

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: P580605

Luminaire Tested: **HVSL4-4-LD4-2STD-35-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580605
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-35-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

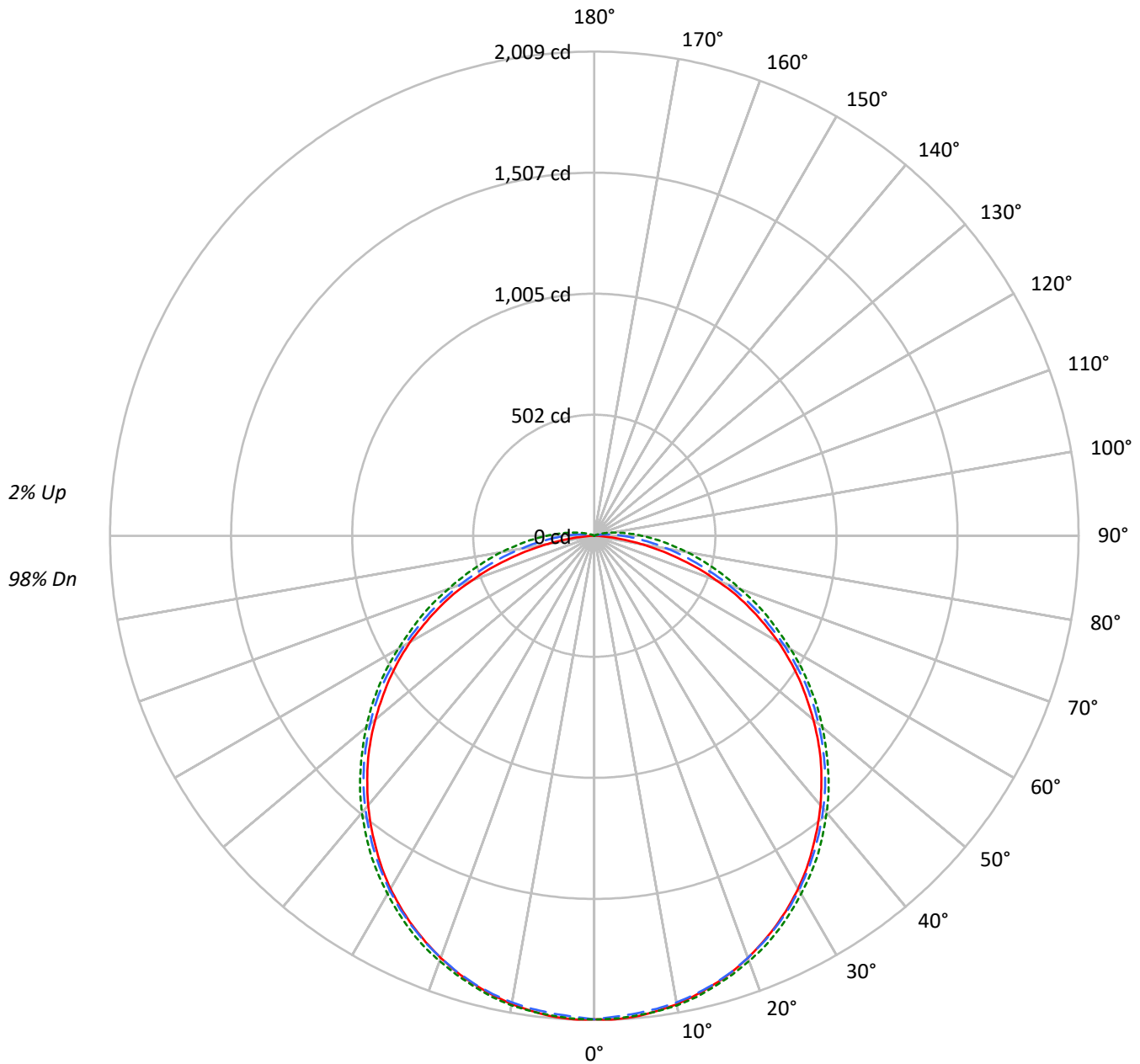
Lumens per Lamp: N/A
Luminaire Lumens: 6067.0 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 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°	16199	16199	16199
5°	16167	15600	15520
10°	16060	15100	14906
15°	15921	14586	14259
20°	15772	14049	13646
25°	15594	13513	13045
30°	15389	12963	12414
35°	15129	12383	11798
40°	14859	11789	11131
45°	14568	11159	10440
50°	14189	10466	9723
55°	13781	9725	8964
60°	13292	8833	8127
65°	12501	7867	7303
70°	11360	6784	6396
75°	9742	5636	5549
80°	7329	4519	4741
85°	3915	3413	3933



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.9	3.1
10°-20°	544.7	9.0
20°-30°	826.5	13.6
30°-40°	999.3	16.5
40°-50°	1042.7	17.2
50°-60°	953.4	15.7
60°-70°	743.2	12.2
70°-80°	464.9	7.7
80°-90°	211.1	3.5
90°-100°	70.8	1.2
100°-110°	17.8	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°	1561.0	25.7
0°-40°	2560.3	42.2
0°-60°	4556.4	75.1
0°-90°	5975.6	98.5
90°-120°	91.3	1.5
90°-150°	91.3	1.5
90°-180°	91.0	1.5
0°-180°	6067.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2007	2007	2007	2007	2007	
5°	2002	1999	1990	1999	1999	190
15°	1926	1930	1924	1935	1935	544
25°	1785	1786	1788	1803	1806	822
35°	1580	1587	1594	1610	1616	989
45°	1329	1341	1352	1365	1372	1024
55°	1037	1050	1069	1085	1092	927
65°	713	725	750	780	792	705
75°	361	383	439	492	510	385
85°	62	115	198	262	285	79
90°	0	43	117	176	197	2
95°	0	11	60	110	127	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°	2006.6	2006.6	2006.6	2006.6	2006.6
2.5°	2009.0	2006.1	1997.1	2006.1	2005.7
5°	2002.3	1998.6	1989.6	1999.0	1999.0
7.5°	1989.1	1987.7	1979.6	1990.5	1990.5
10°	1973.5	1973.0	1966.4	1978.2	1978.7
12.5°	1951.7	1953.6	1947.5	1958.8	1960.2
15°	1926.2	1929.5	1924.3	1935.2	1934.7
17.5°	1898.3	1900.2	1896.4	1908.7	1908.2
20°	1863.7	1866.1	1863.3	1876.0	1877.5
22.5°	1825.4	1828.7	1828.3	1841.5	1845.3
25°	1784.7	1786.2	1788.1	1803.2	1806.0
27.5°	1739.8	1742.2	1745.5	1759.2	1762.0
30°	1690.6	1694.4	1698.2	1712.4	1716.2
32.5°	1638.6	1642.4	1647.1	1665.5	1667.4
35°	1579.9	1587.0	1593.6	1609.7	1616.3
37.5°	1521.3	1530.3	1536.4	1553.4	1558.6
40°	1459.3	1468.3	1478.2	1496.2	1499.5
42.5°	1394.5	1404.9	1416.7	1432.8	1438.5
45°	1329.2	1341.0	1351.9	1365.2	1371.8
47.5°	1258.7	1270.6	1283.8	1298.9	1303.2
50°	1185.9	1199.6	1213.8	1228.0	1235.6
52.5°	1111.1	1127.7	1143.8	1158.9	1166.0
55°	1037.4	1049.7	1069.0	1084.7	1091.8
57.5°	960.7	971.1	988.6	1014.2	1018.0
60°	882.7	892.1	910.1	930.9	939.4
62.5°	796.6	809.4	828.3	854.8	862.3
65°	712.9	725.2	750.2	780.0	792.3
67.5°	632.0	636.2	668.4	699.6	719.5
70°	536.4	552.5	589.9	628.2	643.3
72.5°	454.1	470.2	511.3	556.3	575.2
75°	360.9	383.2	439.0	491.5	509.9
77.5°	279.1	303.7	372.7	425.7	447.0
80°	194.9	233.2	308.4	368.0	391.2
82.5°	122.5	169.8	250.2	312.7	333.0
85°	62.4	115.4	198.2	262.1	285.2
87.5°	16.6	74.7	154.2	215.2	238.9
90°	0.5	43.0	116.8	175.5	196.8
92.5°	0.5	24.1	87.0	139.5	161.3
95°	0.5	11.4	60.5	109.7	126.8
97.5°	0.5	4.7	41.6	82.8	99.8
100°	0.5	2.4	26.5	60.1	74.7
102.5°	0.9	1.4	16.6	43.0	54.9
105°	0.9	1.4	9.9	29.3	39.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.4	1.4	1.9	8.0	11.8
115°	1.4	1.4	1.9	5.2	7.6
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	5.7	19.9	27.0
110°	1.4	1.4	3.3	12.3	18.0



(END OF REPORT)