



IES INDOOR REPORT
PHOTOMETRIC FILENAME : CPG-LED-5L-CA-W-40.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 3353
[TESTLAB] TUV SUD America
[TESTDATE] 2/21/2018 4:39:34 PM
[ISSUE DATE] 04/24/2018
[MANUFACTURER] LSI INDUSTRIES, INC
[LUMCAT] CPG-LED-5L-CA-W-40
[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	5528
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	41.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.50
Spacing Criterion (90-270)	1.78
Spacing Criterion (Diagonal)	2.96
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	59741	50539	45132
55	92313	99902	87785
65	79696	173364	72443
75	30248	23353	17331
85	4588	8078	4675

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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	770.562	770.562	770.562	770.562	770.562	770.562	770.562	770.562	770.562	770.562
2.5	771.980	770.159	768.500	767.062	766.720	767.062	768.500	770.159	771.980	770.159
5.0	774.655	769.737	762.858	758.413	757.247	758.413	762.858	769.737	774.655	769.737
7.5	782.297	773.086	757.337	751.022	751.756	751.022	757.337	773.086	782.297	773.086
10.0	792.907	778.687	756.945	750.016	752.068	750.016	756.945	778.687	792.907	778.687
12.5	805.518	786.712	762.537	752.621	753.757	752.621	762.537	786.712	805.518	786.712
15.0	821.849	797.804	772.120	756.241	754.039	756.241	772.120	797.804	821.849	797.804
17.5	844.315	814.106	784.268	762.738	757.468	762.738	784.268	814.106	844.315	814.106
20.0	859.490	831.644	799.383	773.106	763.241	773.106	799.383	831.644	859.490	831.644
22.5	877.290	847.101	817.776	784.500	769.546	784.500	817.776	847.101	877.290	847.101
25.0	896.689	865.001	838.654	797.312	775.097	797.312	838.654	865.001	896.689	865.001
27.5	921.991	888.644	858.756	810.646	783.957	810.646	858.756	888.644	921.991	888.644
30.0	957.048	921.488	881.866	828.135	797.583	828.135	881.866	921.488	957.048	921.488
32.5	1001.034	961.553	912.045	851.777	815.715	851.777	912.045	961.553	1001.034	961.553
35.0	1056.133	1010.266	950.018	877.713	834.641	877.713	950.018	1010.266	1056.133	1010.266
37.5	1116.331	1063.132	989.761	900.933	854.673	900.933	989.761	1063.132	1116.331	1063.132
40.0	1182.572	1124.175	1024.174	928.387	885.305	928.387	1024.174	1124.175	1182.572	1124.175
42.5	1255.381	1196.581	1069.217	967.064	934.582	967.064	1069.217	1196.581	1255.381	1196.581
45.0	1336.536	1283.619	1130.671	1029.816	1009.693	1029.816	1130.671	1283.619	1336.536	1283.619
47.5	1424.187	1385.893	1223.250	1131.255	1117.869	1131.255	1223.250	1385.893	1424.187	1385.893
50.0	1520.387	1514.886	1364.533	1279.737	1264.944	1279.737	1364.533	1514.886	1520.387	1514.886
52.5	1612.232	1675.778	1553.734	1479.487	1434.837	1479.487	1553.734	1675.778	1612.232	1675.778
55.0	1675.225	1849.181	1812.948	1710.594	1593.065	1710.594	1812.948	1849.181	1675.225	1849.181
57.5	1678.413	1998.830	2118.582	1907.116	1688.600	1907.116	2118.582	1998.830	1678.413	1998.830
60.0	1592.230	2049.213	2400.654	2001.847	1659.185	2001.847	2400.654	2049.213	1592.230	2049.213
62.5	1386.043	1920.400	2524.478	1905.064	1413.085	1905.064	2524.478	1920.400	1386.043	1920.400
65.0	1065.626	1563.720	2318.081	1575.164	968.653	1575.164	2318.081	1563.720	1065.626	1563.720
67.5	689.145	1024.425	1722.058	1036.222	507.396	1036.222	1722.058	1024.425	689.145	1024.425
70.0	391.154	516.738	960.839	480.314	231.247	480.314	960.839	516.738	391.154	516.738
72.5	265.217	268.596	381.429	214.714	156.890	214.714	381.429	268.596	265.217	268.596
75.0	247.689	208.741	191.233	164.080	141.916	164.080	191.233	208.741	247.689	208.741
77.5	221.462	195.436	166.262	143.414	122.125	143.414	166.262	195.436	221.462	195.436
80.0	191.725	163.849	148.704	124.549	85.751	124.549	148.704	163.849	191.725	163.849
82.5	93.052	96.692	81.246	73.693	43.333	73.693	81.246	96.692	93.052	96.692
85.0	12.651	28.279	22.275	21.843	12.892	21.843	22.275	28.279	12.651	28.279
87.5	0.483	1.307	1.951	1.096	1.036	1.096	1.951	1.307	0.483	1.307
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	770.562	770.562	770.562	770.562	770.562	770.562	770.562
2.5	768.500	767.062	766.720	767.062	768.500	770.159	771.980
5.0	762.858	758.413	757.247	758.413	762.858	769.737	774.655
7.5	757.337	751.022	751.756	751.022	757.337	773.086	782.297
10.0	756.945	750.016	752.068	750.016	756.945	778.687	792.907
12.5	762.537	752.621	753.757	752.621	762.537	786.712	805.518
15.0	772.120	756.241	754.039	756.241	772.120	797.804	821.849
17.5	784.268	762.738	757.468	762.738	784.268	814.106	844.315
20.0	799.383	773.106	763.241	773.106	799.383	831.644	859.490
22.5	817.776	784.500	769.546	784.500	817.776	847.101	877.290
25.0	838.654	797.312	775.097	797.312	838.654	865.001	896.689
27.5	858.756	810.646	783.957	810.646	858.756	888.644	921.991
30.0	881.866	828.135	797.583	828.135	881.866	921.488	957.048
32.5	912.045	851.777	815.715	851.777	912.045	961.553	1001.034
35.0	950.018	877.713	834.641	877.713	950.018	1010.266	1056.133
37.5	989.761	900.933	854.673	900.933	989.761	1063.132	1116.331
40.0	1024.174	928.387	885.305	928.387	1024.174	1124.175	1182.572
42.5	1069.217	967.064	934.582	967.064	1069.217	1196.581	1255.381
45.0	1130.671	1029.816	1009.693	1029.816	1130.671	1283.619	1336.536
47.5	1223.250	1131.255	1117.869	1131.255	1223.250	1385.893	1424.187
50.0	1364.533	1279.737	1264.944	1279.737	1364.533	1514.886	1520.387
52.5	1553.734	1479.487	1434.837	1479.487	1553.734	1675.778	1612.232
55.0	1812.948	1710.594	1593.065	1710.594	1812.948	1849.181	1675.225
57.5	2118.582	1907.116	1688.600	1907.116	2118.582	1998.830	1678.413
60.0	2400.654	2001.847	1659.185	2001.847	2400.654	2049.213	1592.230
62.5	2524.478	1905.064	1413.085	1905.064	2524.478	1920.400	1386.043
65.0	2318.081	1575.164	968.653	1575.164	2318.081	1563.720	1065.626
67.5	1722.058	1036.222	507.396	1036.222	1722.058	1024.425	689.145
70.0	960.839	480.314	231.247	480.314	960.839	516.738	391.154
72.5	381.429	214.714	156.890	214.714	381.429	268.596	265.217
75.0	191.233	164.080	141.916	164.080	191.233	208.741	247.689
77.5	166.262	143.414	122.125	143.414	166.262	195.436	221.462
80.0	148.704	124.549	85.751	124.549	148.704	163.849	191.725

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CANDELA TABULATION - (Cont.)

82.5	81.246	73.693	43.333	73.693	81.246	96.692	93.052
85.0	22.275	21.843	12.892	21.843	22.275	28.279	12.651
87.5	1.951	1.096	1.036	1.096	1.951	1.307	0.483
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	294.89	N.A.	5.30
0-30	683.01	N.A.	12.40
0-40	1280.32	N.A.	23.20
0-60	3755.9	N.A.	67.90
0-80	5480.14	N.A.	99.10
0-90	5527.54	N.A.	100.00
10-90	5454.58	N.A.	98.70
20-40	985.44	N.A.	17.80
20-50	1898.53	N.A.	34.30
40-70	3941.04	N.A.	71.30
60-80	1724.25	N.A.	31.20
70-80	258.78	N.A.	4.70
80-90	47.39	N.A.	0.90
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	5527.54	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	72.95
10-20	221.93
20-30	388.12
30-40	597.31
40-50	913.10
50-60	1562.48
60-70	1465.46
70-80	258.78
80-90	47.39
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

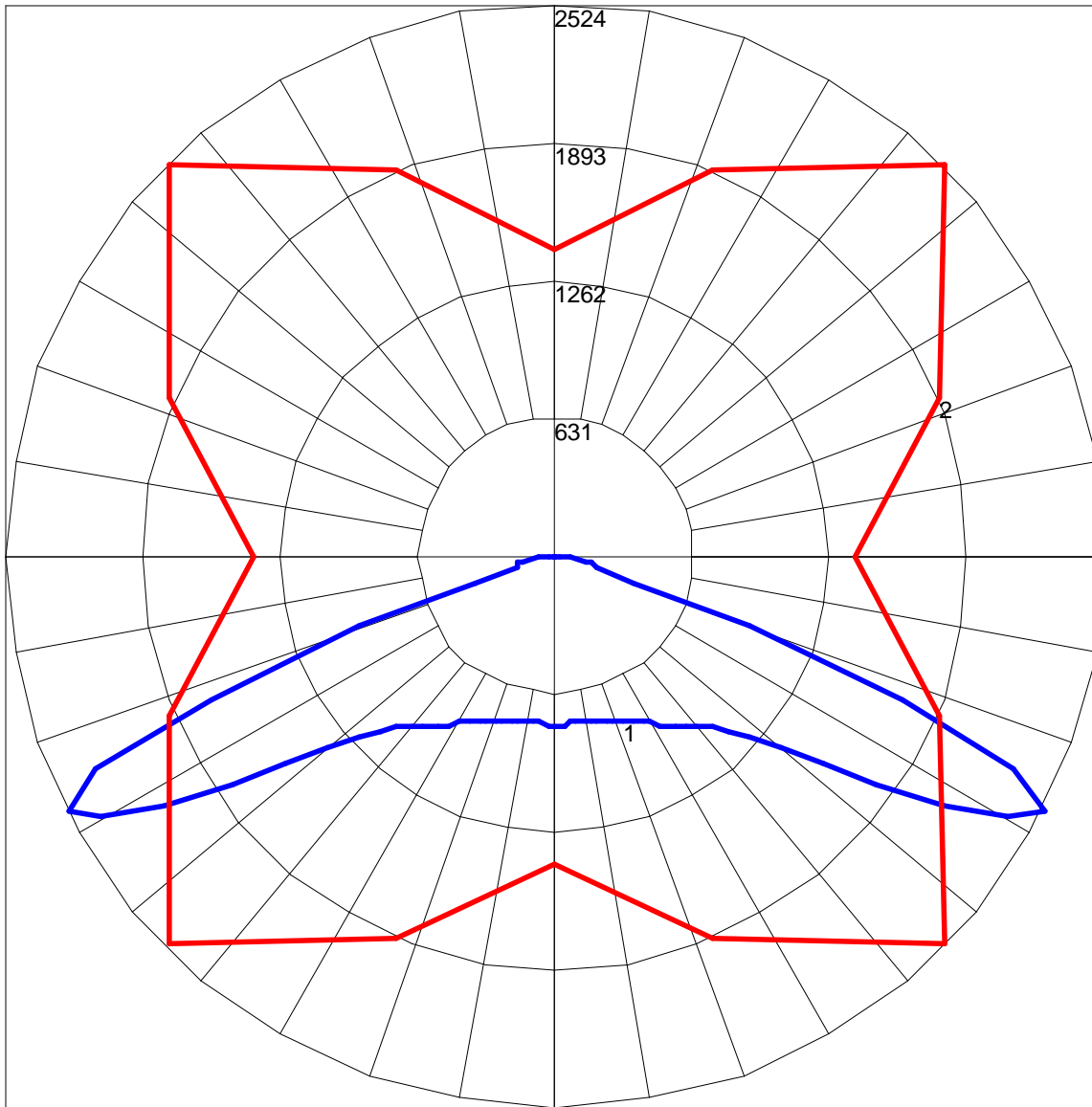
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	108	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	81	74	69	77	72	67	74	70	66	64
3	85	73	63	56	82	71	62	55	68	60	54	65	59	53	62	57	52	50
4	76	62	52	44	74	61	51	44	58	50	43	56	48	42	53	47	42	39
5	69	54	43	36	66	52	43	35	50	42	35	48	40	34	46	39	34	32
6	62	47	37	29	60	46	36	29	44	35	29	42	34	28	40	34	28	26
7	57	42	32	25	55	41	31	24	39	30	24	37	30	24	36	29	24	21
8	52	37	27	21	51	36	27	21	35	27	21	34	26	20	32	25	20	18
9	49	33	24	18	47	33	24	18	32	24	18	30	23	18	29	23	18	16
10	45	30	22	16	44	30	21	16	29	21	16	28	21	16	27	20	15	14

POLAR GRAPH



Maximum Candela = 2524.478 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.)