

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: P558189

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-93-96-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: P558189
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-LD4-3LO-50-UNV-93-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND
5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

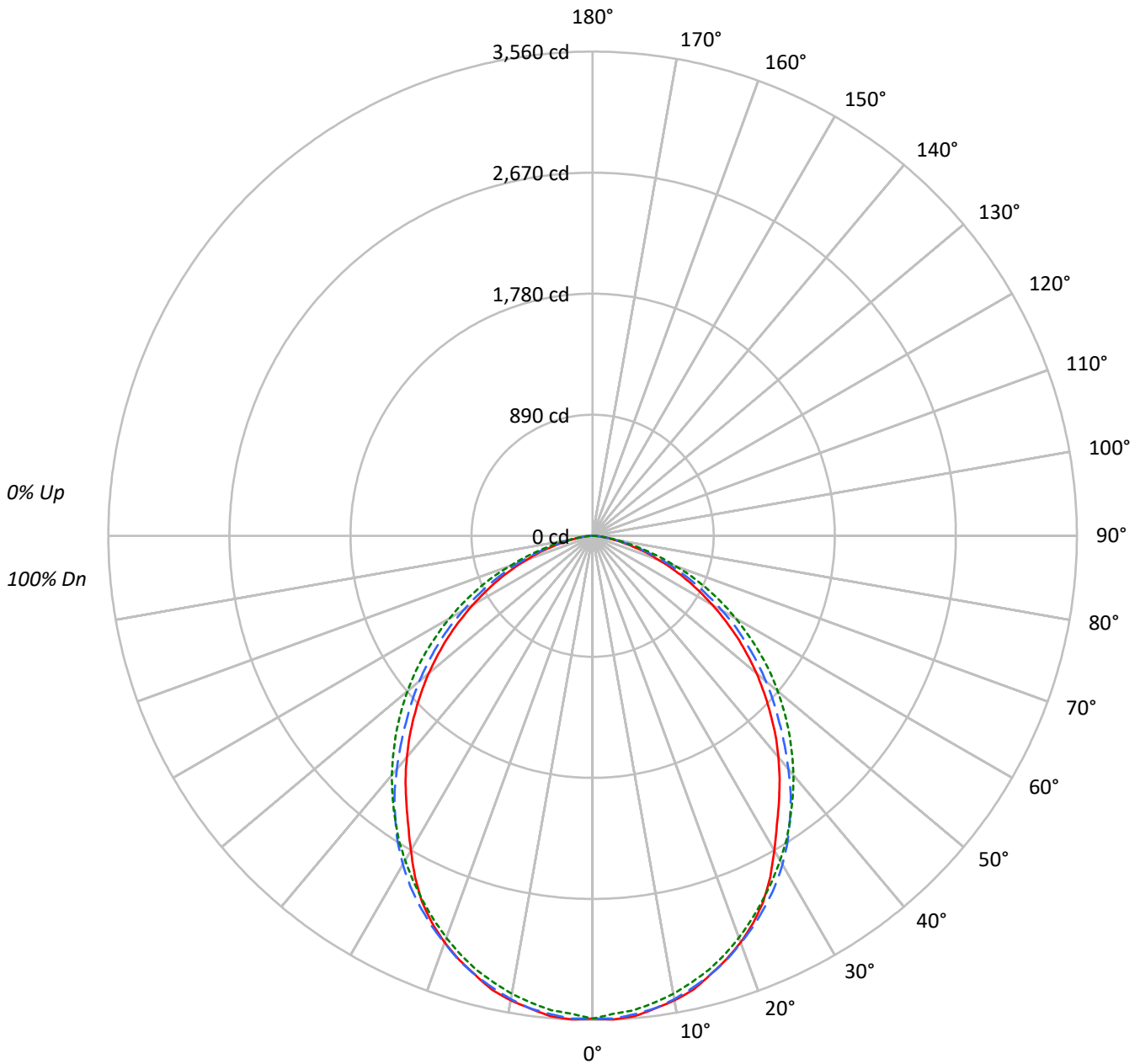
Lumens per Lamp: N/A
Luminaire Lumens: 8209.0 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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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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°	9554	9554	9554
5°	9579	9538	9457
10°	9477	9451	9343
15°	9309	9309	9203
20°	9112	9124	9007
25°	8812	8921	8780
30°	8298	8671	8565
35°	7841	8311	8325
40°	7460	7862	8068
45°	7033	7386	7765
50°	6584	6960	7434
55°	6072	6475	7032
60°	5469	5909	6540
65°	4828	5254	5949
70°	4024	4474	5054
75°	3162	3573	3956
80°	2261	2515	2789
85°	1473	1473	1389



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.3	4.1
10°-20°	939.0	11.4
20°-30°	1372.2	16.7
30°-40°	1557.6	19.0
40°-50°	1503.7	18.3
50°-60°	1240.4	15.1
60°-70°	826.0	10.1
70°-80°	369.6	4.5
80°-90°	66.1	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°	2645.5	32.2
0°-40°	4203.1	51.2
0°-60°	6947.2	84.6
0°-90°	8209.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8209.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3550	3550	3550	3550	3550	
5°	3546	3545	3531	3512	3501	336
15°	3342	3350	3342	3326	3303	942
25°	2968	2991	3005	2983	2957	1359
35°	2387	2420	2530	2544	2534	1495
45°	1848	1879	1941	2030	2040	1426
55°	1294	1316	1380	1457	1499	1155
65°	758	779	825	884	934	752
75°	304	320	344	360	380	333
85°	48	48	48	45	45	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3550.2	3550.2	3550.2	3550.2	3550.2
2.5°	3559.7	3561.1	3552.9	3531.1	3517.4
5°	3546.1	3544.7	3531.1	3512.0	3501.1
7.5°	3506.5	3509.3	3505.2	3477.9	3462.9
10°	3468.3	3469.7	3458.8	3437.0	3419.2
12.5°	3419.2	3417.9	3402.9	3392.0	3363.3
15°	3341.5	3349.7	3341.5	3326.5	3303.3
17.5°	3266.5	3266.5	3271.9	3246.0	3228.3
20°	3181.9	3186.0	3186.0	3165.6	3145.1
22.5°	3083.7	3096.0	3100.1	3078.3	3053.7
25°	2967.8	2991.0	3004.6	2982.8	2956.9
27.5°	2827.3	2862.8	2903.7	2887.3	2858.7
30°	2670.5	2722.3	2790.5	2776.9	2756.4
32.5°	2521.8	2573.6	2667.7	2662.3	2651.4
35°	2386.8	2419.5	2530.0	2543.6	2534.1
37.5°	2258.6	2288.6	2392.2	2423.6	2415.4
40°	2123.6	2156.3	2238.1	2294.0	2296.8
42.5°	1989.9	2021.3	2088.1	2168.6	2168.6
45°	1848.1	1879.4	1940.8	2029.5	2040.4
47.5°	1708.9	1741.7	1801.7	1890.3	1908.1
50°	1572.6	1602.6	1662.6	1748.5	1775.8
52.5°	1430.7	1463.4	1522.1	1601.2	1640.7
55°	1294.3	1316.1	1380.2	1456.6	1498.9
57.5°	1152.5	1172.9	1245.2	1310.7	1354.3
60°	1016.1	1042.0	1097.9	1164.8	1215.2
62.5°	885.2	912.4	960.2	1018.8	1076.1
65°	758.3	778.8	825.1	883.8	934.3
67.5°	635.6	653.3	699.7	740.6	793.8
70°	511.5	534.6	568.7	608.3	642.4
72.5°	411.9	421.4	450.1	478.7	514.2
75°	304.1	320.5	343.7	360.1	380.5
77.5°	218.2	227.8	241.4	255.0	274.1
80°	145.9	150.0	162.3	165.0	180.0
82.5°	88.7	91.4	94.1	95.5	100.9
85°	47.7	47.7	47.7	45.0	45.0
87.5°	27.3	27.3	23.2	19.1	13.6
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)