



IES INDOOR REPORT
PHOTOMETRIC FILENAME : CPG-LED-7L-CA-W-40.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 3354
[TESTLAB] TUV SUD America
[TESTDATE] 2/21/2018 5:35:24 PM
[ISSUEDATE]04/24/2018
[MANUFAC]LSI INDUSTRIES, INC
[LUMCAT] CPG-LED-7L-CA-W-40
[OTHER]TEST PROCEDURE: IESNA
[_ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7693
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
Total Luminaire Watts	59.23
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.48
Spacing Criterion (90-270)	1.74
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	82884	69743	62202
55	127942	137086	121564
65	112199	246637	103159
75	41244	31442	24389
85	7586	10333	5567

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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	1075.285	1075.285	1075.285	1075.285	1075.285	1075.285	1075.285	1075.285	1075.285	1075.285
2.5	1076.632	1074.425	1072.106	1069.585	1069.838	1069.585	1072.106	1074.425	1076.632	1074.425
5.0	1080.084	1073.797	1064.259	1057.577	1056.027	1057.577	1064.259	1073.797	1080.084	1073.797
7.5	1090.503	1077.938	1055.572	1047.310	1048.403	1047.310	1055.572	1077.938	1090.503	1077.938
10.0	1105.275	1085.795	1055.096	1046.004	1048.170	1046.004	1055.096	1085.795	1105.275	1085.795
12.5	1122.630	1095.677	1063.257	1048.849	1050.823	1048.849	1063.257	1095.677	1122.630	1095.677
15.0	1145.097	1110.794	1075.923	1054.033	1051.896	1054.033	1075.923	1110.794	1145.097	1110.794
17.5	1176.414	1133.787	1092.366	1063.115	1057.303	1063.115	1092.366	1133.787	1176.414	1133.787
20.0	1198.304	1158.229	1112.636	1076.490	1064.786	1076.490	1112.636	1158.229	1198.304	1158.229
22.5	1223.100	1179.431	1138.141	1092.174	1072.693	1092.174	1138.141	1179.431	1223.100	1179.431
25.0	1249.395	1203.873	1166.319	1108.748	1079.477	1108.748	1166.319	1203.873	1249.395	1203.873
27.5	1283.739	1235.777	1192.634	1125.819	1089.896	1125.819	1192.634	1235.777	1283.739	1235.777
30.0	1328.592	1278.696	1222.462	1147.517	1105.680	1147.517	1222.462	1278.696	1328.592	1278.696
32.5	1388.968	1332.896	1261.109	1177.821	1129.251	1177.821	1261.109	1332.896	1388.968	1332.896
35.0	1464.753	1399.012	1311.876	1212.641	1157.267	1212.641	1311.876	1399.012	1464.753	1399.012
37.5	1548.690	1473.127	1366.997	1246.327	1184.362	1246.327	1366.997	1473.127	1548.690	1473.127
40.0	1640.858	1558.207	1415.526	1283.263	1224.730	1283.263	1415.526	1558.207	1640.858	1558.207
42.5	1743.333	1658.333	1475.577	1334.313	1288.852	1334.313	1475.577	1658.333	1743.333	1658.333
45.0	1854.293	1778.365	1560.293	1419.161	1391.590	1419.161	1560.293	1778.365	1854.293	1778.365
47.5	1975.053	1918.121	1685.833	1551.191	1537.572	1551.191	1685.833	1918.121	1975.053	1918.121
50.0	2102.821	2093.091	1874.715	1754.136	1733.684	1754.136	1874.715	2093.091	2102.821	2093.091
52.5	2232.856	2312.732	2130.877	2028.878	1970.254	2028.878	2130.877	2312.732	2232.856	2312.732
55.0	2321.794	2554.497	2487.743	2354.538	2206.065	2354.538	2487.743	2554.497	2321.794	2554.497
57.5	2329.226	2764.793	2924.242	2648.386	2362.051	2648.386	2924.242	2764.793	2329.226	2764.793
60.0	2214.560	2848.801	3331.388	2814.345	2372.834	2814.345	3331.388	2848.801	2214.560	2848.801
62.5	1939.393	2698.515	3546.514	2744.250	2059.304	2744.250	3546.514	2698.515	1939.393	2698.515
65.0	1500.231	2221.840	3297.824	2295.054	1379.359	2295.054	3297.824	2221.840	1500.231	2221.840
67.5	991.055	1460.936	2454.381	1459.650	676.380	1459.650	2454.381	1460.936	991.055	1460.936
70.0	564.823	730.266	1340.783	611.884	287.834	611.884	1340.783	730.266	564.823	730.266
72.5	373.056	366.171	514.785	285.231	216.948	285.231	514.785	366.171	373.056	366.171
75.0	337.740	287.793	257.469	229.422	199.716	229.422	257.469	287.793	337.740	287.793
77.5	305.876	273.233	231.680	202.439	170.353	202.439	231.680	273.233	305.876	273.233
80.0	263.888	227.104	208.332	171.264	117.642	171.264	208.332	227.104	263.888	227.104
82.5	127.869	133.731	109.968	103.103	59.484	103.103	109.968	133.731	127.869	133.731
85.0	20.918	34.941	28.492	24.118	15.350	24.118	28.492	34.941	20.918	34.941
87.5	1.407	1.347	2.096	1.428	0.932	1.428	2.096	1.347	1.407	1.347
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. 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	1075.285	1075.285	1075.285	1075.285	1075.285	1075.285	1075.285
2.5	1072.106	1069.585	1069.838	1069.585	1072.106	1074.425	1076.632
5.0	1064.259	1057.577	1056.027	1057.577	1064.259	1073.797	1080.084
7.5	1055.572	1047.310	1048.403	1047.310	1055.572	1077.938	1090.503
10.0	1055.096	1046.004	1048.170	1046.004	1055.096	1085.795	1105.275
12.5	1063.257	1048.849	1050.823	1048.849	1063.257	1095.677	1122.630
15.0	1075.923	1054.033	1051.896	1054.033	1075.923	1110.794	1145.097
17.5	1092.366	1063.115	1057.303	1063.115	1092.366	1133.787	1176.414
20.0	1112.636	1076.490	1064.786	1076.490	1112.636	1158.229	1198.304
22.5	1138.141	1092.174	1072.693	1092.174	1138.141	1179.431	1223.100
25.0	1166.319	1108.748	1079.477	1108.748	1166.319	1203.873	1249.395
27.5	1192.634	1125.819	1089.896	1125.819	1192.634	1235.777	1283.739
30.0	1222.462	1147.517	1105.680	1147.517	1222.462	1278.696	1328.592
32.5	1261.109	1177.821	1129.251	1177.821	1261.109	1332.896	1388.968
35.0	1311.876	1212.641	1157.267	1212.641	1311.876	1399.012	1464.753
37.5	1366.997	1246.327	1184.362	1246.327	1366.997	1473.127	1548.690
40.0	1415.526	1283.263	1224.730	1283.263	1415.526	1558.207	1640.858
42.5	1475.577	1334.313	1288.852	1334.313	1475.577	1658.333	1743.333
45.0	1560.293	1419.161	1391.590	1419.161	1560.293	1778.365	1854.293
47.5	1685.833	1551.191	1537.572	1551.191	1685.833	1918.121	1975.053
50.0	1874.715	1754.136	1733.684	1754.136	1874.715	2093.091	2102.821
52.5	2130.877	2028.878	1970.254	2028.878	2130.877	2312.732	2232.856
55.0	2487.743	2354.538	2206.065	2354.538	2487.743	2554.497	2321.794
57.5	2924.242	2648.386	2362.051	2648.386	2924.242	2764.793	2329.226
60.0	3331.388	2814.345	2372.834	2814.345	3331.388	2848.801	2214.560
62.5	3546.514	2744.250	2059.304	2744.250	3546.514	2698.515	1939.393
65.0	3297.824	2295.054	1379.359	2295.054	3297.824	2221.840	1500.231
67.5	2454.381	1459.650	676.380	1459.650	2454.381	1460.936	991.055
70.0	1340.783	611.884	287.834	611.884	1340.783	730.266	564.823
72.5	514.785	285.231	216.948	285.231	514.785	366.171	373.056
75.0	257.469	229.422	199.716	229.422	257.469	287.793	337.740
77.5	231.680	202.439	170.353	202.439	231.680	273.233	305.876
80.0	208.332	171.264	117.642	171.264	208.332	227.104	263.888

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CANDELA TABULATION - (Cont.)

82.5	109.968	103.103	59.484	103.103	109.968	133.731	127.869
85.0	28.492	24.118	15.350	24.118	28.492	34.941	20.918
87.5	2.096	1.428	0.932	1.428	2.096	1.347	1.407
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	410.99	N.A.	5.30
0-30	950.77	N.A.	12.40
0-40	1777.68	N.A.	23.10
0-60	5198.85	N.A.	67.60
0-80	7628.29	N.A.	99.20
0-90	7692.85	N.A.	100.00
10-90	7591.12	N.A.	98.70
20-40	1366.69	N.A.	17.80
20-50	2627.37	N.A.	34.20
40-70	5495.14	N.A.	71.40
60-80	2429.44	N.A.	31.60
70-80	355.48	N.A.	4.60
80-90	64.56	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	7692.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	101.73
10-20	309.26
20-30	539.78
30-40	826.91
40-50	1260.68
50-60	2160.49
60-70	2073.97
70-80	355.48
80-90	64.56
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

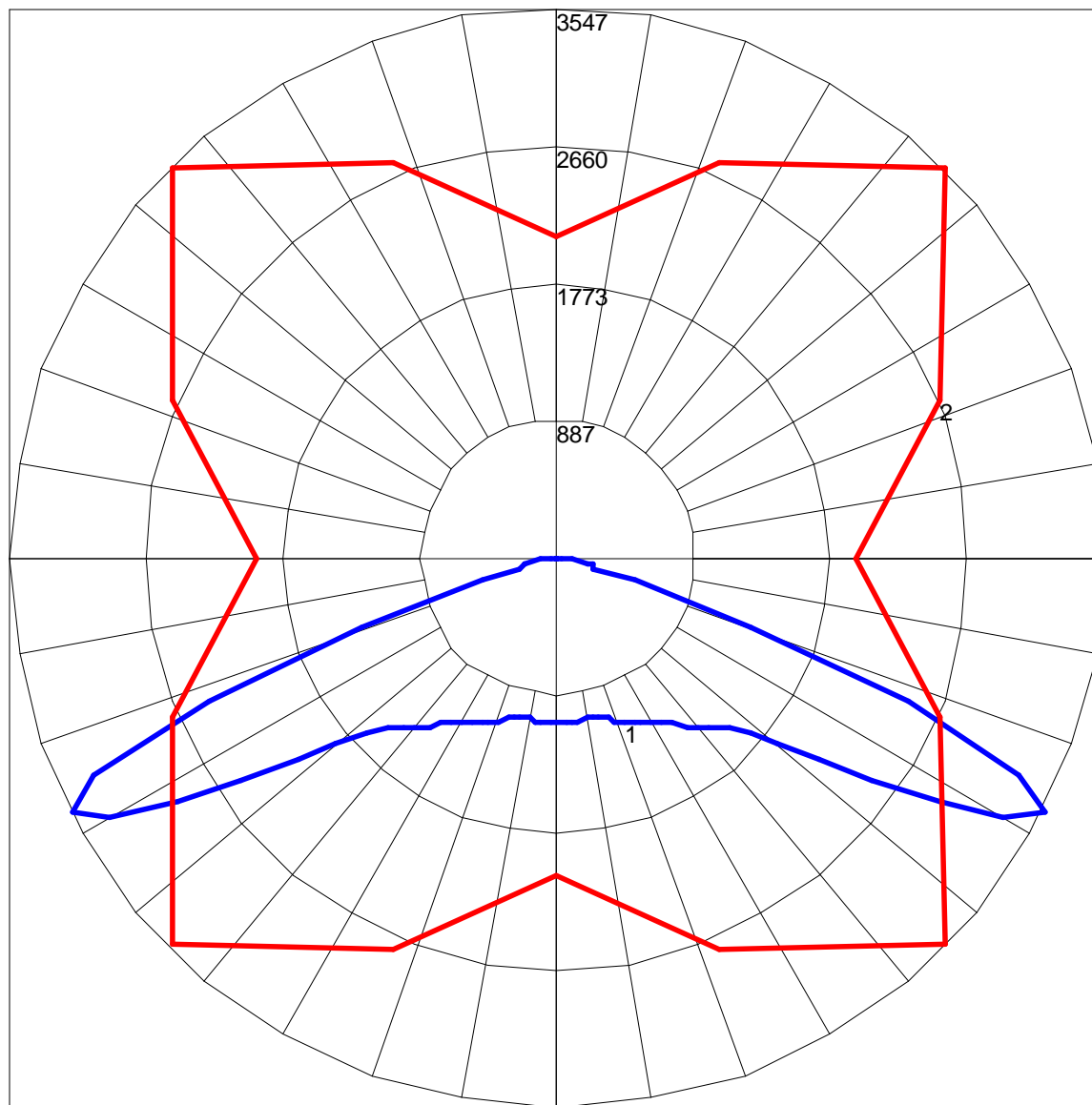
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	80	74	69	77	72	67	74	70	66	63
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	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	27	21	34	26	20	32	25	20	18
9	49	33	24	18	47	33	24	18	32	23	18	30	23	18	29	23	18	15
10	45	30	22	16	44	30	21	16	29	21	16	28	21	16	27	20	15	13

POLAR GRAPH



Maximum Candela = 3546.514 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.)