

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: P580241

Luminaire Tested: **HVSL12-4-LD4-3LO-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580241  
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-LD4-3LO-50-UNV-O-EDD-90  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

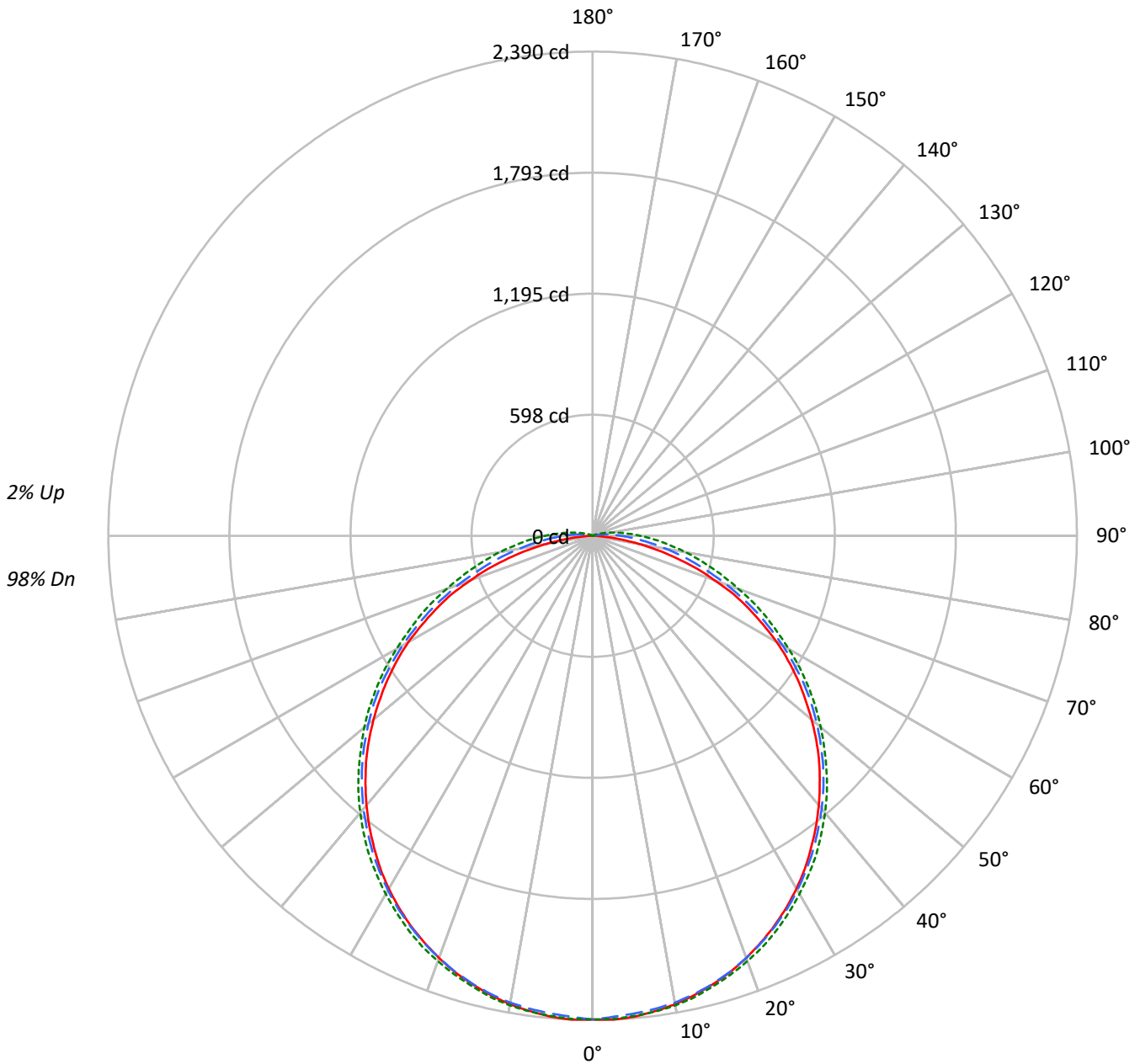
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7219.0 lumens  
Efficiency: N/A  
Efficacy: 101.1 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): 71.4  
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

TEST NUMBER: P580241

CATALOG NUMBER: HVSL12-4-LD4-3LO-50-UNV-O-EDD-90

### 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°	6425	6425	6425
5°	6412	6313	6333
10°	6370	6232	6250
15°	6315	6137	6139
20°	6256	6026	6032
25°	6185	5911	5921
30°	6104	5786	5788
35°	6001	5647	5658
40°	5894	5499	5498
45°	5778	5336	5324
50°	5628	5143	5135
55°	5466	4930	4923
60°	5272	4643	4668
65°	4958	4319	4422
70°	4506	3931	4131
75°	3865	3504	3889
80°	2907	3098	3708
85°	1554	2712	3607



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	225.9	3.1
10°-20°	648.1	9.0
20°-30°	983.4	13.6
30°-40°	1189.1	16.5
40°-50°	1240.7	17.2
50°-60°	1134.4	15.7
60°-70°	884.3	12.2
70°-80°	553.2	7.7
80°-90°	251.2	3.5
90°-100°	84.2	1.2
100°-110°	21.1	0.3
110°-120°	3.3	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°	1857.4	25.7
0°-40°	3046.5	42.2
0°-60°	5421.6	75.1
0°-90°	7110.3	98.5
90°-120°	108.7	1.5
90°-150°	108.7	1.5
90°-180°	109.0	1.5
0°-180°	7219.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2388	2388	2388	2388	2388	
5°	2382	2378	2367	2379	2379	226
15°	2292	2296	2290	2303	2302	647
25°	2124	2125	2128	2146	2149	979
35°	1880	1888	1896	1915	1923	1177
45°	1582	1596	1609	1624	1632	1219
55°	1234	1249	1272	1291	1299	1103
65°	848	863	893	928	943	839
75°	430	456	522	585	607	458
85°	74	137	236	312	339	94
90°	1	51	139	209	234	3
95°	1	14	72	131	151	0
105°	1	2	12	35	47	1
115°	2	2	2	6	9	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



TEST NUMBER: P580241

CATALOG NUMBER: HVSL12-4-LD4-3LO-50-UNV-O-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2387.6	2387.6	2387.6	2387.6	2387.6
2.5°	2390.4	2387.0	2376.4	2387.0	2386.5
5°	2382.5	2378.0	2367.3	2378.6	2378.6
7.5°	2366.8	2365.1	2355.5	2368.5	2368.5
10°	2348.2	2347.6	2339.8	2353.8	2354.4
12.5°	2322.3	2324.6	2317.3	2330.8	2332.4
15°	2291.9	2295.9	2289.7	2302.6	2302.1
17.5°	2258.7	2261.0	2256.5	2271.1	2270.5
20°	2217.6	2220.4	2217.1	2232.3	2234.0
22.5°	2172.0	2176.0	2175.4	2191.2	2195.7
25°	2123.6	2125.3	2127.6	2145.6	2149.0
27.5°	2070.2	2073.0	2076.9	2093.2	2096.6
30°	2011.6	2016.1	2020.6	2037.5	2042.0
32.5°	1949.7	1954.2	1959.8	1981.8	1984.0
35°	1879.9	1888.4	1896.2	1915.4	1923.3
37.5°	1810.1	1820.8	1828.1	1848.4	1854.6
40°	1736.4	1747.1	1758.9	1780.3	1784.2
42.5°	1659.3	1671.7	1685.7	1704.9	1711.6
45°	1581.6	1595.7	1608.6	1624.4	1632.3
47.5°	1497.7	1511.8	1527.6	1545.6	1550.7
50°	1411.1	1427.4	1444.3	1461.2	1470.2
52.5°	1322.1	1341.8	1361.0	1379.0	1387.4
55°	1234.3	1249.0	1272.0	1290.6	1299.1
57.5°	1143.1	1155.5	1176.4	1206.8	1211.3
60°	1050.3	1061.5	1082.9	1107.7	1117.8
62.5°	947.8	963.0	985.6	1017.1	1026.1
65°	848.2	862.8	892.7	928.1	942.8
67.5°	752.0	757.0	795.3	832.5	856.1
70°	638.3	657.4	701.9	747.5	765.5
72.5°	540.3	559.5	608.4	661.9	684.4
75°	429.5	455.9	522.3	584.8	606.8
77.5°	332.1	361.3	443.5	506.6	531.9
80°	231.9	277.5	367.0	437.9	465.5
82.5°	145.8	202.1	297.7	372.0	396.2
85°	74.3	137.3	235.8	311.8	339.4
87.5°	19.7	88.9	183.5	256.1	284.2
90°	0.6	51.2	139.0	208.8	234.1
92.5°	0.6	28.7	103.6	166.0	191.9
95°	0.6	13.5	72.0	130.6	150.8
97.5°	0.6	5.6	49.5	98.5	118.8
100°	0.6	2.8	31.5	71.5	88.9
102.5°	1.1	1.7	19.7	51.2	65.3
105°	1.1	1.7	11.8	34.9	46.7



TEST NUMBER: P580241

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.7	1.7	2.3	9.6	14.1
115°	1.7	1.7	2.3	6.2	9.0
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°	1.1	1.7	6.8	23.6	32.1
110°	1.7	1.7	3.9	14.6	21.4



(END OF REPORT)