

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: P580589

Luminaire Tested: **HVSL4-4-LD4-2HI-35-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580589
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-35-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

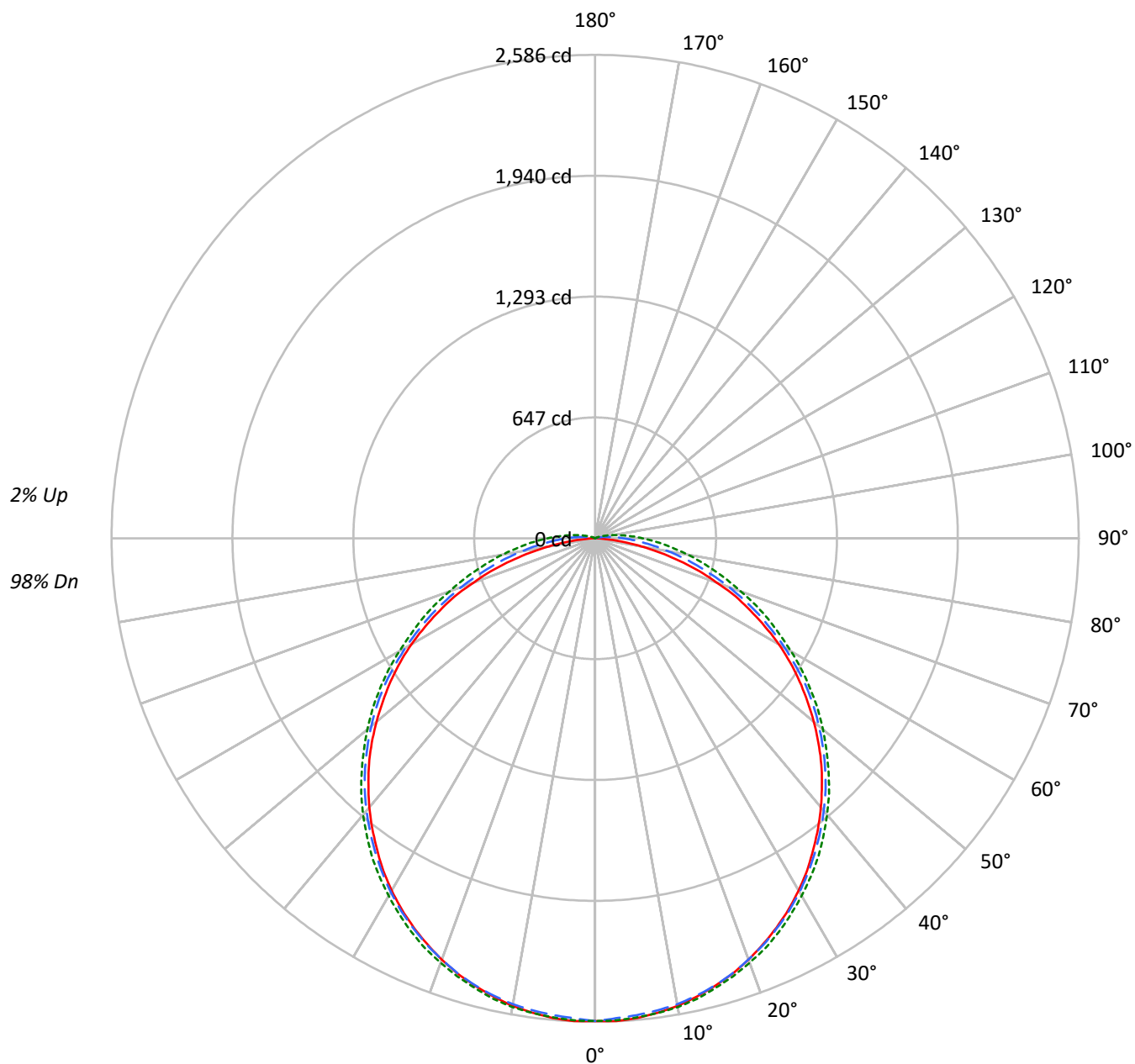
Lumens per Lamp: N/A
Luminaire Lumens: 7808.0 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

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°	20848	20848	20848
5°	20807	20077	19975
10°	20668	19433	19183
15°	20489	18771	18351
20°	20299	18080	17561
25°	20070	17391	16789
30°	19806	16683	15976
35°	19470	15938	15184
40°	19124	15171	14326
45°	18749	14362	13436
50°	18261	13469	12513
55°	17734	12516	11536
60°	17107	11368	10460
65°	16087	10125	9399
70°	14620	8729	8231
75°	12538	7252	7142
80°	9431	5816	6102
85°	5044	4393	5063



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.4	3.1
10°-20°	701.0	9.0
20°-30°	1063.6	13.6
30°-40°	1286.1	16.5
40°-50°	1341.9	17.2
50°-60°	1226.9	15.7
60°-70°	956.5	12.2
70°-80°	598.3	7.7
80°-90°	271.7	3.5
90°-100°	91.1	1.2
100°-110°	22.9	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°	2009.0	25.7
0°-40°	3295.1	42.2
0°-60°	5863.9	75.1
0°-90°	7690.4	98.5
90°-120°	117.5	1.5
90°-150°	117.5	1.5
90°-180°	118.0	1.5
0°-180°	7808.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2582	2582	2582	2582	2582	
5°	2577	2572	2560	2573	2573	245
15°	2479	2483	2476	2490	2490	700
25°	2297	2299	2301	2321	2324	1058
35°	2033	2042	2051	2072	2080	1273
45°	1711	1726	1740	1757	1765	1318
55°	1335	1351	1376	1396	1405	1193
65°	917	933	966	1004	1020	908
75°	464	493	565	632	656	495
85°	80	148	255	337	367	102
90°	1	55	150	226	253	3
95°	1	15	78	141	163	0
105°	1	2	13	38	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°	2582.4	2582.4	2582.4	2582.4	2582.4
2.5°	2585.5	2581.8	2570.2	2581.8	2581.2
5°	2576.9	2572.1	2560.5	2572.7	2572.7
7.5°	2559.9	2558.1	2547.7	2561.7	2561.7
10°	2539.8	2539.2	2530.7	2545.9	2546.5
12.5°	2511.8	2514.2	2506.3	2520.9	2522.8
15°	2478.9	2483.2	2476.5	2490.5	2489.9
17.5°	2443.0	2445.4	2440.6	2456.4	2455.8
20°	2398.6	2401.6	2398.0	2414.4	2416.2
22.5°	2349.3	2353.5	2352.9	2370.0	2374.8
25°	2296.9	2298.7	2301.2	2320.6	2324.3
27.5°	2239.1	2242.1	2246.4	2264.0	2267.7
30°	2175.8	2180.6	2185.5	2203.8	2208.6
32.5°	2108.8	2113.7	2119.7	2143.5	2145.9
35°	2033.3	2042.4	2051.0	2071.7	2080.2
37.5°	1957.8	1969.4	1977.3	1999.2	2005.9
40°	1878.1	1889.6	1902.4	1925.5	1929.8
42.5°	1794.7	1808.1	1823.3	1844.0	1851.3
45°	1710.7	1725.9	1739.9	1756.9	1765.4
47.5°	1619.9	1635.2	1652.2	1671.7	1677.2
50°	1526.2	1543.8	1562.1	1580.4	1590.1
52.5°	1430.0	1451.3	1472.0	1491.5	1500.6
55°	1335.0	1350.9	1375.8	1395.9	1405.0
57.5°	1236.4	1249.8	1272.3	1305.2	1310.1
60°	1136.0	1148.1	1171.3	1198.1	1209.0
62.5°	1025.2	1041.6	1066.0	1100.1	1109.8
65°	917.4	933.2	965.5	1003.9	1019.7
67.5°	813.3	818.8	860.2	900.4	925.9
70°	690.3	711.0	759.1	808.5	827.9
72.5°	584.4	605.1	658.1	715.9	740.3
75°	464.5	493.1	564.9	632.5	656.3
77.5°	359.2	390.8	479.7	547.9	575.3
80°	250.8	300.1	396.9	473.6	503.5
82.5°	157.7	218.5	322.0	402.4	428.6
85°	80.4	148.5	255.1	337.3	367.1
87.5°	21.3	96.2	198.5	277.0	307.4
90°	0.6	55.4	150.4	225.9	253.2
92.5°	0.6	31.0	112.0	179.6	207.6
95°	0.6	14.6	77.9	141.2	163.2
97.5°	0.6	6.1	53.6	106.5	128.5
100°	0.6	3.0	34.1	77.3	96.2
102.5°	1.2	1.8	21.3	55.4	70.6
105°	1.2	1.8	12.8	37.7	50.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.8	1.8	2.4	10.3	15.2
115°	1.8	1.8	2.4	6.7	9.7
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	7.3	25.6	34.7
110°	1.8	1.8	4.3	15.8	23.1



(END OF REPORT)