

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: P589150

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-81-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589150
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-81-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

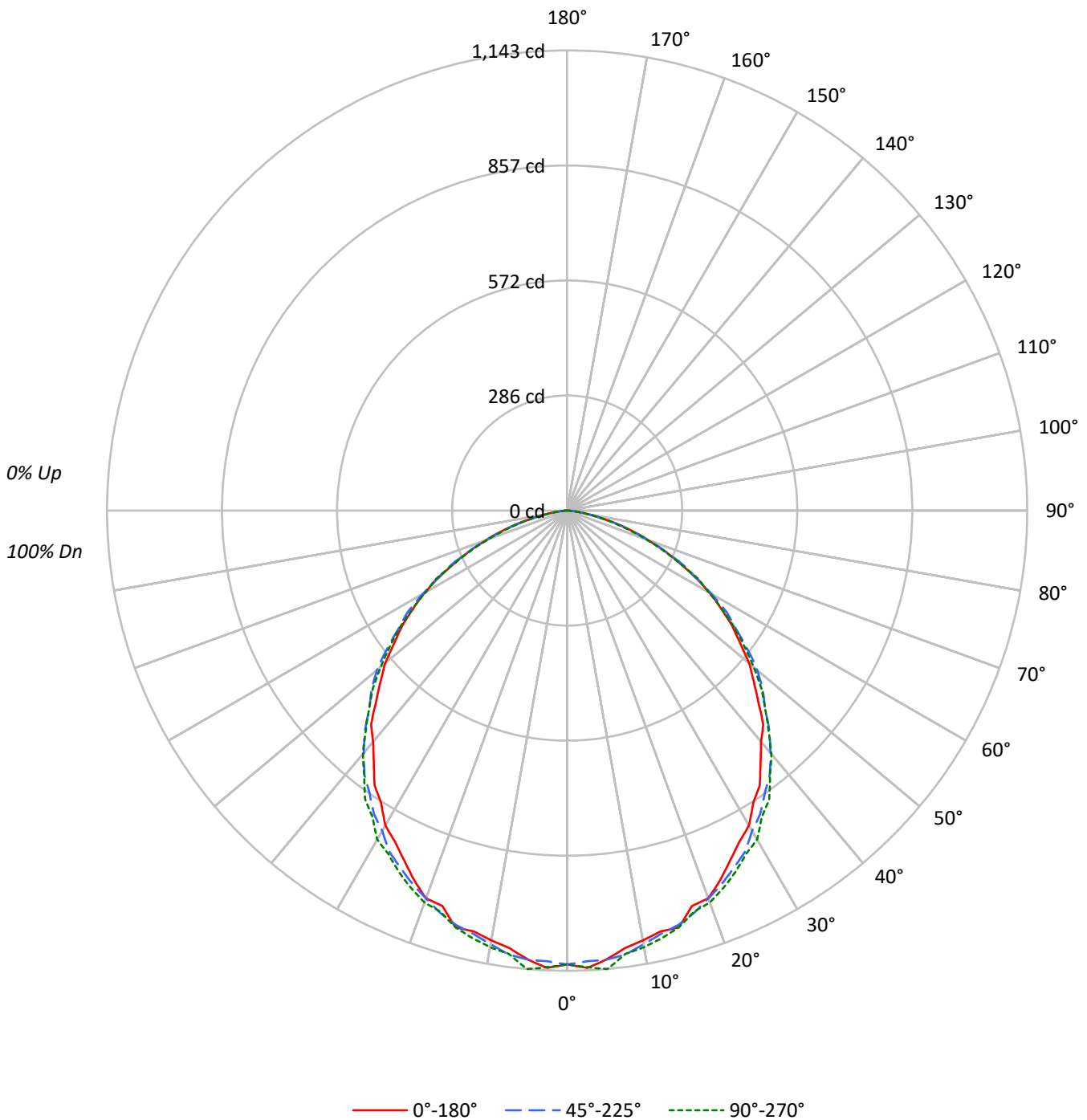
Lumens per Lamp: N/A
Luminaire Lumens: 2841.0 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	3033	3033	3033
5°	3023	3025	3088
10°	2962	2988	3009
15°	2985	2969	2986
20°	2935	2935	2966
25°	2845	2907	2939
30°	2806	2855	2931
35°	2740	2811	2874
40°	2633	2760	2772
45°	2554	2644	2648
50°	2470	2581	2532
55°	2353	2399	2382
60°	2200	2222	2182
65°	1962	2012	1948
70°	1683	1689	1642
75°	1333	1330	1279
80°	893	868	835
85°	485	482	451



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	3.7
10°-20°	300.5	10.6
20°-30°	450.2	15.8
30°-40°	533.6	18.8
40°-50°	534.6	18.8
50°-60°	453.8	16.0
60°-70°	305.9	10.8
70°-80°	134.4	4.7
80°-90°	21.8	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°	856.8	30.2
0°-40°	1390.4	48.9
0°-60°	2378.8	83.7
0°-90°	2841.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2841.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1127	1127	1127	1127	1127	
5°	1119	1117	1120	1116	1143	106
15°	1072	1059	1066	1071	1072	299
25°	958	963	979	992	990	443
35°	834	836	856	876	875	518
45°	671	684	695	713	696	519
55°	502	498	511	508	508	446
65°	308	304	316	304	306	306
75°	128	126	128	119	123	137
85°	16	15	16	15	15	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1127.2	1127.2	1127.2	1127.2	1127.2
2.5°	1137.0	1128.4	1120.4	1129.7	1135.4
5°	1119.2	1116.6	1119.7	1116.3	1143.2
7.5°	1096.2	1106.3	1112.1	1108.5	1110.1
10°	1084.0	1080.5	1093.5	1102.5	1101.2
12.5°	1070.9	1076.2	1076.9	1086.6	1087.5
15°	1071.6	1059.3	1065.8	1071.3	1071.8
17.5°	1030.0	1043.4	1047.9	1060.6	1044.9
20°	1024.9	1015.2	1024.9	1037.9	1035.8
22.5°	993.6	982.7	1003.7	1015.2	1014.4
25°	958.1	963.4	979.1	991.9	989.8
27.5°	927.0	933.1	955.5	973.1	961.8
30°	903.0	899.9	918.8	934.5	943.3
32.5°	860.0	871.1	893.2	908.8	900.5
35°	834.0	836.4	855.8	875.6	875.0
37.5°	788.4	799.9	827.1	832.7	827.6
40°	749.6	761.0	785.6	791.6	789.1
42.5°	720.9	722.9	744.0	750.9	739.9
45°	671.0	683.5	694.8	712.7	695.8
47.5°	628.5	634.3	658.7	663.5	654.7
50°	589.9	591.9	616.5	610.6	604.7
52.5°	541.4	550.0	563.8	562.7	555.8
55°	501.5	498.2	511.3	507.8	507.7
57.5°	453.7	459.5	470.3	464.7	455.8
60°	408.8	409.0	412.9	406.6	405.5
62.5°	358.9	360.7	361.5	353.8	366.3
65°	308.1	304.0	316.0	303.9	305.9
67.5°	261.4	263.4	262.3	254.7	257.6
70°	213.9	216.6	214.7	206.1	208.7
72.5°	170.6	167.4	169.4	158.6	163.6
75°	128.2	125.6	127.9	118.9	123.0
77.5°	87.3	89.4	87.9	83.1	85.9
80°	57.6	56.0	56.0	53.3	53.9
82.5°	33.6	32.0	31.6	30.7	32.0
85°	15.7	15.3	15.6	15.1	14.6
87.5°	5.7	5.8	5.8	5.5	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)