

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: P580575

Luminaire Tested: **HVSL4-4-LD4-1LO-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580575
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-40-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

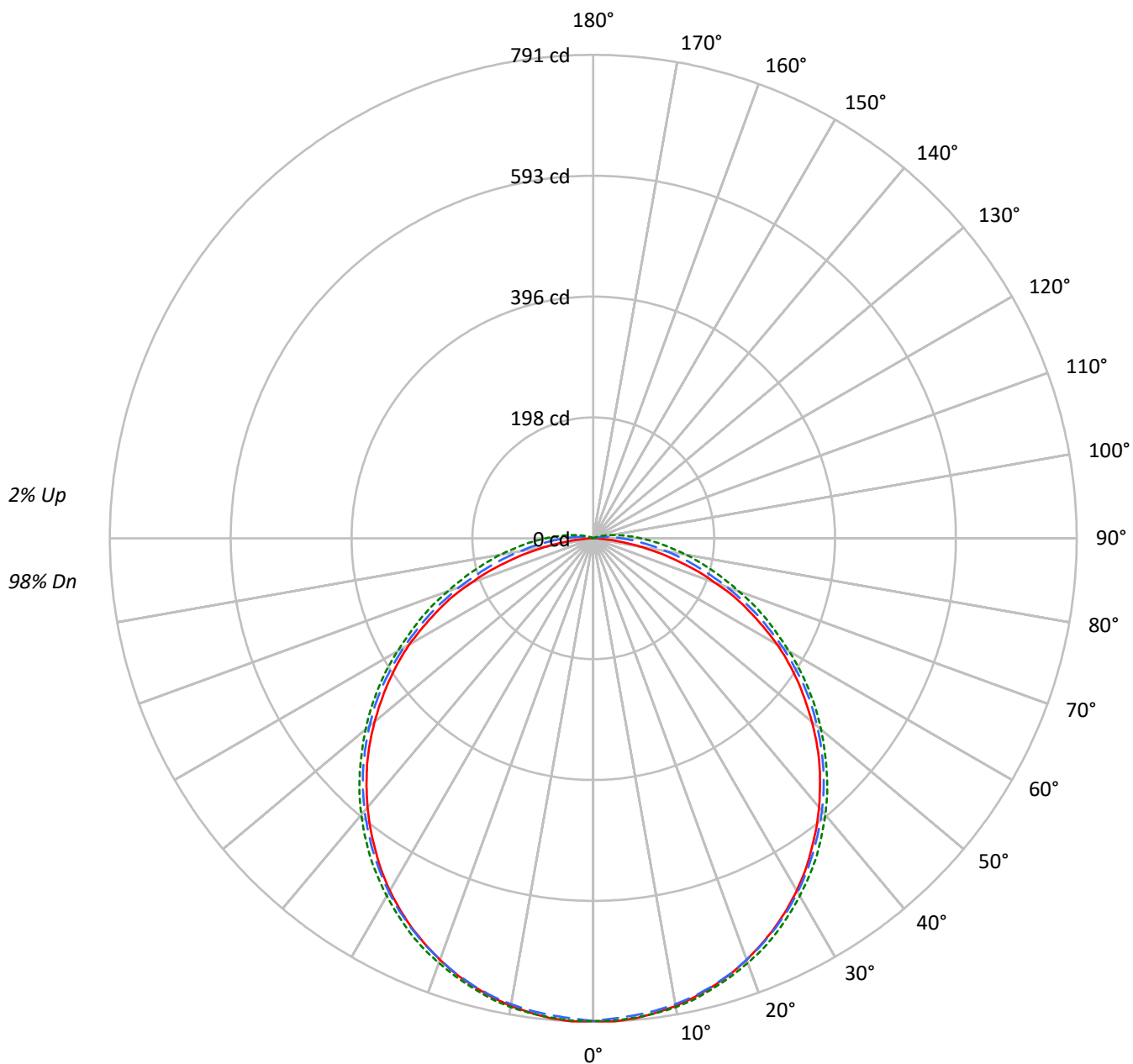
Lumens per Lamp: N/A
Luminaire Lumens: 2389.0 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

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°	6378	6378	6378
5°	6367	6143	6112
10°	6324	5946	5869
15°	6269	5743	5615
20°	6211	5532	5373
25°	6141	5321	5137
30°	6060	5104	4888
35°	5957	4876	4646
40°	5851	4642	4384
45°	5737	4394	4111
50°	5588	4122	3828
55°	5427	3830	3530
60°	5234	3479	3200
65°	4922	3098	2876
70°	4473	2671	2518
75°	3836	2220	2185
80°	2884	1779	1866
85°	1543	1343	1549



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.8	3.1
10°-20°	214.5	9.0
20°-30°	325.4	13.6
30°-40°	393.5	16.5
40°-50°	410.6	17.2
50°-60°	375.4	15.7
60°-70°	292.7	12.3
70°-80°	183.1	7.7
80°-90°	83.1	3.5
90°-100°	27.9	1.2
100°-110°	7.0	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°	614.7	25.7
0°-40°	1008.2	42.2
0°-60°	1794.2	75.1
0°-90°	2353.0	98.5
90°-120°	36.0	1.5
90°-150°	36.0	1.5
90°-180°	36.0	1.5
0°-180°	2389.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	790	790	790	790	790	
5°	788	787	783	787	787	75
15°	758	760	758	762	762	214
25°	703	703	704	710	711	324
35°	622	625	628	634	636	389
45°	523	528	532	538	540	403
55°	408	413	421	427	430	365
65°	281	286	295	307	312	278
75°	142	151	173	194	201	151
85°	25	45	78	103	112	31
90°	0	17	46	69	78	1
95°	0	4	24	43	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	790.1	790.1	790.1	790.1	790.1
2.5°	791.1	790.0	786.4	790.0	789.8
5°	788.5	787.0	783.4	787.2	787.2
7.5°	783.2	782.7	779.5	783.8	783.8
10°	777.1	776.9	774.3	779.0	779.1
12.5°	768.5	769.3	766.9	771.3	771.9
15°	758.5	759.8	757.7	762.0	761.8
17.5°	747.5	748.2	746.7	751.6	751.4
20°	733.9	734.8	733.7	738.7	739.3
22.5°	718.8	720.1	719.9	725.1	726.6
25°	702.8	703.3	704.1	710.0	711.2
27.5°	685.1	686.0	687.3	692.7	693.8
30°	665.7	667.2	668.7	674.3	675.8
32.5°	645.2	646.7	648.6	655.8	656.6
35°	622.1	624.9	627.5	633.9	636.5
37.5°	599.0	602.6	605.0	611.7	613.7
40°	574.6	578.2	582.1	589.2	590.5
42.5°	549.1	553.2	557.9	564.2	566.4
45°	523.4	528.1	532.3	537.6	540.2
47.5°	495.7	500.3	505.5	511.5	513.2
50°	467.0	472.4	478.0	483.5	486.5
52.5°	437.5	444.1	450.4	456.3	459.1
55°	408.5	413.3	421.0	427.1	429.9
57.5°	378.3	382.4	389.3	399.4	400.8
60°	347.6	351.3	358.4	366.6	369.9
62.5°	313.7	318.7	326.2	336.6	339.6
65°	280.7	285.5	295.4	307.2	312.0
67.5°	248.9	250.5	263.2	275.5	283.3
70°	211.2	217.6	232.3	247.4	253.3
72.5°	178.8	185.1	201.4	219.0	226.5
75°	142.1	150.9	172.9	193.5	200.8
77.5°	109.9	119.6	146.8	167.6	176.0
80°	76.7	91.8	121.4	144.9	154.0
82.5°	48.2	66.9	98.5	123.1	131.1
85°	24.6	45.4	78.0	103.2	112.3
87.5°	6.5	29.4	60.7	84.8	94.1
90°	0.2	17.0	46.0	69.1	77.5
92.5°	0.2	9.5	34.3	54.9	63.5
95°	0.2	4.5	23.8	43.2	49.9
97.5°	0.2	1.9	16.4	32.6	39.3
100°	0.2	0.9	10.4	23.7	29.4
102.5°	0.4	0.6	6.5	17.0	21.6
105°	0.4	0.6	3.9	11.5	15.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	0.6	0.7	3.2	4.7
115°	0.6	0.6	0.7	2.0	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	2.2	7.8	10.6
110°	0.6	0.6	1.3	4.8	7.1



(END OF REPORT)