

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: P557782

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-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: P557782  
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-35-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 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

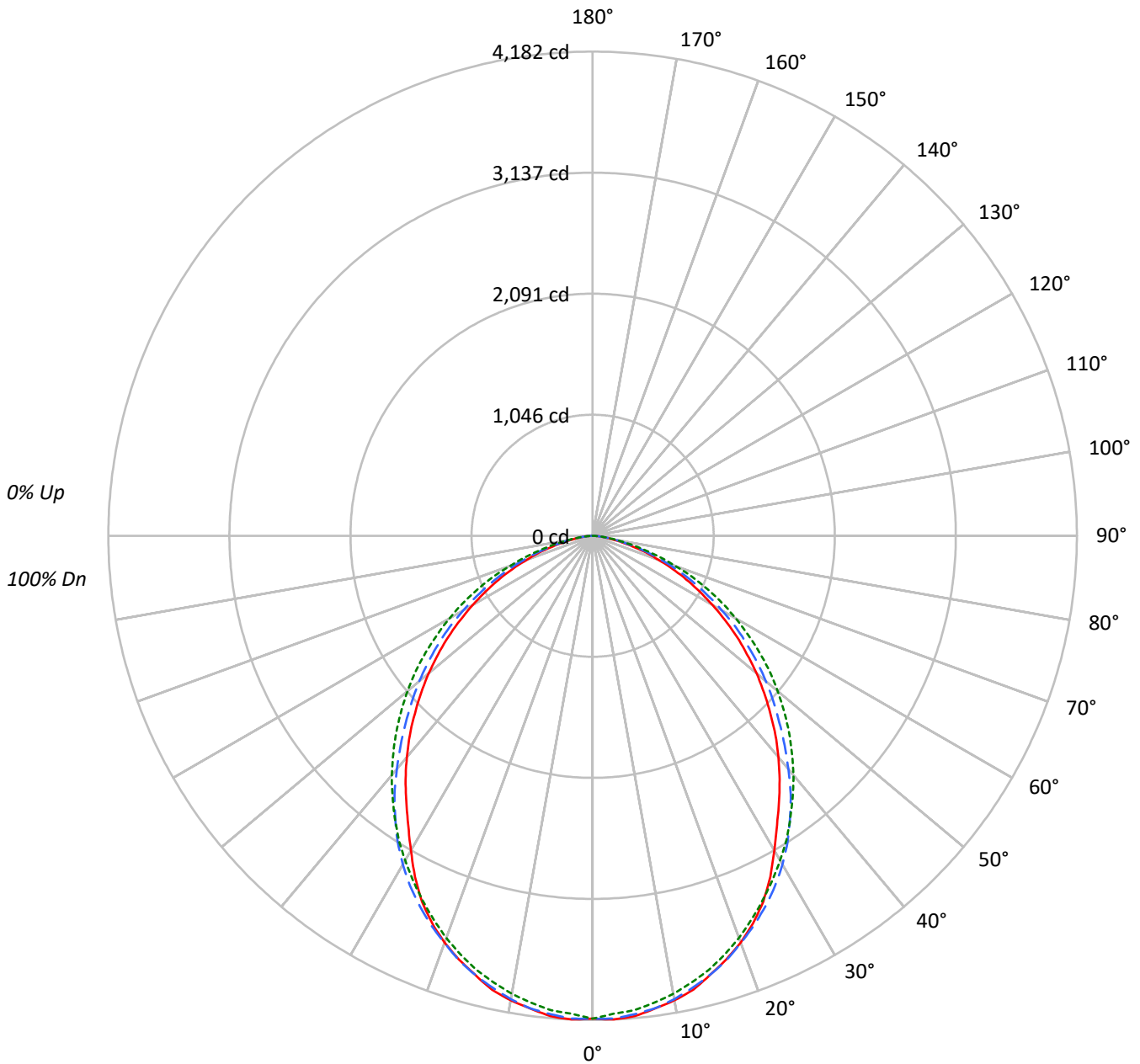
Lumens per Lamp: N/A  
Luminaire Lumens: 9644.0 lumens  
Efficiency: N/A  
Efficacy: 74.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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					
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	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°	11224	11224	11224
5°	11253	11206	11111
10°	11134	11103	10976
15°	10936	10936	10812
20°	10705	10719	10581
25°	10352	10481	10314
30°	9748	10187	10062
35°	9211	9764	9780
40°	8764	9237	9479
45°	8262	8677	9122
50°	7734	8177	8734
55°	7134	7607	8261
60°	6424	6942	7683
65°	5673	6173	6989
70°	4728	5257	5938
75°	3715	4198	4648
80°	2656	2955	3278
85°	1732	1732	1633



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	392.7	4.1
10°-20°	1103.2	11.4
20°-30°	1612.1	16.7
30°-40°	1829.9	19.0
40°-50°	1766.5	18.3
50°-60°	1457.3	15.1
60°-70°	970.4	10.1
70°-80°	434.2	4.5
80°-90°	77.7	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°	3108.0	32.2
0°-40°	4937.9	51.2
0°-60°	8161.7	84.6
0°-90°	9644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9644.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4171	4171	4171	4171	4171	
5°	4166	4164	4148	4126	4113	394
15°	3926	3935	3926	3908	3881	1107
25°	3487	3514	3530	3504	3474	1597
35°	2804	2842	2972	2988	2977	1757
45°	2171	2208	2280	2384	2397	1675
55°	1521	1546	1622	1711	1761	1357
65°	891	915	969	1038	1098	883
75°	357	376	404	423	447	391
85°	56	56	56	53	53	76
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4170.8	4170.8	4170.8	4170.8	4170.8
2.5°	4182.0	4183.6	4174.0	4148.3	4132.3
5°	4166.0	4164.4	4148.3	4125.9	4113.1
7.5°	4119.5	4122.7	4117.9	4085.9	4068.2
10°	4074.6	4076.2	4063.4	4037.8	4017.0
12.5°	4017.0	4015.4	3997.7	3984.9	3951.3
15°	3925.6	3935.2	3925.6	3908.0	3880.8
17.5°	3837.5	3837.5	3843.9	3813.5	3792.6
20°	3738.2	3743.0	3743.0	3718.9	3694.9
22.5°	3622.8	3637.2	3642.0	3616.4	3587.5
25°	3486.6	3513.8	3529.9	3504.2	3473.8
27.5°	3321.6	3363.2	3411.3	3392.1	3358.4
30°	3137.3	3198.2	3278.3	3262.3	3238.2
32.5°	2962.6	3023.5	3134.1	3127.7	3114.9
35°	2804.0	2842.5	2972.3	2988.3	2977.1
37.5°	2653.4	2688.7	2810.4	2847.3	2837.7
40°	2494.8	2533.2	2629.4	2695.1	2698.3
42.5°	2337.8	2374.6	2453.1	2547.7	2547.7
45°	2171.1	2208.0	2280.1	2384.2	2397.0
47.5°	2007.7	2046.1	2116.6	2220.8	2241.6
50°	1847.4	1882.7	1953.2	2054.1	2086.2
52.5°	1680.8	1719.3	1788.2	1881.1	1927.6
55°	1520.6	1546.2	1621.5	1711.3	1760.9
57.5°	1353.9	1378.0	1462.9	1539.8	1591.1
60°	1193.7	1224.2	1289.8	1368.4	1427.6
62.5°	1039.9	1071.9	1128.0	1196.9	1264.2
65°	890.9	914.9	969.4	1038.3	1097.6
67.5°	746.7	767.5	822.0	870.0	932.5
70°	600.9	628.1	668.2	714.6	754.7
72.5°	483.9	495.1	528.8	562.4	604.1
75°	357.3	376.5	403.8	423.0	447.0
77.5°	256.4	267.6	283.6	299.6	322.1
80°	171.4	176.3	190.7	193.9	211.5
82.5°	104.1	107.4	110.6	112.2	118.6
85°	56.1	56.1	56.1	52.9	52.9
87.5°	32.0	32.0	27.2	22.4	16.0
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)