

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: P387411

Luminaire Tested: **14CZ2-25-SQR-UNV-L935-CD1-SDWPD1-U**

Issue Date: 2/28/2020

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: P387411  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-25-SQR-UNV-L935-CD1-SDWPD1-U  
Description: 1x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1959.2 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

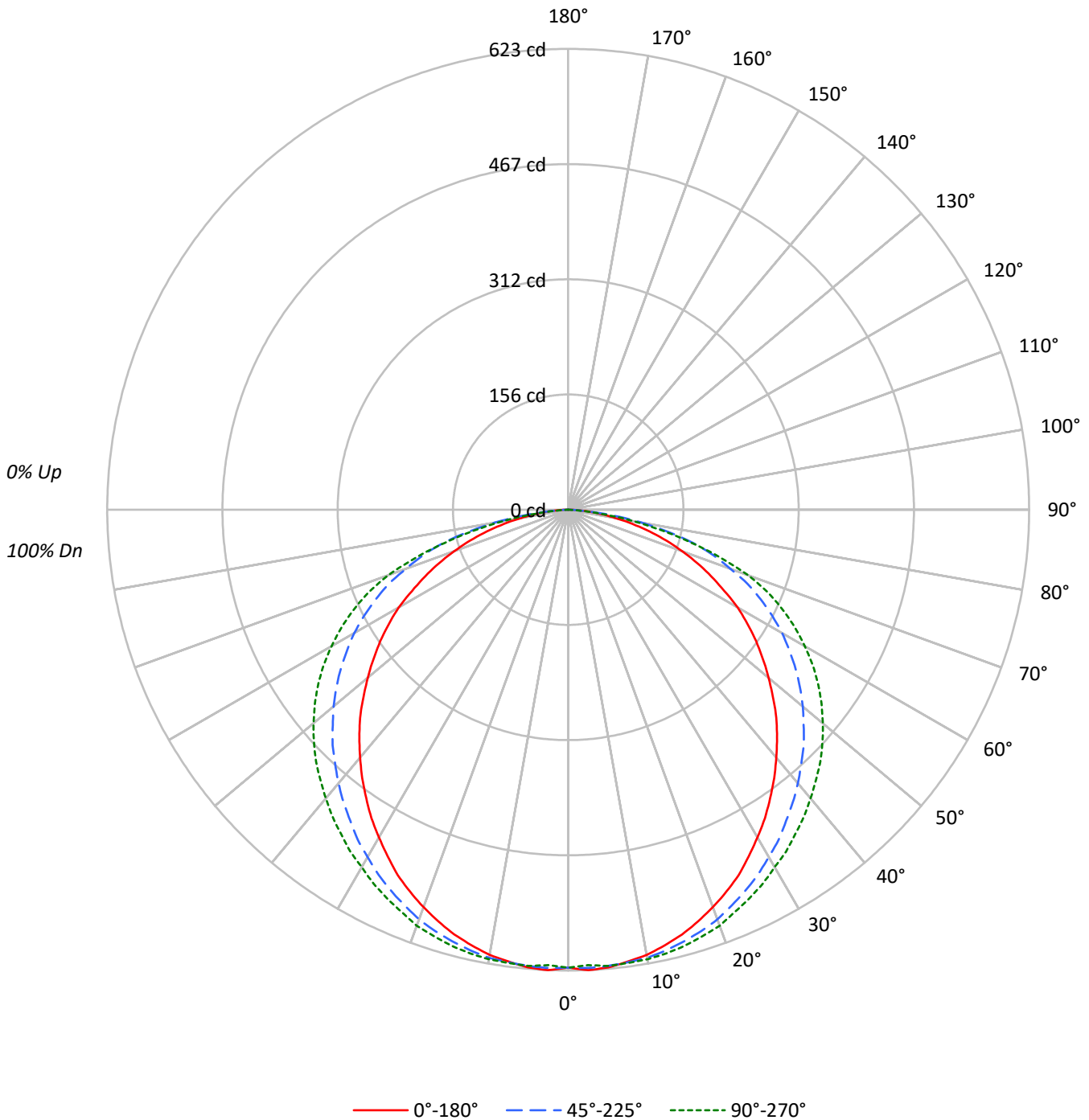
Input Watts (W): 20.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P387411

CATALOG NUMBER: 14CZ2-25-SQR-UNV-L935-CD1-SDWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P387411

CATALOG NUMBER: 14CZ2-25-SQR-UNV-L935-CD1-SDWPD1-U

**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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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

	0°	45°	90°
0°	1666	1666	1666
5°	1678	1672	1672
10°	1670	1681	1686
15°	1656	1684	1700
20°	1637	1688	1714
25°	1618	1686	1721
30°	1589	1684	1734
35°	1563	1687	1758
40°	1537	1696	1790
45°	1514	1714	1834
50°	1480	1732	1881
55°	1455	1760	1936
60°	1424	1796	1988
65°	1358	1829	2037
70°	1290	1833	2035
75°	1181	1828	1797
80°	1010	1561	1393
85°	794	883	519



TEST NUMBER: P387411

CATALOG NUMBER: 14CZ2-25-SQR-UNV-L935-CD1-SDWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.8	3.0
10°-20°	170.0	8.7
20°-30°	259.9	13.3
30°-40°	318.6	16.3
40°-50°	342.6	17.5
50°-60°	329.3	16.8
60°-70°	274.2	14.0
70°-80°	168.3	8.6
80°-90°	37.5	1.9
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°	488.7	24.9
0°-40°	807.3	41.2
0°-60°	1479.3	75.5
0°-90°	1959.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1959.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	619	619	619	619	619	
5°	621	615	619	619	619	59
15°	594	592	604	608	610	168
25°	545	550	568	575	580	251
35°	476	488	514	527	535	298
45°	398	416	450	471	482	306
55°	310	337	375	401	413	277
65°	213	246	287	311	320	211
75°	114	148	176	175	173	120
85°	26	38	29	20	17	31
90°	0	0	0	0	0	



TEST NUMBER: P387411

CATALOG NUMBER: 14CZ2-25-SQR-UNV-L935-CD1-SDWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	619.1	619.1	619.1	619.1	619.1
2.5°	623.1	617.1	620.1	619.1	616.2
5°	621.1	615.2	619.1	619.1	619.1
7.5°	616.2	611.2	617.1	618.1	618.1
10°	611.2	607.3	615.2	616.2	617.1
12.5°	603.3	600.4	610.2	612.2	614.2
15°	594.4	592.5	604.3	608.3	610.2
17.5°	583.6	584.6	597.4	602.3	604.3
20°	571.7	574.7	589.5	594.4	598.4
22.5°	558.9	562.8	578.6	584.6	588.5
25°	545.1	550.0	567.8	574.7	579.6
27.5°	528.3	536.2	555.9	564.8	569.8
30°	511.5	520.4	542.1	553.0	557.9
32.5°	494.7	504.6	529.3	540.1	548.0
35°	475.9	487.8	513.5	527.3	535.2
37.5°	457.2	471.0	498.7	514.5	523.3
40°	437.4	452.2	482.9	500.6	509.5
42.5°	417.7	434.5	466.1	485.8	495.7
45°	397.9	415.7	450.3	471.0	481.9
47.5°	375.2	397.0	431.5	455.2	466.1
50°	353.5	377.2	413.7	438.4	449.3
52.5°	331.8	356.5	395.0	420.6	431.5
55°	310.1	336.7	375.2	400.9	412.7
57.5°	287.3	315.0	354.5	381.2	392.0
60°	264.6	293.3	333.8	358.4	369.3
62.5°	238.0	271.5	311.0	335.7	345.6
65°	213.3	245.9	287.3	311.0	319.9
67.5°	188.6	222.2	262.7	284.4	292.3
70°	163.9	197.5	233.0	253.8	258.7
72.5°	139.2	172.8	206.4	218.2	216.2
75°	113.6	148.1	175.8	174.8	172.8
77.5°	88.9	122.4	139.2	132.3	129.4
80°	65.2	97.8	100.7	93.8	89.9
82.5°	44.4	70.1	63.2	55.3	51.3
85°	25.7	38.5	28.6	19.7	16.8
87.5°	10.9	9.9	3.0	3.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)