

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: P544835

Luminaire Tested: **FMR-12-1-LD4-1LO-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: P544835
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-LD4-1LO-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

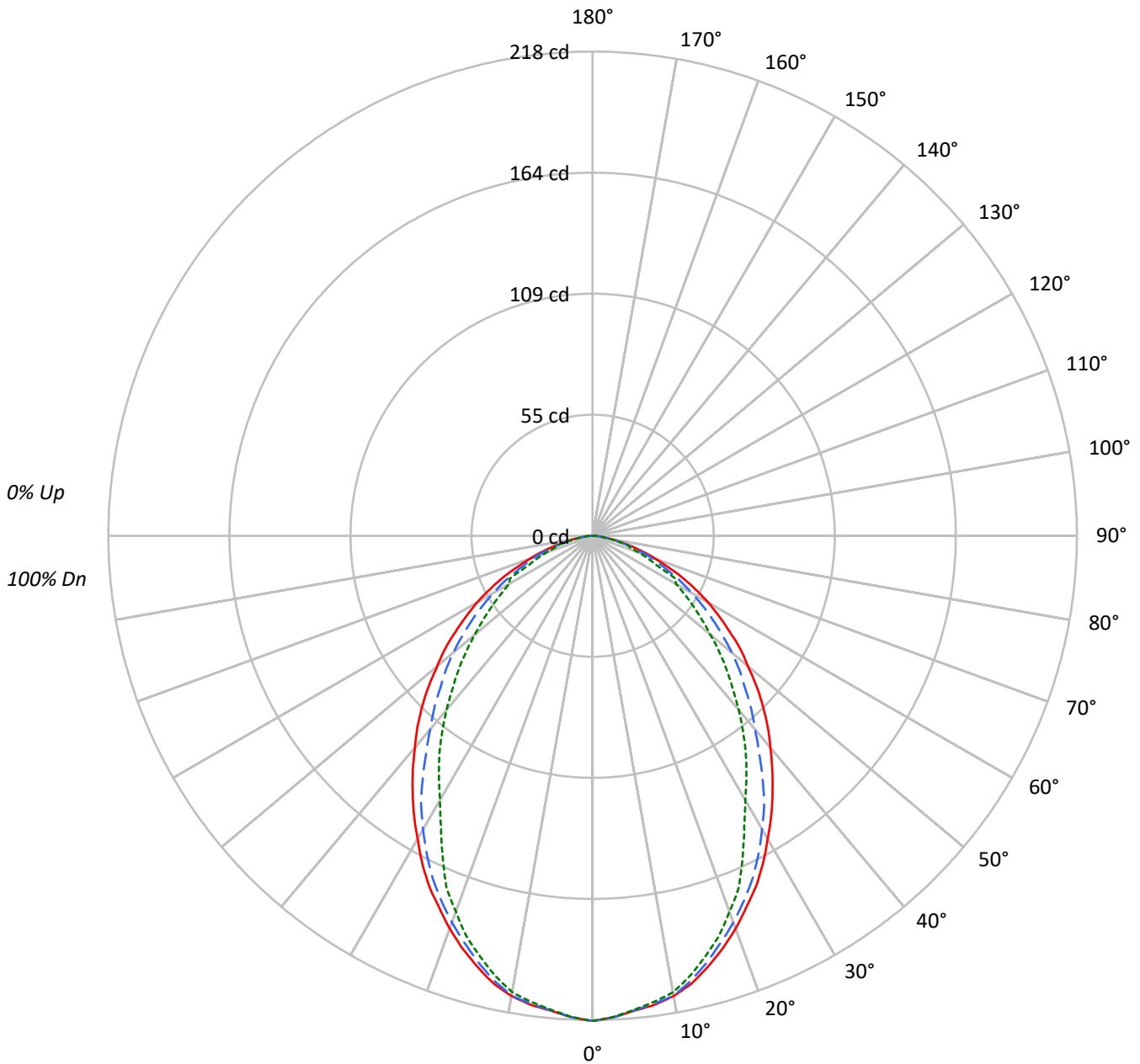
Lumens per Lamp: N/A
Luminaire Lumens: 429.0 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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°	2352	2352	2352
5°	2320	2318	2314
10°	2300	2297	2281
15°	2238	2215	2184
20°	2156	2121	2063
25°	2068	2023	1897
30°	1959	1897	1708
35°	1855	1753	1581
40°	1749	1598	1437
45°	1650	1477	1300
50°	1527	1371	1159
55°	1413	1242	1038
60°	1294	1109	930
65°	1138	970	823
70°	938	850	699
75°	744	653	682
80°	502	471	440
85°	309	371	432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.3	4.7
10°-20°	55.8	13.0
20°-30°	77.3	18.0
30°-40°	82.4	19.2
40°-50°	75.2	17.5
50°-60°	58.9	13.7
60°-70°	38.4	8.9
70°-80°	17.0	4.0
80°-90°	3.6	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°	153.5	35.8
0°-40°	235.9	55.0
0°-60°	369.9	86.2
0°-90°	429.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	429.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	218	218	218	218	218	
5°	215	214	214	214	214	20
15°	201	201	199	197	196	56
25°	174	173	170	164	160	80
35°	141	140	133	123	120	88
45°	108	106	97	89	85	83
55°	75	73	66	58	55	68
65°	45	42	38	39	32	44
75°	18	17	16	15	16	19
85°	2	3	3	3	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	218.5	218.5	218.5	218.5	218.5
2.5°	217.0	217.0	217.0	216.8	216.8
5°	214.7	214.5	214.5	214.2	214.2
7.5°	213.0	212.7	212.5	212.2	211.7
10°	210.4	210.4	210.2	208.9	208.7
12.5°	206.4	206.1	205.1	203.4	202.9
15°	200.8	200.8	198.8	196.8	196.0
17.5°	194.8	194.5	192.0	190.0	189.0
20°	188.2	187.7	185.2	181.9	180.1
22.5°	180.9	180.9	177.9	173.6	171.8
25°	174.1	173.1	170.3	164.2	159.7
27.5°	166.2	164.7	161.7	153.1	147.8
30°	157.6	156.9	152.6	141.5	137.4
32.5°	149.6	148.3	143.7	132.1	128.8
35°	141.2	140.2	133.4	123.3	120.3
37.5°	132.9	131.6	123.0	114.9	111.2
40°	124.5	123.0	113.7	106.4	102.3
42.5°	116.7	114.7	105.6	97.8	93.2
45°	108.4	106.1	97.0	88.9	85.4
47.5°	100.0	98.0	89.7	81.3	77.3
50°	91.2	89.4	81.9	73.5	69.2
52.5°	83.9	81.1	73.8	65.4	61.9
55°	75.3	73.0	66.2	58.4	55.3
57.5°	67.5	65.2	58.9	51.5	49.0
60°	60.1	56.8	51.5	45.2	43.2
62.5°	52.0	49.5	45.0	39.7	42.2
65°	44.7	42.2	38.1	38.9	32.3
67.5°	36.6	35.4	31.8	28.3	27.3
70°	29.8	28.3	27.0	23.2	22.2
72.5°	23.7	22.2	20.5	18.4	17.7
75°	17.9	16.7	15.7	14.9	16.4
77.5°	12.4	11.9	11.1	10.4	10.1
80°	8.1	7.8	7.6	7.3	7.1
82.5°	4.8	4.8	4.8	4.8	4.8
85°	2.5	2.8	3.0	3.3	3.5
87.5°	1.5	1.5	1.8	2.0	2.3
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)