

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: P580543

Luminaire Tested: **HVSL4-3-LD4-2HI-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580543
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: HVSL4-3-LD4-2HI-40-UNV-O-EDD-90
Description: 3 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

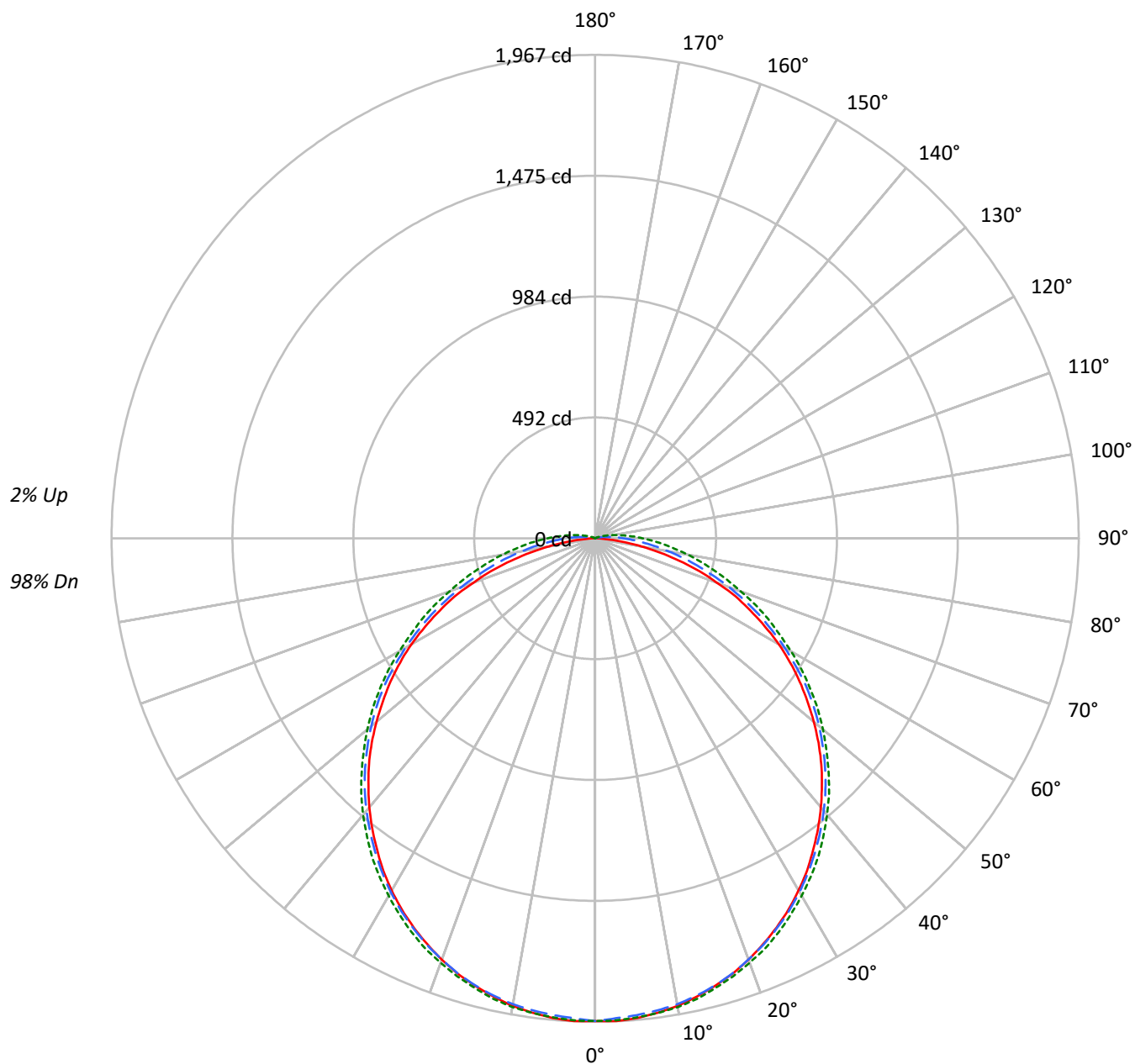
Lumens per Lamp: N/A
Luminaire Lumens: 5939.0 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 3' x H: 0.17')
CIE Type: Direct

Input Watts (W): 64.7
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°	21144	21144	21144
5°	21076	20345	20258
10°	20910	19676	19455
15°	20703	18992	18611
20°	20484	18279	17810
25°	20226	17569	17026
30°	19930	16842	16202
35°	19562	16076	15398
40°	19178	15291	14529
45°	18765	14463	13626
50°	18233	13552	12690
55°	17656	12580	11700
60°	16969	11412	10608
65°	15880	10151	9532
70°	14337	8738	8348
75°	12170	7246	7243
80°	8993	5797	6187
85°	4615	4363	5134



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.9	3.1
10°-20°	533.2	9.0
20°-30°	809.0	13.6
30°-40°	978.2	16.5
40°-50°	1020.7	17.2
50°-60°	933.2	15.7
60°-70°	727.5	12.2
70°-80°	455.1	7.7
80°-90°	206.7	3.5
90°-100°	69.3	1.2
100°-110°	17.4	0.3
110°-120°	2.7	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°	1528.1	25.7
0°-40°	2506.3	42.2
0°-60°	4460.3	75.1
0°-90°	5849.6	98.5
90°-120°	89.4	1.5
90°-150°	89.4	1.5
90°-180°	89.0	1.5
0°-180°	5939.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1964	1964	1964	1964	1964	
5°	1960	1956	1948	1957	1957	186
15°	1886	1889	1884	1894	1894	532
25°	1747	1748	1750	1765	1768	805
35°	1547	1554	1560	1576	1582	968
45°	1301	1313	1323	1336	1343	1003
55°	1016	1028	1046	1062	1069	907
65°	698	710	734	764	776	690
75°	353	375	430	481	499	377
85°	61	113	194	256	279	77
90°	0	42	114	172	193	2
95°	0	11	59	107	124	0
105°	1	1	10	29	38	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°	1964.3	1964.3	1964.3	1964.3	1964.3
2.5°	1966.6	1963.8	1955.0	1963.8	1963.3
5°	1960.1	1956.4	1947.6	1956.9	1956.9
7.5°	1947.1	1945.7	1937.9	1948.5	1948.5
10°	1931.8	1931.4	1924.9	1936.5	1936.9
12.5°	1910.5	1912.4	1906.4	1917.5	1918.9
15°	1885.5	1888.8	1883.7	1894.3	1893.9
17.5°	1858.2	1860.1	1856.4	1868.4	1867.9
20°	1824.4	1826.7	1824.0	1836.5	1837.8
22.5°	1786.9	1790.2	1789.7	1802.7	1806.4
25°	1747.1	1748.5	1750.3	1765.2	1767.9
27.5°	1703.1	1705.4	1708.7	1722.1	1724.9
30°	1654.9	1658.6	1662.4	1676.2	1679.9
32.5°	1604.0	1607.7	1612.3	1630.4	1632.3
35°	1546.6	1553.5	1560.0	1575.8	1582.2
37.5°	1489.2	1498.0	1504.0	1520.7	1525.8
40°	1428.5	1437.3	1447.0	1464.6	1467.9
42.5°	1365.1	1375.3	1386.8	1402.6	1408.1
45°	1301.2	1312.7	1323.4	1336.4	1342.8
47.5°	1232.2	1243.8	1256.7	1271.5	1275.7
50°	1160.9	1174.3	1188.2	1202.1	1209.5
52.5°	1087.7	1103.9	1119.7	1134.5	1141.4
55°	1015.5	1027.5	1046.5	1061.8	1068.7
57.5°	940.5	950.6	967.8	992.8	996.5
60°	864.1	873.3	890.9	911.3	919.6
62.5°	779.8	792.3	810.8	836.7	844.1
65°	697.8	709.9	734.4	763.6	775.6
67.5°	618.6	622.8	654.3	684.9	704.3
70°	525.1	540.8	577.4	614.9	629.7
72.5°	444.5	460.3	500.6	544.5	563.1
75°	353.3	375.1	429.7	481.1	499.2
77.5°	273.2	297.3	364.9	416.7	437.6
80°	190.8	228.3	301.9	360.3	382.9
82.5°	119.9	166.2	245.0	306.1	326.0
85°	61.1	113.0	194.0	256.5	279.2
87.5°	16.2	73.2	151.0	210.7	233.8
90°	0.5	42.1	114.4	171.8	192.6
92.5°	0.5	23.6	85.2	136.6	157.9
95°	0.5	11.1	59.3	107.4	124.1
97.5°	0.5	4.6	40.7	81.0	97.7
100°	0.5	2.3	25.9	58.8	73.2
102.5°	0.9	1.4	16.2	42.1	53.7
105°	0.9	1.4	9.7	28.7	38.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.4	1.4	1.9	7.9	11.6
115°	1.4	1.4	1.9	5.1	7.4
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	19.4	26.4
110°	1.4	1.4	3.2	12.0	17.6



(END OF REPORT)