

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: P580250

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

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580250  
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-LD4-3STD-50-UNV-O-EDD  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

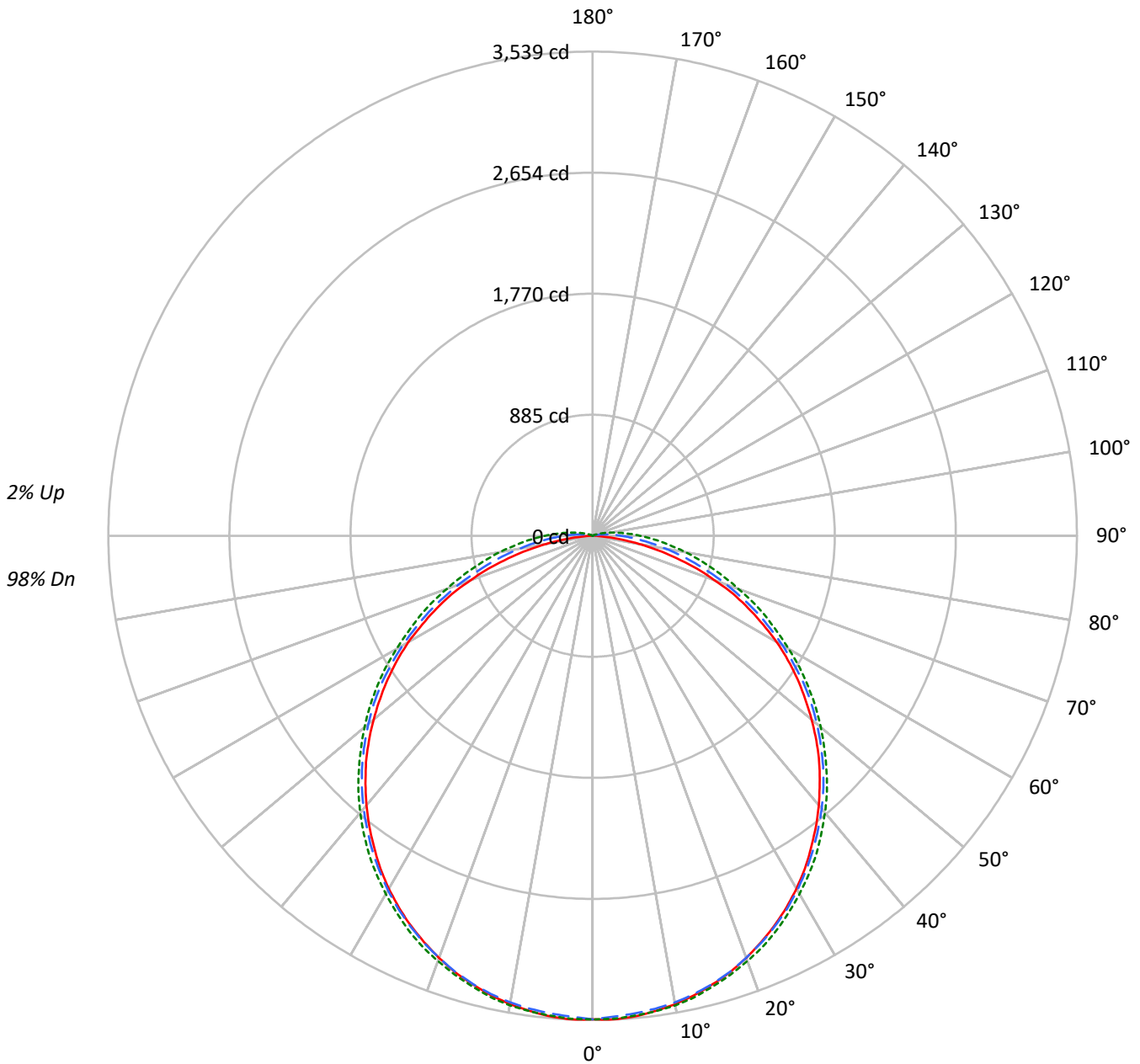
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10688.0 lumens  
Efficiency: N/A  
Efficacy: 105.7 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): 101.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	9512	9512	9512
5°	9494	9347	9376
10°	9430	9226	9253
15°	9349	9085	9089
20°	9262	8921	8930
25°	9157	8752	8765
30°	9037	8567	8569
35°	8884	8360	8377
40°	8726	8141	8141
45°	8555	7900	7883
50°	8332	7615	7602
55°	8092	7300	7288
60°	7806	6874	6912
65°	7340	6395	6547
70°	6671	5820	6116
75°	5721	5188	5758
80°	4303	4587	5490
85°	2300	4017	5340



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	334.5	3.1
10°-20°	959.5	9.0
20°-30°	1455.9	13.6
30°-40°	1760.5	16.5
40°-50°	1836.9	17.2
50°-60°	1679.5	15.7
60°-70°	1309.2	12.2
70°-80°	819.0	7.7
80°-90°	372.0	3.5
90°-100°	124.7	1.2
100°-110°	31.3	0.3
110°-120°	4.9	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°	2750.0	25.7
0°-40°	4510.5	42.2
0°-60°	8026.9	75.1
0°-90°	10527.1	98.5
90°-120°	160.9	1.5
90°-150°	160.9	1.5
90°-180°	161.0	1.5
0°-180°	10688.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3535	3535	3535	3535	3535	
5°	3527	3521	3505	3522	3522	335
15°	3393	3399	3390	3409	3408	958
25°	3144	3147	3150	3177	3182	1449
35°	2783	2796	2808	2836	2848	1742
45°	2342	2362	2382	2405	2417	1804
55°	1828	1849	1883	1911	1923	1633
65°	1256	1278	1322	1374	1396	1243
75°	636	675	773	866	898	678
85°	110	203	349	462	502	139
90°	1	76	206	309	347	4
95°	1	20	107	193	223	1
105°	2	2	18	52	69	2
115°	2	2	3	9	13	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: P580250

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3534.9	3534.9	3534.9	3534.9	3534.9
2.5°	3539.1	3534.1	3518.3	3534.1	3533.3
5°	3527.4	3520.8	3504.9	3521.6	3521.6
7.5°	3504.1	3501.6	3487.4	3506.6	3506.6
10°	3476.6	3475.8	3464.1	3484.9	3485.8
12.5°	3438.3	3441.6	3430.8	3450.8	3453.3
15°	3393.3	3399.1	3389.9	3409.1	3408.3
17.5°	3344.1	3347.4	3340.8	3362.4	3361.6
20°	3283.3	3287.4	3282.4	3304.9	3307.4
22.5°	3215.8	3221.6	3220.8	3244.1	3250.8
25°	3144.1	3146.6	3150.0	3176.6	3181.6
27.5°	3065.0	3069.1	3075.0	3099.1	3104.1
30°	2978.3	2985.0	2991.6	3016.6	3023.3
32.5°	2886.6	2893.3	2901.6	2934.1	2937.5
35°	2783.3	2795.8	2807.5	2835.8	2847.5
37.5°	2680.0	2695.8	2706.6	2736.6	2745.8
40°	2570.8	2586.6	2604.1	2635.8	2641.6
42.5°	2456.6	2475.0	2495.8	2524.1	2534.1
45°	2341.6	2362.5	2381.6	2405.0	2416.6
47.5°	2217.5	2238.3	2261.6	2288.3	2295.8
50°	2089.1	2113.3	2138.3	2163.3	2176.6
52.5°	1957.5	1986.6	2015.0	2041.6	2054.1
55°	1827.5	1849.1	1883.3	1910.8	1923.3
57.5°	1692.5	1710.8	1741.6	1786.6	1793.3
60°	1555.0	1571.6	1603.3	1640.0	1655.0
62.5°	1403.3	1425.8	1459.1	1505.8	1519.1
65°	1255.8	1277.5	1321.6	1374.1	1395.8
67.5°	1113.3	1120.8	1177.5	1232.5	1267.5
70°	945.0	973.3	1039.2	1106.6	1133.3
72.5°	800.0	828.3	900.8	980.0	1013.3
75°	635.8	675.0	773.3	865.8	898.3
77.5°	491.7	535.0	656.7	750.0	787.5
80°	343.3	410.8	543.3	648.3	689.2
82.5°	215.8	299.2	440.8	550.8	586.7
85°	110.0	203.3	349.2	461.7	502.5
87.5°	29.2	131.7	271.7	379.2	420.8
90°	0.8	75.8	205.8	309.2	346.7
92.5°	0.8	42.5	153.3	245.8	284.2
95°	0.8	20.0	106.7	193.3	223.3
97.5°	0.8	8.3	73.3	145.8	175.8
100°	0.8	4.2	46.7	105.8	131.7
102.5°	1.7	2.5	29.2	75.8	96.7
105°	1.7	2.5	17.5	51.7	69.2



TEST NUMBER: P580250

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.5	2.5	3.3	14.2	20.8
115°	2.5	2.5	3.3	9.2	13.3
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°	1.7	2.5	10.0	35.0	47.5
110°	2.5	2.5	5.8	21.7	31.7



(END OF REPORT)