

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: P544723

Luminaire Tested: **FMR-12-1-LD4-1HI-40-UNV-93-88-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: P544723
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-LD4-1HI-40-UNV-93-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

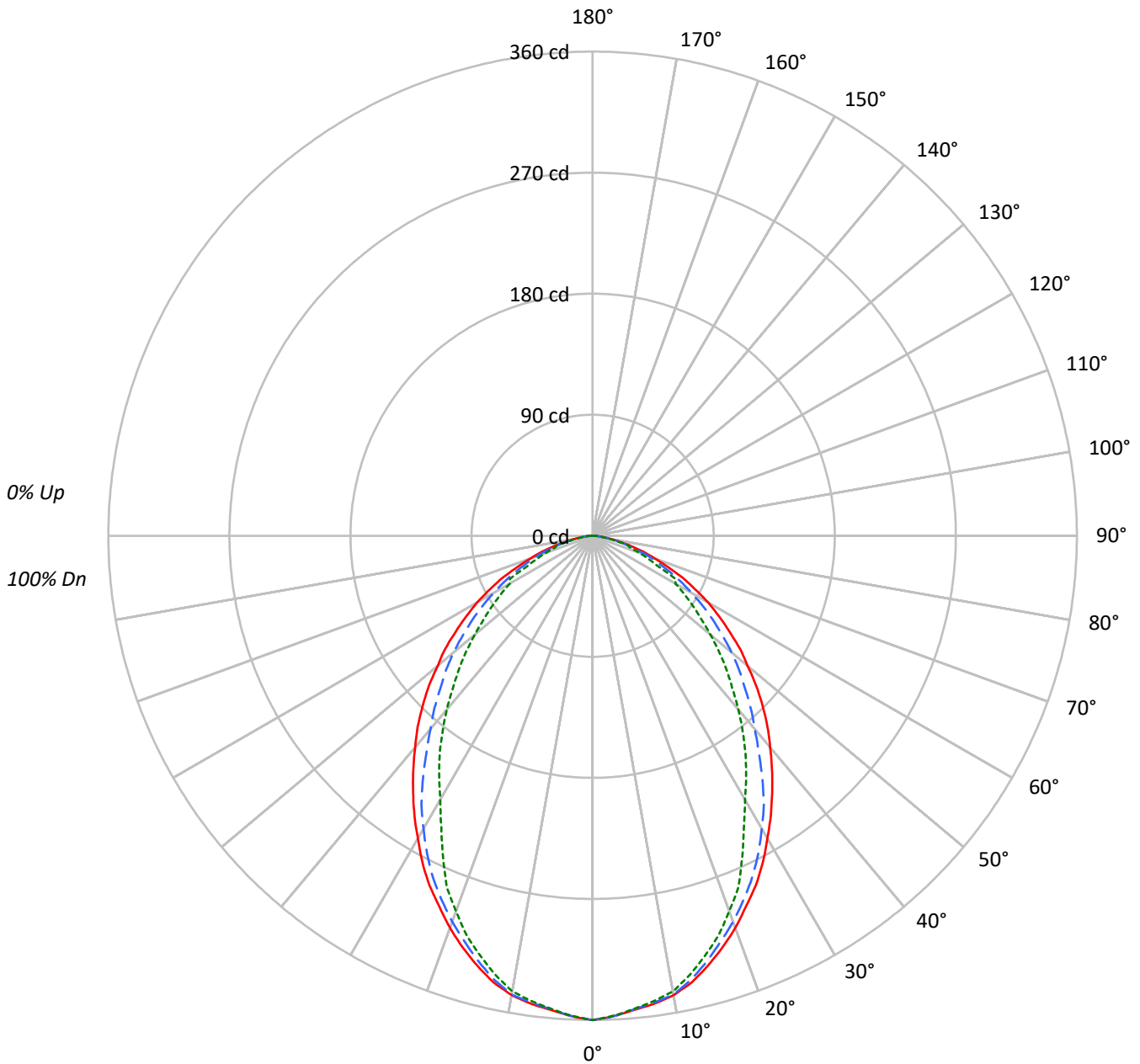
Lumens per Lamp: N/A
Luminaire Lumens: 707.0 lumens
Efficiency: N/A
Efficacy: 65.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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°	3876	3876	3876
5°	3824	3820	3815
10°	3791	3786	3759
15°	3689	3652	3601
20°	3553	3496	3401
25°	3407	3333	3125
30°	3229	3126	2815
35°	3058	2888	2604
40°	2885	2633	2369
45°	2719	2434	2142
50°	2517	2259	1911
55°	2329	2047	1711
60°	2133	1828	1533
65°	1877	1602	1358
70°	1545	1400	1152
75°	1231	1073	1127
80°	824	775	725
85°	519	618	716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.5	4.7
10°-20°	92.0	13.0
20°-30°	127.4	18.0
30°-40°	135.8	19.2
40°-50°	123.9	17.5
50°-60°	97.1	13.7
60°-70°	63.3	8.9
70°-80°	28.0	4.0
80°-90°	6.0	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°	252.9	35.8
0°-40°	388.7	55.0
0°-60°	609.7	86.2
0°-90°	707.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	707.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	360	360	360	360	360	
5°	354	354	354	353	353	34
15°	331	331	328	324	323	93
25°	287	285	281	271	263	132
35°	233	231	220	203	198	146
45°	179	175	160	147	141	138
55°	124	120	109	96	91	111
65°	74	70	63	64	53	73
75°	30	28	26	25	27	32
85°	4	5	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	360.1	360.1	360.1	360.1	360.1
2.5°	357.6	357.6	357.6	357.2	357.2
5°	353.9	353.5	353.5	353.1	353.1
7.5°	351.0	350.6	350.1	349.7	348.9
10°	346.8	346.8	346.4	344.3	343.9
12.5°	340.2	339.7	338.1	335.2	334.3
15°	331.0	331.0	327.7	324.3	323.1
17.5°	321.0	320.6	316.4	313.1	311.4
20°	310.2	309.3	305.2	299.8	296.9
22.5°	298.1	298.1	293.1	286.0	283.1
25°	286.9	285.2	280.6	270.6	263.1
27.5°	274.0	271.5	266.5	252.3	243.6
30°	259.8	258.5	251.5	233.2	226.5
32.5°	246.5	244.4	236.9	217.7	212.3
35°	232.7	231.1	219.8	203.2	198.2
37.5°	219.0	216.9	202.8	189.4	183.2
40°	205.3	202.8	187.4	175.3	168.6
42.5°	192.4	189.0	174.0	161.1	153.6
45°	178.6	174.9	159.9	146.6	140.7
47.5°	164.9	161.5	147.8	134.1	127.4
50°	150.3	147.4	134.9	121.2	114.1
52.5°	138.2	133.6	121.6	107.8	102.0
55°	124.1	120.3	109.1	96.2	91.2
57.5°	111.2	107.4	97.0	84.9	80.8
60°	99.1	93.7	84.9	74.5	71.2
62.5°	85.8	81.6	74.1	65.4	69.5
65°	73.7	69.5	62.9	64.1	53.3
67.5°	60.4	58.3	52.5	46.6	45.0
70°	49.1	46.6	44.5	38.3	36.6
72.5°	39.1	36.6	33.7	30.4	29.1
75°	29.6	27.5	25.8	24.6	27.1
77.5°	20.4	19.6	18.3	17.1	16.7
80°	13.3	12.9	12.5	12.1	11.7
82.5°	7.9	7.9	7.9	7.9	7.9
85°	4.2	4.6	5.0	5.4	5.8
87.5°	2.5	2.5	2.9	3.3	3.7
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)