

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: P547358

Luminaire Tested: **FMR-24-4-LD4-4LO-35-UNV-80-97-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: P547358
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-24-4-LD4-4LO-35-UNV-80-97-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

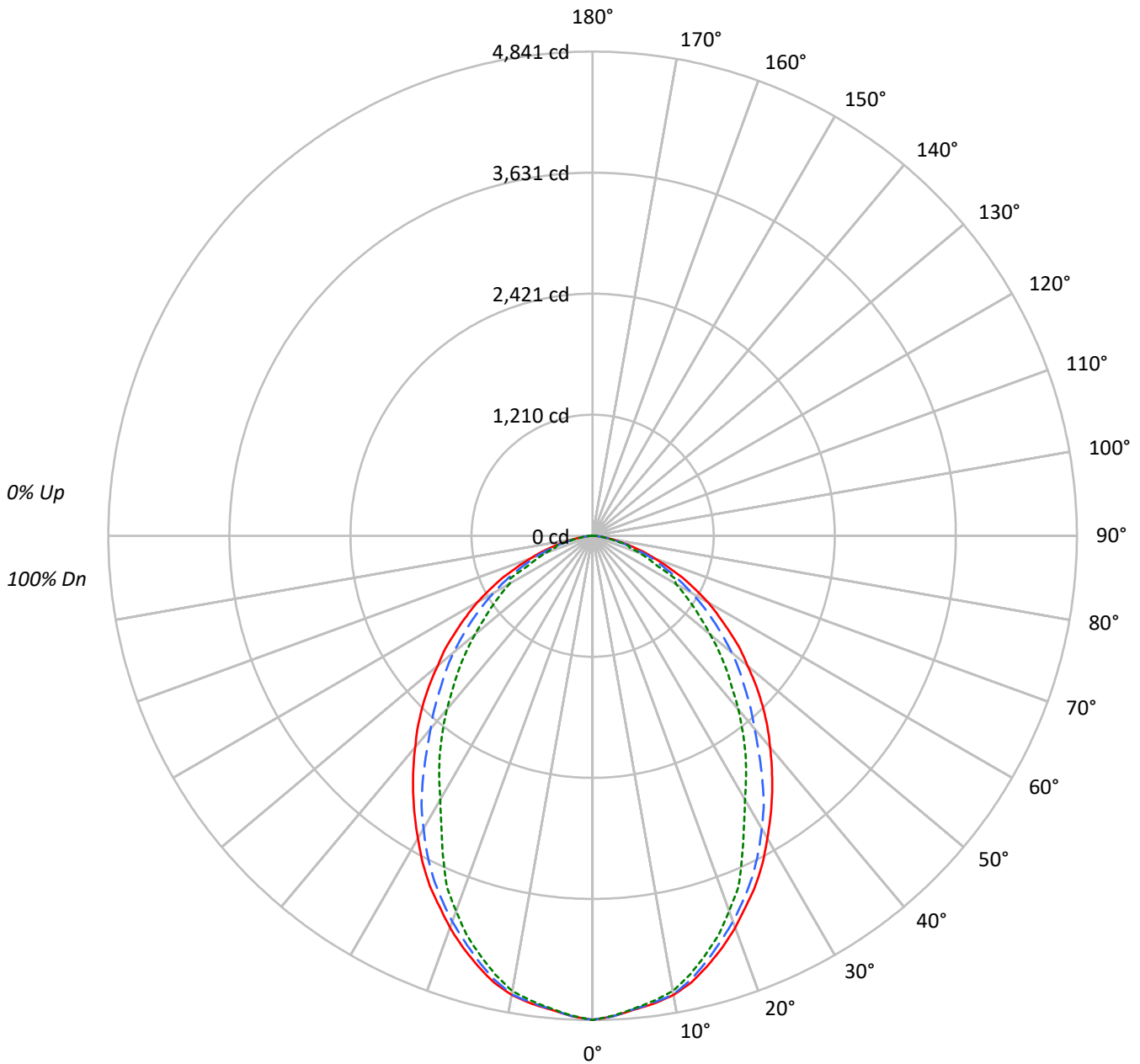
Lumens per Lamp: N/A
Luminaire Lumens: 9503.0 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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°	6513	6513	6513
5°	6425	6417	6410
10°	6369	6361	6315
15°	6197	6135	6049
20°	5970	5873	5713
25°	5724	5600	5251
30°	5425	5251	4730
35°	5138	4853	4375
40°	4846	4423	3981
45°	4568	4089	3599
50°	4229	3795	3210
55°	3912	3439	2875
60°	3584	3072	2575
65°	3153	2690	2280
70°	2598	2356	1937
75°	2065	1804	1891
80°	1388	1301	1214
85°	865	1037	1209



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	450.6	4.7
10°-20°	1236.6	13.0
20°-30°	1712.1	18.0
30°-40°	1825.5	19.2
40°-50°	1665.4	17.5
50°-60°	1304.7	13.7
60°-70°	850.4	8.9
70°-80°	376.7	4.0
80°-90°	80.9	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°	3399.3	35.8
0°-40°	5224.8	55.0
0°-60°	8195.0	86.2
0°-90°	9503.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9503.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4841	4841	4841	4841	4841	
5°	4757	4751	4751	4746	4746	452
15°	4449	4449	4404	4359	4343	1251
25°	3856	3833	3772	3638	3537	1770
35°	3128	3106	2955	2731	2664	1956
45°	2401	2350	2149	1970	1892	1849
55°	1668	1617	1466	1293	1226	1496
65°	990	935	845	862	716	976
75°	397	369	347	330	364	426
85°	56	62	67	73	78	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4840.7	4840.7	4840.7	4840.7	4840.7
2.5°	4807.1	4807.1	4807.1	4801.5	4801.5
5°	4756.8	4751.2	4751.2	4745.6	4745.6
7.5°	4717.6	4712.0	4706.4	4700.8	4689.6
10°	4661.6	4661.6	4656.0	4628.0	4622.4
12.5°	4572.1	4566.5	4544.1	4504.9	4493.7
15°	4449.0	4449.0	4404.2	4359.4	4342.6
17.5°	4314.7	4309.1	4253.1	4208.3	4185.9
20°	4169.2	4158.0	4102.0	4029.3	3990.1
22.5°	4006.9	4006.9	3939.7	3844.6	3805.4
25°	3855.8	3833.4	3771.8	3637.5	3536.8
27.5°	3682.3	3648.7	3581.6	3391.3	3273.8
30°	3492.0	3475.2	3380.1	3133.9	3044.3
32.5°	3312.9	3285.0	3184.2	2926.8	2854.1
35°	3128.3	3105.9	2954.8	2730.9	2663.8
37.5°	2943.6	2915.6	2725.3	2546.3	2462.3
40°	2758.9	2725.3	2518.3	2356.0	2266.5
42.5°	2585.4	2540.7	2339.2	2165.7	2065.0
45°	2400.8	2350.4	2148.9	1969.9	1891.5
47.5°	2216.1	2171.3	1986.6	1802.0	1712.4
50°	2020.2	1981.0	1813.2	1628.5	1533.4
52.5°	1857.9	1796.4	1634.1	1449.4	1371.1
55°	1667.7	1617.3	1466.2	1292.7	1225.6
57.5°	1494.2	1443.8	1303.9	1141.6	1085.7
60°	1331.9	1259.1	1141.6	1001.7	956.9
62.5°	1152.8	1096.9	996.1	878.6	934.6
65°	990.5	934.6	845.0	861.8	716.3
67.5°	811.4	783.5	705.1	626.8	604.4
70°	660.3	626.8	598.8	514.8	492.5
72.5°	526.0	492.5	453.3	408.5	391.7
75°	397.3	369.3	347.0	330.2	363.8
77.5°	274.2	263.0	246.2	229.4	223.8
80°	179.1	173.5	167.9	162.3	156.7
82.5°	106.3	106.3	106.3	106.3	106.3
85°	56.0	61.6	67.2	72.8	78.3
87.5°	33.6	33.6	39.2	44.8	50.4
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)