

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: P589588

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589588
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-LD4-4HI-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

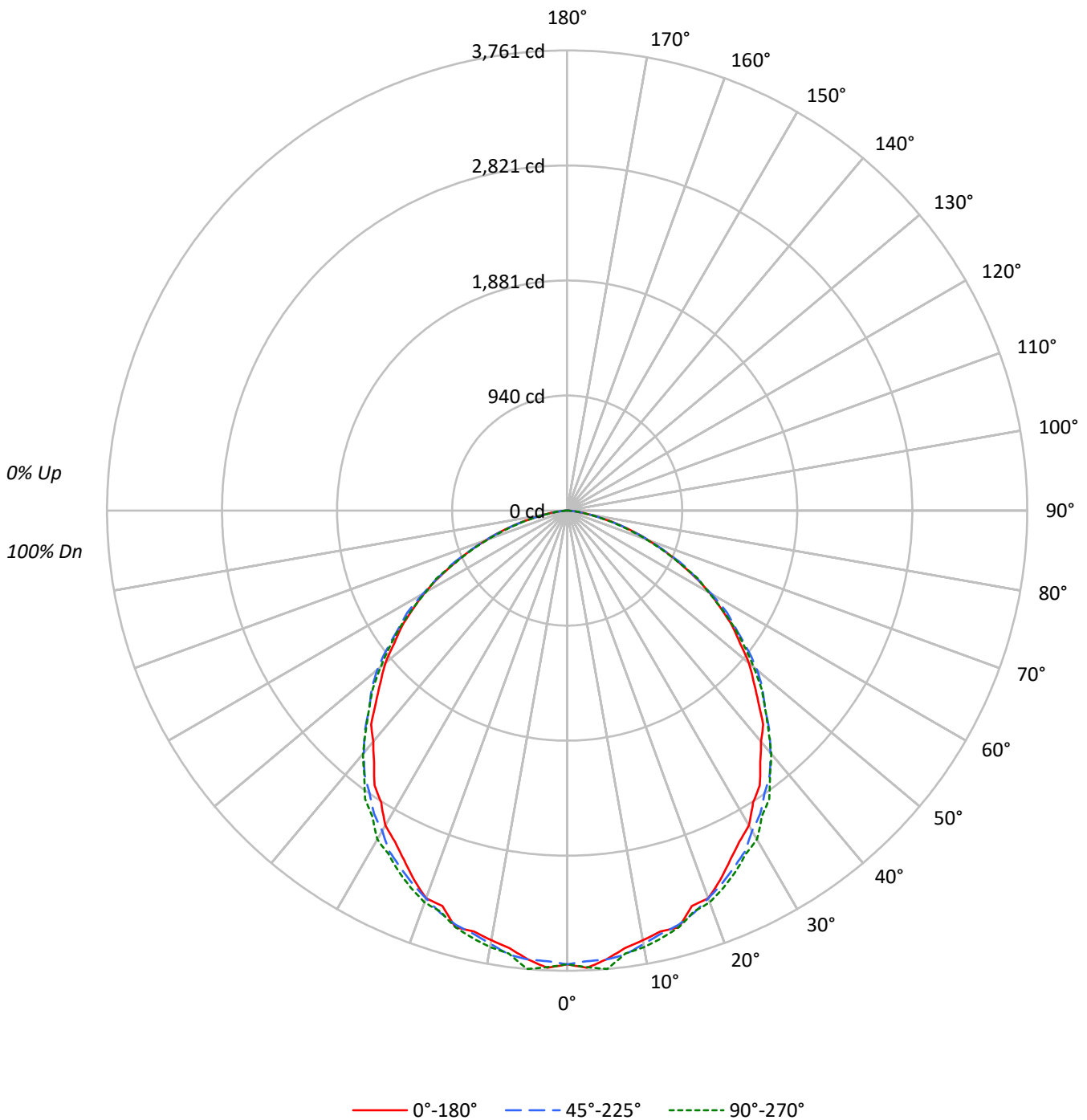
Lumens per Lamp: N/A
Luminaire Lumens: 9346.0 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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: P589588

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-93-97-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°	9979	9979	9979
5°	9946	9950	10159
10°	9744	9829	9899
15°	9821	9768	9823
20°	9655	9655	9758
25°	9359	9563	9668
30°	9230	9392	9642
35°	9013	9248	9456
40°	8662	9079	9119
45°	8400	8699	8711
50°	8124	8491	8328
55°	7741	7891	7835
60°	7238	7310	7179
65°	6454	6619	6408
70°	5537	5556	5402
75°	4386	4376	4207
80°	2938	2856	2746
85°	1596	1581	1479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.8	3.7
10°-20°	988.6	10.6
20°-30°	1481.1	15.8
30°-40°	1755.4	18.8
40°-50°	1758.7	18.8
50°-60°	1492.8	16.0
60°-70°	1006.5	10.8
70°-80°	442.2	4.7
80°-90°	71.9	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°	2818.5	30.2
0°-40°	4573.9	48.9
0°-60°	7825.4	83.7
0°-90°	9346.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9346.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3708	3708	3708	3708	3708	
5°	3682	3673	3683	3672	3761	347
15°	3525	3485	3506	3524	3526	982
25°	3152	3169	3221	3263	3256	1457
35°	2744	2752	2815	2880	2878	1703
45°	2207	2248	2286	2345	2289	1707
55°	1650	1639	1682	1670	1670	1468
65°	1014	1000	1040	1000	1006	1008
75°	422	413	421	391	405	452
85°	52	50	51	50	48	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3708.3	3708.3	3708.3	3708.3	3708.3
2.5°	3740.3	3712.1	3685.8	3716.4	3735.1
5°	3681.9	3673.3	3683.4	3672.3	3760.9
7.5°	3606.3	3639.3	3658.5	3646.5	3651.8
10°	3566.1	3554.6	3597.2	3626.9	3622.6
12.5°	3523.0	3540.2	3542.6	3574.7	3577.5
15°	3525.4	3484.7	3506.2	3524.4	3525.8
17.5°	3388.4	3432.5	3447.3	3489.0	3437.3
20°	3371.7	3339.6	3371.7	3414.3	3407.6
22.5°	3268.7	3232.8	3301.8	3339.6	3337.2
25°	3151.9	3169.1	3220.8	3263.0	3256.3
27.5°	3049.4	3069.5	3143.3	3201.2	3163.9
30°	2970.4	2960.4	3022.6	3074.3	3103.1
32.5°	2829.2	2865.6	2938.4	2989.6	2962.3
35°	2743.5	2751.6	2815.3	2880.4	2878.5
37.5°	2593.6	2631.4	2721.0	2739.2	2722.4
40°	2465.8	2503.6	2584.5	2604.2	2596.0
42.5°	2371.5	2378.2	2447.6	2470.1	2434.2
45°	2207.2	2248.4	2285.8	2344.7	2289.1
47.5°	2067.4	2086.6	2167.0	2182.8	2153.6
50°	1940.6	1947.3	2028.2	2008.5	1989.4
52.5°	1781.1	1809.4	1854.8	1851.0	1828.5
55°	1649.9	1638.9	1682.0	1670.5	1670.0
57.5°	1492.4	1511.6	1547.0	1528.8	1499.6
60°	1344.9	1345.4	1358.3	1337.7	1333.9
62.5°	1180.7	1186.5	1189.3	1163.9	1205.1
65°	1013.6	1000.2	1039.5	999.7	1006.4
67.5°	859.9	866.6	862.8	837.9	847.5
70°	703.8	712.4	706.2	678.0	686.6
72.5°	561.1	550.6	557.3	521.9	538.2
75°	421.8	413.2	420.9	391.2	404.6
77.5°	287.3	294.0	289.2	273.4	282.5
80°	189.6	184.3	184.3	175.2	177.2
82.5°	110.6	105.3	103.9	101.0	105.3
85°	51.7	50.3	51.2	49.8	47.9
87.5°	18.7	19.2	19.2	18.2	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)