

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: P580230

Luminaire Tested: **HVSL12-4-LD4-3HI-35-UNV-O-EDD**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580230
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-35-UNV-O-EDD
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

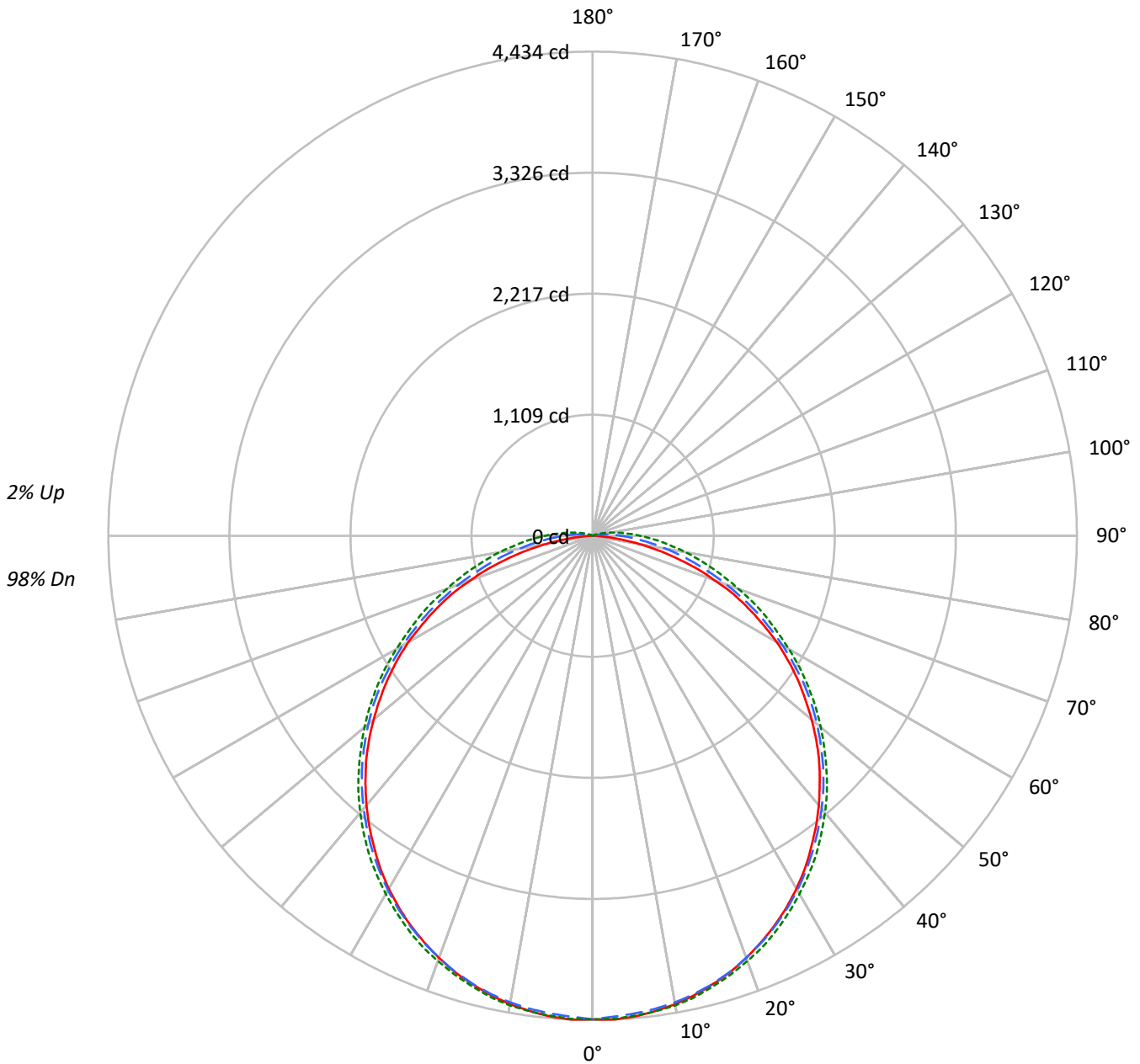
Lumens per Lamp: N/A
Luminaire Lumens: 13391.0 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.17')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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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°	11918	11918	11918
5°	11895	11711	11747
10°	11815	11559	11593
15°	11713	11383	11388
20°	11604	11178	11188
25°	11473	10965	10982
30°	11322	10734	10737
35°	11131	10475	10495
40°	10932	10200	10200
45°	10718	9897	9876
50°	10439	9541	9525
55°	10138	9146	9131
60°	9779	8613	8659
65°	9197	8012	8203
70°	8359	7292	7662
75°	7168	6500	7214
80°	5392	5747	6878
85°	2882	5033	6691



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.1	3.1
10°-20°	1202.2	9.0
20°-30°	1824.1	13.6
30°-40°	2205.7	16.5
40°-50°	2301.5	17.2
50°-60°	2104.2	15.7
60°-70°	1640.4	12.2
70°-80°	1026.1	7.7
80°-90°	466.1	3.5
90°-100°	156.2	1.2
100°-110°	39.2	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°	3445.5	25.7
0°-40°	5651.2	42.2
0°-60°	10056.9	75.1
0°-90°	13189.4	98.5
90°-120°	201.6	1.5
90°-150°	201.6	1.5
90°-180°	202.0	1.5
0°-180°	13391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4429	4429	4429	4429	4429	
5°	4420	4411	4391	4412	4412	420
15°	4251	4259	4247	4271	4270	1200
25°	3939	3942	3947	3980	3986	1815
35°	3487	3503	3518	3553	3568	2183
45°	2934	2960	2984	3013	3028	2261
55°	2290	2317	2360	2394	2410	2046
65°	1573	1601	1656	1722	1749	1557
75°	797	846	969	1085	1126	849
85°	138	255	438	578	630	174
90°	1	95	258	387	434	5
95°	1	25	134	242	280	1
105°	2	3	22	65	87	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4428.9	4428.9	4428.9	4428.9	4428.9
2.5°	4434.2	4427.9	4408.1	4427.9	4426.8
5°	4419.5	4411.2	4391.3	4412.2	4412.2
7.5°	4390.3	4387.2	4369.4	4393.4	4393.4
10°	4355.8	4354.8	4340.2	4366.3	4367.3
12.5°	4307.8	4312.0	4298.4	4323.5	4326.6
15°	4251.4	4258.8	4247.3	4271.3	4270.2
17.5°	4189.8	4194.0	4185.7	4212.8	4211.8
20°	4113.6	4118.8	4112.6	4140.8	4143.9
22.5°	4029.1	4036.4	4035.3	4064.6	4072.9
25°	3939.3	3942.4	3946.6	3980.0	3986.2
27.5°	3840.1	3845.3	3852.6	3882.9	3889.2
30°	3731.5	3739.8	3748.2	3779.5	3787.9
32.5°	3616.6	3625.0	3635.4	3676.2	3680.3
35°	3487.2	3502.8	3517.5	3553.0	3567.6
37.5°	3357.7	3377.6	3391.1	3428.7	3440.2
40°	3220.9	3240.8	3262.7	3302.4	3309.7
42.5°	3077.9	3100.9	3127.0	3162.5	3175.0
45°	2933.8	2959.9	2983.9	3013.2	3027.8
47.5°	2778.3	2804.4	2833.6	2867.0	2876.4
50°	2617.5	2647.8	2679.1	2710.4	2727.1
52.5°	2452.5	2489.1	2524.6	2558.0	2573.6
55°	2289.6	2316.8	2359.6	2394.0	2409.7
57.5°	2120.5	2143.5	2182.1	2238.5	2246.8
60°	1948.2	1969.1	2008.8	2054.7	2073.5
62.5°	1758.2	1786.4	1828.2	1886.6	1903.3
65°	1573.4	1600.6	1655.9	1721.7	1748.8
67.5°	1394.9	1404.3	1475.3	1544.2	1588.0
70°	1184.0	1219.5	1302.0	1386.5	1419.9
72.5°	1002.3	1037.8	1128.6	1227.8	1269.6
75°	796.6	845.7	968.9	1084.8	1125.5
77.5°	616.0	670.3	822.7	939.7	986.6
80°	430.2	514.7	680.7	812.3	863.4
82.5°	270.4	374.8	552.3	690.1	735.0
85°	137.8	254.8	437.5	578.4	629.6
87.5°	36.5	165.0	340.4	475.1	527.3
90°	1.0	95.0	257.9	387.3	434.3
92.5°	1.0	53.2	192.1	308.0	356.0
95°	1.0	25.1	133.6	242.2	279.8
97.5°	1.0	10.4	91.9	182.7	220.3
100°	1.0	5.2	58.5	132.6	165.0
102.5°	2.1	3.1	36.5	95.0	121.1
105°	2.1	3.1	21.9	64.7	86.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.1	3.1	4.2	17.7	26.1
115°	3.1	3.1	4.2	11.5	16.7
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°	2.1	3.1	12.5	43.9	59.5
110°	3.1	3.1	7.3	27.1	39.7



(END OF REPORT)