

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: P554448

Luminaire Tested: **FUSL-12-2-LD4-1STD-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: P554448  
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-12-2-LD4-1STD-35-UNV-82-84-EDD-90  
Description: 2FT 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**

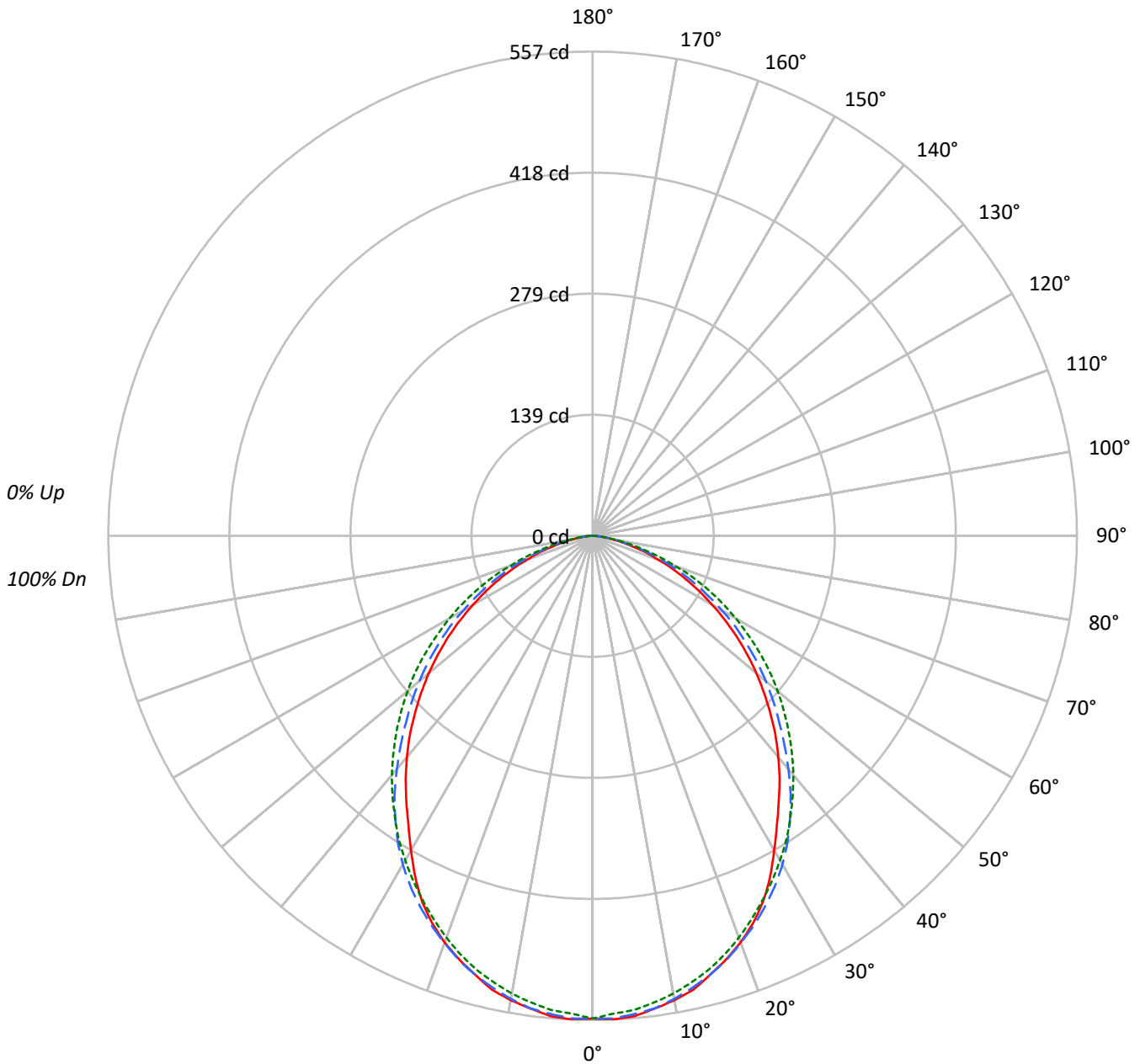
Lumens per Lamp: N/A  
Luminaire Lumens: 1284.0 lumens  
Efficiency: N/A  
Efficacy: 77.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
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									
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°	2989	2989	2989
5°	2997	2984	2958
10°	2965	2957	2923
15°	2912	2912	2879
20°	2851	2854	2817
25°	2757	2791	2746
30°	2596	2713	2679
35°	2453	2600	2604
40°	2334	2460	2524
45°	2200	2311	2429
50°	2060	2177	2326
55°	1899	2026	2199
60°	1710	1848	2046
65°	1510	1644	1861
70°	1259	1400	1581
75°	990	1119	1237
80°	707	787	874
85°	463	463	432



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.3	4.1
10°-20°	146.9	11.4
20°-30°	214.6	16.7
30°-40°	243.6	19.0
40°-50°	235.2	18.3
50°-60°	194.0	15.1
60°-70°	129.2	10.1
70°-80°	57.8	4.5
80°-90°	10.3	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°	413.8	32.2
0°-40°	657.4	51.2
0°-60°	1086.6	84.6
0°-90°	1284.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1284.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	555	555	555	555	555	
5°	555	554	552	549	548	53
15°	523	524	523	520	517	147
25°	464	468	470	467	462	213
35°	373	378	396	398	396	234
45°	289	294	304	317	319	223
55°	202	206	216	228	234	181
65°	119	122	129	138	146	118
75°	48	50	54	56	60	52
85°	8	8	8	7	7	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	555.3	555.3	555.3	555.3	555.3
2.5°	556.8	557.0	555.7	552.3	550.2
5°	554.7	554.4	552.3	549.3	547.6
7.5°	548.5	548.9	548.3	544.0	541.6
10°	542.5	542.7	541.0	537.6	534.8
12.5°	534.8	534.6	532.3	530.6	526.1
15°	522.7	523.9	522.7	520.3	516.7
17.5°	510.9	510.9	511.8	507.7	505.0
20°	497.7	498.3	498.3	495.1	491.9
22.5°	482.3	484.3	484.9	481.5	477.6
25°	464.2	467.8	470.0	466.6	462.5
27.5°	442.2	447.8	454.2	451.6	447.1
30°	417.7	425.8	436.5	434.3	431.1
32.5°	394.4	402.6	417.3	416.4	414.7
35°	373.3	378.4	395.7	397.9	396.4
37.5°	353.3	358.0	374.2	379.1	377.8
40°	332.2	337.3	350.1	358.8	359.2
42.5°	311.2	316.2	326.6	339.2	339.2
45°	289.1	294.0	303.6	317.4	319.1
47.5°	267.3	272.4	281.8	295.7	298.4
50°	246.0	250.7	260.0	273.5	277.8
52.5°	223.8	228.9	238.1	250.4	256.6
55°	202.4	205.9	215.9	227.8	234.4
57.5°	180.3	183.5	194.8	205.0	211.8
60°	158.9	163.0	171.7	182.2	190.1
62.5°	138.5	142.7	150.2	159.4	168.3
65°	118.6	121.8	129.1	138.2	146.1
67.5°	99.4	102.2	109.4	115.8	124.2
70°	80.0	83.6	89.0	95.1	100.5
72.5°	64.4	65.9	70.4	74.9	80.4
75°	47.6	50.1	53.8	56.3	59.5
77.5°	34.1	35.6	37.8	39.9	42.9
80°	22.8	23.5	25.4	25.8	28.2
82.5°	13.9	14.3	14.7	14.9	15.8
85°	7.5	7.5	7.5	7.0	7.0
87.5°	4.3	4.3	3.6	3.0	2.1
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)