

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: P276221

Luminaire Tested: **24CZ2-50HE-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276221  
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-L92765-W2A1-U-6500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4512.4 lumens  
Efficiency: N/A  
Efficacy: 120.7 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

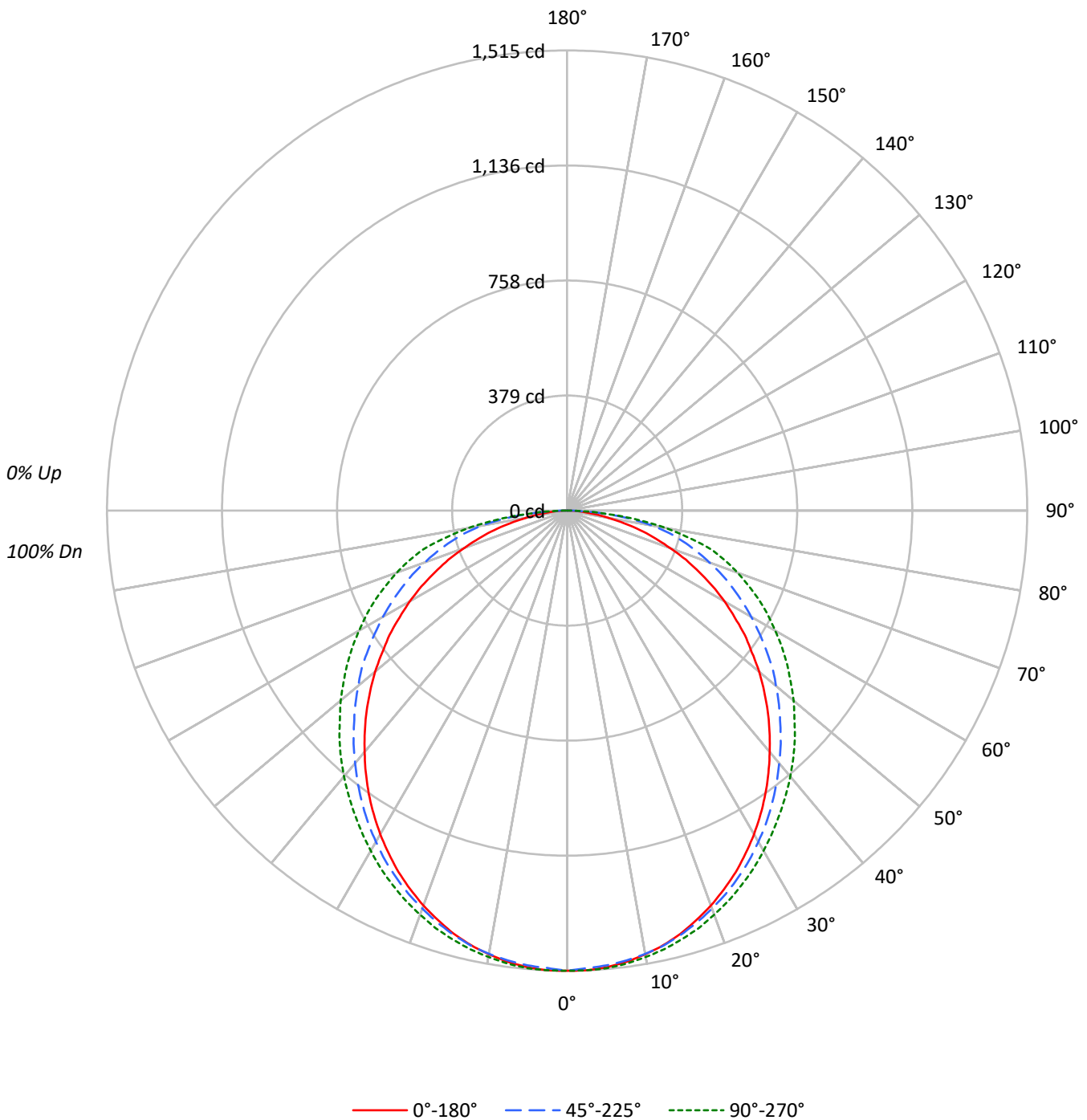
Input Watts (W): 37.386  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276221

CATALOG NUMBER: 24CZ2-50HE-UNV-L92765-W2A1-U-6500K

### Luminous Intensity Polar Plot





TEST NUMBER: P276221

CATALOG NUMBER: 24CZ2-50HE-UNV-L92765-W2A1-U-6500K

**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°	2038	2038	2038
5°	2038	2030	2042
10°	2027	2025	2039
15°	2010	2014	2035
20°	1982	1997	2027
25°	1950	1979	2019
30°	1912	1956	2010
35°	1870	1932	2004
40°	1822	1907	2008
45°	1777	1888	2017
50°	1728	1879	2036
55°	1674	1876	2074
60°	1609	1884	2127
65°	1525	1913	2220
70°	1416	1961	2346
75°	1292	2059	2544
80°	1062	2217	2544
85°	814	2046	2186



TEST NUMBER: P276221

CATALOG NUMBER: 24CZ2-50HE-UNV-L92765-W2A1-U-6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.3	3.2
10°-20°	409.1	9.1
20°-30°	615.6	13.6
30°-40°	737.7	16.3
40°-50°	768.8	17.0
50°-60°	715.3	15.9
60°-70°	589.1	13.1
70°-80°	401.2	8.9
80°-90°	132.4	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°	1167.9	25.9
0°-40°	1905.6	42.2
0°-60°	3389.7	75.1
0°-90°	4512.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4512.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1515	1515	1515	1515	1515	
5°	1509	1509	1503	1510	1512	143
15°	1443	1444	1446	1459	1461	406
25°	1313	1319	1333	1355	1360	605
35°	1138	1152	1176	1208	1220	712
45°	934	953	992	1042	1060	720
55°	714	738	800	863	884	636
65°	479	520	601	672	697	475
75°	248	304	396	467	489	262
85°	53	102	132	142	142	65
90°	0	0	0	0	0	



TEST NUMBER: P276221

CATALOG NUMBER: 24CZ2-50HE-UNV-L92765-W2A1-U-6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1515.0	1515.0	1515.0	1515.0	1515.0
2.5°	1515.0	1515.0	1507.5	1515.0	1515.0
5°	1509.0	1509.0	1503.0	1510.5	1512.0
7.5°	1498.5	1500.0	1493.9	1503.0	1504.5
10°	1483.4	1484.9	1481.9	1490.9	1492.4
12.5°	1465.3	1466.8	1466.8	1477.4	1478.9
15°	1442.7	1444.2	1445.8	1459.3	1460.8
17.5°	1414.1	1418.6	1421.7	1438.2	1441.2
20°	1384.0	1388.5	1394.5	1412.6	1415.6
22.5°	1349.4	1355.4	1365.9	1385.5	1390.0
25°	1313.2	1319.3	1332.8	1355.4	1359.9
27.5°	1272.6	1281.6	1298.2	1322.3	1328.3
30°	1230.4	1239.4	1259.0	1284.6	1293.6
32.5°	1185.2	1197.3	1219.9	1248.5	1257.5
35°	1138.5	1152.1	1176.2	1207.8	1219.9
37.5°	1088.8	1103.9	1132.5	1167.1	1182.2
40°	1037.6	1055.7	1085.8	1126.5	1143.0
42.5°	986.4	1003.0	1040.6	1084.3	1102.4
45°	933.7	953.3	992.4	1042.1	1060.2
47.5°	879.5	899.1	945.8	998.5	1015.0
50°	825.3	844.9	897.6	953.3	972.9
52.5°	766.6	792.2	852.4	908.1	927.7
55°	713.8	737.9	799.7	862.9	884.0
57.5°	653.6	682.2	750.0	816.2	838.8
60°	597.9	628.0	700.3	768.1	790.6
62.5°	540.7	573.8	650.6	719.9	745.5
65°	478.9	519.6	600.9	671.7	697.3
67.5°	423.2	465.4	551.2	623.5	646.1
70°	359.9	411.1	498.5	570.8	596.4
72.5°	305.7	356.9	448.8	519.6	545.2
75°	248.5	304.2	396.1	466.9	489.4
77.5°	191.3	253.0	344.9	399.1	406.6
80°	137.0	201.8	286.1	317.8	328.3
82.5°	96.4	155.1	210.8	231.9	237.9
85°	52.7	102.4	132.5	141.6	141.6
87.5°	22.6	43.7	52.7	54.2	55.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)