



IES INDOOR REPORT

PHOTOMETRIC FILENAME : EPL-EMG-48-2L-LED.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TESTDATE] 14-Oct-2013 15:14:15

[TESTLAB] Radiant Imaging ProSource

[ISSUEDATE] 10/14/2013 1:14:15 PM

[MANUFAC] Larson Electronics

[LUMCAT] EPL-EMG-48-2L-LED

[LUMINAIRE] ALUMINUM BALLAST HOUSING AND HUB ASSEMBLIES. WHITE POWDER COATED ALUMINUM REFLECTORS

[LAMP] TWO T8-STYLE LED LAMPS - 3500 LUMENS PER BULB - EMERGENCY BATTERY BACKUP

CHARACTERISTICS

Lumens Per Lamp	3500 (2 lamps)
Total Lamp Lumens	7000
Luminaire Lumens	6512
Total Luminaire Efficiency	93 %
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	56
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.34 ft
Luminous Width (90-270)	0.74 ft
Luminous Height	0.28 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5908	5004	5000
55	5424	4721	4982
65	4773	4442	4938
75	3997	4173	4512
85	1539	2132	2298

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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	1936.767	1936.767	1936.767	1936.767	1936.767
5	1941.068	1828.848	1870.374	1977.231	1953.375
10	1889.837	1892.850	1948.436	1886.358	1873.507
15	1818.931	1880.119	1833.056	1891.018	1874.437
20	1753.972	1781.360	1813.209	1813.341	1857.497
25	1735.452	1731.616	1766.345	1764.633	1815.439
30	1643.929	1641.712	1712.206	1702.263	1719.269
35	1508.901	1544.122	1586.684	1624.520	1603.491
40	1417.909	1475.048	1503.816	1515.021	1568.907
45	1324.022	1328.523	1388.795	1471.503	1458.001
50	1154.105	1209.771	1287.580	1349.631	1389.804
55	1011.935	1075.034	1173.236	1297.019	1319.097
60	855.479	919.163	1052.598	1191.596	1258.294
65	684.275	764.235	941.108	1100.391	1135.307
70	537.457	619.701	823.352	983.524	1062.728
75	382.994	472.446	704.480	812.373	848.496
80	195.659	334.218	503.896	574.789	583.684
85	69.804	178.599	257.272	297.511	322.814
90	18.029	59.582	116.575	142.595	156.973

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	707.65	10.10	10.90
0-30	1517.17	21.70	23.30
0-40	2510.56	35.90	38.60
0-60	4636.89	66.20	71.20
0-80	6234.56	89.10	95.70
0-90	6511.61	93.00	100.00
10-90	6329.44	90.40	97.20
20-40	1802.91	25.80	27.70
20-50	2878.81	41.10	44.20
40-70	3048.07	43.50	46.80
60-80	1597.67	22.80	24.50
70-80	675.92	9.70	10.40
80-90	277.05	4.00	4.30
90-110	0.00	0.00	0.00
90-120	0.00	0.00	0.00
90-130	0.00	0.00	0.00
90-150	0.00	0.00	0.00
90-180	0.00	0.00	0.00
110-180	0.00	0.00	0.00
0-180	6511.61	93.00	100.00

Total Luminaire Efficiency = 93.00%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	182.17
10-20	525.48
20-30	809.52
30-40	993.39
40-50	1075.9
50-60	1050.42
60-70	921.75
70-80	675.92
80-90	277.05
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

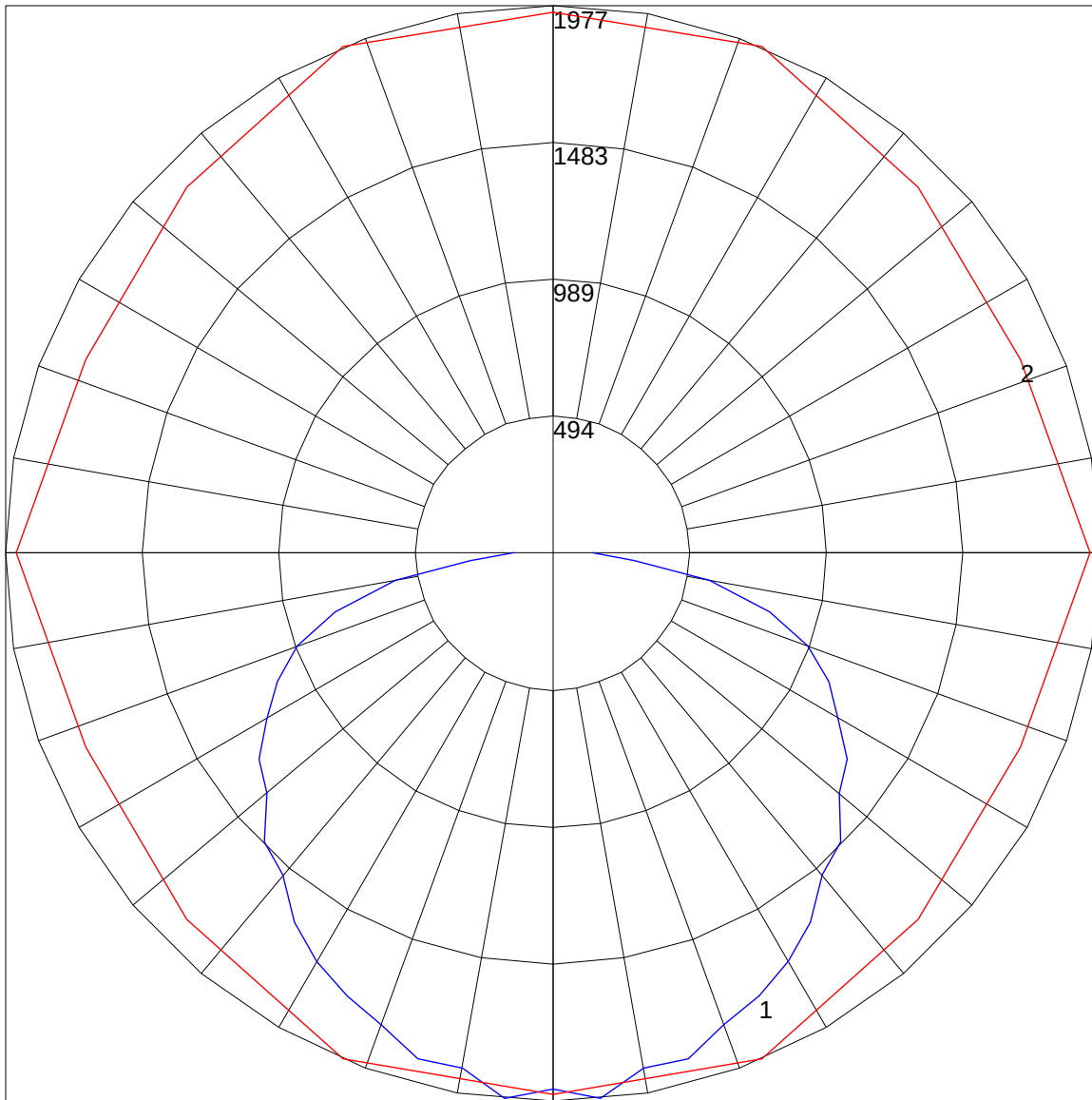
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	111	111	111	111	108	108	108	108	103	103	103	99	99	99	95	95	95	93
1	99	94	90	86	97	92	88	84	88	85	81	84	82	79	81	79	77	74
2	90	81	74	68	87	79	73	67	76	70	65	73	68	64	70	66	62	60
3	81	70	62	55	79	69	61	55	66	59	54	63	58	53	61	56	52	50
4	74	62	53	46	72	61	52	46	58	51	45	56	50	45	54	48	44	42
5	68	55	46	39	66	54	45	39	52	44	39	50	43	38	48	42	38	36
6	62	49	40	34	61	48	40	34	47	39	34	45	38	33	44	38	33	31
7	58	45	36	30	56	44	36	30	42	35	30	41	34	29	40	34	29	27
8	54	41	32	27	52	40	32	27	39	31	26	37	31	26	36	30	26	24
9	50	37	29	24	49	37	29	24	35	29	24	34	28	23	33	28	23	22
10	47	34	27	22	46	34	26	21	33	26	21	32	26	21	31	25	21	19

POLAR GRAPH



Maximum Candela = 1977.231 Located At Horizontal Angle = 67.5, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)



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PHOTOMETRIC FILENAME : EPL-EMG-48-2L-LED - BATTERY POWER.IES

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[LAMP] TWO T8-STYLE LED LAMPS - 3500 LUMENS PER BULB - EMERGENCY BATTERY BACKUP MODE OPERATING ONE

CHARACTERISTICS

Lumens Per Lamp	3500 (1 lamp)
Total Lamp Lumens	3500
Luminaire Lumens	3256
Total Luminaire Efficiency	93 %
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	28
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.34 ft
Luminous Width (90-270)	0.74 ft
Luminous Height	0.28 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2954	2502	2500
55	2712	2361	2491
65	2386	2221	2469
75	1998	2086	2256
85	770	1066	1149

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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	968.383	968.383	968.383	968.383	968.383
5	970.534	914.424	935.187	988.616	976.687
10	944.918	946.425	974.218	943.179	936.754
15	909.465	940.059	916.528	945.509	937.218
20	876.986	890.680	906.604	906.671	928.748
25	867.726	865.808	883.173	882.316	907.720
30	821.965	820.856	856.103	851.131	859.635
35	754.450	772.061	793.342	812.260	801.745
40	708.954	737.524	751.908	757.510	784.454
45	662.011	664.261	694.397	735.751	729.001
50	577.053	604.885	643.790	674.816	694.902
55	505.967	537.517	586.618	648.510	659.548
60	427.740	459.582	526.299	595.798	629.147
65	342.137	382.117	470.554	550.196	567.653
70	268.729	309.851	411.676	491.762	531.364
75	191.497	236.223	352.240	406.186	424.248
80	97.829	167.109	251.948	287.395	291.842
85	34.902	89.300	128.636	148.755	161.407
90	9.014	29.791	58.287	71.298	78.487

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	353.83	10.10	10.90
0-30	758.59	21.70	23.30
0-40	1255.28	35.90	38.60
0-60	2318.44	66.20	71.20
0-80	3117.28	89.10	95.70
0-90	3255.8	93.00	100.00
10-90	3164.72	90.40	97.20
20-40	901.46	25.80	27.70
20-50	1439.4	41.10	44.20
40-70	1524.04	43.50	46.80
60-80	798.84	22.80	24.50
70-80	337.96	9.70	10.40
80-90	138.53	4.00	4.30
90-110	0.00	0.00	0.00
90-120	0.00	0.00	0.00
90-130	0.00	0.00	0.00
90-150	0.00	0.00	0.00
90-180	0.00	0.00	0.00
110-180	0.00	0.00	0.00
0-180	3255.8	93.00	100.00

Total Luminaire Efficiency = 93.00%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	91.09
10-20	262.74
20-30	404.76
30-40	496.70
40-50	537.95
50-60	525.21
60-70	460.88
70-80	337.96
80-90	138.53
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

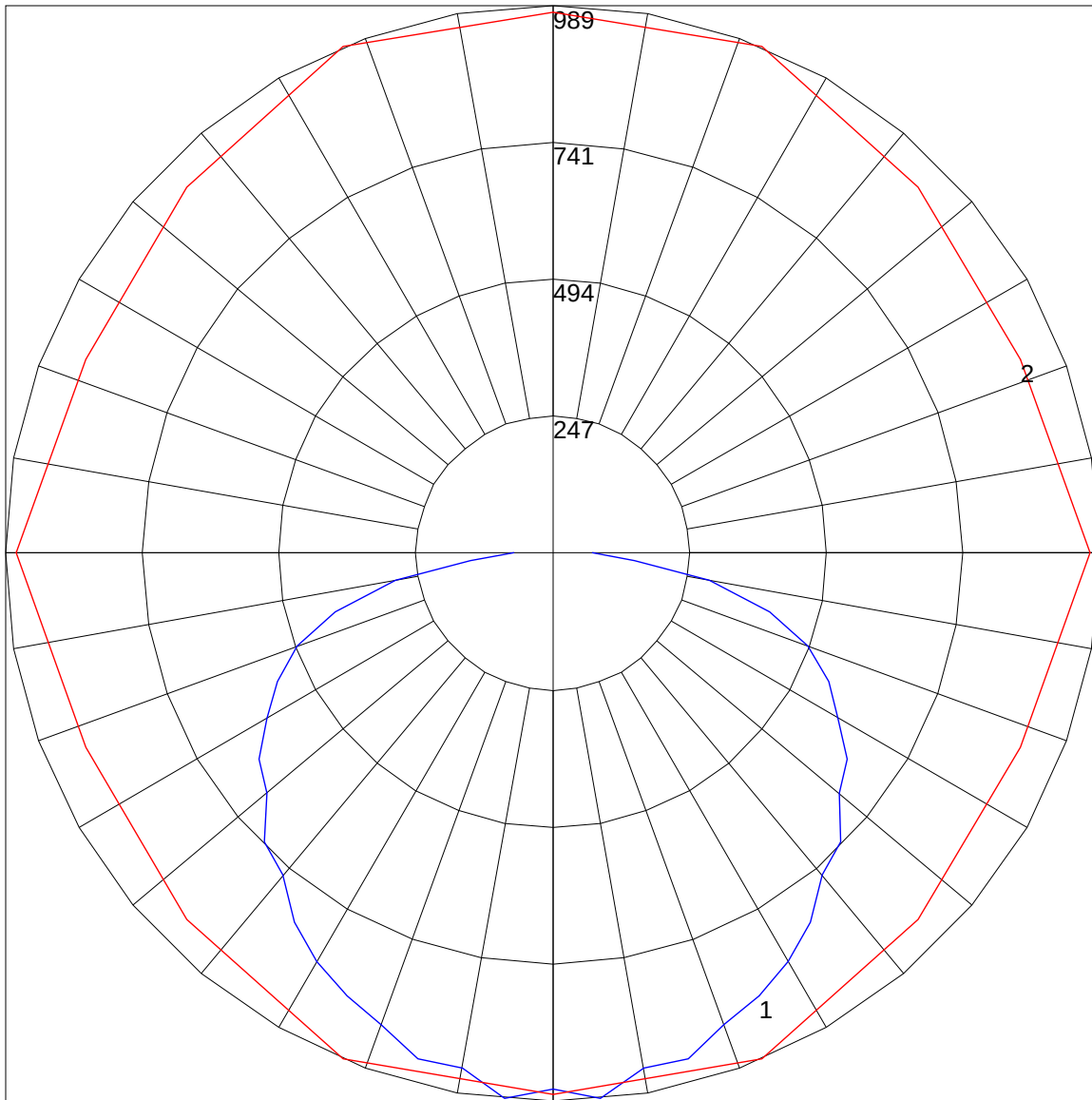
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Effective Floor Cavity Reflectance 0.20

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	111	111	111	111	108	108	108	108	103	103	103	99	99	99	95	95	95	93
1	99	94	90	86	97	92	88	84	88	85	81	84	82	79	81	79	77	74
2	90	81	74	68	87	79	73	67	76	70	65	73	68	64	70	66	62	60
3	81	70	62	55	79	69	61	55	66	59	54	63	58	53	61	56	52	50
4	74	62	53	46	72	61	52	46	58	51	45	56	50	45	54	48	44	42
5	68	55	46	39	66	54	45	39	52	44	39	50	43	38	48	42	38	36
6	62	49	40	34	61	48	40	34	47	39	34	45	38	33	44	38	33	31
7	58	45	36	30	56	44	36	30	42	35	30	41	34	29	40	34	29	27
8	54	41	32	27	52	40	32	27	39	31	26	37	31	26	36	30	26	24
9	50	37	29	24	49	37	29	24	35	29	24	34	28	23	33	28	23	22
10	47	34	27	22	46	34	26	21	33	26	21	32	26	21	31	25	21	19

POLAR GRAPH



Maximum Candela = 988.616 Located At Horizontal Angle = 67.5, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)