

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: P557583

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-81-97-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: P557583  
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-LD4-2STD-40-UNV-81-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

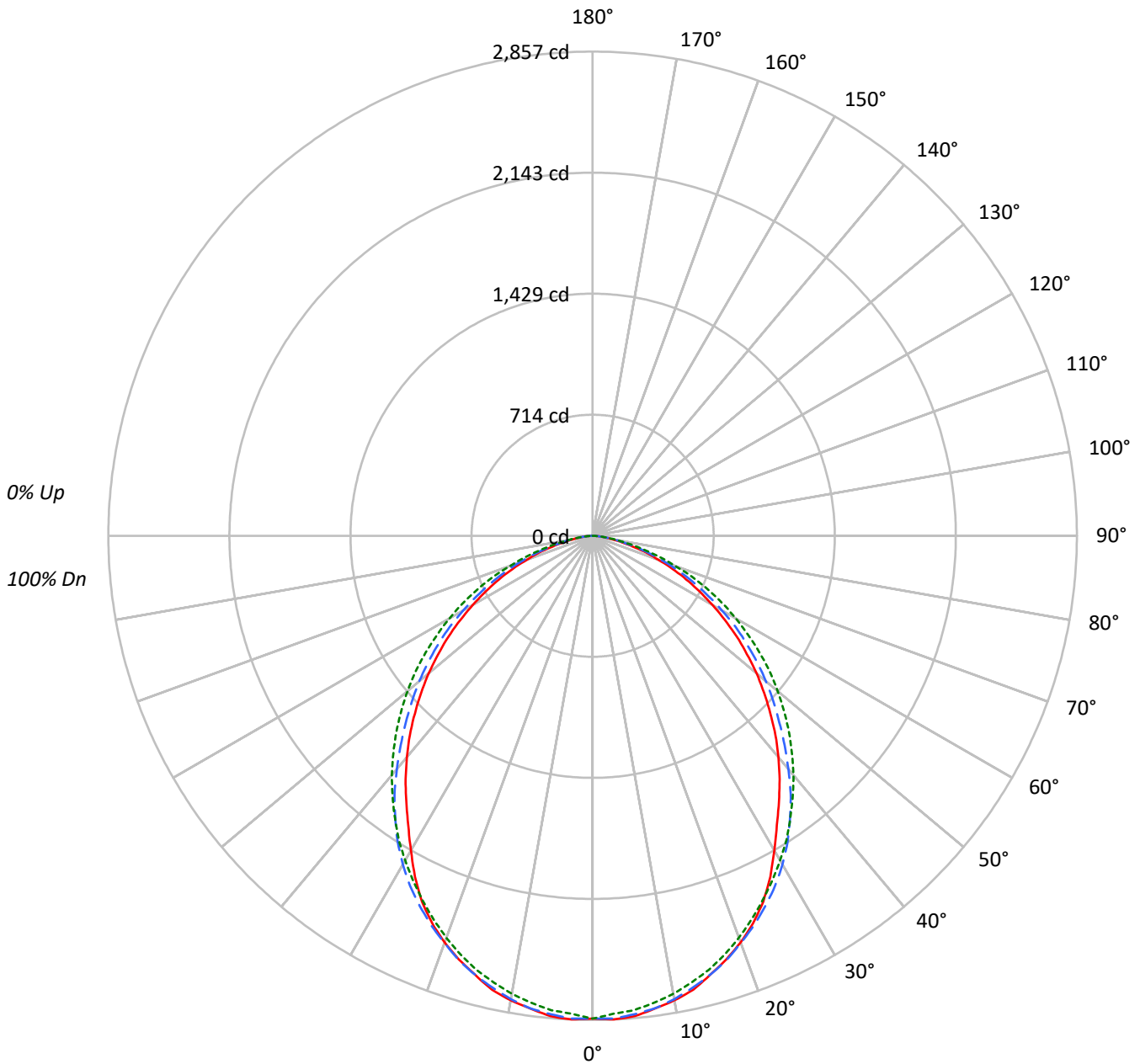
Lumens per Lamp: N/A  
Luminaire Lumens: 6588.0 lumens  
Efficiency: N/A  
Efficacy: 98.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
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°	7667	7667	7667
5°	7688	7655	7590
10°	7606	7585	7498
15°	7471	7471	7385
20°	7313	7322	7228
25°	7072	7160	7046
30°	6659	6959	6874
35°	6293	6670	6681
40°	5987	6310	6475
45°	5644	5928	6232
50°	5283	5586	5966
55°	4873	5197	5643
60°	4388	4742	5249
65°	3875	4216	4774
70°	3230	3591	4056
75°	2538	2868	3175
80°	1815	2019	2239
85°	1183	1183	1115



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.3	4.1
10°-20°	753.6	11.4
20°-30°	1101.3	16.7
30°-40°	1250.1	19.0
40°-50°	1206.7	18.3
50°-60°	995.5	15.1
60°-70°	662.9	10.1
70°-80°	296.6	4.5
80°-90°	53.1	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°	2123.1	32.2
0°-40°	3373.2	51.2
0°-60°	5575.4	84.6
0°-90°	6588.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6588.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2849	2849	2849	2849	2849	
5°	2846	2845	2834	2818	2810	269
15°	2682	2688	2682	2670	2651	756
25°	2382	2400	2411	2394	2373	1091
35°	1916	1942	2030	2041	2034	1200
45°	1483	1508	1558	1629	1638	1144
55°	1039	1056	1108	1169	1203	927
65°	609	625	662	709	750	603
75°	244	257	276	289	305	267
85°	38	38	38	36	36	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2849.1	2849.1	2849.1	2849.1	2849.1
2.5°	2856.8	2857.9	2851.3	2833.8	2822.9
5°	2845.9	2844.8	2833.8	2818.5	2809.7
7.5°	2814.1	2816.3	2813.0	2791.1	2779.1
10°	2783.5	2784.6	2775.8	2758.3	2744.1
12.5°	2744.1	2743.0	2730.9	2722.2	2699.2
15°	2681.7	2688.2	2681.7	2669.6	2651.0
17.5°	2621.5	2621.5	2625.8	2605.1	2590.8
20°	2553.6	2556.9	2556.9	2540.5	2524.1
22.5°	2474.8	2484.7	2487.9	2470.4	2450.7
25°	2381.8	2400.4	2411.3	2393.8	2373.0
27.5°	2269.0	2297.5	2330.3	2317.2	2294.2
30°	2143.1	2184.7	2239.5	2228.5	2212.1
32.5°	2023.8	2065.4	2141.0	2136.6	2127.8
35°	1915.5	1941.7	2030.4	2041.4	2033.7
37.5°	1812.6	1836.7	1919.9	1945.0	1938.5
40°	1704.2	1730.5	1796.2	1841.1	1843.2
42.5°	1597.0	1622.1	1675.8	1740.4	1740.4
45°	1483.1	1508.3	1557.6	1628.7	1637.5
47.5°	1371.5	1397.8	1445.9	1517.1	1531.3
50°	1262.0	1286.1	1334.3	1403.2	1425.1
52.5°	1148.2	1174.5	1221.5	1285.0	1316.8
55°	1038.7	1056.3	1107.7	1169.0	1202.9
57.5°	924.9	941.3	999.3	1051.9	1086.9
60°	815.4	836.2	881.1	934.8	975.3
62.5°	710.4	732.3	770.6	817.6	863.6
65°	608.6	625.0	662.2	709.3	749.8
67.5°	510.1	524.3	561.5	594.3	637.0
70°	410.5	429.1	456.4	488.2	515.5
72.5°	330.6	338.2	361.2	384.2	412.6
75°	244.1	257.2	275.8	289.0	305.4
77.5°	175.1	182.8	193.7	204.7	220.0
80°	117.1	120.4	130.3	132.4	144.5
82.5°	71.1	73.3	75.5	76.6	81.0
85°	38.3	38.3	38.3	36.1	36.1
87.5°	21.9	21.9	18.6	15.3	10.9
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)