

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: P580591

Luminaire Tested: **HVSL4-4-LD4-2HI-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580591
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-40-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

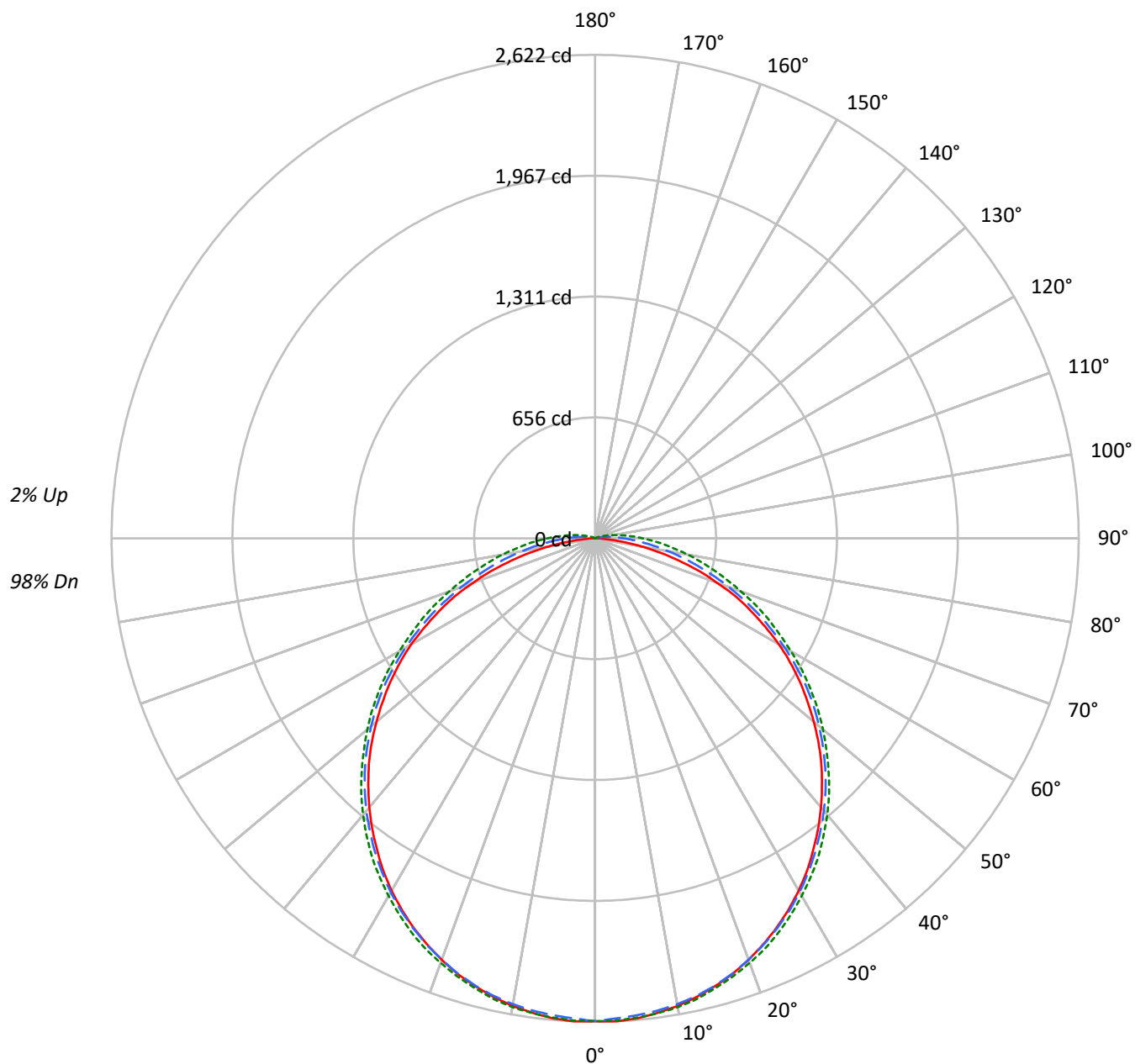
Lumens per Lamp: N/A
Luminaire Lumens: 7919.0 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

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°	21144	21144	21144
5°	21103	20362	20258
10°	20962	19708	19456
15°	20781	19038	18612
20°	20587	18337	17811
25°	20355	17638	17027
30°	20087	16920	16203
35°	19747	16164	15399
40°	19395	15388	14529
45°	19016	14566	13627
50°	18521	13661	12691
55°	17987	12695	11700
60°	17349	11529	10609
65°	16316	10269	9532
70°	14829	8854	8349
75°	12716	7356	7243
80°	9566	5900	6188
85°	5113	4455	5135



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.8	3.1
10°-20°	710.9	9.0
20°-30°	1078.7	13.6
30°-40°	1304.4	16.5
40°-50°	1361.0	17.2
50°-60°	1244.4	15.7
60°-70°	970.0	12.2
70°-80°	606.8	7.7
80°-90°	275.6	3.5
90°-100°	92.4	1.2
100°-110°	23.2	0.3
110°-120°	3.7	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°	2037.5	25.7
0°-40°	3341.9	42.2
0°-60°	5947.3	75.1
0°-90°	7799.8	98.5
90°-120°	119.2	1.5
90°-150°	119.2	1.5
90°-180°	119.0	1.5
0°-180°	7919.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2619	2619	2619	2619	2619	
5°	2614	2609	2597	2609	2609	248
15°	2514	2518	2512	2526	2525	710
25°	2330	2331	2334	2354	2357	1073
35°	2062	2072	2080	2101	2110	1291
45°	1735	1750	1765	1782	1790	1337
55°	1354	1370	1395	1416	1425	1210
65°	930	946	979	1018	1034	921
75°	471	500	573	642	666	502
85°	82	151	259	342	372	103
90°	1	56	152	229	257	3
95°	1	15	79	143	166	0
105°	1	2	13	38	51	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°	2619.1	2619.1	2619.1	2619.1	2619.1
2.5°	2622.2	2618.5	2606.8	2618.5	2617.9
5°	2613.6	2608.6	2596.9	2609.2	2609.2
7.5°	2596.3	2594.4	2583.9	2598.1	2598.1
10°	2575.9	2575.3	2566.6	2582.1	2582.7
12.5°	2547.5	2550.0	2541.9	2556.8	2558.6
15°	2514.2	2518.5	2511.7	2525.9	2525.3
17.5°	2477.7	2480.2	2475.3	2491.3	2490.7
20°	2432.7	2435.8	2432.0	2448.7	2450.6
22.5°	2382.7	2387.0	2386.4	2403.6	2408.6
25°	2329.6	2331.4	2333.9	2353.6	2357.3
27.5°	2270.9	2274.0	2278.3	2296.2	2299.9
30°	2206.7	2211.6	2216.6	2235.1	2240.0
32.5°	2138.8	2143.7	2149.9	2174.0	2176.4
35°	2062.2	2071.5	2080.1	2101.1	2109.7
37.5°	1985.6	1997.4	2005.4	2027.6	2034.4
40°	1904.8	1916.5	1929.5	1952.9	1957.2
42.5°	1820.2	1833.8	1849.2	1870.2	1877.6
45°	1735.0	1750.4	1764.6	1781.9	1790.5
47.5°	1643.0	1658.4	1675.7	1695.5	1701.0
50°	1547.9	1565.8	1584.3	1602.8	1612.7
52.5°	1450.3	1471.9	1492.9	1512.7	1522.0
55°	1354.0	1370.1	1395.4	1415.8	1425.0
57.5°	1254.0	1267.6	1290.4	1323.8	1328.7
60°	1152.1	1164.5	1187.9	1215.1	1226.2
62.5°	1039.7	1056.4	1081.1	1115.7	1125.6
65°	930.5	946.5	979.2	1018.1	1034.2
67.5°	824.9	830.4	872.4	913.2	939.1
70°	700.2	721.2	769.9	819.9	839.7
72.5°	592.7	613.7	667.4	726.1	750.8
75°	471.1	500.1	573.0	641.5	665.6
77.5°	364.3	396.4	486.5	555.7	583.5
80°	254.4	304.4	402.6	480.4	510.6
82.5°	159.9	221.7	326.6	408.1	434.7
85°	81.5	150.7	258.7	342.1	372.3
87.5°	21.6	97.6	201.3	280.9	311.8
90°	0.6	56.2	152.5	229.1	256.8
92.5°	0.6	31.5	113.6	182.1	210.5
95°	0.6	14.8	79.0	143.2	165.5
97.5°	0.6	6.2	54.3	108.0	130.3
100°	0.6	3.1	34.6	78.4	97.6
102.5°	1.2	1.9	21.6	56.2	71.6
105°	1.2	1.9	13.0	38.3	51.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.9	1.9	2.5	10.5	15.4
115°	1.9	1.9	2.5	6.8	9.9
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	1.9	7.4	25.9	35.2
110°	1.9	1.9	4.3	16.1	23.5



(END OF REPORT)