

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: P580609

Luminaire Tested: **HVSL4-4-LD4-2STD-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580609
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-50-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

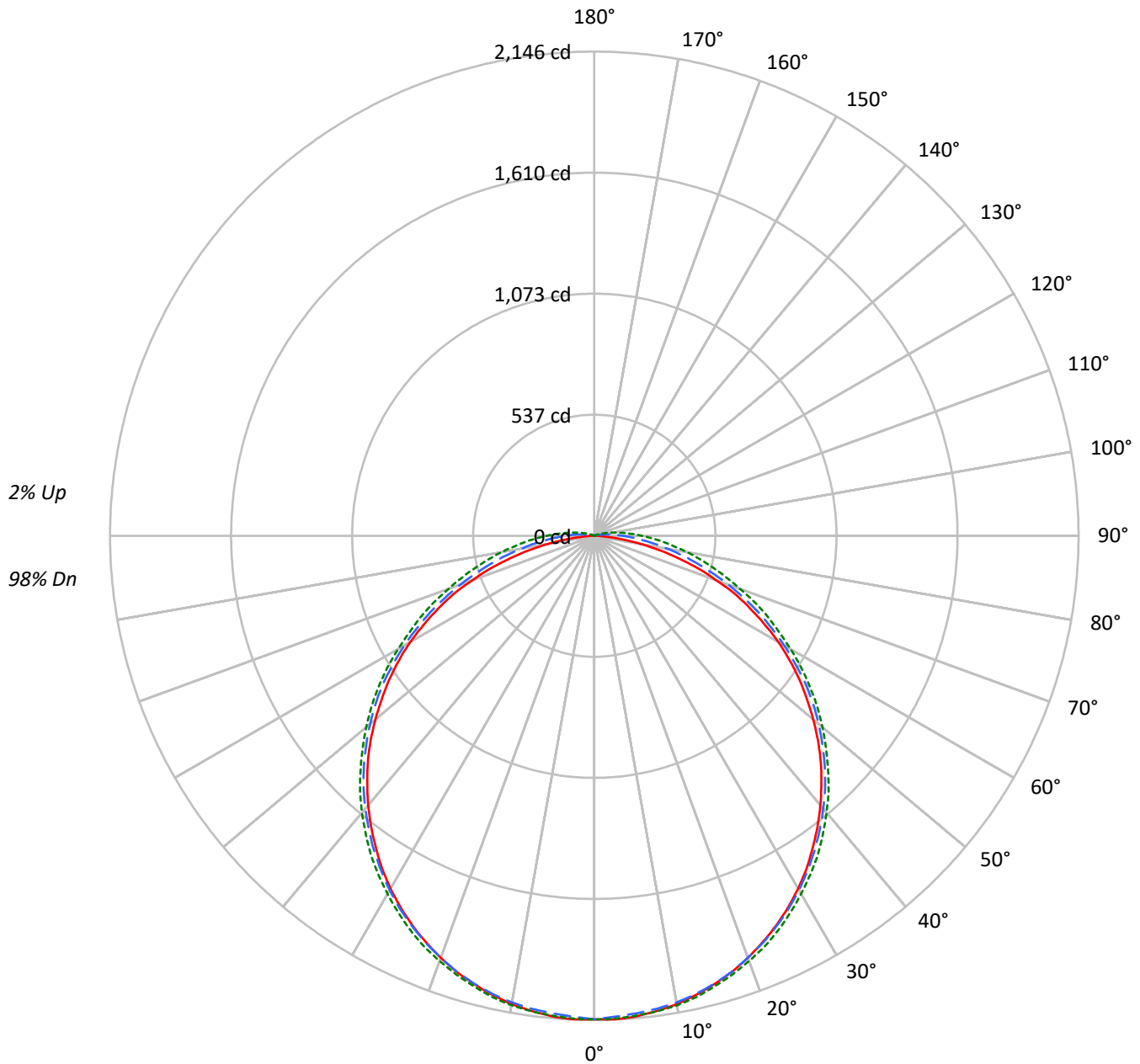
Lumens per Lamp: N/A
Luminaire Lumens: 6480.0 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 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°	17302	17302	17302
5°	17268	16662	16577
10°	17153	16127	15921
15°	17004	15578	15230
20°	16846	15005	14575
25°	16656	14433	13933
30°	16437	13846	13259
35°	16159	13227	12601
40°	15870	12591	11889
45°	15560	11920	11151
50°	15155	11178	10385
55°	14719	10387	9574
60°	14198	9435	8681
65°	13351	8403	7800
70°	12133	7245	6832
75°	10406	6019	5926
80°	7829	4827	5063
85°	4185	3646	4202



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.8	3.1
10°-20°	581.8	9.0
20°-30°	882.7	13.6
30°-40°	1067.3	16.5
40°-50°	1113.7	17.2
50°-60°	1018.3	15.7
60°-70°	793.8	12.2
70°-80°	496.5	7.7
80°-90°	225.5	3.5
90°-100°	75.6	1.2
100°-110°	19.0	0.3
110°-120°	3.0	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°	1667.3	25.7
0°-40°	2734.6	42.2
0°-60°	4866.6	75.1
0°-90°	6382.5	98.5
90°-120°	97.5	1.5
90°-150°	97.5	1.5
90°-180°	98.0	1.5
0°-180°	6480.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2143	2143	2143	2143	2143	
5°	2139	2135	2125	2135	2135	203
15°	2057	2061	2055	2067	2066	581
25°	1906	1908	1910	1926	1929	878
35°	1688	1695	1702	1719	1726	1056
45°	1420	1432	1444	1458	1465	1094
55°	1108	1121	1142	1158	1166	990
65°	761	774	801	833	846	753
75°	386	409	469	525	545	411
85°	67	123	212	280	305	84
90°	0	46	125	187	210	3
95°	0	12	65	117	135	0
105°	1	2	11	31	42	1
115°	2	2	2	6	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°	2143.2	2143.2	2143.2	2143.2	2143.2
2.5°	2145.7	2142.7	2133.1	2142.7	2142.2
5°	2138.6	2134.6	2125.0	2135.1	2135.1
7.5°	2124.5	2123.0	2114.4	2126.0	2126.0
10°	2107.8	2107.3	2100.2	2112.9	2113.4
12.5°	2084.6	2086.6	2080.0	2092.2	2093.7
15°	2057.3	2060.8	2055.3	2066.9	2066.4
17.5°	2027.5	2029.5	2025.5	2038.6	2038.1
20°	1990.6	1993.1	1990.1	2003.7	2005.3
22.5°	1949.7	1953.2	1952.7	1966.9	1970.9
25°	1906.2	1907.8	1909.8	1925.9	1929.0
27.5°	1858.2	1860.8	1864.3	1879.0	1882.0
30°	1805.7	1809.7	1813.8	1828.9	1833.0
32.5°	1750.1	1754.2	1759.2	1778.9	1780.9
35°	1687.5	1695.1	1702.1	1719.3	1726.4
37.5°	1624.8	1634.4	1641.0	1659.2	1664.7
40°	1558.6	1568.2	1578.8	1598.0	1601.6
42.5°	1489.4	1500.5	1513.2	1530.3	1536.4
45°	1419.7	1432.3	1444.0	1458.1	1465.2
47.5°	1344.4	1357.1	1371.2	1387.4	1391.9
50°	1266.6	1281.3	1296.4	1311.6	1319.7
52.5°	1186.8	1204.5	1221.7	1237.8	1245.4
55°	1108.0	1121.1	1141.8	1158.5	1166.1
57.5°	1026.1	1037.2	1055.9	1083.2	1087.3
60°	942.8	952.9	972.1	994.3	1003.4
62.5°	850.8	864.5	884.7	913.0	921.0
65°	761.4	774.5	801.3	833.1	846.3
67.5°	675.0	679.5	713.9	747.2	768.5
70°	572.9	590.1	630.0	670.9	687.1
72.5°	485.0	502.2	546.2	594.2	614.4
75°	385.5	409.2	468.9	524.9	544.6
77.5°	298.1	324.4	398.1	454.7	477.4
80°	208.2	249.1	329.4	393.1	417.8
82.5°	130.9	181.4	267.3	334.0	355.7
85°	66.7	123.3	211.7	279.9	304.7
87.5°	17.7	79.8	164.7	229.9	255.1
90°	0.5	46.0	124.8	187.4	210.2
92.5°	0.5	25.8	93.0	149.0	172.3
95°	0.5	12.1	64.7	117.2	135.4
97.5°	0.5	5.1	44.5	88.4	106.6
100°	0.5	2.5	28.3	64.2	79.8
102.5°	1.0	1.5	17.7	46.0	58.6
105°	1.0	1.5	10.6	31.3	41.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.5	1.5	2.0	8.6	12.6
115°	1.5	1.5	2.0	5.6	8.1
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°	1.0	1.5	6.1	21.2	28.8
110°	1.5	1.5	3.5	13.1	19.2



(END OF REPORT)