

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: P580599

Luminaire Tested: **HVSL4-4-LD4-2LO-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580599
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: HVSL4-4-LD4-2LO-40-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

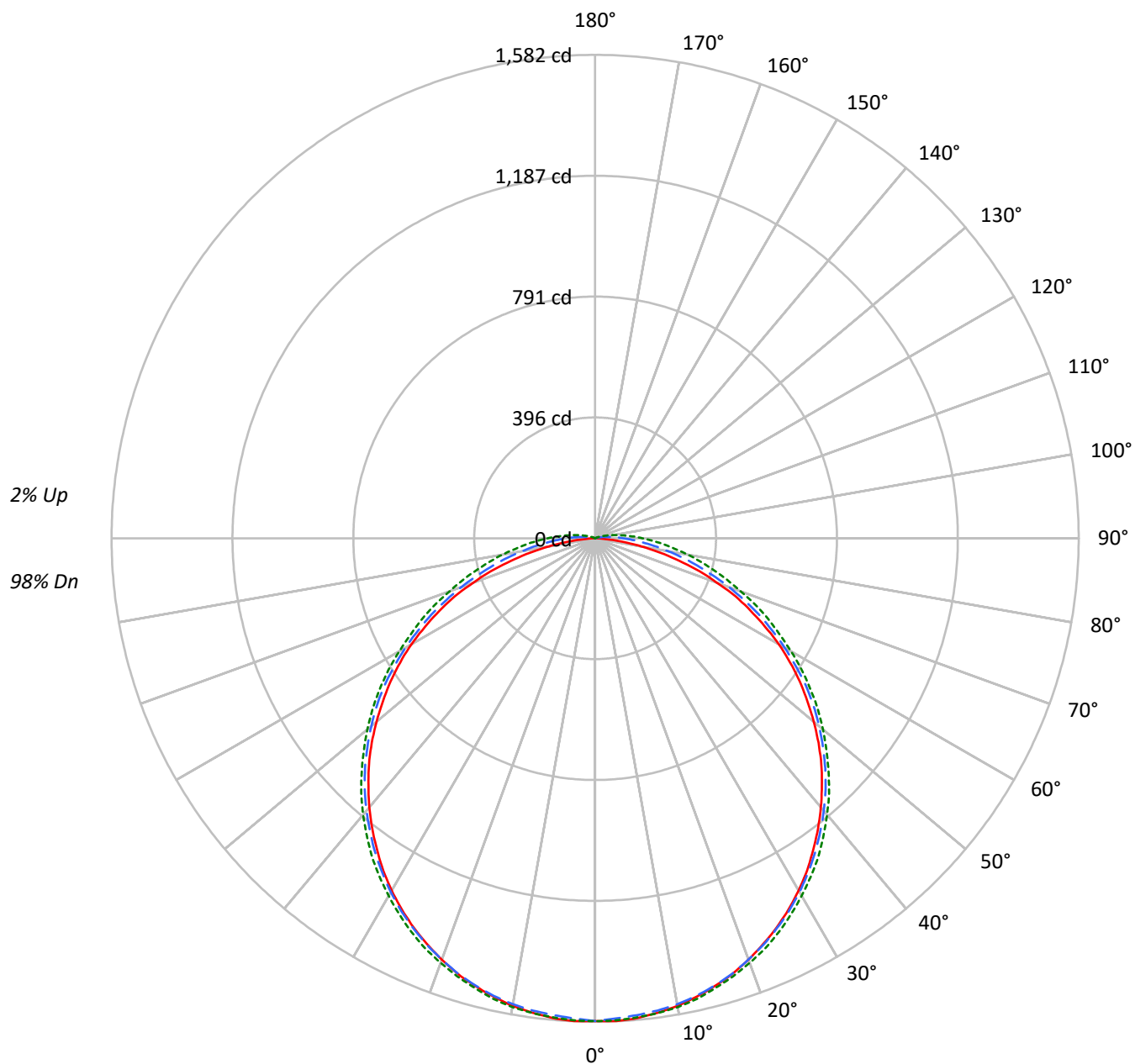
Lumens per Lamp: N/A
Luminaire Lumens: 4777.0 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 46.2
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
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	12754	12754	12754
5°	12730	12283	12221
10°	12645	11889	11737
15°	12535	11484	11227
20°	12419	11062	10744
25°	12279	10640	10271
30°	12117	10207	9774
35°	11912	9751	9290
40°	11700	9282	8765
45°	11471	8787	8220
50°	11172	8241	7655
55°	10850	7657	7058
60°	10466	6955	6400
65°	9842	6195	5751
70°	8946	5340	5036
75°	7671	4437	4369
80°	5772	3558	3733
85°	3087	2688	3098



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.5	3.1
10°-20°	428.9	9.0
20°-30°	650.7	13.6
30°-40°	786.8	16.5
40°-50°	821.0	17.2
50°-60°	750.6	15.7
60°-70°	585.2	12.2
70°-80°	366.0	7.7
80°-90°	166.3	3.5
90°-100°	55.7	1.2
100°-110°	14.0	0.3
110°-120°	2.2	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°	1229.1	25.7
0°-40°	2016.0	42.2
0°-60°	3587.6	75.1
0°-90°	4705.1	98.5
90°-120°	71.9	1.5
90°-150°	71.9	1.5
90°-180°	72.0	1.5
0°-180°	4777.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1580	1580	1580	1580	1580	
5°	1577	1574	1566	1574	1574	150
15°	1517	1519	1515	1524	1523	428
25°	1405	1406	1408	1420	1422	648
35°	1244	1250	1255	1268	1273	779
45°	1047	1056	1064	1075	1080	806
55°	817	826	842	854	860	730
65°	561	571	591	614	624	555
75°	284	302	346	387	402	303
85°	49	91	156	206	225	62
90°	0	34	92	138	155	2
95°	0	9	48	86	100	0
105°	1	1	8	23	31	1
115°	1	1	2	4	6	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1579.9	1579.9	1579.9	1579.9	1579.9
2.5°	1581.8	1579.6	1572.5	1579.6	1579.2
5°	1576.6	1573.6	1566.5	1574.0	1574.0
7.5°	1566.2	1565.0	1558.7	1567.3	1567.3
10°	1553.9	1553.5	1548.3	1557.6	1558.0
12.5°	1536.7	1538.2	1533.4	1542.3	1543.4
15°	1516.6	1519.2	1515.1	1523.7	1523.3
17.5°	1494.7	1496.1	1493.2	1502.8	1502.5
20°	1467.5	1469.3	1467.1	1477.1	1478.3
22.5°	1437.3	1439.9	1439.5	1450.0	1452.9
25°	1405.3	1406.4	1407.9	1419.8	1422.0
27.5°	1369.9	1371.7	1374.3	1385.2	1387.4
30°	1331.1	1334.1	1337.1	1348.3	1351.3
32.5°	1290.2	1293.2	1296.9	1311.4	1312.9
35°	1244.0	1249.6	1254.8	1267.5	1272.7
37.5°	1197.8	1204.9	1209.7	1223.1	1227.2
40°	1149.0	1156.1	1163.9	1178.1	1180.7
42.5°	1098.0	1106.2	1115.5	1128.2	1132.6
45°	1046.6	1055.9	1064.5	1074.9	1080.1
47.5°	991.1	1000.4	1010.8	1022.8	1026.1
50°	933.7	944.5	955.7	966.9	972.8
52.5°	874.9	887.9	900.6	912.5	918.1
55°	816.8	826.5	841.7	854.0	859.6
57.5°	756.5	764.6	778.4	798.5	801.5
60°	695.0	702.4	716.6	733.0	739.7
62.5°	627.2	637.3	652.2	673.0	679.0
65°	561.3	571.0	590.7	614.2	623.9
67.5°	497.6	500.9	526.3	550.9	566.5
70°	422.4	435.0	464.4	494.6	506.5
72.5°	357.6	370.2	402.6	438.0	452.9
75°	284.2	301.7	345.6	387.0	401.5
77.5°	219.7	239.1	293.5	335.2	352.0
80°	153.5	183.6	242.8	289.8	308.0
82.5°	96.5	133.7	197.0	246.2	262.2
85°	49.2	90.9	156.1	206.3	224.6
87.5°	13.0	58.8	121.4	169.5	188.1
90°	0.4	33.9	92.0	138.2	154.9
92.5°	0.4	19.0	68.5	109.9	127.0
95°	0.4	8.9	47.7	86.4	99.8
97.5°	0.4	3.7	32.8	65.2	78.6
100°	0.4	1.9	20.9	47.3	58.8
102.5°	0.7	1.1	13.0	33.9	43.2
105°	0.7	1.1	7.8	23.1	30.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.1	1.1	1.5	6.3	9.3
115°	1.1	1.1	1.5	4.1	6.0
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°	0.7	1.1	4.5	15.6	21.2
110°	1.1	1.1	2.6	9.7	14.2



(END OF REPORT)