

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: P554848

Luminaire Tested: **FUSL-12-2-LD4-2HI-50-UNV-93-84-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: P554848  
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-12-2-LD4-2HI-50-UNV-93-84-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

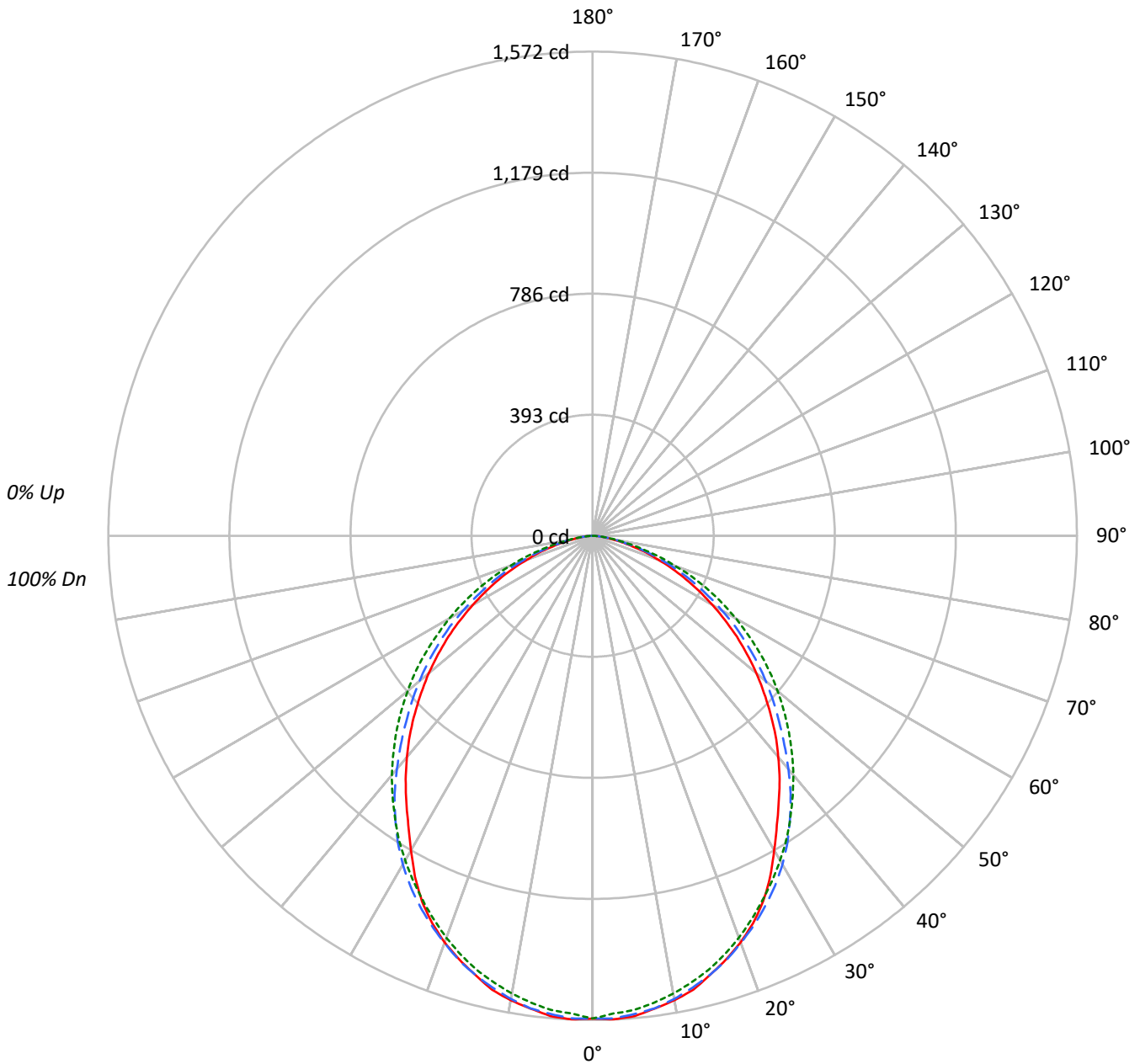
Lumens per Lamp: N/A  
Luminaire Lumens: 3624.0 lumens  
Efficiency: N/A  
Efficacy: 83.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
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				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8435	8435	8435
5°	8458	8422	8350
10°	8368	8344	8249
15°	8220	8220	8125
20°	8045	8056	7952
25°	7780	7877	7752
30°	7326	7656	7562
35°	6923	7338	7350
40°	6587	6942	7123
45°	6210	6521	6856
50°	5812	6146	6563
55°	5362	5717	6209
60°	4829	5217	5775
65°	4264	4639	5252
70°	3553	3951	4463
75°	2793	3154	3493
80°	1996	2222	2464
85°	1303	1303	1229



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.6	4.1
10°-20°	414.6	11.4
20°-30°	605.8	16.7
30°-40°	687.6	19.0
40°-50°	663.8	18.3
50°-60°	547.6	15.1
60°-70°	364.7	10.1
70°-80°	163.2	4.5
80°-90°	29.2	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°	1167.9	32.2
0°-40°	1855.5	51.2
0°-60°	3067.0	84.6
0°-90°	3624.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3624.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1567	1567	1567	1567	1567	
5°	1566	1565	1559	1550	1546	148
15°	1475	1479	1475	1468	1458	416
25°	1310	1320	1326	1317	1305	600
35°	1054	1068	1117	1123	1119	660
45°	816	830	857	896	901	629
55°	571	581	609	643	662	510
65°	335	344	364	390	412	332
75°	134	142	152	159	168	147
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1567.3	1567.3	1567.3	1567.3	1567.3
2.5°	1571.5	1572.1	1568.5	1558.9	1552.8
5°	1565.5	1564.9	1558.9	1550.4	1545.6
7.5°	1548.0	1549.2	1547.4	1535.4	1528.8
10°	1531.2	1531.8	1526.9	1517.3	1509.5
12.5°	1509.5	1508.9	1502.3	1497.4	1484.8
15°	1475.2	1478.8	1475.2	1468.5	1458.3
17.5°	1442.0	1442.0	1444.5	1433.0	1425.2
20°	1404.7	1406.5	1406.5	1397.5	1388.5
22.5°	1361.4	1366.8	1368.6	1359.0	1348.1
25°	1310.2	1320.4	1326.4	1316.8	1305.4
27.5°	1248.2	1263.8	1281.9	1274.7	1262.0
30°	1178.9	1201.8	1231.9	1225.9	1216.9
32.5°	1113.3	1136.2	1177.7	1175.3	1170.5
35°	1053.7	1068.1	1116.9	1122.9	1118.7
37.5°	997.1	1010.3	1056.1	1069.9	1066.3
40°	937.5	951.9	988.1	1012.7	1013.9
42.5°	878.5	892.3	921.8	957.4	957.4
45°	815.9	829.7	856.8	895.9	900.8
47.5°	754.4	768.9	795.4	834.5	842.3
50°	694.2	707.5	734.0	771.9	783.9
52.5°	631.6	646.1	672.0	706.9	724.3
55°	571.4	581.0	609.3	643.1	661.7
57.5°	508.8	517.8	549.7	578.6	597.9
60°	448.6	460.0	484.7	514.2	536.5
62.5°	390.8	402.8	423.9	449.8	475.1
65°	334.8	343.8	364.3	390.2	412.4
67.5°	280.6	288.4	308.9	326.9	350.4
70°	225.8	236.0	251.1	268.5	283.6
72.5°	181.8	186.1	198.7	211.3	227.0
75°	134.3	141.5	151.7	159.0	168.0
77.5°	96.3	100.6	106.6	112.6	121.0
80°	64.4	66.2	71.7	72.9	79.5
82.5°	39.1	40.3	41.5	42.1	44.6
85°	21.1	21.1	21.1	19.9	19.9
87.5°	12.0	12.0	10.2	8.4	6.0
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)