

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: P545452

Luminaire Tested: **FMR-12-2-LD4-1STD-35-UNV-82-94-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: P545452
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-35-UNV-82-94-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

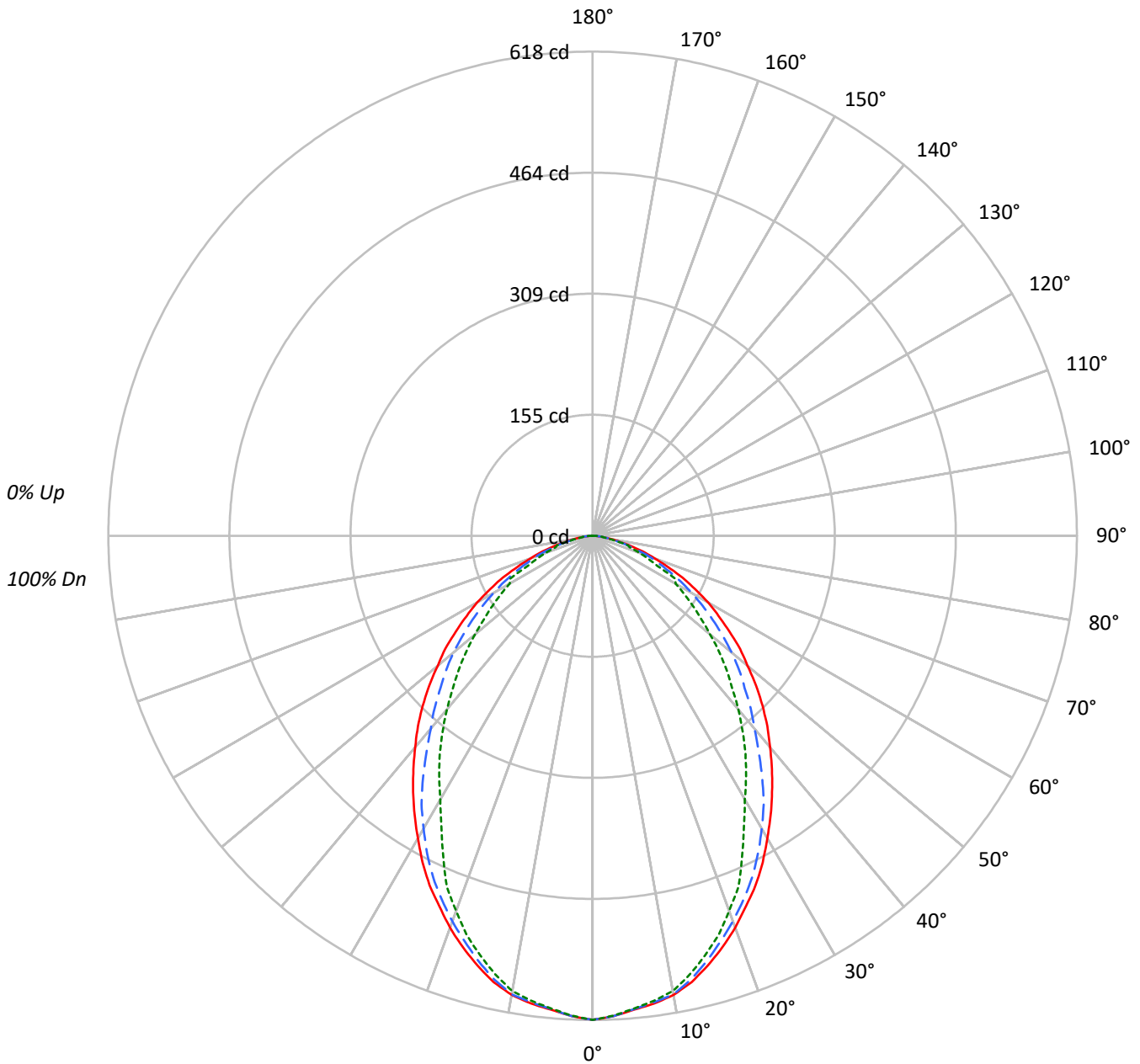
Lumens per Lamp: N/A
Luminaire Lumens: 1213.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	3326	3326	3326
5°	3280	3277	3272
10°	3252	3248	3224
15°	3164	3132	3088
20°	3048	2999	2917
25°	2923	2859	2681
30°	2770	2681	2415
35°	2623	2478	2234
40°	2474	2258	2033
45°	2332	2088	1837
50°	2159	1937	1639
55°	1998	1757	1468
60°	1830	1568	1314
65°	1610	1374	1164
70°	1327	1202	990
75°	1054	921	965
80°	710	663	620
85°	438	531	618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	4.7
10°-20°	157.9	13.0
20°-30°	218.5	18.0
30°-40°	233.0	19.2
40°-50°	212.6	17.5
50°-60°	166.5	13.7
60°-70°	108.5	8.9
70°-80°	48.1	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°	433.9	35.8
0°-40°	666.9	55.0
0°-60°	1046.0	86.2
0°-90°	1213.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1213.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	618	618	618	618	618	
5°	607	606	606	606	606	58
15°	568	568	562	556	554	160
25°	492	489	482	464	451	226
35°	399	396	377	349	340	250
45°	306	300	274	251	241	236
55°	213	206	187	165	156	191
65°	126	119	108	110	91	125
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°	617.9	617.9	617.9	617.9	617.9
2.5°	613.6	613.6	613.6	612.9	612.9
5°	607.2	606.5	606.5	605.7	605.7
7.5°	602.2	601.5	600.7	600.0	598.6
10°	595.0	595.0	594.3	590.7	590.0
12.5°	583.6	582.9	580.0	575.0	573.6
15°	567.9	567.9	562.2	556.5	554.3
17.5°	550.7	550.0	542.9	537.2	534.3
20°	532.2	530.7	523.6	514.3	509.3
22.5°	511.5	511.5	502.9	490.7	485.7
25°	492.2	489.3	481.5	464.3	451.4
27.5°	470.0	465.7	457.2	432.9	417.9
30°	445.7	443.6	431.4	400.0	388.6
32.5°	422.9	419.3	406.4	373.6	364.3
35°	399.3	396.4	377.2	348.6	340.0
37.5°	375.7	372.2	347.9	325.0	314.3
40°	352.2	347.9	321.4	300.7	289.3
42.5°	330.0	324.3	298.6	276.4	263.6
45°	306.4	300.0	274.3	251.4	241.4
47.5°	282.9	277.2	253.6	230.0	218.6
50°	257.9	252.9	231.4	207.9	195.7
52.5°	237.2	229.3	208.6	185.0	175.0
55°	212.9	206.4	187.2	165.0	156.4
57.5°	190.7	184.3	166.4	145.7	138.6
60°	170.0	160.7	145.7	127.9	122.1
62.5°	147.1	140.0	127.1	112.1	119.3
65°	126.4	119.3	107.9	110.0	91.4
67.5°	103.6	100.0	90.0	80.0	77.1
70°	84.3	80.0	76.4	65.7	62.9
72.5°	67.1	62.9	57.9	52.1	50.0
75°	50.7	47.1	44.3	42.1	46.4
77.5°	35.0	33.6	31.4	29.3	28.6
80°	22.9	22.1	21.4	20.7	20.0
82.5°	13.6	13.6	13.6	13.6	13.6
85°	7.1	7.9	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)