

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: P557747

Luminaire Tested: **FUSL-12-4-LD4-3HI-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: P557747  
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-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**

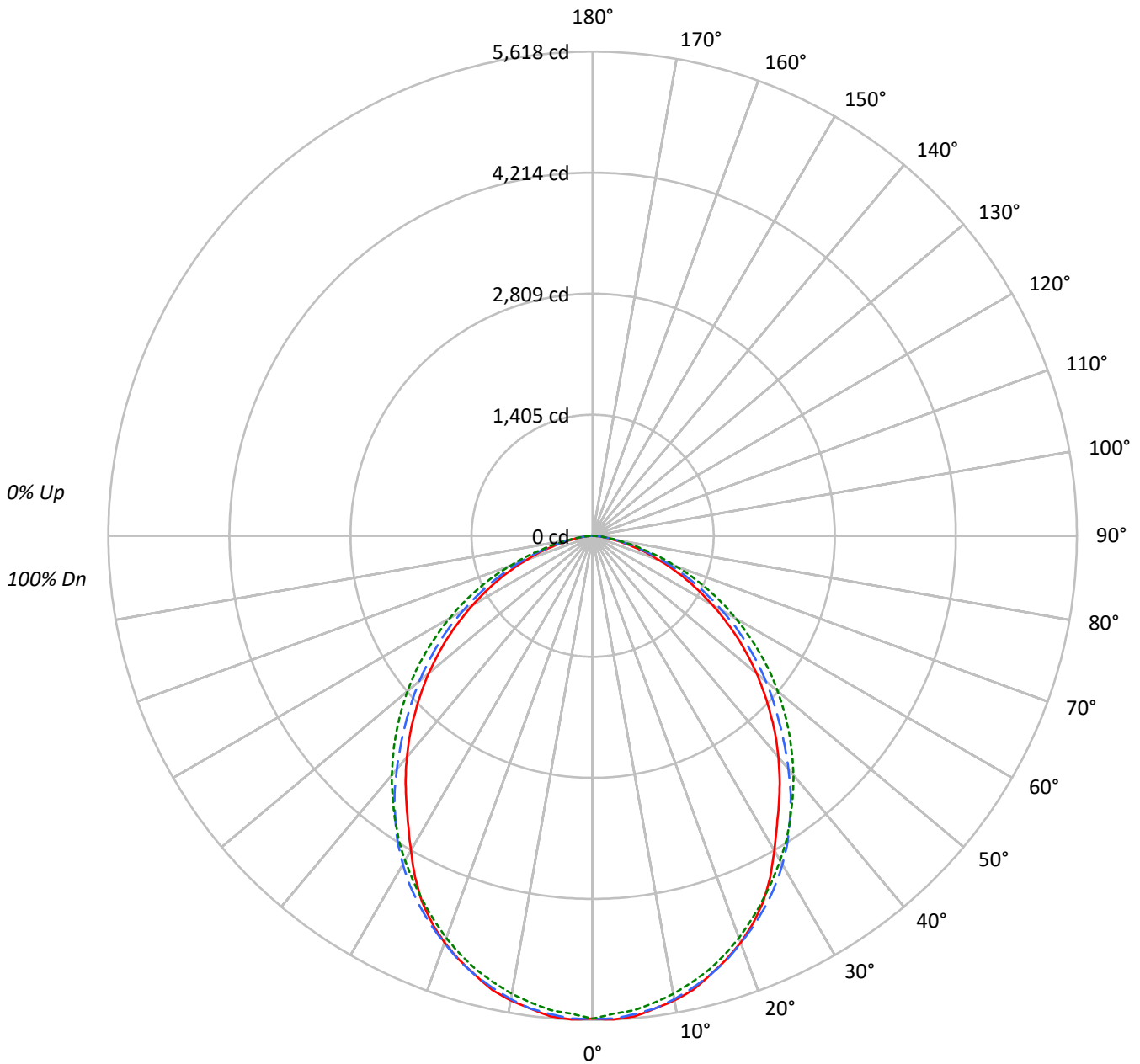
Lumens per Lamp: N/A  
Luminaire Lumens: 12956.0 lumens  
Efficiency: N/A  
Efficacy: 100.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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									
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°	15078	15078	15078
5°	15118	15054	14926
10°	14958	14916	14746
15°	14692	14692	14524
20°	14381	14400	14215
25°	13908	14080	13857
30°	13096	13685	13518
35°	12375	13117	13139
40°	11773	12409	12734
45°	11100	11657	12255
50°	10390	10985	11733
55°	9584	10220	11099
60°	8631	9326	10322
65°	7621	8292	9389
70°	6351	7062	7977
75°	4991	5639	6245
80°	3569	3970	4403
85°	2325	2325	2192



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	527.6	4.1
10°-20°	1482.0	11.4
20°-30°	2165.8	16.7
30°-40°	2458.4	19.0
40°-50°	2373.2	18.3
50°-60°	1957.7	15.1
60°-70°	1303.7	10.1
70°-80°	583.4	4.5
80°-90°	104.4	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°	4175.3	32.2
0°-40°	6633.7	51.2
0°-60°	10964.6	84.6
0°-90°	12956.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12956.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5603	5603	5603	5603	5603	
5°	5597	5594	5573	5543	5526	530
15°	5274	5287	5274	5250	5214	1487
25°	4684	4721	4742	4708	4667	2145
35°	3767	3819	3993	4014	4000	2360
45°	2917	2966	3063	3203	3220	2250
55°	2043	2077	2178	2299	2366	1823
65°	1197	1229	1302	1395	1474	1187
75°	480	506	542	568	601	525
85°	75	75	75	71	71	102
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5603.1	5603.1	5603.1	5603.1	5603.1
2.5°	5618.2	5620.4	5607.4	5573.0	5551.5
5°	5596.7	5594.5	5573.0	5542.9	5525.6
7.5°	5534.3	5538.6	5532.1	5489.0	5465.4
10°	5474.0	5476.1	5458.9	5424.5	5396.5
12.5°	5396.5	5394.3	5370.7	5353.4	5308.2
15°	5273.8	5286.7	5273.8	5250.1	5213.5
17.5°	5155.4	5155.4	5164.0	5123.1	5095.1
20°	5021.9	5028.4	5028.4	4996.1	4963.8
22.5°	4867.0	4886.3	4892.8	4858.3	4819.6
25°	4684.0	4720.6	4742.1	4707.7	4666.8
27.5°	4462.3	4518.2	4582.8	4557.0	4511.8
30°	4214.7	4296.5	4404.2	4382.6	4350.3
32.5°	3980.1	4061.9	4210.4	4201.8	4184.6
35°	3767.0	3818.7	3993.0	4014.5	3999.5
37.5°	3564.7	3612.0	3775.6	3825.1	3812.2
40°	3351.5	3403.2	3532.4	3620.6	3624.9
42.5°	3140.6	3190.1	3295.6	3422.6	3422.6
45°	2916.7	2966.2	3063.1	3203.0	3220.2
47.5°	2697.2	2748.8	2843.5	2983.5	3011.4
50°	2481.9	2529.3	2624.0	2759.6	2802.6
52.5°	2258.0	2309.7	2402.3	2527.1	2589.5
55°	2042.8	2077.2	2178.4	2298.9	2365.7
57.5°	1818.9	1851.2	1965.3	2068.6	2137.5
60°	1603.7	1644.6	1732.8	1838.3	1917.9
62.5°	1397.0	1440.1	1515.4	1608.0	1698.4
65°	1196.8	1229.1	1302.3	1394.9	1474.5
67.5°	1003.1	1031.1	1104.3	1168.8	1252.8
70°	807.2	843.8	897.6	960.0	1013.9
72.5°	650.1	665.1	710.3	755.6	811.5
75°	480.0	505.9	542.4	568.3	600.6
77.5°	344.4	359.5	381.0	402.5	432.7
80°	230.3	236.8	256.2	260.5	284.1
82.5°	139.9	144.2	148.5	150.7	159.3
85°	75.3	75.3	75.3	71.0	71.0
87.5°	43.1	43.1	36.6	30.1	21.5
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)