

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: P544664

Luminaire Tested: **FMR-12-1-LD4-1HI-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: P544664
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-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

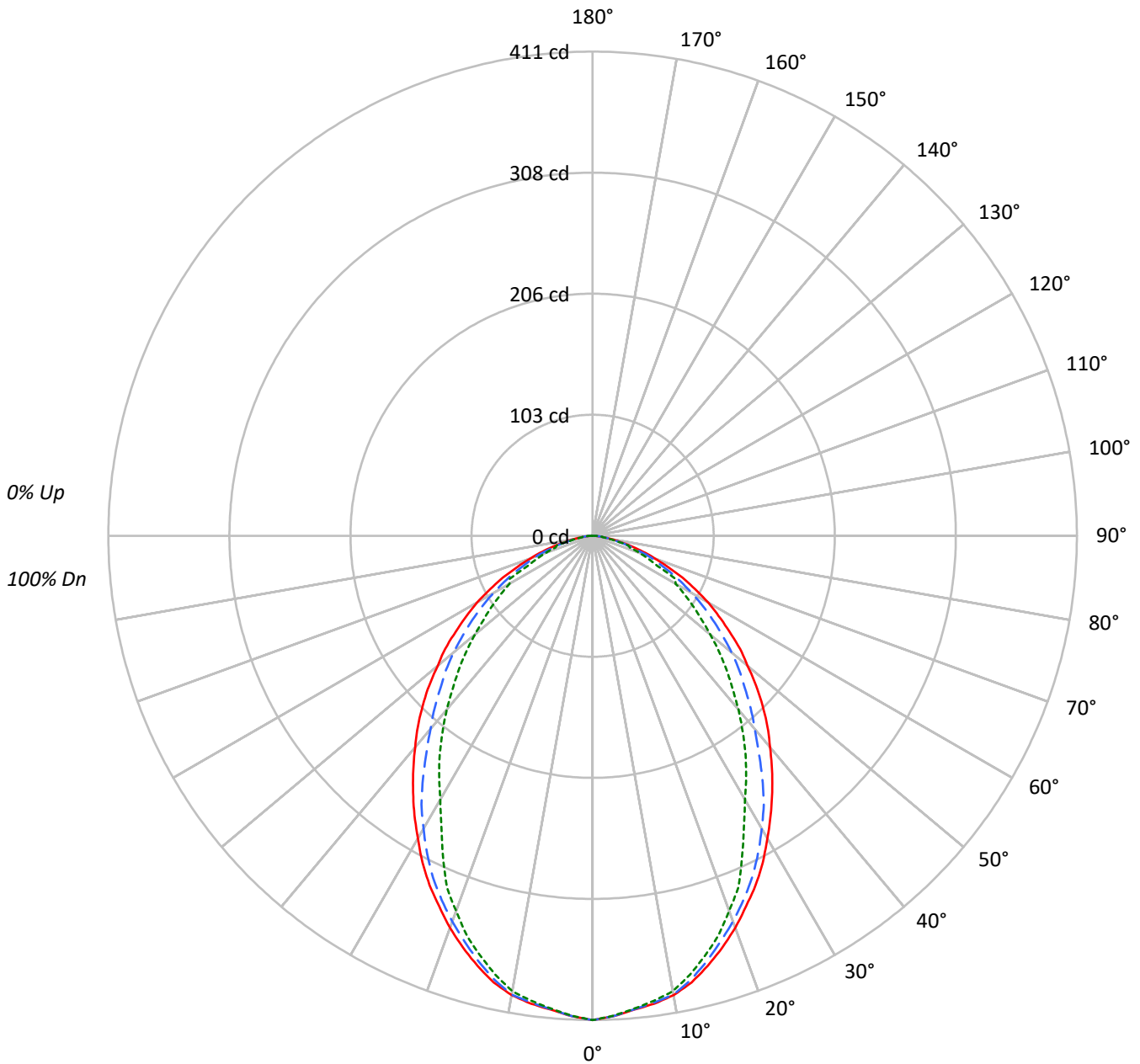
Lumens per Lamp: N/A
Luminaire Lumens: 807.0 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
Input Voltage (V): NR
Input Current (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°	4425	4425	4425
5°	4364	4360	4354
10°	4327	4322	4290
15°	4210	4168	4110
20°	4055	3990	3881
25°	3888	3804	3567
30°	3685	3567	3213
35°	3491	3297	2972
40°	3292	3006	2705
45°	3104	2778	2445
50°	2874	2579	2180
55°	2657	2336	1954
60°	2435	2086	1750
65°	2142	1829	1549
70°	1766	1599	1316
75°	1402	1227	1285
80°	942	886	824
85°	593	704	827



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.3	4.7
10°-20°	105.0	13.0
20°-30°	145.4	18.0
30°-40°	155.0	19.2
40°-50°	141.4	17.5
50°-60°	110.8	13.7
60°-70°	72.2	8.9
70°-80°	32.0	4.0
80°-90°	6.9	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°	288.7	35.8
0°-40°	443.7	55.0
0°-60°	695.9	86.2
0°-90°	807.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	807.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	411	411	411	411	411	
5°	404	404	404	403	403	38
15°	378	378	374	370	369	106
25°	327	326	320	309	300	150
35°	266	264	251	232	226	166
45°	204	200	182	167	161	157
55°	142	137	124	110	104	127
65°	84	79	72	73	61	83
75°	34	31	30	28	31	36
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	411.1	411.1	411.1	411.1	411.1
2.5°	408.2	408.2	408.2	407.7	407.7
5°	403.9	403.5	403.5	403.0	403.0
7.5°	400.6	400.1	399.7	399.2	398.2
10°	395.9	395.9	395.4	393.0	392.5
12.5°	388.3	387.8	385.9	382.6	381.6
15°	377.8	377.8	374.0	370.2	368.8
17.5°	366.4	365.9	361.2	357.4	355.5
20°	354.0	353.1	348.3	342.2	338.8
22.5°	340.3	340.3	334.6	326.5	323.2
25°	327.4	325.5	320.3	308.9	300.3
27.5°	312.7	309.9	304.1	288.0	278.0
30°	296.5	295.1	287.0	266.1	258.5
32.5°	281.3	279.0	270.4	248.5	242.4
35°	265.7	263.8	250.9	231.9	226.2
37.5°	250.0	247.6	231.4	216.2	209.1
40°	234.3	231.4	213.9	200.1	192.5
42.5°	219.6	215.8	198.6	183.9	175.4
45°	203.9	199.6	182.5	167.3	160.6
47.5°	188.2	184.4	168.7	153.0	145.4
50°	171.6	168.2	154.0	138.3	130.2
52.5°	157.8	152.5	138.8	123.1	116.4
55°	141.6	137.3	124.5	109.8	104.1
57.5°	126.9	122.6	110.7	96.9	92.2
60°	113.1	106.9	96.9	85.1	81.3
62.5°	97.9	93.1	84.6	74.6	79.4
65°	84.1	79.4	71.8	73.2	60.8
67.5°	68.9	66.5	59.9	53.2	51.3
70°	56.1	53.2	50.8	43.7	41.8
72.5°	44.7	41.8	38.5	34.7	33.3
75°	33.7	31.4	29.5	28.0	30.9
77.5°	23.3	22.3	20.9	19.5	19.0
80°	15.2	14.7	14.3	13.8	13.3
82.5°	9.0	9.0	9.0	9.0	9.0
85°	4.8	5.2	5.7	6.2	6.7
87.5°	2.9	2.9	3.3	3.8	4.3
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)