

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: P588773

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-82-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588773
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-82-84-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

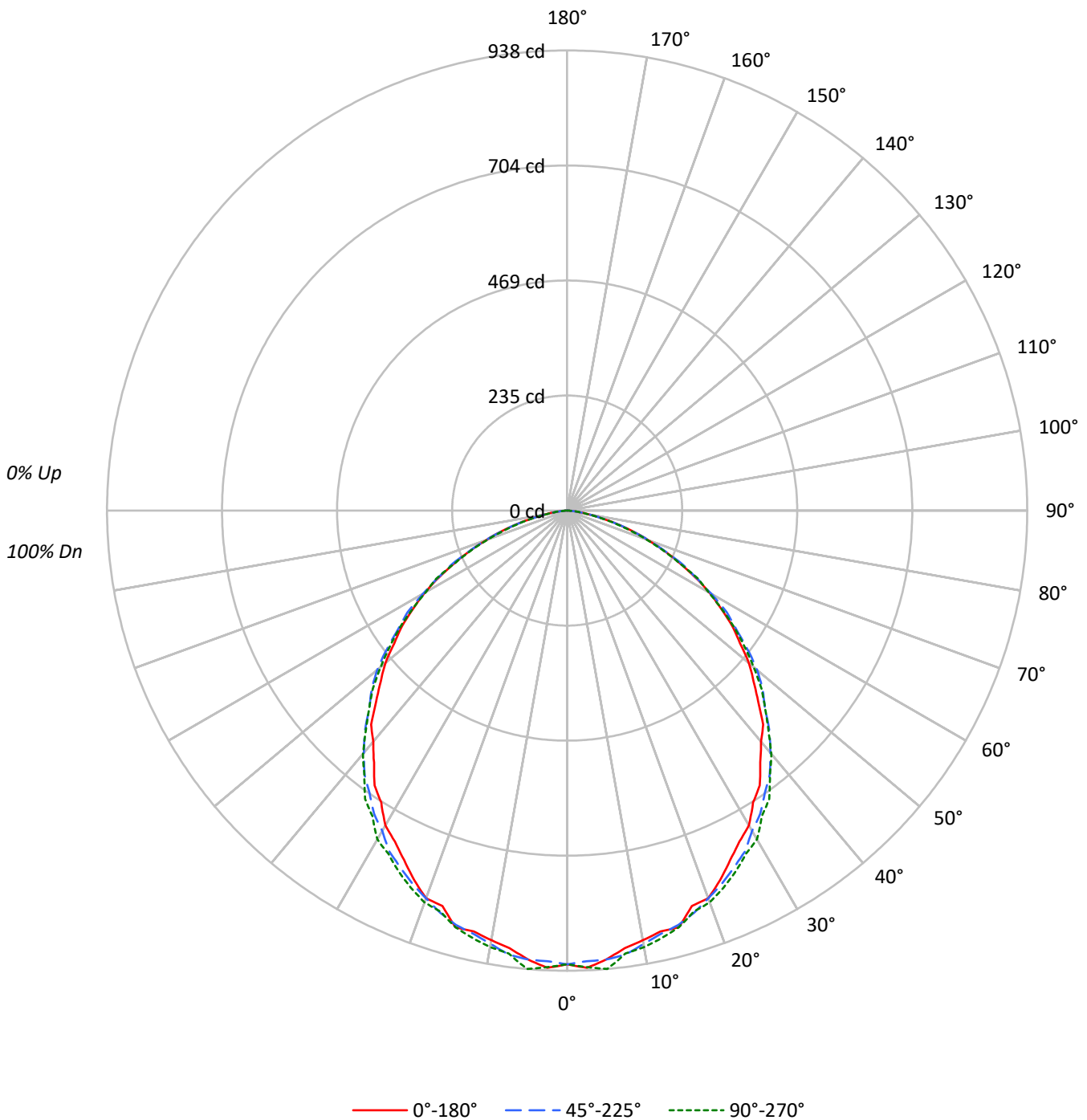
Lumens per Lamp: N/A
Luminaire Lumens: 2331.0 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2489	2489	2489
5°	2481	2482	2534
10°	2430	2452	2469
15°	2450	2436	2450
20°	2408	2408	2434
25°	2334	2385	2412
30°	2302	2343	2405
35°	2248	2307	2358
40°	2160	2264	2275
45°	2095	2170	2173
50°	2026	2117	2077
55°	1931	1968	1954
60°	1805	1823	1791
65°	1610	1651	1598
70°	1381	1386	1347
75°	1094	1092	1049
80°	733	713	685
85°	398	395	367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.0	3.7
10°-20°	246.6	10.6
20°-30°	369.4	15.8
30°-40°	437.8	18.8
40°-50°	438.6	18.8
50°-60°	372.3	16.0
60°-70°	251.0	10.8
70°-80°	110.3	4.7
80°-90°	17.9	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°	703.0	30.2
0°-40°	1140.8	48.9
0°-60°	1951.8	83.7
0°-90°	2331.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2331.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	925	925	925	925	925	
5°	918	916	919	916	938	87
15°	879	869	874	879	879	245
25°	786	790	803	814	812	363
35°	684	686	702	718	718	425
45°	550	561	570	585	571	426
55°	412	409	420	417	416	366
65°	253	250	259	249	251	251
75°	105	103	105	98	101	113
85°	13	12	13	12	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	924.9	924.9	924.9	924.9	924.9
2.5°	932.9	925.8	919.3	926.9	931.6
5°	918.3	916.2	918.7	915.9	938.0
7.5°	899.4	907.7	912.5	909.5	910.8
10°	889.4	886.5	897.2	904.6	903.5
12.5°	878.7	883.0	883.6	891.6	892.3
15°	879.3	869.1	874.5	879.0	879.4
17.5°	845.1	856.1	859.8	870.2	857.3
20°	840.9	832.9	840.9	851.6	849.9
22.5°	815.3	806.3	823.5	832.9	832.3
25°	786.1	790.4	803.3	813.8	812.2
27.5°	760.6	765.6	784.0	798.4	789.1
30°	740.9	738.4	753.9	766.8	773.9
32.5°	705.6	714.7	732.9	745.6	738.8
35°	684.3	686.3	702.2	718.4	717.9
37.5°	646.9	656.3	678.6	683.2	679.0
40°	615.0	624.4	644.6	649.5	647.5
42.5°	591.5	593.1	610.5	616.1	607.1
45°	550.5	560.8	570.1	584.8	570.9
47.5°	515.6	520.4	540.5	544.4	537.1
50°	484.0	485.7	505.8	501.0	496.2
52.5°	444.2	451.3	462.6	461.7	456.1
55°	411.5	408.8	419.5	416.6	416.5
57.5°	372.2	377.0	385.8	381.3	374.0
60°	335.4	335.6	338.8	333.7	332.7
62.5°	294.5	295.9	296.6	290.3	300.6
65°	252.8	249.5	259.3	249.3	251.0
67.5°	214.5	216.1	215.2	209.0	211.4
70°	175.5	177.7	176.1	169.1	171.2
72.5°	140.0	137.3	139.0	130.2	134.2
75°	105.2	103.1	105.0	97.6	100.9
77.5°	71.6	73.3	72.1	68.2	70.5
80°	47.3	46.0	46.0	43.7	44.2
82.5°	27.6	26.3	25.9	25.2	26.3
85°	12.9	12.5	12.8	12.4	11.9
87.5°	4.7	4.8	4.8	4.5	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)