

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: P557822

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-80-97-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: P557822  
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-40-UNV-80-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

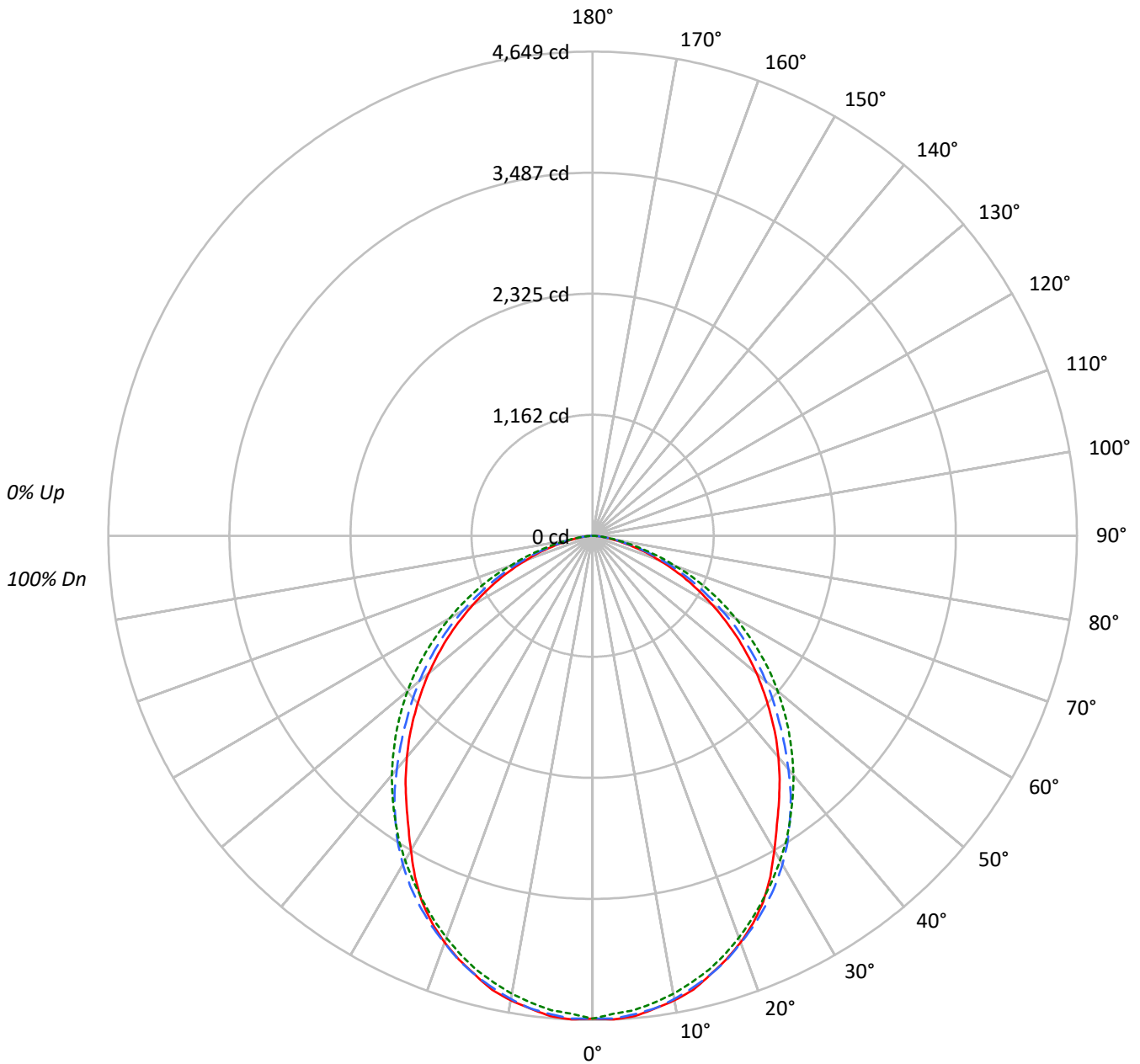
Lumens per Lamp: N/A  
Luminaire Lumens: 10720.0 lumens  
Efficiency: N/A  
Efficacy: 82.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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									
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°	12476	12476	12476
5°	12509	12456	12350
10°	12376	12342	12201
15°	12157	12157	12018
20°	11899	11915	11761
25°	11507	11650	11465
30°	10836	11323	11185
35°	10239	10854	10871
40°	9741	10267	10536
45°	9184	9645	10140
50°	8597	9089	9708
55°	7930	8456	9183
60°	7141	7717	8541
65°	6306	6861	7768
70°	5255	5843	6600
75°	4130	4666	5166
80°	2954	3284	3643
85°	1924	1924	1815



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	436.5	4.1
10°-20°	1226.3	11.4
20°-30°	1792.0	16.7
30°-40°	2034.1	19.0
40°-50°	1963.6	18.3
50°-60°	1619.8	15.1
60°-70°	1078.7	10.1
70°-80°	482.7	4.5
80°-90°	86.3	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°	3454.8	32.2
0°-40°	5488.8	51.2
0°-60°	9072.3	84.6
0°-90°	10720.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10720.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4636	4636	4636	4636	4636	
5°	4631	4629	4611	4586	4572	438
15°	4364	4374	4364	4344	4314	1230
25°	3876	3906	3924	3895	3861	1775
35°	3117	3160	3304	3322	3309	1953
45°	2413	2454	2534	2650	2664	1862
55°	1690	1719	1802	1902	1957	1509
65°	990	1017	1078	1154	1220	982
75°	397	419	449	470	497	434
85°	62	62	62	59	59	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4636.1	4636.1	4636.1	4636.1	4636.1
2.5°	4648.6	4650.4	4639.7	4611.2	4593.4
5°	4630.8	4629.0	4611.2	4586.3	4572.0
7.5°	4579.1	4582.7	4577.3	4541.7	4522.1
10°	4529.3	4531.0	4516.8	4488.3	4465.1
12.5°	4465.1	4463.4	4443.8	4429.5	4392.1
15°	4363.6	4374.3	4363.6	4344.0	4313.7
17.5°	4265.7	4265.7	4272.8	4238.9	4215.8
20°	4155.2	4160.6	4160.6	4133.9	4107.1
22.5°	4027.0	4043.0	4048.4	4019.9	3987.8
25°	3875.6	3905.9	3923.7	3895.2	3861.4
27.5°	3692.2	3738.5	3791.9	3770.5	3733.1
30°	3487.3	3555.0	3644.1	3626.3	3599.5
32.5°	3293.2	3360.9	3483.8	3476.6	3462.4
35°	3116.9	3159.6	3303.9	3321.7	3309.2
37.5°	2949.5	2988.6	3124.0	3165.0	3154.3
40°	2773.1	2815.9	2922.7	2995.8	2999.3
42.5°	2598.6	2639.5	2726.8	2831.9	2831.9
45°	2413.3	2454.3	2534.5	2650.2	2664.5
47.5°	2231.7	2274.4	2352.8	2468.6	2491.7
50°	2053.6	2092.8	2171.1	2283.3	2319.0
52.5°	1868.3	1911.1	1987.7	2091.0	2142.6
55°	1690.2	1718.7	1802.4	1902.2	1957.4
57.5°	1505.0	1531.7	1626.1	1711.6	1768.6
60°	1326.9	1360.7	1433.8	1521.0	1586.9
62.5°	1155.9	1191.5	1253.9	1330.5	1405.3
65°	990.3	1017.0	1077.5	1154.1	1220.0
67.5°	830.0	853.1	913.7	967.1	1036.6
70°	667.9	698.2	742.7	794.4	838.9
72.5°	537.9	550.4	587.8	625.2	671.5
75°	397.2	418.6	448.8	470.2	496.9
77.5°	285.0	297.4	315.2	333.1	358.0
80°	190.6	195.9	211.9	215.5	235.1
82.5°	115.8	119.3	122.9	124.7	131.8
85°	62.3	62.3	62.3	58.8	58.8
87.5°	35.6	35.6	30.3	24.9	17.8
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)