

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: P580211

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

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580211  
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-90  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

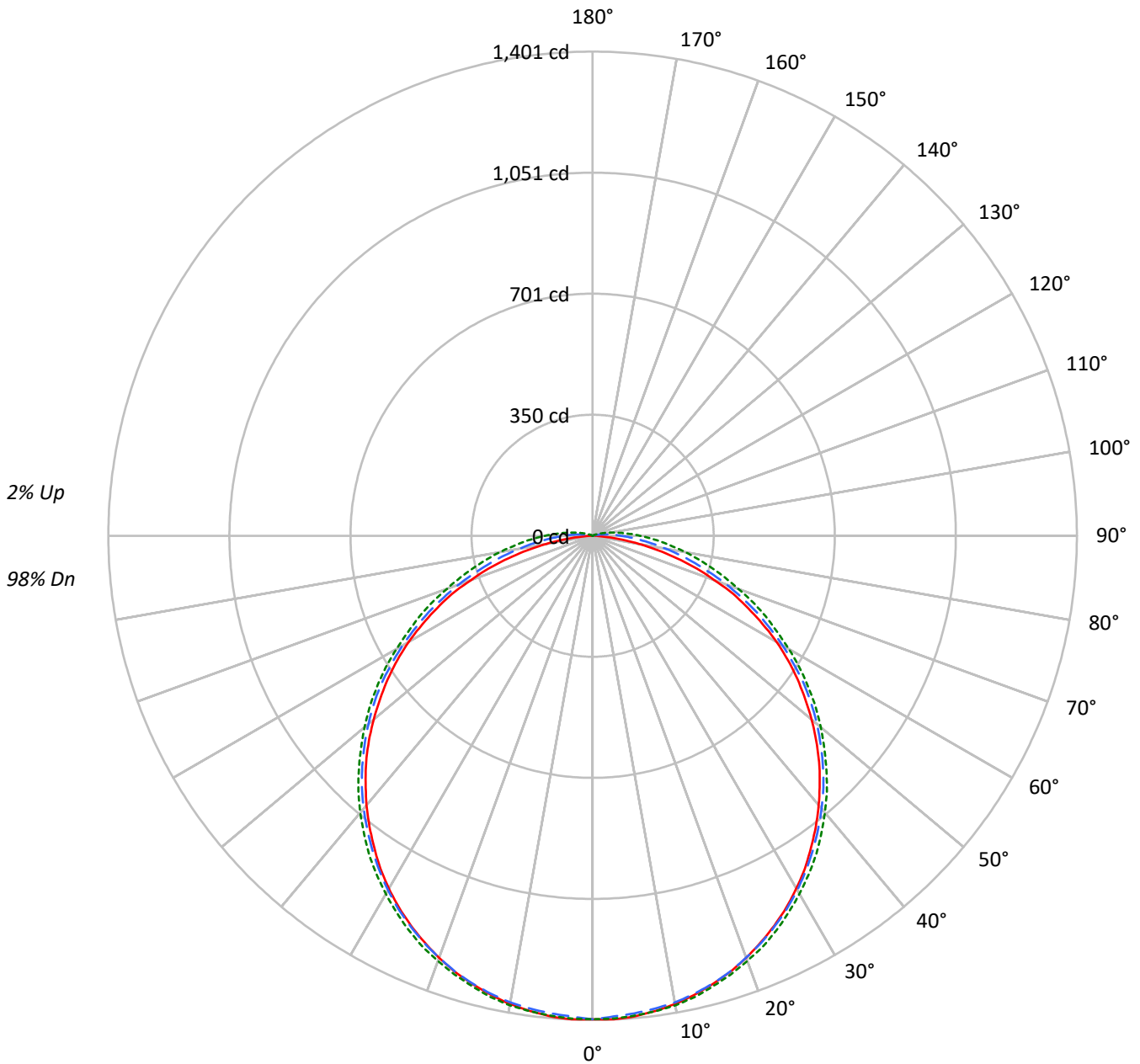
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4230.0 lumens  
Efficiency: N/A  
Efficacy: 86.7 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									
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°	3765	3765	3765
5°	3758	3699	3711
10°	3732	3651	3662
15°	3700	3596	3597
20°	3665	3531	3534
25°	3624	3464	3469
30°	3576	3391	3391
35°	3516	3309	3315
40°	3453	3222	3222
45°	3386	3127	3120
50°	3298	3014	3008
55°	3203	2889	2885
60°	3089	2721	2735
65°	2905	2531	2591
70°	2640	2304	2420
75°	2264	2053	2279
80°	1703	1815	2172
85°	910	1590	2114



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.4	3.1
10°-20°	379.8	9.0
20°-30°	576.2	13.6
30°-40°	696.7	16.5
40°-50°	727.0	17.2
50°-60°	664.7	15.7
60°-70°	518.2	12.2
70°-80°	324.1	7.7
80°-90°	147.2	3.5
90°-100°	49.3	1.2
100°-110°	12.4	0.3
110°-120°	1.9	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°	1088.4	25.7
0°-40°	1785.1	42.2
0°-60°	3176.8	75.1
0°-90°	4166.3	98.5
90°-120°	63.7	1.5
90°-150°	63.7	1.5
90°-180°	64.0	1.5
0°-180°	4230.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1399	1399	1399	1399	1399	
5°	1396	1393	1387	1394	1394	133
15°	1343	1345	1342	1349	1349	379
25°	1244	1245	1247	1257	1259	573
35°	1102	1106	1111	1122	1127	689
45°	927	935	943	952	956	714
55°	723	732	745	756	761	646
65°	497	506	523	544	552	492
75°	252	267	306	343	356	268
85°	44	80	138	183	199	55
90°	0	30	82	122	137	2
95°	0	8	42	76	88	0
105°	1	1	7	20	27	1
115°	1	1	1	4	5	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°	1399.0	1399.0	1399.0	1399.0	1399.0
2.5°	1400.7	1398.7	1392.4	1398.7	1398.4
5°	1396.1	1393.4	1387.2	1393.8	1393.8
7.5°	1386.8	1385.8	1380.2	1387.8	1387.8
10°	1375.9	1375.6	1371.0	1379.2	1379.6
12.5°	1360.8	1362.1	1357.8	1365.7	1366.7
15°	1343.0	1345.3	1341.6	1349.2	1348.9
17.5°	1323.5	1324.8	1322.2	1330.8	1330.4
20°	1299.4	1301.1	1299.1	1308.0	1309.0
22.5°	1272.7	1275.0	1274.7	1283.9	1286.6
25°	1244.4	1245.3	1246.7	1257.2	1259.2
27.5°	1213.0	1214.7	1217.0	1226.5	1228.5
30°	1178.7	1181.4	1184.0	1193.9	1196.5
32.5°	1142.4	1145.1	1148.4	1161.2	1162.6
35°	1101.5	1106.5	1111.1	1122.3	1126.9
37.5°	1060.6	1066.9	1071.2	1083.1	1086.7
40°	1017.4	1023.7	1030.6	1043.2	1045.5
42.5°	972.3	979.5	987.8	999.0	1002.9
45°	926.7	935.0	942.6	951.8	956.4
47.5°	877.6	885.9	895.1	905.6	908.6
50°	826.8	836.4	846.3	856.2	861.4
52.5°	774.7	786.3	797.5	808.0	813.0
55°	723.3	731.8	745.4	756.2	761.2
57.5°	669.8	677.1	689.3	707.1	709.7
60°	615.4	622.0	634.5	649.1	655.0
62.5°	555.4	564.3	577.5	596.0	601.2
65°	497.0	505.6	523.1	543.8	552.4
67.5°	440.6	443.6	466.0	487.8	501.6
70°	374.0	385.2	411.3	438.0	448.5
72.5°	316.6	327.8	356.5	387.8	401.0
75°	251.6	267.1	306.1	342.7	355.5
77.5°	194.6	211.7	259.9	296.8	311.7
80°	135.9	162.6	215.0	256.6	272.7
82.5°	85.4	118.4	174.5	218.0	232.2
85°	43.5	80.5	138.2	182.7	198.9
87.5°	11.5	52.1	107.5	150.1	166.6
90°	0.3	30.0	81.5	122.4	137.2
92.5°	0.3	16.8	60.7	97.3	112.5
95°	0.3	7.9	42.2	76.5	88.4
97.5°	0.3	3.3	29.0	57.7	69.6
100°	0.3	1.6	18.5	41.9	52.1
102.5°	0.7	1.0	11.5	30.0	38.3
105°	0.7	1.0	6.9	20.4	27.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.0	1.0	1.3	5.6	8.2
115°	1.0	1.0	1.3	3.6	5.3
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°	0.7	1.0	4.0	13.9	18.8
110°	1.0	1.0	2.3	8.6	12.5



(END OF REPORT)