

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: P580181

Luminaire Tested: **HVSL12-4-LD4-1HI-35-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580181
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-LD4-1HI-35-UNV-O-EDD-90
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

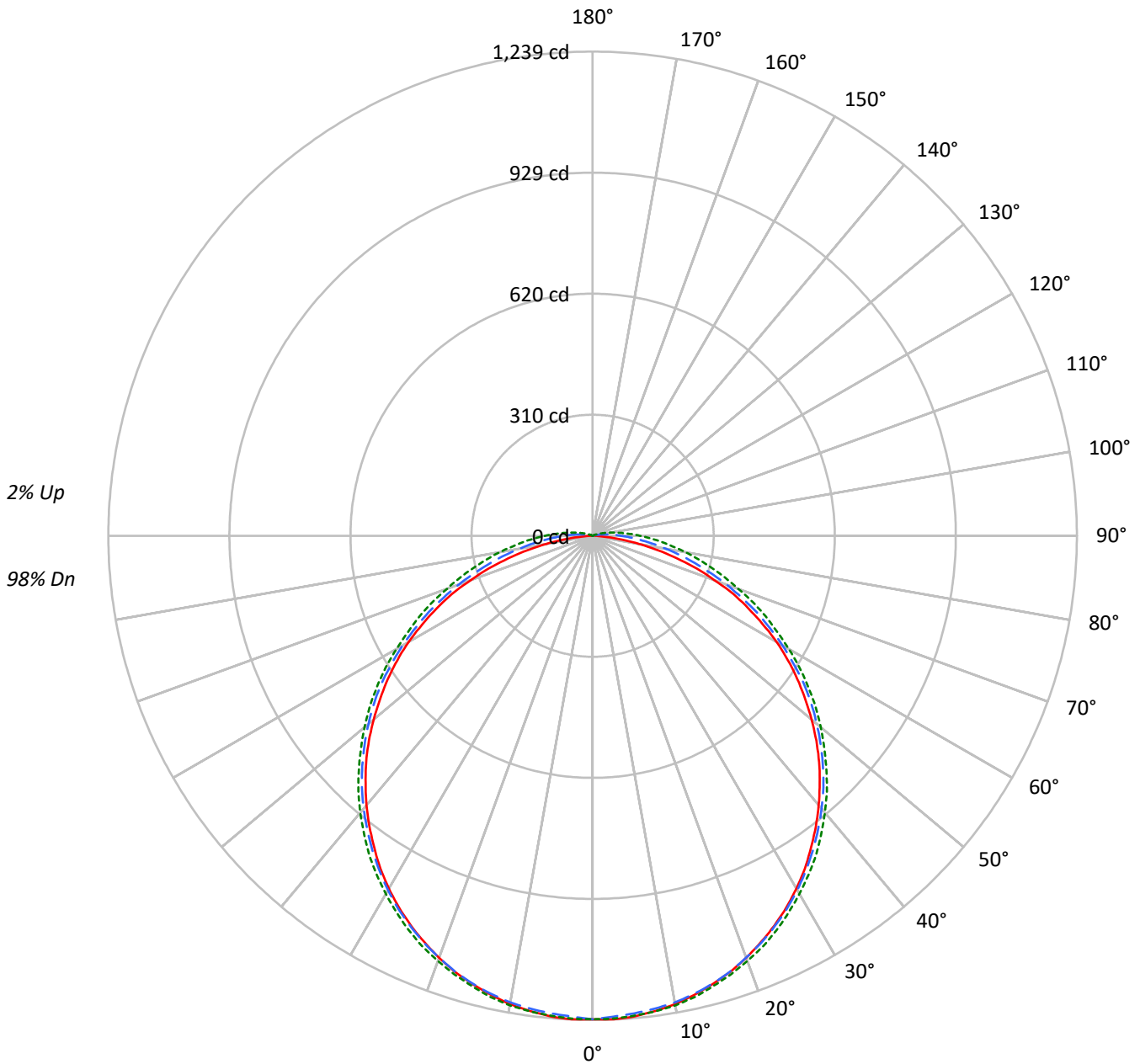
Lumens per Lamp: N/A
Luminaire Lumens: 3741.0 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 45.5
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

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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°	3330	3330	3330
5°	3323	3272	3282
10°	3301	3229	3239
15°	3272	3180	3181
20°	3242	3123	3126
25°	3205	3063	3068
30°	3163	2999	2999
35°	3110	2926	2932
40°	3054	2850	2849
45°	2994	2765	2759
50°	2916	2665	2661
55°	2832	2555	2551
60°	2732	2406	2419
65°	2569	2238	2292
70°	2335	2037	2141
75°	2003	1816	2015
80°	1507	1606	1921
85°	805	1406	1869



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.1	3.1
10°-20°	335.9	9.0
20°-30°	509.6	13.6
30°-40°	616.2	16.5
40°-50°	643.0	17.2
50°-60°	587.9	15.7
60°-70°	458.3	12.2
70°-80°	286.7	7.7
80°-90°	130.2	3.5
90°-100°	43.6	1.2
100°-110°	11.0	0.3
110°-120°	1.7	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°	962.5	25.7
0°-40°	1578.7	42.2
0°-60°	2809.6	75.1
0°-90°	3684.7	98.5
90°-120°	56.3	1.5
90°-150°	56.3	1.5
90°-180°	56.0	1.5
0°-180°	3741.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1235	1232	1227	1233	1233	117
15°	1188	1190	1186	1193	1193	335
25°	1100	1101	1102	1112	1114	507
35°	974	979	983	993	997	610
45°	820	827	834	842	846	632
55°	640	647	659	669	673	571
65°	440	447	463	481	489	435
75°	223	236	271	303	314	237
85°	38	71	122	162	176	49
90°	0	26	72	108	121	2
95°	0	7	37	68	78	0
105°	1	1	6	18	24	1
115°	1	1	1	3	5	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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1238.8	1237.0	1231.5	1237.0	1236.7
5°	1234.7	1232.3	1226.8	1232.6	1232.6
7.5°	1226.5	1225.6	1220.7	1227.4	1227.4
10°	1216.9	1216.6	1212.5	1219.8	1220.1
12.5°	1203.5	1204.6	1200.8	1207.8	1208.7
15°	1187.7	1189.8	1186.5	1193.3	1193.0
17.5°	1170.5	1171.7	1169.3	1176.9	1176.6
20°	1149.2	1150.7	1148.9	1156.8	1157.7
22.5°	1125.6	1127.6	1127.3	1135.5	1137.8
25°	1100.5	1101.4	1102.5	1111.9	1113.6
27.5°	1072.8	1074.2	1076.3	1084.7	1086.5
30°	1042.5	1044.8	1047.1	1055.9	1058.2
32.5°	1010.4	1012.7	1015.6	1027.0	1028.2
35°	974.2	978.6	982.7	992.6	996.7
37.5°	938.0	943.6	947.4	957.9	961.1
40°	899.8	905.4	911.5	922.6	924.6
42.5°	859.9	866.3	873.6	883.5	887.0
45°	819.6	826.9	833.6	841.8	845.9
47.5°	776.2	783.4	791.6	800.9	803.6
50°	731.2	739.7	748.4	757.2	761.9
52.5°	685.2	695.4	705.3	714.6	719.0
55°	639.6	647.2	659.2	668.8	673.2
57.5°	592.4	598.8	609.6	625.4	627.7
60°	544.3	550.1	561.2	574.0	579.3
62.5°	491.2	499.1	510.7	527.1	531.7
65°	439.6	447.1	462.6	481.0	488.6
67.5°	389.7	392.3	412.1	431.4	443.6
70°	330.8	340.7	363.7	387.3	396.7
72.5°	280.0	289.9	315.3	343.0	354.7
75°	222.6	236.3	270.7	303.1	314.4
77.5°	172.1	187.3	229.8	262.5	275.6
80°	120.2	143.8	190.2	226.9	241.2
82.5°	75.5	104.7	154.3	192.8	205.3
85°	38.5	71.2	122.2	161.6	175.9
87.5°	10.2	46.1	95.1	132.7	147.3
90°	0.3	26.5	72.0	108.2	121.3
92.5°	0.3	14.9	53.7	86.0	99.5
95°	0.3	7.0	37.3	67.7	78.2
97.5°	0.3	2.9	25.7	51.0	61.5
100°	0.3	1.5	16.3	37.0	46.1
102.5°	0.6	0.9	10.2	26.5	33.8
105°	0.6	0.9	6.1	18.1	24.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.9	0.9	1.2	5.0	7.3
115°	0.9	0.9	1.2	3.2	4.7
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°	0.6	0.9	3.5	12.3	16.6
110°	0.9	0.9	2.0	7.6	11.1



(END OF REPORT)