

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: P545128

Luminaire Tested: **FMR-12-1-LD4-2LO-50-UNV-82-85-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: P545128
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-82-85-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

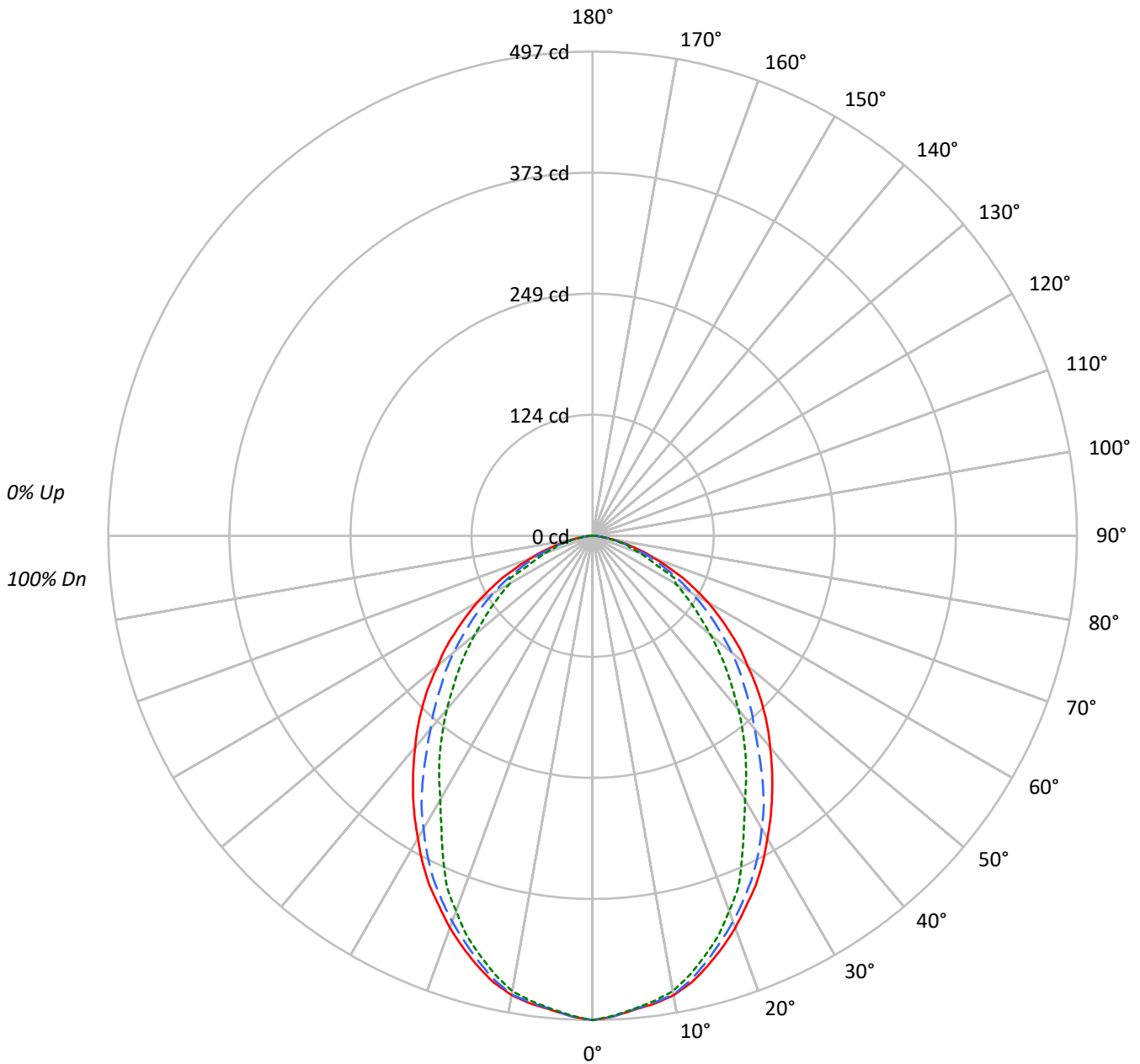
Lumens per Lamp: N/A
Luminaire Lumens: 976.0 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	5352	5352	5352
5°	5278	5273	5266
10°	5233	5227	5188
15°	5092	5040	4970
20°	4905	4826	4694
25°	4703	4601	4314
30°	4457	4315	3887
35°	4222	3988	3595
40°	3982	3634	3271
45°	3754	3360	2958
50°	3475	3118	2637
55°	3215	2826	2363
60°	2945	2523	2116
65°	2590	2211	1875
70°	2134	1936	1592
75°	1697	1481	1555
80°	1141	1066	998
85°	704	852	988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.3	4.7
10°-20°	127.0	13.0
20°-30°	175.8	18.0
30°-40°	187.5	19.2
40°-50°	171.0	17.5
50°-60°	134.0	13.7
60°-70°	87.3	8.9
70°-80°	38.7	4.0
80°-90°	8.3	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°	349.1	35.8
0°-40°	536.6	55.0
0°-60°	841.7	86.2
0°-90°	976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	976.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	497	497	497	497	497	
5°	488	488	488	487	487	46
15°	457	457	452	448	446	128
25°	396	394	387	374	363	182
35°	321	319	304	280	274	201
45°	247	241	221	202	194	190
55°	171	166	151	133	126	154
65°	102	96	87	88	74	100
75°	41	38	36	34	37	44
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°	497.2	497.2	497.2	497.2	497.2
2.5°	493.7	493.7	493.7	493.1	493.1
5°	488.5	488.0	488.0	487.4	487.4
7.5°	484.5	483.9	483.4	482.8	481.6
10°	478.8	478.8	478.2	475.3	474.7
12.5°	469.6	469.0	466.7	462.7	461.5
15°	456.9	456.9	452.3	447.7	446.0
17.5°	443.1	442.6	436.8	432.2	429.9
20°	428.2	427.0	421.3	413.8	409.8
22.5°	411.5	411.5	404.6	394.9	390.8
25°	396.0	393.7	387.4	373.6	363.2
27.5°	378.2	374.7	367.8	348.3	336.2
30°	358.6	356.9	347.2	321.9	312.7
32.5°	340.3	337.4	327.0	300.6	293.1
35°	321.3	319.0	303.5	280.5	273.6
37.5°	302.3	299.4	279.9	261.5	252.9
40°	283.4	279.9	258.6	242.0	232.8
42.5°	265.5	260.9	240.2	222.4	212.1
45°	246.6	241.4	220.7	202.3	194.3
47.5°	227.6	223.0	204.0	185.1	175.9
50°	207.5	203.5	186.2	167.3	157.5
52.5°	190.8	184.5	167.8	148.9	140.8
55°	171.3	166.1	150.6	132.8	125.9
57.5°	153.5	148.3	133.9	117.2	111.5
60°	136.8	129.3	117.2	102.9	98.3
62.5°	118.4	112.7	102.3	90.2	96.0
65°	101.7	96.0	86.8	88.5	73.6
67.5°	83.3	80.5	72.4	64.4	62.1
70°	67.8	64.4	61.5	52.9	50.6
72.5°	54.0	50.6	46.6	42.0	40.2
75°	40.8	37.9	35.6	33.9	37.4
77.5°	28.2	27.0	25.3	23.6	23.0
80°	18.4	17.8	17.2	16.7	16.1
82.5°	10.9	10.9	10.9	10.9	10.9
85°	5.7	6.3	6.9	7.5	8.0
87.5°	3.4	3.4	4.0	4.6	5.2
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)