

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: P545048

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-80-85-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: P545048
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-35-UNV-80-85-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

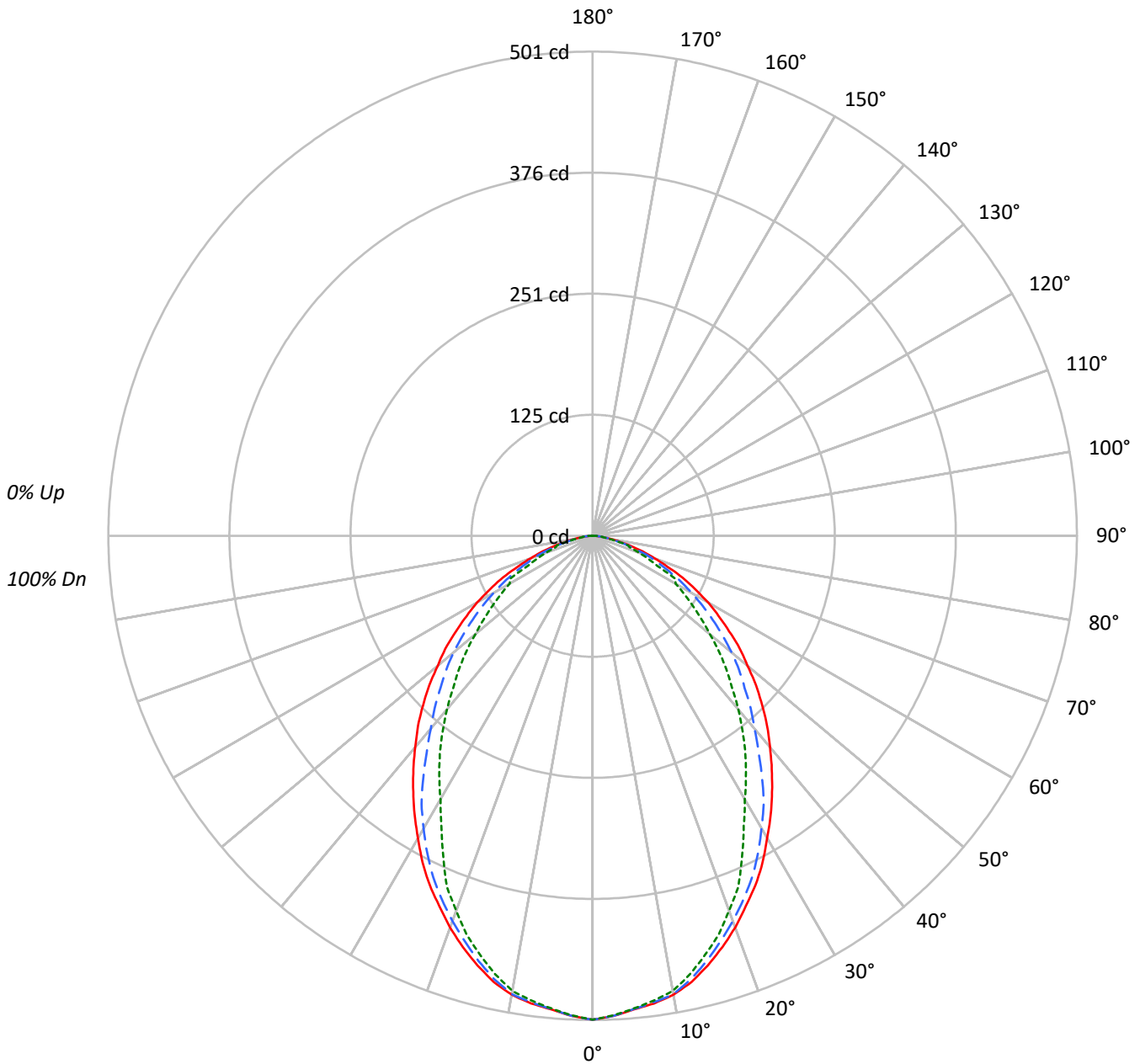
Lumens per Lamp: N/A
Luminaire Lumens: 983.0 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (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°	5389	5389	5389
5°	5316	5311	5304
10°	5270	5264	5227
15°	5128	5077	5006
20°	4940	4860	4727
25°	4736	4634	4344
30°	4489	4345	3914
35°	4252	4016	3620
40°	4010	3660	3294
45°	3780	3384	2979
50°	3500	3141	2656
55°	3237	2847	2380
60°	2967	2542	2131
65°	2611	2226	1887
70°	2150	1948	1602
75°	1709	1493	1564
80°	1147	1079	1004
85°	716	852	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.6	4.7
10°-20°	127.9	13.0
20°-30°	177.1	18.0
30°-40°	188.8	19.2
40°-50°	172.3	17.5
50°-60°	135.0	13.7
60°-70°	88.0	8.9
70°-80°	39.0	4.0
80°-90°	8.4	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°	351.6	35.8
0°-40°	540.5	55.0
0°-60°	847.7	86.2
0°-90°	983.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	983.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	501	501	501	501	501	
5°	492	492	492	491	491	47
15°	460	460	456	451	449	129
25°	399	396	390	376	366	183
35°	324	321	306	282	276	202
45°	248	243	222	204	196	191
55°	172	167	152	134	127	155
65°	102	97	87	89	74	101
75°	41	38	36	34	38	44
85°	6	6	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°	500.7	500.7	500.7	500.7	500.7
2.5°	497.3	497.3	497.3	496.7	496.7
5°	492.0	491.5	491.5	490.9	490.9
7.5°	488.0	487.4	486.8	486.3	485.1
10°	482.2	482.2	481.6	478.7	478.2
12.5°	472.9	472.4	470.0	466.0	464.8
15°	460.2	460.2	455.6	450.9	449.2
17.5°	446.3	445.7	439.9	435.3	433.0
20°	431.3	430.1	424.3	416.8	412.7
22.5°	414.5	414.5	407.5	397.7	393.6
25°	398.8	396.5	390.2	376.3	365.8
27.5°	380.9	377.4	370.5	350.8	338.6
30°	361.2	359.5	349.6	324.2	314.9
32.5°	342.7	339.8	329.4	302.8	295.2
35°	323.6	321.3	305.6	282.5	275.5
37.5°	304.5	301.6	281.9	263.4	254.7
40°	285.4	281.9	260.5	243.7	234.4
42.5°	267.4	262.8	242.0	224.0	213.6
45°	248.3	243.1	222.3	203.8	195.7
47.5°	229.2	224.6	205.5	186.4	177.1
50°	209.0	204.9	187.6	168.5	158.6
52.5°	192.2	185.8	169.0	149.9	141.8
55°	172.5	167.3	151.7	133.7	126.8
57.5°	154.6	149.3	134.9	118.1	112.3
60°	137.8	130.2	118.1	103.6	99.0
62.5°	119.2	113.5	103.0	90.9	96.7
65°	102.5	96.7	87.4	89.1	74.1
67.5°	83.9	81.0	72.9	64.8	62.5
70°	68.3	64.8	61.9	53.3	50.9
72.5°	54.4	50.9	46.9	42.3	40.5
75°	41.1	38.2	35.9	34.2	37.6
77.5°	28.4	27.2	25.5	23.7	23.2
80°	18.5	17.9	17.4	16.8	16.2
82.5°	11.0	11.0	11.0	11.0	11.0
85°	5.8	6.4	6.9	7.5	8.1
87.5°	3.5	3.5	4.1	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)