

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: P580198

Luminaire Tested: **HVSL12-4-LD4-1STD-35-UNV-O-EDD**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580198
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: HVSL12-4-LD4-1STD-35-UNV-O-EDD
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

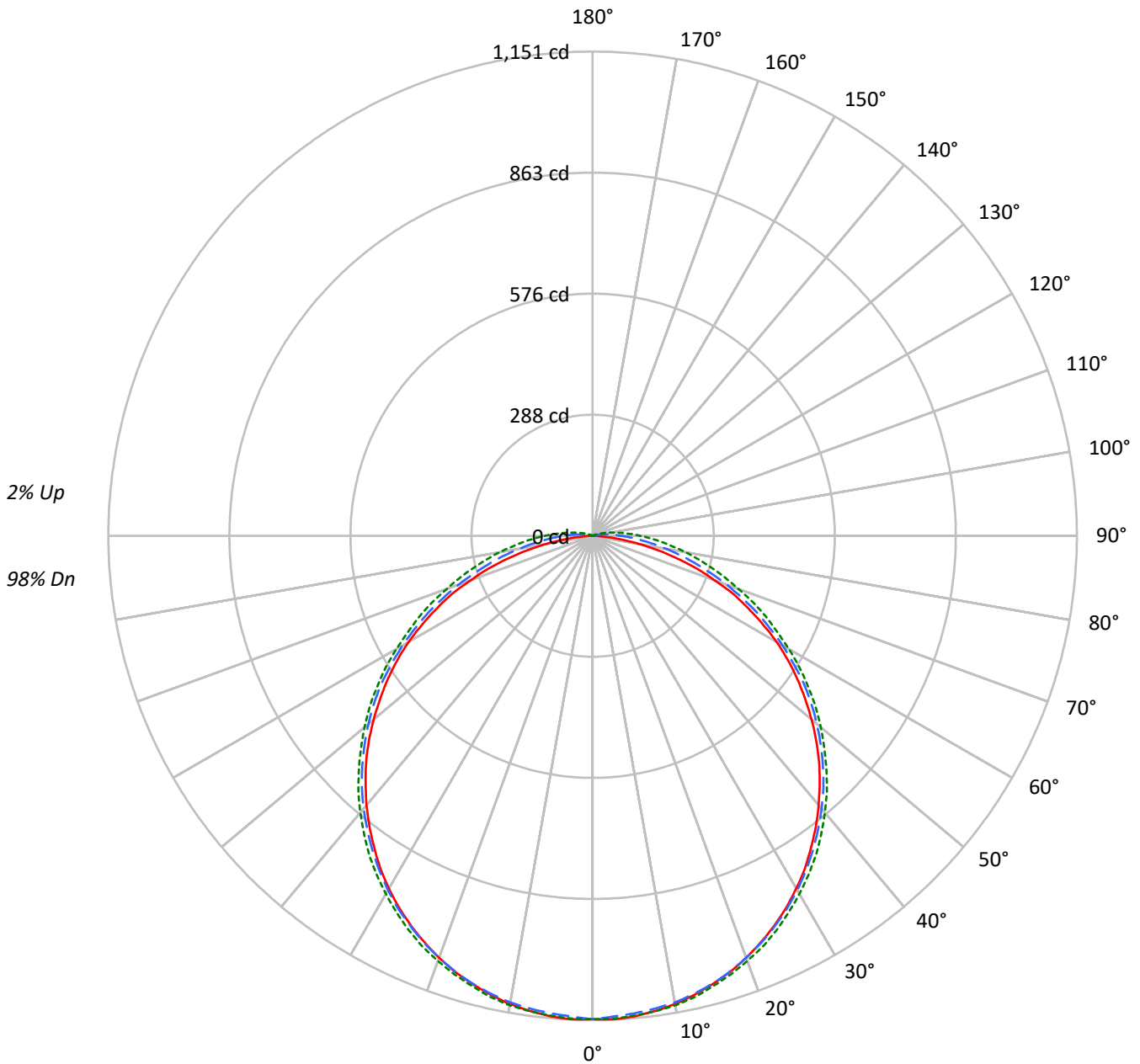
Lumens per Lamp: N/A
Luminaire Lumens: 3475.0 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 34.5
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: P580198

CATALOG NUMBER: HVSL12-4-LD4-1STD-35-UNV-O-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P580198

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
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°	3093	3093	3093
5°	3087	3039	3048
10°	3066	3000	3008
15°	3040	2954	2955
20°	3011	2901	2903
25°	2978	2845	2850
30°	2938	2785	2786
35°	2888	2718	2723
40°	2837	2647	2647
45°	2781	2568	2563
50°	2709	2476	2472
55°	2631	2373	2370
60°	2538	2235	2247
65°	2387	2079	2129
70°	2169	1892	1989
75°	1860	1686	1872
80°	1399	1492	1785
85°	749	1306	1736



TEST NUMBER: P580198

CATALOG NUMBER: HVSL12-4-LD4-1STD-35-UNV-O-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.8	3.1
10°-20°	312.0	9.0
20°-30°	473.4	13.6
30°-40°	572.4	16.5
40°-50°	597.2	17.2
50°-60°	546.1	15.7
60°-70°	425.7	12.2
70°-80°	266.3	7.7
80°-90°	120.9	3.5
90°-100°	40.5	1.2
100°-110°	10.2	0.3
110°-120°	1.6	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°	894.1	25.7
0°-40°	1466.5	42.2
0°-60°	2609.8	75.1
0°-90°	3422.7	98.5
90°-120°	52.3	1.5
90°-150°	52.3	1.5
90°-180°	52.0	1.5
0°-180°	3475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1149	1149	1149	1149	1149	
5°	1147	1145	1140	1145	1145	109
15°	1103	1105	1102	1108	1108	311
25°	1022	1023	1024	1033	1034	471
35°	905	909	913	922	926	566
45°	761	768	774	782	786	587
55°	594	601	612	621	625	531
65°	408	415	430	447	454	404
75°	207	220	251	282	292	220
85°	36	66	114	150	163	45
90°	0	25	67	100	113	1
95°	0	6	35	63	73	0
105°	0	1	6	17	22	1
115°	1	1	1	3	4	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: P580198

CATALOG NUMBER: HVSL12-4-LD4-1STD-35-UNV-O-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1149.3	1149.3	1149.3	1149.3	1149.3
2.5°	1150.7	1149.0	1143.9	1149.0	1148.8
5°	1146.9	1144.7	1139.6	1145.0	1145.0
7.5°	1139.3	1138.5	1133.9	1140.1	1140.1
10°	1130.4	1130.1	1126.3	1133.1	1133.3
12.5°	1117.9	1119.0	1115.5	1122.0	1122.8
15°	1103.3	1105.2	1102.2	1108.4	1108.1
17.5°	1087.3	1088.4	1086.2	1093.2	1093.0
20°	1067.5	1068.9	1067.2	1074.5	1075.4
22.5°	1045.6	1047.4	1047.2	1054.8	1056.9
25°	1022.3	1023.1	1024.1	1032.8	1034.4
27.5°	996.5	997.9	999.8	1007.6	1009.2
30°	968.3	970.5	972.7	980.8	983.0
32.5°	938.5	940.7	943.4	954.0	955.1
35°	904.9	909.0	912.8	922.0	925.8
37.5°	871.3	876.5	880.0	889.8	892.7
40°	835.8	841.0	846.7	857.0	858.9
42.5°	798.7	804.7	811.5	820.7	823.9
45°	761.3	768.1	774.3	781.9	785.7
47.5°	721.0	727.7	735.3	744.0	746.4
50°	679.2	687.1	695.2	703.4	707.7
52.5°	636.4	645.9	655.1	663.8	667.9
55°	594.2	601.2	612.3	621.3	625.3
57.5°	550.3	556.2	566.3	580.9	583.1
60°	505.6	511.0	521.3	533.2	538.1
62.5°	456.3	463.6	474.4	489.6	493.9
65°	408.3	415.3	429.7	446.8	453.8
67.5°	362.0	364.4	382.8	400.7	412.1
70°	307.2	316.5	337.9	359.8	368.5
72.5°	260.1	269.3	292.9	318.6	329.5
75°	206.7	219.5	251.4	281.5	292.1
77.5°	159.9	173.9	213.5	243.8	256.0
80°	111.6	133.6	176.7	210.8	224.1
82.5°	70.2	97.3	143.3	179.1	190.7
85°	35.8	66.1	113.5	150.1	163.4
87.5°	9.5	42.8	88.3	123.3	136.8
90°	0.3	24.7	66.9	100.5	112.7
92.5°	0.3	13.8	49.9	79.9	92.4
95°	0.3	6.5	34.7	62.9	72.6
97.5°	0.3	2.7	23.8	47.4	57.2
100°	0.3	1.4	15.2	34.4	42.8
102.5°	0.5	0.8	9.5	24.7	31.4
105°	0.5	0.8	5.7	16.8	22.5



TEST NUMBER: P580198

CATALOG NUMBER: HVSL12-4-LD4-1STD-35-UNV-O-EDD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.8	0.8	1.1	4.6	6.8
115°	0.8	0.8	1.1	3.0	4.3
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°	0.5	0.8	3.3	11.4	15.4
110°	0.8	0.8	1.9	7.0	10.3



(END OF REPORT)