

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: METALUX

Report Number: P182407

Luminaire Tested: **22FR-24-UNV-L840-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182407  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26769)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22FR-24-UNV-L840-CD1-U  
Description: METALUX 2X2 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 4000K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

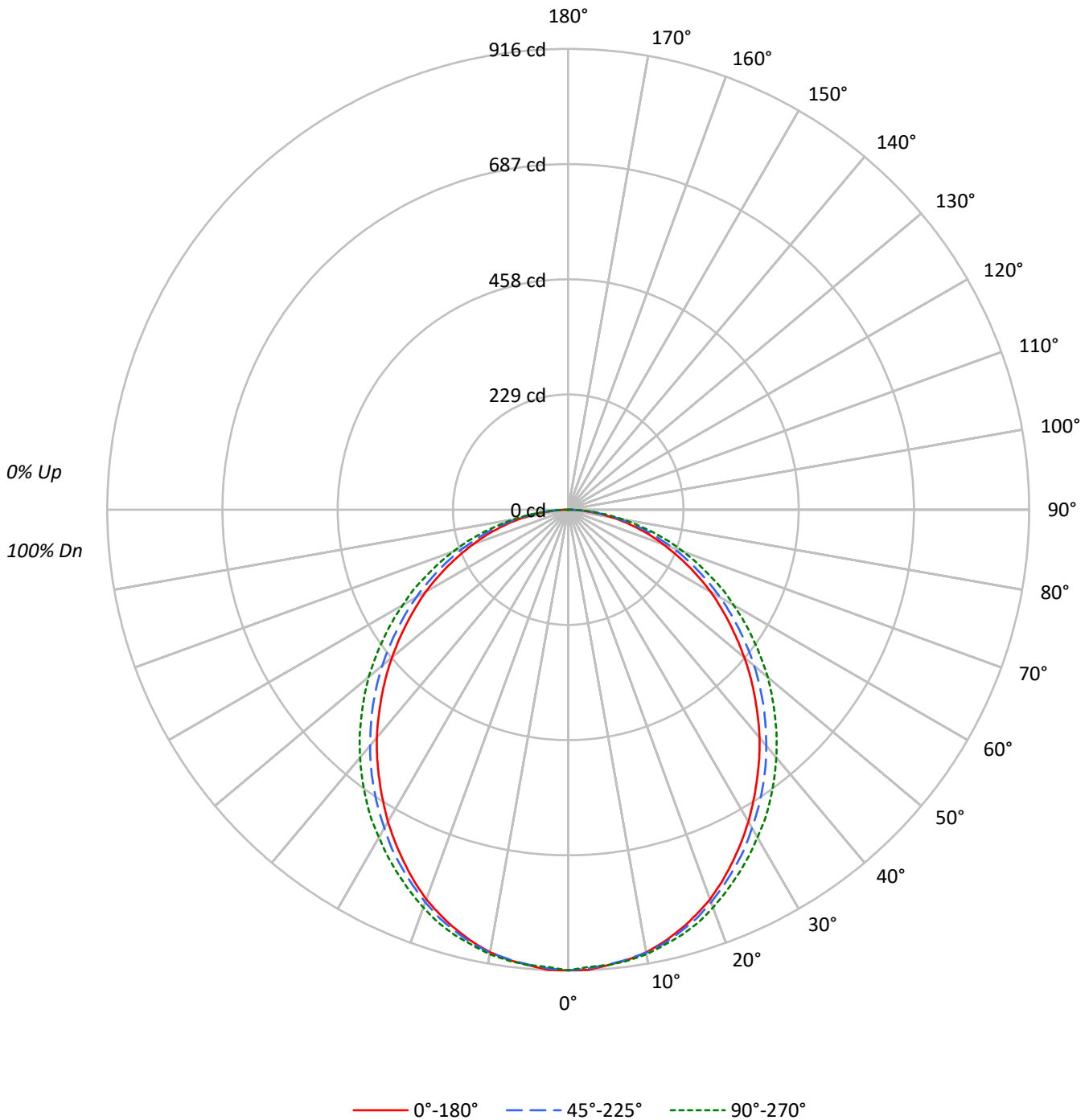
Lumens per Lamp: N/A  
Luminaire Lumens: 2413.0 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2464	2464	2464
5°	2454	2451	2454
10°	2440	2443	2452
15°	2405	2416	2437
20°	2360	2378	2410
25°	2294	2328	2374
30°	2225	2270	2337
35°	2150	2214	2302
40°	2078	2151	2259
45°	1993	2087	2212
50°	1912	2020	2166
55°	1830	1946	2105
60°	1761	1877	2044
65°	1671	1802	1978
70°	1578	1733	1910
75°	1487	1658	1818
80°	1371	1547	1691
85°	1207	1399	1460



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.3	3.6
10°-20°	244.7	10.1
20°-30°	361.6	15.0
30°-40°	422.6	17.5
40°-50°	424.5	17.6
50°-60°	373.1	15.5
60°-70°	282.3	11.7
70°-80°	168.3	7.0
80°-90°	49.8	2.1
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°	692.5	28.7
0°-40°	1115.1	46.2
0°-60°	1912.7	79.3
0°-90°	2413.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2413.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	916	916	916	916	916	
5°	908	910	908	908	908	86
15°	863	865	867	872	875	243
25°	773	777	784	794	800	356
35°	654	662	674	690	701	409
45°	524	529	548	569	581	404
55°	390	396	415	437	449	349
65°	262	266	283	302	311	260
75°	143	147	160	171	175	152
85°	39	40	45	48	47	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	915.7	915.7	915.7	915.7	915.7
2.5°	915.7	914.7	912.7	910.6	909.6
5°	908.5	909.6	907.5	907.5	908.5
7.5°	902.4	902.4	901.3	902.4	904.4
10°	893.1	894.1	894.1	893.1	897.2
12.5°	879.7	880.8	882.8	882.8	885.9
15°	863.3	865.3	867.4	871.5	874.6
17.5°	844.7	847.8	850.9	856.1	860.2
20°	824.2	826.2	830.3	836.5	841.7
22.5°	799.5	802.6	807.7	815.9	821.1
25°	772.7	776.8	784.0	794.3	799.5
27.5°	744.9	750.1	759.3	769.6	776.8
30°	716.1	721.3	730.5	743.9	752.1
32.5°	685.3	691.4	702.8	717.2	728.5
35°	654.4	661.6	673.9	690.4	700.7
37.5°	623.5	629.7	644.1	661.6	672.9
40°	591.6	596.8	612.2	631.8	643.1
42.5°	557.7	563.8	580.3	600.9	613.2
45°	523.7	528.9	548.4	569.0	581.3
47.5°	490.8	497.0	515.5	537.1	549.4
50°	456.8	464.0	482.6	505.2	517.5
52.5°	422.9	429.1	448.6	471.2	482.6
55°	390.0	396.1	414.7	437.3	448.6
57.5°	358.1	363.2	381.7	403.3	414.7
60°	327.2	330.3	348.8	370.4	379.7
62.5°	294.3	298.4	315.9	336.5	347.8
65°	262.4	265.5	283.0	302.5	310.7
67.5°	230.5	234.6	252.1	269.6	277.8
70°	200.6	204.8	220.2	236.7	242.8
72.5°	172.9	175.9	188.3	203.7	209.9
75°	143.0	147.1	159.5	170.8	174.9
77.5°	116.3	119.4	129.6	138.9	141.0
80°	88.5	91.6	99.8	107.0	109.1
82.5°	62.8	65.9	72.0	77.2	78.2
85°	39.1	40.1	45.3	48.4	47.3
87.5°	16.5	17.5	18.5	18.5	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)