

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: P580193

Luminaire Tested: **HVSL12-4-LD4-1LO-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580193
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-LD4-1LO-50-UNV-O-EDD-90
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

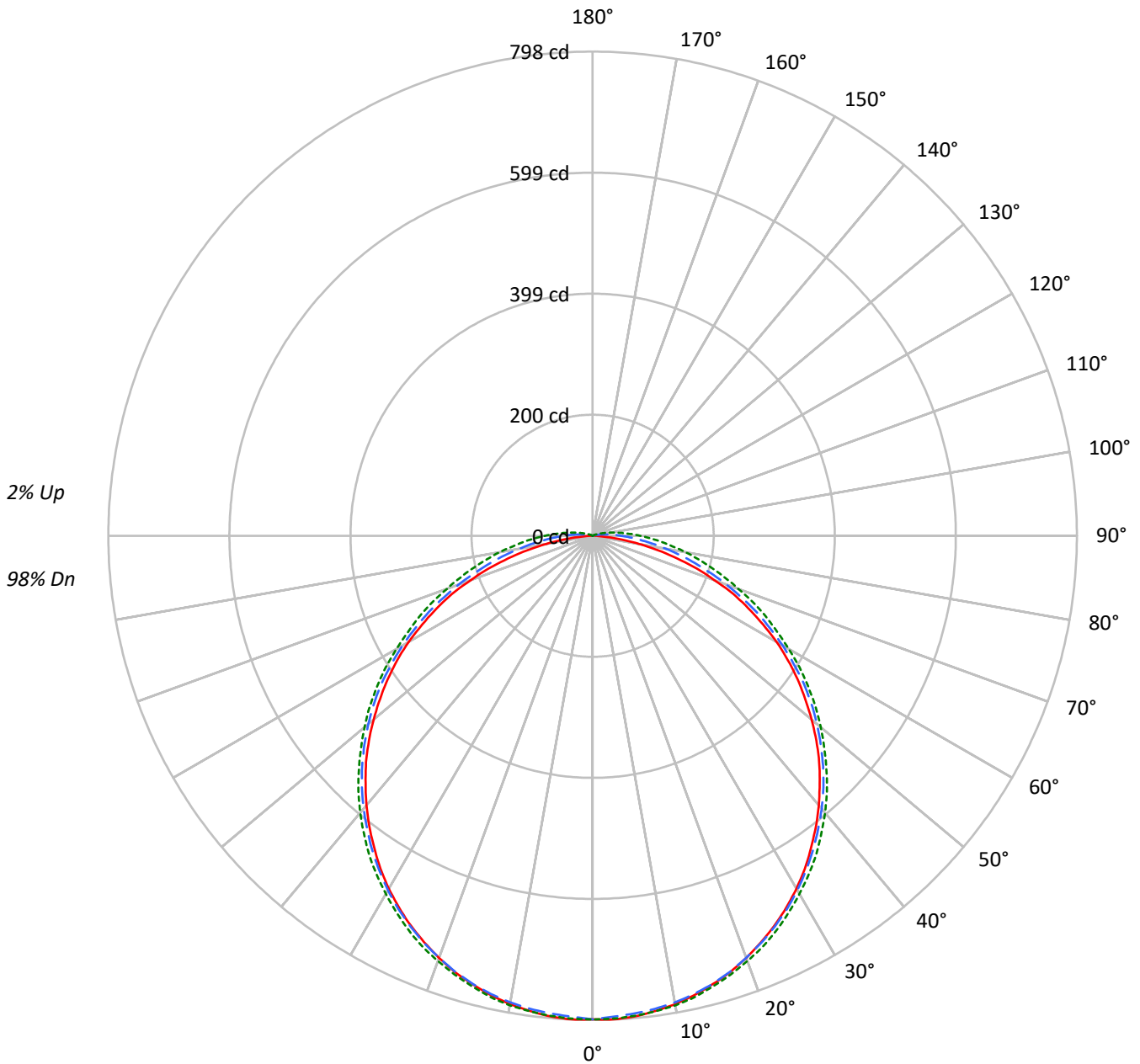
Lumens per Lamp: N/A
Luminaire Lumens: 2410.1 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 24.4
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°	2145	2145	2145
5°	2141	2108	2114
10°	2126	2080	2086
15°	2108	2049	2049
20°	2088	2012	2014
25°	2065	1973	1976
30°	2038	1932	1932
35°	2003	1885	1889
40°	1968	1836	1836
45°	1929	1781	1777
50°	1879	1717	1714
55°	1825	1646	1643
60°	1760	1550	1559
65°	1655	1442	1476
70°	1504	1312	1379
75°	1290	1170	1299
80°	970	1034	1238
85°	519	905	1204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.4	3.1
10°-20°	216.4	9.0
20°-30°	328.3	13.6
30°-40°	397.0	16.5
40°-50°	414.2	17.2
50°-60°	378.7	15.7
60°-70°	295.2	12.2
70°-80°	184.7	7.7
80°-90°	83.9	3.5
90°-100°	28.1	1.2
100°-110°	7.1	0.3
110°-120°	1.1	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°	620.1	25.7
0°-40°	1017.0	42.2
0°-60°	1810.0	75.1
0°-90°	2373.7	98.5
90°-120°	36.3	1.5
90°-150°	36.3	1.5
90°-180°	36.0	1.5
0°-180°	2410.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	797	797	797	797	797	
5°	795	794	790	794	794	76
15°	765	766	764	769	768	216
25°	709	710	710	716	717	327
35°	628	630	633	639	642	393
45°	528	533	537	542	545	407
55°	412	417	425	431	434	368
65°	283	288	298	310	315	280
75°	143	152	174	195	203	153
85°	25	46	79	104	113	31
90°	0	17	46	70	78	1
95°	0	4	24	44	50	0
105°	0	1	4	12	16	0
115°	1	1	1	2	3	0
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°	797.1	797.1	797.1	797.1	797.1
2.5°	798.0	796.9	793.3	796.9	796.7
5°	795.4	793.9	790.3	794.1	794.1
7.5°	790.1	789.6	786.4	790.7	790.7
10°	783.9	783.7	781.1	785.8	786.0
12.5°	775.3	776.0	773.6	778.1	778.7
15°	765.1	766.5	764.4	768.7	768.5
17.5°	754.1	754.8	753.3	758.2	758.0
20°	740.3	741.3	740.1	745.2	745.8
22.5°	725.1	726.4	726.2	731.5	733.0
25°	709.0	709.5	710.3	716.3	717.4
27.5°	691.1	692.0	693.4	698.8	699.9
30°	671.6	673.1	674.6	680.2	681.7
32.5°	650.9	652.4	654.3	661.6	662.4
35°	627.6	630.4	633.0	639.4	642.1
37.5°	604.3	607.9	610.3	617.1	619.1
40°	579.7	583.2	587.2	594.3	595.7
42.5°	553.9	558.1	562.8	569.2	571.4
45°	528.0	532.7	537.0	542.3	544.9
47.5°	500.0	504.7	510.0	516.0	517.7
50°	471.1	476.5	482.2	487.8	490.8
52.5°	441.4	448.0	454.3	460.4	463.2
55°	412.1	417.0	424.7	430.9	433.7
57.5°	381.6	385.8	392.7	402.9	404.4
60°	350.6	354.4	361.5	369.8	373.2
62.5°	316.4	321.5	329.0	339.5	342.5
65°	283.2	288.1	298.0	309.9	314.7
67.5°	251.0	252.7	265.5	277.9	285.8
70°	213.1	219.5	234.3	249.5	255.5
72.5°	180.4	186.8	203.1	221.0	228.5
75°	143.4	152.2	174.4	195.2	202.6
77.5°	110.9	120.6	148.1	169.1	177.6
80°	77.4	92.6	122.5	146.2	155.4
82.5°	48.7	67.5	99.4	124.2	132.3
85°	24.8	45.8	78.7	104.1	113.3
87.5°	6.6	29.7	61.3	85.5	94.9
90°	0.2	17.1	46.4	69.7	78.2
92.5°	0.2	9.6	34.6	55.4	64.1
95°	0.2	4.5	24.1	43.6	50.4
97.5°	0.2	1.9	16.5	32.9	39.6
100°	0.2	0.9	10.5	23.9	29.7
102.5°	0.4	0.6	6.6	17.1	21.8
105°	0.4	0.6	3.9	11.6	15.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	0.6	0.8	3.2	4.7
115°	0.6	0.6	0.8	2.1	3.0
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°	0.4	0.6	2.3	7.9	10.7
110°	0.6	0.6	1.3	4.9	7.1



(END OF REPORT)