



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HWL48HFA40.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 4,190
[TESTLAB] TUV SUD America
[ISSUE DATE] 3/28/2016
[MANUFAC] LAMAR LED
[LUMCAT] HWL48HFA40
[LUMINAIRE] 4' WHITE FORMED STEEL HOUSING, 4000K
[MORE] HIGH TRANSMISSION ACRYLIC PATTERNED DIFFUSER
[MORE] HIGH OUTPUT
[LAMP] (2) 44 LED
[BALLAST] ONE EVERLINE D10CC55UNVTZ-C DRIVER
[OTHER] 25.4 C, 120 V, 0.385 A, 46.2 W, 0.9981 PF, 60 Hz

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4768
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	46.23
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.69 ft
Luminous Width (90-270)	0.38 ft
Luminous Height	0.21 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8086	6828	6885
55	6836	5847	6195
65	5481	4979	5489
75	4038	4159	4693
85	2122	3503	3962

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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>
0.0	1485.379	1485.379	1485.379	1485.379	1485.379
0.5	1484.477	1488.083	1483.576	1483.576	1488.984
1.0	1483.576	1487.181	1483.576	1482.675	1488.984
1.5	1483.576	1487.181	1483.576	1482.675	1488.984
2.0	1482.675	1486.280	1482.675	1482.675	1488.083
2.5	1481.773	1485.379	1482.675	1482.675	1488.083
3.0	1480.872	1484.477	1481.773	1481.773	1487.181
3.5	1479.069	1483.576	1480.872	1480.872	1486.280
4.0	1477.267	1482.675	1479.971	1479.971	1485.379
4.5	1476.365	1480.872	1479.069	1479.971	1484.477
5.0	1473.661	1479.069	1478.168	1478.168	1483.576
5.5	1471.859	1477.267	1476.365	1476.365	1482.675
6.0	1470.056	1474.563	1474.563	1475.464	1480.872
6.5	1467.352	1472.760	1472.760	1473.661	1479.971
7.0	1464.648	1470.056	1470.958	1471.859	1478.168
7.5	1461.944	1467.352	1468.254	1470.056	1475.464
8.0	1458.339	1463.747	1465.550	1468.254	1473.661
8.5	1454.734	1461.043	1462.846	1465.550	1471.859
9.0	1451.128	1457.438	1460.142	1462.846	1469.155
9.5	1447.523	1453.832	1456.536	1460.142	1466.451
10.0	1443.918	1450.227	1453.832	1457.438	1463.747
10.5	1439.411	1446.622	1450.227	1453.832	1460.142
11.0	1434.905	1442.115	1446.622	1450.227	1457.438
11.5	1430.398	1438.510	1442.115	1446.622	1453.832
12.0	1425.891	1434.003	1438.510	1442.115	1449.326
12.5	1420.483	1429.497	1434.003	1438.510	1445.720
13.0	1415.977	1424.990	1429.497	1434.003	1441.214
13.5	1410.569	1419.582	1424.089	1429.497	1436.707
14.0	1405.161	1414.174	1419.582	1424.990	1432.201
14.5	1398.852	1409.668	1415.076	1419.582	1426.793
15.0	1392.543	1403.358	1409.668	1414.174	1421.385
15.5	1387.135	1397.950	1404.260	1409.668	1415.977
16.0	1380.825	1391.641	1398.852	1404.260	1410.569
16.5	1374.516	1386.233	1392.543	1397.950	1404.260
17.0	1367.305	1379.924	1387.135	1392.543	1398.852
17.5	1360.996	1373.615	1381.727	1386.233	1393.444
18.0	1353.786	1366.404	1375.417	1379.924	1387.135
18.5	1346.575	1359.194	1369.108	1374.516	1380.825
19.0	1339.365	1352.884	1362.799	1367.305	1374.516
19.5	1331.253	1345.674	1355.588	1360.996	1368.207
20.0	1323.141	1338.463	1349.279	1354.687	1361.898
20.5	1315.029	1330.351	1342.068	1348.378	1355.588
21.0	1306.917	1323.141	1333.957	1341.167	1349.279
21.5	1299.706	1315.029	1326.746	1333.957	1342.068
22.0	1290.693	1306.917	1319.535	1327.647	1335.759
22.5	1282.581	1298.805	1311.424	1320.437	1328.549
23.0	1273.568	1290.693	1304.213	1313.226	1321.338
23.5	1264.555	1281.680	1296.101	1306.016	1314.127
24.0	1255.542	1273.568	1287.989	1297.904	1306.917
24.5	1246.528	1264.555	1279.877	1290.693	1299.706
25.0	1236.614	1255.542	1271.765	1282.581	1291.594
25.5	1227.601	1246.528	1262.752	1274.469	1284.384
26.0	1216.785	1236.614	1254.640	1266.357	1276.272
26.5	1206.870	1227.601	1246.528	1258.246	1268.160

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CANDELA TABULATION - (Cont.)

27.0	1196.956	1217.686	1237.515	1250.134	1260.949
27.5	1185.238	1207.771	1229.403	1242.022	1252.838
28.0	1175.324	1198.758	1220.390	1233.910	1244.726
28.5	1165.409	1188.844	1211.377	1225.798	1235.712
29.0	1153.692	1178.929	1202.364	1216.785	1228.502
29.5	1142.876	1168.113	1192.449	1208.673	1220.390
30.0	1132.060	1158.199	1183.436	1200.561	1212.278
30.5	1121.245	1147.383	1173.521	1191.548	1204.166
31.0	1110.429	1137.468	1164.508	1183.436	1196.054
31.5	1098.712	1127.554	1154.593	1174.423	1188.844
32.0	1087.896	1116.738	1145.580	1166.311	1180.732
32.5	1077.080	1105.922	1135.666	1158.199	1172.620
33.0	1066.264	1095.106	1125.751	1149.186	1165.409
33.5	1054.547	1084.290	1115.837	1141.074	1156.396
34.0	1043.731	1073.475	1106.823	1132.962	1149.186
34.5	1032.014	1061.757	1096.909	1123.949	1141.074
35.0	1021.198	1050.941	1086.994	1115.837	1132.962
35.5	1009.481	1040.126	1077.080	1106.823	1124.850
36.0	996.862	1028.408	1067.165	1098.712	1116.738
36.5	985.145	1017.593	1057.251	1089.698	1108.626
37.0	972.526	1005.875	1048.237	1080.685	1100.514
37.5	960.809	995.059	1038.323	1072.573	1092.402
38.0	948.191	983.342	1028.408	1063.560	1084.290
38.5	935.572	972.526	1017.593	1055.448	1076.178
39.0	923.855	960.809	1008.579	1046.435	1068.067
39.5	911.237	949.993	998.665	1038.323	1060.856
40.0	898.979	938.276	988.750	1029.310	1052.744
40.5	886.721	927.460	978.836	1021.198	1044.632
41.0	874.372	915.743	968.921	1012.185	1036.520
41.5	862.024	904.927	959.007	1004.073	1028.408
42.0	849.496	893.841	948.191	995.059	1020.297
42.5	837.599	882.394	938.276	986.948	1013.086
43.0	824.890	871.218	928.362	977.934	1004.974
43.5	813.443	859.861	918.447	969.822	996.862
44.0	801.095	848.324	908.533	961.711	989.652
44.5	789.017	836.877	898.888	952.697	981.540
45.0	776.759	825.431	889.154	945.487	973.428
45.5	764.862	814.254	879.149	937.375	966.217
46.0	752.784	802.537	869.415	928.362	959.007
46.5	741.157	791.180	859.591	920.250	950.895
47.0	729.530	780.004	849.766	912.138	943.684
47.5	717.272	768.557	840.122	904.026	935.572
48.0	704.834	757.291	830.298	895.734	927.460
48.5	692.936	745.934	820.654	887.802	920.250
49.0	683.292	734.668	811.190	879.330	913.039
49.5	671.665	723.581	801.185	871.308	905.829
50.0	661.570	712.585	791.721	863.286	897.627
50.5	649.673	701.409	781.807	855.174	889.965
51.0	637.685	692.305	772.072	846.972	882.214
51.5	625.698	682.211	762.518	838.590	874.823
52.0	613.710	672.386	752.874	830.298	866.982
52.5	601.993	661.841	743.410	822.276	859.230
53.0	590.276	652.016	733.766	813.894	851.389
53.5	578.919	641.200	724.302	805.692	843.277
54.0	567.653	630.565	714.838	797.490	835.165
54.5	556.206	619.929	706.186	789.107	827.504

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CANDELA TABULATION - (Cont.)

55.0	544.849	609.204	697.443	780.815	818.941
55.5	533.673	598.568	688.971	772.613	810.829
56.0	522.406	588.022	680.047	764.051	802.717
56.5	511.320	577.477	671.755	755.668	794.335
57.0	500.324	567.022	662.832	747.466	786.223
57.5	489.418	556.656	654.810	738.904	778.111
58.0	478.512	546.381	645.527	730.792	769.729
58.5	467.696	536.106	636.514	722.590	761.437
59.0	456.880	525.921	627.320	715.019	753.235
59.5	446.154	515.917	618.307	706.997	744.762
60.0	435.429	505.912	609.294	699.246	736.560
60.5	424.793	496.178	600.280	691.404	727.818
61.0	414.338	486.443	591.357	683.022	719.706
61.5	403.973	476.889	582.434	674.459	713.847
62.0	393.788	467.335	573.511	666.257	704.924
62.5	383.603	457.962	564.768	658.506	696.542
63.0	373.418	448.498	556.026	650.935	687.979
63.5	363.233	439.214	547.193	643.274	679.236
64.0	353.318	430.021	538.630	634.711	670.674
64.5	343.584	420.827	529.887	626.329	661.931
65.0	333.940	411.724	521.325	617.766	653.188
65.5	324.566	402.621	512.852	609.204	646.699
66.0	315.282	393.697	504.290	600.641	637.956
66.5	305.999	384.684	495.998	592.078	628.942
67.0	296.625	375.761	487.615	583.426	620.019
67.5	287.522	366.928	479.323	574.863	611.096
68.0	278.238	358.185	471.031	566.301	602.173
68.5	269.315	349.533	462.739	557.828	593.160
69.0	260.482	340.970	454.537	549.266	584.057
69.5	251.829	332.498	446.335	540.793	575.134
70.0	243.267	324.115	438.133	532.231	566.030
70.5	234.614	315.913	430.111	523.668	557.107
71.0	226.052	307.711	422.089	515.196	548.184
71.5	217.579	299.690	414.157	506.903	539.261
72.0	209.107	291.848	406.316	498.431	530.428
72.5	200.995	284.007	398.474	490.319	521.685
73.0	193.063	276.435	390.813	482.207	513.123
73.5	185.222	268.954	383.332	474.186	504.650
74.0	177.651	261.564	375.941	466.344	496.268
74.5	170.170	254.353	368.731	458.503	487.886
75.0	162.689	247.233	361.701	450.841	479.593
75.5	155.298	240.202	354.760	443.180	471.482
76.0	148.177	233.262	347.820	435.609	463.460
76.5	141.237	226.502	340.970	428.128	455.528
77.0	134.477	219.832	334.210	420.557	447.506
77.5	127.898	213.163	327.450	413.076	439.575
78.0	121.318	206.583	320.690	405.505	431.643
78.5	114.738	200.184	314.021	398.024	423.802
79.0	108.339	193.784	307.441	390.543	415.960
79.5	101.849	187.475	300.861	383.152	408.119
80.0	95.630	181.346	294.372	375.851	400.457
80.5	89.501	175.307	287.882	368.551	392.796
81.0	83.553	169.449	281.483	361.340	385.135
81.5	77.694	163.590	275.264	354.310	377.474
82.0	71.925	157.912	269.045	347.279	369.903
82.5	66.337	152.323	262.916	340.249	362.331

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CANDELA TABULATION - (Cont.)

83.0	60.659	146.735	256.877	333.309	354.941
83.5	55.071	141.327	250.928	326.459	347.550
84.0	49.573	135.919	244.979	319.609	340.249
84.5	44.255	130.511	239.031	312.939	332.948
85.0	39.117	125.284	233.172	306.359	325.918
85.5	34.070	119.966	227.404	299.780	318.888
86.0	29.023	114.828	221.635	293.200	312.038
86.5	23.975	109.691	216.047	286.801	305.278
87.0	19.018	104.643	210.369	280.491	298.608
87.5	14.151	99.596	204.870	274.362	292.209
88.0	9.284	94.729	199.553	268.143	285.809
88.5	4.597	89.952	194.235	262.195	279.680
89.0	2.343	85.445	189.278	256.516	273.822
89.5	0.090	81.660	184.951	251.379	268.684
90.0	0.000	78.956	181.436	246.962	264.177
90.5	0.000	77.153	178.732	243.267	260.031
91.0	0.000	76.162	176.479	240.022	256.516
91.5	0.000	75.260	174.496	237.138	253.271
92.0	0.000	74.539	172.603	234.344	250.207
92.5	0.000	73.818	170.801	231.730	247.323
93.0	0.000	73.097	168.998	229.116	244.348
93.5	0.000	72.466	167.375	226.592	241.554
94.0	0.000	71.745	165.753	224.159	238.760
94.5	0.000	71.114	164.131	221.725	236.146
95.0	0.000	70.483	162.598	219.382	233.623
95.5	0.000	69.852	161.156	217.128	231.009
96.0	0.000	69.222	159.624	214.965	228.665
96.5	0.000	68.681	158.182	212.802	226.322
97.0	0.000	68.140	156.740	210.729	224.069
97.5	0.000	67.509	155.388	208.656	221.905
98.0	0.000	66.968	154.036	206.673	219.742
98.5	0.000	66.427	152.684	204.690	217.669
99.0	0.000	65.887	151.332	202.797	215.686
99.5	0.000	65.346	149.980	200.815	213.703
100.0	0.000	64.805	148.718	199.012	211.811
100.5	0.000	64.264	147.366	197.209	209.918
101.0	0.000	63.723	146.104	195.407	208.115
101.5	0.000	63.273	144.752	193.694	206.222
102.0	0.000	62.732	143.581	191.982	204.420
102.5	0.000	62.281	142.319	190.269	202.707
103.0	0.000	61.741	141.057	188.647	200.905
103.5	0.000	61.290	139.885	187.024	199.192
104.0	0.000	60.839	138.623	185.402	197.480
104.5	0.000	60.389	137.452	183.780	195.857
105.0	0.000	59.938	136.280	182.247	194.235
105.5	0.000	59.487	135.198	180.715	192.613
106.0	0.000	59.127	134.117	179.183	191.080
106.5	0.000	58.676	132.945	177.741	189.548
107.0	0.000	58.225	131.863	176.299	188.016
107.5	0.000	57.865	130.782	174.856	186.574
108.0	0.000	57.414	129.700	173.414	185.132
108.5	0.000	57.054	128.709	172.062	183.689
109.0	0.000	56.603	127.717	170.620	182.337
109.5	0.000	56.242	126.636	169.268	180.895
110.0	0.000	55.792	125.644	167.916	179.543
110.5	0.000	55.431	124.653	166.564	178.191

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CANDELA TABULATION - (Cont.)

111.0	0.000	54.981	123.661	165.302	176.839
111.5	0.000	54.620	122.670	163.950	175.487
112.0	0.000	54.169	121.678	162.689	174.226
112.5	0.000	53.809	120.687	161.337	172.874
113.0	0.000	53.358	119.696	160.165	171.612
113.5	0.000	52.998	118.704	158.813	170.350
114.0	0.000	52.637	117.803	157.641	168.998
114.5	0.000	52.187	116.901	156.379	167.736
115.0	0.000	51.826	115.910	155.208	166.474
115.5	0.000	51.375	115.009	153.946	165.212
116.0	0.000	50.835	114.107	152.774	163.950
116.5	0.000	50.384	113.116	151.512	162.689
117.0	0.000	49.843	112.215	150.250	161.517
117.5	0.000	49.302	111.313	149.079	160.165
118.0	0.000	48.762	110.412	147.907	158.993
118.5	0.000	48.221	109.511	146.645	157.731
119.0	0.000	47.590	108.519	145.473	156.560
119.5	0.000	47.049	107.618	144.302	155.298
120.0	0.000	46.418	106.717	143.040	154.126
120.5	0.000	45.787	105.815	141.868	152.864
121.0	0.000	45.246	104.914	140.696	151.692
121.5	0.000	44.796	104.013	139.525	150.521
122.0	0.000	44.435	103.021	138.353	149.259
122.5	0.000	43.894	102.030	137.181	148.087
123.0	0.000	43.354	101.128	136.009	146.915
123.5	0.000	42.813	100.047	134.838	145.654
124.0	0.000	42.272	99.055	133.576	144.392
124.5	0.000	41.731	97.974	132.494	143.220
125.0	0.000	41.190	96.892	131.232	141.958
125.5	0.000	40.650	95.720	129.971	140.696
126.0	0.000	40.109	94.549	128.799	139.525
126.5	0.000	39.568	93.377	127.627	138.173
127.0	0.000	39.117	92.115	126.365	136.911
127.5	0.000	38.577	90.853	125.194	135.559
128.0	0.000	38.036	89.682	123.932	134.297
128.5	0.000	37.495	88.420	122.760	133.035
129.0	0.000	36.954	87.158	121.498	131.683
129.5	0.000	36.413	85.896	120.326	130.421
130.0	0.000	35.873	84.634	119.065	129.159
130.5	0.000	35.332	83.372	117.803	127.898
131.0	0.000	34.881	82.110	116.631	126.546
131.5	0.000	34.340	80.758	115.369	125.284
132.0	0.000	33.800	79.406	114.107	123.932
132.5	0.000	33.349	78.145	112.846	122.670
133.0	0.000	32.808	76.883	111.584	121.408
133.5	0.000	32.267	75.531	110.412	120.056
134.0	0.000	31.817	74.269	109.150	118.704
134.5	0.000	31.276	73.007	107.888	117.442
135.0	0.000	30.825	71.745	106.626	116.090
135.5	0.000	30.284	70.483	105.365	114.738
136.0	0.000	29.834	69.131	104.013	113.296
136.5	0.000	29.383	67.960	102.751	112.034
137.0	0.000	28.932	66.698	101.489	110.682
137.5	0.000	28.482	65.706	100.137	109.330
138.0	0.000	28.031	64.805	98.875	107.888
138.5	0.000	27.580	63.904	97.523	106.536

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CANDELA TABULATION - (Cont.)

139.0	0.000	27.130	63.002	96.081	105.184
139.5	0.000	26.769	61.921	94.729	103.832
140.0	0.000	26.409	60.929	93.287	102.390
140.5	0.000	25.958	59.848	91.845	101.038
141.0	0.000	25.598	58.766	90.312	99.596
141.5	0.000	25.237	57.775	88.870	98.244
142.0	0.000	24.786	56.693	87.338	96.802
142.5	0.000	24.426	55.702	85.716	95.450
143.0	0.000	24.065	54.620	84.093	94.098
143.5	0.000	23.705	53.629	82.381	92.746
144.0	0.000	23.344	52.547	80.758	91.304
144.5	0.000	22.894	51.556	79.136	89.862
145.0	0.000	22.533	50.564	77.424	88.510
145.5	0.000	22.173	49.573	75.801	87.068
146.0	0.000	21.812	48.491	74.179	85.626
146.5	0.000	21.451	47.500	72.466	84.274
147.0	0.000	21.001	46.508	70.754	82.831
147.5	0.000	20.640	45.607	69.131	81.389
148.0	0.000	20.280	44.706	67.509	80.037
148.5	0.000	19.919	43.804	65.797	78.595
149.0	0.000	19.559	42.903	64.174	77.153
149.5	0.000	19.108	42.002	62.642	75.801
150.0	0.000	18.747	41.190	61.200	74.359
150.5	0.000	18.387	40.289	59.668	72.917
151.0	0.000	17.936	39.478	58.135	71.565
151.5	0.000	17.576	38.667	56.693	70.123
152.0	0.000	17.125	37.765	55.251	68.681
152.5	0.000	16.765	36.954	53.719	67.239
153.0	0.000	16.314	36.143	52.367	65.797
153.5	0.000	15.953	35.242	50.925	64.264
154.0	0.000	15.503	34.431	49.573	62.912
154.5	0.000	15.052	33.619	48.221	61.470
155.0	0.000	14.692	32.808	46.869	59.938
155.5	0.000	14.241	31.997	45.517	58.406
156.0	0.000	13.880	31.186	44.255	56.873
156.5	0.000	13.430	30.375	42.993	55.341
157.0	0.000	13.069	29.653	41.731	53.809
157.5	0.000	12.709	28.842	40.469	52.277
158.0	0.000	12.258	28.031	39.208	50.744
158.5	0.000	11.897	27.220	37.946	49.122
159.0	0.000	11.537	26.499	36.684	47.590
159.5	0.000	11.086	25.688	35.422	46.058
160.0	0.000	10.726	24.876	34.160	44.525
160.5	0.000	10.365	24.065	32.898	43.083
161.0	0.000	9.915	23.254	31.636	41.731
161.5	0.000	9.554	22.533	30.465	40.469
162.0	0.000	9.193	21.632	29.293	39.208
162.5	0.000	8.833	20.821	28.031	37.765
163.0	0.000	8.472	20.009	26.859	36.413
163.5	0.000	8.022	19.198	25.778	34.971
164.0	0.000	7.661	18.297	24.606	33.529
164.5	0.000	7.301	17.486	23.525	31.997
165.0	0.000	6.850	16.674	22.353	30.555
165.5	0.000	6.490	15.863	21.271	29.113
166.0	0.000	6.039	15.052	20.190	27.761
166.5	0.000	5.678	14.241	19.108	26.409

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CANDELA TABULATION - (Cont.)

167.0	0.000	5.318	13.520	18.026	25.057
167.5	0.000	4.867	12.709	16.945	23.795
168.0	0.000	4.507	11.988	15.863	22.443
168.5	0.000	4.056	11.267	14.872	21.181
169.0	0.000	3.786	10.545	13.790	19.919
169.5	0.000	3.515	9.824	12.799	18.657
170.0	0.000	3.245	9.193	11.807	17.396
170.5	0.000	2.974	8.472	10.816	16.224
171.0	0.000	2.704	7.842	10.005	15.052
171.5	0.000	2.434	7.211	9.103	13.880
172.0	0.000	2.253	6.490	8.202	12.619
172.5	0.000	1.983	5.859	7.391	11.176
173.0	0.000	1.893	5.138	6.490	9.284
173.5	0.000	1.713	4.416	5.678	6.850
174.0	0.000	1.532	3.695	4.687	5.138
174.5	0.000	1.352	3.155	3.786	3.695
175.0	0.000	1.172	2.704	3.064	2.073
175.5	0.000	0.991	2.343	2.343	0.270
176.0	0.000	0.811	1.983	1.893	0.000
176.5	0.000	0.631	1.532	1.532	0.000
177.0	0.000	0.451	1.172	1.082	0.000
177.5	0.000	0.361	0.811	0.631	0.000
178.0	0.000	0.270	0.451	0.270	0.000
178.5	0.000	0.180	0.180	0.000	0.000
179.0	0.000	0.090	0.000	0.000	0.000
179.5	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	537.20	N.A.	11.30
0-30	1120.93	N.A.	23.50
0-40	1798.04	N.A.	37.70
0-60	3100.32	N.A.	65.00
0-80	3973.24	N.A.	83.30
0-90	4205.76	N.A.	88.20
10-90	4065.41	N.A.	85.30
20-40	1260.84	N.A.	26.40
20-50	1943.32	N.A.	40.80
40-70	1808.92	N.A.	37.90
60-80	872.92	N.A.	18.30
70-80	366.28	N.A.	7.70
80-90	232.52	N.A.	4.90
90-110	282.24	N.A.	5.90
90-120	383.12	N.A.	8.00
90-130	459.47	N.A.	9.60
90-150	542.29	N.A.	11.40
90-180	561.96	N.A.	11.80
110-180	279.73	N.A.	5.90
0-180	4767.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	140.35
10-20	396.85
20-30	583.74
30-40	677.10
40-50	682.47
50-60	619.81
60-70	506.64
70-80	366.28
80-90	232.52
90-100	156.07
100-110	126.16
110-120	100.89
120-130	76.34
130-140	51.99
140-150	30.84
150-160	14.66
160-170	4.60
170-180	0.41

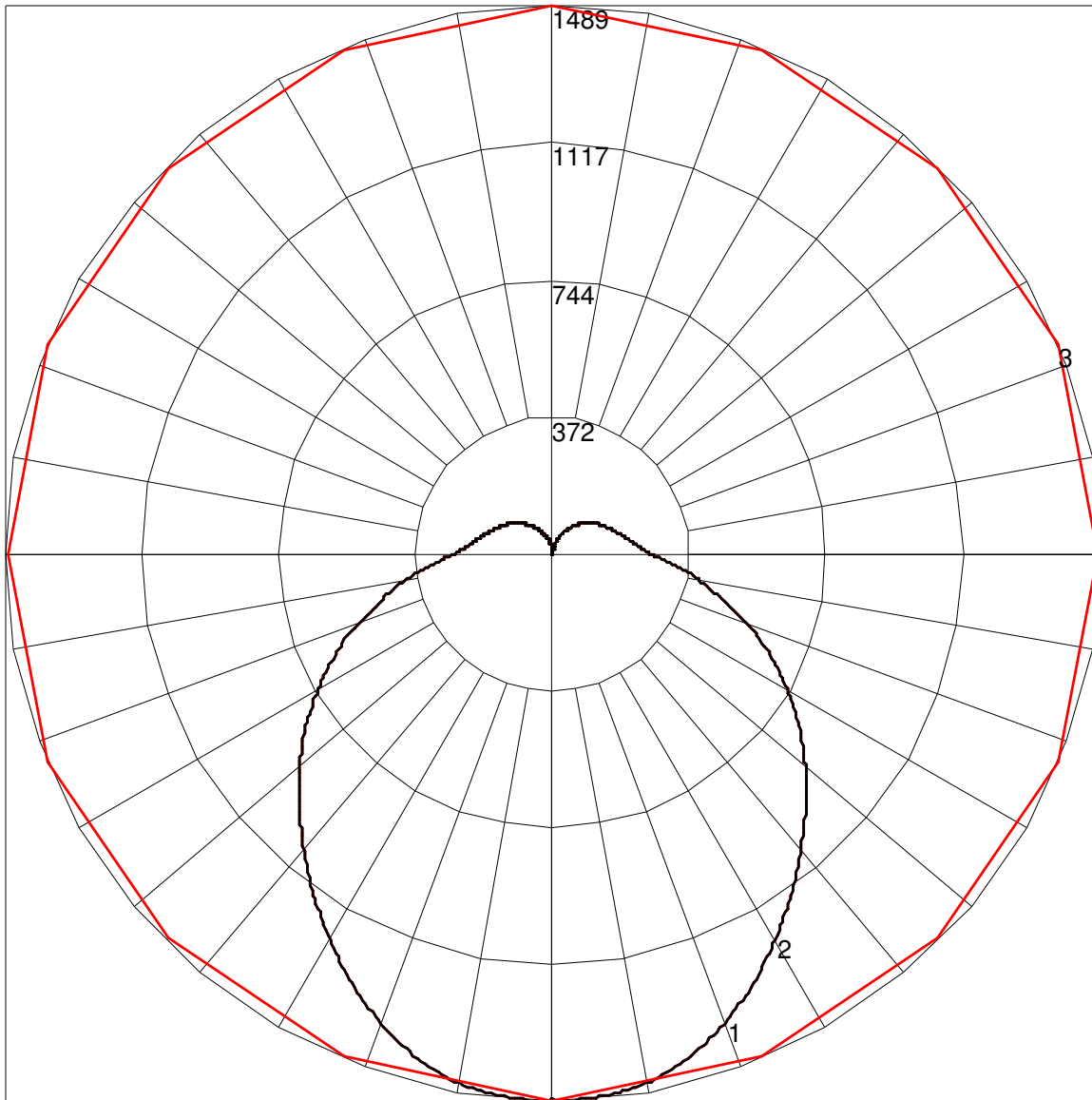
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	112	112	112	112	105	105	105	98	98	98	91	91	91	88
1	105	99	95	90	101	96	92	88	89	86	83	84	81	78	78	76	74	71
2	95	86	79	73	91	83	77	71	78	72	68	73	68	64	68	64	61	58
3	86	75	67	60	83	73	65	59	68	62	56	64	59	54	60	55	52	49
4	79	67	58	51	76	65	56	50	61	54	48	57	51	46	53	48	44	42
5	73	60	51	44	70	58	49	43	54	47	41	51	45	40	48	43	38	36
6	67	54	45	38	64	52	44	38	49	42	36	46	40	35	44	38	34	32
7	62	49	40	34	60	47	39	33	45	37	32	42	36	31	40	34	30	28
8	58	44	36	30	56	43	35	30	41	34	29	39	32	28	37	31	27	25
9	54	41	33	27	52	40	32	27	38	31	26	36	30	25	34	28	24	23
10	51	38	30	25	49	37	29	24	35	28	24	33	27	23	32	26	22	20

POLAR GRAPH



Maximum Candela = 1488.984 Located At Horizontal Angle = 90, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (90 - 270)
3 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)