

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P580185

Luminaire Tested: **HVSL12-4-LD4-1HI-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580185  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/16/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: HVSL12-4-LD4-1HI-50-UNV-O-EDD-90  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

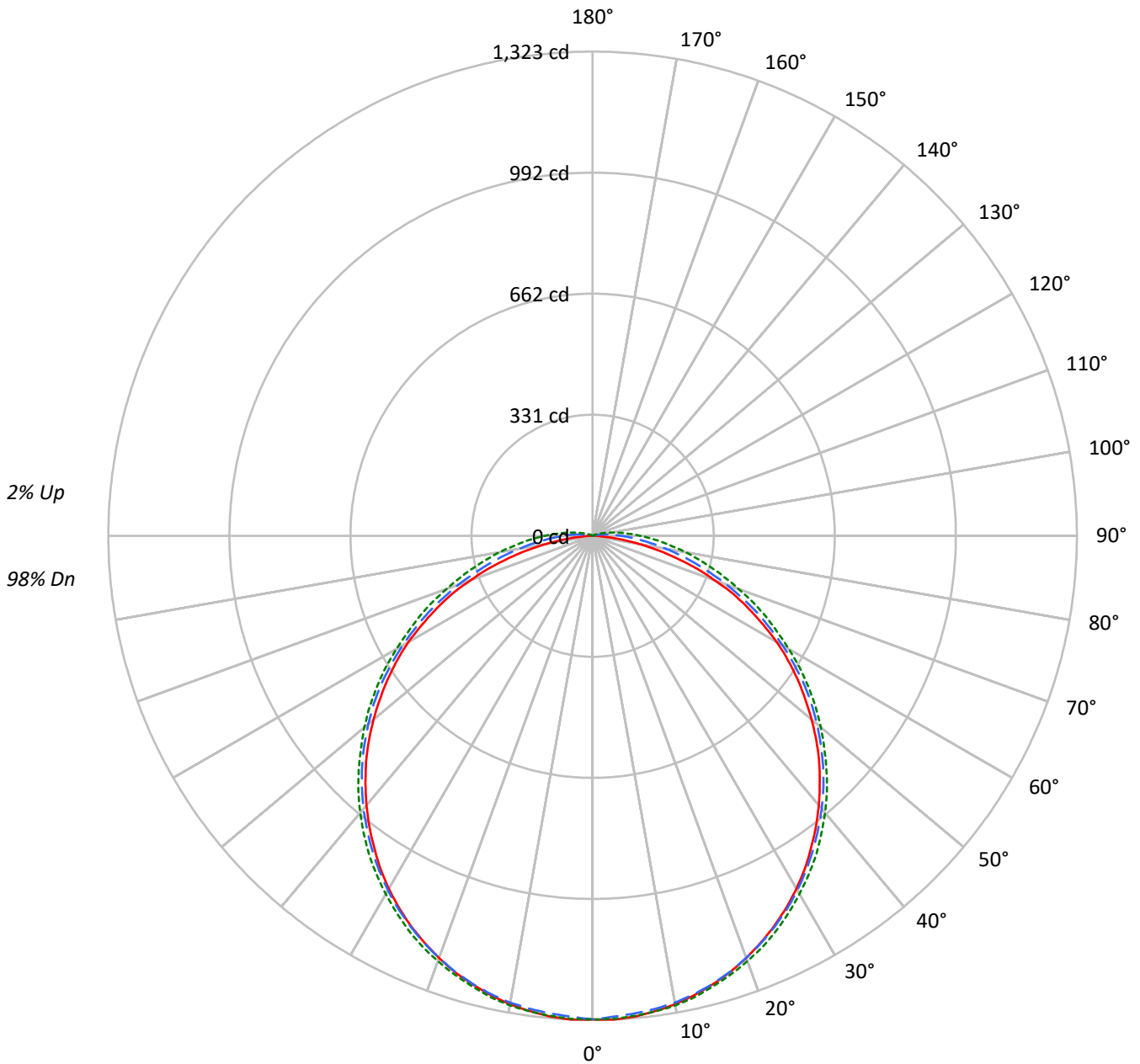
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3996.0 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 45.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	101	101	101				98																
1	108	102	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83				81																
2	98	89	82	76	95	87	80	75	83	77	73	79	75	71	76	72	69				67																
3	89	78	69	63	86	76	68	62	73	66	61	70	64	59	67	62	58				56																
4	81	69	60	53	79	67	59	52	65	57	52	62	56	51	60	54	50				47																
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43				41																
6	69	55	46	40	67	54	46	39	52	45	39	50	44	38	49	43	38				36																
7	64	50	41	35	62	49	41	35	47	40	34	46	39	34	44	38	34				32																
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	41	35	30				28																
9	55	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27				25																
10	52	39	31	25	51	38	30	25	37	30	25	36	29	25	35	29	25				23																

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3556	3556	3556
5°	3549	3495	3506
10°	3526	3450	3460
15°	3495	3397	3398
20°	3463	3335	3339
25°	3424	3272	3277
30°	3379	3203	3204
35°	3322	3126	3132
40°	3262	3044	3044
45°	3199	2953	2947
50°	3115	2847	2842
55°	3025	2729	2725
60°	2918	2570	2584
65°	2744	2391	2448
70°	2494	2176	2286
75°	2139	1939	2153
80°	1609	1715	2053
85°	860	1501	1997



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.1	3.1
10°-20°	358.7	9.0
20°-30°	544.3	13.6
30°-40°	658.2	16.5
40°-50°	686.8	17.2
50°-60°	627.9	15.7
60°-70°	489.5	12.2
70°-80°	306.2	7.7
80°-90°	139.1	3.5
90°-100°	46.6	1.2
100°-110°	11.7	0.3
110°-120°	1.8	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1028.2	25.7
0°-40°	1686.4	42.2
0°-60°	3001.1	75.1
0°-90°	3935.8	98.5
90°-120°	60.1	1.5
90°-150°	60.1	1.5
90°-180°	60.0	1.5
0°-180°	3996.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1322	1322	1322	1322	1322	
5°	1319	1316	1310	1317	1317	125
15°	1269	1271	1267	1275	1274	358
25°	1176	1176	1178	1188	1190	542
35°	1041	1045	1050	1060	1065	651
45°	876	883	890	899	904	675
55°	683	691	704	714	719	610
65°	470	478	494	514	522	465
75°	238	252	289	324	336	253
85°	41	76	130	173	188	52
90°	0	28	77	116	130	2
95°	0	8	40	72	84	0
105°	1	1	6	19	26	1
115°	1	1	1	3	5	1
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1321.6	1321.6	1321.6	1321.6	1321.6
2.5°	1323.2	1321.3	1315.4	1321.3	1321.0
5°	1318.8	1316.3	1310.4	1316.7	1316.7
7.5°	1310.1	1309.2	1303.9	1311.0	1311.0
10°	1299.8	1299.5	1295.2	1302.9	1303.3
12.5°	1285.5	1286.7	1282.7	1290.2	1291.1
15°	1268.7	1270.9	1267.4	1274.6	1274.3
17.5°	1250.3	1251.5	1249.0	1257.1	1256.8
20°	1227.5	1229.1	1227.2	1235.6	1236.6
22.5°	1202.3	1204.5	1204.2	1212.9	1215.4
25°	1175.5	1176.4	1177.7	1187.7	1189.5
27.5°	1145.9	1147.5	1149.7	1158.7	1160.6
30°	1113.5	1116.0	1118.5	1127.8	1130.3
32.5°	1079.2	1081.7	1084.9	1097.0	1098.2
35°	1040.6	1045.3	1049.6	1060.2	1064.6
37.5°	1002.0	1007.9	1011.9	1023.2	1026.6
40°	961.2	967.1	973.6	985.5	987.6
42.5°	918.5	925.3	933.1	943.7	947.5
45°	875.5	883.3	890.4	899.2	903.5
47.5°	829.1	836.8	845.6	855.5	858.3
50°	781.1	790.1	799.5	808.8	813.8
52.5°	731.9	742.8	753.4	763.3	768.0
55°	683.2	691.4	704.1	714.4	719.1
57.5°	632.8	639.6	651.2	668.0	670.5
60°	581.4	587.6	599.4	613.1	618.8
62.5°	524.7	533.1	545.5	563.0	568.0
65°	469.5	477.6	494.1	513.8	521.9
67.5°	416.2	419.0	440.2	460.8	473.9
70°	353.3	363.9	388.5	413.8	423.7
72.5°	299.1	309.7	336.8	366.4	378.9
75°	237.7	252.4	289.1	323.7	335.9
77.5°	183.8	200.0	245.5	280.4	294.4
80°	128.4	153.6	203.1	242.4	257.7
82.5°	80.7	111.8	164.8	205.9	219.3
85°	41.1	76.0	130.5	172.6	187.9
87.5°	10.9	49.2	101.6	141.8	157.3
90°	0.3	28.4	77.0	115.6	129.6
92.5°	0.3	15.9	57.3	91.9	106.2
95°	0.3	7.5	39.9	72.3	83.5
97.5°	0.3	3.1	27.4	54.5	65.7
100°	0.3	1.6	17.4	39.6	49.2
102.5°	0.6	0.9	10.9	28.4	36.1
105°	0.6	0.9	6.5	19.3	25.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.9	0.9	1.2	5.3	7.8
115°	0.9	0.9	1.2	3.4	5.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	0.6	0.9	3.7	13.1	17.8
110°	0.9	0.9	2.2	8.1	11.8



(END OF REPORT)