

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: P588903

Luminaire Tested: **FMR-24-2-LD4-1STD-35-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588903
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-82-86-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

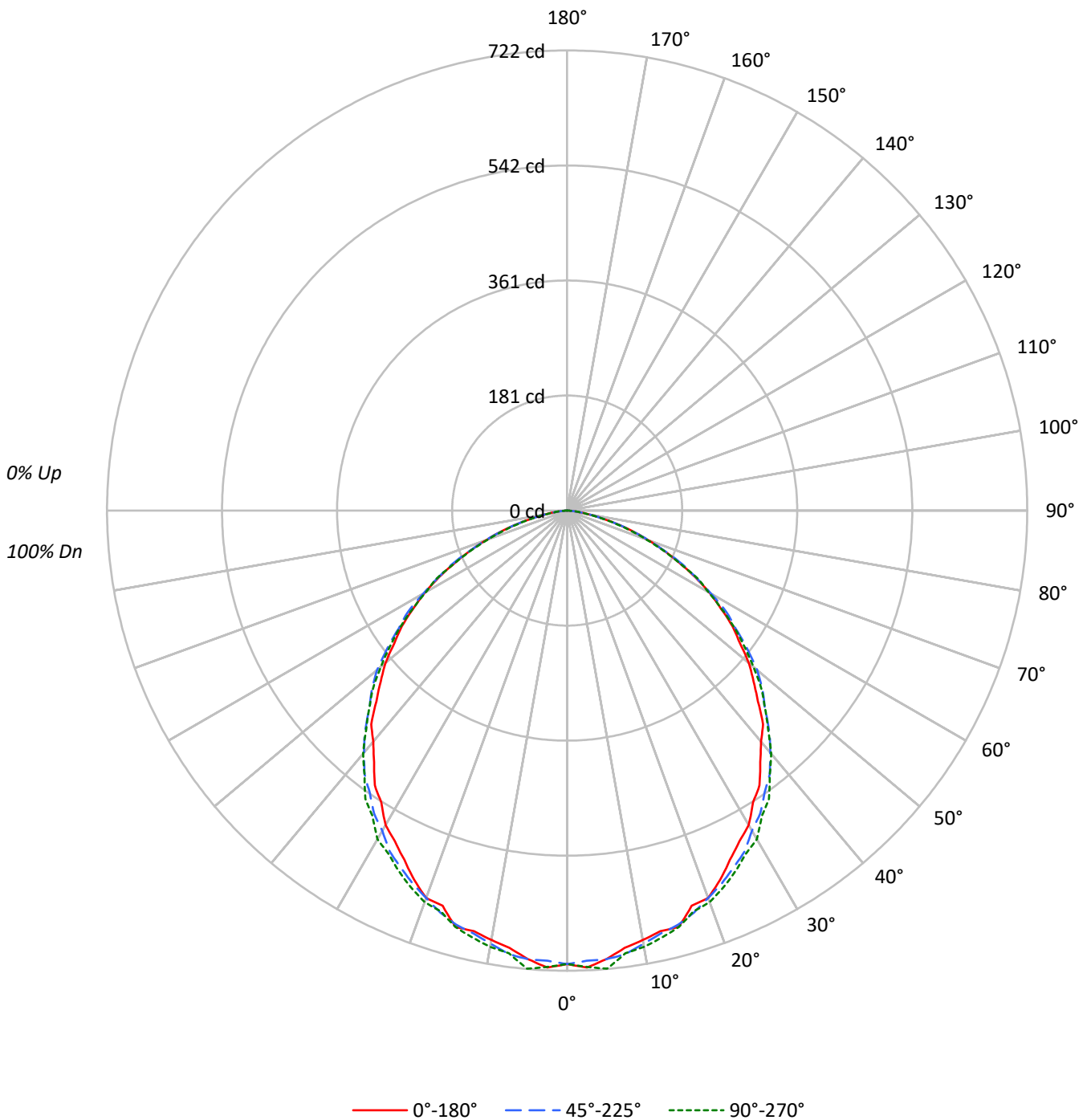
Lumens per Lamp: N/A
Luminaire Lumens: 1793.0 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P588903

CATALOG NUMBER: FMR-24-2-LD4-1STD-35-UNV-82-86-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°	1914	1914	1914
5°	1908	1909	1949
10°	1869	1886	1899
15°	1884	1874	1884
20°	1852	1852	1872
25°	1795	1835	1855
30°	1771	1802	1850
35°	1729	1774	1814
40°	1662	1742	1749
45°	1612	1669	1671
50°	1559	1629	1598
55°	1485	1514	1503
60°	1389	1403	1377
65°	1238	1270	1230
70°	1062	1066	1036
75°	841	839	807
80°	564	549	527
85°	306	303	284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.9	3.7
10°-20°	189.7	10.6
20°-30°	284.1	15.8
30°-40°	336.8	18.8
40°-50°	337.4	18.8
50°-60°	286.4	16.0
60°-70°	193.1	10.8
70°-80°	84.8	4.7
80°-90°	13.8	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°	540.7	30.2
0°-40°	877.5	48.9
0°-60°	1501.3	83.7
0°-90°	1793.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1793.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	706	705	707	704	722	67
15°	676	668	673	676	676	188
25°	605	608	618	626	625	280
35°	526	528	540	553	552	327
45°	424	431	438	450	439	328
55°	316	314	323	320	320	282
65°	194	192	199	192	193	193
75°	81	79	81	75	78	87
85°	10	10	10	10	9	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	711.4	711.4	711.4	711.4	711.4
2.5°	717.6	712.2	707.1	713.0	716.6
5°	706.4	704.7	706.6	704.5	721.5
7.5°	691.9	698.2	701.9	699.6	700.6
10°	684.1	681.9	690.1	695.8	695.0
12.5°	675.9	679.2	679.6	685.8	686.3
15°	676.3	668.5	672.7	676.1	676.4
17.5°	650.1	658.5	661.4	669.3	659.4
20°	646.8	640.7	646.8	655.0	653.7
22.5°	627.1	620.2	633.4	640.7	640.2
25°	604.7	608.0	617.9	626.0	624.7
27.5°	585.0	588.9	603.0	614.1	607.0
30°	569.9	567.9	579.9	589.8	595.3
32.5°	542.8	549.8	563.7	573.5	568.3
35°	526.3	527.9	540.1	552.6	552.2
37.5°	497.6	504.8	522.0	525.5	522.3
40°	473.1	480.3	495.8	499.6	498.0
42.5°	455.0	456.2	469.6	473.9	467.0
45°	423.5	431.4	438.5	449.8	439.2
47.5°	396.6	400.3	415.7	418.8	413.2
50°	372.3	373.6	389.1	385.3	381.7
52.5°	341.7	347.1	355.8	355.1	350.8
55°	316.5	314.4	322.7	320.5	320.4
57.5°	286.3	290.0	296.8	293.3	287.7
60°	258.0	258.1	260.6	256.6	255.9
62.5°	226.5	227.6	228.2	223.3	231.2
65°	194.5	191.9	199.4	191.8	193.1
67.5°	165.0	166.3	165.5	160.7	162.6
70°	135.0	136.7	135.5	130.1	131.7
72.5°	107.7	105.6	106.9	100.1	103.2
75°	80.9	79.3	80.7	75.0	77.6
77.5°	55.1	56.4	55.5	52.4	54.2
80°	36.4	35.4	35.4	33.6	34.0
82.5°	21.2	20.2	19.9	19.4	20.2
85°	9.9	9.6	9.8	9.6	9.2
87.5°	3.6	3.7	3.7	3.5	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)