

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: P556568

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-82-88-EDD-90**

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: P556568
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-LD4-1LO-40-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

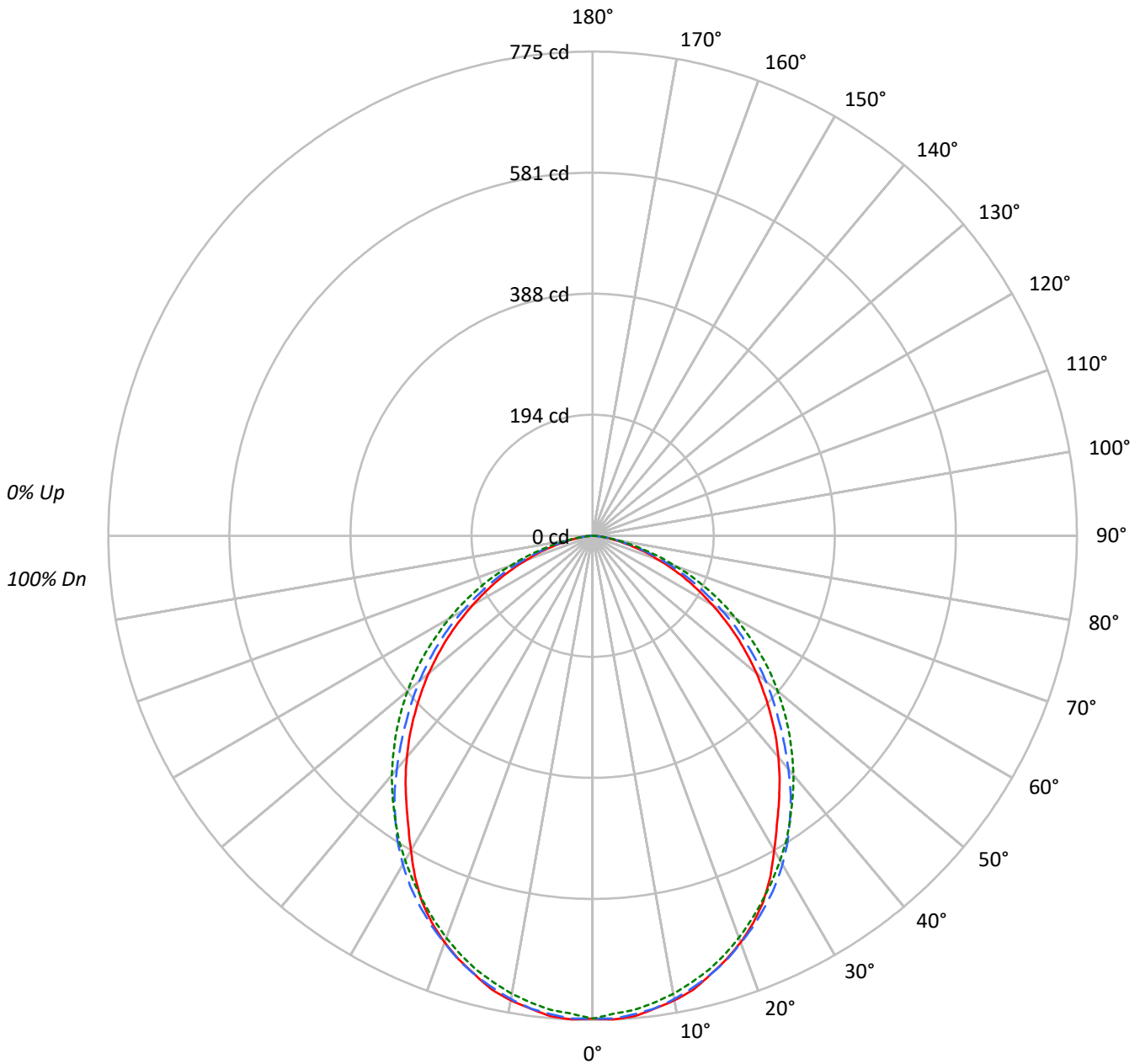
Lumens per Lamp: N/A
Luminaire Lumens: 1787.0 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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				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°	2080	2080	2080
5°	2085	2076	2059
10°	2063	2057	2034
15°	2026	2026	2003
20°	1984	1986	1961
25°	1918	1942	1911
30°	1806	1888	1864
35°	1707	1809	1812
40°	1624	1711	1756
45°	1531	1608	1690
50°	1433	1515	1618
55°	1322	1410	1531
60°	1190	1286	1424
65°	1051	1144	1295
70°	876	974	1100
75°	688	778	861
80°	493	547	607
85°	321	321	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.8	4.1
10°-20°	204.4	11.4
20°-30°	298.7	16.7
30°-40°	339.1	19.0
40°-50°	327.3	18.3
50°-60°	270.0	15.1
60°-70°	179.8	10.1
70°-80°	80.5	4.5
80°-90°	14.4	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°	575.9	32.2
0°-40°	915.0	51.2
0°-60°	1512.3	84.6
0°-90°	1787.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1787.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	773	773	773	773	773	
5°	772	772	769	764	762	73
15°	727	729	727	724	719	205
25°	646	651	654	649	644	296
35°	520	527	551	554	552	326
45°	402	409	422	442	444	310
55°	282	286	300	317	326	251
65°	165	170	180	192	203	164
75°	66	70	75	78	83	72
85°	10	10	10	10	10	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	772.8	772.8	772.8	772.8	772.8
2.5°	774.9	775.2	773.4	768.7	765.7
5°	771.9	771.6	768.7	764.5	762.1
7.5°	763.3	763.9	763.0	757.1	753.8
10°	755.0	755.3	752.9	748.2	744.3
12.5°	744.3	744.0	740.8	738.4	732.2
15°	727.4	729.2	727.4	724.1	719.1
17.5°	711.1	711.1	712.3	706.6	702.8
20°	692.7	693.6	693.6	689.1	684.7
22.5°	671.3	674.0	674.9	670.1	664.8
25°	646.1	651.1	654.1	649.3	643.7
27.5°	615.5	623.2	632.1	628.5	622.3
30°	581.3	592.6	607.5	604.5	600.0
32.5°	549.0	560.3	580.7	579.5	577.2
35°	519.6	526.7	550.7	553.7	551.6
37.5°	491.7	498.2	520.8	527.6	525.8
40°	462.3	469.4	487.2	499.4	500.0
42.5°	433.2	440.0	454.6	472.1	472.1
45°	402.3	409.1	422.5	441.8	444.2
47.5°	372.0	379.1	392.2	411.5	415.4
50°	342.3	348.9	361.9	380.6	386.6
52.5°	311.4	318.6	331.3	348.6	357.2
55°	281.8	286.5	300.5	317.1	326.3
57.5°	250.9	255.3	271.1	285.3	294.8
60°	221.2	226.8	239.0	253.6	264.5
62.5°	192.7	198.6	209.0	221.8	234.3
65°	165.1	169.5	179.6	192.4	203.4
67.5°	138.4	142.2	152.3	161.2	172.8
70°	111.3	116.4	123.8	132.4	139.8
72.5°	89.7	91.7	98.0	104.2	111.9
75°	66.2	69.8	74.8	78.4	82.8
77.5°	47.5	49.6	52.6	55.5	59.7
80°	31.8	32.7	35.3	35.9	39.2
82.5°	19.3	19.9	20.5	20.8	22.0
85°	10.4	10.4	10.4	9.8	9.8
87.5°	5.9	5.9	5.0	4.2	3.0
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)