

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: P544871

Luminaire Tested: **FMR-12-1-LD4-1STD-35-UNV-82-84-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: P544871
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-LD4-1STD-35-UNV-82-84-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC 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

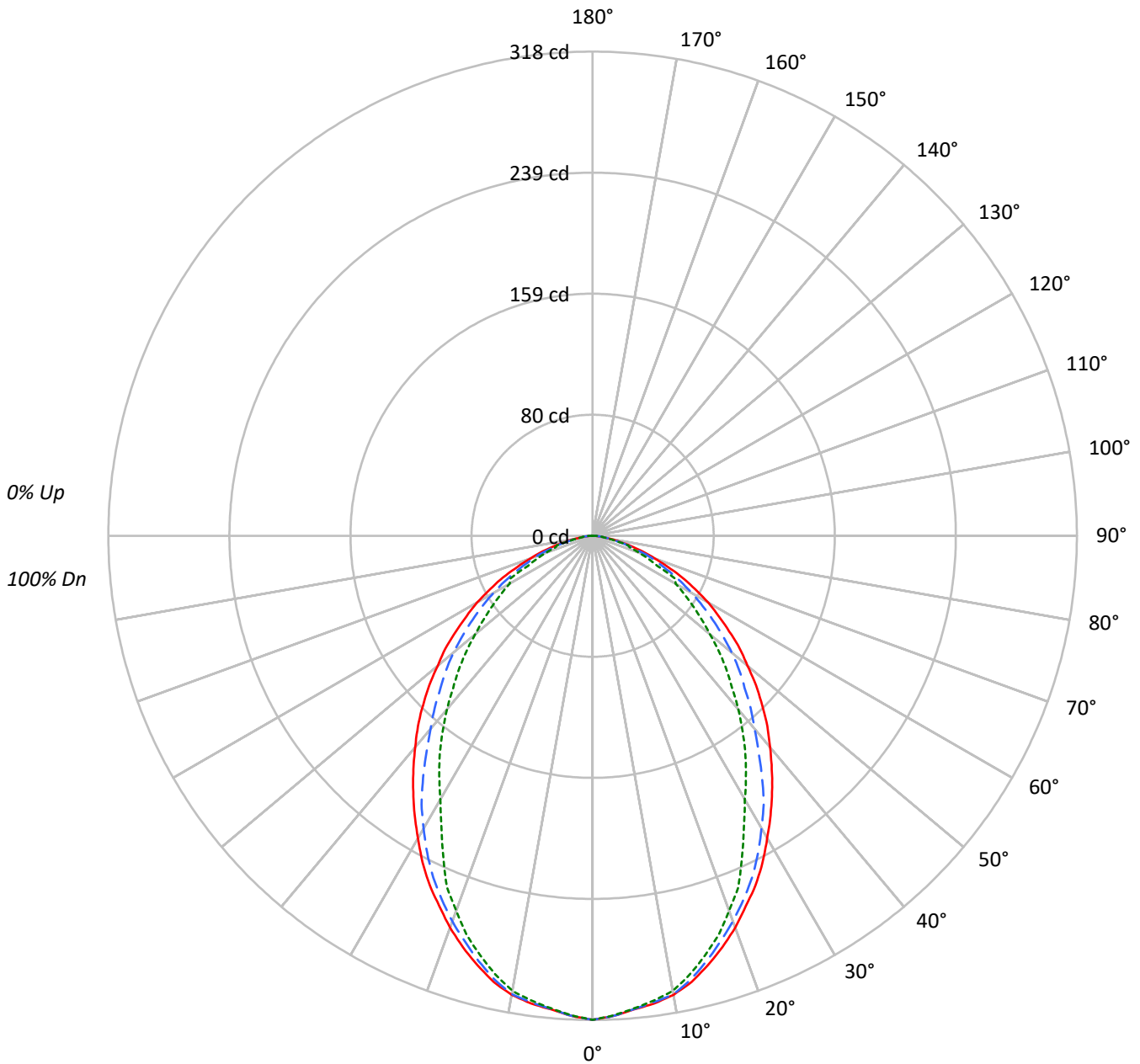
Lumens per Lamp: N/A
Luminaire Lumens: 624.0 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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

TEST NUMBER: P544871

CATALOG NUMBER: FMR-12-1-LD4-1STD-35-UNV-82-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P544871

CATALOG NUMBER: FMR-12-1-LD4-1STD-35-UNV-82-84-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20	
RC	80				70				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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3422	3422	3422
5°	3374	3371	3367
10°	3346	3341	3317
15°	3255	3223	3178
20°	3136	3086	3001
25°	3007	2942	2758
30°	2850	2758	2485
35°	2699	2549	2298
40°	2546	2324	2091
45°	2399	2148	1891
50°	2222	1994	1686
55°	2055	1807	1511
60°	1884	1615	1352
65°	1656	1414	1197
70°	1366	1237	1017
75°	1085	948	994
80°	731	682	638
85°	457	543	630



TEST NUMBER: P544871

CATALOG NUMBER: FMR-12-1-LD4-1STD-35-UNV-82-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.6	4.7
10°-20°	81.2	13.0
20°-30°	112.4	18.0
30°-40°	119.9	19.2
40°-50°	109.4	17.5
50°-60°	85.7	13.7
60°-70°	55.8	8.9
70°-80°	24.7	4.0
80°-90°	5.3	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°	223.2	35.8
0°-40°	343.1	55.0
0°-60°	538.1	86.2
0°-90°	624.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	624.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	318	318	318	318	318	
5°	312	312	312	312	312	30
15°	292	292	289	286	285	82
25°	253	252	248	239	232	116
35°	205	204	194	179	175	128
45°	158	154	141	129	124	121
55°	110	106	96	85	80	98
65°	65	61	56	57	47	64
75°	26	24	23	22	24	28
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



TEST NUMBER: P544871

CATALOG NUMBER: FMR-12-1-LD4-1STD-35-UNV-82-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	317.9	317.9	317.9	317.9	317.9
2.5°	315.7	315.7	315.7	315.3	315.3
5°	312.3	312.0	312.0	311.6	311.6
7.5°	309.8	309.4	309.0	308.7	307.9
10°	306.1	306.1	305.7	303.9	303.5
12.5°	300.2	299.9	298.4	295.8	295.1
15°	292.1	292.1	289.2	286.3	285.2
17.5°	283.3	282.9	279.3	276.3	274.9
20°	273.8	273.0	269.4	264.6	262.0
22.5°	263.1	263.1	258.7	252.4	249.9
25°	253.2	251.7	247.7	238.9	232.2
27.5°	241.8	239.6	235.2	222.7	215.0
30°	229.3	228.2	221.9	205.8	199.9
32.5°	217.5	215.7	209.1	192.2	187.4
35°	205.4	203.9	194.0	179.3	174.9
37.5°	193.3	191.4	179.0	167.2	161.7
40°	181.2	179.0	165.4	154.7	148.8
42.5°	169.8	166.8	153.6	142.2	135.6
45°	157.6	154.3	141.1	129.3	124.2
47.5°	145.5	142.6	130.5	118.3	112.4
50°	132.7	130.1	119.1	106.9	100.7
52.5°	122.0	118.0	107.3	95.2	90.0
55°	109.5	106.2	96.3	84.9	80.5
57.5°	98.1	94.8	85.6	75.0	71.3
60°	87.5	82.7	75.0	65.8	62.8
62.5°	75.7	72.0	65.4	57.7	61.4
65°	65.0	61.4	55.5	56.6	47.0
67.5°	53.3	51.4	46.3	41.2	39.7
70°	43.4	41.2	39.3	33.8	32.3
72.5°	34.5	32.3	29.8	26.8	25.7
75°	26.1	24.3	22.8	21.7	23.9
77.5°	18.0	17.3	16.2	15.1	14.7
80°	11.8	11.4	11.0	10.7	10.3
82.5°	7.0	7.0	7.0	7.0	7.0
85°	3.7	4.0	4.4	4.8	5.1
87.5°	2.2	2.2	2.6	2.9	3.3
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)