

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: P545140

Luminaire Tested: **FMR-12-1-LD4-2LO-50-UNV-93-94-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: P545140
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-LD4-2LO-50-UNV-93-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

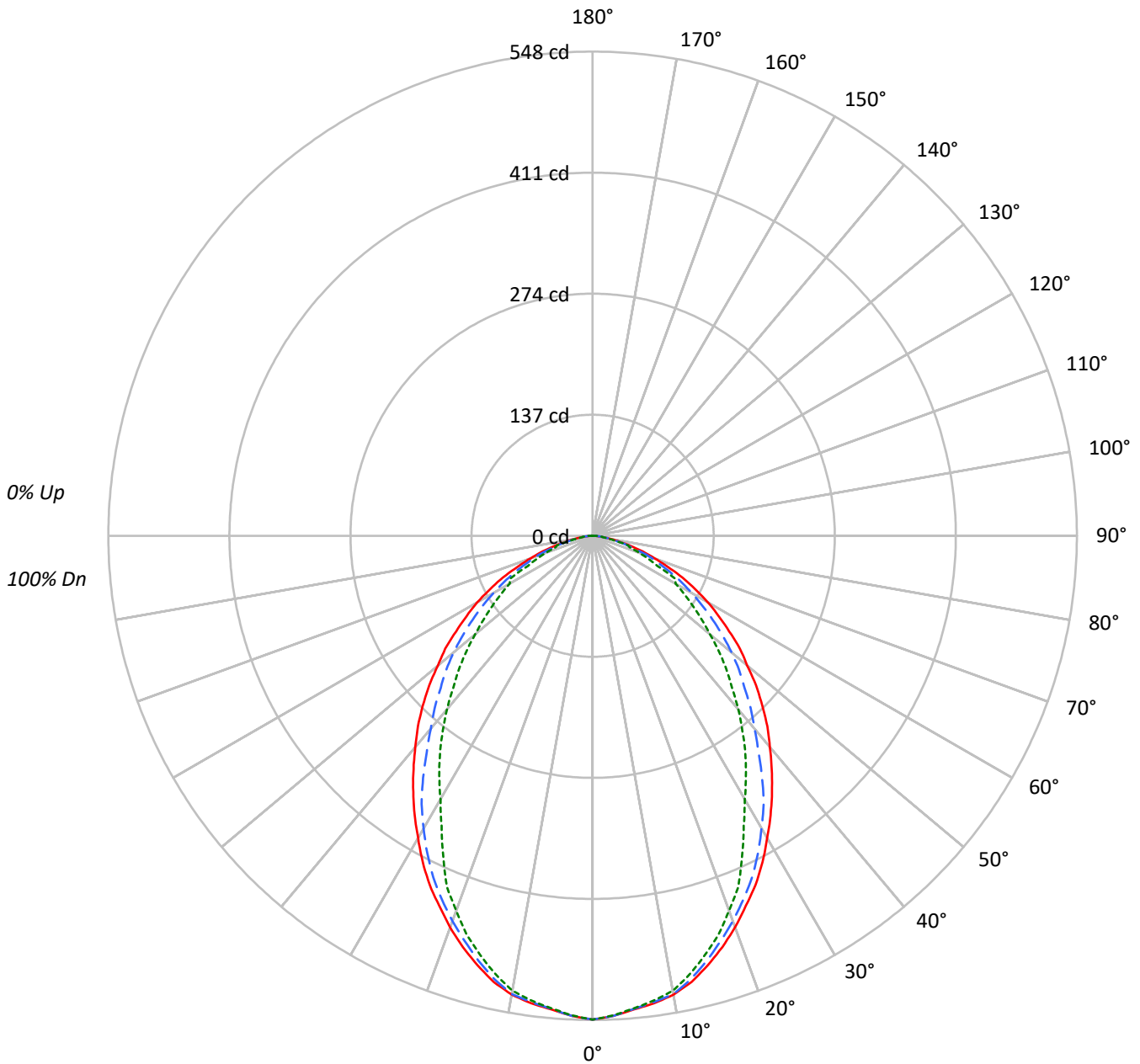
Lumens per Lamp: N/A
Luminaire Lumens: 1075.0 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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: P545140

CATALOG NUMBER: FMR-12-1-LD4-2LO-50-UNV-93-94-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°	5894	5894	5894
5°	5814	5808	5800
10°	5763	5757	5715
15°	5609	5552	5474
20°	5402	5315	5171
25°	5181	5068	4752
30°	4909	4753	4281
35°	4650	4393	3959
40°	4385	4003	3603
45°	4134	3701	3258
50°	3826	3435	2905
55°	3539	3113	2601
60°	3244	2779	2331
65°	2855	2435	2063
70°	2351	2131	1753
75°	1867	1630	1709
80°	1258	1178	1097
85°	778	939	1099



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.0	4.7
10°-20°	139.9	13.0
20°-30°	193.7	18.0
30°-40°	206.5	19.2
40°-50°	188.4	17.5
50°-60°	147.6	13.7
60°-70°	96.2	8.9
70°-80°	42.6	4.0
80°-90°	9.1	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°	384.5	35.8
0°-40°	591.0	55.0
0°-60°	927.0	86.2
0°-90°	1075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1075.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	548	548	548	548	548	
5°	538	538	538	537	537	51
15°	503	503	498	493	491	141
25°	436	434	427	412	400	200
35°	354	351	334	309	301	221
45°	272	266	243	223	214	209
55°	189	183	166	146	139	169
65°	112	106	96	98	81	110
75°	45	42	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	547.6	547.6	547.6	547.6	547.6
2.5°	543.8	543.8	543.8	543.2	543.2
5°	538.1	537.5	537.5	536.8	536.8
7.5°	533.7	533.0	532.4	531.8	530.5
10°	527.3	527.3	526.7	523.5	522.9
12.5°	517.2	516.6	514.0	509.6	508.3
15°	503.3	503.3	498.2	493.1	491.2
17.5°	488.1	487.5	481.1	476.1	473.5
20°	471.6	470.4	464.0	455.8	451.4
22.5°	453.3	453.3	445.7	434.9	430.5
25°	436.2	433.6	426.7	411.5	400.1
27.5°	416.5	412.8	405.2	383.6	370.3
30°	395.0	393.1	382.4	354.5	344.4
32.5°	374.8	371.6	360.2	331.1	322.9
35°	353.9	351.3	334.3	308.9	301.3
37.5°	333.0	329.8	308.3	288.0	278.5
40°	312.1	308.3	284.9	266.5	256.4
42.5°	292.5	287.4	264.6	245.0	233.6
45°	271.6	265.9	243.1	222.8	214.0
47.5°	250.7	245.6	224.7	203.8	193.7
50°	228.5	224.1	205.1	184.2	173.5
52.5°	210.2	203.2	184.9	164.0	155.1
55°	188.6	183.0	165.9	146.2	138.6
57.5°	169.0	163.3	147.5	129.1	122.8
60°	150.7	142.4	129.1	113.3	108.3
62.5°	130.4	124.1	112.7	99.4	105.7
65°	112.1	105.7	95.6	97.5	81.0
67.5°	91.8	88.6	79.8	70.9	68.4
70°	74.7	70.9	67.7	58.2	55.7
72.5°	59.5	55.7	51.3	46.2	44.3
75°	44.9	41.8	39.2	37.4	41.1
77.5°	31.0	29.8	27.9	26.0	25.3
80°	20.3	19.6	19.0	18.4	17.7
82.5°	12.0	12.0	12.0	12.0	12.0
85°	6.3	7.0	7.6	8.2	8.9
87.5°	3.8	3.8	4.4	5.1	5.7
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)