

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: P545211

Luminaire Tested: **FMR-12-1-LD4-2STD-50-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: P545211
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-LD4-2STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

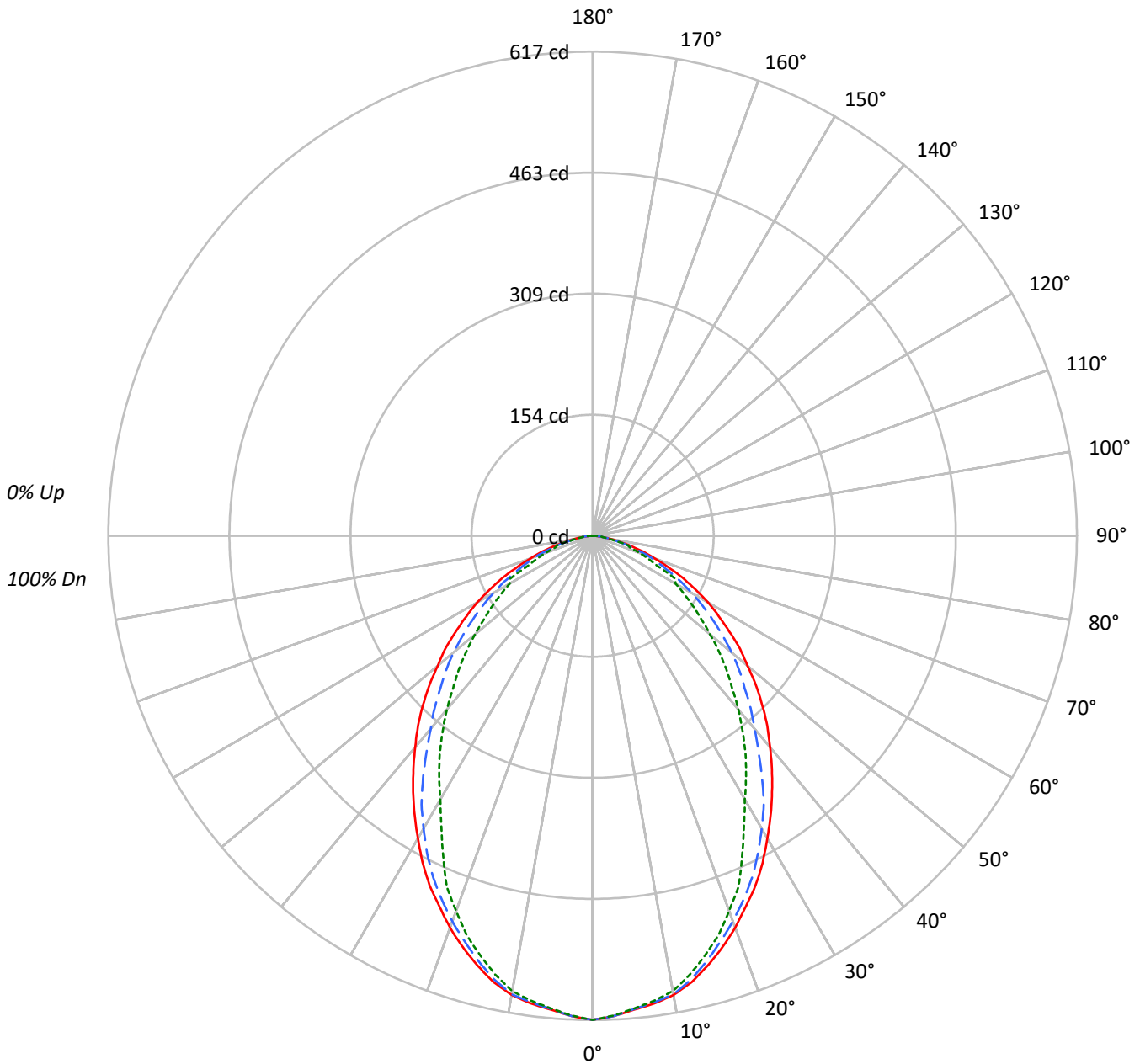
Lumens per Lamp: N/A
Luminaire Lumens: 1211.0 lumens
Efficiency: N/A
Efficacy: 73.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	6640	6640	6640
5°	6550	6542	6534
10°	6492	6485	6439
15°	6317	6254	6167
20°	6086	5987	5825
25°	5836	5709	5353
30°	5531	5353	4821
35°	5238	4947	4461
40°	4940	4509	4058
45°	4657	4168	3669
50°	4310	3870	3272
55°	3988	3506	2931
60°	3653	3132	2624
65°	3214	2743	2325
70°	2650	2401	1976
75°	2104	1838	1930
80°	1413	1327	1240
85°	877	1062	1235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.4	4.7
10°-20°	157.6	13.0
20°-30°	218.2	18.0
30°-40°	232.6	19.2
40°-50°	212.2	17.5
50°-60°	166.3	13.7
60°-70°	108.4	8.9
70°-80°	48.0	4.0
80°-90°	10.3	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°	433.2	35.8
0°-40°	665.8	55.0
0°-60°	1044.3	86.2
0°-90°	1211.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1211.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	617	617	617	617	617	
5°	606	606	606	605	605	58
15°	567	567	561	556	553	159
25°	491	488	481	464	451	226
35°	399	396	376	348	340	249
45°	306	300	274	251	241	236
55°	212	206	187	165	156	191
65°	126	119	108	110	91	124
75°	51	47	44	42	46	54
85°	7	8	9	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	616.9	616.9	616.9	616.9	616.9
2.5°	612.6	612.6	612.6	611.9	611.9
5°	606.2	605.5	605.5	604.7	604.7
7.5°	601.2	600.5	599.8	599.0	597.6
10°	594.0	594.0	593.3	589.8	589.1
12.5°	582.6	581.9	579.1	574.1	572.7
15°	566.9	566.9	561.2	555.5	553.4
17.5°	549.8	549.1	542.0	536.3	533.4
20°	531.3	529.9	522.7	513.5	508.5
22.5°	510.6	510.6	502.1	489.9	484.9
25°	491.4	488.5	480.7	463.5	450.7
27.5°	469.2	465.0	456.4	432.2	417.2
30°	445.0	442.9	430.7	399.4	387.9
32.5°	422.2	418.6	405.8	373.0	363.7
35°	398.6	395.8	376.5	348.0	339.5
37.5°	375.1	371.5	347.3	324.5	313.8
40°	351.6	347.3	320.9	300.2	288.8
42.5°	329.5	323.8	298.1	276.0	263.1
45°	305.9	299.5	273.8	251.0	241.0
47.5°	282.4	276.7	253.2	229.6	218.2
50°	257.4	252.5	231.1	207.5	195.4
52.5°	236.8	228.9	208.2	184.7	174.7
55°	212.5	206.1	186.8	164.7	156.2
57.5°	190.4	184.0	166.2	145.5	138.3
60°	169.7	160.5	145.5	127.7	121.9
62.5°	146.9	139.8	126.9	112.0	119.1
65°	126.2	119.1	107.7	109.8	91.3
67.5°	103.4	99.8	89.9	79.9	77.0
70°	84.2	79.9	76.3	65.6	62.8
72.5°	67.0	62.8	57.8	52.1	49.9
75°	50.6	47.1	44.2	42.1	46.4
77.5°	34.9	33.5	31.4	29.2	28.5
80°	22.8	22.1	21.4	20.7	20.0
82.5°	13.5	13.5	13.5	13.5	13.5
85°	7.1	7.8	8.6	9.3	10.0
87.5°	4.3	4.3	5.0	5.7	6.4
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)