

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: P580371

Luminaire Tested: **HVSL2-4-LD4-HI-30-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580371  
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: HVSL2-4-LD4-HI-30-UNV-O-EDD-90  
Description: 4 FOOT, 2INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

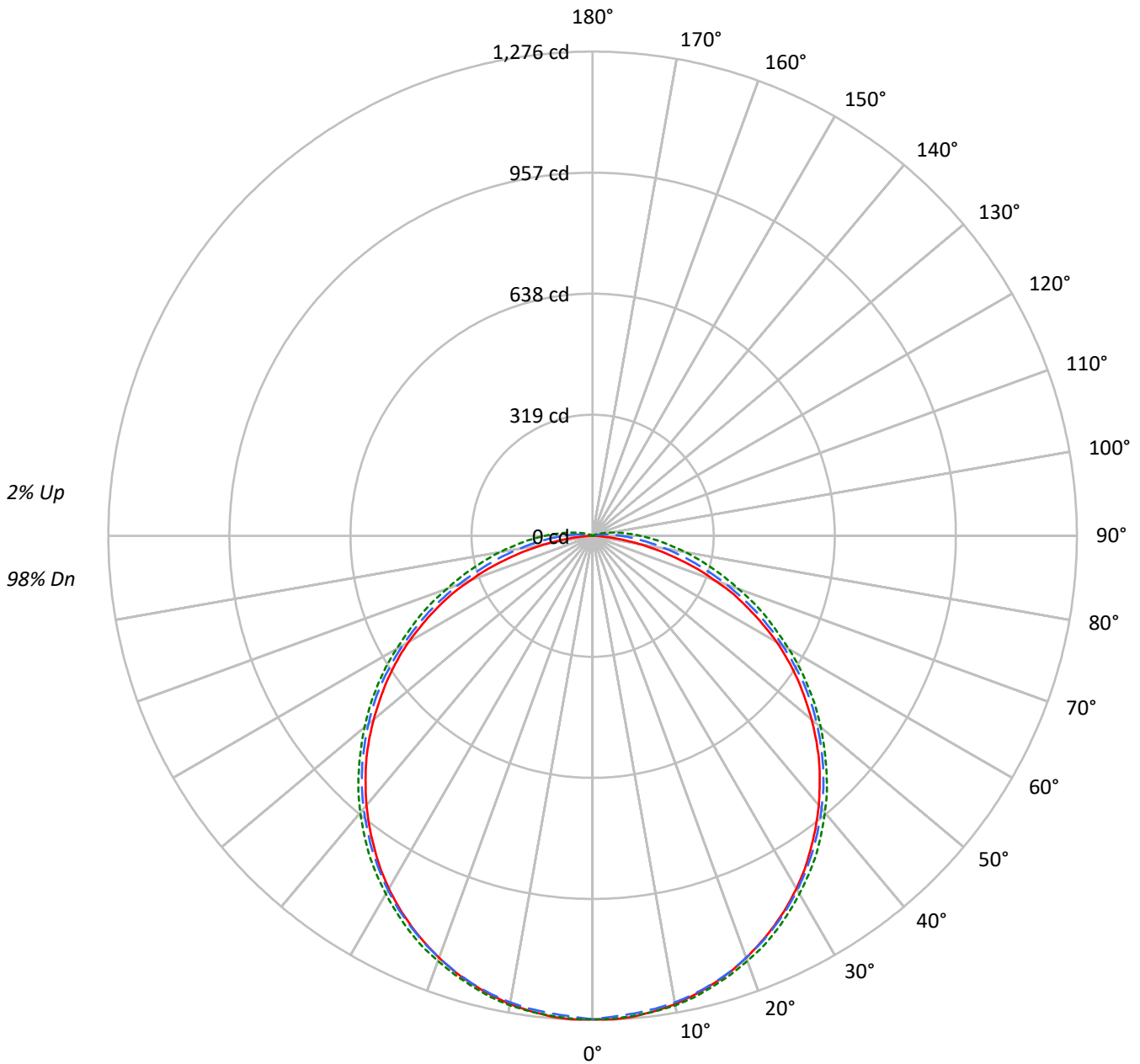
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3853.0 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 43.1  
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°	20575	20575	20575
5°	20535	19238	18920
10°	20398	18120	17513
15°	20222	17060	16197
20°	20033	16033	15019
25°	19807	15058	13935
30°	19547	14107	12881
35°	19217	13160	11899
40°	18874	12228	10913
45°	18505	11289	9945
50°	18022	10311	8992
55°	17503	9313	8036
60°	16884	8201	7051
65°	15876	7056	6113
70°	14431	5848	5146
75°	12374	4639	4268
80°	9310	3518	3461
85°	4982	2476	2699



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.6	3.1
10°-20°	345.9	9.0
20°-30°	524.9	13.6
30°-40°	634.6	16.5
40°-50°	662.2	17.2
50°-60°	605.5	15.7
60°-70°	472.0	12.2
70°-80°	295.2	7.7
80°-90°	134.1	3.5
90°-100°	44.9	1.2
100°-110°	11.3	0.3
110°-120°	1.8	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°	991.4	25.7
0°-40°	1626.0	42.2
0°-60°	2893.7	75.1
0°-90°	3795.0	98.5
90°-120°	58.0	1.5
90°-150°	58.0	1.5
90°-180°	58.0	1.5
0°-180°	3853.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1274	1274	1274	1274	1274	
5°	1272	1269	1264	1270	1270	121
15°	1223	1225	1222	1229	1229	345
25°	1133	1134	1136	1145	1147	522
35°	1003	1008	1012	1022	1026	628
45°	844	852	859	867	871	650
55°	659	667	679	689	693	589
65°	453	460	476	495	503	448
75°	229	243	279	312	324	244
85°	40	73	126	166	181	50
90°	0	27	74	112	125	2
95°	0	7	38	70	80	0
105°	1	1	6	19	25	1
115°	1	1	1	3	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°	1274.3	1274.3	1274.3	1274.3	1274.3
2.5°	1275.8	1274.0	1268.3	1274.0	1273.7
5°	1271.6	1269.2	1263.5	1269.5	1269.5
7.5°	1263.2	1262.3	1257.2	1264.1	1264.1
10°	1253.3	1253.0	1248.8	1256.3	1256.6
12.5°	1239.5	1240.7	1236.8	1244.0	1244.9
15°	1223.3	1225.4	1222.1	1229.0	1228.7
17.5°	1205.5	1206.7	1204.3	1212.2	1211.9
20°	1183.6	1185.1	1183.3	1191.4	1192.3
22.5°	1159.3	1161.4	1161.1	1169.5	1171.9
25°	1133.4	1134.3	1135.6	1145.2	1147.0
27.5°	1104.9	1106.4	1108.5	1117.2	1119.0
30°	1073.7	1076.1	1078.5	1087.5	1089.9
32.5°	1040.6	1043.0	1046.0	1057.7	1058.9
35°	1003.4	1007.9	1012.1	1022.3	1026.5
37.5°	966.1	971.8	975.7	986.5	989.9
40°	926.8	932.5	938.8	950.2	952.3
42.5°	885.6	892.2	899.7	909.9	913.5
45°	844.2	851.7	858.6	867.0	871.2
47.5°	799.4	806.9	815.3	824.9	827.6
50°	753.1	761.8	770.9	779.9	784.7
52.5°	705.7	716.2	726.4	736.0	740.5
55°	658.8	666.6	678.9	688.8	693.3
57.5°	610.1	616.7	627.9	644.1	646.5
60°	560.6	566.6	578.0	591.2	596.6
62.5°	505.9	514.0	526.0	542.8	547.6
65°	452.7	460.5	476.5	495.4	503.2
67.5°	401.3	404.1	424.5	444.3	456.9
70°	340.7	350.9	374.6	398.9	408.6
72.5°	288.4	298.6	324.7	353.3	365.3
75°	229.2	243.3	278.8	312.1	323.8
77.5°	177.2	192.9	236.7	270.4	283.9
80°	123.8	148.1	195.9	233.7	248.4
82.5°	77.8	107.8	158.9	198.6	211.5
85°	39.7	73.3	125.9	166.4	181.1
87.5°	10.5	47.5	97.9	136.7	151.7
90°	0.3	27.3	74.2	111.5	125.0
92.5°	0.3	15.3	55.3	88.6	102.4
95°	0.3	7.2	38.5	69.7	80.5
97.5°	0.3	3.0	26.4	52.6	63.4
100°	0.3	1.5	16.8	38.2	47.5
102.5°	0.6	0.9	10.5	27.3	34.8
105°	0.6	0.9	6.3	18.6	24.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.9	0.9	1.2	5.1	7.5
115°	0.9	0.9	1.2	3.3	4.8
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°	0.6	0.9	3.6	12.6	17.1
110°	0.9	0.9	2.1	7.8	11.4



(END OF REPORT)