

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: P545066

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-82-87-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: P545066
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-82-87-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

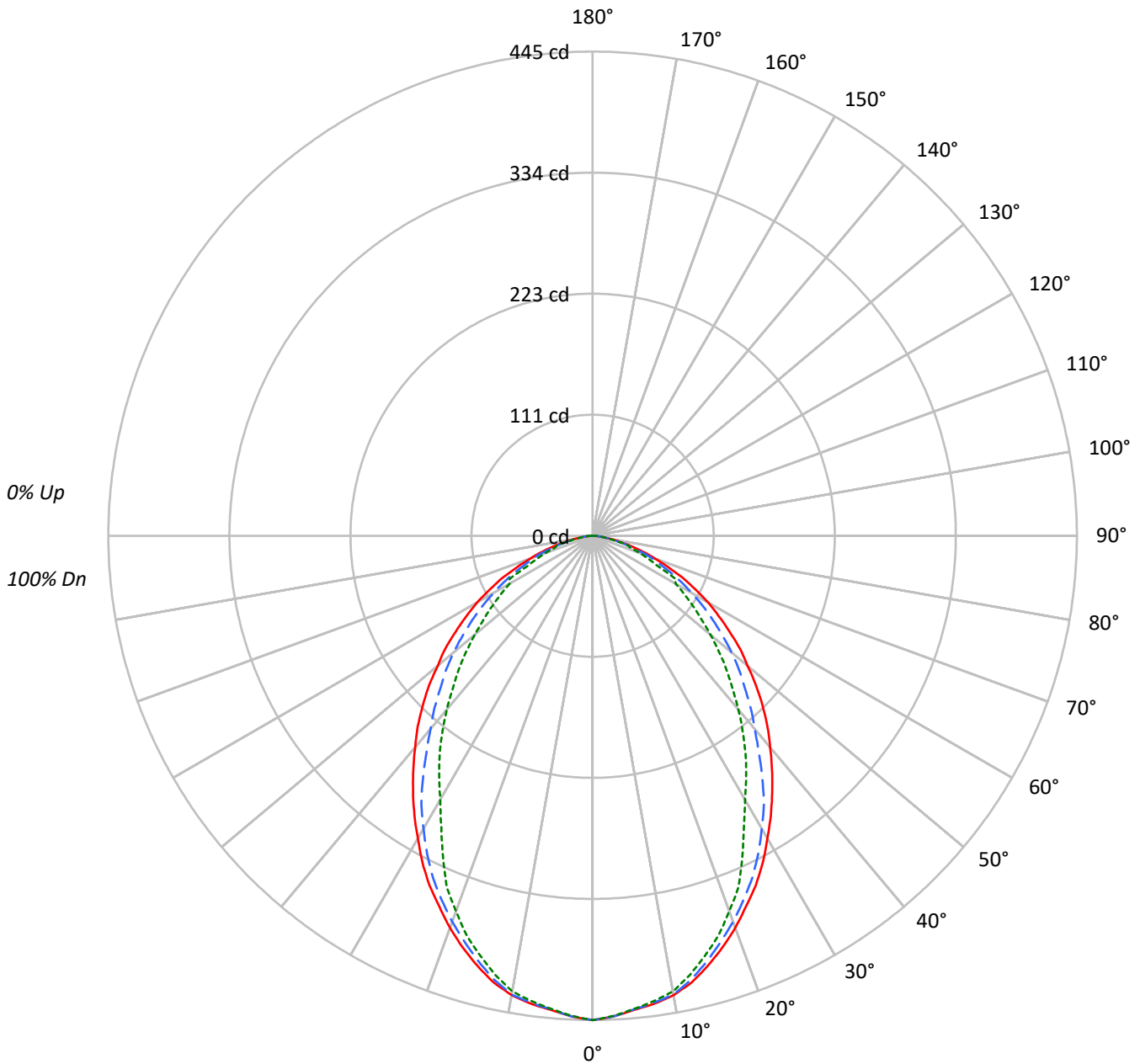
Lumens per Lamp: N/A
Luminaire Lumens: 874.0 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P545066

CATALOG NUMBER: FMR-12-1-LD4-2LO-35-UNV-82-87-EDD

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°	4792	4792	4792
5°	4727	4722	4716
10°	4686	4680	4646
15°	4560	4514	4451
20°	4392	4322	4204
25°	4211	4120	3863
30°	3992	3864	3480
35°	3780	3572	3219
40°	3565	3254	2928
45°	3361	3008	2649
50°	3111	2793	2361
55°	2879	2530	2115
60°	2637	2260	1894
65°	2320	1979	1678
70°	1910	1734	1426
75°	1518	1327	1393
80°	1023	955	893
85°	630	766	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.4	4.7
10°-20°	113.7	13.0
20°-30°	157.5	18.0
30°-40°	167.9	19.2
40°-50°	153.2	17.5
50°-60°	120.0	13.7
60°-70°	78.2	8.9
70°-80°	34.7	4.0
80°-90°	7.4	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°	312.6	35.8
0°-40°	480.5	55.0
0°-60°	753.7	86.2
0°-90°	874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	874.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	445	445	445	445	445	
5°	438	437	437	436	436	42
15°	409	409	405	401	399	115
25°	355	353	347	334	325	163
35°	288	286	272	251	245	180
45°	221	216	198	181	174	170
55°	153	149	135	119	113	138
65°	91	86	78	79	66	90
75°	36	34	32	30	34	39
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	445.2	445.2	445.2	445.2	445.2
2.5°	442.1	442.1	442.1	441.6	441.6
5°	437.5	437.0	437.0	436.5	436.5
7.5°	433.9	433.4	432.9	432.3	431.3
10°	428.7	428.7	428.2	425.6	425.1
12.5°	420.5	420.0	417.9	414.3	413.3
15°	409.2	409.2	405.1	400.9	399.4
17.5°	396.8	396.3	391.2	387.0	385.0
20°	383.4	382.4	377.3	370.6	367.0
22.5°	368.5	368.5	362.3	353.6	350.0
25°	354.6	352.6	346.9	334.5	325.3
27.5°	338.7	335.6	329.4	311.9	301.1
30°	321.2	319.6	310.9	288.2	280.0
32.5°	304.7	302.1	292.9	269.2	262.5
35°	287.7	285.7	271.8	251.2	245.0
37.5°	270.7	268.2	250.7	234.2	226.5
40°	253.7	250.7	231.6	216.7	208.4
42.5°	237.8	233.7	215.1	199.2	189.9
45°	220.8	216.2	197.6	181.2	174.0
47.5°	203.8	199.7	182.7	165.7	157.5
50°	185.8	182.2	166.8	149.8	141.0
52.5°	170.9	165.2	150.3	133.3	126.1
55°	153.4	148.7	134.8	118.9	112.7
57.5°	137.4	132.8	119.9	105.0	99.8
60°	122.5	115.8	105.0	92.1	88.0
62.5°	106.0	100.9	91.6	80.8	86.0
65°	91.1	86.0	77.7	79.3	65.9
67.5°	74.6	72.1	64.9	57.6	55.6
70°	60.7	57.6	55.1	47.4	45.3
72.5°	48.4	45.3	41.7	37.6	36.0
75°	36.5	34.0	31.9	30.4	33.5
77.5°	25.2	24.2	22.6	21.1	20.6
80°	16.5	16.0	15.4	14.9	14.4
82.5°	9.8	9.8	9.8	9.8	9.8
85°	5.1	5.7	6.2	6.7	7.2
87.5°	3.1	3.1	3.6	4.1	4.6
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)