

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: P545114

Luminaire Tested: **FMR-12-1-LD4-2LO-50-UNV-80-87-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: P545114
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-50-UNV-80-87-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

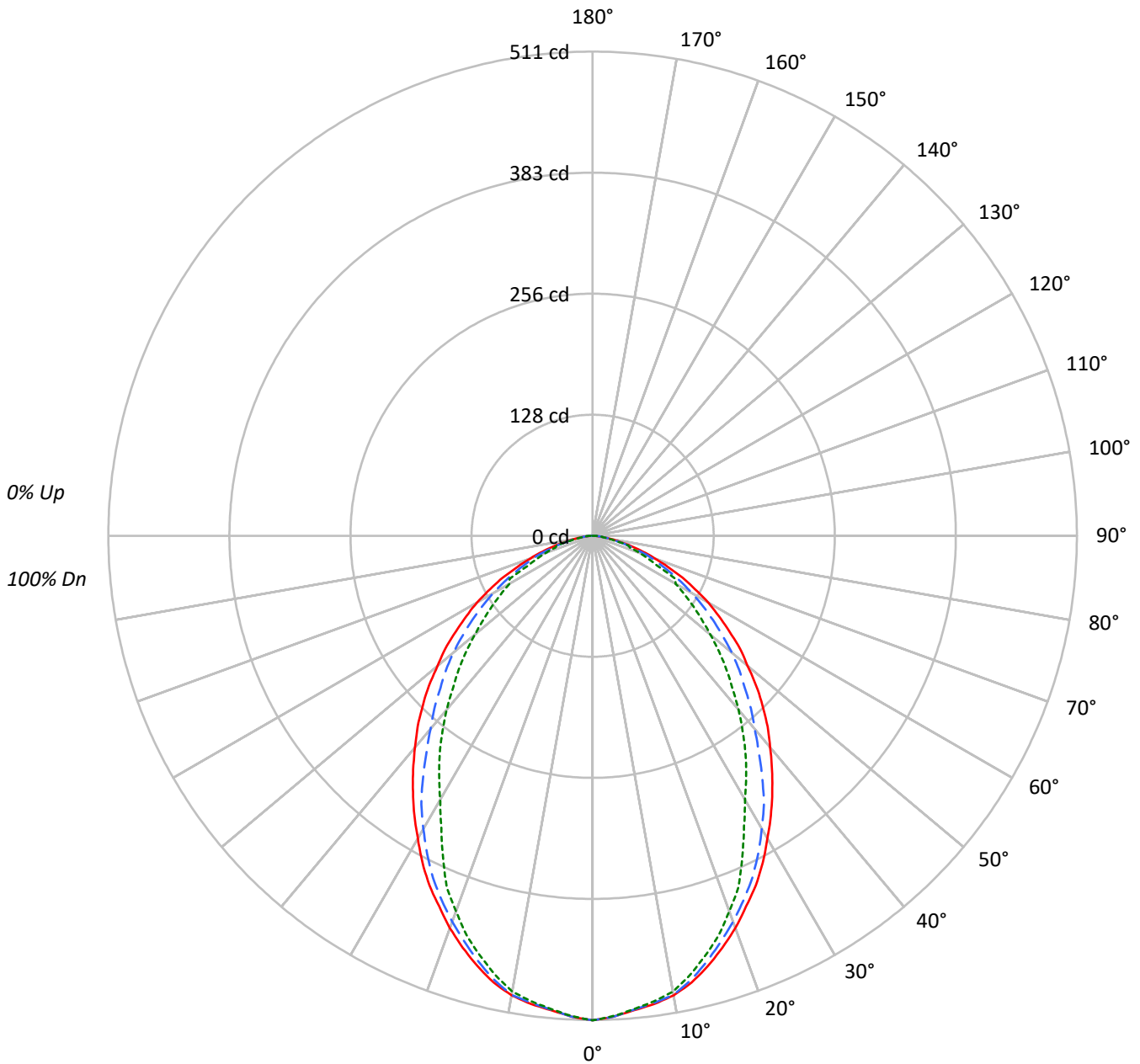
Lumens per Lamp: N/A
Luminaire Lumens: 1004.0 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	5505	5505	5505
5°	5431	5424	5418
10°	5383	5376	5338
15°	5238	5185	5113
20°	5046	4964	4829
25°	4839	4733	4438
30°	4585	4438	3997
35°	4343	4102	3698
40°	4096	3739	3365
45°	3860	3456	3041
50°	3574	3208	2713
55°	3307	2907	2430
60°	3029	2596	2176
65°	2664	2274	1928
70°	2197	1992	1637
75°	1747	1526	1597
80°	1172	1097	1029
85°	729	877	1025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.6	4.7
10°-20°	130.7	13.0
20°-30°	180.9	18.0
30°-40°	192.9	19.2
40°-50°	175.9	17.5
50°-60°	137.8	13.7
60°-70°	89.8	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°	359.1	35.8
0°-40°	552.0	55.0
0°-60°	865.8	86.2
0°-90°	1004.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1004.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	511	511	511	511	511	
5°	503	502	502	501	501	48
15°	470	470	465	461	459	132
25°	407	405	398	384	374	187
35°	330	328	312	288	281	207
45°	254	248	227	208	200	195
55°	176	171	155	137	130	158
65°	105	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°	511.4	511.4	511.4	511.4	511.4
2.5°	507.9	507.9	507.9	507.3	507.3
5°	502.6	502.0	502.0	501.4	501.4
7.5°	498.4	497.8	497.2	496.6	495.5
10°	492.5	492.5	491.9	489.0	488.4
12.5°	483.0	482.5	480.1	475.9	474.8
15°	470.0	470.0	465.3	460.6	458.8
17.5°	455.8	455.3	449.3	444.6	442.2
20°	440.5	439.3	433.4	425.7	421.6
22.5°	423.3	423.3	416.2	406.2	402.0
25°	407.4	405.0	398.5	384.3	373.7
27.5°	389.0	385.5	378.4	358.3	345.9
30°	368.9	367.2	357.1	331.1	321.6
32.5°	350.0	347.1	336.4	309.2	301.5
35°	330.5	328.1	312.2	288.5	281.4
37.5°	311.0	308.0	287.9	269.0	260.1
40°	291.5	287.9	266.1	248.9	239.5
42.5°	273.2	268.4	247.1	228.8	218.2
45°	253.6	248.3	227.0	208.1	199.8
47.5°	234.1	229.4	209.9	190.4	180.9
50°	213.4	209.3	191.6	172.1	162.0
52.5°	196.3	189.8	172.6	153.1	144.9
55°	176.2	170.9	154.9	136.6	129.5
57.5°	157.9	152.5	137.8	120.6	114.7
60°	140.7	133.0	120.6	105.8	101.1
62.5°	121.8	115.9	105.2	92.8	98.7
65°	104.6	98.7	89.3	91.1	75.7
67.5°	85.7	82.8	74.5	66.2	63.9
70°	69.8	66.2	63.3	54.4	52.0
72.5°	55.6	52.0	47.9	43.2	41.4
75°	42.0	39.0	36.7	34.9	38.4
77.5°	29.0	27.8	26.0	24.2	23.6
80°	18.9	18.3	17.7	17.1	16.6
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)