

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: P545343

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-81-84-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: P545343
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-LD4-1LO-35-UNV-81-84-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

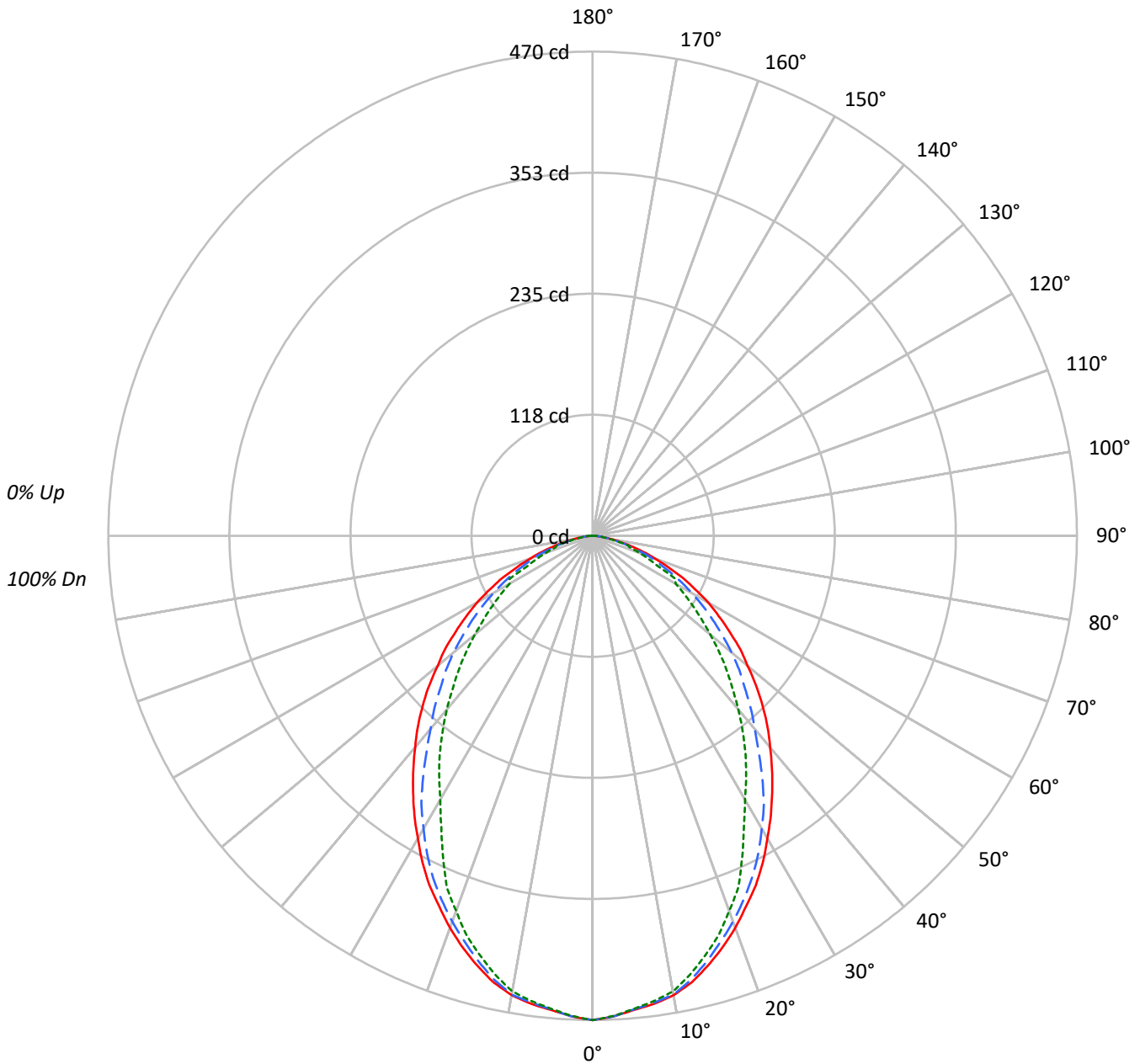
Lumens per Lamp: N/A
Luminaire Lumens: 923.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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				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	100	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2531	2531	2531
5°	2496	2493	2490
10°	2475	2471	2454
15°	2408	2384	2350
20°	2319	2282	2219
25°	2224	2175	2040
30°	2108	2040	1838
35°	1996	1886	1700
40°	1883	1718	1546
45°	1775	1588	1398
50°	1643	1474	1247
55°	1520	1336	1117
60°	1393	1194	1000
65°	1225	1046	886
70°	1009	916	752
75°	803	701	734
80°	539	505	471
85°	333	401	469



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	4.7
10°-20°	120.1	13.0
20°-30°	166.3	18.0
30°-40°	177.3	19.2
40°-50°	161.8	17.5
50°-60°	126.7	13.7
60°-70°	82.6	8.9
70°-80°	36.6	4.0
80°-90°	7.8	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°	330.2	35.8
0°-40°	507.5	55.0
0°-60°	796.0	86.2
0°-90°	923.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	923.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	470	470	470	470	470	
5°	462	462	462	461	461	44
15°	432	432	428	423	422	121
25°	374	372	366	353	344	172
35°	304	302	287	265	259	190
45°	233	228	209	191	184	180
55°	162	157	142	126	119	145
65°	96	91	82	84	70	95
75°	39	36	34	32	35	41
85°	5	6	6	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	470.2	470.2	470.2	470.2	470.2
2.5°	466.9	466.9	466.9	466.4	466.4
5°	462.0	461.5	461.5	460.9	460.9
7.5°	458.2	457.7	457.1	456.6	455.5
10°	452.8	452.8	452.2	449.5	449.0
12.5°	444.1	443.5	441.4	437.6	436.5
15°	432.1	432.1	427.8	423.4	421.8
17.5°	419.1	418.5	413.1	408.7	406.6
20°	404.9	403.9	398.4	391.4	387.5
22.5°	389.2	389.2	382.7	373.4	369.6
25°	374.5	372.3	366.3	353.3	343.5
27.5°	357.7	354.4	347.9	329.4	318.0
30°	339.2	337.5	328.3	304.4	295.7
32.5°	321.8	319.1	309.3	284.3	277.2
35°	303.8	301.7	287.0	265.2	258.7
37.5°	285.9	283.2	264.7	247.3	239.2
40°	268.0	264.7	244.6	228.8	220.1
42.5°	251.1	246.8	227.2	210.4	200.6
45°	233.2	228.3	208.7	191.3	183.7
47.5°	215.2	210.9	193.0	175.0	166.3
50°	196.2	192.4	176.1	158.2	148.9
52.5°	180.5	174.5	158.7	140.8	133.2
55°	162.0	157.1	142.4	125.6	119.0
57.5°	145.1	140.2	126.6	110.9	105.4
60°	129.4	122.3	110.9	97.3	92.9
62.5°	112.0	106.5	96.8	85.3	90.8
65°	96.2	90.8	82.1	83.7	69.6
67.5°	78.8	76.1	68.5	60.9	58.7
70°	64.1	60.9	58.2	50.0	47.8
72.5°	51.1	47.8	44.0	39.7	38.0
75°	38.6	35.9	33.7	32.1	35.3
77.5°	26.6	25.5	23.9	22.3	21.7
80°	17.4	16.8	16.3	15.8	15.2
82.5°	10.3	10.3	10.3	10.3	10.3
85°	5.4	6.0	6.5	7.1	7.6
87.5°	3.3	3.3	3.8	4.3	4.9
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)