

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: P544908

Luminaire Tested: **FMR-12-1-LD4-1STD-40-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: P544908
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-40-UNV-82-94-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

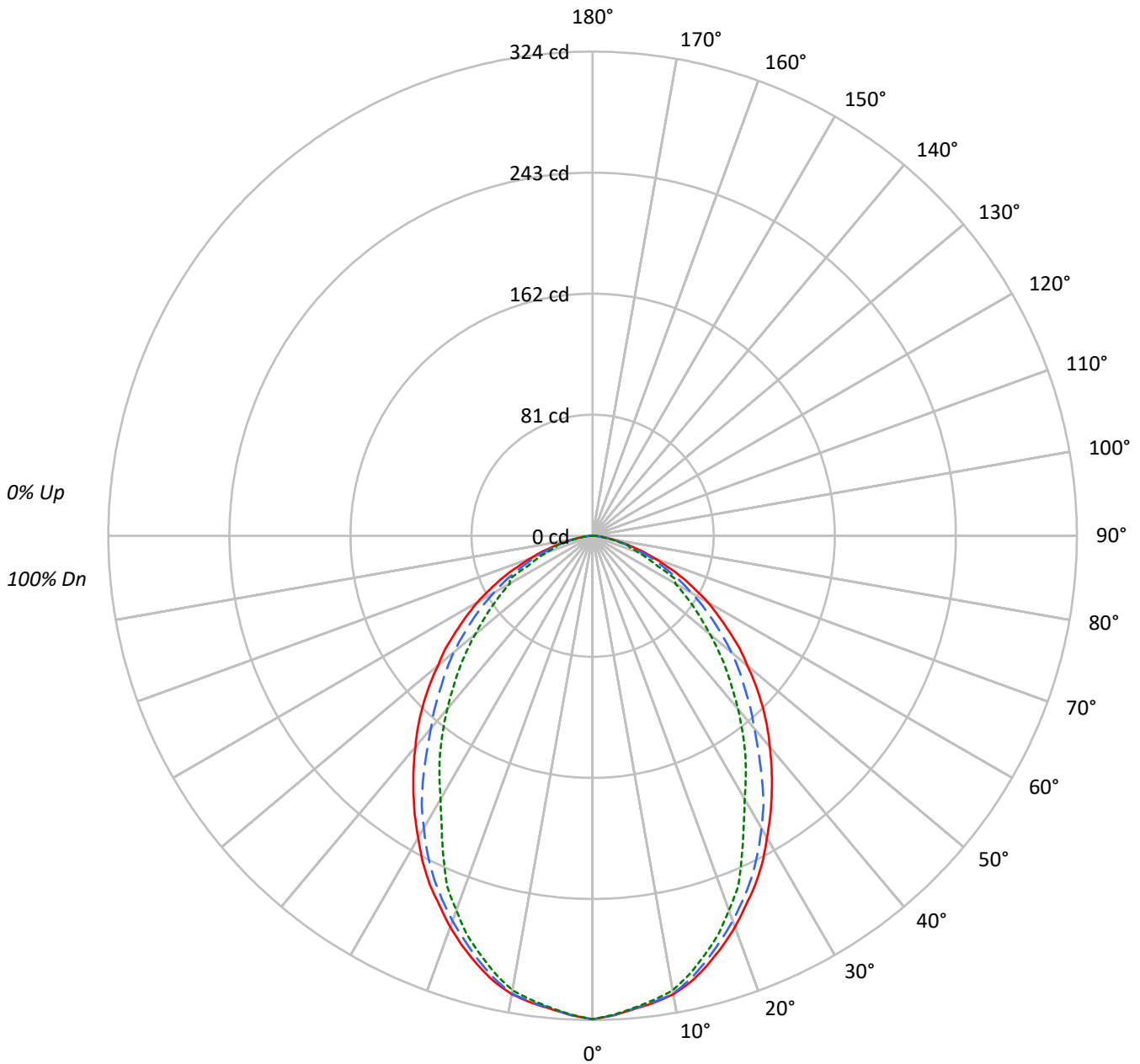
Lumens per Lamp: N/A
Luminaire Lumens: 635.0 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3482	3482	3482
5°	3435	3431	3426
10°	3405	3400	3376
15°	3313	3280	3234
20°	3191	3140	3054
25°	3059	2993	2806
30°	2900	2808	2528
35°	2746	2594	2339
40°	2591	2365	2127
45°	2442	2186	1924
50°	2261	2030	1716
55°	2091	1839	1537
60°	1916	1643	1376
65°	1686	1439	1220
70°	1388	1259	1035
75°	1102	965	1011
80°	744	694	651
85°	457	556	642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.1	4.7
10°-20°	82.6	13.0
20°-30°	114.4	18.0
30°-40°	122.0	19.2
40°-50°	111.3	17.5
50°-60°	87.2	13.7
60°-70°	56.8	8.9
70°-80°	25.2	4.0
80°-90°	5.4	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°	227.1	35.8
0°-40°	349.1	55.0
0°-60°	547.6	86.2
0°-90°	635.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	635.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	324	324	324	324	324	
5°	318	318	318	317	317	30
15°	297	297	294	291	290	84
25°	258	256	252	243	236	118
35°	209	208	197	182	178	131
45°	160	157	144	132	126	124
55°	111	108	98	86	82	100
65°	66	62	56	58	48	65
75°	26	25	23	22	24	28
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	323.5	323.5	323.5	323.5	323.5
2.5°	321.2	321.2	321.2	320.8	320.8
5°	317.9	317.5	317.5	317.1	317.1
7.5°	315.2	314.9	314.5	314.1	313.4
10°	311.5	311.5	311.1	309.3	308.9
12.5°	305.5	305.1	303.6	301.0	300.3
15°	297.3	297.3	294.3	291.3	290.2
17.5°	288.3	287.9	284.2	281.2	279.7
20°	278.6	277.8	274.1	269.2	266.6
22.5°	267.7	267.7	263.3	256.9	254.3
25°	257.6	256.2	252.0	243.1	236.3
27.5°	246.1	243.8	239.3	226.6	218.8
30°	233.3	232.2	225.9	209.4	203.4
32.5°	221.4	219.5	212.8	195.6	190.7
35°	209.0	207.5	197.4	182.5	178.0
37.5°	196.7	194.8	182.1	170.1	164.5
40°	184.4	182.1	168.3	157.4	151.4
42.5°	172.8	169.8	156.3	144.7	138.0
45°	160.4	157.1	143.6	131.6	126.4
47.5°	148.1	145.1	132.7	120.4	114.4
50°	135.0	132.4	121.2	108.8	102.5
52.5°	124.1	120.0	109.2	96.9	91.6
55°	111.4	108.1	98.0	86.4	81.9
57.5°	99.8	96.5	87.1	76.3	72.5
60°	89.0	84.1	76.3	66.9	63.9
62.5°	77.0	73.3	66.6	58.7	62.4
65°	66.2	62.4	56.5	57.6	47.9
67.5°	54.2	52.4	47.1	41.9	40.4
70°	44.1	41.9	40.0	34.4	32.9
72.5°	35.2	32.9	30.3	27.3	26.2
75°	26.5	24.7	23.2	22.1	24.3
77.5°	18.3	17.6	16.5	15.3	15.0
80°	12.0	11.6	11.2	10.8	10.5
82.5°	7.1	7.1	7.1	7.1	7.1
85°	3.7	4.1	4.5	4.9	5.2
87.5°	2.2	2.2	2.6	3.0	3.4
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)