

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: P580569

Luminaire Tested: **HVSL4-4-LD4-1HI-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580569
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-LD4-1HI-50-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

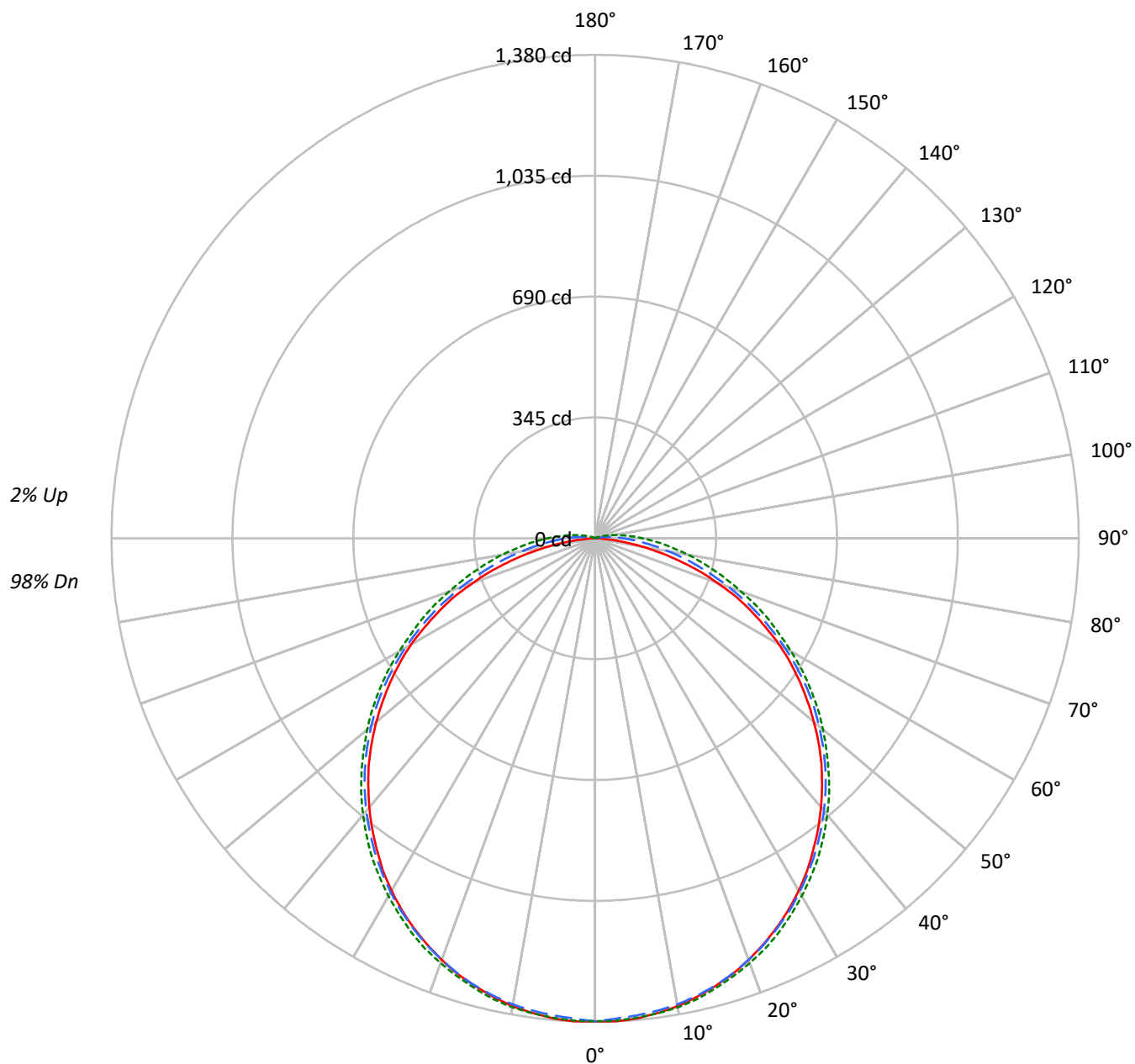
Lumens per Lamp: N/A
Luminaire Lumens: 4169.0 lumens
Efficiency: N/A
Efficacy: 96.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 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

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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°	11132	11132	11132
5°	11109	10720	10666
10°	11036	10376	10243
15°	10940	10023	9798
20°	10838	9654	9377
25°	10716	9286	8964
30°	10575	8907	8530
35°	10396	8510	8107
40°	10211	8101	7649
45°	10011	7669	7174
50°	9750	7192	6681
55°	9469	6683	6160
60°	9133	6070	5585
65°	8589	5406	5019
70°	7806	4661	4396
75°	6694	3872	3813
80°	5035	3105	3258
85°	2692	2345	2703



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.5	3.1
10°-20°	374.3	9.0
20°-30°	567.9	13.6
30°-40°	686.7	16.5
40°-50°	716.5	17.2
50°-60°	655.1	15.7
60°-70°	510.7	12.2
70°-80°	319.5	7.7
80°-90°	145.1	3.5
90°-100°	48.6	1.2
100°-110°	12.2	0.3
110°-120°	1.9	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°	1072.7	25.7
0°-40°	1759.4	42.2
0°-60°	3131.0	75.1
0°-90°	4106.3	98.5
90°-120°	62.8	1.5
90°-150°	62.8	1.5
90°-180°	63.0	1.5
0°-180°	4169.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1379	1379	1379	1379	1379	
5°	1376	1373	1367	1374	1374	131
15°	1324	1326	1322	1330	1329	374
25°	1226	1227	1229	1239	1241	565
35°	1086	1090	1095	1106	1111	680
45°	913	922	929	938	943	704
55°	713	721	735	745	750	637
65°	490	498	516	536	544	485
75°	248	263	302	338	350	264
85°	43	79	136	180	196	54
90°	0	30	80	121	135	2
95°	0	8	42	75	87	0
105°	1	1	7	20	27	1
115°	1	1	1	4	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1378.9	1378.9	1378.9	1378.9	1378.9
2.5°	1380.5	1378.5	1372.4	1378.5	1378.2
5°	1375.9	1373.3	1367.2	1373.7	1373.7
7.5°	1366.8	1365.9	1360.3	1367.8	1367.8
10°	1356.1	1355.8	1351.2	1359.4	1359.7
12.5°	1341.1	1342.4	1338.2	1346.0	1347.0
15°	1323.6	1325.9	1322.3	1329.8	1329.4
17.5°	1304.4	1305.7	1303.1	1311.6	1311.2
20°	1280.7	1282.3	1280.4	1289.1	1290.1
22.5°	1254.4	1256.6	1256.3	1265.4	1268.0
25°	1226.4	1227.4	1228.7	1239.1	1241.0
27.5°	1195.5	1197.2	1199.4	1208.9	1210.8
30°	1161.7	1164.3	1166.9	1176.7	1179.3
32.5°	1126.0	1128.6	1131.8	1144.5	1145.8
35°	1085.7	1090.5	1095.1	1106.1	1110.7
37.5°	1045.4	1051.5	1055.8	1067.5	1071.0
40°	1002.8	1008.9	1015.8	1028.1	1030.4
42.5°	958.2	965.4	973.5	984.6	988.5
45°	913.4	921.5	929.0	938.1	942.6
47.5°	865.0	873.1	882.2	892.6	895.5
50°	814.9	824.3	834.1	843.8	849.0
52.5°	763.5	774.9	786.0	796.4	801.2
55°	712.8	721.3	734.6	745.3	750.2
57.5°	660.2	667.3	679.4	696.9	699.5
60°	606.5	613.0	625.4	639.7	645.5
62.5°	547.4	556.2	569.2	587.4	592.6
65°	489.8	498.3	515.5	536.0	544.5
67.5°	434.3	437.2	459.3	480.7	494.4
70°	368.6	379.7	405.3	431.7	442.1
72.5°	312.0	323.1	351.4	382.3	395.3
75°	248.0	263.3	301.6	337.7	350.4
77.5°	191.8	208.7	256.1	292.5	307.2
80°	133.9	160.2	211.9	252.9	268.8
82.5°	84.2	116.7	172.0	214.9	228.8
85°	42.9	79.3	136.2	180.1	196.0
87.5°	11.4	51.4	106.0	147.9	164.1
90°	0.3	29.6	80.3	120.6	135.2
92.5°	0.3	16.6	59.8	95.9	110.8
95°	0.3	7.8	41.6	75.4	87.1
97.5°	0.3	3.3	28.6	56.9	68.6
100°	0.3	1.6	18.2	41.3	51.4
102.5°	0.7	1.0	11.4	29.6	37.7
105°	0.7	1.0	6.8	20.2	27.0



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CATALOG NUMBER: HVSL4-4-LD4-1HI-50-UNV-O-EDD-90

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.0	1.0	1.3	5.5	8.1
115°	1.0	1.0	1.3	3.6	5.2
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	1.0	3.9	13.7	18.5
110°	1.0	1.0	2.3	8.5	12.4



(END OF REPORT)