

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: P182405

Luminaire Tested: **22FR-24-UNV-L830-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182405  
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-L830-CD1-U  
Description: METALUX 2X2 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 3000K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

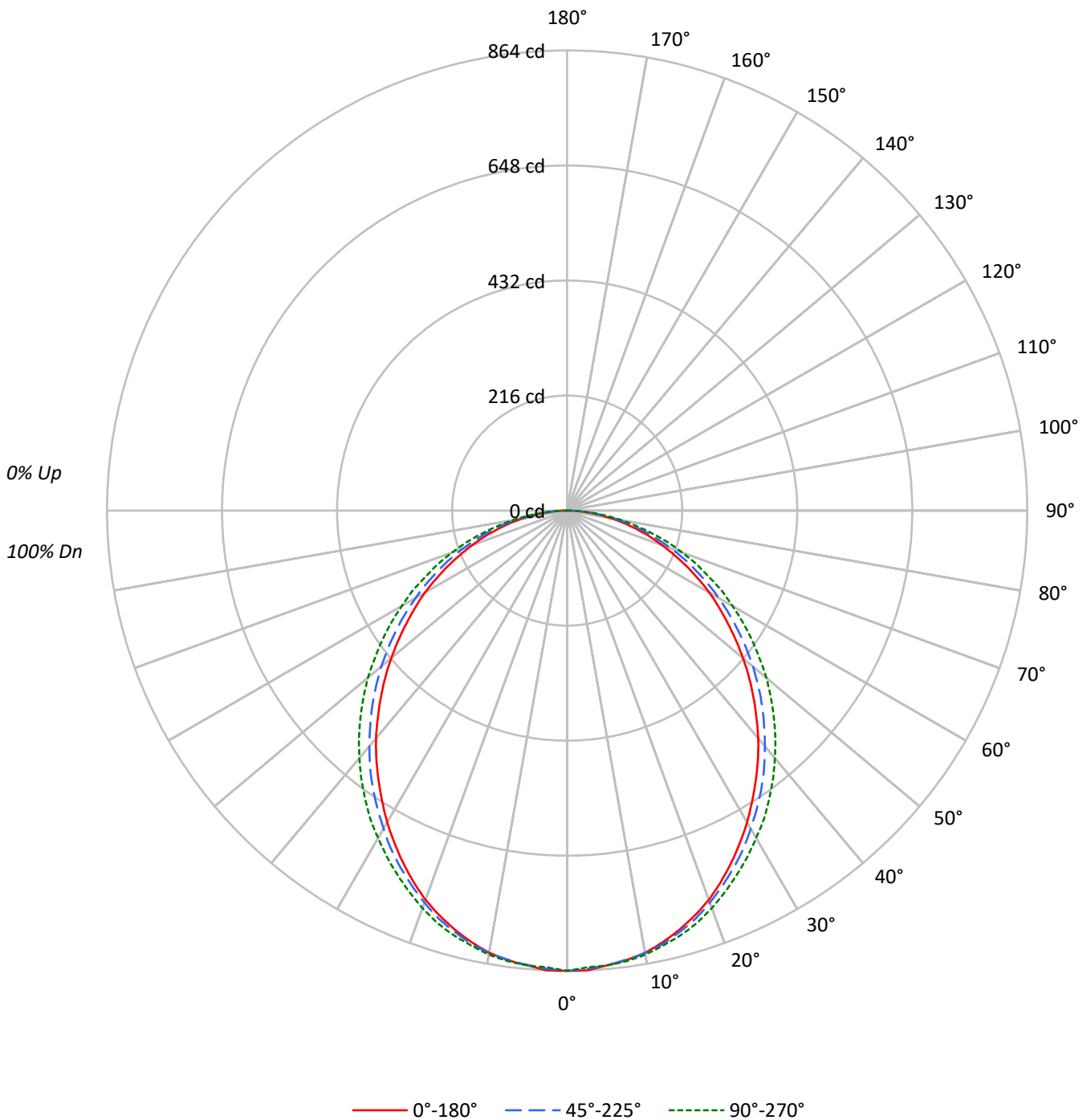
Lumens per Lamp: N/A  
Luminaire Lumens: 2277.0 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	2325	2325	2325
5°	2316	2313	2316
10°	2303	2305	2313
15°	2269	2280	2299
20°	2227	2244	2274
25°	2165	2197	2240
30°	2100	2142	2205
35°	2029	2089	2172
40°	1961	2029	2132
45°	1881	1969	2088
50°	1805	1906	2045
55°	1727	1836	1986
60°	1662	1771	1928
65°	1577	1700	1867
70°	1489	1635	1803
75°	1404	1565	1717
80°	1294	1460	1595
85°	1139	1318	1380



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.4	3.6
10°-20°	230.9	10.1
20°-30°	341.2	15.0
30°-40°	398.7	17.5
40°-50°	400.5	17.6
50°-60°	352.1	15.5
60°-70°	266.3	11.7
70°-80°	158.8	7.0
80°-90°	47.0	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°	653.5	28.7
0°-40°	1052.3	46.2
0°-60°	1804.9	79.3
0°-90°	2277.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2277.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	857	858	856	856	857	81
15°	815	817	818	822	825	230
25°	729	733	740	750	754	336
35°	618	624	636	652	661	386
45°	494	499	518	537	549	382
55°	368	374	391	413	423	330
65°	248	250	267	286	293	245
75°	135	139	150	161	165	144
85°	37	38	43	46	45	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	864.1	864.1	864.1	864.1	864.1
2.5°	864.1	863.2	861.2	859.3	858.3
5°	857.3	858.3	856.4	856.4	857.3
7.5°	851.5	851.5	850.5	851.5	853.4
10°	842.8	843.7	843.7	842.8	846.6
12.5°	830.1	831.1	833.1	833.1	836.0
15°	814.6	816.6	818.5	822.4	825.3
17.5°	797.1	800.0	803.0	807.8	811.7
20°	777.7	779.7	783.5	789.4	794.2
22.5°	754.4	757.3	762.2	769.9	774.8
25°	729.2	733.1	739.8	749.6	754.4
27.5°	703.0	707.8	716.5	726.3	733.1
30°	675.8	680.6	689.4	702.0	709.7
32.5°	646.6	652.5	663.1	676.7	687.4
35°	617.5	624.3	636.0	651.5	661.2
37.5°	588.4	594.2	607.8	624.3	635.0
40°	558.3	563.1	577.7	596.1	606.8
42.5°	526.2	532.1	547.6	567.0	578.7
45°	494.2	499.1	517.5	536.9	548.6
47.5°	463.1	469.0	486.4	506.8	518.5
50°	431.1	437.9	455.4	476.7	488.4
52.5°	399.1	404.9	423.3	444.7	455.4
55°	368.0	373.8	391.3	412.6	423.3
57.5°	337.9	342.7	360.2	380.6	391.3
60°	308.8	311.7	329.1	349.5	358.3
62.5°	277.7	281.6	298.1	317.5	328.2
65°	247.6	250.5	267.0	285.5	293.2
67.5°	217.5	221.4	237.9	254.4	262.2
70°	189.3	193.2	207.8	223.3	229.1
72.5°	163.1	166.0	177.7	192.2	198.1
75°	135.0	138.8	150.5	161.2	165.1
77.5°	109.7	112.6	122.3	131.1	133.0
80°	83.5	86.4	94.2	101.0	102.9
82.5°	59.2	62.1	68.0	72.8	73.8
85°	36.9	37.9	42.7	45.6	44.7
87.5°	15.5	16.5	17.5	17.5	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)