

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: P588925

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588925
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-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

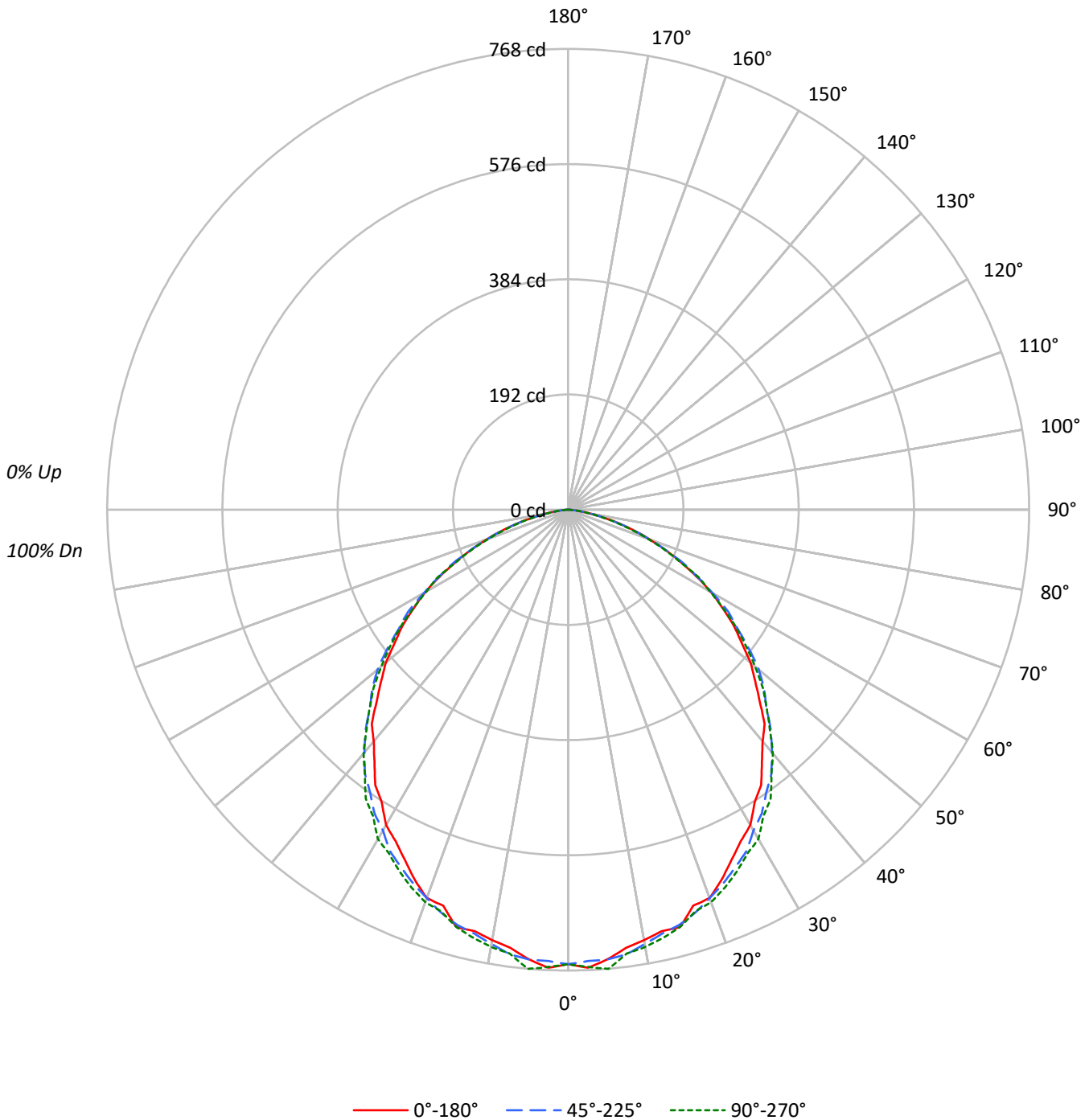
Lumens per Lamp: N/A
Luminaire Lumens: 1909.0 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	2038	2038	2038
5°	2032	2032	2075
10°	1990	2008	2022
15°	2006	1995	2006
20°	1972	1972	1993
25°	1912	1953	1975
30°	1885	1918	1969
35°	1841	1889	1932
40°	1769	1854	1863
45°	1716	1777	1780
50°	1659	1734	1701
55°	1581	1612	1600
60°	1478	1493	1467
65°	1318	1352	1309
70°	1131	1135	1103
75°	896	894	859
80°	600	584	561
85°	327	324	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.2	3.7
10°-20°	201.9	10.6
20°-30°	302.5	15.8
30°-40°	358.6	18.8
40°-50°	359.2	18.8
50°-60°	304.9	16.0
60°-70°	205.6	10.8
70°-80°	90.3	4.7
80°-90°	14.7	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°	575.7	30.2
0°-40°	934.3	48.9
0°-60°	1598.4	83.7
0°-90°	1909.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1909.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	757	757	757	757	757	
5°	752	750	752	750	768	71
15°	720	712	716	720	720	201
25°	644	647	658	666	665	298
35°	560	562	575	588	588	348
45°	451	459	467	479	468	349
55°	337	335	344	341	341	300
65°	207	204	212	204	206	206
75°	86	84	86	80	83	92
85°	11	10	10	10	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	757.4	757.4	757.4	757.4	757.4
2.5°	764.0	758.2	752.8	759.1	762.9
5°	752.1	750.3	752.4	750.1	768.2
7.5°	736.6	743.4	747.3	744.8	745.9
10°	728.4	726.0	734.8	740.8	739.9
12.5°	719.6	723.1	723.6	730.2	730.7
15°	720.1	711.8	716.2	719.9	720.2
17.5°	692.1	701.1	704.1	712.7	702.1
20°	688.7	682.1	688.7	697.4	696.0
22.5°	667.7	660.3	674.4	682.1	681.6
25°	643.8	647.3	657.9	666.5	665.1
27.5°	622.9	627.0	642.0	653.9	646.2
30°	606.7	604.7	617.4	628.0	633.8
32.5°	577.9	585.3	600.2	610.6	605.1
35°	560.4	562.0	575.1	588.4	588.0
37.5°	529.8	537.5	555.8	559.5	556.1
40°	503.7	511.4	527.9	531.9	530.3
42.5°	484.4	485.8	499.9	504.5	497.2
45°	450.8	459.3	466.9	478.9	467.6
47.5°	422.3	426.2	442.6	445.9	439.9
50°	396.4	397.7	414.3	410.3	406.3
52.5°	363.8	369.6	378.9	378.1	373.5
55°	337.0	334.8	343.6	341.2	341.1
57.5°	304.8	308.7	316.0	312.3	306.3
60°	274.7	274.8	277.5	273.2	272.5
62.5°	241.2	242.3	242.9	237.7	246.2
65°	207.0	204.3	212.3	204.2	205.6
67.5°	175.6	177.0	176.2	171.1	173.1
70°	143.8	145.5	144.3	138.5	140.2
72.5°	114.6	112.5	113.8	106.6	109.9
75°	86.2	84.4	86.0	79.9	82.6
77.5°	58.7	60.0	59.1	55.8	57.7
80°	38.7	37.7	37.7	35.8	36.2
82.5°	22.6	21.5	21.2	20.6	21.5
85°	10.6	10.3	10.5	10.2	9.8
87.5°	3.8	3.9	3.9	3.7	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)