

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: P580188

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

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580188  
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-LD4-1LO-30-UNV-O-EDD  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

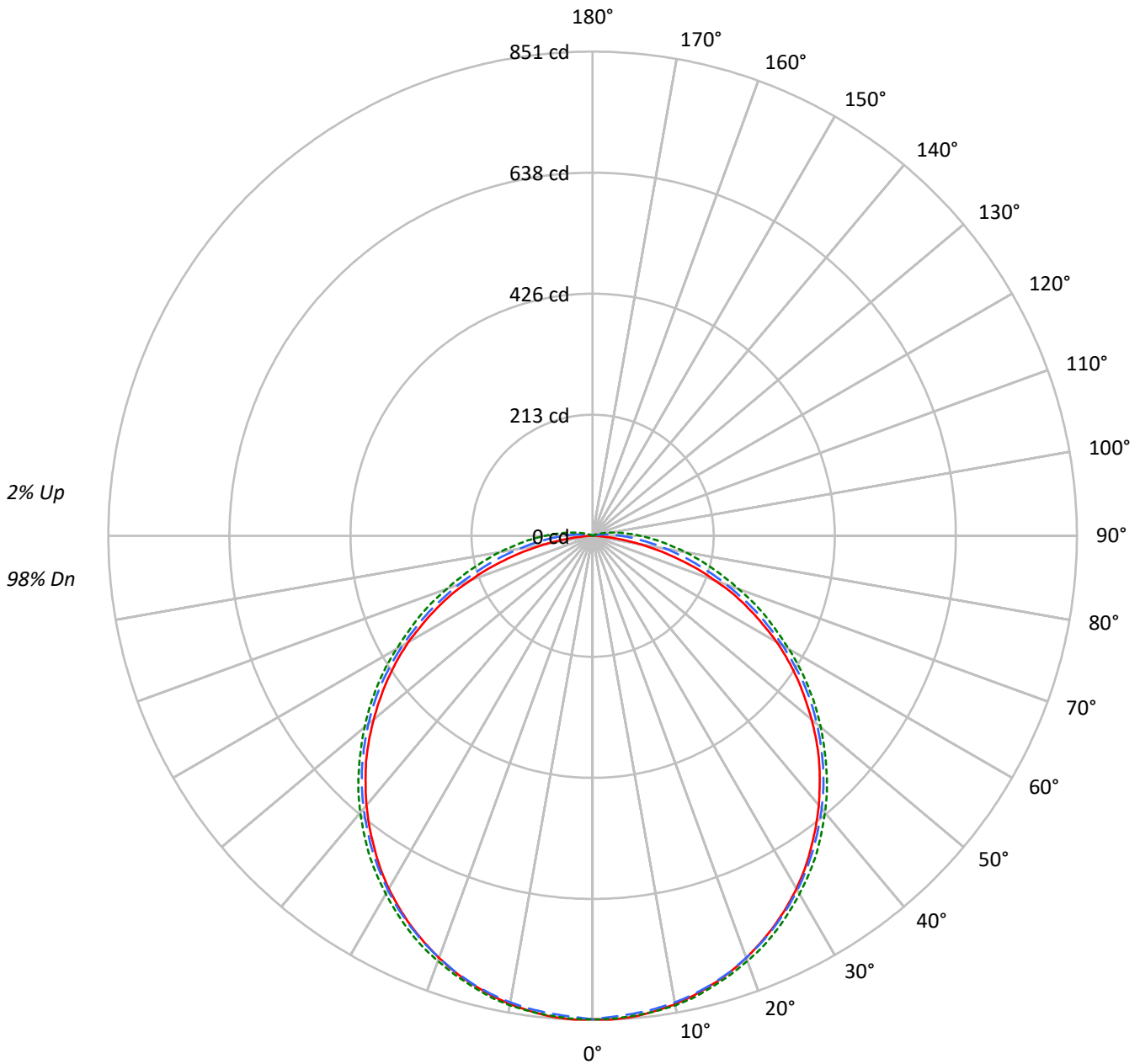
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2570.0 lumens  
Efficiency: N/A  
Efficacy: 105.3 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): 24.4  
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°	2287	2287	2287
5°	2283	2248	2255
10°	2268	2219	2225
15°	2248	2185	2185
20°	2227	2145	2147
25°	2202	2104	2108
30°	2173	2060	2061
35°	2136	2010	2014
40°	2098	1958	1958
45°	2057	1900	1895
50°	2003	1831	1828
55°	1946	1755	1753
60°	1877	1653	1662
65°	1765	1538	1574
70°	1604	1400	1471
75°	1376	1248	1384
80°	1035	1103	1320
85°	552	966	1284



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.4	3.1
10°-20°	230.7	9.0
20°-30°	350.1	13.6
30°-40°	423.3	16.5
40°-50°	441.7	17.2
50°-60°	403.8	15.7
60°-70°	314.8	12.2
70°-80°	196.9	7.7
80°-90°	89.4	3.5
90°-100°	30.0	1.2
100°-110°	7.5	0.3
110°-120°	1.2	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°	661.3	25.7
0°-40°	1084.6	42.2
0°-60°	1930.1	75.1
0°-90°	2531.3	98.5
90°-120°	38.7	1.5
90°-150°	38.7	1.5
90°-180°	39.0	1.5
0°-180°	2570.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	850	850	850	850	850	
5°	848	847	843	847	847	81
15°	816	817	815	820	820	230
25°	756	757	757	764	765	348
35°	669	672	675	682	685	419
45°	563	568	573	578	581	434
55°	439	445	453	460	462	393
65°	302	307	318	330	336	299
75°	153	162	186	208	216	163
85°	26	49	84	111	121	33
90°	0	18	50	74	83	1
95°	0	5	26	46	54	0
105°	0	1	4	12	17	0
115°	1	1	1	2	3	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°	850.0	850.0	850.0	850.0	850.0
2.5°	851.0	849.8	846.0	849.8	849.6
5°	848.2	846.6	842.8	846.8	846.8
7.5°	842.6	842.0	838.6	843.2	843.2
10°	836.0	835.8	833.0	838.0	838.2
12.5°	826.8	827.6	825.0	829.8	830.4
15°	815.9	817.3	815.1	819.7	819.5
17.5°	804.1	804.9	803.3	808.5	808.3
20°	789.5	790.5	789.3	794.7	795.3
22.5°	773.3	774.7	774.5	780.1	781.7
25°	756.0	756.6	757.4	763.8	765.0
27.5°	737.0	738.0	739.4	745.2	746.4
30°	716.1	717.8	719.4	725.4	727.0
32.5°	694.1	695.7	697.7	705.5	706.3
35°	669.3	672.3	675.1	681.9	684.7
37.5°	644.4	648.2	650.8	658.0	660.2
40°	618.2	622.0	626.2	633.8	635.2
42.5°	590.7	595.1	600.1	606.9	609.3
45°	563.1	568.1	572.7	578.3	581.1
47.5°	533.2	538.2	543.8	550.2	552.0
50°	502.3	508.2	514.2	520.2	523.4
52.5°	470.7	477.7	484.5	490.9	493.9
55°	439.4	444.6	452.9	459.5	462.5
57.5°	407.0	411.4	418.8	429.6	431.2
60°	373.9	377.9	385.5	394.3	397.9
62.5°	337.4	342.8	350.9	362.1	365.3
65°	302.0	307.2	317.8	330.4	335.6
67.5°	267.7	269.5	283.1	296.4	304.8
70°	227.2	234.0	249.9	266.1	272.5
72.5°	192.4	199.2	216.6	235.6	243.7
75°	152.9	162.3	186.0	208.2	216.0
77.5°	118.2	128.6	157.9	180.3	189.4
80°	82.6	98.8	130.6	155.9	165.7
82.5°	51.9	71.9	106.0	132.4	141.1
85°	26.4	48.9	84.0	111.0	120.8
87.5°	7.0	31.7	65.3	91.2	101.2
90°	0.2	18.2	49.5	74.3	83.4
92.5°	0.2	10.2	36.9	59.1	68.3
95°	0.2	4.8	25.6	46.5	53.7
97.5°	0.2	2.0	17.6	35.1	42.3
100°	0.2	1.0	11.2	25.4	31.7
102.5°	0.4	0.6	7.0	18.2	23.2
105°	0.4	0.6	4.2	12.4	16.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	0.6	0.8	3.4	5.0
115°	0.6	0.6	0.8	2.2	3.2
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	0.6	2.4	8.4	11.4
110°	0.6	0.6	1.4	5.2	7.6



(END OF REPORT)