

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: P545143

Luminaire Tested: **FMR-12-1-LD4-2STD-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: P545143
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-LD4-2STD-35-UNV-80-84-EDD
Description: 1X1 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

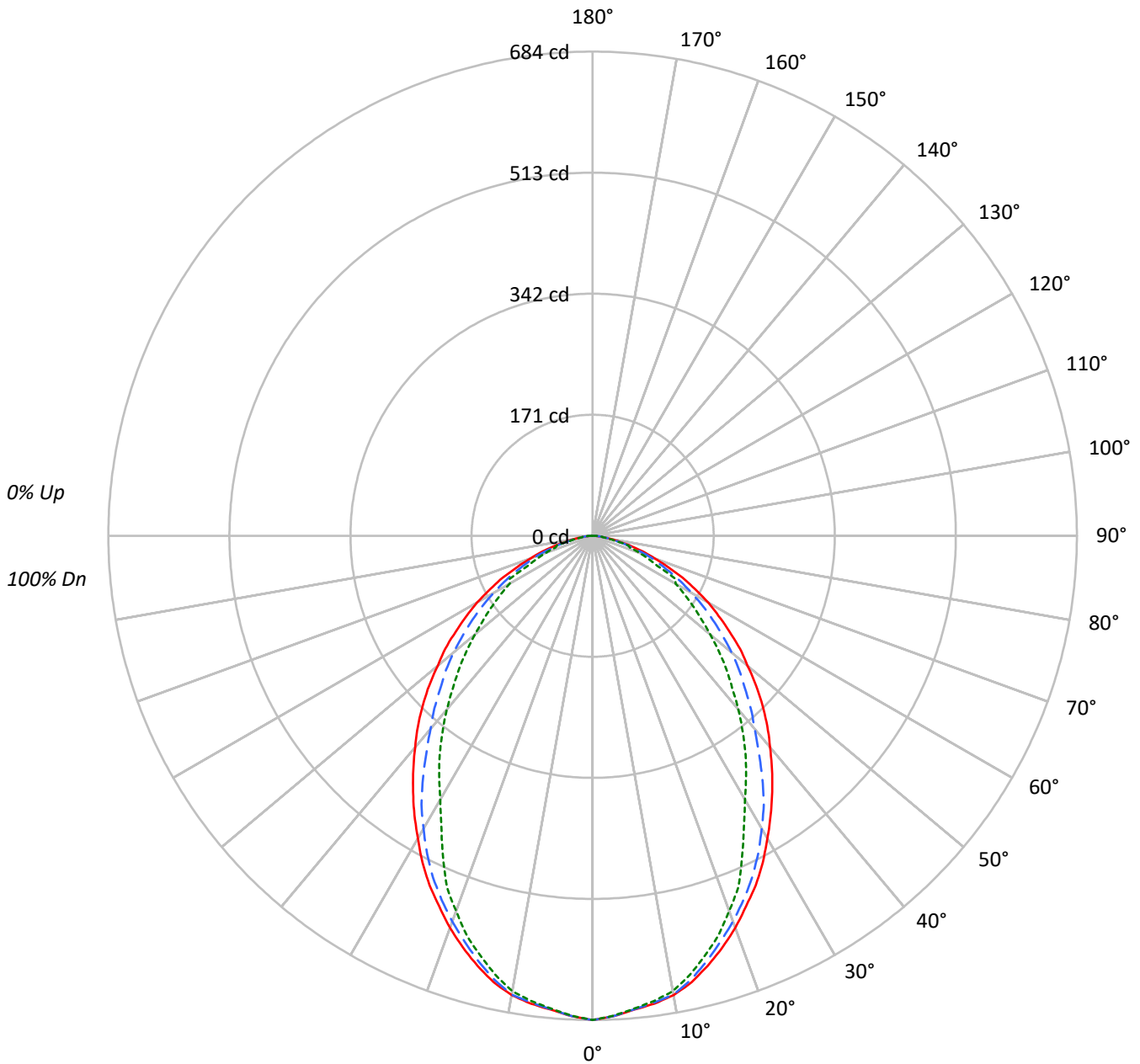
Lumens per Lamp: N/A
Luminaire Lumens: 1343.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	7364	7364	7364
5°	7263	7256	7247
10°	7201	7192	7141
15°	7006	6936	6839
20°	6749	6640	6459
25°	6472	6330	5936
30°	6134	5937	5347
35°	5809	5487	4947
40°	5479	5001	4501
45°	5165	4623	4069
50°	4781	4290	3629
55°	4423	3888	3250
60°	4052	3472	2911
65°	3566	3041	2578
70°	2936	2662	2190
75°	2337	2038	2138
80°	1568	1469	1370
85°	976	1173	1371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.7	4.7
10°-20°	174.8	13.0
20°-30°	242.0	18.0
30°-40°	258.0	19.2
40°-50°	235.4	17.5
50°-60°	184.4	13.7
60°-70°	120.2	8.9
70°-80°	53.2	4.0
80°-90°	11.4	0.8
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°	480.4	35.8
0°-40°	738.4	55.0
0°-60°	1158.2	86.2
0°-90°	1343.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1343.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	684	684	684	684	684	
5°	672	672	672	671	671	64
15°	629	629	622	616	614	177
25°	545	542	533	514	500	250
35°	442	439	418	386	376	276
45°	339	332	304	278	267	261
55°	236	229	207	183	173	211
65°	140	132	119	122	101	138
75°	56	52	49	47	51	60
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	684.1	684.1	684.1	684.1	684.1
2.5°	679.4	679.4	679.4	678.6	678.6
5°	672.2	671.5	671.5	670.7	670.7
7.5°	666.7	665.9	665.1	664.3	662.8
10°	658.8	658.8	658.0	654.1	653.3
12.5°	646.1	645.4	642.2	636.7	635.1
15°	628.7	628.7	622.4	616.1	613.7
17.5°	609.8	609.0	601.1	594.7	591.6
20°	589.2	587.6	579.7	569.4	563.9
22.5°	566.3	566.3	556.8	543.3	537.8
25°	544.9	541.7	533.0	514.1	499.8
27.5°	520.4	515.7	506.2	479.3	462.7
30°	493.5	491.1	477.7	442.9	430.2
32.5°	468.2	464.2	450.0	413.6	403.3
35°	442.1	438.9	417.6	385.9	376.5
37.5°	416.0	412.0	385.2	359.8	348.0
40°	389.9	385.2	355.9	333.0	320.3
42.5°	365.4	359.1	330.6	306.1	291.8
45°	339.3	332.2	303.7	278.4	267.3
47.5°	313.2	306.9	280.8	254.7	242.0
50°	285.5	280.0	256.2	230.1	216.7
52.5°	262.6	253.9	230.9	204.8	193.8
55°	235.7	228.6	207.2	182.7	173.2
57.5°	211.2	204.0	184.3	161.3	153.4
60°	188.2	177.9	161.3	141.6	135.2
62.5°	162.9	155.0	140.8	124.2	132.1
65°	140.0	132.1	119.4	121.8	101.2
67.5°	114.7	110.7	99.7	88.6	85.4
70°	93.3	88.6	84.6	72.8	69.6
72.5°	74.3	69.6	64.1	57.7	55.4
75°	56.2	52.2	49.0	46.7	51.4
77.5°	38.8	37.2	34.8	32.4	31.6
80°	25.3	24.5	23.7	22.9	22.1
82.5°	15.0	15.0	15.0	15.0	15.0
85°	7.9	8.7	9.5	10.3	11.1
87.5°	4.7	4.7	5.5	6.3	7.1
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)