

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: P556110

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-81-97-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: P556110  
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-LD4-3STD-50-UNV-81-97-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

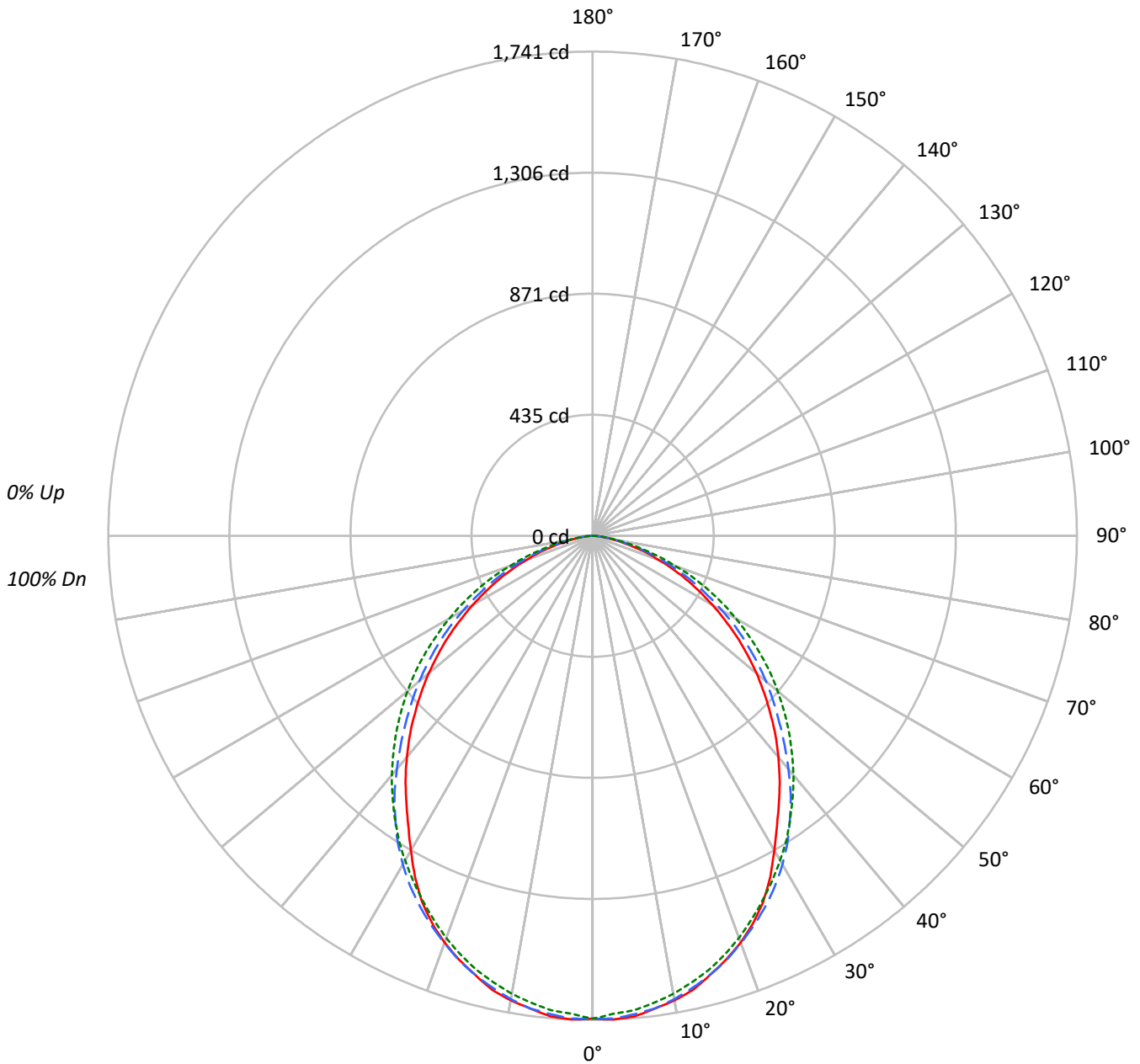
Lumens per Lamp: N/A  
Luminaire Lumens: 4015.0 lumens  
Efficiency: N/A  
Efficacy: 80.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	9345	9345	9345
5°	9370	9330	9251
10°	9271	9245	9139
15°	9106	9106	9002
20°	8913	8925	8810
25°	8619	8727	8588
30°	8117	8482	8378
35°	7670	8130	8143
40°	7297	7691	7892
45°	6880	7225	7595
50°	6440	6809	7272
55°	5940	6335	6879
60°	5350	5780	6398
65°	4723	5140	5819
70°	3937	4378	4944
75°	3094	3496	3870
80°	2213	2461	2731
85°	1439	1439	1359



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.5	4.1
10°-20°	459.3	11.4
20°-30°	671.2	16.7
30°-40°	761.8	19.0
40°-50°	735.4	18.3
50°-60°	606.7	15.1
60°-70°	404.0	10.1
70°-80°	180.8	4.5
80°-90°	32.3	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°	1293.9	32.2
0°-40°	2055.8	51.2
0°-60°	3397.9	84.6
0°-90°	4015.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4015.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1736	1736	1736	1736	1736	
5°	1734	1734	1727	1718	1712	164
15°	1634	1638	1634	1627	1616	461
25°	1452	1463	1470	1459	1446	665
35°	1167	1183	1237	1244	1239	731
45°	904	919	949	993	998	697
55°	633	644	675	712	733	565
65°	371	381	404	432	457	368
75°	149	157	168	176	186	163
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1736.4	1736.4	1736.4	1736.4	1736.4
2.5°	1741.1	1741.7	1737.7	1727.0	1720.4
5°	1734.4	1733.7	1727.0	1717.7	1712.4
7.5°	1715.0	1716.4	1714.4	1701.0	1693.7
10°	1696.4	1697.0	1691.7	1681.0	1672.3
12.5°	1672.3	1671.7	1664.3	1659.0	1645.0
15°	1634.3	1638.3	1634.3	1627.0	1615.6
17.5°	1597.6	1597.6	1600.3	1587.6	1579.0
20°	1556.3	1558.3	1558.3	1548.3	1538.3
22.5°	1508.2	1514.2	1516.3	1505.6	1493.6
25°	1451.5	1462.9	1469.6	1458.9	1446.2
27.5°	1382.8	1400.2	1420.2	1412.2	1398.2
30°	1306.1	1331.5	1364.8	1358.2	1348.1
32.5°	1233.4	1258.8	1304.8	1302.1	1296.8
35°	1167.4	1183.4	1237.4	1244.1	1239.4
37.5°	1104.7	1119.3	1170.0	1185.4	1181.4
40°	1038.6	1054.6	1094.7	1122.0	1123.3
42.5°	973.3	988.6	1021.3	1060.6	1060.6
45°	903.9	919.2	949.2	992.6	997.9
47.5°	835.8	851.8	881.2	924.6	933.2
50°	769.1	783.8	813.2	855.2	868.5
52.5°	699.8	715.8	744.5	783.1	802.5
55°	633.0	643.7	675.1	712.4	733.1
57.5°	563.7	573.7	609.0	641.1	662.4
60°	497.0	509.6	537.0	569.7	594.4
62.5°	432.9	446.3	469.6	498.3	526.3
65°	370.9	380.9	403.6	432.3	456.9
67.5°	310.9	319.5	342.2	362.2	388.2
70°	250.2	261.5	278.2	297.5	314.2
72.5°	201.5	206.1	220.1	234.1	251.5
75°	148.8	156.8	168.1	176.1	186.1
77.5°	106.7	111.4	118.1	124.7	134.1
80°	71.4	73.4	79.4	80.7	88.1
82.5°	43.4	44.7	46.0	46.7	49.4
85°	23.3	23.3	23.3	22.0	22.0
87.5°	13.3	13.3	11.3	9.3	6.7
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)