

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: P545426

Luminaire Tested: **FMR-12-2-LD4-1LO-50-UNV-93-87-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: P545426
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-LD4-1LO-50-UNV-93-87-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

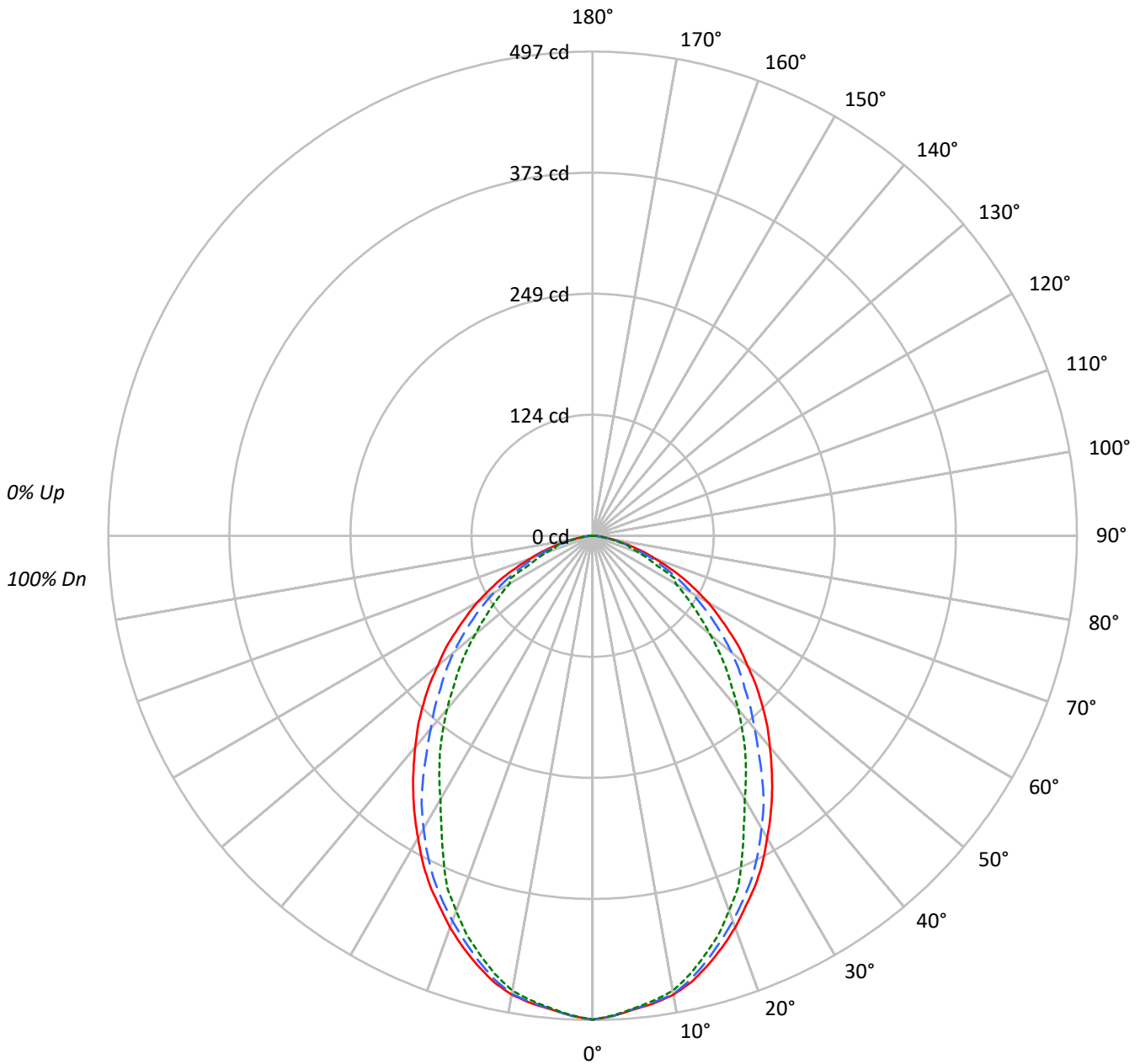
Lumens per Lamp: N/A
Luminaire Lumens: 975.0 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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

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Luminous Intensity Polar Plot





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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	48	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°	2673	2673	2673
5°	2636	2634	2630
10°	2614	2611	2592
15°	2544	2518	2483
20°	2450	2411	2345
25°	2349	2298	2155
30°	2227	2155	1941
35°	2109	1992	1796
40°	1989	1815	1633
45°	1875	1678	1477
50°	1736	1557	1317
55°	1605	1411	1179
60°	1471	1260	1057
65°	1294	1104	936
70°	1067	966	795
75°	848	740	776
80°	570	533	499
85°	352	426	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.2	4.7
10°-20°	126.9	13.0
20°-30°	175.7	18.0
30°-40°	187.3	19.2
40°-50°	170.9	17.5
50°-60°	133.9	13.7
60°-70°	87.2	8.9
70°-80°	38.7	4.0
80°-90°	8.3	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°	348.8	35.8
0°-40°	536.1	55.0
0°-60°	840.8	86.2
0°-90°	975.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	975.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	497	497	497	497	497	
5°	488	488	488	487	487	46
15°	456	456	452	447	446	128
25°	396	393	387	373	363	182
35°	321	319	303	280	273	201
45°	246	241	220	202	194	190
55°	171	166	150	133	126	153
65°	102	96	87	88	74	100
75°	41	38	36	34	37	44
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	496.7	496.7	496.7	496.7	496.7
2.5°	493.2	493.2	493.2	492.6	492.6
5°	488.0	487.5	487.5	486.9	486.9
7.5°	484.0	483.4	482.9	482.3	481.1
10°	478.3	478.3	477.7	474.8	474.3
12.5°	469.1	468.5	466.2	462.2	461.1
15°	456.5	456.5	451.9	447.3	445.6
17.5°	442.7	442.1	436.4	431.8	429.5
20°	427.8	426.6	420.9	413.4	409.4
22.5°	411.1	411.1	404.2	394.5	390.4
25°	395.6	393.3	387.0	373.2	362.9
27.5°	377.8	374.4	367.5	347.9	335.9
30°	358.3	356.6	346.8	321.5	312.3
32.5°	339.9	337.0	326.7	300.3	292.8
35°	321.0	318.7	303.2	280.2	273.3
37.5°	302.0	299.1	279.6	261.2	252.6
40°	283.1	279.6	258.4	241.7	232.5
42.5°	265.3	260.7	240.0	222.2	211.9
45°	246.3	241.1	220.5	202.1	194.1
47.5°	227.4	222.8	203.8	184.9	175.7
50°	207.3	203.3	186.0	167.1	157.3
52.5°	190.6	184.3	167.7	148.7	140.7
55°	171.1	165.9	150.4	132.6	125.7
57.5°	153.3	148.1	133.8	117.1	111.4
60°	136.7	129.2	117.1	102.8	98.2
62.5°	118.3	112.5	102.2	90.1	95.9
65°	101.6	95.9	86.7	88.4	73.5
67.5°	83.3	80.4	72.3	64.3	62.0
70°	67.8	64.3	61.4	52.8	50.5
72.5°	54.0	50.5	46.5	41.9	40.2
75°	40.8	37.9	35.6	33.9	37.3
77.5°	28.1	27.0	25.3	23.5	23.0
80°	18.4	17.8	17.2	16.7	16.1
82.5°	10.9	10.9	10.9	10.9	10.9
85°	5.7	6.3	6.9	7.5	8.0
87.5°	3.4	3.4	4.0	4.6	5.2
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)