

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: P588958

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-81-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588958
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-LD4-1STD-50-UNV-81-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

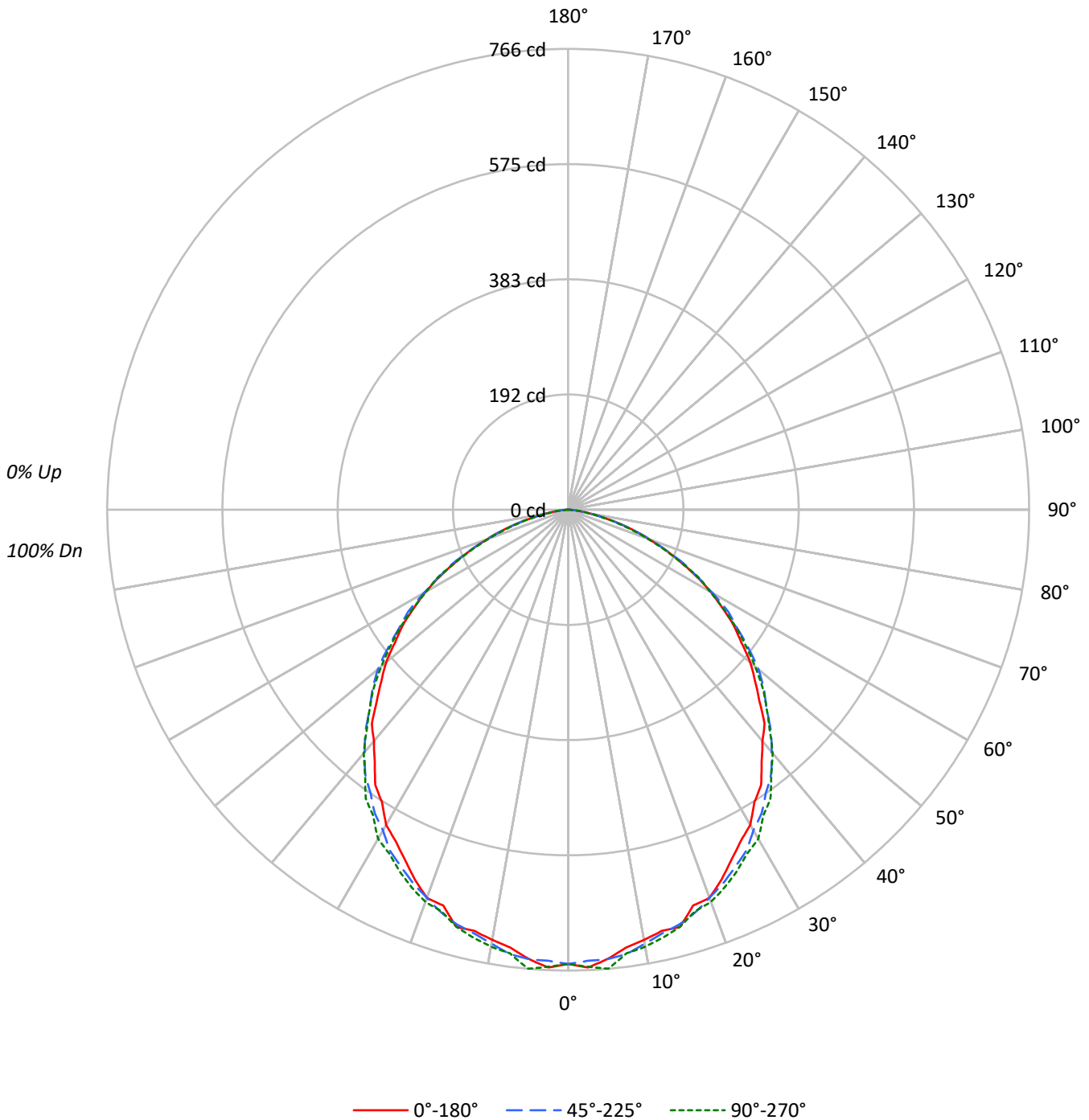
Lumens per Lamp: N/A
Luminaire Lumens: 1903.0 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	2032	2032	2032
5°	2025	2026	2069
10°	1984	2001	2015
15°	2000	1989	2000
20°	1966	1966	1987
25°	1906	1947	1969
30°	1879	1913	1963
35°	1835	1883	1925
40°	1764	1849	1857
45°	1710	1771	1774
50°	1654	1729	1696
55°	1576	1607	1595
60°	1474	1489	1462
65°	1314	1348	1305
70°	1127	1131	1100
75°	893	891	857
80°	598	581	559
85°	324	321	299



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.0	3.7
10°-20°	201.3	10.6
20°-30°	301.6	15.8
30°-40°	357.4	18.8
40°-50°	358.1	18.8
50°-60°	304.0	16.0
60°-70°	204.9	10.8
70°-80°	90.1	4.7
80°-90°	14.6	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°	573.9	30.2
0°-40°	931.3	48.9
0°-60°	1593.4	83.7
0°-90°	1903.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1903.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	755	755	755	755	755	
5°	750	748	750	748	766	71
15°	718	710	714	718	718	200
25°	642	645	656	664	663	297
35°	559	560	573	586	586	347
45°	449	458	465	477	466	348
55°	336	334	342	340	340	299
65°	206	204	212	204	205	205
75°	86	84	86	80	82	92
85°	10	10	10	10	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	755.1	755.1	755.1	755.1	755.1
2.5°	761.6	755.8	750.5	756.7	760.5
5°	749.7	747.9	750.0	747.8	765.8
7.5°	734.3	741.0	744.9	742.5	743.6
10°	726.1	723.8	732.4	738.5	737.6
12.5°	717.3	720.8	721.3	727.9	728.4
15°	717.8	709.5	713.9	717.6	717.9
17.5°	689.9	698.9	701.9	710.4	699.9
20°	686.5	680.0	686.5	695.2	693.8
22.5°	665.6	658.3	672.3	680.0	679.5
25°	641.8	645.3	655.8	664.4	663.0
27.5°	620.9	625.0	640.0	651.8	644.2
30°	604.8	602.8	615.5	626.0	631.8
32.5°	576.1	583.5	598.3	608.7	603.2
35°	558.6	560.3	573.2	586.5	586.1
37.5°	528.1	535.8	554.0	557.7	554.3
40°	502.1	509.8	526.3	530.2	528.6
42.5°	482.9	484.2	498.4	503.0	495.6
45°	449.4	457.8	465.4	477.4	466.1
47.5°	421.0	424.9	441.2	444.5	438.5
50°	395.1	396.5	413.0	409.0	405.1
52.5°	362.7	368.4	377.7	376.9	372.3
55°	336.0	333.7	342.5	340.1	340.0
57.5°	303.9	307.8	315.0	311.3	305.3
60°	273.9	273.9	276.6	272.4	271.6
62.5°	240.4	241.6	242.2	237.0	245.4
65°	206.4	203.7	211.7	203.6	204.9
67.5°	175.1	176.5	175.7	170.6	172.6
70°	143.3	145.1	143.8	138.0	139.8
72.5°	114.3	112.1	113.5	106.3	109.6
75°	85.9	84.1	85.7	79.6	82.4
77.5°	58.5	59.9	58.9	55.7	57.5
80°	38.6	37.5	37.5	35.7	36.1
82.5°	22.5	21.4	21.2	20.6	21.4
85°	10.5	10.2	10.4	10.1	9.7
87.5°	3.8	3.9	3.9	3.7	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)