

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: P580226

Luminaire Tested: **HVSL12-4-LD4-2STD-50-UNV-O-EDD**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580226  
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-LD4-2STD-50-UNV-O-EDD  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

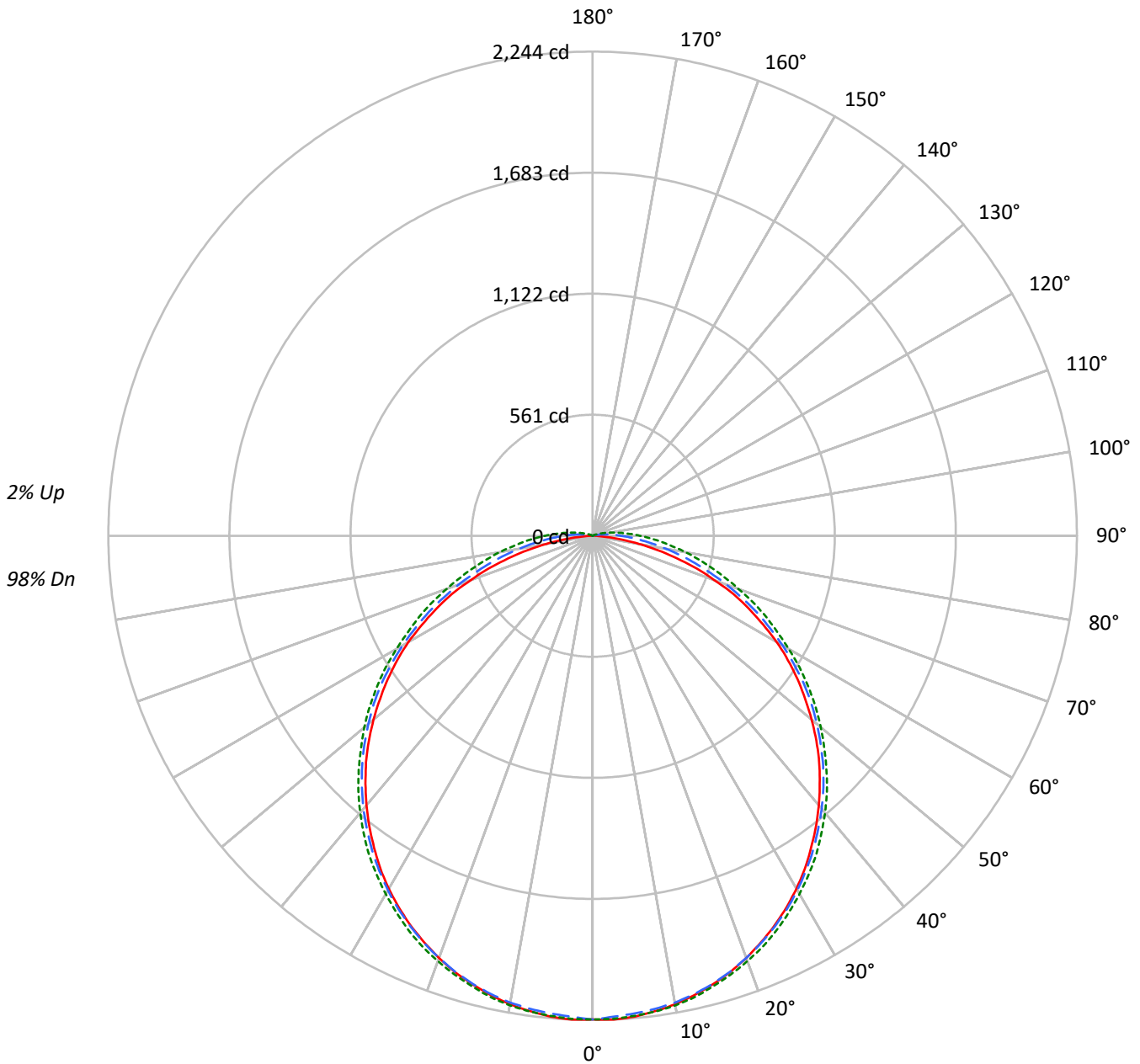
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6778.0 lumens  
Efficiency: N/A  
Efficacy: 97.9 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): 69.2  
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

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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°	6033	6033	6033
5°	6021	5928	5946
10°	5981	5851	5868
15°	5929	5762	5764
20°	5874	5658	5663
25°	5807	5550	5559
30°	5731	5433	5435
35°	5634	5302	5312
40°	5533	5163	5163
45°	5425	5010	4999
50°	5284	4829	4821
55°	5132	4629	4622
60°	4950	4360	4383
65°	4655	4055	4152
70°	4231	3691	3878
75°	3628	3290	3652
80°	2729	2909	3481
85°	1460	2547	3387



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	212.1	3.1
10°-20°	608.5	9.0
20°-30°	923.3	13.6
30°-40°	1116.4	16.5
40°-50°	1164.9	17.2
50°-60°	1065.1	15.7
60°-70°	830.3	12.2
70°-80°	519.4	7.7
80°-90°	235.9	3.5
90°-100°	79.1	1.2
100°-110°	19.9	0.3
110°-120°	3.1	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°	1744.0	25.7
0°-40°	2860.4	42.2
0°-60°	5090.4	75.1
0°-90°	6675.9	98.5
90°-120°	102.0	1.5
90°-150°	102.0	1.5
90°-180°	102.0	1.5
0°-180°	6778.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2242	2242	2242	2242	2242	
5°	2237	2233	2223	2233	2233	212
15°	2152	2156	2150	2162	2161	607
25°	1994	1996	1998	2014	2018	919
35°	1765	1773	1780	1798	1806	1105
45°	1485	1498	1510	1525	1533	1144
55°	1159	1173	1194	1212	1220	1035
65°	796	810	838	871	885	788
75°	403	428	490	549	570	430
85°	70	129	221	293	319	88
90°	0	48	130	196	220	3
95°	0	13	68	123	142	0
105°	1	2	11	33	44	1
115°	2	2	2	6	8	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



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2241.8	2241.8	2241.8	2241.8	2241.8
2.5°	2244.4	2241.2	2231.2	2241.2	2240.7
5°	2237.0	2232.8	2222.7	2233.3	2233.3
7.5°	2222.2	2220.6	2211.6	2223.8	2223.8
10°	2204.8	2204.2	2196.8	2210.0	2210.6
12.5°	2180.5	2182.6	2175.7	2188.4	2190.0
15°	2151.9	2155.6	2149.8	2162.0	2161.4
17.5°	2120.7	2122.8	2118.6	2132.4	2131.8
20°	2082.2	2084.8	2081.6	2095.9	2097.5
22.5°	2039.4	2043.0	2042.5	2057.3	2061.5
25°	1993.9	1995.5	1997.6	2014.5	2017.7
27.5°	1943.7	1946.3	1950.0	1965.4	1968.5
30°	1888.7	1893.0	1897.2	1913.0	1917.3
32.5°	1830.6	1834.8	1840.1	1860.7	1862.8
35°	1765.1	1773.0	1780.4	1798.4	1805.8
37.5°	1699.5	1709.6	1716.5	1735.5	1741.3
40°	1630.3	1640.4	1651.5	1671.5	1675.2
42.5°	1557.9	1569.5	1582.8	1600.7	1607.1
45°	1485.0	1498.2	1510.4	1525.2	1532.6
47.5°	1406.2	1419.5	1434.3	1451.2	1455.9
50°	1324.9	1340.2	1356.0	1371.9	1380.4
52.5°	1241.4	1259.9	1277.8	1294.7	1302.7
55°	1158.9	1172.7	1194.3	1211.8	1219.7
57.5°	1073.3	1084.9	1104.5	1133.0	1137.3
60°	986.1	996.7	1016.8	1040.0	1049.5
62.5°	889.9	904.2	925.3	954.9	963.4
65°	796.4	810.1	838.1	871.4	885.2
67.5°	706.0	710.8	746.7	781.6	803.8
70°	599.3	617.2	659.0	701.8	718.7
72.5°	507.3	525.3	571.3	621.5	642.6
75°	403.2	428.1	490.4	549.1	569.7
77.5°	311.8	339.3	416.4	475.6	499.4
80°	217.7	260.5	344.6	411.1	437.0
82.5°	136.9	189.7	279.6	349.3	372.0
85°	69.8	128.9	221.4	292.8	318.7
87.5°	18.5	83.5	172.3	240.5	266.9
90°	0.5	48.1	130.5	196.1	219.8
92.5°	0.5	27.0	97.2	155.9	180.2
95°	0.5	12.7	67.6	122.6	141.6
97.5°	0.5	5.3	46.5	92.5	111.5
100°	0.5	2.6	29.6	67.1	83.5
102.5°	1.1	1.6	18.5	48.1	61.3
105°	1.1	1.6	11.1	32.8	43.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.6	1.6	2.1	9.0	13.2
115°	1.6	1.6	2.1	5.8	8.5
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°	1.1	1.6	6.3	22.2	30.1
110°	1.6	1.6	3.7	13.7	20.1



(END OF REPORT)