

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: P558032

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-82-84-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: P558032  
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-LD4-3LO-35-UNV-82-84-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

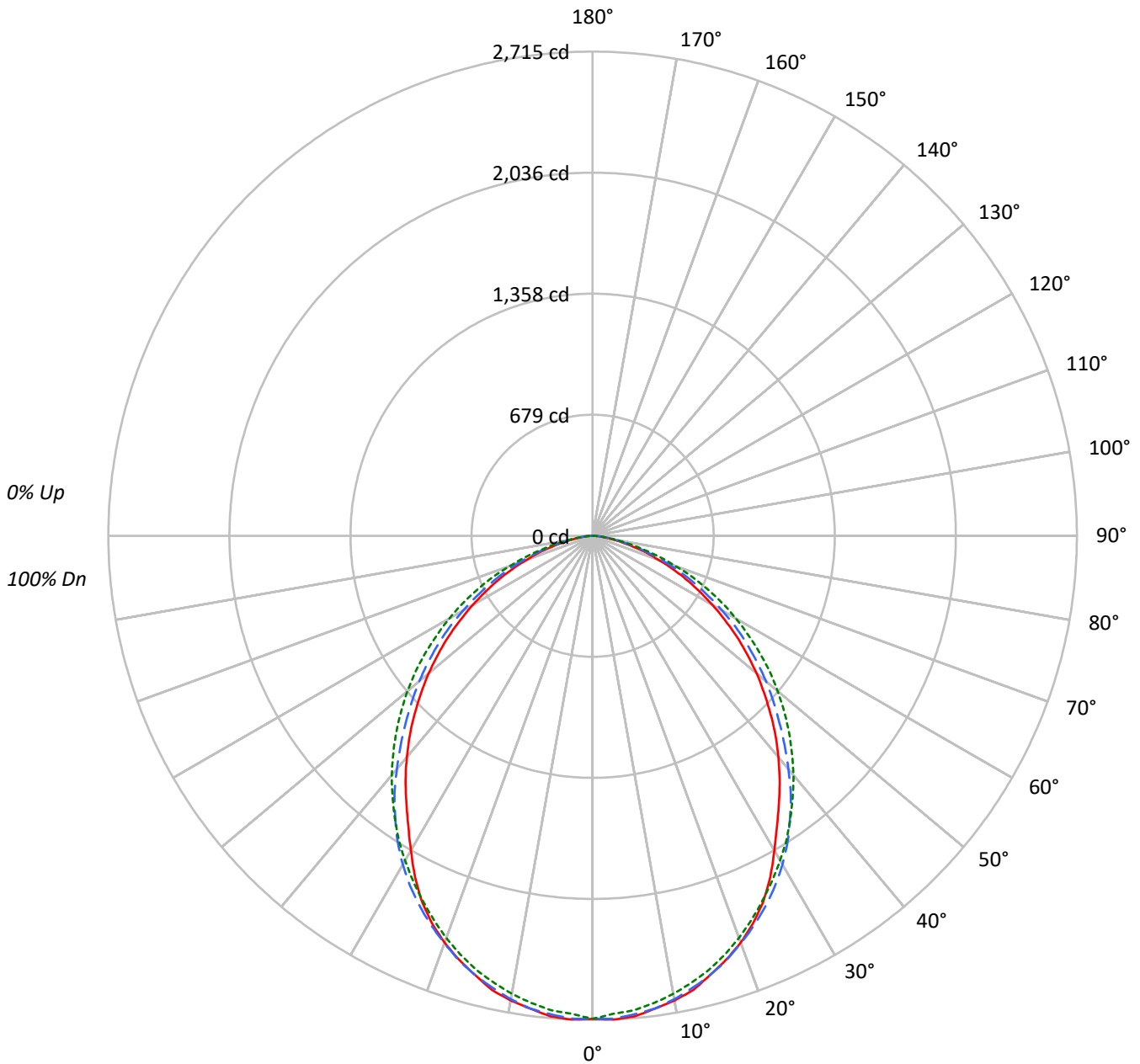
Lumens per Lamp: N/A  
Luminaire Lumens: 6262.0 lumens  
Efficiency: N/A  
Efficacy: 89.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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°	7288	7288	7288
5°	7307	7276	7214
10°	7229	7209	7127
15°	7101	7101	7020
20°	6951	6960	6871
25°	6722	6805	6697
30°	6330	6614	6533
35°	5981	6340	6350
40°	5690	5997	6154
45°	5365	5634	5923
50°	5022	5309	5671
55°	4632	4940	5364
60°	4172	4507	4989
65°	3684	4008	4538
70°	3069	3413	3855
75°	2412	2726	3018
80°	1725	1918	2128
85°	1124	1124	1059



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	255.0	4.1
10°-20°	716.3	11.4
20°-30°	1046.8	16.7
30°-40°	1188.2	19.0
40°-50°	1147.0	18.3
50°-60°	946.2	15.1
60°-70°	630.1	10.1
70°-80°	282.0	4.5
80°-90°	50.4	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°	2018.1	32.2
0°-40°	3206.3	51.2
0°-60°	5299.5	84.6
0°-90°	6262.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6262.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2708	2708	2708	2708	2708	
5°	2705	2704	2694	2679	2671	256
15°	2549	2555	2549	2538	2520	719
25°	2264	2282	2292	2275	2256	1037
35°	1821	1846	1930	1940	1933	1141
45°	1410	1434	1480	1548	1556	1088
55°	987	1004	1053	1111	1143	881
65°	578	594	629	674	713	574
75°	232	244	262	275	290	254
85°	36	36	36	34	34	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2708.2	2708.2	2708.2	2708.2	2708.2
2.5°	2715.4	2716.5	2710.2	2693.6	2683.2
5°	2705.0	2704.0	2693.6	2679.0	2670.7
7.5°	2674.9	2676.9	2673.8	2653.0	2641.6
10°	2645.7	2646.8	2638.4	2621.8	2608.3
12.5°	2608.3	2607.2	2595.8	2587.5	2565.6
15°	2549.0	2555.2	2549.0	2537.5	2519.8
17.5°	2491.8	2491.8	2495.9	2476.1	2462.6
20°	2427.2	2430.4	2430.4	2414.8	2399.2
22.5°	2352.3	2361.7	2364.8	2348.2	2329.4
25°	2263.9	2281.6	2292.0	2275.3	2255.6
27.5°	2156.7	2183.8	2215.0	2202.5	2180.7
30°	2037.1	2076.6	2128.7	2118.2	2102.6
32.5°	1923.7	1963.2	2035.0	2030.9	2022.5
35°	1820.7	1845.7	1929.9	1940.3	1933.1
37.5°	1722.9	1745.8	1824.9	1848.8	1842.5
40°	1619.9	1644.9	1707.3	1749.9	1752.0
42.5°	1517.9	1541.9	1592.8	1654.2	1654.2
45°	1409.7	1433.7	1480.5	1548.1	1556.4
47.5°	1303.6	1328.6	1374.4	1442.0	1455.5
50°	1199.6	1222.5	1268.2	1333.8	1354.6
52.5°	1091.4	1116.3	1161.1	1221.4	1251.6
55°	987.3	1004.0	1052.9	1111.1	1143.4
57.5°	879.1	894.7	949.9	999.8	1033.1
60°	775.1	794.9	837.5	888.5	927.0
62.5°	675.2	696.0	732.4	777.2	820.9
65°	578.5	594.1	629.4	674.2	712.7
67.5°	484.8	498.4	533.7	564.9	605.5
70°	390.1	407.8	433.8	464.0	490.0
72.5°	314.2	321.5	343.3	365.2	392.2
75°	232.0	244.5	262.2	274.7	290.3
77.5°	166.5	173.7	184.2	194.6	209.1
80°	111.3	114.4	123.8	125.9	137.3
82.5°	67.6	69.7	71.8	72.8	77.0
85°	36.4	36.4	36.4	34.3	34.3
87.5°	20.8	20.8	17.7	14.6	10.4
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)