

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: P558259

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-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: P558259  
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-LD4-3STD-35-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 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

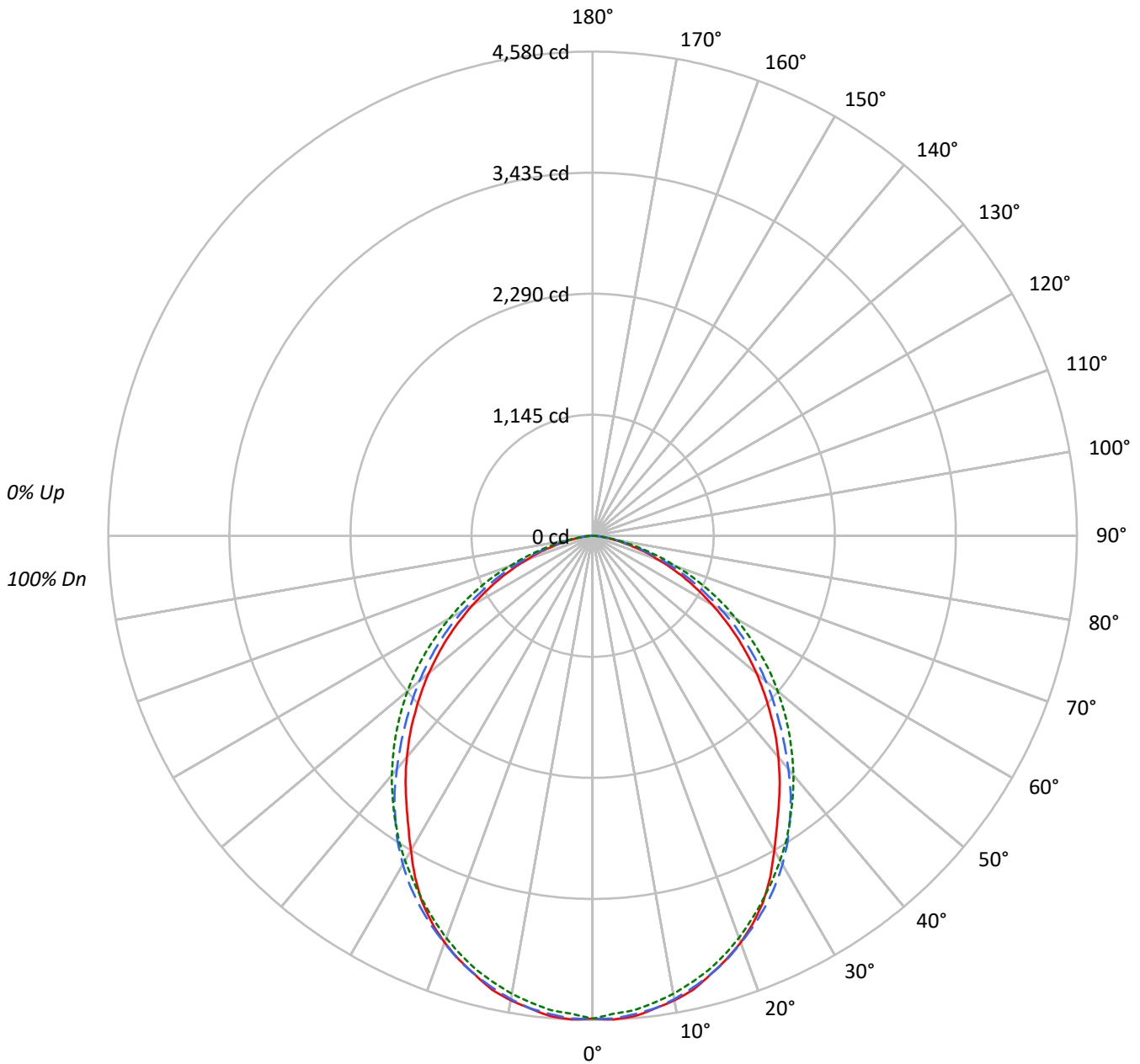
Lumens per Lamp: N/A  
Luminaire Lumens: 10562.0 lumens  
Efficiency: N/A  
Efficacy: 105.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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									
RC	80									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°	12292	12292	12292
5°	12324	12272	12168
10°	12194	12160	12021
15°	11977	11977	11841
20°	11724	11739	11588
25°	11338	11479	11296
30°	10676	11156	11020
35°	10088	10694	10711
40°	9598	10116	10381
45°	9049	9503	9991
50°	8470	8955	9565
55°	7813	8332	9048
60°	7036	7603	8415
65°	6213	6760	7654
70°	5178	5758	6503
75°	4068	4598	5090
80°	2910	3236	3589
85°	1896	1896	1788



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	430.1	4.1
10°-20°	1208.2	11.4
20°-30°	1765.6	16.7
30°-40°	2004.1	19.0
40°-50°	1934.7	18.3
50°-60°	1596.0	15.1
60°-70°	1062.8	10.1
70°-80°	475.6	4.5
80°-90°	85.1	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°	3403.8	32.2
0°-40°	5407.9	51.2
0°-60°	8938.6	84.6
0°-90°	10562.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10562.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4568	4568	4568	4568	4568	
5°	4562	4561	4543	4519	4505	432
15°	4299	4310	4299	4280	4250	1212
25°	3818	3848	3866	3838	3804	1749
35°	3071	3113	3255	3273	3260	1924
45°	2378	2418	2497	2611	2625	1835
55°	1665	1693	1776	1874	1928	1486
65°	976	1002	1062	1137	1202	967
75°	391	412	442	463	490	428
85°	61	61	61	58	58	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4567.8	4567.8	4567.8	4567.8	4567.8
2.5°	4580.1	4581.8	4571.3	4543.2	4525.7
5°	4562.5	4560.8	4543.2	4518.7	4504.6
7.5°	4511.6	4515.1	4509.9	4474.8	4455.5
10°	4462.5	4464.3	4450.2	4422.1	4399.3
12.5°	4399.3	4397.6	4378.3	4364.2	4327.4
15°	4299.3	4309.8	4299.3	4280.0	4250.2
17.5°	4202.8	4202.8	4209.8	4176.5	4153.7
20°	4094.0	4099.3	4099.3	4072.9	4046.6
22.5°	3967.6	3983.4	3988.7	3960.6	3929.0
25°	3818.5	3848.3	3865.9	3837.8	3804.4
27.5°	3637.7	3683.4	3736.0	3715.0	3678.1
30°	3435.9	3502.6	3590.4	3572.8	3546.5
32.5°	3244.7	3311.3	3432.4	3425.4	3411.4
35°	3070.9	3113.0	3255.2	3272.7	3260.5
37.5°	2906.0	2944.6	3078.0	3118.3	3107.8
40°	2732.3	2774.4	2879.7	2951.6	2955.1
42.5°	2560.3	2600.6	2686.6	2790.2	2790.2
45°	2377.8	2418.1	2497.1	2611.2	2625.2
47.5°	2198.8	2240.9	2318.1	2432.2	2455.0
50°	2023.3	2061.9	2139.1	2249.7	2284.8
52.5°	1840.8	1882.9	1958.4	2060.2	2111.0
55°	1665.3	1693.4	1775.9	1874.1	1928.5
57.5°	1482.8	1509.1	1602.1	1686.4	1742.5
60°	1307.3	1340.7	1412.6	1498.6	1563.5
62.5°	1138.9	1174.0	1235.4	1310.8	1384.6
65°	975.7	1002.0	1061.7	1137.1	1202.1
67.5°	817.7	840.6	900.2	952.9	1021.3
70°	658.1	687.9	731.8	782.6	826.5
72.5°	530.0	542.2	579.1	615.9	661.6
75°	391.3	412.4	442.2	463.3	489.6
77.5°	280.8	293.1	310.6	328.2	352.7
80°	187.8	193.0	208.8	212.3	231.6
82.5°	114.1	117.6	121.1	122.8	129.9
85°	61.4	61.4	61.4	57.9	57.9
87.5°	35.1	35.1	29.8	24.6	17.5
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)