

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: P589566

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-81-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589566
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-81-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

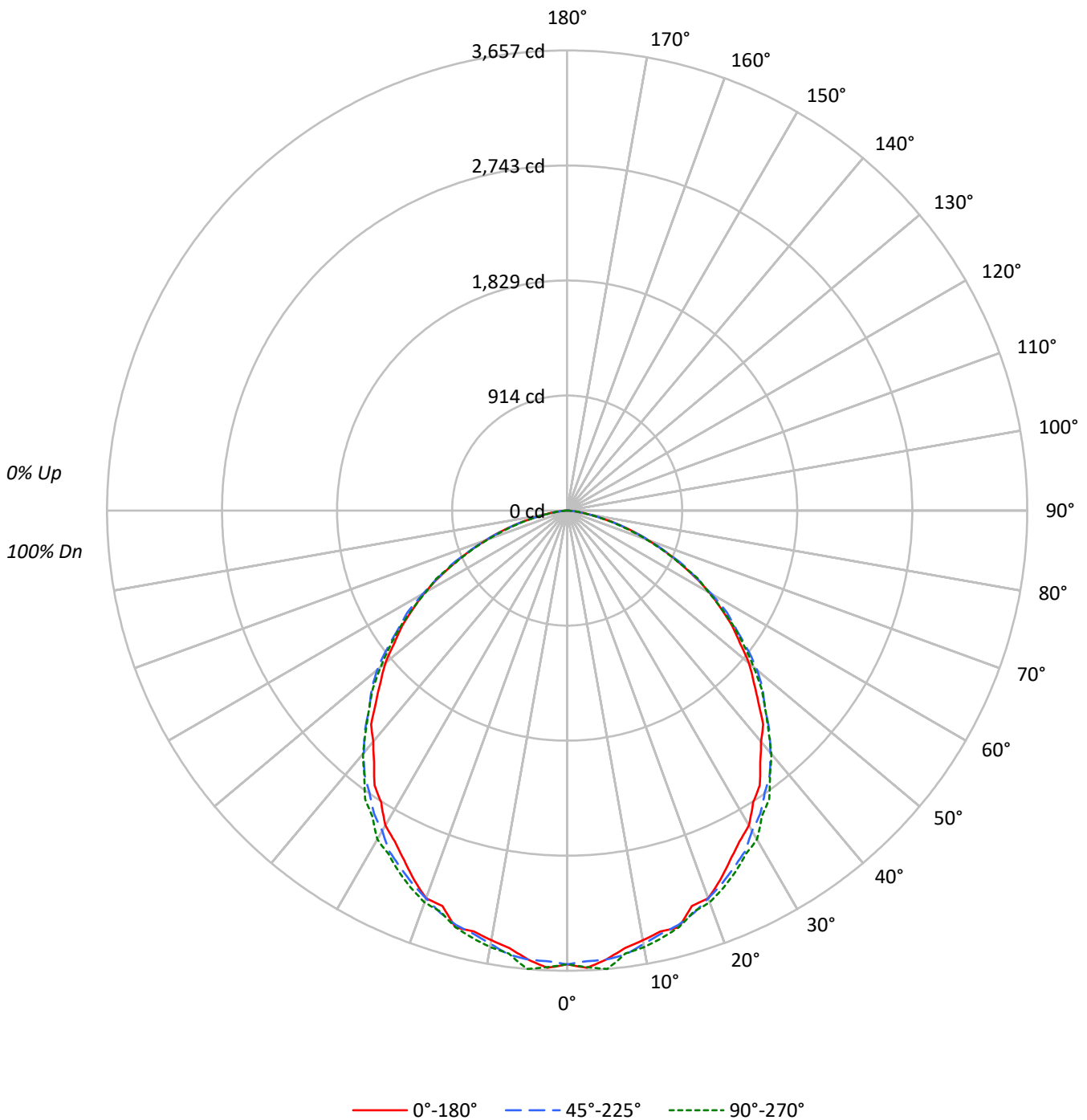
Lumens per Lamp: N/A
Luminaire Lumens: 9088.0 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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°	9703	9703	9703
5°	9671	9675	9879
10°	9475	9558	9625
15°	9550	9498	9551
20°	9389	9389	9489
25°	9100	9299	9402
30°	8975	9133	9376
35°	8764	8993	9195
40°	8423	8828	8868
45°	8168	8459	8471
50°	7900	8256	8099
55°	7527	7674	7619
60°	7039	7108	6981
65°	6276	6436	6231
70°	5385	5403	5253
75°	4265	4255	4090
80°	2858	2777	2670
85°	1553	1538	1439



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.2	3.7
10°-20°	961.3	10.6
20°-30°	1440.2	15.8
30°-40°	1707.0	18.8
40°-50°	1710.1	18.8
50°-60°	1451.6	16.0
60°-70°	978.7	10.8
70°-80°	430.0	4.7
80°-90°	69.9	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°	2740.7	30.2
0°-40°	4447.7	48.9
0°-60°	7609.4	83.7
0°-90°	9088.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9088.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3606	3606	3606	3606	3606	
5°	3580	3572	3582	3571	3657	338
15°	3428	3388	3409	3427	3428	955
25°	3065	3082	3132	3173	3166	1417
35°	2668	2676	2738	2801	2799	1656
45°	2146	2186	2223	2280	2226	1660
55°	1604	1594	1636	1624	1624	1427
65°	986	973	1011	972	979	980
75°	410	402	409	380	393	440
85°	50	49	50	48	47	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3605.9	3605.9	3605.9	3605.9	3605.9
2.5°	3637.1	3609.6	3584.0	3613.8	3632.0
5°	3580.3	3571.9	3581.7	3571.0	3657.1
7.5°	3506.7	3538.8	3557.5	3545.8	3551.0
10°	3467.6	3456.4	3497.9	3526.7	3522.6
12.5°	3425.7	3442.5	3444.8	3476.0	3478.8
15°	3428.0	3388.5	3409.4	3427.1	3428.5
17.5°	3294.9	3337.7	3352.1	3392.7	3342.4
20°	3278.6	3247.4	3278.6	3320.0	3313.5
22.5°	3178.5	3143.6	3210.6	3247.4	3245.1
25°	3064.9	3081.6	3131.9	3172.9	3166.4
27.5°	2965.3	2984.8	3056.5	3112.8	3076.5
30°	2888.4	2878.7	2939.2	2989.5	3017.4
32.5°	2751.1	2786.5	2857.2	2907.1	2880.5
35°	2667.8	2675.7	2737.6	2800.9	2799.0
37.5°	2522.0	2558.8	2645.9	2663.6	2647.3
40°	2397.7	2434.5	2513.2	2532.3	2524.4
42.5°	2306.0	2312.5	2380.0	2401.9	2367.0
45°	2146.3	2186.3	2222.7	2279.9	2225.9
47.5°	2010.4	2029.0	2107.2	2122.6	2094.2
50°	1887.0	1893.5	1972.2	1953.1	1934.5
52.5°	1731.9	1759.4	1803.6	1799.9	1778.0
55°	1604.4	1593.7	1635.6	1624.4	1623.9
57.5°	1451.2	1469.8	1504.3	1486.6	1458.2
60°	1307.8	1308.3	1320.8	1300.8	1297.1
62.5°	1148.1	1153.7	1156.5	1131.8	1171.9
65°	985.6	972.6	1010.8	972.1	978.6
67.5°	836.2	842.7	839.0	814.8	824.1
70°	684.4	692.8	686.7	659.3	667.6
72.5°	545.7	535.4	541.9	507.5	523.3
75°	410.2	401.8	409.2	380.4	393.4
77.5°	279.3	285.9	281.2	265.8	274.7
80°	184.4	179.2	179.2	170.4	172.3
82.5°	107.5	102.4	101.0	98.2	102.4
85°	50.3	48.9	49.8	48.4	46.6
87.5°	18.2	18.6	18.6	17.7	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)