

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: P580595

Luminaire Tested: **HVSL4-4-LD4-2LO-30-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580595
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-30-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

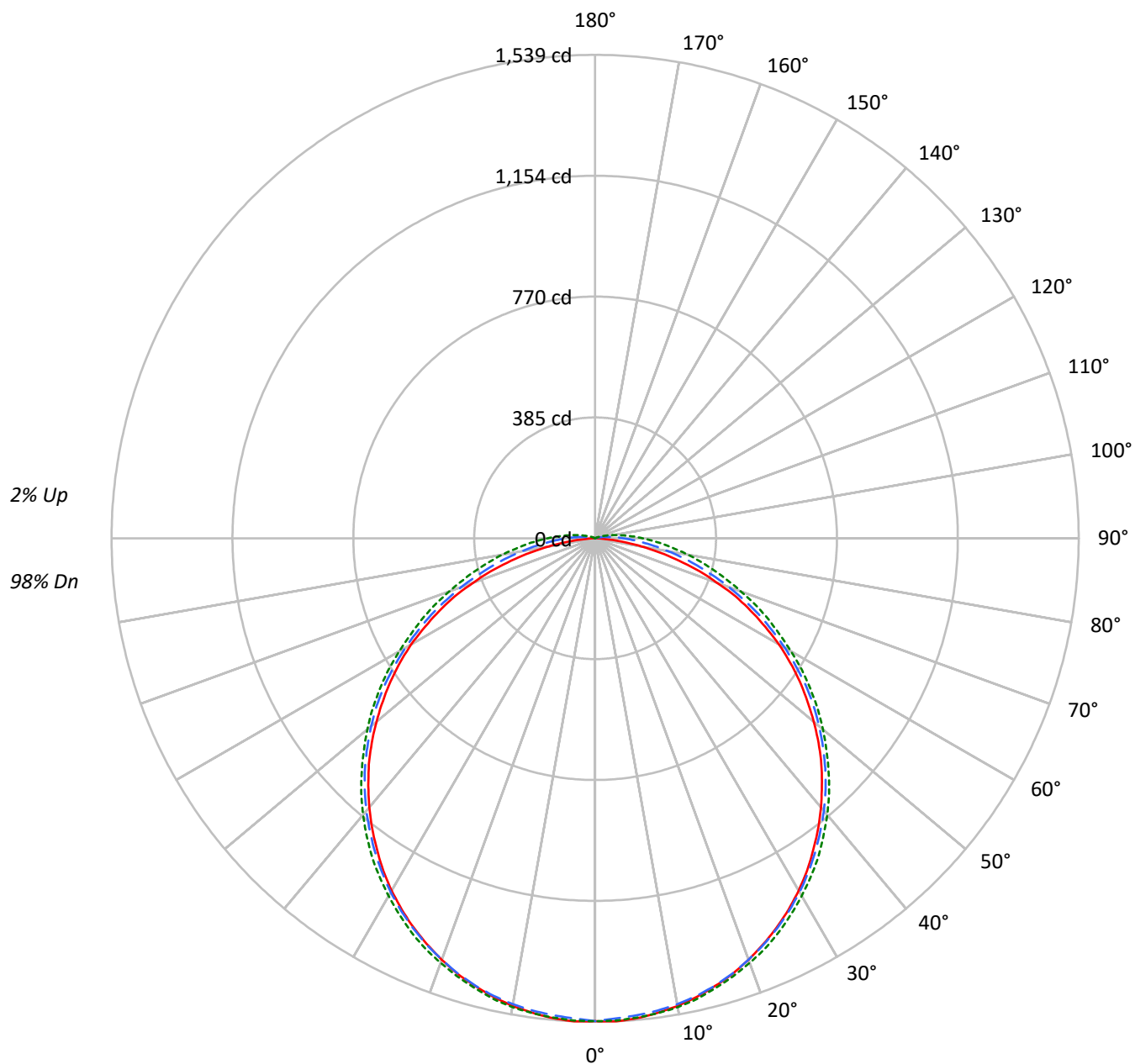
Lumens per Lamp: N/A
Luminaire Lumens: 4648.0 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

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°	12411	12411	12411
5°	12386	11951	11891
10°	12303	11568	11420
15°	12197	11174	10924
20°	12083	10763	10454
25°	11947	10353	9994
30°	11790	9931	9510
35°	11591	9487	9039
40°	11384	9032	8528
45°	11161	8549	7998
50°	10870	8018	7449
55°	10557	7451	6867
60°	10183	6767	6227
65°	9576	6028	5595
70°	8704	5197	4901
75°	7464	4317	4251
80°	5614	3463	3632
85°	2999	2614	3013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.5	3.1
10°-20°	417.3	9.0
20°-30°	633.2	13.6
30°-40°	765.6	16.5
40°-50°	798.8	17.2
50°-60°	730.4	15.7
60°-70°	569.4	12.2
70°-80°	356.2	7.7
80°-90°	161.8	3.5
90°-100°	54.2	1.2
100°-110°	13.6	0.3
110°-120°	2.1	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°	1195.9	25.7
0°-40°	1961.5	42.2
0°-60°	3490.7	75.1
0°-90°	4578.0	98.5
90°-120°	70.0	1.5
90°-150°	70.0	1.5
90°-180°	70.0	1.5
0°-180°	4648.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1534	1531	1524	1532	1532	146
15°	1476	1478	1474	1483	1482	417
25°	1367	1368	1370	1381	1384	630
35°	1210	1216	1221	1233	1238	758
45°	1018	1027	1036	1046	1051	785
55°	795	804	819	831	836	710
65°	546	556	575	598	607	540
75°	276	294	336	376	391	295
85°	48	88	152	201	218	61
90°	0	33	90	134	151	2
95°	0	9	46	84	97	0
105°	1	1	8	22	30	1
115°	1	1	1	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°	1537.3	1537.3	1537.3	1537.3	1537.3
2.5°	1539.1	1536.9	1530.0	1536.9	1536.6
5°	1534.0	1531.1	1524.2	1531.5	1531.5
7.5°	1523.9	1522.8	1516.6	1525.0	1525.0
10°	1511.9	1511.5	1506.5	1515.5	1515.9
12.5°	1495.2	1496.7	1492.0	1500.7	1501.8
15°	1475.7	1478.2	1474.2	1482.6	1482.2
17.5°	1454.3	1455.7	1452.8	1462.3	1461.9
20°	1427.8	1429.6	1427.5	1437.3	1438.3
22.5°	1398.5	1401.0	1400.7	1410.8	1413.7
25°	1367.3	1368.4	1369.9	1381.4	1383.6
27.5°	1332.9	1334.7	1337.2	1347.7	1349.9
30°	1295.2	1298.1	1301.0	1311.9	1314.8
32.5°	1255.3	1258.2	1261.9	1276.0	1277.4
35°	1210.4	1215.8	1220.9	1233.2	1238.3
37.5°	1165.5	1172.3	1177.1	1190.1	1194.1
40°	1118.0	1124.9	1132.5	1146.3	1148.8
42.5°	1068.3	1076.3	1085.4	1097.7	1102.0
45°	1018.3	1027.4	1035.7	1045.9	1050.9
47.5°	964.3	973.4	983.5	995.1	998.4
50°	908.5	919.0	929.9	940.8	946.6
52.5°	851.3	863.9	876.3	887.9	893.3
55°	794.7	804.2	819.0	831.0	836.4
57.5°	736.0	744.0	757.4	777.0	779.9
60°	676.2	683.5	697.2	713.2	719.7
62.5°	610.3	620.1	634.6	654.8	660.6
65°	546.1	555.6	574.8	597.6	607.0
67.5°	484.2	487.4	512.1	536.0	551.2
70°	411.0	423.3	451.9	481.3	492.9
72.5°	347.9	360.2	391.7	426.2	440.7
75°	276.5	293.5	336.3	376.5	390.7
77.5°	213.8	232.7	285.6	326.2	342.5
80°	149.3	178.7	236.3	281.9	299.7
82.5°	93.9	130.1	191.7	239.5	255.1
85°	47.8	88.4	151.8	200.8	218.5
87.5°	12.7	57.3	118.1	164.9	183.0
90°	0.4	33.0	89.5	134.4	150.8
92.5°	0.4	18.5	66.7	106.9	123.6
95°	0.4	8.7	46.4	84.1	97.1
97.5°	0.4	3.6	31.9	63.4	76.5
100°	0.4	1.8	20.3	46.0	57.3
102.5°	0.7	1.1	12.7	33.0	42.0
105°	0.7	1.1	7.6	22.5	30.1



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CATALOG NUMBER: HVSL4-4-LD4-2LO-30-UNV-O-EDD-90

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.1	1.1	1.4	6.2	9.1
115°	1.1	1.1	1.4	4.0	5.8
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	4.3	15.2	20.7
110°	1.1	1.1	2.5	9.4	13.8



(END OF REPORT)