

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: P556049

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-82-84-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: P556049  
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-82-84-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

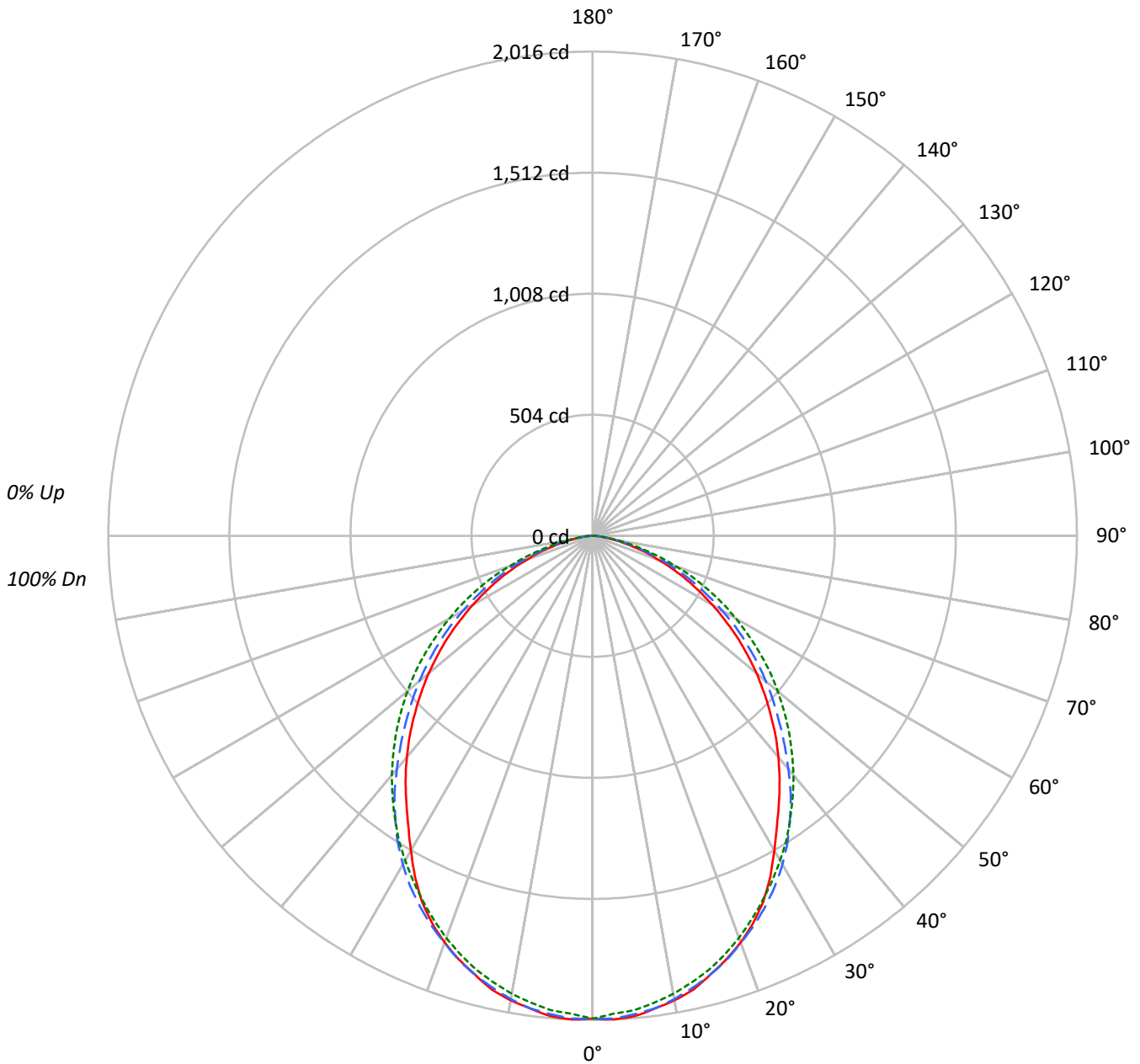
Lumens per Lamp: N/A  
Luminaire Lumens: 4649.0 lumens  
Efficiency: N/A  
Efficacy: 93.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
Input Voltage (V): NR  
Input Current (Ain): 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°	10821	10821	10821
5°	10850	10804	10712
10°	10734	10705	10582
15°	10544	10544	10424
20°	10321	10334	10202
25°	9981	10105	9944
30°	9399	9821	9701
35°	8881	9414	9429
40°	8449	8905	9138
45°	7966	8366	8795
50°	7457	7884	8421
55°	6878	7335	7965
60°	6194	6693	7408
65°	5470	5951	6738
70°	4559	5068	5725
75°	3581	4047	4481
80°	2560	2848	3161
85°	1667	1667	1575



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.3	4.1
10°-20°	531.8	11.4
20°-30°	777.1	16.7
30°-40°	882.1	19.0
40°-50°	851.6	18.3
50°-60°	702.5	15.1
60°-70°	467.8	10.1
70°-80°	209.3	4.5
80°-90°	37.4	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°	1498.2	32.2
0°-40°	2380.4	51.2
0°-60°	3934.4	84.6
0°-90°	4649.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4649.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2011	2011	2011	2011	2011	
5°	2008	2008	2000	1989	1983	190
15°	1892	1897	1892	1884	1871	533
25°	1681	1694	1702	1689	1675	770
35°	1352	1370	1433	1440	1435	847
45°	1047	1064	1099	1149	1156	808
55°	733	745	782	825	849	654
65°	430	441	467	500	529	426
75°	172	182	195	204	216	188
85°	27	27	27	26	26	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2010.6	2010.6	2010.6	2010.6	2010.6
2.5°	2016.0	2016.8	2012.1	1999.8	1992.0
5°	2008.3	2007.5	1999.8	1988.9	1982.8
7.5°	1985.9	1987.4	1985.1	1969.6	1961.1
10°	1964.2	1965.0	1958.8	1946.5	1936.4
12.5°	1936.4	1935.6	1927.2	1921.0	1904.8
15°	1892.4	1897.0	1892.4	1883.9	1870.8
17.5°	1849.9	1849.9	1853.0	1838.3	1828.3
20°	1802.0	1804.3	1804.3	1792.8	1781.2
22.5°	1746.4	1753.4	1755.7	1743.3	1729.4
25°	1680.8	1693.9	1701.6	1689.3	1674.6
27.5°	1601.2	1621.3	1644.5	1635.2	1619.0
30°	1512.4	1541.7	1580.3	1572.6	1561.0
32.5°	1428.2	1457.5	1510.8	1507.7	1501.6
35°	1351.7	1370.2	1432.8	1440.5	1435.1
37.5°	1279.1	1296.1	1354.8	1372.6	1367.9
40°	1202.6	1221.2	1267.5	1299.2	1300.7
42.5°	1126.9	1144.7	1182.6	1228.1	1228.1
45°	1046.6	1064.4	1099.1	1149.3	1155.5
47.5°	967.8	986.4	1020.3	1070.6	1080.6
50°	890.6	907.6	941.6	990.2	1005.7
52.5°	810.3	828.8	862.0	906.8	929.2
55°	733.0	745.4	781.7	824.9	848.9
57.5°	652.7	664.3	705.2	742.3	767.0
60°	575.4	590.1	621.8	659.6	688.2
62.5°	501.3	516.7	543.8	577.0	609.4
65°	429.5	441.0	467.3	500.5	529.1
67.5°	359.9	370.0	396.2	419.4	449.5
70°	289.7	302.8	322.1	344.5	363.8
72.5°	233.3	238.7	254.9	271.1	291.2
75°	172.2	181.5	194.6	203.9	215.5
77.5°	123.6	129.0	136.7	144.4	155.3
80°	82.6	85.0	91.9	93.5	102.0
82.5°	50.2	51.8	53.3	54.1	57.2
85°	27.0	27.0	27.0	25.5	25.5
87.5°	15.4	15.4	13.1	10.8	7.7
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)