

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: P554829

Luminaire Tested: **FUSL-12-2-LD4-2HI-50-UNV-81-96-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: P554829  
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-81-96-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

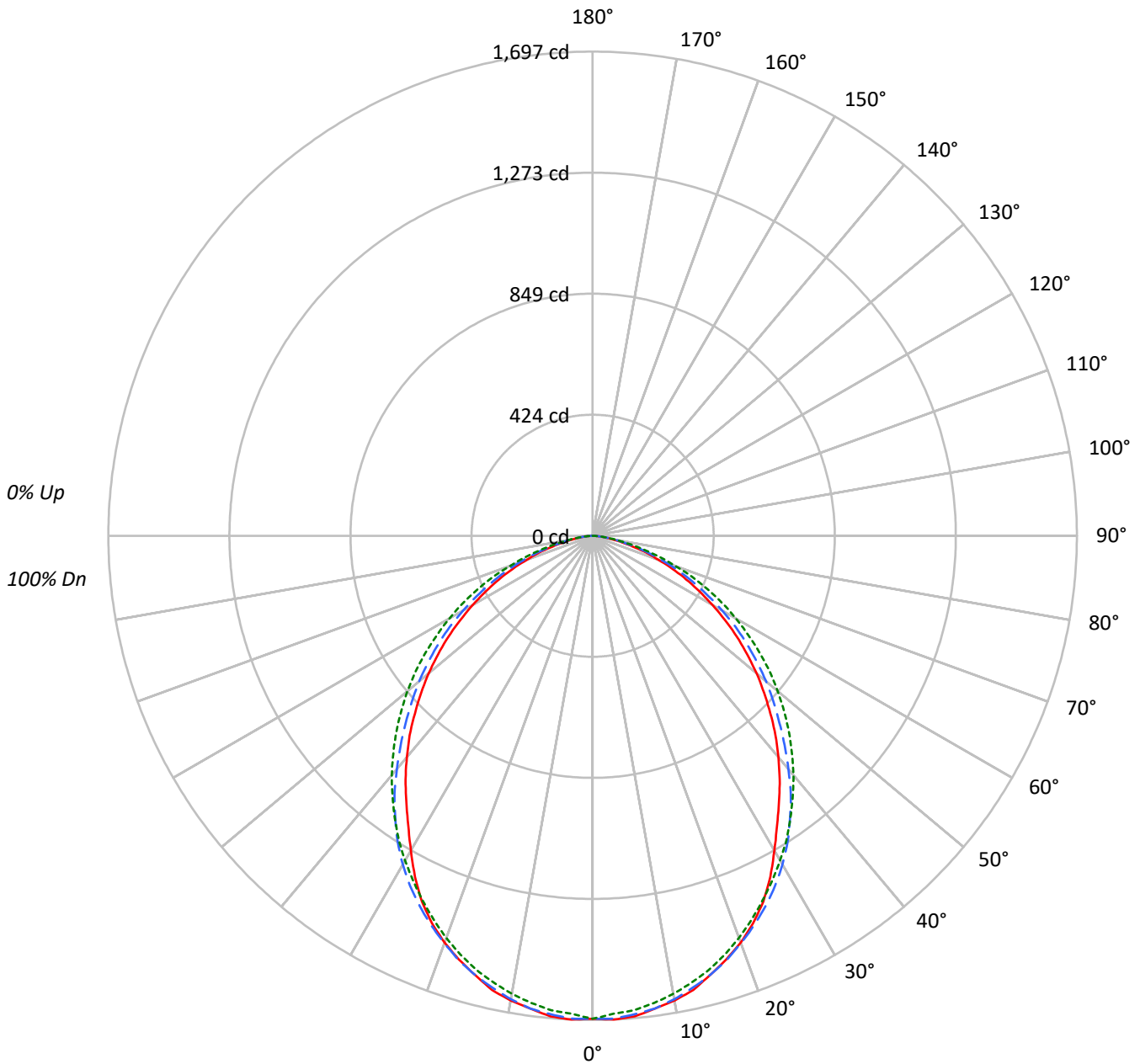
Lumens per Lamp: N/A  
Luminaire Lumens: 3914.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (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°	9110	9110	9110
5°	9135	9096	9018
10°	9037	9012	8910
15°	8877	8877	8776
20°	8689	8700	8589
25°	8403	8507	8372
30°	7913	8268	8167
35°	7477	7926	7938
40°	7113	7497	7694
45°	6706	7043	7404
50°	6278	6637	7089
55°	5790	6175	6706
60°	5215	5635	6237
65°	4605	5010	5672
70°	3838	4268	4820
75°	3015	3408	3772
80°	2157	2399	2659
85°	1408	1408	1328



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.4	4.1
10°-20°	447.7	11.4
20°-30°	654.3	16.7
30°-40°	742.7	19.0
40°-50°	716.9	18.3
50°-60°	591.4	15.1
60°-70°	393.8	10.1
70°-80°	176.2	4.5
80°-90°	31.5	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°	1261.4	32.2
0°-40°	2004.1	51.2
0°-60°	3312.4	84.6
0°-90°	3914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3914.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1693	1693	1693	1693	1693	
5°	1691	1690	1684	1674	1669	160
15°	1593	1597	1593	1586	1575	449
25°	1415	1426	1433	1422	1410	648
35°	1138	1154	1206	1213	1208	713
45°	881	896	925	968	973	680
55°	617	628	658	694	715	551
65°	362	371	393	421	445	359
75°	145	153	164	172	181	159
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°	1692.7	1692.7	1692.7	1692.7	1692.7
2.5°	1697.3	1697.9	1694.0	1683.6	1677.1
5°	1690.8	1690.1	1683.6	1674.5	1669.3
7.5°	1671.9	1673.2	1671.2	1658.2	1651.1
10°	1653.7	1654.3	1649.1	1638.7	1630.3
12.5°	1630.3	1629.6	1622.5	1617.3	1603.6
15°	1593.2	1597.1	1593.2	1586.1	1575.0
17.5°	1557.4	1557.4	1560.0	1547.7	1539.2
20°	1517.1	1519.1	1519.1	1509.3	1499.6
22.5°	1470.3	1476.2	1478.1	1467.7	1456.0
25°	1415.0	1426.1	1432.6	1422.2	1409.8
27.5°	1348.1	1365.0	1384.5	1376.7	1363.0
30°	1273.3	1298.0	1330.5	1324.0	1314.2
32.5°	1202.4	1227.1	1272.0	1269.4	1264.2
35°	1138.0	1153.6	1206.3	1212.8	1208.2
37.5°	1076.9	1091.2	1140.6	1155.6	1151.7
40°	1012.5	1028.1	1067.1	1093.8	1095.1
42.5°	948.8	963.7	995.6	1034.0	1034.0
45°	881.1	896.1	925.4	967.6	972.8
47.5°	814.8	830.4	859.0	901.3	909.8
50°	749.8	764.1	792.7	833.7	846.7
52.5°	682.2	697.8	725.7	763.4	782.3
55°	617.1	627.5	658.1	694.5	714.7
57.5°	549.5	559.2	593.7	624.9	645.7
60°	484.5	496.8	523.5	555.3	579.4
62.5°	422.0	435.0	457.8	485.8	513.1
65°	361.6	371.3	393.4	421.4	445.4
67.5°	303.0	311.5	333.6	353.1	378.5
70°	243.9	254.9	271.2	290.0	306.3
72.5°	196.4	200.9	214.6	228.3	245.2
75°	145.0	152.8	163.9	171.7	181.4
77.5°	104.0	108.6	115.1	121.6	130.7
80°	69.6	71.5	77.4	78.7	85.8
82.5°	42.3	43.6	44.9	45.5	48.1
85°	22.8	22.8	22.8	21.5	21.5
87.5°	13.0	13.0	11.1	9.1	6.5
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)