

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: P544779

Luminaire Tested: **FMR-12-1-LD4-1LO-35-UNV-82-88-EDD**

Issue Date: 6/15/2021

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: P544779  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/15/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FMR-12-1-LD4-1LO-35-UNV-82-88-EDD  
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

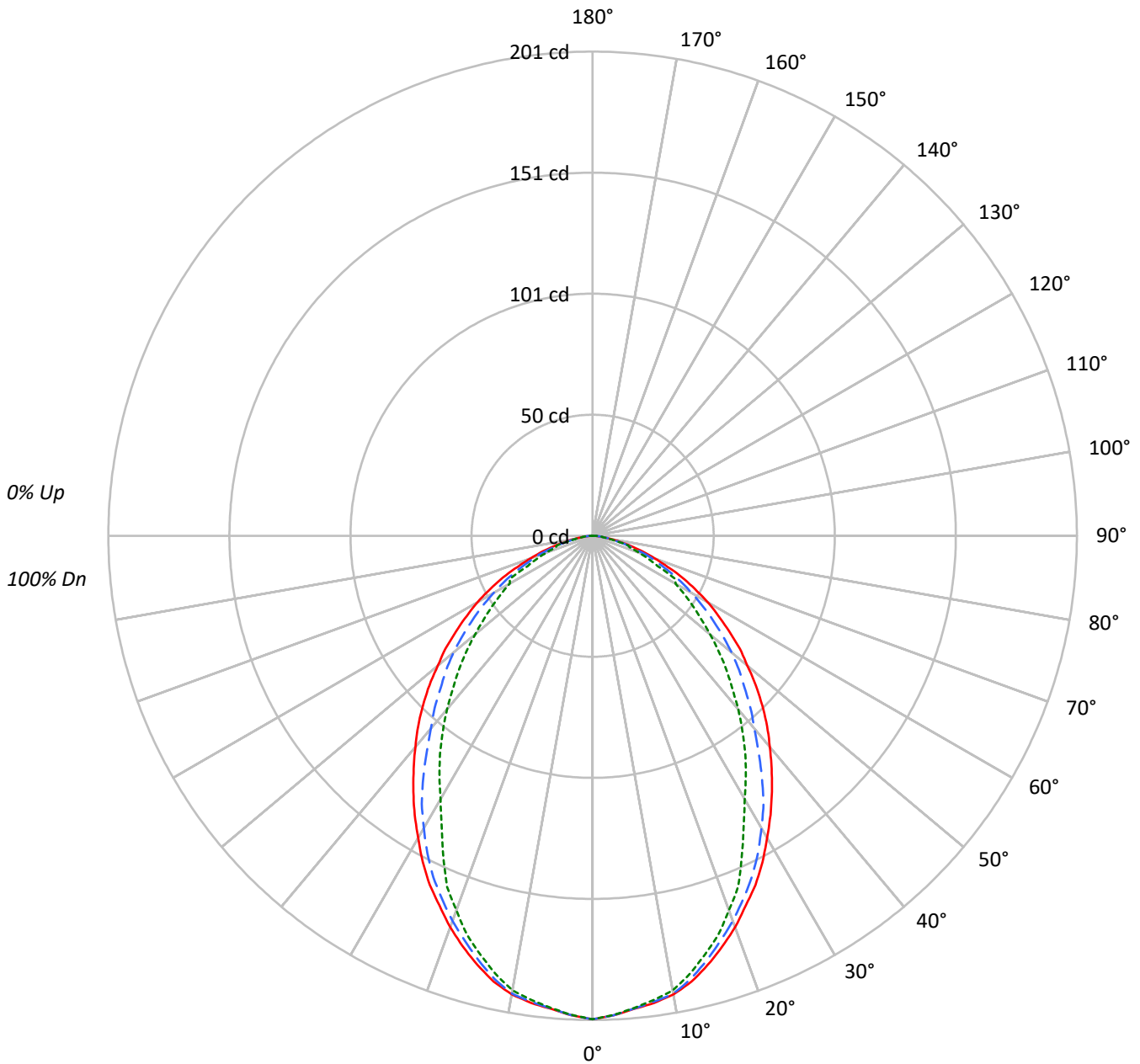
Lumens per Lamp: N/A  
Luminaire Lumens: 394.0 lumens  
Efficiency: N/A  
Efficacy: 67.9 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 5.8  
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	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87								
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75								
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65								
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56								
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50								
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44								
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40								
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36								
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33								
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30								

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

	0°	45°	90°
0°	2160	2160	2160
5°	2131	2129	2126
10°	2113	2109	2094
15°	2056	2035	2006
20°	1981	1948	1895
25°	1899	1858	1741
30°	1800	1741	1569
35°	1704	1610	1451
40°	1607	1467	1321
45°	1515	1356	1193
50°	1403	1259	1065
55°	1297	1141	953
60°	1188	1018	855
65°	1047	891	756
70°	862	780	642
75°	686	599	628
80°	459	434	403
85°	284	346	395



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.7	4.7
10°-20°	51.3	13.0
20°-30°	71.0	18.0
30°-40°	75.7	19.2
40°-50°	69.0	17.5
50°-60°	54.1	13.7
60°-70°	35.2	8.9
70°-80°	15.6	4.0
80°-90°	3.4	0.9
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°	140.9	35.8
0°-40°	216.6	55.0
0°-60°	339.8	86.2
0°-90°	394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	394.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	201	201	201	201	201	
5°	197	197	197	197	197	19
15°	184	184	183	181	180	52
25°	160	159	156	151	147	73
35°	130	129	122	113	110	81
45°	100	97	89	82	78	77
55°	69	67	61	54	51	62
65°	41	39	35	36	30	40
75°	16	15	14	14	15	18
85°	2	3	3	3	3	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	200.7	200.7	200.7	200.7	200.7
2.5°	199.3	199.3	199.3	199.1	199.1
5°	197.2	197.0	197.0	196.8	196.8
7.5°	195.6	195.4	195.1	194.9	194.4
10°	193.3	193.3	193.0	191.9	191.6
12.5°	189.6	189.3	188.4	186.8	186.3
15°	184.5	184.5	182.6	180.7	180.0
17.5°	178.9	178.7	176.3	174.5	173.6
20°	172.9	172.4	170.1	167.1	165.4
22.5°	166.1	166.1	163.3	159.4	157.8
25°	159.9	158.9	156.4	150.8	146.6
27.5°	152.7	151.3	148.5	140.6	135.7
30°	144.8	144.1	140.1	129.9	126.2
32.5°	137.4	136.2	132.0	121.3	118.3
35°	129.7	128.8	122.5	113.2	110.4
37.5°	122.0	120.9	113.0	105.6	102.1
40°	114.4	113.0	104.4	97.7	94.0
42.5°	107.2	105.3	97.0	89.8	85.6
45°	99.5	97.4	89.1	81.7	78.4
47.5°	91.9	90.0	82.4	74.7	71.0
50°	83.8	82.1	75.2	67.5	63.6
52.5°	77.0	74.5	67.8	60.1	56.8
55°	69.1	67.1	60.8	53.6	50.8
57.5°	61.9	59.9	54.1	47.3	45.0
60°	55.2	52.2	47.3	41.5	39.7
62.5°	47.8	45.5	41.3	36.4	38.7
65°	41.1	38.7	35.0	35.7	29.7
67.5°	33.6	32.5	29.2	26.0	25.1
70°	27.4	26.0	24.8	21.3	20.4
72.5°	21.8	20.4	18.8	16.9	16.2
75°	16.5	15.3	14.4	13.7	15.1
77.5°	11.4	10.9	10.2	9.5	9.3
80°	7.4	7.2	7.0	6.7	6.5
82.5°	4.4	4.4	4.4	4.4	4.4
85°	2.3	2.6	2.8	3.0	3.2
87.5°	1.4	1.4	1.6	1.9	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)