

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: P545136

Luminaire Tested: **FMR-12-1-LD4-2LO-50-UNV-93-85-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: P545136
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-50-UNV-93-85-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

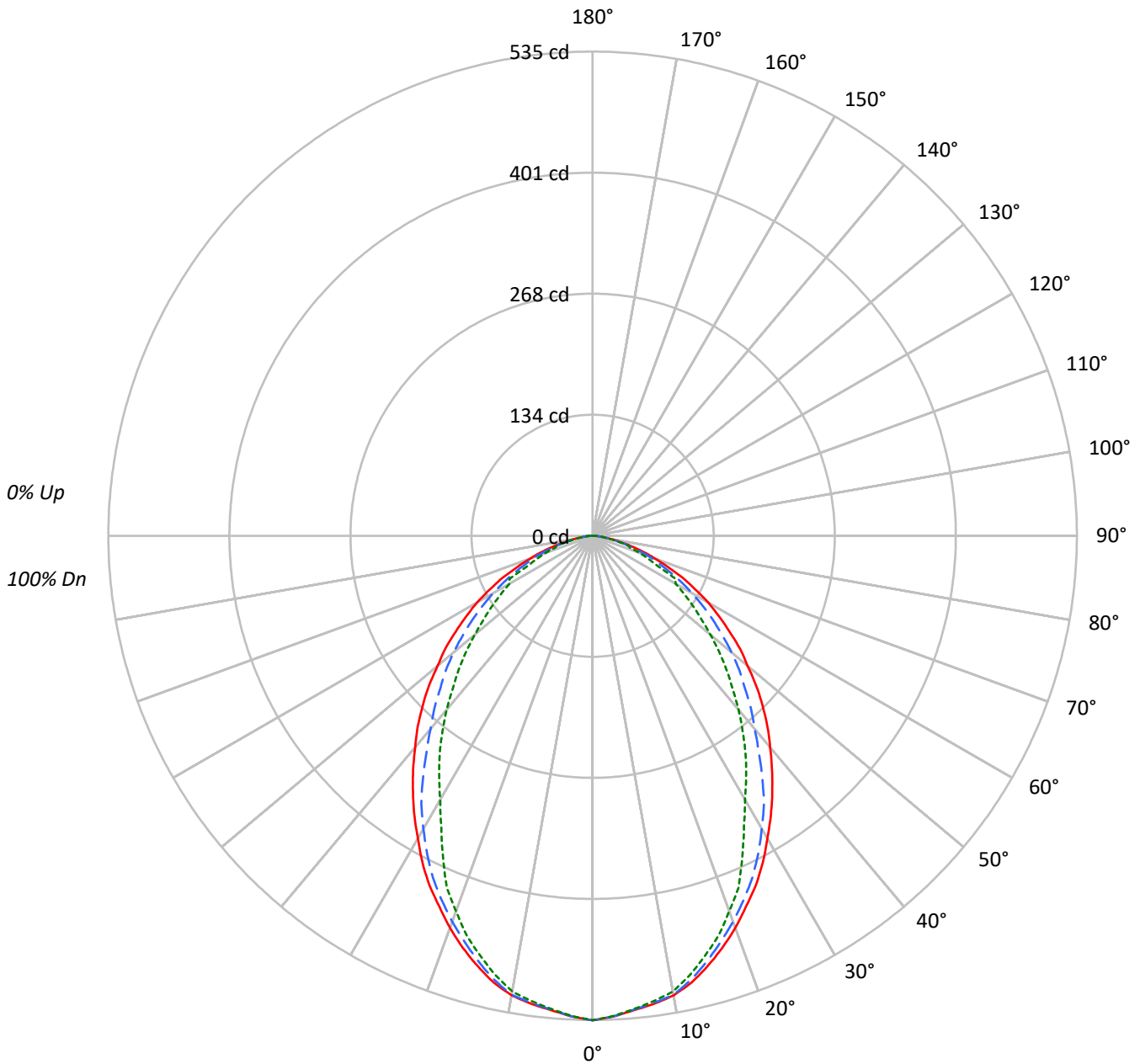
Lumens per Lamp: N/A
Luminaire Lumens: 1051.0 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	5763	5763	5763
5°	5685	5678	5670
10°	5635	5628	5587
15°	5483	5428	5352
20°	5282	5197	5055
25°	5064	4955	4646
30°	4800	4646	4185
35°	4547	4294	3871
40°	4287	3913	3523
45°	4042	3618	3185
50°	3741	3358	2840
55°	3461	3044	2543
60°	3171	2719	2278
65°	2789	2381	2017
70°	2297	2083	1715
75°	1826	1597	1672
80°	1227	1153	1072
85°	766	914	1074



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.8	4.7
10°-20°	136.8	13.0
20°-30°	189.3	18.0
30°-40°	201.9	19.2
40°-50°	184.2	17.5
50°-60°	144.3	13.7
60°-70°	94.0	8.9
70°-80°	41.7	4.0
80°-90°	9.0	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°	376.0	35.8
0°-40°	577.9	55.0
0°-60°	906.3	86.2
0°-90°	1051.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1051.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	535	535	535	535	535	
5°	526	526	526	525	525	50
15°	492	492	487	482	480	138
25°	426	424	417	402	391	196
35°	346	344	327	302	295	216
45°	266	260	238	218	209	205
55°	184	179	162	143	136	165
65°	110	103	94	95	79	108
75°	44	41	38	36	40	47
85°	6	7	7	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	535.4	535.4	535.4	535.4	535.4
2.5°	531.7	531.7	531.7	531.0	531.0
5°	526.1	525.5	525.5	524.8	524.8
7.5°	521.7	521.1	520.5	519.9	518.7
10°	515.6	515.6	514.9	511.8	511.2
12.5°	505.7	505.0	502.6	498.2	497.0
15°	492.0	492.0	487.1	482.1	480.3
17.5°	477.2	476.6	470.4	465.4	463.0
20°	461.1	459.9	453.7	445.6	441.3
22.5°	443.1	443.1	435.7	425.2	420.9
25°	426.4	424.0	417.2	402.3	391.2
27.5°	407.2	403.5	396.1	375.1	362.1
30°	386.2	384.3	373.8	346.6	336.7
32.5°	366.4	363.3	352.2	323.7	315.6
35°	346.0	343.5	326.8	302.0	294.6
37.5°	325.6	322.5	301.4	281.6	272.3
40°	305.1	301.4	278.5	260.6	250.7
42.5°	285.9	281.0	258.7	239.5	228.4
45°	265.5	259.9	237.7	217.9	209.2
47.5°	245.1	240.1	219.7	199.3	189.4
50°	223.4	219.1	200.5	180.1	169.6
52.5°	205.5	198.7	180.7	160.3	151.6
55°	184.4	178.9	162.2	143.0	135.5
57.5°	165.3	159.7	144.2	126.3	120.1
60°	147.3	139.3	126.3	110.8	105.8
62.5°	127.5	121.3	110.2	97.2	103.4
65°	109.5	103.4	93.5	95.3	79.2
67.5°	89.7	86.6	78.0	69.3	66.8
70°	73.0	69.3	66.2	56.9	54.5
72.5°	58.2	54.5	50.1	45.2	43.3
75°	43.9	40.8	38.4	36.5	40.2
77.5°	30.3	29.1	27.2	25.4	24.8
80°	19.8	19.2	18.6	17.9	17.3
82.5°	11.8	11.8	11.8	11.8	11.8
85°	6.2	6.8	7.4	8.0	8.7
87.5°	3.7	3.7	4.3	5.0	5.6
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)