

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: P589410

Luminaire Tested: **FMR-24-2-LD4-3LO-40-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589410
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-81-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

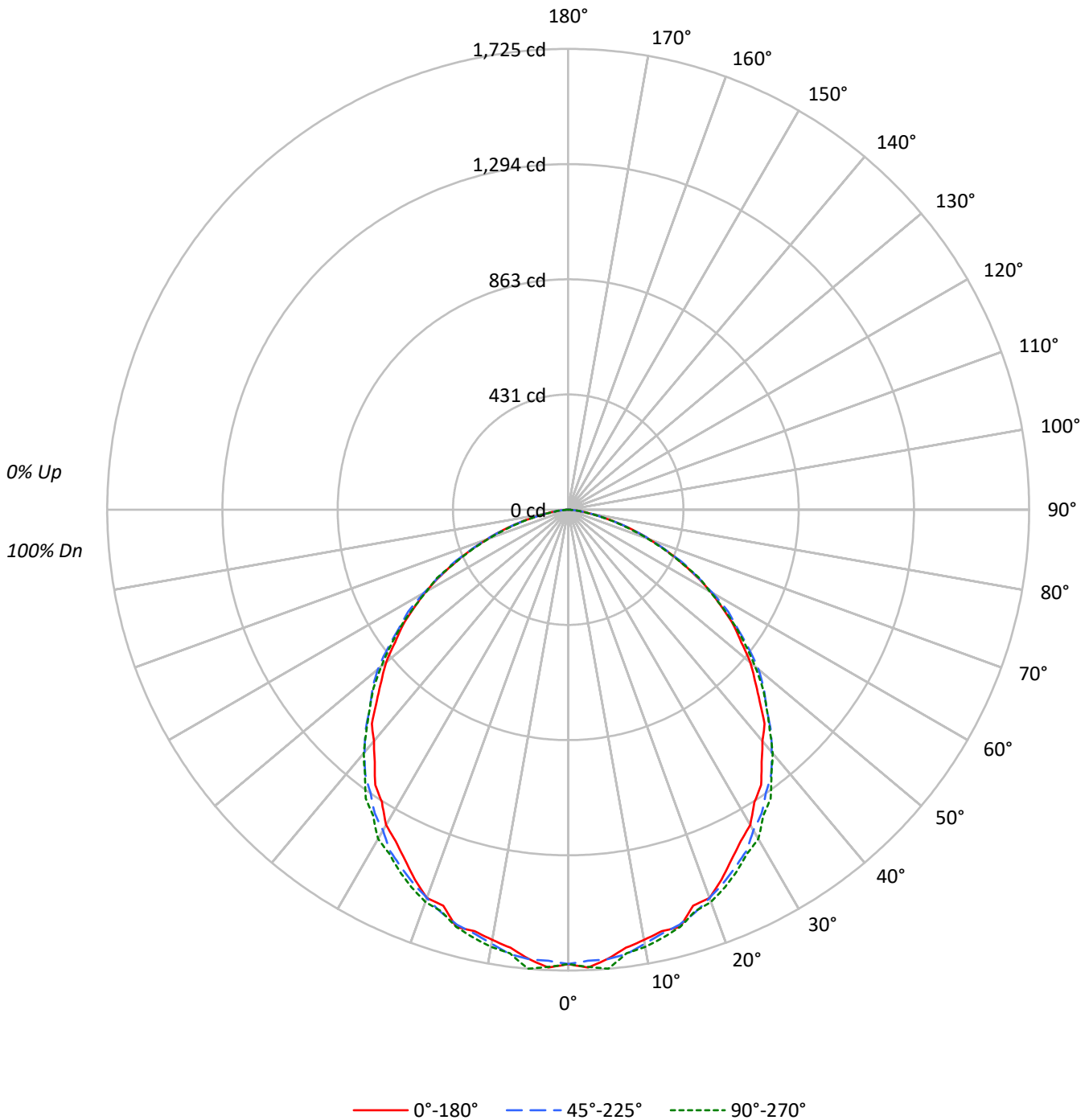
Lumens per Lamp: N/A
Luminaire Lumens: 4286.0 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4576	4576	4576
5°	4561	4563	4659
10°	4469	4508	4539
15°	4504	4479	4505
20°	4428	4428	4475
25°	4292	4386	4434
30°	4233	4307	4422
35°	4133	4241	4337
40°	3972	4163	4182
45°	3852	3989	3995
50°	3725	3894	3819
55°	3550	3619	3593
60°	3320	3352	3292
65°	2960	3035	2939
70°	2540	2548	2478
75°	2011	2007	1929
80°	1348	1309	1258
85°	732	726	679



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.0	3.7
10°-20°	453.4	10.6
20°-30°	679.2	15.8
30°-40°	805.0	18.8
40°-50°	806.5	18.8
50°-60°	684.6	16.0
60°-70°	461.6	10.8
70°-80°	202.8	4.7
80°-90°	33.0	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°	1292.6	30.2
0°-40°	2097.6	48.9
0°-60°	3588.7	83.7
0°-90°	4286.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4286.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1701	1701	1701	1701	1701	
5°	1688	1684	1689	1684	1725	159
15°	1617	1598	1608	1616	1617	450
25°	1445	1453	1477	1496	1493	668
35°	1258	1262	1291	1321	1320	781
45°	1012	1031	1048	1075	1050	783
55°	757	752	771	766	766	673
65°	465	459	477	458	462	462
75°	193	190	193	179	186	207
85°	24	23	24	23	22	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1700.6	1700.6	1700.6	1700.6	1700.6
2.5°	1715.3	1702.3	1690.3	1704.3	1712.9
5°	1688.5	1684.5	1689.2	1684.1	1724.7
7.5°	1653.8	1669.0	1677.7	1672.3	1674.7
10°	1635.4	1630.1	1649.6	1663.2	1661.3
12.5°	1615.6	1623.5	1624.6	1639.3	1640.6
15°	1616.7	1598.0	1607.9	1616.3	1616.9
17.5°	1553.9	1574.1	1580.9	1600.0	1576.3
20°	1546.2	1531.5	1546.2	1565.8	1562.7
22.5°	1499.0	1482.5	1514.2	1531.5	1530.4
25°	1445.4	1453.3	1477.1	1496.4	1493.3
27.5°	1398.4	1407.7	1441.5	1468.1	1450.9
30°	1362.2	1357.6	1386.2	1409.9	1423.0
32.5°	1297.4	1314.1	1347.5	1371.0	1358.5
35°	1258.1	1261.9	1291.1	1320.9	1320.1
37.5°	1189.4	1206.8	1247.8	1256.2	1248.5
40°	1130.8	1148.1	1185.2	1194.2	1190.5
42.5°	1087.5	1090.6	1122.4	1132.8	1116.3
45°	1012.2	1031.1	1048.2	1075.2	1049.8
47.5°	948.1	956.9	993.8	1001.0	987.6
50°	889.9	893.0	930.1	921.1	912.3
52.5°	816.8	829.8	850.6	848.9	838.5
55°	756.6	751.6	771.4	766.1	765.9
57.5°	684.4	693.2	709.4	701.1	687.7
60°	616.8	617.0	622.9	613.5	611.7
62.5°	541.5	544.1	545.4	533.8	552.7
65°	464.8	458.7	476.7	458.5	461.5
67.5°	394.3	397.4	395.7	384.2	388.6
70°	322.8	326.7	323.9	310.9	314.9
72.5°	257.3	252.5	255.6	239.3	246.8
75°	193.4	189.5	193.0	179.4	185.5
77.5°	131.7	134.8	132.6	125.4	129.5
80°	87.0	84.5	84.5	80.4	81.2
82.5°	50.7	48.3	47.6	46.3	48.3
85°	23.7	23.1	23.5	22.8	22.0
87.5°	8.6	8.8	8.8	8.3	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)