



IES INDOOR REPORT
PHOTOMETRIC FILENAME : CPG-LED-10L-CA-W-50.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 3355
[TESTLAB] TUV SUD America
[TESTDATE] 2/22/2018 9:36:15 AM
[ISSUE DATE] 04/24/2018
[MANUFACTURER] LSI INDUSTRIES, INC
[LUMCAT] CPG-LED-10L-CA-W-30
[OTHER] TEST PROCEDURE: IESNA
[_ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED
[_SEARCH_SOURCE TYPE] LED
[_SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10030
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	81.13
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.46
Spacing Criterion (90-270)	1.74
Spacing Criterion (Diagonal)	2.98
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.58 ft
Luminous Width (90-270)	0.58 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	107842	90611	80971
55	166191	177666	158048
65	147849	322790	135833
75	53937	41156	31707
85	11309	13830	7303

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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	1401.893	1401.893	1401.893	1401.893	1401.893	1401.893	1401.893	1401.893	1401.893	1401.893
2.5	1403.633	1400.582	1397.941	1394.716	1395.914	1394.716	1397.941	1400.582	1403.633	1400.582
5.0	1408.076	1399.743	1388.051	1379.482	1377.250	1379.482	1388.051	1399.743	1408.076	1399.743
7.5	1421.089	1405.374	1376.779	1365.641	1366.797	1365.641	1376.779	1405.374	1421.089	1405.374
10.0	1440.704	1415.345	1375.633	1364.002	1367.227	1364.002	1375.633	1415.345	1440.704	1415.345
12.5	1463.862	1428.255	1385.952	1367.872	1369.787	1367.872	1385.952	1428.255	1463.862	1428.255
15.0	1493.019	1448.567	1402.548	1373.708	1371.343	1373.708	1402.548	1448.567	1493.019	1448.567
17.5	1533.233	1478.031	1423.628	1385.574	1378.233	1385.574	1423.628	1478.031	1533.233	1478.031
20.0	1562.186	1509.686	1449.734	1402.568	1387.846	1402.568	1449.734	1509.686	1562.186	1509.686
22.5	1593.299	1537.605	1482.956	1422.942	1397.818	1422.942	1482.956	1537.605	1593.299	1537.605
25.0	1627.431	1568.390	1518.952	1443.673	1406.244	1443.673	1518.952	1568.390	1627.431	1568.390
27.5	1671.515	1609.198	1552.716	1464.998	1418.918	1464.998	1552.716	1609.198	1671.515	1609.198
30.0	1730.250	1663.837	1590.289	1492.866	1439.076	1492.866	1590.289	1663.837	1730.250	1663.837
32.5	1807.095	1732.819	1638.754	1530.930	1468.940	1530.930	1638.754	1732.819	1807.095	1732.819
35.0	1905.756	1816.708	1702.167	1575.751	1505.509	1575.751	1702.167	1816.708	1905.756	1816.708
37.5	2015.976	1914.858	1773.310	1618.883	1541.557	1618.883	1773.310	1914.858	2015.976	1914.858
40.0	2135.677	2026.521	1837.378	1667.738	1595.418	1667.738	1837.378	2026.521	2135.677	2026.521
42.5	2267.028	2156.920	1916.107	1736.054	1677.627	1736.054	1916.107	2156.920	2267.028	2156.920
45.0	2412.650	2313.845	2027.146	1844.637	1811.497	1844.637	2027.146	2313.845	2412.650	2313.845
47.5	2569.688	2492.833	2191.524	2018.239	2000.814	2018.239	2191.524	2492.833	2569.688	2492.833
50.0	2732.817	2718.310	2435.306	2276.917	2255.981	2276.917	2435.306	2718.310	2732.817	2718.310
52.5	2894.595	3000.249	2771.874	2631.893	2561.825	2631.893	2771.874	3000.249	2894.595	3000.249
55.0	3015.913	3316.208	3224.160	3060.017	2868.140	3060.017	3224.160	3316.208	3015.913	3316.208
57.5	3033.194	3595.433	3788.477	3439.000	3073.572	3439.000	3788.477	3595.433	3033.194	3595.433
60.0	2898.813	3710.250	4328.962	3656.727	3097.968	3656.727	4328.962	3710.250	2898.813	3710.250
62.5	2551.905	3529.093	4612.067	3581.684	2678.045	3581.684	4612.067	3529.093	2551.905	3529.093
65.0	1976.909	2910.729	4316.072	3008.449	1816.247	3008.449	4316.072	2910.729	1976.909	2910.729
67.5	1307.541	1936.275	3251.157	1929.917	890.248	1929.917	3251.157	1936.275	1307.541	1936.275
70.0	755.570	976.225	1772.440	825.300	382.740	825.300	1772.440	976.225	755.570	976.225
72.5	488.906	486.777	674.917	375.215	282.860	375.215	674.917	486.777	488.906	486.777
75.0	441.679	373.393	337.018	299.701	259.641	299.701	337.018	373.393	441.679	373.393
77.5	398.762	354.289	301.872	262.538	221.085	262.538	301.872	354.289	398.762	354.289
80.0	347.225	296.302	270.923	222.519	152.891	222.519	270.923	296.302	347.225	296.302
82.5	167.214	174.688	144.394	135.262	78.145	135.262	144.394	174.688	167.214	174.688
85.0	31.184	46.510	38.136	33.488	20.138	33.488	38.136	46.510	31.184	46.510
87.5	2.314	2.846	3.307	2.129	1.730	2.129	3.307	2.846	2.314	2.846
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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	1401.893	1401.893	1401.893	1401.893	1401.893	1401.893	1401.893
2.5	1397.941	1394.716	1395.914	1394.716	1397.941	1400.582	1403.633
5.0	1388.051	1379.482	1377.250	1379.482	1388.051	1399.743	1408.076
7.5	1376.779	1365.641	1366.797	1365.641	1376.779	1405.374	1421.089
10.0	1375.633	1364.002	1367.227	1364.002	1375.633	1415.345	1440.704
12.5	1385.952	1367.872	1369.787	1367.872	1385.952	1428.255	1463.862
15.0	1402.548	1373.708	1371.343	1373.708	1402.548	1448.567	1493.019
17.5	1423.628	1385.574	1378.233	1385.574	1423.628	1478.031	1533.233
20.0	1449.734	1402.568	1387.846	1402.568	1449.734	1509.686	1562.186
22.5	1482.956	1422.942	1397.818	1422.942	1482.956	1537.605	1593.299
25.0	1518.952	1443.673	1406.244	1443.673	1518.952	1568.390	1627.431
27.5	1552.716	1464.998	1418.918	1464.998	1552.716	1609.198	1671.515
30.0	1590.289	1492.866	1439.076	1492.866	1590.289	1663.837	1730.250
32.5	1638.754	1530.930	1468.940	1530.930	1638.754	1732.819	1807.095
35.0	1702.167	1575.751	1505.509	1575.751	1702.167	1816.708	1905.756
37.5	1773.310	1618.883	1541.557	1618.883	1773.310	1914.858	2015.976
40.0	1837.378	1667.738	1595.418	1667.738	1837.378	2026.521	2135.677
42.5	1916.107	1736.054	1677.627	1736.054	1916.107	2156.920	2267.028
45.0	2027.146	1844.637	1811.497	1844.637	2027.146	2313.845	2412.650
47.5	2191.524	2018.239	2000.814	2018.239	2191.524	2492.833	2569.688
50.0	2435.306	2276.917	2255.981	2276.917	2435.306	2718.310	2732.817
52.5	2771.874	2631.893	2561.825	2631.893	2771.874	3000.249	2894.595
55.0	3224.160	3060.017	2868.140	3060.017	3224.160	3316.208	3015.913
57.5	3788.477	3439.000	3073.572	3439.000	3788.477	3595.433	3033.194
60.0	4328.962	3656.727	3097.968	3656.727	4328.962	3710.250	2898.813
62.5	4612.067	3581.684	2678.045	3581.684	4612.067	3529.093	2551.905
65.0	4316.072	3008.449	1816.247	3008.449	4316.072	2910.729	1976.909
67.5	3251.157	1929.917	890.248	1929.917	3251.157	1936.275	1307.541
70.0	1772.440	825.300	382.740	825.300	1772.440	976.225	755.570
72.5	674.917	375.215	282.860	375.215	674.917	486.777	488.906
75.0	337.018	299.701	259.641	299.701	337.018	373.393	441.679
77.5	301.872	262.538	221.085	262.538	301.872	354.289	398.762
80.0	270.923	222.519	152.891	222.519	270.923	296.302	347.225

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CANDELA TABULATION - (Cont.)

82.5	144.394	135.262	78.145	135.262	144.394	174.688	167.214
85.0	38.136	33.488	20.138	33.488	38.136	46.510	31.184
87.5	3.307	2.129	1.730	2.129	3.307	2.846	2.314
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	535.78	N.A.	5.30
0-30	1238.75	N.A.	12.40
0-40	2313.55	N.A.	23.10
0-60	6759.28	N.A.	67.40
0-80	9945.17	N.A.	99.20
0-90	10030.11	N.A.	100.00
10-90	9897.46	N.A.	98.70
20-40	1777.77	N.A.	17.70
20-50	3416.84	N.A.	34.10
40-70	7164.35	N.A.	71.40
60-80	3185.9	N.A.	31.80
70-80	467.28	N.A.	4.70
80-90	84.93	N.A.	0.80
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	10030.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	132.65
10-20	403.13
20-30	702.97
30-40	1074.8
40-50	1639.07
50-60	2806.66
60-70	2718.62
70-80	467.28
80-90	84.93
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

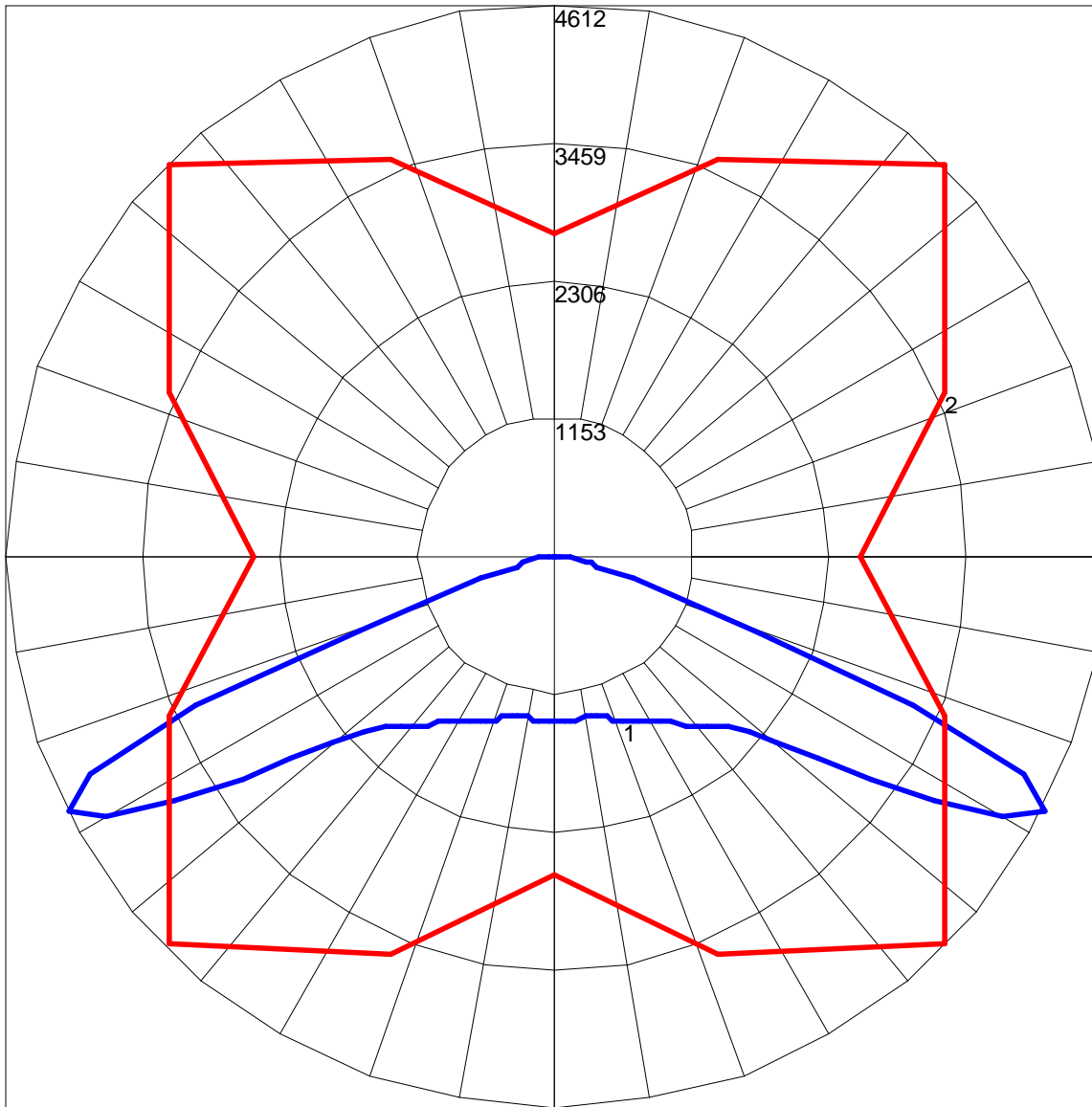
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	107	102	97	93	105	100	96	92	96	92	89	92	89	86	88	86	83	81
2	96	86	78	72	93	84	77	71	80	74	69	77	72	67	74	70	66	63
3	85	73	63	56	82	71	62	55	68	60	54	65	58	53	62	57	52	50
4	76	62	52	44	74	61	51	44	58	50	43	55	48	42	53	47	42	39
5	69	54	43	35	66	52	43	35	50	41	35	48	40	34	46	39	34	31
6	62	47	37	29	60	46	36	29	44	35	29	42	34	28	40	33	28	26
7	57	41	31	24	55	41	31	24	39	30	24	37	30	24	36	29	24	21
8	52	37	27	21	51	36	27	21	35	26	21	34	26	20	32	25	20	18
9	48	33	24	18	47	33	24	18	32	23	18	30	23	18	29	22	17	15
10	45	30	22	16	44	30	21	16	29	21	16	28	21	15	27	20	15	13

POLAR GRAPH



Maximum Candela = 4612.067 Located At Horizontal Angle = 45, Vertical Angle = 62.5
1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (62.5) (Through Max. Cd.)