

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: P580247

Luminaire Tested: **HVSL12-4-LD4-3STD-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580247
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-LD4-3STD-40-UNV-O-EDD-90
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

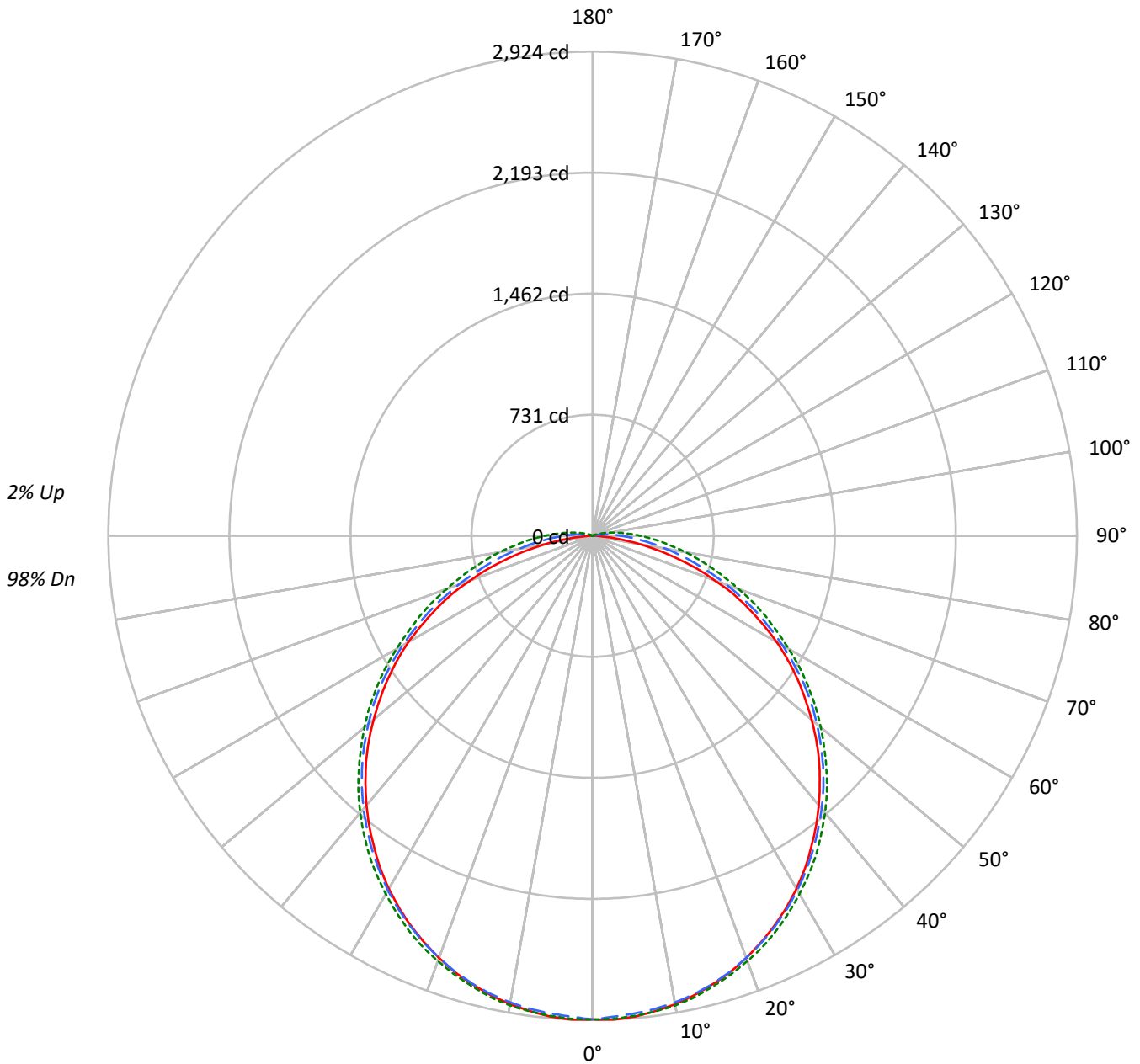
Lumens per Lamp: N/A
Luminaire Lumens: 8831.0 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 101.1
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°	7860	7860	7860
5°	7844	7723	7747
10°	7792	7623	7645
15°	7725	7507	7510
20°	7653	7371	7378
25°	7566	7231	7242
30°	7467	7078	7081
35°	7340	6908	6921
40°	7209	6727	6727
45°	7069	6527	6513
50°	6885	6292	6281
55°	6686	6031	6022
60°	6449	5680	5710
65°	6065	5284	5410
70°	5512	4809	5053
75°	4727	4287	4757
80°	3556	3790	4536
85°	1901	3319	4412



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.4	3.1
10°-20°	792.8	9.0
20°-30°	1203.0	13.6
30°-40°	1454.6	16.5
40°-50°	1517.8	17.2
50°-60°	1387.7	15.7
60°-70°	1081.8	12.2
70°-80°	676.7	7.7
80°-90°	307.3	3.5
90°-100°	103.0	1.2
100°-110°	25.9	0.3
110°-120°	4.1	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°	2272.2	25.7
0°-40°	3726.8	42.2
0°-60°	6632.2	75.1
0°-90°	8698.0	98.5
90°-120°	133.0	1.5
90°-150°	133.0	1.5
90°-180°	133.0	1.5
0°-180°	8831.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2921	2921	2921	2921	2921	
5°	2915	2909	2896	2910	2910	277
15°	2804	2808	2801	2817	2816	791
25°	2598	2600	2603	2625	2629	1197
35°	2300	2310	2320	2343	2353	1439
45°	1935	1952	1968	1987	1997	1491
55°	1510	1528	1556	1579	1589	1349
65°	1038	1056	1092	1135	1153	1027
75°	525	558	639	715	742	560
85°	91	168	288	381	415	115
90°	1	63	170	255	286	4
95°	1	16	88	160	184	1
105°	1	2	14	43	57	1
115°	2	2	3	8	11	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°	2920.8	2920.8	2920.8	2920.8	2920.8
2.5°	2924.2	2920.1	2907.0	2920.1	2919.4
5°	2914.6	2909.1	2896.0	2909.7	2909.7
7.5°	2895.3	2893.2	2881.5	2897.4	2897.4
10°	2872.6	2871.9	2862.2	2879.4	2880.1
12.5°	2840.9	2843.6	2834.7	2851.2	2853.3
15°	2803.7	2808.5	2801.0	2816.8	2816.1
17.5°	2763.1	2765.8	2760.3	2778.2	2777.5
20°	2712.8	2716.3	2712.1	2730.7	2732.8
22.5°	2657.1	2661.9	2661.2	2680.5	2686.0
25°	2597.8	2599.9	2602.7	2624.7	2628.8
27.5°	2532.4	2535.9	2540.7	2560.7	2564.8
30°	2460.8	2466.3	2471.8	2492.5	2498.0
32.5°	2385.1	2390.6	2397.5	2424.3	2427.1
35°	2299.7	2310.0	2319.7	2343.1	2352.7
37.5°	2214.3	2227.4	2236.4	2261.1	2268.7
40°	2124.1	2137.2	2151.7	2177.8	2182.7
42.5°	2029.8	2044.9	2062.2	2085.6	2093.8
45°	1934.8	1952.0	1967.8	1987.1	1996.7
47.5°	1832.2	1849.4	1868.7	1890.7	1896.9
50°	1726.2	1746.1	1766.8	1787.4	1798.5
52.5°	1617.4	1641.5	1664.9	1686.9	1697.2
55°	1510.0	1527.9	1556.1	1578.8	1589.1
57.5°	1398.4	1413.6	1439.0	1476.2	1481.7
60°	1284.8	1298.6	1324.7	1355.0	1367.4
62.5°	1159.5	1178.1	1205.6	1244.2	1255.2
65°	1037.6	1055.5	1092.0	1135.4	1153.3
67.5°	919.9	926.1	972.9	1018.3	1047.3
70°	780.8	804.2	858.6	914.4	936.4
72.5°	661.0	684.4	744.3	809.7	837.3
75°	525.4	557.7	639.0	715.4	742.2
77.5°	406.2	442.0	542.6	619.7	650.7
80°	283.7	339.4	448.9	535.7	569.4
82.5°	178.3	247.2	364.2	455.1	484.7
85°	90.9	168.0	288.5	381.4	415.2
87.5°	24.1	108.8	224.5	313.3	347.7
90°	0.7	62.7	170.1	255.4	286.4
92.5°	0.7	35.1	126.7	203.1	234.8
95°	0.7	16.5	88.1	159.7	184.5
97.5°	0.7	6.9	60.6	120.5	145.3
100°	0.7	3.4	38.6	87.4	108.8
102.5°	1.4	2.1	24.1	62.7	79.9
105°	1.4	2.1	14.5	42.7	57.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.1	2.1	2.8	11.7	17.2
115°	2.1	2.1	2.8	7.6	11.0
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°	1.4	2.1	8.3	28.9	39.2
110°	2.1	2.1	4.8	17.9	26.2



(END OF REPORT)