

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: P589092

Luminaire Tested: **FMR-24-2-LD4-2LO-35-UNV-81-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589092
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-35-UNV-81-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

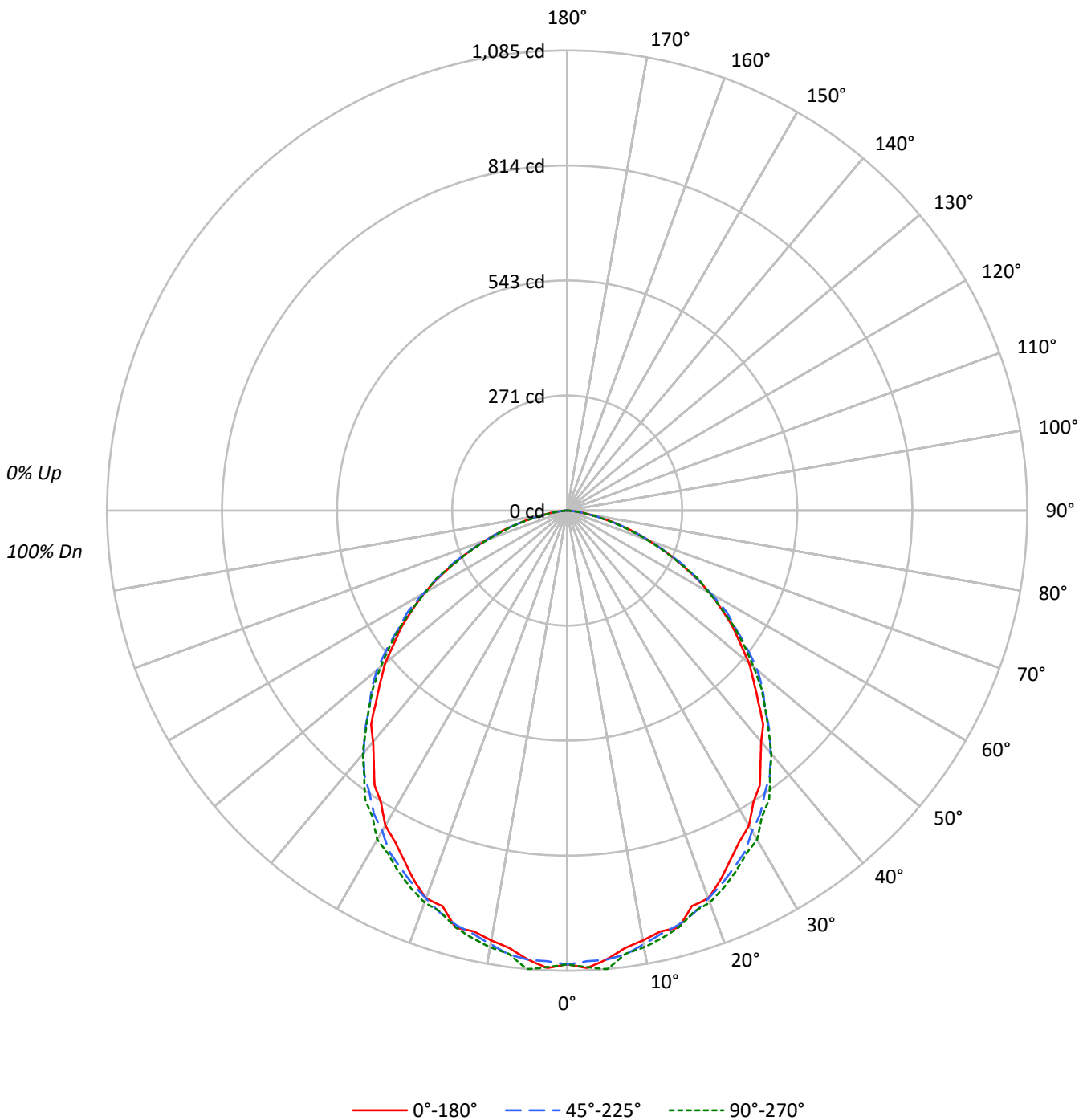
Lumens per Lamp: N/A
Luminaire Lumens: 2697.0 lumens
Efficiency: N/A
Efficacy: 115.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): 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: P589092

CATALOG NUMBER: FMR-24-2-LD4-2LO-35-UNV-81-97-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589092

CATALOG NUMBER: FMR-24-2-LD4-2LO-35-UNV-81-97-EDD

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°	2880	2880	2880
5°	2870	2871	2932
10°	2812	2836	2857
15°	2834	2819	2835
20°	2786	2786	2816
25°	2701	2760	2790
30°	2664	2710	2783
35°	2601	2669	2729
40°	2500	2620	2631
45°	2424	2510	2514
50°	2344	2450	2403
55°	2234	2277	2261
60°	2089	2110	2072
65°	1862	1910	1849
70°	1598	1603	1559
75°	1265	1262	1214
80°	848	824	792
85°	460	457	426



TEST NUMBER: P589092

CATALOG NUMBER: FMR-24-2-LD4-2LO-35-UNV-81-97-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.7	3.7
10°-20°	285.3	10.6
20°-30°	427.4	15.8
30°-40°	506.6	18.8
40°-50°	507.5	18.8
50°-60°	430.8	16.0
60°-70°	290.4	10.8
70°-80°	127.6	4.7
80°-90°	20.7	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°	813.3	30.2
0°-40°	1319.9	48.9
0°-60°	2258.2	83.7
0°-90°	2697.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2697.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1062	1060	1063	1060	1085	100
15°	1017	1006	1012	1017	1018	283
25°	910	914	929	942	940	421
35°	792	794	812	831	831	492
45°	637	649	660	677	661	493
55°	476	473	485	482	482	424
65°	292	289	300	288	290	291
75°	122	119	121	113	117	130
85°	15	14	15	14	14	22
90°	0	0	0	0	0	



TEST NUMBER: P589092

CATALOG NUMBER: FMR-24-2-LD4-2LO-35-UNV-81-97-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1070.1	1070.1	1070.1	1070.1	1070.1
2.5°	1079.4	1071.2	1063.6	1072.5	1077.8
5°	1062.5	1060.0	1062.9	1059.7	1085.3
7.5°	1040.7	1050.2	1055.7	1052.3	1053.8
10°	1029.1	1025.7	1038.0	1046.6	1045.4
12.5°	1016.6	1021.6	1022.3	1031.6	1032.4
15°	1017.3	1005.6	1011.8	1017.0	1017.5
17.5°	977.8	990.5	994.8	1006.8	991.9
20°	973.0	963.7	973.0	985.3	983.3
22.5°	943.3	932.9	952.8	963.7	963.0
25°	909.6	914.5	929.4	941.6	939.7
27.5°	880.0	885.8	907.1	923.8	913.0
30°	857.2	854.3	872.2	887.2	895.5
32.5°	816.4	826.9	847.9	862.7	854.8
35°	791.7	794.0	812.4	831.2	830.7
37.5°	748.4	759.4	785.2	790.5	785.6
40°	711.6	722.5	745.8	751.5	749.1
42.5°	684.3	686.3	706.3	712.8	702.4
45°	636.9	648.8	659.6	676.6	660.6
47.5°	596.6	602.1	625.3	629.9	621.5
50°	560.0	561.9	585.3	579.6	574.1
52.5°	514.0	522.1	535.3	534.2	527.7
55°	476.1	472.9	485.4	482.1	481.9
57.5°	430.7	436.2	446.4	441.2	432.7
60°	388.1	388.2	392.0	386.0	384.9
62.5°	340.7	342.4	343.2	335.9	347.8
65°	292.5	288.6	300.0	288.5	290.4
67.5°	248.1	250.1	249.0	241.8	244.6
70°	203.1	205.6	203.8	195.6	198.1
72.5°	161.9	158.9	160.8	150.6	155.3
75°	121.7	119.2	121.4	112.9	116.8
77.5°	82.9	84.8	83.5	78.9	81.5
80°	54.7	53.2	53.2	50.6	51.1
82.5°	31.9	30.4	30.0	29.2	30.4
85°	14.9	14.5	14.8	14.4	13.8
87.5°	5.4	5.5	5.5	5.3	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)