

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: P558203

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-80-94-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: P558203  
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-30-UNV-80-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND  
3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

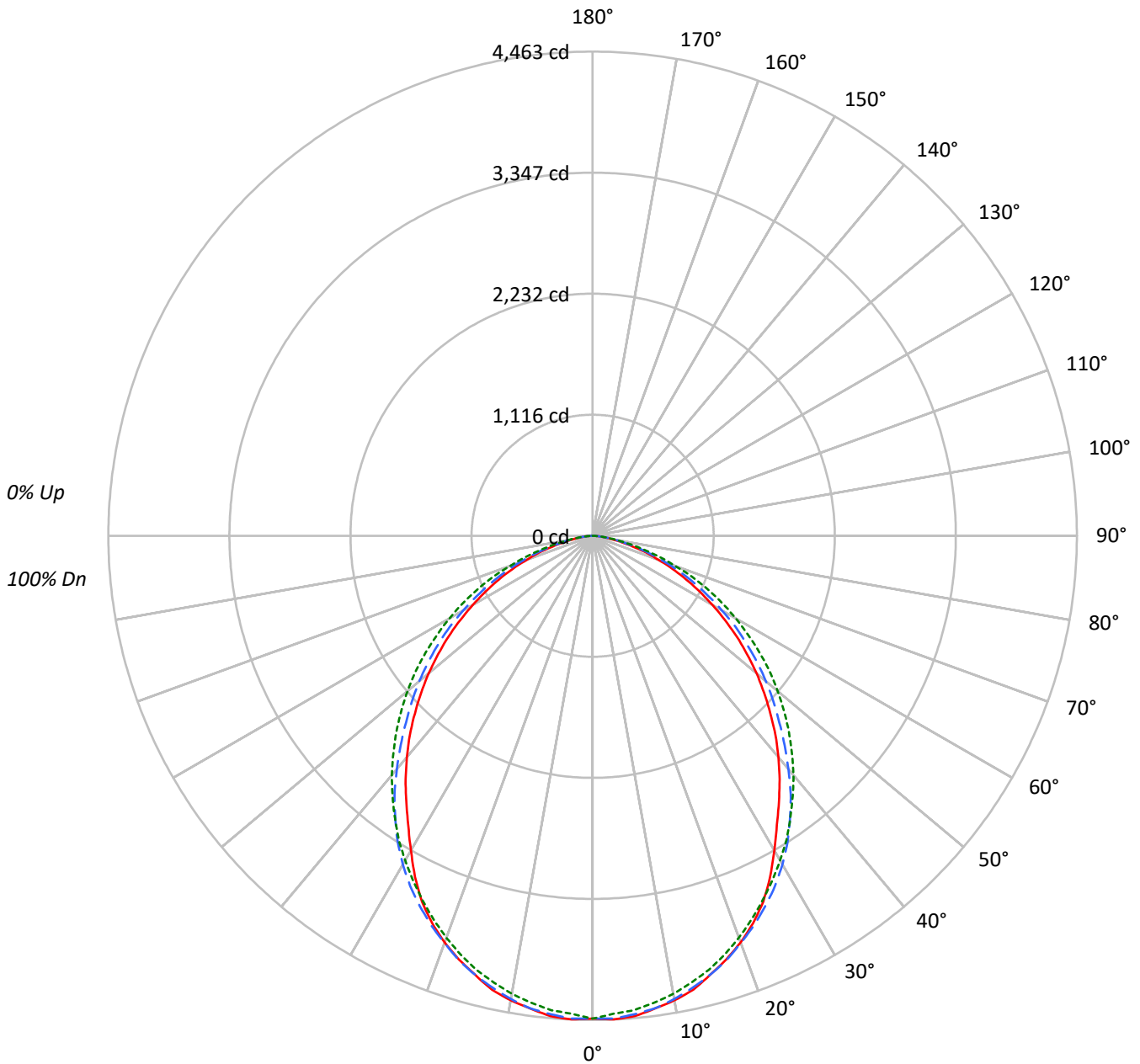
Lumens per Lamp: N/A  
Luminaire Lumens: 10291.0 lumens  
Efficiency: N/A  
Efficacy: 103.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	11976	11976	11976
5°	12008	11958	11856
10°	11881	11848	11713
15°	11670	11670	11537
20°	11423	11438	11291
25°	11047	11184	11006
30°	10403	10870	10737
35°	9829	10419	10436
40°	9351	9856	10114
45°	8817	9259	9734
50°	8253	8725	9320
55°	7613	8118	8816
60°	6856	7408	8199
65°	6053	6586	7457
70°	5045	5610	6336
75°	3964	4480	4959
80°	2834	3154	3498
85°	1846	1846	1741



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	419.0	4.1
10°-20°	1177.2	11.4
20°-30°	1720.3	16.7
30°-40°	1952.7	19.0
40°-50°	1885.0	18.3
50°-60°	1555.0	15.1
60°-70°	1035.5	10.1
70°-80°	463.4	4.5
80°-90°	82.9	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°	3316.5	32.2
0°-40°	5269.2	51.2
0°-60°	8709.2	84.6
0°-90°	10291.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10291.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4451	4451	4451	4451	4451	
5°	4446	4444	4427	4403	4389	421
15°	4189	4199	4189	4170	4141	1181
25°	3720	3750	3767	3739	3707	1704
35°	2992	3033	3172	3189	3177	1875
45°	2317	2356	2433	2544	2558	1788
55°	1623	1650	1730	1826	1879	1448
65°	951	976	1034	1108	1171	943
75°	381	402	431	451	477	417
85°	60	60	60	56	56	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4450.6	4450.6	4450.6	4450.6	4450.6
2.5°	4462.6	4464.3	4454.0	4426.7	4409.6
5°	4445.5	4443.8	4426.7	4402.7	4389.0
7.5°	4395.9	4399.3	4394.2	4360.0	4341.2
10°	4348.0	4349.7	4336.0	4308.7	4286.5
12.5°	4286.5	4284.7	4265.9	4252.3	4216.4
15°	4189.0	4199.3	4189.0	4170.2	4141.1
17.5°	4095.0	4095.0	4101.8	4069.3	4047.1
20°	3988.9	3994.1	3994.1	3968.4	3942.8
22.5°	3865.8	3881.2	3886.4	3859.0	3828.2
25°	3720.5	3749.6	3766.7	3739.3	3706.8
27.5°	3544.4	3588.9	3640.1	3619.6	3583.7
30°	3347.8	3412.7	3498.2	3481.1	3455.5
32.5°	3161.4	3226.4	3344.4	3337.5	3323.8
35°	2992.1	3033.2	3171.7	3188.8	3176.8
37.5°	2831.4	2869.0	2999.0	3038.3	3028.0
40°	2662.1	2703.2	2805.8	2875.9	2879.3
42.5°	2494.6	2533.9	2617.7	2718.6	2718.6
45°	2316.8	2356.1	2433.0	2544.2	2557.9
47.5°	2142.4	2183.4	2258.6	2369.8	2392.0
50°	1971.4	2009.0	2084.2	2192.0	2226.2
52.5°	1793.6	1834.6	1908.1	2007.3	2056.9
55°	1622.6	1650.0	1730.3	1826.1	1879.1
57.5°	1444.8	1470.4	1561.0	1643.1	1697.8
60°	1273.8	1306.3	1376.4	1460.2	1523.4
62.5°	1109.7	1143.9	1203.7	1277.2	1349.0
65°	950.6	976.3	1034.4	1107.9	1171.2
67.5°	796.8	819.0	877.1	928.4	995.1
70°	641.2	670.2	713.0	762.6	805.3
72.5°	516.4	528.3	564.2	600.1	644.6
75°	381.3	401.8	430.9	451.4	477.0
77.5°	273.6	285.5	302.6	319.7	343.7
80°	182.9	188.1	203.5	206.9	225.7
82.5°	111.1	114.6	118.0	119.7	126.5
85°	59.8	59.8	59.8	56.4	56.4
87.5°	34.2	34.2	29.1	23.9	17.1
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)