

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: P588985

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-80-88-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588985  
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-80-88-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

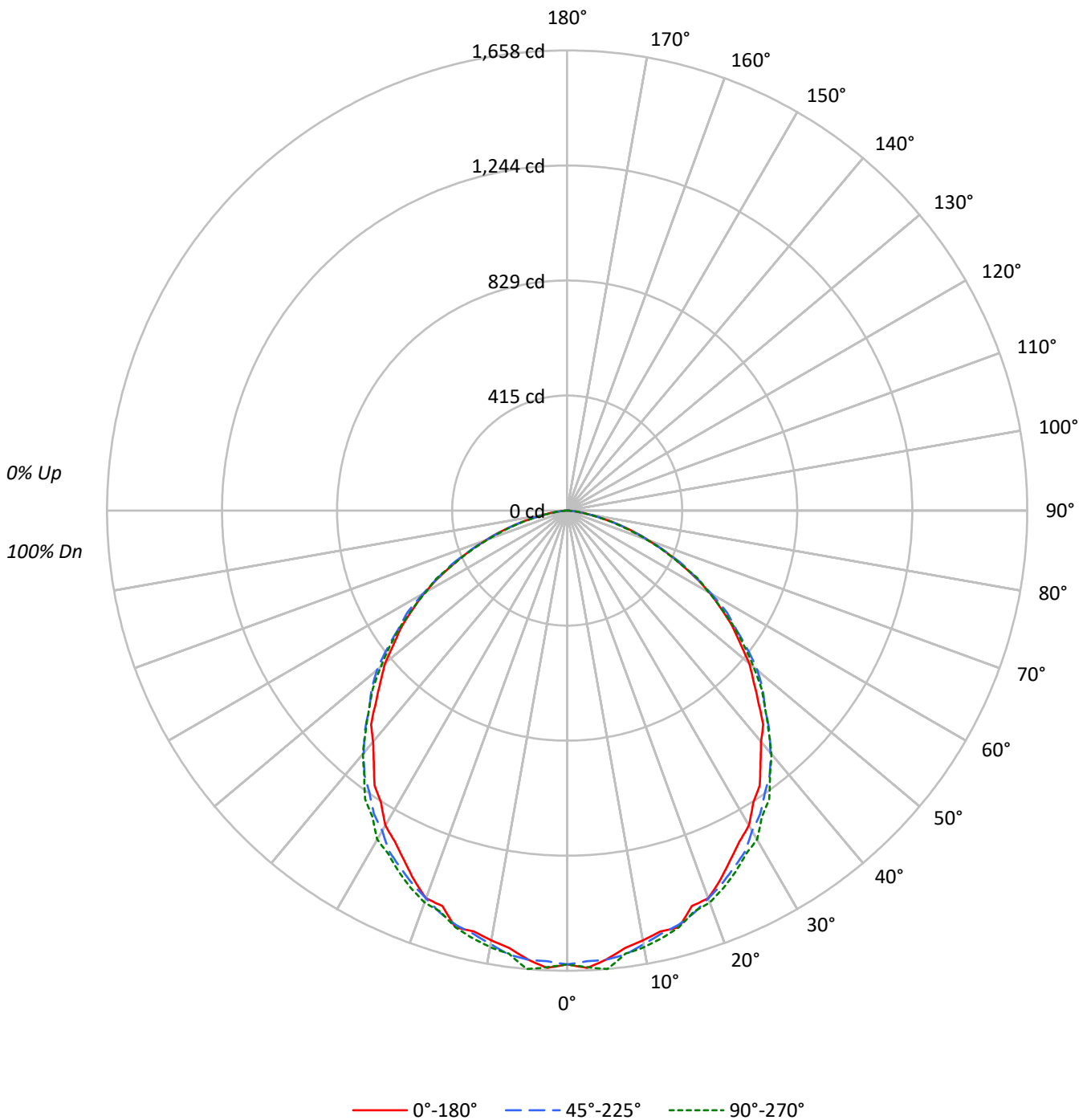
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4121.0 lumens  
Efficiency: N/A  
Efficacy: 95.4 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): 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	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°	4400	4400	4400
5°	4385	4387	4479
10°	4297	4334	4365
15°	4331	4307	4331
20°	4257	4257	4303
25°	4127	4217	4263
30°	4070	4141	4252
35°	3974	4078	4169
40°	3819	4003	4021
45°	3704	3836	3841
50°	3582	3744	3672
55°	3413	3480	3455
60°	3192	3223	3166
65°	2846	2918	2826
70°	2441	2450	2382
75°	1934	1930	1855
80°	1296	1260	1210
85°	704	698	651



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.8	3.7
10°-20°	435.9	10.6
20°-30°	653.1	15.8
30°-40°	774.0	18.8
40°-50°	775.5	18.8
50°-60°	658.2	16.0
60°-70°	443.8	10.8
70°-80°	195.0	4.7
80°-90°	31.7	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°	1242.8	30.2
0°-40°	2016.8	48.9
0°-60°	3450.5	83.7
0°-90°	4121.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4121.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1635	1635	1635	1635	1635	
5°	1624	1620	1624	1619	1658	153
15°	1554	1536	1546	1554	1555	433
25°	1390	1397	1420	1439	1436	643
35°	1210	1213	1241	1270	1269	751
45°	973	991	1008	1034	1009	753
55°	728	723	742	737	736	647
65°	447	441	458	441	444	444
75°	186	182	186	172	178	199
85°	23	22	23	22	21	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1635.1	1635.1	1635.1	1635.1	1635.1
2.5°	1649.3	1636.8	1625.2	1638.7	1646.9
5°	1623.5	1619.7	1624.1	1619.3	1658.3
7.5°	1590.1	1604.7	1613.2	1607.9	1610.2
10°	1572.4	1567.3	1586.1	1599.2	1597.3
12.5°	1553.4	1561.0	1562.1	1576.2	1577.5
15°	1554.5	1536.5	1546.0	1554.0	1554.7
17.5°	1494.1	1513.5	1520.0	1538.4	1515.6
20°	1486.7	1472.5	1486.7	1505.5	1502.5
22.5°	1441.3	1425.5	1455.9	1472.5	1471.5
25°	1389.8	1397.4	1420.2	1438.8	1435.8
27.5°	1344.6	1353.5	1386.0	1411.5	1395.1
30°	1309.8	1305.3	1332.8	1355.6	1368.3
32.5°	1247.5	1263.5	1295.6	1318.2	1306.2
35°	1209.7	1213.3	1241.4	1270.1	1269.2
37.5°	1143.6	1160.3	1199.8	1207.8	1200.4
40°	1087.3	1103.9	1139.6	1148.3	1144.7
42.5°	1045.7	1048.6	1079.2	1089.2	1073.3
45°	973.3	991.4	1007.9	1033.8	1009.4
47.5°	911.6	920.1	955.5	962.5	949.6
50°	855.7	858.6	894.3	885.6	877.2
52.5°	785.4	797.8	817.9	816.2	806.3
55°	727.5	722.7	741.7	736.6	736.4
57.5°	658.1	666.5	682.1	674.1	661.2
60°	593.0	593.2	598.9	589.9	588.2
62.5°	520.6	523.2	524.4	513.2	531.4
65°	446.9	441.0	458.3	440.8	443.8
67.5°	379.2	382.1	380.4	369.5	373.7
70°	310.3	314.1	311.4	298.9	302.7
72.5°	247.4	242.8	245.7	230.1	237.3
75°	186.0	182.2	185.6	172.5	178.4
77.5°	126.7	129.6	127.5	120.5	124.6
80°	83.6	81.3	81.3	77.3	78.1
82.5°	48.8	46.4	45.8	44.5	46.4
85°	22.8	22.2	22.6	22.0	21.1
87.5°	8.2	8.4	8.4	8.0	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)