

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: P580172

Luminaire Tested: **HVSL12-2-LD4-3STD-30-UNV-O-EDD**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580172  
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: HVSL12-2-LD4-3STD-30-UNV-O-EDD  
Description: 2 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

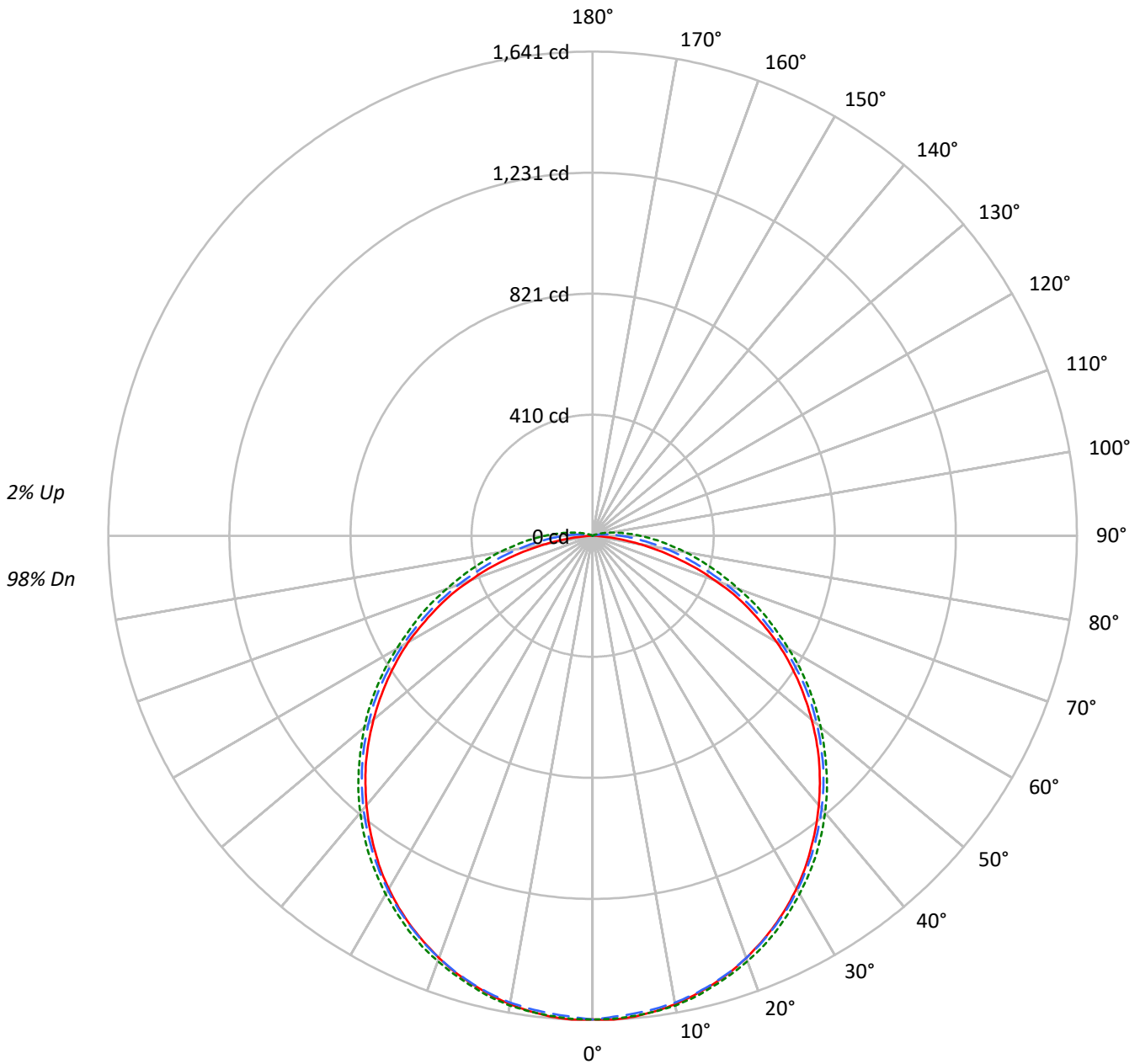
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4957.0 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 2' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 50.6  
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: P580172

CATALOG NUMBER: HVSL12-2-LD4-3STD-30-UNV-O-EDD

### 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°	8824	8824	8824
5°	8775	8649	8697
10°	8684	8515	8583
15°	8577	8364	8431
20°	8465	8192	8283
25°	8335	8015	8131
30°	8190	7824	7949
35°	8014	7613	7770
40°	7829	7389	7552
45°	7630	7144	7312
50°	7379	6858	7051
55°	7107	6544	6760
60°	6784	6128	6411
65°	6292	5660	6073
70°	5612	5104	5673
75°	4677	4494	5340
80°	3350	3900	5092
85°	1613	3309	4954



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.1	3.1
10°-20°	445.0	9.0
20°-30°	675.3	13.6
30°-40°	816.5	16.5
40°-50°	851.9	17.2
50°-60°	778.9	15.7
60°-70°	607.2	12.2
70°-80°	379.8	7.7
80°-90°	172.5	3.5
90°-100°	57.8	1.2
100°-110°	14.5	0.3
110°-120°	2.3	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°	1275.4	25.7
0°-40°	2091.9	42.2
0°-60°	3722.8	75.1
0°-90°	4882.4	98.5
90°-120°	74.6	1.5
90°-150°	74.6	1.5
90°-180°	75.0	1.5
0°-180°	4957.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1640	1640	1640	1640	1640	
5°	1636	1633	1626	1633	1633	155
15°	1574	1576	1572	1581	1581	444
25°	1458	1459	1461	1473	1476	672
35°	1291	1297	1302	1315	1321	808
45°	1086	1096	1105	1115	1121	837
55°	848	858	874	886	892	757
65°	582	592	613	637	647	576
75°	295	313	359	402	417	314
85°	51	94	162	214	233	65
90°	0	35	96	143	161	2
95°	0	9	50	90	104	0
105°	1	1	8	24	32	1
115°	1	1	2	4	6	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: P580172

CATALOG NUMBER: HVSL12-2-LD4-3STD-30-UNV-O-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1639.5	1639.5	1639.5	1639.5	1639.5
2.5°	1641.4	1639.1	1631.7	1639.1	1638.7
5°	1636.0	1632.9	1625.6	1633.3	1633.3
7.5°	1625.2	1624.0	1617.4	1626.3	1626.3
10°	1612.4	1612.0	1606.6	1616.3	1616.7
12.5°	1594.6	1596.2	1591.2	1600.4	1601.6
15°	1573.8	1576.5	1572.2	1581.1	1580.7
17.5°	1551.0	1552.5	1549.4	1559.5	1559.1
20°	1522.8	1524.7	1522.4	1532.8	1534.0
22.5°	1491.5	1494.2	1493.8	1504.6	1507.7
25°	1458.2	1459.4	1460.9	1473.3	1475.6
27.5°	1421.5	1423.4	1426.1	1437.3	1439.7
30°	1381.3	1384.4	1387.5	1399.1	1402.2
32.5°	1338.8	1341.9	1345.7	1360.8	1362.4
35°	1290.9	1296.7	1302.1	1315.2	1320.6
37.5°	1242.9	1250.3	1255.3	1269.2	1273.5
40°	1192.3	1199.7	1207.8	1222.5	1225.2
42.5°	1139.4	1147.9	1157.5	1170.7	1175.3
45°	1086.0	1095.7	1104.6	1115.4	1120.8
47.5°	1028.4	1038.1	1048.9	1061.3	1064.8
50°	968.9	980.1	991.7	1003.3	1009.5
52.5°	907.9	921.4	934.5	946.9	952.7
55°	847.6	857.6	873.5	886.2	892.0
57.5°	785.0	793.5	807.8	828.6	831.7
60°	721.2	728.9	743.6	760.6	767.6
62.5°	650.8	661.3	676.7	698.4	704.6
65°	582.4	592.5	613.0	637.3	647.4
67.5°	516.3	519.8	546.1	571.6	587.8
70°	438.3	451.4	481.9	513.3	525.6
72.5°	371.0	384.2	417.8	454.5	470.0
75°	294.9	313.1	358.7	401.6	416.6
77.5°	228.0	248.1	304.6	347.8	365.2
80°	159.2	190.5	252.0	300.7	319.6
82.5°	100.1	138.7	204.5	255.5	272.1
85°	51.0	94.3	161.9	214.1	233.1
87.5°	13.5	61.1	126.0	175.9	195.2
90°	0.4	35.2	95.5	143.4	160.8
92.5°	0.4	19.7	71.1	114.0	131.8
95°	0.4	9.3	49.5	89.7	103.6
97.5°	0.4	3.9	34.0	67.6	81.5
100°	0.4	1.9	21.6	49.1	61.1
102.5°	0.8	1.2	13.5	35.2	44.8
105°	0.8	1.2	8.1	24.0	32.1



TEST NUMBER: P580172

CATALOG NUMBER: HVSL12-2-LD4-3STD-30-UNV-O-EDD

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.2	1.2	1.5	6.6	9.7
115°	1.2	1.2	1.5	4.3	6.2
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°	0.8	1.2	4.6	16.2	22.0
110°	1.2	1.2	2.7	10.0	14.7



(END OF REPORT)