

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: P544727

Luminaire Tested: **FMR-12-1-LD4-1HI-50-UNV-80-84-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: P544727
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-80-84-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

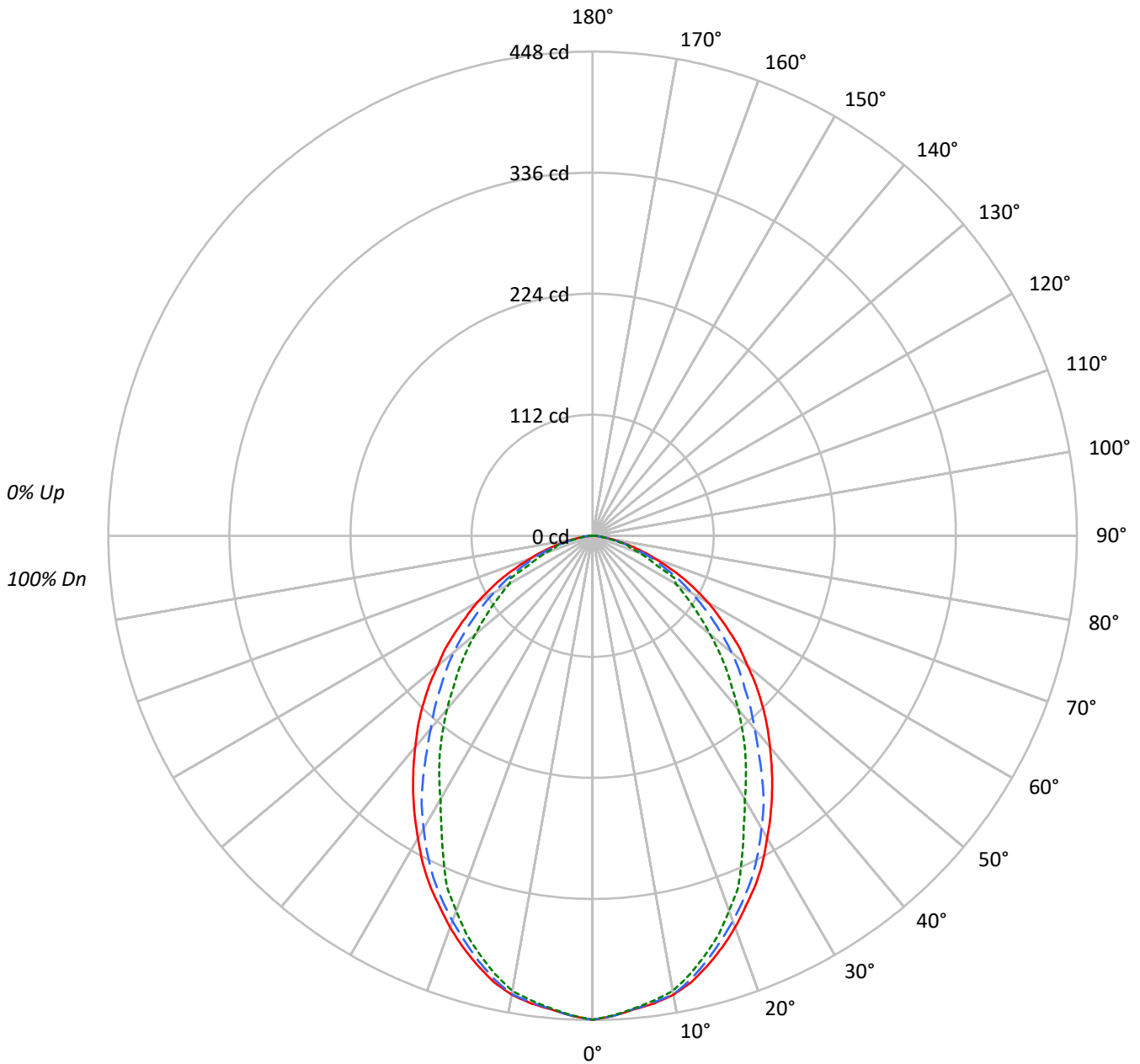
Lumens per Lamp: N/A
Luminaire Lumens: 879.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P544727

CATALOG NUMBER: FMR-12-1-LD4-1HI-50-UNV-80-84-EDD

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°	4820	4820	4820
5°	4754	4749	4743
10°	4713	4708	4674
15°	4586	4540	4476
20°	4417	4346	4228
25°	4235	4144	3885
30°	4015	3885	3500
35°	3803	3591	3238
40°	3586	3273	2945
45°	3381	3026	2664
50°	3130	2808	2375
55°	2896	2545	2128
60°	2652	2273	1905
65°	2333	1992	1689
70°	1923	1744	1435
75°	1530	1335	1397
80°	1029	961	899
85°	642	766	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.7	4.7
10°-20°	114.4	13.0
20°-30°	158.4	18.0
30°-40°	168.9	19.2
40°-50°	154.0	17.5
50°-60°	120.7	13.7
60°-70°	78.7	8.9
70°-80°	34.8	4.0
80°-90°	7.5	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°	314.4	35.8
0°-40°	483.3	55.0
0°-60°	758.0	86.2
0°-90°	879.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	879.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	448	448	448	448	448	
5°	440	440	440	439	439	42
15°	412	412	407	403	402	116
25°	357	355	349	336	327	164
35°	289	287	273	253	246	181
45°	222	217	199	182	175	171
55°	154	150	136	120	113	138
65°	92	86	78	80	66	90
75°	37	34	32	30	34	39
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	447.8	447.8	447.8	447.8	447.8
2.5°	444.6	444.6	444.6	444.1	444.1
5°	440.0	439.5	439.5	439.0	439.0
7.5°	436.4	435.8	435.3	434.8	433.8
10°	431.2	431.2	430.7	428.1	427.6
12.5°	422.9	422.4	420.3	416.7	415.7
15°	411.5	411.5	407.4	403.2	401.7
17.5°	399.1	398.6	393.4	389.3	387.2
20°	385.6	384.6	379.4	372.7	369.1
22.5°	370.6	370.6	364.4	355.6	352.0
25°	356.6	354.6	348.9	336.5	327.1
27.5°	340.6	337.5	331.3	313.7	302.8
30°	323.0	321.4	312.6	289.9	281.6
32.5°	306.4	303.8	294.5	270.7	264.0
35°	289.4	287.3	273.3	252.6	246.4
37.5°	272.3	269.7	252.1	235.5	227.8
40°	255.2	252.1	232.9	217.9	209.6
42.5°	239.1	235.0	216.4	200.3	191.0
45°	222.1	217.4	198.8	182.2	175.0
47.5°	205.0	200.8	183.8	166.7	158.4
50°	186.9	183.2	167.7	150.6	141.8
52.5°	171.9	166.2	151.1	134.1	126.8
55°	154.3	149.6	135.6	119.6	113.4
57.5°	138.2	133.5	120.6	105.6	100.4
60°	123.2	116.5	105.6	92.7	88.5
62.5°	106.6	101.5	92.1	81.3	86.4
65°	91.6	86.4	78.2	79.7	66.3
67.5°	75.1	72.5	65.2	58.0	55.9
70°	61.1	58.0	55.4	47.6	45.6
72.5°	48.7	45.6	41.9	37.8	36.2
75°	36.8	34.2	32.1	30.5	33.6
77.5°	25.4	24.3	22.8	21.2	20.7
80°	16.6	16.0	15.5	15.0	14.5
82.5°	9.8	9.8	9.8	9.8	9.8
85°	5.2	5.7	6.2	6.7	7.2
87.5°	3.1	3.1	3.6	4.1	4.7
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)