

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: P580598

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

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580598
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-LD4-2LO-35-UNV-O-EDD
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

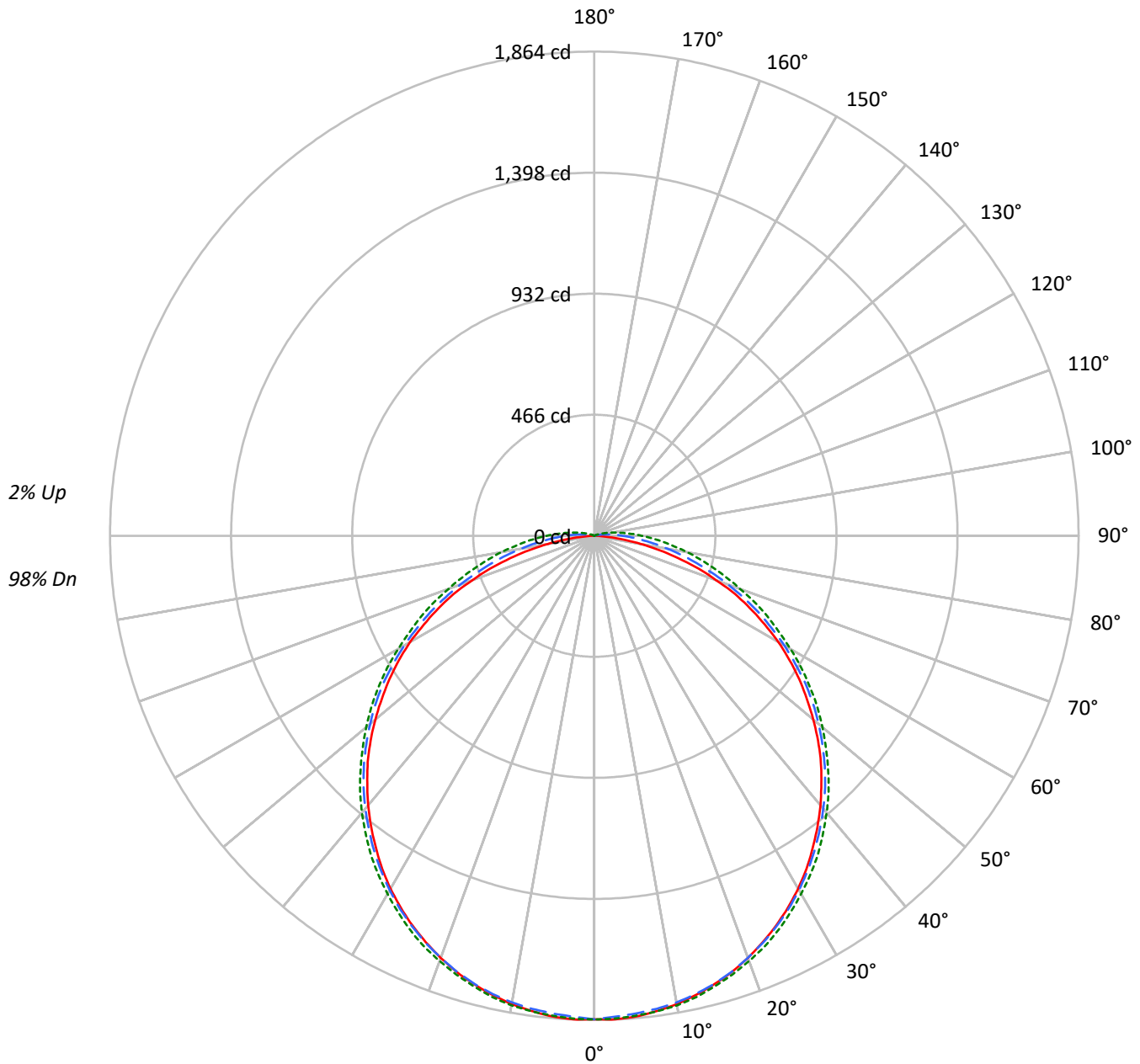
Lumens per Lamp: N/A
Luminaire Lumens: 5629.0 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 46.2
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°	15029	15029	15029
5°	15000	14474	14400
10°	14900	14009	13829
15°	14771	13533	13229
20°	14634	13035	12660
25°	14469	12538	12103
30°	14279	12027	11518
35°	14037	11490	10947
40°	13786	10938	10328
45°	13517	10354	9687
50°	13165	9711	9021
55°	12786	9024	8317
60°	12333	8196	7541
65°	11598	7300	6776
70°	10541	6294	5935
75°	9040	5229	5148
80°	6799	4194	4399
85°	3633	3167	3649



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.2	3.1
10°-20°	505.4	9.0
20°-30°	766.8	13.6
30°-40°	927.2	16.5
40°-50°	967.4	17.2
50°-60°	884.5	15.7
60°-70°	689.5	12.2
70°-80°	431.3	7.7
80°-90°	195.9	3.5
90°-100°	65.7	1.2
100°-110°	16.5	0.3
110°-120°	2.6	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°	1448.3	25.7
0°-40°	2375.5	42.2
0°-60°	4227.5	75.1
0°-90°	5544.3	98.5
90°-120°	84.7	1.5
90°-150°	84.7	1.5
90°-180°	85.0	1.5
0°-180°	5629.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1862	1862	1862	1862	1862	
5°	1858	1854	1846	1855	1855	176
15°	1787	1790	1785	1796	1795	504
25°	1656	1657	1659	1673	1676	763
35°	1466	1472	1479	1494	1500	917
45°	1233	1244	1254	1267	1273	950
55°	962	974	992	1006	1013	860
65°	661	673	696	724	735	654
75°	335	356	407	456	473	357
85°	58	107	184	243	265	73
90°	0	40	108	163	183	2
95°	0	10	56	102	118	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1861.7	1861.7	1861.7	1861.7	1861.7
2.5°	1863.9	1861.3	1853.0	1861.3	1860.9
5°	1857.8	1854.3	1845.9	1854.7	1854.7
7.5°	1845.5	1844.2	1836.7	1846.8	1846.8
10°	1831.0	1830.6	1824.4	1835.4	1835.8
12.5°	1810.8	1812.6	1806.9	1817.4	1818.7
15°	1787.1	1790.2	1785.4	1795.5	1795.0
17.5°	1761.2	1763.0	1759.5	1770.9	1770.4
20°	1729.2	1731.4	1728.8	1740.6	1741.9
22.5°	1693.6	1696.7	1696.3	1708.6	1712.1
25°	1655.9	1657.2	1659.0	1673.0	1675.6
27.5°	1614.2	1616.4	1619.5	1632.2	1634.8
30°	1568.6	1572.1	1575.6	1588.7	1592.3
32.5°	1520.3	1523.8	1528.2	1545.3	1547.1
35°	1465.9	1472.4	1478.6	1493.5	1499.7
37.5°	1411.4	1419.8	1425.5	1441.3	1446.1
40°	1353.9	1362.3	1371.5	1388.2	1391.3
42.5°	1293.8	1303.5	1314.4	1329.4	1334.6
45°	1233.3	1244.2	1254.3	1266.6	1272.8
47.5°	1167.9	1178.8	1191.1	1205.2	1209.1
50°	1100.3	1113.0	1126.2	1139.3	1146.4
52.5°	1030.9	1046.3	1061.2	1075.3	1081.8
55°	962.5	973.9	991.9	1006.4	1012.9
57.5°	891.4	901.0	917.3	941.0	944.5
60°	819.0	827.7	844.4	863.7	871.6
62.5°	739.1	750.9	768.5	793.1	800.1
65°	661.4	672.8	696.1	723.7	735.1
67.5°	586.3	590.3	620.1	649.1	667.5
70°	497.7	512.6	547.3	582.8	596.9
72.5°	421.3	436.2	474.4	516.1	533.7
75°	334.9	355.5	407.3	456.0	473.1
77.5°	258.9	281.8	345.8	395.0	414.7
80°	180.8	216.4	286.2	341.4	363.0
82.5°	113.7	157.6	232.2	290.1	309.0
85°	57.9	107.1	183.9	243.1	264.6
87.5°	15.4	69.3	143.1	199.7	221.6
90°	0.4	39.9	108.4	162.8	182.6
92.5°	0.4	22.4	80.8	129.5	149.7
95°	0.4	10.5	56.2	101.8	117.6
97.5°	0.4	4.4	38.6	76.8	92.6
100°	0.4	2.2	24.6	55.7	69.3
102.5°	0.9	1.3	15.4	39.9	50.9
105°	0.9	1.3	9.2	27.2	36.4



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CATALOG NUMBER: HVSL4-4-LD4-2LO-35-UNV-O-EDD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.3	1.3	1.8	7.5	11.0
115°	1.3	1.3	1.8	4.8	7.0
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	5.3	18.4	25.0
110°	1.3	1.3	3.1	11.4	16.7



(END OF REPORT)