

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: P588968

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588968
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-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

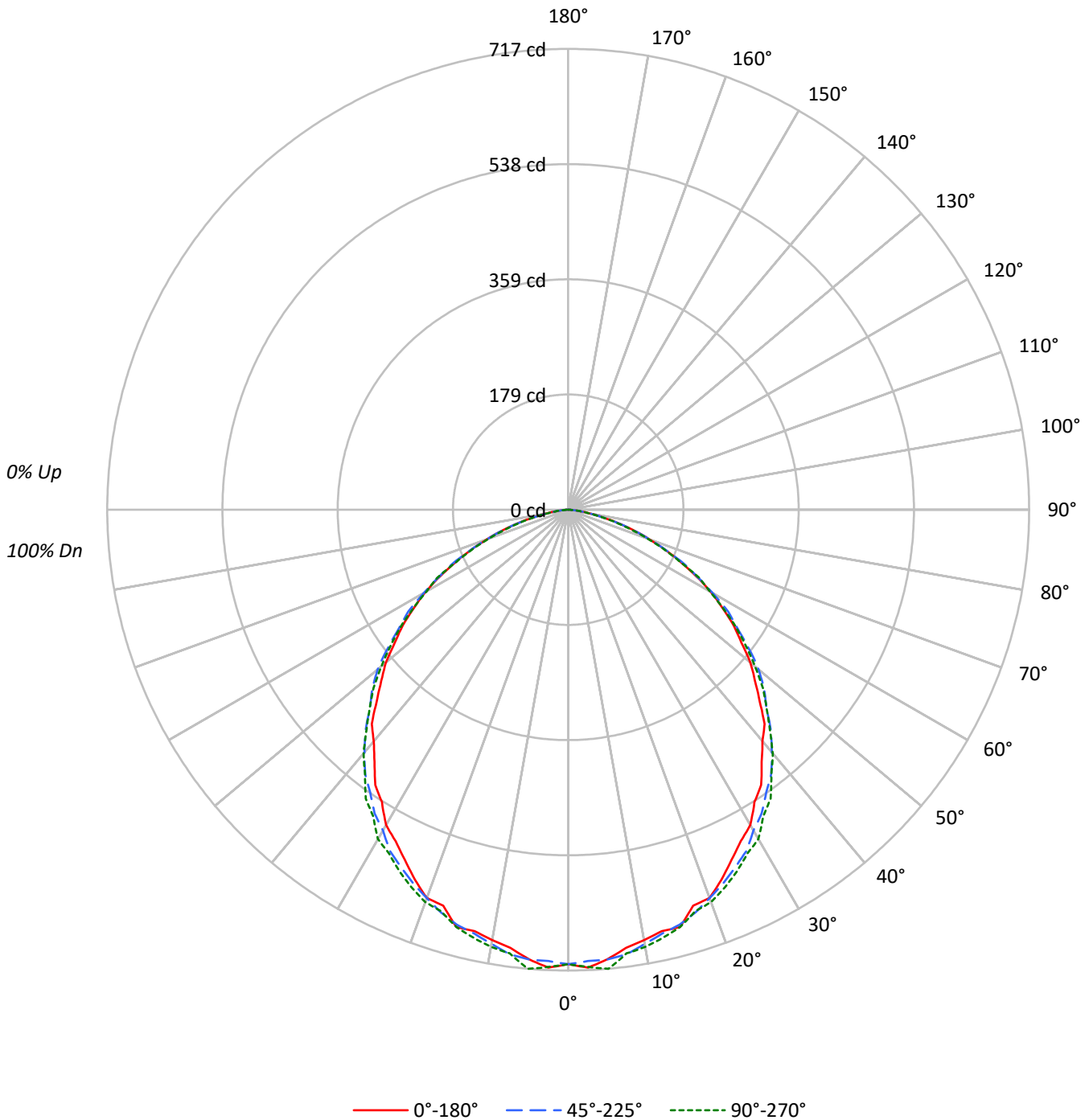
Lumens per Lamp: N/A
Luminaire Lumens: 1782.0 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	1903	1903	1903
5°	1896	1897	1937
10°	1858	1874	1887
15°	1873	1862	1873
20°	1841	1841	1861
25°	1784	1823	1844
30°	1760	1791	1839
35°	1718	1763	1803
40°	1652	1731	1739
45°	1602	1658	1661
50°	1549	1619	1588
55°	1476	1505	1494
60°	1380	1394	1369
65°	1231	1262	1222
70°	1056	1060	1030
75°	836	834	802
80°	561	544	524
85°	306	303	281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	3.7
10°-20°	188.5	10.6
20°-30°	282.4	15.8
30°-40°	334.7	18.8
40°-50°	335.3	18.8
50°-60°	284.6	16.0
60°-70°	191.9	10.8
70°-80°	84.3	4.7
80°-90°	13.7	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°	537.4	30.2
0°-40°	872.1	48.9
0°-60°	1492.1	83.7
0°-90°	1782.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1782.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	707	707	707	707	707	
5°	702	700	702	700	717	66
15°	672	664	668	672	672	187
25°	601	604	614	622	621	278
35°	523	525	537	549	549	325
45°	421	429	436	447	436	326
55°	315	312	321	318	318	280
65°	193	191	198	191	192	192
75°	80	79	80	75	77	86
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°	707.1	707.1	707.1	707.1	707.1
2.5°	713.2	707.8	702.8	708.6	712.2
5°	702.0	700.4	702.3	700.2	717.1
7.5°	687.6	693.9	697.6	695.3	696.3
10°	679.9	677.7	685.9	691.5	690.7
12.5°	671.7	675.0	675.5	681.6	682.1
15°	672.2	664.4	668.5	672.0	672.3
17.5°	646.1	654.5	657.3	665.2	655.4
20°	642.9	636.8	642.9	651.0	649.7
22.5°	623.2	616.4	629.5	636.8	636.3
25°	601.0	604.3	614.1	622.2	620.9
27.5°	581.4	585.3	599.3	610.4	603.3
30°	566.4	564.5	576.3	586.2	591.7
32.5°	539.4	546.4	560.3	570.0	564.8
35°	523.1	524.7	536.8	549.2	548.8
37.5°	494.5	501.7	518.8	522.3	519.1
40°	470.2	477.4	492.8	496.5	495.0
42.5°	452.2	453.4	466.7	471.0	464.1
45°	420.9	428.7	435.8	447.1	436.5
47.5°	394.2	397.8	413.2	416.2	410.6
50°	370.0	371.3	386.7	383.0	379.3
52.5°	339.6	345.0	353.7	352.9	348.6
55°	314.6	312.5	320.7	318.5	318.4
57.5°	284.6	288.2	295.0	291.5	285.9
60°	256.4	256.5	259.0	255.1	254.3
62.5°	225.1	226.2	226.8	221.9	229.8
65°	193.3	190.7	198.2	190.6	191.9
67.5°	164.0	165.2	164.5	159.8	161.6
70°	134.2	135.8	134.7	129.3	130.9
72.5°	107.0	105.0	106.3	99.5	102.6
75°	80.4	78.8	80.2	74.6	77.1
77.5°	54.8	56.1	55.1	52.1	53.9
80°	36.2	35.1	35.1	33.4	33.8
82.5°	21.1	20.1	19.8	19.3	20.1
85°	9.9	9.6	9.8	9.5	9.1
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)