

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: P589837

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589837
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

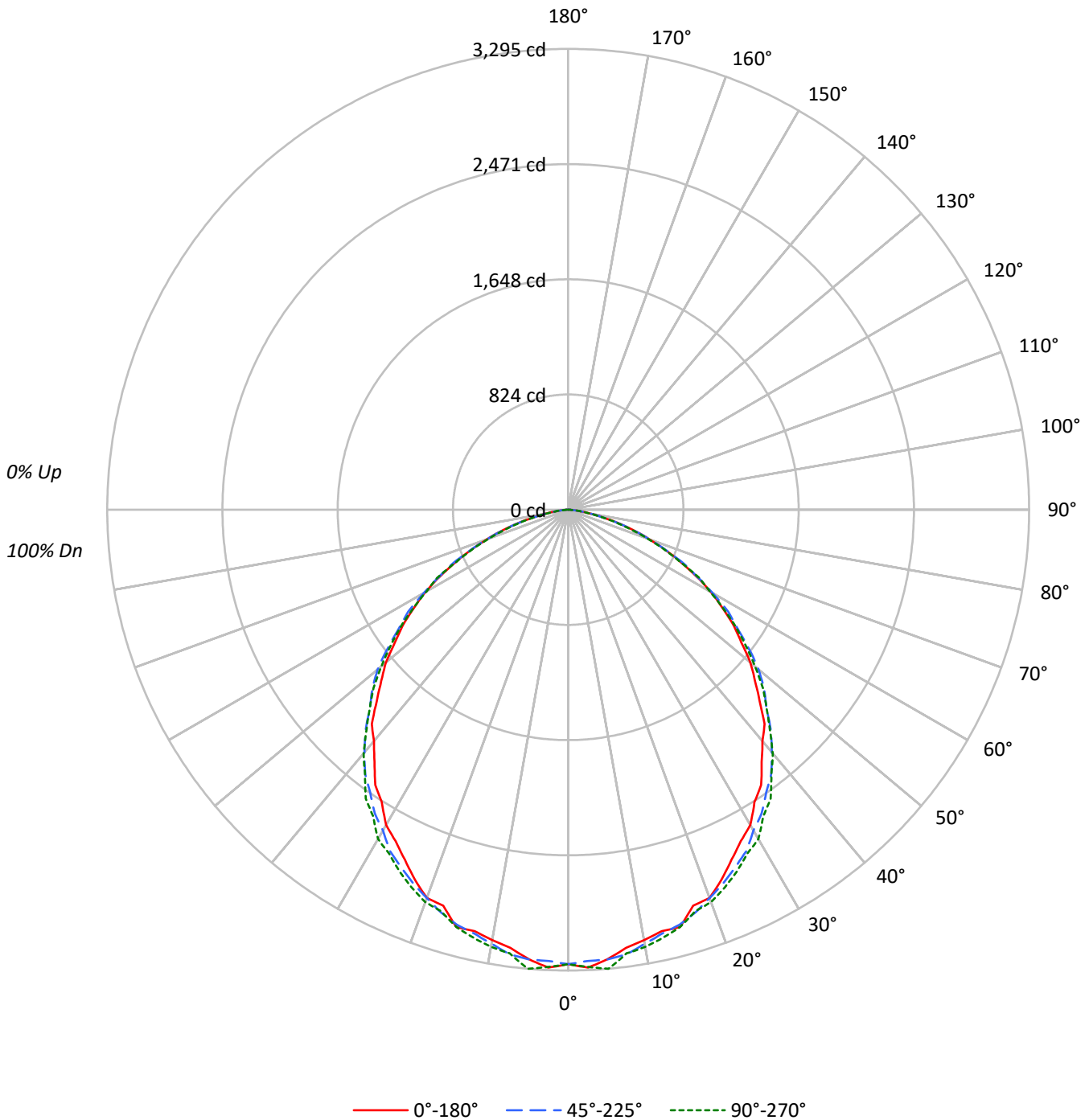
Lumens per Lamp: N/A
Luminaire Lumens: 8189.0 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	8744	8744	8744
5°	8715	8718	8901
10°	8538	8613	8673
15°	8605	8559	8607
20°	8460	8460	8550
25°	8200	8379	8472
30°	8087	8229	8448
35°	7897	8104	8286
40°	7589	7955	7990
45°	7360	7622	7633
50°	7118	7440	7297
55°	6783	6914	6865
60°	6342	6406	6290
65°	5655	5799	5615
70°	4852	4869	4733
75°	3843	3834	3686
80°	2574	2503	2405
85°	1399	1386	1297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.6	3.7
10°-20°	866.2	10.6
20°-30°	1297.8	15.8
30°-40°	1538.1	18.8
40°-50°	1541.0	18.8
50°-60°	1308.0	16.0
60°-70°	881.9	10.8
70°-80°	387.5	4.7
80°-90°	63.0	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°	2469.6	30.2
0°-40°	4007.7	48.9
0°-60°	6856.7	83.7
0°-90°	8189.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8189.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3249	3249	3249	3249	3249	
5°	3226	3219	3227	3218	3295	304
15°	3089	3053	3072	3088	3089	861
25°	2762	2777	2822	2859	2853	1277
35°	2404	2411	2467	2524	2522	1493
45°	1934	1970	2003	2054	2006	1496
55°	1446	1436	1474	1464	1463	1286
65°	888	876	911	876	882	883
75°	370	362	369	343	354	396
85°	45	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°	3249.2	3249.2	3249.2	3249.2	3249.2
2.5°	3277.3	3252.5	3229.5	3256.3	3272.7
5°	3226.1	3218.6	3227.4	3217.7	3295.3
7.5°	3159.8	3188.8	3205.6	3195.1	3199.7
10°	3124.6	3114.5	3151.9	3177.9	3174.1
12.5°	3086.8	3101.9	3104.0	3132.1	3134.7
15°	3088.9	3053.3	3072.2	3088.1	3089.4
17.5°	2968.9	3007.5	3020.5	3057.0	3011.7
20°	2954.3	2926.2	2954.3	2991.6	2985.7
22.5°	2864.1	2832.6	2893.0	2926.2	2924.1
25°	2761.7	2776.8	2822.1	2859.0	2853.2
27.5°	2671.9	2689.5	2754.2	2804.9	2772.2
30°	2602.7	2593.9	2648.4	2693.7	2718.9
32.5°	2478.9	2510.8	2574.6	2619.5	2595.6
35°	2403.9	2411.0	2466.8	2523.8	2522.2
37.5°	2272.5	2305.7	2384.1	2400.1	2385.4
40°	2160.5	2193.7	2264.6	2281.8	2274.6
42.5°	2077.9	2083.8	2144.6	2164.3	2132.8
45°	1934.0	1970.1	2002.8	2054.4	2005.7
47.5°	1811.5	1828.3	1898.8	1912.6	1887.0
50°	1700.3	1706.2	1777.1	1759.9	1743.1
52.5°	1560.6	1585.4	1625.2	1621.9	1602.1
55°	1445.7	1436.0	1473.8	1463.7	1463.3
57.5°	1307.6	1324.4	1355.5	1339.5	1313.9
60°	1178.4	1178.9	1190.2	1172.1	1168.8
62.5°	1034.5	1039.6	1042.1	1019.9	1055.9
65°	888.1	876.4	910.8	876.0	881.8
67.5°	753.5	759.3	756.0	734.2	742.6
70°	616.7	624.2	618.8	594.0	601.6
72.5°	491.7	482.4	488.3	457.3	471.5
75°	369.6	362.0	368.8	342.7	354.5
77.5°	251.7	257.6	253.4	239.5	247.5
80°	166.1	161.5	161.5	153.5	155.2
82.5°	96.9	92.3	91.0	88.5	92.3
85°	45.3	44.0	44.9	43.6	42.0
87.5°	16.4	16.8	16.8	15.9	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)