

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: P580224

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

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580224  
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-40-UNV-O-EDD  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

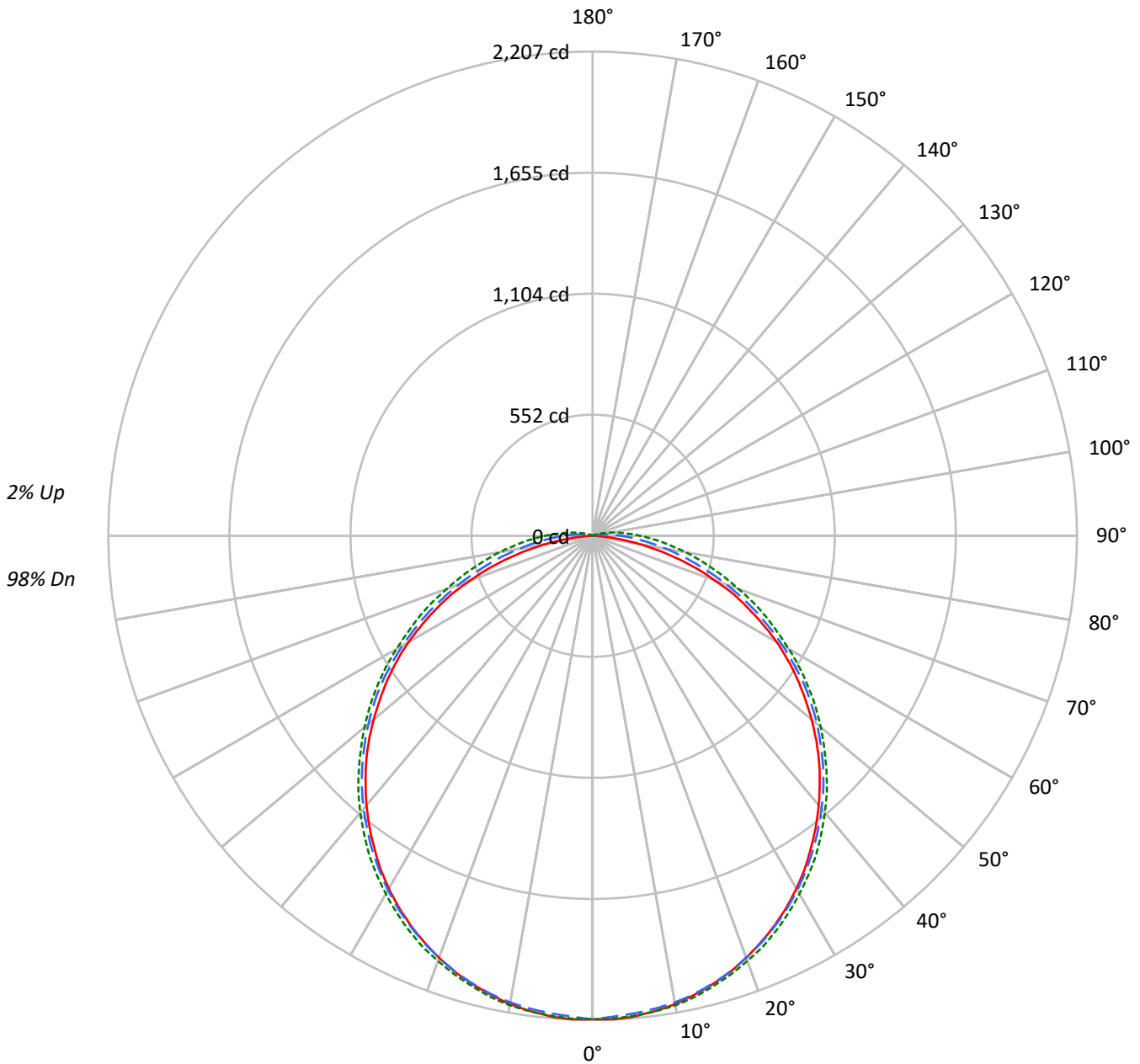
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6664.0 lumens  
Efficiency: N/A  
Efficacy: 96.3 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°	5931	5931	5931
5°	5920	5828	5846
10°	5880	5752	5769
15°	5829	5665	5667
20°	5775	5562	5568
25°	5710	5457	5465
30°	5635	5342	5343
35°	5539	5213	5223
40°	5440	5076	5076
45°	5334	4926	4915
50°	5195	4748	4740
55°	5045	4551	4544
60°	4867	4286	4309
65°	4577	3987	4082
70°	4159	3629	3813
75°	3567	3235	3590
80°	2684	2860	3423
85°	1435	2504	3329



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	208.6	3.1
10°-20°	598.3	9.0
20°-30°	907.8	13.6
30°-40°	1097.7	16.5
40°-50°	1145.3	17.2
50°-60°	1047.2	15.7
60°-70°	816.3	12.2
70°-80°	510.7	7.7
80°-90°	231.9	3.5
90°-100°	77.7	1.2
100°-110°	19.5	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°	1714.6	25.7
0°-40°	2812.3	42.2
0°-60°	5004.8	75.1
0°-90°	6563.7	98.5
90°-120°	100.3	1.5
90°-150°	100.3	1.5
90°-180°	100.0	1.5
0°-180°	6664.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2204	2204	2204	2204	2204	
5°	2199	2195	2185	2196	2196	209
15°	2116	2119	2114	2126	2125	597
25°	1960	1962	1964	1981	1984	903
35°	1735	1743	1750	1768	1775	1086
45°	1460	1473	1485	1500	1507	1125
55°	1139	1153	1174	1191	1199	1018
65°	783	796	824	857	870	775
75°	396	421	482	540	560	423
85°	69	127	218	288	313	87
90°	0	47	128	193	216	3
95°	0	12	66	120	139	0
105°	1	2	11	32	43	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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CATALOG NUMBER: HVSL12-4-LD4-2STD-40-UNV-O-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2204.0	2204.0	2204.0	2204.0	2204.0
2.5°	2206.6	2203.5	2193.7	2203.5	2203.0
5°	2199.4	2195.2	2185.3	2195.7	2195.7
7.5°	2184.8	2183.3	2174.4	2186.4	2186.4
10°	2167.7	2167.2	2159.9	2172.9	2173.4
12.5°	2143.8	2145.9	2139.1	2151.6	2153.1
15°	2115.7	2119.4	2113.6	2125.6	2125.1
17.5°	2085.1	2087.1	2083.0	2096.5	2096.0
20°	2047.1	2049.7	2046.6	2060.6	2062.2
22.5°	2005.1	2008.7	2008.2	2022.7	2026.9
25°	1960.4	1961.9	1964.0	1980.6	1983.7
27.5°	1911.0	1913.6	1917.2	1932.3	1935.4
30°	1857.0	1861.1	1865.3	1880.9	1885.0
32.5°	1799.8	1804.0	1809.2	1829.4	1831.5
35°	1735.4	1743.2	1750.5	1768.1	1775.4
37.5°	1671.0	1680.8	1687.6	1706.3	1712.0
40°	1602.9	1612.8	1623.7	1643.4	1647.1
42.5°	1531.7	1543.1	1556.1	1573.8	1580.0
45°	1460.0	1473.0	1485.0	1499.5	1506.8
47.5°	1382.6	1395.6	1410.1	1426.8	1431.4
50°	1302.6	1317.6	1333.2	1348.8	1357.1
52.5°	1220.5	1238.7	1256.3	1273.0	1280.8
55°	1139.4	1152.9	1174.2	1191.4	1199.2
57.5°	1055.3	1066.7	1085.9	1114.0	1118.1
60°	969.5	979.9	999.7	1022.5	1031.9
62.5°	875.0	889.0	909.8	938.9	947.2
65°	783.0	796.5	824.1	856.8	870.3
67.5°	694.2	698.8	734.2	768.5	790.3
70°	589.2	606.9	647.9	690.0	706.6
72.5°	498.8	516.5	561.7	611.0	631.8
75°	396.4	420.9	482.2	539.8	560.1
77.5°	306.6	333.6	409.4	467.6	491.0
80°	214.1	256.2	338.8	404.2	429.7
82.5°	134.6	186.5	274.9	343.4	365.8
85°	68.6	126.8	217.7	287.8	313.3
87.5°	18.2	82.1	169.4	236.4	262.4
90°	0.5	47.3	128.3	192.8	216.1
92.5°	0.5	26.5	95.6	153.3	177.2
95°	0.5	12.5	66.5	120.5	139.2
97.5°	0.5	5.2	45.7	90.9	109.6
100°	0.5	2.6	29.1	66.0	82.1
102.5°	1.0	1.6	18.2	47.3	60.3
105°	1.0	1.6	10.9	32.2	43.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.6	1.6	2.1	8.8	13.0
115°	1.6	1.6	2.1	5.7	8.3
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°	1.0	1.6	6.2	21.8	29.6
110°	1.6	1.6	3.6	13.5	19.7



(END OF REPORT)