

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: P558207

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-80-97-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: P558207  
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-30-UNV-80-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

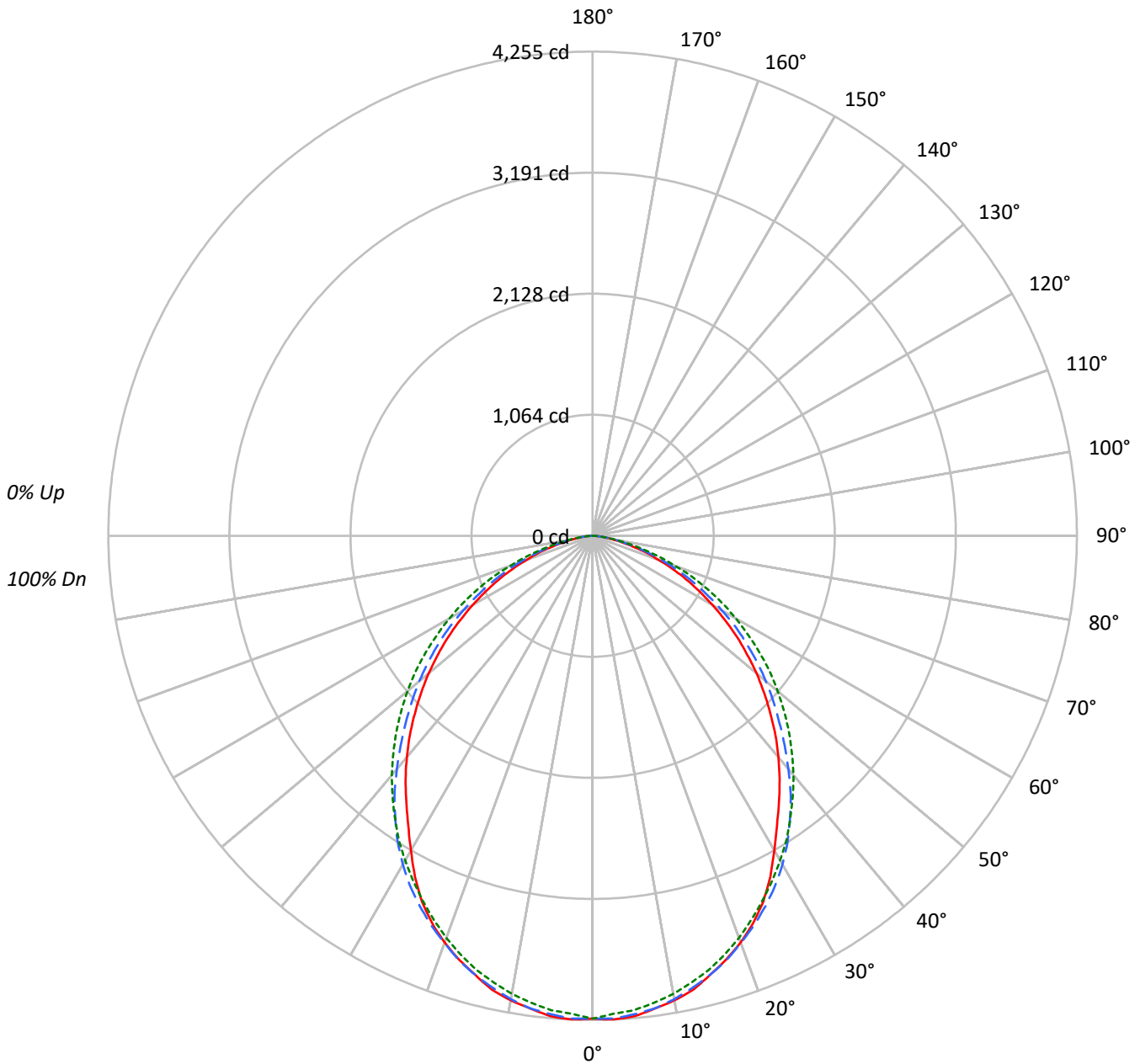
Lumens per Lamp: N/A  
Luminaire Lumens: 9812.0 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11419	11419	11419
5°	11449	11401	11304
10°	11328	11297	11167
15°	11127	11127	11000
20°	10891	10905	10765
25°	10533	10663	10494
30°	9918	10364	10238
35°	9372	9934	9950
40°	8916	9398	9644
45°	8406	8828	9281
50°	7869	8319	8886
55°	7258	7740	8405
60°	6536	7063	7817
65°	5771	6280	7110
70°	4810	5349	6041
75°	3779	4271	4729
80°	2703	3006	3335
85°	1763	1763	1661



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	399.5	4.1
10°-20°	1122.4	11.4
20°-30°	1640.2	16.7
30°-40°	1861.8	19.0
40°-50°	1797.3	18.3
50°-60°	1482.6	15.1
60°-70°	987.3	10.1
70°-80°	441.8	4.5
80°-90°	79.0	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°	3162.1	32.2
0°-40°	5023.9	51.2
0°-60°	8303.9	84.6
0°-90°	9812.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9812.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4243	4243	4243	4243	4243	
5°	4238	4237	4221	4198	4185	401
15°	3994	4004	3994	3976	3948	1126
25°	3547	3575	3591	3565	3534	1625
35°	2853	2892	3024	3040	3029	1787
45°	2209	2246	2320	2426	2439	1704
55°	1547	1573	1650	1741	1792	1381
65°	906	931	986	1056	1117	899
75°	364	383	411	430	455	397
85°	57	57	57	54	54	77
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4243.4	4243.4	4243.4	4243.4	4243.4
2.5°	4254.8	4256.5	4246.7	4220.6	4204.3
5°	4238.5	4236.9	4220.6	4197.8	4184.7
7.5°	4191.3	4194.5	4189.6	4157.0	4139.1
10°	4145.6	4147.3	4134.2	4108.1	4086.9
12.5°	4086.9	4085.3	4067.4	4054.3	4020.1
15°	3994.0	4003.8	3994.0	3976.1	3948.4
17.5°	3904.4	3904.4	3910.9	3879.9	3858.7
20°	3803.3	3808.2	3808.2	3783.7	3759.3
22.5°	3685.9	3700.6	3705.5	3679.4	3650.0
25°	3547.3	3575.1	3591.4	3565.3	3534.3
27.5°	3379.4	3421.8	3470.7	3451.2	3416.9
30°	3192.0	3253.9	3335.4	3319.1	3294.7
32.5°	3014.3	3076.2	3188.7	3182.2	3169.1
35°	2852.9	2892.0	3024.0	3040.3	3028.9
37.5°	2699.6	2735.5	2859.4	2896.9	2887.1
40°	2538.2	2577.4	2675.2	2742.0	2745.3
42.5°	2378.5	2416.0	2495.9	2592.0	2592.0
45°	2208.9	2246.4	2319.8	2425.8	2438.8
47.5°	2042.7	2081.8	2153.5	2259.5	2280.7
50°	1879.6	1915.5	1987.2	2089.9	2122.5
52.5°	1710.1	1749.2	1819.3	1913.9	1961.1
55°	1547.1	1573.2	1649.8	1741.1	1791.6
57.5°	1377.5	1402.0	1488.4	1566.6	1618.8
60°	1214.5	1245.5	1312.3	1392.2	1452.5
62.5°	1058.0	1090.6	1147.7	1217.8	1286.2
65°	906.4	930.8	986.3	1056.4	1116.7
67.5°	759.7	780.9	836.3	885.2	948.8
70°	611.3	639.0	679.8	727.1	767.8
72.5°	492.3	503.7	538.0	572.2	614.6
75°	363.5	383.1	410.8	430.4	454.8
77.5°	260.8	272.2	288.5	304.8	327.7
80°	174.4	179.3	194.0	197.3	215.2
82.5°	106.0	109.2	112.5	114.1	120.6
85°	57.1	57.1	57.1	53.8	53.8
87.5°	32.6	32.6	27.7	22.8	16.3
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)