

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: P580160

Luminaire Tested: **HVSL12-2-LD4-3HI-40-UNV-O-EDD**

Issue Date: 12/16/2022



**Test Information**

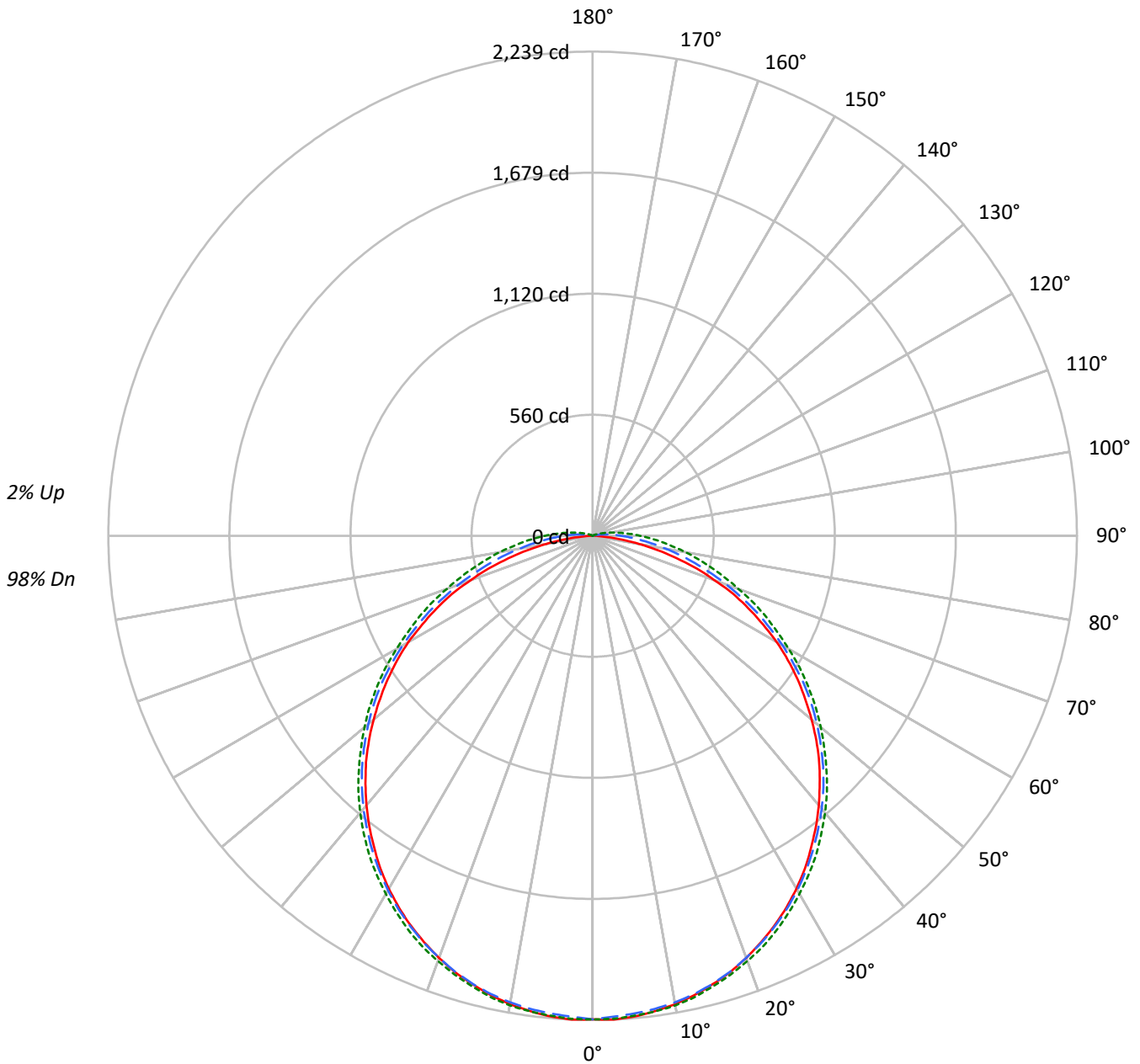
Test Method: LM-79-08  
Report Number: P580160  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/16/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: HVSL12-2-LD4-3HI-40-UNV-O-EDD  
Description: 2 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6762.0 lumens  
Efficiency: N/A  
Efficacy: 101.4 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): 66.7  
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°	12037	12037	12037
5°	11970	11798	11864
10°	11847	11615	11708
15°	11700	11409	11501
20°	11547	11175	11299
25°	11371	10933	11091
30°	11172	10673	10843
35°	10931	10384	10599
40°	10680	10080	10301
45°	10408	9745	9974
50°	10066	9355	9619
55°	9695	8926	9222
60°	9254	8359	8746
65°	8584	7721	8284
70°	7655	6962	7738
75°	6381	6130	7285
80°	4571	5319	6946
85°	2201	4515	6757



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	211.6	3.1
10°-20°	607.1	9.0
20°-30°	921.1	13.6
30°-40°	1113.8	16.5
40°-50°	1162.2	17.2
50°-60°	1062.6	15.7
60°-70°	828.3	12.2
70°-80°	518.2	7.7
80°-90°	235.3	3.5
90°-100°	78.9	1.2
100°-110°	19.8	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°	1739.8	25.7
0°-40°	2853.6	42.2
0°-60°	5078.4	75.1
0°-90°	6660.2	98.5
90°-120°	101.8	1.5
90°-150°	101.8	1.5
90°-180°	102.0	1.5
0°-180°	6762.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2236	2236	2236	2236	2236	
5°	2232	2228	2218	2228	2228	212
15°	2147	2150	2145	2157	2156	606
25°	1989	1991	1993	2010	2013	917
35°	1761	1769	1776	1794	1802	1102
45°	1482	1495	1507	1522	1529	1142
55°	1156	1170	1192	1209	1217	1033
65°	794	808	836	869	883	786
75°	402	427	489	548	568	429
85°	70	129	221	292	318	88
90°	0	48	130	196	219	3
95°	0	13	68	122	141	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



TEST NUMBER: P580160

CATALOG NUMBER: HVSL12-2-LD4-3HI-40-UNV-O-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2236.5	2236.5	2236.5	2236.5	2236.5
2.5°	2239.1	2235.9	2225.9	2235.9	2235.4
5°	2231.7	2227.5	2217.5	2228.0	2228.0
7.5°	2217.0	2215.4	2206.4	2218.5	2218.5
10°	2199.6	2199.0	2191.6	2204.8	2205.4
12.5°	2175.3	2177.4	2170.6	2183.2	2184.8
15°	2146.8	2150.5	2144.7	2156.9	2156.3
17.5°	2115.7	2117.8	2113.6	2127.3	2126.8
20°	2077.2	2079.9	2076.7	2090.9	2092.5
22.5°	2034.5	2038.2	2037.7	2052.5	2056.7
25°	1989.2	1990.8	1992.9	2009.8	2012.9
27.5°	1939.1	1941.7	1945.4	1960.7	1963.9
30°	1884.3	1888.5	1892.7	1908.5	1912.7
32.5°	1826.3	1830.5	1835.8	1856.3	1858.4
35°	1760.9	1768.8	1776.2	1794.1	1801.5
37.5°	1695.5	1705.6	1712.4	1731.4	1737.2
40°	1626.5	1636.5	1647.6	1667.6	1671.3
42.5°	1554.2	1565.8	1579.0	1596.9	1603.3
45°	1481.5	1494.7	1506.8	1521.6	1528.9
47.5°	1402.9	1416.1	1430.9	1447.7	1452.5
50°	1321.7	1337.0	1352.8	1368.7	1377.1
52.5°	1238.4	1256.9	1274.8	1291.7	1299.6
55°	1156.2	1169.9	1191.5	1208.9	1216.8
57.5°	1070.8	1082.4	1101.9	1130.4	1134.6
60°	983.8	994.3	1014.4	1037.6	1047.1
62.5°	887.8	902.1	923.2	952.7	961.1
65°	794.5	808.2	836.2	869.4	883.1
67.5°	704.4	709.1	745.0	779.8	801.9
70°	597.9	615.8	657.4	700.1	717.0
72.5°	506.1	524.1	569.9	620.0	641.1
75°	402.3	427.0	489.3	547.8	568.3
77.5°	311.1	338.5	415.4	474.5	498.2
80°	217.2	259.9	343.7	410.2	436.0
82.5°	136.5	189.3	278.9	348.5	371.2
85°	69.6	128.6	220.9	292.1	317.9
87.5°	18.5	83.3	171.9	239.9	266.2
90°	0.5	48.0	130.2	195.6	219.3
92.5°	0.5	26.9	97.0	155.5	179.8
95°	0.5	12.7	67.5	122.3	141.3
97.5°	0.5	5.3	46.4	92.3	111.2
100°	0.5	2.6	29.5	67.0	83.3
102.5°	1.1	1.6	18.5	48.0	61.2
105°	1.1	1.6	11.1	32.7	43.8



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CATALOG NUMBER: HVSL12-2-LD4-3HI-40-UNV-O-EDD

**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	8.4
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°	1.1	1.6	6.3	22.1	30.1
110°	1.6	1.6	3.7	13.7	20.0



(END OF REPORT)