

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: P589397

Luminaire Tested: **FMR-24-2-LD4-3LO-40-UNV-80-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589397
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-80-84-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

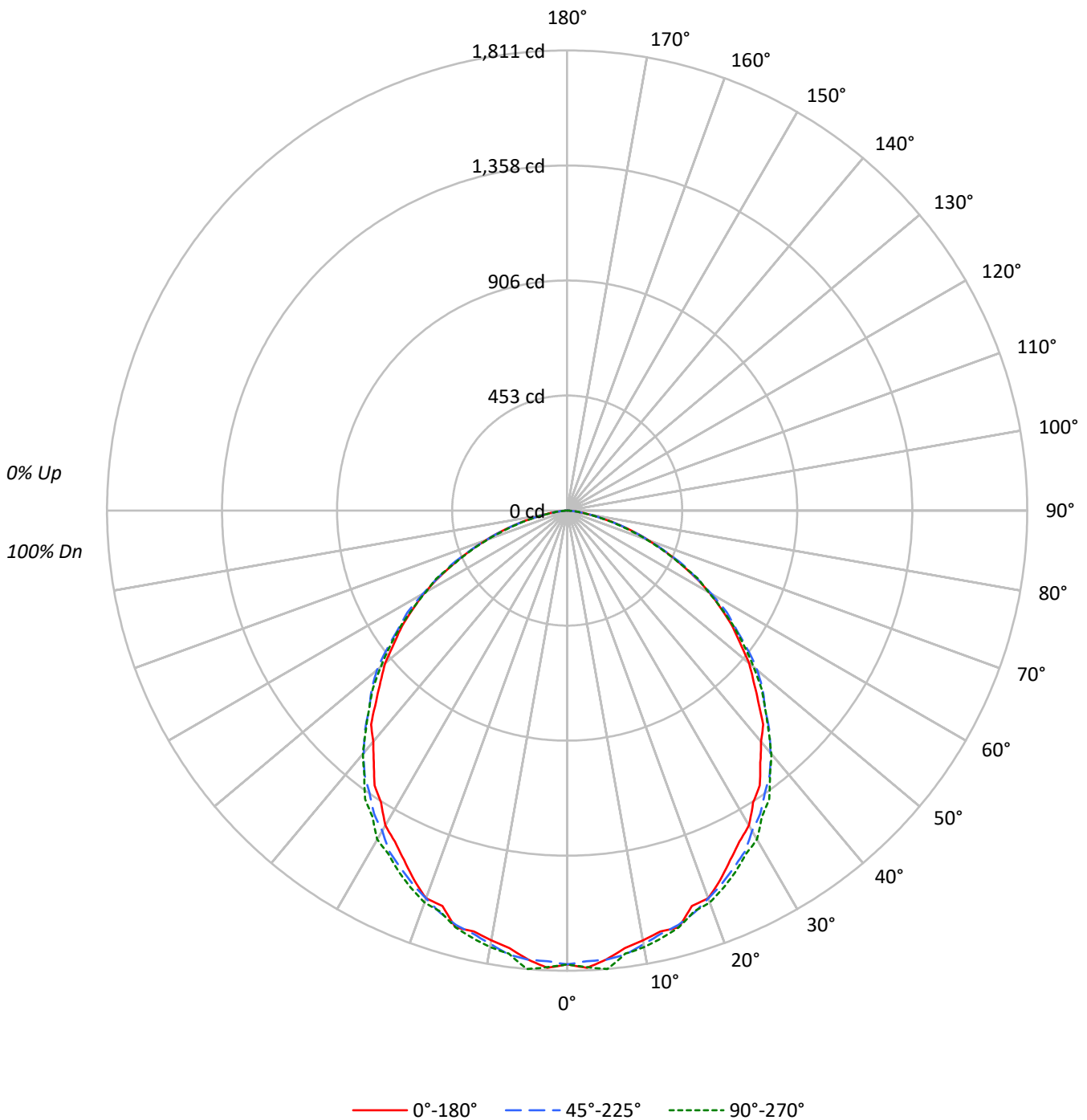
Lumens per Lamp: N/A
Luminaire Lumens: 4501.0 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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				
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°	4806	4806	4806
5°	4790	4792	4893
10°	4693	4734	4767
15°	4730	4704	4730
20°	4650	4650	4700
25°	4507	4605	4656
30°	4445	4523	4644
35°	4341	4454	4554
40°	4171	4372	4392
45°	4045	4189	4195
50°	3913	4089	4011
55°	3728	3800	3773
60°	3486	3521	3457
65°	3108	3188	3086
70°	2667	2676	2602
75°	2112	2108	2025
80°	1415	1376	1322
85°	769	763	713



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.0	3.7
10°-20°	476.1	10.6
20°-30°	713.3	15.8
30°-40°	845.4	18.8
40°-50°	847.0	18.8
50°-60°	718.9	16.0
60°-70°	484.7	10.8
70°-80°	213.0	4.7
80°-90°	34.6	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°	1357.4	30.2
0°-40°	2202.8	48.9
0°-60°	3768.7	83.7
0°-90°	4501.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4501.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1786	1786	1786	1786	1786	
5°	1773	1769	1774	1769	1811	167
15°	1698	1678	1689	1697	1698	473
25°	1518	1526	1551	1571	1568	702
35°	1321	1325	1356	1387	1386	820
45°	1063	1083	1101	1129	1102	822
55°	795	789	810	804	804	707
65°	488	482	501	482	485	485
75°	203	199	203	188	195	218
85°	25	24	25	24	23	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1785.9	1785.9	1785.9	1785.9	1785.9
2.5°	1801.3	1787.7	1775.0	1789.8	1798.8
5°	1773.2	1769.1	1773.9	1768.6	1811.2
7.5°	1736.8	1752.7	1761.9	1756.1	1758.7
10°	1717.4	1711.9	1732.4	1746.7	1744.6
12.5°	1696.6	1704.9	1706.1	1721.5	1722.9
15°	1697.8	1678.2	1688.6	1697.3	1698.0
17.5°	1631.9	1653.1	1660.2	1680.3	1655.4
20°	1623.8	1608.3	1623.8	1644.3	1641.1
22.5°	1574.2	1556.9	1590.1	1608.3	1607.2
25°	1517.9	1526.2	1551.1	1571.4	1568.2
27.5°	1468.6	1478.3	1513.8	1541.7	1523.7
30°	1430.6	1425.7	1455.7	1480.6	1494.4
32.5°	1362.5	1380.1	1415.1	1439.8	1426.6
35°	1321.3	1325.2	1355.8	1387.2	1386.3
37.5°	1249.1	1267.3	1310.4	1319.2	1311.1
40°	1187.5	1205.7	1244.7	1254.2	1250.2
42.5°	1142.1	1145.3	1178.8	1189.6	1172.3
45°	1063.0	1082.8	1100.8	1129.2	1102.4
47.5°	995.7	1004.9	1043.6	1051.2	1037.2
50°	934.6	937.8	976.8	967.3	958.1
52.5°	857.8	871.4	893.3	891.4	880.6
55°	794.6	789.3	810.0	804.5	804.3
57.5°	718.7	728.0	745.0	736.3	722.2
60°	647.7	647.9	654.2	644.3	642.4
62.5°	568.6	571.4	572.8	560.6	580.4
65°	488.1	481.7	500.6	481.5	484.7
67.5°	414.1	417.4	415.5	403.5	408.1
70°	339.0	343.1	340.1	326.5	330.7
72.5°	270.2	265.2	268.4	251.3	259.2
75°	203.1	199.0	202.7	188.4	194.8
77.5°	138.4	141.6	139.3	131.7	136.0
80°	91.3	88.8	88.8	84.4	85.3
82.5°	53.3	50.7	50.0	48.7	50.7
85°	24.9	24.2	24.7	24.0	23.1
87.5°	9.0	9.2	9.2	8.8	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)