

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: P544898

Luminaire Tested: **FMR-12-1-LD4-1STD-40-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: P544898
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

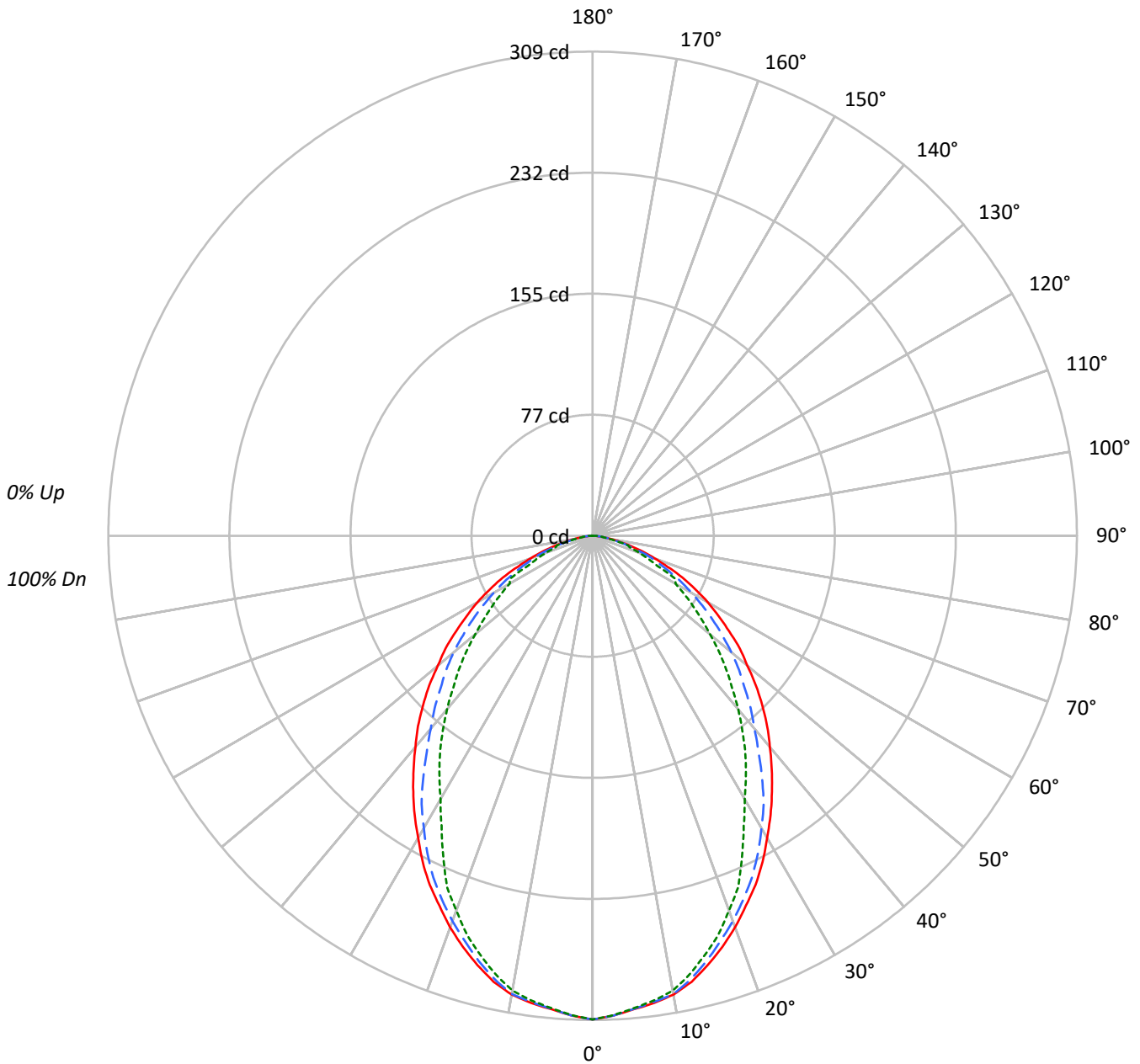
Lumens per Lamp: N/A
Luminaire Lumens: 606.0 lumens
Efficiency: N/A
Efficacy: 73.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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

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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°	3323	3323	3323
5°	3277	3274	3270
10°	3249	3245	3222
15°	3161	3130	3086
20°	3046	2997	2914
25°	2920	2856	2678
30°	2768	2678	2412
35°	2621	2476	2233
40°	2472	2257	2030
45°	2331	2085	1836
50°	2157	1936	1638
55°	1995	1755	1468
60°	1828	1567	1313
65°	1610	1373	1164
70°	1325	1202	988
75°	1052	919	965
80°	707	663	620
85°	445	531	618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.7	4.7
10°-20°	78.9	13.0
20°-30°	109.2	18.0
30°-40°	116.4	19.2
40°-50°	106.2	17.5
50°-60°	83.2	13.7
60°-70°	54.2	8.9
70°-80°	24.0	4.0
80°-90°	5.2	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°	216.8	35.8
0°-40°	333.2	55.0
0°-60°	522.6	86.2
0°-90°	606.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	606.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	309	309	309	309	309	
5°	303	303	303	303	303	29
15°	284	284	281	278	277	80
25°	246	244	240	232	226	113
35°	200	198	188	174	170	125
45°	153	150	137	126	121	118
55°	106	103	94	82	78	95
65°	63	60	54	55	46	62
75°	25	24	22	21	23	27
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	308.7	308.7	308.7	308.7	308.7
2.5°	306.5	306.5	306.5	306.2	306.2
5°	303.3	303.0	303.0	302.6	302.6
7.5°	300.8	300.5	300.1	299.8	299.1
10°	297.3	297.3	296.9	295.1	294.8
12.5°	291.6	291.2	289.8	287.3	286.6
15°	283.7	283.7	280.9	278.0	276.9
17.5°	275.1	274.8	271.2	268.4	266.9
20°	265.9	265.2	261.6	256.9	254.4
22.5°	255.5	255.5	251.2	245.2	242.7
25°	245.9	244.5	240.5	232.0	225.5
27.5°	234.8	232.7	228.4	216.3	208.8
30°	222.7	221.6	215.5	199.8	194.1
32.5°	211.3	209.5	203.1	186.6	182.0
35°	199.5	198.1	188.4	174.2	169.9
37.5°	187.7	185.9	173.8	162.4	157.0
40°	175.9	173.8	160.6	150.2	144.5
42.5°	164.9	162.0	149.2	138.1	131.7
45°	153.1	149.9	137.0	125.6	120.6
47.5°	141.3	138.5	126.7	114.9	109.2
50°	128.8	126.3	115.6	103.8	97.8
52.5°	118.5	114.6	104.2	92.4	87.4
55°	106.3	103.1	93.5	82.4	78.2
57.5°	95.3	92.1	83.1	72.8	69.2
60°	84.9	80.3	72.8	63.9	61.0
62.5°	73.5	69.9	63.5	56.0	59.6
65°	63.2	59.6	53.9	55.0	45.7
67.5°	51.7	50.0	45.0	40.0	38.5
70°	42.1	40.0	38.2	32.8	31.4
72.5°	33.5	31.4	28.9	26.1	25.0
75°	25.3	23.6	22.1	21.1	23.2
77.5°	17.5	16.8	15.7	14.6	14.3
80°	11.4	11.1	10.7	10.3	10.0
82.5°	6.8	6.8	6.8	6.8	6.8
85°	3.6	3.9	4.3	4.6	5.0
87.5°	2.1	2.1	2.5	2.9	3.2
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)