

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: P580587

Luminaire Tested: **HVSL4-4-LD4-2HI-30-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580587
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-30-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

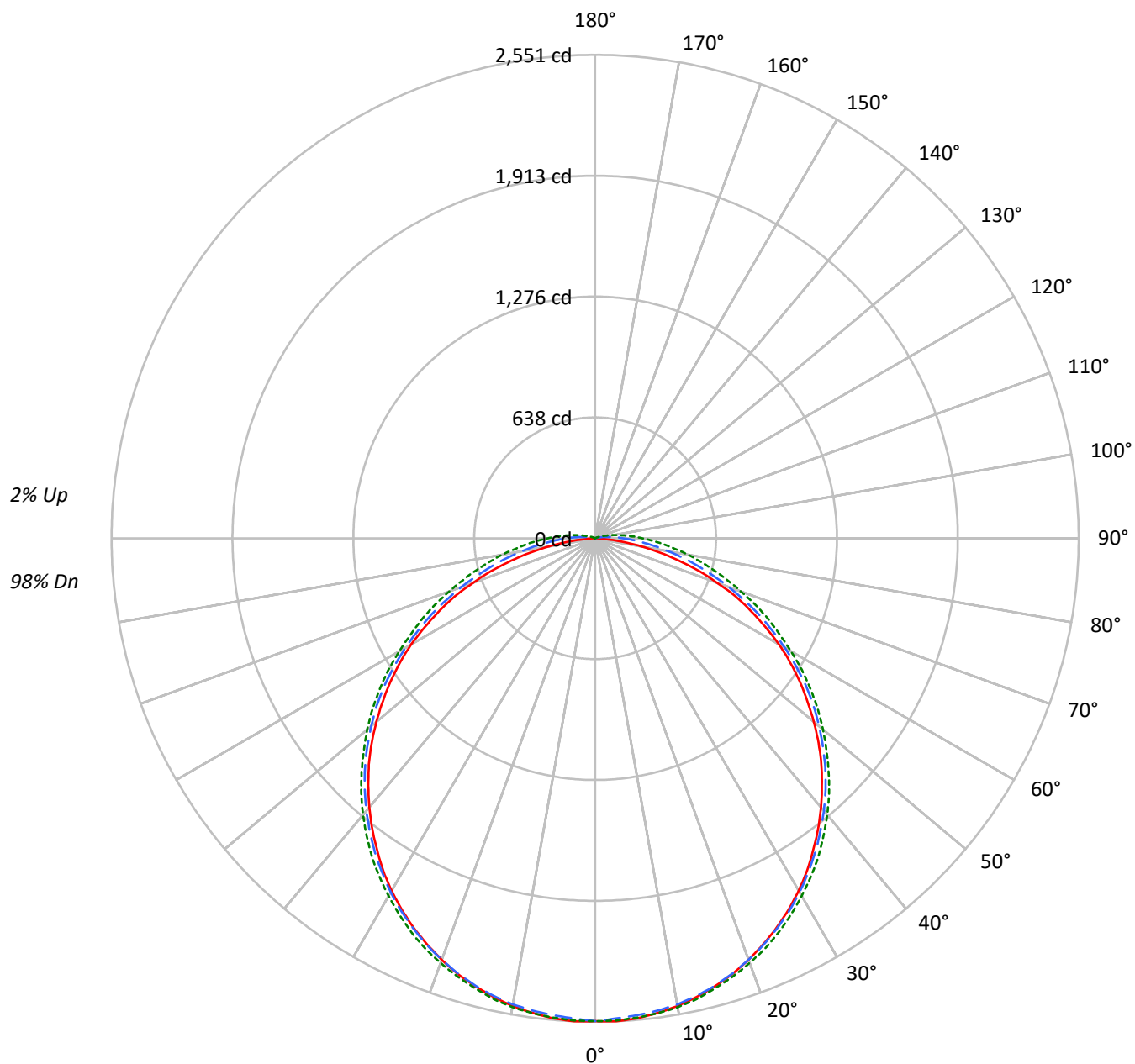
Lumens per Lamp: N/A
Luminaire Lumens: 7705.0 lumens
Efficiency: N/A
Efficacy: 89.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 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°	20572	20572	20572
5°	20532	19812	19711
10°	20395	19176	18930
15°	20219	18523	18108
20°	20030	17841	17329
25°	19805	17161	16567
30°	19545	16463	15765
35°	19214	15727	14983
40°	18871	14971	14137
45°	18502	14172	13259
50°	18020	13292	12348
55°	17500	12352	11384
60°	16881	11218	10322
65°	15874	9992	9274
70°	14427	8614	8123
75°	12374	7157	7047
80°	9307	5740	6021
85°	4975	4334	4995



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.2	3.1
10°-20°	691.7	9.0
20°-30°	1049.6	13.6
30°-40°	1269.1	16.5
40°-50°	1324.2	17.2
50°-60°	1210.7	15.7
60°-70°	943.8	12.2
70°-80°	590.4	7.7
80°-90°	268.2	3.5
90°-100°	89.9	1.2
100°-110°	22.6	0.3
110°-120°	3.6	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°	1982.5	25.7
0°-40°	3251.6	42.2
0°-60°	5786.6	75.1
0°-90°	7589.0	98.5
90°-120°	116.0	1.5
90°-150°	116.0	1.5
90°-180°	116.0	1.5
0°-180°	7705.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2548	2548	2548	2548	2548	
5°	2543	2538	2527	2539	2539	241
15°	2446	2450	2444	2458	2457	691
25°	2267	2268	2271	2290	2294	1044
35°	2006	2016	2024	2044	2053	1256
45°	1688	1703	1717	1734	1742	1301
55°	1317	1333	1358	1378	1386	1177
65°	905	921	953	991	1006	896
75°	458	487	558	624	648	489
85°	79	147	252	333	362	100
90°	1	55	148	223	250	3
95°	1	14	77	139	161	0
105°	1	2	13	37	50	1
115°	2	2	2	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2548.3	2548.3	2548.3	2548.3	2548.3
2.5°	2551.4	2547.7	2536.3	2547.7	2547.1
5°	2542.9	2538.1	2526.7	2538.7	2538.7
7.5°	2526.1	2524.3	2514.1	2527.9	2527.9
10°	2506.3	2505.7	2497.3	2512.3	2512.9
12.5°	2478.7	2481.1	2473.3	2487.7	2489.5
15°	2446.2	2450.4	2443.8	2457.6	2457.0
17.5°	2410.8	2413.2	2408.4	2424.0	2423.4
20°	2366.9	2369.9	2366.3	2382.5	2384.3
22.5°	2318.3	2322.5	2321.9	2338.7	2343.5
25°	2266.6	2268.4	2270.8	2290.0	2293.6
27.5°	2209.5	2212.5	2216.7	2234.2	2237.8
30°	2147.1	2151.9	2156.7	2174.7	2179.5
32.5°	2081.0	2085.8	2091.8	2115.2	2117.6
35°	2006.5	2015.5	2023.9	2044.3	2052.7
37.5°	1932.0	1943.4	1951.2	1972.8	1979.4
40°	1853.3	1864.7	1877.3	1900.1	1904.4
42.5°	1771.0	1784.2	1799.2	1819.6	1826.9
45°	1688.1	1703.1	1716.9	1733.7	1742.2
47.5°	1598.6	1613.6	1630.4	1649.6	1655.0
50°	1506.1	1523.5	1541.5	1559.5	1569.1
52.5°	1411.1	1432.2	1452.6	1471.8	1480.8
55°	1317.4	1333.0	1357.7	1377.5	1386.5
57.5°	1220.1	1233.3	1255.6	1288.0	1292.8
60°	1121.0	1133.0	1155.8	1182.3	1193.1
62.5°	1011.6	1027.9	1051.9	1085.5	1095.2
65°	905.3	920.9	952.8	990.6	1006.2
67.5°	802.6	808.0	848.8	888.5	913.7
70°	681.2	701.7	749.1	797.8	817.0
72.5°	576.7	597.1	649.4	706.5	730.5
75°	458.4	486.6	557.5	624.2	647.6
77.5°	354.4	385.7	473.4	540.7	567.7
80°	247.5	296.2	391.7	467.4	496.8
82.5°	155.6	215.7	317.8	397.1	422.9
85°	79.3	146.6	251.7	332.8	362.2
87.5°	21.0	94.9	195.8	273.3	303.4
90°	0.6	54.7	148.4	222.9	249.9
92.5°	0.6	30.6	110.5	177.2	204.9
95°	0.6	14.4	76.9	139.4	161.0
97.5°	0.6	6.0	52.9	105.1	126.8
100°	0.6	3.0	33.6	76.3	94.9
102.5°	1.2	1.8	21.0	54.7	69.7
105°	1.2	1.8	12.6	37.2	49.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.8	1.8	2.4	10.2	15.0
115°	1.8	1.8	2.4	6.6	9.6
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	7.2	25.2	34.2
110°	1.8	1.8	4.2	15.6	22.8



(END OF REPORT)