

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: P545055

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-81-84-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: P545055
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-81-84-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

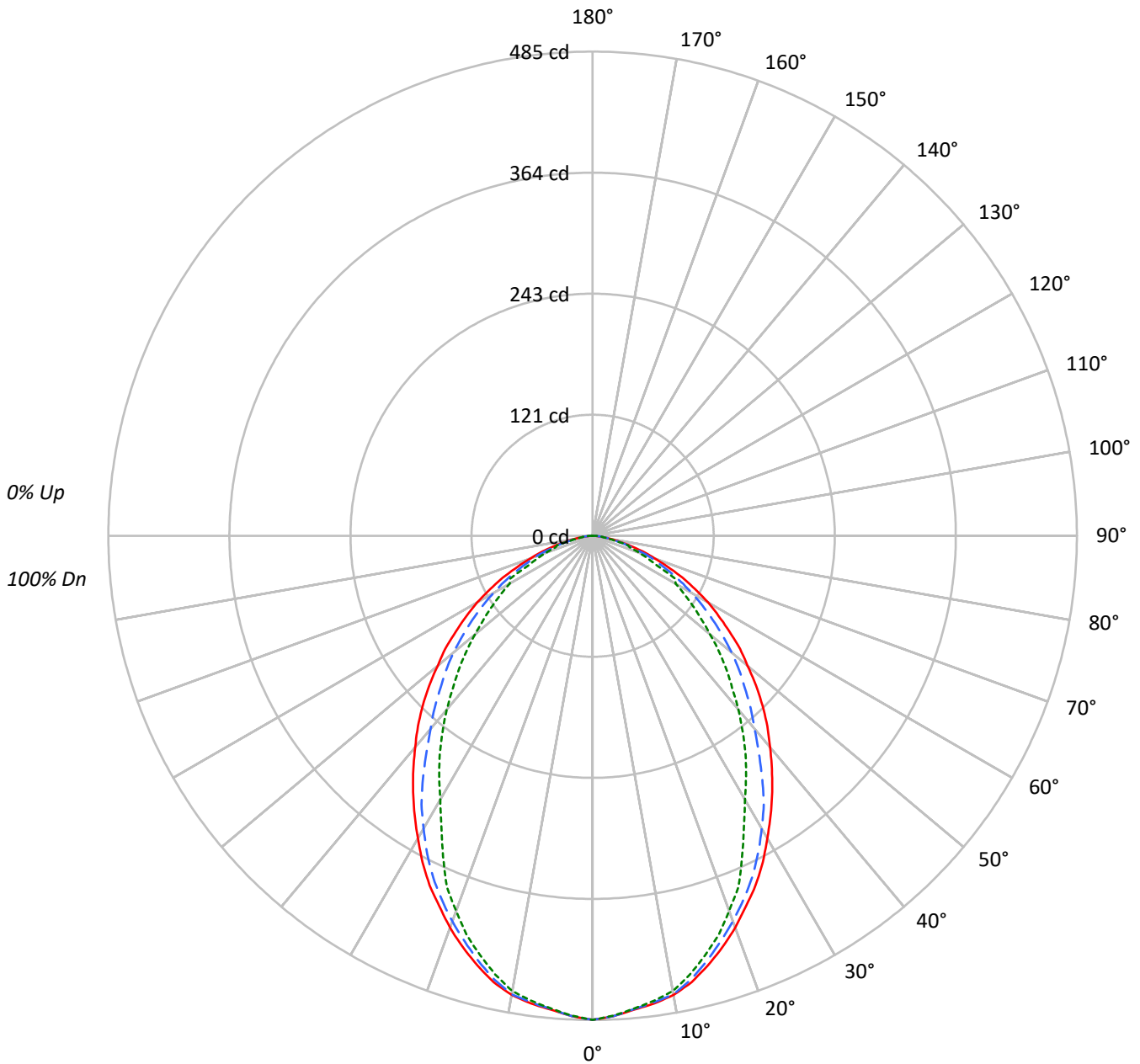
Lumens per Lamp: N/A
Luminaire Lumens: 952.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	5219	5219	5219
5°	5149	5143	5137
10°	5104	5098	5062
15°	4967	4917	4847
20°	4785	4707	4578
25°	4588	4488	4208
30°	4348	4208	3791
35°	4118	3890	3507
40°	3884	3545	3191
45°	3661	3277	2885
50°	3389	3041	2572
55°	3136	2757	2305
60°	2872	2463	2065
65°	2527	2157	1829
70°	2083	1888	1552
75°	1655	1447	1514
80°	1110	1041	973
85°	692	827	963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.1	4.7
10°-20°	123.9	13.0
20°-30°	171.5	18.0
30°-40°	182.9	19.2
40°-50°	166.8	17.5
50°-60°	130.7	13.7
60°-70°	85.2	8.9
70°-80°	37.7	4.0
80°-90°	8.1	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°	340.5	35.8
0°-40°	523.4	55.0
0°-60°	821.0	86.2
0°-90°	952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	485	485	485	485	485	
5°	476	476	476	475	475	45
15°	446	446	441	437	435	125
25°	386	384	378	364	354	177
35°	313	311	296	274	267	196
45°	240	236	215	197	190	185
55°	167	162	147	130	123	150
65°	99	94	85	86	72	98
75°	40	37	35	33	36	43
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	484.9	484.9	484.9	484.9	484.9
2.5°	481.6	481.6	481.6	481.0	481.0
5°	476.5	476.0	476.0	475.4	475.4
7.5°	472.6	472.0	471.5	470.9	469.8
10°	467.0	467.0	466.4	463.6	463.1
12.5°	458.0	457.5	455.2	451.3	450.2
15°	445.7	445.7	441.2	436.7	435.0
17.5°	432.2	431.7	426.1	421.6	419.3
20°	417.7	416.5	410.9	403.6	399.7
22.5°	401.4	401.4	394.7	385.1	381.2
25°	386.3	384.0	377.9	364.4	354.3
27.5°	368.9	365.5	358.8	339.7	328.0
30°	349.8	348.1	338.6	313.9	305.0
32.5°	331.9	329.1	319.0	293.2	285.9
35°	313.4	311.1	296.0	273.6	266.9
37.5°	294.9	292.1	273.0	255.1	246.7
40°	276.4	273.0	252.3	236.0	227.1
42.5°	259.0	254.5	234.3	217.0	206.9
45°	240.5	235.5	215.3	197.3	189.5
47.5°	222.0	217.5	199.0	180.5	171.5
50°	202.4	198.5	181.6	163.1	153.6
52.5°	186.1	180.0	163.7	145.2	137.4
55°	167.1	162.0	146.9	129.5	122.8
57.5°	149.7	144.6	130.6	114.4	108.8
60°	133.4	126.1	114.4	100.4	95.9
62.5°	115.5	109.9	99.8	88.0	93.6
65°	99.2	93.6	84.7	86.3	71.8
67.5°	81.3	78.5	70.6	62.8	60.5
70°	66.2	62.8	60.0	51.6	49.3
72.5°	52.7	49.3	45.4	40.9	39.2
75°	39.8	37.0	34.8	33.1	36.4
77.5°	27.5	26.3	24.7	23.0	22.4
80°	17.9	17.4	16.8	16.3	15.7
82.5°	10.7	10.7	10.7	10.7	10.7
85°	5.6	6.2	6.7	7.3	7.8
87.5°	3.4	3.4	3.9	4.5	5.0
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)