

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: P580233

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

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580233  
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-90  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

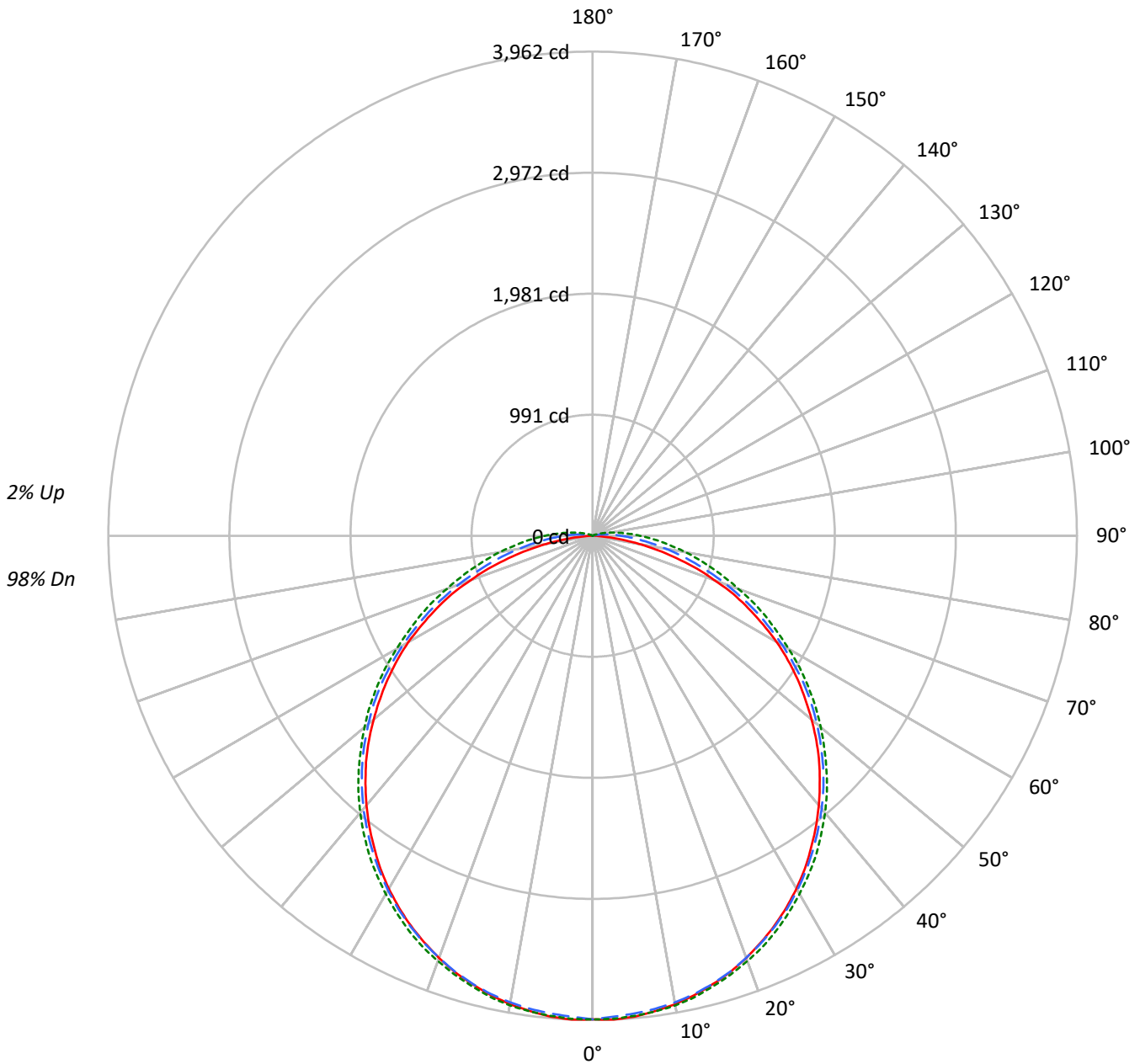
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11966.0 lumens  
Efficiency: N/A  
Efficacy: 89.8 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				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°	10650	10650	10650
5°	10629	10465	10497
10°	10558	10329	10359
15°	10467	10172	10176
20°	10369	9988	9997
25°	10253	9798	9814
30°	10117	9591	9594
35°	9946	9360	9378
40°	9769	9115	9114
45°	9578	8844	8825
50°	9328	8525	8511
55°	9060	8172	8160
60°	8739	7696	7738
65°	8218	7160	7330
70°	7469	6516	6847
75°	6405	5808	6446
80°	4818	5135	6146
85°	2577	4496	5979



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	374.5	3.1
10°-20°	1074.3	9.0
20°-30°	1630.0	13.6
30°-40°	1971.0	16.5
40°-50°	2056.6	17.2
50°-60°	1880.3	15.7
60°-70°	1465.8	12.2
70°-80°	916.9	7.7
80°-90°	416.5	3.5
90°-100°	139.6	1.2
100°-110°	35.0	0.3
110°-120°	5.5	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°	3078.8	25.7
0°-40°	5049.8	42.2
0°-60°	8986.7	75.1
0°-90°	11785.9	98.5
90°-120°	180.1	1.5
90°-150°	180.1	1.5
90°-180°	180.0	1.5
0°-180°	11966.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3958	3958	3958	3958	3958	
5°	3949	3942	3924	3943	3943	375
15°	3799	3806	3795	3817	3816	1072
25°	3520	3523	3527	3556	3562	1622
35°	3116	3130	3143	3175	3188	1950
45°	2622	2645	2666	2692	2706	2020
55°	2046	2070	2108	2139	2153	1828
65°	1406	1430	1480	1538	1563	1391
75°	712	756	866	969	1006	759
85°	123	228	391	517	563	156
90°	1	85	230	346	388	5
95°	1	22	119	216	250	1
105°	2	3	20	58	77	2
115°	3	3	4	10	15	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: P580233

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3957.6	3957.6	3957.6	3957.6	3957.6
2.5°	3962.3	3956.7	3939.0	3956.7	3955.8
5°	3949.2	3941.8	3924.0	3942.7	3942.7
7.5°	3923.1	3920.3	3904.5	3925.9	3925.9
10°	3892.3	3891.4	3878.3	3901.7	3902.6
12.5°	3849.4	3853.1	3841.0	3863.4	3866.2
15°	3799.0	3805.6	3795.3	3816.8	3815.8
17.5°	3744.0	3747.7	3740.2	3764.5	3763.6
20°	3675.9	3680.5	3674.9	3700.1	3702.9
22.5°	3600.3	3606.8	3605.9	3632.0	3639.5
25°	3520.1	3522.9	3526.6	3556.5	3562.1
27.5°	3431.4	3436.1	3442.6	3469.7	3475.3
30°	3334.4	3341.9	3349.3	3377.3	3384.8
32.5°	3231.8	3239.2	3248.6	3285.0	3288.7
35°	3116.1	3130.1	3143.2	3174.9	3187.9
37.5°	3000.4	3018.1	3030.3	3063.9	3074.1
40°	2878.2	2895.9	2915.5	2951.0	2957.5
42.5°	2750.4	2770.9	2794.2	2825.9	2837.1
45°	2621.6	2645.0	2666.4	2692.5	2705.6
47.5°	2482.6	2505.9	2532.1	2561.9	2570.3
50°	2338.9	2366.0	2394.0	2422.0	2436.9
52.5°	2191.5	2224.2	2255.9	2285.8	2299.8
55°	2046.0	2070.2	2108.5	2139.3	2153.3
57.5°	1894.8	1915.4	1949.9	2000.3	2007.7
60°	1740.9	1759.6	1795.0	1836.1	1852.9
62.5°	1571.1	1596.3	1633.6	1685.9	1700.8
65°	1406.0	1430.2	1479.7	1538.5	1562.7
67.5°	1246.4	1254.8	1318.3	1379.9	1419.0
70°	1058.0	1089.7	1163.4	1239.0	1268.8
72.5°	895.6	927.4	1008.5	1097.2	1134.5
75°	711.9	755.7	865.8	969.3	1005.7
77.5°	550.4	599.0	735.2	839.7	881.7
80°	384.4	460.0	608.3	725.8	771.6
82.5°	241.6	334.9	493.5	616.7	656.8
85°	123.2	227.6	390.9	516.9	562.6
87.5°	32.7	147.4	304.1	424.5	471.1
90°	0.9	84.9	230.4	346.1	388.1
92.5°	0.9	47.6	171.7	275.2	318.1
95°	0.9	22.4	119.4	216.4	250.0
97.5°	0.9	9.3	82.1	163.3	196.9
100°	0.9	4.7	52.2	118.5	147.4
102.5°	1.9	2.8	32.7	84.9	108.2
105°	1.9	2.8	19.6	57.8	77.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.8	2.8	3.7	15.9	23.3
115°	2.8	2.8	3.7	10.3	14.9
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°	1.9	2.8	11.2	39.2	53.2
110°	2.8	2.8	6.5	24.3	35.5



(END OF REPORT)