

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: P544753

Luminaire Tested: **FMR-12-1-LD4-1HI-50-UNV-93-86-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: P544753
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-93-86-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

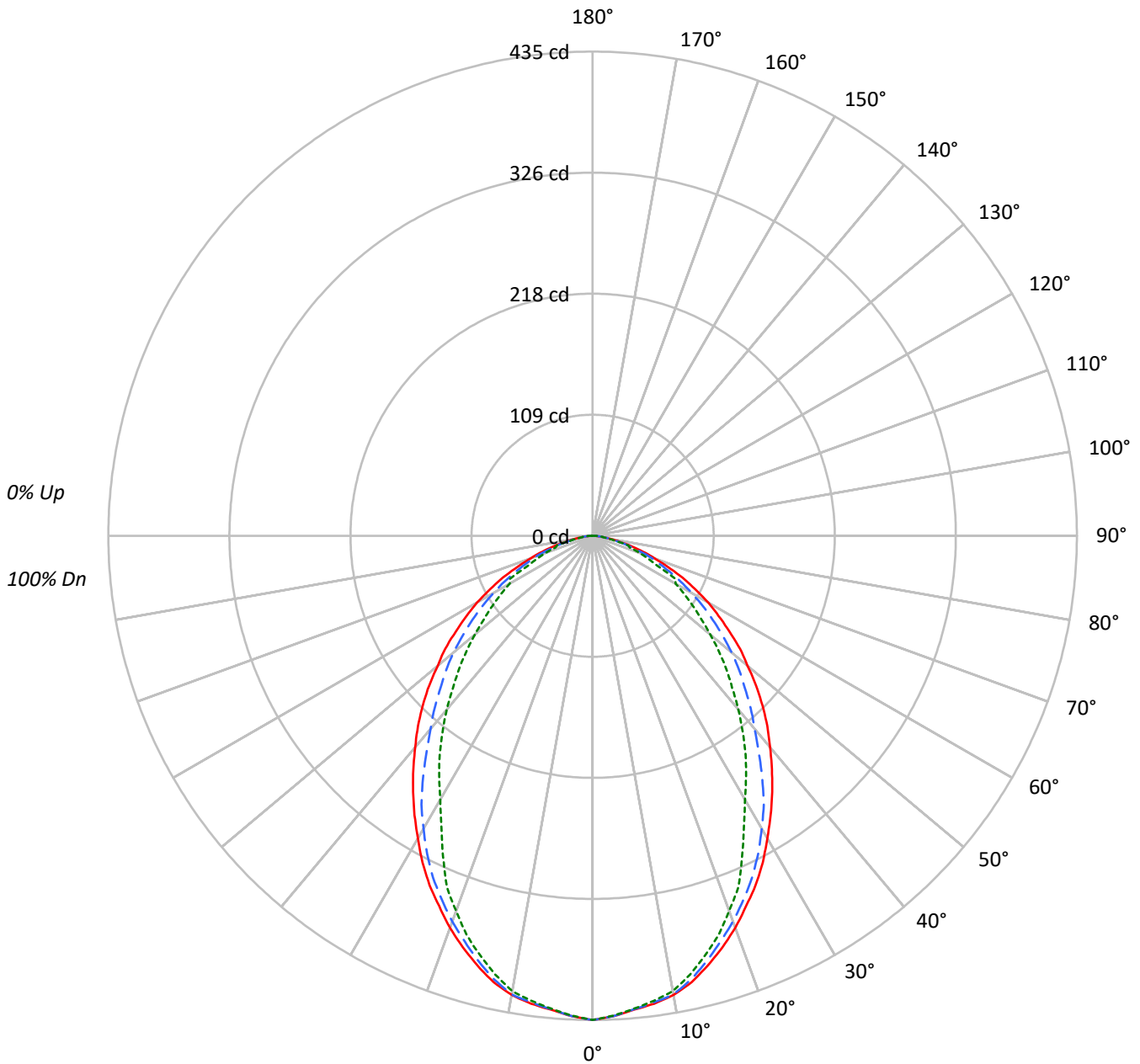
Lumens per Lamp: N/A
Luminaire Lumens: 854.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P544753

CATALOG NUMBER: FMR-12-1-LD4-1HI-50-UNV-93-86-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°	4682	4682	4682
5°	4619	4614	4608
10°	4579	4573	4540
15°	4455	4411	4349
20°	4292	4222	4108
25°	4115	4026	3774
30°	3900	3776	3401
35°	3694	3489	3146
40°	3483	3180	2862
45°	3283	2939	2588
50°	3041	2728	2308
55°	2813	2473	2066
60°	2577	2209	1851
65°	2267	1933	1640
70°	1866	1693	1394
75°	1485	1298	1360
80°	998	936	874
85°	618	741	865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.5	4.7
10°-20°	111.1	13.0
20°-30°	153.9	18.0
30°-40°	164.0	19.2
40°-50°	149.7	17.5
50°-60°	117.3	13.7
60°-70°	76.4	8.9
70°-80°	33.9	4.0
80°-90°	7.3	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°	305.5	35.8
0°-40°	469.5	55.0
0°-60°	736.4	86.2
0°-90°	854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	854.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	435	435	435	435	435	
5°	428	427	427	426	426	41
15°	400	400	396	392	390	112
25°	346	344	339	327	318	159
35°	281	279	266	245	239	176
45°	216	211	193	177	170	166
55°	150	145	132	116	110	134
65°	89	84	76	77	64	88
75°	36	33	31	30	33	38
85°	5	6	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°	435.0	435.0	435.0	435.0	435.0
2.5°	432.0	432.0	432.0	431.5	431.5
5°	427.5	427.0	427.0	426.5	426.5
7.5°	424.0	423.4	422.9	422.4	421.4
10°	418.9	418.9	418.4	415.9	415.4
12.5°	410.9	410.4	408.4	404.8	403.8
15°	399.8	399.8	395.8	391.8	390.3
17.5°	387.7	387.2	382.2	378.2	376.2
20°	374.7	373.7	368.6	362.1	358.6
22.5°	360.1	360.1	354.0	345.5	342.0
25°	346.5	344.5	339.0	326.9	317.8
27.5°	330.9	327.9	321.9	304.8	294.2
30°	313.8	312.3	303.8	281.6	273.6
32.5°	297.7	295.2	286.2	263.0	256.5
35°	281.1	279.1	265.5	245.4	239.4
37.5°	264.5	262.0	244.9	228.8	221.3
40°	247.9	244.9	226.3	211.7	203.7
42.5°	232.3	228.3	210.2	194.6	185.6
45°	215.7	211.2	193.1	177.0	170.0
47.5°	199.2	195.1	178.5	161.9	153.9
50°	181.6	178.0	162.9	146.3	137.8
52.5°	167.0	161.4	146.8	130.3	123.2
55°	149.9	145.3	131.8	116.2	110.1
57.5°	134.3	129.8	117.2	102.6	97.6
60°	119.7	113.2	102.6	90.0	86.0
62.5°	103.6	98.6	89.5	79.0	84.0
65°	89.0	84.0	75.9	77.4	64.4
67.5°	72.9	70.4	63.4	56.3	54.3
70°	59.3	56.3	53.8	46.3	44.3
72.5°	47.3	44.3	40.7	36.7	35.2
75°	35.7	33.2	31.2	29.7	32.7
77.5°	24.6	23.6	22.1	20.6	20.1
80°	16.1	15.6	15.1	14.6	14.1
82.5°	9.6	9.6	9.6	9.6	9.6
85°	5.0	5.5	6.0	6.5	7.0
87.5°	3.0	3.0	3.5	4.0	4.5
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)