

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: P554789

Luminaire Tested: **FUSL-12-2-LD4-2HI-40-UNV-93-86-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: P554789  
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-40-UNV-93-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

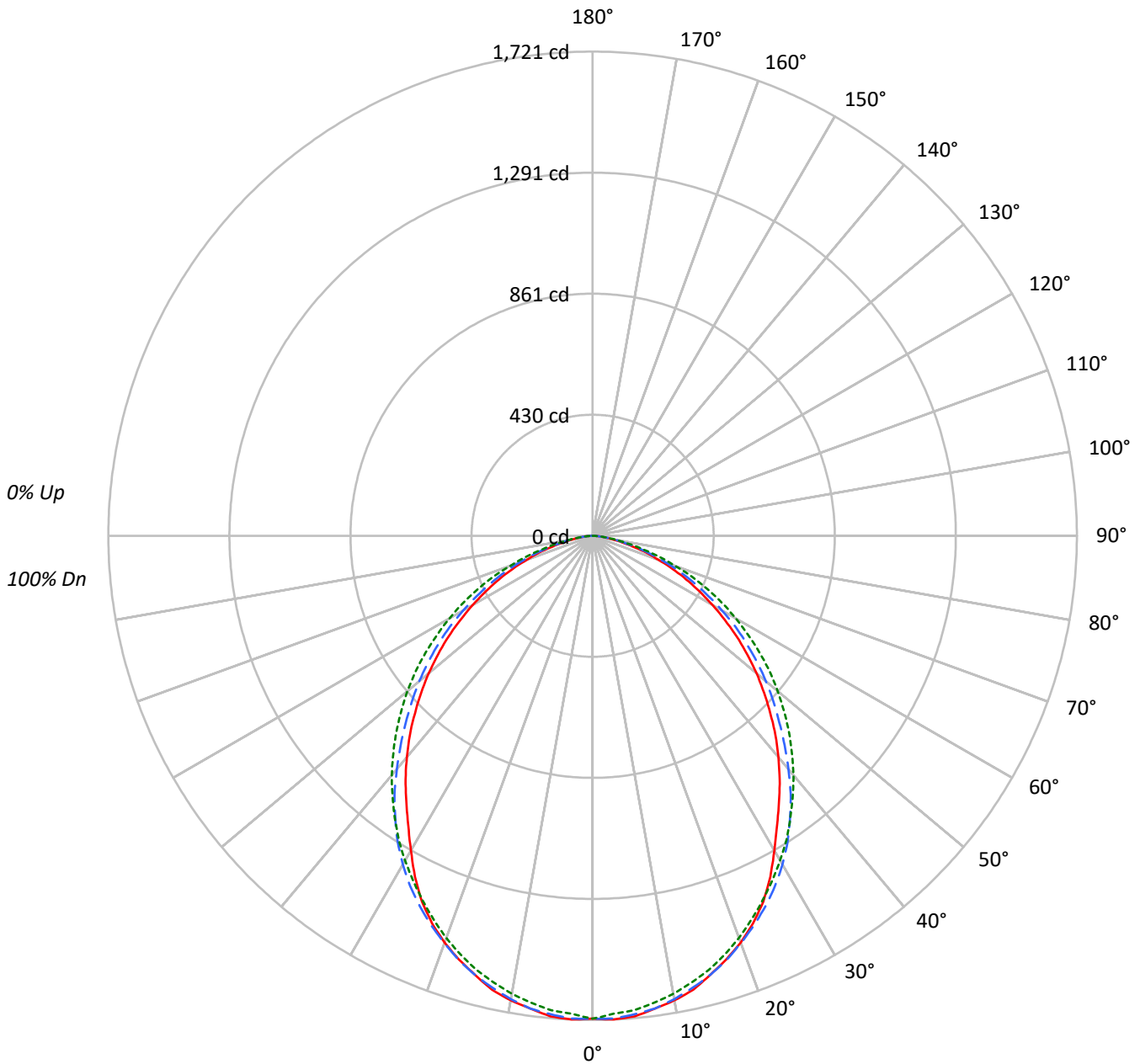
Lumens per Lamp: N/A  
Luminaire Lumens: 3969.0 lumens  
Efficiency: N/A  
Efficacy: 91.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (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°	9238	9238	9238
5°	9263	9224	9145
10°	9164	9139	9035
15°	9002	9002	8899
20°	8811	8822	8709
25°	8521	8627	8489
30°	8024	8385	8282
35°	7582	8037	8050
40°	7213	7602	7802
45°	6801	7142	7508
50°	6366	6730	7189
55°	5872	6261	6800
60°	5288	5713	6324
65°	4669	5081	5752
70°	3891	4327	4888
75°	3059	3456	3826
80°	2188	2433	2696
85°	1426	1426	1346



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.6	4.1
10°-20°	454.0	11.4
20°-30°	663.5	16.7
30°-40°	753.1	19.0
40°-50°	727.0	18.3
50°-60°	599.7	15.1
60°-70°	399.4	10.1
70°-80°	178.7	4.5
80°-90°	32.0	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°	1279.1	32.2
0°-40°	2032.2	51.2
0°-60°	3358.9	84.6
0°-90°	3969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3969.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1716	1716	1716	1716	1716	
5°	1714	1714	1707	1698	1693	162
15°	1616	1620	1616	1608	1597	455
25°	1435	1446	1453	1442	1430	657
35°	1154	1170	1223	1230	1225	723
45°	894	909	938	981	986	689
55°	626	636	667	704	725	559
65°	367	376	399	427	452	364
75°	147	155	166	174	184	161
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°	1716.5	1716.5	1716.5	1716.5	1716.5
2.5°	1721.1	1721.8	1717.8	1707.3	1700.7
5°	1714.5	1713.9	1707.3	1698.0	1692.8
7.5°	1695.4	1696.7	1694.7	1681.5	1674.3
10°	1676.9	1677.6	1672.3	1661.8	1653.2
12.5°	1653.2	1652.5	1645.3	1640.0	1626.1
15°	1615.6	1619.6	1615.6	1608.3	1597.1
17.5°	1579.3	1579.3	1582.0	1569.4	1560.9
20°	1538.4	1540.4	1540.4	1530.5	1520.6
22.5°	1491.0	1496.9	1498.9	1488.3	1476.5
25°	1434.9	1446.1	1452.7	1442.2	1429.6
27.5°	1367.0	1384.1	1403.9	1396.0	1382.2
30°	1291.2	1316.2	1349.2	1342.6	1332.7
32.5°	1219.3	1244.3	1289.8	1287.2	1281.9
35°	1154.0	1169.8	1223.2	1229.8	1225.2
37.5°	1092.0	1106.5	1156.6	1171.8	1167.8
40°	1026.7	1042.6	1082.1	1109.2	1110.5
42.5°	962.1	977.3	1009.6	1048.5	1048.5
45°	893.5	908.7	938.4	981.2	986.5
47.5°	826.3	842.1	871.1	914.0	922.5
50°	760.3	774.8	803.8	845.4	858.6
52.5°	691.7	707.6	735.9	774.2	793.3
55°	625.8	636.3	667.3	704.3	724.7
57.5°	557.2	567.1	602.1	633.7	654.8
60°	491.3	503.8	530.8	563.2	587.5
62.5°	428.0	441.2	464.2	492.6	520.3
65°	366.6	376.5	399.0	427.3	451.7
67.5°	307.3	315.9	338.3	358.1	383.8
70°	247.3	258.5	275.0	294.1	310.6
72.5°	199.1	203.8	217.6	231.5	248.6
75°	147.1	155.0	166.2	174.1	184.0
77.5°	105.5	110.1	116.7	123.3	132.5
80°	70.6	72.5	78.5	79.8	87.0
82.5°	42.9	44.2	45.5	46.2	48.8
85°	23.1	23.1	23.1	21.8	21.8
87.5°	13.2	13.2	11.2	9.2	6.6
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)