



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : NLSR48HRA40.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] 8,387P  
 [TESTLAB] CSA Group  
 [ISSUEDATE] 10/28/2015 1:28:10 PM  
 [MANUFAC] LAMAR LIGHTING CO., INC.  
 [LUMINAIRE] NLSR48HRA40  
 [\_ AMBIENT] 24.6 deg C  
 [\_ POWERFACTOR] 0.9954  
 [\_ATHD] 4.93%  
 [\_CURRENT] 0.42386  
 [\_VOLTAGE] 120.05  
 [\_STABILIZATION] 35:23.2 Stable  
 [\_POWER VARIATION] 0.24 %  
 [\_LIGHT VARIATION] 0.48 %  
 [\_Lumens] 5,343

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5343
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	50.8
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.38
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.16 ft
Luminous Width (90-270)	3.75 ft
Luminous Height	0.10 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	12035	17027	28809
55	9126	15190	30397
65	6424	13416	32943
75	3754	11891	39480
85	1148	10849	71858

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**CANDELA TABULATION**

	<b>0</b>	<b>10</b>	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>	<b>70</b>	<b>80</b>	<b>90</b>
<b>0.0</b>	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716
<b>2.5</b>	1444.281	1443.321	1441.717	1443.705	1446.558	1450.343	1447.115	1444.272	1443.215	1441.909
<b>5.0</b>	1436.270	1434.089	1433.379	1436.251	1441.342	1444.521	1442.226	1440.045	1439.843	1438.393
<b>7.5</b>	1423.148	1421.227	1420.775	1424.954	1430.698	1435.521	1435.088	1434.522	1434.983	1434.368
<b>10.0</b>	1404.897	1403.763	1404.263	1409.825	1417.884	1424.714	1425.751	1427.673	1429.709	1429.171
<b>12.5</b>	1382.736	1381.631	1382.332	1390.171	1401.170	1410.747	1415.502	1419.238	1422.889	1423.321
<b>15.0</b>	1355.013	1354.946	1357.001	1367.481	1381.823	1394.522	1402.409	1409.479	1414.397	1415.502
<b>17.5</b>	1323.909	1324.350	1327.741	1341.497	1359.307	1377.020	1387.568	1397.097	1404.061	1406.318
<b>20.0</b>	1287.886	1290.143	1295.292	1312.689	1334.466	1355.810	1371.122	1383.197	1392.851	1395.262
<b>22.5</b>	1248.453	1251.739	1258.818	1281.479	1307.156	1332.890	1351.920	1367.501	1378.980	1381.910
<b>25.0</b>	1204.900	1209.760	1219.549	1246.234	1276.983	1306.656	1329.960	1349.605	1363.053	1366.943
<b>27.5</b>	1157.917	1165.410	1178.310	1208.233	1244.035	1277.713	1306.022	1329.461	1344.533	1349.797
<b>30.0</b>	1109.676	1117.812	1134.075	1168.868	1208.127	1247.839	1279.740	1306.829	1325.138	1331.132
<b>32.5</b>	1059.494	1066.045	1087.505	1126.697	1171.240	1215.149	1251.921	1282.622	1302.650	1309.653
<b>35.0</b>	1005.537	1014.086	1037.688	1081.847	1131.241	1179.665	1222.181	1256.657	1278.424	1286.195
<b>37.5</b>	950.677	961.176	987.334	1035.335	1091.395	1143.441	1190.289	1229.203	1252.536	1259.721
<b>40.0</b>	896.249	906.768	938.881	990.071	1047.333	1106.698	1157.081	1198.137	1223.238	1231.921
<b>42.5</b>	840.141	852.139	889.669	941.878	1003.741	1067.303	1122.663	1165.515	1193.459	1201.855
<b>45.0</b>	783.456	797.730	833.762	893.858	959.687	1027.717	1086.650	1131.520	1159.435	1168.090
<b>47.5</b>	728.509	741.698	782.341	844.463	914.309	986.286	1047.506	1094.805	1124.277	1133.393
<b>50.0</b>	672.391	687.377	731.132	795.732	868.978	944.289	1007.612	1056.823	1085.007	1095.074
<b>52.5</b>	617.128	634.803	680.403	748.144	824.291	899.900	966.421	1015.633	1045.344	1054.739
<b>55.0</b>	563.142	581.077	629.827	700.172	779.834	857.816	924.078	973.443	1001.781	1011.310
<b>57.5</b>	510.991	530.261	579.568	652.641	734.004	812.937	880.351	929.688	957.075	966.037
<b>60.0</b>	460.896	480.896	532.874	607.291	688.923	768.941	836.308	885.270	910.995	919.477
<b>62.5</b>	410.762	432.741	486.563	562.768	644.774	725.176	791.467	837.441	863.022	871.754
<b>65.0</b>	362.627	384.855	442.760	519.454	601.566	681.363	746.646	790.737	815.645	822.984
<b>67.5</b>	313.876	339.140	399.888	478.264	560.155	639.356	702.103	744.340	765.838	772.303
<b>70.0</b>	269.496	296.768	358.477	437.813	518.993	596.677	657.002	697.713	718.068	724.148
<b>72.5</b>	225.962	255.376	319.601	399.590	481.232	555.621	612.709	650.691	669.250	675.417
<b>75.0</b>	185.732	216.961	283.828	362.771	442.971	514.709	570.164	606.052	624.380	629.126
<b>77.5</b>	146.684	180.026	249.401	327.372	407.688	477.601	528.916	562.345	577.686	583.171
<b>80.0</b>	110.594	147.212	216.538	295.423	373.126	439.686	489.599	519.483	534.728	538.522
<b>82.5</b>	77.559	117.568	188.479	266.125	340.667	405.364	452.154	481.530	493.652	497.745
<b>85.0</b>	47.050	92.198	163.052	239.036	310.860	372.607	416.660	444.508	456.093	460.195
<b>87.5</b>	18.376	71.104	140.901	214.319	282.829	340.792	382.934	408.111	420.570	424.163
<b>90.0</b>	0.375	54.312	120.997	191.649	257.441	312.829	352.531	375.412	386.891	389.994
<b>92.5</b>	0.346	43.477	104.062	170.968	233.224	285.788	322.685	345.653	356.498	359.601
<b>95.0</b>	0.192	33.275	90.095	152.879	211.246	261.005	296.384	317.305	328.247	330.907
<b>97.5</b>	0.125	26.292	78.020	136.146	191.678	238.027	271.110	291.513	301.772	305.144
<b>100.0</b>	0.029	21.892	68.059	122.169	173.513	217.000	248.507	268.219	277.565	280.687
<b>102.5</b>	0.163	18.367	59.250	108.913	157.020	197.989	227.528	245.904	255.414	258.036
<b>105.0</b>	0.000	15.908	52.362	97.328	141.861	180.189	208.421	226.644	235.357	238.431
<b>107.5</b>	0.029	13.958	46.243	87.415	128.634	164.080	190.669	207.605	216.875	220.112
<b>110.0</b>	0.000	11.239	41.171	78.529	116.300	149.825	175.021	190.679	200.035	202.956
<b>112.5</b>	0.010	7.253	36.724	70.566	105.243	136.424	160.046	175.550	184.224	186.981
<b>115.0</b>	0.019	4.669	33.121	63.265	95.292	123.908	146.002	161.179	169.632	172.034
<b>117.5</b>	0.000	3.842	29.807	57.213	86.070	112.554	133.543	147.865	155.944	158.345
<b>120.0</b>	0.096	3.372	26.849	51.844	78.106	102.650	121.881	135.377	143.437	145.656
<b>122.5</b>	0.240	2.978	24.159	46.647	70.863	93.034	111.295	124.052	131.304	134.407
<b>125.0</b>	0.432	2.574	20.960	42.065	63.697	84.312	101.286	112.880	120.104	122.400
<b>127.5</b>	0.480	2.498	16.090	38.338	57.636	76.521	91.987	103.168	109.720	112.256
<b>130.0</b>	0.480	2.421	11.172	34.380	51.978	69.182	83.130	93.418	99.941	102.275
<b>132.5</b>	0.711	2.017	7.781	30.826	46.964	62.256	75.205	84.331	90.613	92.832

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135.0	0.951	1.768	6.647	27.291	41.978	56.147	67.838	76.406	81.776	83.563
137.5	0.941	1.354	6.157	21.421	37.223	50.105	60.575	68.683	73.813	75.215
140.0	0.970	1.182	5.178	15.005	33.198	44.303	54.274	61.430	66.060	67.213
142.5	1.326	1.441	5.005	10.269	28.751	39.519	48.395	54.831	58.952	59.893
145.0	1.460	1.422	4.563	8.204	22.027	34.908	42.622	48.731	52.247	52.910
147.5	1.652	1.671	4.054	7.185	14.649	29.279	37.233	42.430	45.677	45.504
150.0	1.719	1.710	3.381	6.388	9.596	20.931	31.748	36.829	39.461	39.644
152.5	1.777	1.835	2.805	5.581	8.155	13.160	23.179	30.288	33.621	33.314
155.0	1.835	1.892	2.267	4.851	7.205	9.241	14.284	20.682	25.004	24.841
157.5	2.027	2.075	2.075	4.102	6.004	7.819	9.587	12.104	14.976	15.840
160.0	2.161	2.152	2.161	3.381	5.130	6.532	7.925	9.058	9.596	9.933
162.5	2.296	2.229	2.229	2.498	3.852	5.283	6.340	7.224	7.762	8.107
165.0	2.402	2.257	2.229	2.190	2.978	4.054	5.034	5.696	6.052	6.302
167.5	2.277	2.690	2.344	2.248	2.267	2.690	3.842	4.169	4.572	4.054
170.0	2.651	2.450	2.421	2.392	2.344	2.392	2.478	2.834	3.103	2.565
172.5	2.469	2.498	2.613	2.613	2.498	2.555	2.402	2.507	2.488	2.450
175.0	2.776	2.670	2.805	2.728	2.767	2.882	2.757	2.747	2.699	2.690
177.5	3.266	3.237	3.026	3.074	3.045	2.872	2.949	2.949	2.959	2.987
180.0	3.084	3.084	3.084	3.084	3.084	3.084	3.084	3.084	3.084	3.084

**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	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716
2.5	1439.094	1436.116	1432.485	1427.884	1426.981	1432.629	1438.268	1445.050	1446.414	1446.183
5.0	1435.598	1432.677	1429.094	1423.292	1421.371	1426.539	1431.794	1437.941	1440.679	1440.304
7.5	1431.899	1427.894	1422.687	1415.896	1413.158	1416.943	1420.747	1426.260	1430.189	1430.026
10.0	1426.462	1421.803	1415.089	1406.443	1400.929	1402.976	1405.973	1411.025	1414.599	1416.011
12.5	1420.218	1414.176	1405.780	1394.032	1385.838	1385.358	1386.597	1390.094	1395.118	1397.010
15.0	1412.005	1404.186	1393.840	1379.287	1368.058	1363.898	1362.323	1363.197	1369.575	1372.611
17.5	1402.322	1393.302	1380.296	1361.737	1347.837	1337.684	1334.302	1334.312	1341.094	1344.725
20.0	1390.526	1379.969	1364.196	1342.592	1323.659	1310.566	1302.871	1300.508	1307.915	1311.402
22.5	1376.914	1364.513	1345.877	1320.229	1296.781	1279.001	1267.886	1263.026	1269.663	1274.524
25.0	1361.506	1346.367	1324.984	1295.350	1267.435	1244.630	1227.714	1220.798	1228.483	1234.285
27.5	1342.890	1326.771	1302.228	1267.473	1235.495	1207.349	1187.110	1175.582	1184.401	1191.240
30.0	1324.523	1304.610	1277.108	1238.723	1201.134	1167.994	1142.951	1127.514	1135.938	1145.756
32.5	1303.198	1281.536	1250.682	1207.791	1164.603	1125.977	1096.717	1077.495	1085.334	1096.544
35.0	1278.808	1255.898	1221.384	1174.554	1125.228	1082.443	1047.851	1024.778	1032.616	1045.642
37.5	1251.595	1227.243	1189.079	1138.532	1084.469	1036.315	997.516	969.543	977.843	992.550
40.0	1223.391	1197.580	1156.678	1100.838	1043.077	988.275	945.682	916.336	923.963	938.718
42.5	1192.806	1166.053	1122.067	1064.230	999.110	940.937	893.444	859.420	867.499	882.455
45.0	1159.531	1131.558	1085.776	1024.701	955.038	892.292	839.315	804.282	809.940	827.749
47.5	1123.527	1094.123	1048.629	984.336	910.860	843.503	786.338	749.086	753.735	771.371
50.0	1084.892	1055.844	1008.620	941.619	865.885	794.435	733.966	693.976	699.240	716.473
52.5	1044.518	1015.402	967.545	900.361	819.920	746.569	681.930	640.298	644.226	662.564
55.0	1002.184	973.674	924.626	858.162	775.588	700.325	630.768	587.080	591.144	610.058
57.5	957.805	929.169	881.725	813.350	731.670	650.691	581.538	535.842	538.272	558.387
60.0	911.408	884.031	836.798	769.037	688.376	606.753	533.642	483.989	485.929	506.697
62.5	863.262	837.432	791.035	725.013	644.246	560.097	488.417	436.833	435.901	457.649
65.0	815.473	790.996	745.608	681.507	601.019	518.330	443.845	388.755	386.488	409.811
67.5	765.665	744.965	700.959	637.925	559.252	477.245	401.377	344.106	339.178	363.808
70.0	718.615	696.819	656.013	595.130	518.080	437.486	359.120	297.853	293.214	320.888
72.5	670.143	650.499	613.113	553.411	480.473	398.908	320.216	256.605	250.342	279.410
75.0	624.054	606.302	569.521	514.728	442.376	363.020	283.540	217.691	209.046	241.197
77.5	578.147	562.873	529.089	477.543	406.372	328.227	249.074	180.843	169.949	203.955
80.0	535.112	520.914	490.012	440.185	372.857	295.404	216.538	147.769	133.888	171.275

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<b>82.5</b>	494.517	481.174	452.510	404.941	340.504	266.470	188.383	116.588	100.412	140.276
<b>85.0</b>	457.428	444.037	416.122	371.675	310.754	238.027	161.842	90.930	68.817	112.554
<b>87.5</b>	421.214	408.803	383.174	340.927	282.388	212.994	138.951	69.106	39.250	89.038
<b>90.0</b>	387.458	376.939	352.319	312.800	256.980	190.573	119.066	52.180	13.496	68.414
<b>92.5</b>	356.911	346.671	323.309	285.625	232.696	170.036	102.141	39.346	9.356	52.554
<b>95.0</b>	327.526	318.074	296.345	260.505	211.582	151.458	88.029	30.528	7.887	40.777
<b>97.5</b>	302.166	291.965	271.850	237.989	191.198	134.974	75.955	24.265	6.417	32.017
<b>100.0</b>	278.276	268.699	248.738	216.731	172.735	120.536	65.888	20.067	4.678	24.985
<b>102.5</b>	256.403	246.711	227.768	197.682	156.357	107.270	57.732	16.887	3.055	19.663
<b>105.0</b>	235.904	226.730	208.469	180.180	141.410	96.243	50.700	14.409	1.595	15.427
<b>107.5</b>	217.451	208.412	191.035	163.917	127.750	86.012	44.610	12.459	0.893	12.449
<b>110.0</b>	200.554	191.678	174.733	149.239	115.455	77.031	38.914	9.049	0.413	10.125
<b>112.5</b>	184.214	176.299	159.950	133.341	102.669	66.925	33.227	5.206	0.269	7.541
<b>115.0</b>	169.680	161.333	146.242	120.843	93.188	58.923	28.866	3.564	0.240	4.486
<b>117.5</b>	155.857	148.086	133.860	109.518	80.517	50.086	25.417	2.824	0.163	2.709
<b>120.0</b>	143.590	135.906	120.488	99.364	69.701	43.650	21.162	2.584	0.096	1.969
<b>122.5</b>	131.698	124.110	107.770	86.406	60.460	36.705	18.395	2.315	0.192	1.412
<b>125.0</b>	120.767	113.341	97.828	75.023	51.796	32.545	15.735	1.643	0.442	0.759
<b>127.5</b>	110.190	103.197	86.406	64.005	43.150	28.376	11.902	1.585	0.211	0.442
<b>130.0</b>	100.143	93.197	74.552	55.283	37.915	23.890	7.954	1.412	0.336	0.480
<b>132.5</b>	90.930	81.910	65.061	46.781	33.900	21.028	5.831	1.182	0.394	0.442
<b>135.0</b>	81.228	71.565	54.562	40.970	28.732	18.155	5.254	1.153	0.605	0.749
<b>137.5</b>	72.823	62.785	46.416	36.426	24.880	15.965	5.014	0.932	0.788	0.797
<b>140.0</b>	63.841	52.795	36.666	31.892	22.641	12.296	4.582	1.018	0.855	0.913
<b>142.5</b>	57.357	44.793	31.344	27.348	20.394	8.761	4.361	1.143	1.124	1.114
<b>145.0</b>	50.941	35.033	27.281	22.805	17.291	7.675	3.948	1.451	1.162	1.114
<b>147.5</b>	43.621	27.934	22.891	20.605	12.507	6.974	3.314	1.633	1.326	1.326
<b>150.0</b>	35.062	22.497	19.663	17.521	9.116	5.773	2.939	1.643	1.499	1.700
<b>152.5</b>	25.734	19.289	16.570	11.873	8.059	5.168	2.450	1.652	1.844	1.777
<b>155.0</b>	18.069	14.841	11.306	8.953	6.715	4.505	2.152	1.844	1.768	1.816
<b>157.5</b>	10.759	8.645	7.992	7.570	5.802	3.718	1.988	2.008	1.998	2.017
<b>160.0</b>	6.167	6.244	7.166	6.571	4.755	2.997	2.142	2.085	2.209	2.229
<b>162.5</b>	5.331	5.139	6.148	5.206	3.785	2.152	2.113	2.161	2.161	2.142
<b>165.0</b>	4.294	4.198	4.861	4.102	2.795	2.229	2.267	2.248	2.469	2.373
<b>167.5</b>	3.391	3.228	3.641	2.747	2.325	2.248	2.238	2.325	2.469	2.632
<b>170.0</b>	2.526	2.517	2.488	2.430	2.353	2.488	2.478	2.488	2.690	2.815
<b>172.5</b>	2.488	2.421	2.430	2.565	2.718	2.517	2.488	2.584	2.978	3.007
<b>175.0</b>	2.901	2.795	2.776	2.834	2.824	2.853	2.863	2.863	3.093	3.093
<b>177.5</b>	3.122	2.911	3.055	2.959	3.074	3.132	3.016	3.132	3.160	3.035
<b>180.0</b>	3.084	3.084	3.084	3.084	3.084	3.084	3.084	3.084	3.084	3.084

**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>
<b>0.0</b>	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716
<b>2.5</b>	1445.136	1446.606	1451.102	1452.735	1448.931	1445.799	1444.531	1442.956	1439.757	1436.549
<b>5.0</b>	1439.584	1441.726	1447.461	1449.478	1446.529	1443.964	1443.138	1440.727	1437.970	1433.878
<b>7.5</b>	1429.805	1433.974	1440.343	1444.579	1442.610	1441.198	1440.900	1438.998	1435.050	1430.016
<b>10.0</b>	1416.626	1422.236	1430.333	1436.837	1436.837	1436.731	1437.480	1435.646	1430.919	1424.848
<b>12.5</b>	1398.067	1406.856	1417.922	1426.270	1428.460	1430.266	1432.351	1430.612	1425.684	1418.153
<b>15.0</b>	1375.435	1387.443	1401.967	1412.678	1417.490	1421.765	1424.714	1423.100	1417.634	1408.778
<b>17.5</b>	1349.047	1364.023	1381.650	1395.733	1403.677	1410.382	1414.983	1414.032	1407.817	1396.645
<b>20.0</b>	1319.403	1336.992	1358.135	1376.204	1388.067	1397.183	1403.283	1402.649	1396.059	1383.437
<b>22.5</b>	1284.514	1307.050	1332.573	1353.793	1369.364	1382.265	1389.902	1390.401	1382.371	1367.212
<b>25.0</b>	1247.089	1273.314	1303.092	1329.624	1349.297	1365.176	1374.446	1375.243	1366.626	1349.240
<b>27.5</b>	1207.253	1236.456	1271.767	1303.064	1326.051	1345.493	1357.385	1358.327	1349.345	1330.450

**IES INDOOR REPORT  
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**CANDELA TABULATION - (Cont.)**

<b>30.0</b>	1163.959	1197.609	1236.859	1273.122	1301.065	1323.764	1337.443	1339.509	1329.442	1308.347
<b>32.5</b>	1117.610	1155.900	1199.319	1240.653	1273.554	1299.538	1315.436	1318.596	1307.204	1284.505
<b>35.0</b>	1069.205	1111.654	1161.202	1206.418	1243.996	1272.661	1290.643	1294.226	1283.131	1258.905
<b>37.5</b>	1019.283	1067.217	1121.702	1171.039	1213.199	1244.380	1263.621	1267.483	1256.023	1230.529
<b>40.0</b>	968.535	1020.561	1079.330	1133.364	1178.973	1213.372	1234.765	1238.751	1226.619	1199.885
<b>42.5</b>	917.498	972.828	1036.411	1092.846	1143.777	1180.597	1202.911	1207.378	1194.218	1167.254
<b>45.0</b>	863.906	923.261	991.089	1051.972	1105.468	1145.506	1168.013	1173.142	1160.664	1131.087
<b>47.5</b>	812.207	874.732	944.913	1010.561	1066.698	1108.225	1130.790	1136.159	1124.248	1093.806
<b>50.0</b>	758.509	826.202	898.661	967.718	1025.969	1069.129	1092.106	1096.208	1085.449	1054.854
<b>52.5</b>	708.404	777.279	851.601	923.550	983.049	1026.075	1049.724	1055.210	1043.634	1012.895
<b>55.0</b>	657.819	729.143	805.060	878.229	938.420	982.252	1005.181	1010.590	998.938	969.524
<b>57.5</b>	608.886	680.633	758.845	832.418	894.107	935.538	958.506	963.434	952.310	923.809
<b>60.0</b>	560.155	633.131	711.920	787.135	847.662	887.883	909.189	914.203	902.993	877.037
<b>62.5</b>	512.230	586.533	666.435	740.527	798.537	839.161	859.910	864.665	854.415	829.296
<b>65.0</b>	467.486	541.606	621.873	693.957	752.784	790.218	809.478	813.676	804.013	781.410
<b>67.5</b>	423.557	498.695	577.263	648.760	705.407	741.526	759.316	762.995	754.225	732.707
<b>70.0</b>	382.175	455.632	534.247	604.928	659.183	693.313	709.077	712.141	705.628	684.581
<b>72.5</b>	341.926	415.325	492.913	561.615	613.852	646.157	660.076	662.430	656.474	638.549
<b>75.0</b>	303.194	378.784	454.076	520.242	569.540	599.261	613.026	614.976	609.299	592.940
<b>77.5</b>	267.498	347.094	416.151	480.348	526.716	554.862	566.034	569.780	563.680	548.109
<b>80.0</b>	235.943	315.403	380.676	442.126	486.976	512.057	523.393	525.506	519.944	505.746
<b>82.5</b>	206.020	283.713	347.180	406.680	448.485	473.220	482.500	484.748	479.282	467.889
<b>85.0</b>	178.086	252.023	316.326	372.309	411.329	435.450	444.844	447.044	441.751	430.579
<b>87.5</b>	153.830	222.043	287.037	340.283	378.150	399.869	408.735	410.916	406.593	395.191
<b>90.0</b>	132.188	197.682	259.910	310.245	346.171	367.650	376.315	377.122	373.404	362.559
<b>92.5</b>	113.293	176.020	234.963	283.521	317.872	337.190	345.153	346.469	343.511	333.443
<b>95.0</b>	96.444	155.896	211.832	258.392	290.687	308.593	317.046	318.391	315.596	306.028
<b>97.5</b>	82.064	138.019	190.794	234.723	265.250	283.089	291.388	292.243	290.015	280.870
<b>100.0</b>	69.788	121.977	171.496	212.879	242.215	258.824	267.325	269.285	266.019	257.153
<b>102.5</b>	59.605	108.087	154.340	193.292	221.361	237.941	245.501	247.921	244.598	235.539
<b>105.0</b>	50.950	95.301	138.797	175.617	201.716	217.691	225.818	228.008	224.771	216.145
<b>107.5</b>	44.332	84.514	124.782	158.893	183.609	199.373	207.518	209.795	206.673	197.788
<b>110.0</b>	38.510	74.984	112.092	143.533	167.634	182.735	190.718	193.023	189.843	181.006
<b>112.5</b>	33.467	66.570	99.941	130.084	152.399	167.116	175.069	177.135	174.138	165.704
<b>115.0</b>	28.780	59.000	89.345	117.635	138.624	153.148	160.449	162.620	159.690	151.736
<b>117.5</b>	24.284	51.527	79.826	106.185	125.963	139.662	147.039	148.720	146.472	138.519
<b>120.0</b>	20.336	43.765	68.404	95.263	114.648	127.251	134.234	136.444	133.898	126.434
<b>122.5</b>	16.955	37.214	60.518	83.226	103.745	115.608	122.688	125.012	122.140	115.032
<b>125.0</b>	14.323	31.690	52.074	73.918	93.764	105.166	111.727	113.649	111.276	104.302
<b>127.5</b>	11.450	26.993	44.553	62.746	84.302	95.195	101.507	103.188	101.199	94.446
<b>130.0</b>	8.348	22.987	38.318	54.389	74.312	85.493	91.939	93.774	91.488	85.215
<b>132.5</b>	5.303	19.577	32.843	47.146	64.043	77.271	82.592	84.427	82.227	76.646
<b>135.0</b>	4.294	17.079	28.165	40.412	53.938	69.182	74.245	75.926	73.947	68.587
<b>137.5</b>	3.650	14.342	24.015	34.466	45.657	61.267	66.253	67.732	66.214	61.209
<b>140.0</b>	3.180	10.884	20.845	29.471	39.423	52.401	58.866	60.278	58.750	54.380
<b>142.5</b>	2.632	7.089	18.030	24.851	33.150	43.851	52.055	53.083	51.796	48.068
<b>145.0</b>	2.113	5.812	15.024	21.085	27.800	36.042	45.283	46.829	45.340	41.709
<b>147.5</b>	1.768	5.014	10.797	18.050	23.141	29.654	39.250	40.384	39.250	35.926
<b>150.0</b>	1.652	4.265	7.233	14.495	19.039	24.505	33.496	34.447	33.438	30.557
<b>152.5</b>	1.719	3.381	6.177	9.913	14.736	19.740	27.406	29.049	28.021	25.686
<b>155.0</b>	1.806	2.517	4.918	6.888	9.702	14.524	20.297	23.554	22.171	19.884
<b>157.5</b>	2.027	2.190	4.073	5.898	6.340	8.376	12.910	17.108	15.523	12.690
<b>160.0</b>	2.248	2.133	3.007	4.582	5.360	5.341	6.753	9.923	9.058	7.618
<b>162.5</b>	2.248	2.277	2.363	3.228	4.169	4.217	4.572	6.244	5.831	5.379
<b>165.0</b>	2.430	2.344	2.382	2.421	2.997	3.401	3.679	4.534	4.332	3.775
<b>167.5</b>	2.555	2.709	2.642	2.565	2.709	2.795	3.016	3.208	3.055	2.901

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**CANDELA TABULATION - (Cont.)**

<b>170.0</b>	2.776	2.911	2.353	2.728	2.843	2.709	2.939	2.911	2.776	2.872
<b>172.5</b>	2.882	2.872	2.882	2.872	2.959	2.853	2.978	2.824	2.738	2.911
<b>175.0</b>	2.930	2.978	3.093	3.093	3.055	3.026	3.055	3.035	3.199	2.959
<b>177.5</b>	3.055	2.959	2.978	3.304	2.901	2.930	2.997	2.968	3.045	3.151
<b>180.0</b>	3.084	3.084	3.084	3.084	3.084	3.084	3.084	3.084	3.084	3.084

**Vert. Horizontal Angles**  
**Angles**

	<b>300</b>	<b>310</b>	<b>320</b>	<b>330</b>	<b>340</b>	<b>350</b>	<b>360</b>
<b>0.0</b>	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716	1442.716
<b>2.5</b>	1432.946	1427.615	1426.405	1432.552	1438.057	1444.483	1444.281
<b>5.0</b>	1429.315	1423.504	1420.920	1425.550	1430.103	1436.337	1436.270
<b>7.5</b>	1424.109	1416.779	1413.023	1415.684	1418.989	1424.599	1423.148
<b>10.0</b>	1417.548	1407.654	1402.044	1402.505	1403.907	1407.567	1404.897
<b>12.5</b>	1408.518	1396.011	1388.144	1385.387	1384.282	1386.895	1382.736
<b>15.0</b>	1397.125	1381.199	1369.633	1364.206	1360.853	1361.478	1355.013
<b>17.5</b>	1383.053	1364.580	1348.337	1339.153	1333.409	1332.045	1323.909
<b>20.0</b>	1366.588	1343.630	1324.821	1310.499	1302.237	1298.241	1287.886
<b>22.5</b>	1348.096	1321.930	1298.645	1280.432	1267.281	1260.490	1248.453
<b>25.0</b>	1328.049	1297.146	1269.289	1245.917	1229.472	1218.531	1204.900
<b>27.5</b>	1304.341	1269.875	1236.340	1209.511	1187.974	1175.313	1157.917
<b>30.0</b>	1278.904	1239.779	1202.047	1169.012	1144.200	1128.619	1109.676
<b>32.5</b>	1251.508	1208.079	1165.592	1126.784	1097.985	1077.957	1059.494
<b>35.0</b>	1222.210	1175.275	1127.831	1083.317	1049.773	1026.516	1005.537
<b>37.5</b>	1191.019	1140.415	1087.505	1038.533	1000.273	974.385	950.677
<b>40.0</b>	1158.234	1104.056	1045.133	992.732	950.043	920.994	896.249
<b>42.5</b>	1123.057	1065.661	1002.694	945.682	898.449	866.634	840.141
<b>45.0</b>	1086.381	1026.440	959.303	897.806	846.058	812.418	783.456
<b>47.5</b>	1048.831	985.624	914.645	849.286	793.677	757.750	728.509
<b>50.0</b>	1006.949	944.039	868.603	802.101	740.690	703.889	672.391
<b>52.5</b>	965.009	900.390	824.406	752.659	689.490	650.403	617.128
<b>55.0</b>	921.619	856.279	779.873	705.023	640.221	596.331	563.142
<b>57.5</b>	877.566	812.158	735.474	659.308	591.614	544.382	510.991
<b>60.0</b>	831.707	767.808	691.536	613.526	543.190	493.854	460.896
<b>62.5</b>	785.291	722.794	646.369	567.936	496.688	445.411	410.762
<b>65.0</b>	739.614	677.694	603.045	523.690	453.221	397.688	362.627
<b>67.5</b>	691.843	633.477	560.510	482.442	410.657	352.435	313.876
<b>70.0</b>	648.030	590.490	519.204	442.059	367.497	308.919	269.496
<b>72.5</b>	602.556	548.551	478.648	402.280	326.806	267.220	225.962
<b>75.0</b>	559.040	507.139	440.281	364.701	289.996	228.805	185.732
<b>77.5</b>	516.812	468.907	402.866	329.198	254.501	191.467	146.684
<b>80.0</b>	478.167	431.377	368.765	296.038	222.312	157.634	110.594
<b>82.5</b>	440.973	396.795	336.700	266.240	192.120	127.078	77.559
<b>85.0</b>	405.469	363.808	305.480	237.758	165.319	99.643	47.050
<b>87.5</b>	372.098	332.809	277.210	211.832	141.842	76.694	18.376
<b>90.0</b>	341.196	303.578	251.283	188.441	121.362	58.347	0.375
<b>92.5</b>	311.897	276.288	227.057	166.885	102.976	43.727	0.346
<b>95.0</b>	285.682	252.196	204.541	148.249	87.155	33.294	0.192
<b>97.5</b>	260.937	228.892	184.579	130.959	74.581	25.686	0.125
<b>100.0</b>	238.402	207.499	166.424	115.829	63.793	19.971	0.029
<b>102.5</b>	217.432	188.758	149.940	102.621	54.610	15.994	0.163
<b>105.0</b>	198.777	171.602	134.215	90.882	47.050	12.613	0.000
<b>107.5</b>	181.563	155.444	120.565	80.469	40.672	10.336	0.029
<b>110.0</b>	165.118	140.843	108.490	71.373	35.542	7.983	0.000
<b>112.5</b>	150.516	127.577	97.299	63.111	30.739	5.543	0.010
<b>115.0</b>	136.789	115.080	87.213	56.512	27.281	3.103	0.019

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**CANDELA TABULATION - (Cont.)**

<b>117.5</b>	124.695	104.225	78.106	50.153	23.794	2.008	0.000
<b>120.0</b>	112.976	93.803	70.085	44.399	20.614	1.508	0.096
<b>122.5</b>	102.160	84.648	62.948	39.509	18.011	1.037	0.240
<b>125.0</b>	92.602	75.993	56.061	35.033	15.389	0.759	0.432
<b>127.5</b>	83.476	68.347	50.355	30.864	12.699	0.596	0.480
<b>130.0</b>	75.090	61.085	44.428	27.079	9.193	0.480	0.480
<b>132.5</b>	67.165	54.629	39.586	23.871	6.436	0.528	0.711
<b>135.0</b>	60.114	48.760	34.812	20.778	4.332	0.730	0.951
<b>137.5</b>	53.505	43.025	30.739	17.502	3.449	0.740	0.941
<b>140.0</b>	47.233	37.752	26.858	13.727	2.805	0.903	0.970
<b>142.5</b>	41.488	32.843	23.083	9.491	2.526	1.191	1.326
<b>145.0</b>	35.782	28.347	19.126	6.378	1.902	1.182	1.460
<b>147.5</b>	30.922	24.169	14.505	4.957	1.729	1.422	1.652
<b>150.0</b>	26.272	19.606	9.587	4.169	1.691	1.691	1.719
<b>152.5</b>	21.220	13.871	6.436	3.352	1.864	1.825	1.777
<b>155.0</b>	15.062	8.780	4.889	2.747	1.940	1.912	1.835
<b>157.5</b>	9.222	6.090	4.006	2.440	2.075	2.238	2.027
<b>160.0</b>	6.023	4.438	2.939	2.315	2.267	2.142	2.161
<b>162.5</b>	4.582	3.285	2.450	2.392	2.555	2.229	2.296
<b>165.0</b>	3.151	2.574	2.344	2.440	2.565	2.392	2.402
<b>167.5</b>	2.661	2.622	2.574	2.795	2.546	2.642	2.277
<b>170.0</b>	2.815	3.016	2.882	3.016	2.767	2.920	2.651
<b>172.5</b>	3.103	2.949	2.939	2.853	3.007	2.901	2.469
<b>175.0</b>	3.074	3.035	2.939	2.920	3.199	3.055	2.776
<b>177.5</b>	3.208	3.064	3.074	3.247	3.218	3.228	3.266
<b>180.0</b>	3.084	3.084	3.084	3.084	3.084	3.084	3.084

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : NLSR48HRA40.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	528.29	N.A.	9.90
0-30	1124.32	N.A.	21.00
0-40	1848.58	N.A.	34.60
0-60	3339.07	N.A.	62.50
0-80	4432.19	N.A.	83.00
0-90	4766.91	N.A.	89.20
10-90	4630.41	N.A.	86.70
20-40	1320.29	N.A.	24.70
20-50	2086.17	N.A.	39.00
40-70	2108.13	N.A.	39.50
60-80	1093.12	N.A.	20.50
70-80	475.49	N.A.	8.90
80-90	334.72	N.A.	6.30
90-110	372.50	N.A.	7.00
90-120	467.19	N.A.	8.70
90-130	524.22	N.A.	9.80
90-150	569.82	N.A.	10.70
90-180	575.85	N.A.	10.80
110-180	203.35	N.A.	3.80
0-180	5342.76	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	136.51
10-20	391.79
20-30	596.02
30-40	724.26
40-50	765.88
50-60	724.61
60-70	617.63
70-80	475.49
80-90	334.72
90-100	224.39
100-110	148.11
110-120	94.68
120-130	57.03
130-140	31.05
140-150	14.55
150-160	4.74
160-170	1.02
170-180	0.27



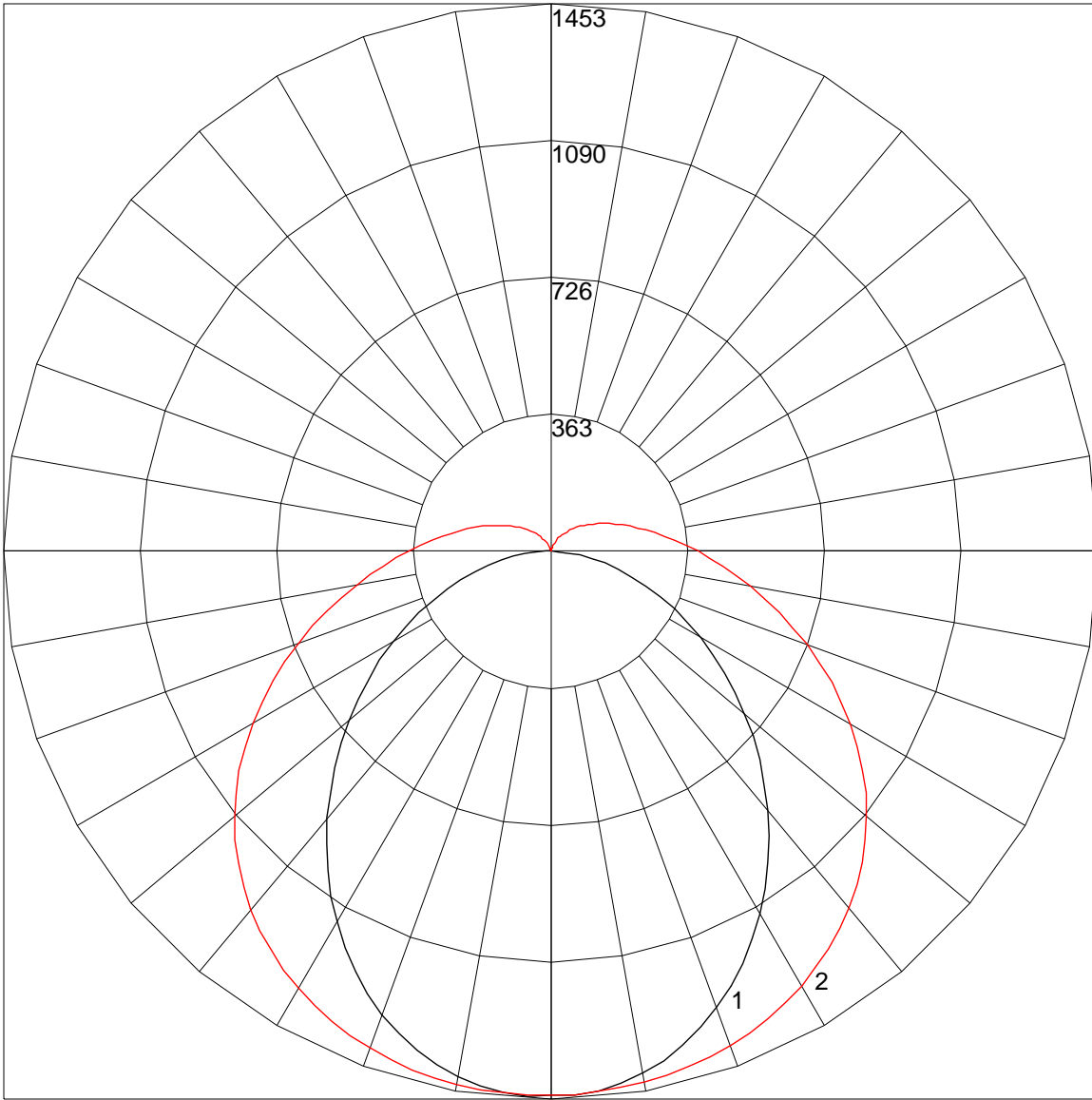
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : NLSR48HRA40.IES**

**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	116	116	116	116	113	113	113	113	105	105	105	98	98	98	92	92	92	89
1	104	98	93	89	100	95	90	86	89	85	81	83	80	77	77	75	73	70
2	94	85	77	71	90	82	75	69	76	71	66	71	67	63	67	63	60	57
3	85	74	65	58	82	71	63	57	67	60	54	62	57	52	58	54	50	47
4	78	65	56	49	74	63	54	48	59	52	46	55	49	44	52	47	42	40
5	71	58	48	41	68	56	47	41	53	45	39	49	43	38	47	41	36	34
6	66	52	43	36	63	50	42	35	47	40	34	45	38	33	42	36	32	30
7	61	47	38	32	58	46	37	31	43	36	30	41	34	29	38	33	28	26
8	57	43	34	28	54	42	33	28	39	32	27	37	31	26	35	30	25	23
9	53	39	31	25	51	38	30	25	36	29	24	34	28	23	33	27	23	21
10	49	36	28	23	48	35	28	22	33	27	22	32	26	21	30	25	21	19

POLAR GRAPH



Maximum Candela = 1452.735 Located At Horizontal Angle = 230, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)  
# 2 - Vertical Plane Through Horizontal Angles (90 - 270)