

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: P580221

Luminaire Tested: **HVSL12-4-LD4-2STD-35-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580221
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-LD4-2STD-35-UNV-O-EDD-90
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

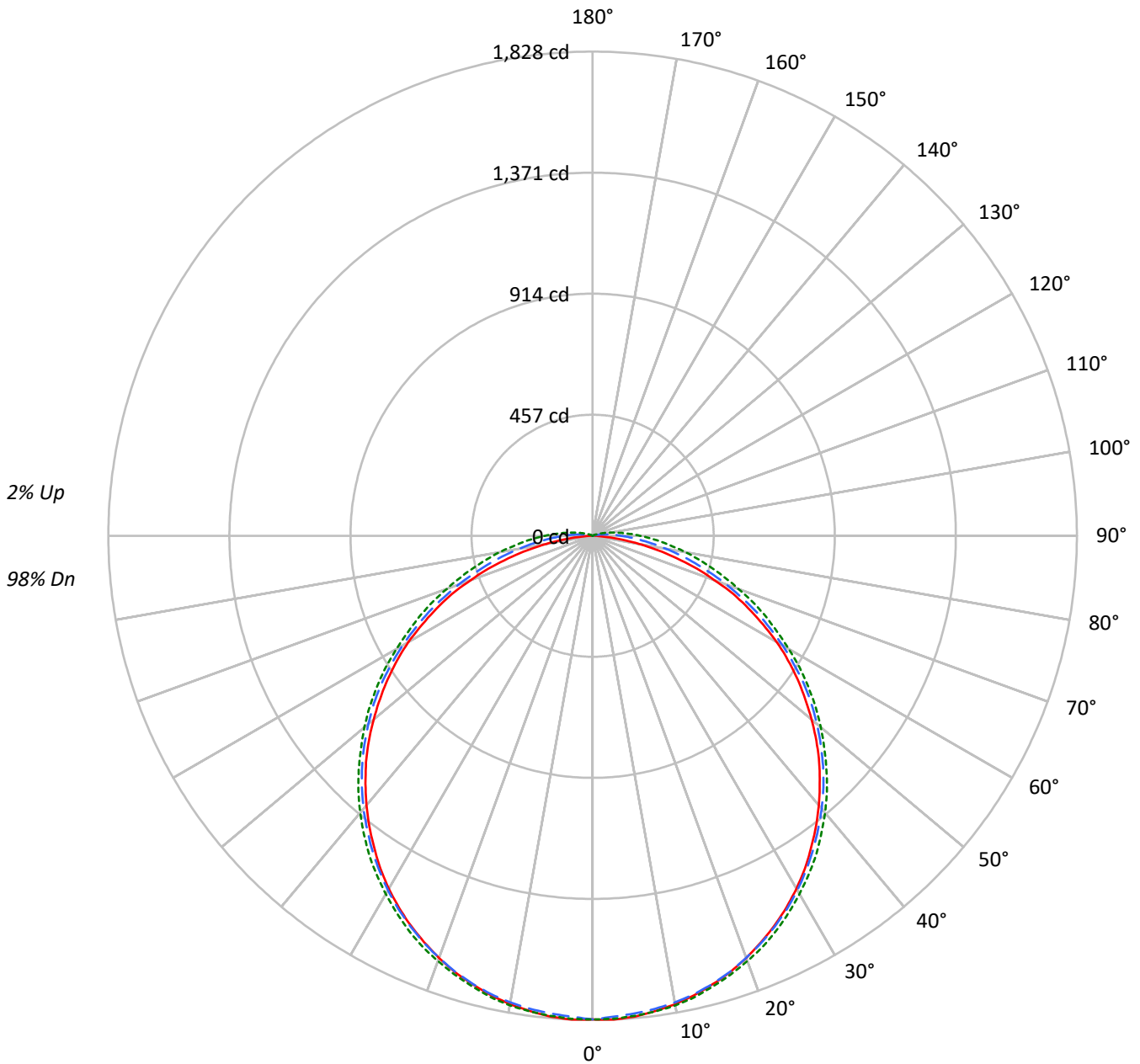
Lumens per Lamp: N/A
Luminaire Lumens: 5521.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 69.2
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				20
RC	80				70				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°	4914	4914	4914
5°	4904	4828	4843
10°	4871	4766	4780
15°	4829	4693	4695
20°	4784	4609	4613
25°	4730	4521	4528
30°	4668	4426	4427
35°	4589	4318	4327
40°	4507	4205	4205
45°	4419	4081	4072
50°	4304	3934	3927
55°	4180	3771	3765
60°	4032	3551	3570
65°	3792	3303	3382
70°	3446	3006	3159
75°	2955	2680	2974
80°	2222	2370	2836
85°	1188	2075	2759



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.8	3.1
10°-20°	495.7	9.0
20°-30°	752.1	13.6
30°-40°	909.4	16.5
40°-50°	948.9	17.2
50°-60°	867.6	15.7
60°-70°	676.3	12.2
70°-80°	423.1	7.7
80°-90°	192.1	3.5
90°-100°	64.4	1.2
100°-110°	16.2	0.3
110°-120°	2.5	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°	1420.5	25.7
0°-40°	2329.9	42.2
0°-60°	4146.4	75.1
0°-90°	5437.9	98.5
90°-120°	83.1	1.5
90°-150°	83.1	1.5
90°-180°	83.0	1.5
0°-180°	5521.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1826	1826	1826	1826	1826	
5°	1822	1819	1810	1819	1819	173
15°	1753	1756	1751	1761	1761	495
25°	1624	1625	1627	1641	1644	748
35°	1438	1444	1450	1465	1471	900
45°	1210	1220	1230	1242	1248	932
55°	944	955	973	987	994	843
65°	649	660	683	710	721	642
75°	328	349	400	447	464	350
85°	57	105	180	238	260	72
90°	0	39	106	160	179	2
95°	0	10	55	100	115	0
105°	1	1	9	27	36	1
115°	1	1	2	5	7	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°	1826.0	1826.0	1826.0	1826.0	1826.0
2.5°	1828.2	1825.6	1817.4	1825.6	1825.2
5°	1822.1	1818.7	1810.5	1819.1	1819.1
7.5°	1810.1	1808.8	1801.5	1811.4	1811.4
10°	1795.9	1795.5	1789.4	1800.2	1800.6
12.5°	1776.1	1777.8	1772.2	1782.5	1783.8
15°	1752.8	1755.8	1751.1	1761.0	1760.6
17.5°	1727.4	1729.2	1725.7	1736.9	1736.5
20°	1696.0	1698.2	1695.6	1707.2	1708.5
22.5°	1661.1	1664.2	1663.7	1675.8	1679.2
25°	1624.1	1625.4	1627.1	1640.9	1643.5
27.5°	1583.2	1585.4	1588.4	1600.9	1603.5
30°	1538.5	1541.9	1545.4	1558.3	1561.7
32.5°	1491.1	1494.6	1498.9	1515.7	1517.4
35°	1437.7	1444.2	1450.2	1464.9	1470.9
37.5°	1384.4	1392.5	1398.1	1413.6	1418.4
40°	1328.0	1336.1	1345.2	1361.5	1364.6
42.5°	1269.0	1278.5	1289.2	1303.9	1309.0
45°	1209.6	1220.4	1230.3	1242.3	1248.3
47.5°	1145.5	1156.2	1168.3	1182.0	1185.9
50°	1079.2	1091.6	1104.6	1117.5	1124.4
52.5°	1011.2	1026.2	1040.9	1054.6	1061.1
55°	944.0	955.2	972.8	987.0	993.5
57.5°	874.3	883.7	899.7	922.9	926.4
60°	803.2	811.8	828.2	847.1	854.9
62.5°	724.9	736.5	753.7	777.8	784.7
65°	648.7	659.9	682.7	709.8	721.0
67.5°	575.1	579.0	608.2	636.7	654.7
70°	488.1	502.8	536.8	571.7	585.4
72.5°	413.2	427.9	465.3	506.2	523.4
75°	328.4	348.7	399.5	447.2	464.0
77.5°	254.0	276.4	339.2	387.4	406.8
80°	177.3	212.2	280.7	334.9	356.0
82.5°	111.5	154.5	227.7	284.5	303.0
85°	56.8	105.0	180.4	238.5	259.6
87.5°	15.1	68.0	140.3	195.9	217.4
90°	0.4	39.2	106.3	159.7	179.1
92.5°	0.4	22.0	79.2	127.0	146.8
95°	0.4	10.3	55.1	99.9	115.4
97.5°	0.4	4.3	37.9	75.3	90.8
100°	0.4	2.2	24.1	54.7	68.0
102.5°	0.9	1.3	15.1	39.2	49.9
105°	0.9	1.3	9.0	26.7	35.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.3	1.3	1.7	7.3	10.8
115°	1.3	1.3	1.7	4.7	6.9
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°	0.9	1.3	5.2	18.1	24.5
110°	1.3	1.3	3.0	11.2	16.4



(END OF REPORT)