

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: P545069

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-82-96-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: P545069
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-82-96-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

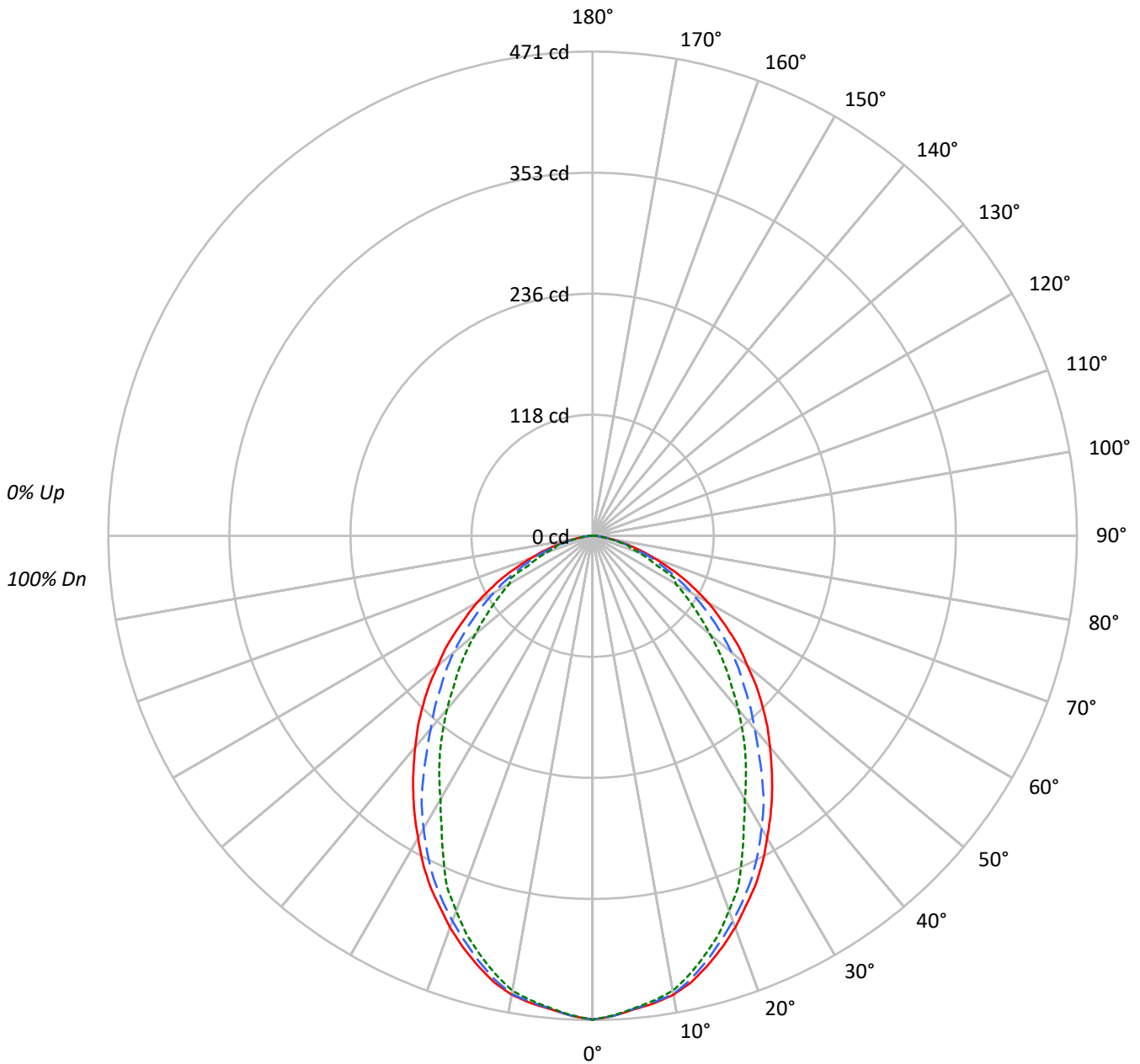
Lumens per Lamp: N/A
Luminaire Lumens: 924.0 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P545069

CATALOG NUMBER: FMR-12-1-LD4-2LO-35-UNV-82-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545069

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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°	5067	5067	5067
5°	4997	4992	4985
10°	4955	4948	4913
15°	4821	4772	4705
20°	4644	4568	4444
25°	4453	4355	4084
30°	4220	4085	3679
35°	3997	3775	3403
40°	3770	3441	3097
45°	3553	3180	2799
50°	3289	2952	2497
55°	3044	2676	2237
60°	2788	2390	2002
65°	2453	2094	1773
70°	2020	1832	1507
75°	1605	1402	1472
80°	1079	1010	942
85°	667	803	939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	4.7
10°-20°	120.2	13.0
20°-30°	166.5	18.0
30°-40°	177.5	19.2
40°-50°	161.9	17.5
50°-60°	126.9	13.7
60°-70°	82.7	8.9
70°-80°	36.6	4.0
80°-90°	7.9	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°	330.5	35.8
0°-40°	508.0	55.0
0°-60°	796.8	86.2
0°-90°	924.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	924.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	471	471	471	471	471	
5°	462	462	462	461	461	44
15°	433	433	428	424	422	122
25°	375	373	367	354	344	172
35°	304	302	287	266	259	190
45°	233	228	209	192	184	180
55°	162	157	143	126	119	145
65°	96	91	82	84	70	95
75°	39	36	34	32	35	41
85°	5	6	6	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	470.7	470.7	470.7	470.7	470.7
2.5°	467.4	467.4	467.4	466.9	466.9
5°	462.5	462.0	462.0	461.4	461.4
7.5°	458.7	458.2	457.6	457.1	456.0
10°	453.3	453.3	452.7	450.0	449.5
12.5°	444.6	444.0	441.8	438.0	436.9
15°	432.6	432.6	428.2	423.9	422.2
17.5°	419.5	419.0	413.5	409.2	407.0
20°	405.4	404.3	398.8	391.8	388.0
22.5°	389.6	389.6	383.1	373.8	370.0
25°	374.9	372.7	366.7	353.7	343.9
27.5°	358.0	354.8	348.2	329.7	318.3
30°	339.5	337.9	328.7	304.7	296.0
32.5°	322.1	319.4	309.6	284.6	277.5
35°	304.2	302.0	287.3	265.5	259.0
37.5°	286.2	283.5	265.0	247.6	239.4
40°	268.3	265.0	244.9	229.1	220.4
42.5°	251.4	247.0	227.4	210.6	200.8
45°	233.4	228.5	208.9	191.5	183.9
47.5°	215.5	211.1	193.2	175.2	166.5
50°	196.4	192.6	176.3	158.3	149.1
52.5°	180.7	174.7	158.9	140.9	133.3
55°	162.2	157.3	142.6	125.7	119.2
57.5°	145.3	140.4	126.8	111.0	105.6
60°	129.5	122.4	111.0	97.4	93.0
62.5°	112.1	106.6	96.9	85.4	90.9
65°	96.3	90.9	82.2	83.8	69.6
67.5°	78.9	76.2	68.6	60.9	58.8
70°	64.2	60.9	58.2	50.1	47.9
72.5°	51.1	47.9	44.1	39.7	38.1
75°	38.6	35.9	33.7	32.1	35.4
77.5°	26.7	25.6	23.9	22.3	21.8
80°	17.4	16.9	16.3	15.8	15.2
82.5°	10.3	10.3	10.3	10.3	10.3
85°	5.4	6.0	6.5	7.1	7.6
87.5°	3.3	3.3	3.8	4.4	4.9
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)