

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: P580593

Luminaire Tested: **HVSL4-4-LD4-2HI-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580593
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-LD4-2HI-50-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

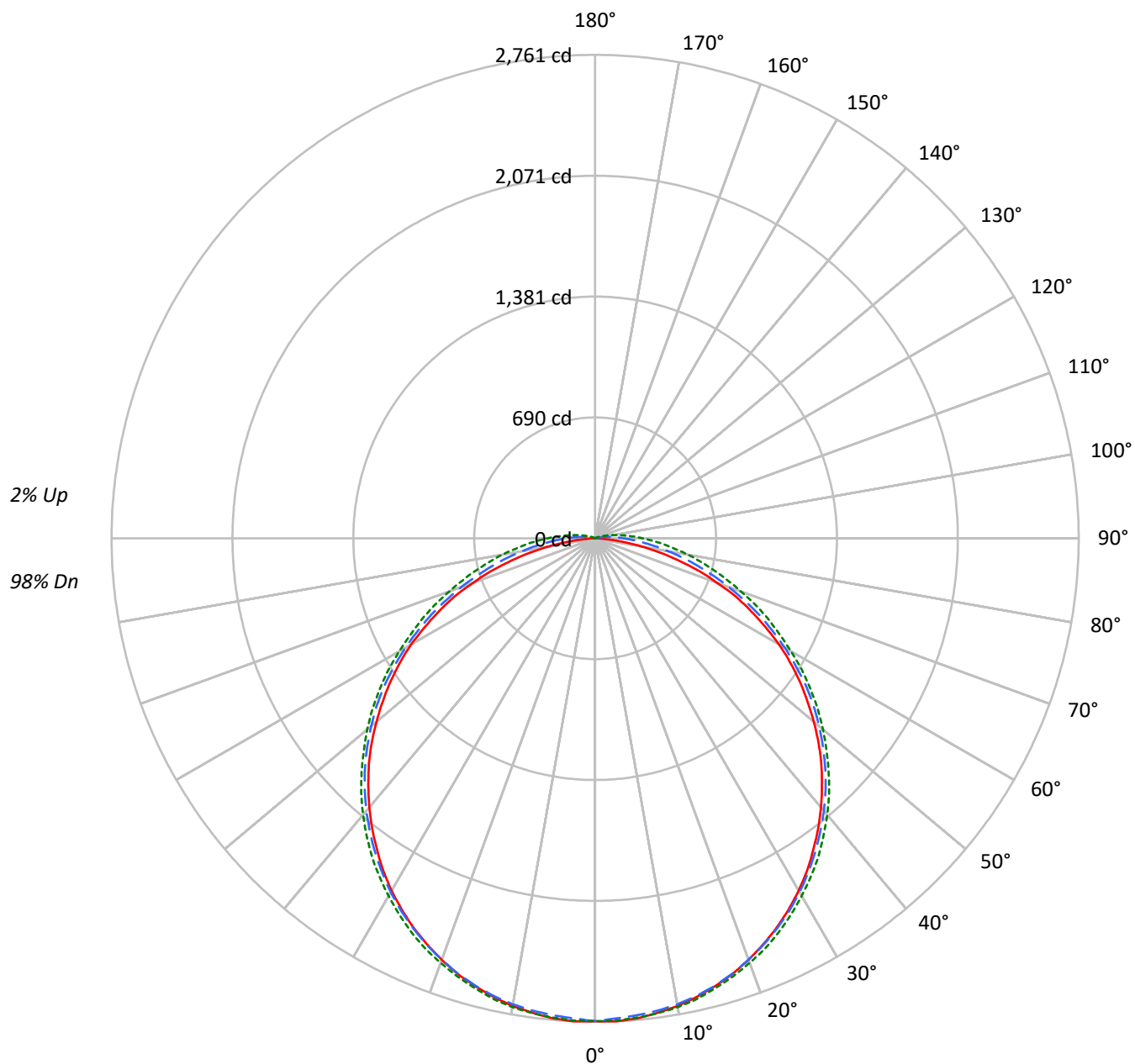
Lumens per Lamp: N/A
Luminaire Lumens: 8339.0 lumens
Efficiency: N/A
Efficacy: 96.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 86.2
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°	22265	22265	22265
5°	22222	21442	21333
10°	22073	20754	20488
15°	21883	20047	19599
20°	21679	19309	18755
25°	21434	18574	17931
30°	21152	17817	17062
35°	20795	17021	16216
40°	20424	16203	15300
45°	20024	15339	14350
50°	19503	14385	13364
55°	18940	13368	12321
60°	18269	12141	11171
65°	17181	10814	10037
70°	15615	9324	8791
75°	13391	7746	7627
80°	10074	6212	6516
85°	5383	4691	5408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.0	3.1
10°-20°	748.7	9.0
20°-30°	1135.9	13.6
30°-40°	1373.6	16.5
40°-50°	1433.2	17.2
50°-60°	1310.4	15.7
60°-70°	1021.5	12.2
70°-80°	639.0	7.7
80°-90°	290.2	3.5
90°-100°	97.3	1.2
100°-110°	24.4	0.3
110°-120°	3.9	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°	2145.6	25.7
0°-40°	3519.1	42.2
0°-60°	6262.7	75.1
0°-90°	8213.4	98.5
90°-120°	125.6	1.5
90°-150°	125.6	1.5
90°-180°	126.0	1.5
0°-180°	8339.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2758	2758	2758	2758	2758	
5°	2752	2747	2735	2748	2748	261
15°	2648	2652	2645	2660	2659	747
25°	2453	2455	2458	2478	2482	1130
35°	2172	2181	2190	2212	2222	1359
45°	1827	1843	1858	1876	1886	1408
55°	1426	1443	1469	1491	1501	1274
65°	980	997	1031	1072	1089	969
75°	496	527	603	676	701	529
85°	86	159	272	360	392	109
90°	1	59	161	241	270	3
95°	1	16	83	151	174	1
105°	1	2	14	40	54	1
115°	2	2	3	7	10	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	



TEST NUMBER: P580593

CATALOG NUMBER: HVSL4-4-LD4-2HI-50-UNV-O-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2758.0	2758.0	2758.0	2758.0	2758.0
2.5°	2761.3	2757.4	2745.0	2757.4	2756.7
5°	2752.2	2747.0	2734.6	2747.6	2747.6
7.5°	2734.0	2732.0	2721.0	2735.9	2735.9
10°	2712.5	2711.9	2702.8	2719.0	2719.7
12.5°	2682.6	2685.2	2676.8	2692.4	2694.3
15°	2647.5	2652.1	2644.9	2659.9	2659.2
17.5°	2609.1	2611.7	2606.5	2623.5	2622.8
20°	2561.7	2564.9	2561.0	2578.6	2580.5
22.5°	2509.0	2513.6	2512.9	2531.1	2536.3
25°	2453.1	2455.1	2457.7	2478.5	2482.4
27.5°	2391.3	2394.6	2399.1	2418.0	2421.9
30°	2323.7	2328.9	2334.1	2353.6	2358.8
32.5°	2252.2	2257.4	2263.9	2289.3	2291.9
35°	2171.6	2181.3	2190.4	2212.5	2221.6
37.5°	2091.0	2103.3	2111.8	2135.2	2142.3
40°	2005.8	2018.1	2031.8	2056.5	2061.1
42.5°	1916.7	1931.0	1947.3	1969.4	1977.2
45°	1827.0	1843.2	1858.2	1876.4	1885.5
47.5°	1730.1	1746.4	1764.6	1785.4	1791.2
50°	1630.0	1648.8	1668.3	1687.9	1698.3
52.5°	1527.3	1550.0	1572.1	1592.9	1602.7
55°	1425.8	1442.7	1469.4	1490.8	1500.6
57.5°	1320.5	1334.8	1358.9	1394.0	1399.2
60°	1213.2	1226.2	1250.9	1279.5	1291.2
62.5°	1094.9	1112.4	1138.5	1174.9	1185.3
65°	979.8	996.7	1031.2	1072.1	1089.0
67.5°	868.6	874.5	918.7	961.6	988.9
70°	737.3	759.4	810.8	863.4	884.2
72.5°	624.2	646.3	702.8	764.6	790.6
75°	496.1	526.6	603.4	675.5	700.9
77.5°	383.6	417.4	512.3	585.2	614.4
80°	267.9	320.5	423.9	505.8	537.7
82.5°	168.4	233.4	343.9	429.8	457.7
85°	85.8	158.6	272.4	360.2	392.1
87.5°	22.8	102.7	212.0	295.8	328.3
90°	0.7	59.2	160.6	241.2	270.5
92.5°	0.7	33.2	119.6	191.8	221.7
95°	0.7	15.6	83.2	150.8	174.2
97.5°	0.7	6.5	57.2	113.8	137.2
100°	0.7	3.3	36.4	82.6	102.7
102.5°	1.3	2.0	22.8	59.2	75.4
105°	1.3	2.0	13.7	40.3	54.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.0	2.0	2.6	11.1	16.3
115°	2.0	2.0	2.6	7.2	10.4
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°	1.3	2.0	7.8	27.3	37.1
110°	2.0	2.0	4.6	16.9	24.7



(END OF REPORT)