

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: P556079

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-93-97-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: P556079  
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-40-UNV-93-97-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

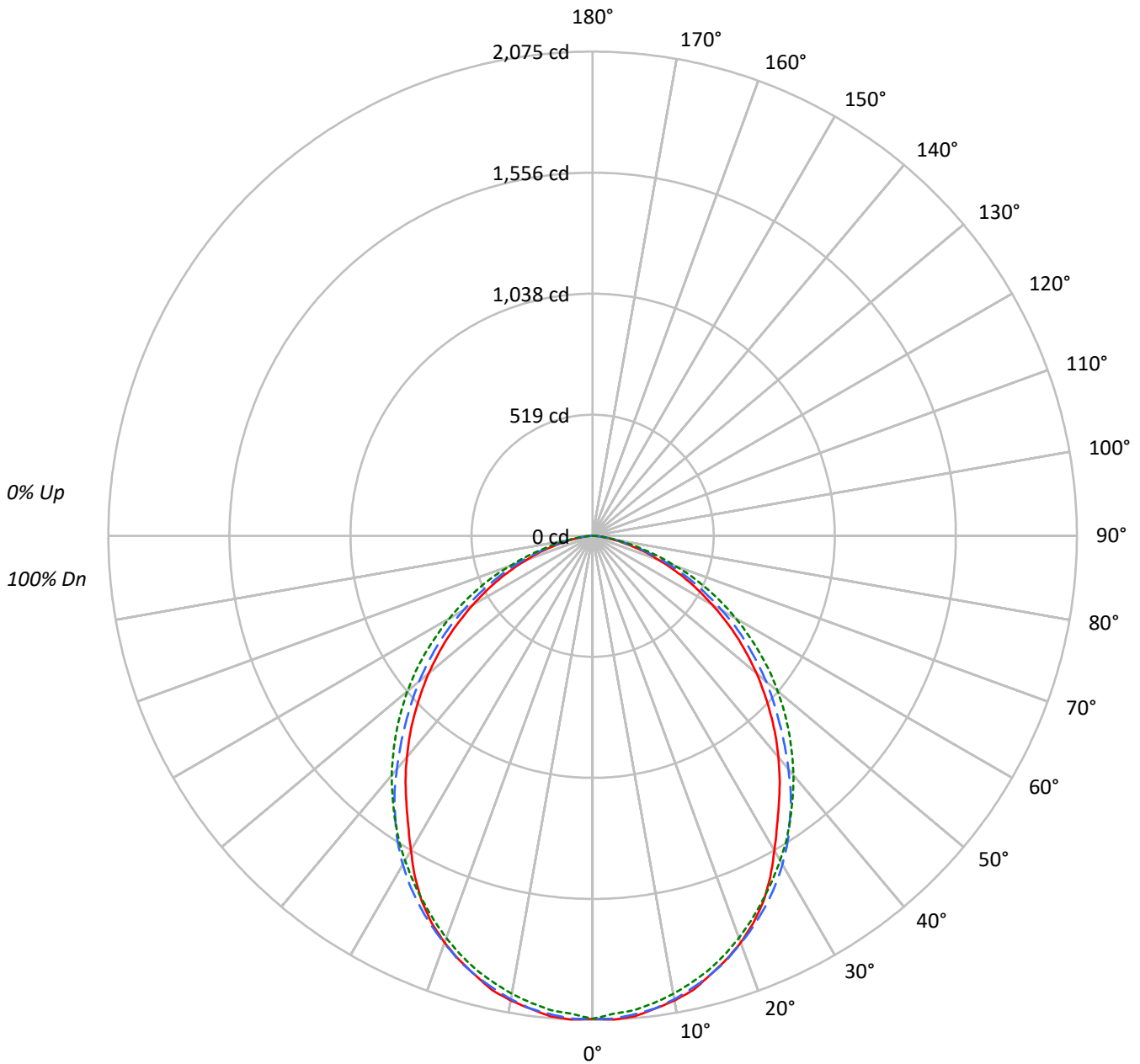
Lumens per Lamp: N/A  
Luminaire Lumens: 4786.0 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	11140	11140	11140
5°	11169	11122	11028
10°	11051	11020	10894
15°	10855	10855	10731
20°	10625	10639	10502
25°	10275	10403	10237
30°	9675	10110	9987
35°	9142	9691	9707
40°	8698	9168	9408
45°	8201	8612	9054
50°	7676	8116	8668
55°	7081	7551	8200
60°	6377	6890	7626
65°	5630	6127	6937
70°	4692	5218	5893
75°	3687	4167	4614
80°	2638	2932	3254
85°	1717	1717	1618



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	194.9	4.1
10°-20°	547.5	11.4
20°-30°	800.0	16.7
30°-40°	908.1	19.0
40°-50°	876.6	18.3
50°-60°	723.2	15.1
60°-70°	481.6	10.1
70°-80°	215.5	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°	1542.4	32.2
0°-40°	2450.5	51.2
0°-60°	4050.3	84.6
0°-90°	4786.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4786.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2070	2070	2070	2070	2070	
5°	2067	2067	2059	2048	2041	196
15°	1948	1953	1948	1939	1926	549
25°	1730	1744	1752	1739	1724	792
35°	1392	1411	1475	1483	1477	872
45°	1078	1096	1132	1183	1190	831
55°	755	767	805	849	874	673
65°	442	454	481	515	545	438
75°	177	187	200	210	222	194
85°	28	28	28	26	26	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2069.8	2069.8	2069.8	2069.8	2069.8
2.5°	2075.4	2076.2	2071.4	2058.7	2050.7
5°	2067.4	2066.6	2058.7	2047.6	2041.2
7.5°	2044.4	2046.0	2043.6	2027.7	2018.9
10°	2022.1	2022.9	2016.5	2003.8	1993.5
12.5°	1993.5	1992.7	1983.9	1977.6	1960.9
15°	1948.2	1952.9	1948.2	1939.4	1925.9
17.5°	1904.4	1904.4	1907.6	1892.5	1882.2
20°	1855.1	1857.5	1857.5	1845.6	1833.7
22.5°	1797.9	1805.0	1807.4	1794.7	1780.4
25°	1730.3	1743.8	1751.8	1739.0	1723.9
27.5°	1648.4	1669.1	1692.9	1683.4	1666.7
30°	1556.9	1587.2	1626.9	1619.0	1607.0
32.5°	1470.3	1500.5	1555.3	1552.2	1545.8
35°	1391.5	1410.6	1475.0	1483.0	1477.4
37.5°	1316.8	1334.3	1394.7	1413.0	1408.2
40°	1238.1	1257.2	1304.9	1337.5	1339.1
42.5°	1160.1	1178.4	1217.4	1264.3	1264.3
45°	1077.5	1095.7	1131.5	1183.2	1189.6
47.5°	996.3	1015.4	1050.4	1102.1	1112.4
50°	916.8	934.3	969.3	1019.4	1035.3
52.5°	834.1	853.2	887.4	933.5	956.6
55°	754.6	767.3	804.7	849.2	873.9
57.5°	671.9	683.8	726.0	764.2	789.6
60°	592.4	607.5	640.1	679.1	708.5
62.5°	516.1	532.0	559.8	594.0	627.4
65°	442.1	454.0	481.1	515.3	544.7
67.5°	370.5	380.9	407.9	431.8	462.8
70°	298.2	311.7	331.6	354.6	374.5
72.5°	240.1	245.7	262.4	279.1	299.8
75°	177.3	186.9	200.4	209.9	221.9
77.5°	127.2	132.8	140.7	148.7	159.8
80°	85.1	87.5	94.6	96.2	105.0
82.5°	51.7	53.3	54.9	55.7	58.8
85°	27.8	27.8	27.8	26.2	26.2
87.5°	15.9	15.9	13.5	11.1	8.0
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)