

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: P557695

Luminaire Tested: **FUSL-12-4-LD4-3HI-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: P557695  
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-LD4-3HI-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**

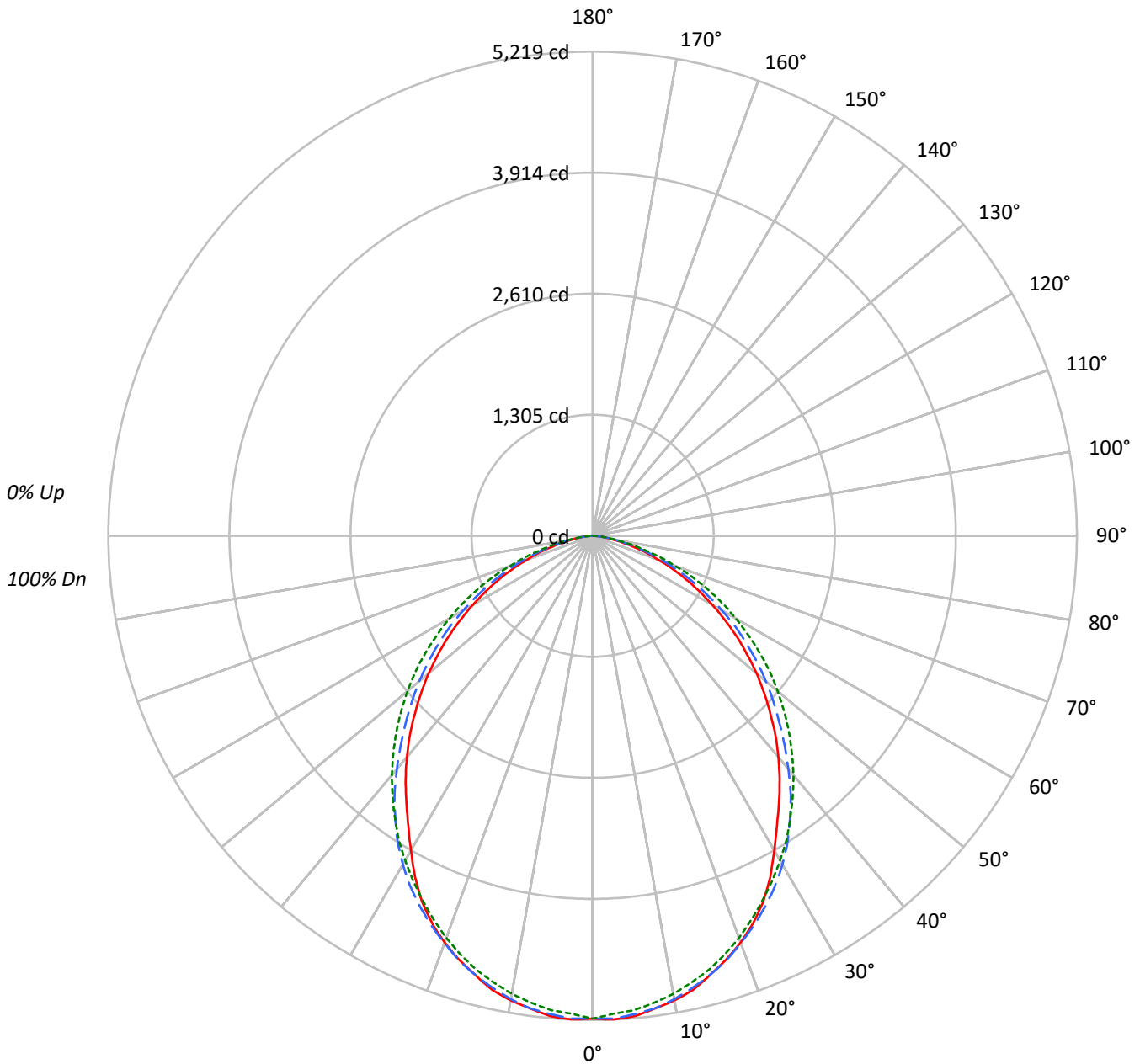
Lumens per Lamp: N/A  
Luminaire Lumens: 12035.0 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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					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°	14006	14006	14006
5°	14043	13984	13865
10°	13894	13856	13698
15°	13648	13648	13492
20°	13359	13376	13204
25°	12919	13079	12871
30°	12165	12712	12557
35°	11495	12185	12205
40°	10936	11527	11828
45°	10311	10829	11384
50°	9652	10204	10899
55°	8903	9493	10310
60°	8018	8663	9588
65°	7079	7703	8721
70°	5899	6560	7410
75°	4636	5239	5801
80°	3316	3687	4090
85°	2161	2161	2038



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	490.0	4.1
10°-20°	1376.7	11.4
20°-30°	2011.8	16.7
30°-40°	2283.6	19.0
40°-50°	2204.5	18.3
50°-60°	1818.5	15.1
60°-70°	1211.0	10.1
70°-80°	541.9	4.5
80°-90°	97.0	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°	3878.5	32.2
0°-40°	6162.1	51.2
0°-60°	10185.2	84.6
0°-90°	12035.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12035.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5205	5205	5205	5205	5205	
5°	5199	5197	5177	5149	5133	492
15°	4899	4911	4899	4877	4843	1381
25°	4351	4385	4405	4373	4335	1993
35°	3499	3547	3709	3729	3715	2192
45°	2709	2755	2845	2975	2991	2090
55°	1898	1930	2024	2136	2198	1694
65°	1112	1142	1210	1296	1370	1102
75°	446	470	504	528	558	488
85°	70	70	70	66	66	94
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5204.8	5204.8	5204.8	5204.8	5204.8
2.5°	5218.8	5220.8	5208.8	5176.8	5156.8
5°	5198.8	5196.8	5176.8	5148.8	5132.8
7.5°	5140.8	5144.8	5138.8	5098.9	5076.9
10°	5084.9	5086.9	5070.9	5038.9	5012.9
12.5°	5012.9	5010.9	4988.9	4972.9	4930.9
15°	4898.9	4910.9	4898.9	4876.9	4842.9
17.5°	4788.9	4788.9	4796.9	4758.9	4732.9
20°	4664.9	4670.9	4670.9	4641.0	4611.0
22.5°	4521.0	4539.0	4545.0	4513.0	4477.0
25°	4351.0	4385.0	4405.0	4373.0	4335.0
27.5°	4145.1	4197.1	4257.0	4233.0	4191.1
30°	3915.1	3991.1	4091.1	4071.1	4041.1
32.5°	3697.2	3773.1	3911.1	3903.1	3887.1
35°	3499.2	3547.2	3709.2	3729.2	3715.2
37.5°	3311.3	3355.2	3507.2	3553.2	3541.2
40°	3113.3	3161.3	3281.3	3363.2	3367.2
42.5°	2917.3	2963.3	3061.3	3179.3	3179.3
45°	2709.4	2755.4	2845.4	2975.3	2991.3
47.5°	2505.4	2553.4	2641.4	2771.4	2797.4
50°	2305.5	2349.5	2437.5	2563.4	2603.4
52.5°	2097.5	2145.5	2231.5	2347.5	2405.5
55°	1897.6	1929.6	2023.5	2135.5	2197.5
57.5°	1689.6	1719.6	1825.6	1921.6	1985.6
60°	1489.7	1527.7	1609.6	1707.6	1781.6
62.5°	1297.7	1337.7	1407.7	1493.7	1577.6
65°	1111.7	1141.7	1209.7	1295.7	1369.7
67.5°	931.8	957.8	1025.8	1085.8	1163.7
70°	749.8	783.8	833.8	891.8	941.8
72.5°	603.9	617.9	659.9	701.8	753.8
75°	445.9	469.9	503.9	527.9	557.9
77.5°	319.9	333.9	353.9	373.9	401.9
80°	214.0	220.0	237.9	241.9	263.9
82.5°	130.0	134.0	138.0	140.0	148.0
85°	70.0	70.0	70.0	66.0	66.0
87.5°	40.0	40.0	34.0	28.0	20.0
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)