

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: P390919

Luminaire Tested: **24CZ2-100VHE-RDP-UNV-L950-CD1-SWPD1-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: P390919  
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: 24CZ2-100VHE-RDP-UNV-L950-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6137.5 lumens  
Efficiency: N/A  
Efficacy: 88.2 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

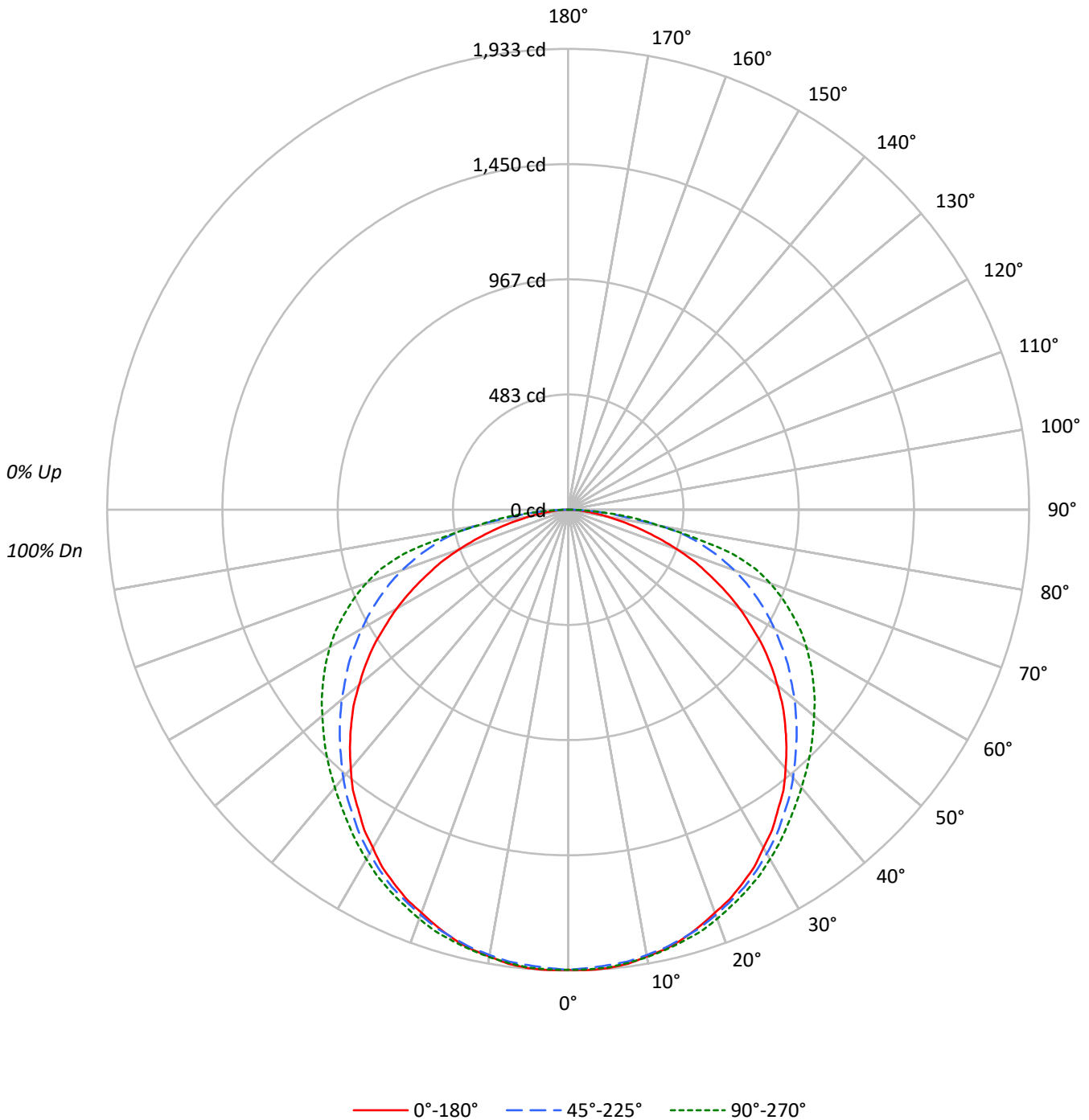
Input Watts (W): 69.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P390919

CATALOG NUMBER: 24CZ2-100VHE-RDP-UNV-L950-CD1-SWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P390919

CATALOG NUMBER: 24CZ2-100VHE-RDP-UNV-L950-CD1-SWPD1-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°	2597	2597	2597
5°	2607	2590	2603
10°	2600	2591	2604
15°	2595	2591	2608
20°	2576	2589	2615
25°	2567	2594	2621
30°	2545	2587	2630
35°	2520	2580	2640
40°	2492	2577	2673
45°	2450	2578	2734
50°	2396	2593	2817
55°	2335	2635	2942
60°	2236	2687	3105
65°	2094	2782	3295
70°	1904	2910	3545
75°	1614	3070	3703
80°	1274	3090	2996
85°	940	2350	2632



TEST NUMBER: P390919

CATALOG NUMBER: 24CZ2-100VHE-RDP-UNV-L950-CD1-SWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.1	3.0
10°-20°	526.9	8.6
20°-30°	805.8	13.1
30°-40°	985.0	16.0
40°-50°	1049.8	17.1
50°-60°	1003.8	16.4
60°-70°	850.3	13.9
70°-80°	571.5	9.3
80°-90°	161.2	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°	1515.8	24.7
0°-40°	2500.8	40.7
0°-60°	4554.4	74.2
0°-90°	6137.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6137.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1930	1930	1930	1930	1930	
5°	1930	1927	1918	1927	1927	183
15°	1863	1863	1860	1875	1872	525
25°	1729	1735	1747	1763	1766	797
35°	1534	1546	1571	1601	1607	961
45°	1288	1309	1355	1412	1437	993
55°	996	1032	1123	1212	1254	887
65°	658	724	874	989	1035	653
75°	310	423	591	691	712	332
85°	61	125	152	164	170	75
90°	0	0	0	0	0	



TEST NUMBER: P390919

CATALOG NUMBER: 24CZ2-100VHE-RDP-UNV-L950-CD1-SWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1930.1	1930.1	1930.1	1930.1	1930.1
2.5°	1933.1	1933.1	1924.0	1930.1	1930.1
5°	1930.1	1927.0	1917.9	1927.0	1927.0
7.5°	1920.9	1917.9	1911.8	1920.9	1917.9
10°	1902.7	1902.7	1896.6	1905.7	1905.7
12.5°	1887.4	1884.4	1881.4	1893.5	1890.5
15°	1863.1	1863.1	1860.1	1875.3	1872.2
17.5°	1832.7	1835.7	1838.7	1850.9	1854.0
20°	1799.2	1805.3	1808.3	1826.6	1826.6
22.5°	1768.7	1771.8	1777.9	1796.1	1796.1
25°	1729.1	1735.2	1747.4	1762.6	1765.7
27.5°	1689.6	1692.6	1707.8	1729.1	1732.2
30°	1637.8	1647.0	1665.2	1689.6	1692.6
32.5°	1592.2	1601.3	1622.6	1647.0	1653.0
35°	1534.3	1546.5	1570.8	1601.3	1607.4
37.5°	1482.6	1491.7	1522.1	1555.6	1564.8
40°	1418.6	1436.9	1467.3	1506.9	1522.1
42.5°	1354.7	1373.0	1409.5	1461.3	1479.5
45°	1287.7	1309.0	1354.7	1412.5	1436.9
47.5°	1220.8	1245.1	1296.9	1363.8	1391.2
50°	1144.6	1175.1	1239.0	1315.1	1345.6
52.5°	1071.6	1108.1	1178.1	1263.4	1302.9
55°	995.5	1032.0	1123.3	1211.6	1254.2
57.5°	910.2	958.9	1059.4	1159.9	1205.5
60°	831.1	876.8	998.5	1108.1	1153.8
62.5°	745.8	806.7	937.6	1053.3	1099.0
65°	657.6	724.5	873.7	989.4	1035.1
67.5°	578.4	651.5	809.8	925.5	971.1
70°	484.0	575.4	739.8	855.4	901.1
72.5°	395.8	496.2	666.7	779.3	822.0
75°	310.5	423.2	590.6	691.0	712.4
77.5°	231.4	350.1	511.4	554.1	538.8
80°	164.4	280.1	398.8	377.5	386.6
82.5°	106.5	213.1	246.6	280.1	289.2
85°	60.9	124.8	152.2	164.4	170.5
87.5°	27.4	45.7	60.9	60.9	57.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)