

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: P558342

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-81-87-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: P558342
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-40-UNV-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

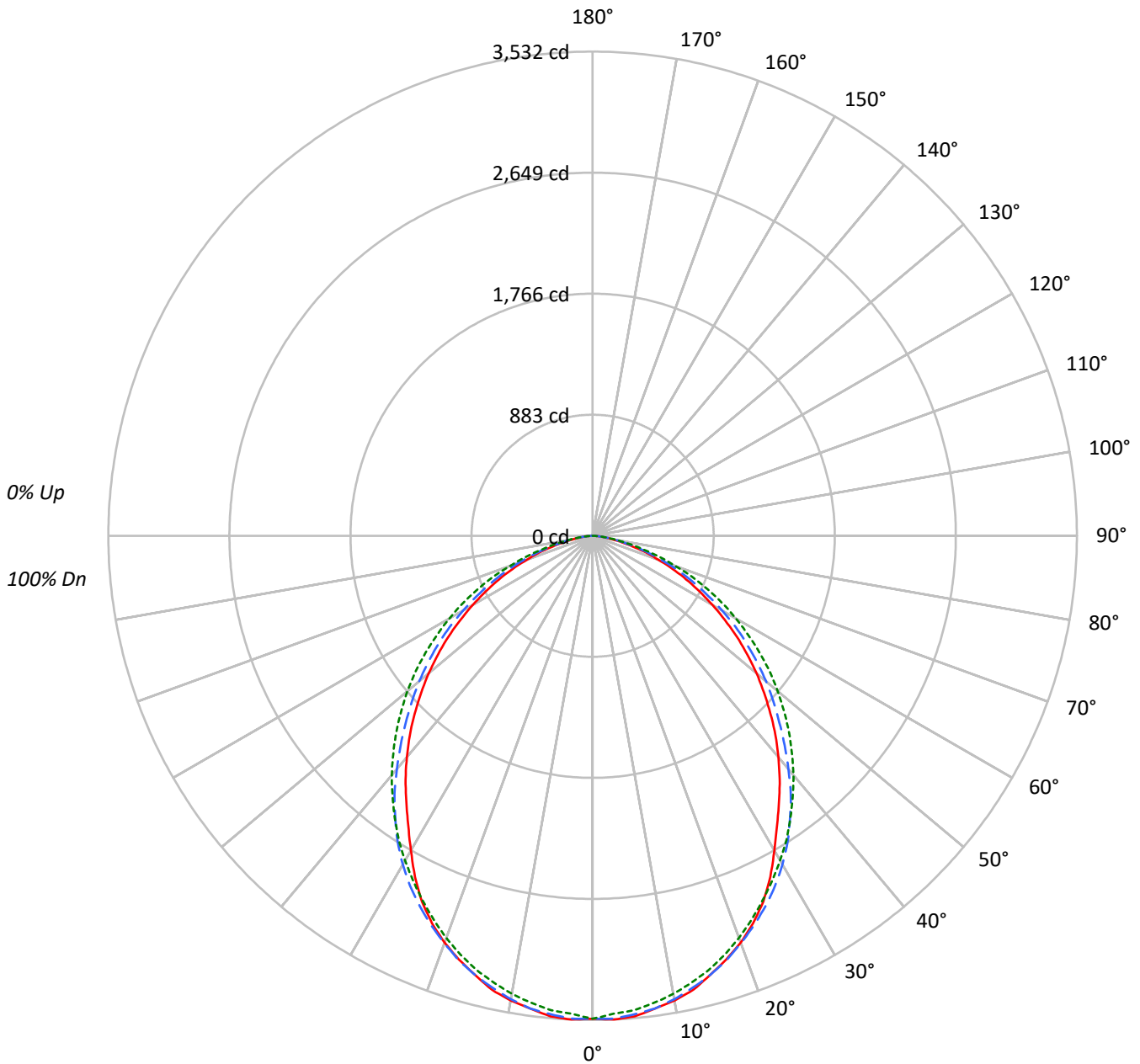
Lumens per Lamp: N/A
Luminaire Lumens: 8146.0 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9480	9480	9480
5°	9505	9465	9385
10°	9404	9379	9271
15°	9238	9238	9132
20°	9042	9054	8938
25°	8744	8853	8712
30°	8234	8604	8499
35°	7781	8248	8261
40°	7403	7802	8006
45°	6979	7329	7705
50°	6533	6907	7377
55°	6026	6426	6978
60°	5427	5864	6490
65°	4791	5214	5903
70°	3993	4441	5016
75°	3138	3546	3926
80°	2244	2497	2769
85°	1463	1463	1380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.7	4.1
10°-20°	931.8	11.4
20°-30°	1361.7	16.7
30°-40°	1545.7	19.0
40°-50°	1492.1	18.3
50°-60°	1230.9	15.1
60°-70°	819.7	10.1
70°-80°	366.8	4.5
80°-90°	65.6	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°	2625.2	32.2
0°-40°	4170.9	51.2
0°-60°	6893.9	84.6
0°-90°	8146.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8146.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3523	3523	3523	3523	3523	
5°	3519	3518	3504	3485	3474	333
15°	3316	3324	3316	3301	3278	935
25°	2945	2968	2982	2960	2934	1349
35°	2368	2401	2511	2524	2515	1484
45°	1834	1865	1926	2014	2025	1415
55°	1284	1306	1370	1445	1487	1146
65°	752	773	819	877	927	746
75°	302	318	341	357	378	330
85°	47	47	47	45	45	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3522.9	3522.9	3522.9	3522.9	3522.9
2.5°	3532.4	3533.8	3525.6	3504.0	3490.5
5°	3518.9	3517.5	3504.0	3485.0	3474.2
7.5°	3479.6	3482.3	3478.3	3451.2	3436.3
10°	3441.7	3443.1	3432.3	3410.6	3393.0
12.5°	3393.0	3391.7	3376.8	3365.9	3337.5
15°	3315.9	3324.0	3315.9	3301.0	3278.0
17.5°	3241.4	3241.4	3246.8	3221.1	3203.5
20°	3157.5	3161.6	3161.6	3141.3	3121.0
22.5°	3060.1	3072.2	3076.3	3054.7	3030.3
25°	2945.0	2968.0	2981.6	2959.9	2934.2
27.5°	2805.6	2840.8	2881.4	2865.2	2836.8
30°	2650.0	2701.4	2769.1	2755.5	2735.2
32.5°	2502.5	2553.9	2647.3	2641.9	2631.0
35°	2368.5	2401.0	2510.6	2524.1	2514.6
37.5°	2241.3	2271.0	2373.9	2405.0	2396.9
40°	2107.3	2139.7	2221.0	2276.4	2279.1
42.5°	1974.6	2005.8	2072.1	2151.9	2151.9
45°	1833.9	1865.0	1925.9	2013.9	2024.7
47.5°	1695.8	1728.3	1787.9	1875.8	1893.4
50°	1560.5	1590.3	1649.8	1735.1	1762.1
52.5°	1419.7	1452.2	1510.4	1588.9	1628.2
55°	1284.4	1306.0	1369.7	1445.4	1487.4
57.5°	1143.6	1163.9	1235.7	1300.6	1343.9
60°	1008.3	1034.0	1089.5	1155.8	1205.9
62.5°	878.4	905.4	952.8	1011.0	1067.8
65°	752.5	772.8	818.8	877.0	927.1
67.5°	630.7	648.3	694.3	734.9	787.7
70°	507.5	530.5	564.4	603.6	637.5
72.5°	408.7	418.2	446.6	475.0	510.2
75°	301.8	318.1	341.1	357.3	377.6
77.5°	216.5	226.0	239.6	253.1	272.0
80°	144.8	148.9	161.1	163.8	178.7
82.5°	88.0	90.7	93.4	94.7	100.2
85°	47.4	47.4	47.4	44.7	44.7
87.5°	27.1	27.1	23.0	18.9	13.5
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)