



IES INDOOR REPORT
PHOTOMETRIC FILENAME : TRSD48H40.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 8,389P27
[TESTLAB] CSA Group
[ISSUEDATE] 09/14/2019 03:01:31 PM
[MANUFAC] LAMAR LIGHTING CO., INC.
[LUMINAIRE] TRSD48H-40/TRWD48H-40
[AMBIENT] 24.6 deg C
[POWERFACTOR] 0.9973
[ATHD] 5.35%
[CURRENT] 0.4096
[VOLTAGE] 120.00
[STABILIZATION] 23:22.1 Stable
[POWER VARIATION] 0.36 %
[LIGHT VARIATION] 0.40 %
[Lumens] 5,286

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5286
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	49.15
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.33 ft
Luminous Width (90-270)	3.75 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	15345	14576	13772
55	13959	13252	12543
65	12341	11836	11287
75	10074	10000	9782
85	5400	7653	8738

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CANDELA TABULATION

	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
0.0	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658
2.5	2194.092	2195.310	2194.867	2198.774	2202.476	2207.713	2202.524	2198.933	2197.050	2192.351
5.0	2185.138	2184.710	2184.188	2186.846	2190.232	2193.380	2188.839	2183.666	2180.075	2175.709
7.5	2169.064	2166.960	2166.786	2167.514	2169.618	2170.931	2164.350	2157.104	2153.244	2148.989
10.0	2146.647	2142.787	2141.474	2141.142	2141.284	2139.987	2131.334	2123.376	2118.599	2114.818
12.5	2116.906	2113.077	2109.075	2107.604	2106.417	2103.000	2092.385	2081.675	2076.470	2071.455
15.0	2079.539	2075.283	2070.601	2068.180	2062.770	2057.201	2046.032	2033.155	2025.925	2021.290
17.5	2036.461	2031.921	2025.308	2021.258	2014.139	2004.932	1990.884	1976.804	1969.147	1963.104
20.0	1988.542	1983.543	1973.861	1966.869	1959.513	1947.948	1929.755	1916.688	1905.883	1899.492
22.5	1931.812	1928.759	1918.792	1908.367	1899.365	1884.336	1865.510	1849.690	1838.157	1831.909
25.0	1870.335	1868.041	1857.695	1845.751	1832.130	1816.516	1796.456	1779.038	1768.138	1759.026
27.5	1806.502	1803.812	1791.235	1778.089	1764.863	1743.934	1723.652	1704.921	1692.297	1685.004
30.0	1737.653	1735.422	1721.263	1707.627	1690.889	1669.311	1646.039	1626.913	1616.155	1606.885
32.5	1663.568	1661.575	1647.653	1633.304	1615.238	1592.125	1567.699	1547.512	1537.498	1528.829
35.0	1587.284	1587.537	1569.012	1557.020	1536.612	1513.056	1487.618	1468.887	1457.655	1450.378
37.5	1508.421	1508.358	1492.838	1478.600	1455.155	1431.140	1409.325	1390.135	1379.536	1372.322
40.0	1431.821	1429.938	1413.216	1398.140	1375.517	1351.961	1328.216	1309.453	1299.170	1292.288
42.5	1349.209	1347.927	1330.905	1316.003	1293.506	1271.058	1247.454	1230.828	1219.643	1212.223
45.0	1263.733	1264.841	1249.036	1234.039	1211.986	1188.873	1166.266	1152.297	1141.334	1134.247
47.5	1182.972	1180.172	1166.741	1151.585	1132.000	1110.580	1090.061	1075.570	1064.654	1055.590
50.0	1099.870	1097.940	1086.771	1069.685	1051.144	1030.879	1013.635	998.906	987.026	981.520
52.5	1017.321	1016.040	1007.544	990.142	972.709	953.835	937.114	923.081	912.909	908.210
55.0	932.494	932.621	925.517	911.469	895.032	875.574	860.861	849.170	840.627	837.922
57.5	850.278	851.053	844.218	831.737	817.119	800.903	785.226	776.145	768.362	764.438
60.0	768.346	769.248	761.575	754.614	737.734	724.161	712.992	704.101	697.504	693.976
62.5	688.613	689.720	683.108	675.340	660.612	649.617	640.520	634.382	628.892	625.032
65.0	607.456	611.554	605.162	598.154	587.128	578.047	569.868	564.426	562.243	555.583
67.5	528.625	533.118	529.385	521.158	514.087	506.034	499.754	495.055	496.384	488.553
70.0	452.848	454.967	451.914	447.231	441.979	436.173	432.187	427.472	430.525	420.701
72.5	377.228	379.553	377.608	372.656	368.859	366.629	365.094	361.962	364.667	357.358
75.0	303.681	306.228	304.931	302.684	301.134	301.751	300.216	298.666	298.808	294.869
77.5	231.542	235.196	236.636	236.999	238.819	239.119	238.676	239.009	238.534	237.332
80.0	166.980	169.970	171.331	174.495	176.836	180.554	182.199	182.816	183.227	182.515
82.5	106.896	108.288	112.322	118.935	122.558	126.956	129.661	132.540	133.252	133.157
85.0	54.816	56.636	63.138	69.165	74.465	80.903	84.416	87.485	88.212	88.703
87.5	15.551	18.509	25.170	31.165	37.636	42.651	48.267	51.051	52.475	53.171
90.0	0.095	2.863	7.910	13.985	19.490	24.584	29.378	32.099	34.757	35.342

Vert. Angles **Horizontal Angles**

	<u>100</u>	<u>110</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>160</u>	<u>170</u>	<u>180</u>	<u>190</u>
0.0	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658
2.5	2190.769	2182.828	2179.427	2169.381	2168.511	2178.367	2185.897	2195.262	2192.968	2193.032
5.0	2172.244	2166.897	2163.512	2154.194	2153.940	2162.974	2172.814	2182.670	2182.844	2183.445
7.5	2145.635	2141.142	2136.823	2129.973	2129.957	2140.509	2151.789	2161.819	2167.261	2165.853
10.0	2109.154	2107.256	2103.332	2097.242	2099.931	2108.980	2124.041	2135.257	2143.309	2141.996
12.5	2066.060	2065.269	2062.105	2057.233	2062.390	2072.689	2089.790	2102.431	2110.515	2110.135
15.0	2016.686	2015.183	2014.930	2011.924	2017.999	2032.886	2047.804	2061.314	2072.104	2070.965
17.5	1959.560	1958.548	1959.924	1958.738	1967.106	1983.227	2002.306	2015.421	2028.678	2027.934
20.0	1897.862	1898.210	1900.314	1900.646	1910.676	1928.474	1948.803	1963.689	1981.202	1978.861
22.5	1829.124	1828.650	1834.962	1836.022	1851.699	1868.785	1891.154	1907.465	1927.572	1924.076
25.0	1758.535	1758.741	1766.477	1770.875	1785.588	1807.815	1828.270	1845.419	1867.124	1865.874
27.5	1685.162	1684.751	1693.832	1700.128	1715.552	1737.083	1764.136	1776.713	1801.344	1800.015
30.0	1607.312	1608.847	1617.690	1625.995	1642.559	1665.846	1692.060	1706.314	1732.306	1732.559

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CANDELA TABULATION - (Cont.)

32.5	1526.045	1531.344	1539.239	1549.063	1566.765	1591.539	1618.006	1632.561	1660.072	1661.274
35.0	1446.692	1453.368	1461.183	1472.178	1490.529	1515.224	1542.244	1555.881	1586.556	1587.838
37.5	1369.601	1373.192	1383.380	1396.305	1412.932	1437.105	1460.518	1477.794	1508.263	1506.539
40.0	1290.564	1293.190	1304.960	1317.331	1334.053	1356.628	1381.497	1397.634	1427.597	1426.236
42.5	1211.796	1213.679	1225.259	1237.978	1252.485	1276.389	1298.901	1316.667	1347.057	1343.814
45.0	1132.649	1135.765	1145.336	1157.233	1172.183	1196.071	1216.859	1235.052	1265.695	1262.768
47.5	1056.982	1059.940	1069.021	1081.534	1092.751	1118.253	1135.085	1151.364	1185.472	1181.881
50.0	980.270	984.431	994.603	1004.190	1014.900	1036.637	1055.384	1067.992	1102.749	1098.398
52.5	909.175	910.394	918.557	928.966	939.407	957.094	974.512	988.971	1018.428	1015.169
55.0	832.433	838.808	844.424	852.777	863.456	879.418	894.115	907.293	935.721	932.874
57.5	762.192	766.732	770.545	780.749	789.956	803.261	815.806	825.946	857.697	854.027
60.0	691.745	694.688	699.323	708.024	715.064	727.514	736.785	746.103	777.395	773.693
62.5	623.340	623.355	627.864	634.050	640.963	650.677	659.520	667.367	697.409	695.542
65.0	555.187	555.155	558.936	564.473	568.982	576.971	583.948	588.457	616.933	614.797
67.5	487.288	486.433	487.509	494.154	497.523	502.491	507.727	513.058	538.165	536.678
70.0	420.638	419.926	420.812	423.834	424.783	431.601	433.247	435.493	462.466	461.343
72.5	356.409	354.779	355.475	355.823	355.823	357.753	360.823	359.889	385.945	388.033
75.0	295.296	292.306	291.499	291.135	288.905	288.715	289.743	289.791	315.214	315.024
77.5	234.880	234.579	231.304	228.267	227.207	224.201	223.204	222.698	243.122	243.723
80.0	179.873	179.003	175.365	171.157	167.043	164.212	161.396	159.086	177.738	178.450
82.5	131.686	128.474	124.899	121.023	115.122	110.139	105.409	100.995	117.084	119.283
85.0	87.659	83.719	81.299	75.240	69.529	63.391	57.205	52.222	64.641	67.757
87.5	51.874	48.868	45.340	40.246	33.966	28.255	21.373	16.374	23.714	26.815
90.0	34.314	32.051	32.099	24.236	19.411	13.463	8.306	3.196	1.487	4.873

**Vert.
Angles**

Horizontal Angles

	<u>200</u>	<u>210</u>	<u>220</u>	<u>230</u>	<u>240</u>	<u>250</u>	<u>260</u>	<u>270</u>	<u>280</u>	<u>290</u>
0.0	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658
2.5	2192.905	2198.553	2202.634	2207.903	2202.476	2199.787	2199.391	2195.990	2193.744	2187.416
5.0	2182.116	2187.115	2191.734	2196.338	2191.339	2187.115	2187.495	2184.299	2182.796	2176.927
7.5	2165.442	2170.077	2174.696	2177.576	2171.469	2166.644	2167.704	2164.730	2163.543	2157.547
10.0	2141.316	2143.483	2148.166	2147.992	2142.518	2136.206	2135.210	2135.811	2132.489	2112.840
12.5	2107.888	2109.360	2110.499	2110.562	2103.712	2094.679	2093.999	2092.306	2090.771	2067.294
15.0	2069.224	2067.627	2067.105	2062.817	2054.876	2045.827	2041.840	2042.156	2038.850	2021.733
17.5	2024.470	2021.590	2018.885	2011.386	2001.515	1989.840	1987.704	1985.046	1984.176	1976.187
20.0	1974.684	1970.444	1964.053	1954.703	1942.759	1930.198	1925.341	1923.206	1922.668	1928.474
22.5	1918.254	1912.511	1902.877	1891.392	1877.976	1862.789	1858.012	1855.085	1856.556	1861.603
25.0	1855.164	1847.729	1836.117	1822.069	1804.508	1791.140	1784.243	1780.367	1782.898	1788.324
27.5	1787.597	1777.978	1764.136	1746.702	1727.829	1711.819	1705.886	1700.175	1705.222	1709.652
30.0	1716.644	1707.753	1691.680	1671.225	1647.700	1633.320	1627.277	1621.930	1627.878	1631.754
32.5	1644.157	1633.494	1616.662	1593.295	1569.202	1554.505	1547.196	1543.004	1549.632	1555.691
35.0	1566.053	1555.723	1536.739	1516.363	1490.940	1474.566	1467.131	1462.021	1470.026	1477.715
37.5	1488.172	1475.436	1456.120	1431.046	1406.841	1391.053	1383.522	1380.611	1386.101	1397.681
40.0	1405.828	1396.558	1373.920	1348.323	1321.476	1306.574	1302.334	1297.066	1303.805	1313.519
42.5	1325.526	1315.148	1291.339	1265.363	1243.499	1224.769	1219.516	1218.267	1221.937	1234.102
45.0	1245.145	1234.862	1210.483	1184.380	1165.665	1149.291	1141.476	1140.749	1144.071	1156.474
47.5	1164.494	1151.870	1130.703	1105.960	1089.935	1073.624	1064.749	1068.040	1067.280	1080.759
50.0	1084.920	1068.530	1048.945	1025.073	1011.784	997.467	988.987	989.699	991.898	1003.352
52.5	1002.593	987.453	967.820	945.387	932.953	921.167	913.510	912.672	916.136	925.850
55.0	922.069	907.578	888.926	866.683	855.862	846.781	839.488	840.438	843.079	850.546
57.5	842.114	828.826	811.882	796.047	785.748	776.525	771.779	770.592	775.607	781.287
60.0	765.609	752.004	737.386	723.211	713.814	709.179	705.145	703.515	706.869	713.593
62.5	685.860	675.198	662.225	652.069	643.494	639.761	638.052	635.205	641.074	643.890
65.0	607.425	598.597	588.219	580.942	572.953	570.881	569.125	566.403	571.656	574.867
67.5	529.527	523.974	515.526	509.167	503.646	502.016	501.399	500.339	504.136	507.379

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70.0	456.328	451.186	444.890	440.919	438.214	436.078	436.774	437.597	439.100	443.166
72.5	383.477	380.993	376.405	375.583	373.969	372.688	374.301	375.788	377.038	379.822
75.0	311.164	311.005	310.404	311.622	311.353	312.050	313.742	314.011	316.068	317.507
77.5	243.881	244.182	246.143	248.485	251.158	252.598	254.117	257.122	257.882	258.641
80.0	178.545	183.322	186.866	191.390	195.709	197.054	199.633	201.689	202.876	202.322
82.5	121.941	128.933	134.264	138.362	143.930	147.126	149.562	152.030	152.283	150.986
85.0	73.563	80.524	86.868	91.867	98.922	103.257	105.583	106.943	107.703	105.867
87.5	33.475	40.879	48.045	55.259	60.780	65.954	68.912	69.956	70.098	67.725
90.0	11.770	18.525	26.673	33.111	38.664	42.319	45.751	47.033	46.558	45.071

**Vert.
Angles**

Horizontal Angles

	<u>300</u>	<u>310</u>	<u>320</u>	<u>330</u>	<u>340</u>	<u>350</u>	<u>360</u>
0.0	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658	2195.658
2.5	2183.777	2174.570	2173.842	2183.081	2190.501	2198.411	2194.092
5.0	2173.415	2165.537	2166.248	2175.029	2182.907	2190.611	2185.138
7.5	2154.795	2148.957	2152.248	2161.344	2170.314	2177.829	2169.064
10.0	2127.790	2126.366	2128.581	2138.516	2149.606	2156.709	2146.647
12.5	2089.727	2089.917	2094.252	2106.275	2119.516	2128.834	2116.906
15.0	2043.912	2045.985	2052.977	2067.105	2081.817	2093.018	2079.539
17.5	1992.735	1996.326	2006.023	2021.843	2039.261	2051.601	2036.461
20.0	1937.222	1941.383	1954.640	1971.520	1991.706	2005.312	1988.542
22.5	1873.531	1881.045	1895.283	1916.213	1936.748	1951.903	1931.812
25.0	1802.246	1812.197	1830.975	1853.645	1877.296	1891.597	1870.335
27.5	1726.848	1738.729	1760.054	1784.654	1810.472	1826.055	1806.502
30.0	1650.390	1663.821	1689.339	1715.616	1742.352	1756.447	1737.653
32.5	1573.299	1590.131	1613.719	1643.271	1669.406	1684.292	1663.568
35.0	1491.351	1514.449	1537.989	1568.411	1595.621	1611.457	1587.284
37.5	1411.777	1432.548	1457.781	1490.291	1516.300	1534.192	1508.421
40.0	1328.390	1350.095	1375.739	1407.047	1434.431	1453.652	1431.821
42.5	1247.992	1270.283	1295.073	1325.241	1353.259	1371.815	1349.209
45.0	1170.095	1194.347	1216.289	1246.458	1272.102	1288.871	1263.733
47.5	1092.672	1117.240	1137.616	1167.168	1192.907	1208.901	1182.972
50.0	1015.755	1036.384	1055.352	1083.923	1108.175	1123.505	1099.870
52.5	937.620	956.335	975.461	1001.675	1025.895	1039.896	1017.321
55.0	864.025	879.655	896.741	920.756	941.844	956.857	932.494
57.5	792.487	806.076	821.485	842.494	863.740	876.776	850.278
60.0	724.445	733.637	747.985	767.143	782.900	797.992	768.346
62.5	654.030	661.308	673.584	689.594	705.398	715.808	688.613
65.0	583.647	587.381	599.119	611.190	625.792	634.018	607.456
67.5	513.138	516.634	524.765	535.808	547.356	552.877	528.625
70.0	445.602	450.791	457.435	463.526	473.239	476.641	452.848
72.5	380.076	384.379	387.954	392.621	398.553	401.274	377.228
75.0	318.109	319.833	321.731	324.769	327.411	327.806	303.681
77.5	257.724	258.388	257.518	257.645	257.059	257.217	231.542
80.0	200.329	199.886	196.769	193.842	192.292	189.492	166.980
82.5	147.727	146.129	141.636	137.365	132.318	129.249	106.896
85.0	103.336	99.049	92.689	86.314	80.413	76.300	54.816
87.5	65.827	59.183	54.136	45.862	38.522	33.349	15.551
90.0	40.926	35.975	30.295	22.369	15.045	7.609	0.095

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	783.67	N.A.	14.80
0-30	1619.4	N.A.	30.60
0-40	2568.49	N.A.	48.60
0-60	4282.85	N.A.	81.00
0-80	5188.42	N.A.	98.20
0-90	5286.19	N.A.	100.00
10-90	5079.66	N.A.	96.10
20-40	1784.81	N.A.	33.80
20-50	2708.87	N.A.	51.20
40-70	2294.17	N.A.	43.40
60-80	905.57	N.A.	17.10
70-80	325.77	N.A.	6.20
80-90	97.76	N.A.	1.80
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	5286.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	206.53
10-20	577.14
20-30	835.73
30-40	949.09
40-50	924.05
50-60	790.31
60-70	579.80
70-80	325.77
80-90	97.76
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

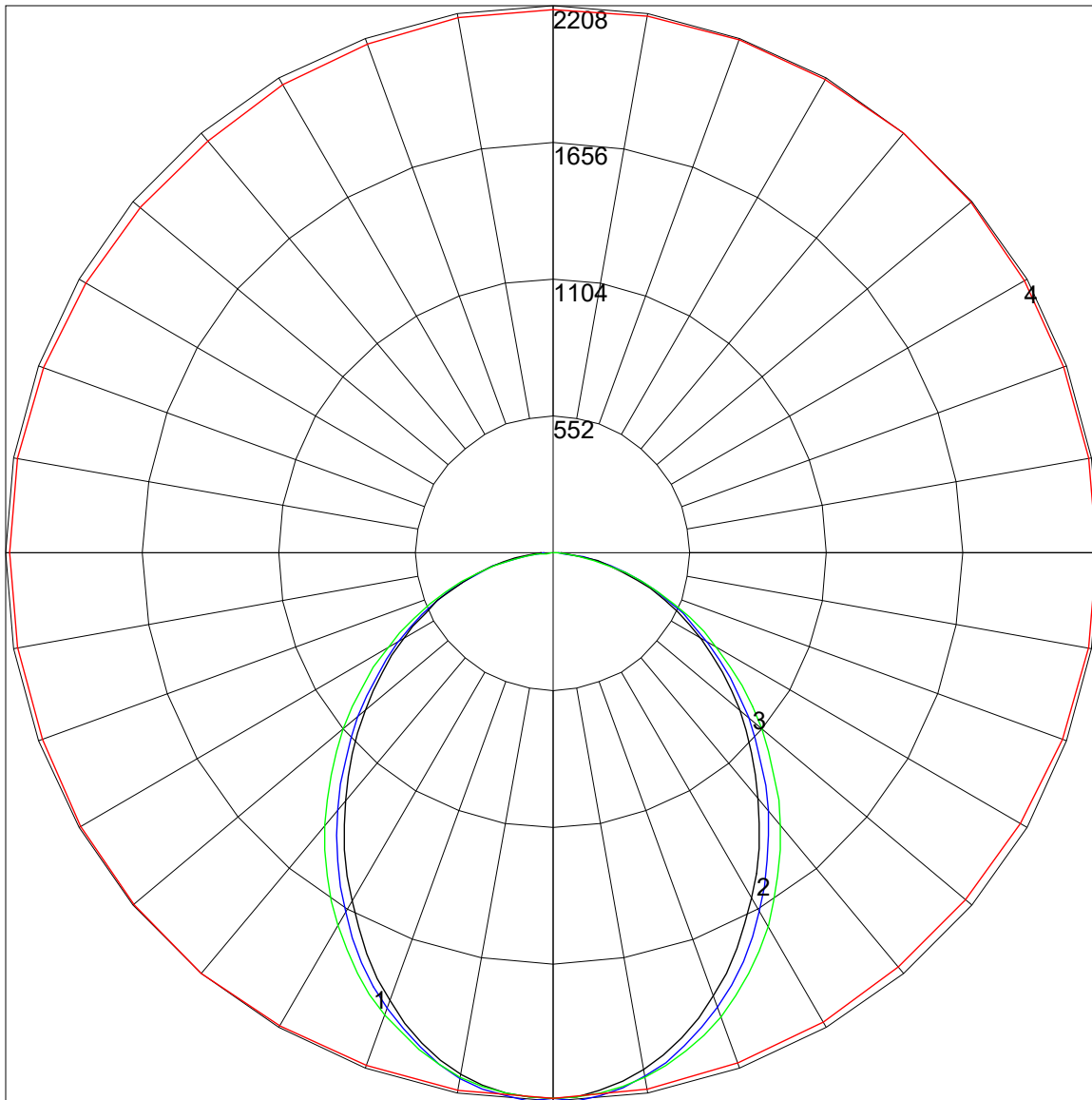
IES INDOOR REPORT
PHOTOMETRIC FILENAME : TRSD48H40.IES

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	97	106	102	98	95	98	95	92	94	92	89	90	88	87	84
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	60
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	59	54	52
5	77	65	56	49	75	63	55	49	61	54	49	59	53	48	58	52	48	45
6	71	58	50	43	70	57	49	43	56	48	43	54	47	42	52	47	42	40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 2207.903 Located At Horizontal Angle = 230, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (230 - 50) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (90 - 270)
3 - Vertical Plane Through Horizontal Angles (0 - 180)
4 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)