

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: P589787

Luminaire Tested: **FMR-24-2-LD4-4STD-40-UNV-80-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589787
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-LD4-4STD-40-UNV-80-96-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

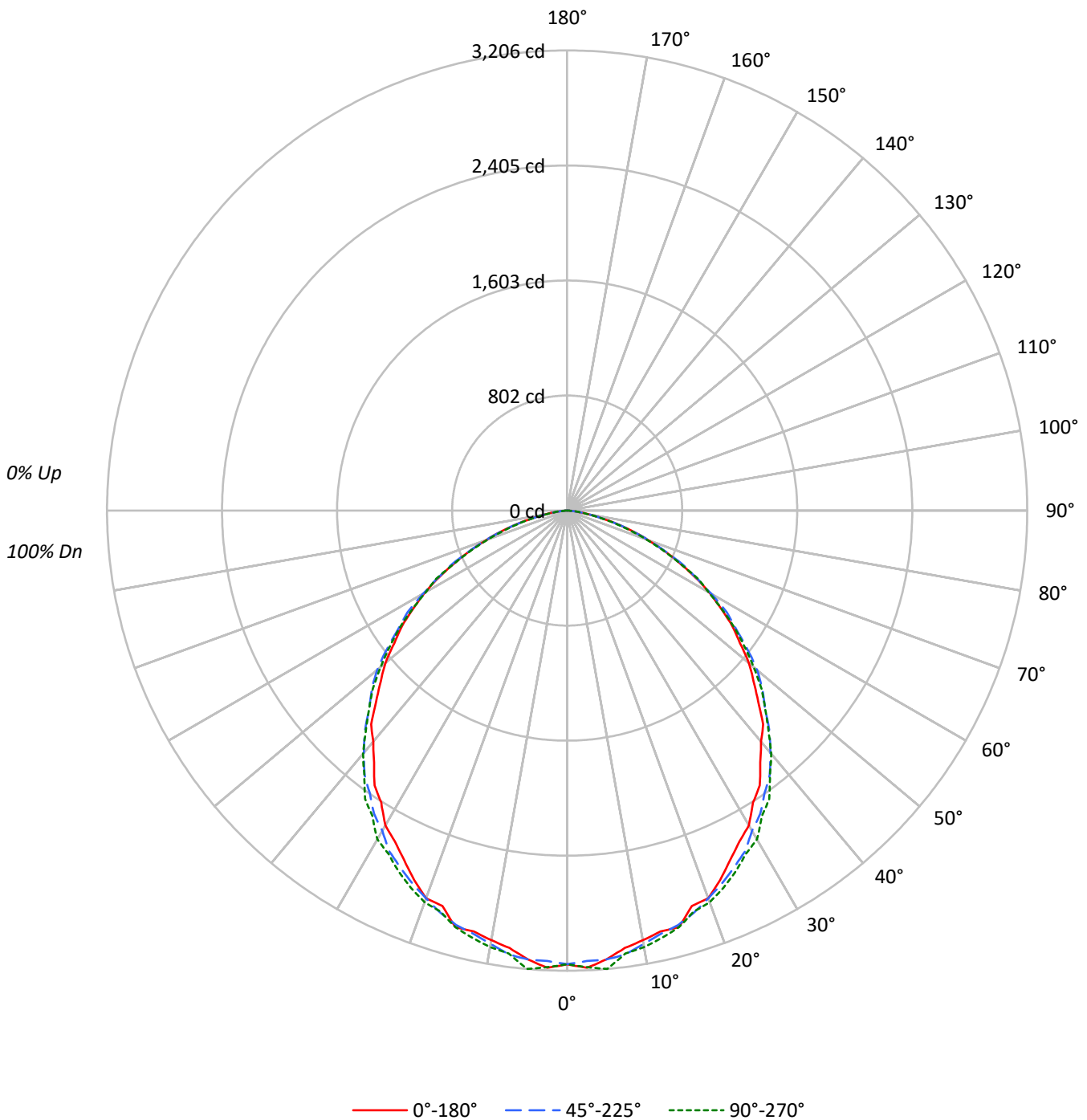
Lumens per Lamp: N/A
Luminaire Lumens: 7966.0 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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	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					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°	8505	8505	8505
5°	8477	8481	8659
10°	8305	8378	8437
15°	8371	8326	8372
20°	8230	8230	8317
25°	7977	8151	8241
30°	7867	8005	8218
35°	7682	7883	8060
40°	7383	7738	7773
45°	7160	7414	7425
50°	6924	7237	7098
55°	6598	6726	6678
60°	6169	6231	6119
65°	5501	5642	5462
70°	4720	4736	4604
75°	3738	3729	3585
80°	2504	2435	2340
85°	1362	1349	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.3	3.7
10°-20°	842.6	10.6
20°-30°	1262.4	15.8
30°-40°	1496.2	18.8
40°-50°	1499.0	18.8
50°-60°	1272.4	16.0
60°-70°	857.9	10.8
70°-80°	376.9	4.7
80°-90°	61.3	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°	2402.4	30.2
0°-40°	3898.6	48.9
0°-60°	6670.0	83.7
0°-90°	7966.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7966.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3161	3161	3161	3161	3161	
5°	3138	3131	3140	3130	3206	296
15°	3005	2970	2988	3004	3005	837
25°	2686	2701	2745	2781	2776	1242
35°	2338	2345	2400	2455	2454	1452
45°	1881	1916	1948	1998	1951	1455
55°	1406	1397	1434	1424	1423	1251
65°	864	852	886	852	858	859
75°	360	352	359	333	345	385
85°	44	43	44	42	41	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3160.7	3160.7	3160.7	3160.7	3160.7
2.5°	3188.1	3164.0	3141.5	3167.6	3183.6
5°	3138.3	3130.9	3139.5	3130.1	3205.6
7.5°	3073.8	3101.9	3118.3	3108.1	3112.6
10°	3039.5	3029.7	3066.0	3091.3	3087.7
12.5°	3002.8	3017.5	3019.5	3046.8	3049.3
15°	3004.8	2970.1	2988.5	3004.0	3005.2
17.5°	2888.1	2925.6	2938.3	2973.8	2929.7
20°	2873.8	2846.5	2873.8	2910.1	2904.4
22.5°	2786.1	2755.5	2814.2	2846.5	2844.4
25°	2686.5	2701.2	2745.3	2781.2	2775.5
27.5°	2599.2	2616.3	2679.2	2728.5	2696.7
30°	2531.8	2523.3	2576.3	2620.4	2644.9
32.5°	2411.4	2442.5	2504.5	2548.2	2524.9
35°	2338.4	2345.3	2399.6	2455.1	2453.5
37.5°	2210.7	2242.9	2319.2	2334.7	2320.4
40°	2101.7	2133.9	2202.9	2219.6	2212.7
42.5°	2021.3	2027.0	2086.2	2105.4	2074.8
45°	1881.3	1916.4	1948.3	1998.4	1951.1
47.5°	1762.2	1778.5	1847.0	1860.5	1835.6
50°	1654.0	1659.7	1728.7	1712.0	1695.6
52.5°	1518.1	1542.2	1581.0	1577.7	1558.5
55°	1406.3	1396.9	1433.6	1423.8	1423.4
57.5°	1272.0	1288.4	1318.6	1303.1	1278.2
60°	1146.3	1146.8	1157.8	1140.2	1137.0
62.5°	1006.4	1011.3	1013.7	992.1	1027.2
65°	863.9	852.5	886.0	852.1	857.8
67.5°	732.9	738.7	735.4	714.2	722.3
70°	599.9	607.2	601.9	577.9	585.2
72.5°	478.3	469.3	475.0	444.8	458.7
75°	359.5	352.2	358.7	333.4	344.8
77.5°	244.9	250.6	246.5	233.0	240.8
80°	161.6	157.1	157.1	149.4	151.0
82.5°	94.3	89.8	88.6	86.1	89.8
85°	44.1	42.9	43.7	42.4	40.8
87.5°	15.9	16.3	16.3	15.5	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)