

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: P271970

Luminaire Tested: **22CZ2-20-UNV-L935-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P271970  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-20-UNV-L935-CD1-U  
Description: 2'X2' TROFFER LED MODULE,RIBBED LENS, 90CRI  
Light Source: (56) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1777.0 lumens  
Efficiency: N/A  
Efficacy: 99.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

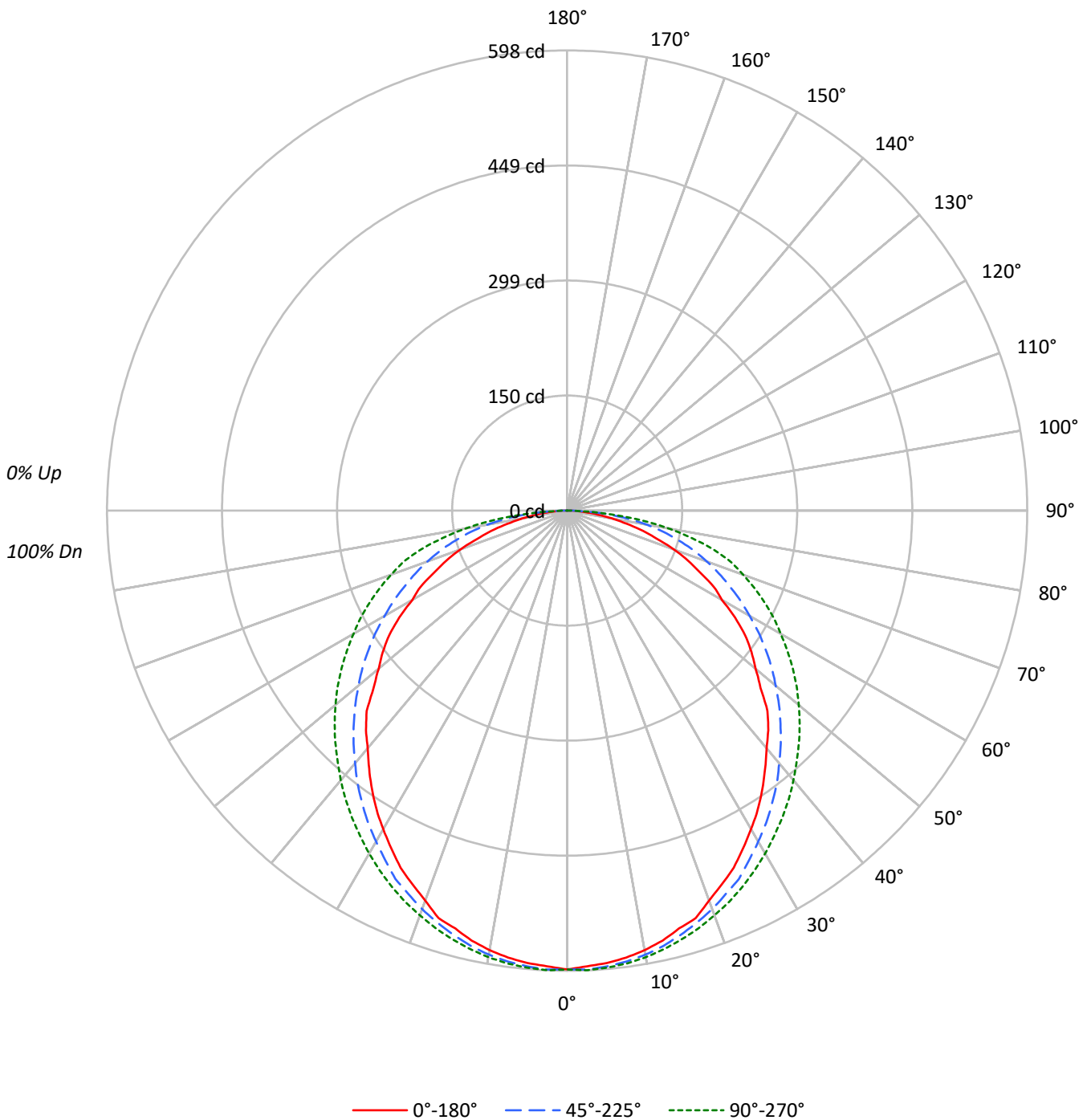
Input Watts (W): 17.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1604	1604	1604
5°	1594	1606	1610
10°	1585	1601	1611
15°	1566	1590	1606
20°	1544	1578	1603
25°	1520	1568	1601
30°	1485	1543	1599
35°	1453	1526	1601
40°	1416	1506	1607
45°	1402	1492	1622
50°	1339	1481	1645
55°	1325	1476	1680
60°	1250	1474	1725
65°	1213	1484	1803
70°	1164	1519	1913
75°	1062	1565	2061
80°	910	1621	2083
85°	735	1550	1785



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	3.2
10°-20°	160.9	9.1
20°-30°	242.2	13.6
30°-40°	290.7	16.4
40°-50°	303.8	17.1
50°-60°	283.2	15.9
60°-70°	232.3	13.1
70°-80°	156.5	8.8
80°-90°	51.0	2.9
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°	459.6	25.9
0°-40°	750.3	42.2
0°-60°	1337.3	75.3
0°-90°	1777.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1777.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	596	596	596	596	596	
5°	590	592	594	595	596	56
15°	562	566	571	576	577	159
25°	512	515	528	536	539	235
35°	442	448	464	480	487	277
45°	368	371	392	416	426	281
55°	282	288	315	344	358	250
65°	190	199	233	267	283	190
75°	102	113	150	185	198	107
85°	24	34	50	59	58	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	596.2	596.2	596.2	596.2	596.2
2.5°	592.8	594.5	597.0	597.9	597.9
5°	590.2	591.9	594.5	595.3	596.2
7.5°	586.0	587.7	591.1	592.8	593.6
10°	580.0	581.7	586.0	588.5	589.4
12.5°	572.4	574.1	579.2	582.6	583.4
15°	562.2	565.6	570.7	575.8	576.6
17.5°	555.4	554.5	561.3	567.3	569.0
20°	539.2	543.5	551.1	557.9	559.6
22.5°	525.6	529.0	539.2	546.9	550.3
25°	512.0	515.4	528.2	535.8	539.2
27.5°	495.0	500.1	512.0	523.1	527.3
30°	478.0	483.1	496.7	509.4	514.6
32.5°	461.0	466.9	481.4	495.0	500.9
35°	442.3	448.2	464.4	480.5	487.3
37.5°	422.7	430.4	447.4	465.2	472.9
40°	403.1	410.8	428.7	449.1	457.6
42.5°	387.0	390.4	410.8	432.9	441.4
45°	368.3	370.8	392.1	415.9	426.1
47.5°	341.0	350.4	373.4	399.7	409.9
50°	319.8	330.0	353.8	381.9	392.9
52.5°	301.9	308.7	335.1	363.2	375.9
55°	282.4	287.5	314.7	344.5	358.1
57.5°	258.6	267.9	295.1	325.7	339.3
60°	232.2	244.1	273.9	307.0	320.6
62.5°	215.2	222.0	254.3	287.5	302.8
65°	190.5	199.0	233.0	267.1	283.2
67.5°	170.1	178.6	213.5	247.5	263.7
70°	148.0	156.5	193.1	227.1	243.2
72.5°	122.5	134.4	172.7	206.7	223.7
75°	102.1	113.1	150.5	184.6	198.2
77.5°	79.1	93.6	128.4	156.5	166.7
80°	58.7	73.1	104.6	125.0	134.4
82.5°	40.0	54.4	78.2	93.6	98.7
85°	23.8	34.0	50.2	58.7	57.8
87.5°	11.1	14.5	20.4	20.4	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)