

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: P588913

Luminaire Tested: **FMR-24-2-LD4-1STD-35-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588913
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-35-UNV-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

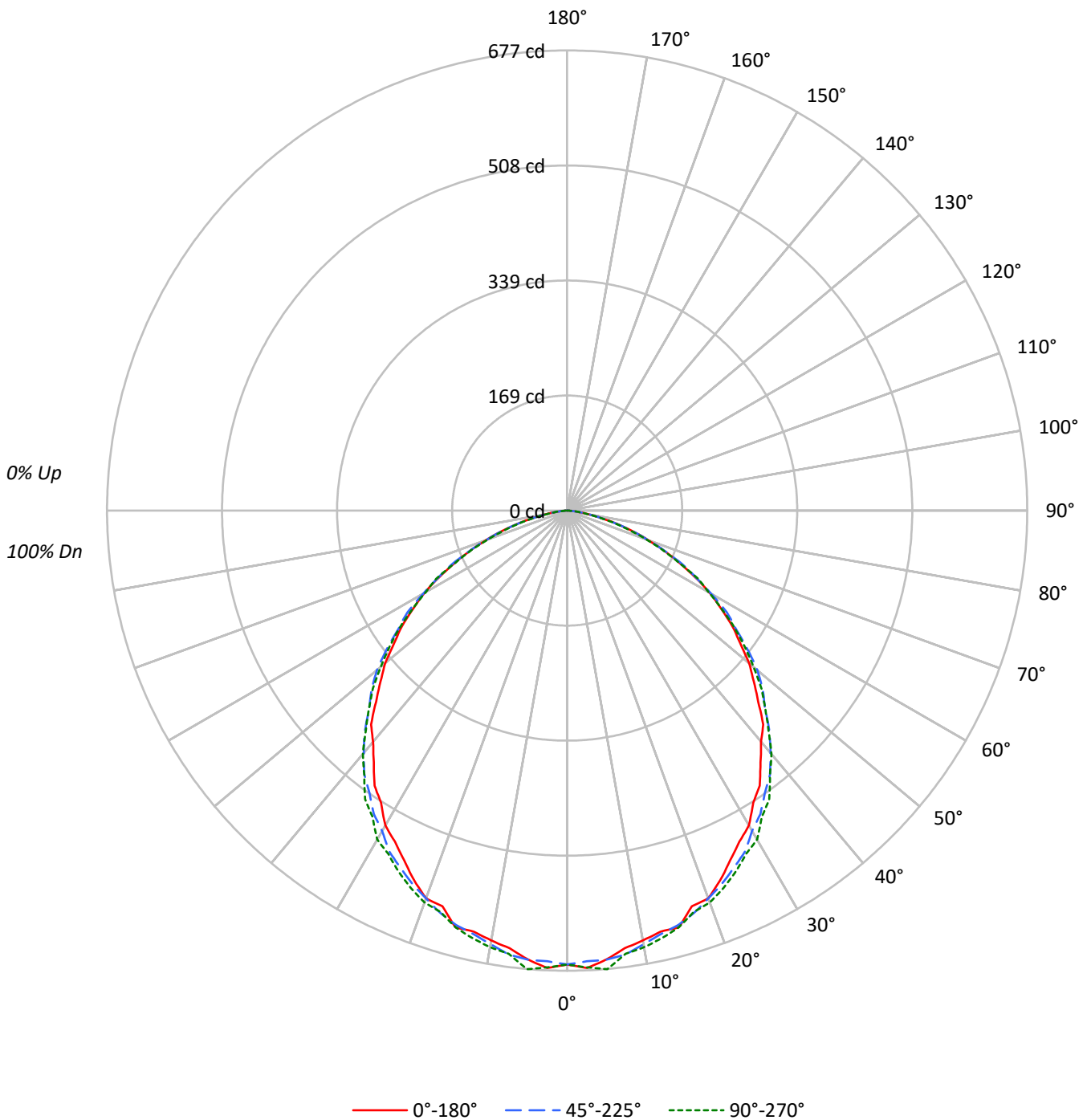
Lumens per Lamp: N/A
Luminaire Lumens: 1683.0 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P588913

CATALOG NUMBER: FMR-24-2-LD4-1STD-35-UNV-93-88-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°	1797	1797	1797
5°	1791	1792	1830
10°	1755	1770	1782
15°	1768	1759	1769
20°	1739	1739	1757
25°	1685	1722	1741
30°	1662	1691	1736
35°	1623	1666	1703
40°	1560	1635	1642
45°	1513	1566	1569
50°	1463	1529	1500
55°	1394	1421	1411
60°	1304	1316	1293
65°	1162	1192	1154
70°	997	1001	972
75°	790	788	758
80°	528	514	494
85°	287	284	266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.8	3.7
10°-20°	178.0	10.6
20°-30°	266.7	15.8
30°-40°	316.1	18.8
40°-50°	316.7	18.8
50°-60°	268.8	16.0
60°-70°	181.2	10.8
70°-80°	79.6	4.7
80°-90°	12.9	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°	507.6	30.2
0°-40°	823.7	48.9
0°-60°	1409.2	83.7
0°-90°	1683.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1683.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	668	668	668	668	668	
5°	663	662	663	661	677	63
15°	635	628	631	635	635	177
25°	568	571	580	588	586	262
35°	494	496	507	519	518	307
45°	398	405	412	422	412	307
55°	297	295	303	301	301	264
65°	182	180	187	180	181	182
75°	76	74	76	70	73	81
85°	9	9	9	9	9	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	667.8	667.8	667.8	667.8	667.8
2.5°	673.5	668.5	663.7	669.2	672.6
5°	663.0	661.5	663.3	661.3	677.3
7.5°	649.4	655.4	658.8	656.6	657.6
10°	642.2	640.1	647.8	653.1	652.3
12.5°	634.4	637.5	637.9	643.7	644.2
15°	634.8	627.5	631.4	634.7	634.9
17.5°	610.2	618.1	620.8	628.3	619.0
20°	607.2	601.4	607.2	614.8	613.6
22.5°	588.6	582.2	594.6	601.4	601.0
25°	567.6	570.7	580.0	587.6	586.4
27.5°	549.1	552.8	566.0	576.5	569.7
30°	534.9	533.1	544.3	553.6	558.8
32.5°	509.5	516.0	529.1	538.4	533.4
35°	494.0	495.5	507.0	518.7	518.4
37.5°	467.1	473.9	490.0	493.3	490.2
40°	444.0	450.8	465.4	468.9	467.5
42.5°	427.0	428.3	440.8	444.8	438.3
45°	397.5	404.9	411.6	422.2	412.2
47.5°	372.3	375.7	390.2	393.1	387.8
50°	349.4	350.7	365.2	361.7	358.2
52.5°	320.7	325.8	334.0	333.3	329.3
55°	297.1	295.1	302.9	300.8	300.7
57.5°	268.7	272.2	278.6	275.3	270.0
60°	242.2	242.3	244.6	240.9	240.2
62.5°	212.6	213.7	214.2	209.6	217.0
65°	182.5	180.1	187.2	180.0	181.2
67.5°	154.9	156.1	155.4	150.9	152.6
70°	126.7	128.3	127.2	122.1	123.6
72.5°	101.0	99.2	100.4	94.0	96.9
75°	76.0	74.4	75.8	70.4	72.9
77.5°	51.7	52.9	52.1	49.2	50.9
80°	34.1	33.2	33.2	31.6	31.9
82.5°	19.9	19.0	18.7	18.2	19.0
85°	9.3	9.1	9.2	9.0	8.6
87.5°	3.4	3.4	3.4	3.3	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)