

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: P588765

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588765
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-LD4-1HI-50-UNV-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

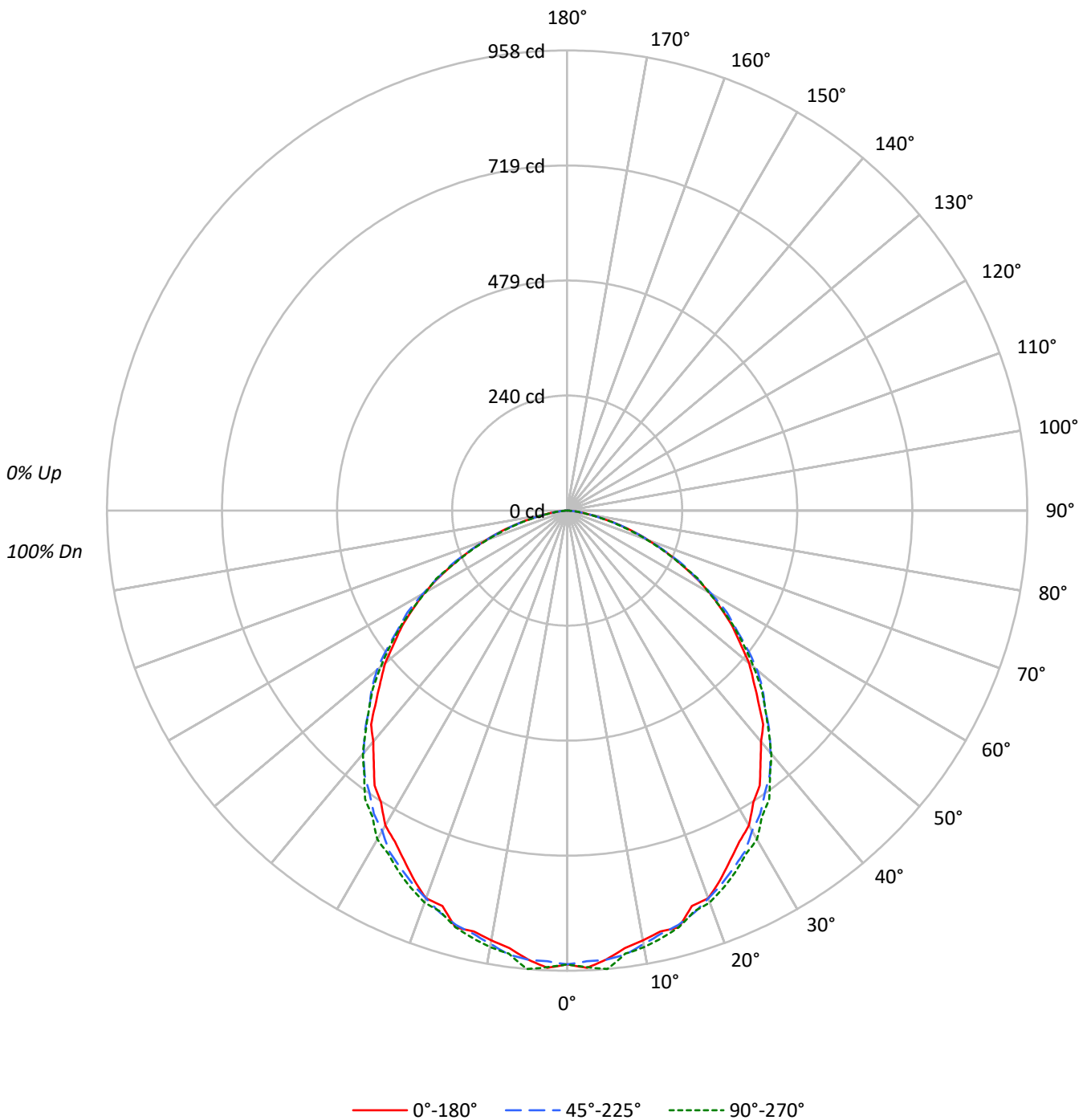
Lumens per Lamp: N/A
Luminaire Lumens: 2381.0 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	2542	2542	2542
5°	2534	2535	2588
10°	2482	2504	2522
15°	2502	2488	2502
20°	2460	2460	2486
25°	2384	2436	2463
30°	2352	2393	2456
35°	2296	2356	2409
40°	2207	2313	2323
45°	2140	2216	2219
50°	2070	2163	2122
55°	1972	2010	1996
60°	1844	1863	1829
65°	1644	1686	1633
70°	1411	1415	1376
75°	1118	1115	1072
80°	748	728	699
85°	408	404	377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.9	3.7
10°-20°	251.9	10.6
20°-30°	377.3	15.8
30°-40°	447.2	18.8
40°-50°	448.0	18.8
50°-60°	380.3	16.0
60°-70°	256.4	10.8
70°-80°	112.7	4.7
80°-90°	18.3	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°	718.1	30.2
0°-40°	1165.3	48.9
0°-60°	1993.6	83.7
0°-90°	2381.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2381.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	945	945	945	945	945	
5°	938	936	938	936	958	88
15°	898	888	893	898	898	250
25°	803	807	820	831	830	371
35°	699	701	717	734	733	434
45°	562	573	582	597	583	435
55°	420	418	428	426	426	374
65°	258	255	265	255	256	257
75°	108	105	107	100	103	115
85°	13	13	13	13	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	944.7	944.7	944.7	944.7	944.7
2.5°	952.9	945.7	939.0	946.8	951.6
5°	938.0	935.8	938.4	935.6	958.1
7.5°	918.7	927.2	932.0	929.0	930.3
10°	908.5	905.6	916.4	924.0	922.9
12.5°	897.5	901.9	902.5	910.7	911.4
15°	898.1	887.8	893.2	897.9	898.2
17.5°	863.2	874.5	878.2	888.9	875.7
20°	859.0	850.8	859.0	869.8	868.1
22.5°	832.7	823.6	841.2	850.8	850.2
25°	803.0	807.4	820.5	831.3	829.6
27.5°	776.9	782.0	800.8	815.5	806.0
30°	756.8	754.2	770.0	783.2	790.5
32.5°	720.8	730.0	748.6	761.6	754.7
35°	698.9	701.0	717.2	733.8	733.3
37.5°	660.8	670.4	693.2	697.8	693.6
40°	628.2	637.8	658.4	663.4	661.4
42.5°	604.2	605.9	623.6	629.3	620.1
45°	562.3	572.8	582.3	597.3	583.2
47.5°	526.7	531.6	552.1	556.1	548.7
50°	494.4	496.1	516.7	511.7	506.8
52.5°	453.8	461.0	472.5	471.6	465.8
55°	420.3	417.5	428.5	425.6	425.5
57.5°	380.2	385.1	394.1	389.5	382.0
60°	342.6	342.8	346.1	340.8	339.8
62.5°	300.8	302.3	303.0	296.5	307.0
65°	258.2	254.8	264.8	254.7	256.4
67.5°	219.1	220.8	219.8	213.5	215.9
70°	179.3	181.5	179.9	172.7	174.9
72.5°	143.0	140.3	142.0	133.0	137.1
75°	107.5	105.3	107.2	99.7	103.1
77.5°	73.2	74.9	73.7	69.6	72.0
80°	48.3	47.0	47.0	44.6	45.1
82.5°	28.2	26.8	26.5	25.7	26.8
85°	13.2	12.8	13.1	12.7	12.2
87.5°	4.8	4.9	4.9	4.6	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)