71.0	289.724	351.799	447.246	532.307	566.379	538.958	456.814	361.600	297.541
71.5	280.156	341.998	438.494	522.739	556.694	529.974	446.896	351.799	287.273
72.0	270.238	333.130	428.460	512.588	546.893	519.939	438.028	342.464	276.538
72.5	260.436	323.562	419.475	503.370	537.791	510.838	428.343	332.430	266.504
73.0	250.518	314.577	409.907	493.335	527.757	500.570	419.125	322.745	257.402
73.5	241.184	305.476	400.922	483.417	517.722	491.118	409.907	313.294	247.251
74.0	231.616	296.025	391.938	475.016	508.504	481.550	400.339	303.842	237.683
74.5	221.464	286.457	382.136	465.098	498.469	472.332	391.704	294.041	227.532
75.0	211.779	277.705	373.385	456.230	489.601	462.531	382.720	285.056	218.314
75.5	203.028	268.837	364.867	446.429	479.917	453.196	373.269	275.488	208.746
76.0	193.344	259.969	355.883	437.678	470.465	444.212	364.751	266.737	199.294
76.5	184.592	251.335	347.132	428.343	460.897	434.527	355.533	257.286	190.660
77.0	175.958	242.700	338.380	418.892	451.329	425.543	346.315	248.535	181.442
77.5	167.090	234.183	329.863	410.140	442.578	416.091	337.564	239.317	172.574
78.0	157.989	225.665	321.461	401.039	432.777	407.223	329.162	231.032	163.706
78.5	149.354	217.614	312.827	392.171	423.909	398.355	320.645	222.514	154.955
79.0	140.836	209.329	304.776	383.187	414.574	389.254	311.893	214.346	146.670
79.5	133.019	201.161	296.841	374.669	406.056	381.320	303.842	205.945	137.803
80.0	125.084	192.994	288.673	365.684	397.539	372.102	295.441	197.778	129.868
80.5	116.916	185.176	280.622	357.516	388.204	363.817	287.623	190.426	121.700
81.0	108.982	177.708	272.805	348.882	379.803	354.949	279.689	182.375	114.116
81.5	101.397	170.124	264.870	340.714	371.168	346.665	271.871	175.024	106.415
82.0	93.930	162.889	257.286	332.546	361.950	338.497	264.053	167.790	98.947
82.5	87.045	155.422	249.701	325.079	353.549	329.863	256.119	160.672	91.829

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CANDELA TABULATION - (Cont.)

83.0	79.694	148.421	242.234	316.911	345.615	321.695	249.001	153.555	84.712
83.5	72.810	141.653	234.883	308.976	337.214	314.110	241.300	146.670	77.827
84.0	66.043	135.002	227.765	301.159	329.279	306.409	234.416	139.903	71.060
84.5	59.508	128.468	220.647	293.808	321.345	298.592	227.182	133.369	64.759
85.0	53.441	122.400	213.530	286.106	313.644	290.774	220.064	127.068	58.225
85.5	47.373	115.983	206.995	278.522	305.826	283.539	213.296	120.300	52.157
86.0	41.306	110.032	200.461	271.638	298.241	276.305	206.295	114.233	45.973
86.5	35.588	104.198	194.160	264.520	291.007	268.837	199.878	108.048	40.022
87.0	29.871	98.480	187.626	257.636	283.656	262.070	193.577	102.214	34.071
87.5	24.620	93.113	181.559	251.335	276.655	255.419	187.043	96.497	28.354
88.0	19.486	87.279	175.841	244.917	270.238	248.885	181.092	90.663	22.636
88.5	14.352	82.261	170.590	239.083	263.703	242.934	175.491	84.945	16.802
89.0	9.218	77.477	165.690	233.366	257.986	236.866	170.007	79.928	11.318
89.5	4.551	73.510	161.022	228.115	252.268	231.616	165.340	75.494	5.951
90.0	1.634	69.893	156.938	222.981	246.784	226.248	161.022	71.643	1.867
90.5	1.050	66.859	152.971	218.080	241.300	220.997	156.705	68.376	1.050
91.0	1.050	64.292	149.004	213.296	236.166	216.330	152.271	65.809	0.933
91.5	1.050	62.425	145.620	208.629	231.266	211.779	148.887	63.826	0.933
92.0	1.050	60.792	142.120	204.545	226.832	207.696	145.620	62.192	0.933
92.5	1.050	59.275	139.669	200.811	222.514	203.728	142.820	60.675	0.933
93.0	1.050	57.875	137.102	197.194	218.430	200.111	140.253	59.158	0.933
93.5	1.050	56.475	134.769	194.044	214.930	196.727	137.803	57.758	0.933
94.0	1.050	55.191	132.552	190.777	211.429	193.577	135.702	56.358	0.933
94.5	1.050	53.907	130.568	187.976	208.279	190.660	133.485	54.958	0.933
95.0	1.050	52.624	128.585	185.176	205.245	187.509	131.268	53.674	0.933
95.5	1.050	51.457	126.368	182.375	201.861	184.826	129.168	52.507	0.933
96.0	1.050	50.290	124.501	179.575	198.944	181.909	127.068	51.340	0.933
96.5	1.050	49.124	122.400	177.008	196.027	179.342	124.851	50.057	0.933
97.0	1.050	47.957	120.533	174.091	192.994	176.308	122.984	48.890	0.933
97.5	1.050	46.790	118.433	171.757	190.076	173.858	121.000	47.840	0.933
98.0	1.050	45.740	116.566	168.957	187.393	171.174	118.900	46.673	0.933
98.5	1.050	44.806	114.816	166.506	184.709	168.490	117.033	45.506	0.933
99.0	1.050	43.639	112.716	164.173	182.025	165.923	115.049	44.456	0.933
99.5	1.050	42.589	110.965	161.722	179.225	163.473	113.182	43.406	0.933
100.0	1.050	41.656	108.982	159.272	176.541	161.022	111.199	42.356	0.933
100.5	1.050	40.606	107.232	156.822	173.741	158.689	109.449	41.422	1.050
101.0	1.050	39.789	105.481	154.371	171.290	156.355	107.698	40.372	1.050
101.5	1.050	38.739	103.614	152.038	168.840	153.788	105.715	39.439	1.050
102.0	1.167	37.922	101.981	149.704	166.040	151.688	104.081	38.505	1.050
102.5	1.167	36.988	100.231	147.487	163.356	149.471	102.214	37.572	1.050
103.0	1.167	36.172	98.480	145.154	160.906	147.137	100.464	36.638	1.050
103.5	1.167	35.238	96.730	143.170	158.572	144.803	98.830	35.705	1.050
104.0	1.167	34.421	95.213	141.070	156.238	142.587	96.963	34.772	1.050
104.5	1.167	33.605	93.463	138.619	154.021	140.370	95.330	33.955	1.167
105.0	1.167	32.788	91.946	136.636	151.454	138.269	93.696	33.138	1.167
105.5	1.167	31.971	90.429	134.535	149.237	135.936	92.063	32.321	1.167
106.0	1.167	31.154	88.796	132.318	147.020	133.835	90.313	31.504	1.167
106.5	1.167	30.454	87.279	130.451	144.453	131.735	88.796	30.804	1.167
107.0	1.284	29.637	85.762	128.351	142.470	129.518	87.162	29.988	1.167
107.5	1.284	28.937	84.128	126.134	140.370	127.534	85.762	29.287	1.167
108.0	1.284	28.237	82.611	124.384	138.153	125.551	84.245	28.587	1.167
108.5	1.284	27.420	81.328	122.284	136.052	123.684	82.611	27.771	1.284
109.0	1.284	26.720	79.811	120.300	133.952	121.700	81.095	27.070	1.284
109.5	1.284	26.020	78.294	118.316	131.968	119.717	79.694	26.370	1.284
110.0	1.284	25.437	77.011	116.450	129.868	117.733	78.294	25.670	1.284
110.5	1.284	24.737	75.611	114.699	127.768	115.749	76.777	24.970	1.284

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CANDELA TABULATION - (Cont.)

111.0	1.284	24.037	74.210	112.832	125.901	114.116	75.377	24.387	1.284
111.5	1.400	23.453	72.927	111.082	123.917	112.132	73.860	23.687	1.284
112.0	1.400	22.753	71.527	109.099	122.050	110.265	72.577	22.987	1.284
112.5	1.400	22.170	70.126	107.582	120.067	108.515	71.177	22.403	1.400
113.0	1.400	21.586	68.960	105.598	118.083	106.765	69.776	21.703	1.400
113.5	1.400	21.003	67.443	103.848	116.099	104.781	68.493	21.120	1.400
114.0	1.400	20.303	66.276	102.214	114.466	103.031	67.209	20.536	1.400
114.5	1.400	19.719	64.992	100.464	112.482	101.397	65.809	19.836	1.400
115.0	1.400	19.253	63.709	98.830	110.732	99.647	64.409	19.253	1.400
115.5	1.400	18.553	62.425	97.197	108.865	97.897	63.125	18.669	1.400
116.0	1.400	18.086	61.259	95.330	107.115	96.263	61.842	18.086	1.517
116.5	1.400	17.502	59.975	93.813	105.365	94.630	60.675	17.619	1.517
117.0	1.400	16.919	58.691	92.063	103.498	92.880	59.392	17.036	1.517
117.5	1.400	16.336	57.525	90.546	101.864	91.246	58.108	16.452	1.517
118.0	1.400	15.869	56.475	88.796	100.114	89.612	56.941	15.869	1.517
118.5	1.400	15.285	55.308	87.279	98.480	87.979	55.774	15.402	1.517
119.0	1.400	14.819	54.141	85.762	96.730	86.462	54.608	14.819	1.517
119.5	1.400	14.235	52.974	84.245	94.980	84.945	53.441	14.352	1.517
120.0	1.400	13.769	51.807	82.495	93.346	83.195	52.157	13.769	1.517
120.5	1.400	13.302	50.640	81.211	91.596	81.678	51.107	13.302	1.634
121.0	1.400	12.718	49.590	79.578	89.846	80.161	49.940	12.835	1.634
121.5	1.400	12.135	48.540	78.061	88.446	78.644	48.890	12.252	1.634
122.0	1.400	11.668	47.490	76.544	86.579	77.127	47.840	11.785	1.634
122.5	1.400	11.202	46.323	75.027	85.062	75.494	46.790	11.318	1.634
123.0	1.400	10.735	45.273	73.627	83.428	74.094	45.623	10.852	1.634
123.5	1.400	10.268	44.223	72.110	81.795	72.693	44.573	10.385	1.634
124.0	1.400	9.801	43.289	70.593	80.278	71.177	43.523	9.918	1.634
124.5	1.400	9.335	42.239	69.193	78.761	69.543	42.473	9.451	1.750
125.0	1.400	8.868	41.189	67.793	77.244	68.143	41.422	8.985	1.750
125.5	1.400	8.401	40.139	66.393	75.611	66.743	40.372	8.518	1.750
126.0	1.400	8.051	39.089	65.109	74.094	65.342	39.322	8.051	1.750
126.5	1.400	7.584	38.155	63.709	72.577	63.942	38.389	7.584	1.750
127.0	1.400	7.118	37.222	62.309	70.943	62.542	37.455	7.234	1.750
127.5	1.400	6.768	36.288	61.025	69.543	61.142	36.405	6.768	1.750
128.0	1.400	6.301	35.238	59.625	68.143	59.975	35.472	6.418	1.867
128.5	1.400	5.951	34.188	58.341	66.743	58.691	34.538	6.068	1.867
129.0	1.400	5.601	33.255	56.941	65.226	57.291	33.605	5.717	1.867
129.5	1.400	5.367	32.438	55.658	63.826	56.008	32.671	5.484	1.867
130.0	1.517	5.017	31.621	54.374	62.425	54.724	31.854	5.134	1.867
130.5	1.517	4.784	30.571	53.207	61.025	53.557	30.921	4.901	1.984
131.0	1.517	4.551	29.754	52.041	59.625	52.157	29.988	4.667	1.984
131.5	1.517	4.317	28.937	50.757	58.225	50.990	29.171	4.434	1.984
132.0	1.517	4.084	28.004	49.590	56.825	49.707	28.237	4.201	1.984
132.5	1.517	3.851	27.187	48.307	55.541	48.540	27.420	3.967	1.984
133.0	1.517	3.734	26.370	47.023	54.258	47.257	26.604	3.851	2.100
133.5	1.517	3.617	25.437	45.856	52.857	46.090	25.670	3.734	2.100
134.0	1.517	3.500	24.503	44.690	51.691	44.806	24.853	3.617	2.100
134.5	1.517	3.384	23.570	43.523	50.290	43.639	24.037	3.500	2.100
135.0	1.517	3.267	22.636	42.356	49.007	42.473	23.220	3.384	2.100
135.5	1.517	3.150	21.820	41.072	47.723	41.306	22.403	3.267	2.100
136.0	1.517	3.034	20.886	39.906	46.440	40.139	21.586	3.150	2.100
136.5	1.517	3.034	20.069	38.855	45.156	38.972	20.886	3.150	2.217
137.0	1.517	2.917	19.136	37.805	43.873	37.805	20.069	3.034	2.217
137.5	1.517	2.917	18.319	36.638	42.706	36.755	19.253	3.034	2.217
138.0	1.517	2.800	17.502	35.472	41.539	35.588	18.553	2.917	2.217
138.5	1.517	2.800	16.802	34.421	40.372	34.538	17.852	2.917	2.217

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CANDELA TABULATION - (Cont.)

139.0	1.634	2.800	15.986	33.371	39.205	33.371	17.152	2.800	2.334
139.5	1.634	2.684	15.169	32.321	38.039	32.438	16.452	2.800	2.334
140.0	1.634	2.684	14.469	31.271	36.872	31.271	15.636	2.800	2.334
140.5	1.634	2.684	13.769	30.104	35.705	30.221	14.935	2.684	2.334
141.0	1.634	2.567	13.185	29.171	34.538	29.171	14.235	2.684	2.334
141.5	1.634	2.567	12.485	28.121	33.371	28.237	13.535	2.684	2.450
142.0	1.634	2.567	11.902	27.187	32.321	27.187	12.835	2.684	2.450
142.5	1.634	2.450	11.318	26.137	31.154	26.137	12.135	2.567	2.450
143.0	1.634	2.450	10.735	25.204	30.104	25.087	11.552	2.567	2.450
143.5	1.750	2.450	10.151	24.153	29.054	24.153	10.852	2.567	2.450
144.0	1.750	2.450	9.568	23.220	27.887	23.220	10.268	2.450	2.450
144.5	1.750	2.450	8.985	22.286	26.837	22.170	9.568	2.450	2.567
145.0	1.750	2.334	8.518	21.236	25.787	21.236	8.985	2.450	2.567
145.5	1.750	2.334	7.934	20.303	24.737	20.303	8.401	2.450	2.567
146.0	1.750	2.334	7.468	19.486	23.687	19.369	7.818	2.450	2.567
146.5	1.750	2.334	7.001	18.553	22.636	18.436	7.351	2.450	2.567
147.0	1.750	2.334	6.534	17.619	21.703	17.502	6.884	2.334	2.567
147.5	1.750	2.334	6.068	16.686	20.653	16.686	6.418	2.334	2.684
148.0	1.867	2.334	5.717	15.752	19.719	15.752	6.068	2.334	2.684
148.5	1.867	2.334	5.367	14.819	18.669	14.935	5.717	2.334	2.684
149.0	1.867	2.334	5.134	13.769	17.736	14.002	5.367	2.334	2.684
149.5	1.867	2.334	4.784	12.952	16.802	13.185	5.134	2.334	2.684
150.0	1.867	2.334	4.551	12.018	15.869	12.368	4.901	2.450	2.684
150.5	1.867	2.334	4.434	11.202	14.935	11.552	4.667	2.334	2.800
151.0	1.867	2.334	4.201	10.385	14.002	10.735	4.434	2.334	2.800
151.5	1.984	2.334	4.084	9.685	13.185	10.035	4.317	2.450	2.800
152.0	1.984	2.450	3.967	8.868	12.252	9.218	4.084	2.450	2.800
152.5	1.984	2.450	3.851	8.284	11.435	8.518	3.967	2.450	2.800
153.0	1.984	2.450	3.734	7.701	10.501	7.818	3.851	2.450	2.800
153.5	1.984	2.450	3.617	7.118	9.685	7.234	3.734	2.450	2.800
154.0	1.984	2.450	3.500	6.534	8.868	6.768	3.617	2.450	2.917
154.5	2.100	2.450	3.384	6.068	8.168	6.184	3.500	2.450	2.917
155.0	2.100	2.450	3.267	5.601	7.468	5.717	3.384	2.450	2.917
155.5	2.100	2.567	3.267	5.251	6.884	5.367	3.384	2.450	2.917
156.0	2.100	2.567	3.150	4.901	6.301	5.017	3.267	2.567	2.917
156.5	2.217	2.567	3.150	4.551	5.834	4.667	3.150	2.567	2.917
157.0	2.217	2.567	3.034	4.317	5.367	4.434	3.150	2.567	2.917
157.5	2.217	2.567	3.034	4.201	4.901	4.201	3.034	2.567	2.917
158.0	2.217	2.567	2.917	3.967	4.667	3.967	3.034	2.567	3.034
158.5	2.217	2.684	2.917	3.851	4.317	3.851	2.917	2.567	3.034
159.0	2.334	2.684	2.800	3.617	4.084	3.617	2.917	2.684	3.034
159.5	2.334	2.684	2.800	3.500	3.851	3.500	2.800	2.684	3.034
160.0	2.334	2.684	2.800	3.384	3.734	3.384	2.800	2.684	3.034
160.5	2.334	2.684	2.684	3.267	3.500	3.267	2.800	2.684	3.034
161.0	2.334	2.684	2.684	3.150	3.384	3.150	2.684	2.684	3.034
161.5	2.450	2.684	2.684	3.150	3.267	3.150	2.684	2.684	3.034
162.0	2.450	2.800	2.684	3.034	3.150	3.034	2.684	2.684	3.034
162.5	2.450	2.800	2.684	2.917	3.034	2.917	2.684	2.800	3.034
163.0	2.450	2.800	2.684	2.800	2.917	2.917	2.684	2.800	3.150
163.5	2.450	2.800	2.684	2.800	2.800	2.800	2.684	2.800	3.150
164.0	2.567	2.800	2.684	2.684	2.800	2.684	2.684	2.800	3.150
164.5	2.567	2.800	2.684	2.684	2.684	2.684	2.684	2.800	3.150
165.0	2.567	2.917	2.684	2.684	2.684	2.684	2.684	2.800	3.150
165.5	2.567	2.917	2.684	2.684	2.567	2.684	2.684	2.917	3.150
166.0	2.684	2.917	2.800	2.684	2.567	2.567	2.800	2.917	3.150
166.5	2.684	2.917	2.800	2.684	2.567	2.567	2.800	2.917	3.150

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CANDELA TABULATION - (Cont.)

167.0	2.684	2.917	2.800	2.567	2.450	2.567	2.800	2.917	3.150
167.5	2.684	2.917	2.800	2.567	2.450	2.567	2.800	2.917	3.150
168.0	2.684	2.917	2.800	2.567	2.450	2.567	2.800	2.917	3.150
168.5	2.800	3.034	2.800	2.567	2.450	2.567	2.800	2.917	3.150
169.0	2.800	3.034	2.800	2.684	2.450	2.684	2.800	3.034	3.150
169.5	2.800	3.034	2.800	2.684	2.450	2.684	2.800	3.034	3.150
170.0	2.800	3.034	2.800	2.684	2.450	2.567	2.800	3.034	3.150
170.5	2.800	3.034	2.800	2.684	2.450	2.684	2.800	3.034	3.150
171.0	2.800	3.034	2.917	2.684	2.450	2.684	2.800	3.034	3.150
171.5	2.800	3.034	2.917	2.684	2.450	2.684	2.917	3.034	3.150
172.0	2.800	3.034	2.917	2.684	2.450	2.684	2.917	3.034	3.150
172.5	2.917	3.034	2.917	2.684	2.567	2.684	2.917	3.034	3.150
173.0	2.917	3.034	2.917	2.684	2.567	2.684	2.917	3.034	3.150
173.5	2.917	3.034	2.917	2.684	2.567	2.684	2.917	3.034	3.150
174.0	2.917	3.034	2.917	2.684	2.567	2.684	2.917	3.034	3.150
174.5	2.917	3.034	2.917	2.684	2.567	2.684	2.917	3.034	3.150
175.0	2.917	3.034	2.917	2.684	2.567	2.684	2.917	3.034	3.150
175.5	3.034	3.034	2.917	2.684	2.567	2.684	2.917	3.034	3.150
176.0	3.034	3.034	2.917	2.684	2.567	2.684	2.917	3.034	3.150
176.5	3.034	3.034	2.917	2.800	2.567	2.684	2.917	3.034	3.150
177.0	3.034	3.150	2.917	2.800	2.567	2.684	2.917	3.150	3.150
177.5	3.034	3.150	2.917	2.800	2.567	2.684	2.917	3.150	3.150
178.0	3.034	3.150	2.917	2.800	2.567	2.800	2.917	3.150	3.150
178.5	3.034	3.150	2.917	2.800	2.567	2.800	2.917	3.150	3.150
179.0	3.150	3.150	2.917	2.800	2.567	2.800	3.034	3.150	3.150
179.5	3.150	3.150	2.917	2.800	2.567	2.800	2.917	3.150	3.150
180.0	2.917	2.917	2.917	2.917	2.917	2.917	2.917	2.917	2.917

IES INDOOR REPORT
PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_4000K_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	546.23	N.A.	11.40
0-30	1147.42	N.A.	24.00
0-40	1860.36	N.A.	38.80
0-60	3274.86	N.A.	68.40
0-80	4220.76	N.A.	88.10
0-90	4445.66	N.A.	92.80
10-90	4303.32	N.A.	89.80
20-40	1314.13	N.A.	27.40
20-50	2049.25	N.A.	42.80
40-70	1970.86	N.A.	41.10
60-80	945.90	N.A.	19.70
70-80	389.55	N.A.	8.10
80-90	224.90	N.A.	4.70
90-110	220.48	N.A.	4.60
90-120	280.05	N.A.	5.80
90-130	315.71	N.A.	6.60
90-150	341.72	N.A.	7.10
90-180	344.92	N.A.	7.20
110-180	124.43	N.A.	2.60
0-180	4790.57	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	142.33
10-20	403.90
20-30	601.18
30-40	712.94
40-50	735.12
50-60	679.38
60-70	556.35
70-80	389.55
80-90	224.90
90-100	130.23
100-110	90.26
110-120	59.56
120-130	35.67
130-140	18.49
140-150	7.52
150-160	2.12
160-170	0.80
170-180	0.27

IES INDOOR REPORT
PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_4000K_.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	93	93	93	93	91	91	91	91	85	85	85	80	80	80	76	76	76	74
1	84	80	76	73	81	77	74	71	73	70	68	69	67	64	65	63	62	59
2	76	69	63	58	73	67	62	57	63	59	55	60	56	53	57	54	51	49
3	69	60	54	48	67	59	52	47	56	50	46	53	48	44	50	46	43	41
4	63	53	46	41	61	52	45	40	49	43	39	47	42	38	44	40	37	35
5	58	48	40	35	56	46	40	34	44	38	34	42	37	33	40	35	32	30
6	54	43	36	30	52	42	35	30	40	34	29	38	33	29	36	31	28	26
7	50	39	32	27	48	38	31	26	36	30	26	34	29	25	33	28	25	23
8	46	35	29	24	45	35	28	24	33	27	23	32	26	23	30	26	22	21
9	43	32	26	21	42	32	26	21	30	25	21	29	24	20	28	23	20	18
10	41	30	24	19	39	29	23	19	28	23	19	27	22	19	26	21	18	17

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_4000K_.IES

UGR TABLE - CORRECTED

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	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

UGR Viewed Endwise

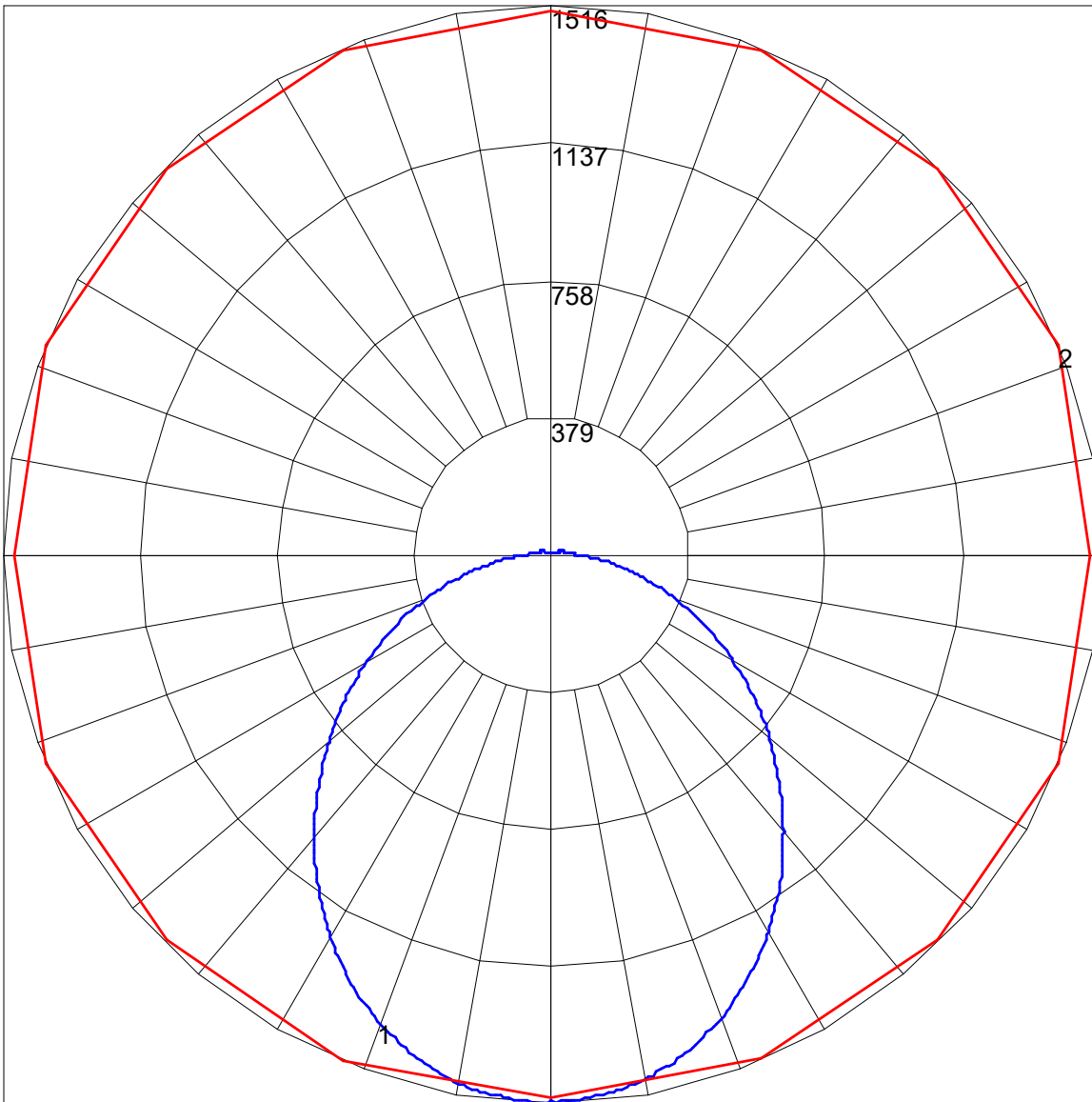
4H	2H	22.0	23.3	22.5	23.8	24.3	23.9	25.2	24.4	25.7	26.2
	3H	23.7	24.8	24.2	25.4	25.9	26.6	27.7	27.1	28.2	28.8
	4H	24.3	25.3	24.8	25.9	26.5	27.8	28.9	28.4	29.4	30.0
	6H	24.7	25.6	25.3	26.2	26.8	29.2	30.1	29.7	30.6	31.2
	8H	24.8	25.7	25.4	26.3	26.9	29.8	30.7	30.4	31.2	31.9
	12H	24.9	25.7	25.5	26.3	26.9	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 = 1515.711 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.)