

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: P545058

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-81-87-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: P545058
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-81-87-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

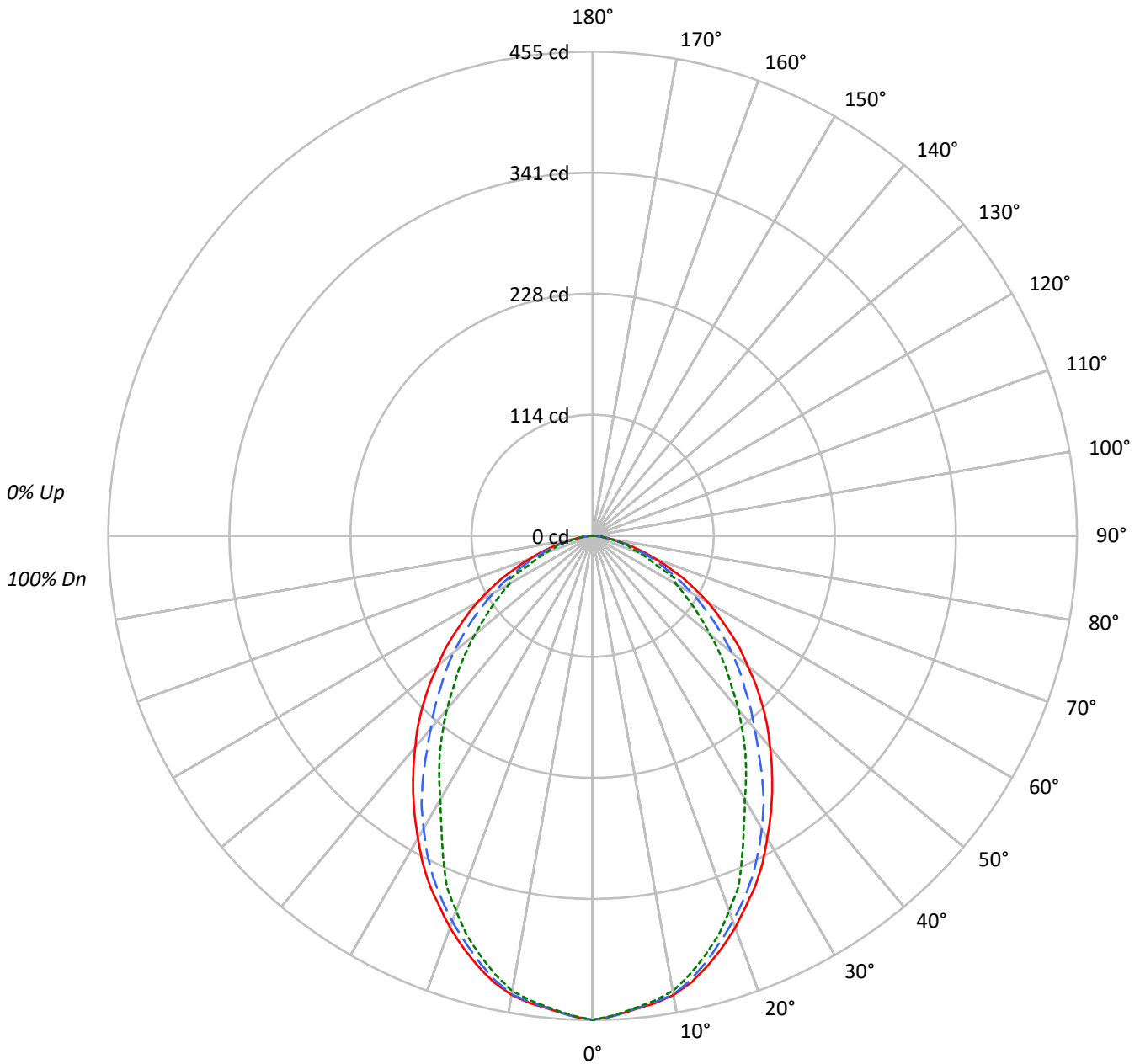
Lumens per Lamp: N/A
Luminaire Lumens: 893.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4897	4897	4897
5°	4830	4824	4818
10°	4788	4782	4748
15°	4659	4612	4548
20°	4488	4416	4294
25°	4303	4209	3948
30°	4078	3947	3556
35°	3863	3649	3289
40°	3644	3325	2993
45°	3434	3073	2705
50°	3178	2853	2413
55°	2941	2586	2162
60°	2695	2310	1935
65°	2371	2022	1714
70°	1954	1772	1457
75°	1551	1356	1422
80°	1041	979	911
85°	655	778	914



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.3	4.7
10°-20°	116.2	13.0
20°-30°	160.9	18.0
30°-40°	171.5	19.2
40°-50°	156.5	17.5
50°-60°	122.6	13.7
60°-70°	79.9	8.9
70°-80°	35.4	4.0
80°-90°	7.6	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°	319.4	35.8
0°-40°	491.0	55.0
0°-60°	770.1	86.2
0°-90°	893.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	893.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	455	455	455	455	455	
5°	447	446	446	446	446	42
15°	418	418	414	410	408	118
25°	362	360	354	342	332	166
35°	294	292	278	257	250	184
45°	226	221	202	185	178	174
55°	157	152	138	122	115	141
65°	93	88	79	81	67	92
75°	37	35	33	31	34	40
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	454.9	454.9	454.9	454.9	454.9
2.5°	451.7	451.7	451.7	451.2	451.2
5°	447.0	446.5	446.5	445.9	445.9
7.5°	443.3	442.8	442.3	441.7	440.7
10°	438.1	438.1	437.5	434.9	434.4
12.5°	429.6	429.1	427.0	423.3	422.3
15°	418.1	418.1	413.9	409.7	408.1
17.5°	405.4	404.9	399.7	395.5	393.4
20°	391.8	390.7	385.5	378.6	374.9
22.5°	376.5	376.5	370.2	361.3	357.6
25°	362.3	360.2	354.4	341.8	332.4
27.5°	346.0	342.9	336.6	318.7	307.6
30°	328.1	326.6	317.6	294.5	286.1
32.5°	311.3	308.7	299.2	275.0	268.2
35°	294.0	291.9	277.7	256.6	250.3
37.5°	276.6	274.0	256.1	239.3	231.4
40°	259.3	256.1	236.6	221.4	213.0
42.5°	243.0	238.7	219.8	203.5	194.0
45°	225.6	220.9	201.9	185.1	177.7
47.5°	208.2	204.0	186.7	169.3	160.9
50°	189.8	186.2	170.4	153.0	144.1
52.5°	174.6	168.8	153.6	136.2	128.8
55°	156.7	152.0	137.8	121.5	115.2
57.5°	140.4	135.7	122.5	107.3	102.0
60°	125.2	118.3	107.3	94.1	89.9
62.5°	108.3	103.1	93.6	82.6	87.8
65°	93.1	87.8	79.4	81.0	67.3
67.5°	76.3	73.6	66.3	58.9	56.8
70°	62.1	58.9	56.3	48.4	46.3
72.5°	49.4	46.3	42.6	38.4	36.8
75°	37.3	34.7	32.6	31.0	34.2
77.5°	25.8	24.7	23.1	21.6	21.0
80°	16.8	16.3	15.8	15.3	14.7
82.5°	10.0	10.0	10.0	10.0	10.0
85°	5.3	5.8	6.3	6.8	7.4
87.5°	3.2	3.2	3.7	4.2	4.7
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)