

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: P276082

Luminaire Tested: **24CZ2-50HE-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276082  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4830.3 lumens  
Efficiency: N/A  
Efficacy: 132.8 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

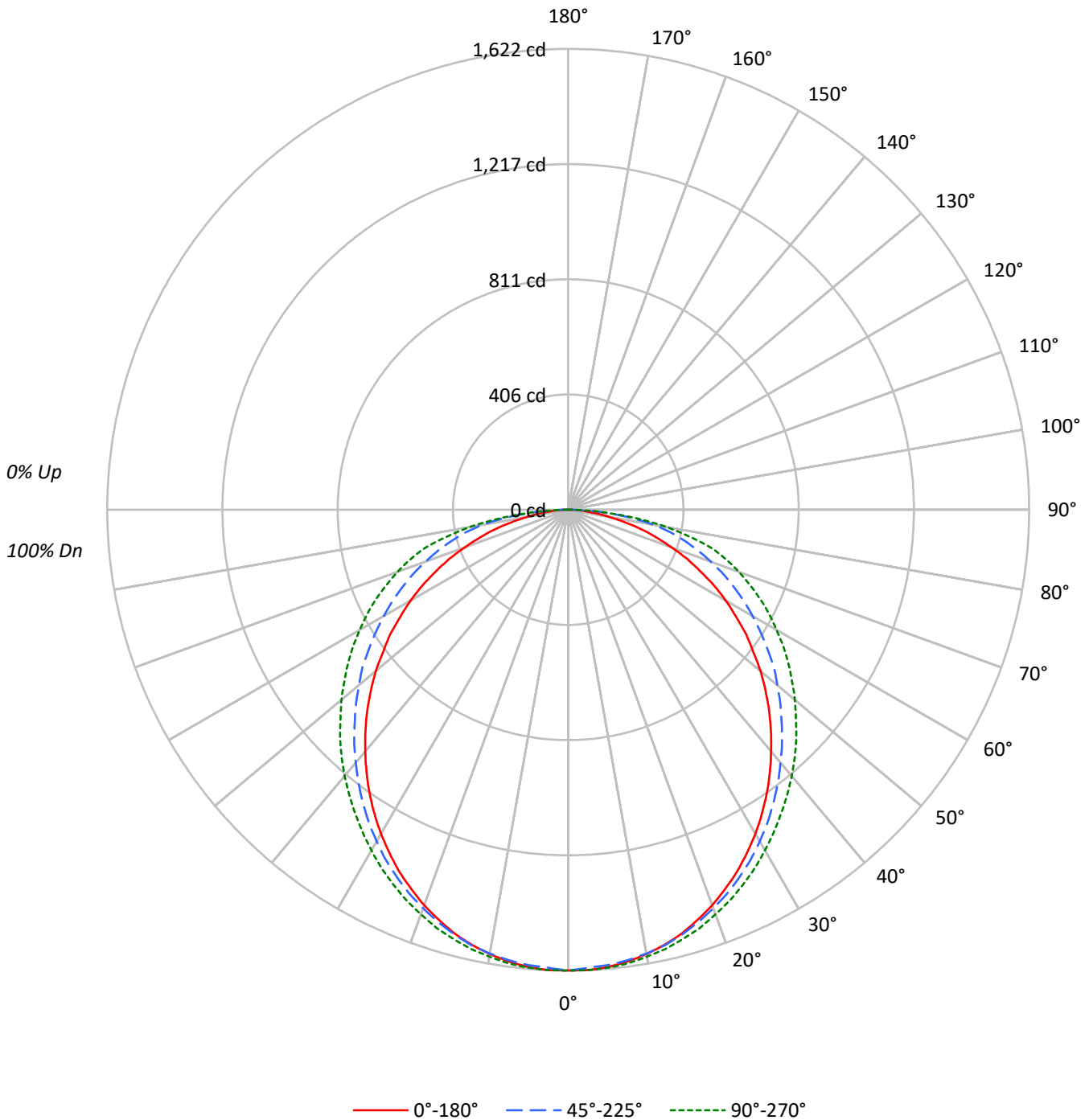
Input Watts (W): 36.363  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276082

CATALOG NUMBER: 24CZ2-50HE-UNV-L82765-W2A1-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P276082

CATALOG NUMBER: 24CZ2-50HE-UNV-L82765-W2A1-U-4500K

**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°	2182	2182	2182
5°	2182	2173	2186
10°	2169	2167	2183
15°	2151	2156	2178
20°	2121	2137	2170
25°	2087	2118	2161
30°	2046	2094	2151
35°	2002	2068	2145
40°	1951	2041	2149
45°	1902	2022	2159
50°	1849	2011	2180
55°	1792	2008	2220
60°	1722	2017	2277
65°	1632	2048	2376
70°	1516	2099	2511
75°	1383	2204	2724
80°	1137	2373	2723
85°	871	2191	2339



TEST NUMBER: P276082

CATALOG NUMBER: 24CZ2-50HE-UNV-L82765-W2A1-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.4	3.2
10°-20°	437.9	9.1
20°-30°	658.9	13.6
30°-40°	789.7	16.3
40°-50°	822.9	17.0
50°-60°	765.6	15.9
60°-70°	630.6	13.1
70°-80°	429.5	8.9
80°-90°	141.8	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°	1250.2	25.9
0°-40°	2039.9	42.2
0°-60°	3628.4	75.1
0°-90°	4830.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4830.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1622	1622	1622	1622	1622	
5°	1615	1615	1609	1617	1618	153
15°	1544	1546	1548	1562	1564	435
25°	1406	1412	1427	1451	1456	647
35°	1219	1233	1259	1293	1306	762
45°	1000	1020	1062	1116	1135	771
55°	764	790	856	924	946	681
65°	513	556	643	719	746	509
75°	266	326	424	500	524	280
85°	56	110	142	152	152	70
90°	0	0	0	0	0	



TEST NUMBER: P276082

CATALOG NUMBER: 24CZ2-50HE-UNV-L82765-W2A1-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1621.7	1621.7	1621.7	1621.7	1621.7
2.5°	1621.7	1621.7	1613.7	1621.7	1621.7
5°	1615.3	1615.3	1608.9	1616.9	1618.5
7.5°	1604.0	1605.6	1599.2	1608.9	1610.5
10°	1587.9	1589.5	1586.3	1596.0	1597.6
12.5°	1568.5	1570.2	1570.2	1581.4	1583.1
15°	1544.4	1546.0	1547.6	1562.1	1563.7
17.5°	1513.7	1518.6	1521.8	1539.5	1542.8
20°	1481.5	1486.3	1492.8	1512.1	1515.4
22.5°	1444.4	1450.9	1462.2	1483.1	1487.9
25°	1405.7	1412.2	1426.7	1450.9	1455.7
27.5°	1362.2	1371.9	1389.6	1415.4	1421.9
30°	1317.1	1326.7	1347.7	1375.1	1384.8
32.5°	1268.7	1281.6	1305.8	1336.4	1346.1
35°	1218.7	1233.2	1259.0	1292.9	1305.8
37.5°	1165.5	1181.7	1212.3	1249.4	1265.5
40°	1110.7	1130.1	1162.3	1205.8	1223.6
42.5°	1055.9	1073.6	1113.9	1160.7	1180.0
45°	999.5	1020.4	1062.4	1115.6	1134.9
47.5°	941.5	962.4	1012.4	1068.8	1086.5
50°	883.4	904.4	960.8	1020.4	1041.4
52.5°	820.5	848.0	912.4	972.1	993.0
55°	764.1	789.9	856.0	923.7	946.3
57.5°	699.6	730.3	802.8	873.7	897.9
60°	640.0	672.2	749.6	822.2	846.3
62.5°	578.7	614.2	696.4	770.6	798.0
65°	512.6	556.2	643.2	719.0	746.4
67.5°	453.0	498.1	590.0	667.4	691.6
70°	385.3	440.1	533.6	611.0	638.4
72.5°	327.3	382.1	480.4	556.2	583.6
75°	266.0	325.6	424.0	499.7	523.9
77.5°	204.7	270.8	369.2	427.2	435.3
80°	146.7	216.0	306.3	340.1	351.4
82.5°	103.2	166.0	225.7	248.3	254.7
85°	56.4	109.6	141.9	151.5	151.5
87.5°	24.2	46.8	56.4	58.0	59.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)