

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: P588846

Luminaire Tested: **FMR-24-2-LD4-1LO-40-UNV-93-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588846
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-1LO-40-UNV-93-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

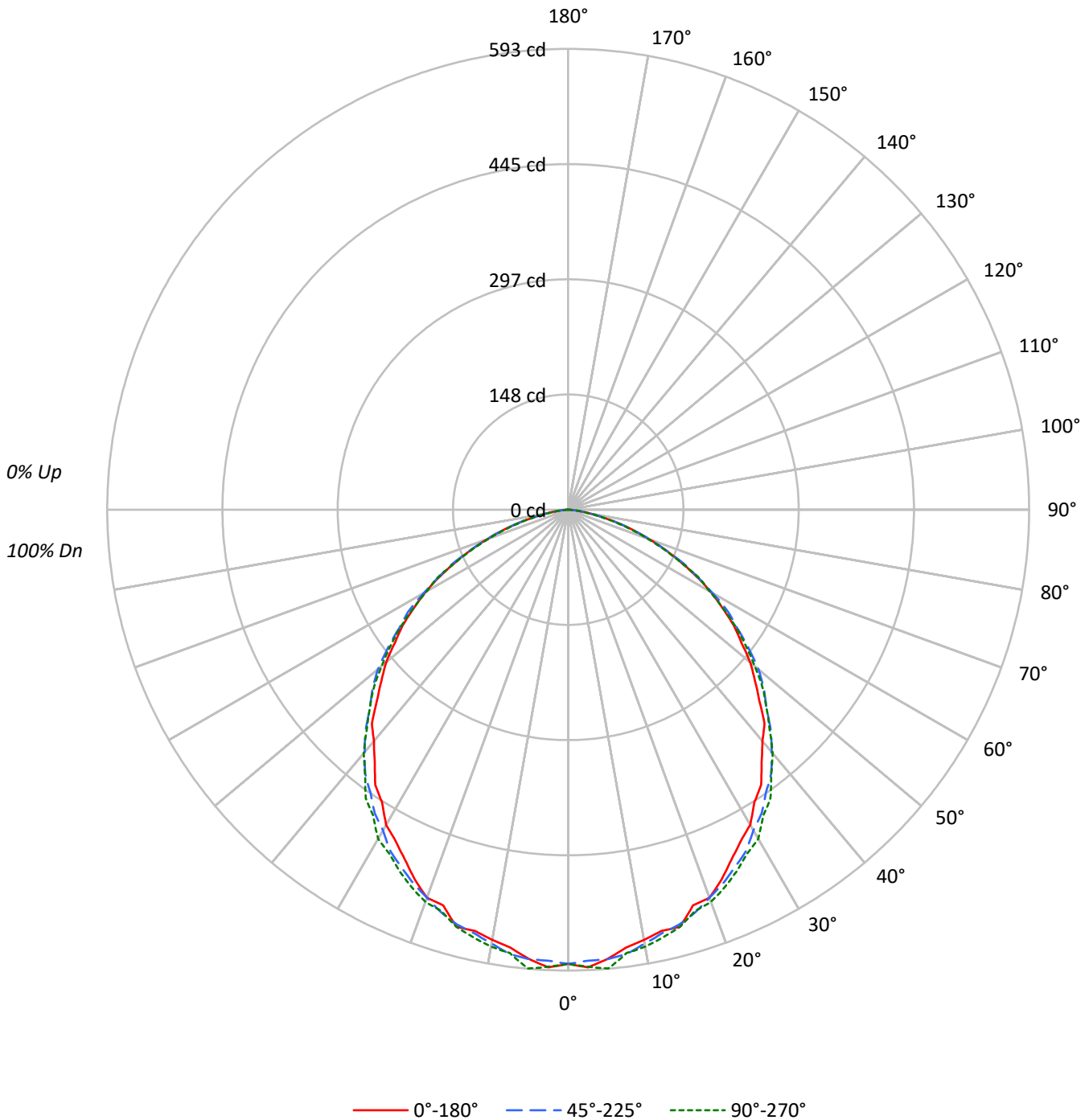
Lumens per Lamp: N/A
Luminaire Lumens: 1473.0 lumens
Efficiency: N/A
Efficacy: 125.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P588846

CATALOG NUMBER: FMR-24-2-LD4-1LO-40-UNV-93-85-EDD

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1573	1573	1573
5°	1568	1568	1601
10°	1536	1549	1560
15°	1548	1539	1548
20°	1522	1522	1538
25°	1475	1507	1524
30°	1455	1480	1520
35°	1420	1458	1490
40°	1365	1431	1437
45°	1324	1371	1373
50°	1280	1338	1312
55°	1220	1244	1235
60°	1141	1152	1131
65°	1018	1043	1010
70°	873	876	851
75°	691	689	663
80°	463	451	432
85°	250	250	232



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.0	3.7
10°-20°	155.8	10.6
20°-30°	233.4	15.8
30°-40°	276.7	18.8
40°-50°	277.2	18.8
50°-60°	235.3	16.0
60°-70°	158.6	10.8
70°-80°	69.7	4.7
80°-90°	11.3	0.8
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°	444.2	30.2
0°-40°	720.9	48.9
0°-60°	1233.3	83.7
0°-90°	1473.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1473.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	584	584	584	584	584	
5°	580	579	580	579	593	55
15°	556	549	553	556	556	155
25°	497	500	508	514	513	230
35°	432	434	444	454	454	268
45°	348	354	360	370	361	269
55°	260	258	265	263	263	231
65°	160	158	164	158	159	159
75°	66	65	66	62	64	71
85°	8	8	8	8	8	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	584.4	584.4	584.4	584.4	584.4
2.5°	589.5	585.1	580.9	585.7	588.7
5°	580.3	578.9	580.5	578.8	592.7
7.5°	568.4	573.6	576.6	574.7	575.5
10°	562.0	560.2	566.9	571.6	570.9
12.5°	555.2	558.0	558.3	563.4	563.8
15°	555.6	549.2	552.6	555.5	555.7
17.5°	534.0	541.0	543.3	549.9	541.7
20°	531.4	526.3	531.4	538.1	537.1
22.5°	515.2	509.5	520.4	526.3	526.0
25°	496.8	499.5	507.6	514.3	513.2
27.5°	480.6	483.8	495.4	504.5	498.6
30°	468.2	466.6	476.4	484.5	489.1
32.5°	445.9	451.6	463.1	471.2	466.9
35°	432.4	433.7	443.7	454.0	453.7
37.5°	408.8	414.7	428.8	431.7	429.1
40°	388.6	394.6	407.3	410.4	409.2
42.5°	373.8	374.8	385.8	389.3	383.6
45°	347.9	354.4	360.3	369.5	360.8
47.5°	325.8	328.9	341.5	344.0	339.4
50°	305.8	306.9	319.7	316.6	313.5
52.5°	280.7	285.2	292.3	291.7	288.2
55°	260.0	258.3	265.1	263.3	263.2
57.5°	235.2	238.2	243.8	240.9	236.3
60°	212.0	212.0	214.1	210.8	210.2
62.5°	186.1	187.0	187.4	183.4	189.9
65°	159.8	157.6	163.8	157.6	158.6
67.5°	135.5	136.6	136.0	132.1	133.6
70°	110.9	112.3	111.3	106.9	108.2
72.5°	88.4	86.8	87.8	82.3	84.8
75°	66.5	65.1	66.3	61.7	63.8
77.5°	45.3	46.3	45.6	43.1	44.5
80°	29.9	29.1	29.1	27.6	27.9
82.5°	17.4	16.6	16.4	15.9	16.6
85°	8.1	7.9	8.1	7.8	7.5
87.5°	2.9	3.0	3.0	2.9	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)