

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: P580234

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

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580234  
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-LD4-3HI-50-UNV-O-EDD  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

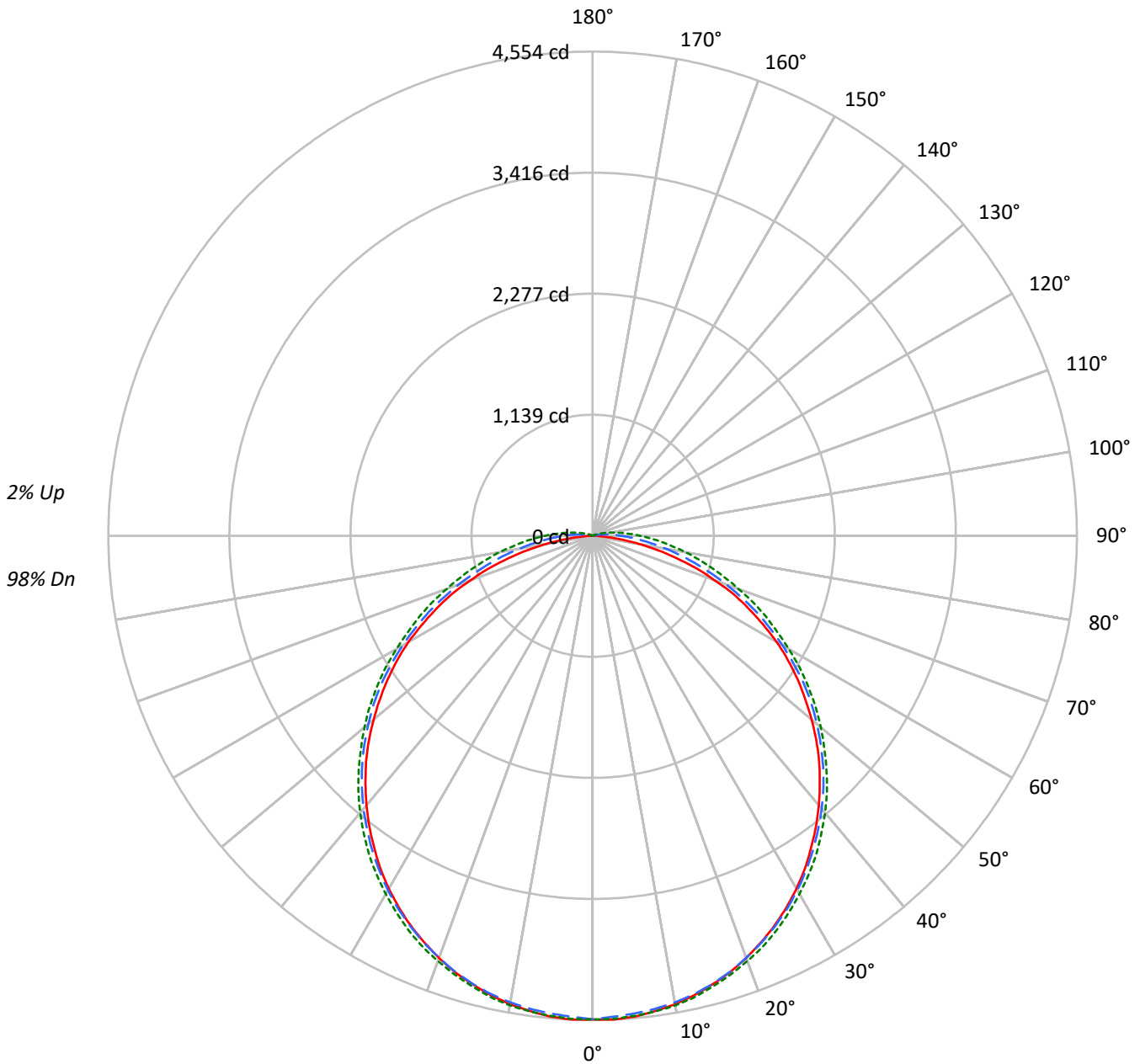
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13754.0 lumens  
Efficiency: N/A  
Efficacy: 103.2 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): 133.3  
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°	12241	12241	12241
5°	12217	12029	12066
10°	12136	11872	11907
15°	12031	11692	11697
20°	11919	11481	11491
25°	11785	11262	11280
30°	11629	11025	11028
35°	11433	10758	10779
40°	11229	10477	10476
45°	11009	10166	10144
50°	10722	9799	9783
55°	10413	9394	9379
60°	10044	8846	8894
65°	9446	8229	8425
70°	8585	7489	7870
75°	7362	6676	7409
80°	5538	5903	7064
85°	2961	5168	6871



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	430.5	3.1
10°-20°	1234.8	9.0
20°-30°	1873.6	13.6
30°-40°	2265.5	16.5
40°-50°	2363.9	17.2
50°-60°	2161.3	15.7
60°-70°	1684.8	12.2
70°-80°	1053.9	7.7
80°-90°	478.7	3.5
90°-100°	160.4	1.2
100°-110°	40.3	0.3
110°-120°	6.3	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°	3538.9	25.7
0°-40°	5804.3	42.2
0°-60°	10329.5	75.1
0°-90°	13546.9	98.5
90°-120°	207.1	1.5
90°-150°	207.1	1.5
90°-180°	207.0	1.5
0°-180°	13754.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4549	4549	4549	4549	4549	
5°	4539	4531	4510	4532	4532	431
15°	4367	4374	4362	4387	4386	1233
25°	4046	4049	4054	4088	4094	1864
35°	3582	3598	3613	3649	3664	2242
45°	3013	3040	3065	3095	3110	2322
55°	2352	2380	2424	2459	2475	2101
65°	1616	1644	1701	1768	1796	1599
75°	818	869	995	1114	1156	872
85°	142	262	449	594	647	179
90°	1	98	265	398	446	6
95°	1	26	137	249	287	1
105°	2	3	22	66	89	2
115°	3	3	4	12	17	2
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: P580234

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4549.0	4549.0	4549.0	4549.0	4549.0
2.5°	4554.4	4547.9	4527.5	4547.9	4546.8
5°	4539.3	4530.8	4510.4	4531.8	4531.8
7.5°	4509.3	4506.1	4487.9	4512.5	4512.5
10°	4473.9	4472.9	4457.8	4484.7	4485.7
12.5°	4424.6	4428.9	4414.9	4440.7	4443.9
15°	4366.7	4374.2	4362.4	4387.1	4386.0
17.5°	4303.4	4307.7	4299.1	4327.0	4325.9
20°	4225.1	4230.5	4224.1	4253.0	4256.2
22.5°	4138.3	4145.8	4144.7	4174.7	4183.3
25°	4046.1	4049.3	4053.6	4087.9	4094.3
27.5°	3944.2	3949.5	3957.0	3988.1	3994.6
30°	3832.6	3841.2	3849.8	3882.0	3890.6
32.5°	3714.7	3723.3	3734.0	3775.8	3780.1
35°	3581.7	3597.8	3612.8	3649.3	3664.3
37.5°	3448.7	3469.1	3483.1	3521.7	3533.5
40°	3308.3	3328.6	3351.2	3391.9	3399.4
42.5°	3161.3	3184.9	3211.7	3248.2	3261.1
45°	3013.4	3040.2	3064.8	3094.9	3109.9
47.5°	2853.6	2880.4	2910.4	2944.7	2954.4
50°	2688.4	2719.5	2751.7	2783.9	2801.0
52.5°	2519.0	2556.5	2593.0	2627.3	2643.4
55°	2351.7	2379.6	2423.6	2458.9	2475.0
57.5°	2178.0	2201.6	2241.3	2299.2	2307.7
60°	2001.0	2022.5	2063.2	2110.4	2129.7
62.5°	1805.9	1834.8	1877.7	1937.8	1954.9
65°	1616.1	1643.9	1700.8	1768.3	1796.2
67.5°	1432.7	1442.3	1515.3	1586.0	1631.1
70°	1216.1	1252.5	1337.2	1424.1	1458.4
72.5°	1029.5	1065.9	1159.2	1261.1	1304.0
75°	818.2	868.6	995.2	1114.2	1156.0
77.5°	632.7	688.5	845.0	965.1	1013.4
80°	441.8	528.7	699.2	834.3	886.8
82.5°	277.7	385.0	567.3	708.8	754.9
85°	141.6	261.7	449.3	594.1	646.6
87.5°	37.5	169.4	349.6	487.9	541.5
90°	1.1	97.6	264.9	397.8	446.1
92.5°	1.1	54.7	197.3	316.3	365.7
95°	1.1	25.7	137.3	248.8	287.4
97.5°	1.1	10.7	94.4	187.7	226.3
100°	1.1	5.4	60.1	136.2	169.4
102.5°	2.1	3.2	37.5	97.6	124.4
105°	2.1	3.2	22.5	66.5	89.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	3.2	3.2	4.3	18.2	26.8
115°	3.2	3.2	4.3	11.8	17.2
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°	2.1	3.2	12.9	45.0	61.1
110°	3.2	3.2	7.5	27.9	40.8



(END OF REPORT)