

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: P556440

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-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: P556440
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-30-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

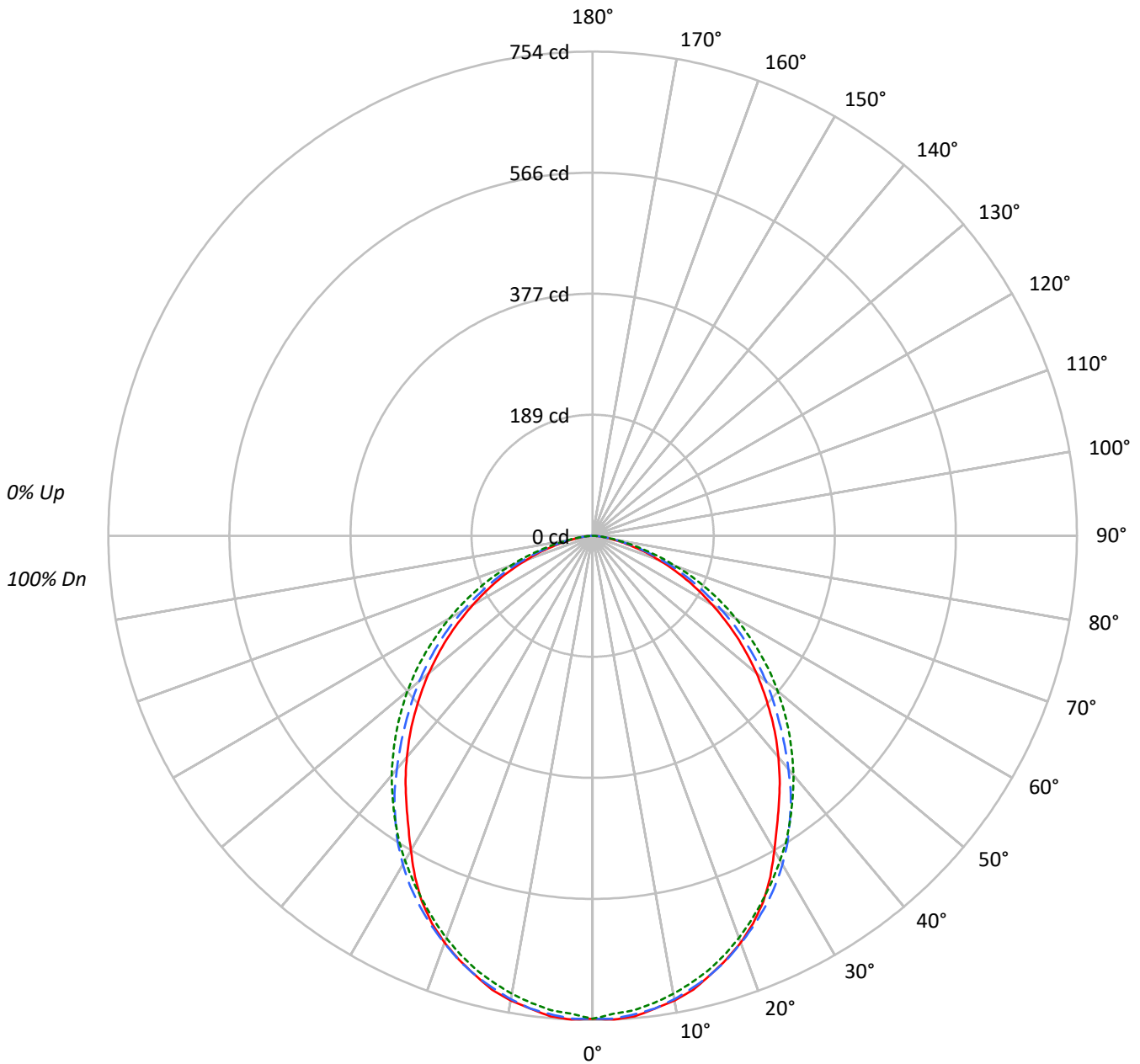
Lumens per Lamp: N/A
Luminaire Lumens: 1739.0 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P556440

CATALOG NUMBER: FUSL-12-4-LD4-1LO-30-UNV-82-88-EDD-90

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°	2024	2024	2024
5°	2029	2021	2004
10°	2008	2002	1979
15°	1972	1972	1950
20°	1930	1933	1908
25°	1867	1890	1860
30°	1758	1837	1814
35°	1661	1761	1763
40°	1580	1665	1709
45°	1490	1564	1645
50°	1394	1474	1575
55°	1286	1372	1490
60°	1158	1252	1385
65°	1023	1113	1260
70°	852	948	1071
75°	670	757	838
80°	479	533	590
85°	312	312	293



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	4.1
10°-20°	198.9	11.4
20°-30°	290.7	16.7
30°-40°	330.0	19.0
40°-50°	318.5	18.3
50°-60°	262.8	15.1
60°-70°	175.0	10.1
70°-80°	78.3	4.5
80°-90°	14.0	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°	560.4	32.2
0°-40°	890.4	51.2
0°-60°	1471.7	84.6
0°-90°	1739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1739.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	751	751	748	744	742	71
15°	708	710	708	705	700	200
25°	629	634	636	632	626	288
35°	506	513	536	539	537	317
45°	392	398	411	430	432	302
55°	274	279	292	309	318	245
65°	161	165	175	187	198	159
75°	64	68	73	76	81	70
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°	752.1	752.1	752.1	752.1	752.1
2.5°	754.1	754.4	752.7	748.0	745.1
5°	751.2	750.9	748.0	744.0	741.7
7.5°	742.8	743.4	742.5	736.8	733.6
10°	734.7	735.0	732.7	728.1	724.3
12.5°	724.3	724.0	720.9	718.6	712.5
15°	707.9	709.6	707.9	704.7	699.8
17.5°	692.0	692.0	693.1	687.6	683.9
20°	674.1	674.9	674.9	670.6	666.3
22.5°	653.3	655.9	656.7	652.1	646.9
25°	628.7	633.6	636.5	631.9	626.4
27.5°	598.9	606.5	615.1	611.7	605.6
30°	565.7	576.7	591.1	588.3	583.9
32.5°	534.2	545.2	565.1	564.0	561.7
35°	505.6	512.6	536.0	538.8	536.8
37.5°	478.5	484.8	506.8	513.4	511.7
40°	449.9	456.8	474.1	486.0	486.6
42.5°	421.5	428.2	442.3	459.4	459.4
45°	391.5	398.1	411.1	429.9	432.2
47.5°	362.0	369.0	381.7	400.5	404.2
50°	333.1	339.5	352.2	370.4	376.2
52.5°	303.1	310.0	322.4	339.2	347.6
55°	274.2	278.8	292.4	308.6	317.5
57.5°	244.1	248.5	263.8	277.7	286.9
60°	215.2	220.7	232.6	246.7	257.4
62.5°	187.5	193.3	203.4	215.8	228.0
65°	160.6	165.0	174.8	187.2	197.9
67.5°	134.6	138.4	148.2	156.9	168.2
70°	108.3	113.3	120.5	128.9	136.1
72.5°	87.3	89.3	95.3	101.4	108.9
75°	64.4	67.9	72.8	76.3	80.6
77.5°	46.2	48.3	51.1	54.0	58.1
80°	30.9	31.8	34.4	35.0	38.1
82.5°	18.8	19.4	19.9	20.2	21.4
85°	10.1	10.1	10.1	9.5	9.5
87.5°	5.8	5.8	4.9	4.0	2.9
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)