

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: P580212

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

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580212  
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-LD4-2LO-30-UNV-O-EDD  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

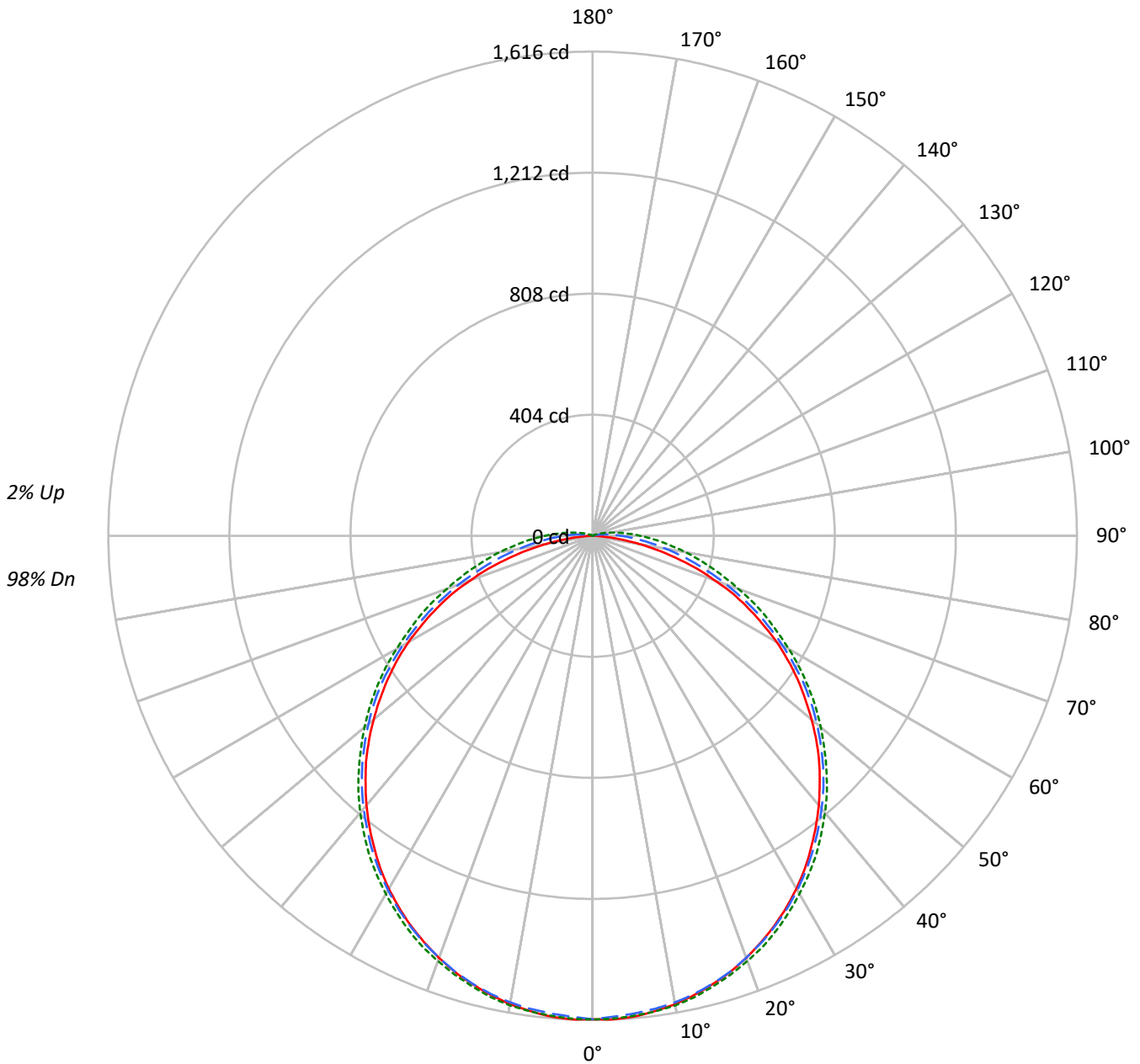
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4880.0 lumens  
Efficiency: N/A  
Efficacy: 100.0 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): 48.8  
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					
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°	4343	4343	4343
5°	4335	4268	4281
10°	4306	4213	4225
15°	4269	4148	4150
20°	4229	4073	4077
25°	4181	3996	4002
30°	4126	3911	3913
35°	4056	3817	3825
40°	3984	3717	3717
45°	3906	3607	3599
50°	3804	3477	3471
55°	3695	3333	3328
60°	3564	3139	3156
65°	3352	2920	2989
70°	3046	2658	2793
75°	2612	2369	2629
80°	1965	2095	2507
85°	1050	1834	2438



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.7	3.1
10°-20°	438.1	9.0
20°-30°	664.8	13.6
30°-40°	803.8	16.5
40°-50°	838.7	17.2
50°-60°	766.8	15.7
60°-70°	597.8	12.2
70°-80°	373.9	7.7
80°-90°	169.8	3.5
90°-100°	56.9	1.2
100°-110°	14.3	0.3
110°-120°	2.2	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°	1255.6	25.7
0°-40°	2059.4	42.2
0°-60°	3665.0	75.1
0°-90°	4806.5	98.5
90°-120°	73.5	1.5
90°-150°	73.5	1.5
90°-180°	73.0	1.5
0°-180°	4880.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1614	1614	1614	1614	1614	
5°	1611	1608	1600	1608	1608	153
15°	1549	1552	1548	1557	1556	437
25°	1436	1437	1438	1450	1453	661
35°	1271	1276	1282	1295	1300	795
45°	1069	1079	1087	1098	1103	824
55°	834	844	860	872	878	745
65°	573	583	603	627	637	567
75°	290	308	353	395	410	309
85°	50	93	159	211	229	64
90°	0	35	94	141	158	2
95°	0	9	49	88	102	0
105°	1	1	8	24	32	1
115°	1	1	2	4	6	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: P580212

CATALOG NUMBER: HVSL12-4-LD4-2LO-30-UNV-O-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1614.0	1614.0	1614.0	1614.0	1614.0
2.5°	1615.9	1613.6	1606.4	1613.6	1613.2
5°	1610.6	1607.5	1600.3	1607.9	1607.9
7.5°	1599.9	1598.8	1592.3	1601.1	1601.1
10°	1587.4	1587.0	1581.7	1591.2	1591.6
12.5°	1569.9	1571.4	1566.4	1575.6	1576.7
15°	1549.3	1552.0	1547.8	1556.6	1556.2
17.5°	1526.9	1528.4	1525.4	1535.2	1534.9
20°	1499.1	1501.0	1498.7	1509.0	1510.1
22.5°	1468.3	1470.9	1470.6	1481.2	1484.3
25°	1435.6	1436.7	1438.2	1450.4	1452.7
27.5°	1399.4	1401.3	1404.0	1415.0	1417.3
30°	1359.8	1362.9	1365.9	1377.3	1380.4
32.5°	1318.0	1321.0	1324.8	1339.7	1341.2
35°	1270.8	1276.5	1281.8	1294.8	1300.1
37.5°	1223.6	1230.9	1235.8	1249.5	1253.7
40°	1173.8	1181.0	1189.0	1203.5	1206.1
42.5°	1121.7	1130.0	1139.5	1152.5	1157.0
45°	1069.2	1078.7	1087.4	1098.1	1103.4
47.5°	1012.5	1022.0	1032.6	1044.8	1048.2
50°	953.9	964.9	976.3	987.7	993.8
52.5°	893.8	907.1	920.0	932.2	937.9
55°	834.4	844.3	859.9	872.4	878.2
57.5°	772.8	781.1	795.2	815.8	818.8
60°	710.0	717.6	732.0	748.8	755.6
62.5°	640.7	651.0	666.2	687.5	693.6
65°	573.4	583.3	603.4	627.4	637.3
67.5°	508.3	511.7	537.6	562.7	578.7
70°	431.5	444.4	474.5	505.3	517.5
72.5°	365.3	378.2	411.3	447.4	462.7
75°	290.3	308.2	353.1	395.3	410.2
77.5°	224.5	244.3	299.8	342.4	359.6
80°	156.8	187.6	248.1	296.0	314.7
82.5°	98.5	136.6	201.3	251.5	267.9
85°	50.2	92.8	159.4	210.8	229.4
87.5°	13.3	60.1	124.0	173.1	192.1
90°	0.4	34.6	94.0	141.2	158.3
92.5°	0.4	19.4	70.0	112.2	129.7
95°	0.4	9.1	48.7	88.3	102.0
97.5°	0.4	3.8	33.5	66.6	80.3
100°	0.4	1.9	21.3	48.3	60.1
102.5°	0.8	1.1	13.3	34.6	44.1
105°	0.8	1.1	8.0	23.6	31.6



TEST NUMBER: P580212

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.1	1.1	1.5	6.5	9.5
115°	1.1	1.1	1.5	4.2	6.1
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°	0.8	1.1	4.6	16.0	21.7
110°	1.1	1.1	2.7	9.9	14.5



(END OF REPORT)