

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: P589563

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-80-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589563
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-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

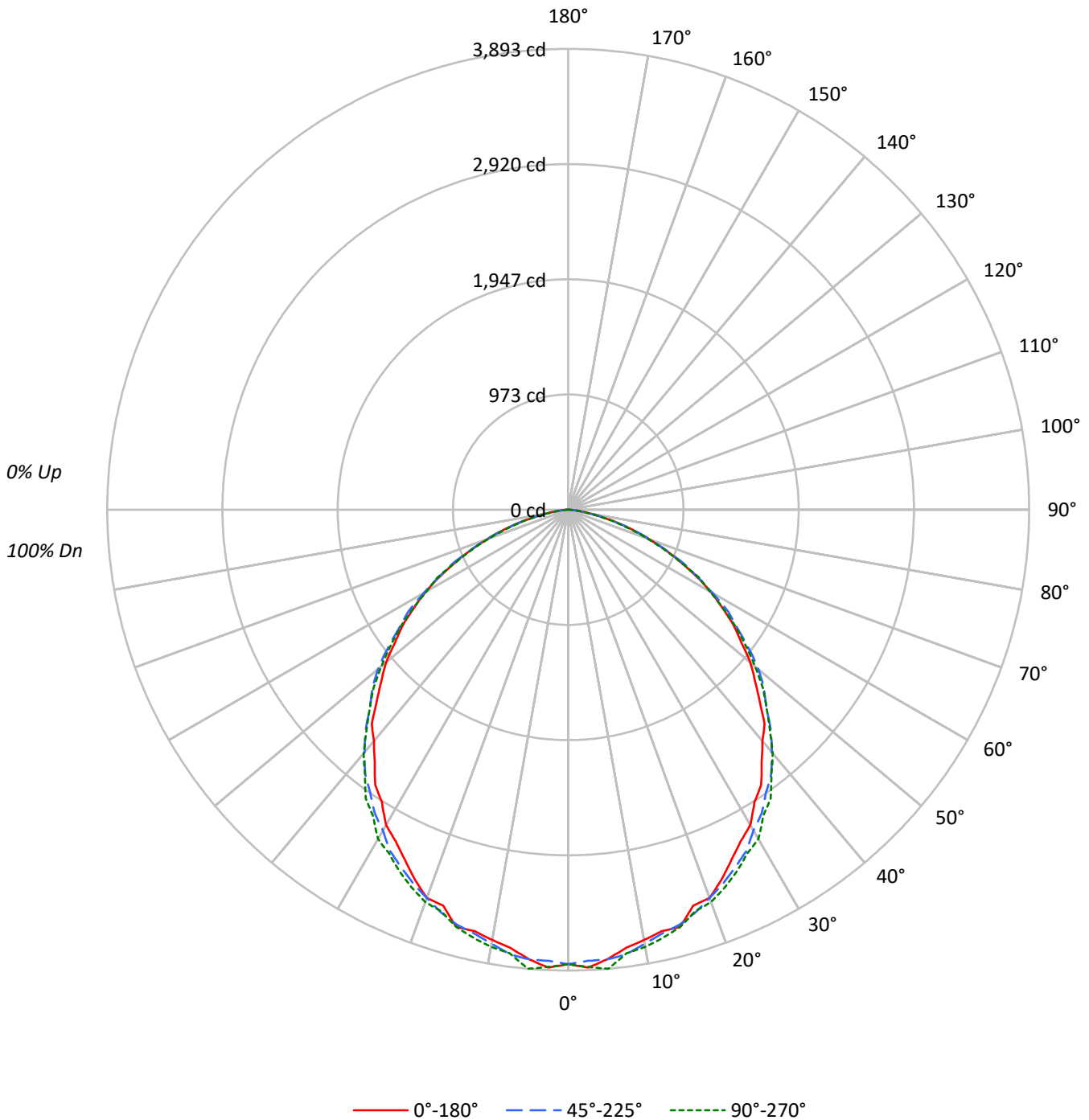
Lumens per Lamp: N/A
Luminaire Lumens: 9674.0 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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	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°	10329	10329	10329
5°	10295	10299	10516
10°	10086	10174	10246
15°	10166	10111	10167
20°	9994	9994	10101
25°	9687	9899	10008
30°	9554	9722	9981
35°	9329	9573	9788
40°	8966	9398	9439
45°	8695	9004	9017
50°	8409	8789	8621
55°	8012	8168	8110
60°	7492	7567	7431
65°	6681	6851	6633
70°	5732	5751	5592
75°	4539	4529	4354
80°	3042	2957	2842
85°	1652	1636	1531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.1	3.7
10°-20°	1023.3	10.6
20°-30°	1533.1	15.8
30°-40°	1817.0	18.8
40°-50°	1820.4	18.8
50°-60°	1545.2	16.0
60°-70°	1041.8	10.8
70°-80°	457.8	4.7
80°-90°	74.4	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°	2917.4	30.2
0°-40°	4734.5	48.9
0°-60°	8100.1	83.7
0°-90°	9674.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9674.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3838	3838	3838	3838	3838	
5°	3811	3802	3813	3801	3893	359
15°	3649	3607	3629	3648	3650	1017
25°	3262	3280	3334	3378	3371	1508
35°	2840	2848	2914	2982	2980	1763
45°	2285	2327	2366	2427	2369	1767
55°	1708	1696	1741	1729	1729	1519
65°	1049	1035	1076	1035	1042	1043
75°	437	428	436	405	419	468
85°	54	52	53	52	50	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3838.4	3838.4	3838.4	3838.4	3838.4
2.5°	3871.6	3842.4	3815.1	3846.8	3866.2
5°	3811.1	3802.2	3812.6	3801.2	3892.9
7.5°	3732.8	3767.0	3786.9	3774.5	3779.9
10°	3691.2	3679.3	3723.4	3754.1	3749.7
12.5°	3646.6	3664.4	3666.9	3700.1	3703.1
15°	3649.1	3607.0	3629.3	3648.1	3649.6
17.5°	3507.3	3552.9	3568.3	3611.4	3557.9
20°	3490.0	3456.8	3490.0	3534.1	3527.2
22.5°	3383.4	3346.3	3417.6	3456.8	3454.3
25°	3262.5	3280.4	3333.9	3377.5	3370.6
27.5°	3156.5	3177.3	3253.6	3313.6	3274.9
30°	3074.7	3064.3	3128.7	3182.2	3212.0
32.5°	2928.5	2966.1	3041.5	3094.5	3066.3
35°	2839.8	2848.2	2914.1	2981.5	2979.5
37.5°	2684.6	2723.8	2816.5	2835.3	2818.0
40°	2552.3	2591.5	2675.2	2695.6	2687.1
42.5°	2454.7	2461.6	2533.5	2556.8	2519.6
45°	2284.7	2327.3	2366.0	2426.9	2369.4
47.5°	2140.0	2159.8	2243.1	2259.4	2229.2
50°	2008.7	2015.6	2099.3	2079.0	2059.2
52.5°	1843.6	1872.9	1919.9	1916.0	1892.7
55°	1707.8	1696.4	1741.0	1729.1	1728.6
57.5°	1544.8	1564.6	1601.3	1582.4	1552.2
60°	1392.1	1392.6	1406.0	1384.7	1380.7
62.5°	1222.1	1228.1	1231.1	1204.8	1247.4
65°	1049.2	1035.3	1075.9	1034.8	1041.7
67.5°	890.1	897.0	893.1	867.3	877.2
70°	728.5	737.4	731.0	701.8	710.7
72.5°	580.8	569.9	576.9	540.2	557.1
75°	436.6	427.7	435.6	404.9	418.8
77.5°	297.4	304.3	299.3	283.0	292.4
80°	196.3	190.8	190.8	181.4	183.4
82.5°	114.5	109.0	107.5	104.6	109.0
85°	53.5	52.0	53.0	51.5	49.6
87.5°	19.3	19.8	19.8	18.8	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)