

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: P580135

Luminaire Tested: **HVSL12-2-LD4-2HI-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580135  
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: HVSL12-2-LD4-2HI-40-UNV-O-EDD-90  
Description: 2 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

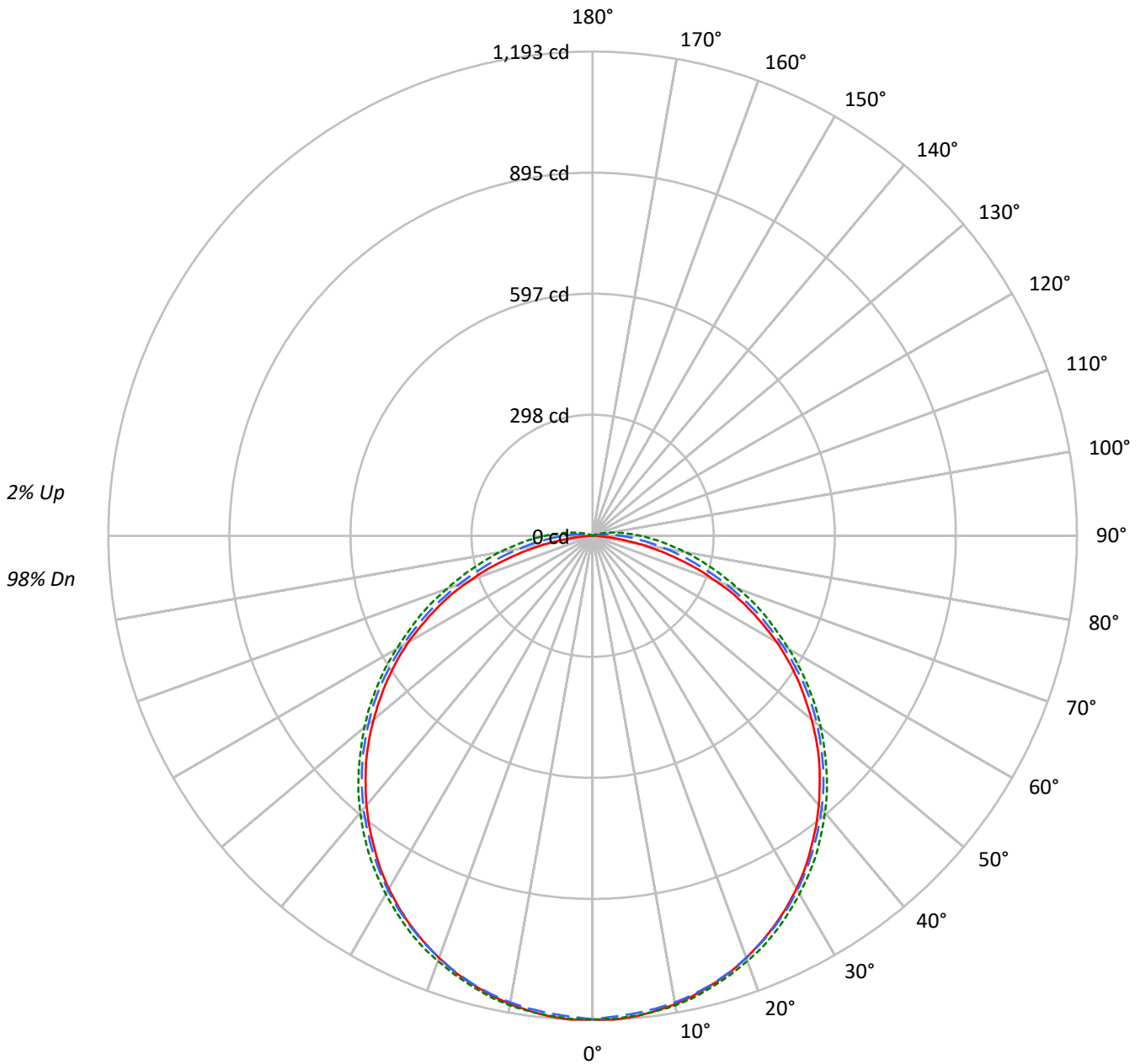
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3603.0 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 2' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 45.6  
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°	6414	6414	6414
5°	6378	6286	6322
10°	6312	6189	6239
15°	6234	6079	6128
20°	6152	5954	6021
25°	6059	5826	5909
30°	5953	5687	5778
35°	5825	5533	5647
40°	5690	5371	5489
45°	5546	5193	5315
50°	5364	4985	5126
55°	5166	4756	4914
60°	4931	4454	4660
65°	4573	4114	4414
70°	4079	3710	4123
75°	3399	3266	3882
80°	2435	2835	3701
85°	1173	2406	3600



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.8	3.1
10°-20°	323.5	9.0
20°-30°	490.8	13.6
30°-40°	593.5	16.5
40°-50°	619.2	17.2
50°-60°	566.2	15.7
60°-70°	441.3	12.2
70°-80°	276.1	7.7
80°-90°	125.4	3.5
90°-100°	42.0	1.2
100°-110°	10.5	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°	927.0	25.7
0°-40°	1520.5	42.2
0°-60°	2705.9	75.1
0°-90°	3548.7	98.5
90°-120°	54.2	1.5
90°-150°	54.2	1.5
90°-180°	54.0	1.5
0°-180°	3603.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1192	1192	1192	1192	1192	
5°	1189	1187	1182	1187	1187	113
15°	1144	1146	1143	1149	1149	323
25°	1060	1061	1062	1071	1072	488
35°	938	942	946	956	960	587
45°	789	796	803	811	815	608
55°	616	623	635	644	648	550
65°	423	431	446	463	470	419
75°	214	228	261	292	303	228
85°	37	68	118	156	169	47
90°	0	26	69	104	117	1
95°	0	7	36	65	75	0
105°	1	1	6	17	23	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	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1191.7	1191.7	1191.7	1191.7	1191.7
2.5°	1193.1	1191.4	1186.0	1191.4	1191.1
5°	1189.1	1186.9	1181.5	1187.2	1187.2
7.5°	1181.3	1180.4	1175.6	1182.1	1182.1
10°	1172.0	1171.7	1167.8	1174.8	1175.1
12.5°	1159.1	1160.2	1156.5	1163.3	1164.1
15°	1143.9	1145.9	1142.8	1149.2	1149.0
17.5°	1127.3	1128.4	1126.2	1133.5	1133.2
20°	1106.8	1108.2	1106.5	1114.1	1115.0
22.5°	1084.1	1086.0	1085.7	1093.6	1095.9
25°	1059.9	1060.7	1061.9	1070.9	1072.5
27.5°	1033.2	1034.6	1036.6	1044.7	1046.4
30°	1004.0	1006.2	1008.5	1016.9	1019.2
32.5°	973.1	975.3	978.2	989.1	990.2
35°	938.3	942.5	946.4	956.0	959.9
37.5°	903.4	908.8	912.4	922.5	925.6
40°	866.6	872.0	877.9	888.5	890.5
42.5°	828.1	834.3	841.3	850.9	854.3
45°	789.4	796.4	802.9	810.7	814.7
47.5°	747.5	754.5	762.4	771.4	773.9
50°	704.3	712.4	720.8	729.3	733.8
52.5°	659.9	669.7	679.3	688.2	692.5
55°	616.1	623.4	634.9	644.1	648.4
57.5°	570.5	576.7	587.1	602.3	604.5
60°	524.2	529.8	540.5	552.8	557.9
62.5°	473.1	480.7	491.9	507.6	512.1
65°	423.3	430.6	445.5	463.2	470.5
67.5°	375.3	377.8	396.9	415.5	427.3
70°	318.6	328.1	350.3	373.1	382.0
72.5°	269.7	279.2	303.7	330.4	341.6
75°	214.3	227.5	260.7	291.9	302.8
77.5°	165.7	180.3	221.4	252.8	265.5
80°	115.7	138.5	183.2	218.6	232.3
82.5°	72.8	100.8	148.6	185.7	197.8
85°	37.1	68.5	117.7	155.6	169.4
87.5°	9.8	44.4	91.6	127.8	141.9
90°	0.3	25.6	69.4	104.2	116.9
92.5°	0.3	14.3	51.7	82.9	95.8
95°	0.3	6.7	36.0	65.2	75.3
97.5°	0.3	2.8	24.7	49.2	59.3
100°	0.3	1.4	15.7	35.7	44.4
102.5°	0.6	0.8	9.8	25.6	32.6
105°	0.6	0.8	5.9	17.4	23.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.8	0.8	1.1	4.8	7.0
115°	0.8	0.8	1.1	3.1	4.5
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	0.8	3.4	11.8	16.0
110°	0.8	0.8	2.0	7.3	10.7



(END OF REPORT)