

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: P588936

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588936
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

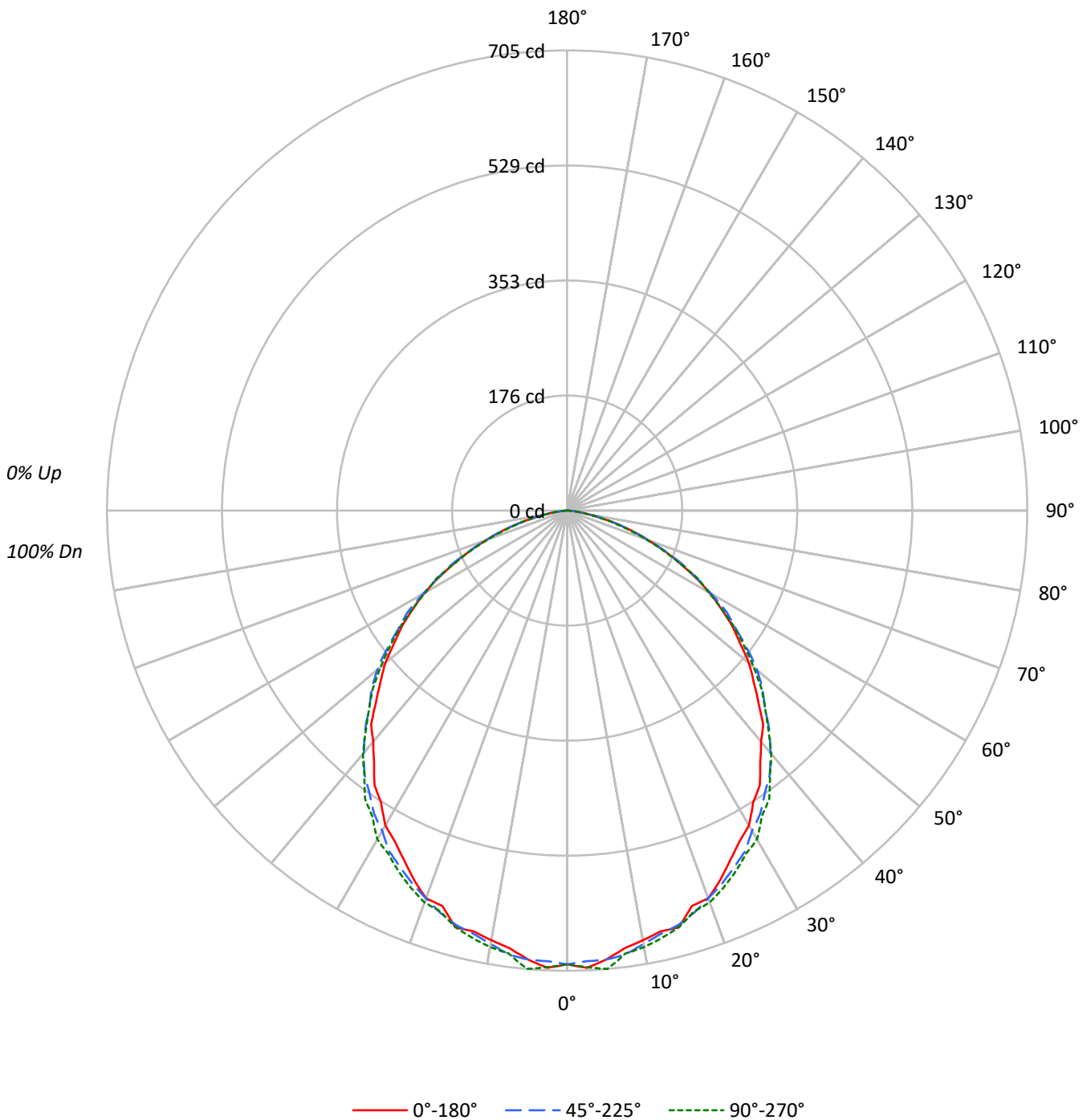
Lumens per Lamp: N/A
Luminaire Lumens: 1752.0 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1870	1870	1870
5°	1864	1865	1904
10°	1827	1843	1856
15°	1841	1831	1841
20°	1810	1810	1829
25°	1754	1793	1812
30°	1730	1761	1808
35°	1690	1734	1773
40°	1624	1702	1709
45°	1575	1631	1633
50°	1523	1592	1561
55°	1451	1479	1469
60°	1357	1370	1346
65°	1210	1241	1202
70°	1038	1042	1013
75°	822	820	788
80°	550	536	514
85°	299	296	278



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.4	3.7
10°-20°	185.3	10.6
20°-30°	277.6	15.8
30°-40°	329.1	18.8
40°-50°	329.7	18.8
50°-60°	279.8	16.0
60°-70°	188.7	10.8
70°-80°	82.9	4.7
80°-90°	13.5	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°	528.4	30.2
0°-40°	857.4	48.9
0°-60°	1467.0	83.7
0°-90°	1752.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1752.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	690	689	690	688	705	65
15°	661	653	657	661	661	184
25°	591	594	604	612	610	273
35°	514	516	528	540	540	319
45°	414	422	428	440	429	320
55°	309	307	315	313	313	275
65°	190	188	195	187	189	189
75°	79	78	79	73	76	85
85°	10	9	10	9	9	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	695.1	695.1	695.1	695.1	695.1
2.5°	701.2	695.9	690.9	696.7	700.2
5°	690.2	688.6	690.5	688.4	705.0
7.5°	676.0	682.2	685.8	683.6	684.6
10°	668.5	666.3	674.3	679.9	679.1
12.5°	660.4	663.6	664.1	670.1	670.6
15°	660.9	653.2	657.3	660.7	661.0
17.5°	635.2	643.5	646.2	654.0	644.3
20°	632.1	626.0	632.1	640.0	638.8
22.5°	612.8	606.0	618.9	626.0	625.6
25°	590.9	594.1	603.8	611.7	610.4
27.5°	571.6	575.4	589.2	600.1	593.1
30°	556.8	555.0	566.6	576.3	581.7
32.5°	530.4	537.2	550.8	560.4	555.3
35°	514.3	515.8	527.8	540.0	539.6
37.5°	486.2	493.3	510.1	513.5	510.3
40°	462.2	469.3	484.5	488.2	486.6
42.5°	444.6	445.8	458.8	463.0	456.3
45°	413.8	421.5	428.5	439.5	429.1
47.5°	387.6	391.2	406.2	409.2	403.7
50°	363.8	365.0	380.2	376.5	372.9
52.5°	333.9	339.2	347.7	347.0	342.8
55°	309.3	307.2	315.3	313.2	313.1
57.5°	279.8	283.4	290.0	286.6	281.1
60°	252.1	252.2	254.6	250.8	250.1
62.5°	221.3	222.4	223.0	218.2	225.9
65°	190.0	187.5	194.9	187.4	188.7
67.5°	161.2	162.5	161.7	157.1	158.9
70°	131.9	133.6	132.4	127.1	128.7
72.5°	105.2	103.2	104.5	97.8	100.9
75°	79.1	77.5	78.9	73.3	75.8
77.5°	53.9	55.1	54.2	51.2	53.0
80°	35.5	34.6	34.6	32.9	33.2
82.5°	20.7	19.7	19.5	18.9	19.7
85°	9.7	9.4	9.6	9.3	9.0
87.5°	3.5	3.6	3.6	3.4	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)