

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: P557833

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-81-88-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: P557833
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-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

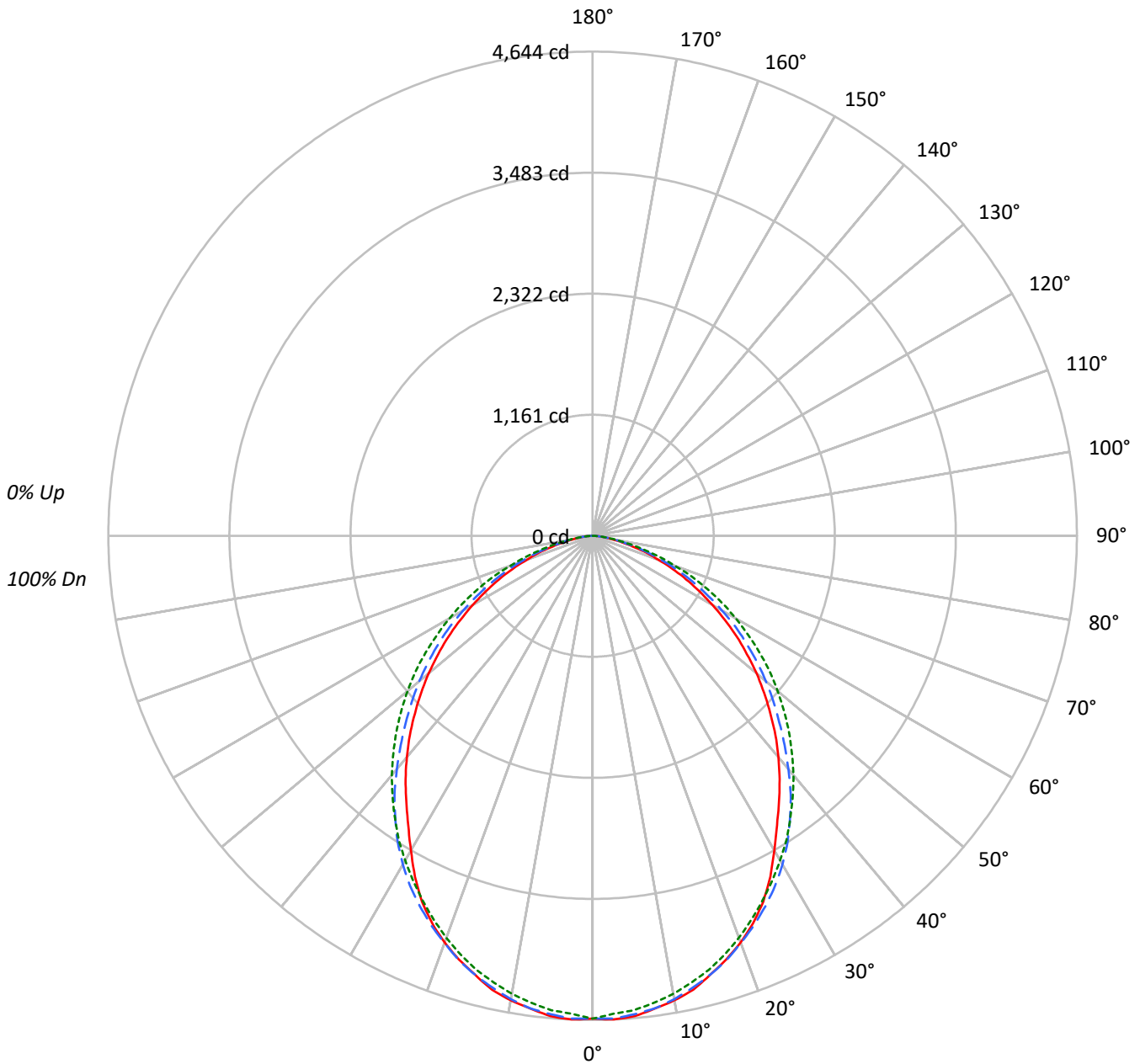
Lumens per Lamp: N/A
Luminaire Lumens: 10709.0 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12463	12463	12463
5°	12496	12443	12337
10°	12363	12330	12189
15°	12144	12144	12005
20°	11887	11902	11749
25°	11495	11638	11453
30°	10825	11311	11173
35°	10229	10842	10860
40°	9732	10256	10525
45°	9175	9635	10129
50°	8588	9080	9698
55°	7922	8448	9174
60°	7134	7709	8532
65°	6299	6854	7761
70°	5249	5837	6593
75°	4126	4662	5161
80°	2951	3281	3640
85°	1924	1924	1812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	436.1	4.1
10°-20°	1225.0	11.4
20°-30°	1790.1	16.7
30°-40°	2032.0	19.0
40°-50°	1961.6	18.3
50°-60°	1618.2	15.1
60°-70°	1077.6	10.1
70°-80°	482.2	4.5
80°-90°	86.3	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°	3451.2	32.2
0°-40°	5483.2	51.2
0°-60°	9063.0	84.6
0°-90°	10709.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10709.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4631	4631	4631	4631	4631	
5°	4626	4624	4606	4582	4567	438
15°	4359	4370	4359	4340	4309	1229
25°	3872	3902	3920	3891	3857	1773
35°	3114	3156	3300	3318	3306	1951
45°	2411	2452	2532	2648	2662	1860
55°	1688	1717	1801	1900	1955	1507
65°	989	1016	1076	1153	1219	981
75°	397	418	448	470	496	434
85°	62	62	62	59	59	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4631.4	4631.4	4631.4	4631.4	4631.4
2.5°	4643.8	4645.6	4634.9	4606.5	4588.7
5°	4626.0	4624.2	4606.5	4581.5	4567.3
7.5°	4574.4	4578.0	4572.7	4537.1	4517.5
10°	4524.6	4526.4	4512.2	4483.7	4460.6
12.5°	4460.6	4458.8	4439.2	4425.0	4387.6
15°	4359.1	4369.8	4359.1	4339.6	4309.3
17.5°	4261.3	4261.3	4268.4	4234.6	4211.5
20°	4151.0	4156.3	4156.3	4129.6	4102.9
22.5°	4022.9	4038.9	4044.2	4015.7	3983.7
25°	3871.6	3901.9	3919.7	3891.2	3857.4
27.5°	3688.4	3734.6	3788.0	3766.7	3729.3
30°	3483.8	3551.4	3640.3	3622.5	3595.8
32.5°	3289.8	3357.4	3480.2	3473.1	3458.8
35°	3113.7	3156.4	3300.5	3318.3	3305.8
37.5°	2946.4	2985.6	3120.8	3161.7	3151.0
40°	2770.3	2813.0	2919.7	2992.7	2996.2
42.5°	2595.9	2636.8	2724.0	2829.0	2829.0
45°	2410.9	2451.8	2531.9	2647.5	2661.7
47.5°	2229.4	2272.1	2350.4	2466.0	2489.2
50°	2051.5	2090.6	2168.9	2281.0	2316.6
52.5°	1866.4	1909.1	1985.6	2088.8	2140.4
55°	1688.5	1717.0	1800.6	1900.2	1955.4
57.5°	1503.5	1530.1	1624.4	1709.9	1766.8
60°	1325.5	1359.3	1432.3	1519.5	1585.3
62.5°	1154.7	1190.3	1252.6	1329.1	1403.8
65°	989.3	1015.9	1076.4	1152.9	1218.8
67.5°	829.1	852.3	912.8	966.1	1035.5
70°	667.2	697.5	741.9	793.5	838.0
72.5°	537.3	549.8	587.1	624.5	670.8
75°	396.8	418.1	448.4	469.7	496.4
77.5°	284.7	297.1	314.9	332.7	357.6
80°	190.4	195.7	211.7	215.3	234.9
82.5°	115.7	119.2	122.8	124.5	131.7
85°	62.3	62.3	62.3	58.7	58.7
87.5°	35.6	35.6	30.2	24.9	17.8
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)