

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: P589374

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-81-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589374
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-81-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

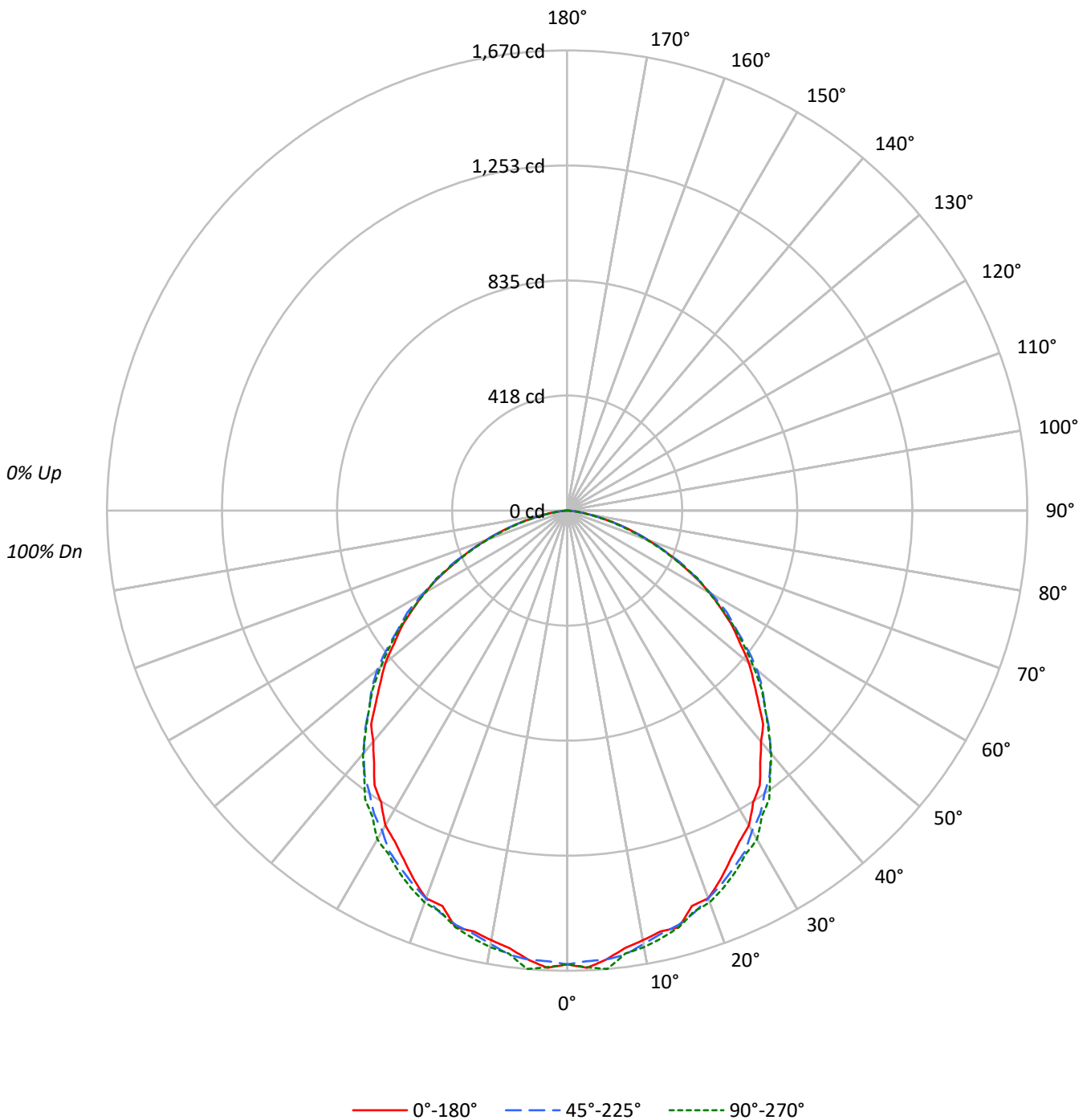
Lumens per Lamp: N/A
Luminaire Lumens: 4150.0 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4431	4431	4431
5°	4416	4418	4511
10°	4327	4365	4395
15°	4361	4337	4362
20°	4288	4288	4333
25°	4156	4247	4293
30°	4098	4171	4282
35°	4002	4107	4199
40°	3846	4031	4049
45°	3730	3863	3868
50°	3607	3770	3698
55°	3437	3504	3479
60°	3214	3246	3188
65°	2866	2939	2846
70°	2459	2467	2399
75°	1947	1943	1868
80°	1305	1269	1220
85°	710	701	658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.9	3.7
10°-20°	439.0	10.6
20°-30°	657.7	15.8
30°-40°	779.5	18.8
40°-50°	780.9	18.8
50°-60°	662.9	16.0
60°-70°	446.9	10.8
70°-80°	196.4	4.7
80°-90°	31.9	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°	1251.5	30.2
0°-40°	2031.0	48.9
0°-60°	3474.8	83.7
0°-90°	4150.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4150.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1647	1647	1647	1647	1647	
5°	1635	1631	1636	1631	1670	154
15°	1565	1547	1557	1565	1566	436
25°	1400	1407	1430	1449	1446	647
35°	1218	1222	1250	1279	1278	756
45°	980	998	1015	1041	1016	758
55°	733	728	747	742	742	652
65°	450	444	462	444	447	448
75°	187	184	187	174	180	201
85°	23	22	23	22	21	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1646.6	1646.6	1646.6	1646.6	1646.6
2.5°	1660.9	1648.3	1636.6	1650.2	1658.5
5°	1634.9	1631.1	1635.6	1630.7	1670.0
7.5°	1601.3	1616.0	1624.5	1619.2	1621.5
10°	1583.5	1578.4	1597.3	1610.5	1608.6
12.5°	1564.3	1572.0	1573.1	1587.3	1588.6
15°	1565.4	1547.3	1556.9	1565.0	1565.6
17.5°	1504.6	1524.2	1530.7	1549.2	1526.3
20°	1497.2	1482.9	1497.2	1516.1	1513.1
22.5°	1451.4	1435.5	1466.1	1482.9	1481.8
25°	1399.6	1407.2	1430.2	1448.9	1445.9
27.5°	1354.1	1363.0	1395.7	1421.5	1404.9
30°	1319.0	1314.5	1342.2	1365.1	1377.9
32.5°	1256.3	1272.4	1304.7	1327.5	1315.4
35°	1218.2	1221.8	1250.1	1279.0	1278.2
37.5°	1151.7	1168.5	1208.2	1216.3	1208.9
40°	1094.9	1111.7	1147.6	1156.4	1152.7
42.5°	1053.0	1056.0	1086.8	1096.8	1080.9
45°	980.1	998.4	1015.0	1041.1	1016.5
47.5°	918.0	926.5	962.2	969.3	956.3
50°	861.7	864.7	900.6	891.9	883.4
52.5°	790.9	803.4	823.6	821.9	811.9
55°	732.6	727.7	746.9	741.8	741.6
57.5°	662.7	671.2	686.9	678.8	665.9
60°	597.2	597.4	603.2	594.0	592.3
62.5°	524.3	526.8	528.1	516.8	535.1
65°	450.1	444.1	461.6	443.9	446.9
67.5°	381.8	384.8	383.1	372.1	376.3
70°	312.5	316.4	313.6	301.0	304.9
72.5°	249.2	244.5	247.5	231.7	239.0
75°	187.3	183.5	186.9	173.7	179.7
77.5°	127.6	130.5	128.4	121.4	125.4
80°	84.2	81.9	81.9	77.8	78.7
82.5°	49.1	46.8	46.1	44.9	46.8
85°	23.0	22.3	22.7	22.1	21.3
87.5°	8.3	8.5	8.5	8.1	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)