

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: P580111

Luminaire Tested: **HVSL12-2-LD4-1HI-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580111  
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-LD4-1HI-40-UNV-O-EDD-90  
Description: 2 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

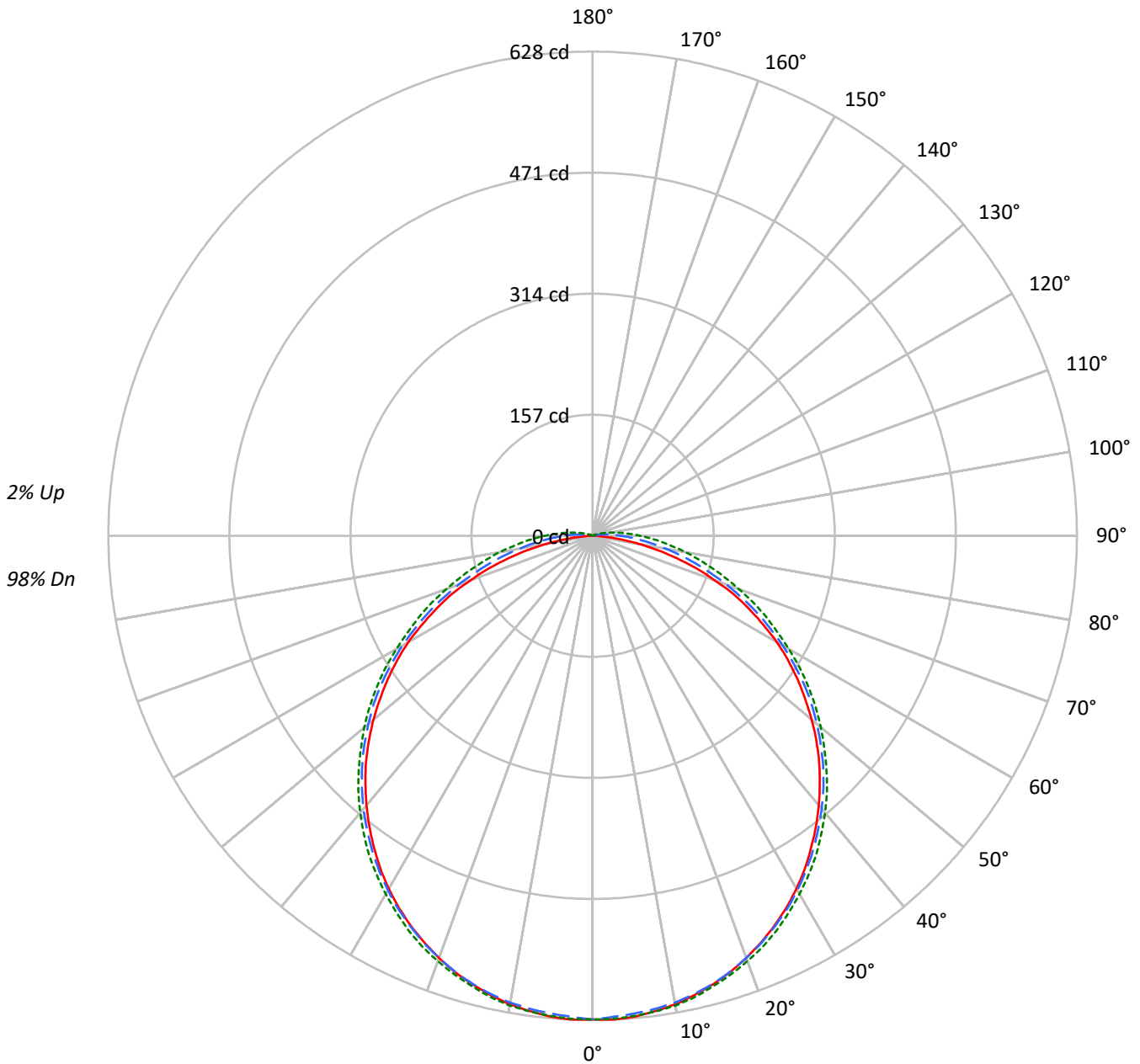
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1897.0 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: 2' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 22.8  
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°	3377	3377	3377
5°	3358	3310	3328
10°	3324	3258	3285
15°	3283	3201	3226
20°	3239	3135	3170
25°	3190	3067	3112
30°	3134	2994	3042
35°	3067	2913	2973
40°	2996	2828	2890
45°	2920	2734	2798
50°	2824	2624	2698
55°	2720	2504	2587
60°	2596	2345	2453
65°	2408	2166	2324
70°	2147	1953	2171
75°	1791	1720	2043
80°	1282	1492	1948
85°	617	1267	1896



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.4	3.1
10°-20°	170.3	9.0
20°-30°	258.4	13.6
30°-40°	312.5	16.5
40°-50°	326.0	17.2
50°-60°	298.1	15.7
60°-70°	232.4	12.3
70°-80°	145.4	7.7
80°-90°	66.0	3.5
90°-100°	22.1	1.2
100°-110°	5.5	0.3
110°-120°	0.9	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°	488.1	25.7
0°-40°	800.6	42.2
0°-60°	1424.7	75.1
0°-90°	1868.4	98.5
90°-120°	28.5	1.5
90°-150°	28.5	1.5
90°-180°	29.0	1.5
0°-180°	1897.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	627	627	627	627	627	
5°	626	625	622	625	625	59
15°	602	603	602	605	605	170
25°	558	558	559	564	565	257
35°	494	496	498	503	505	309
45°	416	419	423	427	429	320
55°	324	328	334	339	341	290
65°	223	227	235	244	248	221
75°	113	120	137	154	159	120
85°	20	36	62	82	89	25
90°	0	14	36	55	62	1
95°	0	4	19	34	40	0
105°	0	0	3	9	12	0
115°	0	0	1	2	2	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°	627.4	627.4	627.4	627.4	627.4
2.5°	628.2	627.3	624.5	627.3	627.1
5°	626.1	624.9	622.1	625.0	625.0
7.5°	621.9	621.5	619.0	622.4	622.4
10°	617.1	616.9	614.8	618.5	618.7
12.5°	610.3	610.8	608.9	612.5	612.9
15°	602.3	603.3	601.7	605.1	604.9
17.5°	593.5	594.1	593.0	596.8	596.6
20°	582.7	583.5	582.6	586.6	587.0
22.5°	570.8	571.8	571.7	575.8	577.0
25°	558.0	558.5	559.1	563.8	564.7
27.5°	544.0	544.7	545.8	550.1	550.9
30°	528.6	529.8	531.0	535.4	536.6
32.5°	512.3	513.5	515.0	520.8	521.4
35°	494.0	496.2	498.3	503.3	505.4
37.5°	475.7	478.5	480.4	485.7	487.3
40°	456.3	459.1	462.2	467.8	468.9
42.5°	436.0	439.3	443.0	448.0	449.8
45°	415.6	419.3	422.7	426.9	428.9
47.5°	393.6	397.3	401.4	406.1	407.5
50°	370.8	375.1	379.5	384.0	386.3
52.5°	347.4	352.6	357.6	362.4	364.6
55°	324.4	328.2	334.3	339.1	341.4
57.5°	300.4	303.6	309.1	317.1	318.3
60°	276.0	278.9	284.6	291.1	293.7
62.5°	249.1	253.1	259.0	267.3	269.6
65°	222.9	226.7	234.6	243.9	247.7
67.5°	197.6	198.9	209.0	218.8	225.0
70°	167.7	172.8	184.4	196.4	201.2
72.5°	142.0	147.0	159.9	173.9	179.9
75°	112.9	119.8	137.3	153.7	159.4
77.5°	87.3	95.0	116.5	133.1	139.8
80°	60.9	72.9	96.4	115.1	122.3
82.5°	38.3	53.1	78.2	97.8	104.1
85°	19.5	36.1	62.0	81.9	89.2
87.5°	5.2	23.4	48.2	67.3	74.7
90°	0.1	13.5	36.5	54.9	61.5
92.5°	0.1	7.5	27.2	43.6	50.4
95°	0.1	3.5	18.9	34.3	39.6
97.5°	0.1	1.5	13.0	25.9	31.2
100°	0.1	0.7	8.3	18.8	23.4
102.5°	0.3	0.4	5.2	13.5	17.2
105°	0.3	0.4	3.1	9.2	12.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.4	0.4	0.6	2.5	3.7
115°	0.4	0.4	0.6	1.6	2.4
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	0.4	1.8	6.2	8.4
110°	0.4	0.4	1.0	3.8	5.6



(END OF REPORT)