

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: P588970

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588970
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-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

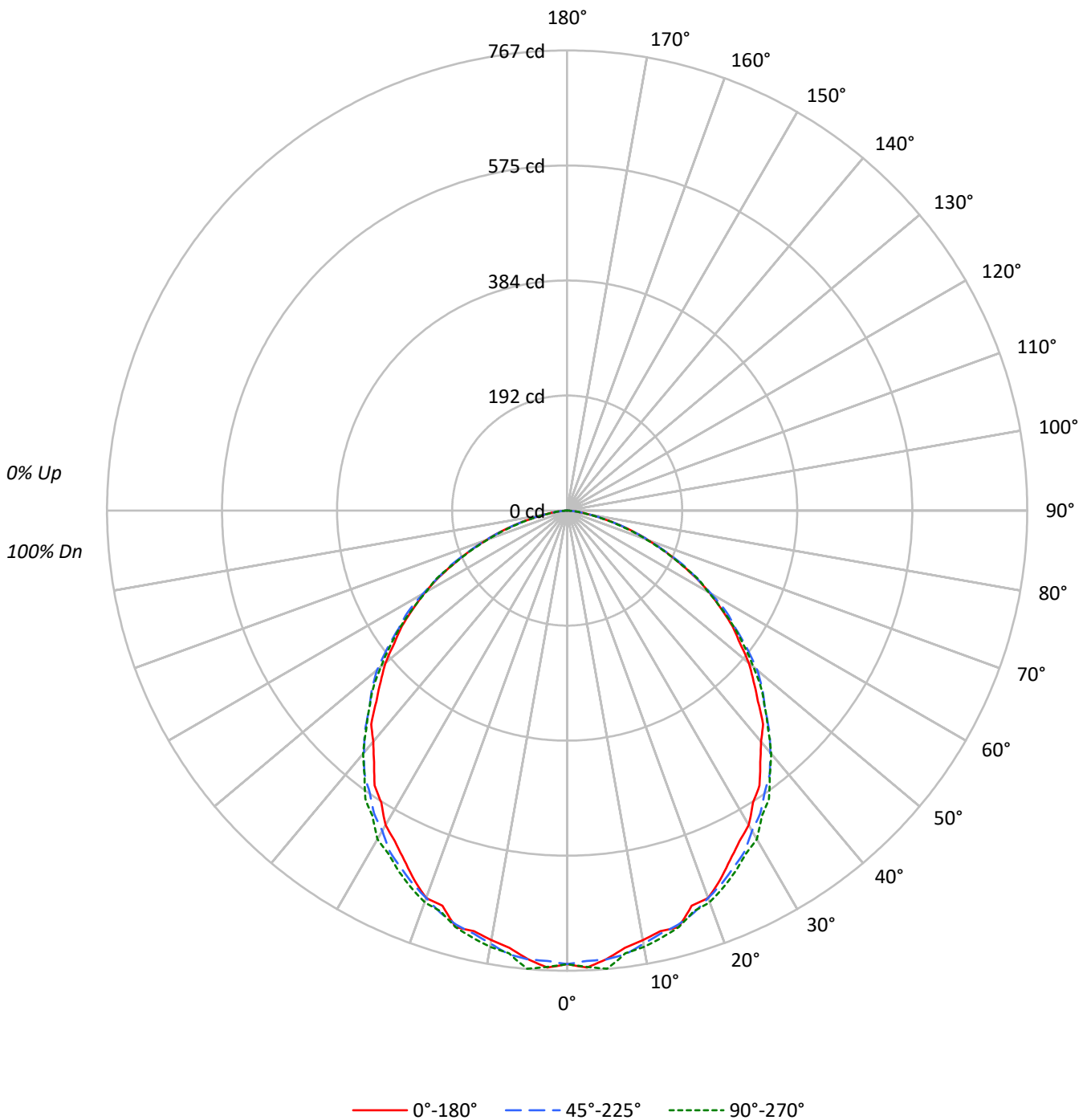
Lumens per Lamp: N/A
Luminaire Lumens: 1905.0 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2034	2034	2034
5°	2027	2028	2071
10°	1986	2003	2018
15°	2002	1991	2002
20°	1968	1968	1989
25°	1908	1949	1971
30°	1881	1914	1965
35°	1837	1885	1927
40°	1766	1851	1859
45°	1712	1773	1776
50°	1656	1731	1698
55°	1578	1608	1597
60°	1475	1490	1463
65°	1316	1349	1306
70°	1129	1132	1101
75°	894	892	858
80°	598	583	559
85°	324	321	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.1	3.7
10°-20°	201.5	10.6
20°-30°	301.9	15.8
30°-40°	357.8	18.8
40°-50°	358.5	18.8
50°-60°	304.3	16.0
60°-70°	205.1	10.8
70°-80°	90.1	4.7
80°-90°	14.6	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°	574.5	30.2
0°-40°	932.3	48.9
0°-60°	1595.1	83.7
0°-90°	1905.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1905.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	756	756	756	756	756	
5°	750	749	751	748	767	71
15°	719	710	715	718	719	200
25°	642	646	656	665	664	297
35°	559	561	574	587	587	347
45°	450	458	466	478	467	348
55°	336	334	343	340	340	299
65°	207	204	212	204	205	205
75°	86	84	86	80	82	92
85°	10	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°	755.9	755.9	755.9	755.9	755.9
2.5°	762.4	756.6	751.3	757.5	761.3
5°	750.5	748.7	750.8	748.5	766.6
7.5°	735.1	741.8	745.7	743.3	744.3
10°	726.9	724.5	733.2	739.3	738.4
12.5°	718.1	721.6	722.1	728.6	729.2
15°	718.6	710.3	714.7	718.4	718.7
17.5°	690.7	699.6	702.7	711.2	700.6
20°	687.2	680.7	687.2	695.9	694.6
22.5°	666.3	658.9	673.0	680.7	680.2
25°	642.5	646.0	656.5	665.1	663.7
27.5°	621.6	625.7	640.7	652.5	644.9
30°	605.5	603.4	616.1	626.6	632.5
32.5°	576.7	584.1	598.9	609.4	603.8
35°	559.2	560.9	573.8	587.1	586.7
37.5°	528.7	536.4	554.6	558.3	554.9
40°	502.6	510.3	526.8	530.8	529.1
42.5°	483.4	484.7	498.9	503.5	496.2
45°	449.9	458.3	465.9	477.9	466.6
47.5°	421.4	425.3	441.7	444.9	439.0
50°	395.5	396.9	413.4	409.4	405.5
52.5°	363.0	368.8	378.1	377.3	372.7
55°	336.3	334.1	342.8	340.5	340.4
57.5°	304.2	308.1	315.3	311.6	305.7
60°	274.1	274.2	276.9	272.7	271.9
62.5°	240.7	241.8	242.4	237.2	245.6
65°	206.6	203.9	211.9	203.8	205.1
67.5°	175.3	176.6	175.9	170.8	172.7
70°	143.5	145.2	143.9	138.2	139.9
72.5°	114.4	112.2	113.6	106.4	109.7
75°	86.0	84.2	85.8	79.7	82.5
77.5°	58.6	59.9	58.9	55.7	57.6
80°	38.6	37.6	37.6	35.7	36.1
82.5°	22.5	21.5	21.2	20.6	21.5
85°	10.5	10.2	10.4	10.1	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)