

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: P545082

Luminaire Tested: **FMR-12-1-LD4-2LO-40-UNV-80-87-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: P545082
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-40-UNV-80-87-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

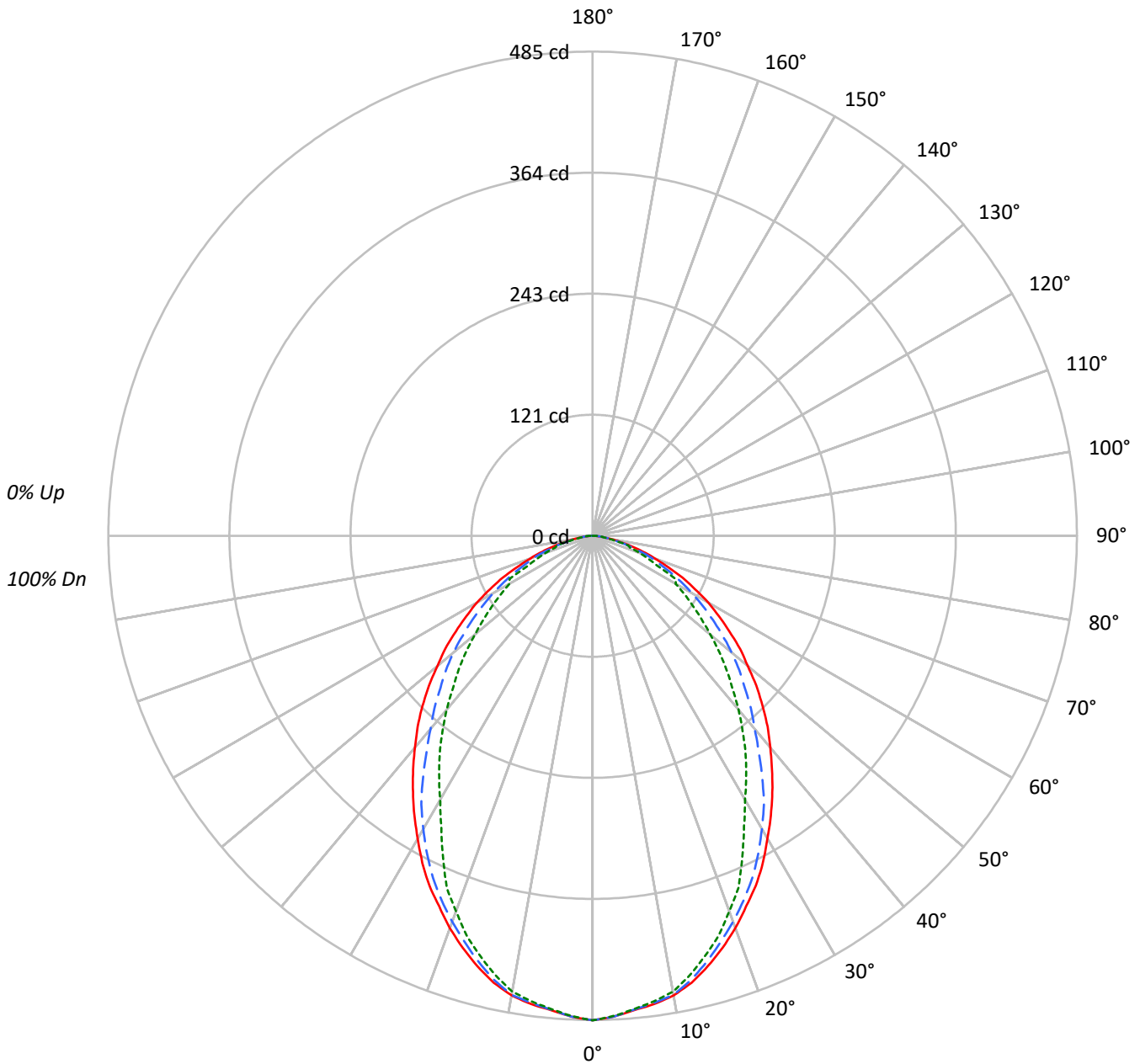
Lumens per Lamp: N/A
Luminaire Lumens: 953.0 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	5225	5225	5225
5°	5154	5149	5142
10°	5110	5103	5067
15°	4972	4922	4853
20°	4789	4712	4583
25°	4593	4493	4213
30°	4353	4213	3795
35°	4122	3893	3510
40°	3888	3548	3194
45°	3666	3280	2888
50°	3393	3044	2575
55°	3138	2759	2306
60°	2876	2465	2067
65°	2529	2157	1829
70°	2083	1888	1555
75°	1655	1447	1518
80°	1116	1041	973
85°	692	827	976



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.2	4.7
10°-20°	124.0	13.0
20°-30°	171.7	18.0
30°-40°	183.1	19.2
40°-50°	167.0	17.5
50°-60°	130.8	13.7
60°-70°	85.3	8.9
70°-80°	37.8	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°	340.9	35.8
0°-40°	524.0	55.0
0°-60°	821.8	86.2
0°-90°	953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	953.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	485	485	485	485	485	
5°	477	476	476	476	476	45
15°	446	446	442	437	436	125
25°	387	384	378	365	355	178
35°	314	312	296	274	267	196
45°	241	236	216	198	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°	485.4	485.4	485.4	485.4	485.4
2.5°	482.1	482.1	482.1	481.5	481.5
5°	477.0	476.5	476.5	475.9	475.9
7.5°	473.1	472.5	472.0	471.4	470.3
10°	467.5	467.5	466.9	464.1	463.6
12.5°	458.5	457.9	455.7	451.8	450.7
15°	446.2	446.2	441.7	437.2	435.5
17.5°	432.7	432.1	426.5	422.0	419.8
20°	418.1	417.0	411.4	404.1	400.1
22.5°	401.8	401.8	395.1	385.6	381.6
25°	386.7	384.4	378.3	364.8	354.7
27.5°	369.3	365.9	359.2	340.1	328.3
30°	350.2	348.5	339.0	314.3	305.3
32.5°	332.2	329.4	319.3	293.5	286.2
35°	313.7	311.5	296.3	273.9	267.1
37.5°	295.2	292.4	273.3	255.3	246.9
40°	276.7	273.3	252.5	236.3	227.3
42.5°	259.3	254.8	234.6	217.2	207.1
45°	240.8	235.7	215.5	197.5	189.7
47.5°	222.2	217.7	199.2	180.7	171.7
50°	202.6	198.7	181.8	163.3	153.8
52.5°	186.3	180.1	163.9	145.4	137.5
55°	167.2	162.2	147.0	129.6	122.9
57.5°	149.8	144.8	130.8	114.5	108.9
60°	133.6	126.3	114.5	100.5	96.0
62.5°	115.6	110.0	99.9	88.1	93.7
65°	99.3	93.7	84.7	86.4	71.8
67.5°	81.4	78.6	70.7	62.9	60.6
70°	66.2	62.9	60.0	51.6	49.4
72.5°	52.8	49.4	45.5	41.0	39.3
75°	39.8	37.0	34.8	33.1	36.5
77.5°	27.5	26.4	24.7	23.0	22.4
80°	18.0	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	7.9
87.5°	3.4	3.4	3.9	4.5	5.1
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)