

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: P588770

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588770
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-81-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

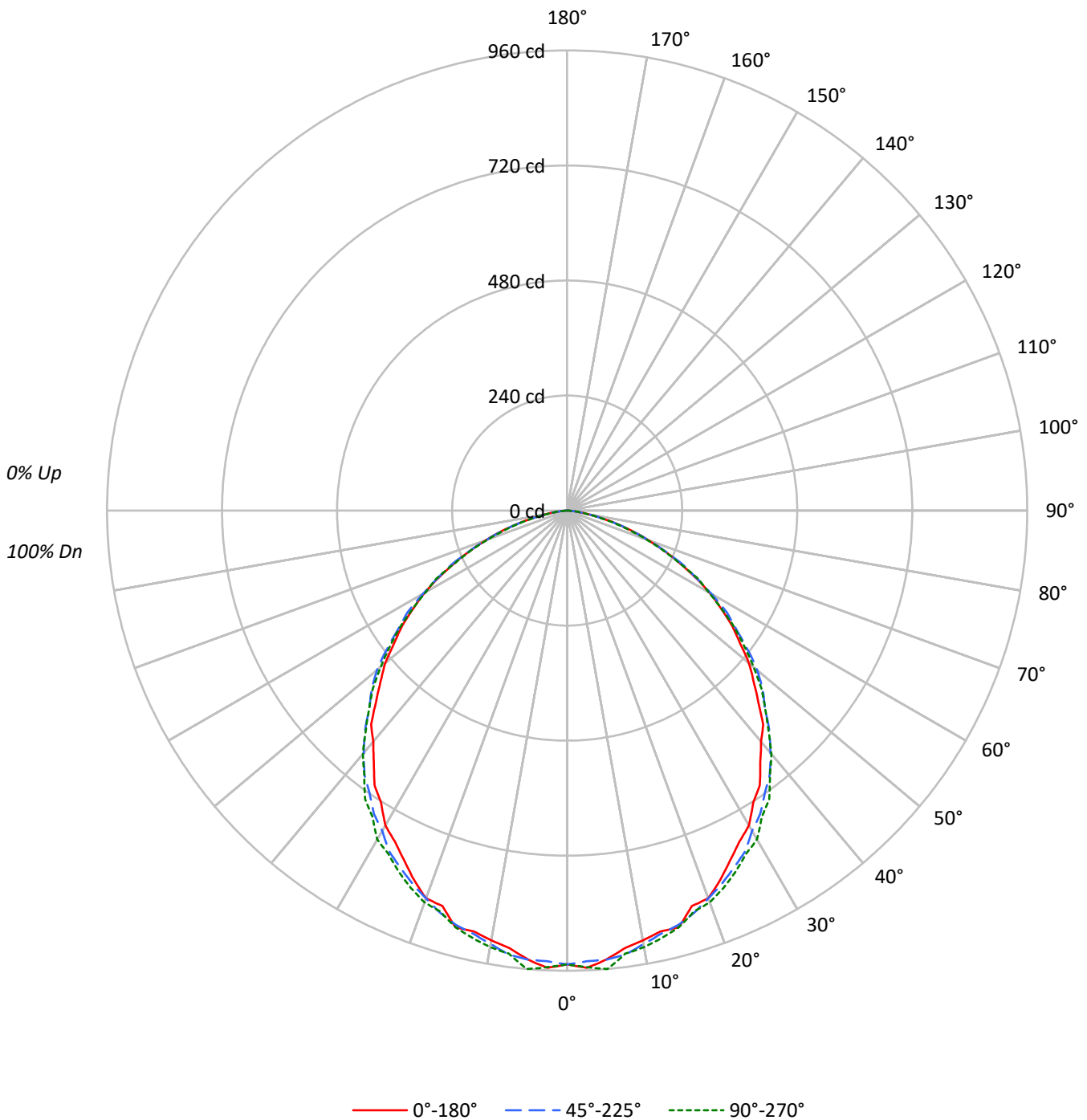
Lumens per Lamp: N/A
Luminaire Lumens: 2386.0 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2548	2548	2548
5°	2539	2540	2594
10°	2488	2509	2527
15°	2507	2494	2508
20°	2465	2465	2491
25°	2389	2442	2468
30°	2356	2398	2462
35°	2301	2361	2414
40°	2211	2318	2328
45°	2144	2221	2224
50°	2074	2168	2126
55°	1976	2015	2000
60°	1848	1866	1833
65°	1648	1690	1636
70°	1414	1419	1379
75°	1120	1117	1074
80°	750	730	700
85°	408	404	377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	3.7
10°-20°	252.4	10.6
20°-30°	378.1	15.8
30°-40°	448.2	18.8
40°-50°	449.0	18.8
50°-60°	381.1	16.0
60°-70°	256.9	10.8
70°-80°	112.9	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°	719.6	30.2
0°-40°	1167.7	48.9
0°-60°	1997.8	83.7
0°-90°	2386.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2386.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	947	947	947	947	947	
5°	940	938	940	938	960	89
15°	900	890	895	900	900	251
25°	805	809	822	833	831	372
35°	700	702	719	735	735	435
45°	564	574	584	599	584	436
55°	421	418	429	426	426	375
65°	259	255	265	255	257	257
75°	108	106	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°	946.7	946.7	946.7	946.7	946.7
2.5°	954.9	947.7	941.0	948.8	953.5
5°	940.0	937.8	940.3	937.5	960.2
7.5°	920.7	929.1	934.0	930.9	932.3
10°	910.4	907.5	918.3	925.9	924.8
12.5°	899.4	903.8	904.4	912.6	913.3
15°	900.0	889.6	895.1	899.8	900.1
17.5°	865.1	876.3	880.1	890.7	877.5
20°	860.8	852.6	860.8	871.7	869.9
22.5°	834.5	825.3	842.9	852.6	852.0
25°	804.7	809.1	822.3	833.0	831.3
27.5°	778.5	783.6	802.5	817.3	807.7
30°	758.3	755.8	771.7	784.9	792.2
32.5°	722.3	731.6	750.2	763.2	756.3
35°	700.4	702.5	718.7	735.4	734.9
37.5°	662.1	671.8	694.7	699.3	695.0
40°	629.5	639.2	659.8	664.8	662.8
42.5°	605.4	607.1	624.9	630.6	621.4
45°	563.5	574.0	583.5	598.6	584.4
47.5°	527.8	532.7	553.2	557.3	549.8
50°	495.4	497.1	517.8	512.8	507.9
52.5°	454.7	461.9	473.5	472.6	466.8
55°	421.2	418.4	429.4	426.5	426.4
57.5°	381.0	385.9	394.9	390.3	382.8
60°	343.4	343.5	346.8	341.5	340.5
62.5°	301.4	302.9	303.6	297.2	307.7
65°	258.8	255.3	265.4	255.2	256.9
67.5°	219.5	221.2	220.3	213.9	216.4
70°	179.7	181.9	180.3	173.1	175.3
72.5°	143.3	140.6	142.3	133.2	137.4
75°	107.7	105.5	107.4	99.9	103.3
77.5°	73.3	75.1	73.8	69.8	72.1
80°	48.4	47.1	47.1	44.7	45.2
82.5°	28.2	26.9	26.5	25.8	26.9
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)