

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: P580600

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

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580600
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-40-UNV-O-EDD
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

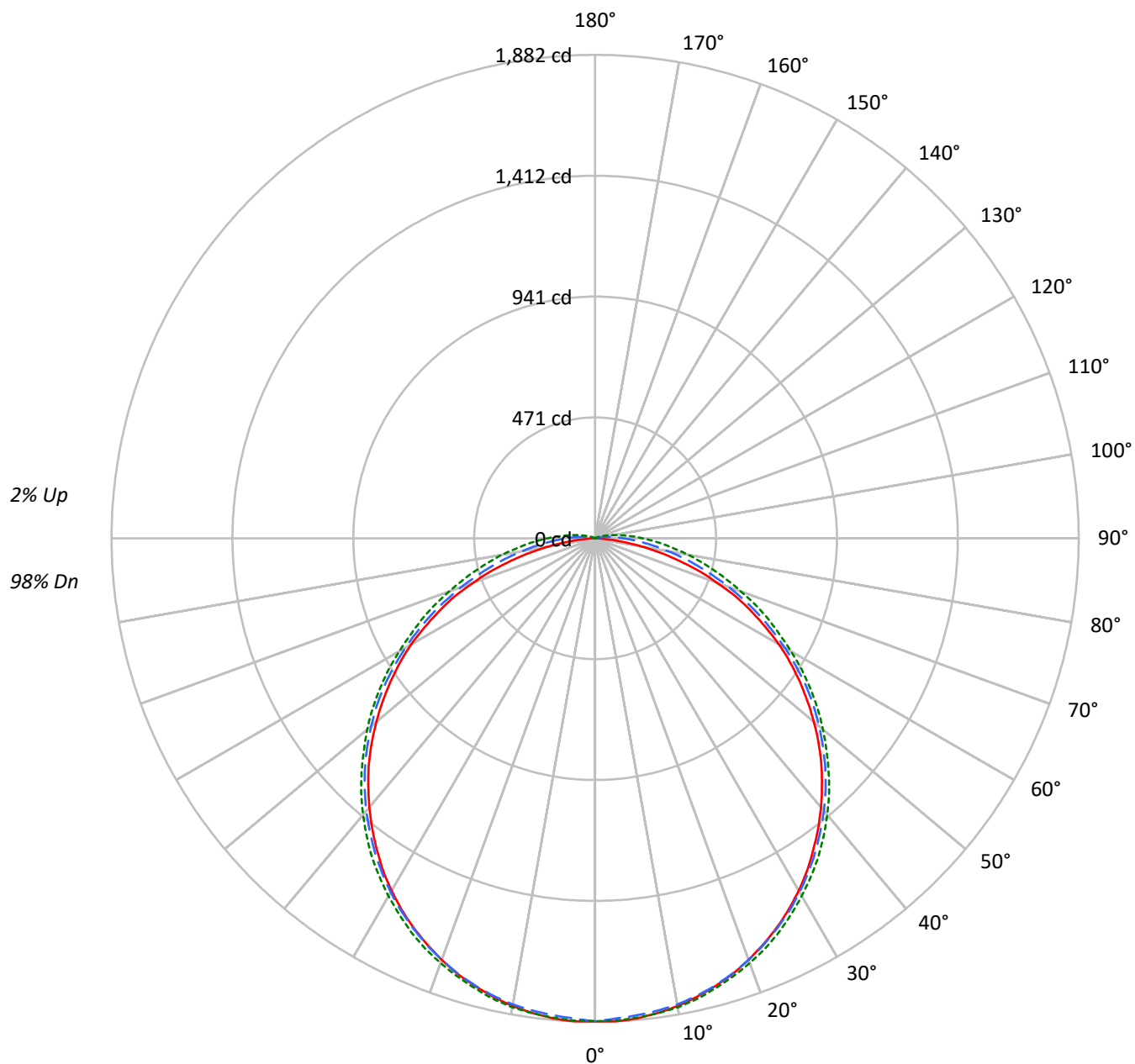
Lumens per Lamp: N/A
Luminaire Lumens: 5685.0 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

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			0
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°	15180	15180	15180
5°	15150	14618	14544
10°	15048	14149	13967
15°	14918	13667	13361
20°	14779	13164	12786
25°	14613	12662	12224
30°	14421	12147	11632
35°	14176	11604	11055
40°	13923	11046	10431
45°	13651	10457	9783
50°	13296	9807	9111
55°	12912	9113	8399
60°	12455	8277	7616
65°	11713	7372	6843
70°	10644	6356	5993
75°	9129	5280	5199
80°	6866	4235	4443
85°	3670	3198	3686



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.9	3.1
10°-20°	510.4	9.0
20°-30°	774.4	13.6
30°-40°	936.4	16.5
40°-50°	977.1	17.2
50°-60°	893.3	15.7
60°-70°	696.4	12.2
70°-80°	435.6	7.7
80°-90°	197.9	3.5
90°-100°	66.3	1.2
100°-110°	16.6	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°	1462.7	25.7
0°-40°	2399.1	42.2
0°-60°	4269.5	75.1
0°-90°	5599.4	98.5
90°-120°	85.6	1.5
90°-150°	85.6	1.5
90°-180°	86.0	1.5
0°-180°	5685.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1880	1880	1880	1880	1880	
5°	1876	1873	1864	1873	1873	178
15°	1805	1808	1803	1813	1813	510
25°	1672	1674	1676	1690	1692	771
35°	1480	1487	1493	1508	1515	927
45°	1246	1257	1267	1279	1285	960
55°	972	984	1002	1016	1023	868
65°	668	680	703	731	742	661
75°	338	359	411	460	478	361
85°	58	108	186	246	267	74
90°	0	40	110	164	184	2
95°	0	11	57	103	119	0
105°	1	1	9	28	37	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	



TEST NUMBER: P580600

CATALOG NUMBER: HVSL4-4-LD4-2LO-40-UNV-O-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1880.3	1880.3	1880.3	1880.3	1880.3
2.5°	1882.5	1879.8	1871.4	1879.8	1879.4
5°	1876.3	1872.7	1864.3	1873.2	1873.2
7.5°	1863.9	1862.5	1855.0	1865.2	1865.2
10°	1849.2	1848.8	1842.6	1853.7	1854.1
12.5°	1828.8	1830.6	1824.8	1835.5	1836.8
15°	1804.9	1808.0	1803.1	1813.3	1812.9
17.5°	1778.8	1780.5	1777.0	1788.5	1788.1
20°	1746.4	1748.6	1746.0	1757.9	1759.2
22.5°	1710.5	1713.6	1713.2	1725.6	1729.1
25°	1672.4	1673.7	1675.5	1689.7	1692.3
27.5°	1630.3	1632.5	1635.6	1648.4	1651.1
30°	1584.2	1587.7	1591.3	1604.6	1608.1
32.5°	1535.4	1539.0	1543.4	1560.7	1562.4
35°	1480.4	1487.1	1493.3	1508.4	1514.6
37.5°	1425.5	1433.9	1439.7	1455.6	1460.5
40°	1367.4	1375.8	1385.1	1402.0	1405.1
42.5°	1306.7	1316.4	1327.5	1342.6	1347.9
45°	1245.5	1256.6	1266.8	1279.2	1285.4
47.5°	1179.5	1190.6	1203.0	1217.2	1221.1
50°	1111.2	1124.1	1137.4	1150.7	1157.8
52.5°	1041.2	1056.7	1071.8	1086.0	1092.6
55°	972.0	983.6	1001.7	1016.4	1023.0
57.5°	900.2	910.0	926.4	950.3	953.9
60°	827.1	836.0	852.8	872.3	880.3
62.5°	746.4	758.4	776.1	800.9	808.0
65°	668.0	679.5	703.0	730.9	742.4
67.5°	592.2	596.2	626.3	655.6	674.2
70°	502.6	517.7	552.7	588.6	602.8
72.5°	425.5	440.6	479.2	521.3	539.0
75°	338.2	359.0	411.3	460.5	477.8
77.5°	261.5	284.6	349.3	398.9	418.9
80°	182.6	218.5	289.0	344.8	366.6
82.5°	114.8	159.1	234.5	293.0	312.0
85°	58.5	108.2	185.7	245.6	267.3
87.5°	15.5	70.0	144.5	201.7	223.8
90°	0.4	40.3	109.5	164.4	184.4
92.5°	0.4	22.6	81.6	130.8	151.1
95°	0.4	10.6	56.7	102.8	118.8
97.5°	0.4	4.4	39.0	77.6	93.5
100°	0.4	2.2	24.8	56.3	70.0
102.5°	0.9	1.3	15.5	40.3	51.4
105°	0.9	1.3	9.3	27.5	36.8



TEST NUMBER: P580600

CATALOG NUMBER: HVSL4-4-LD4-2LO-40-UNV-O-EDD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.3	1.3	1.8	7.5	11.1
115°	1.3	1.3	1.8	4.9	7.1
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	18.6	25.3
110°	1.3	1.3	3.1	11.5	16.8



(END OF REPORT)