

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: P557718

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-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: P557718
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-30-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

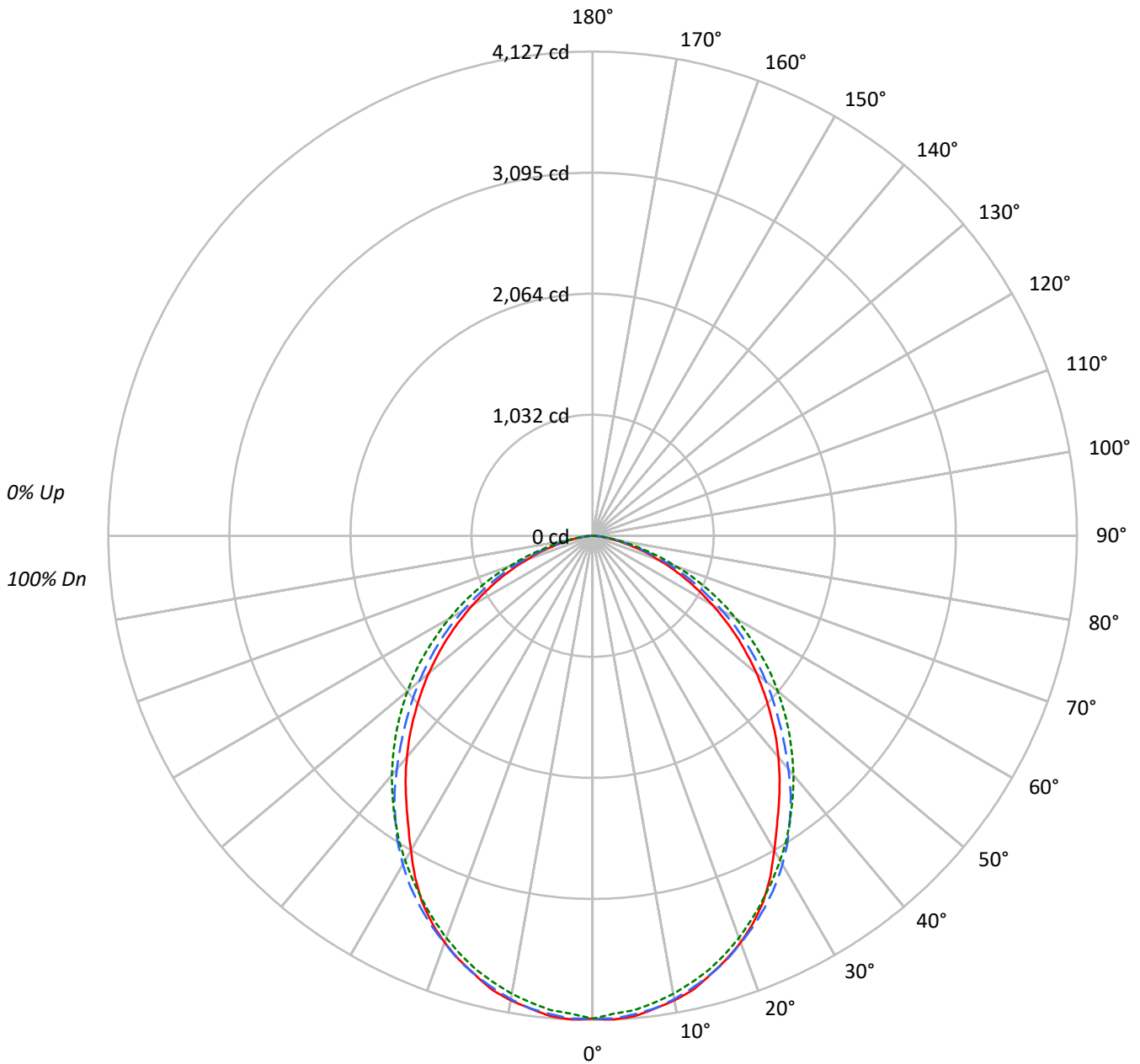
Lumens per Lamp: N/A
Luminaire Lumens: 9517.0 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11076	11076	11076
5°	11105	11058	10964
10°	10987	10957	10832
15°	10792	10792	10669
20°	10564	10578	10442
25°	10216	10343	10178
30°	9620	10052	9930
35°	9090	9635	9651
40°	8648	9115	9354
45°	8154	8563	9002
50°	7632	8069	8619
55°	7040	7507	8153
60°	6340	6851	7582
65°	5598	6091	6897
70°	4665	5188	5859
75°	3666	4143	4587
80°	2622	2916	3234
85°	1707	1707	1612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	387.5	4.1
10°-20°	1088.7	11.4
20°-30°	1590.9	16.7
30°-40°	1805.8	19.0
40°-50°	1743.2	18.3
50°-60°	1438.0	15.1
60°-70°	957.6	10.1
70°-80°	428.5	4.5
80°-90°	76.7	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°	3067.1	32.2
0°-40°	4872.9	51.2
0°-60°	8054.2	84.6
0°-90°	9517.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9517.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4116	4116	4116	4116	4116	
5°	4111	4110	4094	4072	4059	389
15°	3874	3883	3874	3856	3830	1092
25°	3441	3468	3483	3458	3428	1576
35°	2767	2805	2933	2949	2938	1734
45°	2142	2179	2250	2353	2366	1653
55°	1501	1526	1600	1689	1738	1339
65°	879	903	957	1025	1083	872
75°	353	372	398	417	441	386
85°	55	55	55	52	52	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4115.9	4115.9	4115.9	4115.9	4115.9
2.5°	4126.9	4128.5	4119.0	4093.7	4077.9
5°	4111.1	4109.5	4093.7	4071.6	4058.9
7.5°	4065.3	4068.4	4063.7	4032.1	4014.7
10°	4021.0	4022.6	4009.9	3984.6	3964.1
12.5°	3964.1	3962.5	3945.1	3932.4	3899.2
15°	3873.9	3883.4	3873.9	3856.5	3829.7
17.5°	3787.0	3787.0	3793.3	3763.2	3742.7
20°	3688.9	3693.7	3693.7	3670.0	3646.2
22.5°	3575.1	3589.3	3594.1	3568.8	3540.3
25°	3440.7	3467.6	3483.4	3458.1	3428.0
27.5°	3277.8	3318.9	3366.4	3347.4	3314.2
30°	3096.0	3156.1	3235.1	3219.3	3195.6
32.5°	2923.6	2983.7	3092.8	3086.5	3073.8
35°	2767.1	2805.0	2933.1	2948.9	2937.9
37.5°	2618.5	2653.2	2773.4	2809.8	2800.3
40°	2461.9	2499.9	2594.7	2659.6	2662.7
42.5°	2307.0	2343.3	2420.8	2514.1	2514.1
45°	2142.5	2178.9	2250.0	2352.8	2365.5
47.5°	1981.2	2019.2	2088.8	2191.5	2212.1
50°	1823.1	1857.9	1927.5	2027.1	2058.7
52.5°	1658.7	1696.6	1764.6	1856.3	1902.2
55°	1500.6	1525.9	1600.2	1688.7	1737.7
57.5°	1336.1	1359.8	1443.6	1519.5	1570.1
60°	1178.0	1208.0	1272.9	1350.3	1408.8
62.5°	1026.2	1057.8	1113.2	1181.2	1247.6
65°	879.1	902.9	956.6	1024.6	1083.1
67.5°	736.8	757.4	811.2	858.6	920.3
70°	592.9	619.8	659.4	705.2	744.7
72.5°	477.5	488.6	521.8	555.0	596.1
75°	352.6	371.6	398.5	417.4	441.2
77.5°	253.0	264.1	279.9	295.7	317.8
80°	169.2	173.9	188.2	191.3	208.7
82.5°	102.8	105.9	109.1	110.7	117.0
85°	55.3	55.3	55.3	52.2	52.2
87.5°	31.6	31.6	26.9	22.1	15.8
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)