

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: P589773

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589773
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-35-UNV-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

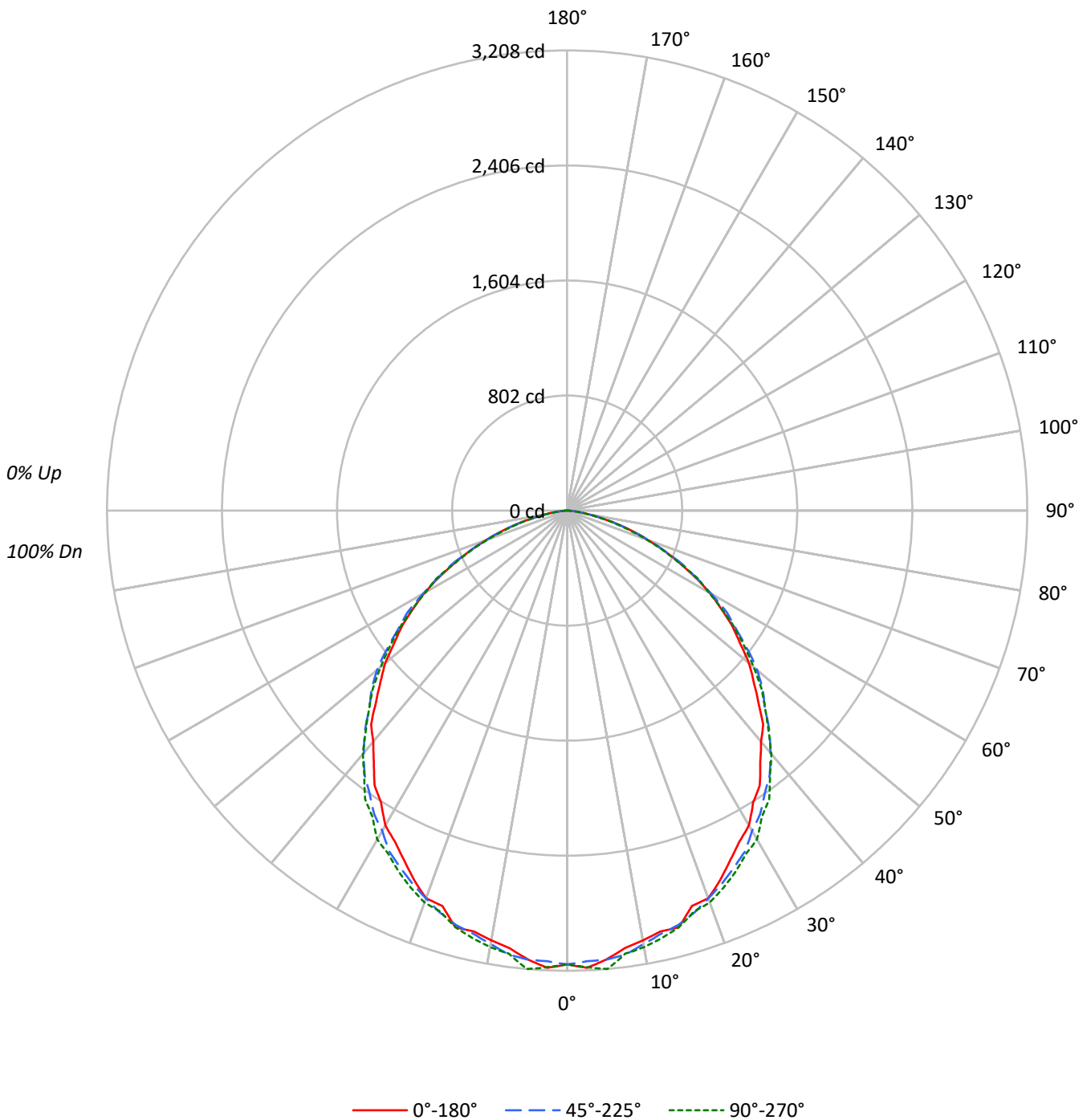
Lumens per Lamp: N/A
Luminaire Lumens: 7973.0 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	8513	8513	8513
5°	8485	8488	8667
10°	8313	8385	8444
15°	8379	8333	8380
20°	8237	8237	8325
25°	7984	8158	8248
30°	7874	8012	8226
35°	7688	7890	8067
40°	7389	7745	7779
45°	7166	7421	7432
50°	6931	7243	7105
55°	6603	6732	6684
60°	6175	6237	6125
65°	5506	5647	5467
70°	4724	4740	4608
75°	3741	3733	3588
80°	2506	2438	2342
85°	1362	1349	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.6	3.7
10°-20°	843.4	10.6
20°-30°	1263.5	15.8
30°-40°	1497.5	18.8
40°-50°	1500.3	18.8
50°-60°	1273.5	16.0
60°-70°	858.6	10.8
70°-80°	377.3	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°	2404.5	30.2
0°-40°	3902.0	48.9
0°-60°	6675.8	83.7
0°-90°	7973.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7973.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3164	3164	3164	3164	3164	
5°	3141	3134	3142	3133	3208	296
15°	3008	2973	2991	3007	3008	838
25°	2689	2704	2748	2784	2778	1243
35°	2340	2347	2402	2457	2456	1453
45°	1883	1918	1950	2000	1953	1457
55°	1408	1398	1435	1425	1425	1252
65°	865	853	887	853	859	860
75°	360	352	359	334	345	386
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°	3163.5	3163.5	3163.5	3163.5	3163.5
2.5°	3190.9	3166.8	3144.3	3170.4	3186.4
5°	3141.0	3133.7	3142.2	3132.9	3208.4
7.5°	3076.5	3104.7	3121.0	3110.8	3115.3
10°	3042.2	3032.4	3068.7	3094.0	3090.4
12.5°	3005.4	3020.1	3022.2	3049.5	3052.0
15°	3007.5	2972.7	2991.1	3006.6	3007.9
17.5°	2890.6	2928.2	2940.9	2976.4	2932.3
20°	2876.3	2849.0	2876.3	2912.7	2907.0
22.5°	2788.5	2757.9	2816.7	2849.0	2846.9
25°	2688.9	2703.6	2747.7	2783.6	2777.9
27.5°	2601.5	2618.6	2681.5	2730.9	2699.1
30°	2534.1	2525.5	2578.6	2622.7	2647.2
32.5°	2413.6	2444.6	2506.7	2550.4	2527.1
35°	2340.4	2347.4	2401.7	2457.3	2455.6
37.5°	2212.6	2244.9	2321.3	2336.8	2322.5
40°	2103.5	2135.8	2204.8	2221.6	2214.6
42.5°	2023.1	2028.8	2088.0	2107.2	2076.6
45°	1883.0	1918.1	1950.0	2000.2	1952.8
47.5°	1763.7	1780.0	1848.7	1862.1	1837.2
50°	1655.5	1661.2	1730.2	1713.5	1697.1
52.5°	1519.5	1543.6	1582.4	1579.1	1559.9
55°	1407.5	1398.1	1434.9	1425.1	1424.7
57.5°	1273.2	1289.5	1319.7	1304.2	1279.3
60°	1147.4	1147.8	1158.8	1141.2	1138.0
62.5°	1007.3	1012.2	1014.6	993.0	1028.1
65°	864.7	853.3	886.8	852.9	858.6
67.5°	733.6	739.3	736.0	714.8	723.0
70°	600.4	607.8	602.5	578.4	585.7
72.5°	478.7	469.7	475.4	445.2	459.1
75°	359.8	352.5	359.0	333.7	345.1
77.5°	245.1	250.8	246.7	233.2	241.0
80°	161.7	157.3	157.3	149.5	151.1
82.5°	94.4	89.9	88.6	86.2	89.9
85°	44.1	42.9	43.7	42.5	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)