

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: P545636

Luminaire Tested: **FMR-12-2-LD4-2LO-35-UNV-81-94-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: P545636
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-35-UNV-81-94-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

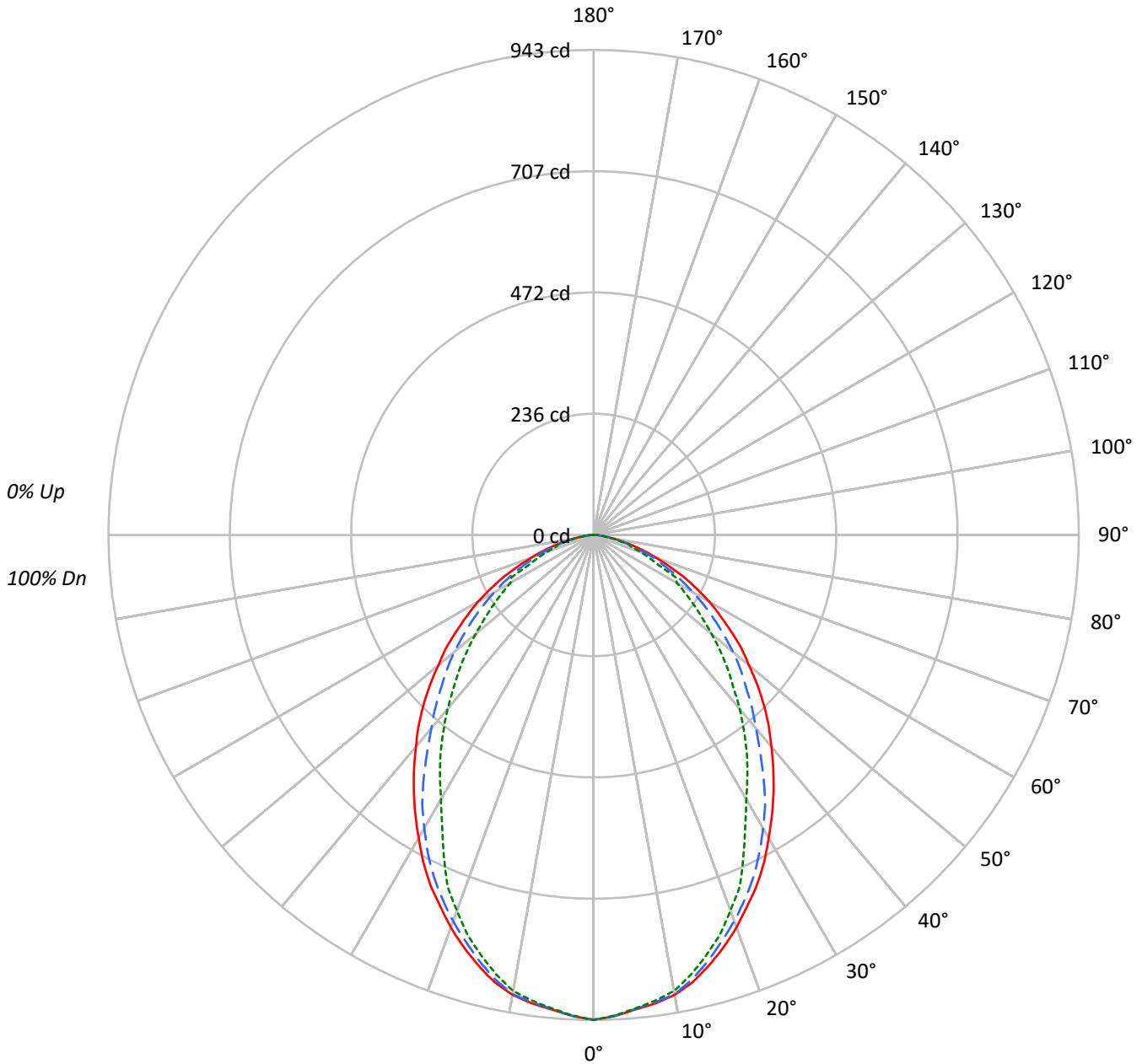
Lumens per Lamp: N/A
Luminaire Lumens: 1851.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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: P545636

CATALOG NUMBER: FMR-12-2-LD4-2LO-35-UNV-81-94-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°	5075	5075	5075
5°	5005	4999	4994
10°	4962	4956	4921
15°	4829	4780	4713
20°	4651	4576	4451
25°	4460	4363	4091
30°	4227	4092	3685
35°	4003	3781	3409
40°	3776	3446	3102
45°	3559	3186	2804
50°	3295	2957	2501
55°	3048	2680	2240
60°	2792	2394	2006
65°	2457	2096	1777
70°	2024	1835	1509
75°	1609	1406	1474
80°	1082	1013	945
85°	673	809	945



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	4.7
10°-20°	240.9	13.0
20°-30°	333.5	18.0
30°-40°	355.6	19.2
40°-50°	324.4	17.5
50°-60°	254.1	13.7
60°-70°	165.6	8.9
70°-80°	73.4	4.0
80°-90°	15.7	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°	662.1	35.8
0°-40°	1017.7	55.0
0°-60°	1596.2	86.2
0°-90°	1851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1851.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	926	925	925	924	924	88
15°	867	867	858	849	846	244
25°	751	747	735	708	689	345
35°	609	605	576	532	519	381
45°	468	458	419	384	368	360
55°	325	315	286	252	239	291
65°	193	182	165	168	140	190
75°	77	72	68	64	71	83
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	942.9	942.9	942.9	942.9	942.9
2.5°	936.3	936.3	936.3	935.2	935.2
5°	926.5	925.4	925.4	924.3	924.3
7.5°	918.9	917.8	916.7	915.6	913.4
10°	908.0	908.0	906.9	901.5	900.4
12.5°	890.6	889.5	885.1	877.5	875.3
15°	866.6	866.6	857.9	849.1	845.9
17.5°	840.4	839.3	828.4	819.7	815.3
20°	812.1	809.9	799.0	784.8	777.2
22.5°	780.5	780.5	767.4	748.8	741.2
25°	751.0	746.7	734.7	708.5	688.9
27.5°	717.2	710.7	697.6	660.6	637.7
30°	680.2	676.9	658.4	610.4	593.0
32.5°	645.3	639.8	620.2	570.1	555.9
35°	609.3	605.0	575.5	531.9	518.9
37.5°	573.4	567.9	530.8	496.0	479.6
40°	537.4	530.8	490.5	458.9	441.5
42.5°	503.6	494.9	455.6	421.8	402.2
45°	467.6	457.8	418.6	383.7	368.4
47.5°	431.7	422.9	387.0	351.0	333.5
50°	393.5	385.9	353.2	317.2	298.7
52.5°	361.9	349.9	318.3	282.3	267.1
55°	324.8	315.0	285.6	251.8	238.7
57.5°	291.0	281.2	254.0	222.4	211.5
60°	259.4	245.3	222.4	195.1	186.4
62.5°	224.5	213.6	194.0	171.1	182.0
65°	192.9	182.0	164.6	167.9	139.5
67.5°	158.1	152.6	137.3	122.1	117.7
70°	128.6	122.1	116.6	100.3	95.9
72.5°	102.5	95.9	88.3	79.6	76.3
75°	77.4	71.9	67.6	64.3	70.9
77.5°	53.4	51.2	48.0	44.7	43.6
80°	34.9	33.8	32.7	31.6	30.5
82.5°	20.7	20.7	20.7	20.7	20.7
85°	10.9	12.0	13.1	14.2	15.3
87.5°	6.5	6.5	7.6	8.7	9.8
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)