

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: P557107

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-80-85-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: P557107  
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-LD4-2HI-50-UNV-80-85-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

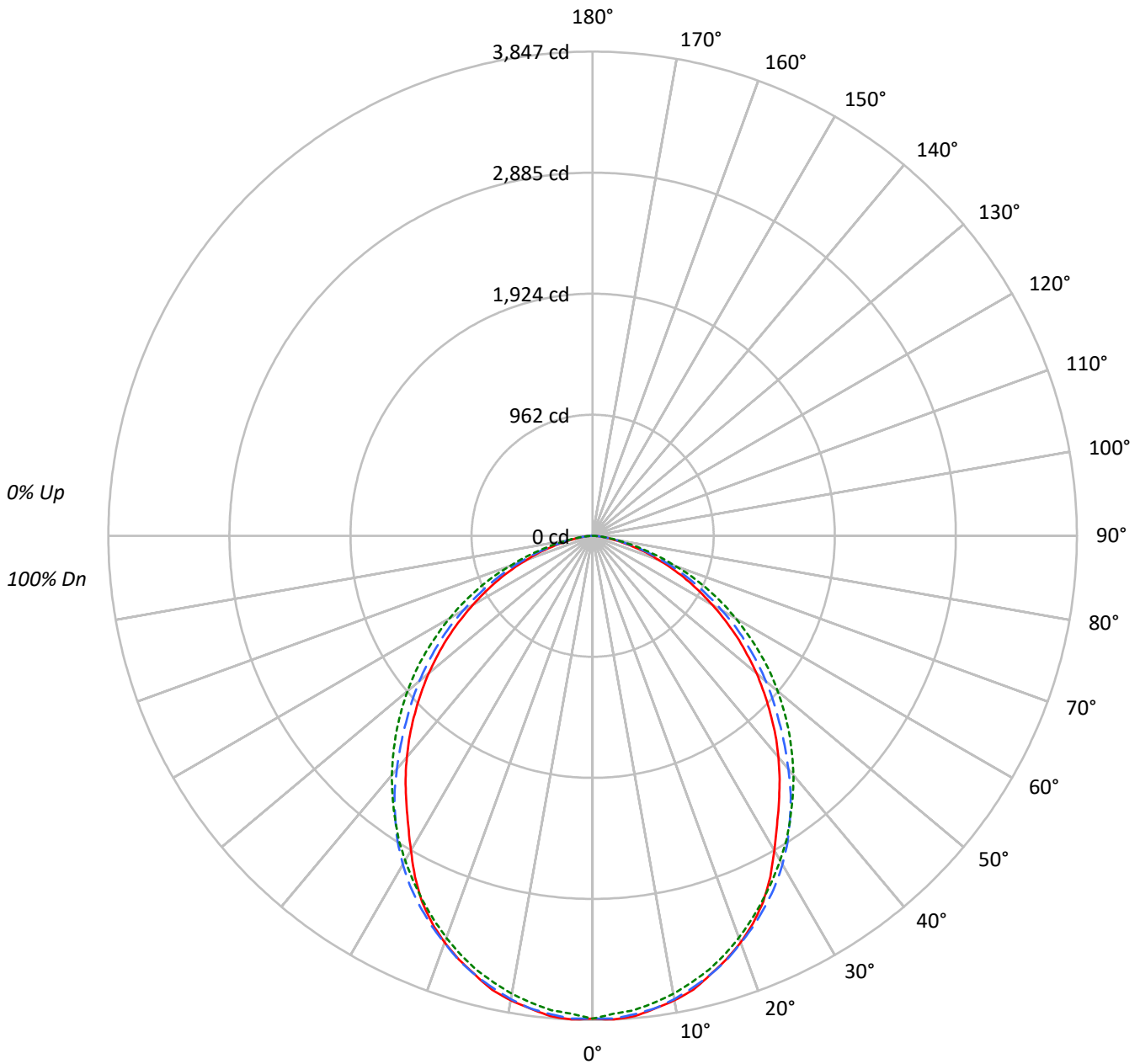
Lumens per Lamp: N/A  
Luminaire Lumens: 8871.0 lumens  
Efficiency: N/A  
Efficacy: 102.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 86.4  
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°	10324	10324	10324
5°	10351	10307	10220
10°	10241	10213	10097
15°	10060	10060	9945
20°	9847	9860	9733
25°	9522	9641	9487
30°	8967	9370	9256
35°	8473	8981	8996
40°	8061	8496	8719
45°	7600	7982	8391
50°	7114	7521	8034
55°	6562	6998	7599
60°	5909	6386	7068
65°	5218	5678	6429
70°	4349	4836	5462
75°	3418	3861	4275
80°	2444	2718	3016
85°	1593	1593	1501



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	361.2	4.1
10°-20°	1014.8	11.4
20°-30°	1482.9	16.7
30°-40°	1683.3	19.0
40°-50°	1624.9	18.3
50°-60°	1340.4	15.1
60°-70°	892.6	10.1
70°-80°	399.4	4.5
80°-90°	71.5	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°	2858.9	32.2
0°-40°	4542.1	51.2
0°-60°	7507.5	84.6
0°-90°	8871.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8871.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3836	3836	3836	3836	3836	
5°	3832	3831	3816	3795	3783	363
15°	3611	3620	3611	3595	3570	1018
25°	3207	3232	3247	3223	3195	1469
35°	2579	2615	2734	2749	2738	1616
45°	1997	2031	2097	2193	2205	1541
55°	1399	1422	1492	1574	1620	1248
65°	820	842	892	955	1010	813
75°	329	346	371	389	411	359
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3836.5	3836.5	3836.5	3836.5	3836.5
2.5°	3846.8	3848.3	3839.4	3815.8	3801.1
5°	3832.1	3830.6	3815.8	3795.2	3783.4
7.5°	3789.3	3792.3	3787.8	3758.4	3742.2
10°	3748.0	3749.5	3737.7	3714.1	3695.0
12.5°	3695.0	3693.5	3677.3	3665.5	3634.6
15°	3611.0	3619.8	3611.0	3594.8	3569.7
17.5°	3529.9	3529.9	3535.8	3507.8	3488.6
20°	3438.5	3443.0	3443.0	3420.8	3398.7
22.5°	3332.4	3345.7	3350.1	3326.5	3300.0
25°	3207.1	3232.2	3246.9	3223.3	3195.3
27.5°	3055.3	3093.6	3137.9	3120.2	3089.2
30°	2885.8	2941.8	3015.5	3000.8	2978.7
32.5°	2725.2	2781.2	2882.9	2877.0	2865.2
35°	2579.3	2614.6	2734.0	2748.8	2738.4
37.5°	2440.7	2473.2	2585.2	2619.1	2610.2
40°	2294.8	2330.2	2418.6	2479.0	2482.0
42.5°	2150.4	2184.3	2256.5	2343.5	2343.5
45°	1997.1	2031.0	2097.3	2193.1	2204.9
47.5°	1846.8	1882.1	1947.0	2042.8	2061.9
50°	1699.4	1731.8	1796.6	1889.5	1919.0
52.5°	1546.1	1581.5	1644.8	1730.3	1773.1
55°	1398.7	1422.3	1491.6	1574.1	1619.8
57.5°	1245.4	1267.5	1345.6	1416.4	1463.6
60°	1098.0	1126.0	1186.5	1258.7	1313.2
62.5°	956.5	986.0	1037.6	1101.0	1162.9
65°	819.5	841.6	891.7	955.1	1009.6
67.5°	686.8	706.0	756.1	800.3	857.8
70°	552.7	577.8	614.6	657.3	694.2
72.5°	445.1	455.4	486.4	517.3	555.6
75°	328.7	346.4	371.4	389.1	411.2
77.5°	235.8	246.1	260.9	275.6	296.2
80°	157.7	162.1	175.4	178.3	194.6
82.5°	95.8	98.7	101.7	103.2	109.1
85°	51.6	51.6	51.6	48.6	48.6
87.5°	29.5	29.5	25.1	20.6	14.7
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)