

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: P580203

Luminaire Tested: **HVSL12-4-LD4-2HI-30-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580203  
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-LD4-2HI-30-UNV-O-EDD-90  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

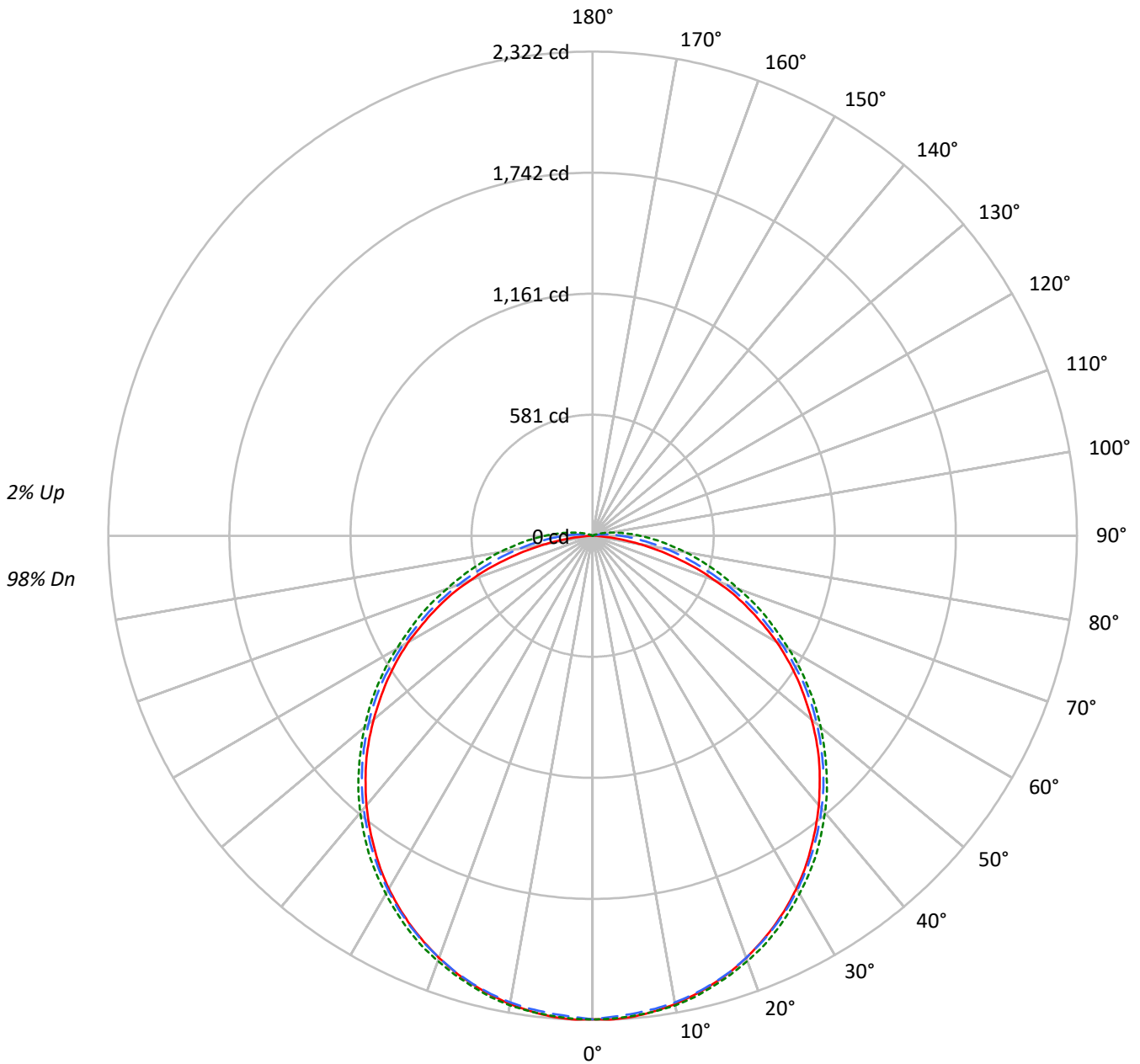
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7012.0 lumens  
Efficiency: N/A  
Efficacy: 76.9 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): 91.2  
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				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°	6241	6241	6241
5°	6229	6132	6151
10°	6187	6053	6071
15°	6133	5961	5963
20°	6076	5853	5858
25°	6008	5742	5751
30°	5929	5621	5622
35°	5828	5485	5495
40°	5725	5341	5341
45°	5613	5183	5172
50°	5466	4996	4987
55°	5309	4789	4781
60°	5121	4510	4534
65°	4816	4195	4295
70°	4377	3818	4012
75°	3753	3403	3778
80°	2823	3010	3601
85°	1510	2635	3504



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.5	3.1
10°-20°	629.5	9.0
20°-30°	955.2	13.6
30°-40°	1155.0	16.5
40°-50°	1205.1	17.2
50°-60°	1101.9	15.7
60°-70°	858.9	12.2
70°-80°	537.3	7.7
80°-90°	244.1	3.5
90°-100°	81.8	1.2
100°-110°	20.5	0.3
110°-120°	3.2	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°	1804.2	25.7
0°-40°	2959.1	42.2
0°-60°	5266.1	75.1
0°-90°	6906.4	98.5
90°-120°	105.5	1.5
90°-150°	105.5	1.5
90°-180°	106.0	1.5
0°-180°	7012.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2319	2319	2319	2319	2319	
5°	2314	2310	2300	2310	2310	220
15°	2226	2230	2224	2237	2236	628
25°	2063	2064	2067	2084	2087	950
35°	1826	1834	1842	1860	1868	1143
45°	1536	1550	1562	1578	1586	1184
55°	1199	1213	1236	1254	1262	1071
65°	824	838	867	902	916	815
75°	417	443	507	568	589	445
85°	72	133	229	303	330	91
90°	0	50	135	203	227	3
95°	0	13	70	127	146	0
105°	1	2	12	34	45	1
115°	2	2	2	6	9	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°	2319.1	2319.1	2319.1	2319.1	2319.1
2.5°	2321.9	2318.6	2308.2	2318.6	2318.1
5°	2314.2	2309.9	2299.5	2310.4	2310.4
7.5°	2298.9	2297.3	2288.0	2300.6	2300.6
10°	2280.9	2280.3	2272.7	2286.3	2286.9
12.5°	2255.7	2257.9	2250.8	2263.9	2265.6
15°	2226.2	2230.0	2224.0	2236.6	2236.0
17.5°	2193.9	2196.1	2191.8	2206.0	2205.4
20°	2154.0	2156.8	2153.5	2168.3	2169.9
22.5°	2109.8	2113.6	2113.0	2128.3	2132.7
25°	2062.7	2064.4	2066.6	2084.1	2087.3
27.5°	2010.8	2013.5	2017.4	2033.2	2036.5
30°	1953.9	1958.3	1962.7	1979.1	1983.5
32.5°	1893.8	1898.2	1903.6	1925.0	1927.2
35°	1826.0	1834.2	1841.9	1860.5	1868.1
37.5°	1758.2	1768.6	1775.7	1795.4	1801.4
40°	1686.6	1697.0	1708.5	1729.2	1733.1
42.5°	1611.7	1623.7	1637.4	1656.0	1662.5
45°	1536.3	1549.9	1562.5	1577.8	1585.5
47.5°	1454.8	1468.5	1483.8	1501.3	1506.2
50°	1370.6	1386.5	1402.9	1419.3	1428.0
52.5°	1284.2	1303.4	1321.9	1339.4	1347.6
55°	1198.9	1213.2	1235.6	1253.6	1261.8
57.5°	1110.4	1122.4	1142.6	1172.1	1176.5
60°	1020.2	1031.1	1051.9	1075.9	1085.8
62.5°	920.7	935.4	957.3	987.9	996.7
65°	823.9	838.1	867.1	901.5	915.7
67.5°	730.4	735.3	772.5	808.6	831.5
70°	620.0	638.6	681.7	726.0	743.5
72.5°	524.8	543.4	591.0	642.9	664.8
75°	417.1	442.8	507.3	568.0	589.4
77.5°	322.6	351.0	430.8	492.0	516.6
80°	225.2	269.5	356.5	425.3	452.1
82.5°	141.6	196.3	289.2	361.4	384.9
85°	72.2	133.4	229.1	302.9	329.7
87.5°	19.1	86.4	178.2	248.8	276.1
90°	0.5	49.8	135.0	202.8	227.4
92.5°	0.5	27.9	100.6	161.3	186.4
95°	0.5	13.1	70.0	126.8	146.5
97.5°	0.5	5.5	48.1	95.7	115.4
100°	0.5	2.7	30.6	69.4	86.4
102.5°	1.1	1.6	19.1	49.8	63.4
105°	1.1	1.6	11.5	33.9	45.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.6	1.6	2.2	9.3	13.7
115°	1.6	1.6	2.2	6.0	8.7
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	6.6	23.0	31.2
110°	1.6	1.6	3.8	14.2	20.8



(END OF REPORT)