

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: P589143

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589143
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-LD4-2LO-50-UNV-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

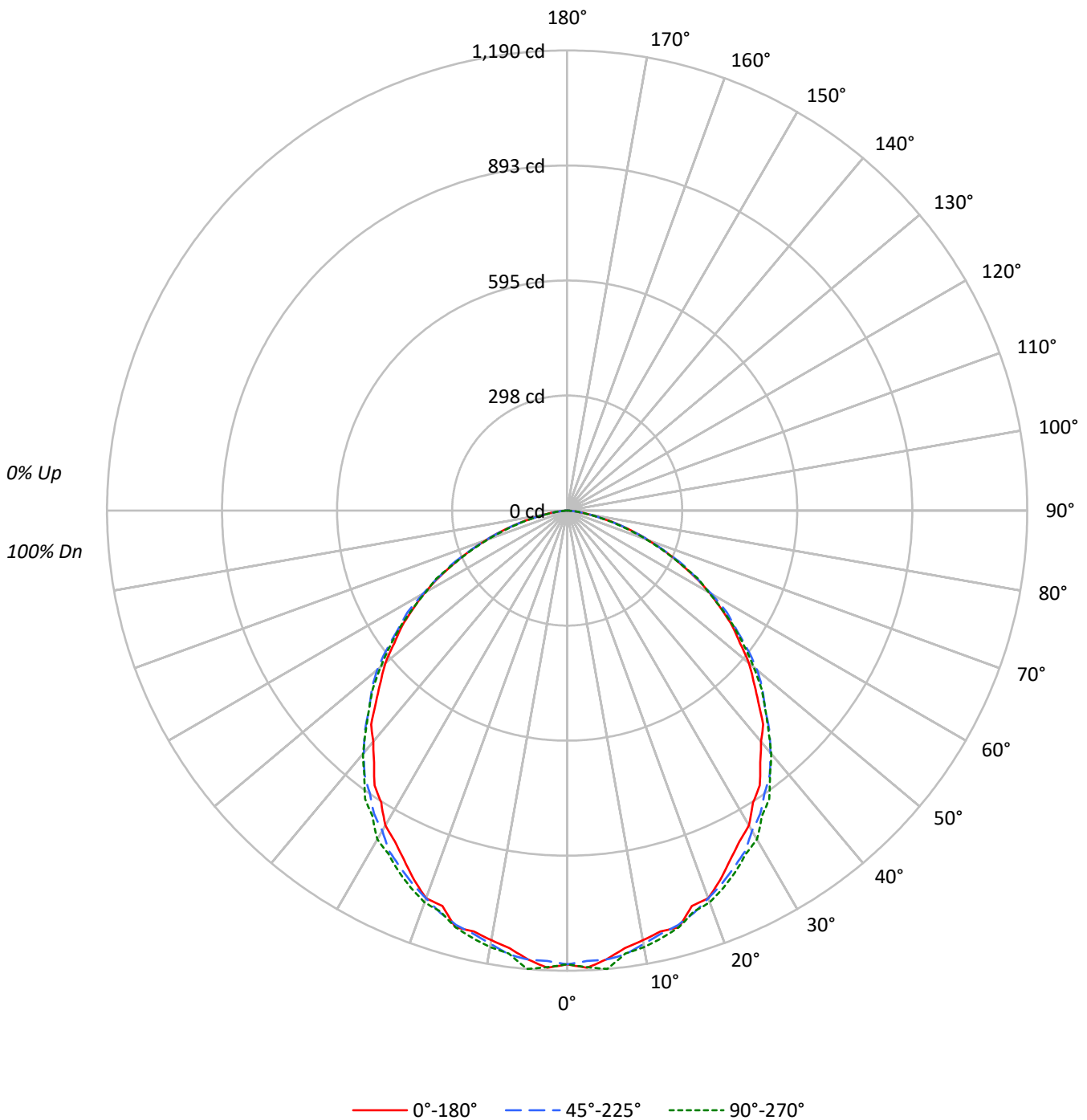
Lumens per Lamp: N/A
Luminaire Lumens: 2957.0 lumens
Efficiency: N/A
Efficacy: 126.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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

TEST NUMBER: P589143

CATALOG NUMBER: FMR-24-2-LD4-2LO-50-UNV-80-86-EDD

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°	3157	3157	3157
5°	3147	3148	3214
10°	3083	3110	3132
15°	3107	3090	3108
20°	3055	3055	3087
25°	2961	3026	3059
30°	2920	2971	3051
35°	2851	2926	2992
40°	2741	2872	2885
45°	2658	2752	2756
50°	2570	2686	2635
55°	2449	2497	2479
60°	2290	2313	2271
65°	2042	2094	2027
70°	1752	1758	1709
75°	1388	1385	1331
80°	930	903	869
85°	506	500	466



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.4	3.7
10°-20°	312.8	10.6
20°-30°	468.6	15.8
30°-40°	555.4	18.8
40°-50°	556.4	18.8
50°-60°	472.3	16.0
60°-70°	318.4	10.8
70°-80°	139.9	4.7
80°-90°	22.7	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°	891.8	30.2
0°-40°	1447.2	48.9
0°-60°	2475.9	83.7
0°-90°	2957.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2957.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1173	1173	1173	1173	1173	
5°	1165	1162	1165	1162	1190	110
15°	1115	1102	1109	1115	1116	311
25°	997	1003	1019	1032	1030	461
35°	868	871	891	911	911	539
45°	698	711	723	742	724	540
55°	522	518	532	528	528	464
65°	321	316	329	316	318	319
75°	134	131	133	124	128	143
85°	16	16	16	16	15	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1173.3	1173.3	1173.3	1173.3	1173.3
2.5°	1183.4	1174.5	1166.1	1175.8	1181.7
5°	1164.9	1162.2	1165.4	1161.9	1189.9
7.5°	1141.0	1151.4	1157.5	1153.7	1155.4
10°	1128.3	1124.6	1138.1	1147.5	1146.1
12.5°	1114.6	1120.1	1120.8	1131.0	1131.9
15°	1115.4	1102.5	1109.3	1115.1	1115.5
17.5°	1072.1	1086.0	1090.7	1103.9	1087.5
20°	1066.8	1056.6	1066.8	1080.3	1078.1
22.5°	1034.2	1022.8	1044.7	1056.6	1055.9
25°	997.2	1002.7	1019.0	1032.4	1030.3
27.5°	964.8	971.2	994.5	1012.8	1001.0
30°	939.8	936.6	956.3	972.7	981.8
32.5°	895.1	906.6	929.7	945.9	937.2
35°	868.0	870.6	890.7	911.3	910.7
37.5°	820.6	832.6	860.9	866.7	861.4
40°	780.2	792.1	817.7	823.9	821.4
42.5°	750.3	752.4	774.4	781.5	770.2
45°	698.4	711.4	723.2	741.8	724.3
47.5°	654.1	660.2	685.6	690.6	681.4
50°	614.0	616.1	641.7	635.5	629.4
52.5°	563.5	572.5	586.9	585.6	578.5
55°	522.0	518.5	532.2	528.5	528.4
57.5°	472.2	478.2	489.5	483.7	474.5
60°	425.5	425.7	429.8	423.3	422.0
62.5°	373.6	375.4	376.3	368.3	381.3
65°	320.7	316.5	328.9	316.3	318.4
67.5°	272.1	274.2	273.0	265.1	268.1
70°	222.7	225.4	223.4	214.5	217.2
72.5°	177.5	174.2	176.3	165.1	170.3
75°	133.5	130.7	133.2	123.8	128.0
77.5°	90.9	93.0	91.5	86.5	89.4
80°	60.0	58.3	58.3	55.4	56.1
82.5°	35.0	33.3	32.9	32.0	33.3
85°	16.4	15.9	16.2	15.8	15.1
87.5°	5.9	6.1	6.1	5.8	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)