

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: P580249

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

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580249  
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-90  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

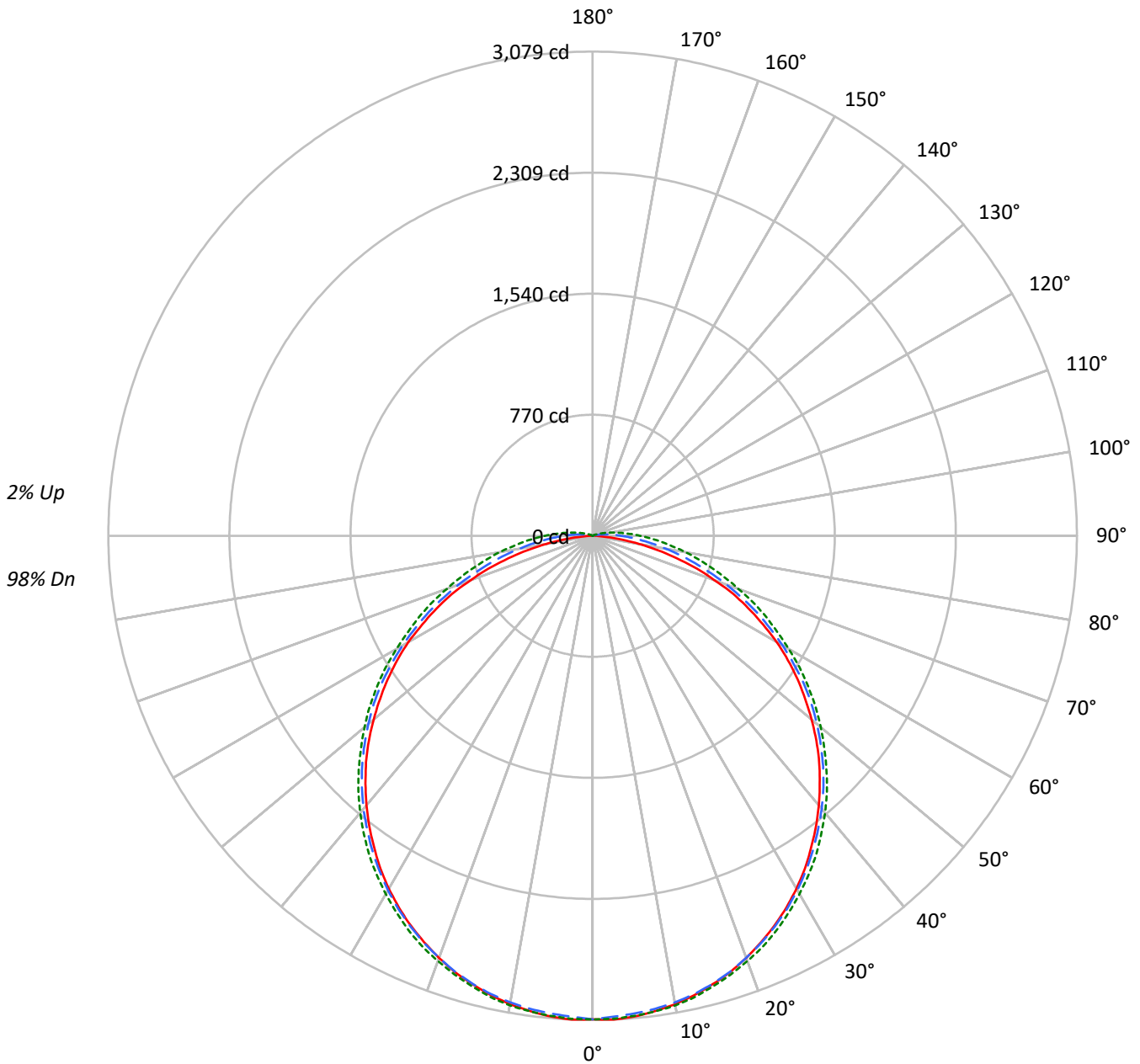
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9299.0 lumens  
Efficiency: N/A  
Efficacy: 92.0 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 (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°	8276	8276	8276
5°	8260	8132	8157
10°	8205	8027	8050
15°	8134	7905	7908
20°	8058	7762	7769
25°	7967	7614	7626
30°	7862	7454	7456
35°	7730	7274	7288
40°	7592	7083	7083
45°	7443	6873	6858
50°	7249	6625	6614
55°	7041	6351	6341
60°	6791	5981	6013
65°	6386	5564	5696
70°	5804	5064	5321
75°	4978	4513	5010
80°	3744	3991	4776
85°	2001	3495	4646



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	291.0	3.1
10°-20°	834.8	9.0
20°-30°	1266.7	13.6
30°-40°	1531.7	16.5
40°-50°	1598.2	17.2
50°-60°	1461.2	15.7
60°-70°	1139.1	12.2
70°-80°	712.6	7.7
80°-90°	323.6	3.5
90°-100°	108.5	1.2
100°-110°	27.3	0.3
110°-120°	4.3	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°	2392.6	25.7
0°-40°	3924.3	42.2
0°-60°	6983.7	75.1
0°-90°	9159.0	98.5
90°-120°	140.0	1.5
90°-150°	140.0	1.5
90°-180°	140.0	1.5
0°-180°	9299.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3076	3076	3076	3076	3076	
5°	3069	3063	3049	3064	3064	291
15°	2952	2957	2949	2966	2965	833
25°	2736	2738	2741	2764	2768	1260
35°	2422	2432	2443	2467	2477	1516
45°	2037	2055	2072	2092	2103	1570
55°	1590	1609	1639	1662	1673	1420
65°	1093	1112	1150	1196	1214	1081
75°	553	587	673	753	782	590
85°	96	177	304	402	437	121
90°	1	66	179	269	302	4
95°	1	17	93	168	194	1
105°	2	2	15	45	60	2
115°	2	2	3	8	12	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



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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3075.5	3075.5	3075.5	3075.5	3075.5
2.5°	3079.2	3074.8	3061.0	3074.8	3074.1
5°	3069.0	3063.2	3049.4	3063.9	3063.9
7.5°	3048.7	3046.5	3034.2	3050.9	3050.9
10°	3024.8	3024.1	3013.9	3032.0	3032.8
12.5°	2991.4	2994.3	2984.9	3002.3	3004.5
15°	2952.3	2957.4	2949.4	2966.1	2965.3
17.5°	2909.5	2912.4	2906.6	2925.5	2924.7
20°	2856.6	2860.2	2855.9	2875.4	2877.6
22.5°	2797.9	2802.9	2802.2	2822.5	2828.3
25°	2735.5	2737.7	2740.6	2763.8	2768.1
27.5°	2666.6	2670.3	2675.3	2696.4	2700.7
30°	2591.2	2597.0	2602.8	2624.6	2630.4
32.5°	2511.5	2517.3	2524.5	2552.8	2555.7
35°	2421.6	2432.5	2442.6	2467.3	2477.4
37.5°	2331.7	2345.4	2354.9	2381.0	2389.0
40°	2236.7	2250.5	2265.7	2293.2	2298.3
42.5°	2137.4	2153.3	2171.4	2196.1	2204.8
45°	2037.3	2055.4	2072.1	2092.4	2102.6
47.5°	1929.3	1947.4	1967.7	1990.9	1997.4
50°	1817.6	1838.7	1860.4	1882.2	1893.8
52.5°	1703.1	1728.5	1753.1	1776.3	1787.2
55°	1590.0	1608.8	1638.6	1662.5	1673.4
57.5°	1472.5	1488.5	1515.3	1554.4	1560.2
60°	1352.9	1367.4	1394.9	1426.8	1439.9
62.5°	1220.9	1240.5	1269.5	1310.1	1321.7
65°	1092.6	1111.5	1149.9	1195.6	1214.4
67.5°	968.6	975.2	1024.5	1072.3	1102.8
70°	822.2	846.8	904.1	962.8	986.0
72.5°	696.0	720.7	783.7	852.6	881.6
75°	553.2	587.3	672.8	753.3	781.6
77.5°	427.8	465.5	571.3	652.5	685.1
80°	298.7	357.4	472.7	564.1	599.6
82.5°	187.8	260.3	383.5	479.2	510.4
85°	95.7	176.9	303.8	401.7	437.2
87.5°	25.4	114.6	236.4	329.9	366.1
90°	0.7	66.0	179.1	269.0	301.6
92.5°	0.7	37.0	133.4	213.9	247.2
95°	0.7	17.4	92.8	168.2	194.3
97.5°	0.7	7.3	63.8	126.9	153.0
100°	0.7	3.6	40.6	92.1	114.6
102.5°	1.5	2.2	25.4	66.0	84.1
105°	1.5	2.2	15.2	45.0	60.2



TEST NUMBER: P580249

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

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.2	2.2	2.9	12.3	18.1
115°	2.2	2.2	2.9	8.0	11.6
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°	1.5	2.2	8.7	30.5	41.3
110°	2.2	2.2	5.1	18.9	27.6



(END OF REPORT)