

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: P544695

Luminaire Tested: **FMR-12-1-LD4-1HI-40-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: P544695
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

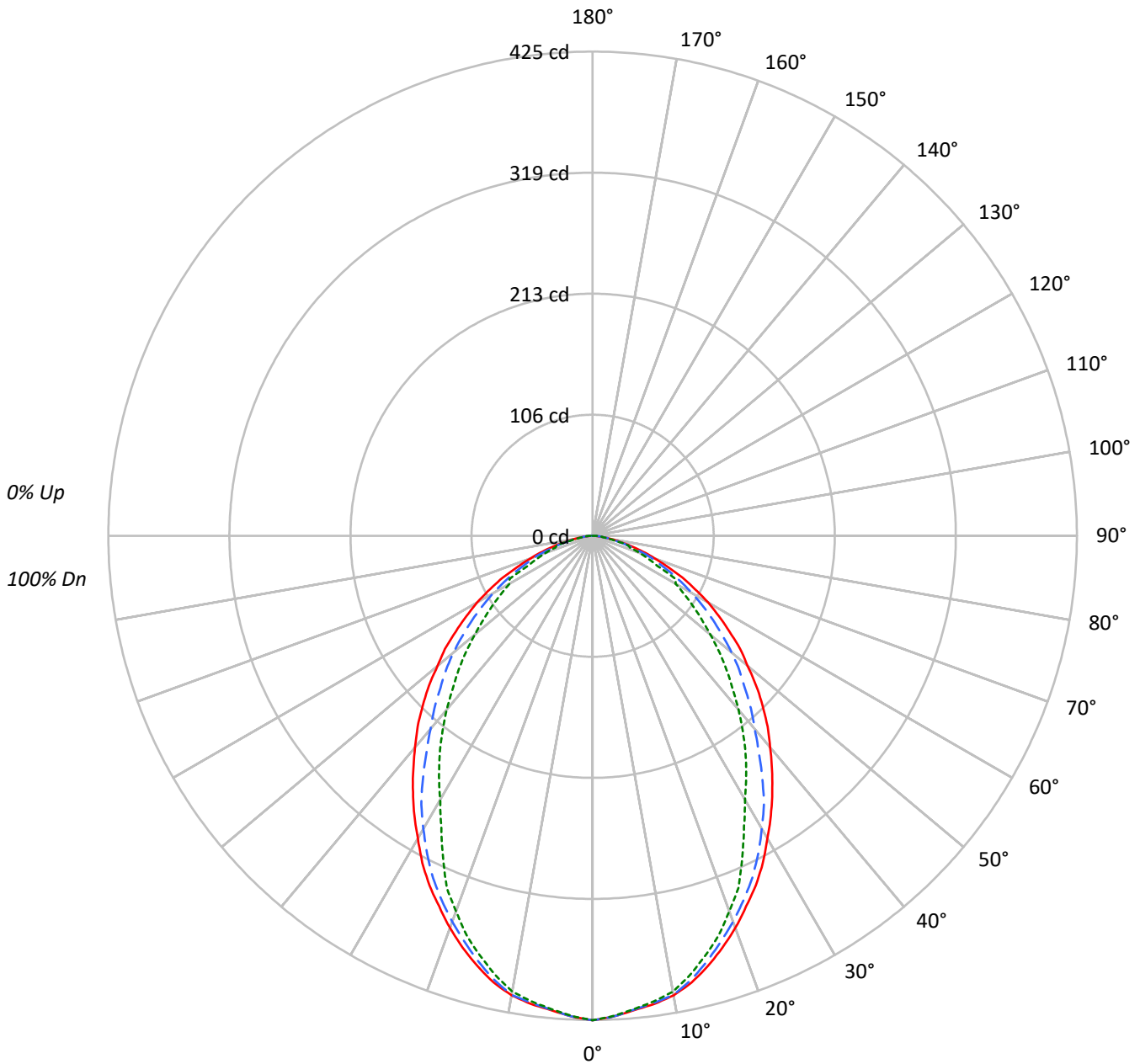
Lumens per Lamp: N/A
Luminaire Lumens: 835.0 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	4578	4578	4578
5°	4517	4511	4506
10°	4477	4471	4440
15°	4356	4313	4252
20°	4196	4128	4016
25°	4024	3936	3691
30°	3813	3691	3325
35°	3612	3411	3076
40°	3406	3110	2798
45°	3210	2874	2530
50°	2972	2668	2256
55°	2749	2417	2021
60°	2519	2159	1810
65°	2216	1890	1602
70°	1825	1655	1363
75°	1451	1268	1331
80°	973	917	855
85°	605	729	852



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.6	4.7
10°-20°	108.7	13.0
20°-30°	150.4	18.0
30°-40°	160.4	19.2
40°-50°	146.3	17.5
50°-60°	114.6	13.7
60°-70°	74.7	8.9
70°-80°	33.1	4.0
80°-90°	7.1	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°	298.7	35.8
0°-40°	459.1	55.0
0°-60°	720.1	86.2
0°-90°	835.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	835.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	425	425	425	425	425	
5°	418	418	418	417	417	40
15°	391	391	387	383	382	110
25°	339	337	331	320	311	156
35°	275	273	260	240	234	172
45°	211	206	189	173	166	162
55°	146	142	129	114	108	131
65°	87	82	74	76	63	86
75°	35	32	30	29	32	37
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°	425.3	425.3	425.3	425.3	425.3
2.5°	422.4	422.4	422.4	421.9	421.9
5°	418.0	417.5	417.5	417.0	417.0
7.5°	414.5	414.0	413.5	413.0	412.1
10°	409.6	409.6	409.1	406.7	406.2
12.5°	401.7	401.2	399.3	395.8	394.9
15°	390.9	390.9	387.0	383.0	381.6
17.5°	379.1	378.6	373.7	369.8	367.8
20°	366.3	365.3	360.4	354.0	350.6
22.5°	352.1	352.1	346.2	337.8	334.4
25°	338.8	336.8	331.4	319.6	310.8
27.5°	323.6	320.6	314.7	298.0	287.7
30°	306.8	305.4	297.0	275.4	267.5
32.5°	291.1	288.6	279.8	257.2	250.8
35°	274.9	272.9	259.6	240.0	234.1
37.5°	258.6	256.2	239.5	223.7	216.4
40°	242.4	239.5	221.3	207.0	199.1
42.5°	227.2	223.2	205.5	190.3	181.4
45°	210.9	206.5	188.8	173.1	166.2
47.5°	194.7	190.8	174.6	158.3	150.5
50°	177.5	174.1	159.3	143.1	134.7
52.5°	163.3	157.8	143.6	127.4	120.5
55°	146.5	142.1	128.8	113.6	107.7
57.5°	131.3	126.9	114.6	100.3	95.4
60°	117.0	110.6	100.3	88.0	84.1
62.5°	101.3	96.4	87.5	77.2	82.1
65°	87.0	82.1	74.2	75.7	62.9
67.5°	71.3	68.8	62.0	55.1	53.1
70°	58.0	55.1	52.6	45.2	43.3
72.5°	46.2	43.3	39.8	35.9	34.4
75°	34.9	32.5	30.5	29.0	32.0
77.5°	24.1	23.1	21.6	20.2	19.7
80°	15.7	15.2	14.8	14.3	13.8
82.5°	9.3	9.3	9.3	9.3	9.3
85°	4.9	5.4	5.9	6.4	6.9
87.5°	3.0	3.0	3.4	3.9	4.4
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)