

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: P556077

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-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: P556077  
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-93-96-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

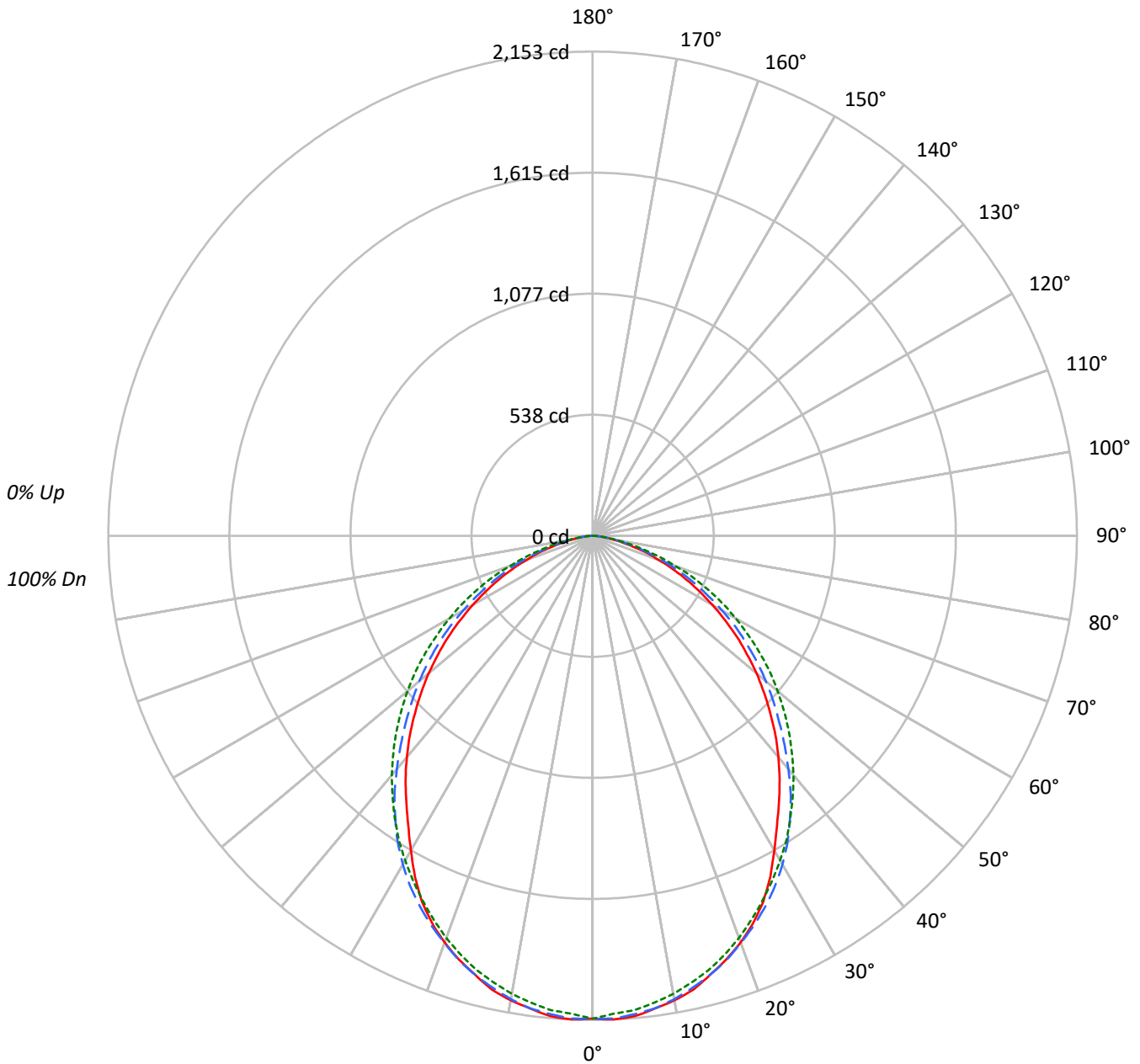
Lumens per Lamp: N/A  
Luminaire Lumens: 4965.0 lumens  
Efficiency: N/A  
Efficacy: 99.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	11556	11556	11556
5°	11587	11538	11440
10°	11464	11433	11302
15°	11261	11261	11132
20°	11022	11037	10895
25°	10659	10792	10620
30°	10038	10489	10360
35°	9485	10054	10070
40°	9024	9511	9759
45°	8507	8934	9393
50°	7963	8420	8992
55°	7345	7833	8507
60°	6616	7148	7911
65°	5840	6356	7196
70°	4867	5413	6113
75°	3826	4323	4785
80°	2737	3044	3375
85°	1785	1785	1680



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.2	4.1
10°-20°	567.9	11.4
20°-30°	830.0	16.7
30°-40°	942.1	19.0
40°-50°	909.4	18.3
50°-60°	750.2	15.1
60°-70°	499.6	10.1
70°-80°	223.6	4.5
80°-90°	40.0	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°	1600.1	32.2
0°-40°	2542.2	51.2
0°-60°	4201.8	84.6
0°-90°	4965.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4965.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2147	2147	2147	2147	2147	
5°	2145	2144	2136	2124	2118	203
15°	2021	2026	2021	2012	1998	570
25°	1795	1809	1817	1804	1788	822
35°	1444	1463	1530	1538	1533	904
45°	1118	1137	1174	1228	1234	862
55°	783	796	835	881	907	699
65°	459	471	499	534	565	455
75°	184	194	208	218	230	201
85°	29	29	29	27	27	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2147.2	2147.2	2147.2	2147.2	2147.2
2.5°	2153.0	2153.8	2148.9	2135.7	2127.4
5°	2144.8	2143.9	2135.7	2124.1	2117.5
7.5°	2120.8	2122.5	2120.0	2103.5	2094.4
10°	2097.7	2098.6	2092.0	2078.8	2068.0
12.5°	2068.0	2067.2	2058.1	2051.5	2034.2
15°	2021.0	2026.0	2021.0	2011.9	1997.9
17.5°	1975.7	1975.7	1979.0	1963.3	1952.6
20°	1924.5	1927.0	1927.0	1914.6	1902.2
22.5°	1865.1	1872.5	1875.0	1861.8	1847.0
25°	1795.0	1809.0	1817.3	1804.1	1788.4
27.5°	1710.0	1731.5	1756.2	1746.3	1729.0
30°	1615.2	1646.5	1687.8	1679.5	1667.1
32.5°	1525.3	1556.6	1613.5	1610.2	1603.6
35°	1443.6	1463.4	1530.2	1538.5	1532.7
37.5°	1366.0	1384.2	1446.9	1465.9	1460.9
40°	1284.4	1304.2	1353.7	1387.5	1389.1
42.5°	1203.5	1222.5	1262.9	1311.6	1311.6
45°	1117.7	1136.7	1173.8	1227.5	1234.1
47.5°	1033.6	1053.4	1089.7	1143.3	1154.0
50°	951.1	969.3	1005.6	1057.5	1074.0
52.5°	865.3	885.1	920.6	968.4	992.4
55°	782.8	796.0	834.8	881.0	906.6
57.5°	697.0	709.4	753.1	792.7	819.1
60°	614.6	630.2	664.1	704.5	735.0
62.5°	535.4	551.9	580.7	616.2	650.9
65°	458.6	471.0	499.1	534.5	565.1
67.5°	384.4	395.1	423.2	447.9	480.1
70°	309.3	323.4	344.0	367.9	388.5
72.5°	249.1	254.9	272.2	289.5	311.0
75°	184.0	193.9	207.9	217.8	230.1
77.5°	132.0	137.8	146.0	154.3	165.8
80°	88.3	90.7	98.2	99.8	108.9
82.5°	53.6	55.3	56.9	57.7	61.0
85°	28.9	28.9	28.9	27.2	27.2
87.5°	16.5	16.5	14.0	11.5	8.2
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)