

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: P589406

Luminaire Tested: **FMR-24-2-LD4-3LO-40-UNV-81-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589406
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

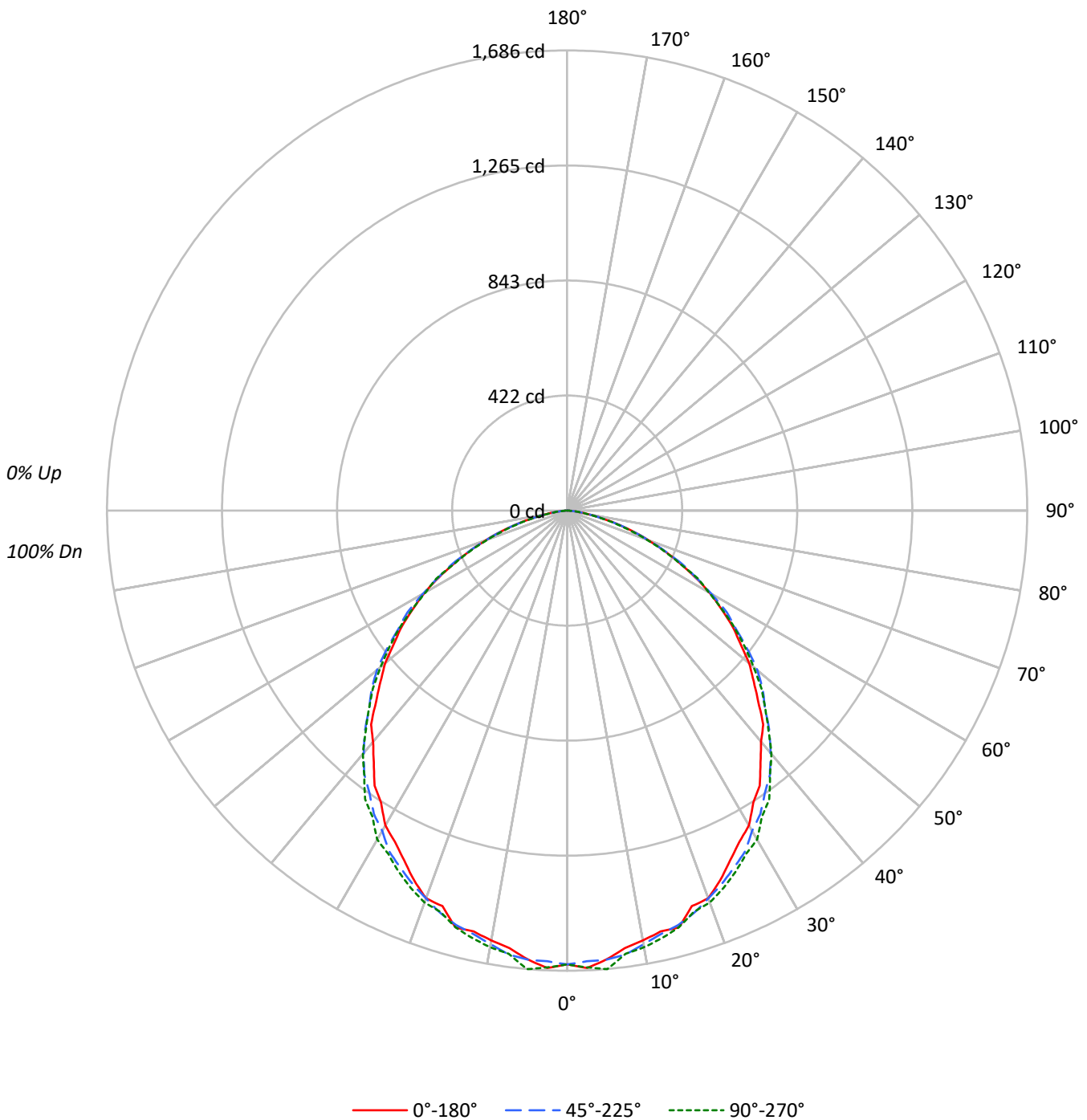
Lumens per Lamp: N/A
Luminaire Lumens: 4191.0 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4475	4475	4475
5°	4460	4462	4556
10°	4370	4408	4439
15°	4404	4380	4405
20°	4330	4330	4376
25°	4197	4288	4336
30°	4139	4212	4324
35°	4042	4147	4240
40°	3884	4071	4089
45°	3767	3901	3906
50°	3643	3808	3735
55°	3471	3539	3514
60°	3246	3278	3219
65°	2894	2968	2874
70°	2483	2492	2423
75°	1967	1962	1886
80°	1317	1282	1230
85°	716	710	664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.4	3.7
10°-20°	443.3	10.6
20°-30°	664.2	15.8
30°-40°	787.2	18.8
40°-50°	788.6	18.8
50°-60°	669.4	16.0
60°-70°	451.3	10.8
70°-80°	198.3	4.7
80°-90°	32.2	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°	1263.9	30.2
0°-40°	2051.1	48.9
0°-60°	3509.2	83.7
0°-90°	4191.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4191.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1663	1663	1663	1663	1663	
5°	1651	1647	1652	1647	1686	156
15°	1581	1563	1572	1580	1581	440
25°	1413	1421	1444	1463	1460	653
35°	1230	1234	1262	1292	1291	764
45°	990	1008	1025	1051	1026	766
55°	740	735	754	749	749	658
65°	454	448	466	448	451	452
75°	189	185	189	175	181	203
85°	23	22	23	22	22	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1662.9	1662.9	1662.9	1662.9	1662.9
2.5°	1677.3	1664.6	1652.8	1666.5	1674.9
5°	1651.1	1647.2	1651.7	1646.8	1686.5
7.5°	1617.2	1632.0	1640.6	1635.2	1637.5
10°	1599.1	1594.0	1613.1	1626.4	1624.5
12.5°	1579.8	1587.5	1588.6	1603.0	1604.3
15°	1580.9	1562.6	1572.3	1580.4	1581.1
17.5°	1519.5	1539.2	1545.9	1564.5	1541.4
20°	1511.9	1497.6	1511.9	1531.1	1528.0
22.5°	1465.8	1449.7	1480.6	1497.6	1496.5
25°	1413.4	1421.1	1444.3	1463.2	1460.2
27.5°	1367.5	1376.5	1409.5	1435.5	1418.8
30°	1332.0	1327.5	1355.4	1378.6	1391.5
32.5°	1268.7	1285.0	1317.6	1340.6	1328.4
35°	1230.3	1233.9	1262.5	1291.7	1290.8
37.5°	1163.1	1180.0	1220.2	1228.3	1220.8
40°	1105.7	1122.7	1159.0	1167.8	1164.1
42.5°	1063.4	1066.4	1097.6	1107.7	1091.6
45°	989.8	1008.3	1025.0	1051.4	1026.5
47.5°	927.1	935.7	971.8	978.8	965.7
50°	870.2	873.2	909.5	900.7	892.1
52.5°	798.7	811.4	831.8	830.0	820.0
55°	739.9	734.9	754.3	749.1	748.9
57.5°	669.2	677.8	693.7	685.6	672.5
60°	603.1	603.3	609.1	599.9	598.2
62.5°	529.5	532.0	533.3	521.9	540.4
65°	454.5	448.5	466.1	448.3	451.3
67.5°	385.6	388.6	386.9	375.7	380.0
70°	315.6	319.5	316.7	304.0	307.9
72.5°	251.6	246.9	249.9	234.0	241.3
75°	189.2	185.3	188.7	175.4	181.4
77.5°	128.8	131.8	129.7	122.6	126.7
80°	85.0	82.7	82.7	78.6	79.4
82.5°	49.6	47.2	46.6	45.3	47.2
85°	23.2	22.5	23.0	22.3	21.5
87.5°	8.4	8.6	8.6	8.2	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)