

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: P589152

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-81-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589152
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-81-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

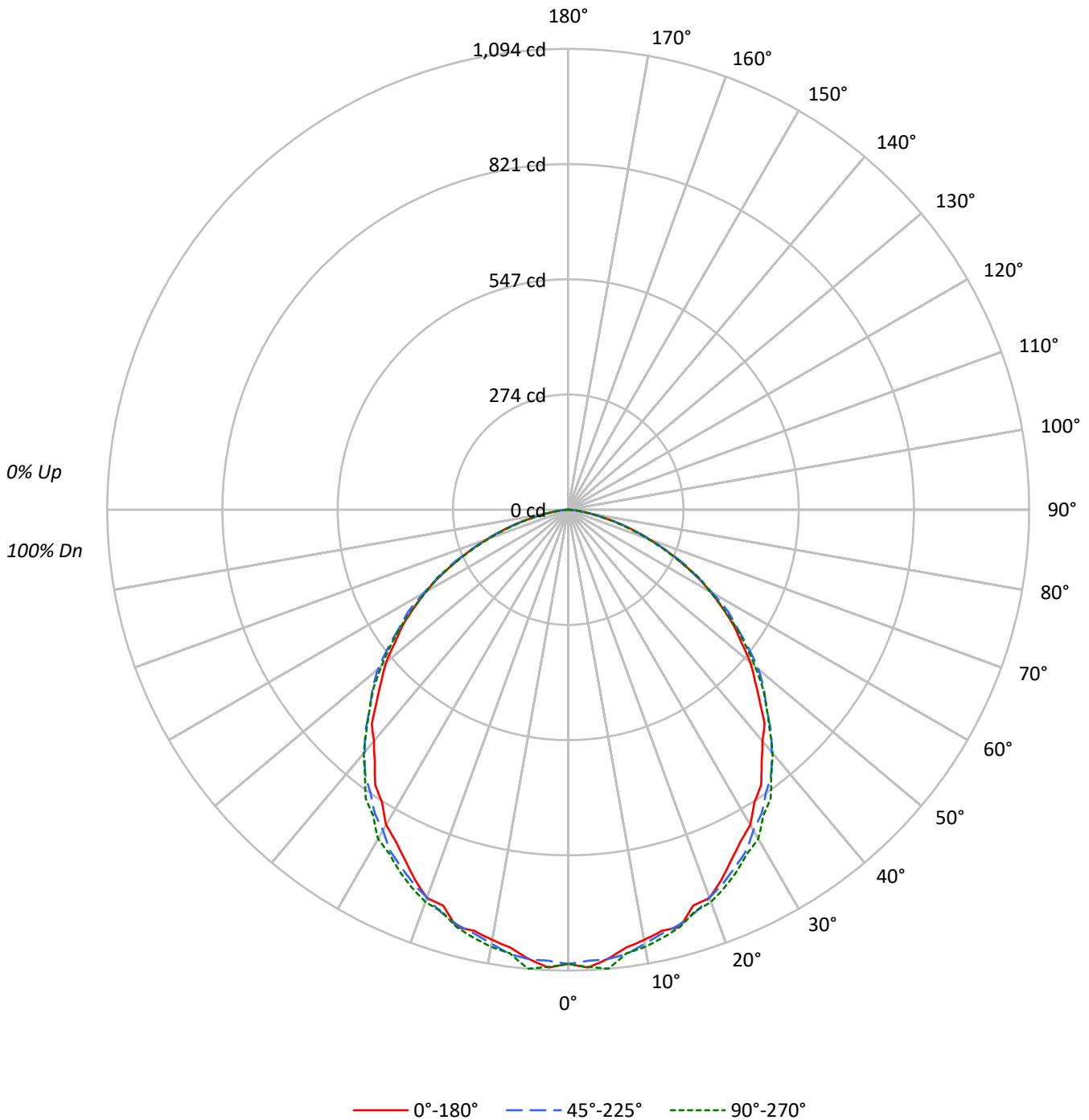
Lumens per Lamp: N/A
Luminaire Lumens: 2718.0 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2902	2902	2902
5°	2893	2894	2955
10°	2834	2858	2879
15°	2856	2841	2857
20°	2808	2808	2838
25°	2722	2781	2812
30°	2684	2731	2804
35°	2621	2689	2750
40°	2519	2640	2652
45°	2443	2530	2533
50°	2363	2469	2422
55°	2251	2295	2279
60°	2105	2126	2088
65°	1877	1925	1864
70°	1611	1616	1571
75°	1276	1273	1224
80°	854	831	798
85°	463	460	429



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.4	3.7
10°-20°	287.5	10.6
20°-30°	430.7	15.8
30°-40°	510.5	18.8
40°-50°	511.5	18.8
50°-60°	434.1	16.0
60°-70°	292.7	10.8
70°-80°	128.6	4.7
80°-90°	20.9	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°	819.7	30.2
0°-40°	1330.2	48.9
0°-60°	2275.8	83.7
0°-90°	2718.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2718.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1078	1078	1078	1078	1078	
5°	1071	1068	1071	1068	1094	101
15°	1025	1013	1020	1025	1025	286
25°	917	922	937	949	947	424
35°	798	800	819	838	837	495
45°	642	654	665	682	666	497
55°	480	477	489	486	486	427
65°	295	291	302	291	293	293
75°	123	120	122	114	118	131
85°	15	15	15	14	14	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1078.4	1078.4	1078.4	1078.4	1078.4
2.5°	1087.8	1079.5	1071.9	1080.8	1086.2
5°	1070.8	1068.3	1071.2	1068.0	1093.8
7.5°	1048.8	1058.4	1064.0	1060.5	1062.0
10°	1037.1	1033.7	1046.1	1054.8	1053.5
12.5°	1024.5	1029.6	1030.3	1039.6	1040.4
15°	1025.2	1013.4	1019.7	1025.0	1025.4
17.5°	985.4	998.2	1002.5	1014.7	999.6
20°	980.5	971.2	980.5	992.9	991.0
22.5°	950.6	940.2	960.2	971.2	970.5
25°	916.6	921.6	936.7	948.9	947.0
27.5°	886.8	892.7	914.1	931.0	920.1
30°	863.9	860.9	879.0	894.1	902.4
32.5°	822.8	833.4	854.5	869.4	861.5
35°	797.9	800.2	818.7	837.7	837.1
37.5°	754.3	765.3	791.3	796.6	791.7
40°	717.1	728.1	751.6	757.3	755.0
42.5°	689.7	691.6	711.8	718.4	707.9
45°	641.9	653.9	664.7	681.9	665.7
47.5°	601.2	606.8	630.2	634.8	626.3
50°	564.4	566.3	589.8	584.1	578.6
52.5°	518.0	526.2	539.4	538.3	531.8
55°	479.8	476.6	489.2	485.8	485.7
57.5°	434.0	439.6	449.9	444.6	436.1
60°	391.1	391.3	395.0	389.0	387.9
62.5°	343.4	345.0	345.9	338.5	350.5
65°	294.8	290.9	302.3	290.7	292.7
67.5°	250.1	252.0	250.9	243.7	246.5
70°	204.7	207.2	205.4	197.2	199.7
72.5°	163.2	160.1	162.1	151.8	156.5
75°	122.7	120.2	122.4	113.8	117.7
77.5°	83.5	85.5	84.1	79.5	82.2
80°	55.1	53.6	53.6	51.0	51.5
82.5°	32.2	30.6	30.2	29.4	30.6
85°	15.0	14.6	14.9	14.5	13.9
87.5°	5.4	5.6	5.6	5.3	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)