

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: P545335

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-80-84-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: P545335
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-80-84-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

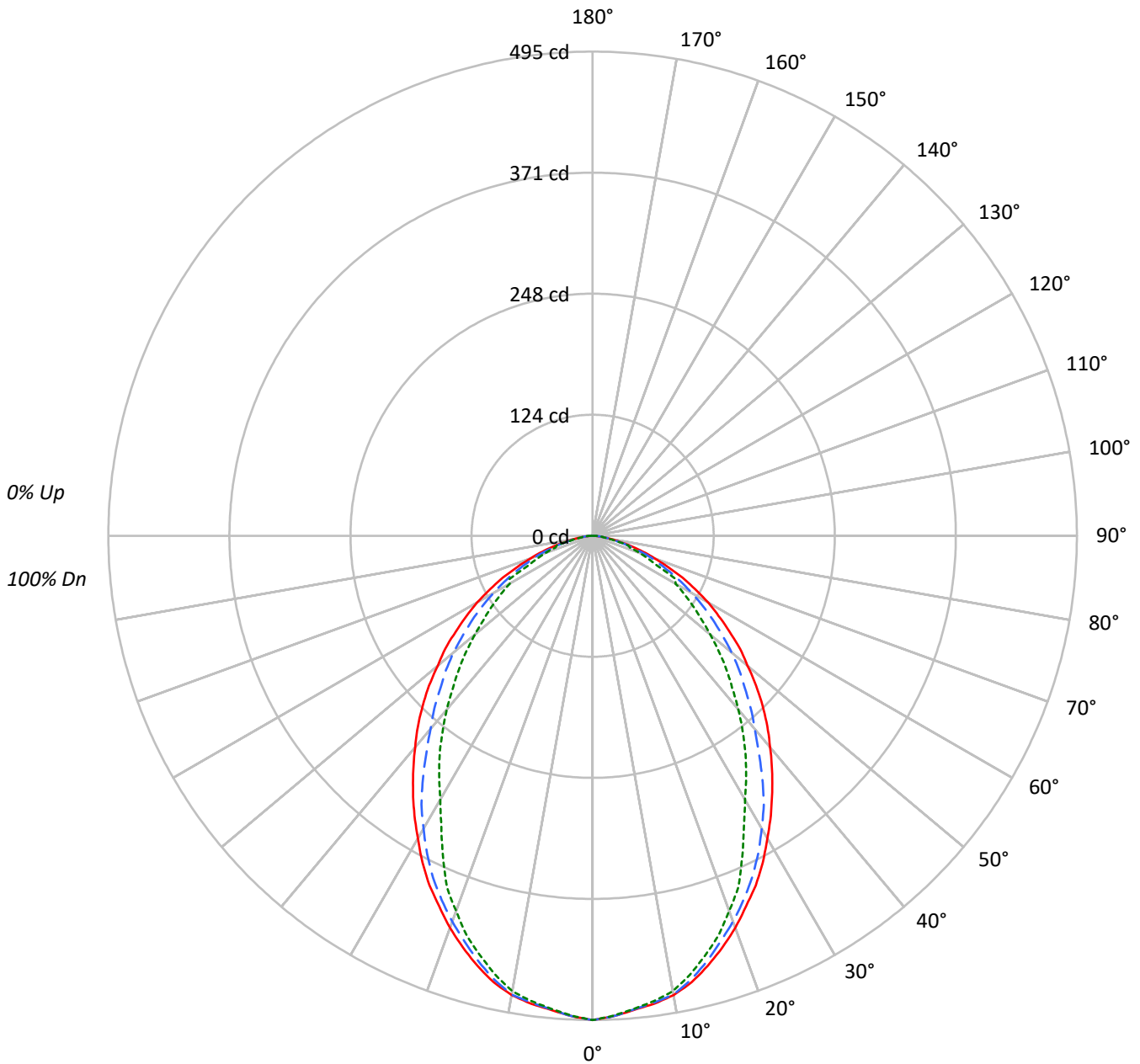
Lumens per Lamp: N/A
Luminaire Lumens: 972.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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									
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°	2665	2665	2665
5°	2628	2626	2622
10°	2606	2602	2584
15°	2536	2510	2475
20°	2442	2403	2337
25°	2342	2291	2148
30°	2220	2148	1935
35°	2102	1986	1790
40°	1983	1810	1629
45°	1869	1673	1473
50°	1730	1553	1313
55°	1601	1407	1177
60°	1466	1257	1054
65°	1290	1100	933
70°	1062	963	793
75°	844	738	774
80°	567	533	496
85°	352	426	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	4.7
10°-20°	126.5	13.0
20°-30°	175.1	18.0
30°-40°	186.7	19.2
40°-50°	170.4	17.5
50°-60°	133.5	13.7
60°-70°	87.0	8.9
70°-80°	38.5	4.0
80°-90°	8.3	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°	347.7	35.8
0°-40°	534.4	55.0
0°-60°	838.2	86.2
0°-90°	972.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	972.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	495	495	495	495	495	
5°	486	486	486	485	485	46
15°	455	455	450	446	444	128
25°	394	392	386	372	362	181
35°	320	318	302	279	272	200
45°	246	240	220	202	194	189
55°	171	165	150	132	125	153
65°	101	96	86	88	73	100
75°	41	38	36	34	37	44
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	495.1	495.1	495.1	495.1	495.1
2.5°	491.7	491.7	491.7	491.1	491.1
5°	486.5	486.0	486.0	485.4	485.4
7.5°	482.5	482.0	481.4	480.8	479.7
10°	476.8	476.8	476.2	473.4	472.8
12.5°	467.6	467.1	464.8	460.8	459.6
15°	455.1	455.1	450.5	445.9	444.2
17.5°	441.3	440.7	435.0	430.4	428.2
20°	426.4	425.3	419.6	412.1	408.1
22.5°	409.8	409.8	403.0	393.2	389.2
25°	394.4	392.1	385.8	372.1	361.8
27.5°	376.6	373.2	366.3	346.9	334.9
30°	357.2	355.5	345.7	320.5	311.4
32.5°	338.9	336.0	325.7	299.4	291.9
35°	320.0	317.7	302.2	279.3	272.5
37.5°	301.1	298.2	278.8	260.4	251.9
40°	282.2	278.8	257.6	241.0	231.8
42.5°	264.4	259.9	239.3	221.5	211.2
45°	245.6	240.4	219.8	201.5	193.5
47.5°	226.7	222.1	203.2	184.3	175.2
50°	206.6	202.6	185.5	166.6	156.8
52.5°	190.0	183.7	167.1	148.3	140.2
55°	170.6	165.4	150.0	132.2	125.4
57.5°	152.8	147.7	133.4	116.8	111.0
60°	136.2	128.8	116.8	102.5	97.9
62.5°	117.9	112.2	101.9	89.9	95.6
65°	101.3	95.6	86.4	88.1	73.3
67.5°	83.0	80.1	72.1	64.1	61.8
70°	67.5	64.1	61.2	52.7	50.4
72.5°	53.8	50.4	46.4	41.8	40.1
75°	40.6	37.8	35.5	33.8	37.2
77.5°	28.0	26.9	25.2	23.5	22.9
80°	18.3	17.7	17.2	16.6	16.0
82.5°	10.9	10.9	10.9	10.9	10.9
85°	5.7	6.3	6.9	7.4	8.0
87.5°	3.4	3.4	4.0	4.6	5.2
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)