

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: P558281

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-81-88-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: P558281
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-LD4-3STD-35-UNV-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

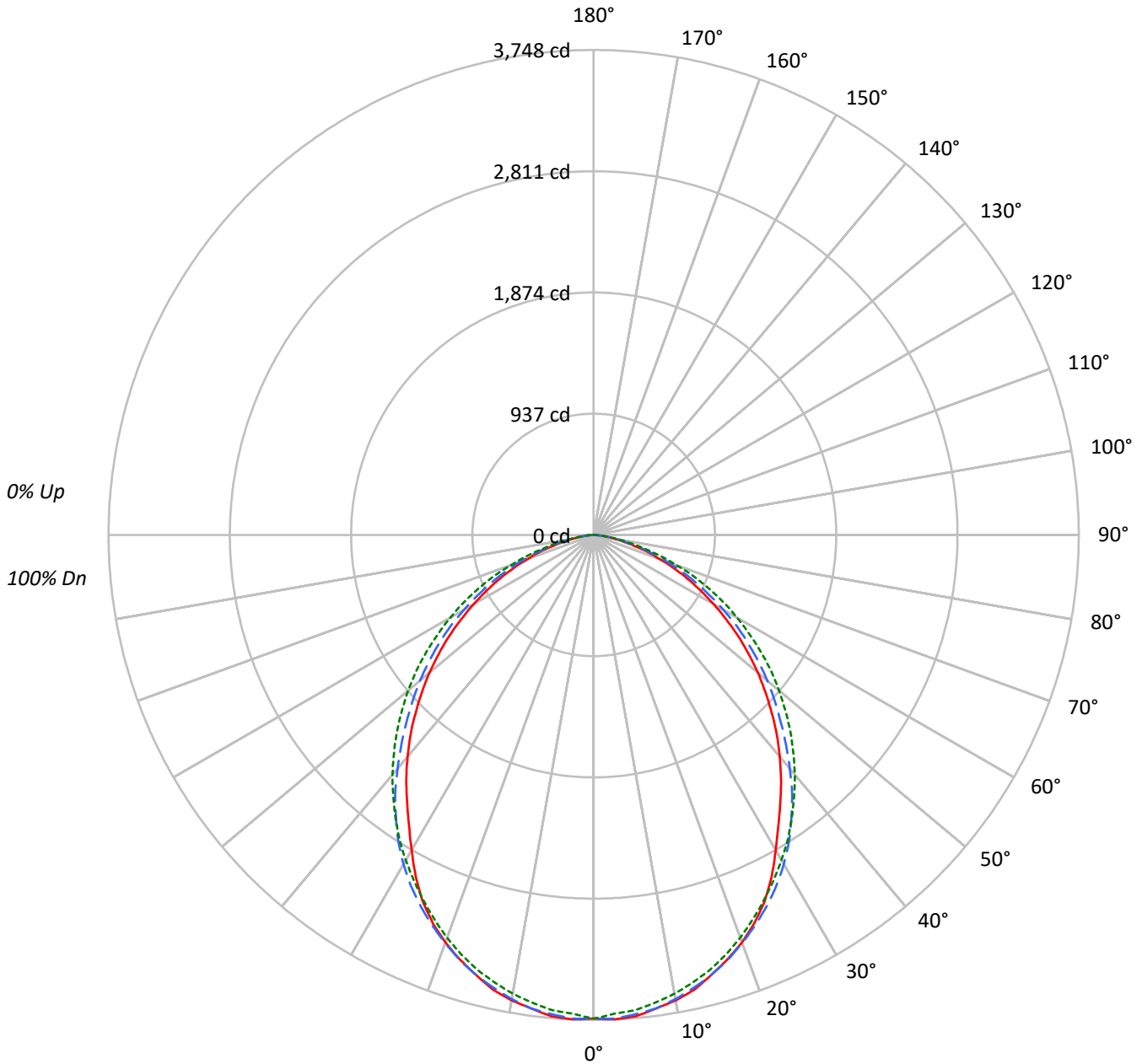
Lumens per Lamp: N/A
Luminaire Lumens: 8644.0 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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									
RC	80									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°	10060	10060	10060
5°	10086	10044	9958
10°	9979	9952	9838
15°	9802	9802	9690
20°	9595	9607	9484
25°	9279	9394	9245
30°	8738	9130	9019
35°	8256	8752	8766
40°	7855	8279	8496
45°	7406	7777	8176
50°	6932	7329	7828
55°	6394	6819	7405
60°	5758	6222	6887
65°	5084	5533	6264
70°	4238	4712	5322
75°	3330	3763	4166
80°	2382	2648	2938
85°	1553	1553	1463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	352.0	4.1
10°-20°	988.8	11.4
20°-30°	1445.0	16.7
30°-40°	1640.2	19.0
40°-50°	1583.3	18.3
50°-60°	1306.1	15.1
60°-70°	869.8	10.1
70°-80°	389.2	4.5
80°-90°	69.6	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°	2785.7	32.2
0°-40°	4425.9	51.2
0°-60°	7315.4	84.6
0°-90°	8644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8644.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3738	3738	3738	3738	3738	
5°	3734	3733	3718	3698	3687	353
15°	3519	3527	3519	3503	3478	992
25°	3125	3150	3164	3141	3114	1431
35°	2513	2548	2664	2678	2668	1575
45°	1946	1979	2044	2137	2148	1501
55°	1363	1386	1453	1534	1578	1216
65°	798	820	869	931	984	792
75°	320	338	362	379	401	350
85°	50	50	50	47	47	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3738.3	<i>3738.3</i>	3738.3	3738.3	3738.3
2.5°	<i>3748.4</i>	<i>3749.8</i>	<i>3741.2</i>	<i>3718.2</i>	<i>3703.8</i>
5°	3734.0	<i>3732.6</i>	3718.2	3698.1	3686.6
7.5°	3692.3	<i>3695.2</i>	3690.9	3662.2	3646.4
10°	3652.1	<i>3653.6</i>	3642.1	3619.1	3600.4
12.5°	3600.4	<i>3599.0</i>	3583.2	3571.7	3541.6
15°	3518.6	<i>3527.2</i>	3518.6	3502.8	3478.4
17.5°	3439.6	<i>3439.6</i>	3445.3	3418.0	3399.4
20°	3350.5	<i>3354.9</i>	3354.9	3333.3	3311.8
22.5°	3247.1	<i>3260.1</i>	3264.4	3241.4	3215.5
25°	3125.1	<i>3149.5</i>	3163.8	3140.9	3113.6
27.5°	2977.1	<i>3014.5</i>	3057.6	3040.3	3010.2
30°	2812.0	<i>2866.6</i>	2938.4	2924.0	2902.5
32.5°	2655.4	<i>2710.0</i>	2809.1	2803.4	2791.9
35°	2513.3	<i>2547.7</i>	2664.1	2678.4	2668.4
37.5°	2378.3	<i>2409.9</i>	2519.0	2552.0	2543.4
40°	2236.1	<i>2270.6</i>	2356.7	2415.6	2418.5
42.5°	2095.3	<i>2128.4</i>	2198.8	2283.5	2283.5
45°	1946.0	<i>1979.0</i>	2043.6	2137.0	2148.5
47.5°	1799.5	<i>1834.0</i>	1897.2	1990.5	2009.2
50°	1655.9	<i>1687.5</i>	1750.7	1841.1	1869.9
52.5°	1506.5	<i>1541.0</i>	1602.7	1686.0	1727.7
55°	1362.9	<i>1385.9</i>	1453.4	1533.8	1578.3
57.5°	1213.5	<i>1235.1</i>	1311.2	1380.1	1426.1
60°	1069.9	<i>1097.2</i>	1156.1	1226.5	1279.6
62.5°	932.1	<i>960.8</i>	1011.1	1072.8	1133.1
65°	798.5	<i>820.0</i>	868.9	930.6	983.8
67.5°	669.2	<i>687.9</i>	736.7	779.8	835.8
70°	538.6	<i>563.0</i>	598.9	640.5	676.4
72.5°	433.7	<i>443.8</i>	473.9	504.1	541.4
75°	320.3	<i>337.5</i>	361.9	379.1	400.7
77.5°	229.8	<i>239.8</i>	254.2	268.6	288.7
80°	153.7	<i>158.0</i>	170.9	173.8	189.6
82.5°	93.3	<i>96.2</i>	99.1	100.5	106.3
85°	50.3	<i>50.3</i>	50.3	47.4	47.4
87.5°	28.7	<i>28.7</i>	24.4	20.1	14.4
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)