

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: P589322

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589322
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-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

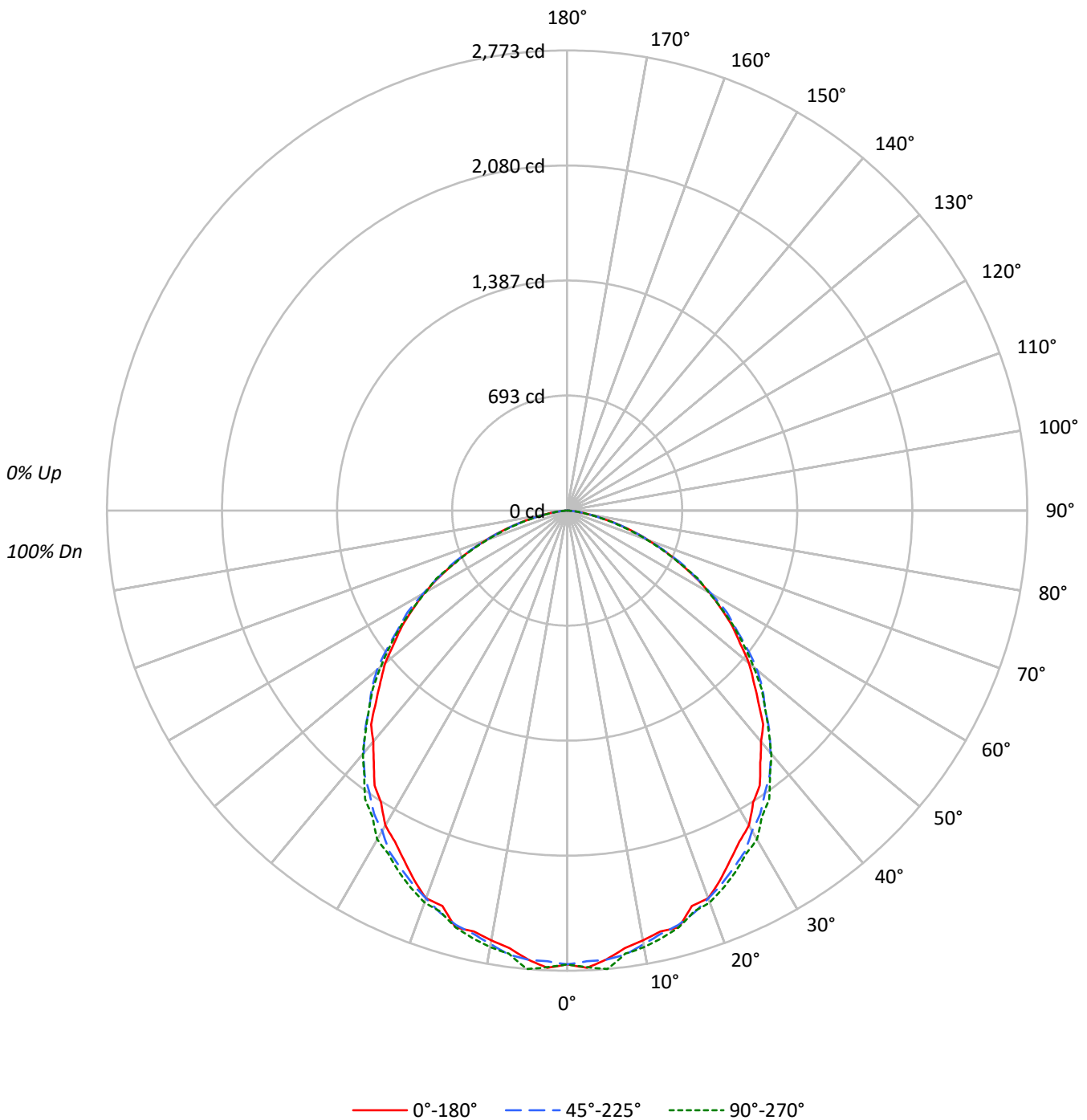
Lumens per Lamp: N/A
Luminaire Lumens: 6892.0 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7359	7359	7359
5°	7334	7337	7492
10°	7186	7248	7300
15°	7243	7203	7243
20°	7120	7120	7196
25°	6901	7052	7130
30°	6806	6926	7110
35°	6646	6820	6973
40°	6387	6695	6725
45°	6194	6415	6424
50°	5991	6261	6141
55°	5708	5819	5778
60°	5338	5391	5294
65°	4760	4881	4726
70°	4083	4098	3984
75°	3235	3227	3101
80°	2166	2106	2024
85°	1176	1167	1090



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.2	3.7
10°-20°	729.0	10.6
20°-30°	1092.2	15.8
30°-40°	1294.5	18.8
40°-50°	1296.9	18.8
50°-60°	1100.9	16.0
60°-70°	742.2	10.8
70°-80°	326.1	4.7
80°-90°	53.0	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°	2078.5	30.2
0°-40°	3373.0	48.9
0°-60°	5770.7	83.7
0°-90°	6892.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6892.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2735	2735	2735	2735	2735	
5°	2715	2709	2716	2708	2773	256
15°	2600	2570	2586	2599	2600	724
25°	2324	2337	2375	2406	2401	1075
35°	2023	2029	2076	2124	2123	1256
45°	1628	1658	1686	1729	1688	1259
55°	1217	1209	1240	1232	1232	1082
65°	748	738	766	737	742	743
75°	311	305	310	288	298	333
85°	38	37	38	37	35	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2734.6	2734.6	2734.6	2734.6	2734.6
2.5°	2758.2	2737.4	2718.0	2740.6	2754.3
5°	2715.2	2708.8	2716.2	2708.1	2773.4
7.5°	2659.4	2683.7	2697.9	2689.0	2692.9
10°	2629.7	2621.2	2652.7	2674.5	2671.4
12.5°	2597.9	2610.6	2612.4	2636.1	2638.2
15°	2599.7	2569.7	2585.6	2599.0	2600.0
17.5°	2498.7	2531.2	2542.1	2572.9	2534.7
20°	2486.4	2462.7	2486.4	2517.8	2512.8
22.5°	2410.4	2384.0	2434.8	2462.7	2460.9
25°	2324.3	2337.0	2375.1	2406.2	2401.3
27.5°	2248.7	2263.6	2317.9	2360.7	2333.1
30°	2190.5	2183.1	2229.0	2267.1	2288.3
32.5°	2086.3	2113.2	2166.8	2204.6	2184.5
35°	2023.1	2029.1	2076.1	2124.1	2122.7
37.5°	1912.6	1940.5	2006.5	2019.9	2007.6
40°	1818.3	1846.2	1905.9	1920.4	1914.4
42.5°	1748.8	1753.7	1804.9	1821.5	1795.0
45°	1627.7	1658.0	1685.6	1729.0	1688.1
47.5°	1524.6	1538.7	1598.0	1609.7	1588.1
50°	1431.0	1436.0	1495.6	1481.2	1467.0
52.5°	1313.4	1334.3	1367.8	1365.0	1348.4
55°	1216.7	1208.6	1240.4	1231.9	1231.5
57.5°	1100.5	1114.7	1140.8	1127.4	1105.8
60°	991.8	992.1	1001.7	986.5	983.7
62.5°	870.7	874.9	877.0	858.3	888.7
65°	747.5	737.6	766.5	737.2	742.2
67.5°	634.1	639.1	636.2	617.9	624.9
70°	519.0	525.4	520.8	500.0	506.3
72.5°	413.8	406.0	411.0	384.9	396.9
75°	311.1	304.7	310.4	288.5	298.3
77.5°	211.8	216.8	213.3	201.6	208.3
80°	139.8	135.9	135.9	129.2	130.6
82.5°	81.6	77.7	76.6	74.5	77.7
85°	38.1	37.1	37.8	36.7	35.3
87.5°	13.8	14.1	14.1	13.4	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)