

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: P580209

Luminaire Tested: **HVSL12-4-LD4-2HI-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580209
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-LD4-2HI-50-UNV-O-EDD-90
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

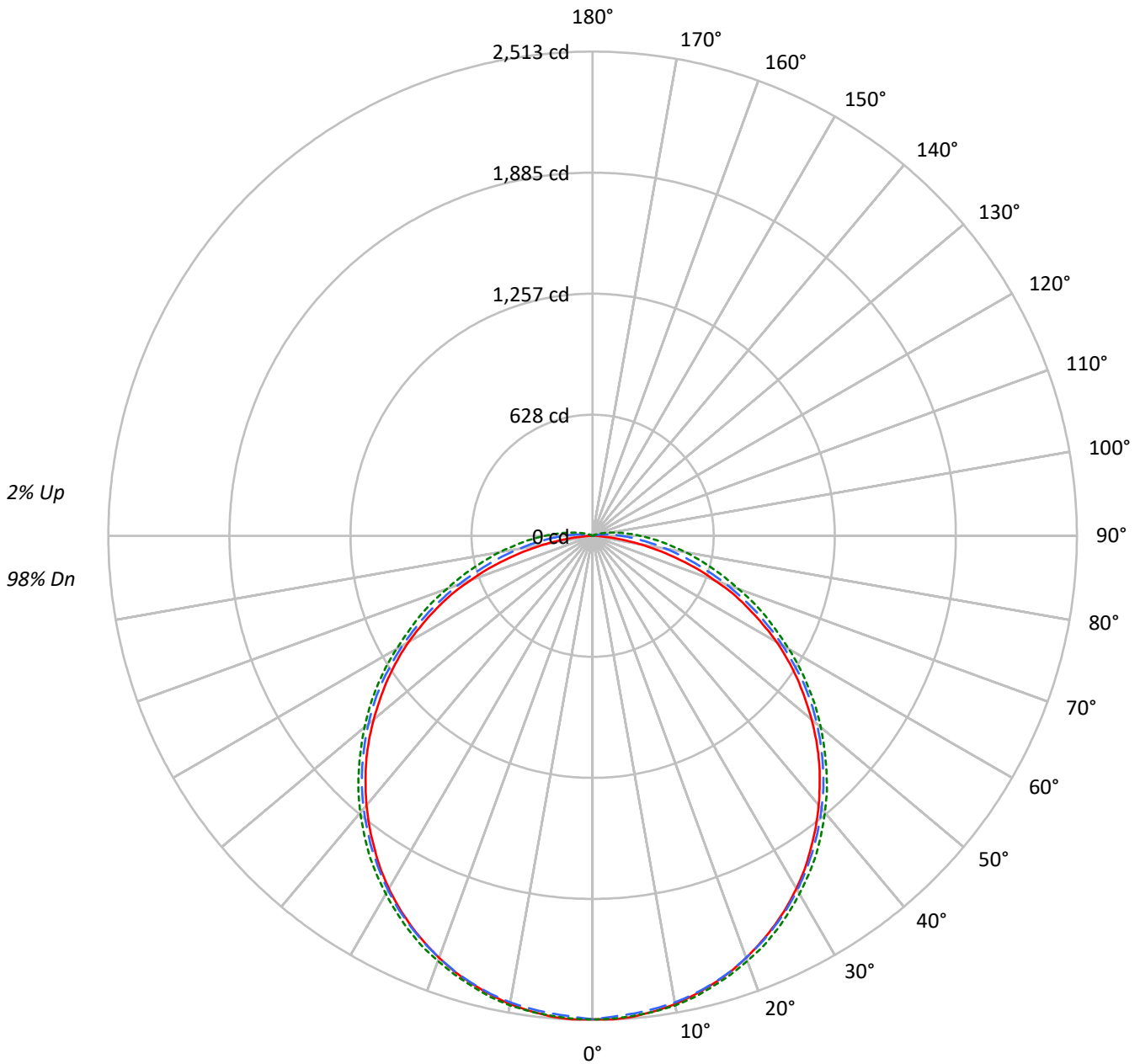
Lumens per Lamp: N/A
Luminaire Lumens: 7588.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 91.2
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									
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°	6754	6754	6754
5°	6740	6636	6657
10°	6695	6550	6569
15°	6637	6450	6453
20°	6575	6334	6340
25°	6501	6213	6223
30°	6416	6082	6084
35°	6307	5935	5947
40°	6195	5780	5780
45°	6074	5608	5596
50°	5915	5406	5397
55°	5745	5183	5174
60°	5542	4881	4907
65°	5211	4540	4648
70°	4736	4132	4342
75°	4062	3683	4088
80°	3055	3256	3898
85°	1633	2852	3791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.5	3.1
10°-20°	681.2	9.0
20°-30°	1033.6	13.6
30°-40°	1249.9	16.5
40°-50°	1304.1	17.2
50°-60°	1192.4	15.7
60°-70°	929.5	12.2
70°-80°	581.5	7.7
80°-90°	264.1	3.5
90°-100°	88.5	1.2
100°-110°	22.2	0.3
110°-120°	3.5	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°	1952.4	25.7
0°-40°	3202.2	42.2
0°-60°	5698.7	75.1
0°-90°	7473.8	98.5
90°-120°	114.2	1.5
90°-150°	114.2	1.5
90°-180°	114.0	1.5
0°-180°	7588.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2510	2510	2510	2510	2510	
5°	2504	2500	2488	2500	2500	238
15°	2409	2413	2407	2420	2420	680
25°	2232	2234	2236	2255	2259	1029
35°	1976	1985	1993	2013	2022	1237
45°	1662	1677	1691	1707	1716	1281
55°	1297	1313	1337	1357	1366	1159
65°	892	907	938	976	991	882
75°	451	479	549	615	638	481
85°	78	144	248	328	357	99
90°	1	54	146	220	246	3
95°	1	14	76	137	159	0
105°	1	2	12	37	49	1
115°	2	2	2	6	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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2509.7	2509.7	2509.7	2509.7	2509.7
2.5°	2512.6	2509.1	2497.8	2509.1	2508.5
5°	2504.3	2499.6	2488.4	2500.2	2500.2
7.5°	2487.8	2486.0	2475.9	2489.5	2489.5
10°	2468.2	2467.6	2459.4	2474.2	2474.7
12.5°	2441.0	2443.4	2435.7	2449.9	2451.7
15°	2409.1	2413.2	2406.7	2420.3	2419.7
17.5°	2374.2	2376.5	2371.8	2387.2	2386.6
20°	2331.0	2333.9	2330.4	2346.4	2348.1
22.5°	2283.1	2287.2	2286.6	2303.2	2307.9
25°	2232.2	2234.0	2236.3	2255.3	2258.8
27.5°	2176.0	2178.9	2183.1	2200.2	2203.8
30°	2114.4	2119.2	2123.9	2141.7	2146.4
32.5°	2049.4	2054.1	2060.0	2083.1	2085.5
35°	1976.0	1984.9	1993.2	2013.3	2021.6
37.5°	1902.6	1913.9	1921.6	1942.9	1949.4
40°	1825.1	1836.4	1848.8	1871.3	1875.4
42.5°	1744.1	1757.1	1771.9	1792.0	1799.1
45°	1662.5	1677.2	1690.8	1707.4	1715.7
47.5°	1574.3	1589.1	1605.7	1624.6	1629.9
50°	1483.2	1500.3	1518.1	1535.8	1545.3
52.5°	1389.7	1410.4	1430.5	1449.5	1458.3
55°	1297.4	1312.8	1337.1	1356.6	1365.5
57.5°	1201.6	1214.6	1236.5	1268.4	1273.2
60°	1104.0	1115.8	1138.3	1164.3	1175.0
62.5°	996.3	1012.3	1035.9	1069.1	1078.5
65°	891.6	907.0	938.3	975.6	991.0
67.5°	790.4	795.7	836.0	875.0	899.9
70°	670.9	691.0	737.8	785.7	804.6
72.5°	568.0	588.1	639.5	695.7	719.4
75°	451.4	479.2	549.0	614.7	637.8
77.5°	349.1	379.8	466.2	532.5	559.1
80°	243.7	291.7	385.7	460.3	489.3
82.5°	153.2	212.4	313.0	391.1	416.5
85°	78.1	144.4	247.9	327.8	356.7
87.5°	20.7	93.5	192.9	269.2	298.8
90°	0.6	53.8	146.1	219.5	246.1
92.5°	0.6	30.2	108.9	174.5	201.7
95°	0.6	14.2	75.7	137.3	158.6
97.5°	0.6	5.9	52.1	103.5	124.8
100°	0.6	3.0	33.1	75.1	93.5
102.5°	1.2	1.8	20.7	53.8	68.6
105°	1.2	1.8	12.4	36.7	49.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.8	1.8	2.4	10.1	14.8
115°	1.8	1.8	2.4	6.5	9.5
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°	1.2	1.8	7.1	24.8	33.7
110°	1.8	1.8	4.1	15.4	22.5



(END OF REPORT)