

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: P557047

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-80-87-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: P557047  
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-LD4-2HI-40-UNV-80-87-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

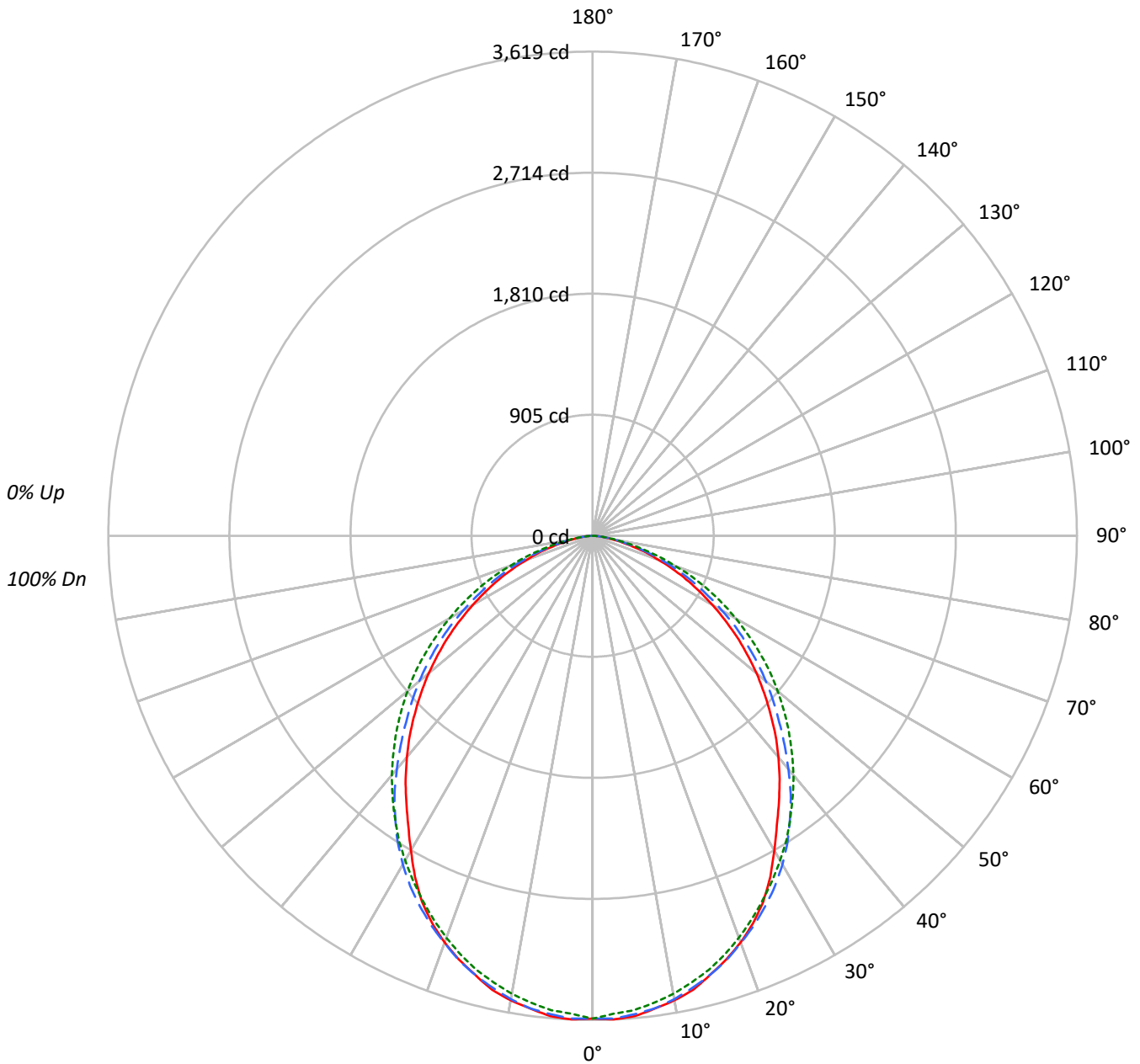
Lumens per Lamp: N/A  
Luminaire Lumens: 8345.0 lumens  
Efficiency: N/A  
Efficacy: 96.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 86.4  
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	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°	9712	9712	9712
5°	9737	9696	9614
10°	9634	9608	9498
15°	9463	9463	9355
20°	9263	9275	9156
25°	8958	9069	8925
30°	8435	8814	8707
35°	7971	8449	8463
40°	7583	7992	8202
45°	7150	7508	7894
50°	6692	7075	7557
55°	6173	6583	7149
60°	5559	6007	6649
65°	4909	5341	6047
70°	4091	4549	5138
75°	3215	3633	4022
80°	2300	2557	2836
85°	1497	1497	1414



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	339.8	4.1
10°-20°	954.6	11.4
20°-30°	1395.0	16.7
30°-40°	1583.4	19.0
40°-50°	1528.6	18.3
50°-60°	1261.0	15.1
60°-70°	839.7	10.1
70°-80°	375.8	4.5
80°-90°	67.2	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°	2689.4	32.2
0°-40°	4272.8	51.2
0°-60°	7062.3	84.6
0°-90°	8345.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8345.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3609	3609	3609	3609	3609	
5°	3605	3604	3590	3570	3559	341
15°	3397	3405	3397	3382	3358	958
25°	3017	3040	3054	3032	3006	1382
35°	2426	2460	2572	2586	2576	1520
45°	1879	1911	1973	2063	2074	1450
55°	1316	1338	1403	1481	1524	1174
65°	771	792	839	898	950	764
75°	309	326	349	366	387	338
85°	48	48	48	46	46	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3609.0	3609.0	3609.0	3609.0	3609.0
2.5°	3618.7	3620.1	3611.8	3589.6	3575.7
5°	3604.8	3603.5	3589.6	3570.2	3559.1
7.5°	3564.6	3567.4	3563.2	3535.5	3520.3
10°	3525.8	3527.2	3516.1	3493.9	3475.9
12.5°	3475.9	3474.5	3459.3	3448.2	3419.0
15°	3396.9	3405.2	3396.9	3381.6	3358.0
17.5°	3320.6	3320.6	3326.2	3299.8	3281.8
20°	3234.6	3238.8	3238.8	3218.0	3197.2
22.5°	3134.8	3147.3	3151.5	3129.3	3104.3
25°	3017.0	3040.5	3054.4	3032.2	3005.9
27.5°	2874.2	2910.2	2951.8	2935.2	2906.1
30°	2714.7	2767.4	2836.7	2822.9	2802.1
32.5°	2563.6	2616.3	2711.9	2706.4	2695.3
35°	2426.3	2459.6	2571.9	2585.8	2576.1
37.5°	2296.0	2326.5	2431.9	2463.8	2455.4
40°	2158.7	2192.0	2275.2	2332.1	2334.8
42.5°	2022.9	2054.8	2122.7	2204.5	2204.5
45°	1878.7	1910.6	1973.0	2063.1	2074.2
47.5°	1737.3	1770.5	1831.5	1921.7	1939.7
50°	1598.6	1629.1	1690.1	1777.5	1805.2
52.5°	1454.4	1487.7	1547.3	1627.7	1667.9
55°	1315.8	1337.9	1403.1	1480.8	1523.7
57.5°	1171.6	1192.4	1265.9	1332.4	1376.8
60°	1032.9	1059.3	1116.1	1184.1	1235.4
62.5°	899.8	927.6	976.1	1035.7	1093.9
65°	770.9	791.7	838.8	898.4	949.7
67.5°	646.1	664.1	711.3	752.9	806.9
70°	519.9	543.5	578.2	618.4	653.0
72.5°	418.7	428.4	457.5	486.7	522.7
75°	309.2	325.8	349.4	366.0	386.8
77.5°	221.8	231.5	245.4	259.3	278.7
80°	148.4	152.5	165.0	167.8	183.0
82.5°	90.1	92.9	95.7	97.1	102.6
85°	48.5	48.5	48.5	45.8	45.8
87.5°	27.7	27.7	23.6	19.4	13.9
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)