

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: P589718

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589718
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-LD4-4LO-50-UNV-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

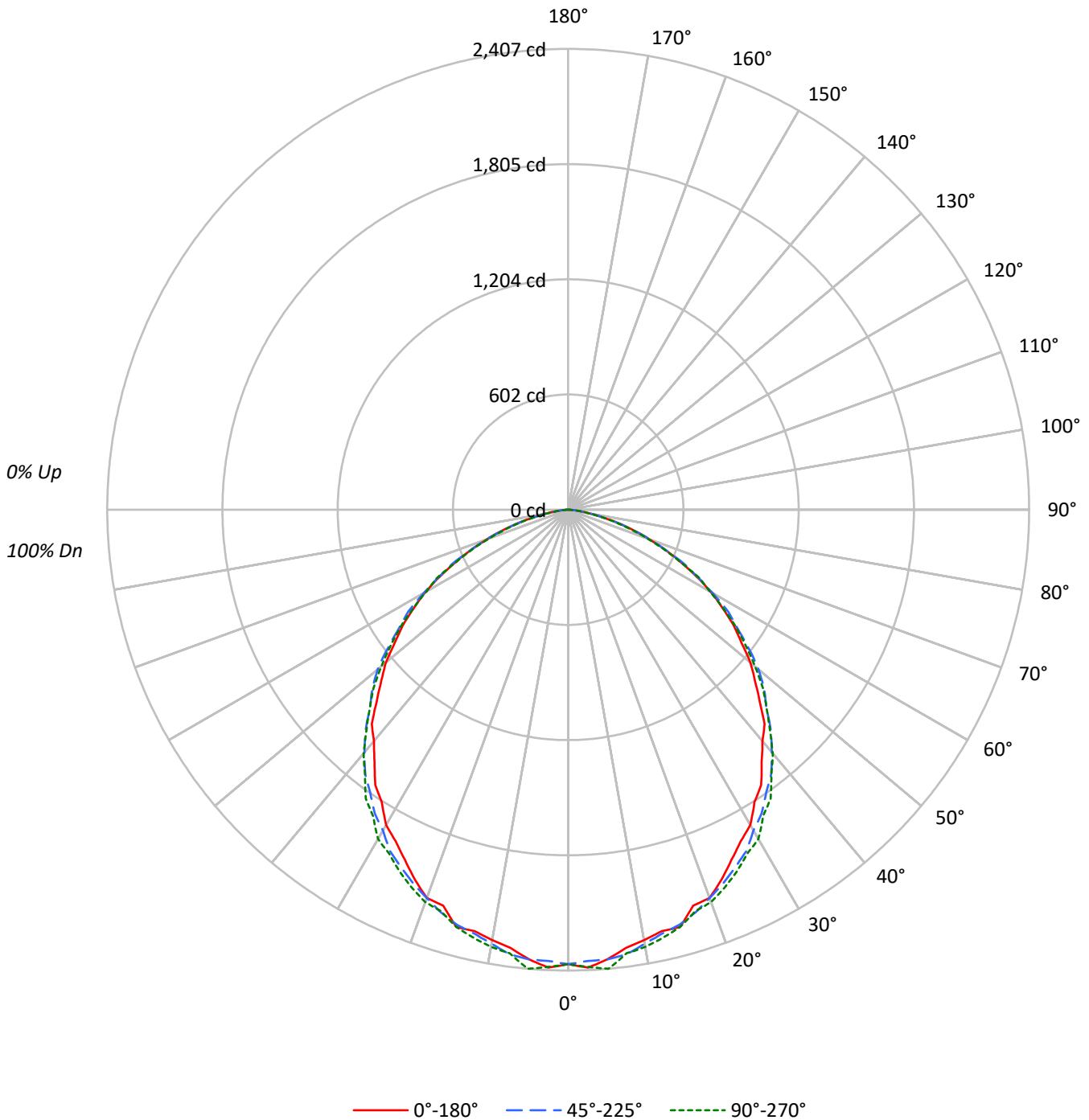
Lumens per Lamp: N/A
Luminaire Lumens: 5982.0 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6387	6387	6387
5°	6366	6368	6502
10°	6237	6291	6336
15°	6286	6252	6287
20°	6180	6180	6246
25°	5990	6121	6188
30°	5908	6012	6171
35°	5769	5920	6052
40°	5544	5811	5837
45°	5377	5568	5576
50°	5200	5435	5331
55°	4954	5051	5015
60°	4633	4679	4595
65°	4131	4236	4102
70°	3544	3556	3458
75°	2807	2801	2693
80°	1881	1829	1757
85°	1022	1013	945



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.3	3.7
10°-20°	632.8	10.6
20°-30°	948.0	15.8
30°-40°	1123.6	18.8
40°-50°	1125.7	18.8
50°-60°	955.5	16.0
60°-70°	644.2	10.8
70°-80°	283.1	4.7
80°-90°	46.0	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°	1804.0	30.2
0°-40°	2927.6	48.9
0°-60°	5008.7	83.7
0°-90°	5982.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5982.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2374	2374	2374	2374	2374	
5°	2357	2351	2358	2350	2407	222
15°	2256	2230	2244	2256	2257	629
25°	2017	2028	2062	2088	2084	933
35°	1756	1761	1802	1844	1842	1090
45°	1413	1439	1463	1501	1465	1093
55°	1056	1049	1077	1069	1069	939
65°	649	640	665	640	644	645
75°	270	264	269	250	259	289
85°	33	32	33	32	31	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2373.5	2373.5	2373.5	2373.5	2373.5
2.5°	2394.0	2376.0	2359.1	2378.7	2390.7
5°	2356.7	2351.1	2357.6	2350.5	2407.2
7.5°	2308.2	2329.4	2341.6	2334.0	2337.3
10°	2282.5	2275.1	2302.4	2321.4	2318.7
12.5°	2254.9	2265.9	2267.5	2288.0	2289.8
15°	2256.4	2230.4	2244.2	2255.8	2256.7
17.5°	2168.8	2197.0	2206.5	2233.1	2200.1
20°	2158.1	2137.5	2158.1	2185.3	2181.1
22.5°	2092.2	2069.2	2113.3	2137.5	2136.0
25°	2017.4	2028.4	2061.5	2088.5	2084.2
27.5°	1951.8	1964.7	2011.9	2049.0	2025.1
30°	1901.3	1894.8	1934.7	1967.8	1986.1
32.5°	1810.9	1834.1	1880.7	1913.5	1896.0
35°	1756.0	1761.2	1802.0	1843.6	1842.4
37.5°	1660.1	1684.3	1741.6	1753.2	1742.5
40°	1578.3	1602.5	1654.3	1666.8	1661.6
42.5°	1517.9	1522.2	1566.6	1581.0	1558.0
45°	1412.8	1439.1	1463.0	1500.7	1465.2
47.5°	1323.3	1335.5	1387.0	1397.1	1378.4
50°	1242.1	1246.4	1298.2	1285.6	1273.3
52.5°	1140.0	1158.1	1187.2	1184.8	1170.4
55°	1056.0	1049.0	1076.6	1069.2	1068.9
57.5°	955.2	967.5	990.2	978.5	959.8
60°	860.8	861.1	869.4	856.2	853.8
62.5°	755.7	759.4	761.2	745.0	771.4
65°	648.8	640.2	665.3	639.9	644.2
67.5°	550.4	554.7	552.2	536.3	542.4
70°	450.5	456.0	452.0	433.9	439.5
72.5°	359.2	352.4	356.7	334.0	344.5
75°	270.0	264.5	269.4	250.4	259.0
77.5°	183.9	188.2	185.1	175.0	180.8
80°	121.4	118.0	118.0	112.2	113.4
82.5°	70.8	67.4	66.5	64.7	67.4
85°	33.1	32.2	32.8	31.9	30.6
87.5°	12.0	12.3	12.3	11.6	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)