



IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_5000K_.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_5000K
[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	4688
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	145
Total Luminaire Watts	32.4
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	20204	19118	19818
55	18390	17699	18856
65	16201	16146	17836
75	13341	14475	16582
85	9225	13326	15783

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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	1475.128	1475.128	1475.128	1475.128	1475.128	1475.128	1475.128	1475.128	1475.128
0.5	1455.718	1480.837	1477.412	1477.412	1470.561	1478.553	1477.412	1483.120	1456.860
1.0	1454.577	1479.695	1475.128	1478.553	1469.419	1478.553	1475.128	1481.978	1456.860
1.5	1456.860	1479.695	1472.845	1477.412	1470.561	1478.553	1475.128	1480.837	1456.860
2.0	1456.860	1478.553	1475.128	1478.553	1469.419	1480.837	1475.128	1481.978	1455.718
2.5	1455.718	1477.412	1472.845	1477.412	1469.419	1476.270	1475.128	1479.695	1453.435
3.0	1452.293	1477.412	1471.703	1477.412	1469.419	1477.412	1473.986	1480.837	1453.435
3.5	1453.435	1475.128	1470.561	1473.986	1467.136	1475.128	1472.845	1477.412	1454.577
4.0	1450.010	1472.845	1468.278	1475.128	1468.278	1473.986	1471.703	1478.553	1451.151
4.5	1451.151	1469.419	1468.278	1472.845	1465.994	1473.986	1469.419	1476.270	1448.868
5.0	1445.443	1468.278	1464.852	1471.703	1465.994	1472.845	1468.278	1473.986	1448.868
5.5	1444.301	1468.278	1463.711	1470.561	1465.994	1471.703	1468.278	1471.703	1445.443
6.0	1442.018	1464.852	1461.427	1469.419	1462.569	1469.419	1464.852	1471.703	1444.301
6.5	1439.734	1462.569	1460.285	1465.994	1460.285	1468.278	1463.711	1469.419	1442.018
7.0	1436.309	1459.144	1458.002	1462.569	1458.002	1465.994	1462.569	1468.278	1443.159
7.5	1435.167	1458.002	1454.577	1462.569	1455.718	1463.711	1459.144	1465.994	1438.592
8.0	1432.884	1454.577	1452.293	1459.144	1455.718	1462.569	1458.002	1463.711	1436.309
8.5	1429.458	1451.151	1448.868	1455.718	1451.151	1459.144	1455.718	1460.285	1431.742
9.0	1427.175	1447.726	1444.301	1454.577	1448.868	1455.718	1452.293	1459.144	1429.458
9.5	1420.325	1444.301	1444.301	1452.293	1446.585	1454.577	1450.010	1454.577	1426.033
10.0	1419.183	1443.159	1438.592	1445.443	1445.443	1451.151	1447.726	1452.293	1424.891
10.5	1411.191	1436.309	1436.309	1445.443	1439.734	1448.868	1444.301	1447.726	1419.183
11.0	1410.049	1435.167	1432.884	1440.876	1437.451	1445.443	1438.592	1442.018	1419.183
11.5	1405.482	1429.458	1428.317	1437.451	1435.167	1440.876	1436.309	1440.876	1413.474
12.0	1400.915	1424.891	1426.033	1434.025	1430.600	1438.592	1431.742	1436.309	1407.765
12.5	1395.206	1420.325	1421.466	1431.742	1430.600	1432.884	1428.317	1430.600	1405.482
13.0	1392.923	1418.041	1415.758	1427.175	1426.033	1430.600	1424.891	1428.317	1398.631
13.5	1389.498	1412.332	1413.474	1421.466	1421.466	1426.033	1421.466	1424.891	1394.064
14.0	1382.647	1406.624	1407.765	1418.041	1416.899	1422.608	1415.758	1420.325	1389.498
14.5	1374.655	1400.915	1402.057	1413.474	1412.332	1416.899	1412.332	1415.758	1386.072
15.0	1371.230	1397.490	1399.773	1411.191	1407.765	1413.474	1406.624	1410.049	1380.364
15.5	1366.663	1394.064	1392.923	1405.482	1403.198	1407.765	1403.198	1404.340	1375.797
16.0	1363.238	1386.072	1388.356	1402.057	1397.490	1403.198	1396.348	1399.773	1367.804
16.5	1352.962	1381.505	1381.505	1397.490	1392.923	1398.631	1390.639	1394.064	1366.663
17.0	1347.253	1375.797	1378.080	1391.781	1388.356	1391.781	1386.072	1389.498	1358.671
17.5	1341.544	1368.946	1371.230	1384.931	1382.647	1386.072	1379.222	1384.931	1355.245
18.0	1338.119	1360.954	1364.379	1378.080	1378.080	1379.222	1374.655	1375.797	1348.395
18.5	1331.269	1356.387	1358.671	1374.655	1372.371	1374.655	1367.804	1371.230	1342.686
19.0	1322.135	1349.537	1351.820	1367.804	1365.521	1368.946	1363.238	1364.379	1335.836
19.5	1317.568	1343.828	1346.111	1362.096	1358.671	1362.096	1357.529	1358.671	1327.844
20.0	1310.717	1335.836	1339.261	1355.245	1352.962	1357.529	1350.678	1351.820	1322.135
20.5	1302.725	1328.985	1333.552	1349.537	1347.253	1349.537	1344.970	1344.970	1316.426
21.0	1297.017	1322.135	1325.560	1341.544	1340.403	1344.970	1335.836	1340.403	1307.292
21.5	1287.883	1315.284	1318.710	1334.694	1335.836	1339.261	1331.269	1332.411	1301.584
22.0	1282.174	1309.576	1313.001	1327.844	1328.985	1331.269	1324.418	1325.560	1294.733
22.5	1271.898	1299.300	1305.009	1322.135	1324.418	1327.844	1317.568	1317.568	1285.599
23.0	1265.048	1292.450	1298.158	1314.143	1317.568	1319.851	1311.859	1310.717	1281.032
23.5	1259.339	1284.457	1292.450	1308.434	1313.001	1316.426	1305.009	1303.867	1273.040
24.0	1247.922	1277.607	1284.457	1301.584	1306.151	1309.576	1298.158	1293.591	1261.623
24.5	1243.355	1270.757	1276.465	1295.875	1300.442	1303.867	1290.166	1286.741	1254.772
25.0	1234.221	1259.339	1269.615	1290.166	1297.017	1298.158	1283.316	1279.891	1247.922
25.5	1223.945	1252.489	1259.339	1284.457	1291.308	1291.308	1277.607	1273.040	1241.071
26.0	1214.811	1245.638	1252.489	1275.324	1284.457	1284.457	1269.615	1265.048	1230.796
26.5	1206.819	1235.363	1245.638	1270.757	1278.749	1277.607	1261.623	1255.914	1223.945

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27.0	1199.969	1227.370	1238.788	1262.764	1269.615	1270.757	1253.630	1247.922	1214.811
27.5	1189.693	1220.520	1230.796	1257.056	1263.906	1262.764	1246.780	1239.930	1205.677
28.0	1181.701	1209.103	1220.520	1250.205	1258.197	1255.914	1237.646	1230.796	1197.685
28.5	1173.709	1201.110	1213.670	1242.213	1251.347	1249.064	1230.796	1222.804	1189.693
29.0	1164.575	1191.977	1205.677	1235.363	1244.497	1241.071	1222.804	1214.811	1179.417
29.5	1155.441	1183.984	1197.685	1227.370	1236.504	1234.221	1215.953	1204.536	1170.283
30.0	1144.023	1174.850	1189.693	1219.378	1229.654	1227.370	1206.819	1196.543	1160.008
30.5	1135.004	1165.717	1180.559	1212.528	1222.804	1219.378	1198.827	1187.410	1150.874
31.0	1125.413	1155.441	1172.567	1204.536	1215.953	1212.528	1189.693	1178.276	1144.023
31.5	1118.220	1145.165	1164.575	1196.543	1207.961	1205.677	1182.843	1169.142	1131.693
32.0	1106.232	1138.086	1155.441	1189.693	1201.110	1198.827	1174.850	1160.008	1123.244
32.5	1098.468	1127.811	1146.307	1181.701	1194.260	1190.835	1164.575	1149.732	1115.366
33.0	1087.279	1118.677	1136.260	1174.850	1188.551	1183.984	1155.441	1139.685	1102.578
33.5	1077.232	1108.972	1127.697	1168.000	1180.559	1174.850	1147.449	1130.893	1094.472
34.0	1068.098	1099.381	1121.074	1158.866	1173.709	1168.000	1140.142	1122.330	1086.137
34.5	1057.480	1088.649	1111.370	1150.874	1166.858	1160.008	1131.122	1110.799	1074.491
35.0	1049.145	1079.401	1103.263	1144.023	1158.866	1152.016	1122.559	1101.893	1066.842
35.5	1038.755	1068.783	1095.157	1136.602	1153.157	1144.023	1112.854	1091.161	1054.511
36.0	1026.538	1057.822	1085.338	1128.496	1145.165	1137.858	1103.720	1081.684	1046.291
36.5	1015.920	1048.346	1077.803	1120.047	1138.429	1129.523	1095.271	1071.751	1036.814
37.0	1007.700	1037.499	1067.527	1113.653	1131.464	1121.988	1085.795	1061.818	1028.936
37.5	996.739	1028.594	1059.192	1105.318	1124.043	1112.968	1078.145	1052.684	1019.003
38.0	984.979	1018.204	1049.716	1097.897	1116.736	1104.976	1069.011	1043.322	1007.243
38.5	975.503	1007.814	1042.066	1089.562	1108.515	1097.098	1058.964	1034.074	996.054
39.0	964.085	996.739	1032.475	1081.456	1100.751	1088.877	1050.972	1025.168	985.207
39.5	953.239	985.550	1023.798	1073.007	1093.673	1080.885	1041.267	1015.121	972.534
40.0	941.593	976.530	1014.778	1065.243	1087.051	1073.692	1032.247	1005.873	960.660
40.5	931.774	966.255	1005.873	1057.023	1078.259	1065.472	1023.342	994.113	949.471
41.0	919.329	954.723	996.396	1049.487	1069.468	1057.480	1014.208	983.723	938.282
41.5	909.053	943.420	988.633	1041.724	1063.531	1048.460	1004.389	971.278	926.979
42.0	897.179	933.372	978.699	1033.160	1055.653	1042.066	995.369	959.518	916.817
42.5	886.561	922.640	969.223	1025.625	1048.117	1032.932	985.207	949.014	905.628
43.0	875.144	913.164	960.089	1017.062	1040.353	1024.141	976.644	936.455	894.439
43.5	865.211	903.345	950.499	1008.499	1033.389	1015.692	968.195	925.380	884.620
44.0	855.506	891.699	941.593	1000.963	1025.511	1008.385	957.806	913.506	872.860
44.5	841.919	880.738	930.632	992.172	1017.633	1000.621	950.042	903.002	862.470
45.0	831.986	869.892	923.097	984.180	1009.869	990.802	941.022	891.128	851.738
45.5	821.710	859.273	912.479	975.731	1000.507	983.495	931.546	881.537	841.006
46.0	810.407	850.254	903.687	966.483	992.743	975.617	922.640	870.234	828.903
46.5	800.474	839.521	893.868	957.006	985.322	966.026	913.506	860.073	818.970
47.0	788.828	827.990	884.620	950.270	977.101	959.404	905.057	849.569	808.694
47.5	777.411	817.714	875.144	940.794	969.794	951.298	895.809	838.722	795.564
48.0	768.505	807.096	866.466	934.057	960.432	940.908	886.789	827.761	786.659
48.5	756.060	796.478	857.104	923.668	953.010	933.258	877.427	817.257	773.529
49.0	748.753	787.572	848.427	915.790	944.790	924.924	867.722	807.096	763.253
49.5	738.934	775.698	839.179	907.455	935.884	916.931	855.848	795.793	753.092
50.0	727.403	766.564	829.931	898.892	928.577	908.368	847.285	784.946	744.300
50.5	715.985	758.458	818.628	890.215	920.357	899.463	837.466	774.785	734.595
51.0	705.253	748.525	810.864	881.423	912.707	890.900	826.620	763.596	722.036
51.5	694.635	738.592	800.702	873.888	905.628	882.451	817.143	757.088	711.190
52.0	683.446	727.517	792.253	865.553	896.723	874.116	806.868	746.698	699.658
52.5	673.170	717.469	782.777	856.762	888.388	865.325	797.848	737.450	689.154
53.0	661.638	706.395	772.844	848.427	879.825	857.903	788.600	726.261	678.879
53.5	651.248	696.119	763.596	839.521	871.262	848.769	778.324	715.528	666.890
54.0	639.945	686.528	755.261	830.844	862.128	840.206	769.989	705.024	655.245
54.5	628.985	675.339	748.525	821.254	855.049	832.100	759.942	694.064	644.855

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55.0	617.225	664.835	739.733	813.033	846.486	822.852	754.233	684.131	633.323
55.5	606.492	655.473	730.029	803.671	837.238	814.061	745.328	673.627	621.906
56.0	595.760	644.056	720.438	794.537	829.474	805.840	735.509	662.780	611.744
56.5	585.484	633.437	710.847	786.316	819.883	795.336	725.233	651.134	600.099
57.0	574.295	622.705	701.599	776.954	811.663	786.659	715.643	640.973	587.882
57.5	563.791	613.000	692.922	768.277	801.844	777.182	705.824	629.555	577.150
58.0	553.516	602.268	682.532	759.371	792.482	768.048	695.776	619.394	566.303
58.5	542.441	591.650	672.942	753.206	783.804	760.513	686.300	608.776	554.771
59.0	532.279	581.374	664.378	746.584	775.356	753.206	675.910	597.473	544.610
59.5	521.318	571.327	654.331	735.851	765.765	744.643	666.662	587.539	532.964
60.0	510.814	561.165	643.941	726.946	760.170	735.166	656.729	577.150	523.145
60.5	500.196	550.775	634.237	718.839	751.950	726.032	647.937	565.961	511.043
61.0	488.665	540.500	625.217	708.564	743.501	716.213	637.776	556.370	500.310
61.5	478.275	530.110	616.083	699.087	734.595	706.851	628.528	544.952	489.464
62.0	467.657	519.948	606.721	690.182	724.662	698.402	617.910	534.905	478.389
62.5	457.153	510.015	597.358	680.934	714.958	688.127	609.004	524.173	467.657
63.0	446.991	499.625	587.882	671.686	705.824	679.107	599.185	514.126	457.153
63.5	436.259	489.921	578.291	661.752	696.804	669.630	589.138	503.621	446.649
64.0	425.184	479.759	569.157	652.504	687.442	660.497	579.890	493.232	435.231
64.5	413.767	469.598	558.996	642.800	677.394	651.705	569.842	483.184	424.613
65.0	403.833	460.235	549.519	633.552	668.146	641.658	560.708	472.909	413.881
65.5	393.900	450.074	540.157	624.988	659.583	632.410	551.575	462.633	403.491
66.0	383.054	440.027	531.252	614.256	649.993	622.591	541.299	452.243	392.759
66.5	373.577	430.322	521.433	605.465	639.945	613.000	532.279	442.082	382.255
67.0	363.187	420.845	511.956	595.874	630.697	602.839	522.004	432.263	372.321
67.5	353.369	411.026	502.936	585.827	620.650	593.819	513.326	422.558	362.160
68.0	343.207	401.550	492.775	577.492	611.516	584.457	503.393	412.511	352.341
68.5	333.274	392.188	484.098	567.102	602.039	574.295	493.688	402.692	341.380
69.0	323.341	382.026	474.735	558.653	592.449	565.390	484.326	393.444	331.675
69.5	312.837	372.550	465.487	548.606	582.744	556.027	475.306	383.510	320.829
70.0	303.360	363.187	455.783	539.358	573.039	545.866	465.487	373.349	311.124
70.5	293.884	353.140	446.763	529.539	563.677	536.960	456.125	363.530	301.305
71.0	283.494	344.235	437.629	520.862	554.201	527.370	446.991	353.825	291.144
71.5	274.132	334.644	429.066	511.500	544.724	518.578	437.286	344.235	281.096
72.0	264.427	325.967	419.247	501.566	535.134	508.759	428.609	335.101	270.592
72.5	254.836	316.604	410.456	492.547	526.228	499.854	419.133	325.282	260.773
73.0	245.132	307.813	401.093	482.728	516.409	489.806	410.113	315.805	251.868
73.5	235.998	298.908	392.302	473.023	506.590	480.558	401.093	306.557	241.935
74.0	226.635	289.659	383.510	464.802	497.570	471.196	391.731	297.309	232.572
74.5	216.702	280.297	373.920	455.098	487.751	462.176	383.282	287.718	222.639
75.0	207.226	271.734	365.357	446.420	479.074	452.586	374.491	278.927	213.620
75.5	198.663	263.057	357.022	436.830	469.598	443.452	365.243	269.565	204.257
76.0	189.186	254.380	348.231	428.267	460.350	434.660	356.908	261.002	195.009
76.5	180.623	245.931	339.668	419.133	450.987	425.184	347.888	251.754	186.560
77.0	172.174	237.482	331.105	409.885	441.625	416.393	338.868	243.191	177.541
77.5	163.497	229.147	322.770	401.322	433.062	407.144	330.305	234.171	168.863
78.0	154.592	220.813	314.549	392.416	423.471	398.467	322.085	226.065	160.186
78.5	146.143	212.935	306.100	383.739	414.794	389.790	313.750	217.730	151.623
79.0	137.808	204.828	298.222	374.947	405.660	380.884	305.187	209.738	143.517
79.5	130.158	196.836	290.459	366.613	397.326	373.121	297.309	201.517	134.839
80.0	122.395	188.844	282.466	357.821	388.991	364.101	289.089	193.525	127.076
80.5	114.402	181.194	274.588	349.829	379.857	355.995	281.439	186.332	119.083
81.0	106.639	173.887	266.939	341.380	371.636	347.317	273.675	178.454	111.662
81.5	99.217	166.466	259.175	333.388	363.187	339.211	266.025	171.261	104.127
82.0	91.910	159.387	251.754	325.396	354.168	331.219	258.376	164.182	96.820
82.5	85.174	152.080	244.332	318.089	345.947	322.770	250.612	157.218	89.855

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CANDELA TABULATION - (Cont.)

83.0	77.981	145.229	237.025	310.097	338.183	314.778	243.647	150.253	82.890
83.5	71.245	138.607	229.832	302.333	329.963	307.356	236.112	143.517	76.154
84.0	64.622	132.099	222.868	294.683	322.199	299.821	229.376	136.895	69.532
84.5	58.229	125.706	215.903	287.490	314.435	292.171	222.297	130.501	63.367
85.0	52.292	119.769	208.938	279.955	306.900	284.522	215.332	124.335	56.973
85.5	46.355	113.489	202.545	272.533	299.250	277.443	208.710	117.713	51.036
86.0	40.418	107.666	196.151	265.797	291.829	270.364	201.860	111.776	44.985
86.5	34.823	101.957	189.986	258.832	284.750	263.057	195.580	105.725	39.162
87.0	29.229	96.363	183.592	252.096	277.557	256.435	189.415	100.016	33.339
87.5	24.091	91.111	177.655	245.931	270.707	249.927	183.021	94.422	27.744
88.0	19.067	85.402	172.060	239.651	264.427	243.533	177.198	88.713	22.150
88.5	14.043	80.493	166.922	233.943	258.033	237.710	171.718	83.119	16.441
89.0	9.020	75.812	162.127	228.348	252.439	231.773	166.352	78.209	11.075
89.5	4.453	71.930	157.560	223.210	246.844	226.635	161.785	73.871	5.823
90.0	1.598	68.390	153.564	218.187	241.478	221.383	157.560	70.103	1.827
90.5	1.028	65.422	149.682	213.391	236.112	216.246	153.336	66.906	1.028
91.0	1.028	62.910	145.800	208.710	231.088	211.679	148.997	64.394	0.913
91.5	1.028	61.083	142.489	204.143	226.293	207.226	145.686	62.453	0.913
92.0	1.028	59.485	139.064	200.147	221.954	203.230	142.489	60.855	0.913
92.5	1.028	58.000	136.666	196.493	217.730	199.348	139.749	59.370	0.913
93.0	1.028	56.630	134.154	192.954	213.734	195.808	137.237	57.886	0.913
93.5	1.028	55.260	131.871	189.871	210.309	192.497	134.839	56.516	0.913
94.0	1.028	54.004	129.702	186.674	206.883	189.415	132.784	55.146	0.913
94.5	1.028	52.748	127.761	183.934	203.801	186.560	130.615	53.776	0.913
95.0	1.028	51.492	125.820	181.194	200.832	183.478	128.446	52.520	0.913
95.5	1.028	50.351	123.650	178.454	197.521	180.852	126.391	51.378	0.913
96.0	1.028	49.209	121.824	175.714	194.667	177.997	124.335	50.237	0.913
96.5	1.028	48.067	119.769	173.202	191.812	175.485	122.166	48.981	0.913
97.0	1.028	46.926	117.942	170.348	188.844	172.517	120.339	47.839	0.913
97.5	1.028	45.784	115.887	168.064	185.989	170.119	118.398	46.811	0.913
98.0	1.028	44.756	114.060	165.324	183.363	167.493	116.343	45.670	0.913
98.5	1.028	43.843	112.347	162.926	180.737	164.867	114.517	44.528	0.913
99.0	1.028	42.701	110.292	160.643	178.111	162.355	112.576	43.500	0.913
99.5	1.028	41.674	108.579	158.245	175.371	159.958	110.749	42.473	0.913
100.0	1.028	40.760	106.639	155.848	172.745	157.560	108.808	41.445	0.913
100.5	1.028	39.733	104.926	153.450	170.005	155.277	107.095	40.532	1.028
101.0	1.028	38.933	103.213	151.052	167.607	152.993	105.383	39.504	1.028
101.5	1.028	37.906	101.387	148.769	165.210	150.481	103.442	38.591	1.028
102.0	1.142	37.107	99.788	146.485	162.470	148.426	101.843	37.677	1.028
102.5	1.142	36.193	98.075	144.316	159.844	146.257	100.016	36.764	1.028
103.0	1.142	35.394	96.363	142.032	157.446	143.973	98.304	35.851	1.028
103.5	1.142	34.481	94.650	140.091	155.162	141.690	96.705	34.937	1.028
104.0	1.142	33.681	93.166	138.036	152.879	139.521	94.879	34.024	1.028
104.5	1.142	32.882	91.453	135.639	150.710	137.351	93.280	33.225	1.142
105.0	1.142	32.083	89.969	133.698	148.198	135.296	91.682	32.425	1.142
105.5	1.142	31.284	88.485	131.643	146.029	133.013	90.083	31.626	1.142
106.0	1.142	30.484	86.886	129.473	143.859	130.958	88.371	30.827	1.142
106.5	1.142	29.799	85.402	127.647	141.347	128.902	86.886	30.142	1.142
107.0	1.256	29.000	83.918	125.591	139.406	126.733	85.288	29.343	1.142
107.5	1.256	28.315	82.319	123.422	137.351	124.792	83.918	28.658	1.142
108.0	1.256	27.630	80.835	121.709	135.182	122.851	82.434	27.973	1.142
108.5	1.256	26.831	79.579	119.654	133.127	121.024	80.835	27.173	1.256
109.0	1.256	26.146	78.095	117.713	131.072	119.083	79.351	26.488	1.256
109.5	1.256	25.461	76.611	115.772	129.131	117.143	77.981	25.803	1.256
110.0	1.256	24.890	75.355	113.946	127.076	115.202	76.611	25.118	1.256
110.5	1.256	24.205	73.985	112.233	125.021	113.261	75.126	24.433	1.256

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111.0	1.256	23.520	72.615	110.406	123.194	111.662	73.756	23.862	1.256
111.5	1.370	22.949	71.359	108.694	121.253	109.721	72.272	23.177	1.256
112.0	1.370	22.264	69.989	106.753	119.426	107.894	71.016	22.492	1.256
112.5	1.370	21.693	68.619	105.268	117.485	106.182	69.646	21.921	1.370
113.0	1.370	21.122	67.477	103.327	115.544	104.469	68.276	21.236	1.370
113.5	1.370	20.551	65.993	101.615	113.603	102.528	67.020	20.665	1.370
114.0	1.370	19.866	64.851	100.016	112.005	100.816	65.764	20.095	1.370
114.5	1.370	19.295	63.595	98.304	110.064	99.217	64.394	19.410	1.370
115.0	1.370	18.839	62.339	96.705	108.351	97.505	63.024	18.839	1.370
115.5	1.370	18.154	61.083	95.107	106.524	95.792	61.768	18.268	1.370
116.0	1.370	17.697	59.941	93.280	104.812	94.194	60.512	17.697	1.484
116.5	1.370	17.126	58.685	91.796	103.099	92.595	59.370	17.240	1.484
117.0	1.370	16.555	57.430	90.083	101.272	90.883	58.115	16.669	1.484
117.5	1.370	15.984	56.288	88.599	99.674	89.284	56.859	16.099	1.484
118.0	1.370	15.528	55.260	86.886	97.961	87.686	55.717	15.528	1.484
118.5	1.370	14.957	54.118	85.402	96.363	86.087	54.575	15.071	1.484
119.0	1.370	14.500	52.977	83.918	94.650	84.603	53.433	14.500	1.484
119.5	1.370	13.929	51.835	82.434	92.938	83.119	52.292	14.043	1.484
120.0	1.370	13.473	50.693	80.721	91.339	81.406	51.036	13.473	1.484
120.5	1.370	13.016	49.552	79.465	89.627	79.922	50.008	13.016	1.598
121.0	1.370	12.445	48.524	77.867	87.914	78.438	48.866	12.559	1.598
121.5	1.370	11.874	47.496	76.382	86.544	76.953	47.839	11.988	1.598
122.0	1.370	11.417	46.469	74.898	84.717	75.469	46.811	11.532	1.598
122.5	1.370	10.961	45.327	73.414	83.233	73.871	45.784	11.075	1.598
123.0	1.370	10.504	44.300	72.044	81.634	72.500	44.642	10.618	1.598
123.5	1.370	10.047	43.272	70.560	80.036	71.130	43.614	10.161	1.598
124.0	1.370	9.591	42.359	69.075	78.552	69.646	42.587	9.705	1.598
124.5	1.370	9.134	41.331	67.705	77.067	68.048	41.559	9.248	1.713
125.0	1.370	8.677	40.303	66.335	75.583	66.678	40.532	8.791	1.713
125.5	1.370	8.221	39.276	64.965	73.985	65.308	39.504	8.335	1.713
126.0	1.370	7.878	38.248	63.709	72.500	63.937	38.477	7.878	1.713
126.5	1.370	7.421	37.335	62.339	71.016	62.567	37.563	7.421	1.713
127.0	1.370	6.965	36.422	60.969	69.418	61.197	36.650	7.079	1.713
127.5	1.370	6.622	35.508	59.713	68.048	59.827	35.622	6.622	1.713
128.0	1.370	6.165	34.481	58.343	66.678	58.685	34.709	6.280	1.827
128.5	1.370	5.823	33.453	57.087	65.308	57.430	33.796	5.937	1.827
129.0	1.370	5.480	32.540	55.717	63.823	56.059	32.882	5.595	1.827
129.5	1.370	5.252	31.740	54.461	62.453	54.804	31.969	5.366	1.827
130.0	1.484	4.909	30.941	53.205	61.083	53.548	31.170	5.024	1.827
130.5	1.484	4.681	29.914	52.063	59.713	52.406	30.256	4.795	1.941
131.0	1.484	4.453	29.114	50.922	58.343	51.036	29.343	4.567	1.941
131.5	1.484	4.224	28.315	49.666	56.973	49.894	28.543	4.339	1.941
132.0	1.484	3.996	27.402	48.524	55.603	48.638	27.630	4.110	1.941
132.5	1.484	3.768	26.603	47.268	54.347	47.496	26.831	3.882	1.941
133.0	1.484	3.654	25.803	46.012	53.091	46.240	26.032	3.768	2.055
133.5	1.484	3.539	24.890	44.870	51.721	45.099	25.118	3.654	2.055
134.0	1.484	3.425	23.977	43.729	50.579	43.843	24.319	3.539	2.055
134.5	1.484	3.311	23.063	42.587	49.209	42.701	23.520	3.425	2.055
135.0	1.484	3.197	22.150	41.445	47.953	41.559	22.721	3.311	2.055
135.5	1.484	3.083	21.351	40.189	46.697	40.418	21.921	3.197	2.055
136.0	1.484	2.969	20.437	39.048	45.441	39.276	21.122	3.083	2.055
136.5	1.484	2.969	19.638	38.020	44.185	38.134	20.437	3.083	2.169
137.0	1.484	2.854	18.725	36.992	42.929	36.992	19.638	2.969	2.169
137.5	1.484	2.854	17.925	35.851	41.788	35.965	18.839	2.969	2.169
138.0	1.484	2.740	17.126	34.709	40.646	34.823	18.154	2.854	2.169
138.5	1.484	2.740	16.441	33.681	39.504	33.796	17.469	2.854	2.169

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CANDELA TABULATION - (Cont.)

139.0	1.598	2.740	15.642	32.654	38.362	32.654	16.784	2.740	2.283
139.5	1.598	2.626	14.843	31.626	37.221	31.740	16.099	2.740	2.283
140.0	1.598	2.626	14.158	30.599	36.079	30.599	15.299	2.740	2.283
140.5	1.598	2.626	13.473	29.457	34.937	29.571	14.614	2.626	2.283
141.0	1.598	2.512	12.902	28.543	33.796	28.543	13.929	2.626	2.283
141.5	1.598	2.512	12.217	27.516	32.654	27.630	13.244	2.626	2.398
142.0	1.598	2.512	11.646	26.603	31.626	26.603	12.559	2.626	2.398
142.5	1.598	2.398	11.075	25.575	30.484	25.575	11.874	2.512	2.398
143.0	1.598	2.398	10.504	24.662	29.457	24.547	11.303	2.512	2.398
143.5	1.713	2.398	9.933	23.634	28.429	23.634	10.618	2.512	2.398
144.0	1.713	2.398	9.362	22.721	27.288	22.721	10.047	2.398	2.398
144.5	1.713	2.398	8.791	21.807	26.260	21.693	9.362	2.398	2.512
145.0	1.713	2.283	8.335	20.780	25.232	20.780	8.791	2.398	2.512
145.5	1.713	2.283	7.764	19.866	24.205	19.866	8.221	2.398	2.512
146.0	1.713	2.283	7.307	19.067	23.177	18.953	7.650	2.398	2.512
146.5	1.713	2.283	6.850	18.154	22.150	18.039	7.193	2.398	2.512
147.0	1.713	2.283	6.394	17.240	21.236	17.126	6.736	2.283	2.512
147.5	1.713	2.283	5.937	16.327	20.209	16.327	6.280	2.283	2.626
148.0	1.827	2.283	5.595	15.413	19.295	15.413	5.937	2.283	2.626
148.5	1.827	2.283	5.252	14.500	18.268	14.614	5.595	2.283	2.626
149.0	1.827	2.283	5.024	13.473	17.354	13.701	5.252	2.283	2.626
149.5	1.827	2.283	4.681	12.673	16.441	12.902	5.024	2.283	2.626
150.0	1.827	2.283	4.453	11.760	15.528	12.102	4.795	2.398	2.626
150.5	1.827	2.283	4.339	10.961	14.614	11.303	4.567	2.283	2.740
151.0	1.827	2.283	4.110	10.161	13.701	10.504	4.339	2.283	2.740
151.5	1.941	2.283	3.996	9.476	12.902	9.819	4.224	2.398	2.740
152.0	1.941	2.398	3.882	8.677	11.988	9.020	3.996	2.398	2.740
152.5	1.941	2.398	3.768	8.106	11.189	8.335	3.882	2.398	2.740
153.0	1.941	2.398	3.654	7.535	10.276	7.650	3.768	2.398	2.740
153.5	1.941	2.398	3.539	6.965	9.476	7.079	3.654	2.398	2.740
154.0	1.941	2.398	3.425	6.394	8.677	6.622	3.539	2.398	2.854
154.5	2.055	2.398	3.311	5.937	7.992	6.051	3.425	2.398	2.854
155.0	2.055	2.398	3.197	5.480	7.307	5.595	3.311	2.398	2.854
155.5	2.055	2.512	3.197	5.138	6.736	5.252	3.311	2.398	2.854
156.0	2.055	2.512	3.083	4.795	6.165	4.909	3.197	2.512	2.854
156.5	2.169	2.512	3.083	4.453	5.709	4.567	3.083	2.512	2.854
157.0	2.169	2.512	2.969	4.224	5.252	4.339	3.083	2.512	2.854
157.5	2.169	2.512	2.969	4.110	4.795	4.110	2.969	2.512	2.854
158.0	2.169	2.512	2.854	3.882	4.567	3.882	2.969	2.512	2.969
158.5	2.169	2.626	2.854	3.768	4.224	3.768	2.854	2.512	2.969
159.0	2.283	2.626	2.740	3.539	3.996	3.539	2.854	2.626	2.969
159.5	2.283	2.626	2.740	3.425	3.768	3.425	2.740	2.626	2.969
160.0	2.283	2.626	2.740	3.311	3.654	3.311	2.740	2.626	2.969
160.5	2.283	2.626	2.626	3.197	3.425	3.197	2.740	2.626	2.969
161.0	2.283	2.626	2.626	3.083	3.311	3.083	2.626	2.626	2.969
161.5	2.398	2.626	2.626	3.083	3.197	3.083	2.626	2.626	2.969
162.0	2.398	2.740	2.626	2.969	3.083	2.969	2.626	2.626	2.969
162.5	2.398	2.740	2.626	2.854	2.969	2.854	2.626	2.740	2.969
163.0	2.398	2.740	2.626	2.740	2.854	2.854	2.626	2.740	3.083
163.5	2.398	2.740	2.626	2.740	2.740	2.740	2.626	2.740	3.083
164.0	2.512	2.740	2.626	2.626	2.740	2.626	2.626	2.740	3.083
164.5	2.512	2.740	2.626	2.626	2.626	2.626	2.626	2.740	3.083
165.0	2.512	2.854	2.626	2.626	2.626	2.626	2.626	2.740	3.083
165.5	2.512	2.854	2.626	2.626	2.512	2.626	2.626	2.854	3.083
166.0	2.626	2.854	2.740	2.626	2.512	2.512	2.740	2.854	3.083
166.5	2.626	2.854	2.740	2.626	2.512	2.512	2.740	2.854	3.083

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167.0	2.626	2.854	2.740	2.512	2.398	2.512	2.740	2.854	3.083
167.5	2.626	2.854	2.740	2.512	2.398	2.512	2.740	2.854	3.083
168.0	2.626	2.854	2.740	2.512	2.398	2.512	2.740	2.854	3.083
168.5	2.740	2.969	2.740	2.512	2.398	2.512	2.740	2.854	3.083
169.0	2.740	2.969	2.740	2.626	2.398	2.626	2.740	2.969	3.083
169.5	2.740	2.969	2.740	2.626	2.398	2.626	2.740	2.969	3.083
170.0	2.740	2.969	2.740	2.626	2.398	2.512	2.740	2.969	3.083
170.5	2.740	2.969	2.740	2.626	2.398	2.626	2.740	2.969	3.083
171.0	2.740	2.969	2.854	2.626	2.398	2.626	2.740	2.969	3.083
171.5	2.740	2.969	2.854	2.626	2.398	2.626	2.854	2.969	3.083
172.0	2.740	2.969	2.854	2.626	2.398	2.626	2.854	2.969	3.083
172.5	2.854	2.969	2.854	2.626	2.512	2.626	2.854	2.969	3.083
173.0	2.854	2.969	2.854	2.626	2.512	2.626	2.854	2.969	3.083
173.5	2.854	2.969	2.854	2.626	2.512	2.626	2.854	2.969	3.083
174.0	2.854	2.969	2.854	2.626	2.512	2.626	2.854	2.969	3.083
174.5	2.854	2.969	2.854	2.626	2.512	2.626	2.854	2.969	3.083
175.0	2.854	2.969	2.854	2.626	2.512	2.626	2.854	2.969	3.083
175.5	2.969	2.969	2.854	2.626	2.512	2.626	2.854	2.969	3.083
176.0	2.969	2.969	2.854	2.626	2.512	2.626	2.854	2.969	3.083
176.5	2.969	2.969	2.854	2.740	2.512	2.626	2.854	2.969	3.083
177.0	2.969	3.083	2.854	2.740	2.512	2.626	2.854	3.083	3.083
177.5	2.969	3.083	2.854	2.740	2.512	2.626	2.854	3.083	3.083
178.0	2.969	3.083	2.854	2.740	2.512	2.740	2.854	3.083	3.083
178.5	2.969	3.083	2.854	2.740	2.512	2.740	2.854	3.083	3.083
179.0	3.083	3.083	2.854	2.740	2.512	2.740	2.969	3.083	3.083
179.5	3.083	3.083	2.854	2.740	2.512	2.740	2.854	3.083	3.083
180.0	2.854	2.854	2.854	2.854	2.854	2.854	2.854	2.854	2.854

IES INDOOR REPORT
PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_5000K_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	534.49	N.A.	11.40
0-30	1122.74	N.A.	24.00
0-40	1820.36	N.A.	38.80
0-60	3204.44	N.A.	68.40
0-80	4130.01	N.A.	88.10
0-90	4350.07	N.A.	92.80
10-90	4210.79	N.A.	89.80
20-40	1285.87	N.A.	27.40
20-50	2005.18	N.A.	42.80
40-70	1928.48	N.A.	41.10
60-80	925.56	N.A.	19.70
70-80	381.17	N.A.	8.10
80-90	220.06	N.A.	4.70
90-110	215.74	N.A.	4.60
90-120	274.02	N.A.	5.80
90-130	308.93	N.A.	6.60
90-150	334.38	N.A.	7.10
90-180	337.50	N.A.	7.20
110-180	121.76	N.A.	2.60
0-180	4687.57	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	139.27
10-20	395.21
20-30	588.26
30-40	697.61
40-50	719.31
50-60	664.77
60-70	544.39
70-80	381.17
80-90	220.06
90-100	127.43
100-110	88.32
110-120	58.28
120-130	34.90
130-140	18.09
140-150	7.36
150-160	2.08
160-170	0.78
170-180	0.27

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_5000K_.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	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	55	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

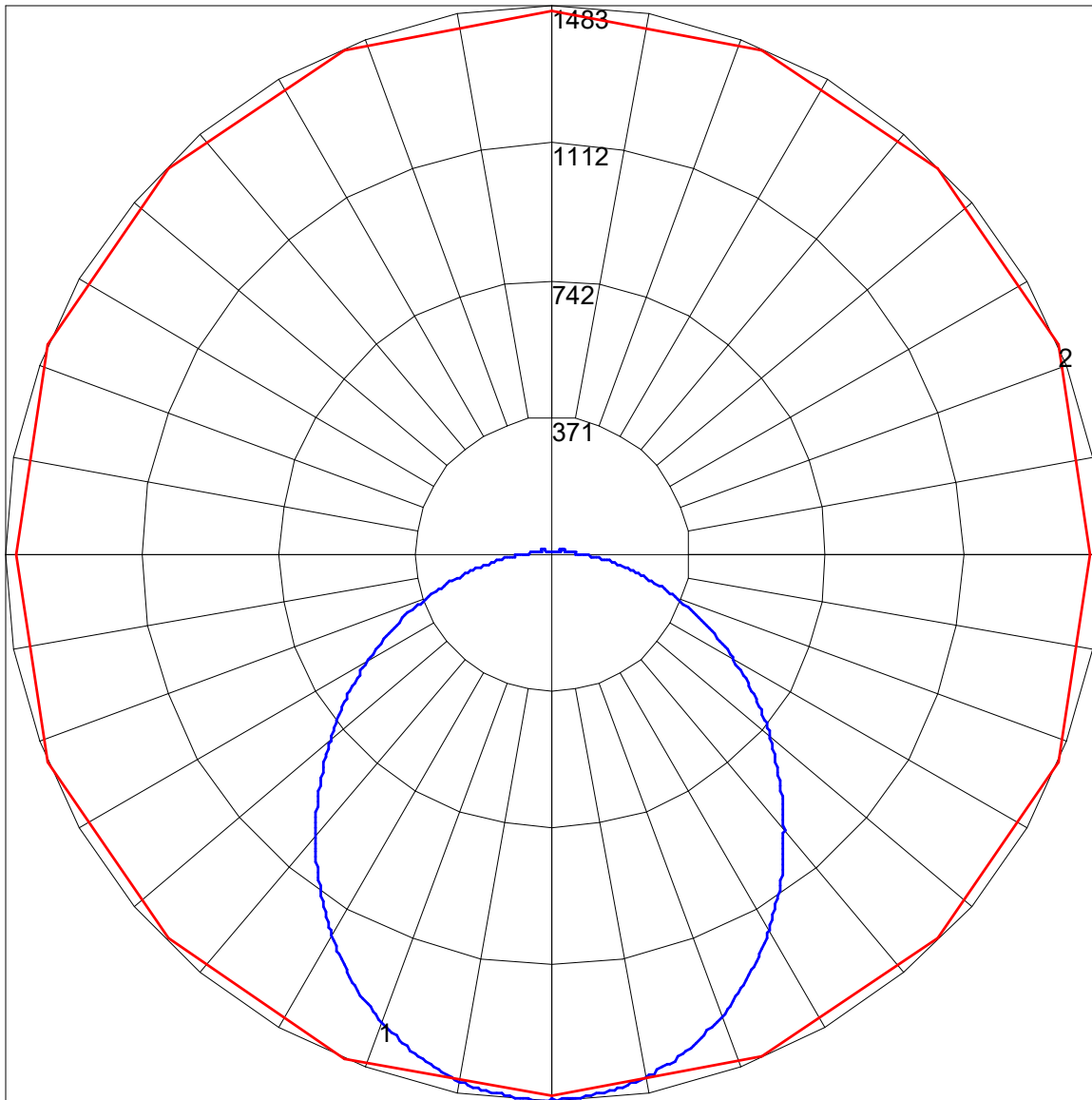
IES INDOOR REPORT
PHOTOMETRIC FILENAME : FS-4-LS-8CS-DIM-UNV_32W_5000K_.IES

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					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 = 1483.12 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.)