

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: P544931

Luminaire Tested: **FMR-12-1-LD4-1STD-50-UNV-81-88-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: P544931
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-50-UNV-81-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

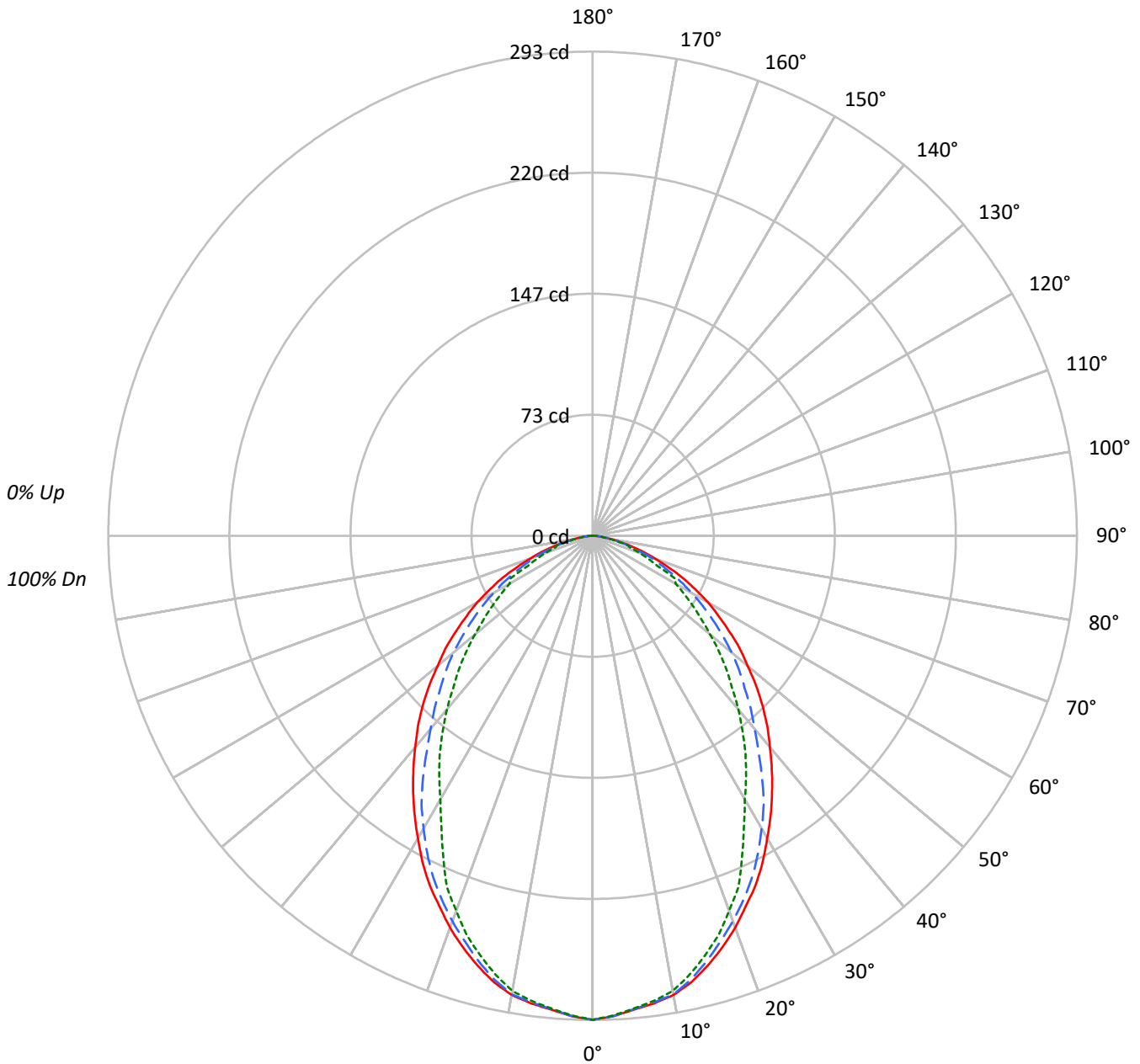
Lumens per Lamp: N/A
Luminaire Lumens: 575.0 lumens
Efficiency: N/A
Efficacy: 69.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
Input Voltage (V): NR
Input Current (A_{in}): 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: P544931

CATALOG NUMBER: FMR-12-1-LD4-1STD-50-UNV-81-88-EDD

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°	3153	3153	3153
5°	3110	3106	3102
10°	3083	3079	3057
15°	3000	2970	2929
20°	2890	2843	2765
25°	2771	2710	2542
30°	2626	2542	2289
35°	2487	2349	2118
40°	2345	2141	1926
45°	2212	1979	1743
50°	2046	1837	1554
55°	1894	1665	1392
60°	1735	1488	1246
65°	1526	1301	1103
70°	1259	1139	938
75°	998	873	915
80°	669	632	589
85°	420	506	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.3	4.7
10°-20°	74.8	13.0
20°-30°	103.6	18.0
30°-40°	110.5	19.2
40°-50°	100.8	17.5
50°-60°	79.0	13.7
60°-70°	51.5	8.9
70°-80°	22.8	4.0
80°-90°	4.9	0.8
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°	205.7	35.8
0°-40°	316.1	55.0
0°-60°	495.9	86.2
0°-90°	575.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	575.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	293	293	293	293	293	
5°	288	288	288	287	287	27
15°	269	269	266	264	263	76
25°	233	232	228	220	214	107
35°	189	188	179	165	161	118
45°	145	142	130	119	114	112
55°	101	98	89	78	74	90
65°	60	56	51	52	43	59
75°	24	22	21	20	22	26
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	292.9	292.9	292.9	292.9	292.9
2.5°	290.9	290.9	290.9	290.5	290.5
5°	287.8	287.5	287.5	287.1	287.1
7.5°	285.4	285.1	284.8	284.4	283.8
10°	282.1	282.1	281.7	280.0	279.7
12.5°	276.6	276.3	275.0	272.6	271.9
15°	269.2	269.2	266.5	263.8	262.8
17.5°	261.1	260.7	257.3	254.6	253.3
20°	252.3	251.6	248.2	243.8	241.4
22.5°	242.4	242.4	238.4	232.6	230.3
25°	233.3	231.9	228.2	220.1	214.0
27.5°	222.8	220.8	216.7	205.2	198.1
30°	211.3	210.3	204.5	189.6	184.2
32.5°	200.5	198.8	192.7	177.1	172.7
35°	189.3	187.9	178.8	165.2	161.2
37.5°	178.1	176.4	164.9	154.1	149.0
40°	166.9	164.9	152.4	142.6	137.1
42.5°	156.4	153.7	141.5	131.0	124.9
45°	145.3	142.2	130.0	119.2	114.5
47.5°	134.1	131.4	120.2	109.0	103.6
50°	122.2	119.9	109.7	98.5	92.8
52.5°	112.4	108.7	98.9	87.7	83.0
55°	100.9	97.9	88.7	78.2	74.2
57.5°	90.4	87.4	78.9	69.1	65.7
60°	80.6	76.2	69.1	60.6	57.9
62.5°	69.8	66.4	60.3	53.2	56.5
65°	59.9	56.5	51.1	52.1	43.3
67.5°	49.1	47.4	42.7	37.9	36.6
70°	40.0	37.9	36.2	31.2	29.8
72.5°	31.8	29.8	27.4	24.7	23.7
75°	24.0	22.3	21.0	20.0	22.0
77.5°	16.6	15.9	14.9	13.9	13.5
80°	10.8	10.5	10.2	9.8	9.5
82.5°	6.4	6.4	6.4	6.4	6.4
85°	3.4	3.7	4.1	4.4	4.7
87.5°	2.0	2.0	2.4	2.7	3.0
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)