

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: P589378

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589378
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-LD4-3LO-35-UNV-81-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

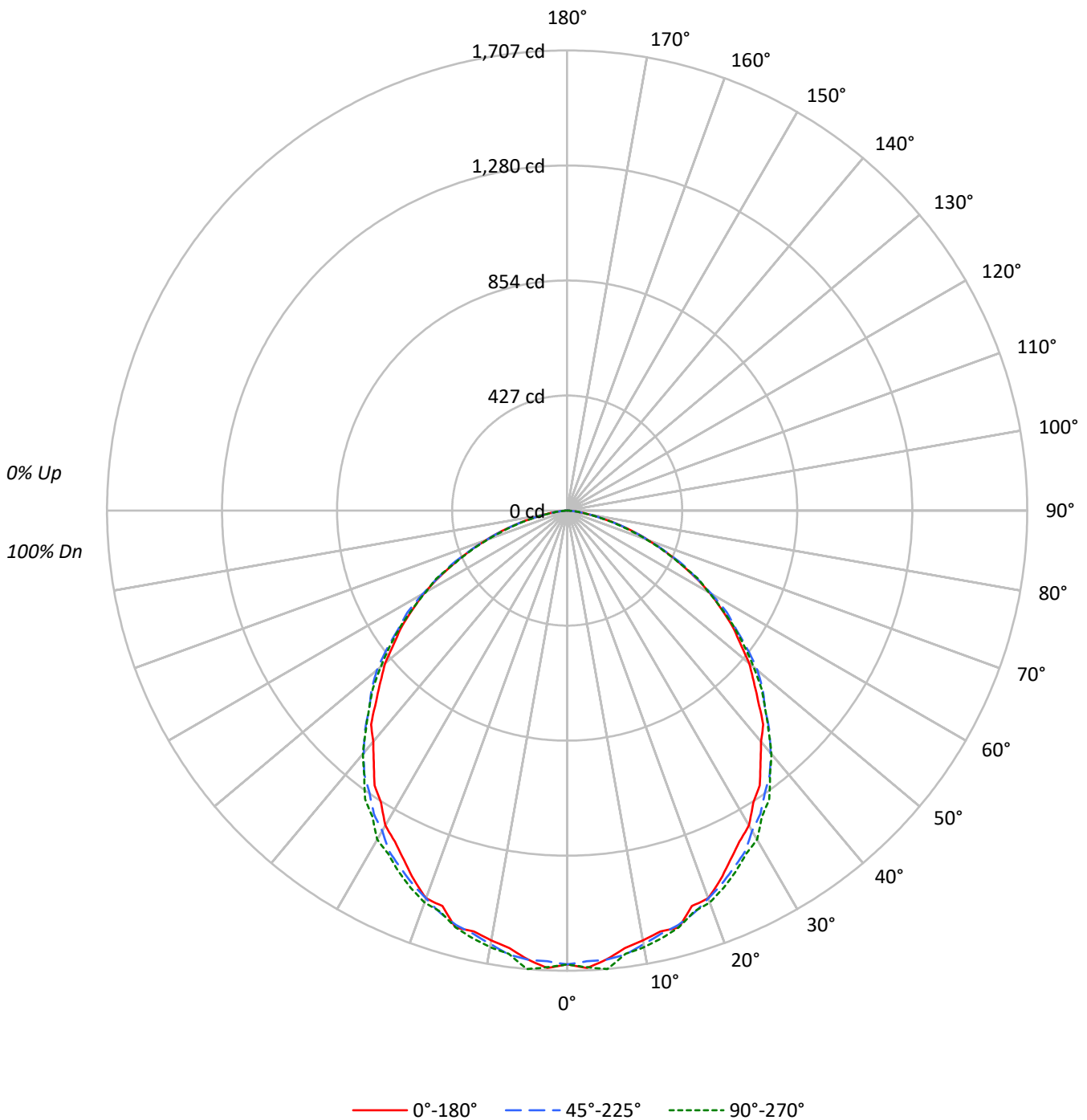
Lumens per Lamp: N/A
Luminaire Lumens: 4243.0 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	4530	4530	4530
5°	4515	4517	4612
10°	4424	4462	4494
15°	4459	4435	4459
20°	4383	4383	4430
25°	4249	4342	4389
30°	4190	4264	4378
35°	4092	4199	4293
40°	3932	4122	4140
45°	3814	3949	3955
50°	3688	3855	3781
55°	3514	3582	3557
60°	3286	3319	3259
65°	2930	3005	2909
70°	2514	2522	2452
75°	1991	1987	1910
80°	1334	1297	1246
85°	726	719	670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	3.7
10°-20°	448.8	10.6
20°-30°	672.4	15.8
30°-40°	796.9	18.8
40°-50°	798.4	18.8
50°-60°	677.7	16.0
60°-70°	456.9	10.8
70°-80°	200.8	4.7
80°-90°	32.6	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°	1279.6	30.2
0°-40°	2076.5	48.9
0°-60°	3552.7	83.7
0°-90°	4243.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4243.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1684	1684	1684	1684	1684	
5°	1672	1668	1672	1667	1707	158
15°	1600	1582	1592	1600	1601	446
25°	1431	1439	1462	1481	1478	662
35°	1246	1249	1278	1308	1307	773
45°	1002	1021	1038	1064	1039	775
55°	749	744	764	758	758	666
65°	460	454	472	454	457	458
75°	192	188	191	178	184	205
85°	24	23	23	23	22	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1683.5	1683.5	1683.5	1683.5	1683.5
2.5°	1698.1	1685.3	1673.3	1687.2	1695.7
5°	1671.6	1667.6	1672.2	1667.2	1707.4
7.5°	1637.2	1652.2	1660.9	1655.5	1657.9
10°	1619.0	1613.7	1633.1	1646.6	1644.6
12.5°	1599.4	1607.2	1608.3	1622.9	1624.2
15°	1600.5	1582.0	1591.8	1600.0	1600.7
17.5°	1538.3	1558.3	1565.0	1584.0	1560.5
20°	1530.7	1516.1	1530.7	1550.1	1547.0
22.5°	1484.0	1467.7	1499.0	1516.1	1515.1
25°	1430.9	1438.8	1462.2	1481.4	1478.3
27.5°	1384.4	1393.5	1427.0	1453.3	1436.4
30°	1348.6	1344.0	1372.2	1395.7	1408.8
32.5°	1284.4	1300.9	1334.0	1357.2	1344.9
35°	1245.5	1249.2	1278.1	1307.7	1306.8
37.5°	1177.5	1194.7	1235.3	1243.6	1236.0
40°	1119.4	1136.6	1173.4	1182.3	1178.6
42.5°	1076.6	1079.7	1111.2	1121.4	1105.1
45°	1002.1	1020.8	1037.7	1064.5	1039.2
47.5°	938.6	947.3	983.8	991.0	977.7
50°	881.0	884.0	920.8	911.9	903.2
52.5°	808.6	821.4	842.1	840.3	830.1
55°	749.1	744.1	763.6	758.4	758.2
57.5°	677.5	686.2	702.3	694.1	680.8
60°	610.6	610.8	616.7	607.3	605.6
62.5°	536.0	538.6	539.9	528.4	547.1
65°	460.2	454.1	471.9	453.9	456.9
67.5°	390.4	393.4	391.7	380.4	384.7
70°	319.5	323.4	320.6	307.8	311.7
72.5°	254.8	250.0	253.0	236.9	244.3
75°	191.5	187.6	191.1	177.6	183.7
77.5°	130.4	133.5	131.3	124.1	128.2
80°	86.1	83.7	83.7	79.6	80.4
82.5°	50.2	47.8	47.2	45.9	47.8
85°	23.5	22.8	23.3	22.6	21.7
87.5°	8.5	8.7	8.7	8.3	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)