

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: P589000

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589000
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-LD4-2HI-35-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

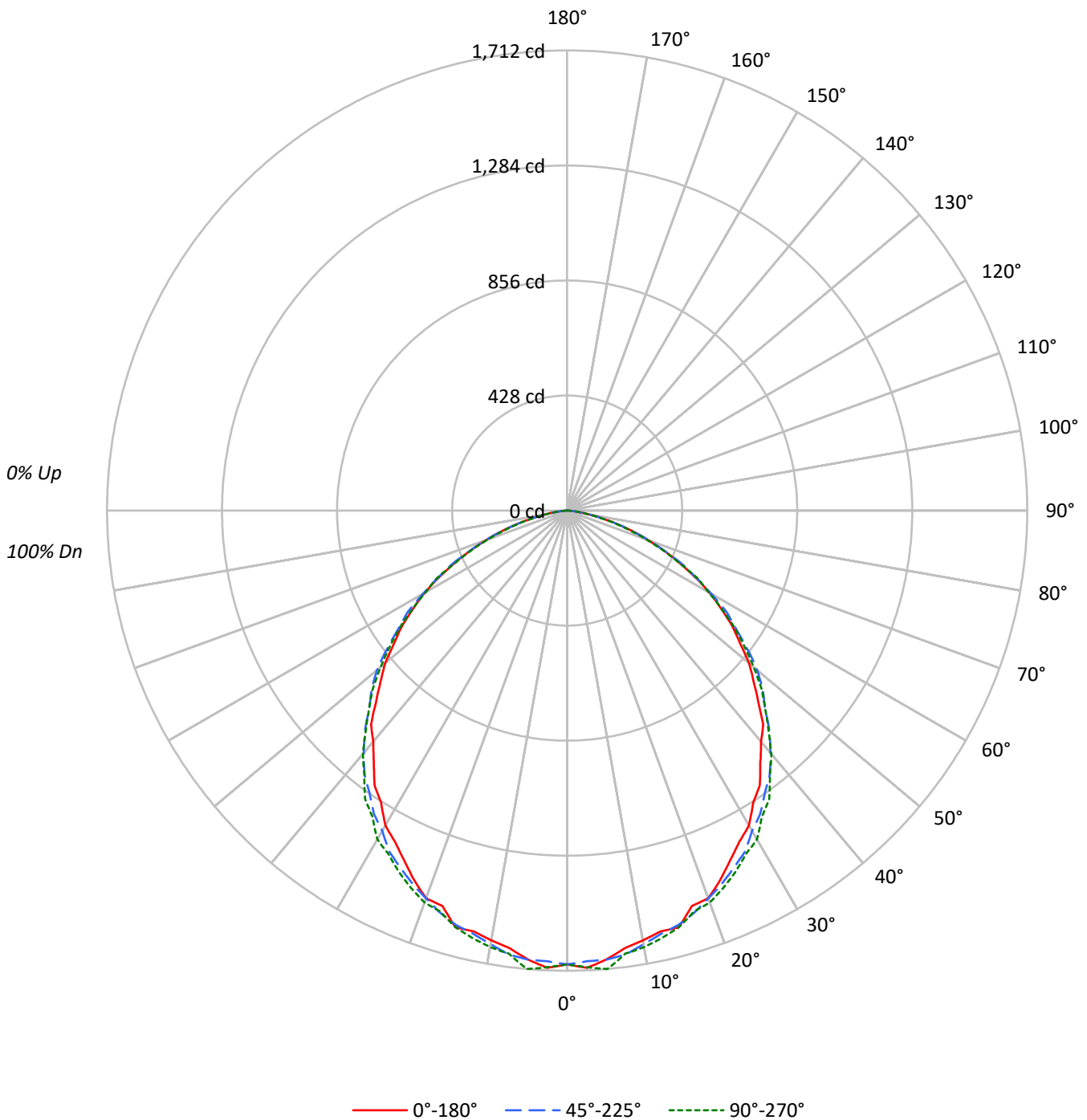
Lumens per Lamp: N/A
Luminaire Lumens: 4255.0 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	4543	4543	4543
5°	4528	4530	4625
10°	4436	4475	4507
15°	4471	4447	4472
20°	4396	4396	4443
25°	4261	4354	4402
30°	4202	4276	4390
35°	4103	4210	4305
40°	3943	4134	4152
45°	3824	3960	3966
50°	3699	3866	3792
55°	3524	3593	3567
60°	3295	3328	3268
65°	2939	3013	2918
70°	2521	2530	2460
75°	1996	1992	1915
80°	1337	1300	1251
85°	726	719	673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.8	3.7
10°-20°	450.1	10.6
20°-30°	674.3	15.8
30°-40°	799.2	18.8
40°-50°	800.7	18.8
50°-60°	679.6	16.0
60°-70°	458.2	10.8
70°-80°	201.3	4.7
80°-90°	32.7	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°	1283.2	30.2
0°-40°	2082.4	48.9
0°-60°	3562.7	83.7
0°-90°	4255.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4255.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1688	1688	1688	1688	1688	
5°	1676	1672	1677	1672	1712	158
15°	1605	1586	1596	1605	1605	447
25°	1435	1443	1466	1486	1482	663
35°	1249	1253	1282	1311	1310	776
45°	1005	1024	1041	1068	1042	777
55°	751	746	766	760	760	668
65°	462	455	473	455	458	459
75°	192	188	192	178	184	206
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°	1688.3	1688.3	1688.3	1688.3	1688.3
2.5°	1702.9	1690.0	1678.0	1692.0	1700.5
5°	1676.3	1672.4	1676.9	1671.9	1712.3
7.5°	1641.8	1656.9	1665.6	1660.2	1662.6
10°	1623.5	1618.3	1637.7	1651.2	1649.3
12.5°	1603.9	1611.8	1612.9	1627.5	1628.8
15°	1605.0	1586.5	1596.3	1604.6	1605.2
17.5°	1542.7	1562.7	1569.5	1588.4	1564.9
20°	1535.0	1520.4	1535.0	1554.4	1551.4
22.5°	1488.2	1471.8	1503.2	1520.4	1519.3
25°	1435.0	1442.8	1466.4	1485.6	1482.5
27.5°	1388.3	1397.5	1431.1	1457.4	1440.4
30°	1352.4	1347.8	1376.1	1399.7	1412.7
32.5°	1288.1	1304.6	1337.8	1361.1	1348.7
35°	1249.0	1252.7	1281.7	1311.4	1310.5
37.5°	1180.8	1198.0	1238.8	1247.1	1239.5
40°	1122.6	1139.8	1176.7	1185.6	1181.9
42.5°	1079.7	1082.7	1114.3	1124.6	1108.2
45°	1004.9	1023.6	1040.6	1067.5	1042.2
47.5°	941.2	950.0	986.6	993.8	980.5
50°	883.5	886.5	923.4	914.4	905.7
52.5°	810.9	823.8	844.5	842.7	832.5
55°	751.2	746.2	765.8	760.5	760.3
57.5°	679.5	688.2	704.3	696.0	682.7
60°	612.3	612.5	618.4	609.0	607.3
62.5°	537.5	540.2	541.5	529.9	548.7
65°	461.5	455.4	473.2	455.1	458.2
67.5°	391.5	394.5	392.8	381.5	385.8
70°	320.4	324.4	321.5	308.7	312.6
72.5°	255.5	250.7	253.7	237.6	245.0
75°	192.0	188.1	191.6	178.1	184.2
77.5°	130.8	133.8	131.7	124.5	128.6
80°	86.3	83.9	83.9	79.8	80.7
82.5°	50.4	48.0	47.3	46.0	48.0
85°	23.5	22.9	23.3	22.7	21.8
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)