

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: P589145

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589145
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-LD4-2LO-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

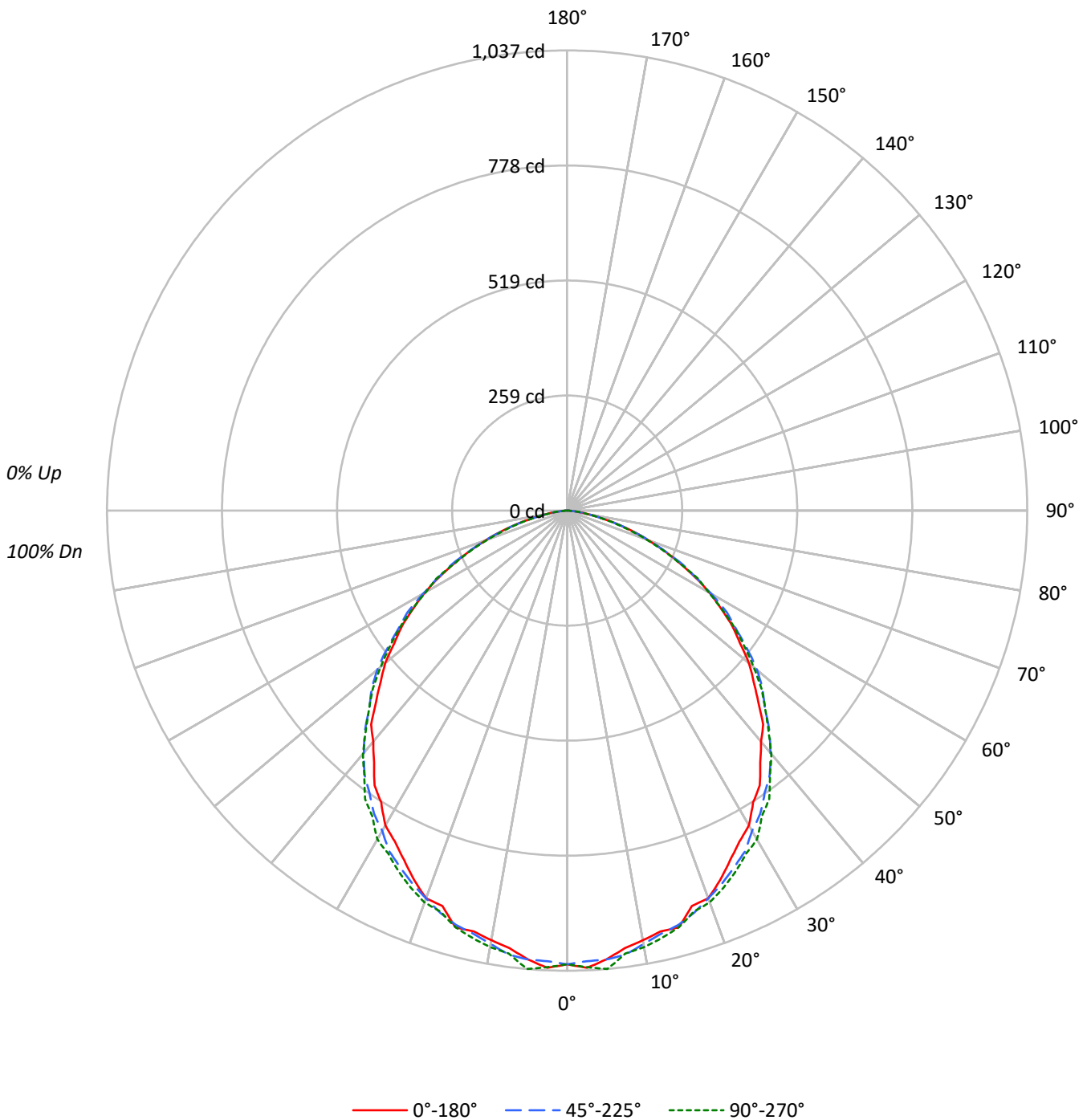
Lumens per Lamp: N/A
Luminaire Lumens: 2577.0 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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	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°	2752	2752	2752
5°	2742	2743	2801
10°	2687	2710	2729
15°	2708	2693	2708
20°	2662	2662	2691
25°	2581	2637	2666
30°	2545	2590	2659
35°	2485	2550	2607
40°	2388	2503	2514
45°	2316	2399	2402
50°	2240	2341	2296
55°	2134	2176	2160
60°	1996	2016	1979
65°	1780	1825	1767
70°	1527	1532	1489
75°	1209	1206	1160
80°	810	787	756
85°	442	435	408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.2	3.7
10°-20°	272.6	10.6
20°-30°	408.4	15.8
30°-40°	484.0	18.8
40°-50°	484.9	18.8
50°-60°	411.6	16.0
60°-70°	277.5	10.8
70°-80°	121.9	4.7
80°-90°	19.8	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°	777.2	30.2
0°-40°	1261.2	48.9
0°-60°	2157.7	83.7
0°-90°	2577.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2577.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1022	1022	1022	1022	1022	
5°	1015	1013	1016	1013	1037	96
15°	972	961	967	972	972	271
25°	869	874	888	900	898	402
35°	756	759	776	794	794	470
45°	609	620	630	646	631	471
55°	455	452	464	461	460	405
65°	280	276	287	276	278	278
75°	116	114	116	108	112	125
85°	14	14	14	14	13	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1022.5	1022.5	1022.5	1022.5	1022.5
2.5°	1031.3	1023.5	1016.3	1024.7	1029.9
5°	1015.2	1012.9	1015.6	1012.6	1037.0
7.5°	994.4	1003.5	1008.8	1005.5	1006.9
10°	983.3	980.1	991.9	1000.0	998.9
12.5°	971.4	976.1	976.8	985.7	986.4
15°	972.1	960.8	966.8	971.8	972.2
17.5°	934.3	946.4	950.5	962.0	947.8
20°	929.7	920.8	929.7	941.4	939.6
22.5°	901.3	891.4	910.4	920.8	920.2
25°	869.1	873.8	888.1	899.7	897.9
27.5°	840.8	846.4	866.7	882.7	872.4
30°	819.0	816.3	833.4	847.7	855.6
32.5°	780.1	790.1	810.2	824.3	816.8
35°	756.5	758.7	776.3	794.2	793.7
37.5°	715.1	725.6	750.3	755.3	750.7
40°	679.9	690.3	712.6	718.1	715.8
42.5°	653.9	655.7	674.9	681.1	671.2
45°	608.6	620.0	630.3	646.5	631.2
47.5°	570.1	575.3	597.5	601.9	593.8
50°	535.1	536.9	559.2	553.8	548.5
52.5°	491.1	498.9	511.4	510.4	504.2
55°	454.9	451.9	463.8	460.6	460.5
57.5°	411.5	416.8	426.6	421.5	413.5
60°	370.8	371.0	374.5	368.9	367.8
62.5°	325.6	327.1	327.9	320.9	332.3
65°	279.5	275.8	286.6	275.7	277.5
67.5°	237.1	239.0	237.9	231.0	233.7
70°	194.1	196.4	194.7	186.9	189.3
72.5°	154.7	151.8	153.7	143.9	148.4
75°	116.3	113.9	116.0	107.9	111.6
77.5°	79.2	81.1	79.7	75.4	77.9
80°	52.3	50.8	50.8	48.3	48.8
82.5°	30.5	29.0	28.6	27.9	29.0
85°	14.3	13.9	14.1	13.7	13.2
87.5°	5.1	5.3	5.3	5.0	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)