

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: P545159

Luminaire Tested: **FMR-12-1-LD4-2STD-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: P545159
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-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

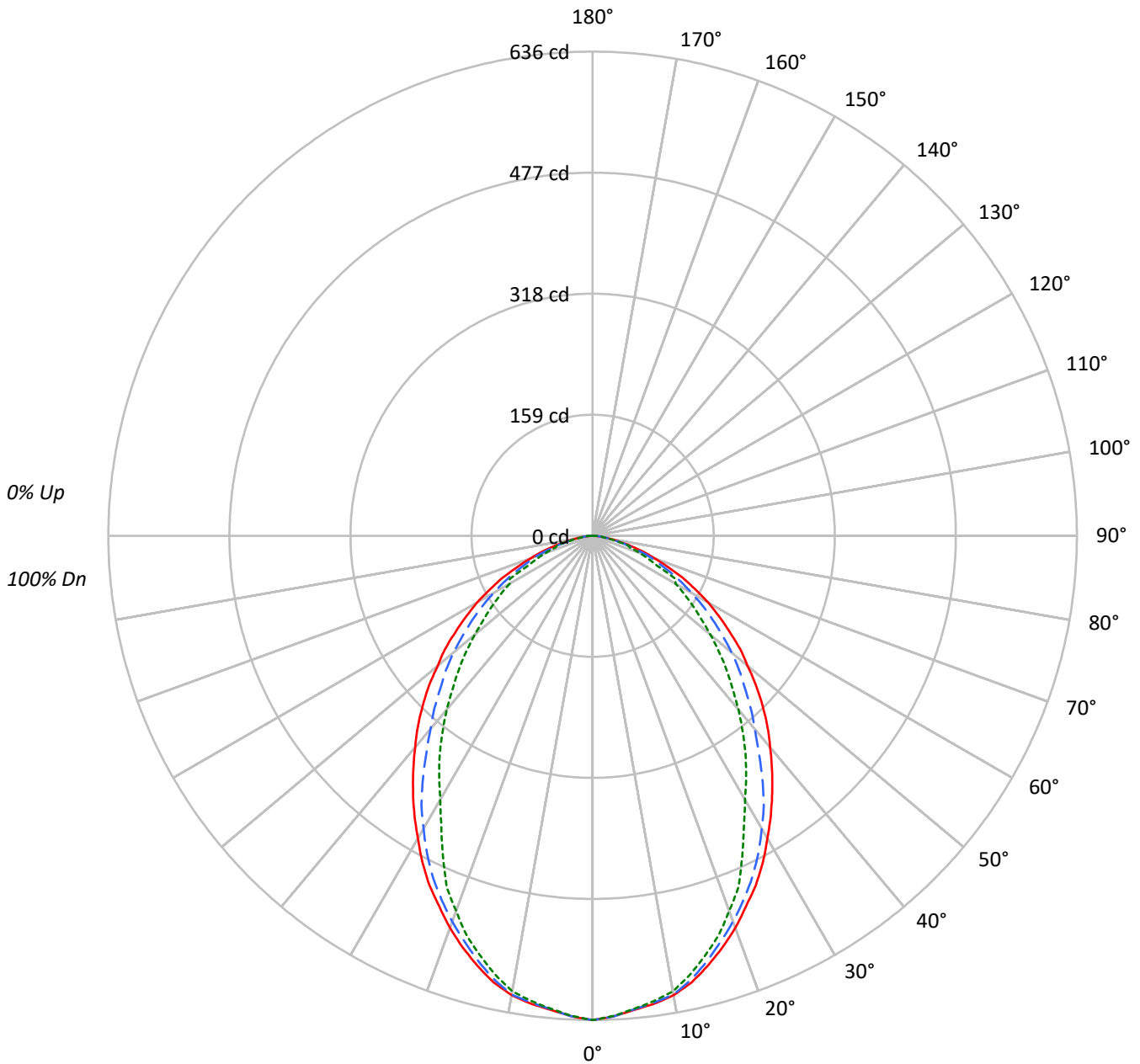
Lumens per Lamp: N/A
Luminaire Lumens: 1249.0 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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								
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°	6848	6848	6848
5°	6755	6748	6739
10°	6697	6689	6640
15°	6516	6451	6361
20°	6277	6175	6007
25°	6019	5887	5520
30°	5705	5522	4973
35°	5403	5104	4600
40°	5095	4651	4186
45°	4803	4299	3784
50°	4446	3990	3374
55°	4114	3616	3023
60°	3770	3229	2708
65°	3316	2830	2397
70°	2732	2477	2036
75°	2171	1896	1988
80°	1457	1370	1277
85°	914	1087	1272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.2	4.7
10°-20°	162.5	13.0
20°-30°	225.0	18.0
30°-40°	239.9	19.2
40°-50°	218.9	17.5
50°-60°	171.5	13.7
60°-70°	111.8	8.9
70°-80°	49.5	4.0
80°-90°	10.6	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°	446.8	35.8
0°-40°	686.7	55.0
0°-60°	1077.1	86.2
0°-90°	1249.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1249.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	636	636	636	636	636	
5°	625	624	624	624	624	59
15°	585	585	579	573	571	164
25°	507	504	496	478	465	233
35°	411	408	388	359	350	257
45°	316	309	282	259	249	243
55°	219	213	193	170	161	197
65°	130	123	111	113	94	128
75°	52	48	46	43	48	56
85°	7	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	636.2	636.2	636.2	636.2	636.2
2.5°	631.8	631.8	631.8	631.1	631.1
5°	625.2	624.5	624.5	623.7	623.7
7.5°	620.0	619.3	618.6	617.8	616.4
10°	612.7	612.7	612.0	608.3	607.5
12.5°	600.9	600.2	597.2	592.1	590.6
15°	584.7	584.7	578.9	573.0	570.8
17.5°	567.1	566.3	559.0	553.1	550.2
20°	548.0	546.5	539.1	529.6	524.4
22.5°	526.6	526.6	517.8	505.3	500.2
25°	506.8	503.8	495.7	478.1	464.8
27.5°	484.0	479.6	470.7	445.7	430.3
30°	459.0	456.8	444.3	411.9	400.1
32.5°	435.4	431.7	418.5	384.7	375.1
35°	411.2	408.2	388.4	358.9	350.1
37.5°	386.9	383.2	358.2	334.7	323.6
40°	362.6	358.2	331.0	309.7	297.9
42.5°	339.8	333.9	307.4	284.6	271.4
45°	315.5	308.9	282.4	258.9	248.6
47.5°	291.3	285.4	261.1	236.8	225.1
50°	265.5	260.4	238.3	214.0	201.5
52.5°	244.2	236.1	214.8	190.5	180.2
55°	219.2	212.6	192.7	169.9	161.1
57.5°	196.4	189.8	171.4	150.0	142.7
60°	175.1	165.5	150.0	131.7	125.8
62.5°	151.5	144.2	130.9	115.5	122.8
65°	130.2	122.8	111.1	113.3	94.1
67.5°	106.7	103.0	92.7	82.4	79.4
70°	86.8	82.4	78.7	67.7	64.7
72.5°	69.1	64.7	59.6	53.7	51.5
75°	52.2	48.5	45.6	43.4	47.8
77.5°	36.0	34.6	32.4	30.2	29.4
80°	23.5	22.8	22.1	21.3	20.6
82.5°	14.0	14.0	14.0	14.0	14.0
85°	7.4	8.1	8.8	9.6	10.3
87.5°	4.4	4.4	5.1	5.9	6.6
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)