

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: P545497

Luminaire Tested: **FMR-12-2-LD4-1STD-50-UNV-80-86-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: P545497
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-12-2-LD4-1STD-50-UNV-80-86-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

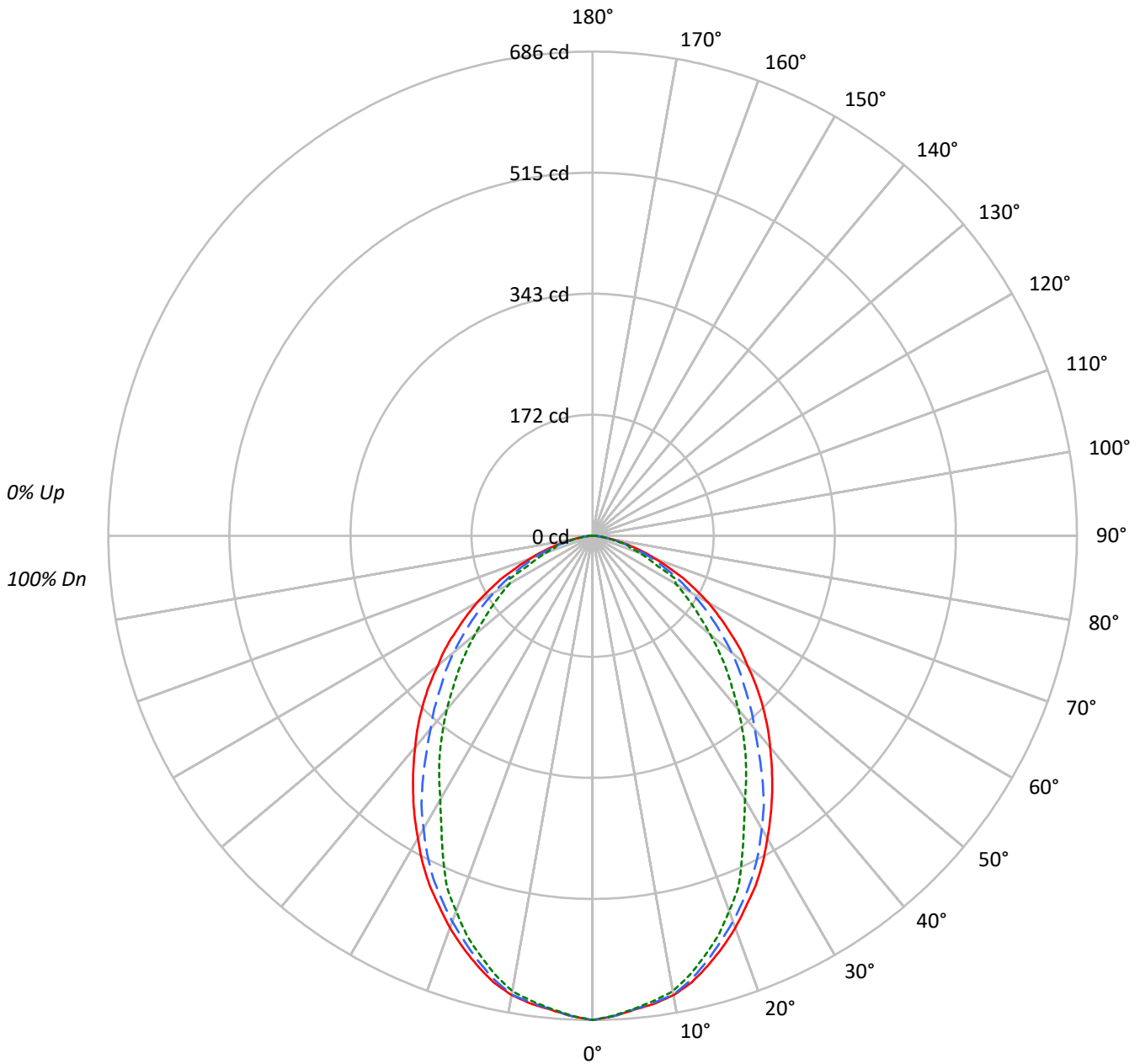
Lumens per Lamp: N/A
Luminaire Lumens: 1347.0 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	3693	3693	3693
5°	3642	3639	3634
10°	3611	3607	3581
15°	3514	3478	3429
20°	3385	3330	3239
25°	3245	3175	2977
30°	3076	2977	2682
35°	2913	2752	2481
40°	2748	2508	2257
45°	2590	2318	2041
50°	2398	2152	1819
55°	2218	1950	1630
60°	2032	1742	1460
65°	1788	1526	1293
70°	1473	1336	1098
75°	1171	1023	1073
80°	787	738	688
85°	488	587	685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	4.7
10°-20°	175.3	13.0
20°-30°	242.7	18.0
30°-40°	258.8	19.2
40°-50°	236.1	17.5
50°-60°	184.9	13.7
60°-70°	120.5	8.9
70°-80°	53.4	4.0
80°-90°	11.5	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°	481.8	35.8
0°-40°	740.6	55.0
0°-60°	1161.6	86.2
0°-90°	1347.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1347.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	686	686	686	686	686	
5°	674	674	674	673	673	64
15°	631	631	624	618	616	177
25°	546	543	535	516	501	251
35°	443	440	419	387	378	277
45°	340	333	305	279	268	262
55°	236	229	208	183	174	212
65°	140	132	120	122	102	138
75°	56	52	49	47	52	60
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	686.1	686.1	686.1	686.1	686.1
2.5°	681.4	681.4	681.4	680.6	680.6
5°	674.2	673.5	673.5	672.7	672.7
7.5°	668.7	667.9	667.1	666.3	664.7
10°	660.8	660.8	660.0	656.0	655.2
12.5°	648.1	647.3	644.1	638.6	637.0
15°	630.6	630.6	624.3	617.9	615.5
17.5°	611.6	610.8	602.9	596.5	593.3
20°	591.0	589.4	581.4	571.1	565.6
22.5°	568.0	568.0	558.4	544.9	539.4
25°	546.5	543.4	534.6	515.6	501.3
27.5°	521.9	517.2	507.7	480.7	464.0
30°	495.0	492.6	479.1	444.2	431.5
32.5°	469.6	465.6	451.3	414.9	404.5
35°	443.4	440.2	418.8	387.1	377.6
37.5°	417.2	413.3	386.3	360.9	349.0
40°	391.1	386.3	357.0	333.9	321.3
42.5°	366.5	360.1	331.6	307.0	292.7
45°	340.3	333.2	304.6	279.2	268.1
47.5°	314.1	307.8	281.6	255.4	242.7
50°	286.4	280.8	257.0	230.8	217.3
52.5°	263.4	254.6	231.6	205.4	194.3
55°	236.4	229.2	207.8	183.2	173.7
57.5°	211.8	204.7	184.8	161.8	153.9
60°	188.8	178.5	161.8	142.0	135.6
62.5°	163.4	155.5	141.2	124.5	132.5
65°	140.4	132.5	119.8	122.2	101.5
67.5°	115.0	111.1	99.9	88.8	85.7
70°	93.6	88.8	84.9	73.0	69.8
72.5°	74.6	69.8	64.3	57.9	55.5
75°	56.3	52.4	49.2	46.8	51.6
77.5°	38.9	37.3	34.9	32.5	31.7
80°	25.4	24.6	23.8	23.0	22.2
82.5°	15.1	15.1	15.1	15.1	15.1
85°	7.9	8.7	9.5	10.3	11.1
87.5°	4.8	4.8	5.6	6.3	7.1
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)