

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: P544843

Luminaire Tested: **FMR-12-1-LD4-1LO-50-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: P544843
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

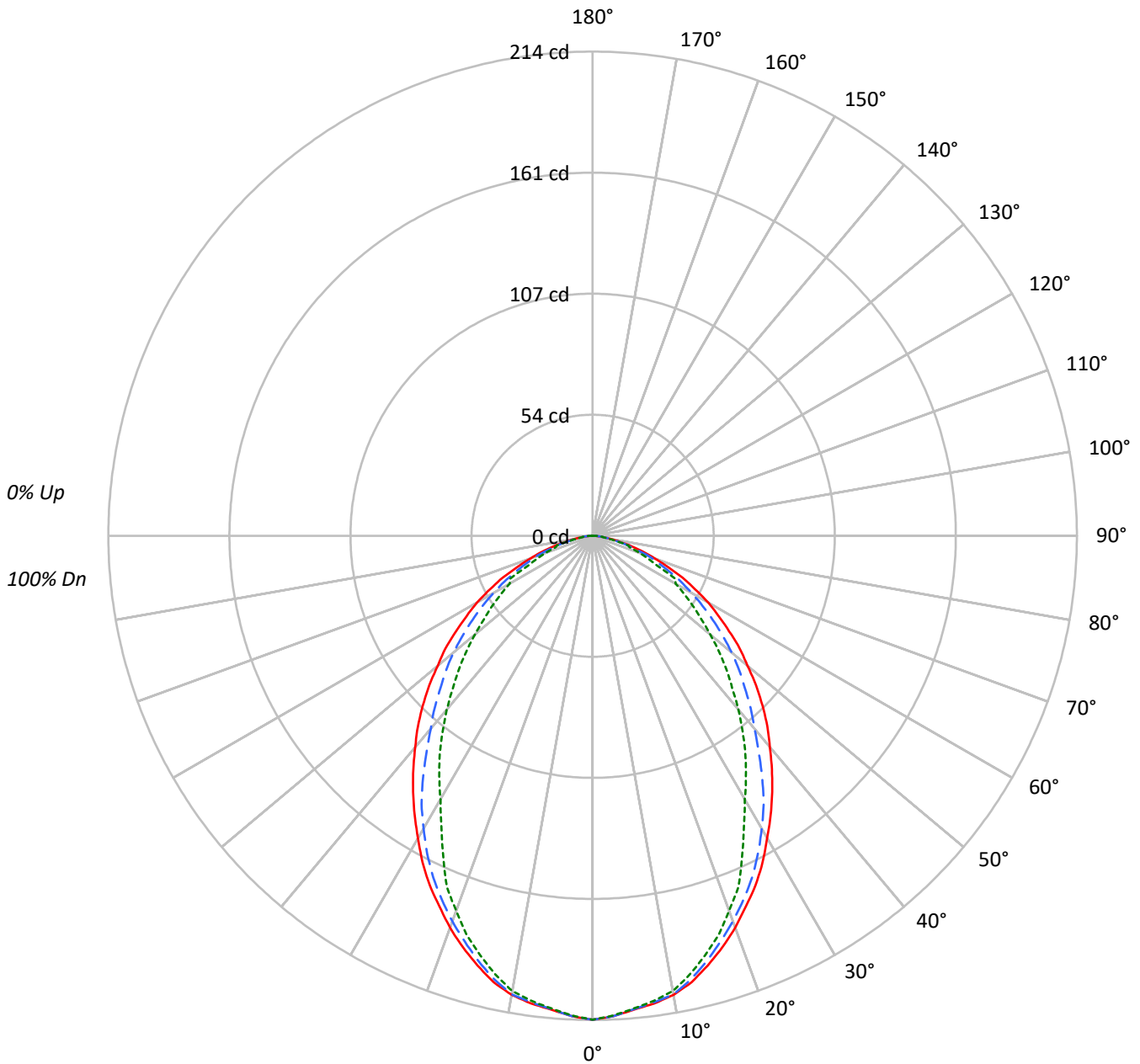
Lumens per Lamp: N/A
Luminaire Lumens: 420.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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									
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°	2302	2302	2302
5°	2271	2269	2266
10°	2252	2249	2233
15°	2191	2170	2138
20°	2111	2077	2019
25°	2024	1980	1856
30°	1918	1857	1672
35°	1817	1716	1547
40°	1713	1564	1408
45°	1615	1446	1273
50°	1495	1341	1135
55°	1383	1216	1017
60°	1268	1087	911
65°	1116	950	807
70°	919	834	686
75°	732	636	670
80°	490	459	428
85°	309	371	432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.9	4.7
10°-20°	54.7	13.0
20°-30°	75.7	18.0
30°-40°	80.7	19.2
40°-50°	73.6	17.5
50°-60°	57.7	13.7
60°-70°	37.6	8.9
70°-80°	16.7	4.0
80°-90°	3.6	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°	150.2	35.8
0°-40°	230.9	55.0
0°-60°	362.2	86.2
0°-90°	420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	420.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	214	214	214	214	214	
5°	210	210	210	210	210	20
15°	197	197	195	193	192	55
25°	170	169	167	161	156	78
35°	138	137	131	121	118	86
45°	106	104	95	87	84	82
55°	74	72	65	57	54	66
65°	44	41	37	38	32	43
75°	18	16	15	15	16	19
85°	2	3	3	3	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	213.9	213.9	213.9	213.9	213.9
2.5°	212.5	212.5	212.5	212.2	212.2
5°	210.2	210.0	210.0	209.7	209.7
7.5°	208.5	208.3	208.0	207.8	207.3
10°	206.0	206.0	205.8	204.5	204.3
12.5°	202.1	201.8	200.8	199.1	198.6
15°	196.6	196.6	194.7	192.7	191.9
17.5°	190.7	190.4	188.0	186.0	185.0
20°	184.3	183.8	181.3	178.1	176.3
22.5°	177.1	177.1	174.1	169.9	168.2
25°	170.4	169.4	166.7	160.8	156.3
27.5°	162.7	161.3	158.3	149.9	144.7
30°	154.3	153.6	149.4	138.5	134.5
32.5°	146.4	145.2	140.7	129.4	126.1
35°	138.3	137.3	130.6	120.7	117.7
37.5°	130.1	128.9	120.5	112.5	108.8
40°	121.9	120.5	111.3	104.1	100.2
42.5°	114.3	112.3	103.4	95.7	91.3
45°	106.1	103.9	95.0	87.1	83.6
47.5°	97.9	96.0	87.8	79.6	75.7
50°	89.3	87.6	80.1	72.0	67.8
52.5°	82.1	79.4	72.2	64.1	60.6
55°	73.7	71.5	64.8	57.1	54.2
57.5°	66.0	63.8	57.6	50.5	48.0
60°	58.9	55.6	50.5	44.3	42.3
62.5°	51.0	48.5	44.0	38.8	41.3
65°	43.8	41.3	37.3	38.1	31.7
67.5°	35.9	34.6	31.2	27.7	26.7
70°	29.2	27.7	26.5	22.8	21.8
72.5°	23.2	21.8	20.0	18.1	17.3
75°	17.6	16.3	15.3	14.6	16.1
77.5°	12.1	11.6	10.9	10.1	9.9
80°	7.9	7.7	7.4	7.2	6.9
82.5°	4.7	4.7	4.7	4.7	4.7
85°	2.5	2.7	3.0	3.2	3.5
87.5°	1.5	1.5	1.7	2.0	2.2
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)