

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: P556135

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-93-87-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: P556135  
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-93-87-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

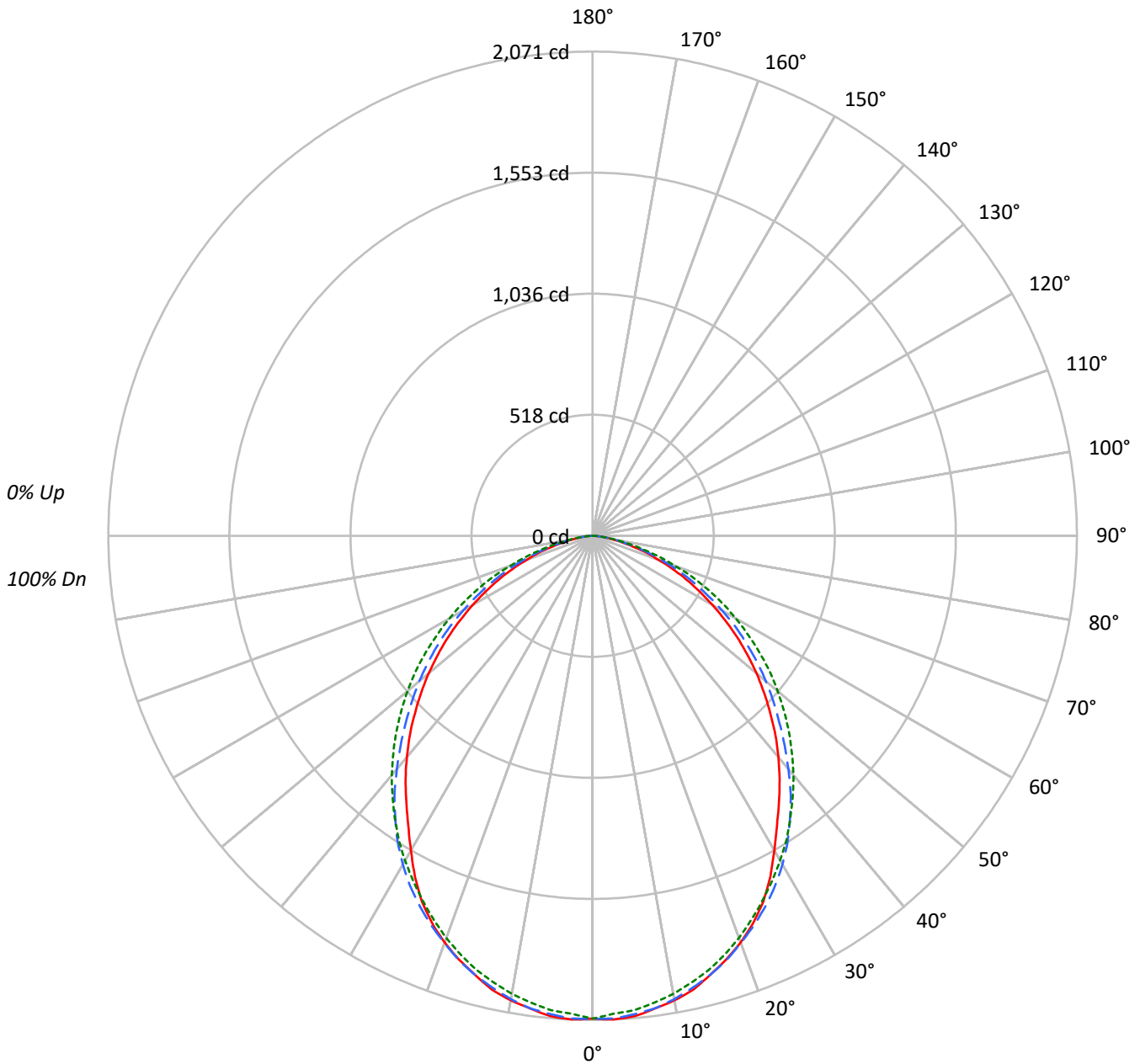
Lumens per Lamp: N/A  
Luminaire Lumens: 4776.0 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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					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°	11116	11116	11116
5°	11146	11099	11004
10°	11028	10997	10871
15°	10832	10832	10708
20°	10602	10616	10480
25°	10254	10381	10216
30°	9656	10089	9966
35°	9123	9671	9686
40°	8680	9148	9388
45°	8184	8595	9035
50°	7660	8099	8650
55°	7066	7535	8183
60°	6364	6876	7610
65°	5619	6114	6923
70°	4683	5207	5880
75°	3681	4159	4604
80°	2631	2926	3245
85°	1717	1717	1618



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	194.5	4.1
10°-20°	546.3	11.4
20°-30°	798.4	16.7
30°-40°	906.2	19.0
40°-50°	874.8	18.3
50°-60°	721.7	15.1
60°-70°	480.6	10.1
70°-80°	215.1	4.5
80°-90°	38.5	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°	1539.2	32.2
0°-40°	2445.4	51.2
0°-60°	4041.9	84.6
0°-90°	4776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4776.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2066	2066	2066	2066	2066	
5°	2063	2062	2054	2043	2037	195
15°	1944	1949	1944	1935	1922	548
25°	1727	1740	1748	1735	1720	791
35°	1389	1408	1472	1480	1474	870
45°	1075	1094	1129	1181	1187	830
55°	753	766	803	848	872	672
65°	441	453	480	514	544	437
75°	177	186	200	210	221	194
85°	28	28	28	26	26	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2065.5	2065.5	2065.5	2065.5	2065.5
2.5°	2071.1	2071.8	2067.1	2054.4	2046.5
5°	2063.1	2062.3	2054.4	2043.3	2036.9
7.5°	2040.1	2041.7	2039.3	2023.4	2014.7
10°	2017.9	2018.7	2012.3	1999.6	1989.3
12.5°	1989.3	1988.5	1979.8	1973.4	1956.8
15°	1944.1	1948.9	1944.1	1935.4	1921.9
17.5°	1900.4	1900.4	1903.6	1888.5	1878.2
20°	1851.2	1853.6	1853.6	1841.7	1829.8
22.5°	1794.1	1801.3	1803.6	1790.9	1776.7
25°	1726.7	1740.2	1748.1	1735.4	1720.3
27.5°	1644.9	1665.6	1689.4	1679.9	1663.2
30°	1553.7	1583.8	1623.5	1615.6	1603.7
32.5°	1467.2	1497.3	1552.1	1548.9	1542.6
35°	1388.6	1407.7	1472.0	1479.9	1474.3
37.5°	1314.0	1331.5	1391.8	1410.1	1405.3
40°	1235.5	1254.5	1302.1	1334.7	1336.3
42.5°	1157.7	1176.0	1214.9	1261.7	1261.7
45°	1075.2	1093.5	1129.2	1180.7	1187.1
47.5°	994.3	1013.3	1048.2	1099.8	1110.1
50°	914.9	932.4	967.3	1017.3	1033.1
52.5°	832.4	851.4	885.6	931.6	954.6
55°	753.0	765.7	803.0	847.5	872.1
57.5°	670.5	682.4	724.5	762.6	788.0
60°	591.2	606.2	638.8	677.7	707.0
62.5°	515.0	530.9	558.6	592.7	626.1
65°	441.2	453.1	480.1	514.2	543.6
67.5°	369.8	380.1	407.1	430.9	461.8
70°	297.6	311.1	330.9	353.9	373.7
72.5°	239.6	245.2	261.9	278.5	299.2
75°	177.0	186.5	200.0	209.5	221.4
77.5°	127.0	132.5	140.5	148.4	159.5
80°	84.9	87.3	94.4	96.0	104.7
82.5°	51.6	53.2	54.8	55.5	58.7
85°	27.8	27.8	27.8	26.2	26.2
87.5°	15.9	15.9	13.5	11.1	7.9
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)