

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: P580647

Luminaire Tested: **HVSL4-8-LD4-2LO-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580647
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: HVSL4-8-LD4-2LO-40-UNV-O-EDD-90
Description: 8 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

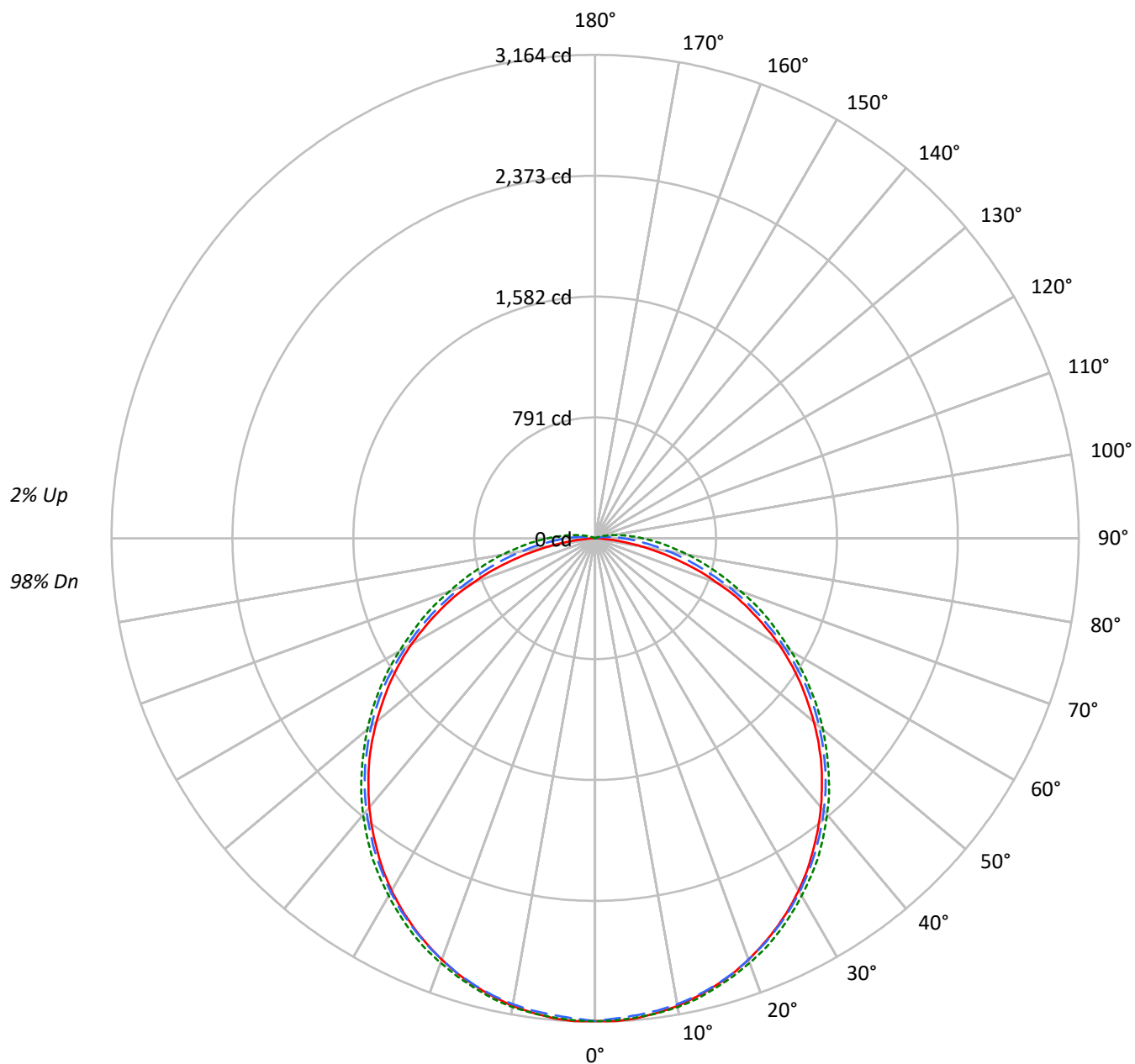
Lumens per Lamp: N/A
Luminaire Lumens: 9554.0 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 8' x H: 0.17')
CIE Type: Direct

Input Watts (W): 92.4
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

TEST NUMBER: P580647

CATALOG NUMBER: HVSL4-8-LD4-2LO-40-UNV-O-EDD-90

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°	12755	12755	12755
5°	12753	12299	12221
10°	12691	11918	11736
15°	12605	11526	11227
20°	12512	11114	10744
25°	12397	10702	10271
30°	12261	10278	9774
35°	12084	9831	9289
40°	11901	9370	8764
45°	11705	8881	8220
50°	11443	8341	7656
55°	11164	7763	7058
60°	10830	7064	6400
65°	10263	6304	5750
70°	9429	5449	5036
75°	8225	4540	4369
80°	6380	3655	3733
85°	3677	2774	3098



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	299.0	3.1
10°-20°	857.7	9.0
20°-30°	1301.5	13.6
30°-40°	1573.7	16.5
40°-50°	1642.0	17.2
50°-60°	1501.3	15.7
60°-70°	1170.3	12.2
70°-80°	732.1	7.7
80°-90°	332.5	3.5
90°-100°	111.4	1.2
100°-110°	28.0	0.3
110°-120°	4.4	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°	2458.2	25.7
0°-40°	4031.9	42.2
0°-60°	7175.2	75.1
0°-90°	9410.2	98.5
90°-120°	143.8	1.5
90°-150°	143.8	1.5
90°-180°	144.0	1.5
0°-180°	9554.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3160	3160	3160	3160	3160	
5°	3153	3147	3133	3148	3148	299
15°	3033	3038	3030	3047	3047	856
25°	2810	2813	2816	2840	2844	1295
35°	2488	2499	2510	2535	2545	1557
45°	2093	2112	2129	2150	2160	1613
55°	1634	1653	1684	1708	1719	1459
65°	1123	1142	1181	1228	1248	1111
75°	568	603	691	774	803	606
85°	98	182	312	413	449	124
90°	1	68	184	276	310	4
95°	1	18	95	173	200	1
105°	2	2	16	46	62	2
115°	2	2	3	8	12	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: P580647

CATALOG NUMBER: HVSL4-8-LD4-2LO-40-UNV-O-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3159.9	3159.9	3159.9	3159.9	3159.9
2.5°	3163.6	3159.1	3145.0	3159.1	3158.4
5°	3153.2	3147.2	3133.1	3148.0	3148.0
7.5°	3132.3	3130.1	3117.4	3134.6	3134.6
10°	3107.7	3107.0	3096.6	3115.2	3115.9
12.5°	3073.5	3076.5	3066.8	3084.7	3086.9
15°	3033.3	3038.5	3030.3	3047.4	3046.7
17.5°	2989.3	2992.3	2986.3	3005.7	3004.9
20°	2934.9	2938.6	2934.2	2954.3	2956.5
22.5°	2874.6	2879.8	2879.1	2899.9	2905.9
25°	2810.5	2812.8	2815.7	2839.6	2844.0
27.5°	2739.8	2743.5	2748.7	2770.3	2774.8
30°	2662.3	2668.2	2674.2	2696.6	2702.5
32.5°	2580.4	2586.3	2593.8	2622.8	2625.8
35°	2488.0	2499.2	2509.6	2534.9	2545.3
37.5°	2395.6	2409.8	2419.5	2446.3	2454.5
40°	2298.0	2312.2	2327.8	2356.1	2361.3
42.5°	2196.0	2212.4	2231.0	2256.3	2265.3
45°	2093.2	2111.8	2128.9	2149.8	2160.2
47.5°	1982.2	2000.8	2021.7	2045.5	2052.2
50°	1867.5	1889.1	1911.4	1933.8	1945.7
52.5°	1749.8	1775.9	1801.2	1825.0	1836.2
55°	1633.6	1652.9	1683.5	1708.1	1719.2
57.5°	1512.9	1529.3	1556.9	1597.1	1603.0
60°	1390.0	1404.9	1433.2	1466.0	1479.4
62.5°	1254.4	1274.5	1304.3	1346.0	1358.0
65°	1122.6	1141.9	1181.4	1228.3	1247.7
67.5°	995.2	1001.9	1052.6	1101.7	1133.0
70°	844.7	870.0	928.9	989.2	1013.1
72.5°	715.1	740.4	805.2	876.0	905.8
75°	568.4	603.4	691.3	774.0	803.0
77.5°	439.5	478.2	587.0	670.4	703.9
80°	306.9	367.2	485.7	579.5	616.0
82.5°	192.9	267.4	394.1	492.4	524.4
85°	98.3	181.8	312.1	412.7	449.2
87.5°	26.1	117.7	242.8	338.9	376.2
90°	0.7	67.8	184.0	276.4	309.9
92.5°	0.7	38.0	137.1	219.7	254.0
95°	0.7	17.9	95.3	172.8	199.6
97.5°	0.7	7.4	65.6	130.4	157.2
100°	0.7	3.7	41.7	94.6	117.7
102.5°	1.5	2.2	26.1	67.8	86.4
105°	1.5	2.2	15.6	46.2	61.8



TEST NUMBER: P580647

CATALOG NUMBER: HVSL4-8-LD4-2LO-40-UNV-O-EDD-90

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.2	2.2	3.0	12.7	18.6
115°	2.2	2.2	3.0	8.2	11.9
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°	1.5	2.2	8.9	31.3	42.5
110°	2.2	2.2	5.2	19.4	28.3



(END OF REPORT)