

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: P182404

Luminaire Tested: **22FR-24-UNV-L827-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182404  
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-L827-CD1-U  
Description: METALUX 2X2 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 2700K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2249.0 lumens  
Efficiency: N/A  
Efficacy: 106.1 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

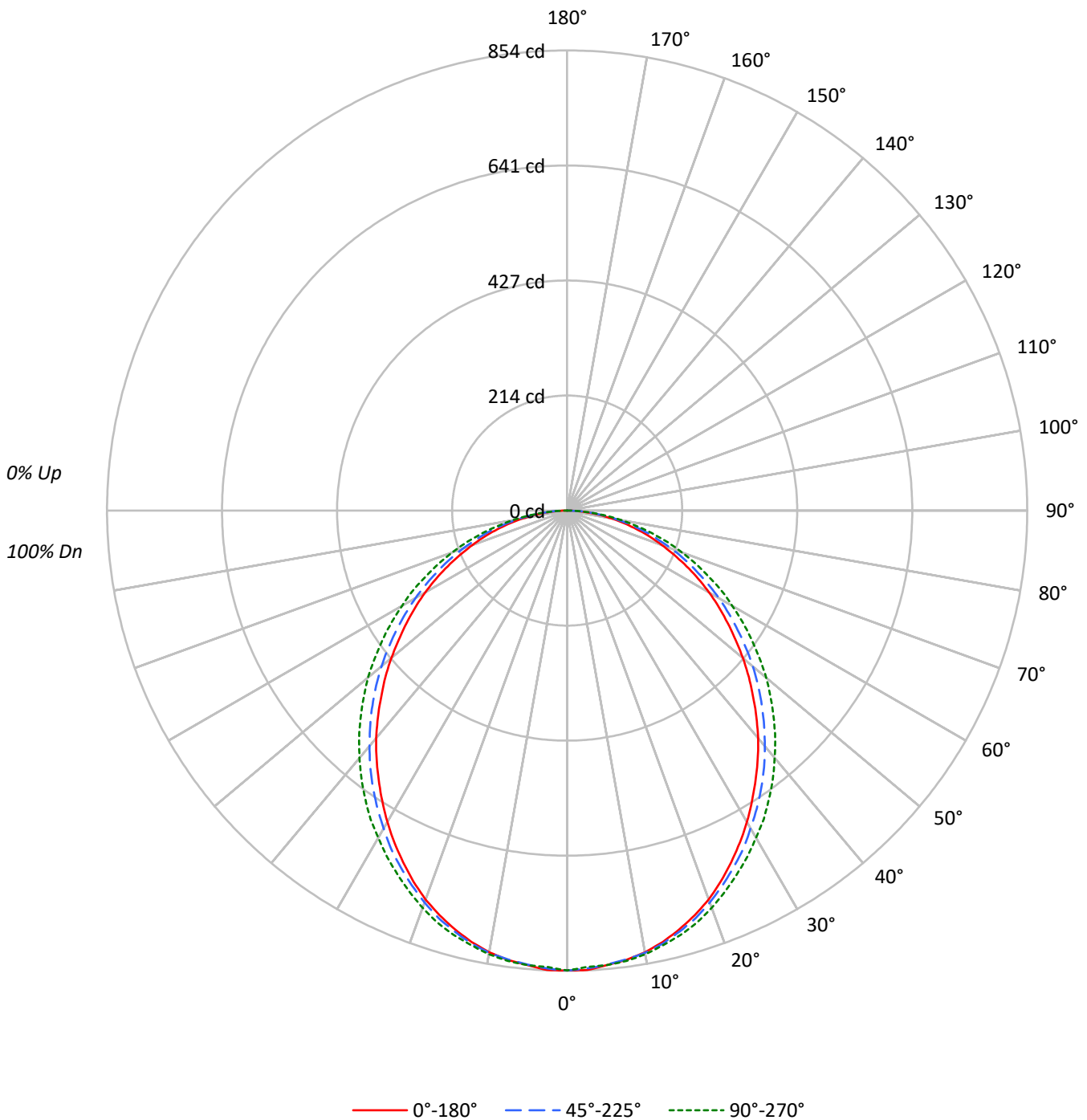
Input Watts (W): 21.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2297	2297	2297
5°	2287	2285	2287
10°	2275	2277	2285
15°	2242	2252	2271
20°	2200	2216	2247
25°	2138	2170	2212
30°	2074	2116	2178
35°	2004	2063	2145
40°	1937	2004	2106
45°	1858	1945	2062
50°	1783	1883	2020
55°	1705	1813	1962
60°	1641	1750	1905
65°	1557	1679	1844
70°	1471	1614	1781
75°	1386	1545	1695
80°	1278	1441	1576
85°	1124	1303	1362



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.4	3.6
10°-20°	228.0	10.1
20°-30°	337.0	15.0
30°-40°	393.8	17.5
40°-50°	395.6	17.6
50°-60°	347.8	15.5
60°-70°	263.1	11.7
70°-80°	156.9	7.0
80°-90°	46.4	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°	645.5	28.7
0°-40°	1039.3	46.2
0°-60°	1782.7	79.3
0°-90°	2249.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2249.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	854	854	854	854	854	
5°	847	848	846	846	847	80
15°	805	806	808	812	815	227
25°	720	724	731	740	745	332
35°	610	617	628	644	653	382
45°	488	493	511	530	542	377
55°	364	369	386	408	418	326
65°	244	247	264	282	290	242
75°	133	137	149	159	163	142
85°	36	37	42	45	44	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	853.5	853.5	853.5	853.5	853.5
2.5°	853.5	852.5	850.6	848.7	847.7
5°	846.8	847.7	845.8	845.8	846.8
7.5°	841.0	841.0	840.1	841.0	843.0
10°	832.4	833.4	833.4	832.4	836.2
12.5°	819.9	820.9	822.8	822.8	825.7
15°	804.6	806.5	808.4	812.3	815.1
17.5°	787.3	790.2	793.1	797.9	801.7
20°	768.2	770.1	773.9	779.7	784.5
22.5°	745.1	748.0	752.8	760.5	765.3
25°	720.2	724.0	730.7	740.3	745.1
27.5°	694.3	699.1	707.7	717.3	724.0
30°	667.5	672.3	680.9	693.3	701.0
32.5°	638.7	644.4	655.0	668.4	679.0
35°	609.9	616.6	628.1	643.5	653.1
37.5°	581.1	586.9	600.3	616.6	627.2
40°	551.4	556.2	570.6	588.8	599.4
42.5°	519.8	525.5	540.9	560.0	571.6
45°	488.1	492.9	511.1	530.3	541.8
47.5°	457.4	463.2	480.5	500.6	512.1
50°	425.8	432.5	449.8	470.9	482.4
52.5°	394.1	399.9	418.1	439.2	449.8
55°	363.5	369.2	386.5	407.6	418.1
57.5°	333.7	338.5	355.8	375.9	386.5
60°	305.0	307.8	325.1	345.2	353.9
62.5°	274.3	278.1	294.4	313.6	324.1
65°	244.5	247.4	263.7	281.9	289.6
67.5°	214.8	218.6	235.0	251.3	258.9
70°	187.0	190.8	205.2	220.6	226.3
72.5°	161.1	164.0	175.5	189.9	195.6
75°	133.3	137.1	148.6	159.2	163.0
77.5°	108.4	111.2	120.8	129.5	131.4
80°	82.5	85.4	93.0	99.7	101.7
82.5°	58.5	61.4	67.1	71.9	72.9
85°	36.4	37.4	42.2	45.1	44.1
87.5°	15.3	16.3	17.3	17.3	15.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)