

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: P556269

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-93-96-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: P556269  
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-12-4-LD4-1HI-35-UNV-93-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

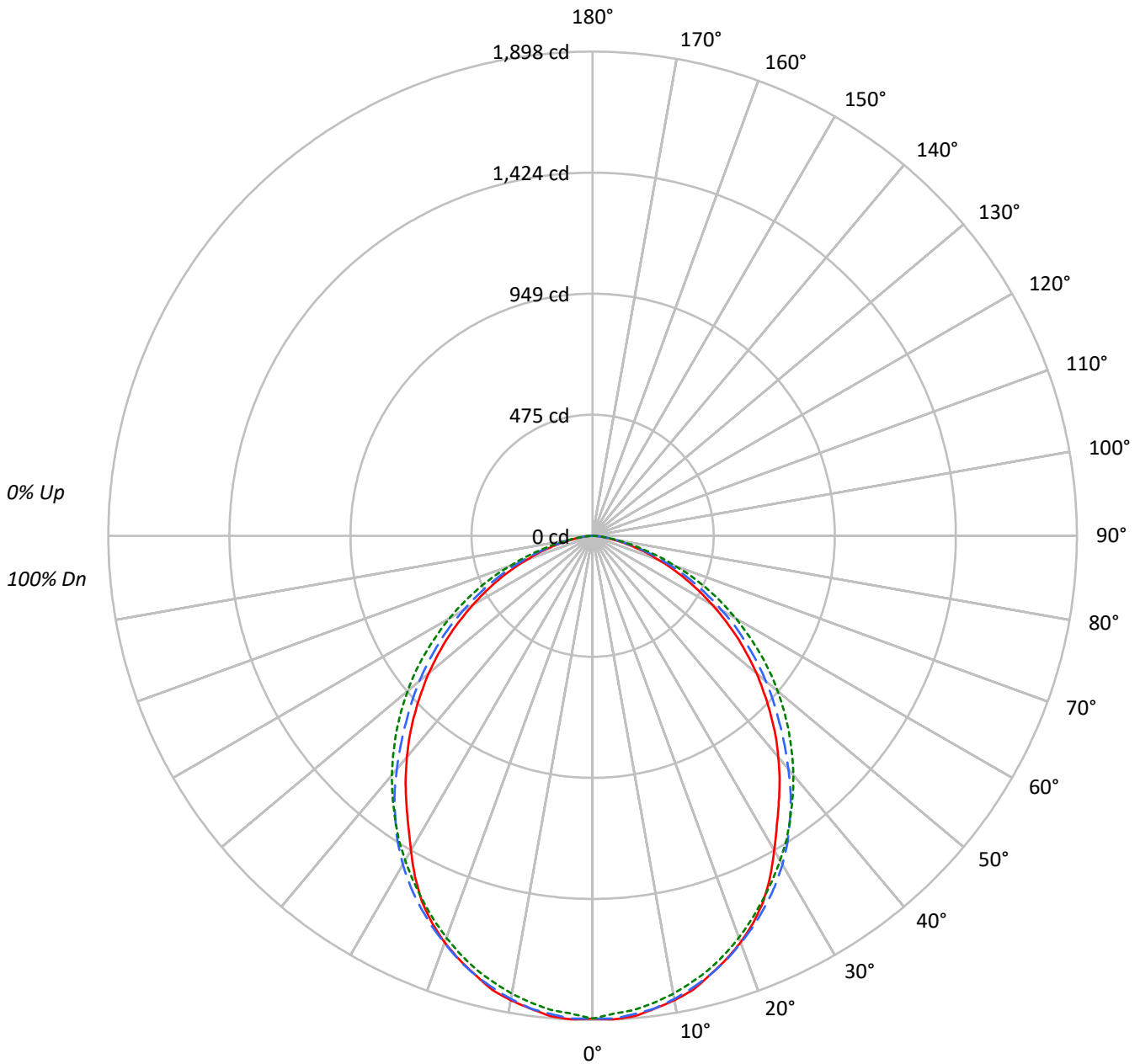
Lumens per Lamp: N/A  
Luminaire Lumens: 4376.0 lumens  
Efficiency: N/A  
Efficacy: 101.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5093	5093	5093
5°	5106	5085	5041
10°	5052	5038	4981
15°	4963	4963	4906
20°	4857	4864	4801
25°	4698	4756	4680
30°	4424	4622	4566
35°	4180	4431	4438
40°	3977	4191	4301
45°	3749	3937	4139
50°	3509	3710	3963
55°	3237	3452	3749
60°	2915	3150	3486
65°	2574	2801	3171
70°	2145	2386	2694
75°	1685	1905	2109
80°	1206	1340	1488
85°	784	784	741



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	178.2	4.1
10°-20°	500.6	11.4
20°-30°	731.5	16.7
30°-40°	830.3	19.0
40°-50°	801.6	18.3
50°-60°	661.2	15.1
60°-70°	440.3	10.1
70°-80°	197.0	4.5
80°-90°	35.2	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°	1410.3	32.2
0°-40°	2240.6	51.2
0°-60°	3703.4	84.6
0°-90°	4376.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4376.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1892	1892	1892	1892	1892	
5°	1890	1890	1882	1872	1866	179
15°	1781	1786	1781	1773	1761	502
25°	1582	1594	1602	1590	1576	725
35°	1272	1290	1349	1356	1351	797
45°	985	1002	1035	1082	1088	760
55°	690	702	736	776	799	616
65°	404	415	440	471	498	401
75°	162	171	183	192	203	177
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1892.5	1892.5	1892.5	1892.5	1892.5
2.5°	1897.6	1898.3	1894.0	1882.3	1875.1
5°	1890.3	1889.6	1882.3	1872.1	1866.3
7.5°	1869.2	1870.7	1868.5	1854.0	1846.0
10°	1848.9	1849.6	1843.8	1832.2	1822.7
12.5°	1822.7	1822.0	1814.0	1808.2	1792.9
15°	1781.3	1785.6	1781.3	1773.3	1760.9
17.5°	1741.3	1741.3	1744.2	1730.4	1720.9
20°	1696.2	1698.4	1698.4	1687.5	1676.6
22.5°	1643.9	1650.4	1652.6	1640.9	1627.9
25°	1582.1	1594.4	1601.7	1590.1	1576.2
27.5°	1507.2	1526.1	1547.9	1539.2	1523.9
30°	1423.6	1451.2	1487.5	1480.3	1469.4
32.5°	1344.3	1371.9	1422.1	1419.2	1413.4
35°	1272.3	1289.8	1348.7	1355.9	1350.9
37.5°	1204.0	1220.0	1275.2	1292.0	1287.6
40°	1132.0	1149.5	1193.1	1222.9	1224.3
42.5°	1060.8	1077.5	1113.1	1156.0	1156.0
45°	985.2	1001.9	1034.6	1081.8	1087.7
47.5°	911.0	928.4	960.4	1007.7	1017.1
50°	838.3	854.3	886.3	932.1	946.6
52.5°	762.7	780.1	811.4	853.6	874.6
55°	690.0	701.6	735.8	776.5	799.0
57.5°	614.4	625.3	663.8	698.7	722.0
60°	541.7	555.5	585.3	620.9	647.8
62.5°	471.9	486.4	511.8	543.1	573.6
65°	404.2	415.1	439.9	471.1	498.0
67.5°	338.8	348.3	373.0	394.8	423.1
70°	272.6	285.0	303.2	324.3	342.4
72.5°	219.6	224.7	239.9	255.2	274.1
75°	162.1	170.9	183.2	191.9	202.8
77.5°	116.3	121.4	128.7	136.0	146.1
80°	77.8	80.0	86.5	88.0	96.0
82.5°	47.3	48.7	50.2	50.9	53.8
85°	25.4	25.4	25.4	24.0	24.0
87.5°	14.5	14.5	12.4	10.2	7.3
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)