

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: P589373

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589373
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-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

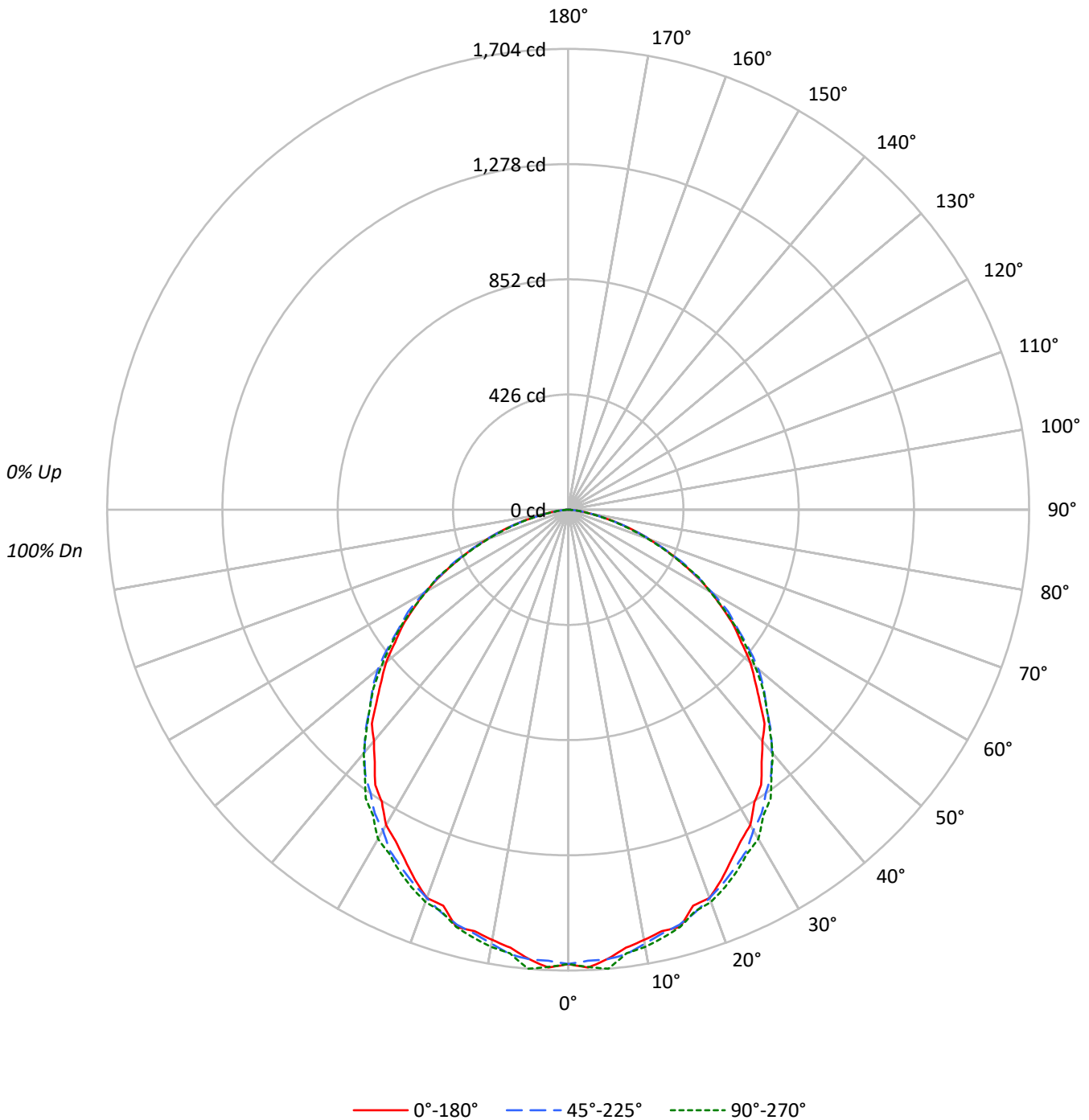
Lumens per Lamp: N/A
Luminaire Lumens: 4234.0 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4521	4521	4521
5°	4506	4508	4602
10°	4414	4453	4484
15°	4449	4425	4450
20°	4374	4374	4421
25°	4240	4332	4380
30°	4181	4255	4368
35°	4083	4190	4284
40°	3924	4113	4131
45°	3805	3941	3946
50°	3680	3846	3773
55°	3507	3575	3550
60°	3279	3312	3252
65°	2924	2998	2903
70°	2509	2517	2447
75°	1987	1983	1906
80°	1331	1294	1244
85°	722	716	670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.0	3.7
10°-20°	447.9	10.6
20°-30°	671.0	15.8
30°-40°	795.3	18.8
40°-50°	796.7	18.8
50°-60°	676.3	16.0
60°-70°	456.0	10.8
70°-80°	200.3	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°	1276.9	30.2
0°-40°	2072.1	48.9
0°-60°	3545.1	83.7
0°-90°	4234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4234.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1680	1680	1680	1680	1680	
5°	1668	1664	1669	1664	1704	157
15°	1597	1579	1588	1597	1597	445
25°	1428	1436	1459	1478	1475	660
35°	1243	1247	1275	1305	1304	772
45°	1000	1019	1036	1062	1037	773
55°	748	742	762	757	757	665
65°	459	453	471	453	456	457
75°	191	187	191	177	183	205
85°	23	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°	1679.9	1679.9	1679.9	1679.9	1679.9
2.5°	1694.5	1681.7	1669.7	1683.6	1692.1
5°	1668.0	1664.1	1668.7	1663.7	1703.8
7.5°	1633.7	1648.7	1657.4	1652.0	1654.3
10°	1615.5	1610.3	1629.6	1643.1	1641.1
12.5°	1596.0	1603.8	1604.9	1619.4	1620.7
15°	1597.1	1578.6	1588.4	1596.7	1597.3
17.5°	1535.1	1555.0	1561.7	1580.6	1557.2
20°	1527.5	1512.9	1527.5	1546.8	1543.7
22.5°	1480.8	1464.6	1495.8	1512.9	1511.8
25°	1427.9	1435.7	1459.1	1478.2	1475.2
27.5°	1381.5	1390.6	1424.0	1450.2	1433.3
30°	1345.7	1341.1	1369.3	1392.8	1405.8
32.5°	1281.7	1298.2	1331.2	1354.4	1342.0
35°	1242.9	1246.6	1275.4	1304.9	1304.0
37.5°	1175.0	1192.1	1232.7	1240.9	1233.3
40°	1117.1	1134.2	1170.9	1179.8	1176.1
42.5°	1074.3	1077.4	1108.8	1119.0	1102.8
45°	999.9	1018.6	1035.5	1062.2	1037.0
47.5°	936.6	945.3	981.7	988.9	975.6
50°	879.1	882.2	918.8	909.9	901.2
52.5°	806.9	819.7	840.3	838.6	828.4
55°	747.5	742.5	762.0	756.8	756.6
57.5°	676.1	684.8	700.8	692.6	679.4
60°	609.3	609.5	615.4	606.0	604.3
62.5°	534.9	537.5	538.8	527.3	546.0
65°	459.2	453.1	470.9	452.9	455.9
67.5°	389.6	392.6	390.9	379.6	383.9
70°	318.9	322.8	319.9	307.1	311.0
72.5°	254.2	249.4	252.5	236.4	243.8
75°	191.1	187.2	190.7	177.2	183.3
77.5°	130.1	133.2	131.0	123.9	128.0
80°	85.9	83.5	83.5	79.4	80.3
82.5°	50.1	47.7	47.1	45.8	47.7
85°	23.4	22.8	23.2	22.6	21.7
87.5°	8.5	8.7	8.7	8.2	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)