

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: P580167

Luminaire Tested: **HVSL12-2-LD4-3LO-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580167  
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-LD4-3LO-40-UNV-O-EDD-90  
Description: 2 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

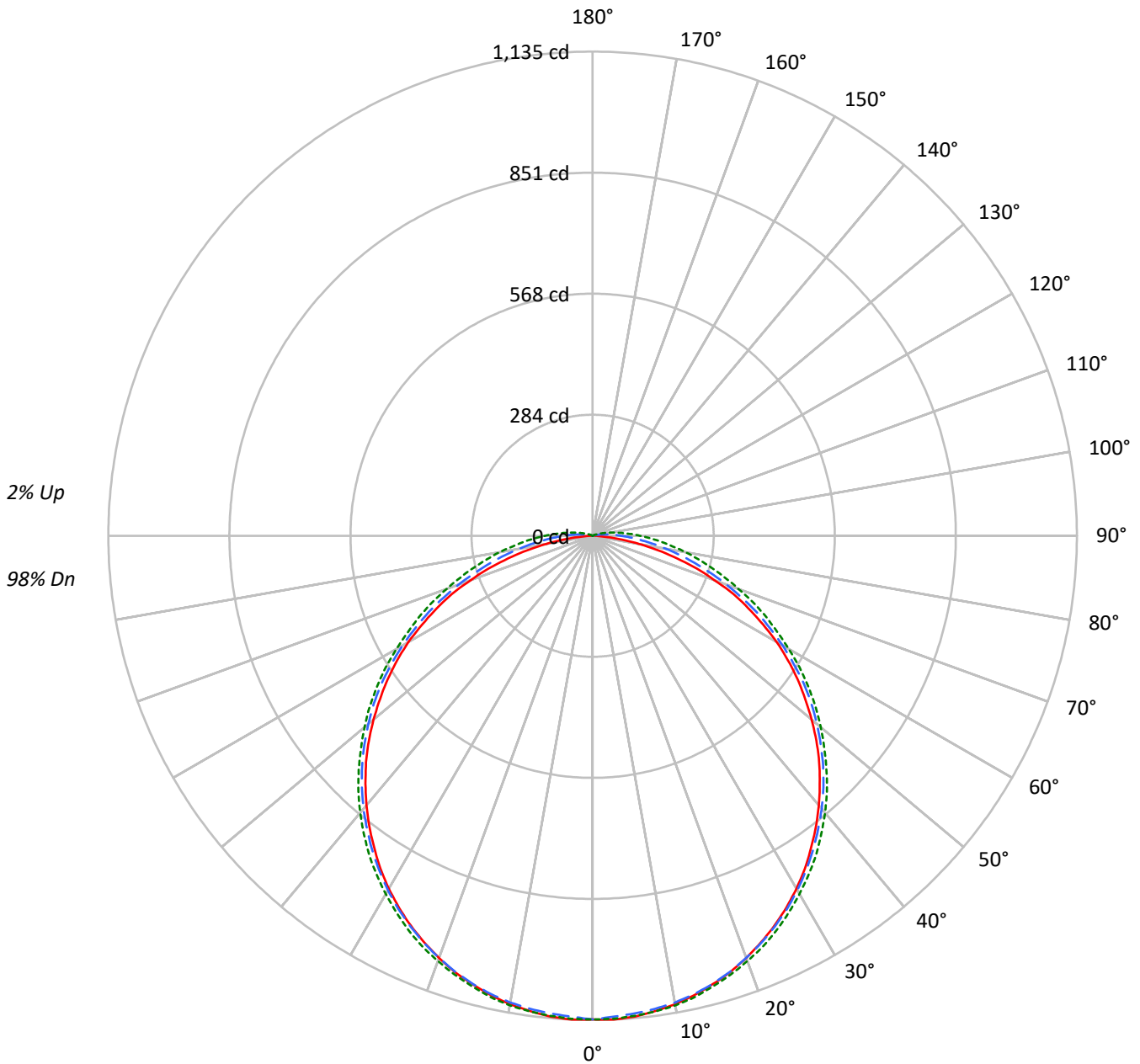
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3428.0 lumens  
Efficiency: N/A  
Efficacy: 96.0 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): 35.7  
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				20				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	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°	6102	6102	6102
5°	6068	5981	6014
10°	6006	5889	5935
15°	5931	5784	5830
20°	5854	5665	5728
25°	5764	5543	5623
30°	5664	5411	5497
35°	5542	5264	5373
40°	5414	5110	5222
45°	5276	4941	5057
50°	5104	4743	4876
55°	4914	4525	4675
60°	4691	4237	4433
65°	4352	3914	4200
70°	3881	3530	3923
75°	3234	3107	3693
80°	2317	2697	3521
85°	1116	2289	3426



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.3	3.1
10°-20°	307.8	9.0
20°-30°	467.0	13.6
30°-40°	564.6	16.5
40°-50°	589.2	17.2
50°-60°	538.7	15.7
60°-70°	419.9	12.2
70°-80°	262.7	7.7
80°-90°	119.3	3.5
90°-100°	40.0	1.2
100°-110°	10.0	0.3
110°-120°	1.6	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°	882.0	25.7
0°-40°	1446.6	42.2
0°-60°	2574.5	75.1
0°-90°	3376.4	98.5
90°-120°	51.6	1.5
90°-150°	51.6	1.5
90°-180°	52.0	1.5
0°-180°	3428.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1134	1134	1134	1134	1134	
5°	1131	1129	1124	1130	1130	107
15°	1088	1090	1087	1093	1093	307
25°	1008	1009	1010	1019	1020	465
35°	893	897	900	910	913	559
45°	751	758	764	771	775	579
55°	586	593	604	613	617	524
65°	403	410	424	441	448	399
75°	204	216	248	278	288	217
85°	35	65	112	148	161	45
90°	0	24	66	99	111	1
95°	0	6	34	62	72	0
105°	0	1	6	17	22	1
115°	1	1	1	3	4	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	



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CATALOG NUMBER: HVSL12-2-LD4-3LO-40-UNV-O-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1133.8	1133.8	1133.8	1133.8	1133.8
2.5°	1135.1	1133.5	1128.4	1133.5	1133.2
5°	1131.4	1129.2	1124.2	1129.5	1129.5
7.5°	1123.9	1123.1	1118.5	1124.7	1124.7
10°	1115.1	1114.8	1111.1	1117.7	1118.0
12.5°	1102.8	1103.8	1100.4	1106.8	1107.6
15°	1088.3	1090.2	1087.3	1093.4	1093.1
17.5°	1072.6	1073.6	1071.5	1078.4	1078.2
20°	1053.1	1054.4	1052.8	1060.0	1060.8
22.5°	1031.4	1033.3	1033.0	1040.5	1042.6
25°	1008.4	1009.2	1010.3	1018.8	1020.5
27.5°	983.0	984.4	986.2	994.0	995.6
30°	955.2	957.4	959.5	967.5	969.7
32.5°	925.8	928.0	930.6	941.1	942.1
35°	892.7	896.7	900.4	909.5	913.3
37.5°	859.6	864.6	868.1	877.7	880.7
40°	824.5	829.6	835.2	845.4	847.3
42.5°	787.9	793.8	800.5	809.6	812.8
45°	751.0	757.7	763.9	771.4	775.1
47.5°	711.2	717.9	725.4	733.9	736.3
50°	670.1	677.8	685.8	693.8	698.1
52.5°	627.8	637.2	646.3	654.8	658.8
55°	586.1	593.1	604.0	612.9	616.9
57.5°	542.8	548.7	558.6	573.0	575.2
60°	498.7	504.1	514.2	526.0	530.8
62.5°	450.1	457.3	468.0	483.0	487.2
65°	402.8	409.7	423.9	440.7	447.7
67.5°	357.1	359.5	377.7	395.3	406.5
70°	303.1	312.2	333.3	354.9	363.5
72.5°	256.6	265.7	288.9	314.3	325.0
75°	203.9	216.5	248.0	277.7	288.1
77.5°	157.7	171.6	210.6	240.5	252.6
80°	110.1	131.8	174.3	207.9	221.0
82.5°	69.2	96.0	141.4	176.7	188.2
85°	35.3	65.2	112.0	148.1	161.2
87.5°	9.4	42.2	87.1	121.6	135.0
90°	0.3	24.3	66.0	99.2	111.2
92.5°	0.3	13.6	49.2	78.8	91.1
95°	0.3	6.4	34.2	62.0	71.6
97.5°	0.3	2.7	23.5	46.8	56.4
100°	0.3	1.3	15.0	33.9	42.2
102.5°	0.5	0.8	9.4	24.3	31.0
105°	0.5	0.8	5.6	16.6	22.2



TEST NUMBER: P580167

CATALOG NUMBER: HVSL12-2-LD4-3LO-40-UNV-O-EDD-90

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.8	0.8	1.1	4.5	6.7
115°	0.8	0.8	1.1	2.9	4.3
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°	0.5	0.8	3.2	11.2	15.2
110°	0.8	0.8	1.9	6.9	10.2



(END OF REPORT)