

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: P589810

Luminaire Tested: **FMR-24-2-LD4-4STD-40-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589810
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-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

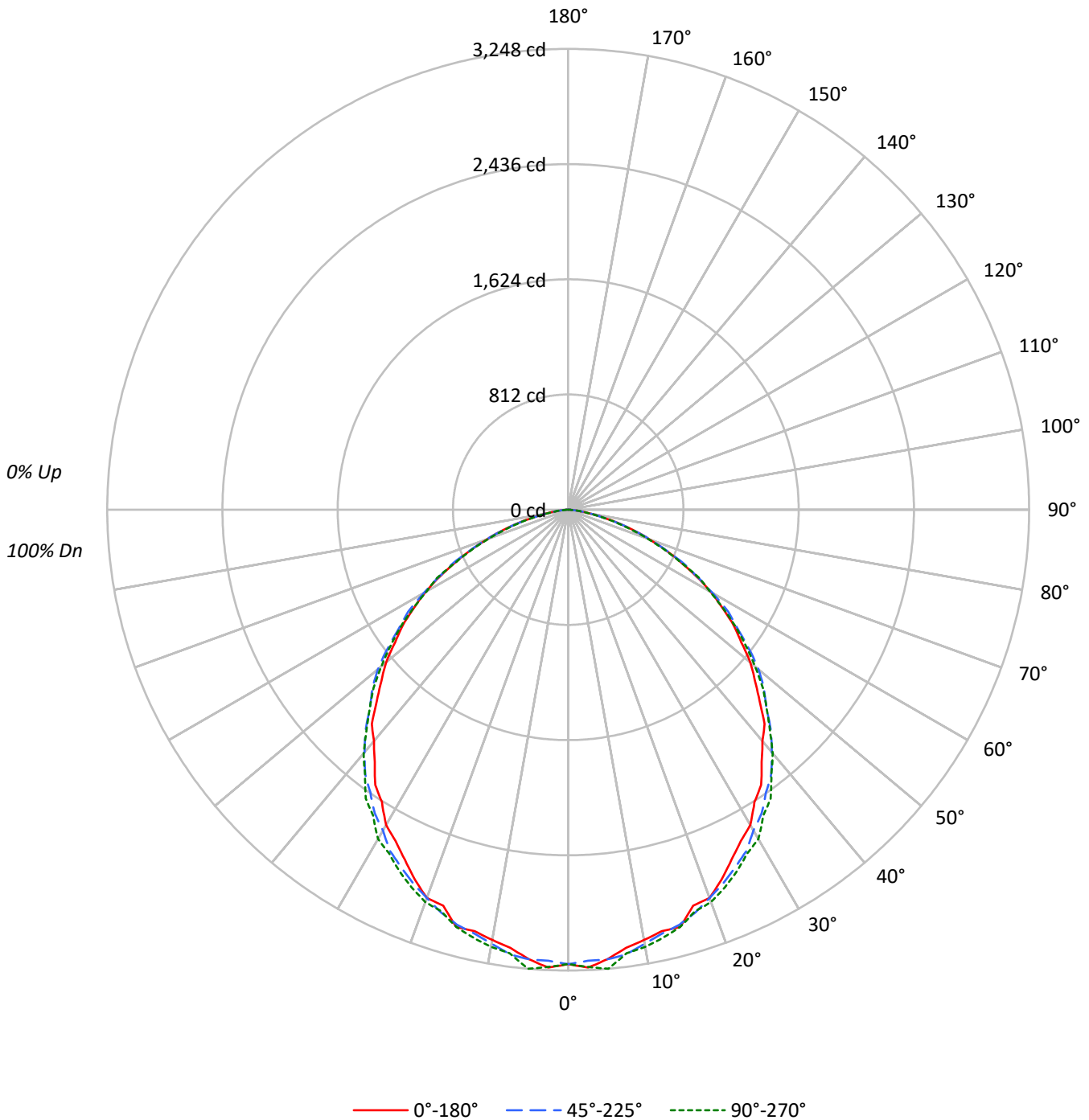
Lumens per Lamp: N/A
Luminaire Lumens: 8071.0 lumens
Efficiency: N/A
Efficacy: 121.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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

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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					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8618	8618	8618
5°	8589	8592	8773
10°	8415	8488	8548
15°	8481	8435	8483
20°	8338	8338	8427
25°	8082	8259	8349
30°	7971	8111	8327
35°	7783	7987	8166
40°	7480	7840	7875
45°	7254	7512	7523
50°	7016	7333	7192
55°	6685	6815	6766
60°	6251	6313	6199
65°	5573	5716	5534
70°	4782	4799	4665
75°	3788	3778	3633
80°	2537	2467	2371
85°	1380	1365	1275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.2	3.7
10°-20°	853.7	10.6
20°-30°	1279.1	15.8
30°-40°	1515.9	18.8
40°-50°	1518.7	18.8
50°-60°	1289.2	16.0
60°-70°	869.2	10.8
70°-80°	381.9	4.7
80°-90°	62.0	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°	2434.0	30.2
0°-40°	3950.0	48.9
0°-60°	6757.8	83.7
0°-90°	8071.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8071.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3202	3202	3202	3202	3202	
5°	3180	3172	3181	3171	3248	300
15°	3044	3009	3028	3044	3045	848
25°	2722	2737	2782	2818	2812	1258
35°	2369	2376	2431	2488	2486	1471
45°	1906	1942	1974	2025	1977	1474
55°	1425	1415	1452	1443	1442	1267
65°	875	864	898	863	869	871
75°	364	357	363	338	349	390
85°	45	43	44	43	41	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3202.4	3202.4	3202.4	3202.4	3202.4
2.5°	3230.1	3205.7	3182.9	3209.4	3225.5
5°	3179.6	3172.2	3180.9	3171.4	3247.9
7.5°	3114.3	3142.8	3159.4	3149.0	3153.6
10°	3079.6	3069.6	3106.4	3132.1	3128.4
12.5°	3042.4	3057.2	3059.3	3087.0	3089.5
15°	3044.4	3009.3	3027.9	3043.6	3044.8
17.5°	2926.2	2964.2	2977.0	3013.0	2968.3
20°	2911.7	2884.0	2911.7	2948.5	2942.7
22.5°	2822.8	2791.8	2851.3	2884.0	2881.9
25°	2721.9	2736.8	2781.5	2817.8	2812.0
27.5°	2633.4	2650.8	2714.5	2764.5	2732.2
30°	2565.2	2556.5	2610.3	2654.9	2679.7
32.5°	2443.2	2474.7	2537.5	2581.7	2558.2
35°	2369.2	2376.2	2431.2	2487.5	2485.8
37.5°	2239.8	2272.5	2349.8	2365.5	2351.0
40°	2129.4	2162.1	2231.9	2248.9	2241.9
42.5°	2047.9	2053.7	2113.7	2133.1	2102.1
45°	1906.1	1941.7	1973.9	2024.8	1976.8
47.5°	1785.4	1801.9	1871.4	1885.0	1859.8
50°	1675.8	1681.6	1751.5	1734.5	1718.0
52.5°	1538.1	1562.5	1601.8	1598.5	1579.1
55°	1424.8	1415.3	1452.5	1442.6	1442.2
57.5°	1288.8	1305.3	1335.9	1320.2	1295.0
60°	1161.5	1161.9	1173.0	1155.3	1151.9
62.5°	1019.6	1024.6	1027.1	1005.2	1040.7
65°	875.3	863.8	897.7	863.3	869.1
67.5°	742.6	748.4	745.1	723.6	731.9
70°	607.8	615.3	609.9	585.5	592.9
72.5°	484.6	475.5	481.3	450.7	464.7
75°	364.3	356.8	363.4	337.8	349.4
77.5°	248.1	253.9	249.7	236.1	244.0
80°	163.7	159.2	159.2	151.3	153.0
82.5°	95.5	91.0	89.7	87.2	91.0
85°	44.7	43.4	44.2	43.0	41.3
87.5°	16.1	16.5	16.5	15.7	14.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)