

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: P557304

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-80-88-EDD-90**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P557304
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-2LO-40-UNV-80-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

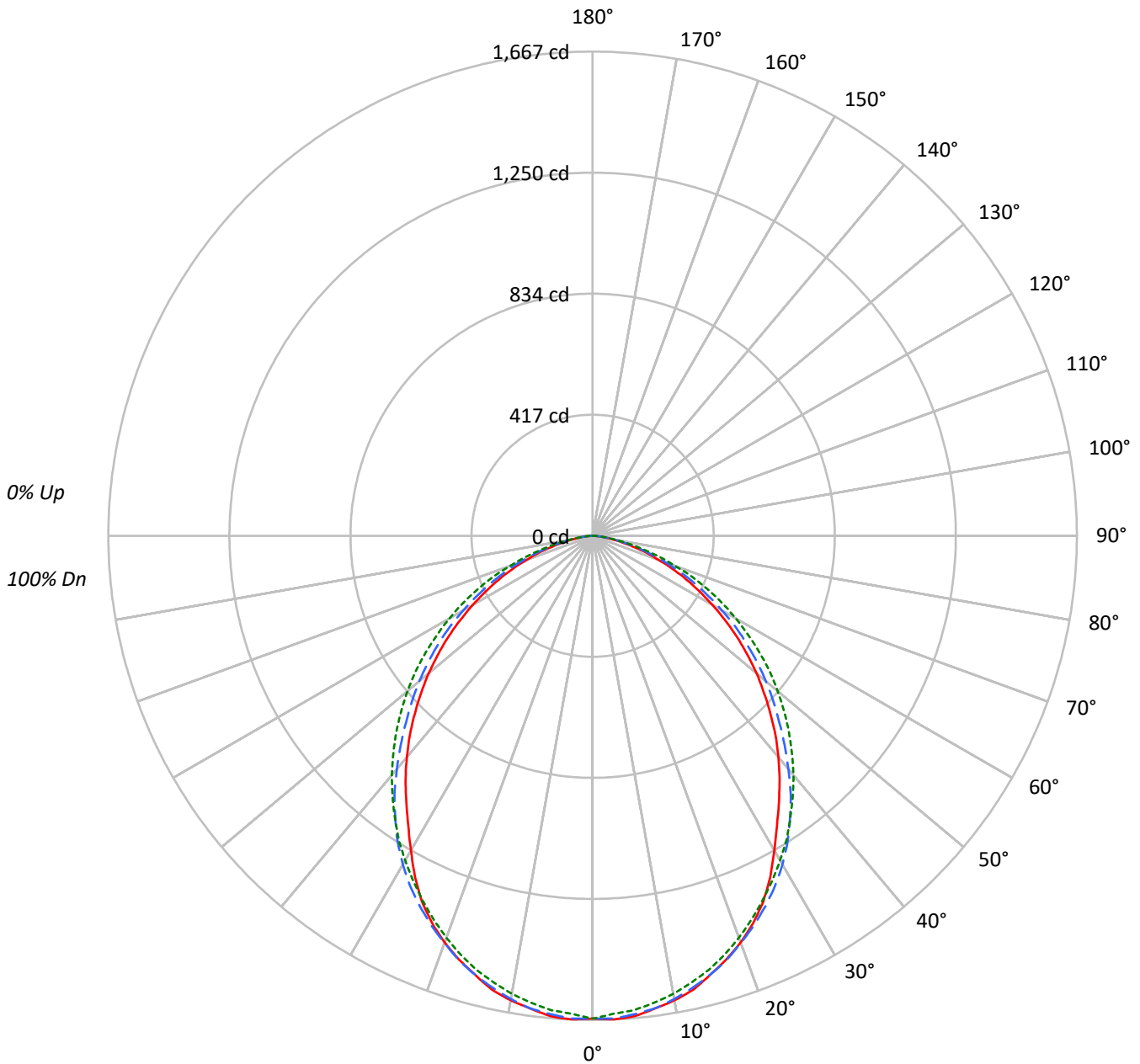
Lumens per Lamp: N/A
Luminaire Lumens: 3844.0 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4473	4473	4473
5°	4485	4467	4428
10°	4438	4426	4375
15°	4359	4359	4309
20°	4267	4272	4217
25°	4126	4178	4111
30°	3886	4060	4011
35°	3672	3892	3898
40°	3493	3681	3778
45°	3293	3459	3636
50°	3083	3259	3481
55°	2844	3032	3293
60°	2561	2767	3062
65°	2261	2460	2786
70°	1884	2095	2367
75°	1481	1673	1853
80°	1058	1178	1306
85°	692	692	651



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.5	4.1
10°-20°	439.7	11.4
20°-30°	642.6	16.7
30°-40°	729.4	19.0
40°-50°	704.1	18.3
50°-60°	580.8	15.1
60°-70°	386.8	10.1
70°-80°	173.1	4.5
80°-90°	31.0	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	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°	1238.8	32.2
0°-40°	1968.2	51.2
0°-60°	3253.2	84.6
0°-90°	3844.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3844.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1662	1662	1662	1662	1662	
5°	1660	1660	1654	1644	1639	157
15°	1565	1568	1565	1558	1547	441
25°	1390	1401	1407	1397	1385	636
35°	1118	1133	1185	1191	1187	700
45°	865	880	909	950	955	668
55°	606	616	646	682	702	541
65°	355	365	386	414	438	352
75°	142	150	161	169	178	156
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1662.4	1662.4	1662.4	1662.4	1662.4
2.5°	1666.9	1667.5	1663.7	1653.5	1647.1
5°	1660.5	1659.9	1653.5	1644.5	1639.4
7.5°	1642.0	1643.3	1641.4	1628.6	1621.6
10°	1624.1	1624.7	1619.6	1609.4	1601.1
12.5°	1601.1	1600.5	1593.5	1588.3	1574.9
15°	1564.7	1568.5	1564.7	1557.7	1546.8
17.5°	1529.6	1529.6	1532.1	1520.0	1511.7
20°	1490.0	1491.9	1491.9	1482.3	1472.7
22.5°	1444.0	1449.8	1451.7	1441.5	1430.0
25°	1389.7	1400.6	1407.0	1396.7	1384.6
27.5°	1323.9	1340.5	1359.7	1352.0	1338.6
30°	1250.5	1274.8	1306.7	1300.3	1290.7
32.5°	1180.9	1205.2	1249.2	1246.7	1241.6
35°	1117.7	1133.0	1184.7	1191.1	1186.6
37.5°	1057.6	1071.7	1120.2	1134.9	1131.1
40°	994.4	1009.7	1048.0	1074.2	1075.5
42.5°	931.8	946.5	977.8	1015.5	1015.5
45°	865.4	880.1	908.8	950.3	955.4
47.5°	800.2	815.6	843.7	885.2	893.5
50°	736.4	750.4	778.5	818.8	831.5
52.5°	670.0	685.3	712.7	749.8	768.3
55°	606.1	616.3	646.3	682.1	701.9
57.5°	539.7	549.2	583.1	613.8	634.2
60°	475.8	487.9	514.1	545.4	569.0
62.5°	414.5	427.3	449.6	477.1	503.9
65°	355.1	364.7	386.4	413.9	437.5
67.5°	297.6	305.9	327.6	346.8	371.7
70°	239.5	250.4	266.3	284.8	300.8
72.5°	192.9	197.3	210.8	224.2	240.8
75°	142.4	150.1	160.9	168.6	178.2
77.5°	102.2	106.7	113.0	119.4	128.4
80°	68.3	70.3	76.0	77.3	84.3
82.5°	41.5	42.8	44.1	44.7	47.3
85°	22.4	22.4	22.4	21.1	21.1
87.5°	12.8	12.8	10.9	8.9	6.4
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)