



IES INDOOR REPORT
PHOTOMETRIC FILENAME : DLLR48MRA50.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 3,081P3
[TESTLAB] TUV SUD America
[ISSUEDATE] 5/28/2015 4:33:14 PM
[MANUFAC] LAMAR LIGHTING CO., INC.
[LUMCAT] DLLR48MRA50
[LUMINAIRE] 4' FIXTURE, WITH ROUND FROSTED LENS, 5000K
[MORE] MEDIUM OUTPUT
[MORE] 1847-6
[_AMBIENT] 25.6 deg C
[_POWERFACTOR] 0.9972
[_ATHD] 5.21%
[_CURRENT] 0.26
[_VOLTAGE] 120.13
[_STABILIZATION] 40:40.0 Stable
[_POWER VARIATION] 0.13 %
[_LIGHT VARIATION] 0.48 %
[_Lumens] 3,566

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3566
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	31.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.42 ft
Luminous Width (90-270)	3.83 ft
Luminous Height	0.33 ft

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4016	3925	4970
55	3414	3212	3888
65	2925	2631	2848
75	2561	2204	1765
85	2187	1878	413

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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>	<u>202.5</u>
0.0	1193.515	1193.515	1193.515	1193.515	1193.515	1193.515	1193.515	1193.515	1193.515	1193.515
2.5	1193.931	1184.970	1174.988	1189.293	1187.718	1197.259	1194.587	1197.800	1198.506	1192.507
5.0	1188.045	1177.698	1166.682	1181.340	1181.201	1191.184	1190.579	1195.381	1196.238	1191.385
7.5	1179.626	1167.300	1155.944	1169.089	1168.623	1181.668	1182.739	1189.974	1192.003	1187.037
10.0	1168.963	1154.620	1142.193	1154.381	1155.150	1169.581	1171.799	1182.739	1185.285	1181.655
12.5	1155.150	1139.509	1096.921	1134.933	1136.937	1152.894	1158.238	1172.265	1175.795	1172.278
15.0	1138.601	1122.569	1051.056	1058.530	1082.641	1133.686	1140.895	1158.439	1164.212	1160.494
17.5	1120.754	1050.413	1030.474	1035.390	1037.306	1056.299	1118.549	1142.118	1149.302	1146.315
20.0	1049.355	1029.806	1006.641	1008.935	1010.019	1029.706	1046.456	1096.656	1131.669	1128.430
22.5	1028.193	1006.149	980.690	978.005	977.791	999.911	1021.274	1048.233	1061.845	1061.177
25.0	1003.931	980.299	951.525	944.026	942.665	966.410	993.382	1024.815	1036.764	1032.478
27.5	979.606	952.218	920.848	907.828	903.909	929.670	962.894	999.558	1013.233	1008.531
30.0	951.865	923.381	887.121	868.593	861.812	890.297	930.086	971.993	985.908	982.102
32.5	922.096	893.977	854.351	827.329	816.767	847.961	895.073	943.698	958.987	953.580
35.0	892.074	861.346	817.952	783.040	769.818	804.025	859.544	912.403	928.851	922.398
37.5	859.632	827.833	781.653	737.944	720.815	756.282	819.527	877.315	896.750	889.893
40.0	824.291	793.110	742.594	690.693	668.724	707.430	778.565	839.945	862.669	855.385
42.5	788.484	759.244	704.695	643.631	618.159	659.020	737.881	804.012	827.934	820.094
45.0	754.480	725.201	666.910	595.270	565.576	609.424	696.642	768.520	793.324	784.136
47.5	719.807	689.268	627.473	547.389	514.771	560.988	654.344	730.734	757.126	747.359
50.0	683.559	653.840	588.175	500.340	464.520	512.338	612.941	692.394	722.051	711.905
52.5	648.798	620.490	550.137	456.214	416.601	464.470	572.143	656.322	686.659	675.656
55.0	618.789	590.216	515.363	413.362	371.039	419.802	534.218	623.666	651.168	639.144
57.5	586.183	558.266	480.275	370.270	326.964	378.210	498.084	588.943	618.196	604.635
60.0	554.573	526.971	446.560	331.262	285.208	337.753	461.697	554.901	585.931	572.281
62.5	523.972	498.247	414.080	294.900	247.498	298.984	427.944	522.774	555.128	540.747
65.0	494.781	470.759	384.474	261.488	211.313	263.492	395.515	492.689	526.744	511.998
67.5	468.163	445.211	356.557	230.370	176.413	231.214	365.443	464.381	498.197	483.501
70.0	442.136	418.983	330.619	200.625	146.165	201.331	337.576	437.321	469.801	454.563
72.5	415.353	393.965	305.059	174.044	116.785	173.565	309.861	411.194	440.863	426.457
75.0	388.886	368.997	280.708	149.631	89.448	148.509	285.284	385.042	414.068	399.347
77.5	362.443	344.584	258.060	127.587	65.262	125.810	261.211	360.351	386.995	374.165
80.0	336.996	319.818	235.638	107.660	43.092	105.593	238.726	334.816	362.607	350.558
82.5	310.201	294.799	215.447	90.595	24.779	88.125	217.766	310.567	339.215	329.107
85.0	284.351	271.168	196.642	75.269	10.574	72.836	199.138	286.594	312.205	303.231
87.5	258.929	248.494	179.085	62.817	1.097	60.031	180.837	263.895	284.805	276.411
90.0	234.151	223.753	160.243	51.637	0.000	48.814	162.159	239.847	258.715	251.934
92.5	210.342	200.940	143.467	42.361	0.000	39.878	145.875	217.073	234.982	228.794
95.0	187.908	179.665	127.738	35.265	0.000	32.240	130.838	196.125	212.624	208.111
97.5	167.061	159.512	113.420	28.547	0.000	26.493	115.979	175.934	191.462	187.832
100.0	147.841	141.300	100.174	23.065	0.000	21.086	103.199	157.873	170.301	168.448
102.5	129.956	124.373	87.835	18.527	0.000	16.763	91.011	140.241	148.471	147.425
105.0	113.244	108.429	76.076	14.507	0.000	13.385	79.075	122.709	129.742	128.482
107.5	98.913	94.061	65.224	11.532	0.000	10.322	68.173	107.522	114.050	112.702
110.0	85.957	81.772	55.154	8.835	0.000	7.953	58.620	93.494	100.123	98.888
112.5	74.689	70.366	46.697	6.630	0.000	5.735	49.684	80.298	87.797	86.247
115.0	64.884	60.573	38.933	4.878	0.000	4.197	41.605	69.219	76.265	74.500
117.5	56.338	51.700	32.341	3.113	0.000	2.521	35.101	59.590	65.186	63.182
120.0	48.121	43.596	26.153	1.487	0.000	1.323	28.825	50.377	54.599	52.066
122.5	40.974	36.614	21.288	0.605	0.000	0.378	23.544	42.613	46.255	43.130
125.0	34.622	30.513	16.574	0.000	0.000	0.000	19.044	35.643	40.369	37.483
127.5	29.102	25.359	12.831	0.000	0.000	0.000	14.910	30.009	34.673	31.761
130.0	24.539	21.162	9.717	0.000	0.000	0.000	11.772	24.980	29.051	26.606
132.5	20.494	17.154	6.793	0.000	0.000	0.000	8.886	20.342	24.010	21.729

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135.0	16.813	13.977	4.739	0.000	0.000	0.000	6.403	17.053	19.447	16.876
137.5	13.221	10.877	2.886	0.038	0.038	0.000	4.285	13.839	15.755	13.183
140.0	10.448	8.003	1.525	0.202	0.013	0.076	2.420	10.020	12.503	10.083
142.5	7.713	5.382	0.592	0.189	0.126	0.290	1.160	7.487	10.222	8.205
145.0	5.760	3.882	0.693	0.643	0.214	0.227	0.290	5.306	7.537	5.483
147.5	3.806	2.294	0.794	0.718	0.756	0.504	0.315	3.227	5.092	3.567
150.0	1.891	1.298	0.920	0.769	1.084	0.454	0.945	1.802	2.722	1.374
152.5	0.958	1.147	0.895	0.983	0.681	0.769	0.668	0.744	1.286	0.844
155.0	1.147	1.197	0.907	0.996	0.744	0.857	0.744	1.033	0.882	0.744
157.5	0.970	1.122	1.147	0.832	1.033	1.084	0.920	1.097	0.567	0.819
160.0	1.311	1.500	1.273	1.588	1.185	1.172	1.374	1.147	1.033	0.819
162.5	1.525	1.336	1.563	1.248	1.273	1.638	1.172	1.449	0.970	1.134
165.0	1.525	1.727	1.487	1.109	1.336	1.210	1.689	0.983	1.449	1.109
167.5	1.437	1.676	1.500	1.613	1.575	0.996	1.500	1.311	1.323	1.424
170.0	1.412	1.626	1.626	1.475	1.538	1.651	1.525	1.601	1.613	1.260
172.5	2.067	1.689	1.752	1.701	1.727	1.638	1.349	1.727	1.550	1.550
175.0	1.424	1.689	1.336	1.777	1.512	1.865	1.575	1.538	1.777	1.563
177.5	1.727	2.029	1.828	1.727	1.828	1.664	1.525	2.105	1.664	1.538
180.0	1.790	1.790	1.790	1.790	1.790	1.790	1.790	1.790	1.790	1.790

Vert. Angles **Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	1193.515	1193.515	1193.515	1193.515	1193.515	1193.515	1193.515
2.5	1181.290	1193.566	1192.141	1198.242	1192.721	1194.536	1193.931
5.0	1179.929	1190.200	1188.549	1194.486	1187.037	1188.562	1188.045
7.5	1175.530	1184.592	1181.126	1185.890	1178.945	1179.815	1179.626
10.0	1169.921	1176.122	1170.551	1174.559	1167.980	1169.631	1168.963
12.5	1160.128	1164.174	1157.103	1159.611	1153.826	1155.893	1155.150
15.0	1148.407	1148.722	1138.273	1141.122	1136.748	1140.277	1138.601
17.5	1131.820	1129.892	1081.923	1099.379	1062.198	1092.900	1120.754
20.0	1065.916	1052.052	1038.226	1039.952	1039.940	1048.485	1049.355
22.5	1035.617	1026.504	1009.376	1011.607	1014.922	1025.861	1028.193
25.0	1010.624	996.924	977.388	981.232	987.748	1001.184	1003.931
27.5	983.576	963.726	942.337	946.824	958.155	975.132	979.606
30.0	952.874	927.125	903.404	909.794	926.217	945.690	951.865
32.5	920.760	889.124	861.283	868.845	892.074	917.281	922.096
35.0	887.310	846.562	815.305	825.274	855.649	886.074	892.074
37.5	849.247	802.613	768.810	781.149	817.485	852.145	859.632
40.0	808.965	755.022	718.837	734.213	778.074	817.435	824.291
42.5	769.781	707.380	668.271	687.353	740.137	782.258	788.484
45.0	730.092	658.289	617.667	638.413	698.595	745.266	754.480
47.5	689.710	610.483	566.219	589.800	658.188	708.791	719.807
50.0	649.983	562.854	515.325	541.932	618.499	675.304	683.559
52.5	610.054	514.191	464.482	495.034	579.264	640.177	648.798
55.0	569.899	468.616	416.185	449.774	541.113	606.425	618.789
57.5	529.101	424.188	370.459	405.976	504.058	573.025	586.183
60.0	495.449	382.004	327.758	365.758	468.339	543.205	554.573
62.5	460.197	343.084	288.523	328.300	434.498	513.649	523.972
65.0	427.717	307.101	251.468	292.153	403.632	486.135	494.781
67.5	396.788	274.029	217.615	259.320	372.665	458.559	468.163
70.0	367.107	241.587	186.030	227.811	343.588	430.667	442.136
72.5	337.727	211.590	155.806	199.604	316.263	403.140	415.353
75.0	310.806	184.631	128.255	173.540	290.678	376.937	388.886
77.5	285.435	160.457	103.148	150.904	266.655	352.663	362.443
80.0	263.139	138.728	79.907	129.566	244.397	328.854	336.996

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CANDELA TABULATION - (Cont.)

82.5	241.902	119.533	59.376	110.559	223.173	303.748	310.201
85.0	221.408	101.648	41.227	93.859	201.898	277.885	284.351
87.5	200.222	85.428	25.976	77.966	181.997	252.363	258.929
90.0	180.572	71.085	16.007	65.161	163.217	228.857	234.151
92.5	162.864	59.590	12.641	54.599	146.870	206.599	210.342
95.0	147.614	49.457	10.902	44.995	131.179	186.358	187.908
97.5	132.742	41.453	9.138	36.147	116.672	165.562	167.061
100.0	118.651	33.853	7.676	28.925	102.833	146.681	147.841
102.5	103.476	27.337	5.672	22.182	88.994	127.952	129.956
105.0	90.179	21.590	3.693	17.191	76.895	110.723	113.244
107.5	78.029	16.965	2.319	13.070	66.409	97.225	98.913
110.0	67.858	12.780	1.084	9.541	56.263	84.860	85.957
112.5	58.317	9.755	0.189	6.592	47.894	72.887	74.689
115.0	49.356	7.638	0.000	4.764	39.638	62.527	64.884
117.5	41.088	5.558	0.000	2.785	32.051	52.658	56.338
120.0	32.782	3.680	0.000	0.945	25.774	43.709	48.121
122.5	26.228	1.941	0.000	0.050	20.884	37.269	40.974
125.0	21.981	0.781	0.000	0.000	16.813	31.963	34.622
127.5	17.910	0.000	0.000	0.000	12.881	26.821	29.102
130.0	14.167	0.000	0.000	0.000	9.440	21.691	24.539
132.5	10.751	0.000	0.000	0.000	5.785	17.179	20.494
135.0	7.587	0.000	0.000	0.000	3.756	13.133	16.813
137.5	5.054	0.000	0.000	0.000	2.117	10.537	13.221
140.0	3.252	0.000	0.000	0.000	0.882	8.041	10.448
142.5	1.575	0.101	0.000	0.328	0.277	5.861	7.713
145.0	0.945	0.139	0.013	0.214	0.580	3.617	5.760
147.5	0.454	0.492	0.429	0.113	0.454	1.273	3.806
150.0	0.227	0.517	0.366	0.592	0.403	0.769	1.891
152.5	0.504	0.693	0.618	0.618	0.668	0.605	0.958
155.0	0.718	0.744	0.618	0.882	0.517	0.870	1.147
157.5	0.819	0.970	0.895	1.033	0.907	0.920	0.970
160.0	1.046	1.134	0.882	1.109	1.412	1.349	1.311
162.5	1.374	1.008	1.172	1.109	1.336	1.147	1.525
165.0	1.260	1.336	1.147	1.336	1.235	1.033	1.525
167.5	1.412	1.185	1.424	1.311	1.475	1.588	1.437
170.0	1.588	1.828	1.525	1.601	1.437	1.638	1.412
172.5	1.323	1.462	1.538	1.689	1.739	1.638	2.067
175.0	1.613	1.613	1.828	1.840	1.815	1.727	1.424
177.5	1.979	1.676	1.802	1.664	1.575	2.004	1.727
180.0	1.790	1.790	1.790	1.790	1.790	1.790	1.790

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	428.80	N.A.	12.00
0-30	884.85	N.A.	24.80
0-40	1418.59	N.A.	39.80
0-60	2423.48	N.A.	68.00
0-80	3097.69	N.A.	86.90
0-90	3299.73	N.A.	92.50
10-90	3187.04	N.A.	89.40
20-40	989.79	N.A.	27.80
20-50	1522.63	N.A.	42.70
40-70	1388.9	N.A.	38.90
60-80	674.21	N.A.	18.90
70-80	290.20	N.A.	8.10
80-90	202.04	N.A.	5.70
90-110	203.50	N.A.	5.70
90-120	241.26	N.A.	6.80
90-130	257.74	N.A.	7.20
90-150	265.33	N.A.	7.40
90-180	266.29	N.A.	7.50
110-180	62.79	N.A.	1.80
0-180	3566.02	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	112.69
10-20	316.11
20-30	456.05
30-40	533.74
40-50	532.84
50-60	472.06
60-70	384.01
70-80	290.20
80-90	202.04
90-100	129.12
100-110	74.38
110-120	37.76
120-130	16.48
130-140	6.07
140-150	1.52
150-160	0.42
160-170	0.38
170-180	0.16

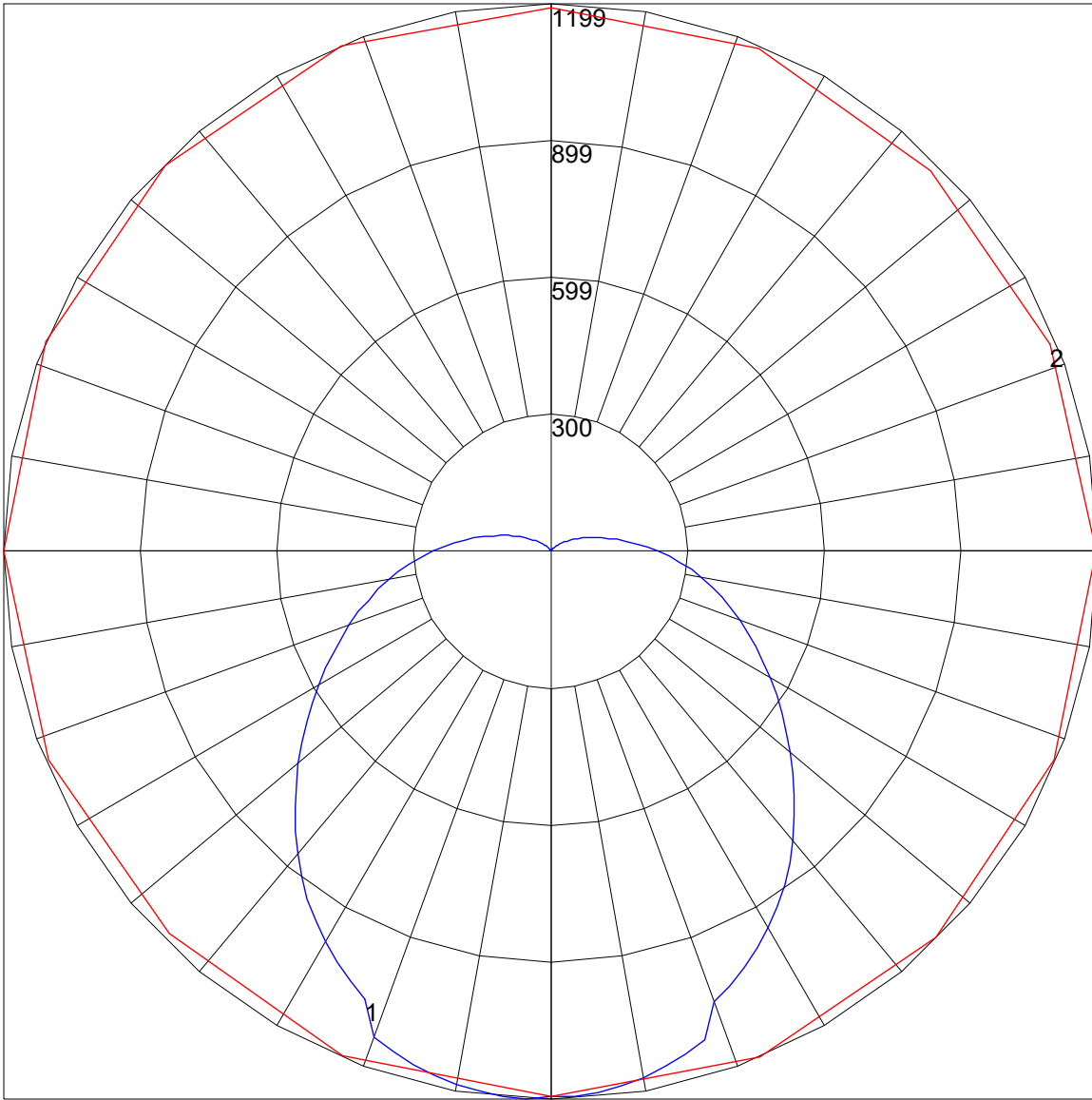
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	93
1	105	100	95	91	102	97	92	88	91	88	84	86	83	80	81	79	77	74
2	95	87	79	73	92	84	77	72	79	74	69	75	70	66	71	67	64	61
3	87	76	67	61	84	74	66	60	70	63	58	66	60	56	62	58	54	51
4	80	67	58	51	77	65	57	51	62	55	49	59	53	48	56	50	46	44
5	73	60	51	44	71	59	50	44	56	48	42	53	46	41	50	45	40	38
6	68	54	45	39	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	29
8	59	45	36	31	57	44	36	30	42	35	30	40	34	29	38	33	28	26
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	22

POLAR GRAPH



Maximum Candela = 1198.506 Located At Horizontal Angle = 180, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)