

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: P558422

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-82-87-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: P558422
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-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

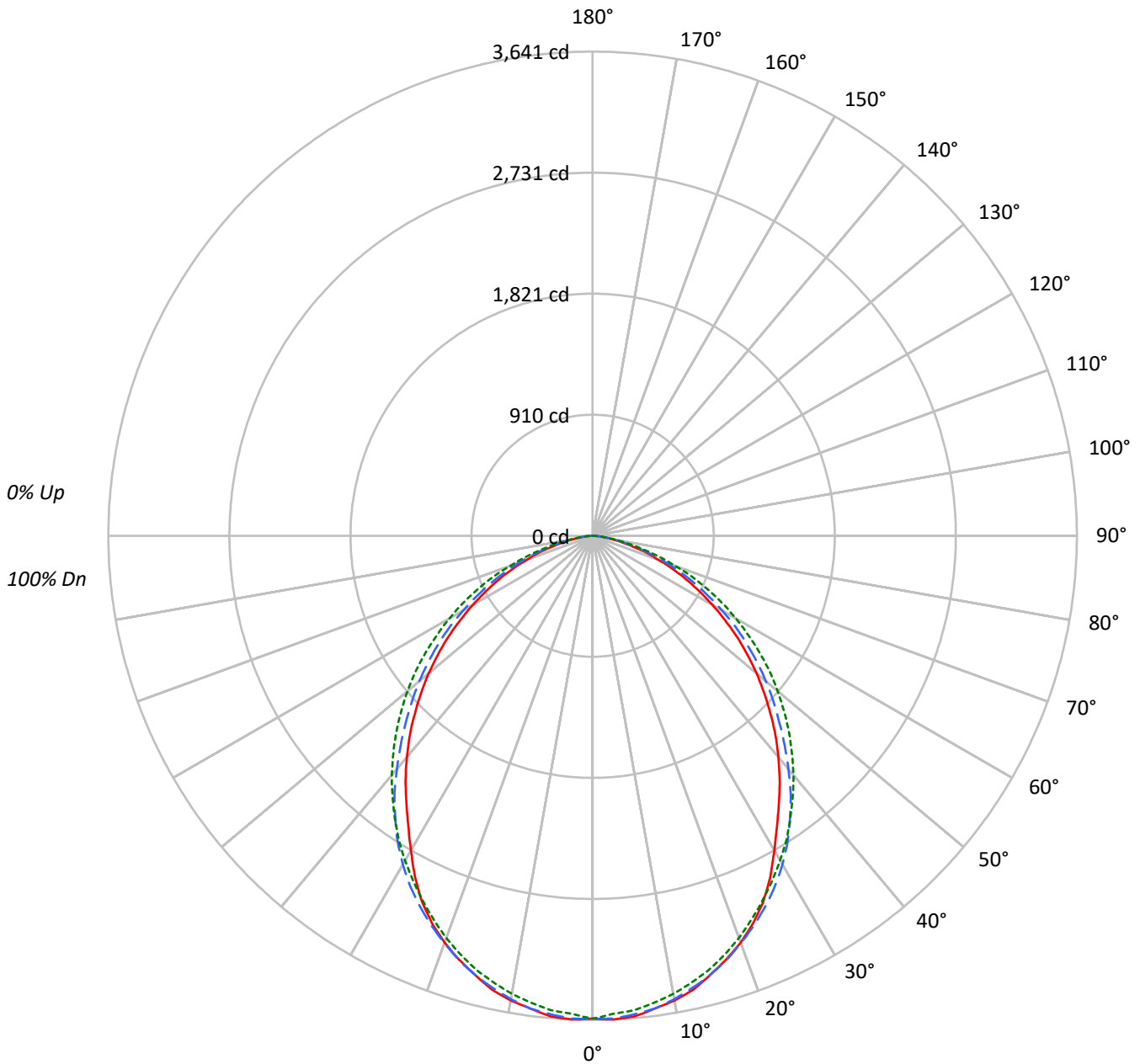
Lumens per Lamp: N/A
Luminaire Lumens: 8397.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9772	9772	9772
5°	9798	9757	9674
10°	9694	9668	9557
15°	9522	9522	9414
20°	9321	9333	9213
25°	9014	9125	8981
30°	8488	8869	8761
35°	8021	8501	8515
40°	7631	8042	8253
45°	7194	7555	7943
50°	6734	7119	7604
55°	6212	6624	7193
60°	5594	6044	6690
65°	4939	5374	6085
70°	4116	4578	5170
75°	3235	3656	4047
80°	2314	2572	2854
85°	1507	1507	1420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.9	4.1
10°-20°	960.5	11.4
20°-30°	1403.7	16.7
30°-40°	1593.3	19.0
40°-50°	1538.1	18.3
50°-60°	1268.8	15.1
60°-70°	844.9	10.1
70°-80°	378.1	4.5
80°-90°	67.6	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°	2706.1	32.2
0°-40°	4299.4	51.2
0°-60°	7106.3	84.6
0°-90°	8397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8397.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3632	3632	3632	3632	3632	
5°	3627	3626	3612	3592	3581	343
15°	3418	3426	3418	3403	3379	964
25°	3036	3060	3073	3051	3025	1390
35°	2442	2475	2588	2602	2592	1530
45°	1890	1922	1985	2076	2087	1459
55°	1324	1346	1412	1490	1533	1182
65°	776	797	844	904	956	769
75°	311	328	352	368	389	340
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3631.5	3631.5	3631.5	3631.5	3631.5
2.5°	3641.3	3642.6	3634.3	3612.0	3598.0
5°	3627.3	3625.9	3612.0	3592.4	3581.3
7.5°	3586.8	3589.6	3585.4	3557.5	3542.2
10°	3547.8	3549.2	3538.0	3515.7	3497.6
12.5°	3497.6	3496.2	3480.8	3469.7	3440.4
15°	3418.0	3426.4	3418.0	3402.7	3379.0
17.5°	3341.3	3341.3	3346.9	3320.4	3302.2
20°	3254.8	3259.0	3259.0	3238.1	3217.1
22.5°	3154.4	3166.9	3171.1	3148.8	3123.7
25°	3035.8	3059.5	3073.4	3051.1	3024.6
27.5°	2892.1	2928.3	2970.2	2953.5	2924.2
30°	2731.6	2784.7	2854.4	2840.5	2819.5
32.5°	2579.6	2632.6	2728.8	2723.3	2712.1
35°	2441.5	2474.9	2587.9	2601.9	2592.1
37.5°	2310.3	2341.0	2447.0	2479.1	2470.7
40°	2172.2	2205.7	2289.4	2346.6	2349.4
42.5°	2035.5	2067.6	2135.9	2218.2	2218.2
45°	1890.4	1922.5	1985.2	2075.9	2087.1
47.5°	1748.1	1781.6	1842.9	1933.6	1951.8
50°	1608.6	1639.3	1700.6	1788.5	1816.4
52.5°	1463.5	1497.0	1556.9	1637.9	1678.3
55°	1324.0	1346.3	1411.9	1490.0	1533.2
57.5°	1178.9	1199.8	1273.7	1340.7	1385.3
60°	1039.4	1065.9	1123.1	1191.4	1243.0
62.5°	905.4	933.3	982.2	1042.2	1100.7
65°	775.7	796.6	844.0	904.0	955.7
67.5°	650.1	668.3	715.7	757.5	812.0
70°	523.2	546.9	581.8	622.2	657.1
72.5°	421.3	431.1	460.4	489.7	526.0
75°	311.1	327.9	351.6	368.3	389.2
77.5°	223.2	233.0	246.9	260.9	280.4
80°	149.3	153.5	166.0	168.8	184.2
82.5°	90.7	93.5	96.3	97.7	103.2
85°	48.8	48.8	48.8	46.0	46.0
87.5°	27.9	27.9	23.7	19.5	14.0
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)