

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: P556526

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-93-97-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: P556526
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-35-UNV-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

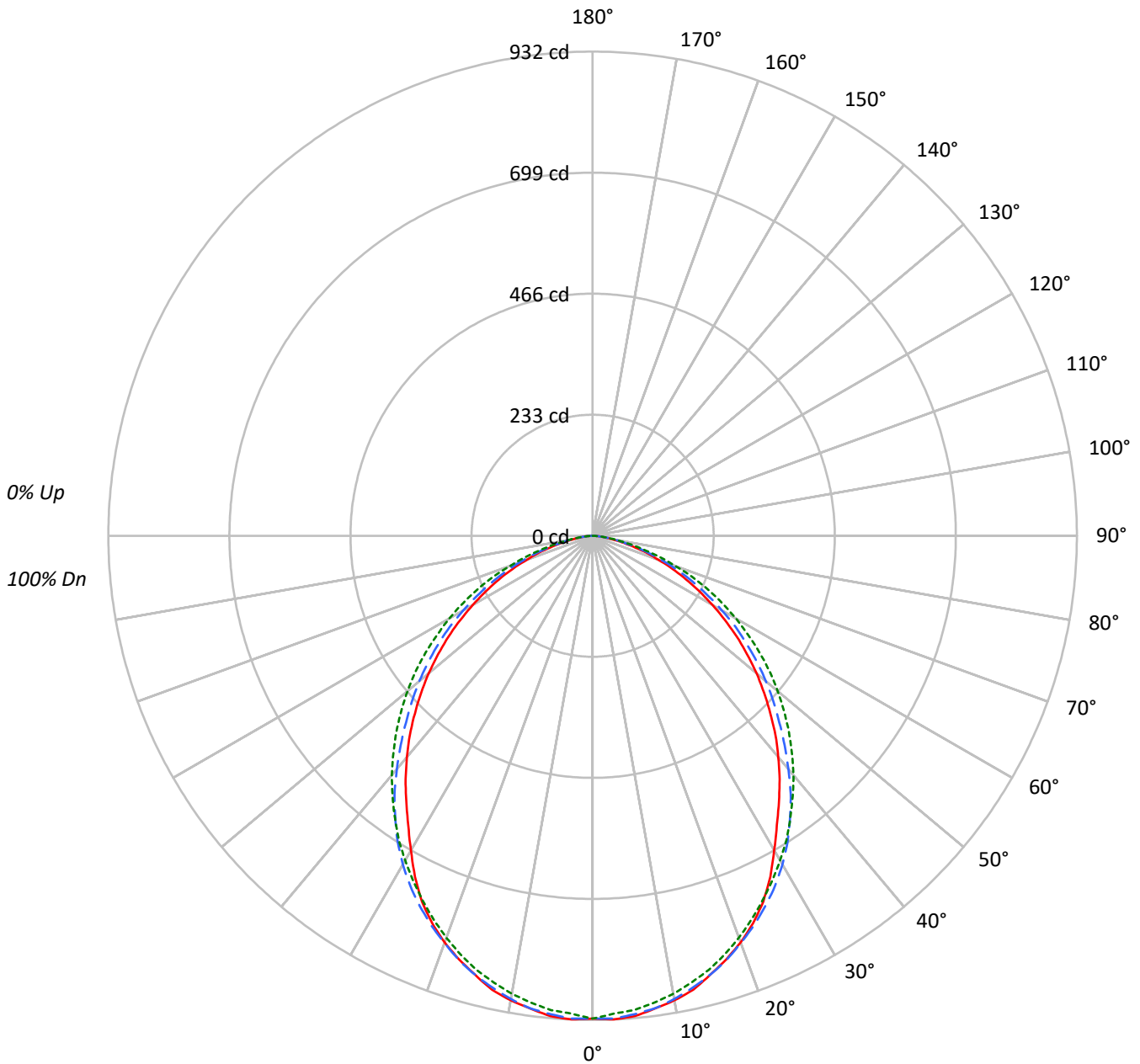
Lumens per Lamp: N/A
Luminaire Lumens: 2149.0 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): 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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CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-93-97-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°	2501	2501	2501
5°	2508	2497	2476
10°	2481	2474	2446
15°	2437	2437	2409
20°	2385	2389	2358
25°	2307	2336	2298
30°	2172	2270	2242
35°	2053	2176	2179
40°	1953	2058	2112
45°	1841	1934	2033
50°	1724	1822	1946
55°	1590	1695	1841
60°	1432	1547	1712
65°	1264	1375	1557
70°	1054	1172	1323
75°	828	936	1036
80°	592	659	730
85°	386	386	364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.5	4.1
10°-20°	245.8	11.4
20°-30°	359.2	16.7
30°-40°	407.8	19.0
40°-50°	393.6	18.3
50°-60°	324.7	15.1
60°-70°	216.2	10.1
70°-80°	96.8	4.5
80°-90°	17.3	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°	692.6	32.2
0°-40°	1100.3	51.2
0°-60°	1818.7	84.6
0°-90°	2149.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2149.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	928	928	924	919	916	88
15°	875	877	875	871	865	247
25°	777	783	787	781	774	356
35°	625	633	662	666	663	391
45°	484	492	508	531	534	373
55°	339	344	361	381	392	302
65°	198	204	216	231	245	197
75°	80	84	90	94	100	87
85°	12	12	12	12	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	929.4	929.4	929.4	929.4	929.4
2.5°	931.9	932.2	930.1	924.4	920.8
5°	928.3	928.0	924.4	919.4	916.5
7.5°	918.0	918.7	917.6	910.5	906.5
10°	908.0	908.3	905.5	899.8	895.1
12.5°	895.1	894.8	890.8	888.0	880.5
15°	874.8	876.9	874.8	870.8	864.8
17.5°	855.1	855.1	856.5	849.8	845.1
20°	833.0	834.1	834.1	828.7	823.3
22.5°	807.3	810.5	811.6	805.8	799.4
25°	776.9	783.0	786.6	780.9	774.1
27.5°	740.2	749.4	760.1	755.9	748.4
30°	699.1	712.7	730.5	726.9	721.6
32.5°	660.2	673.7	698.4	697.0	694.1
35°	624.8	633.4	662.3	665.9	663.4
37.5°	591.3	599.1	626.3	634.5	632.3
40°	555.9	564.5	585.9	600.5	601.3
42.5°	520.9	529.1	546.6	567.7	567.7
45°	483.8	492.0	508.1	531.3	534.1
47.5°	447.4	455.9	471.7	494.9	499.5
50°	411.7	419.5	435.2	457.7	464.9
52.5°	374.5	383.1	398.5	419.2	429.5
55°	338.8	344.5	361.3	381.3	392.4
57.5°	301.7	307.1	326.0	343.1	354.5
60°	266.0	272.8	287.4	304.9	318.1
62.5°	231.7	238.9	251.4	266.7	281.7
65°	198.5	203.9	216.0	231.4	244.6
67.5°	166.4	171.0	183.2	193.9	207.8
70°	133.9	140.0	148.9	159.2	168.2
72.5°	107.8	110.3	117.8	125.3	134.6
75°	79.6	83.9	90.0	94.3	99.6
77.5°	57.1	59.6	63.2	66.8	71.8
80°	38.2	39.3	42.5	43.2	47.1
82.5°	23.2	23.9	24.6	25.0	26.4
85°	12.5	12.5	12.5	11.8	11.8
87.5°	7.1	7.1	6.1	5.0	3.6
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)