

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: P580597

Luminaire Tested: **HVSL4-4-LD4-2LO-35-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580597
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: HVSL4-4-LD4-2LO-35-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

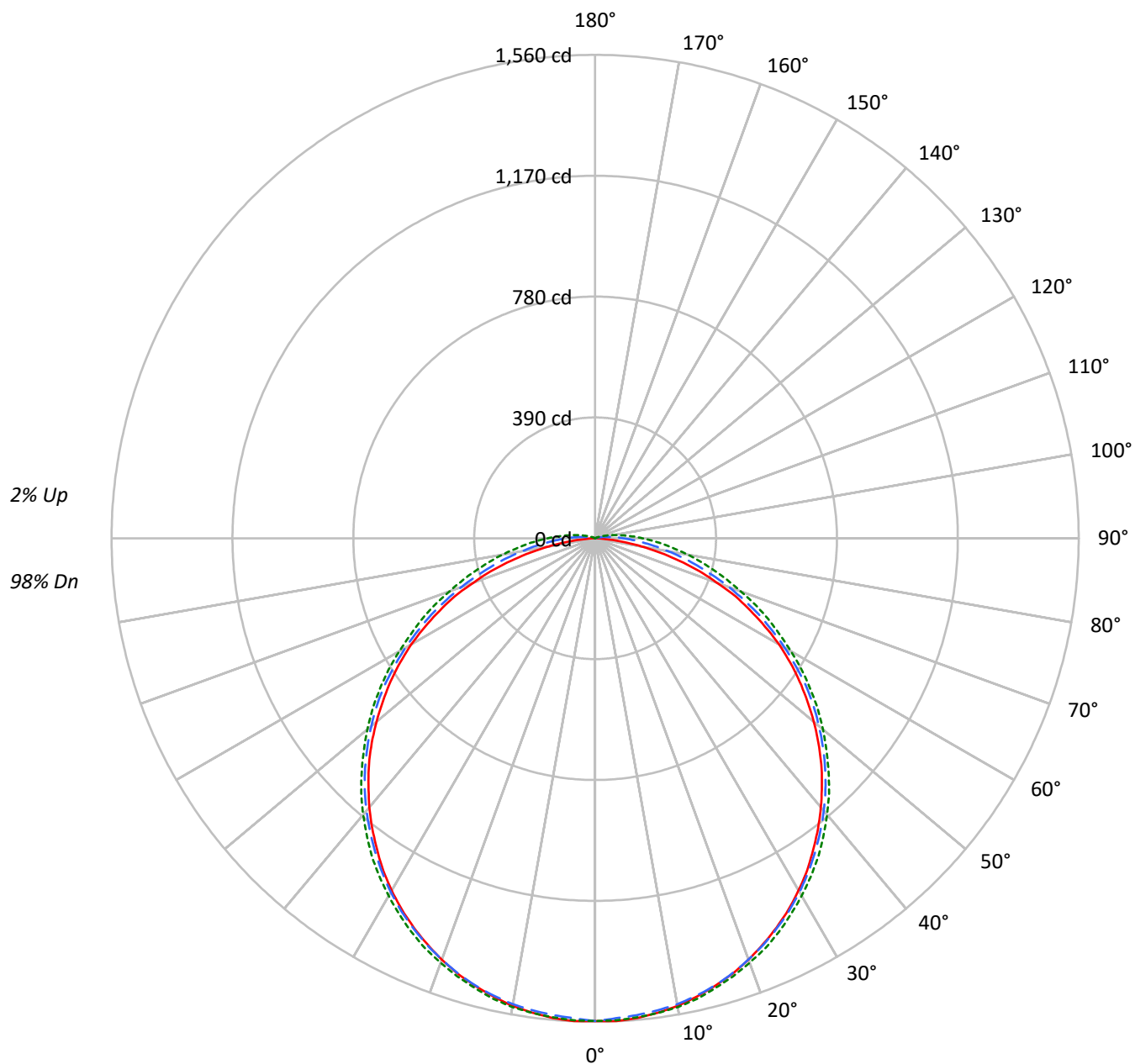
Lumens per Lamp: N/A
Luminaire Lumens: 4710.0 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 46.2
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
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	12576	12576	12576
5°	12552	12111	12049
10°	12468	11722	11572
15°	12360	11323	11070
20°	12245	10906	10593
25°	12107	10490	10127
30°	11947	10064	9637
35°	11745	9614	9159
40°	11536	9152	8642
45°	11310	8663	8105
50°	11015	8125	7548
55°	10698	7550	6959
60°	10318	6857	6310
65°	9704	6108	5669
70°	8819	5266	4965
75°	7563	4375	4308
80°	5689	3508	3680
85°	3043	2650	3053



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.4	3.1
10°-20°	422.9	9.0
20°-30°	641.6	13.6
30°-40°	775.8	16.5
40°-50°	809.5	17.2
50°-60°	740.1	15.7
60°-70°	577.0	12.2
70°-80°	360.9	7.7
80°-90°	163.9	3.5
90°-100°	54.9	1.2
100°-110°	13.8	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°	1211.9	25.7
0°-40°	1987.7	42.2
0°-60°	3537.3	75.1
0°-90°	4639.1	98.5
90°-120°	70.9	1.5
90°-150°	70.9	1.5
90°-180°	71.0	1.5
0°-180°	4710.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1558	1558	1558	1558	1558	
5°	1554	1552	1545	1552	1552	148
15°	1495	1498	1494	1502	1502	422
25°	1386	1387	1388	1400	1402	638
35°	1226	1232	1237	1250	1255	768
45°	1032	1041	1050	1060	1065	795
55°	805	815	830	842	848	719
65°	553	563	582	606	615	548
75°	280	298	341	382	396	299
85°	48	90	154	203	221	61
90°	0	33	91	136	153	2
95°	0	9	47	85	98	0
105°	1	1	8	23	30	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1557.8	1557.8	1557.8	1557.8	1557.8
2.5°	1559.6	1557.4	1550.4	1557.4	1557.0
5°	1554.5	1551.5	1544.6	1551.9	1551.9
7.5°	1544.2	1543.1	1536.9	1545.3	1545.3
10°	1532.1	1531.7	1526.6	1535.7	1536.1
12.5°	1515.2	1516.7	1511.9	1520.7	1521.8
15°	1495.4	1497.9	1493.9	1502.3	1502.0
17.5°	1473.7	1475.2	1472.2	1481.8	1481.4
20°	1446.9	1448.7	1446.5	1456.4	1457.5
22.5°	1417.1	1419.7	1419.3	1429.6	1432.6
25°	1385.6	1386.7	1388.1	1399.9	1402.1
27.5°	1350.7	1352.5	1355.1	1365.7	1367.9
30°	1312.5	1315.4	1318.4	1329.4	1332.3
32.5°	1272.1	1275.0	1278.7	1293.0	1294.5
35°	1226.5	1232.1	1237.2	1249.7	1254.8
37.5°	1181.0	1188.0	1192.8	1206.0	1210.0
40°	1132.9	1139.9	1147.6	1161.5	1164.1
42.5°	1082.6	1090.7	1099.8	1112.3	1116.7
45°	1031.9	1041.1	1049.5	1059.8	1065.0
47.5°	977.2	986.4	996.7	1008.4	1011.7
50°	920.6	931.3	942.3	953.3	959.2
52.5°	862.6	875.5	888.0	899.7	905.2
55°	805.3	814.9	829.9	842.1	847.6
57.5°	745.8	753.9	767.5	787.3	790.3
60°	685.2	692.6	706.5	722.7	729.3
62.5°	618.4	628.3	643.0	663.6	669.5
65°	553.4	563.0	582.4	605.6	615.1
67.5°	490.6	493.9	518.9	543.1	558.6
70°	416.4	428.9	457.9	487.7	499.4
72.5°	352.5	365.0	397.0	431.9	446.5
75°	280.2	297.5	340.8	381.6	395.9
77.5°	216.7	235.8	289.4	330.5	347.0
80°	151.3	181.0	239.4	285.7	303.7
82.5°	95.1	131.8	194.3	242.7	258.5
85°	48.5	89.6	153.9	203.4	221.4
87.5°	12.9	58.0	119.7	167.1	185.5
90°	0.4	33.4	90.7	136.2	152.8
92.5°	0.4	18.7	67.6	108.3	125.2
95°	0.4	8.8	47.0	85.2	98.4
97.5°	0.4	3.7	32.3	64.3	77.5
100°	0.4	1.8	20.6	46.6	58.0
102.5°	0.7	1.1	12.9	33.4	42.6
105°	0.7	1.1	7.7	22.8	30.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.1	1.1	1.5	6.2	9.2
115°	1.1	1.1	1.5	4.0	5.9
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	1.1	4.4	15.4	20.9
110°	1.1	1.1	2.6	9.5	14.0



(END OF REPORT)