

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: P580143

Luminaire Tested: **HVSL12-2-LD4-2LO-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580143  
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: HVSL12-2-LD4-2LO-40-UNV-O-EDD-90  
Description: 2 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

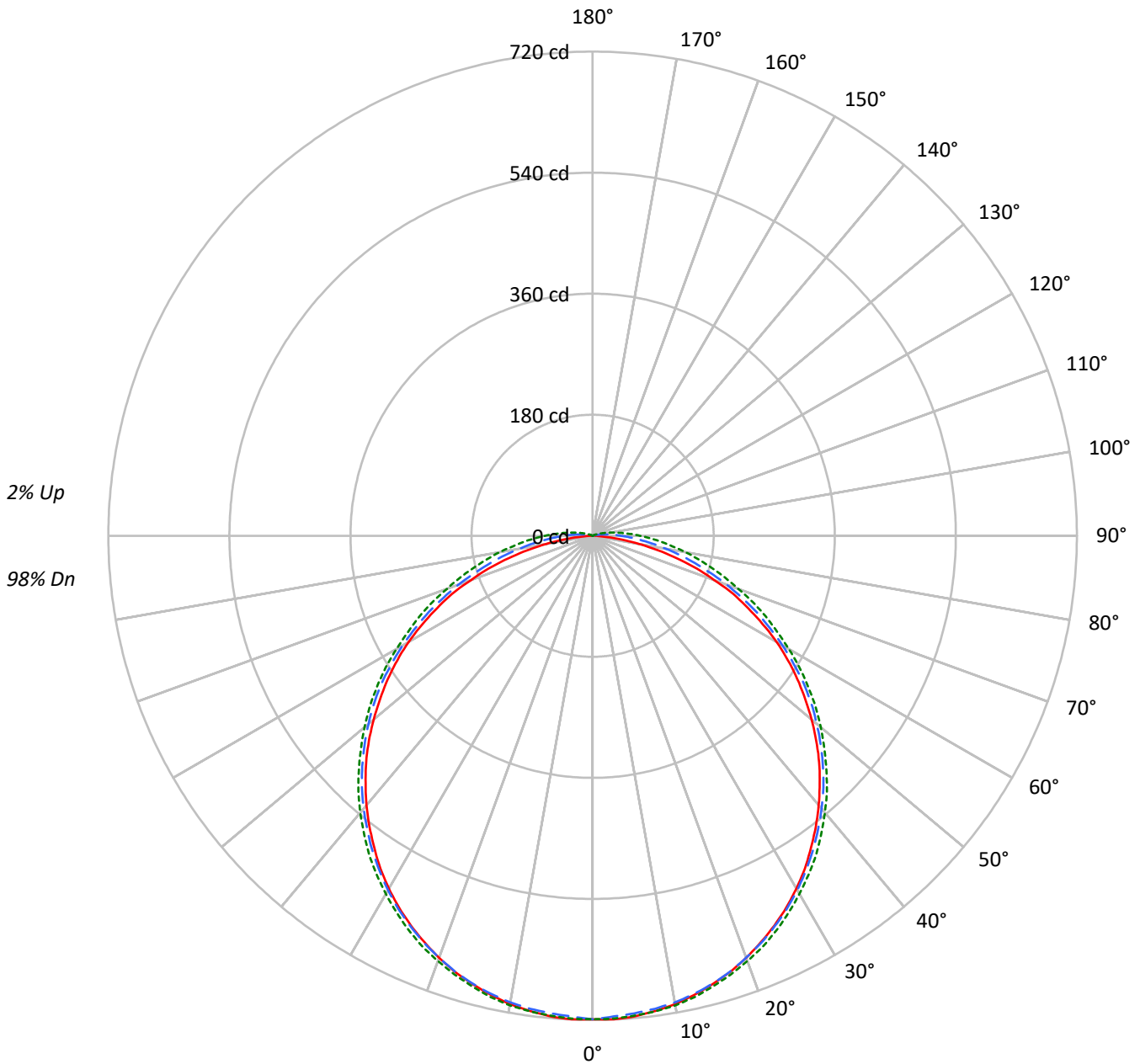
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2174.0 lumens  
Efficiency: N/A  
Efficacy: 89.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 2' 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°	3870	3870	3870
5°	3848	3793	3814
10°	3809	3734	3764
15°	3762	3668	3698
20°	3712	3593	3633
25°	3655	3515	3566
30°	3592	3431	3486
35°	3514	3339	3408
40°	3434	3241	3312
45°	3346	3133	3207
50°	3236	3008	3092
55°	3117	2870	2965
60°	2975	2687	2811
65°	2759	2482	2663
70°	2461	2239	2488
75°	2051	1971	2342
80°	1469	1710	2234
85°	708	1451	2172



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.0	3.1
10°-20°	195.2	9.0
20°-30°	296.1	13.6
30°-40°	358.1	16.5
40°-50°	373.6	17.2
50°-60°	341.6	15.7
60°-70°	266.3	12.2
70°-80°	166.6	7.7
80°-90°	75.7	3.5
90°-100°	25.4	1.2
100°-110°	6.4	0.3
110°-120°	1.0	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°	559.4	25.7
0°-40°	917.4	42.2
0°-60°	1632.7	75.1
0°-90°	2141.3	98.5
90°-120°	32.7	1.5
90°-150°	32.7	1.5
90°-180°	33.0	1.5
0°-180°	2174.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	719	719	719	719	719	
5°	718	716	713	716	716	68
15°	690	691	690	693	693	195
25°	640	640	641	646	647	295
35°	566	569	571	577	579	354
45°	476	480	484	489	492	367
55°	372	376	383	389	391	332
65°	255	260	269	280	284	253
75°	129	137	157	176	183	138
85°	22	41	71	94	102	28
90°	0	15	42	63	70	1
95°	0	4	22	39	45	0
105°	0	0	4	10	14	0
115°	0	0	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°	719.0	719.0	719.0	719.0	719.0
2.5°	719.9	718.9	715.6	718.9	718.7
5°	717.5	716.1	712.9	716.3	716.3
7.5°	712.8	712.2	709.4	713.3	713.3
10°	707.2	707.0	704.6	708.9	709.0
12.5°	699.4	700.0	697.8	701.9	702.4
15°	690.2	691.4	689.5	693.4	693.3
17.5°	680.2	680.9	679.5	683.9	683.8
20°	667.8	668.7	667.7	672.2	672.8
22.5°	654.1	655.3	655.1	659.9	661.2
25°	639.5	640.0	640.7	646.1	647.2
27.5°	623.4	624.3	625.5	630.4	631.4
30°	605.8	607.2	608.5	613.6	615.0
32.5°	587.2	588.5	590.2	596.8	597.5
35°	566.1	568.7	571.1	576.8	579.2
37.5°	545.1	548.3	550.5	556.6	558.5
40°	522.9	526.1	529.7	536.1	537.3
42.5°	499.7	503.4	507.7	513.4	515.5
45°	476.3	480.5	484.4	489.2	491.6
47.5°	451.0	455.3	460.0	465.5	467.0
50°	424.9	429.9	434.9	440.0	442.7
52.5°	398.2	404.1	409.9	415.3	417.8
55°	371.7	376.1	383.1	388.7	391.2
57.5°	344.3	348.0	354.3	363.4	364.8
60°	316.3	319.7	326.1	333.6	336.6
62.5°	285.4	290.0	296.8	306.3	309.0
65°	255.4	259.8	268.8	279.5	283.9
67.5°	226.5	228.0	239.5	250.7	257.8
70°	192.2	198.0	211.4	225.1	230.5
72.5°	162.7	168.5	183.2	199.3	206.1
75°	129.3	137.3	157.3	176.1	182.7
77.5°	100.0	108.8	133.6	152.6	160.2
80°	69.8	83.6	110.5	131.9	140.2
82.5°	43.9	60.9	89.7	112.0	119.3
85°	22.4	41.4	71.0	93.9	102.2
87.5°	5.9	26.8	55.3	77.1	85.6
90°	0.2	15.4	41.9	62.9	70.5
92.5°	0.2	8.6	31.2	50.0	57.8
95°	0.2	4.1	21.7	39.3	45.4
97.5°	0.2	1.7	14.9	29.7	35.8
100°	0.2	0.8	9.5	21.5	26.8
102.5°	0.3	0.5	5.9	15.4	19.7
105°	0.3	0.5	3.6	10.5	14.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.5	0.5	0.7	2.9	4.2
115°	0.5	0.5	0.7	1.9	2.7
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°	0.3	0.5	2.0	7.1	9.7
110°	0.5	0.5	1.2	4.4	6.4



(END OF REPORT)