

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: P589096

Luminaire Tested: **FMR-24-2-LD4-2LO-35-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589096
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-35-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

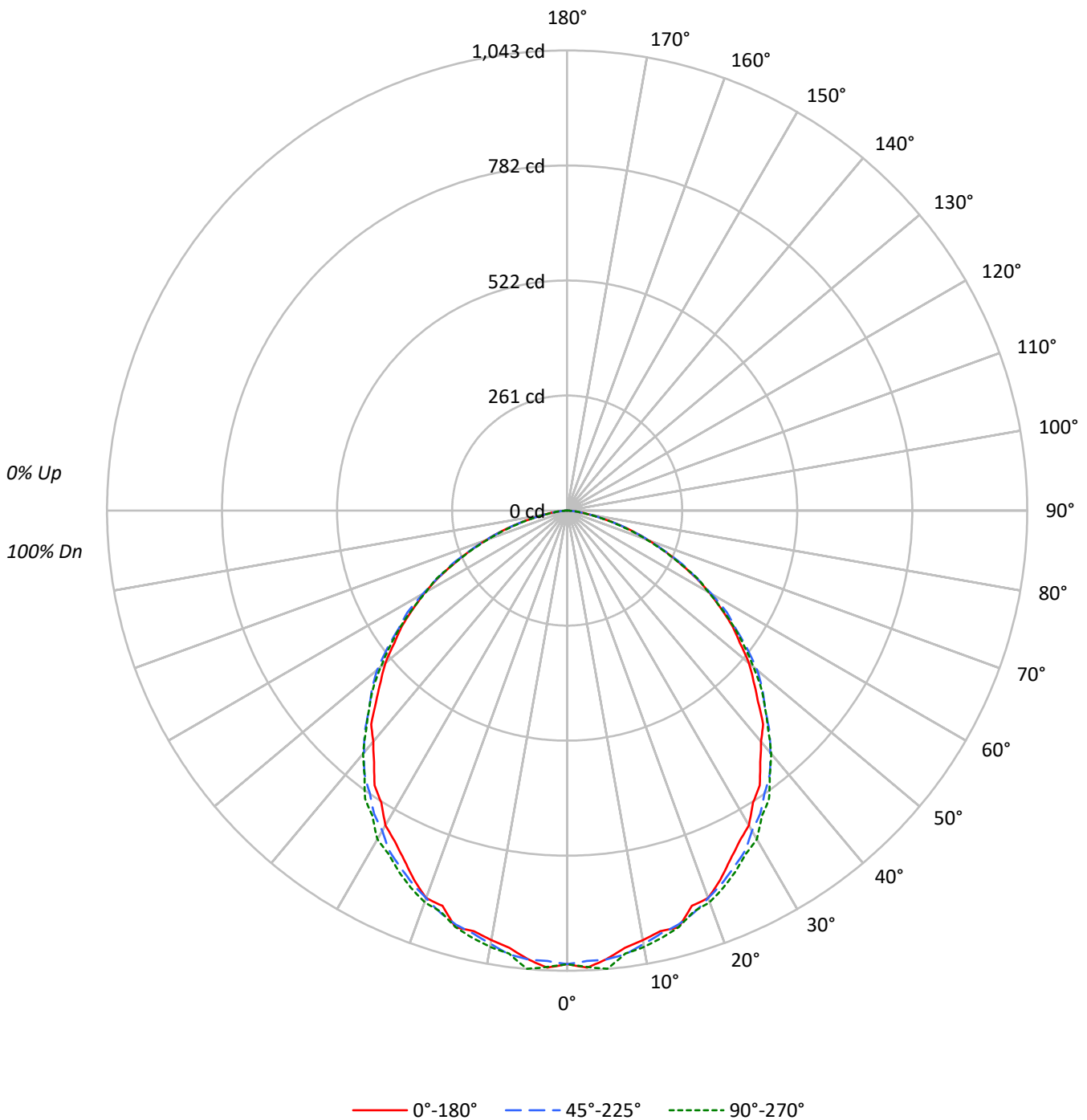
Lumens per Lamp: N/A
Luminaire Lumens: 2591.0 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	2766	2766	2766
5°	2757	2758	2816
10°	2701	2725	2744
15°	2723	2708	2723
20°	2677	2677	2705
25°	2594	2651	2680
30°	2559	2604	2673
35°	2499	2564	2621
40°	2401	2517	2528
45°	2329	2412	2415
50°	2252	2354	2309
55°	2146	2188	2172
60°	2007	2027	1990
65°	1789	1835	1777
70°	1535	1541	1497
75°	1215	1213	1167
80°	815	792	761
85°	442	438	411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.7	3.7
10°-20°	274.1	10.6
20°-30°	410.6	15.8
30°-40°	486.7	18.8
40°-50°	487.6	18.8
50°-60°	413.9	16.0
60°-70°	279.0	10.8
70°-80°	122.6	4.7
80°-90°	19.9	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°	781.4	30.2
0°-40°	1268.0	48.9
0°-60°	2169.4	83.7
0°-90°	2591.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2591.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1028	1028	1028	1028	1028	
5°	1021	1018	1021	1018	1043	96
15°	977	966	972	977	978	272
25°	874	879	893	905	903	404
35°	761	763	780	798	798	472
45°	612	623	634	650	635	473
55°	457	454	466	463	463	407
65°	281	277	288	277	279	279
75°	117	115	117	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°	1028.0	1028.0	1028.0	1028.0	1028.0
2.5°	1036.9	1029.1	1021.8	1030.3	1035.5
5°	1020.7	1018.4	1021.1	1018.1	1042.6
7.5°	999.8	1008.9	1014.2	1010.9	1012.4
10°	988.6	985.4	997.2	1005.5	1004.3
12.5°	976.7	981.5	982.1	991.0	991.8
15°	977.3	966.1	972.0	977.1	977.5
17.5°	939.4	951.6	955.7	967.3	952.9
20°	934.7	925.8	934.7	946.5	944.7
22.5°	906.2	896.2	915.4	925.8	925.2
25°	873.8	878.6	892.9	904.6	902.7
27.5°	845.4	851.0	871.4	887.5	877.1
30°	823.5	820.7	838.0	852.3	860.3
32.5°	784.3	794.4	814.6	828.8	821.2
35°	760.6	762.8	780.5	798.5	798.0
37.5°	719.0	729.5	754.3	759.4	754.7
40°	683.6	694.1	716.5	722.0	719.7
42.5°	657.4	659.3	678.5	684.8	674.8
45°	611.9	623.3	633.7	650.0	634.6
47.5°	573.2	578.5	600.8	605.1	597.0
50°	538.0	539.8	562.3	556.8	551.5
52.5°	493.8	501.6	514.2	513.2	506.9
55°	457.4	454.4	466.3	463.1	463.0
57.5°	413.7	419.0	428.9	423.8	415.7
60°	372.9	373.0	376.6	370.9	369.8
62.5°	327.3	328.9	329.7	322.7	334.1
65°	281.0	277.3	288.2	277.2	279.0
67.5°	238.4	240.3	239.2	232.3	234.9
70°	195.1	197.5	195.8	188.0	190.3
72.5°	155.6	152.6	154.5	144.7	149.2
75°	116.9	114.6	116.7	108.4	112.2
77.5°	79.6	81.5	80.2	75.8	78.3
80°	52.6	51.1	51.1	48.6	49.1
82.5°	30.7	29.2	28.8	28.0	29.2
85°	14.3	13.9	14.2	13.8	13.3
87.5°	5.2	5.3	5.3	5.0	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)