

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: P589561

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589561
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-80-88-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

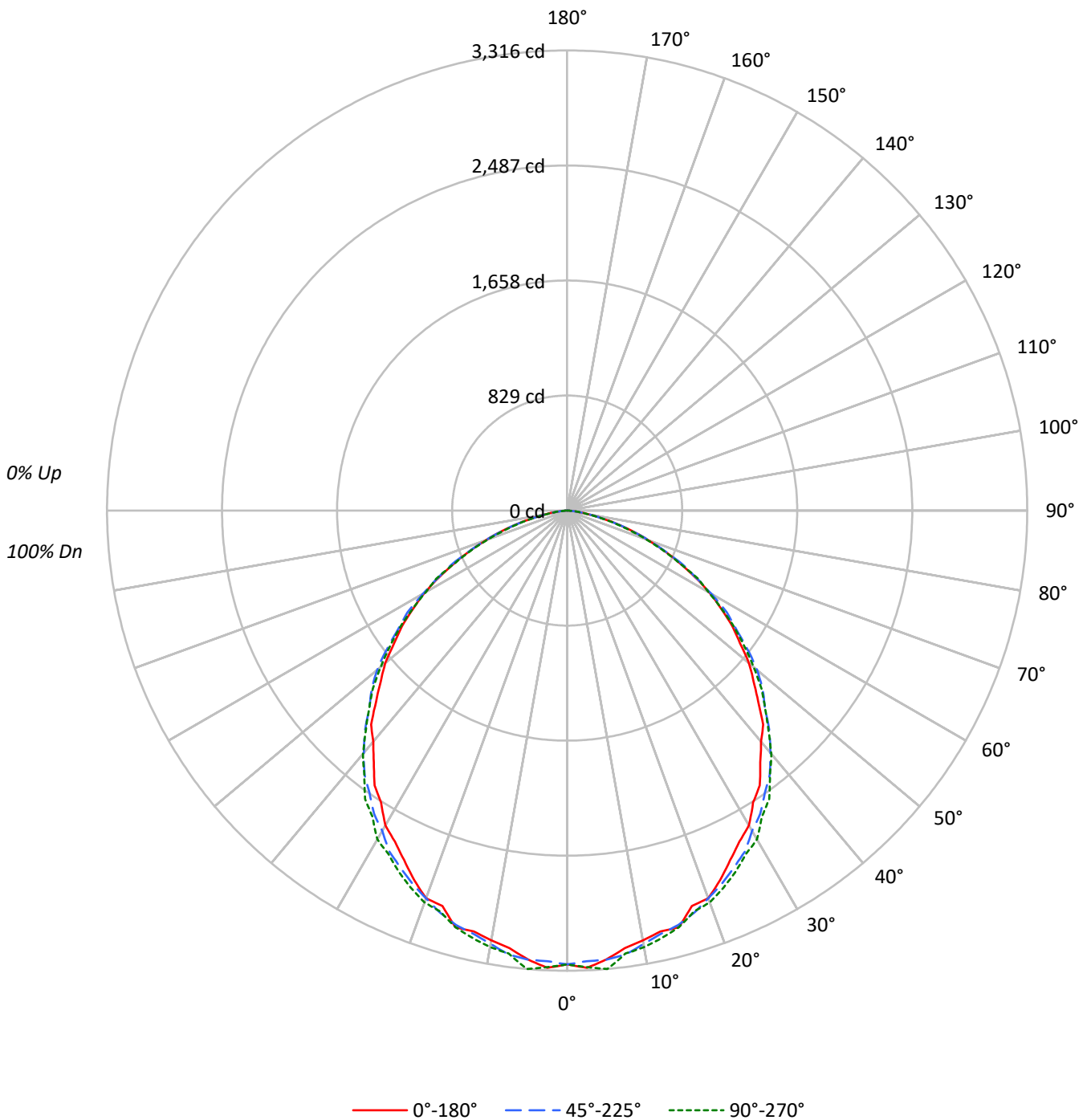
Lumens per Lamp: N/A
Luminaire Lumens: 8241.0 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	8799	8799	8799
5°	8770	8773	8958
10°	8592	8667	8728
15°	8660	8613	8661
20°	8514	8514	8604
25°	8252	8432	8525
30°	8139	8282	8502
35°	7947	8155	8338
40°	7638	8006	8041
45°	7407	7670	7682
50°	7163	7487	7344
55°	6825	6958	6909
60°	6382	6446	6330
65°	5691	5836	5650
70°	4883	4899	4763
75°	3867	3858	3709
80°	2591	2518	2421
85°	1408	1396	1303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.6	3.7
10°-20°	871.7	10.6
20°-30°	1306.0	15.8
30°-40°	1547.9	18.8
40°-50°	1550.7	18.8
50°-60°	1316.3	16.0
60°-70°	887.5	10.8
70°-80°	389.9	4.7
80°-90°	63.4	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°	2485.3	30.2
0°-40°	4033.2	48.9
0°-60°	6900.2	83.7
0°-90°	8241.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8241.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3270	3270	3270	3270	3270	
5°	3247	3239	3248	3238	3316	306
15°	3108	3073	3092	3108	3109	866
25°	2779	2794	2840	2877	2871	1285
35°	2419	2426	2482	2540	2538	1502
45°	1946	1983	2016	2067	2018	1506
55°	1455	1445	1483	1473	1473	1294
65°	894	882	917	882	887	889
75°	372	364	371	345	357	399
85°	46	44	45	44	42	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3269.8	3269.8	3269.8	3269.8	3269.8
2.5°	3298.1	3273.2	3250.0	3277.0	3293.5
5°	3246.6	3239.0	3247.9	3238.2	3316.3
7.5°	3179.9	3209.0	3225.9	3215.4	3220.0
10°	3144.4	3134.3	3171.9	3198.0	3194.2
12.5°	3106.4	3121.6	3123.7	3152.0	3154.6
15°	3108.5	3072.7	3091.7	3107.7	3109.0
17.5°	2987.8	3026.6	3039.7	3076.5	3030.9
20°	2973.0	2944.7	2973.0	3010.6	3004.7
22.5°	2882.3	2850.6	2911.4	2944.7	2942.6
25°	2779.2	2794.4	2840.0	2877.2	2871.3
27.5°	2688.9	2706.6	2771.6	2822.7	2789.8
30°	2619.2	2610.4	2665.3	2710.8	2736.2
32.5°	2494.7	2526.8	2590.9	2636.1	2612.1
35°	2419.1	2426.3	2482.4	2539.9	2538.2
37.5°	2287.0	2320.3	2399.3	2415.3	2400.5
40°	2174.3	2207.6	2279.0	2296.3	2289.1
42.5°	2091.1	2097.0	2158.2	2178.1	2146.4
45°	1946.3	1982.6	2015.5	2067.4	2018.5
47.5°	1823.0	1839.9	1910.8	1924.7	1899.0
50°	1711.1	1717.0	1788.4	1771.1	1754.2
52.5°	1570.5	1595.4	1635.5	1632.2	1612.3
55°	1454.8	1445.1	1483.1	1473.0	1472.6
57.5°	1315.9	1332.8	1364.1	1348.0	1322.3
60°	1185.9	1186.3	1197.7	1179.6	1176.2
62.5°	1041.1	1046.2	1048.7	1026.3	1062.6
65°	893.8	881.9	916.6	881.5	887.4
67.5°	758.2	764.2	760.8	738.8	747.3
70°	620.6	628.2	622.7	597.8	605.4
72.5°	494.8	485.5	491.4	460.2	474.5
75°	371.9	364.3	371.1	344.9	356.7
77.5°	253.3	259.2	255.0	241.1	249.1
80°	167.2	162.5	162.5	154.5	156.2
82.5°	97.5	92.9	91.6	89.1	92.9
85°	45.6	44.3	45.2	43.9	42.2
87.5°	16.5	16.9	16.9	16.0	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)