

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: P589318

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589318
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-40-UNV-82-85-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

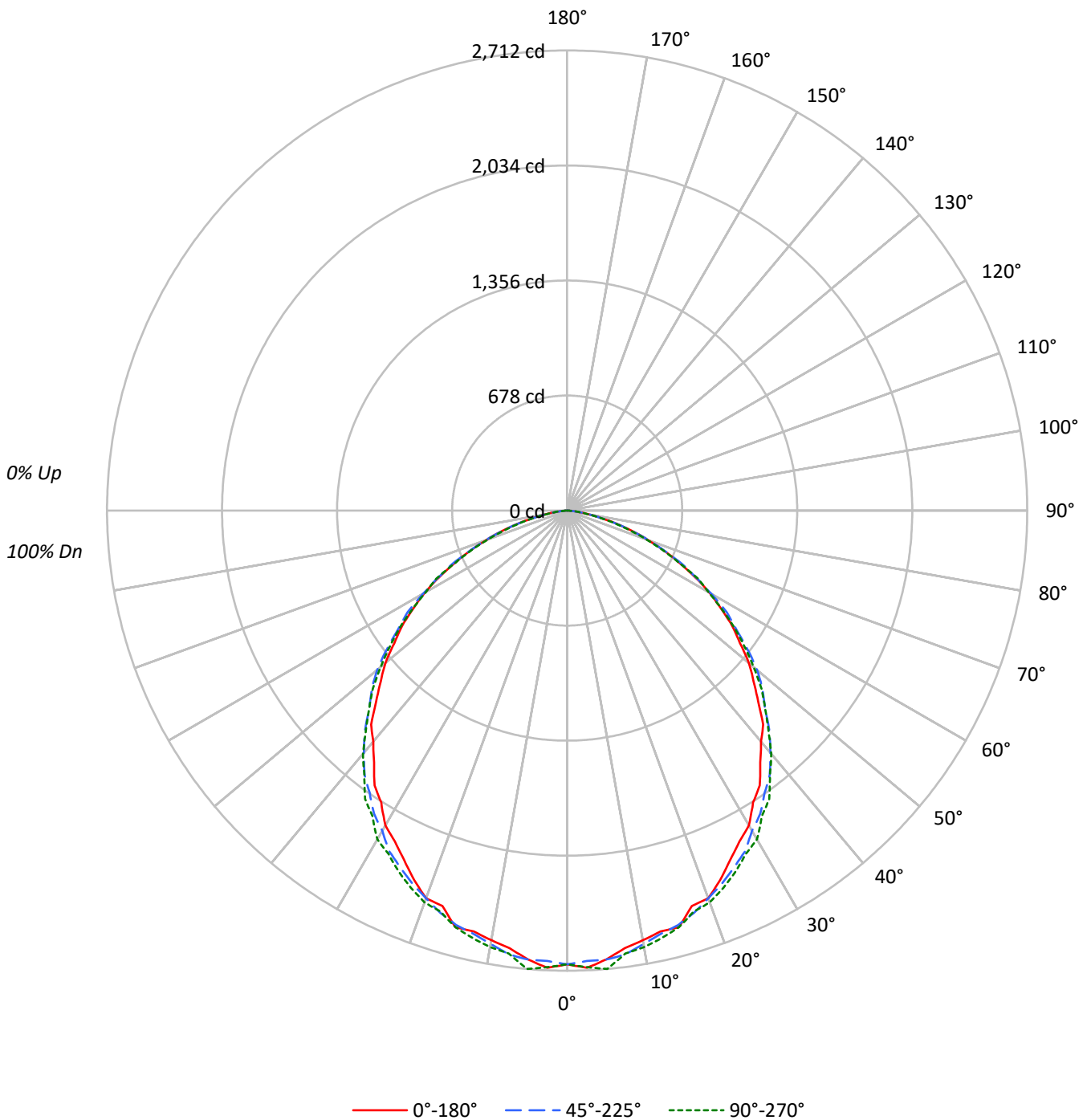
Lumens per Lamp: N/A
Luminaire Lumens: 6739.0 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	7195	7195	7195
5°	7172	7174	7325
10°	7026	7088	7138
15°	7082	7043	7083
20°	6962	6962	7036
25°	6748	6896	6972
30°	6655	6772	6953
35°	6499	6669	6819
40°	6246	6546	6576
45°	6057	6272	6282
50°	5858	6122	6005
55°	5582	5690	5650
60°	5219	5271	5176
65°	4654	4772	4621
70°	3993	4006	3895
75°	3163	3156	3033
80°	2118	2060	1979
85°	1152	1139	1065



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.5	3.7
10°-20°	712.8	10.6
20°-30°	1068.0	15.8
30°-40°	1265.8	18.8
40°-50°	1268.1	18.8
50°-60°	1076.4	16.0
60°-70°	725.7	10.8
70°-80°	318.9	4.7
80°-90°	51.8	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°	2032.3	30.2
0°-40°	3298.1	48.9
0°-60°	5642.6	83.7
0°-90°	6739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6739.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2674	2674	2674	2674	2674	
5°	2655	2649	2656	2648	2712	250
15°	2542	2513	2528	2541	2542	708
25°	2273	2285	2322	2353	2348	1051
35°	1978	1984	2030	2077	2076	1228
45°	1592	1621	1648	1691	1651	1231
55°	1190	1182	1213	1204	1204	1058
65°	731	721	750	721	726	727
75°	304	298	304	282	292	326
85°	37	36	37	36	34	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2673.9	2673.9	2673.9	2673.9	2673.9
2.5°	2697.0	2676.6	2657.6	2679.7	2693.2
5°	2654.9	2648.7	2655.9	2648.0	2711.8
7.5°	2600.3	2624.2	2638.0	2629.3	2633.1
10°	2571.3	2563.0	2593.8	2615.2	2612.1
12.5°	2540.3	2552.7	2554.4	2577.5	2579.6
15°	2542.0	2512.6	2528.2	2541.3	2542.3
17.5°	2443.2	2475.0	2485.7	2515.7	2478.5
20°	2431.2	2408.0	2431.2	2461.9	2457.1
22.5°	2356.9	2331.0	2380.8	2408.0	2406.3
25°	2272.7	2285.1	2322.4	2352.8	2348.0
27.5°	2198.8	2213.3	2266.5	2308.3	2281.3
30°	2141.9	2134.6	2179.5	2216.8	2237.5
32.5°	2040.0	2066.2	2118.7	2155.7	2136.0
35°	1978.2	1984.1	2030.0	2076.9	2075.6
37.5°	1870.2	1897.4	1962.0	1975.1	1963.0
40°	1778.0	1805.2	1863.6	1877.7	1871.9
42.5°	1710.0	1714.8	1764.9	1781.1	1755.2
45°	1591.5	1621.2	1648.2	1690.6	1650.6
47.5°	1490.7	1504.5	1562.5	1573.9	1552.9
50°	1399.2	1404.1	1462.4	1448.3	1434.5
52.5°	1284.3	1304.7	1337.5	1334.7	1318.5
55°	1189.7	1181.7	1212.8	1204.5	1204.2
57.5°	1076.1	1089.9	1115.5	1102.3	1081.3
60°	969.8	970.1	979.4	964.6	961.8
62.5°	851.4	855.5	857.6	839.3	869.0
65°	730.9	721.2	749.5	720.9	725.7
67.5°	620.0	624.9	622.1	604.2	611.1
70°	507.5	513.7	509.2	488.9	495.1
72.5°	404.6	397.0	401.9	376.3	388.0
75°	304.2	297.9	303.5	282.1	291.7
77.5°	207.1	212.0	208.5	197.1	203.7
80°	136.7	132.9	132.9	126.4	127.7
82.5°	79.7	76.0	74.9	72.8	76.0
85°	37.3	36.2	36.9	35.9	34.5
87.5°	13.5	13.8	13.8	13.1	12.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)