

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: P390962

Luminaire Tested: **24CZ2-110VHE-RDP-UNV-L935-CD2-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: P390962
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-110VHE-RDP-UNV-L935-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6310.8 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

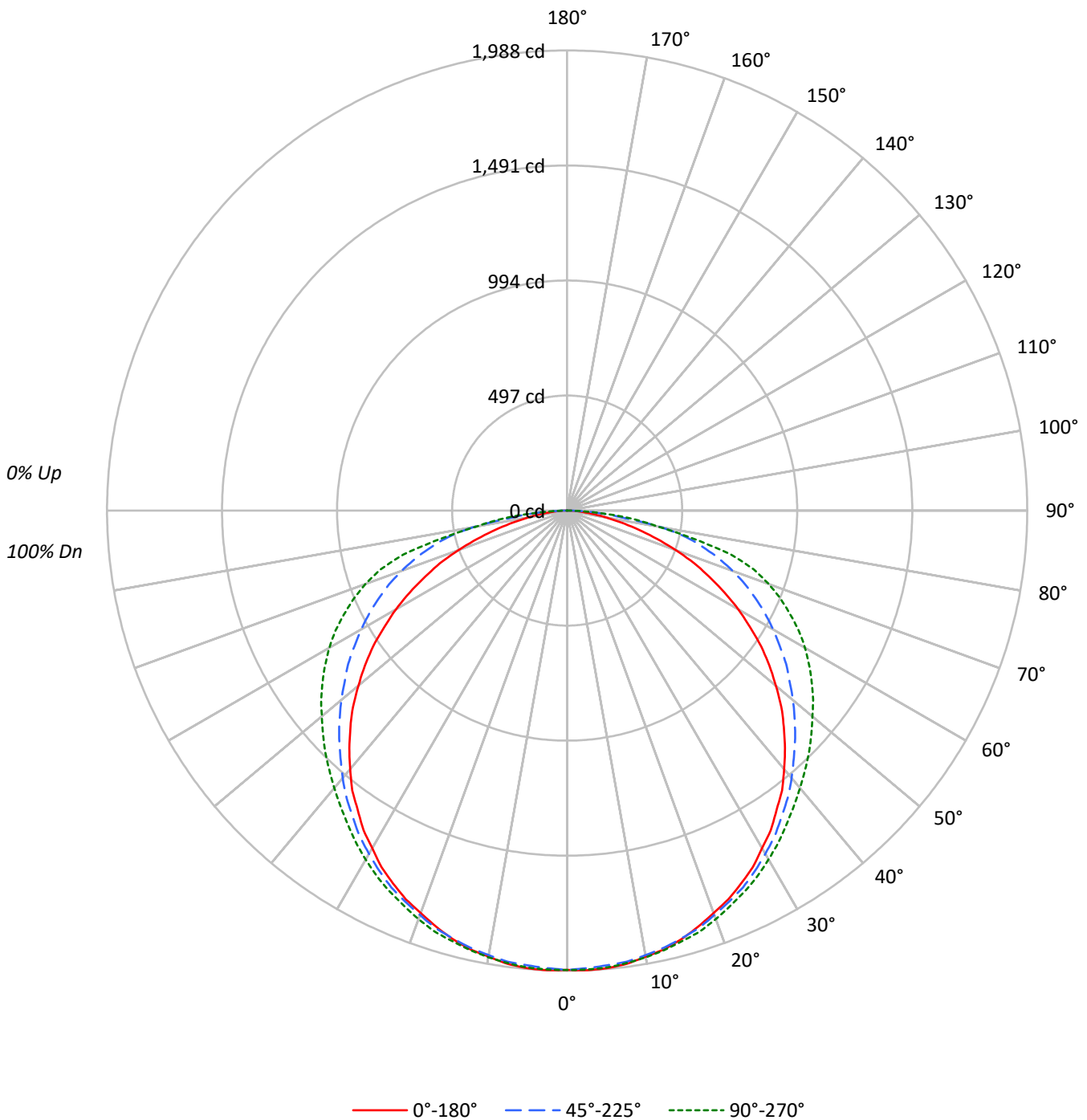
Input Watts (W): 77.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P390962

CATALOG NUMBER: 24CZ2-110VHE-RDP-UNV-L935-CD2-U

Luminous Intensity Polar Plot





TEST NUMBER: P390962

CATALOG NUMBER: 24CZ2-110VHE-RDP-UNV-L935-CD2-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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2670	2670	2670
5°	2680	2663	2676
10°	2673	2664	2677
15°	2668	2664	2682
20°	2649	2662	2689
25°	2640	2667	2695
30°	2616	2660	2704
35°	2591	2653	2715
40°	2562	2650	2749
45°	2520	2651	2811
50°	2464	2667	2896
55°	2401	2710	3025
60°	2300	2763	3193
65°	2152	2860	3388
70°	1958	2992	3645
75°	1660	3157	3808
80°	1309	3178	3080
85°	966	2416	2706



TEST NUMBER: P390962

CATALOG NUMBER: 24CZ2-110VHE-RDP-UNV-L935-CD2-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.3	3.0
10°-20°	541.8	8.6
20°-30°	828.5	13.1
30°-40°	1012.9	16.0
40°-50°	1079.5	17.1
50°-60°	1032.1	16.4
60°-70°	874.3	13.9
70°-80°	587.6	9.3
80°-90°	165.8	2.6
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°	1558.6	24.7
0°-40°	2571.4	40.7
0°-60°	4683.1	74.2
0°-90°	6310.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6310.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1985	1985	1985	1985	1985	
5°	1985	1981	1972	1981	1981	189
15°	1916	1916	1913	1928	1925	540
25°	1778	1784	1797	1812	1816	819
35°	1578	1590	1615	1646	1653	988
45°	1324	1346	1393	1452	1478	1021
55°	1024	1061	1155	1246	1290	912
65°	676	745	898	1017	1064	671
75°	319	435	607	711	732	342
85°	63	128	156	169	175	77
90°	0	0	0	0	0	



TEST NUMBER: P390962

CATALOG NUMBER: 24CZ2-110VHE-RDP-UNV-L935-CD2-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1984.6	1984.6	1984.6	1984.6	1984.6
2.5°	1987.7	1987.7	1978.3	1984.6	1984.6
5°	1984.6	1981.4	1972.0	1981.4	1981.4
7.5°	1975.2	1972.0	1965.8	1975.2	1972.0
10°	1956.4	1956.4	1950.1	1959.5	1959.5
12.5°	1940.7	1937.6	1934.5	1947.0	1943.9
15°	1915.7	1915.7	1912.6	1928.2	1925.1
17.5°	1884.4	1887.5	1890.7	1903.2	1906.3
20°	1850.0	1856.2	1859.4	1878.1	1878.1
22.5°	1818.7	1821.8	1828.1	1846.8	1846.8
25°	1778.0	1784.2	1796.8	1812.4	1815.5
27.5°	1737.3	1740.4	1756.1	1778.0	1781.1
30°	1684.1	1693.5	1712.2	1737.3	1740.4
32.5°	1637.1	1646.5	1668.4	1693.5	1699.7
35°	1577.6	1590.2	1615.2	1646.5	1652.8
37.5°	1524.4	1533.8	1565.1	1599.5	1608.9
40°	1458.7	1477.5	1508.8	1549.5	1565.1
42.5°	1393.0	1411.7	1449.3	1502.5	1521.3
45°	1324.1	1346.0	1393.0	1452.4	1477.5
47.5°	1255.2	1280.3	1333.5	1402.3	1430.5
50°	1177.0	1208.3	1274.0	1352.3	1383.6
52.5°	1101.8	1139.4	1211.4	1299.0	1339.7
55°	1023.6	1061.1	1155.1	1245.8	1289.7
57.5°	935.9	986.0	1089.3	1192.6	1239.6
60°	854.6	901.5	1026.7	1139.4	1186.4
62.5°	766.9	829.5	964.1	1083.1	1130.0
65°	676.1	745.0	898.4	1017.3	1064.3
67.5°	594.7	669.9	832.6	951.6	998.5
70°	497.7	591.6	760.6	879.6	926.5
72.5°	406.9	510.2	685.5	801.3	845.2
75°	319.3	435.1	607.3	710.6	732.5
77.5°	237.9	360.0	525.9	569.7	554.1
80°	169.0	288.0	410.1	388.1	397.5
82.5°	109.6	219.1	253.5	288.0	297.4
85°	62.6	128.3	156.5	169.0	175.3
87.5°	28.2	47.0	62.6	62.6	59.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)