

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: P557830

Luminaire Tested: **FUSL-12-4-LD4-3HI-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: P557830
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-LD4-3HI-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

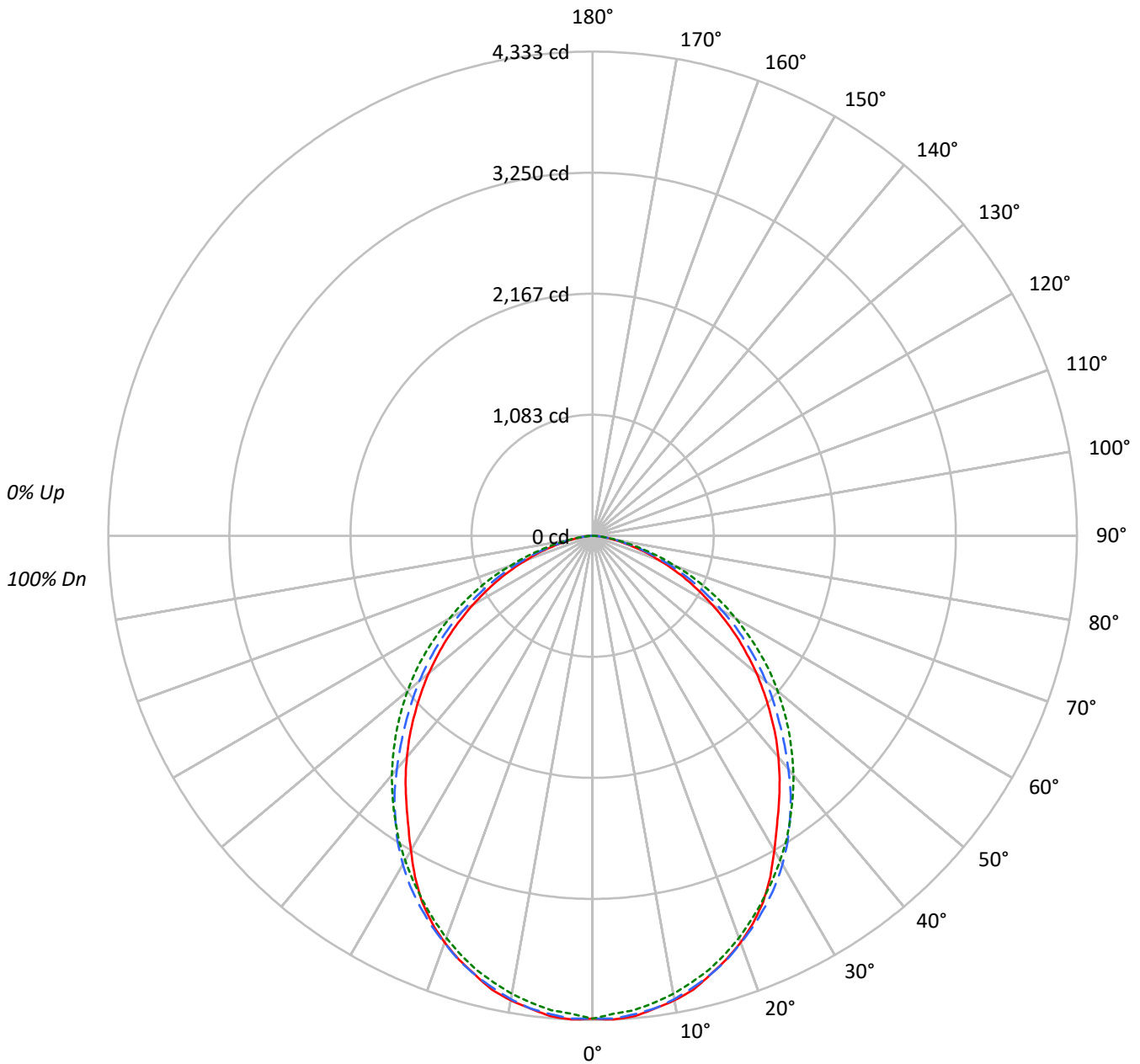
Lumens per Lamp: N/A
Luminaire Lumens: 9992.0 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	11629	11629	11629
5°	11659	11610	11511
10°	11536	11504	11372
15°	11331	11331	11202
20°	11091	11105	10963
25°	10726	10859	10686
30°	10100	10554	10425
35°	9544	10116	10133
40°	9080	9570	9820
45°	8561	8990	9451
50°	8013	8472	9049
55°	7392	7882	8560
60°	6656	7192	7961
65°	5877	6395	7241
70°	4898	5447	6152
75°	3849	4349	4816
80°	2752	3062	3395
85°	1794	1794	1692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	406.9	4.1
10°-20°	1143.0	11.4
20°-30°	1670.3	16.7
30°-40°	1896.0	19.0
40°-50°	1830.2	18.3
50°-60°	1509.8	15.1
60°-70°	1005.4	10.1
70°-80°	449.9	4.5
80°-90°	80.5	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°	3220.1	32.2
0°-40°	5116.1	51.2
0°-60°	8456.2	84.6
0°-90°	9992.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9992.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4321	4321	4321	4321	4321	
5°	4316	4315	4298	4275	4262	409
15°	4067	4077	4067	4049	4021	1147
25°	3612	3641	3657	3631	3599	1654
35°	2905	2945	3080	3096	3084	1820
45°	2250	2288	2362	2470	2484	1736
55°	1576	1602	1680	1773	1824	1406
65°	923	948	1004	1076	1137	915
75°	370	390	418	438	463	405
85°	58	58	58	55	55	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4321.3	4321.3	4321.3	4321.3	4321.3
2.5°	4332.9	4334.6	4324.6	4298.0	4281.4
5°	4316.3	4314.6	4298.0	4274.8	4261.5
7.5°	4268.2	4271.5	4266.5	4233.3	4215.0
10°	4221.7	4223.3	4210.1	4183.5	4161.9
12.5°	4161.9	4160.3	4142.0	4128.7	4093.8
15°	4067.3	4077.2	4067.3	4049.0	4020.8
17.5°	3976.0	3976.0	3982.6	3951.1	3929.5
20°	3873.1	3878.0	3878.0	3853.1	3828.2
22.5°	3753.5	3768.5	3773.4	3746.9	3717.0
25°	3612.4	3640.6	3657.2	3630.7	3599.1
27.5°	3441.4	3484.6	3534.4	3514.5	3479.6
30°	3250.5	3313.6	3396.6	3380.0	3355.1
32.5°	3069.6	3132.6	3247.2	3240.5	3227.3
35°	2905.2	2945.0	3079.5	3096.1	3084.5
37.5°	2749.2	2785.7	2911.8	2950.0	2940.1
40°	2584.8	2624.6	2724.3	2792.3	2795.6
42.5°	2422.1	2460.3	2541.6	2639.6	2639.6
45°	2249.5	2287.6	2362.3	2470.3	2483.5
47.5°	2080.1	2120.0	2193.0	2300.9	2322.5
50°	1914.1	1950.6	2023.7	2128.3	2161.5
52.5°	1741.5	1781.3	1852.7	1949.0	1997.1
55°	1575.5	1602.0	1680.0	1773.0	1824.5
57.5°	1402.8	1427.7	1515.7	1595.4	1648.5
60°	1236.8	1268.3	1336.4	1417.7	1479.2
62.5°	1077.4	1110.6	1168.7	1240.1	1309.8
65°	923.0	947.9	1004.4	1075.8	1137.2
67.5°	773.6	795.2	851.6	901.4	966.2
70°	622.5	650.8	692.3	740.4	781.9
72.5°	501.4	513.0	547.8	582.7	625.9
75°	370.2	390.1	418.3	438.3	463.2
77.5°	265.6	277.2	293.8	310.4	333.7
80°	177.6	182.6	197.6	200.9	219.1
82.5°	107.9	111.2	114.5	116.2	122.8
85°	58.1	58.1	58.1	54.8	54.8
87.5°	33.2	33.2	28.2	23.2	16.6
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)