

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: P544746

Luminaire Tested: **FMR-12-1-LD4-1HI-50-UNV-82-87-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: P544746
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-LD4-1HI-50-UNV-82-87-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

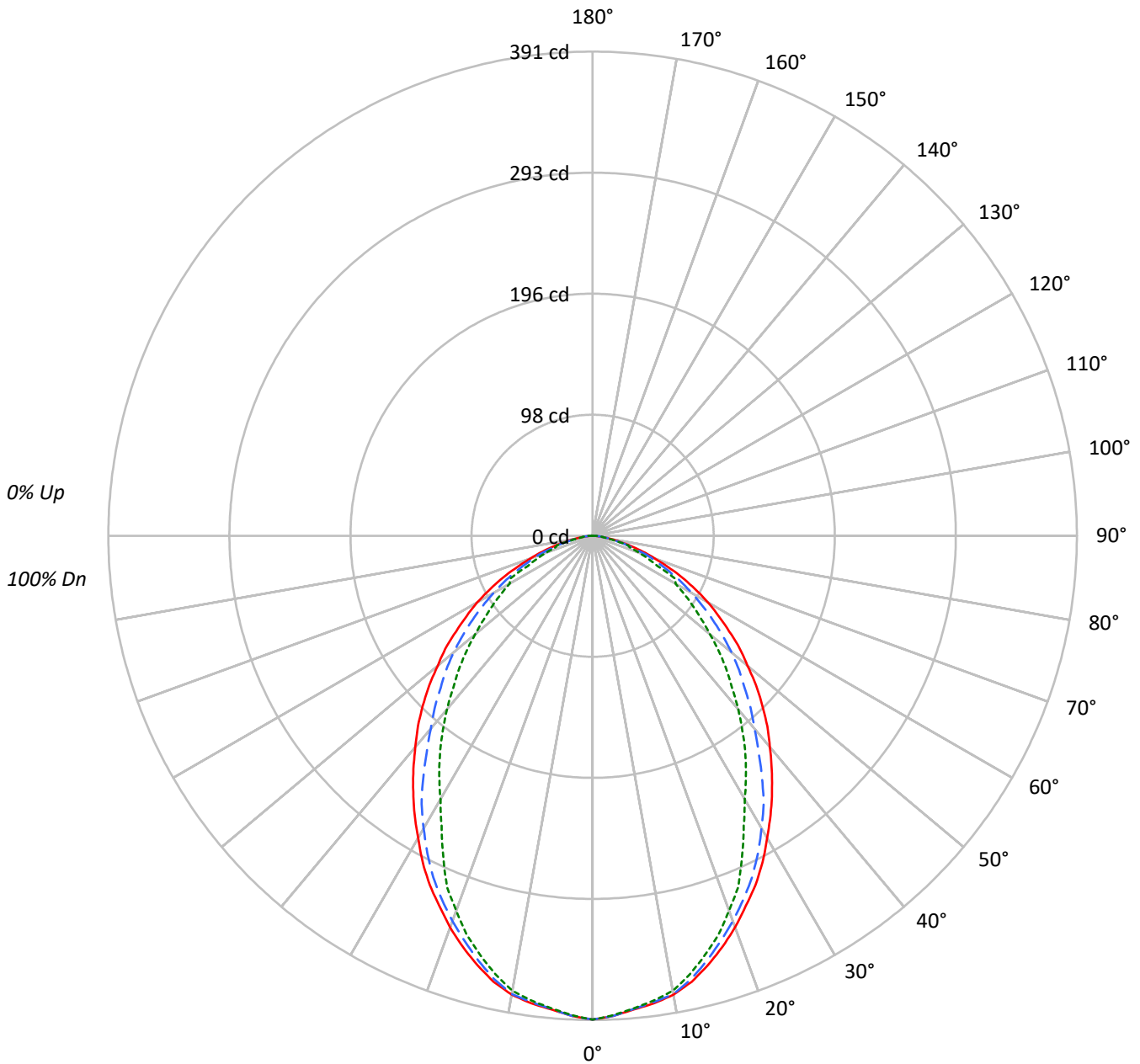
Lumens per Lamp: N/A
Luminaire Lumens: 767.0 lumens
Efficiency: N/A
Efficacy: 71.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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									
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	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°	4205	4205	4205
5°	4148	4144	4138
10°	4112	4107	4078
15°	4002	3962	3906
20°	3855	3793	3688
25°	3696	3615	3391
30°	3503	3391	3054
35°	3318	3134	2825
40°	3129	2857	2570
45°	2950	2640	2324
50°	2731	2450	2073
55°	2526	2220	1856
60°	2314	1983	1662
65°	2035	1737	1472
70°	1677	1520	1249
75°	1335	1164	1223
80°	899	843	781
85°	556	667	778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.4	4.7
10°-20°	99.8	13.0
20°-30°	138.2	18.0
30°-40°	147.3	19.2
40°-50°	134.4	17.5
50°-60°	105.3	13.7
60°-70°	68.6	8.9
70°-80°	30.4	4.0
80°-90°	6.5	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°	274.4	35.8
0°-40°	421.7	55.0
0°-60°	661.4	86.2
0°-90°	767.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	767.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	391	391	391	391	391	
5°	384	384	384	383	383	36
15°	359	359	356	352	350	101
25°	311	309	304	294	286	143
35°	252	251	238	220	215	158
45°	194	190	173	159	153	149
55°	135	130	118	104	99	121
65°	80	75	68	70	58	79
75°	32	30	28	27	29	34
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	390.7	390.7	390.7	390.7	390.7
2.5°	388.0	388.0	388.0	387.5	387.5
5°	383.9	383.5	383.5	383.0	383.0
7.5°	380.8	380.3	379.9	379.4	378.5
10°	376.2	376.2	375.8	373.5	373.1
12.5°	369.0	368.6	366.8	363.6	362.7
15°	359.1	359.1	355.5	351.9	350.5
17.5°	348.2	347.8	343.3	339.7	337.9
20°	336.5	335.6	331.1	325.2	322.0
22.5°	323.4	323.4	318.0	310.3	307.1
25°	311.2	309.4	304.4	293.6	285.5
27.5°	297.2	294.5	289.1	273.7	264.2
30°	281.8	280.5	272.8	252.9	245.7
32.5°	267.4	265.1	257.0	236.2	230.4
35°	252.5	250.7	238.5	220.4	215.0
37.5°	237.6	235.3	220.0	205.5	198.7
40°	222.7	220.0	203.3	190.2	182.9
42.5°	208.7	205.1	188.8	174.8	166.7
45°	193.8	189.7	173.4	159.0	152.7
47.5°	178.9	175.3	160.3	145.4	138.2
50°	163.1	159.9	146.3	131.4	123.8
52.5°	150.0	145.0	131.9	117.0	110.7
55°	134.6	130.5	118.3	104.3	98.9
57.5°	120.6	116.5	105.2	92.1	87.6
60°	107.5	101.6	92.1	80.8	77.2
62.5°	93.0	88.5	80.4	70.9	75.4
65°	79.9	75.4	68.2	69.6	57.8
67.5°	65.5	63.2	56.9	50.6	48.8
70°	53.3	50.6	48.3	41.6	39.7
72.5°	42.5	39.7	36.6	33.0	31.6
75°	32.1	29.8	28.0	26.6	29.4
77.5°	22.1	21.2	19.9	18.5	18.1
80°	14.5	14.0	13.6	13.1	12.6
82.5°	8.6	8.6	8.6	8.6	8.6
85°	4.5	5.0	5.4	5.9	6.3
87.5°	2.7	2.7	3.2	3.6	4.1
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)