

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: P580190

Luminaire Tested: **HVSL12-4-LD4-1LO-35-UNV-O-EDD**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580190  
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-35-UNV-O-EDD  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

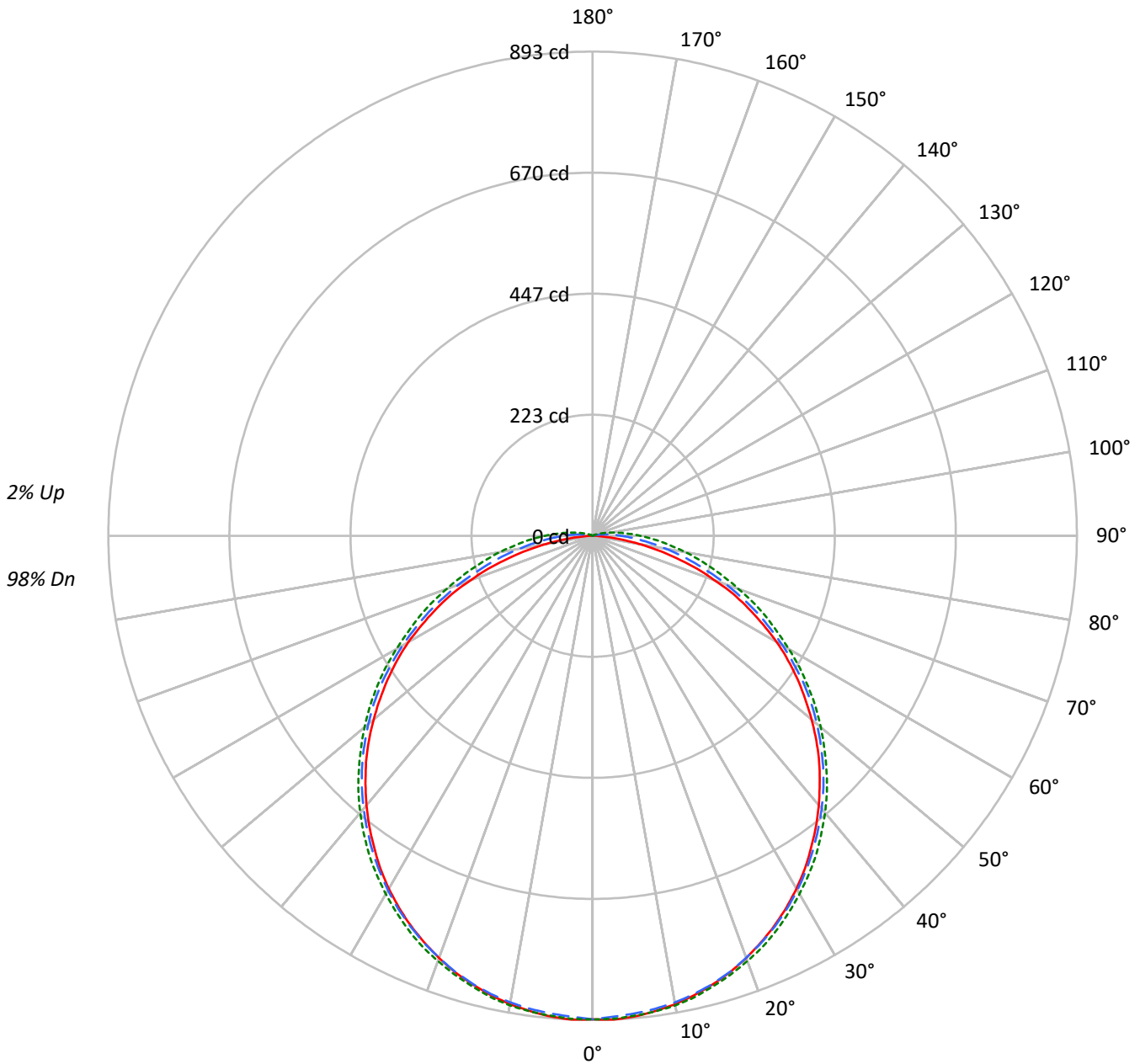
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2697.0 lumens  
Efficiency: N/A  
Efficacy: 110.5 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					20					
RC	80					70					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°	2400	2400	2400
5°	2396	2359	2366
10°	2380	2328	2335
15°	2359	2293	2293
20°	2337	2251	2253
25°	2311	2208	2212
30°	2280	2162	2162
35°	2242	2110	2114
40°	2202	2054	2054
45°	2159	1993	1989
50°	2103	1922	1918
55°	2042	1842	1839
60°	1970	1735	1744
65°	1852	1614	1652
70°	1684	1468	1543
75°	1443	1309	1453
80°	1085	1157	1385
85°	581	1013	1348



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.4	3.1
10°-20°	242.1	9.0
20°-30°	367.4	13.6
30°-40°	444.2	16.5
40°-50°	463.5	17.2
50°-60°	423.8	15.7
60°-70°	330.4	12.2
70°-80°	206.7	7.7
80°-90°	93.9	3.5
90°-100°	31.5	1.2
100°-110°	7.9	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°	693.9	25.7
0°-40°	1138.2	42.2
0°-60°	2025.5	75.1
0°-90°	2656.4	98.5
90°-120°	40.6	1.5
90°-150°	40.6	1.5
90°-180°	41.0	1.5
0°-180°	2697.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	890	888	884	889	889	85
15°	856	858	855	860	860	242
25°	793	794	795	802	803	366
35°	702	706	708	716	718	440
45°	591	596	601	607	610	455
55°	461	467	475	482	485	412
65°	317	322	334	347	352	314
75°	160	170	195	218	227	171
85°	28	51	88	116	127	35
90°	0	19	52	78	88	1
95°	0	5	27	49	56	0
105°	0	1	4	13	18	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



TEST NUMBER: P580190

CATALOG NUMBER: HVSL12-4-LD4-1LO-35-UNV-O-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	892.0	892.0	892.0	892.0	892.0
2.5°	893.1	891.8	887.8	891.8	891.6
5°	890.1	888.4	884.4	888.6	888.6
7.5°	884.2	883.6	880.0	884.9	884.9
10°	877.3	877.1	874.1	879.4	879.6
12.5°	867.6	868.5	865.7	870.8	871.4
15°	856.3	857.7	855.4	860.3	860.0
17.5°	843.9	844.7	843.0	848.5	848.3
20°	828.5	829.6	828.3	834.0	834.6
22.5°	811.5	812.9	812.7	818.6	820.3
25°	793.4	794.0	794.9	801.6	802.8
27.5°	773.4	774.5	775.9	782.0	783.3
30°	751.5	753.2	754.9	761.2	762.9
32.5°	728.4	730.1	732.2	740.4	741.2
35°	702.3	705.5	708.4	715.6	718.5
37.5°	676.3	680.3	683.0	690.6	692.9
40°	648.7	652.7	657.1	665.1	666.6
42.5°	619.9	624.5	629.8	636.9	639.5
45°	590.9	596.1	601.0	606.9	609.8
47.5°	559.6	564.8	570.7	577.4	579.3
50°	527.2	533.3	539.6	545.9	549.2
52.5°	493.9	501.3	508.5	515.2	518.3
55°	461.1	466.6	475.2	482.2	485.3
57.5°	427.1	431.7	439.5	450.8	452.5
60°	392.4	396.6	404.6	413.8	417.6
62.5°	354.1	359.8	368.2	380.0	383.3
65°	316.9	322.4	333.5	346.8	352.2
67.5°	280.9	282.8	297.1	311.0	319.8
70°	238.5	245.6	262.2	279.3	286.0
72.5°	201.9	209.0	227.3	247.3	255.7
75°	160.4	170.3	195.1	218.5	226.7
77.5°	124.1	135.0	165.7	189.3	198.7
80°	86.6	103.7	137.1	163.6	173.9
82.5°	54.5	75.5	111.2	139.0	148.0
85°	27.8	51.3	88.1	116.5	126.8
87.5°	7.4	33.2	68.6	95.7	106.2
90°	0.2	19.1	51.9	78.0	87.5
92.5°	0.2	10.7	38.7	62.0	71.7
95°	0.2	5.0	26.9	48.8	56.4
97.5°	0.2	2.1	18.5	36.8	44.4
100°	0.2	1.1	11.8	26.7	33.2
102.5°	0.4	0.6	7.4	19.1	24.4
105°	0.4	0.6	4.4	13.0	17.5



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CATALOG NUMBER: HVSL12-4-LD4-1LO-35-UNV-O-EDD

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	0.6	0.8	3.6	5.3
115°	0.6	0.6	0.8	2.3	3.4
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°	0.4	0.6	2.5	8.8	12.0
110°	0.6	0.6	1.5	5.5	8.0



(END OF REPORT)