

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: P588907

Luminaire Tested: **FMR-24-2-LD4-1STD-35-UNV-82-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588907
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-82-96-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

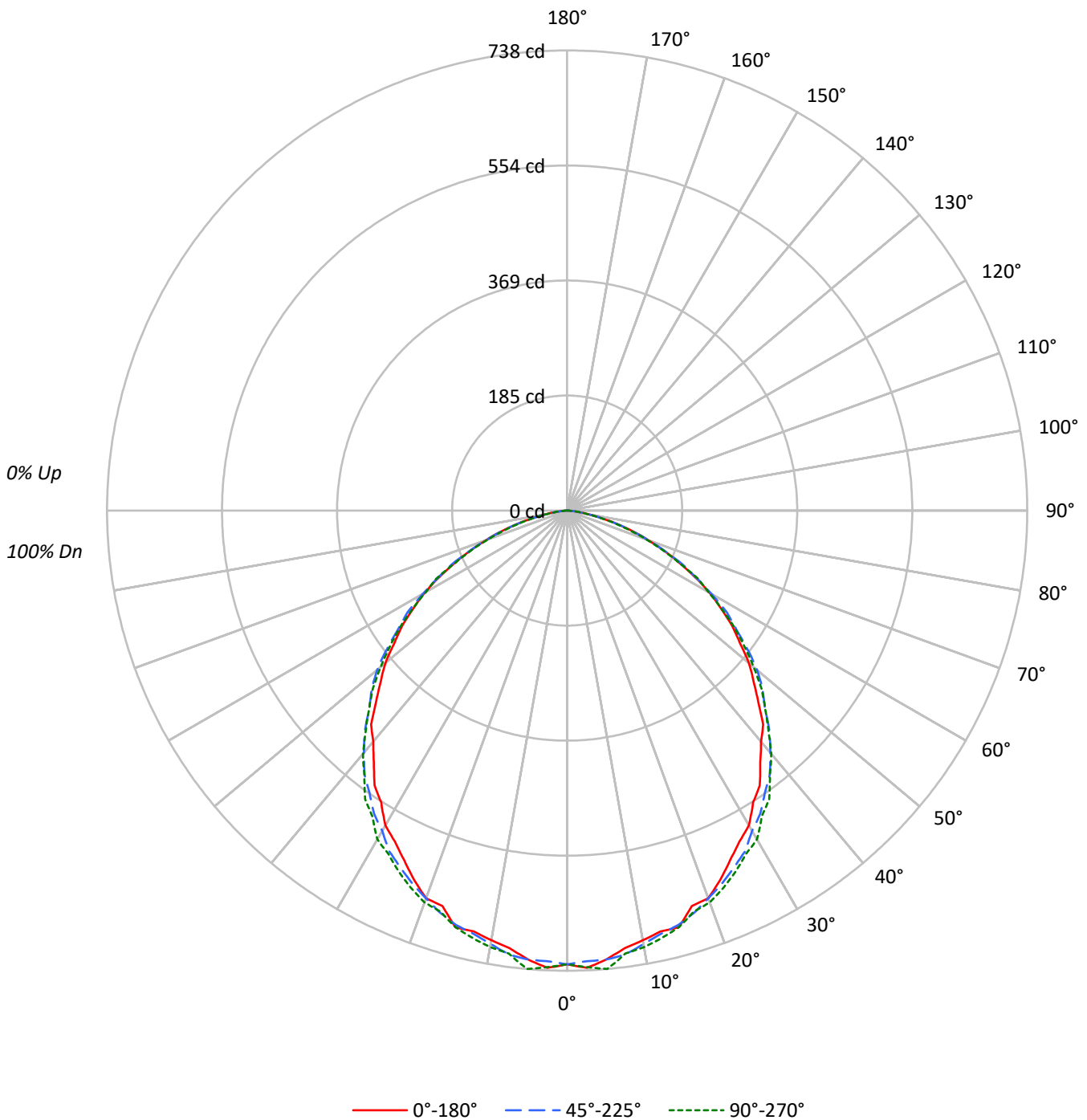
Lumens per Lamp: N/A
Luminaire Lumens: 1834.0 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1958	1958	1958
5°	1952	1952	1994
10°	1912	1929	1943
15°	1927	1917	1928
20°	1895	1895	1915
25°	1836	1877	1897
30°	1811	1843	1892
35°	1769	1815	1856
40°	1700	1782	1789
45°	1648	1707	1709
50°	1594	1666	1634
55°	1519	1549	1537
60°	1420	1435	1409
65°	1266	1299	1258
70°	1087	1090	1060
75°	861	859	826
80°	576	561	539
85°	312	312	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	3.7
10°-20°	194.0	10.6
20°-30°	290.6	15.8
30°-40°	344.5	18.8
40°-50°	345.1	18.8
50°-60°	292.9	16.0
60°-70°	197.5	10.8
70°-80°	86.8	4.7
80°-90°	14.1	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°	553.1	30.2
0°-40°	897.6	48.9
0°-60°	1535.6	83.7
0°-90°	1834.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1834.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	728	728	728	728	728	
5°	722	721	723	721	738	68
15°	692	684	688	692	692	193
25°	618	622	632	640	639	286
35°	538	540	552	565	565	334
45°	433	441	448	460	449	335
55°	324	322	330	328	328	288
65°	199	196	204	196	198	198
75°	83	81	83	77	79	89
85°	10	10	10	10	9	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	727.7	727.7	727.7	727.7	727.7
2.5°	734.0	728.4	723.3	729.3	732.9
5°	722.5	720.8	722.8	720.6	738.0
7.5°	707.7	714.2	717.9	715.6	716.6
10°	699.8	697.5	705.9	711.7	710.9
12.5°	691.3	694.7	695.2	701.5	702.0
15°	691.8	683.8	688.0	691.6	691.9
17.5°	664.9	673.6	676.5	684.7	674.5
20°	661.6	655.3	661.6	670.0	668.7
22.5°	641.4	634.4	647.9	655.3	654.9
25°	618.5	621.9	632.0	640.3	639.0
27.5°	598.4	602.3	616.8	628.2	620.9
30°	582.9	580.9	593.1	603.3	608.9
32.5°	555.2	562.3	576.6	586.7	581.3
35°	538.4	540.0	552.5	565.2	564.9
37.5°	509.0	516.4	533.9	537.5	534.2
40°	483.9	491.3	507.2	511.0	509.4
42.5°	465.4	466.7	480.3	484.7	477.7
45°	433.1	441.2	448.5	460.1	449.2
47.5°	405.7	409.5	425.2	428.3	422.6
50°	380.8	382.1	398.0	394.1	390.4
52.5°	349.5	355.1	364.0	363.2	358.8
55°	323.8	321.6	330.1	327.8	327.7
57.5°	292.9	296.6	303.6	300.0	294.3
60°	263.9	264.0	266.6	262.5	261.8
62.5°	231.7	232.8	233.4	228.4	236.5
65°	198.9	196.3	204.0	196.2	197.5
67.5°	168.7	170.1	169.3	164.4	166.3
70°	138.1	139.8	138.6	133.0	134.7
72.5°	110.1	108.0	109.4	102.4	105.6
75°	82.8	81.1	82.6	76.8	79.4
77.5°	56.4	57.7	56.7	53.6	55.4
80°	37.2	36.2	36.2	34.4	34.8
82.5°	21.7	20.7	20.4	19.8	20.7
85°	10.1	9.9	10.1	9.8	9.4
87.5°	3.7	3.8	3.8	3.6	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)