

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: P588788

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588788
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-LD4-1HI-50-UNV-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

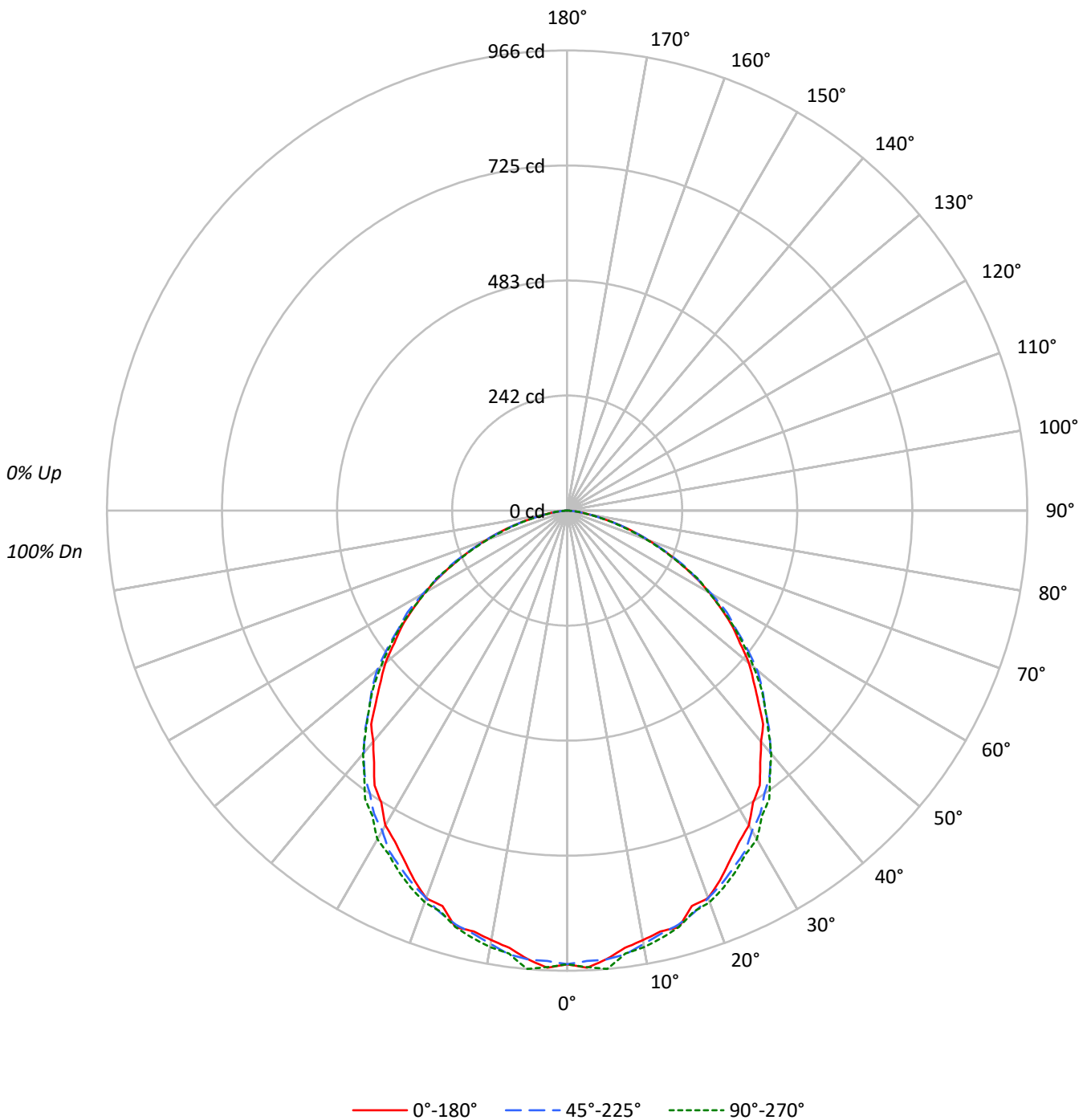
Lumens per Lamp: N/A
Luminaire Lumens: 2400.0 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (A_{in}): 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: P588788

CATALOG NUMBER: FMR-24-2-LD4-1HI-50-UNV-93-97-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°	2563	2563	2563
5°	2554	2555	2609
10°	2502	2524	2542
15°	2522	2508	2522
20°	2479	2479	2506
25°	2403	2456	2483
30°	2370	2412	2476
35°	2314	2375	2428
40°	2224	2331	2342
45°	2157	2234	2237
50°	2086	2180	2139
55°	1988	2026	2012
60°	1859	1877	1843
65°	1657	1699	1645
70°	1422	1427	1387
75°	1126	1124	1080
80°	755	733	705
85°	411	408	380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.6	3.7
10°-20°	253.9	10.6
20°-30°	380.3	15.8
30°-40°	450.8	18.8
40°-50°	451.6	18.8
50°-60°	383.4	16.0
60°-70°	258.5	10.8
70°-80°	113.6	4.7
80°-90°	18.4	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°	723.8	30.2
0°-40°	1174.6	48.9
0°-60°	2009.5	83.7
0°-90°	2400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2400.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	946	943	946	943	966	89
15°	905	895	900	905	905	252
25°	809	814	827	838	836	374
35°	704	707	723	740	739	437
45°	567	577	587	602	588	438
55°	424	421	432	429	429	377
65°	260	257	267	257	258	259
75°	108	106	108	100	104	116
85°	13	13	13	13	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	952.3	952.3	952.3	952.3	952.3
2.5°	960.5	953.2	946.5	954.3	959.1
5°	945.5	943.3	945.9	943.0	965.8
7.5°	926.1	934.6	939.5	936.4	937.8
10°	915.7	912.8	923.7	931.4	930.3
12.5°	904.7	909.1	909.7	918.0	918.7
15°	905.3	894.8	900.4	905.0	905.4
17.5°	870.1	881.4	885.3	895.9	882.7
20°	865.8	857.6	865.8	876.8	875.0
22.5°	839.4	830.2	847.9	857.6	857.0
25°	809.4	813.8	827.1	837.9	836.2
27.5°	783.1	788.2	807.2	822.1	812.5
30°	762.8	760.2	776.2	789.5	796.8
32.5°	726.5	735.9	754.6	767.7	760.7
35°	704.5	706.6	723.0	739.7	739.2
37.5°	666.0	675.7	698.7	703.4	699.1
40°	633.2	642.9	663.7	668.7	666.6
42.5°	609.0	610.7	628.5	634.3	625.1
45°	566.8	577.4	587.0	602.1	587.8
47.5°	530.9	535.8	556.5	560.5	553.0
50°	498.3	500.0	520.8	515.8	510.9
52.5°	457.4	464.6	476.3	475.3	469.6
55°	423.7	420.9	431.9	429.0	428.9
57.5°	383.2	388.2	397.3	392.6	385.1
60°	345.4	345.5	348.8	343.5	342.5
62.5°	303.2	304.7	305.4	298.9	309.5
65°	260.3	256.8	266.9	256.7	258.4
67.5°	220.8	222.5	221.6	215.2	217.6
70°	180.7	183.0	181.4	174.1	176.3
72.5°	144.1	141.4	143.1	134.0	138.2
75°	108.3	106.1	108.1	100.5	103.9
77.5°	73.8	75.5	74.3	70.2	72.5
80°	48.7	47.3	47.3	45.0	45.5
82.5°	28.4	27.0	26.7	25.9	27.0
85°	13.3	12.9	13.2	12.8	12.3
87.5°	4.8	4.9	4.9	4.7	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)