

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: P545142

Luminaire Tested: **FMR-12-1-LD4-2LO-50-UNV-93-97-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: P545142
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-LD4-2LO-50-UNV-93-97-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

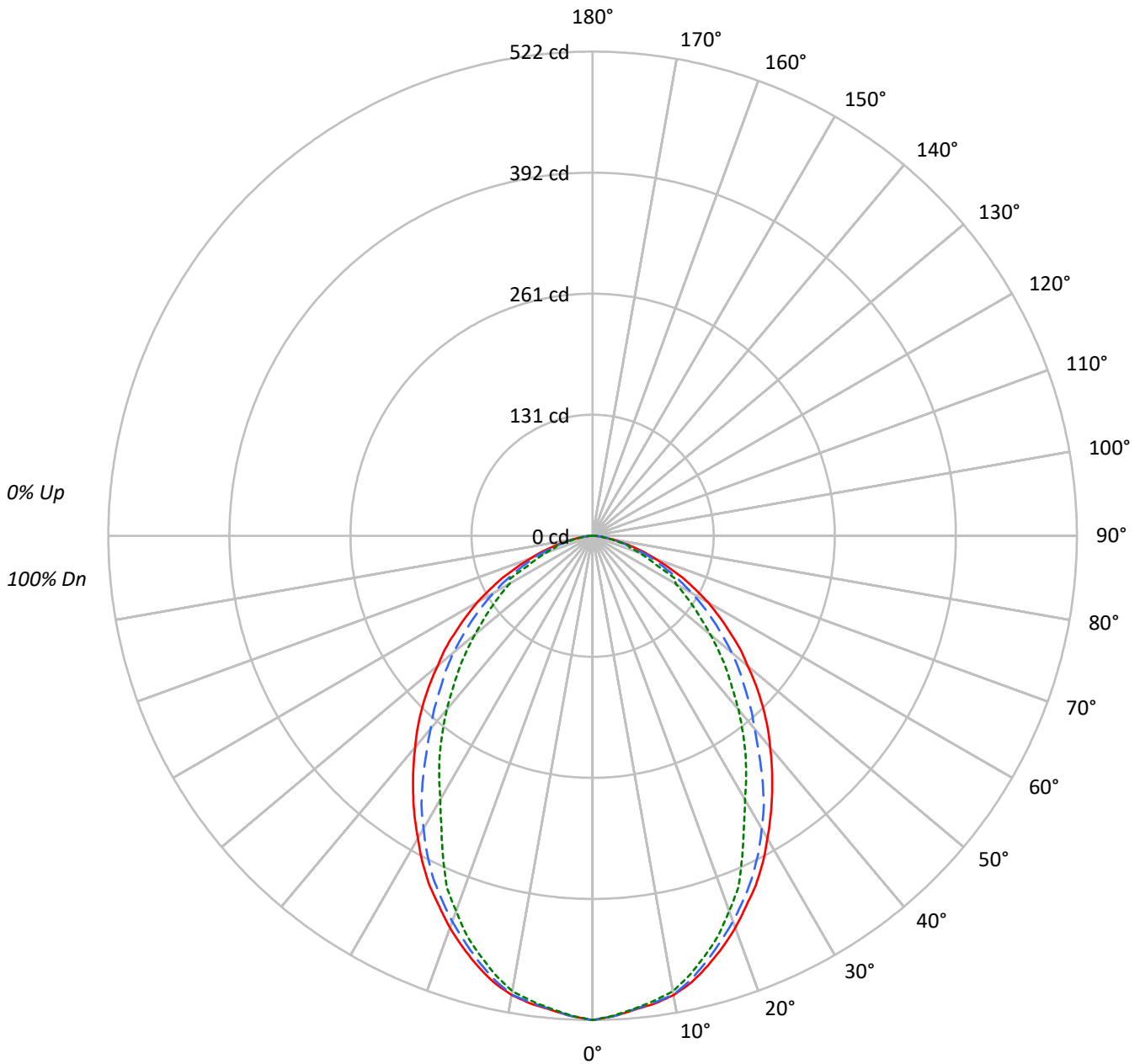
Lumens per Lamp: N/A
Luminaire Lumens: 1025.0 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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				20				
RC	80				70				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°	5620	5620	5620
5°	5544	5538	5531
10°	5496	5489	5450
15°	5348	5293	5220
20°	5151	5068	4930
25°	4940	4831	4531
30°	4682	4532	4082
35°	4434	4188	3775
40°	4182	3816	3436
45°	3941	3529	3105
50°	3649	3275	2770
55°	3376	2967	2481
60°	3094	2650	2222
65°	2720	2320	1969
70°	2241	2033	1671
75°	1784	1555	1630
80°	1196	1122	1048
85°	741	889	1050



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.6	4.7
10°-20°	133.4	13.0
20°-30°	184.7	18.0
30°-40°	196.9	19.2
40°-50°	179.6	17.5
50°-60°	140.7	13.7
60°-70°	91.7	8.9
70°-80°	40.6	4.0
80°-90°	8.7	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°	366.7	35.8
0°-40°	563.6	55.0
0°-60°	883.9	86.2
0°-90°	1025.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1025.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	522	522	522	522	522	
5°	513	512	512	512	512	49
15°	480	480	475	470	468	135
25°	416	414	407	392	382	191
35°	337	335	319	295	287	211
45°	259	254	232	212	204	199
55°	180	174	158	139	132	161
65°	107	101	91	93	77	105
75°	43	40	37	36	39	46
85°	6	7	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	522.1	522.1	522.1	522.1	522.1
2.5°	518.5	518.5	518.5	517.9	517.9
5°	513.1	512.5	512.5	511.9	511.9
7.5°	508.8	508.2	507.6	507.0	505.8
10°	502.8	502.8	502.2	499.2	498.6
12.5°	493.1	492.5	490.1	485.9	484.7
15°	479.9	479.9	475.0	470.2	468.4
17.5°	465.4	464.8	458.7	453.9	451.5
20°	449.7	448.5	442.4	434.6	430.4
22.5°	432.2	432.2	424.9	414.7	410.5
25°	415.9	413.5	406.8	392.3	381.5
27.5°	397.2	393.6	386.3	365.8	353.1
30°	376.7	374.8	364.6	338.0	328.4
32.5°	357.3	354.3	343.5	315.7	307.8
35°	337.4	335.0	318.7	294.6	287.3
37.5°	317.5	314.5	294.0	274.6	265.6
40°	297.6	294.0	271.6	254.1	244.5
42.5°	278.9	274.0	252.3	233.6	222.7
45°	258.9	253.5	231.8	212.5	204.0
47.5°	239.0	234.2	214.3	194.4	184.7
50°	217.9	213.7	195.6	175.7	165.4
52.5°	200.4	193.8	176.3	156.3	147.9
55°	179.9	174.4	158.1	139.4	132.2
57.5°	161.2	155.7	140.6	123.1	117.1
60°	143.7	135.8	123.1	108.0	103.2
62.5°	124.3	118.3	107.4	94.8	100.8
65°	106.8	100.8	91.1	93.0	77.3
67.5°	87.5	84.5	76.1	67.6	65.2
70°	71.2	67.6	64.6	55.5	53.1
72.5°	56.7	53.1	48.9	44.1	42.3
75°	42.9	39.8	37.4	35.6	39.2
77.5°	29.6	28.4	26.6	24.7	24.1
80°	19.3	18.7	18.1	17.5	16.9
82.5°	11.5	11.5	11.5	11.5	11.5
85°	6.0	6.6	7.2	7.8	8.5
87.5°	3.6	3.6	4.2	4.8	5.4
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)