



IES INDOOR REPORT
PHOTOMETRIC FILENAME : DLLR48MRA40.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 3,081P2
[TESTLAB] TUV SUD America
[ISSUEDATE] 5/28/2015 4:33:14 PM
[MANUFAC] LAMAR LIGHTING CO., INC.
[LUMCAT] DLLR48MRA40
[LUMINAIRE] 4' FIXTURE, WITH ROUND FROSTED LENS, 4000K
[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] 3016

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3016
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
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	3397	3320	4204
55	2887	2717	3288
65	2474	2226	2409
75	2166	1864	1493
85	1850	1589	349

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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	1009.459	1009.459	1009.459	1009.459	1009.459	1009.459	1009.459	1009.459	1009.459	1009.459
2.5	1009.811	1002.232	993.789	1005.888	1004.556	1012.625	1010.365	1013.084	1013.681	1008.607
5.0	1004.833	996.081	986.764	999.162	999.045	1007.487	1006.976	1011.037	1011.762	1007.658
7.5	997.712	987.287	977.682	988.800	988.406	999.439	1000.345	1006.464	1008.180	1003.980
10.0	988.694	976.563	966.052	976.360	977.010	989.216	991.092	1000.345	1002.498	999.428
12.5	977.010	963.781	927.761	959.912	961.607	975.102	979.622	991.487	994.471	991.497
15.0	963.014	949.454	888.969	895.291	915.683	958.856	964.954	979.793	984.675	981.530
17.5	947.919	888.426	871.562	875.719	877.339	893.404	946.054	965.988	972.064	969.538
20.0	887.530	870.997	851.404	853.344	854.260	870.911	885.078	927.537	957.151	954.411
22.5	869.632	850.988	829.455	827.184	827.003	845.711	863.780	886.582	898.094	897.529
25.0	849.112	829.124	804.787	798.445	797.293	817.377	840.189	866.775	876.881	873.257
27.5	828.538	805.374	778.841	767.829	764.514	786.303	814.403	845.413	856.979	853.003
30.0	805.075	780.984	750.315	734.645	728.909	753.001	786.655	822.099	833.868	830.649
32.5	779.896	756.114	722.599	699.744	690.811	717.194	757.041	798.167	811.098	806.525
35.0	754.504	728.515	691.813	662.284	651.102	680.033	726.991	771.699	785.610	780.152
37.5	727.065	700.170	661.112	624.143	609.656	639.653	693.145	742.021	758.459	752.660
40.0	697.175	670.802	628.077	584.179	565.598	598.335	658.500	710.414	729.634	723.473
42.5	666.890	642.158	596.022	544.374	522.830	557.390	624.090	680.023	700.255	693.625
45.0	638.129	613.366	564.063	503.472	478.357	515.443	589.210	650.004	670.983	663.212
47.5	608.803	582.974	530.708	462.974	435.386	474.477	553.435	618.045	640.368	632.106
50.0	578.145	553.009	497.470	423.181	392.885	433.329	518.417	585.618	610.701	602.119
52.5	548.745	524.802	465.298	385.860	352.356	392.842	483.911	555.109	580.767	571.461
55.0	523.363	499.197	435.887	349.616	313.820	355.063	451.835	527.489	550.749	540.579
57.5	495.786	472.174	406.210	313.169	276.542	319.885	421.273	498.120	522.862	511.392
60.0	469.051	445.705	377.694	280.177	241.225	285.667	390.497	469.328	495.573	484.028
62.5	443.168	421.411	350.224	249.423	209.330	252.877	361.950	442.155	469.520	457.357
65.0	418.480	398.162	325.183	221.163	178.726	222.858	334.521	416.710	445.513	433.041
67.5	395.966	376.554	301.571	194.843	149.208	195.558	309.087	392.768	421.368	408.939
70.0	373.953	354.370	279.633	169.686	123.624	170.283	285.517	369.881	397.351	384.464
72.5	351.300	333.210	258.015	147.204	98.776	146.799	262.076	347.782	372.876	360.692
75.0	328.914	312.093	237.420	126.556	75.654	125.607	241.289	325.663	350.213	337.762
77.5	306.550	291.444	218.263	107.911	55.197	106.408	220.928	304.780	327.315	316.463
80.0	285.027	270.497	199.299	91.058	36.447	89.309	201.911	283.183	306.688	296.497
82.5	262.364	249.337	182.222	76.624	20.958	74.535	184.183	262.673	286.903	278.354
85.0	240.500	229.350	166.317	63.662	8.944	61.604	168.428	242.398	264.059	256.469
87.5	218.999	210.173	151.468	53.129	0.927	50.774	152.950	223.199	240.884	233.784
90.0	198.041	189.247	135.531	43.674	0.000	41.286	137.152	202.860	218.818	213.083
92.5	177.905	169.952	121.343	35.828	0.000	33.728	123.379	183.597	198.745	193.511
95.0	158.930	151.958	108.039	29.827	0.000	27.268	110.661	165.880	179.834	176.018
97.5	141.298	134.913	95.929	24.145	0.000	22.407	98.093	148.803	161.936	158.866
100.0	125.042	119.509	84.726	19.508	0.000	17.834	87.284	133.527	144.038	142.471
102.5	109.915	105.193	74.290	15.670	0.000	14.178	76.976	118.614	125.575	124.690
105.0	95.780	91.708	64.344	12.270	0.000	11.321	66.881	103.786	109.734	108.668
107.5	83.660	79.556	55.165	9.754	0.000	8.731	57.660	90.940	96.462	95.322
110.0	72.701	69.162	46.648	7.473	0.000	6.726	49.580	79.076	84.683	83.638
112.5	63.171	59.515	39.495	5.607	0.000	4.850	42.022	67.915	74.258	72.946
115.0	54.878	51.232	32.929	4.125	0.000	3.550	35.189	58.545	64.504	63.011
117.5	47.650	43.727	27.354	2.633	0.000	2.132	29.688	50.400	55.134	53.439
120.0	40.700	36.873	22.119	1.258	0.000	1.119	24.379	42.608	46.179	44.036
122.5	34.656	30.967	18.005	0.512	0.000	0.320	19.913	36.041	39.122	36.479
125.0	29.283	25.808	14.018	0.000	0.000	0.000	16.107	30.146	34.144	31.703
127.5	24.614	21.448	10.852	0.000	0.000	0.000	12.611	25.381	29.326	26.863
130.0	20.755	17.898	8.219	0.000	0.000	0.000	9.956	21.128	24.571	22.503
132.5	17.333	14.508	5.746	0.000	0.000	0.000	7.515	17.205	20.307	18.378

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CANDELA TABULATION - (Cont.)

135.0	14.220	11.822	4.008	0.000	0.000	0.000	5.415	14.423	16.448	14.274
137.5	11.182	9.200	2.441	0.032	0.032	0.000	3.624	11.705	13.325	11.150
140.0	8.837	6.769	1.290	0.171	0.011	0.064	2.047	8.475	10.575	8.528
142.5	6.524	4.552	0.501	0.160	0.107	0.245	0.981	6.332	8.645	6.940
145.0	4.872	3.283	0.586	0.544	0.181	0.192	0.245	4.488	6.375	4.637
147.5	3.219	1.940	0.672	0.608	0.640	0.426	0.266	2.729	4.307	3.017
150.0	1.599	1.098	0.778	0.650	0.917	0.384	0.799	1.524	2.303	1.162
152.5	0.810	0.970	0.757	0.831	0.576	0.650	0.565	0.629	1.087	0.714
155.0	0.970	1.013	0.768	0.842	0.629	0.725	0.629	0.874	0.746	0.629
157.5	0.821	0.949	0.970	0.704	0.874	0.917	0.778	0.927	0.480	0.693
160.0	1.109	1.269	1.077	1.343	1.002	0.991	1.162	0.970	0.874	0.693
162.5	1.290	1.130	1.322	1.055	1.077	1.386	0.991	1.226	0.821	0.959
165.0	1.290	1.460	1.258	0.938	1.130	1.023	1.428	0.831	1.226	0.938
167.5	1.215	1.418	1.269	1.364	1.332	0.842	1.269	1.109	1.119	1.205
170.0	1.194	1.375	1.375	1.247	1.301	1.396	1.290	1.354	1.364	1.066
172.5	1.748	1.428	1.482	1.439	1.460	1.386	1.141	1.460	1.311	1.311
175.0	1.205	1.428	1.130	1.503	1.279	1.578	1.332	1.301	1.503	1.322
177.5	1.460	1.716	1.546	1.460	1.546	1.407	1.290	1.780	1.407	1.301
180.0	1.514	1.514	1.514	1.514	1.514	1.514	1.514	1.514	1.514	1.514

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	1009.459	1009.459	1009.459	1009.459	1009.459	1009.459	1009.459
2.5	999.119	1009.502	1008.297	1013.457	1008.788	1010.323	1009.811
5.0	997.968	1006.656	1005.259	1010.280	1003.980	1005.270	1004.833
7.5	994.248	1001.912	998.981	1003.010	997.136	997.872	997.712
10.0	989.504	994.749	990.037	993.427	987.862	989.259	988.694
12.5	981.221	984.643	978.663	980.784	975.891	977.639	977.010
15.0	971.307	971.574	962.737	965.146	961.447	964.432	963.014
17.5	957.279	955.648	915.076	929.840	898.393	924.361	947.919
20.0	901.538	889.812	878.117	879.578	879.567	886.795	887.530
22.5	875.911	868.204	853.717	855.604	858.407	867.660	869.632
25.0	854.772	843.185	826.662	829.913	835.424	846.788	849.112
27.5	831.896	815.106	797.016	800.811	810.395	824.754	828.538
30.0	805.928	784.150	764.087	769.492	783.382	799.852	805.075
32.5	778.766	752.010	728.462	734.858	754.504	775.824	779.896
35.0	750.475	716.011	689.574	698.006	723.697	749.430	754.504
37.5	718.281	678.839	650.249	660.685	691.418	720.733	727.065
40.0	684.212	638.587	607.982	620.988	658.084	691.376	697.175
42.5	651.070	598.292	565.215	581.354	625.998	661.624	666.890
45.0	617.502	556.772	522.415	539.961	590.862	630.336	638.129
47.5	583.347	516.338	478.900	498.845	556.687	599.486	608.803
50.0	549.747	476.054	435.855	458.359	523.118	571.163	578.145
52.5	515.976	434.896	392.853	418.693	489.934	541.453	548.745
55.0	482.013	396.349	352.004	380.413	457.666	512.906	523.363
57.5	447.507	358.773	313.329	343.369	426.325	484.657	495.786
60.0	419.045	323.094	277.213	309.353	396.115	459.435	469.051
62.5	389.229	290.176	244.029	277.672	367.493	434.438	443.168
65.0	361.758	259.742	212.688	247.099	341.386	411.167	418.480
67.5	335.598	231.770	184.056	219.329	315.195	387.843	395.966
70.0	310.494	204.331	157.342	192.679	290.602	364.252	373.953
72.5	285.645	178.960	131.779	168.822	267.491	340.971	351.300
75.0	262.876	156.158	108.476	146.778	245.852	318.809	328.914
77.5	241.417	135.712	87.241	127.632	225.534	298.277	306.550
80.0	222.559	117.335	67.584	109.585	206.708	278.141	285.027

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CANDELA TABULATION - (Cont.)

82.5	204.597	101.099	50.219	93.510	188.757	256.906	262.364
85.0	187.264	85.973	34.869	79.385	170.763	235.032	240.500
87.5	169.345	72.253	21.970	65.943	153.930	213.445	218.999
90.0	152.726	60.122	13.538	55.112	138.047	193.564	198.041
92.5	137.749	50.400	10.692	46.179	124.221	174.739	177.905
95.0	124.850	41.830	9.221	38.056	110.949	157.619	158.930
97.5	112.271	35.061	7.728	30.573	98.680	140.030	141.298
100.0	100.353	28.633	6.492	24.465	86.975	124.061	125.042
102.5	87.519	23.122	4.797	18.762	75.270	108.220	109.915
105.0	76.272	18.261	3.123	14.540	65.037	93.648	95.780
107.5	65.996	14.348	1.961	11.054	56.168	82.231	83.660
110.0	57.393	10.809	0.917	8.070	47.586	71.774	72.701
112.5	49.324	8.251	0.160	5.575	40.508	61.647	63.171
115.0	41.745	6.460	0.000	4.029	33.526	52.884	54.878
117.5	34.752	4.701	0.000	2.356	27.108	44.537	47.650
120.0	27.727	3.113	0.000	0.799	21.800	36.969	40.700
122.5	22.183	1.642	0.000	0.043	17.664	31.522	34.656
125.0	18.591	0.661	0.000	0.000	14.220	27.034	29.283
127.5	15.148	0.000	0.000	0.000	10.895	22.684	24.614
130.0	11.982	0.000	0.000	0.000	7.984	18.346	20.755
132.5	9.093	0.000	0.000	0.000	4.893	14.530	17.333
135.0	6.417	0.000	0.000	0.000	3.177	11.108	14.220
137.5	4.275	0.000	0.000	0.000	1.791	8.912	11.182
140.0	2.750	0.000	0.000	0.000	0.746	6.801	8.837
142.5	1.332	0.085	0.000	0.277	0.235	4.957	6.524
145.0	0.799	0.117	0.011	0.181	0.490	3.059	4.872
147.5	0.384	0.416	0.362	0.096	0.384	1.077	3.219
150.0	0.192	0.437	0.309	0.501	0.341	0.650	1.599
152.5	0.426	0.586	0.522	0.522	0.565	0.512	0.810
155.0	0.608	0.629	0.522	0.746	0.437	0.736	0.970
157.5	0.693	0.821	0.757	0.874	0.768	0.778	0.821
160.0	0.885	0.959	0.746	0.938	1.194	1.141	1.109
162.5	1.162	0.853	0.991	0.938	1.130	0.970	1.290
165.0	1.066	1.130	0.970	1.130	1.045	0.874	1.290
167.5	1.194	1.002	1.205	1.109	1.247	1.343	1.215
170.0	1.343	1.546	1.290	1.354	1.215	1.386	1.194
172.5	1.119	1.237	1.301	1.428	1.471	1.386	1.748
175.0	1.364	1.364	1.546	1.556	1.535	1.460	1.205
177.5	1.674	1.418	1.524	1.407	1.332	1.695	1.460
180.0	1.514	1.514	1.514	1.514	1.514	1.514	1.514

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	362.67	N.A.	12.00
0-30	748.39	N.A.	24.80
0-40	1199.82	N.A.	39.80
0-60	2049.75	N.A.	68.00
0-80	2619.99	N.A.	86.90
0-90	2790.87	N.A.	92.50
10-90	2695.55	N.A.	89.40
20-40	837.15	N.A.	27.80
20-50	1287.82	N.A.	42.70
40-70	1174.71	N.A.	38.90
60-80	570.24	N.A.	18.90
70-80	245.45	N.A.	8.10
80-90	170.88	N.A.	5.70
90-110	172.12	N.A.	5.70
90-120	204.05	N.A.	6.80
90-130	217.99	N.A.	7.20
90-150	224.41	N.A.	7.40
90-180	225.22	N.A.	7.50
110-180	53.11	N.A.	1.80
0-180	3016.09	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	95.31
10-20	267.36
20-30	385.72
30-40	451.43
40-50	450.66
50-60	399.26
60-70	324.79
70-80	245.45
80-90	170.88
90-100	109.21
100-110	62.91
110-120	31.94
120-130	13.94
130-140	5.14
140-150	1.29
150-160	0.36
160-170	0.32
170-180	0.13

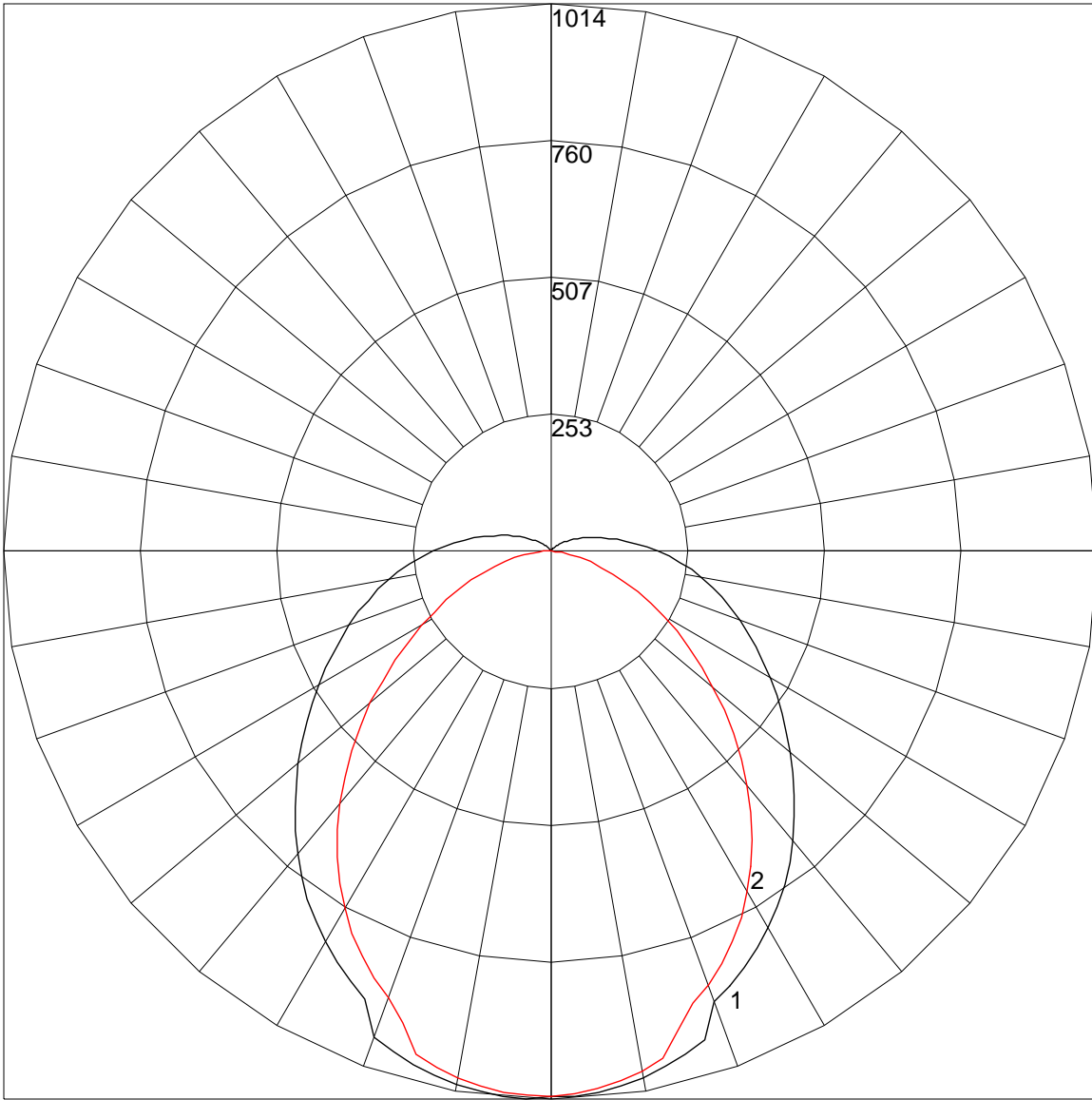
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	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 = 1013.681 Located At Horizontal Angle = 180, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (0 - 180)
2 - Vertical Plane Through Horizontal Angles (90 - 270)