

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: P580603

Luminaire Tested: **HVSL4-4-LD4-2STD-30-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580603
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-LD4-2STD-30-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

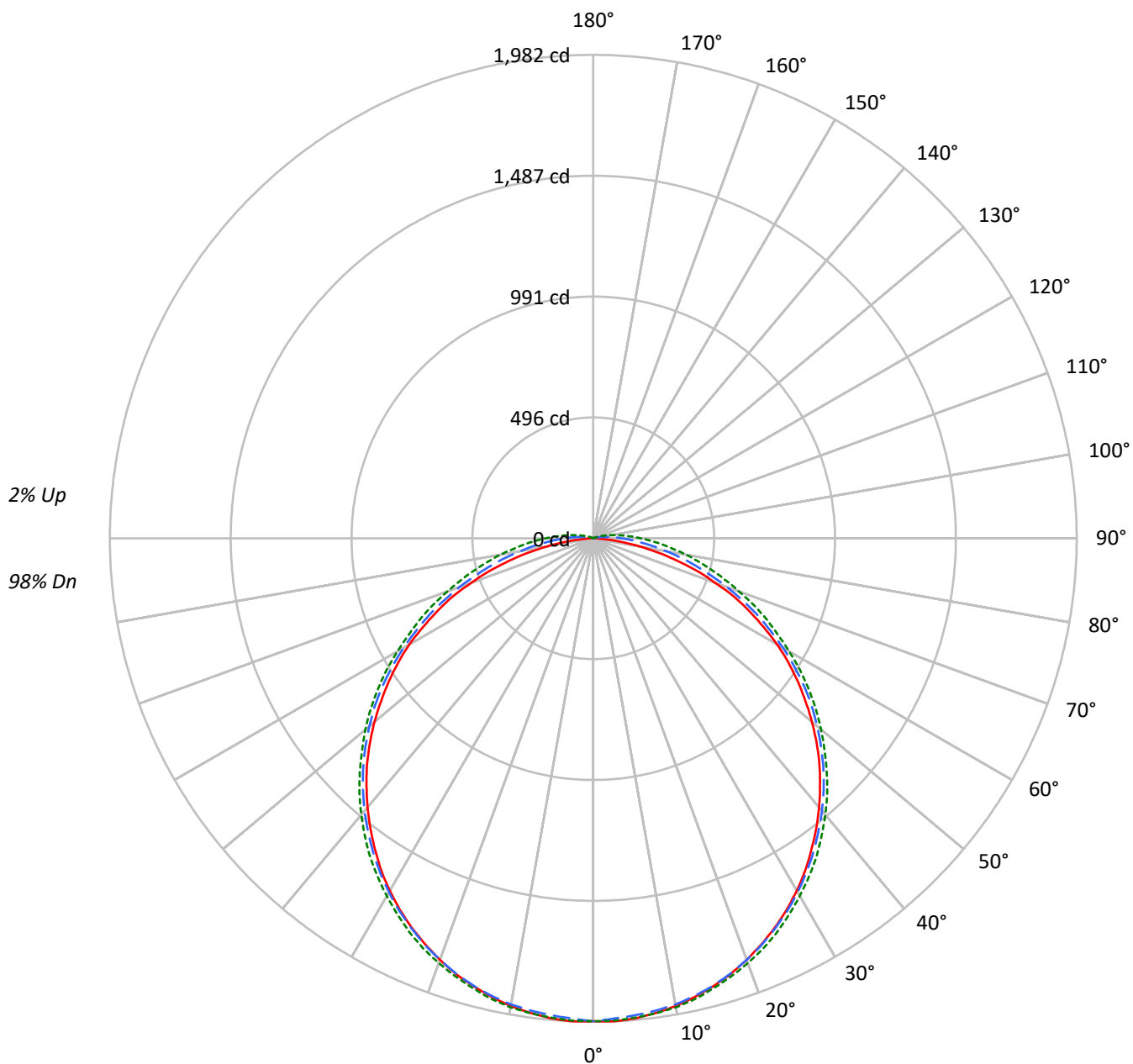
Lumens per Lamp: N/A
Luminaire Lumens: 5987.0 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 65.4
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°	15985	15985	15985
5°	15954	15394	15316
10°	15848	14901	14709
15°	15711	14393	14071
20°	15565	13863	13466
25°	15389	13335	12873
30°	15186	12792	12250
35°	14930	12220	11642
40°	14664	11633	10984
45°	14376	11012	10303
50°	14003	10328	9595
55°	13599	9598	8846
60°	13116	8717	8021
65°	12336	7763	7207
70°	11210	6694	6312
75°	9615	5561	5476
80°	7231	4459	4678
85°	3865	3368	3882



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.4	3.1
10°-20°	537.5	9.0
20°-30°	815.6	13.6
30°-40°	986.1	16.5
40°-50°	1029.0	17.2
50°-60°	940.8	15.7
60°-70°	733.4	12.2
70°-80°	458.8	7.7
80°-90°	208.4	3.5
90°-100°	69.8	1.2
100°-110°	17.5	0.3
110°-120°	2.8	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°	1540.4	25.7
0°-40°	2526.6	42.2
0°-60°	4496.3	75.1
0°-90°	5896.9	98.5
90°-120°	90.1	1.5
90°-150°	90.1	1.5
90°-180°	90.0	1.5
0°-180°	5987.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1980	1980	1980	1980	1980	
5°	1976	1972	1963	1973	1973	188
15°	1901	1904	1899	1910	1909	537
25°	1761	1763	1764	1779	1782	812
35°	1559	1566	1573	1588	1595	976
45°	1312	1323	1334	1347	1354	1011
55°	1024	1036	1055	1070	1077	915
65°	704	716	740	770	782	696
75°	356	378	433	485	503	380
85°	62	114	196	259	282	78
90°	0	42	115	173	194	2
95°	0	11	60	108	125	0
105°	1	1	10	29	39	1
115°	1	1	2	5	8	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°	1980.1	1980.1	1980.1	1980.1	1980.1
2.5°	1982.5	1979.7	1970.8	1979.7	1979.2
5°	1975.9	1972.2	1963.3	1972.7	1972.7
7.5°	1962.9	1961.5	1953.5	1964.3	1964.3
10°	1947.5	1947.0	1940.5	1952.1	1952.6
12.5°	1926.0	1927.9	1921.8	1933.0	1934.4
15°	1900.8	1904.1	1898.9	1909.7	1909.2
17.5°	1873.2	1875.1	1871.4	1883.5	1883.0
20°	1839.2	1841.5	1838.7	1851.3	1852.7
22.5°	1801.4	1804.6	1804.2	1817.2	1821.0
25°	1761.2	1762.6	1764.5	1779.4	1782.2
27.5°	1716.9	1719.2	1722.5	1736.0	1738.8
30°	1668.3	1672.1	1675.8	1689.8	1693.5
32.5°	1617.0	1620.7	1625.4	1643.6	1645.4
35°	1559.1	1566.1	1572.6	1588.5	1595.0
37.5°	1501.2	1510.1	1516.1	1532.9	1538.1
40°	1440.1	1448.9	1458.7	1476.5	1479.7
42.5°	1376.1	1386.4	1398.0	1413.9	1419.5
45°	1311.7	1323.4	1334.1	1347.2	1353.7
47.5°	1242.1	1253.8	1266.9	1281.8	1286.0
50°	1170.3	1183.8	1197.8	1211.8	1219.3
52.5°	1096.5	1112.8	1128.7	1143.6	1150.6
55°	1023.7	1035.8	1055.0	1070.4	1077.4
57.5°	948.1	958.3	975.6	1000.8	1004.5
60°	871.0	880.4	898.1	918.6	927.1
62.5°	786.1	798.7	817.4	843.5	851.0
65°	703.5	715.6	740.3	769.7	781.9
67.5°	623.6	627.8	659.6	690.4	710.0
70°	529.3	545.2	582.1	619.9	634.8
72.5°	448.1	464.0	504.6	548.9	567.6
75°	356.2	378.1	433.2	485.0	503.2
77.5°	275.4	299.7	367.8	420.1	441.1
80°	192.3	230.1	304.3	363.2	386.0
82.5°	120.9	167.6	246.9	308.6	328.6
85°	61.6	113.9	195.6	258.6	281.5
87.5°	16.3	73.8	152.2	212.4	235.7
90°	0.5	42.5	115.3	173.2	194.2
92.5°	0.5	23.8	85.9	137.7	159.2
95°	0.5	11.2	59.7	108.3	125.1
97.5°	0.5	4.7	41.1	81.7	98.5
100°	0.5	2.3	26.1	59.3	73.8
102.5°	0.9	1.4	16.3	42.5	54.1
105°	0.9	1.4	9.8	28.9	38.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.4	1.4	1.9	7.9	11.7
115°	1.4	1.4	1.9	5.1	7.5
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	1.4	5.6	19.6	26.6
110°	1.4	1.4	3.3	12.1	17.7



(END OF REPORT)