

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: P580217

Luminaire Tested: **HVSL12-4-LD4-2LO-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580217  
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-LD4-2LO-50-UNV-O-EDD-90  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

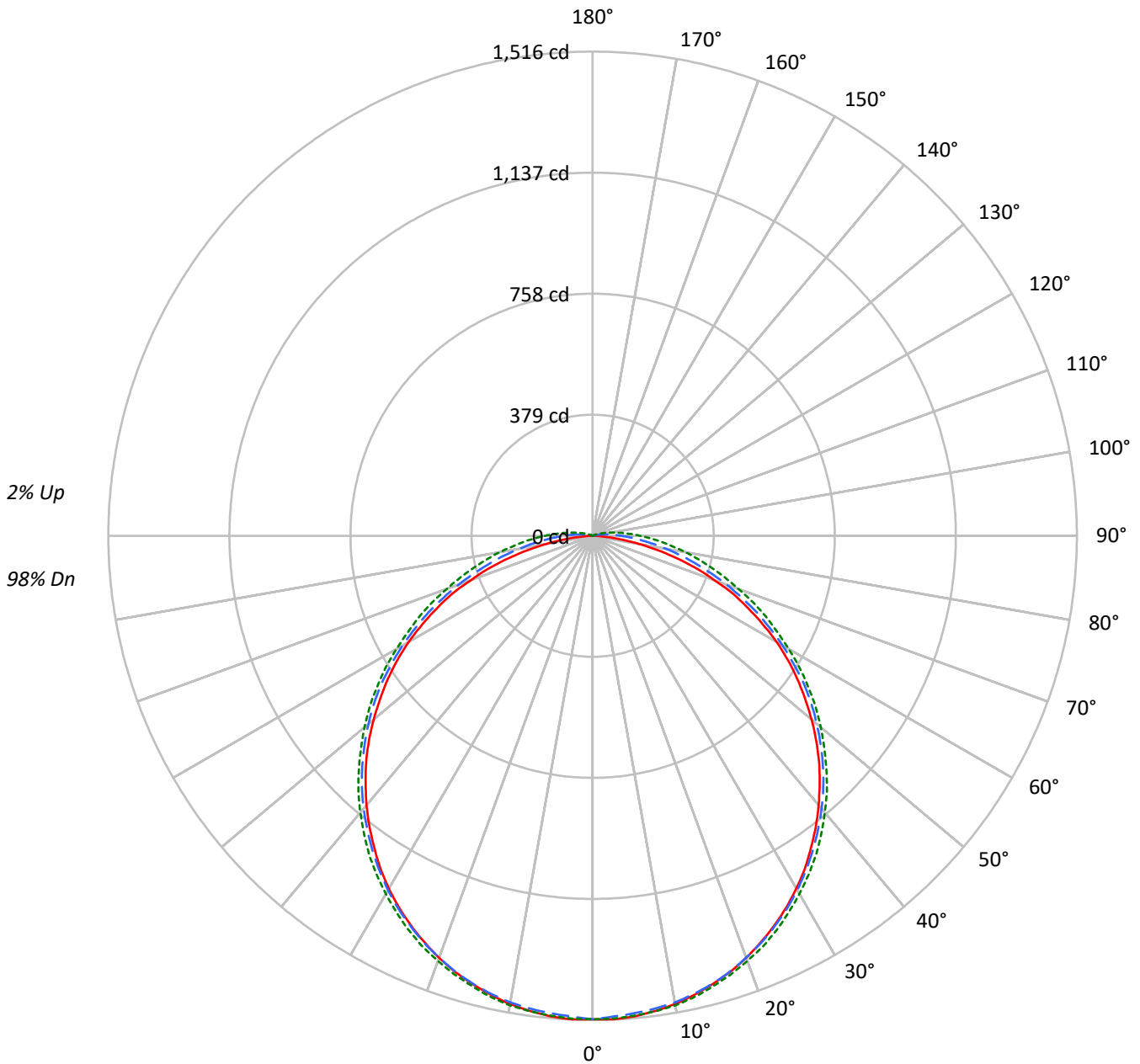
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4577.0 lumens  
Efficiency: N/A  
Efficacy: 93.8 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): 48.8  
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					
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°	4074	4074	4074
5°	4066	4003	4015
10°	4038	3951	3962
15°	4003	3891	3892
20°	3966	3821	3824
25°	3921	3748	3754
30°	3870	3669	3670
35°	3804	3580	3587
40°	3737	3486	3486
45°	3664	3383	3376
50°	3568	3261	3255
55°	3465	3126	3121
60°	3343	2944	2960
65°	3143	2739	2804
70°	2857	2492	2619
75°	2450	2222	2466
80°	1843	1965	2351
85°	985	1720	2287



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.3	3.1
10°-20°	410.9	9.0
20°-30°	623.5	13.6
30°-40°	753.9	16.5
40°-50°	786.6	17.2
50°-60°	719.2	15.7
60°-70°	560.7	12.2
70°-80°	350.7	7.7
80°-90°	159.3	3.5
90°-100°	53.4	1.2
100°-110°	13.4	0.3
110°-120°	2.1	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°	1177.6	25.7
0°-40°	1931.5	42.2
0°-60°	3437.4	75.1
0°-90°	4508.1	98.5
90°-120°	68.9	1.5
90°-150°	68.9	1.5
90°-180°	69.0	1.5
0°-180°	4577.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1514	1514	1514	1514	1514	
5°	1511	1508	1501	1508	1508	143
15°	1453	1456	1452	1460	1460	410
25°	1346	1348	1349	1360	1362	620
35°	1192	1197	1202	1214	1219	746
45°	1003	1012	1020	1030	1035	773
55°	783	792	806	818	824	699
65°	538	547	566	588	598	532
75°	272	289	331	371	385	290
85°	47	87	150	198	215	60
90°	0	32	88	132	148	2
95°	0	9	46	83	96	0
105°	1	1	8	22	30	1
115°	1	1	1	4	6	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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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1513.8	1513.8	1513.8	1513.8	1513.8
2.5°	1515.6	1513.4	1506.7	1513.4	1513.1
5°	1510.6	1507.7	1500.9	1508.1	1508.1
7.5°	1500.6	1499.5	1493.5	1501.7	1501.7
10°	1488.8	1488.5	1483.5	1492.4	1492.7
12.5°	1472.4	1473.8	1469.2	1477.8	1478.8
15°	1453.1	1455.6	1451.7	1459.9	1459.6
17.5°	1432.1	1433.5	1430.6	1439.9	1439.6
20°	1406.0	1407.8	1405.7	1415.3	1416.4
22.5°	1377.1	1379.6	1379.3	1389.3	1392.1
25°	1346.4	1347.5	1348.9	1360.3	1362.5
27.5°	1312.5	1314.3	1316.8	1327.2	1329.3
30°	1275.4	1278.3	1281.1	1291.8	1294.7
32.5°	1236.2	1239.0	1242.6	1256.5	1257.9
35°	1191.9	1197.3	1202.3	1214.4	1219.4
37.5°	1147.7	1154.4	1159.1	1171.9	1175.8
40°	1100.9	1107.7	1115.2	1128.7	1131.2
42.5°	1052.0	1059.9	1068.8	1080.9	1085.2
45°	1002.8	1011.7	1019.9	1029.9	1034.9
47.5°	949.6	958.5	968.5	979.9	983.1
50°	894.6	905.0	915.7	926.4	932.1
52.5°	838.3	850.8	862.9	874.3	879.7
55°	782.6	791.9	806.5	818.3	823.6
57.5°	724.8	732.6	745.8	765.1	768.0
60°	665.9	673.0	686.6	702.3	708.7
62.5°	601.0	610.6	624.9	644.8	650.6
65°	537.8	547.1	566.0	588.5	597.7
67.5°	476.8	480.0	504.2	527.8	542.8
70°	404.7	416.8	445.0	473.9	485.3
72.5°	342.6	354.7	385.8	419.7	433.9
75°	272.3	289.1	331.2	370.8	384.7
77.5°	210.5	229.1	281.2	321.2	337.2
80°	147.0	175.9	232.7	277.6	295.1
82.5°	92.4	128.1	188.8	235.9	251.2
85°	47.1	87.1	149.5	197.7	215.2
87.5°	12.5	56.4	116.3	162.4	180.2
90°	0.4	32.5	88.1	132.4	148.5
92.5°	0.4	18.2	65.7	105.3	121.7
95°	0.4	8.6	45.7	82.8	95.6
97.5°	0.4	3.6	31.4	62.5	75.3
100°	0.4	1.8	20.0	45.3	56.4
102.5°	0.7	1.1	12.5	32.5	41.4
105°	0.7	1.1	7.5	22.1	29.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.1	1.1	1.4	6.1	8.9
115°	1.1	1.1	1.4	3.9	5.7
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°	0.7	1.1	4.3	15.0	20.3
110°	1.1	1.1	2.5	9.3	13.6



(END OF REPORT)