

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: P589204

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-93-97-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589204  
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-LD4-2STD-35-UNV-93-97-EDD  
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

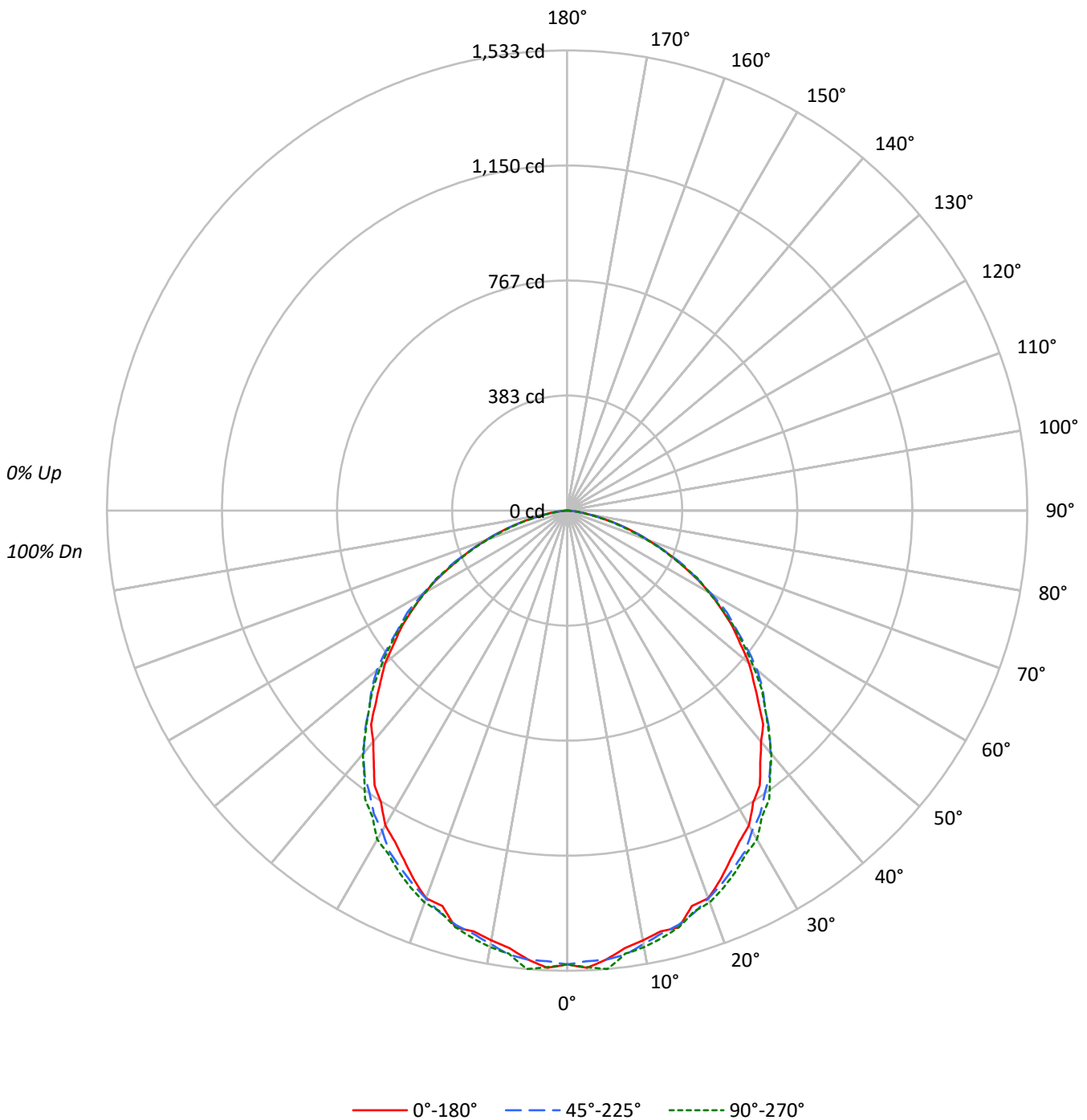
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3810.0 lumens  
Efficiency: N/A  
Efficacy: 114.4 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): 33.3  
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°	4068	4068	4068
5°	4055	4056	4142
10°	3972	4007	4035
15°	4004	3982	4004
20°	3936	3936	3978
25°	3815	3899	3942
30°	3763	3829	3931
35°	3674	3770	3855
40°	3531	3701	3718
45°	3424	3546	3551
50°	3312	3461	3395
55°	3156	3217	3194
60°	2951	2980	2927
65°	2631	2698	2613
70°	2257	2265	2202
75°	1788	1784	1714
80°	1198	1164	1119
85°	651	645	602



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.2	3.7
10°-20°	403.0	10.6
20°-30°	603.8	15.8
30°-40°	715.6	18.8
40°-50°	716.9	18.8
50°-60°	608.6	16.0
60°-70°	410.3	10.8
70°-80°	180.3	4.7
80°-90°	29.3	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°	1149.0	30.2
0°-40°	1864.6	48.9
0°-60°	3190.1	83.7
0°-90°	3810.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3810.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1512	1512	1512	1512	1512	
5°	1501	1498	1502	1497	1533	142
15°	1437	1421	1429	1437	1437	400
25°	1285	1292	1313	1330	1328	594
35°	1118	1122	1148	1174	1174	694
45°	900	917	932	956	933	696
55°	673	668	686	681	681	598
65°	413	408	424	408	410	411
75°	172	168	172	160	165	184
85°	21	20	21	20	20	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1511.7	1511.7	1511.7	1511.7	1511.7
2.5°	1524.8	1513.3	1502.5	1515.0	1522.6
5°	1501.0	1497.5	1501.6	1497.1	1533.2
7.5°	1470.1	1483.6	1491.4	1486.5	1488.7
10°	1453.7	1449.1	1466.4	1478.5	1476.8
12.5°	1436.2	1443.2	1444.2	1457.3	1458.4
15°	1437.2	1420.6	1429.3	1436.8	1437.3
17.5°	1381.3	1399.3	1405.3	1422.3	1401.2
20°	1374.5	1361.4	1374.5	1391.9	1389.1
22.5°	1332.5	1317.9	1346.0	1361.4	1360.4
25°	1284.9	1291.9	1313.0	1330.2	1327.5
27.5°	1243.1	1251.3	1281.4	1305.0	1289.8
30°	1210.9	1206.8	1232.2	1253.3	1265.0
32.5°	1153.4	1168.2	1197.9	1218.7	1207.6
35°	1118.4	1121.7	1147.7	1174.2	1173.5
37.5°	1057.3	1072.7	1109.2	1116.7	1109.8
40°	1005.2	1020.6	1053.6	1061.6	1058.3
42.5°	966.8	969.5	997.8	1007.0	992.3
45°	899.8	916.6	931.8	955.8	933.2
47.5°	842.8	850.6	883.4	889.9	877.9
50°	791.1	793.8	826.8	818.8	811.0
52.5°	726.1	737.6	756.1	754.6	745.4
55°	672.6	668.1	685.7	681.0	680.8
57.5°	608.4	616.2	630.6	623.2	611.3
60°	548.3	548.5	553.7	545.3	543.8
62.5°	481.3	483.7	484.8	474.5	491.3
65°	413.2	407.7	423.7	407.5	410.3
67.5°	350.6	353.3	351.7	341.6	345.5
70°	286.9	290.4	287.9	276.4	279.9
72.5°	228.8	224.5	227.2	212.8	219.4
75°	172.0	168.4	171.6	159.5	164.9
77.5°	117.1	119.8	117.9	111.5	115.2
80°	77.3	75.1	75.1	71.4	72.2
82.5°	45.1	42.9	42.4	41.2	42.9
85°	21.1	20.5	20.9	20.3	19.5
87.5°	7.6	7.8	7.8	7.4	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)