

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: P545705

Luminaire Tested: **FMR-12-2-LD4-2LO-50-UNV-82-86-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: P545705
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-12-2-LD4-2LO-50-UNV-82-86-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC 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

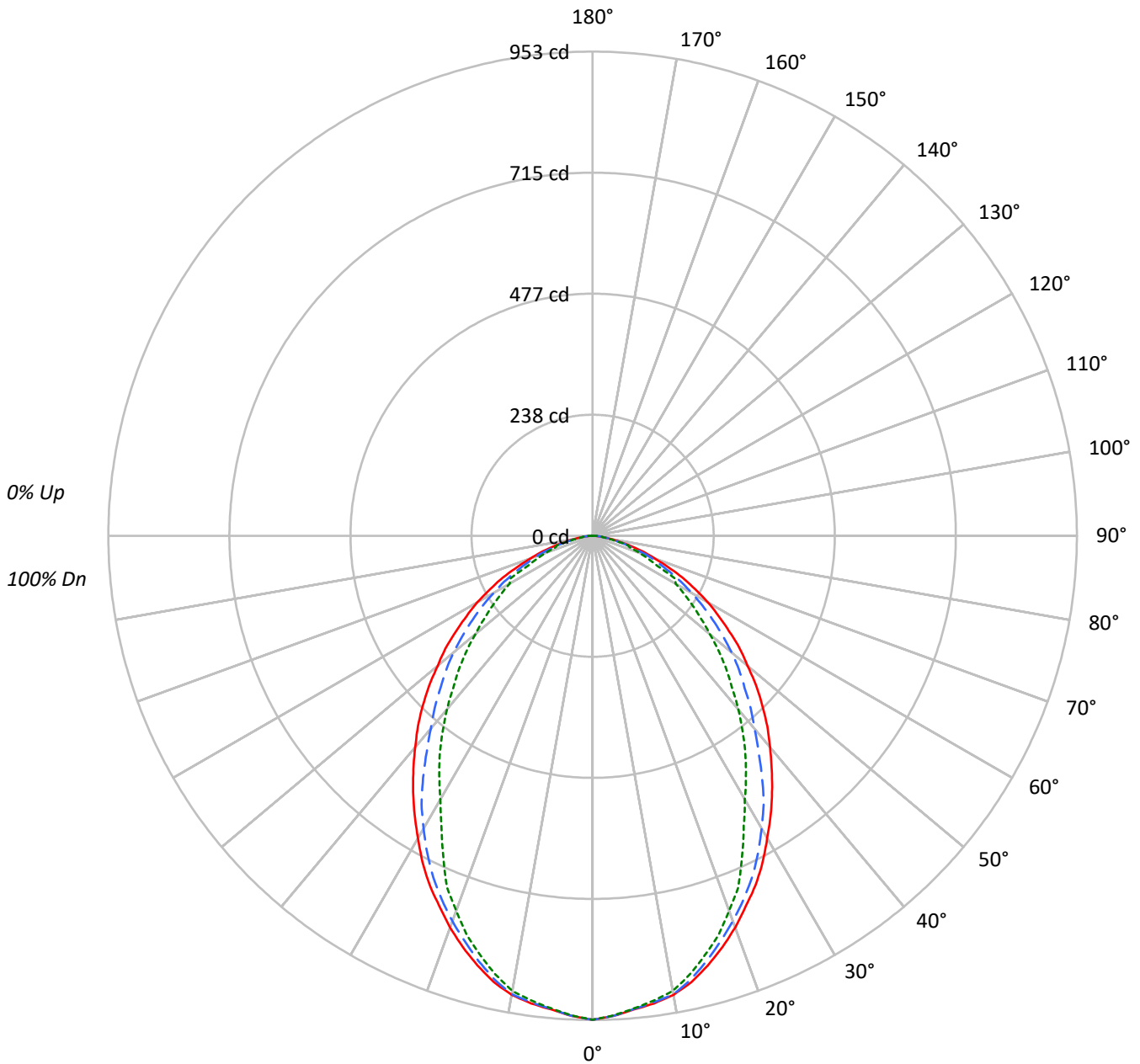
Lumens per Lamp: N/A
Luminaire Lumens: 1870.0 lumens
Efficiency: N/A
Efficacy: 79.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P545705

CATALOG NUMBER: FMR-12-2-LD4-2LO-50-UNV-82-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545705

CATALOG NUMBER: FMR-12-2-LD4-2LO-50-UNV-82-86-EDD

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°	5127	5127	5127
5°	5057	5051	5045
10°	5013	5007	4971
15°	4878	4829	4761
20°	4699	4623	4497
25°	4505	4407	4133
30°	4271	4133	3723
35°	4045	3820	3444
40°	3814	3481	3133
45°	3596	3219	2833
50°	3328	2987	2526
55°	3080	2707	2263
60°	2821	2418	2027
65°	2482	2118	1796
70°	2044	1854	1525
75°	1626	1420	1489
80°	1091	1023	955
85°	679	815	951



TEST NUMBER: P545705

CATALOG NUMBER: FMR-12-2-LD4-2LO-50-UNV-82-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.7	4.7
10°-20°	243.3	13.0
20°-30°	336.9	18.0
30°-40°	359.2	19.2
40°-50°	327.7	17.5
50°-60°	256.7	13.7
60°-70°	167.3	8.9
70°-80°	74.1	4.0
80°-90°	15.9	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°	668.9	35.8
0°-40°	1028.1	55.0
0°-60°	1612.6	86.2
0°-90°	1870.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1870.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	953	953	953	953	953	
5°	936	935	935	934	934	89
15°	876	876	867	858	854	246
25°	759	754	742	716	696	348
35°	616	611	581	537	524	385
45°	472	462	423	388	372	364
55°	328	318	288	254	241	294
65°	195	184	166	170	141	192
75°	78	73	68	65	72	84
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



TEST NUMBER: P545705

CATALOG NUMBER: FMR-12-2-LD4-2LO-50-UNV-82-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	952.6	952.6	952.6	952.6	952.6
2.5°	945.9	945.9	945.9	944.8	944.8
5°	936.0	934.9	934.9	933.8	933.8
7.5°	928.3	927.2	926.1	925.0	922.8
10°	917.3	917.3	916.2	910.7	909.6
12.5°	899.7	898.6	894.2	886.5	884.3
15°	875.5	875.5	866.7	857.8	854.5
17.5°	849.0	847.9	836.9	828.1	823.7
20°	820.4	818.2	807.2	792.9	785.2
22.5°	788.5	788.5	775.3	756.5	748.8
25°	758.7	754.3	742.2	715.8	696.0
27.5°	724.6	718.0	704.8	667.3	644.2
30°	687.2	683.9	665.1	616.7	599.1
32.5°	651.9	646.4	626.6	575.9	561.6
35°	615.6	611.2	581.4	537.4	524.2
37.5°	579.2	573.7	536.3	501.1	484.5
40°	542.9	536.3	495.5	463.6	446.0
42.5°	508.8	500.0	460.3	426.2	406.3
45°	472.4	462.5	422.9	387.6	372.2
47.5°	436.1	427.3	390.9	354.6	337.0
50°	397.5	389.8	356.8	320.5	301.7
52.5°	365.6	353.5	321.6	285.2	269.8
55°	328.2	318.3	288.5	254.4	241.2
57.5°	294.0	284.1	256.6	224.6	213.6
60°	262.1	247.8	224.6	197.1	188.3
62.5°	226.9	215.8	196.0	172.9	183.9
65°	194.9	183.9	166.3	169.6	141.0
67.5°	159.7	154.2	138.8	123.3	118.9
70°	129.9	123.3	117.8	101.3	96.9
72.5°	103.5	96.9	89.2	80.4	77.1
75°	78.2	72.7	68.3	65.0	71.6
77.5°	54.0	51.8	48.5	45.1	44.0
80°	35.2	34.1	33.0	31.9	30.8
82.5°	20.9	20.9	20.9	20.9	20.9
85°	11.0	12.1	13.2	14.3	15.4
87.5°	6.6	6.6	7.7	8.8	9.9
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)