

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: P580208

Luminaire Tested: **HVSL12-4-LD4-2HI-40-UNV-O-EDD**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580208  
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-LD4-2HI-40-UNV-O-EDD  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

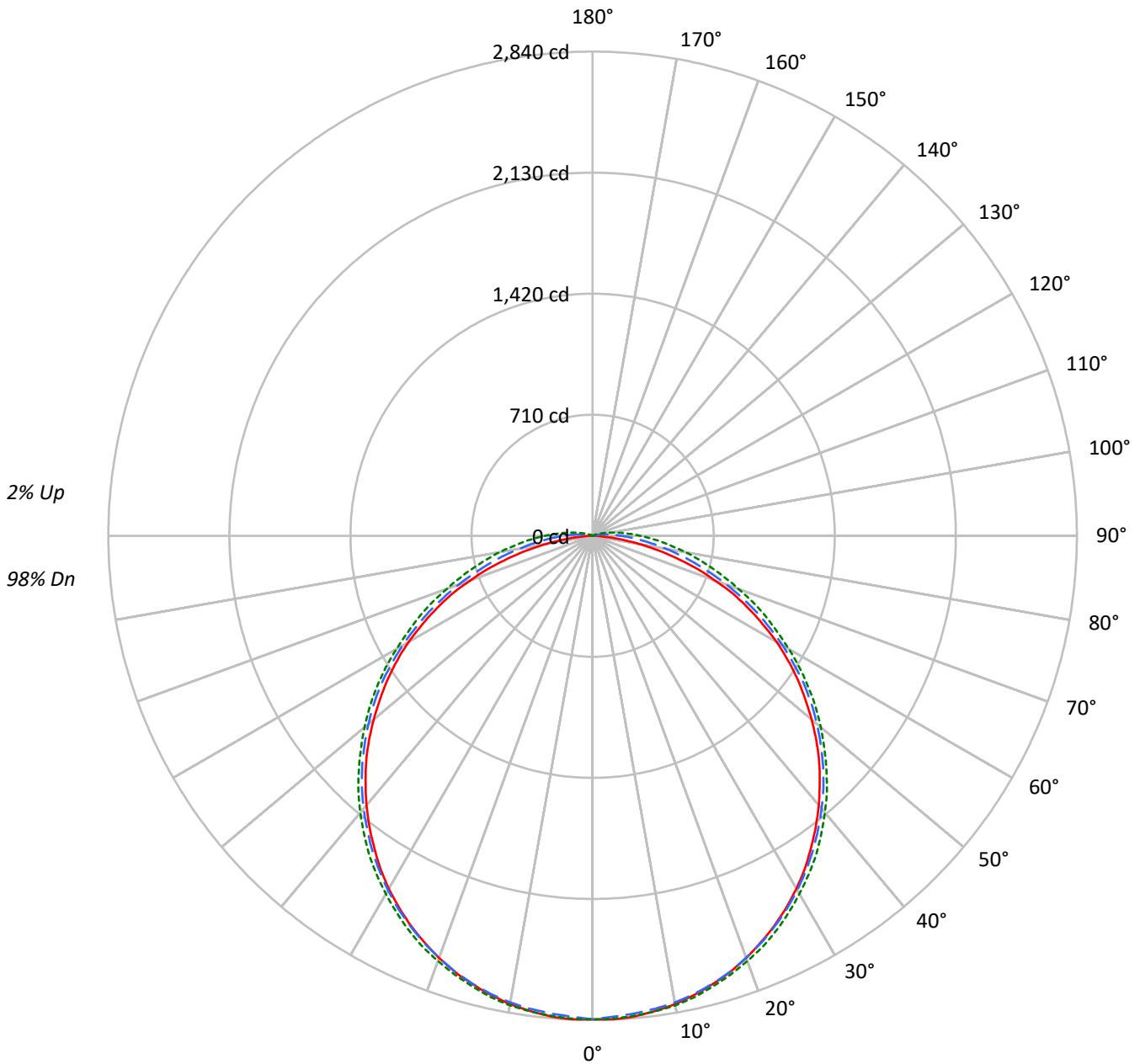
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8576.0 lumens  
Efficiency: N/A  
Efficacy: 94.0 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): 91.2  
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

TEST NUMBER: P580208

CATALOG NUMBER: HVSL12-4-LD4-2HI-40-UNV-O-EDD

### 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°	7633	7633	7633
5°	7618	7500	7523
10°	7567	7403	7425
15°	7502	7290	7293
20°	7432	7158	7165
25°	7348	7022	7033
30°	7251	6874	6876
35°	7129	6708	6721
40°	7001	6532	6532
45°	6864	6339	6325
50°	6686	6110	6100
55°	6493	5857	5848
60°	6263	5516	5546
65°	5890	5131	5253
70°	5353	4670	4907
75°	4591	4162	4620
80°	3453	3681	4405
85°	1847	3223	4285



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.4	3.1
10°-20°	769.9	9.0
20°-30°	1168.2	13.6
30°-40°	1412.6	16.5
40°-50°	1473.9	17.2
50°-60°	1347.6	15.7
60°-70°	1050.5	12.2
70°-80°	657.2	7.7
80°-90°	298.5	3.5
90°-100°	100.0	1.2
100°-110°	25.1	0.3
110°-120°	4.0	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°	2206.6	25.7
0°-40°	3619.2	42.2
0°-60°	6440.7	75.1
0°-90°	8446.9	98.5
90°-120°	129.1	1.5
90°-150°	129.1	1.5
90°-180°	129.0	1.5
0°-180°	8576.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2836	2836	2836	2836	2836	
5°	2830	2825	2812	2826	2826	269
15°	2723	2727	2720	2736	2735	769
25°	2523	2525	2528	2549	2553	1162
35°	2233	2243	2253	2275	2285	1398
45°	1879	1896	1911	1930	1939	1448
55°	1466	1484	1511	1533	1543	1310
65°	1008	1025	1060	1103	1120	997
75°	510	542	620	695	721	544
85°	88	163	280	370	403	112
90°	1	61	165	248	278	3
95°	1	16	86	155	179	1
105°	1	2	14	42	56	1
115°	2	2	3	7	11	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



TEST NUMBER: P580208

CATALOG NUMBER: HVSL12-4-LD4-2HI-40-UNV-O-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2836.4	2836.4	2836.4	2836.4	2836.4
2.5°	2839.8	2835.8	2823.0	2835.8	2835.1
5°	2830.4	2825.1	2812.4	2825.7	2825.7
7.5°	2811.7	2809.7	2798.3	2813.7	2813.7
10°	2789.6	2788.9	2779.6	2796.3	2797.0
12.5°	2758.9	2761.5	2752.8	2768.9	2770.9
15°	2722.8	2727.4	2720.1	2735.5	2734.8
17.5°	2683.3	2686.0	2680.6	2698.0	2697.3
20°	2634.5	2637.8	2633.8	2651.9	2653.9
22.5°	2580.3	2585.0	2584.3	2603.1	2608.4
25°	2522.8	2524.8	2527.5	2548.9	2552.9
27.5°	2459.3	2462.6	2467.3	2486.7	2490.7
30°	2389.8	2395.1	2400.5	2420.5	2425.9
32.5°	2316.2	2321.6	2328.2	2354.3	2357.0
35°	2233.3	2243.3	2252.7	2275.4	2284.8
37.5°	2150.4	2163.1	2171.8	2195.9	2203.2
40°	2062.8	2075.5	2089.5	2114.9	2119.6
42.5°	1971.2	1985.9	2002.6	2025.3	2033.4
45°	1878.9	1895.6	1911.0	1929.7	1939.1
47.5°	1779.3	1796.0	1814.7	1836.1	1842.1
50°	1676.3	1695.7	1715.8	1735.8	1746.5
52.5°	1570.7	1594.1	1616.8	1638.2	1648.2
55°	1466.4	1483.7	1511.2	1533.2	1543.2
57.5°	1358.0	1372.7	1397.5	1433.6	1438.9
60°	1247.7	1261.1	1286.5	1315.9	1327.9
62.5°	1126.0	1144.1	1170.8	1208.3	1219.0
65°	1007.7	1025.0	1060.5	1102.6	1120.0
67.5°	893.3	899.3	944.8	988.9	1017.0
70°	758.3	781.0	833.8	888.0	909.4
72.5°	641.9	664.6	722.8	786.3	813.1
75°	510.2	541.6	620.5	694.7	720.8
77.5°	394.5	429.3	526.9	601.8	631.9
80°	275.5	329.6	436.0	520.2	553.0
82.5°	173.2	240.0	353.7	442.0	470.7
85°	88.3	163.2	280.2	370.4	403.2
87.5°	23.4	105.6	218.0	304.2	337.7
90°	0.7	60.8	165.2	248.1	278.2
92.5°	0.7	34.1	123.0	197.3	228.0
95°	0.7	16.0	85.6	155.1	179.2
97.5°	0.7	6.7	58.8	117.0	141.1
100°	0.7	3.3	37.4	84.9	105.6
102.5°	1.3	2.0	23.4	60.8	77.6
105°	1.3	2.0	14.0	41.5	55.5



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CATALOG NUMBER: HVSL12-4-LD4-2HI-40-UNV-O-EDD

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.0	2.0	2.7	11.4	16.7
115°	2.0	2.0	2.7	7.4	10.7
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°	1.3	2.0	8.0	28.1	38.1
110°	2.0	2.0	4.7	17.4	25.4



(END OF REPORT)