

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: P544743

Luminaire Tested: **FMR-12-1-LD4-1HI-50-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: P544743
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

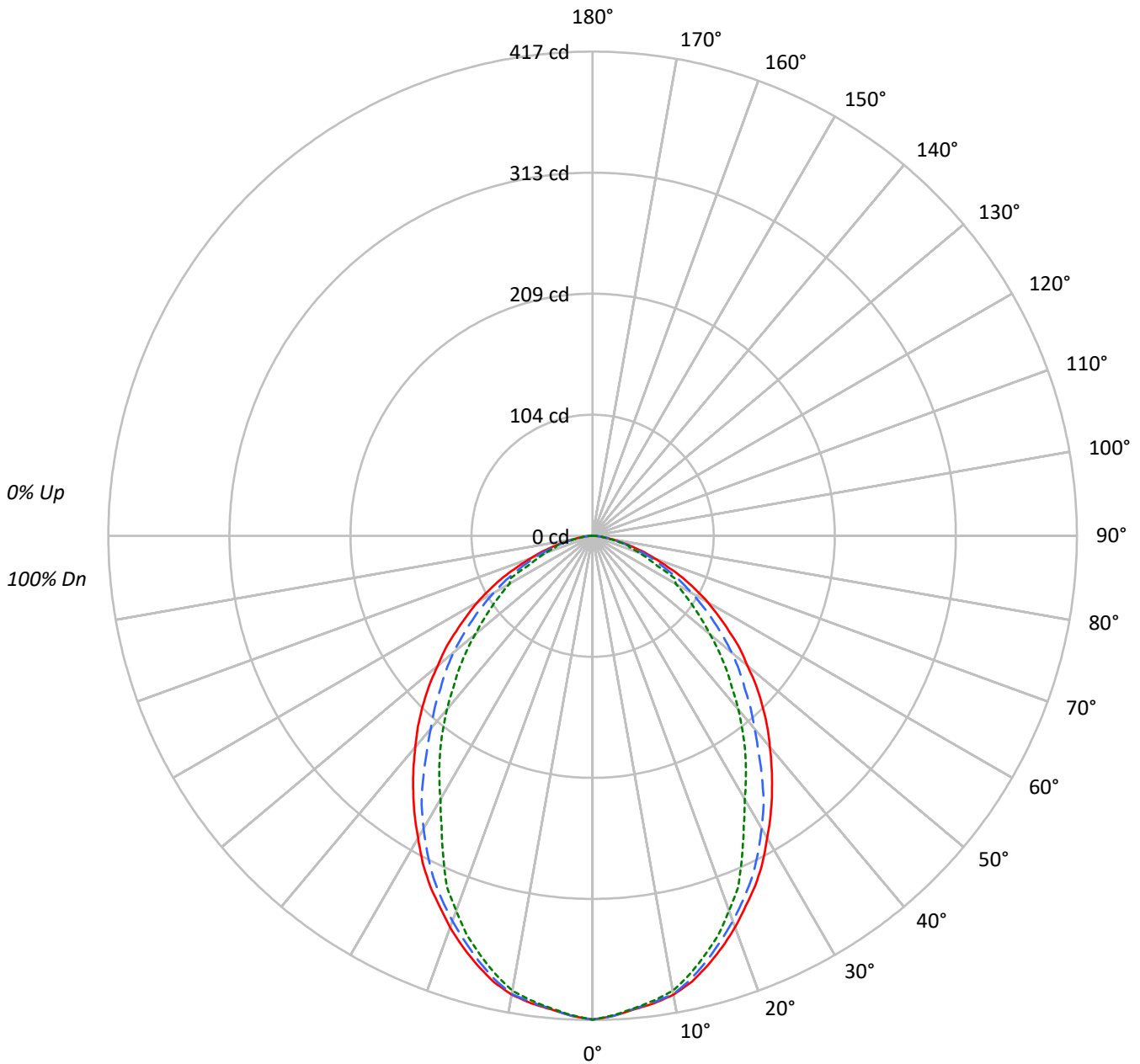
Lumens per Lamp: N/A
Luminaire Lumens: 818.0 lumens
Efficiency: N/A
Efficacy: 75.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	4485	4485	4485
5°	4425	4419	4414
10°	4386	4381	4349
15°	4268	4225	4165
20°	4111	4045	3935
25°	3942	3856	3615
30°	3736	3617	3256
35°	3539	3342	3013
40°	3337	3046	2741
45°	3146	2816	2478
50°	2912	2614	2210
55°	2693	2368	1980
60°	2467	2116	1774
65°	2173	1852	1571
70°	1788	1621	1334
75°	1422	1243	1302
80°	955	899	837
85°	593	716	827



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.8	4.7
10°-20°	106.4	13.0
20°-30°	147.4	18.0
30°-40°	157.1	19.2
40°-50°	143.4	17.5
50°-60°	112.3	13.7
60°-70°	73.2	8.9
70°-80°	32.4	4.0
80°-90°	7.0	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°	292.6	35.8
0°-40°	449.8	55.0
0°-60°	705.4	86.2
0°-90°	818.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	818.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	417	417	417	417	417	
5°	410	409	409	408	408	39
15°	383	383	379	375	374	108
25°	332	330	325	313	304	152
35°	269	267	254	235	229	168
45°	207	202	185	170	163	159
55°	144	139	126	111	106	129
65°	85	80	73	74	62	84
75°	34	32	30	28	31	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°	416.7	416.7	416.7	416.7	416.7
2.5°	413.8	413.8	413.8	413.3	413.3
5°	409.5	409.0	409.0	408.5	408.5
7.5°	406.1	405.6	405.1	404.6	403.7
10°	401.3	401.3	400.8	398.4	397.9
12.5°	393.6	393.1	391.1	387.8	386.8
15°	383.0	383.0	379.1	375.3	373.8
17.5°	371.4	370.9	366.1	362.2	360.3
20°	358.9	357.9	353.1	346.8	343.5
22.5°	344.9	344.9	339.1	330.9	327.6
25°	331.9	330.0	324.7	313.1	304.4
27.5°	317.0	314.1	308.3	291.9	281.8
30°	300.6	299.1	291.0	269.8	262.0
32.5°	285.2	282.8	274.1	251.9	245.7
35°	269.3	267.3	254.3	235.1	229.3
37.5°	253.4	251.0	234.6	219.2	212.0
40°	237.5	234.6	216.8	202.8	195.1
42.5°	222.5	218.7	201.4	186.4	177.8
45°	206.7	202.3	185.0	169.6	162.8
47.5°	190.8	186.9	171.0	155.1	147.4
50°	173.9	170.5	156.1	140.2	132.0
52.5°	159.9	154.6	140.7	124.8	118.0
55°	143.5	139.2	126.2	111.3	105.5
57.5°	128.6	124.3	112.2	98.3	93.5
60°	114.6	108.4	98.3	86.2	82.4
62.5°	99.2	94.4	85.7	75.6	80.4
65°	85.3	80.4	72.7	74.2	61.7
67.5°	69.8	67.4	60.7	54.0	52.0
70°	56.8	54.0	51.5	44.3	42.4
72.5°	45.3	42.4	39.0	35.2	33.7
75°	34.2	31.8	29.9	28.4	31.3
77.5°	23.6	22.6	21.2	19.8	19.3
80°	15.4	14.9	14.5	14.0	13.5
82.5°	9.2	9.2	9.2	9.2	9.2
85°	4.8	5.3	5.8	6.3	6.7
87.5°	2.9	2.9	3.4	3.9	4.3
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)