

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: P589580

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-82-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589580
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-82-97-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

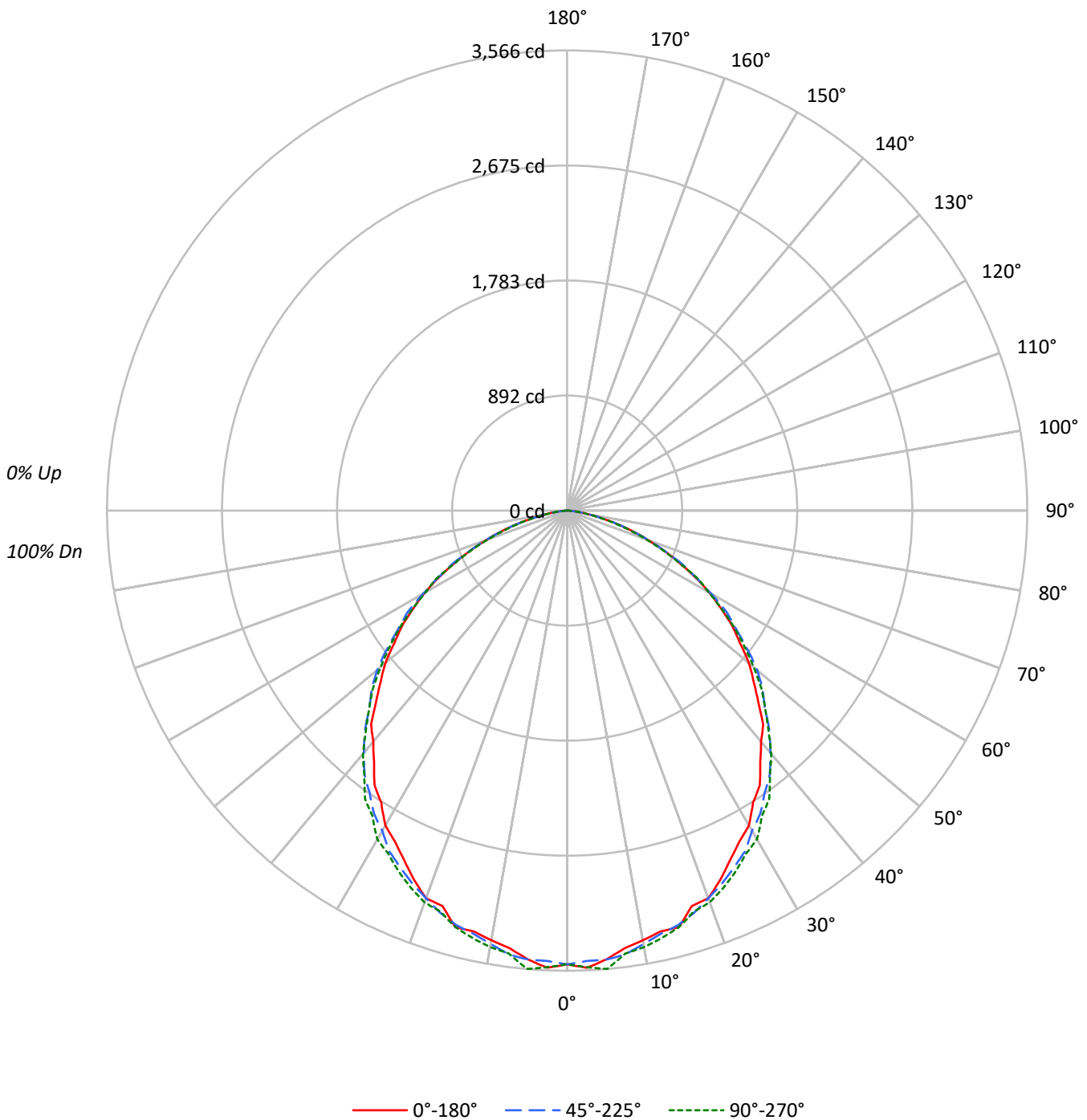
Lumens per Lamp: N/A
Luminaire Lumens: 8861.0 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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°	9461	9461	9461
5°	9430	9433	9632
10°	9239	9319	9385
15°	9312	9261	9313
20°	9154	9154	9252
25°	8873	9067	9167
30°	8751	8905	9142
35°	8545	8769	8965
40°	8212	8608	8646
45°	7964	8247	8259
50°	7702	8050	7896
55°	7339	7482	7429
60°	6863	6931	6807
65°	6119	6275	6076
70°	5250	5268	5122
75°	4158	4148	3988
80°	2786	2709	2603
85°	1513	1501	1402



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	330.7	3.7
10°-20°	937.3	10.6
20°-30°	1404.3	15.8
30°-40°	1664.3	18.8
40°-50°	1667.4	18.8
50°-60°	1415.4	16.0
60°-70°	954.2	10.8
70°-80°	419.3	4.7
80°-90°	68.1	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°	2672.3	30.2
0°-40°	4336.6	48.9
0°-60°	7419.3	83.7
0°-90°	8861.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8861.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3516	3516	3516	3516	3516	
5°	3491	3483	3492	3482	3566	329
15°	3342	3304	3324	3342	3343	931
25°	2988	3005	3054	3094	3087	1382
35°	2601	2609	2669	2731	2729	1615
45°	2093	2132	2167	2223	2170	1619
55°	1564	1554	1595	1584	1583	1392
65°	961	948	986	948	954	956
75°	400	392	399	371	384	429
85°	49	48	49	47	45	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3515.8	3515.8	3515.8	3515.8	3515.8
2.5°	3546.2	3519.5	3494.5	3523.5	3541.2
5°	3490.9	3482.7	3492.2	3481.8	3565.8
7.5°	3419.1	3450.5	3468.6	3457.3	3462.3
10°	3381.0	3370.1	3410.5	3438.6	3434.6
12.5°	3340.1	3356.5	3358.8	3389.2	3391.9
15°	3342.4	3303.8	3324.3	3341.5	3342.9
17.5°	3212.6	3254.3	3268.4	3307.9	3258.9
20°	3196.7	3166.3	3196.7	3237.1	3230.7
22.5°	3099.1	3065.1	3130.4	3166.3	3164.0
25°	2988.3	3004.7	3053.7	3093.7	3087.3
27.5°	2891.2	2910.3	2980.2	3035.1	2999.7
30°	2816.3	2806.8	2865.8	2914.8	2942.0
32.5°	2682.4	2716.9	2785.9	2834.4	2808.6
35°	2601.1	2608.8	2669.2	2730.9	2729.1
37.5°	2459.0	2494.9	2579.8	2597.0	2581.1
40°	2337.8	2373.7	2450.4	2469.0	2461.3
42.5°	2248.4	2254.8	2320.6	2341.9	2307.9
45°	2092.7	2131.7	2167.1	2223.0	2170.3
47.5°	1960.1	1978.3	2054.6	2069.5	2041.9
50°	1839.8	1846.2	1922.9	1904.3	1886.2
52.5°	1688.7	1715.5	1758.6	1755.0	1733.6
55°	1564.3	1553.9	1594.7	1583.8	1583.4
57.5°	1415.0	1433.1	1466.7	1449.5	1421.8
60°	1275.1	1275.6	1287.8	1268.3	1264.7
62.5°	1119.4	1124.9	1127.6	1103.5	1142.6
65°	961.0	948.3	985.5	947.8	954.2
67.5°	815.3	821.6	818.0	794.4	803.5
70°	667.3	675.5	669.6	642.8	651.0
72.5°	532.0	522.0	528.4	494.8	510.2
75°	399.9	391.8	399.0	370.9	383.6
77.5°	272.4	278.7	274.2	259.2	267.8
80°	179.8	174.8	174.8	166.1	168.0
82.5°	104.9	99.9	98.5	95.8	99.9
85°	49.0	47.7	48.6	47.2	45.4
87.5°	17.7	18.2	18.2	17.2	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)