



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : CPG-LED-3L-CA-W-30.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] 3368  
[TESTLAB] TUV SUD America  
[TESTDATE] 3/19/2018 5:13:29 PM  
[ISSUE DATE] 04/24/2018  
[MANUFACTURER] LSI INDUSTRIES, INC  
[LUMCAT] CPG-LED-3L-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	3387
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	138
Total Luminaire Watts	24.52
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.54
Spacing Criterion (90-270)	1.78
Spacing Criterion (Diagonal)	2.98
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.58 ft
Luminous Width (90-270)	0.58 ft
Luminous Height	0.08 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	32186	25912	23815
55	47706	48358	45826
65	34859	75271	30607
75	12497	7674	7102
85	1389	1085	577

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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>
<b>0.0</b>	471.400	471.400	471.400	471.400	471.400	471.400	471.400	471.400	471.400	471.400
<b>2.5</b>	471.825	470.450	469.459	468.781	469.398	468.781	469.459	470.450	471.825	470.450
<b>5.0</b>	472.027	469.782	465.929	463.522	463.380	463.522	465.929	469.782	472.027	469.782
<b>7.5</b>	476.498	471.957	463.006	460.164	460.983	460.164	463.006	471.957	476.498	471.957
<b>10.0</b>	484.275	475.901	463.886	460.215	461.782	460.215	463.886	475.901	484.275	475.901
<b>12.5</b>	493.559	481.140	468.397	462.096	463.148	462.096	468.397	481.140	493.559	481.140
<b>15.0</b>	503.865	488.381	474.859	465.403	464.564	465.403	474.859	488.381	503.865	488.381
<b>17.5</b>	518.276	499.233	483.193	470.359	467.699	470.359	483.193	499.233	518.276	499.233
<b>20.0</b>	528.774	511.753	493.478	477.175	472.007	477.175	493.478	511.753	528.774	511.753
<b>22.5</b>	539.211	522.433	505.999	485.478	476.639	485.478	505.999	522.433	539.211	522.433
<b>25.0</b>	553.482	535.975	521.543	495.248	481.706	495.248	521.543	535.975	553.482	535.975
<b>27.5</b>	571.140	552.480	536.258	505.402	487.794	505.402	536.258	552.480	571.140	552.480
<b>30.0</b>	594.198	574.154	553.573	518.752	497.210	518.752	553.573	574.154	594.198	574.154
<b>32.5</b>	621.899	600.368	575.610	535.854	509.205	535.854	575.610	600.368	621.899	600.368
<b>35.0</b>	654.151	630.577	602.856	554.250	520.643	554.250	602.856	630.577	654.151	630.577
<b>37.5</b>	688.922	661.332	627.320	567.924	530.524	567.924	627.320	661.332	688.922	661.332
<b>40.0</b>	728.051	696.446	644.928	580.404	544.956	580.404	644.928	696.446	728.051	696.446
<b>42.5</b>	772.833	739.641	664.700	597.576	569.471	597.576	664.700	739.641	772.833	739.641
<b>45.0</b>	822.905	790.299	696.780	627.229	608.883	627.229	696.780	790.299	822.905	790.299
<b>47.5</b>	880.451	856.219	748.834	680.325	671.284	680.325	748.834	856.219	880.451	856.219
<b>50.0</b>	945.380	943.043	829.995	767.524	765.562	767.524	829.995	943.043	945.380	943.043
<b>52.5</b>	1003.138	1051.086	955.291	896.855	880.380	896.855	955.291	1051.086	1003.138	1051.086
<b>55.0</b>	1042.297	1166.896	1130.689	1056.537	1001.226	1056.537	1130.689	1166.896	1042.297	1166.896
<b>57.5</b>	1039.658	1260.628	1351.679	1221.964	1089.436	1221.964	1351.679	1260.628	1039.658	1260.628
<b>60.0</b>	971.371	1281.886	1555.001	1326.618	1089.527	1326.618	1555.001	1281.886	971.371	1281.886
<b>62.5</b>	819.901	1178.112	1630.964	1264.319	895.732	1264.319	1630.964	1178.112	819.901	1178.112
<b>65.0</b>	608.853	916.182	1442.367	958.952	534.590	958.952	1442.367	916.182	608.853	916.182
<b>67.5</b>	386.184	549.568	968.469	514.514	238.931	514.514	968.469	549.568	386.184	549.568
<b>70.0</b>	224.853	258.724	448.969	195.140	115.961	195.140	448.969	258.724	224.853	258.724
<b>72.5</b>	161.300	150.479	168.936	115.638	95.805	115.638	168.936	150.479	161.300	150.479
<b>75.0</b>	156.871	130.869	110.207	103.633	89.151	103.633	110.207	130.869	156.871	130.869
<b>77.5</b>	137.200	125.468	101.004	92.781	76.620	92.781	101.004	125.468	137.200	125.468
<b>80.0</b>	122.646	99.062	86.521	73.758	51.791	73.758	86.521	99.062	122.646	99.062
<b>82.5</b>	57.030	54.613	44.408	43.569	24.798	43.569	44.408	54.613	57.030	54.613
<b>85.0</b>	10.083	11.823	9.901	9.274	4.187	9.274	9.901	11.823	10.083	11.823
<b>87.5</b>	0.000	0.000	0.222	0.101	0.000	0.101	0.222	0.000	0.000	0.000
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>97.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>100.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>102.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>105.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>107.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>110.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>112.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>115.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>117.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>120.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>122.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>125.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>127.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>130.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>132.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**CANDELA TABULATION - (Cont.)**

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	471.400	471.400	471.400	471.400	471.400	471.400	471.400
2.5	469.459	468.781	469.398	468.781	469.459	470.450	471.825
5.0	465.929	463.522	463.380	463.522	465.929	469.782	472.027
7.5	463.006	460.164	460.983	460.164	463.006	471.957	476.498
10.0	463.886	460.215	461.782	460.215	463.886	475.901	484.275
12.5	468.397	462.096	463.148	462.096	468.397	481.140	493.559
15.0	474.859	465.403	464.564	465.403	474.859	488.381	503.865
17.5	483.193	470.359	467.699	470.359	483.193	499.233	518.276
20.0	493.478	477.175	472.007	477.175	493.478	511.753	528.774
22.5	505.999	485.478	476.639	485.478	505.999	522.433	539.211
25.0	521.543	495.248	481.706	495.248	521.543	535.975	553.482
27.5	536.258	505.402	487.794	505.402	536.258	552.480	571.140
30.0	553.573	518.752	497.210	518.752	553.573	574.154	594.198
32.5	575.610	535.854	509.205	535.854	575.610	600.368	621.899
35.0	602.856	554.250	520.643	554.250	602.856	630.577	654.151
37.5	627.320	567.924	530.524	567.924	627.320	661.332	688.922
40.0	644.928	580.404	544.956	580.404	644.928	696.446	728.051
42.5	664.700	597.576	569.471	597.576	664.700	739.641	772.833
45.0	696.780	627.229	608.883	627.229	696.780	790.299	822.905
47.5	748.834	680.325	671.284	680.325	748.834	856.219	880.451
50.0	829.995	767.524	765.562	767.524	829.995	943.043	945.380
52.5	955.291	896.855	880.380	896.855	955.291	1051.086	1003.138
55.0	1130.689	1056.537	1001.226	1056.537	1130.689	1166.896	1042.297
57.5	1351.679	1221.964	1089.436	1221.964	1351.679	1260.628	1039.658
60.0	1555.001	1326.618	1089.527	1326.618	1555.001	1281.886	971.371
62.5	1630.964	1264.319	895.732	1264.319	1630.964	1178.112	819.901
65.0	1442.367	958.952	534.590	958.952	1442.367	916.182	608.853
67.5	968.469	514.514	238.931	514.514	968.469	549.568	386.184
70.0	448.969	195.140	115.961	195.140	448.969	258.724	224.853
72.5	168.936	115.638	95.805	115.638	168.936	150.479	161.300
75.0	110.207	103.633	89.151	103.633	110.207	130.869	156.871
77.5	101.004	92.781	76.620	92.781	101.004	125.468	137.200
80.0	86.521	73.758	51.791	73.758	86.521	99.062	122.646

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CANDELA TABULATION - (Cont.)

82.5	44.408	43.569	24.798	43.569	44.408	54.613	57.030
85.0	9.901	9.274	4.187	9.274	9.901	11.823	10.083
87.5	0.222	0.101	0.000	0.101	0.222	0.000	0.000
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	181.01	N.A.	5.30
0-30	421.92	N.A.	12.50
0-40	795.81	N.A.	23.50
0-60	2337.21	N.A.	69.00
0-80	3359.94	N.A.	99.20
0-90	3386.77	N.A.	100.00
10-90	3342.16	N.A.	98.70
20-40	614.80	N.A.	18.20
20-50	1175.59	N.A.	34.70
40-70	2421.37	N.A.	71.50
60-80	1022.74	N.A.	30.20
70-80	142.76	N.A.	4.20
80-90	26.83	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	3386.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	44.61
10-20	136.40
20-30	240.91
30-40	373.89
40-50	560.79
50-60	980.61
60-70	879.97
70-80	142.76
80-90	26.83
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

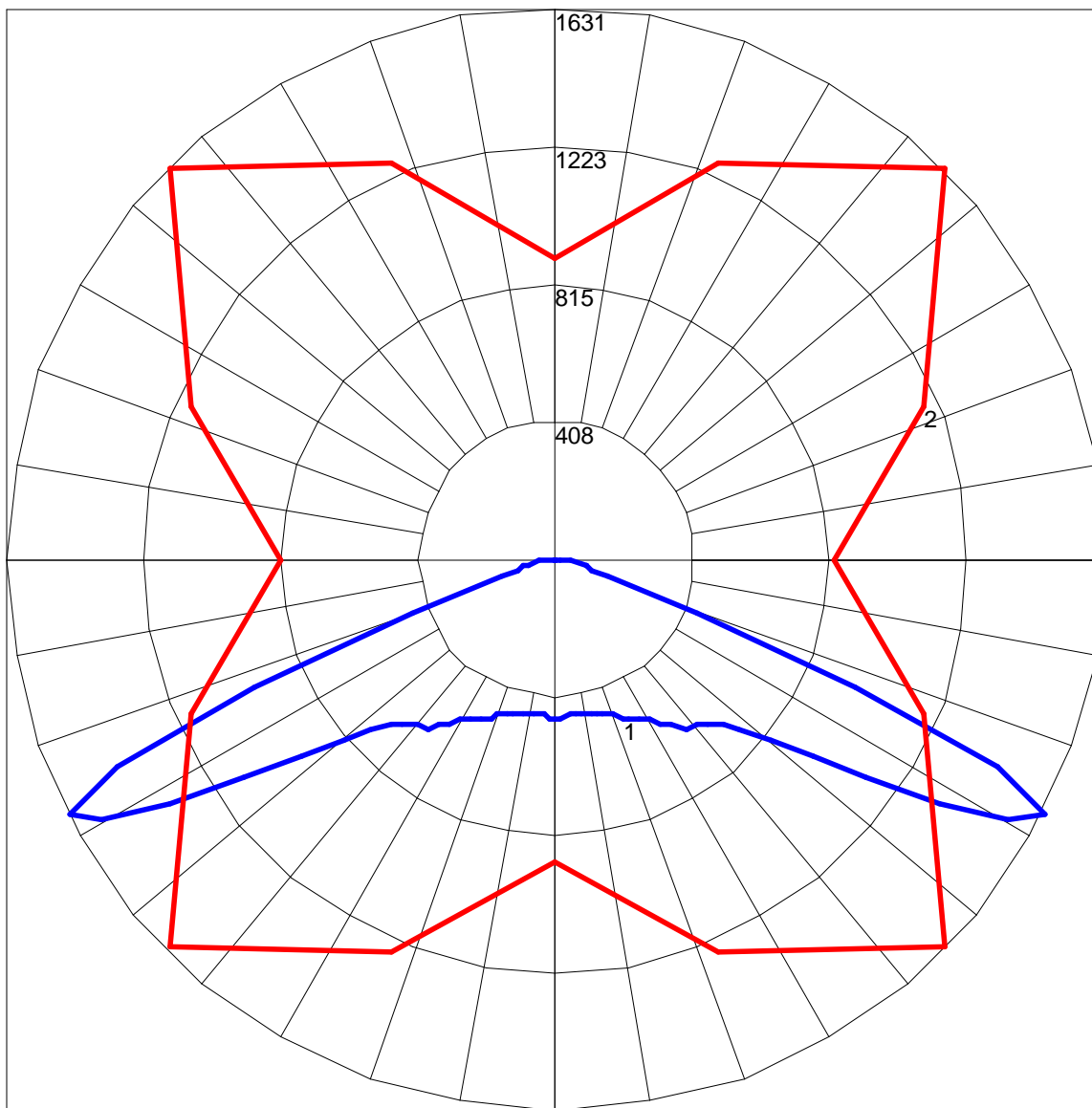
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	98	93	105	100	96	92	96	92	89	92	89	86	88	86	84	81
2	96	86	79	72	93	84	77	71	81	75	69	77	72	68	74	70	66	64
3	85	73	64	56	83	71	63	56	68	61	55	65	59	54	63	57	53	50
4	76	62	52	44	74	61	52	44	58	50	43	56	49	43	54	47	42	40
5	69	54	44	36	66	53	43	36	50	42	35	48	41	35	46	40	34	32
6	62	47	37	30	60	46	36	29	44	35	29	42	35	29	41	34	28	26
7	57	42	32	25	55	41	31	25	39	31	24	38	30	24	36	29	24	22
8	53	37	28	21	51	37	27	21	35	27	21	34	26	21	32	26	20	18
9	49	34	24	18	47	33	24	18	32	24	18	31	23	18	29	23	18	16
10	45	31	22	16	44	30	22	16	29	21	16	28	21	16	27	20	16	14

POLAR GRAPH



Maximum Candela = 1630.964 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.)