

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: P589336

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589336
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-LD4-3HI-50-UNV-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

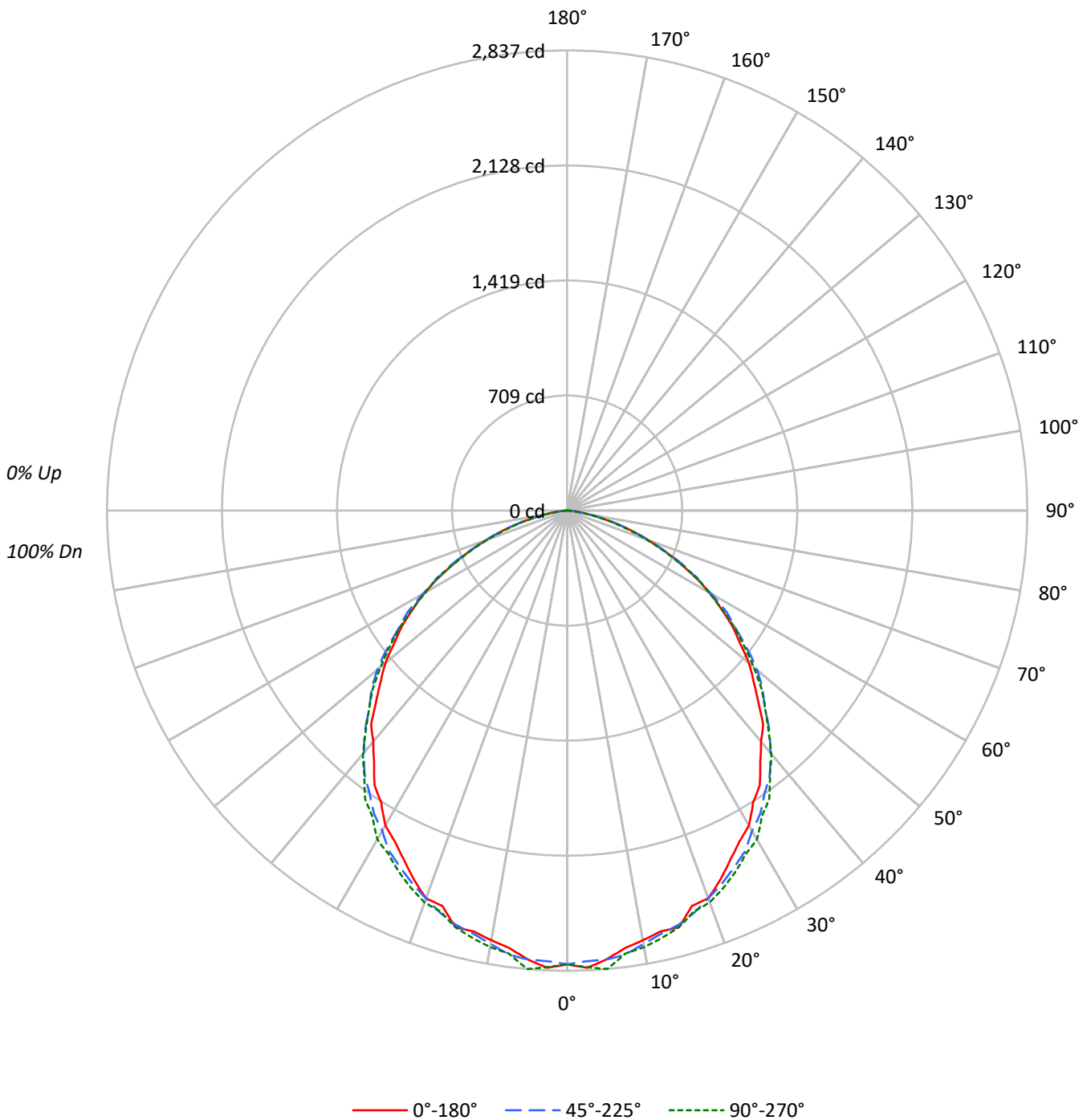
Lumens per Lamp: N/A
Luminaire Lumens: 7050.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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

TEST NUMBER: P589336

CATALOG NUMBER: FMR-24-2-LD4-3HI-50-UNV-80-87-EDD

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°	7527	7527	7527
5°	7502	7505	7663
10°	7350	7415	7467
15°	7409	7368	7410
20°	7283	7283	7361
25°	7059	7214	7293
30°	6962	7085	7273
35°	6798	6977	7133
40°	6534	6849	6879
45°	6336	6562	6572
50°	6128	6405	6283
55°	5839	5953	5910
60°	5460	5514	5415
65°	4869	4993	4834
70°	4177	4191	4075
75°	3308	3301	3173
80°	2216	2156	2070
85°	1204	1192	1115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.1	3.7
10°-20°	745.7	10.6
20°-30°	1117.3	15.8
30°-40°	1324.2	18.8
40°-50°	1326.6	18.8
50°-60°	1126.1	16.0
60°-70°	759.2	10.8
70°-80°	333.6	4.7
80°-90°	54.2	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°	2126.1	30.2
0°-40°	3450.3	48.9
0°-60°	5903.0	83.7
0°-90°	7050.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7050.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2797	2797	2797	2797	2797	
5°	2777	2771	2778	2770	2837	262
15°	2659	2629	2645	2659	2660	741
25°	2378	2391	2430	2461	2456	1099
35°	2070	2076	2124	2173	2171	1285
45°	1665	1696	1724	1769	1727	1288
55°	1245	1236	1269	1260	1260	1107
65°	765	754	784	754	759	760
75°	318	312	318	295	305	341
85°	39	38	39	38	36	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2797.3	2797.3	2797.3	2797.3	2797.3
2.5°	2821.5	2800.2	2780.3	2803.4	2817.5
5°	2777.4	2770.9	2778.5	2770.2	2837.0
7.5°	2720.3	2745.3	2759.7	2750.7	2754.6
10°	2690.0	2681.3	2713.5	2735.9	2732.6
12.5°	2657.5	2670.5	2672.3	2696.5	2698.7
15°	2659.3	2628.6	2644.8	2658.6	2659.7
17.5°	2556.0	2589.2	2600.4	2631.8	2592.8
20°	2543.4	2519.2	2543.4	2575.5	2570.4
22.5°	2465.7	2438.6	2490.6	2519.2	2517.4
25°	2377.6	2390.6	2429.6	2461.4	2456.3
27.5°	2300.3	2315.5	2371.1	2414.8	2386.6
30°	2240.7	2233.1	2280.1	2319.1	2340.7
32.5°	2134.2	2161.6	2216.5	2255.1	2234.6
35°	2069.5	2075.6	2123.7	2172.8	2171.4
37.5°	1956.5	1985.0	2052.5	2066.3	2053.6
40°	1860.0	1888.6	1949.6	1964.4	1958.3
42.5°	1788.9	1793.9	1846.3	1863.3	1836.2
45°	1665.0	1696.1	1724.2	1768.6	1726.8
47.5°	1559.5	1574.0	1634.7	1646.6	1624.5
50°	1463.8	1468.9	1529.9	1515.1	1500.7
52.5°	1343.6	1364.9	1399.2	1396.3	1379.3
55°	1244.6	1236.3	1268.8	1260.1	1259.8
57.5°	1125.8	1140.2	1166.9	1153.2	1131.2
60°	1014.5	1014.9	1024.6	1009.1	1006.2
62.5°	890.6	895.0	897.1	878.0	909.1
65°	764.6	754.5	784.1	754.1	759.2
67.5°	648.7	653.7	650.8	632.0	639.3
70°	530.9	537.4	532.7	511.4	517.9
72.5°	423.3	415.3	420.4	393.7	406.0
75°	318.2	311.7	317.5	295.1	305.2
77.5°	216.7	221.8	218.1	206.2	213.1
80°	143.0	139.1	139.1	132.2	133.6
82.5°	83.4	79.5	78.4	76.2	79.5
85°	39.0	37.9	38.6	37.6	36.1
87.5°	14.1	14.4	14.4	13.7	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)