

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: P580195

Luminaire Tested: **HVSL12-4-LD4-1STD-30-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580195  
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-LD4-1STD-30-UNV-O-EDD-90  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

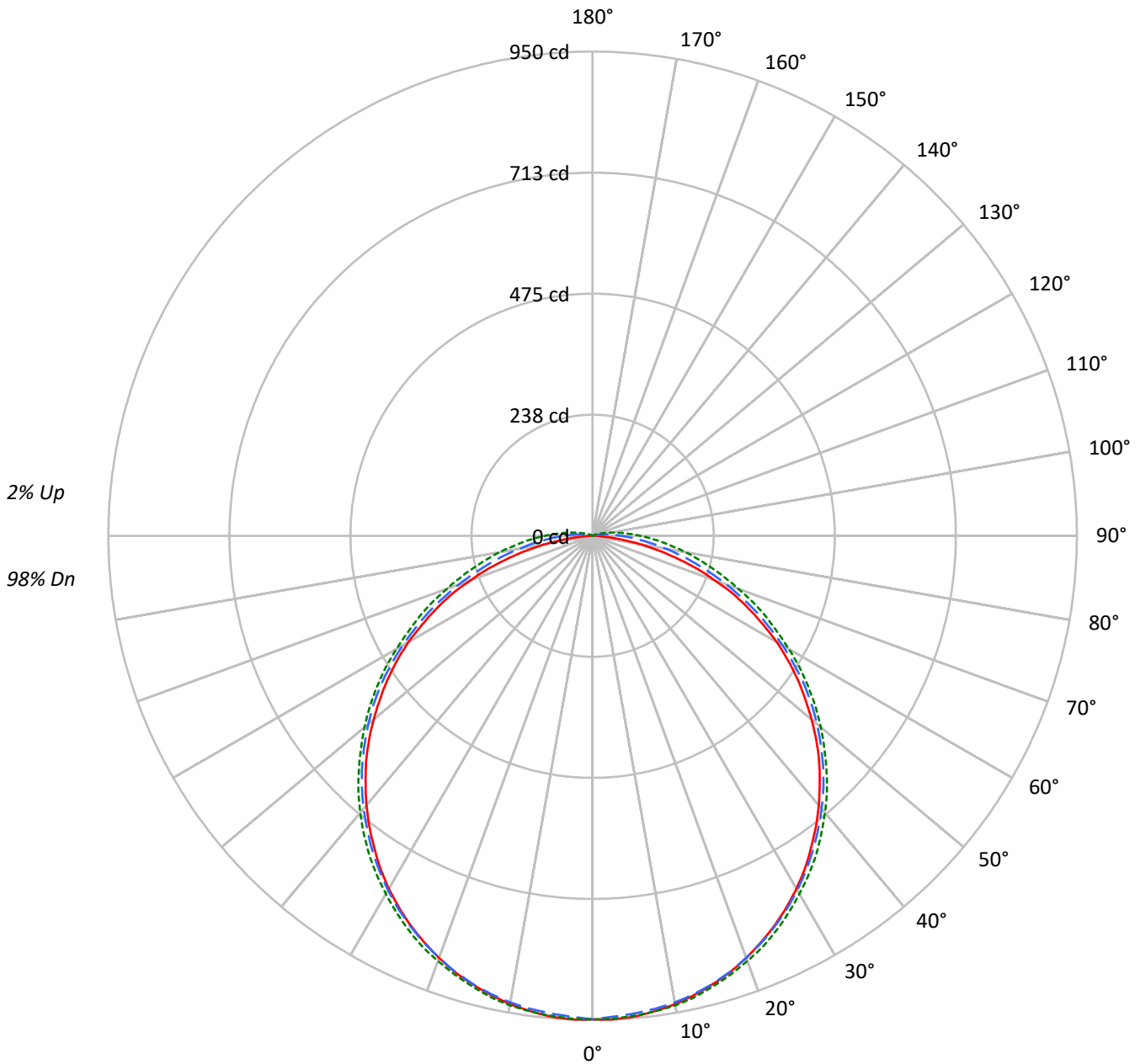
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2869.0 lumens  
Efficiency: N/A  
Efficacy: 83.2 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): 34.5  
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°	2553	2553	2553
5°	2549	2509	2517
10°	2531	2477	2484
15°	2510	2439	2440
20°	2486	2395	2397
25°	2458	2349	2353
30°	2426	2300	2300
35°	2385	2244	2248
40°	2342	2185	2185
45°	2297	2120	2116
50°	2237	2044	2041
55°	2172	1959	1956
60°	2095	1845	1855
65°	1970	1717	1758
70°	1791	1562	1642
75°	1536	1393	1545
80°	1156	1231	1474
85°	617	1078	1434



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.8	3.1
10°-20°	257.6	9.0
20°-30°	390.8	13.6
30°-40°	472.6	16.5
40°-50°	493.1	17.2
50°-60°	450.8	15.7
60°-70°	351.4	12.2
70°-80°	219.8	7.7
80°-90°	99.8	3.5
90°-100°	33.5	1.2
100°-110°	8.4	0.3
110°-120°	1.3	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°	738.2	25.7
0°-40°	1210.7	42.2
0°-60°	2154.7	75.1
0°-90°	2825.8	98.5
90°-120°	43.2	1.5
90°-150°	43.2	1.5
90°-180°	43.0	1.5
0°-180°	2869.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	949	949	949	949	949	
5°	947	945	941	945	945	90
15°	911	912	910	915	915	257
25°	844	845	846	853	854	389
35°	747	750	754	761	764	468
45°	629	634	639	646	649	484
55°	491	496	506	513	516	438
65°	337	343	355	369	375	334
75°	171	181	208	232	241	182
85°	30	55	94	124	135	37
90°	0	20	55	83	93	1
95°	0	5	29	52	60	0
105°	0	1	5	14	19	0
115°	1	1	1	2	4	0
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°	948.9	948.9	948.9	948.9	948.9
2.5°	950.0	948.7	944.4	948.7	948.4
5°	946.9	945.1	940.8	945.3	945.3
7.5°	940.6	939.9	936.1	941.3	941.3
10°	933.2	933.0	929.9	935.5	935.7
12.5°	922.9	923.8	920.9	926.3	927.0
15°	910.9	912.4	910.0	915.1	914.9
17.5°	897.7	898.6	896.8	902.6	902.4
20°	881.3	882.5	881.1	887.2	887.8
22.5°	863.2	864.8	864.6	870.8	872.6
25°	844.0	844.7	845.5	852.7	854.0
27.5°	822.7	823.8	825.4	831.9	833.2
30°	799.5	801.3	803.0	809.8	811.5
32.5°	774.9	776.7	778.9	787.6	788.5
35°	747.1	750.5	753.6	761.2	764.3
37.5°	719.4	723.6	726.5	734.6	737.1
40°	690.1	694.3	699.0	707.5	709.1
42.5°	659.4	664.4	670.0	677.6	680.2
45°	628.6	634.2	639.3	645.6	648.7
47.5°	595.2	600.8	607.1	614.3	616.3
50°	560.8	567.3	574.0	580.7	584.3
52.5°	525.4	533.3	540.9	548.0	551.4
55°	490.6	496.4	505.5	512.9	516.3
57.5°	454.3	459.2	467.5	479.6	481.4
60°	417.4	421.9	430.4	440.2	444.2
62.5°	376.7	382.7	391.7	404.2	407.8
65°	337.1	342.9	354.8	368.9	374.7
67.5°	298.8	300.9	316.1	330.8	340.2
70°	253.7	261.3	278.9	297.1	304.2
72.5°	214.7	222.3	241.8	263.1	272.0
75°	170.7	181.2	207.6	232.4	241.1
77.5°	132.0	143.6	176.3	201.3	211.4
80°	92.2	110.3	145.8	174.0	185.0
82.5°	57.9	80.3	118.3	147.9	157.5
85°	29.5	54.6	93.7	123.9	134.9
87.5°	7.8	35.3	72.9	101.8	113.0
90°	0.2	20.4	55.3	83.0	93.1
92.5°	0.2	11.4	41.2	66.0	76.3
95°	0.2	5.4	28.6	51.9	59.9
97.5°	0.2	2.2	19.7	39.1	47.2
100°	0.2	1.1	12.5	28.4	35.3
102.5°	0.4	0.7	7.8	20.4	25.9
105°	0.4	0.7	4.7	13.9	18.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	0.7	0.9	3.8	5.6
115°	0.7	0.7	0.9	2.5	3.6
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°	0.4	0.7	2.7	9.4	12.8
110°	0.7	0.7	1.6	5.8	8.5



(END OF REPORT)