

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: P544752

Luminaire Tested: **FMR-12-1-LD4-1HI-50-UNV-93-85-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: P544752
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-93-85-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

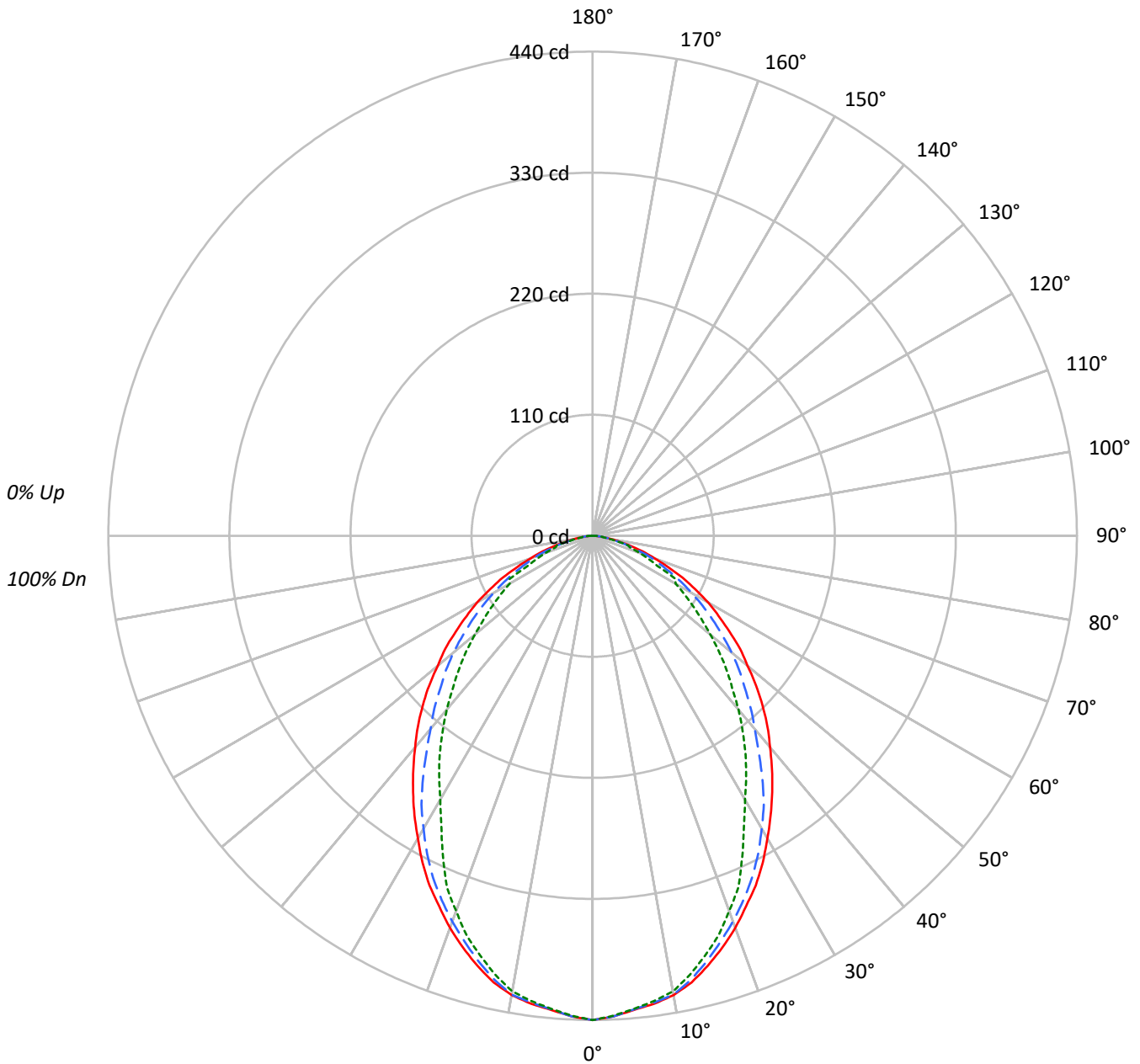
Lumens per Lamp: N/A
Luminaire Lumens: 864.0 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P544752

CATALOG NUMBER: FMR-12-1-LD4-1HI-50-UNV-93-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P544752

CATALOG NUMBER: FMR-12-1-LD4-1HI-50-UNV-93-85-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20	
RC	80				70				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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4737	4737	4737
5°	4673	4668	4662
10°	4632	4627	4594
15°	4508	4462	4400
20°	4342	4271	4156
25°	4164	4073	3820
30°	3946	3819	3440
35°	3737	3529	3183
40°	3524	3218	2896
45°	3323	2974	2618
50°	3076	2761	2334
55°	2845	2502	2091
60°	2607	2235	1873
65°	2295	1956	1658
70°	1888	1712	1410
75°	1501	1310	1377
80°	1010	948	880
85°	630	753	877



TEST NUMBER: P544752

CATALOG NUMBER: FMR-12-1-LD4-1HI-50-UNV-93-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	4.7
10°-20°	112.4	13.0
20°-30°	155.7	18.0
30°-40°	166.0	19.2
40°-50°	151.4	17.5
50°-60°	118.6	13.7
60°-70°	77.3	8.9
70°-80°	34.3	4.0
80°-90°	7.4	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°	309.1	35.8
0°-40°	475.0	55.0
0°-60°	745.1	86.2
0°-90°	864.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	864.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	440	440	440	440	440	
5°	432	432	432	432	432	41
15°	404	404	400	396	395	114
25°	351	348	343	331	322	161
35°	284	282	269	248	242	178
45°	218	214	195	179	172	168
55°	152	147	133	118	111	136
65°	90	85	77	78	65	89
75°	36	34	32	30	33	39
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



TEST NUMBER: P544752

CATALOG NUMBER: FMR-12-1-LD4-1HI-50-UNV-93-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	440.1	440.1	440.1	440.1	440.1
2.5°	437.1	437.1	437.1	436.5	436.5
5°	432.5	432.0	432.0	431.5	431.5
7.5°	428.9	428.4	427.9	427.4	426.4
10°	423.8	423.8	423.3	420.8	420.3
12.5°	415.7	415.2	413.1	409.6	408.6
15°	404.5	404.5	400.4	396.4	394.8
17.5°	392.3	391.8	386.7	382.6	380.6
20°	379.1	378.0	372.9	366.3	362.8
22.5°	364.3	364.3	358.2	349.5	346.0
25°	350.6	348.5	342.9	330.7	321.6
27.5°	334.8	331.7	325.6	308.3	297.6
30°	317.5	316.0	307.3	284.9	276.8
32.5°	301.2	298.7	289.5	266.1	259.5
35°	284.4	282.4	268.6	248.3	242.2
37.5°	267.6	265.1	247.8	231.5	223.9
40°	250.8	247.8	229.0	214.2	206.1
42.5°	235.1	231.0	212.7	196.9	187.7
45°	218.3	213.7	195.4	179.1	172.0
47.5°	201.5	197.4	180.6	163.8	155.7
50°	183.7	180.1	164.9	148.1	139.4
52.5°	168.9	163.3	148.6	131.8	124.7
55°	151.6	147.0	133.3	117.5	111.4
57.5°	135.8	131.3	118.5	103.8	98.7
60°	121.1	114.5	103.8	91.1	87.0
62.5°	104.8	99.7	90.6	79.9	85.0
65°	90.1	85.0	76.8	78.4	65.1
67.5°	73.8	71.2	64.1	57.0	55.0
70°	60.0	57.0	54.4	46.8	44.8
72.5°	47.8	44.8	41.2	37.1	35.6
75°	36.1	33.6	31.5	30.0	33.1
77.5°	24.9	23.9	22.4	20.9	20.4
80°	16.3	15.8	15.3	14.8	14.2
82.5°	9.7	9.7	9.7	9.7	9.7
85°	5.1	5.6	6.1	6.6	7.1
87.5°	3.1	3.1	3.6	4.1	4.6
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)