

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: P589237

Luminaire Tested: **FMR-24-2-LD4-2STD-50-UNV-80-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589237
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-LD4-2STD-50-UNV-80-84-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

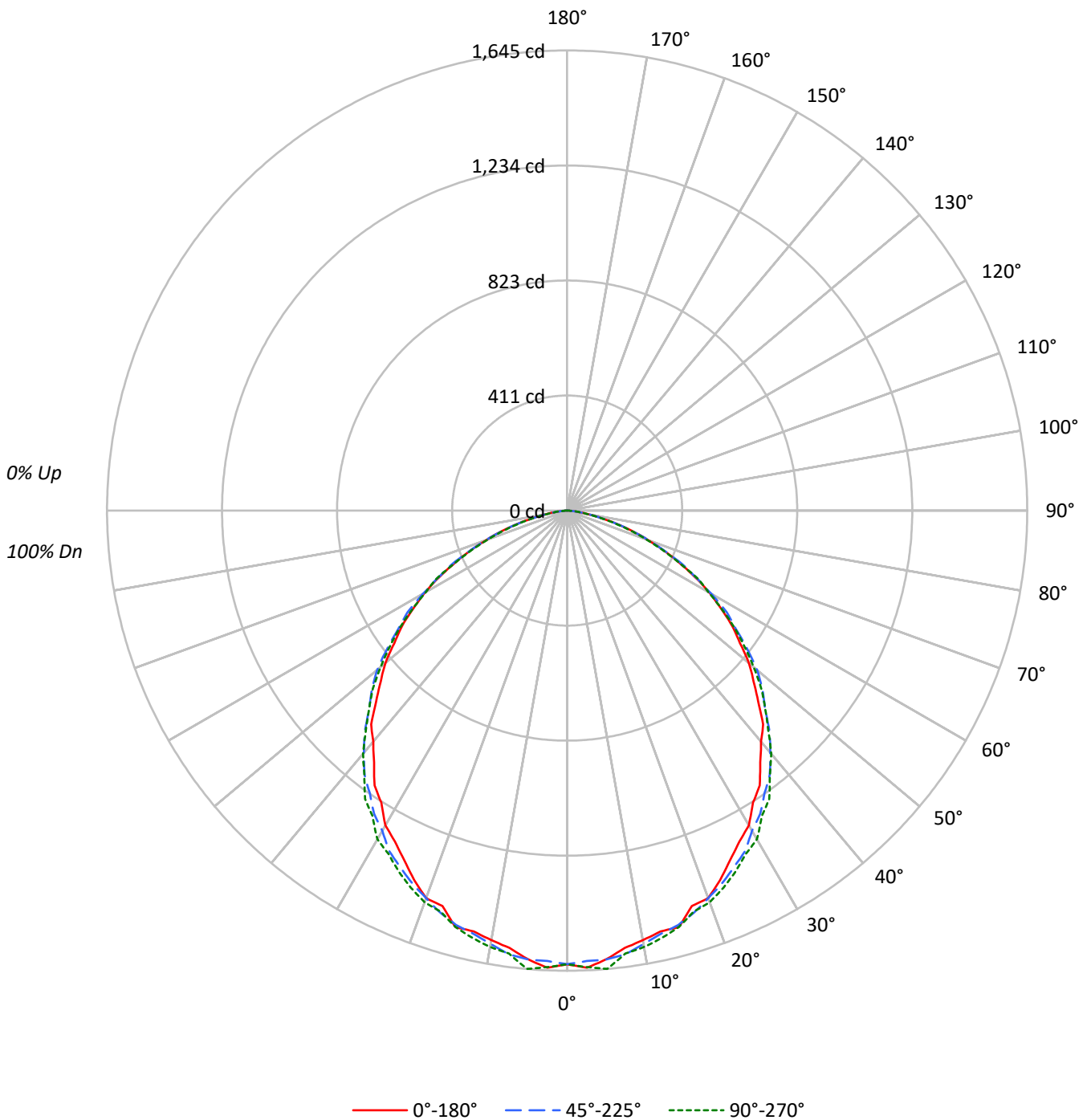
Lumens per Lamp: N/A
Luminaire Lumens: 4087.0 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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	
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°	4364	4364	4364
5°	4349	4351	4442
10°	4261	4298	4329
15°	4295	4272	4295
20°	4222	4222	4267
25°	4092	4182	4228
30°	4036	4107	4217
35°	3941	4044	4135
40°	3788	3970	3988
45°	3673	3804	3809
50°	3553	3713	3642
55°	3385	3451	3426
60°	3165	3197	3139
65°	2822	2895	2802
70°	2422	2430	2362
75°	1918	1913	1839
80°	1285	1249	1201
85°	698	692	645



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.5	3.7
10°-20°	432.3	10.6
20°-30°	647.7	15.8
30°-40°	767.6	18.8
40°-50°	769.1	18.8
50°-60°	652.8	16.0
60°-70°	440.1	10.8
70°-80°	193.4	4.7
80°-90°	31.4	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°	1232.5	30.2
0°-40°	2000.2	48.9
0°-60°	3422.0	83.7
0°-90°	4087.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4087.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1622	1622	1622	1622	1622	
5°	1610	1606	1611	1606	1645	152
15°	1542	1524	1533	1541	1542	430
25°	1378	1386	1408	1427	1424	637
35°	1200	1203	1231	1260	1259	745
45°	965	983	1000	1025	1001	747
55°	722	717	736	730	730	642
65°	443	437	455	437	440	441
75°	184	181	184	171	177	198
85°	23	22	22	22	21	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1621.6	1621.6	1621.6	1621.6	1621.6
2.5°	1635.6	1623.3	1611.8	1625.2	1633.3
5°	1610.1	1606.3	1610.7	1605.9	1644.6
7.5°	1577.0	1591.5	1599.8	1594.6	1596.9
10°	1559.4	1554.4	1573.0	1586.0	1584.1
12.5°	1540.6	1548.1	1549.2	1563.2	1564.5
15°	1541.6	1523.8	1533.3	1541.2	1541.8
17.5°	1481.8	1501.0	1507.5	1525.7	1503.1
20°	1474.4	1460.4	1474.4	1493.1	1490.1
22.5°	1429.4	1413.7	1443.9	1460.4	1459.4
25°	1378.3	1385.9	1408.5	1426.9	1424.0
27.5°	1333.5	1342.3	1374.6	1399.9	1383.6
30°	1299.0	1294.6	1321.8	1344.4	1357.0
32.5°	1237.2	1253.1	1284.9	1307.3	1295.4
35°	1199.7	1203.3	1231.1	1259.6	1258.8
37.5°	1134.2	1150.7	1189.9	1197.8	1190.5
40°	1078.3	1094.8	1130.2	1138.8	1135.2
42.5°	1037.0	1040.0	1070.3	1080.2	1064.5
45°	965.2	983.2	999.6	1025.3	1001.0
47.5°	904.1	912.5	947.6	954.5	941.8
50°	848.6	851.5	886.9	878.3	870.0
52.5°	778.9	791.2	811.1	809.4	799.6
55°	721.5	716.7	735.5	730.5	730.3
57.5°	652.6	661.0	676.5	668.5	655.8
60°	588.1	588.3	594.0	585.0	583.3
62.5°	516.3	518.8	520.1	509.0	527.0
65°	443.2	437.4	454.6	437.2	440.1
67.5°	376.0	379.0	377.3	366.4	370.6
70°	307.8	311.6	308.8	296.5	300.2
72.5°	245.4	240.8	243.7	228.2	235.3
75°	184.5	180.7	184.0	171.1	176.9
77.5°	125.6	128.6	126.5	119.6	123.5
80°	82.9	80.6	80.6	76.6	77.5
82.5°	48.4	46.1	45.4	44.2	46.1
85°	22.6	22.0	22.4	21.8	20.9
87.5°	8.2	8.4	8.4	8.0	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)