

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: P588957

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588957
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-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

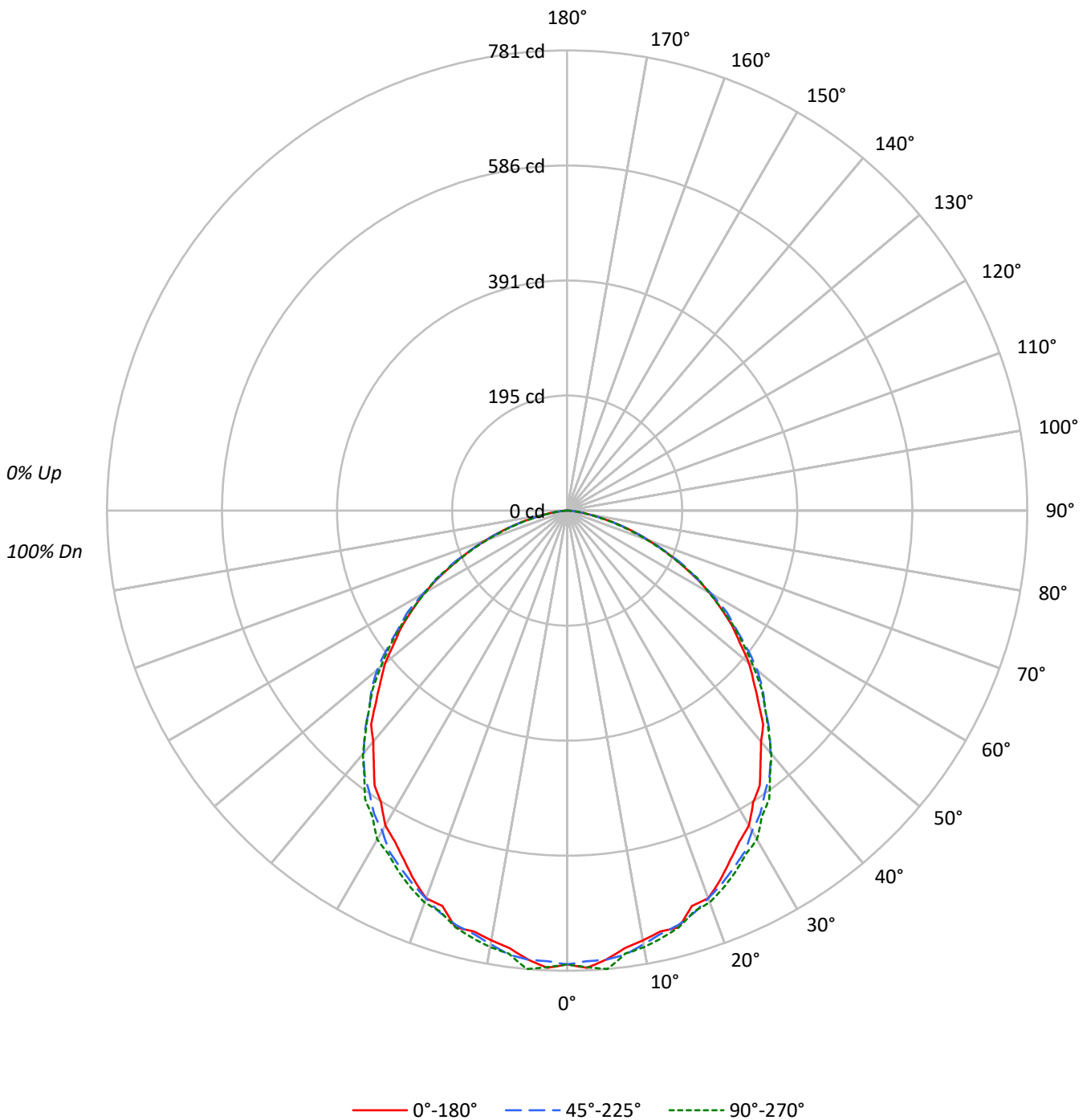
Lumens per Lamp: N/A
Luminaire Lumens: 1941.0 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	2072	2072	2072
5°	2066	2066	2110
10°	2024	2041	2056
15°	2040	2029	2040
20°	2005	2005	2027
25°	1944	1986	2008
30°	1917	1950	2003
35°	1872	1921	1964
40°	1799	1886	1894
45°	1744	1807	1809
50°	1687	1763	1730
55°	1608	1639	1627
60°	1503	1518	1491
65°	1340	1375	1331
70°	1150	1154	1122
75°	911	909	873
80°	611	594	570
85°	330	327	306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.4	3.7
10°-20°	205.3	10.6
20°-30°	307.6	15.8
30°-40°	364.6	18.8
40°-50°	365.2	18.8
50°-60°	310.0	16.0
60°-70°	209.0	10.8
70°-80°	91.9	4.7
80°-90°	14.9	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°	585.4	30.2
0°-40°	949.9	48.9
0°-60°	1625.2	83.7
0°-90°	1941.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1941.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	770	770	770	770	770	
5°	765	763	765	763	781	72
15°	732	724	728	732	732	204
25°	655	658	669	678	676	303
35°	570	572	585	598	598	354
45°	458	467	475	487	475	355
55°	343	340	349	347	347	305
65°	210	208	216	208	209	209
75°	88	86	87	81	84	94
85°	11	10	11	10	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	770.1	770.1	770.1	770.1	770.1
2.5°	776.8	770.9	765.5	771.8	775.7
5°	764.7	762.9	765.0	762.7	781.1
7.5°	749.0	755.8	759.8	757.3	758.4
10°	740.6	738.2	747.1	753.2	752.3
12.5°	731.7	735.2	735.7	742.4	743.0
15°	732.2	723.7	728.2	732.0	732.3
17.5°	703.7	712.9	715.9	724.6	713.9
20°	700.2	693.6	700.2	709.1	707.7
22.5°	678.9	671.4	685.7	693.6	693.1
25°	654.6	658.2	668.9	677.7	676.3
27.5°	633.3	637.5	652.8	664.8	657.1
30°	616.9	614.8	627.7	638.5	644.5
32.5°	587.6	595.1	610.2	620.9	615.2
35°	569.8	571.5	584.7	598.2	597.8
37.5°	538.7	546.5	565.1	568.9	565.4
40°	512.1	520.0	536.8	540.8	539.1
42.5°	492.5	493.9	508.3	513.0	505.5
45°	458.4	467.0	474.7	486.9	475.4
47.5°	429.4	433.3	450.1	453.3	447.3
50°	403.0	404.4	421.2	417.1	413.2
52.5°	369.9	375.8	385.2	384.4	379.8
55°	342.7	340.4	349.3	346.9	346.8
57.5°	309.9	313.9	321.3	317.5	311.4
60°	279.3	279.4	282.1	277.8	277.0
62.5°	245.2	246.4	247.0	241.7	250.3
65°	210.5	207.7	215.9	207.6	209.0
67.5°	178.6	180.0	179.2	174.0	176.0
70°	146.2	148.0	146.7	140.8	142.6
72.5°	116.5	114.4	115.7	108.4	111.8
75°	87.6	85.8	87.4	81.2	84.0
77.5°	59.7	61.1	60.1	56.8	58.7
80°	39.4	38.3	38.3	36.4	36.8
82.5°	23.0	21.9	21.6	21.0	21.9
85°	10.7	10.4	10.6	10.3	9.9
87.5°	3.9	4.0	4.0	3.8	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)