

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: P554689

Luminaire Tested: **FUSL-12-2-LD4-2HI-35-UNV-81-84-EDD**

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: P554689  
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-35-UNV-81-84-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

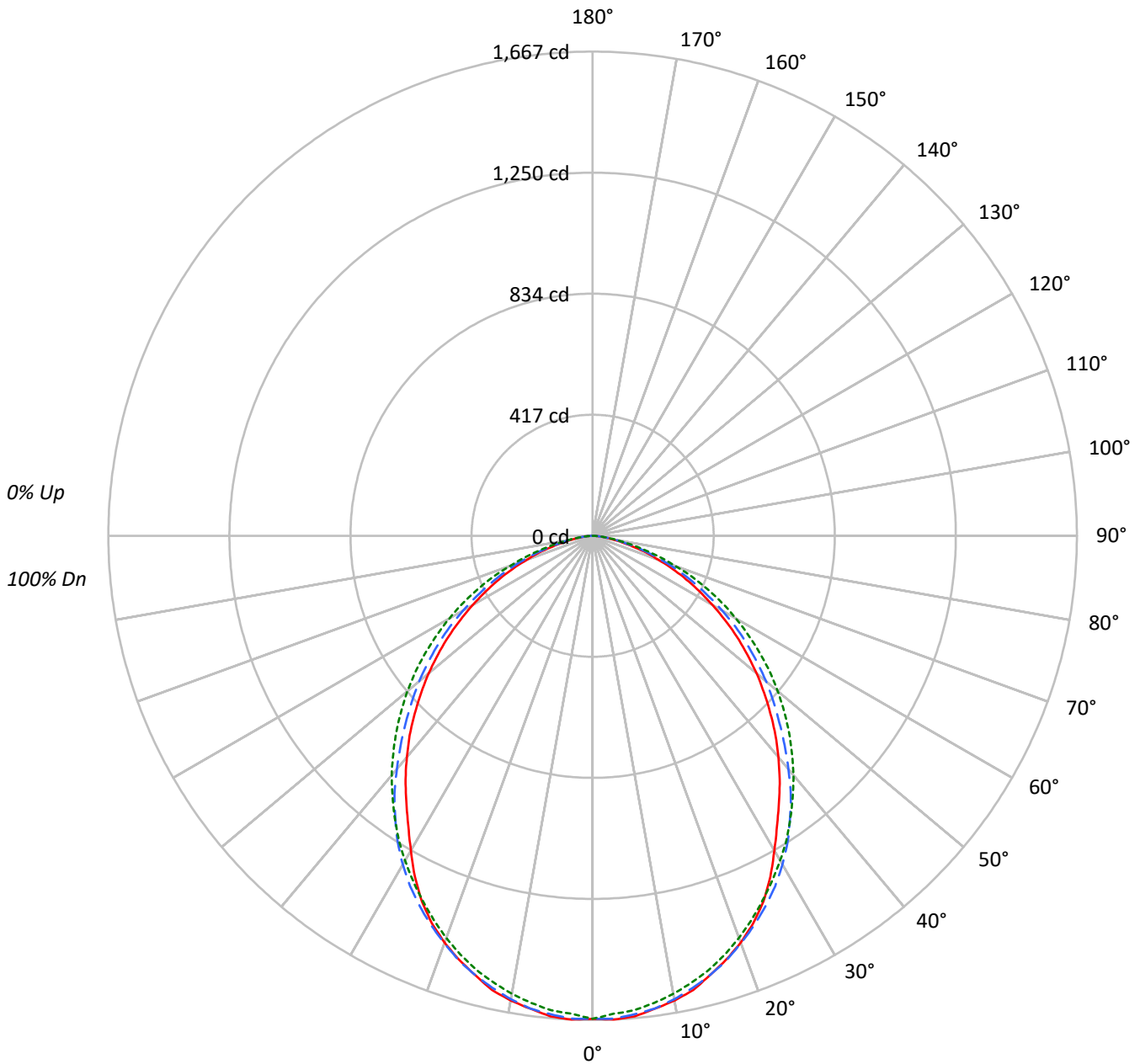
Lumens per Lamp: N/A  
Luminaire Lumens: 3845.0 lumens  
Efficiency: N/A  
Efficacy: 89.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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					
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								
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°	8950	8950	8950
5°	8973	8935	8860
10°	8878	8854	8752
15°	8720	8720	8621
20°	8536	8547	8437
25°	8255	8357	8225
30°	7773	8122	8024
35°	7345	7786	7798
40°	6988	7365	7558
45°	6588	6919	7274
50°	6167	6520	6965
55°	5688	6066	6588
60°	5123	5536	6127
65°	4523	4922	5573
70°	3770	4192	4735
75°	2963	3348	3706
80°	2120	2356	2613
85°	1383	1383	1303



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.6	4.1
10°-20°	439.8	11.4
20°-30°	642.7	16.7
30°-40°	729.6	19.0
40°-50°	704.3	18.3
50°-60°	581.0	15.1
60°-70°	386.9	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°	1239.1	32.2
0°-40°	1968.7	51.2
0°-60°	3254.0	84.6
0°-90°	3845.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3845.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1663	1663	1663	1663	1663	
5°	1661	1660	1654	1645	1640	157
15°	1565	1569	1565	1558	1547	441
25°	1390	1401	1407	1397	1385	637
35°	1118	1133	1185	1191	1187	700
45°	866	880	909	951	956	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°	1662.9	1662.9	1662.9	1662.9	1662.9
2.5°	1667.3	1668.0	1664.1	1653.9	1647.5
5°	1660.9	1660.3	1653.9	1645.0	1639.9
7.5°	1642.4	1643.7	1641.8	1629.0	1622.0
10°	1624.5	1625.2	1620.1	1609.8	1601.5
12.5°	1601.5	1600.9	1593.9	1588.8	1575.3
15°	1565.1	1569.0	1565.1	1558.1	1547.2
17.5°	1530.0	1530.0	1532.5	1520.4	1512.1
20°	1490.4	1492.3	1492.3	1482.7	1473.1
22.5°	1444.4	1450.1	1452.1	1441.8	1430.3
25°	1390.1	1400.9	1407.3	1397.1	1385.0
27.5°	1324.3	1340.9	1360.1	1352.4	1339.0
30°	1250.8	1275.1	1307.0	1300.6	1291.1
32.5°	1181.2	1205.5	1249.5	1247.0	1241.9
35°	1117.9	1133.3	1185.0	1191.4	1186.9
37.5°	1057.9	1071.9	1120.5	1135.2	1131.4
40°	994.7	1010.0	1048.3	1074.5	1075.8
42.5°	932.0	946.7	978.0	1015.7	1015.7
45°	865.6	880.3	909.0	950.6	955.7
47.5°	800.4	815.8	843.9	885.4	893.7
50°	736.6	750.6	778.7	819.0	831.8
52.5°	670.1	685.5	712.9	750.0	768.5
55°	606.2	616.5	646.5	682.3	702.1
57.5°	539.8	549.4	583.2	613.9	634.4
60°	475.9	488.1	514.3	545.6	569.2
62.5°	414.6	427.4	449.7	477.2	504.0
65°	355.2	364.8	386.5	414.0	437.6
67.5°	297.7	306.0	327.7	346.9	371.8
70°	239.6	250.4	266.4	284.9	300.9
72.5°	192.9	197.4	210.8	224.2	240.8
75°	142.5	150.1	161.0	168.6	178.2
77.5°	102.2	106.7	113.1	119.5	128.4
80°	68.4	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)