

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: P557820

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-80-96-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: P557820  
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-80-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

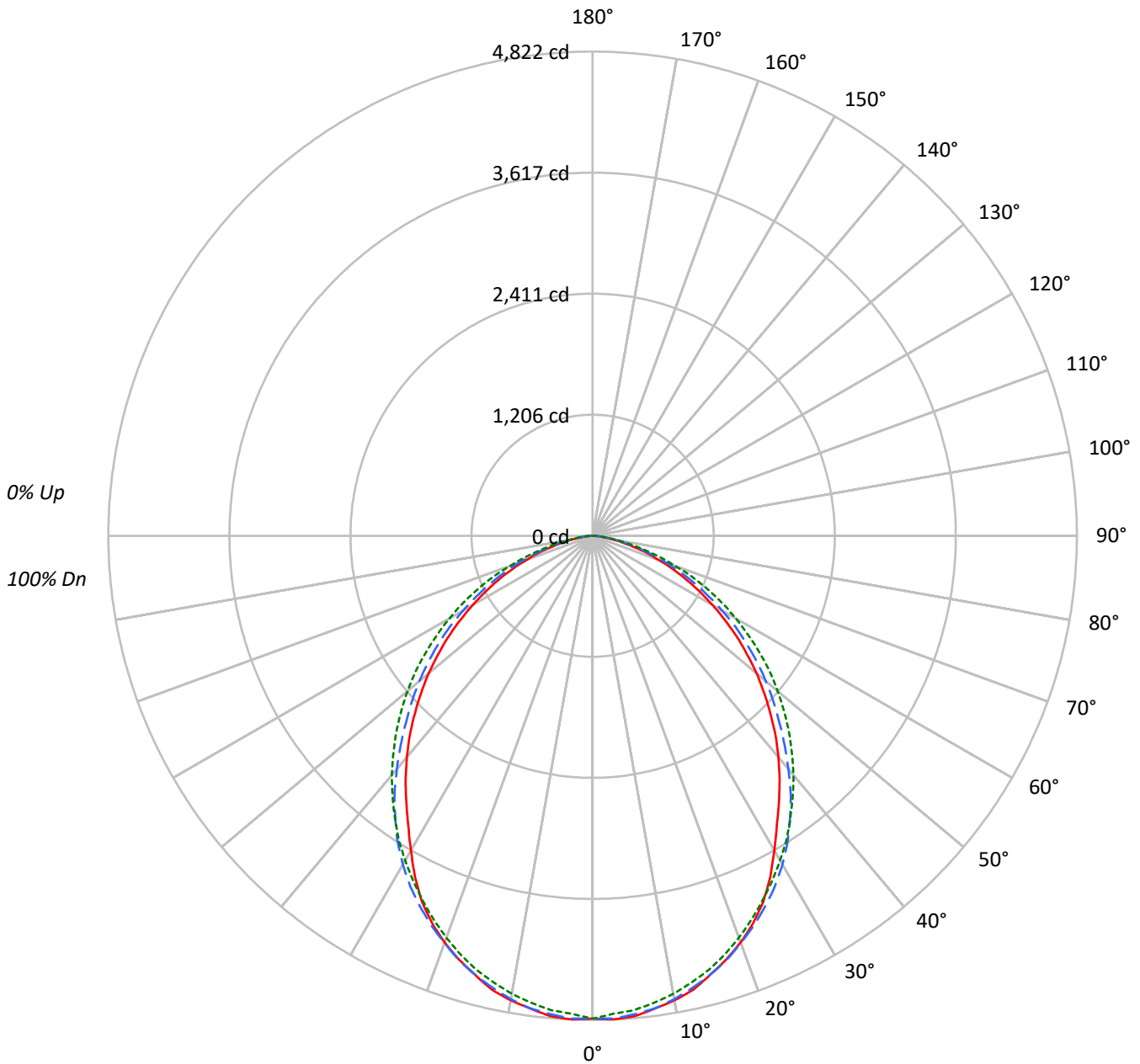
Lumens per Lamp: N/A  
Luminaire Lumens: 11119.0 lumens  
Efficiency: N/A  
Efficacy: 85.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	12940	12940	12940
5°	12974	12920	12810
10°	12837	12801	12655
15°	12609	12609	12465
20°	12342	12358	12199
25°	11936	12084	11892
30°	11239	11745	11601
35°	10620	11258	11276
40°	10104	10649	10928
45°	9526	10004	10518
50°	8917	9427	10070
55°	8225	8771	9525
60°	7407	8004	8859
65°	6540	7117	8057
70°	5451	6061	6846
75°	4284	4840	5359
80°	3064	3406	3780
85°	1998	1998	1883



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	452.8	4.1
10°-20°	1271.9	11.4
20°-30°	1858.7	16.7
30°-40°	2109.8	19.0
40°-50°	2036.7	18.3
50°-60°	1680.1	15.1
60°-70°	1118.8	10.1
70°-80°	500.7	4.5
80°-90°	89.6	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°	3583.3	32.2
0°-40°	5693.1	51.2
0°-60°	9409.9	84.6
0°-90°	11119.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11119.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4809	4809	4809	4809	4809	
5°	4803	4801	4783	4757	4742	455
15°	4526	4537	4526	4506	4474	1276
25°	4020	4051	4070	4040	4005	1841
35°	3233	3277	3427	3445	3432	2026
45°	2503	2546	2629	2749	2764	1931
55°	1753	1783	1870	1973	2030	1565
65°	1027	1055	1118	1197	1265	1018
75°	412	434	466	488	515	450
85°	65	65	65	61	61	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4808.7	4808.7	4808.7	4808.7	4808.7
2.5°	4821.6	4823.5	4812.4	4782.8	4764.3
5°	4803.1	4801.3	4782.8	4757.0	4742.2
7.5°	4749.6	4753.3	4747.7	4710.8	4690.4
10°	4697.8	4699.7	4684.9	4655.3	4631.3
12.5°	4631.3	4629.5	4609.2	4594.4	4555.6
15°	4526.0	4537.1	4526.0	4505.7	4474.3
17.5°	4424.4	4424.4	4431.8	4396.7	4372.7
20°	4309.9	4315.4	4315.4	4287.7	4260.0
22.5°	4176.9	4193.5	4199.1	4169.5	4136.2
25°	4019.9	4051.3	4069.7	4040.2	4005.1
27.5°	3829.6	3877.6	3933.0	3910.9	3872.1
30°	3617.1	3687.3	3779.7	3761.2	3733.5
32.5°	3415.8	3486.0	3613.4	3606.0	3591.3
35°	3232.9	3277.2	3426.9	3445.3	3432.4
37.5°	3059.2	3099.9	3240.3	3282.8	3271.7
40°	2876.3	2920.7	3031.5	3107.3	3111.0
42.5°	2695.3	2737.8	2828.3	2937.3	2937.3
45°	2503.2	2545.7	2628.8	2748.9	2763.7
47.5°	2314.7	2359.1	2440.4	2560.4	2584.5
50°	2130.0	2170.6	2251.9	2368.3	2405.3
52.5°	1937.9	1982.2	2061.7	2168.8	2222.4
55°	1753.1	1782.7	1869.5	1973.0	2030.2
57.5°	1561.0	1588.7	1686.6	1775.3	1834.4
60°	1376.3	1411.4	1487.1	1577.6	1646.0
62.5°	1198.9	1235.9	1300.5	1380.0	1457.6
65°	1027.1	1054.8	1117.7	1197.1	1265.4
67.5°	860.9	884.9	947.7	1003.1	1075.2
70°	692.8	724.2	770.3	823.9	870.1
72.5°	557.9	570.8	609.6	648.4	696.5
75°	412.0	434.1	465.5	487.7	515.4
77.5°	295.6	308.5	327.0	345.5	371.3
80°	197.7	203.2	219.8	223.5	243.9
82.5°	120.1	123.8	127.5	129.3	136.7
85°	64.7	64.7	64.7	61.0	61.0
87.5°	36.9	36.9	31.4	25.9	18.5
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)