

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: P580373

Luminaire Tested: **HVSL2-4-LD4-HI-35-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580373  
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: HVSL2-4-LD4-HI-35-UNV-O-EDD-90  
Description: 4 FOOT, 2INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

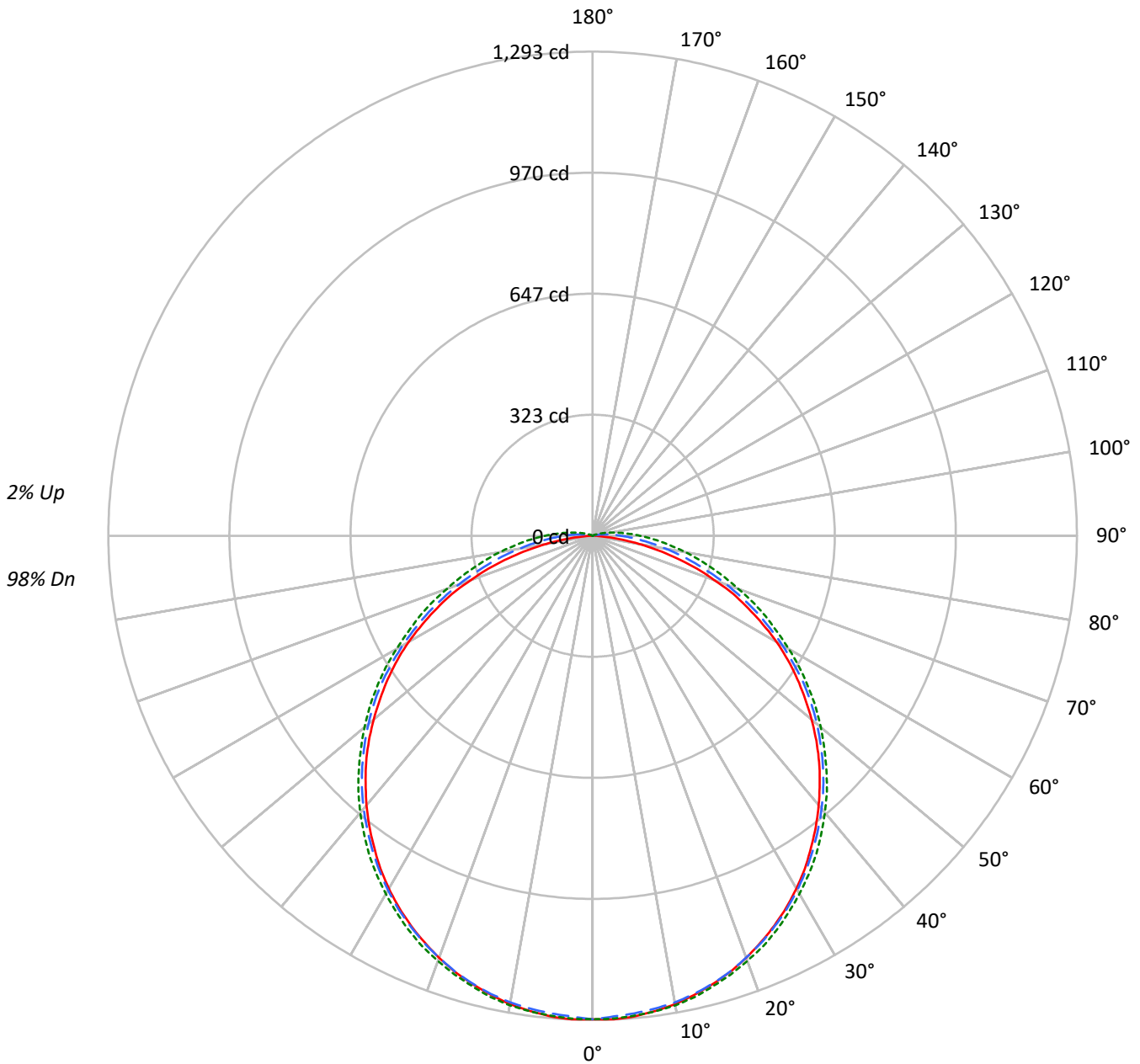
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3904.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 43.1  
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: P580373

CATALOG NUMBER: HVSL2-4-LD4-HI-35-UNV-O-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P580373

CATALOG NUMBER: HVSL2-4-LD4-HI-35-UNV-O-EDD-90

**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°	20848	20848	20848
5°	20808	19493	19170
10°	20668	18360	17745
15°	20490	17285	16411
20°	20299	16245	15218
25°	20070	15257	14118
30°	19806	14293	13051
35°	19471	13334	12057
40°	19123	12389	11057
45°	18748	11437	10077
50°	18261	10447	9111
55°	17734	9436	8143
60°	17107	8308	7144
65°	16087	7150	6193
70°	14622	5926	5214
75°	12536	4700	4325
80°	9431	3564	3507
85°	5044	2507	2734



TEST NUMBER: P580373

CATALOG NUMBER: HVSL2-4-LD4-HI-35-UNV-O-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.2	3.1
10°-20°	350.5	9.0
20°-30°	531.8	13.6
30°-40°	643.0	16.5
40°-50°	671.0	17.2
50°-60°	613.5	15.7
60°-70°	478.2	12.2
70°-80°	299.2	7.7
80°-90°	135.9	3.5
90°-100°	45.5	1.2
100°-110°	11.4	0.3
110°-120°	1.8	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°	1004.5	25.7
0°-40°	1647.5	42.2
0°-60°	2932.0	75.1
0°-90°	3845.2	98.5
90°-120°	58.8	1.5
90°-150°	58.8	1.5
90°-180°	59.0	1.5
0°-180°	3904.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1291	1291	1291	1291	1291	
5°	1288	1286	1280	1286	1286	122
15°	1240	1242	1238	1245	1245	350
25°	1148	1149	1151	1160	1162	529
35°	1017	1021	1026	1036	1040	636
45°	855	863	870	878	883	659
55°	668	675	688	698	702	596
65°	459	467	483	502	510	454
75°	232	247	282	316	328	248
85°	40	74	128	169	184	51
90°	0	28	75	113	127	2
95°	0	7	39	71	82	0
105°	1	1	6	19	25	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



TEST NUMBER: P580373

CATALOG NUMBER: HVSL2-4-LD4-HI-35-UNV-O-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1291.2	1291.2	1291.2	1291.2	1291.2
2.5°	1292.7	1290.9	1285.1	1290.9	1290.6
5°	1288.5	1286.0	1280.2	1286.3	1286.3
7.5°	1279.9	1279.0	1273.9	1280.9	1280.9
10°	1269.9	1269.6	1265.3	1272.9	1273.2
12.5°	1255.9	1257.1	1253.2	1260.5	1261.4
15°	1239.5	1241.6	1238.2	1245.2	1244.9
17.5°	1221.5	1222.7	1220.3	1228.2	1227.9
20°	1199.3	1200.8	1199.0	1207.2	1208.1
22.5°	1174.6	1176.8	1176.5	1185.0	1187.4
25°	1148.5	1149.4	1150.6	1160.3	1162.1
27.5°	1119.5	1121.1	1123.2	1132.0	1133.8
30°	1087.9	1090.3	1092.7	1101.9	1104.3
32.5°	1054.4	1056.8	1059.9	1071.7	1073.0
35°	1016.7	1021.2	1025.5	1035.8	1040.1
37.5°	978.9	984.7	988.6	999.6	1003.0
40°	939.0	944.8	951.2	962.8	964.9
42.5°	897.3	904.0	911.6	922.0	925.6
45°	855.3	862.9	869.9	878.5	882.7
47.5°	810.0	817.6	826.1	835.8	838.6
50°	763.1	771.9	781.1	790.2	795.1
52.5°	715.0	725.7	736.0	745.7	750.3
55°	667.5	675.4	687.9	698.0	702.5
57.5°	618.2	624.9	636.2	652.6	655.0
60°	568.0	574.1	585.6	599.0	604.5
62.5°	512.6	520.8	533.0	550.0	554.9
65°	458.7	466.6	482.8	501.9	509.8
67.5°	406.7	409.4	430.1	450.2	463.0
70°	345.2	355.5	379.6	404.2	414.0
72.5°	292.2	302.6	329.0	358.0	370.1
75°	232.2	246.6	282.5	316.3	328.1
77.5°	179.6	195.4	239.9	273.9	287.6
80°	125.4	150.1	198.5	236.8	251.7
82.5°	78.8	109.3	161.0	201.2	214.3
85°	40.2	74.3	127.5	168.6	183.5
87.5°	10.7	48.1	99.2	138.5	153.7
90°	0.3	27.7	75.2	112.9	126.6
92.5°	0.3	15.5	56.0	89.8	103.8
95°	0.3	7.3	39.0	70.6	81.6
97.5°	0.3	3.0	26.8	53.3	64.2
100°	0.3	1.5	17.0	38.7	48.1
102.5°	0.6	0.9	10.7	27.7	35.3
105°	0.6	0.9	6.4	18.9	25.3



TEST NUMBER: P580373

CATALOG NUMBER: HVSL2-4-LD4-HI-35-UNV-O-EDD-90

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.9	0.9	1.2	5.2	7.6
115°	0.9	0.9	1.2	3.3	4.9
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°	0.6	0.9	3.7	12.8	17.4
110°	0.9	0.9	2.1	7.9	11.6



(END OF REPORT)