

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: P558385

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-80-84-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: P558385  
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-LD4-3STD-50-UNV-80-84-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

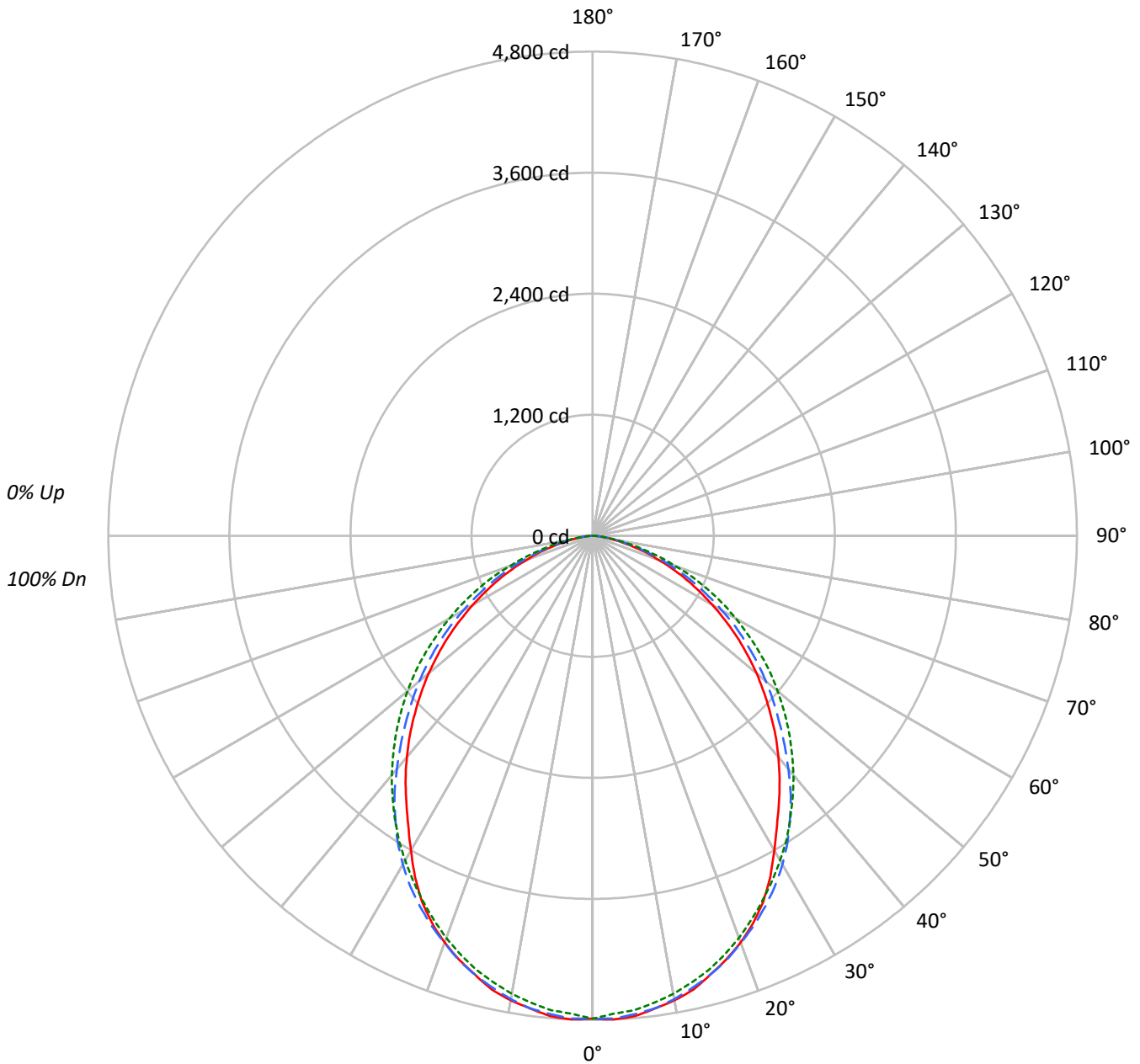
Lumens per Lamp: N/A  
Luminaire Lumens: 11069.0 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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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CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-80-84-EDD

### 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°	12882	12882	12882
5°	12916	12861	12752
10°	12779	12744	12598
15°	12552	12552	12409
20°	12287	12302	12145
25°	11882	12029	11838
30°	11189	11692	11549
35°	10572	11207	11225
40°	10059	10601	10879
45°	9483	9959	10470
50°	8877	9385	10024
55°	8188	8731	9482
60°	7374	7967	8819
65°	6511	7084	8022
70°	5426	6034	6815
75°	4264	4818	5335
80°	3050	3391	3763
85°	1988	1988	1874



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	450.7	4.1
10°-20°	1266.2	11.4
20°-30°	1850.3	16.7
30°-40°	2100.3	19.0
40°-50°	2027.5	18.3
50°-60°	1672.6	15.1
60°-70°	1113.8	10.1
70°-80°	498.4	4.5
80°-90°	89.2	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°	3567.2	32.2
0°-40°	5667.5	51.2
0°-60°	9367.6	84.6
0°-90°	11069.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11069.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4787	4787	4787	4787	4787	
5°	4782	4780	4761	4736	4721	453
15°	4506	4517	4506	4486	4454	1270
25°	4002	4033	4051	4022	3987	1833
35°	3218	3262	3411	3430	3417	2016
45°	2492	2534	2617	2736	2751	1923
55°	1745	1775	1861	1964	2021	1558
65°	1022	1050	1113	1192	1260	1014
75°	410	432	463	486	513	448
85°	64	64	64	61	61	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4787.1	4787.1	4787.1	4787.1	4787.1
2.5°	4799.9	4801.8	4790.7	4761.3	4742.9
5°	4781.5	4779.7	4761.3	4735.6	4720.9
7.5°	4728.2	4731.9	4726.4	4689.6	4669.4
10°	4676.7	4678.6	4663.8	4634.4	4610.5
12.5°	4610.5	4608.7	4588.4	4573.7	4535.1
15°	4505.7	4516.7	4505.7	4485.5	4454.2
17.5°	4404.5	4404.5	4411.9	4376.9	4353.0
20°	4290.5	4296.0	4296.0	4268.4	4240.9
22.5°	4158.1	4174.7	4180.2	4150.7	4117.6
25°	4001.8	4033.0	4051.4	4022.0	3987.1
27.5°	3812.4	3860.2	3915.3	3893.3	3854.7
30°	3600.9	3670.8	3762.7	3744.3	3716.7
32.5°	3400.4	3470.3	3597.2	3589.8	3575.1
35°	3218.3	3262.5	3411.4	3429.8	3417.0
37.5°	3045.5	3085.9	3225.7	3268.0	3257.0
40°	2863.4	2907.5	3017.9	3093.3	3097.0
42.5°	2683.2	2725.5	2815.6	2924.1	2924.1
45°	2491.9	2534.2	2617.0	2736.5	2751.2
47.5°	2304.3	2348.5	2429.4	2548.9	2572.8
50°	2120.4	2160.9	2241.8	2357.7	2394.4
52.5°	1929.2	1973.3	2052.4	2159.0	2212.4
55°	1745.3	1774.7	1861.1	1964.1	2021.1
57.5°	1554.0	1581.6	1679.1	1767.3	1826.2
60°	1370.1	1405.0	1480.4	1570.6	1638.6
62.5°	1193.5	1230.3	1294.7	1373.8	1451.0
65°	1022.5	1050.1	1112.6	1191.7	1259.8
67.5°	857.0	880.9	943.4	998.6	1070.3
70°	689.6	720.9	766.9	820.2	866.2
72.5°	555.4	568.3	606.9	645.5	693.3
75°	410.1	432.2	463.4	485.5	513.1
77.5°	294.2	307.1	325.5	343.9	369.6
80°	196.8	202.3	218.8	222.5	242.8
82.5°	119.5	123.2	126.9	128.7	136.1
85°	64.4	64.4	64.4	60.7	60.7
87.5°	36.8	36.8	31.3	25.7	18.4
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)