

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: P580232

Luminaire Tested: **HVSL12-4-LD4-3HI-40-UNV-O-EDD**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580232
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-LD4-3HI-40-UNV-O-EDD
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

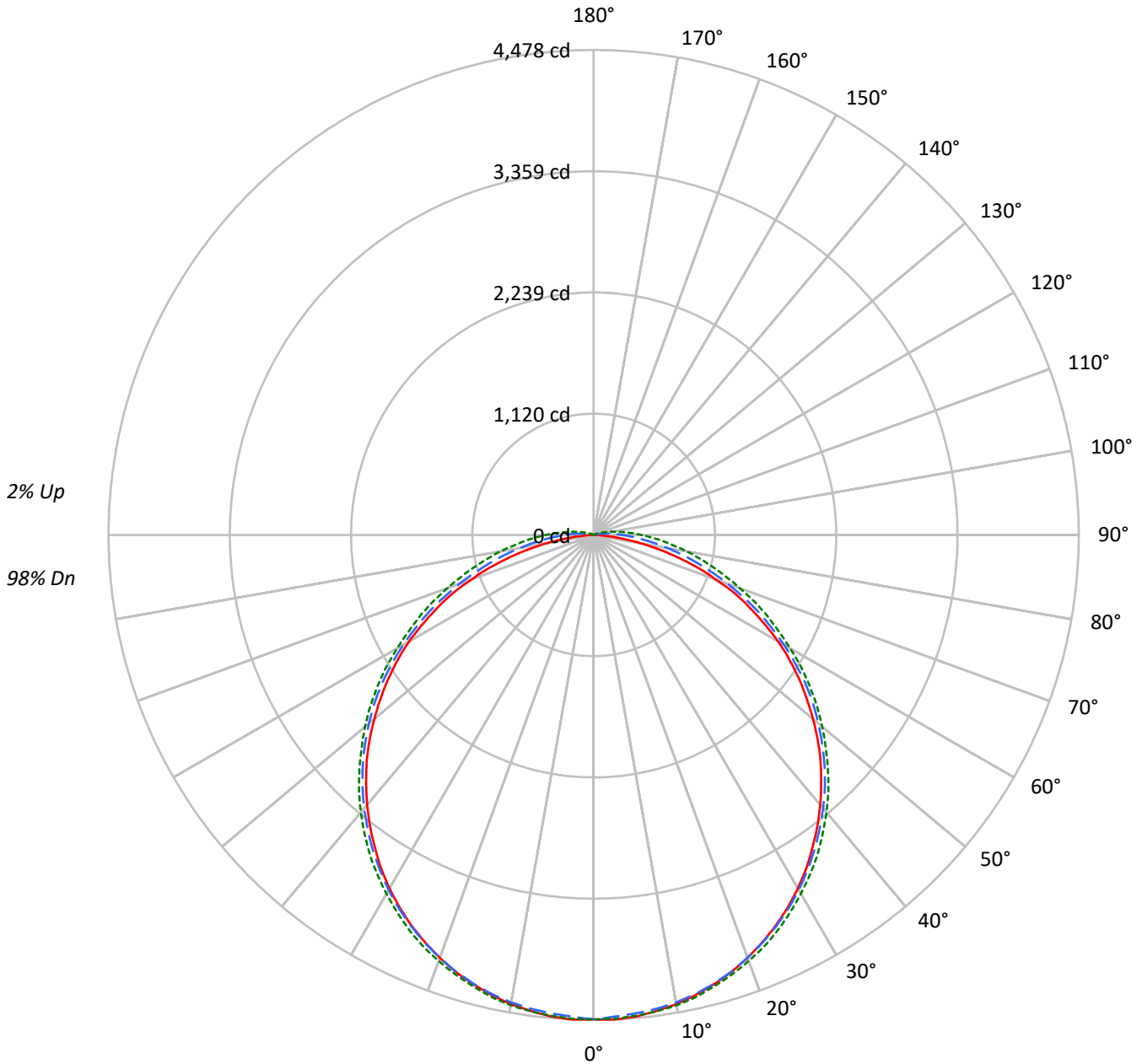
Lumens per Lamp: N/A
Luminaire Lumens: 13525.0 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 133.3
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: P580232

CATALOG NUMBER: HVSL12-4-LD4-3HI-40-UNV-O-EDD

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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°	12038	12038	12038
5°	12014	11828	11865
10°	11934	11675	11709
15°	11831	11497	11502
20°	11720	11289	11300
25°	11588	11074	11092
30°	11436	10841	10844
35°	11242	10579	10600
40°	11042	10302	10302
45°	10826	9996	9975
50°	10544	9636	9620
55°	10240	9237	9223
60°	9877	8699	8746
65°	9289	8092	8285
70°	8442	7365	7739
75°	7240	6565	7286
80°	5446	5804	6947
85°	2911	5082	6758



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	423.3	3.1
10°-20°	1214.2	9.0
20°-30°	1842.4	13.6
30°-40°	2227.8	16.5
40°-50°	2324.5	17.2
50°-60°	2125.3	15.7
60°-70°	1656.8	12.2
70°-80°	1036.4	7.7
80°-90°	470.7	3.5
90°-100°	157.8	1.2
100°-110°	39.6	0.3
110°-120°	6.2	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°	3479.9	25.7
0°-40°	5707.7	42.2
0°-60°	10157.5	75.1
0°-90°	13321.4	98.5
90°-120°	203.6	1.5
90°-150°	203.6	1.5
90°-180°	204.0	1.5
0°-180°	13525.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4473	4473	4473	4473	4473	
5°	4464	4455	4435	4456	4456	424
15°	4294	4301	4290	4314	4313	1212
25°	3979	3982	3986	4020	4026	1833
35°	3522	3538	3553	3588	3603	2204
45°	2963	2990	3014	3043	3058	2283
55°	2313	2340	2383	2418	2434	2066
65°	1589	1617	1672	1739	1766	1572
75°	805	854	979	1096	1137	858
85°	139	257	442	584	636	176
90°	1	96	260	391	439	6
95°	1	25	135	245	283	1
105°	2	3	22	65	88	2
115°	3	3	4	12	17	2
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	0



TEST NUMBER: P580232

CATALOG NUMBER: HVSL12-4-LD4-3HI-40-UNV-O-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4473.3	4473.3	4473.3	4473.3	4473.3
2.5°	4478.5	4472.2	4452.2	4472.2	4471.1
5°	4463.8	4455.3	4435.3	4456.4	4456.4
7.5°	4434.2	4431.1	4413.1	4437.4	4437.4
10°	4399.4	4398.4	4383.6	4410.0	4411.0
12.5°	4350.9	4355.1	4341.4	4366.7	4369.9
15°	4294.0	4301.4	4289.8	4314.0	4313.0
17.5°	4231.8	4236.0	4227.6	4255.0	4253.9
20°	4154.8	4160.1	4153.7	4182.2	4185.4
22.5°	4069.4	4076.8	4075.7	4105.2	4113.7
25°	3978.7	3981.8	3986.1	4019.8	4026.1
27.5°	3878.5	3883.8	3891.2	3921.7	3928.1
30°	3768.8	3777.3	3785.7	3817.3	3825.8
32.5°	3652.8	3661.3	3671.8	3712.9	3717.2
35°	3522.1	3537.9	3552.7	3588.5	3603.3
37.5°	3391.3	3411.4	3425.1	3463.0	3474.6
40°	3253.2	3273.2	3295.4	3335.4	3342.8
42.5°	3108.7	3131.9	3158.3	3194.1	3206.8
45°	2963.2	2989.6	3013.8	3043.3	3058.1
47.5°	2806.1	2832.4	2862.0	2895.7	2905.2
50°	2643.7	2674.3	2705.9	2737.5	2754.4
52.5°	2477.1	2514.0	2549.8	2583.6	2599.4
55°	2312.6	2340.0	2383.2	2418.0	2433.8
57.5°	2141.7	2164.9	2203.9	2260.9	2269.3
60°	1967.7	1988.8	2028.9	2075.3	2094.3
62.5°	1775.8	1804.3	1846.5	1905.5	1922.4
65°	1589.2	1616.6	1672.5	1738.9	1766.3
67.5°	1408.8	1418.3	1490.0	1559.6	1603.9
70°	1195.8	1231.7	1315.0	1400.4	1434.1
72.5°	1012.3	1048.2	1139.9	1240.1	1282.3
75°	804.6	854.2	978.6	1095.6	1136.8
77.5°	622.2	677.0	831.0	949.1	996.5
80°	434.5	519.9	687.5	820.4	872.1
82.5°	273.1	378.6	557.8	697.0	742.4
85°	139.2	257.3	441.8	584.2	635.9
87.5°	36.9	166.6	343.8	479.8	532.5
90°	1.1	96.0	260.5	391.2	438.7
92.5°	1.1	53.8	194.0	311.1	359.6
95°	1.1	25.3	135.0	244.6	282.6
97.5°	1.1	10.5	92.8	184.5	222.5
100°	1.1	5.3	59.1	133.9	166.6
102.5°	2.1	3.2	36.9	96.0	122.3
105°	2.1	3.2	22.1	65.4	87.5



TEST NUMBER: P580232

CATALOG NUMBER: HVSL12-4-LD4-3HI-40-UNV-O-EDD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.2	3.2	4.2	17.9	26.4
115°	3.2	3.2	4.2	11.6	16.9
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°	2.1	3.2	12.7	44.3	60.1
110°	3.2	3.2	7.4	27.4	40.1



(END OF REPORT)