



IES INDOOR REPORT
PHOTOMETRIC FILENAME : TRSD48M40.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] 8,389P28
 [TESTLAB] CSA Group
 [ISSUEDATE] 09/15/2019 01:21:43 PM
 [MANUFAC] LAMAR LIGHTING CO., INC.
 [LUMINAIRE] TRSD48M-40/TRWD48M-40
 [AMBIENT] 24.6 deg C
 [POWERFACTOR] 0.9973
 [ATHD] 5.35%
 [CURRENT] 0.2703
 [VOLTAGE] 120.00
 [STABILIZATION] 23:22.1 Stable
 [POWER VARIATION] 0.36 %
 [LIGHT VARIATION] 0.40 %
 [Lumens] 3,641

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3641
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	32.43
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	10570	10040	9487
55	9615	9128	8640
65	8501	8153	7775
75	6939	6888	6738
85	3720	5271	6019

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	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395
2.5	1511.316	1512.155	1511.850	1514.541	1517.091	1520.698	1517.124	1514.650	1513.354	1510.117
5.0	1505.148	1504.854	1504.494	1506.325	1508.657	1510.825	1507.698	1504.135	1501.661	1498.653
7.5	1494.077	1492.627	1492.508	1493.009	1494.458	1495.363	1490.829	1485.839	1483.180	1480.248
10.0	1478.636	1475.977	1475.072	1474.844	1474.942	1474.048	1468.087	1462.606	1459.315	1456.711
12.5	1458.149	1455.512	1452.755	1451.742	1450.925	1448.571	1441.259	1433.882	1430.297	1426.842
15.0	1432.411	1429.479	1426.254	1424.587	1420.860	1417.024	1409.331	1400.461	1395.481	1392.288
17.5	1402.738	1399.611	1395.056	1392.266	1387.362	1381.020	1371.344	1361.646	1356.371	1352.209
20.0	1369.731	1366.288	1359.619	1354.802	1349.735	1341.769	1329.238	1320.237	1312.794	1308.392
22.5	1330.654	1328.551	1321.686	1314.505	1308.305	1297.953	1284.985	1274.088	1266.144	1261.840
25.0	1288.309	1286.729	1279.602	1271.375	1261.992	1251.237	1237.420	1225.422	1217.914	1211.637
27.5	1244.339	1242.487	1233.824	1224.768	1215.658	1201.242	1187.272	1174.370	1165.674	1160.650
30.0	1196.916	1195.379	1185.626	1176.233	1164.704	1149.841	1133.811	1120.637	1113.227	1106.841
32.5	1145.885	1144.512	1134.923	1125.039	1112.595	1096.674	1079.849	1065.945	1059.047	1053.075
35.0	1093.340	1093.514	1080.754	1072.494	1058.436	1042.211	1024.688	1011.786	1004.050	999.037
37.5	1039.018	1038.974	1028.284	1018.477	1002.328	985.786	970.759	957.541	950.240	945.271
40.0	986.255	984.958	973.440	963.055	947.472	931.247	914.890	901.966	894.883	890.143
42.5	929.351	928.468	916.743	906.478	890.982	875.519	859.261	847.808	840.104	834.994
45.0	870.474	871.237	860.351	850.020	834.830	818.910	803.338	793.716	786.164	781.282
47.5	814.845	812.916	803.665	793.225	779.735	764.980	750.847	740.865	733.346	727.102
50.0	757.603	756.274	748.580	736.812	724.040	710.081	698.203	688.058	679.875	676.083
52.5	700.742	699.860	694.008	682.021	670.013	657.013	645.495	635.829	628.822	625.586
55.0	642.313	642.400	637.507	627.831	616.509	603.105	592.971	584.918	579.034	577.170
57.5	585.681	586.215	581.507	572.910	562.841	551.672	540.873	534.618	529.256	526.554
60.0	529.245	529.867	524.582	519.787	508.160	498.810	491.117	484.993	480.449	478.019
62.5	474.325	475.087	470.532	465.182	455.037	447.464	441.198	436.970	433.188	430.530
65.0	418.423	421.245	416.843	412.016	404.420	398.165	392.532	388.783	387.279	382.692
67.5	364.123	367.218	364.646	358.980	354.109	348.562	344.236	341.000	341.915	336.521
70.0	311.927	313.387	311.284	308.058	304.440	300.441	297.695	294.448	296.551	289.784
72.5	259.839	261.441	260.100	256.690	254.074	252.538	251.481	249.323	251.187	246.152
75.0	209.179	210.933	210.040	208.492	207.424	207.849	206.792	205.724	205.823	203.109
77.5	159.488	162.006	162.997	163.248	164.501	164.708	164.403	164.632	164.305	163.477
80.0	115.018	117.077	118.015	120.194	121.807	124.367	125.501	125.926	126.209	125.719
82.5	73.631	74.590	77.369	81.924	84.419	87.448	89.312	91.295	91.785	91.720
85.0	37.758	39.011	43.490	47.642	51.292	55.727	58.146	60.260	60.762	61.099
87.5	10.712	12.749	17.337	21.467	25.924	29.378	33.247	35.165	36.145	36.625
90.0	0.065	1.972	5.448	9.633	13.425	16.934	20.236	22.110	23.941	24.344

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	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395
2.5	1509.027	1503.557	1501.214	1494.295	1493.695	1500.484	1505.671	1512.122	1510.542	1510.586
5.0	1496.267	1492.584	1490.252	1483.834	1483.659	1489.881	1496.659	1503.448	1503.568	1503.982
7.5	1477.938	1474.844	1471.869	1467.150	1467.139	1474.408	1482.177	1489.086	1492.834	1491.865
10.0	1452.810	1451.502	1448.800	1444.604	1446.457	1452.690	1463.064	1470.790	1476.336	1475.432
12.5	1423.126	1422.582	1420.402	1417.046	1420.598	1427.692	1439.472	1448.179	1453.747	1453.485
15.0	1389.117	1388.082	1387.907	1385.837	1390.021	1400.275	1410.551	1419.857	1427.289	1426.504
17.5	1349.768	1349.070	1350.018	1349.201	1354.966	1366.070	1379.211	1388.245	1397.377	1396.865
20.0	1307.269	1307.509	1308.959	1309.187	1316.096	1328.355	1342.358	1352.612	1364.675	1363.062
22.5	1259.922	1259.595	1263.943	1264.673	1275.472	1287.241	1302.649	1313.884	1327.734	1325.326
25.0	1211.300	1211.441	1216.770	1219.799	1229.933	1245.244	1259.334	1271.146	1286.097	1285.236
27.5	1160.759	1160.476	1166.731	1171.068	1181.692	1196.523	1215.157	1223.820	1240.787	1239.872
30.0	1107.135	1108.192	1114.284	1120.005	1131.414	1147.454	1165.510	1175.329	1193.232	1193.407

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CANDELA TABULATION - (Cont.)

32.5	1051.157	1054.808	1060.245	1067.012	1079.206	1096.271	1114.502	1124.527	1143.477	1144.305
35.0	996.498	1001.096	1006.480	1014.053	1026.694	1043.704	1062.316	1071.709	1092.838	1093.721
37.5	943.397	945.870	952.888	961.791	973.244	989.894	1006.022	1017.921	1038.909	1037.721
40.0	888.955	890.764	898.872	907.393	918.911	934.461	951.591	962.706	983.345	982.408
42.5	834.699	835.996	843.973	852.734	862.726	879.192	894.698	906.936	927.869	925.635
45.0	780.182	782.328	788.921	797.116	807.413	823.868	838.186	850.718	871.825	869.809
47.5	728.061	730.099	736.354	744.973	752.699	770.265	781.860	793.073	816.567	814.093
50.0	675.222	678.088	685.094	691.698	699.075	714.048	726.961	735.646	759.586	756.590
52.5	626.251	627.090	632.713	639.883	647.075	659.258	671.255	681.215	701.505	699.260
55.0	573.389	577.781	581.649	587.403	594.758	605.753	615.877	624.954	644.536	642.574
57.5	525.007	528.134	530.760	537.789	544.131	553.295	561.936	568.921	590.792	588.264
60.0	476.482	478.509	481.702	487.695	492.544	501.120	507.506	513.924	535.479	532.929
62.5	429.364	429.374	432.480	436.741	441.503	448.194	454.285	459.690	480.383	479.097
65.0	382.419	382.398	385.002	388.816	391.921	397.424	402.230	405.336	424.950	423.479
67.5	335.649	335.061	335.802	340.379	342.700	346.121	349.728	353.401	370.694	369.670
70.0	289.740	289.250	289.860	291.942	292.595	297.292	298.425	299.973	318.552	317.778
72.5	245.499	244.376	244.856	245.095	245.095	246.425	248.539	247.896	265.843	267.282
75.0	203.403	201.344	200.788	200.537	199.001	198.870	199.579	199.611	217.123	216.992
77.5	161.788	161.581	159.325	157.233	156.503	154.432	153.746	153.397	167.465	167.879
80.0	123.899	123.300	120.793	117.895	115.061	113.111	111.171	109.580	122.428	122.918
82.5	90.707	88.495	86.032	83.362	79.297	75.865	72.607	69.566	80.649	82.163
85.0	60.380	57.667	56.000	51.826	47.892	43.664	39.404	35.971	44.525	46.672
87.5	35.731	33.661	31.231	27.722	23.396	19.462	14.722	11.278	16.335	18.470
90.0	23.636	22.077	22.110	16.694	13.371	9.273	5.721	2.201	1.024	3.356

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	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395
2.5	1510.499	1514.389	1517.200	1520.829	1517.091	1515.239	1514.966	1512.623	1511.076	1506.717
5.0	1503.067	1506.510	1509.692	1512.863	1509.420	1506.510	1506.772	1504.571	1503.535	1499.493
7.5	1491.581	1494.774	1497.956	1499.939	1495.733	1492.410	1493.140	1491.091	1490.274	1486.144
10.0	1474.963	1476.456	1479.682	1479.562	1475.792	1471.444	1470.757	1471.171	1468.883	1455.349
12.5	1451.938	1452.951	1453.736	1453.780	1449.061	1442.839	1442.370	1441.205	1440.147	1423.976
15.0	1425.306	1424.205	1423.846	1420.892	1415.422	1409.189	1406.443	1406.661	1404.384	1392.593
17.5	1394.478	1392.495	1390.632	1385.466	1378.667	1370.625	1369.154	1367.323	1366.724	1361.221
20.0	1360.185	1357.265	1352.863	1346.422	1338.195	1329.543	1326.198	1324.726	1324.356	1328.355
22.5	1321.316	1317.360	1310.724	1302.813	1293.572	1283.111	1279.820	1277.804	1278.817	1282.294
25.0	1277.858	1272.737	1264.738	1255.062	1242.966	1233.758	1229.007	1226.337	1228.081	1231.819
27.5	1231.317	1224.692	1215.157	1203.149	1190.149	1179.121	1175.034	1171.101	1174.577	1177.628
30.0	1182.444	1176.320	1165.249	1151.159	1134.955	1125.050	1120.887	1117.204	1121.301	1123.971
32.5	1132.514	1125.170	1113.575	1097.480	1080.884	1070.761	1065.727	1062.839	1067.405	1071.578
35.0	1078.716	1071.600	1058.524	1044.488	1026.977	1015.698	1010.577	1007.057	1012.571	1017.867
37.5	1025.070	1016.298	1002.993	985.721	969.048	958.173	952.986	950.981	954.762	962.739
40.0	968.351	961.965	946.372	928.740	910.248	899.983	897.063	893.434	898.076	904.767
42.5	913.038	905.889	889.489	871.597	856.537	843.635	840.017	839.156	841.684	850.064
45.0	857.670	850.587	833.795	815.815	802.924	791.645	786.262	785.761	788.049	796.592
47.5	802.117	793.421	778.841	761.798	750.760	739.525	733.412	735.678	735.155	744.439
50.0	747.305	736.016	722.526	706.082	696.929	687.067	681.226	681.716	683.231	691.120
52.5	690.597	680.169	666.646	651.194	642.629	634.511	629.236	628.659	631.045	637.736
55.0	635.132	625.150	612.302	596.981	589.528	583.273	578.249	578.903	580.723	585.866
57.5	580.058	570.905	559.234	548.326	541.232	534.879	531.610	530.793	534.247	538.159
60.0	527.360	517.989	507.920	498.156	491.684	488.491	485.712	484.590	486.900	491.531
62.5	472.429	465.084	456.148	449.153	443.246	440.675	439.498	437.536	441.579	443.519
65.0	418.401	412.321	405.172	400.160	394.657	393.229	392.020	390.145	393.763	395.975
67.5	364.744	360.920	355.101	350.720	346.917	345.794	345.370	344.639	347.255	349.489

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CANDELA TABULATION - (Cont.)

70.0	314.324	310.782	306.445	303.710	301.847	300.376	300.855	301.422	302.457	305.258
72.5	264.143	262.432	259.272	258.706	257.594	256.712	257.823	258.847	259.708	261.626
75.0	214.333	214.224	213.810	214.649	214.464	214.943	216.109	216.295	217.711	218.703
77.5	167.988	168.195	169.546	171.159	173.001	173.992	175.039	177.109	177.632	178.155
80.0	122.984	126.274	128.715	131.832	134.807	135.733	137.509	138.926	139.743	139.362
82.5	83.994	88.811	92.483	95.305	99.141	101.342	103.020	104.720	104.895	104.001
85.0	50.671	55.466	59.835	63.279	68.139	71.125	72.727	73.664	74.187	72.923
87.5	23.058	28.158	33.094	38.063	41.866	45.430	47.467	48.187	48.285	46.650
90.0	8.107	12.760	18.372	22.807	26.632	29.149	31.514	32.397	32.070	31.046

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	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395	1512.395
2.5	1504.211	1497.869	1497.368	1503.731	1508.842	1514.291	1511.316
5.0	1497.073	1491.647	1492.137	1498.185	1503.612	1508.918	1505.148
7.5	1484.248	1480.227	1482.493	1488.759	1494.938	1500.114	1494.077
10.0	1465.646	1464.666	1466.191	1473.035	1480.673	1485.566	1478.636
12.5	1439.428	1439.559	1442.545	1450.827	1459.947	1466.366	1458.149
15.0	1407.871	1409.298	1414.115	1423.846	1433.980	1441.695	1432.411
17.5	1372.619	1375.092	1381.772	1392.669	1404.667	1413.167	1402.738
20.0	1334.381	1337.247	1346.379	1358.006	1371.910	1381.282	1369.731
22.5	1290.510	1295.686	1305.493	1319.910	1334.054	1344.494	1330.654
25.0	1241.408	1248.262	1261.197	1276.812	1293.103	1302.954	1288.309
27.5	1189.473	1197.657	1212.346	1229.291	1247.074	1257.808	1244.339
30.0	1136.808	1146.059	1163.636	1181.736	1200.152	1209.861	1196.916
32.5	1083.707	1095.301	1111.548	1131.904	1149.906	1160.160	1145.885
35.0	1027.260	1043.170	1059.385	1080.339	1099.082	1109.990	1093.340
37.5	972.448	986.756	1004.137	1026.530	1044.445	1056.769	1039.018
40.0	915.010	929.961	947.625	969.190	988.053	1001.293	986.255
42.5	859.632	874.985	892.061	912.842	932.140	944.922	929.351
45.0	805.975	822.680	837.794	858.575	876.239	887.789	870.474
47.5	752.645	769.568	783.603	803.959	821.688	832.705	814.845
50.0	699.664	713.873	726.939	746.619	763.324	773.883	757.603
52.5	645.843	658.735	671.909	689.965	706.649	716.292	700.742
55.0	595.151	605.917	617.686	634.227	648.753	659.094	642.313
57.5	545.874	555.235	565.849	580.320	594.954	603.934	585.681
60.0	499.006	505.337	515.221	528.417	539.271	549.666	529.245
62.5	450.504	455.516	463.972	475.000	485.886	493.057	474.325
65.0	402.023	404.595	412.680	420.995	431.053	436.719	418.423
67.5	353.455	355.863	361.464	369.070	377.025	380.828	364.123
70.0	306.936	310.510	315.087	319.282	325.973	328.316	311.927
72.5	261.800	264.764	267.227	270.442	274.528	276.402	259.839
75.0	219.117	220.305	221.612	223.705	225.524	225.797	209.179
77.5	177.523	177.981	177.381	177.469	177.065	177.174	159.488
80.0	137.989	137.684	135.537	133.521	132.453	130.524	115.018
82.5	101.756	100.656	97.561	94.619	91.143	89.028	73.631
85.0	71.179	68.226	63.846	59.454	55.389	52.556	37.758
87.5	45.342	40.766	37.290	31.590	26.534	22.971	10.712
90.0	28.191	24.780	20.868	15.408	10.363	5.241	0.065

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	539.80	N.A.	14.80
0-30	1115.46	N.A.	30.60
0-40	1769.2	N.A.	48.60
0-60	2950.08	N.A.	81.00
0-80	3573.85	N.A.	98.20
0-90	3641.19	N.A.	100.00
10-90	3498.93	N.A.	96.10
20-40	1229.4	N.A.	33.80
20-50	1865.9	N.A.	51.20
40-70	1580.25	N.A.	43.40
60-80	623.77	N.A.	17.10
70-80	224.40	N.A.	6.20
80-90	67.34	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	3641.19	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	142.26
10-20	397.54
20-30	575.66
30-40	653.74
40-50	636.50
50-60	544.38
60-70	399.37
70-80	224.40
80-90	67.34
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

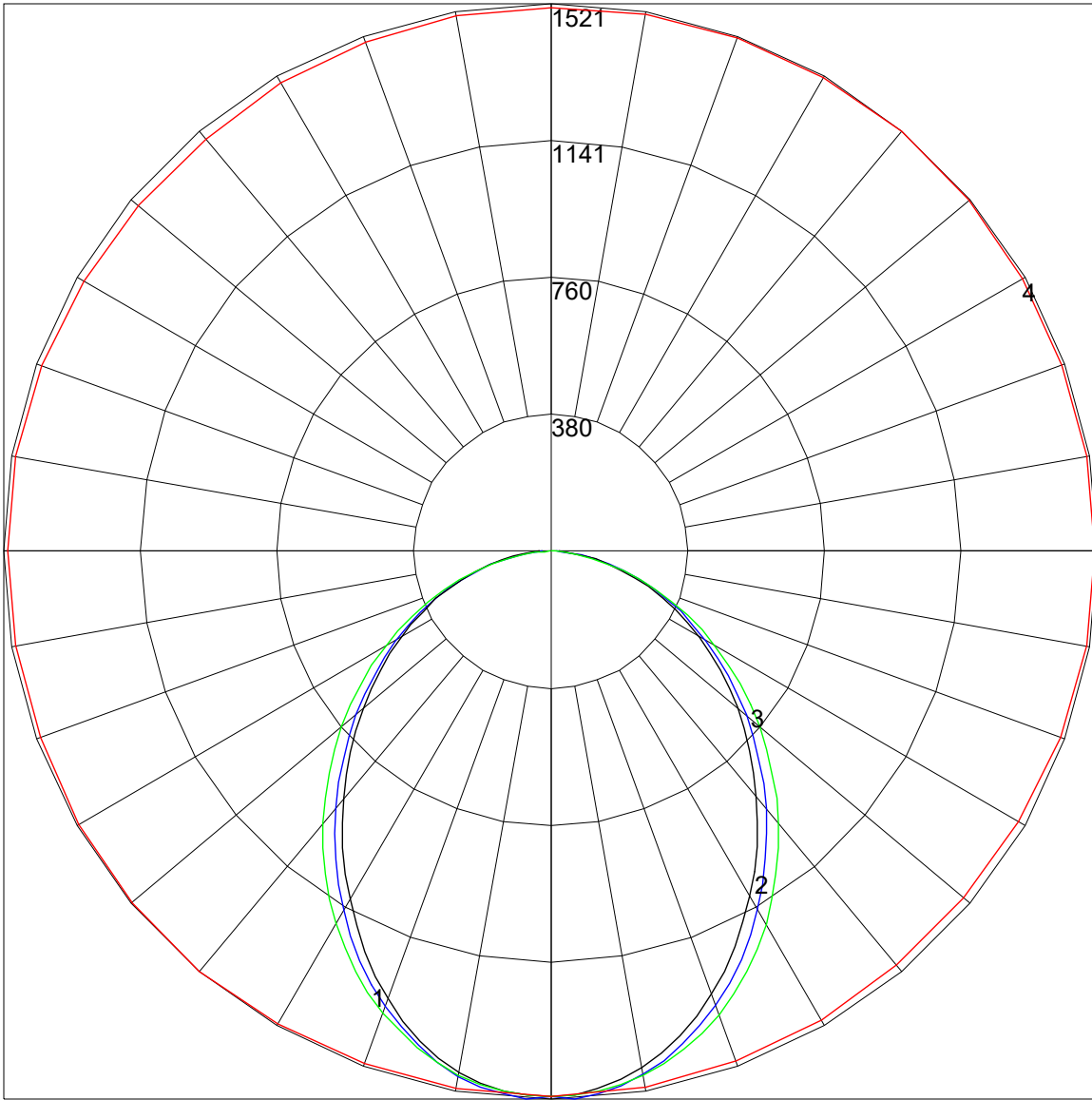
IES INDOOR REPORT
PHOTOMETRIC FILENAME : TRSD48M40.IES

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	57	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 = 1520.829 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.)