

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: P545047

Luminaire Tested: **FMR-12-1-LD4-2LO-35-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: P545047
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-LD4-2LO-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

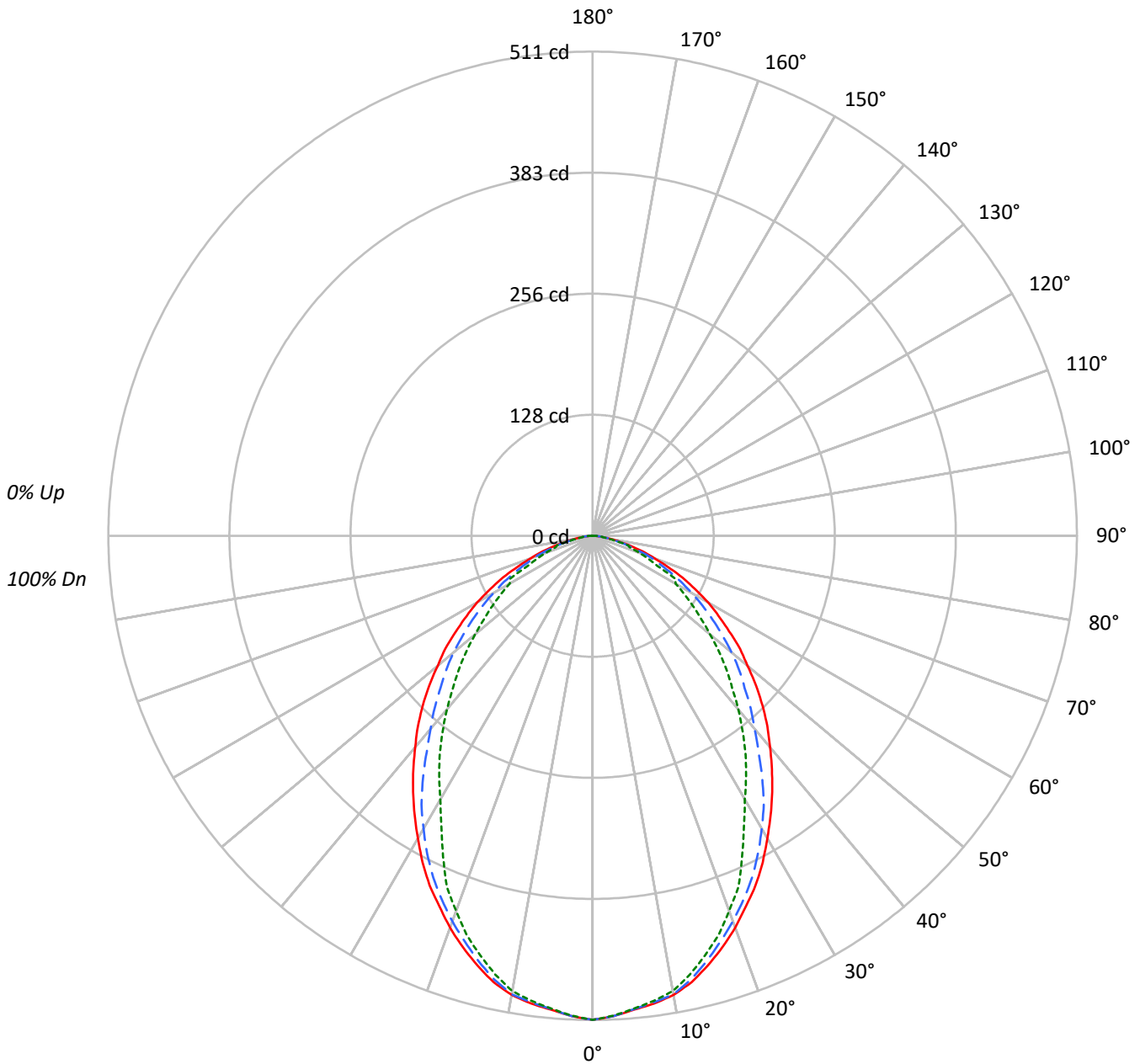
Lumens per Lamp: N/A
Luminaire Lumens: 1003.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	5499	5499	5499
5°	5425	5419	5412
10°	5378	5371	5333
15°	5233	5180	5107
20°	5040	4959	4824
25°	4834	4728	4434
30°	4581	4435	3993
35°	4339	4098	3695
40°	4092	3735	3361
45°	3857	3452	3038
50°	3570	3205	2709
55°	3303	2905	2428
60°	3027	2594	2174
65°	2662	2272	1926
70°	2194	1989	1637
75°	1743	1522	1597
80°	1172	1097	1023
85°	729	877	1025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.6	4.7
10°-20°	130.5	13.0
20°-30°	180.7	18.0
30°-40°	192.7	19.2
40°-50°	175.8	17.5
50°-60°	137.7	13.7
60°-70°	89.7	8.9
70°-80°	39.8	4.0
80°-90°	8.5	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°	358.8	35.8
0°-40°	551.5	55.0
0°-60°	865.0	86.2
0°-90°	1003.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1003.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	511	511	511	511	511	
5°	502	502	502	501	501	48
15°	470	470	465	460	458	132
25°	407	405	398	384	373	187
35°	330	328	312	288	281	206
45°	253	248	227	208	200	195
55°	176	171	155	136	129	158
65°	104	99	89	91	76	103
75°	42	39	37	35	38	45
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	510.9	510.9	510.9	510.9	510.9
2.5°	507.4	507.4	507.4	506.8	506.8
5°	502.1	501.5	501.5	500.9	500.9
7.5°	497.9	497.3	496.7	496.1	495.0
10°	492.0	492.0	491.4	488.5	487.9
12.5°	482.6	482.0	479.6	475.5	474.3
15°	469.6	469.6	464.8	460.1	458.3
17.5°	455.4	454.8	448.9	444.2	441.8
20°	440.0	438.9	432.9	425.3	421.1
22.5°	422.9	422.9	415.8	405.8	401.6
25°	407.0	404.6	398.1	383.9	373.3
27.5°	388.6	385.1	378.0	357.9	345.5
30°	368.6	366.8	356.8	330.8	321.3
32.5°	349.7	346.7	336.1	308.9	301.2
35°	330.2	327.8	311.9	288.2	281.2
37.5°	310.7	307.7	287.6	268.7	259.9
40°	291.2	287.6	265.8	248.7	239.2
42.5°	272.9	268.2	246.9	228.6	218.0
45°	253.4	248.1	226.8	207.9	199.6
47.5°	233.9	229.2	209.7	190.2	180.7
50°	213.2	209.1	191.4	171.9	161.8
52.5°	196.1	189.6	172.5	153.0	144.7
55°	176.0	170.7	154.8	136.4	129.4
57.5°	157.7	152.4	137.6	120.5	114.6
60°	140.6	132.9	120.5	105.7	101.0
62.5°	121.7	115.8	105.1	92.7	98.6
65°	104.5	98.6	89.2	91.0	75.6
67.5°	85.6	82.7	74.4	66.2	63.8
70°	69.7	66.2	63.2	54.3	52.0
72.5°	55.5	52.0	47.8	43.1	41.3
75°	41.9	39.0	36.6	34.8	38.4
77.5°	28.9	27.8	26.0	24.2	23.6
80°	18.9	18.3	17.7	17.1	16.5
82.5°	11.2	11.2	11.2	11.2	11.2
85°	5.9	6.5	7.1	7.7	8.3
87.5°	3.5	3.5	4.1	4.7	5.3
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)