

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: P388878

Luminaire Tested: **24CZ2-55VHE-UNV-L950-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: P388878  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55VHE-UNV-L950-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4927.5 lumens  
Efficiency: N/A  
Efficacy: 136.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

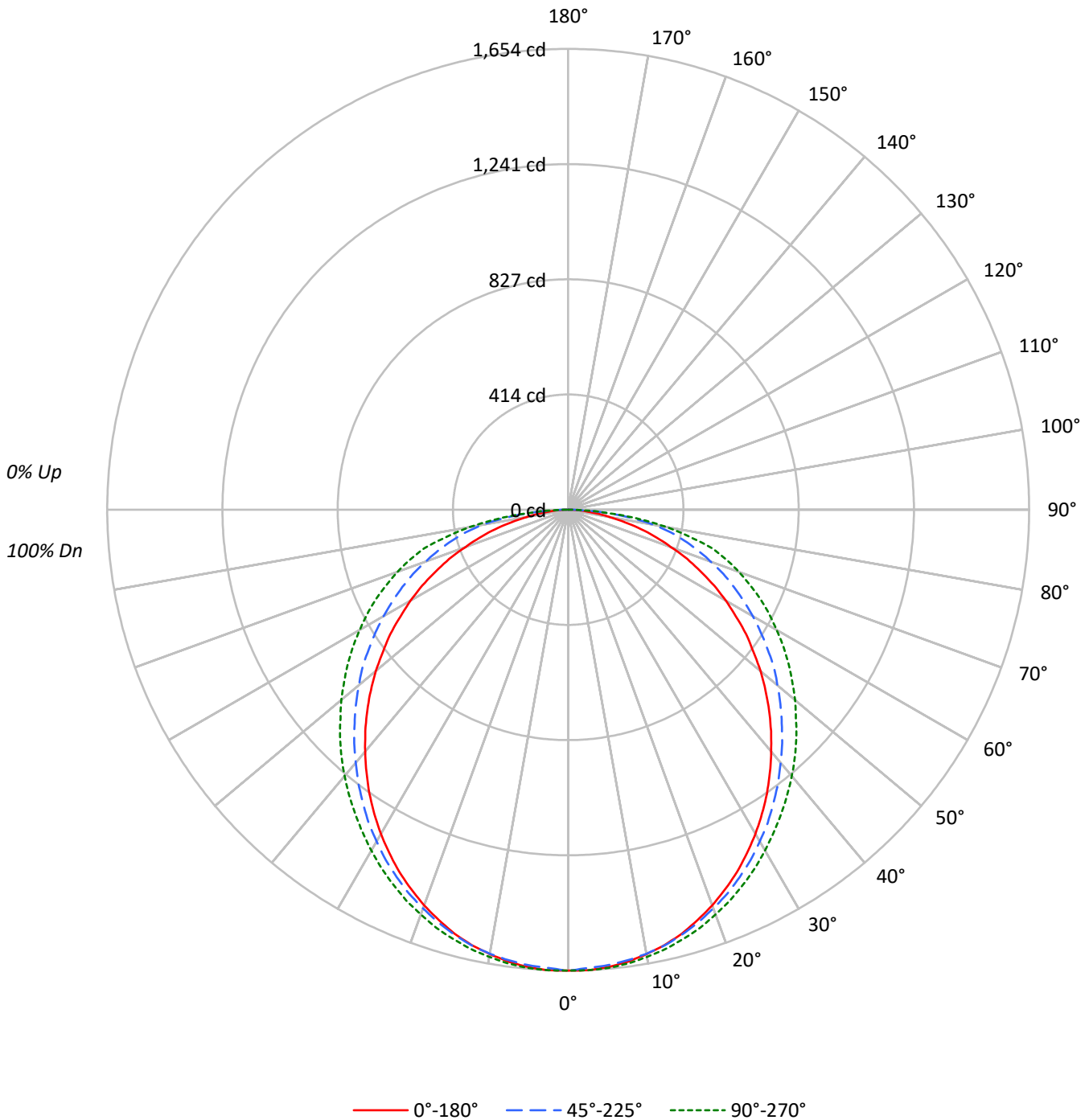
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P388878

CATALOG NUMBER: 24CZ2-55VHE-UNV-L950-CD1-SDWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P388878

CATALOG NUMBER: 24CZ2-55VHE-UNV-L950-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	98	94	105	100	96	92	96	93	89	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	58	56
4	81	69	59	52	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	50	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°	2226	2226	2226
5°	2226	2217	2230
10°	2213	2211	2227
15°	2195	2199	2222
20°	2164	2180	2213
25°	2129	2161	2205
30°	2087	2136	2195
35°	2042	2110	2188
40°	1990	2083	2192
45°	1940	2062	2203
50°	1886	2052	2224
55°	1829	2048	2264
60°	1757	2058	2323
65°	1665	2089	2424
70°	1546	2141	2562
75°	1410	2248	2779
80°	1160	2421	2778
85°	889	2234	2387



TEST NUMBER: P388878

CATALOG NUMBER: 24CZ2-55VHE-UNV-L950-CD1-SDWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.5	3.2
10°-20°	446.7	9.1
20°-30°	672.2	13.6
30°-40°	805.6	16.3
40°-50°	839.5	17.0
50°-60°	781.0	15.9
60°-70°	643.3	13.1
70°-80°	438.1	8.9
80°-90°	144.6	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°	1275.4	25.9
0°-40°	2080.9	42.2
0°-60°	3701.5	75.1
0°-90°	4927.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4927.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1654	1654	1654	1654	1654	
5°	1648	1648	1641	1650	1651	156
15°	1576	1577	1579	1594	1595	444
25°	1434	1441	1455	1480	1485	660
35°	1243	1258	1284	1319	1332	777
45°	1020	1041	1084	1138	1158	786
55°	780	806	873	942	965	695
65°	523	567	656	734	761	519
75°	271	332	432	510	534	286
85°	58	112	145	155	155	71
90°	0	0	0	0	0	



TEST NUMBER: P388878

CATALOG NUMBER: 24CZ2-55VHE-UNV-L950-CD1-SDWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1654.4	1654.4	1654.4	1654.4	1654.4
2.5°	1654.4	1654.4	1646.2	1654.4	1654.4
5°	1647.8	1647.8	1641.2	1649.5	1651.1
7.5°	1636.3	1637.9	1631.4	1641.2	1642.9
10°	1619.9	1621.5	1618.2	1628.1	1629.7
12.5°	1600.1	1601.8	1601.8	1613.3	1614.9
15°	1575.5	1577.1	1578.7	1593.5	1595.2
17.5°	1544.2	1549.1	1552.4	1570.5	1573.8
20°	1511.3	1516.3	1522.8	1542.6	1545.9
22.5°	1473.5	1480.1	1491.6	1513.0	1517.9
25°	1434.0	1440.6	1455.4	1480.1	1485.0
27.5°	1389.6	1399.5	1417.6	1443.9	1450.5
30°	1343.6	1353.4	1374.8	1402.8	1412.6
32.5°	1294.2	1307.4	1332.1	1363.3	1373.2
35°	1243.3	1258.1	1284.4	1318.9	1332.1
37.5°	1189.0	1205.4	1236.7	1274.5	1291.0
40°	1133.1	1152.8	1185.7	1230.1	1248.2
42.5°	1077.2	1095.3	1136.4	1184.1	1203.8
45°	1019.6	1041.0	1083.7	1138.0	1157.7
47.5°	960.4	981.8	1032.8	1090.3	1108.4
50°	901.2	922.6	980.1	1041.0	1062.4
52.5°	837.1	865.0	930.8	991.6	1013.0
55°	779.5	805.8	873.2	942.3	965.3
57.5°	713.7	745.0	819.0	891.3	916.0
60°	652.9	685.8	764.7	838.7	863.4
62.5°	590.4	626.6	710.4	786.1	814.0
65°	523.0	567.4	656.2	733.5	761.4
67.5°	462.1	508.2	601.9	680.8	705.5
70°	393.0	449.0	544.3	623.3	651.2
72.5°	333.8	389.8	490.1	567.4	595.3
75°	271.3	332.2	432.5	509.8	534.5
77.5°	208.9	276.3	376.6	435.8	444.0
80°	149.7	220.4	312.5	347.0	358.5
82.5°	105.2	169.4	230.2	253.3	259.8
85°	57.6	111.8	144.7	154.6	154.6
87.5°	24.7	47.7	57.6	59.2	60.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)