

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: P544859

Luminaire Tested: **FMR-12-1-LD4-1STD-35-UNV-80-88-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: P544859
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-LD4-1STD-35-UNV-80-88-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

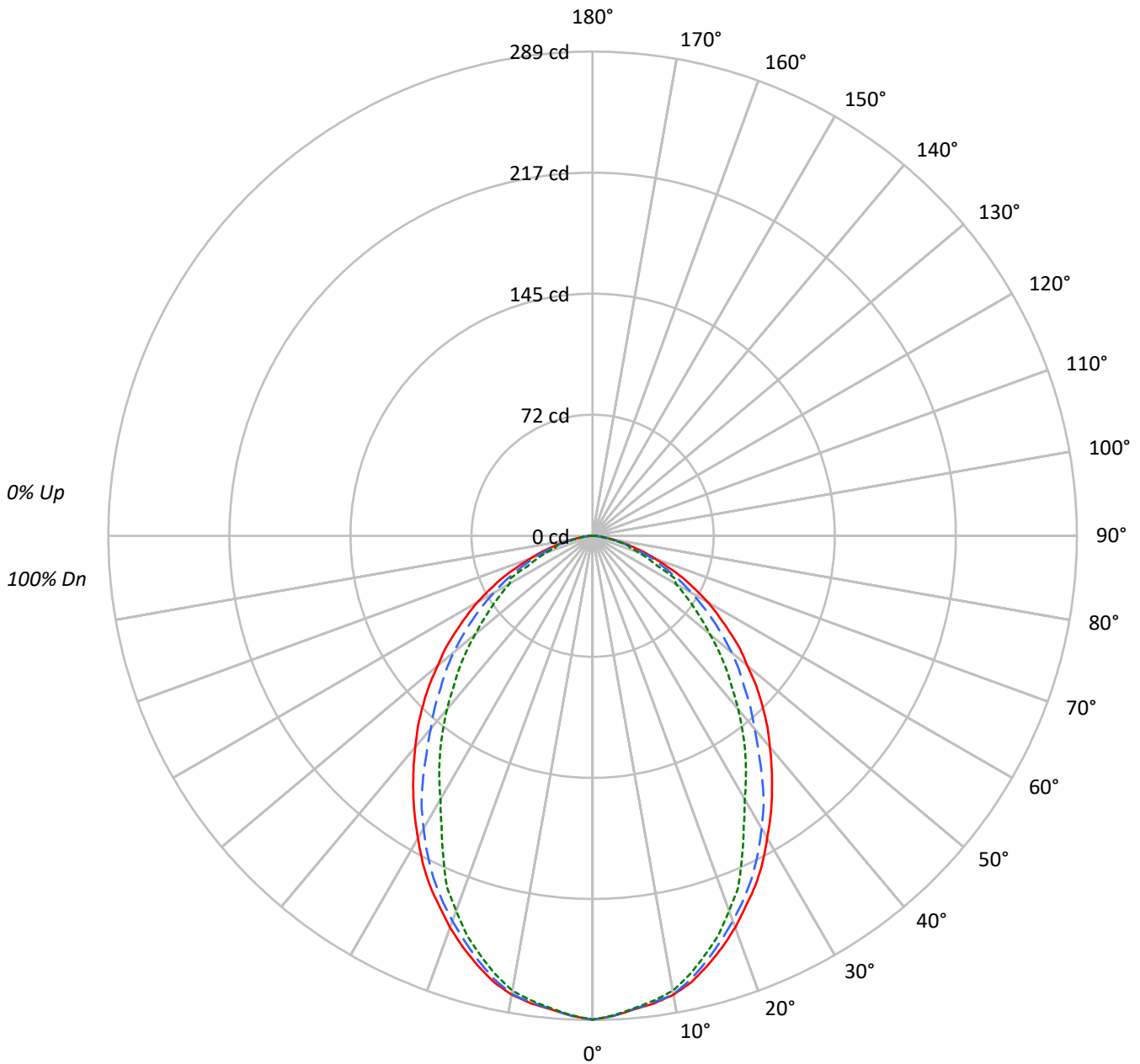
Lumens per Lamp: N/A
Luminaire Lumens: 567.0 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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°	3109	3109	3109
5°	3066	3063	3059
10°	3040	3036	3014
15°	2958	2929	2887
20°	2850	2803	2727
25°	2733	2672	2506
30°	2590	2507	2257
35°	2452	2317	2088
40°	2313	2112	1900
45°	2180	1952	1719
50°	2018	1812	1532
55°	1867	1642	1372
60°	1711	1466	1229
65°	1505	1284	1088
70°	1240	1124	925
75°	986	861	902
80°	663	620	576
85°	408	494	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.9	4.7
10°-20°	73.8	13.0
20°-30°	102.2	18.0
30°-40°	108.9	19.2
40°-50°	99.4	17.5
50°-60°	77.8	13.7
60°-70°	50.7	8.9
70°-80°	22.5	4.0
80°-90°	4.8	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°	202.8	35.8
0°-40°	311.7	55.0
0°-60°	489.0	86.2
0°-90°	567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	567.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	289	289	289	289	289	
5°	284	284	284	283	283	27
15°	265	265	263	260	259	75
25°	230	229	225	217	211	106
35°	187	185	176	163	159	117
45°	143	140	128	118	113	110
55°	100	96	88	77	73	89
65°	59	56	50	51	43	58
75°	24	22	21	20	22	25
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	288.8	288.8	288.8	288.8	288.8
2.5°	286.8	286.8	286.8	286.5	286.5
5°	283.8	283.5	283.5	283.1	283.1
7.5°	281.5	281.1	280.8	280.5	279.8
10°	278.1	278.1	277.8	276.1	275.8
12.5°	272.8	272.5	271.1	268.8	268.1
15°	265.4	265.4	262.8	260.1	259.1
17.5°	257.4	257.1	253.8	251.1	249.8
20°	248.8	248.1	244.7	240.4	238.1
22.5°	239.1	239.1	235.1	229.4	227.1
25°	230.1	228.7	225.0	217.0	211.0
27.5°	219.7	217.7	213.7	202.3	195.3
30°	208.4	207.4	201.7	187.0	181.6
32.5°	197.7	196.0	190.0	174.6	170.3
35°	186.6	185.3	176.3	162.9	158.9
37.5°	175.6	174.0	162.6	151.9	146.9
40°	164.6	162.6	150.3	140.6	135.2
42.5°	154.3	151.6	139.6	129.2	123.2
45°	143.2	140.2	128.2	117.5	112.9
47.5°	132.2	129.6	118.5	107.5	102.2
50°	120.5	118.2	108.2	97.2	91.5
52.5°	110.9	107.2	97.5	86.5	81.8
55°	99.5	96.5	87.5	77.1	73.1
57.5°	89.2	86.1	77.8	68.1	64.8
60°	79.5	75.1	68.1	59.8	57.1
62.5°	68.8	65.4	59.4	52.4	55.8
65°	59.1	55.8	50.4	51.4	42.7
67.5°	48.4	46.7	42.1	37.4	36.1
70°	39.4	37.4	35.7	30.7	29.4
72.5°	31.4	29.4	27.0	24.4	23.4
75°	23.7	22.0	20.7	19.7	21.7
77.5°	16.4	15.7	14.7	13.7	13.4
80°	10.7	10.4	10.0	9.7	9.3
82.5°	6.3	6.3	6.3	6.3	6.3
85°	3.3	3.7	4.0	4.3	4.7
87.5°	2.0	2.0	2.3	2.7	3.0
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)