

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: P589455

Luminaire Tested: **FMR-24-2-LD4-3LO-50-UNV-93-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589455
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-50-UNV-93-86-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

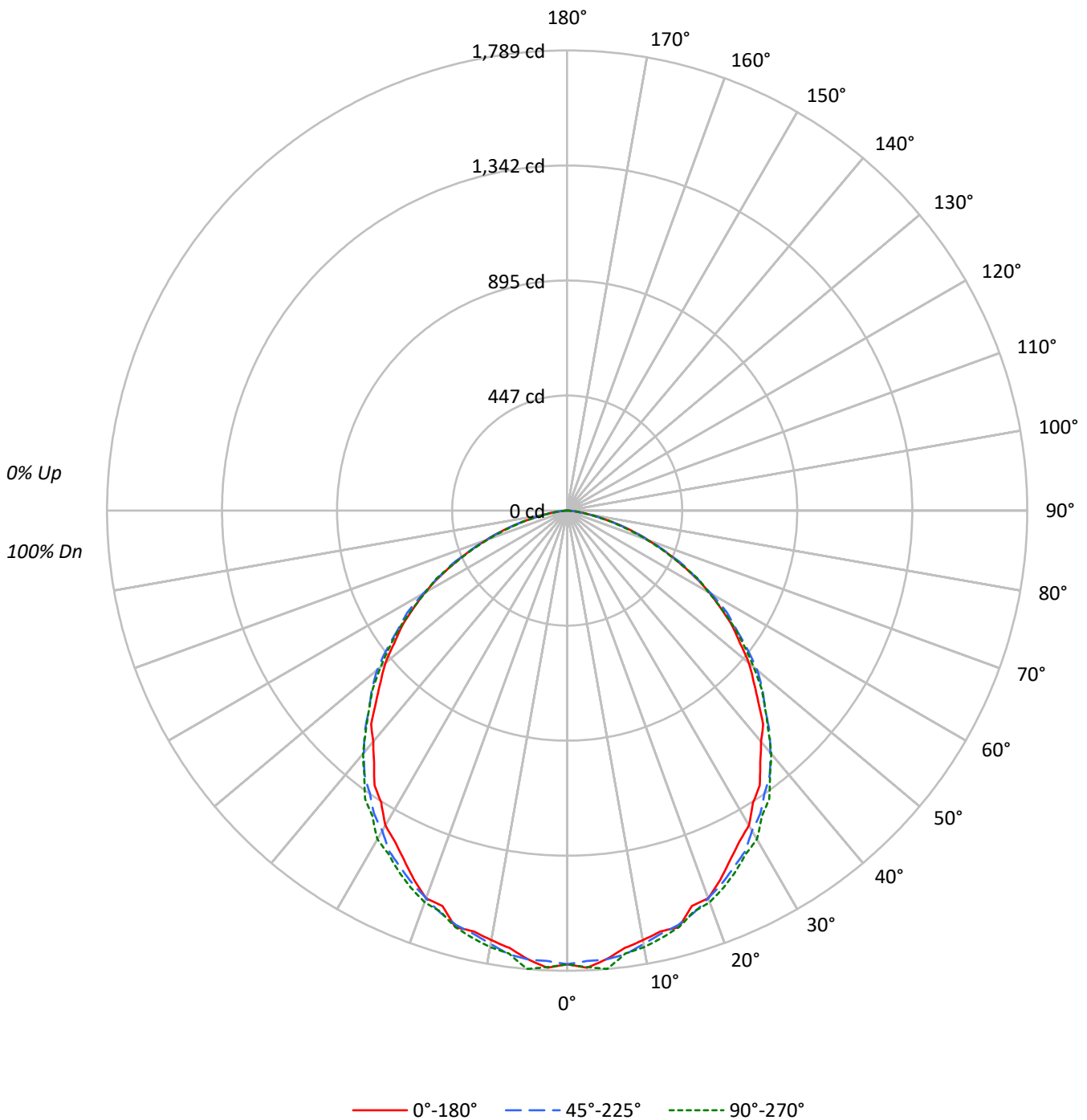
Lumens per Lamp: N/A
Luminaire Lumens: 4445.0 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4746	4746	4746
5°	4730	4732	4832
10°	4634	4675	4708
15°	4671	4646	4672
20°	4592	4592	4641
25°	4451	4548	4598
30°	4390	4467	4586
35°	4286	4399	4497
40°	4119	4318	4337
45°	3995	4137	4143
50°	3864	4038	3961
55°	3681	3753	3727
60°	3443	3477	3414
65°	3070	3148	3048
70°	2633	2643	2569
75°	2086	2082	2000
80°	1398	1359	1306
85°	760	753	704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.9	3.7
10°-20°	470.2	10.6
20°-30°	704.4	15.8
30°-40°	834.9	18.8
40°-50°	836.4	18.8
50°-60°	710.0	16.0
60°-70°	478.7	10.8
70°-80°	210.3	4.7
80°-90°	34.2	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°	1340.5	30.2
0°-40°	2175.4	48.9
0°-60°	3721.8	83.7
0°-90°	4445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4445.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1764	1764	1764	1764	1764	
5°	1751	1747	1752	1747	1789	165
15°	1677	1657	1668	1676	1677	467
25°	1499	1507	1532	1552	1549	693
35°	1305	1309	1339	1370	1369	810
45°	1050	1069	1087	1115	1089	812
55°	785	780	800	794	794	698
65°	482	476	494	476	479	479
75°	201	196	200	186	192	215
85°	25	24	24	24	23	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1763.7	1763.7	1763.7	1763.7	1763.7
2.5°	1778.9	1765.5	1753.0	1767.5	1776.4
5°	1751.1	1747.0	1751.8	1746.6	1788.7
7.5°	1715.2	1730.9	1740.0	1734.3	1736.8
10°	1696.0	1690.6	1710.8	1725.0	1722.9
12.5°	1675.5	1683.7	1684.9	1700.1	1701.5
15°	1676.7	1657.3	1667.6	1676.2	1676.9
17.5°	1611.5	1632.5	1639.6	1659.4	1634.8
20°	1603.6	1588.3	1603.6	1623.8	1620.7
22.5°	1554.6	1537.5	1570.3	1588.3	1587.2
25°	1499.1	1507.3	1531.8	1551.9	1548.7
27.5°	1450.3	1459.9	1495.0	1522.5	1504.8
30°	1412.8	1408.0	1437.6	1462.2	1475.8
32.5°	1345.6	1362.9	1397.5	1421.9	1408.9
35°	1304.8	1308.7	1339.0	1369.9	1369.0
37.5°	1233.5	1251.5	1294.1	1302.8	1294.8
40°	1172.7	1190.7	1229.2	1238.5	1234.7
42.5°	1127.9	1131.1	1164.1	1174.8	1157.7
45°	1049.8	1069.4	1087.1	1115.1	1088.7
47.5°	983.3	992.4	1030.6	1038.2	1024.3
50°	922.9	926.1	964.6	955.3	946.2
52.5°	847.1	860.5	882.2	880.4	869.6
55°	784.7	779.5	800.0	794.5	794.3
57.5°	709.8	718.9	735.8	727.1	713.2
60°	639.7	639.9	646.0	636.2	634.4
62.5°	561.5	564.3	565.6	553.6	573.2
65°	482.1	475.7	494.4	475.5	478.7
67.5°	409.0	412.2	410.3	398.5	403.1
70°	334.7	338.8	335.9	322.4	326.5
72.5°	266.9	261.9	265.1	248.2	256.0
75°	200.6	196.5	200.2	186.0	192.4
77.5°	136.6	139.8	137.5	130.0	134.4
80°	90.2	87.7	87.7	83.3	84.3
82.5°	52.6	50.1	49.4	48.0	50.1
85°	24.6	23.9	24.4	23.7	22.8
87.5°	8.9	9.1	9.1	8.7	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)