

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: P580157

Luminaire Tested: **HVSL12-2-LD4-3HI-35-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580157  
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-35-UNV-O-EDD-90  
Description: 2 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

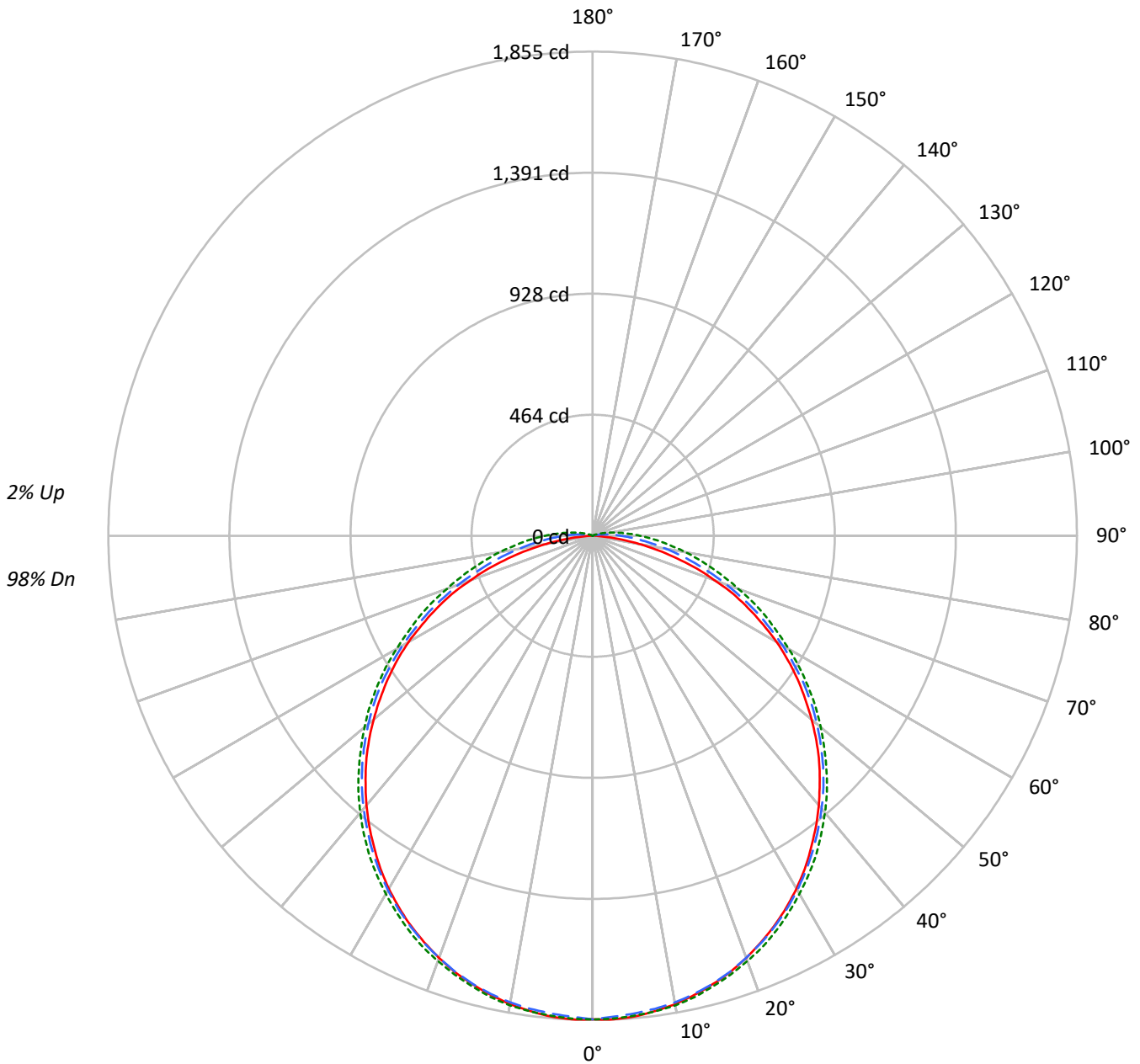
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5602.0 lumens  
Efficiency: N/A  
Efficacy: 84.0 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°	9972	9972	9972
5°	9916	9774	9829
10°	9814	9623	9699
15°	9694	9452	9528
20°	9566	9258	9361
25°	9420	9057	9189
30°	9256	8842	8983
35°	9056	8603	8781
40°	8848	8350	8534
45°	8623	8074	8264
50°	8340	7751	7969
55°	8031	7395	7640
60°	7666	6925	7245
65°	7111	6396	6863
70°	6342	5769	6411
75°	5286	5077	6035
80°	3788	4407	5755
85°	1825	3741	5598



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.3	3.1
10°-20°	502.9	9.0
20°-30°	763.1	13.6
30°-40°	922.7	16.5
40°-50°	962.8	17.2
50°-60°	880.3	15.7
60°-70°	686.2	12.2
70°-80°	429.3	7.7
80°-90°	195.0	3.5
90°-100°	65.3	1.2
100°-110°	16.4	0.3
110°-120°	2.6	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°	1441.4	25.7
0°-40°	2364.1	42.2
0°-60°	4207.2	75.1
0°-90°	5517.7	98.5
90°-120°	84.3	1.5
90°-150°	84.3	1.5
90°-180°	84.0	1.5
0°-180°	5602.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1853	1853	1853	1853	1853	
5°	1849	1845	1837	1846	1846	176
15°	1779	1782	1777	1787	1786	502
25°	1648	1649	1651	1665	1668	759
35°	1459	1465	1472	1486	1492	913
45°	1227	1238	1248	1260	1267	946
55°	958	969	987	1002	1008	856
65°	658	670	693	720	732	651
75°	333	354	405	454	471	355
85°	58	107	183	242	263	73
90°	0	40	108	162	182	2
95°	0	10	56	101	117	0
105°	1	1	9	27	36	1
115°	1	1	2	5	7	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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1852.8	1852.8	1852.8	1852.8	1852.8
2.5°	1855.0	1852.4	1844.1	1852.4	1851.9
5°	1848.9	1845.4	1837.1	1845.8	1845.8
7.5°	1836.6	1835.3	1827.9	1838.0	1838.0
10°	1822.2	1821.8	1815.7	1826.6	1827.0
12.5°	1802.1	1803.9	1798.2	1808.7	1810.0
15°	1778.6	1781.6	1776.8	1786.9	1786.4
17.5°	1752.8	1754.5	1751.0	1762.4	1762.0
20°	1720.9	1723.1	1720.5	1732.3	1733.6
22.5°	1685.5	1688.6	1688.1	1700.4	1703.9
25°	1648.0	1649.3	1651.0	1665.0	1667.6
27.5°	1606.5	1608.6	1611.7	1624.4	1627.0
30°	1561.0	1564.5	1568.0	1581.1	1584.6
32.5°	1513.0	1516.5	1520.9	1537.9	1539.6
35°	1458.8	1465.4	1471.5	1486.3	1492.5
37.5°	1404.7	1413.0	1418.6	1434.4	1439.2
40°	1347.5	1355.8	1364.9	1381.5	1384.6
42.5°	1287.6	1297.2	1308.1	1323.0	1328.2
45°	1227.3	1238.3	1248.3	1260.5	1266.7
47.5°	1162.3	1173.2	1185.4	1199.4	1203.3
50°	1095.0	1107.7	1120.8	1133.9	1140.9
52.5°	1026.0	1041.3	1056.1	1070.1	1076.7
55°	957.8	969.2	987.1	1001.5	1008.1
57.5°	887.1	896.7	912.9	936.4	939.9
60°	815.0	823.8	840.4	859.6	867.4
62.5°	735.5	747.3	764.8	789.3	796.2
65°	658.2	669.6	692.7	720.2	731.6
67.5°	583.5	587.5	617.2	646.0	664.3
70°	495.3	510.2	544.7	580.0	594.0
72.5°	419.3	434.2	472.2	513.6	531.1
75°	333.3	353.8	405.3	453.8	470.8
77.5°	257.7	280.4	344.2	393.1	412.8
80°	180.0	215.3	284.8	339.8	361.2
82.5°	113.1	156.8	231.1	288.7	307.5
85°	57.7	106.6	183.0	242.0	263.4
87.5°	15.3	69.0	142.4	198.7	220.6
90°	0.4	39.7	107.9	162.0	181.7
92.5°	0.4	22.3	80.4	128.8	148.9
95°	0.4	10.5	55.9	101.3	117.1
97.5°	0.4	4.4	38.4	76.4	92.2
100°	0.4	2.2	24.5	55.5	69.0
102.5°	0.9	1.3	15.3	39.7	50.7
105°	0.9	1.3	9.2	27.1	36.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.3	1.3	1.7	7.4	10.9
115°	1.3	1.3	1.7	4.8	7.0
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°	0.9	1.3	5.2	18.3	24.9
110°	1.3	1.3	3.1	11.4	16.6



(END OF REPORT)