

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: P580577

Luminaire Tested: **HVSL4-4-LD4-1LO-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580577
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-LD4-1LO-50-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

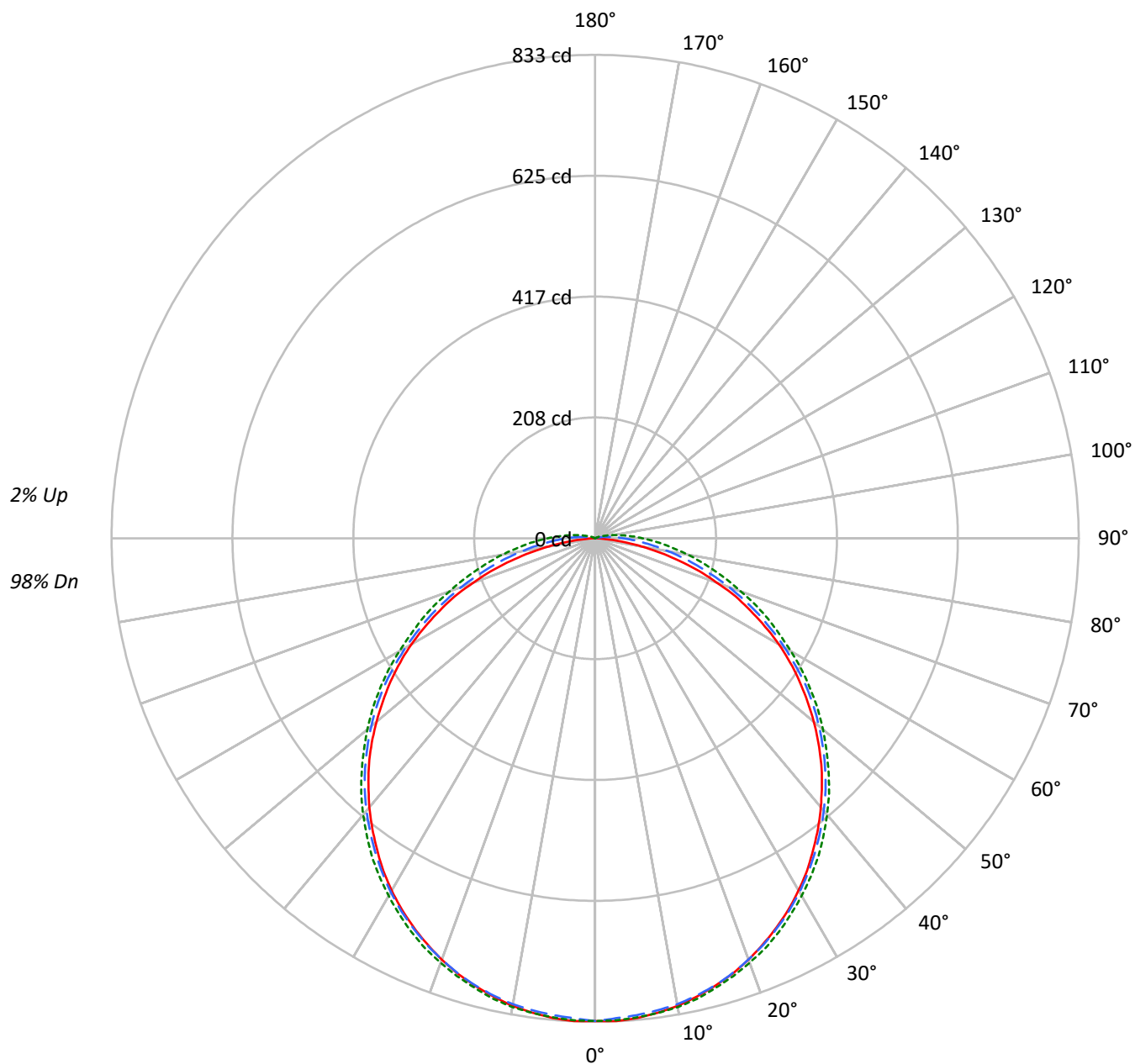
Lumens per Lamp: N/A
Luminaire Lumens: 2515.0 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 23.1
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
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°	6715	6715	6715
5°	6702	6467	6434
10°	6657	6259	6179
15°	6600	6046	5911
20°	6538	5824	5657
25°	6464	5602	5408
30°	6379	5374	5146
35°	6271	5133	4890
40°	6159	4887	4614
45°	6039	4626	4328
50°	5882	4339	4031
55°	5712	4032	3716
60°	5510	3662	3369
65°	5182	3261	3027
70°	4710	2812	2652
75°	4038	2336	2300
80°	3038	1874	1966
85°	1625	1416	1630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	3.1
10°-20°	225.8	9.0
20°-30°	342.6	13.6
30°-40°	414.3	16.5
40°-50°	432.3	17.2
50°-60°	395.2	15.7
60°-70°	308.1	12.2
70°-80°	192.7	7.7
80°-90°	87.5	3.5
90°-100°	29.3	1.2
100°-110°	7.4	0.3
110°-120°	1.2	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°	647.1	25.7
0°-40°	1061.4	42.2
0°-60°	1888.8	75.1
0°-90°	2477.1	98.5
90°-120°	37.9	1.5
90°-150°	37.9	1.5
90°-180°	38.0	1.5
0°-180°	2515.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	832	832	832	832	832	
5°	830	828	825	829	829	79
15°	798	800	798	802	802	225
25°	740	740	741	748	749	341
35°	655	658	661	667	670	410
45°	551	556	560	566	569	425
55°	430	435	443	450	453	384
65°	296	301	311	323	328	292
75°	150	159	182	204	211	159
85°	26	48	82	109	118	33
90°	0	18	48	73	82	1
95°	0	5	25	46	53	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	831.8	831.8	831.8	831.8	831.8
2.5°	832.8	831.6	827.9	831.6	831.4
5°	830.0	828.5	824.8	828.7	828.7
7.5°	824.6	824.0	820.6	825.1	825.1
10°	818.1	817.9	815.1	820.0	820.2
12.5°	809.1	809.8	807.3	812.0	812.6
15°	798.5	799.8	797.7	802.2	802.0
17.5°	786.9	787.7	786.1	791.2	791.0
20°	772.6	773.6	772.4	777.7	778.3
22.5°	756.7	758.1	757.9	763.4	764.9
25°	739.8	740.4	741.2	747.5	748.7
27.5°	721.2	722.2	723.6	729.3	730.4
30°	700.8	702.4	704.0	709.8	711.4
32.5°	679.3	680.8	682.8	690.4	691.2
35°	654.9	657.9	660.6	667.3	670.0
37.5°	630.6	634.3	636.9	644.0	646.1
40°	604.9	608.7	612.8	620.2	621.6
42.5°	578.1	582.4	587.3	594.0	596.3
45°	551.0	555.9	560.4	565.9	568.7
47.5°	521.8	526.7	532.2	538.5	540.2
50°	491.6	497.3	503.2	509.0	512.2
52.5°	460.6	467.5	474.1	480.4	483.4
55°	430.0	435.1	443.2	449.6	452.6
57.5°	398.3	402.6	409.8	420.4	422.0
60°	365.9	369.8	377.3	385.9	389.4
62.5°	330.2	335.5	343.4	354.3	357.5
65°	295.5	300.6	311.0	323.4	328.4
67.5°	262.0	263.7	277.1	290.0	298.3
70°	222.4	229.0	244.5	260.4	266.7
72.5°	188.2	194.9	212.0	230.6	238.4
75°	149.6	158.8	182.0	203.7	211.4
77.5°	115.7	125.9	154.5	176.5	185.3
80°	80.8	96.7	127.9	152.6	162.2
82.5°	50.8	70.4	103.7	129.6	138.0
85°	25.9	47.8	82.2	108.6	118.2
87.5°	6.9	31.0	63.9	89.2	99.0
90°	0.2	17.8	48.4	72.7	81.6
92.5°	0.2	10.0	36.1	57.8	66.9
95°	0.2	4.7	25.1	45.5	52.6
97.5°	0.2	2.0	17.3	34.3	41.4
100°	0.2	1.0	11.0	24.9	31.0
102.5°	0.4	0.6	6.9	17.8	22.7
105°	0.4	0.6	4.1	12.2	16.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	0.6	0.8	3.3	4.9
115°	0.6	0.6	0.8	2.2	3.1
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	2.4	8.2	11.2
110°	0.6	0.6	1.4	5.1	7.5



(END OF REPORT)