

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: P558407

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-81-87-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: P558407
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-50-UNV-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

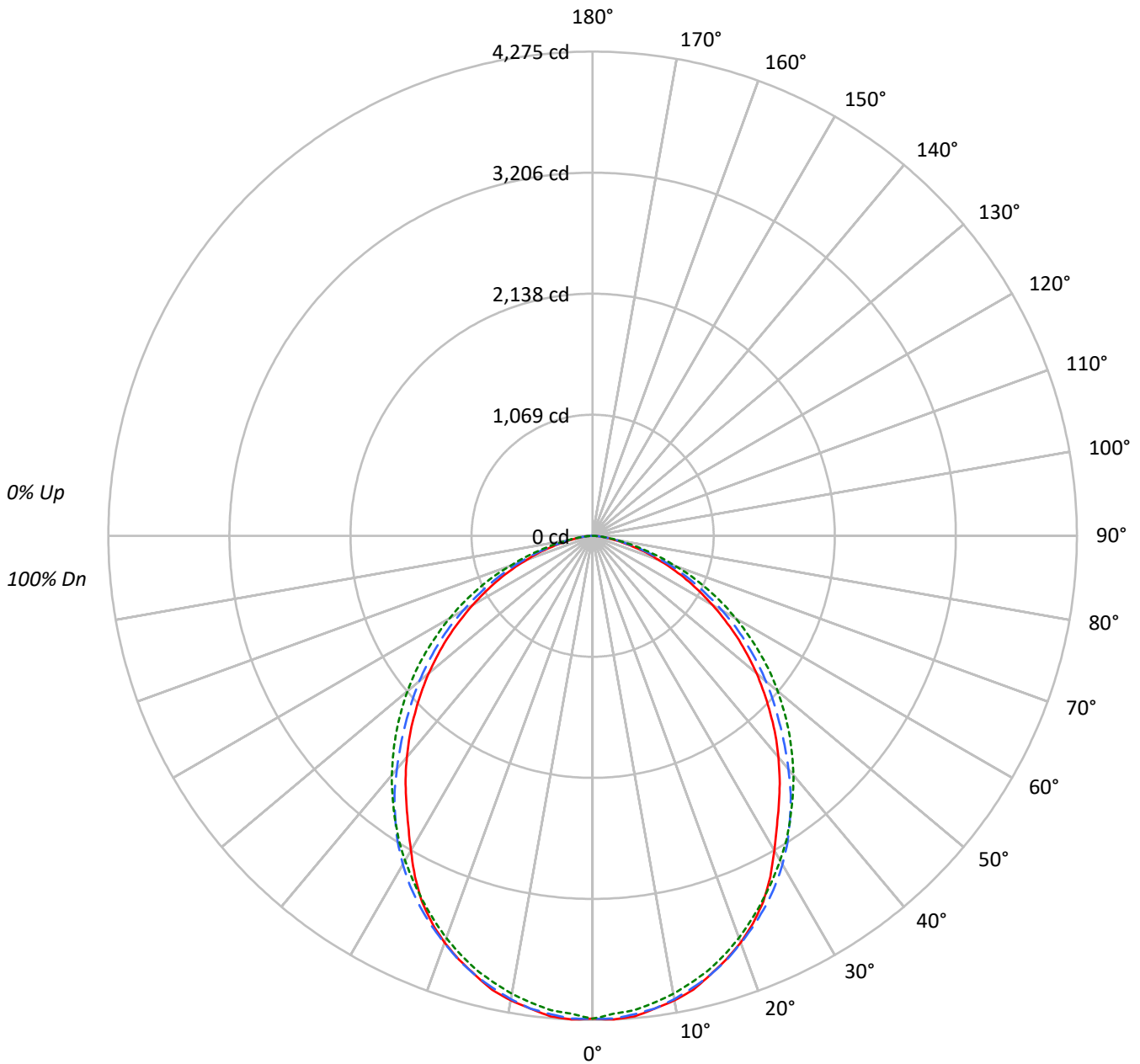
Lumens per Lamp: N/A
Luminaire Lumens: 9859.0 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					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°	11474	11474	11474
5°	11504	11455	11358
10°	11382	11351	11221
15°	11180	11180	11053
20°	10944	10958	10817
25°	10583	10715	10544
30°	9966	10414	10286
35°	9417	9982	9998
40°	8959	9442	9690
45°	8447	8871	9326
50°	7906	8359	8928
55°	7293	7777	8446
60°	6568	7097	7855
65°	5799	6310	7144
70°	4833	5375	6070
75°	3798	4292	4751
80°	2717	3020	3350
85°	1769	1769	1670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	401.4	4.1
10°-20°	1127.8	11.4
20°-30°	1648.0	16.7
30°-40°	1870.7	19.0
40°-50°	1805.9	18.3
50°-60°	1489.7	15.1
60°-70°	992.0	10.1
70°-80°	443.9	4.5
80°-90°	79.4	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°	3177.3	32.2
0°-40°	5048.0	51.2
0°-60°	8343.6	84.6
0°-90°	9859.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9859.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4264	4264	4264	4264	4264	
5°	4259	4257	4241	4218	4205	403
15°	4013	4023	4013	3995	3967	1131
25°	3564	3592	3609	3582	3551	1632
35°	2866	2906	3038	3055	3043	1796
45°	2220	2257	2331	2437	2450	1712
55°	1554	1581	1658	1749	1800	1387
65°	911	935	991	1061	1122	903
75°	365	385	413	432	457	399
85°	57	57	57	54	54	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4263.8	4263.8	4263.8	4263.8	4263.8
2.5°	4275.2	4276.9	4267.0	4240.8	4224.5
5°	4258.8	4257.2	4240.8	4217.9	4204.8
7.5°	4211.3	4214.6	4209.7	4176.9	4158.9
10°	4165.5	4167.1	4154.0	4127.8	4106.5
12.5°	4106.5	4104.9	4086.9	4073.8	4039.4
15°	4013.1	4023.0	4013.1	3995.1	3967.3
17.5°	3923.1	3923.1	3929.6	3898.5	3877.2
20°	3821.5	3826.4	3826.4	3801.8	3777.3
22.5°	3703.6	3718.3	3723.2	3697.0	3667.5
25°	3564.3	3592.2	3608.6	3582.3	3551.2
27.5°	3395.6	3438.2	3487.3	3467.7	3433.3
30°	3207.2	3269.5	3351.4	3335.0	3310.4
32.5°	3028.7	3090.9	3204.0	3197.4	3184.3
35°	2866.5	2905.8	3038.5	3054.9	3043.4
37.5°	2712.6	2748.6	2873.1	2910.8	2900.9
40°	2550.4	2589.7	2688.0	2755.1	2758.4
42.5°	2389.9	2427.5	2507.8	2604.4	2604.4
45°	2219.5	2257.2	2330.9	2437.4	2450.5
47.5°	2052.4	2091.7	2163.8	2270.3	2291.6
50°	1888.6	1924.7	1996.7	2099.9	2132.7
52.5°	1718.3	1757.6	1828.0	1923.0	1970.5
55°	1554.5	1580.7	1657.7	1749.4	1800.2
57.5°	1384.1	1408.7	1495.5	1574.1	1626.6
60°	1220.3	1251.4	1318.6	1398.9	1459.5
62.5°	1063.1	1095.8	1153.2	1223.6	1292.4
65°	910.7	935.3	991.0	1061.4	1122.0
67.5°	763.3	784.6	840.3	889.4	953.3
70°	614.3	642.1	683.1	730.6	771.5
72.5°	494.7	506.1	540.5	574.9	617.5
75°	365.3	384.9	412.8	432.4	457.0
77.5°	262.1	273.5	289.9	306.3	329.2
80°	175.3	180.2	194.9	198.2	216.2
82.5°	106.5	109.7	113.0	114.7	121.2
85°	57.3	57.3	57.3	54.1	54.1
87.5°	32.8	32.8	27.8	22.9	16.4
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)