

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: P276505

Luminaire Tested: **24CZ2-50HE-S-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276505  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-S-UNV-L82765-W2A1-U-5700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5208.5 lumens  
Efficiency: N/A  
Efficacy: 141.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

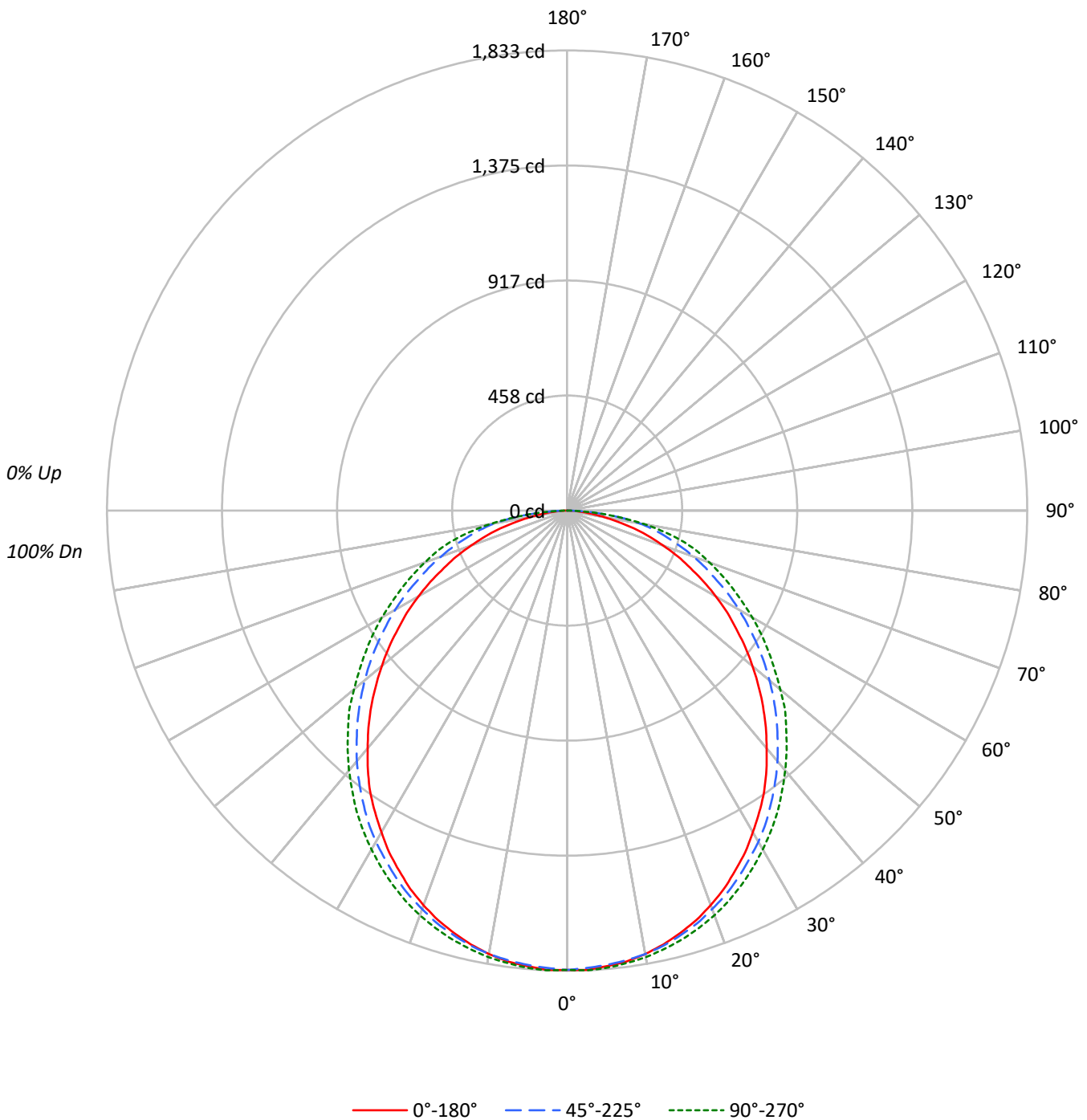
Input Watts (W): 36.735  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2462	2462	2462
5°	2460	2454	2469
10°	2450	2450	2468
15°	2427	2438	2464
20°	2395	2419	2456
25°	2351	2395	2441
30°	2298	2367	2421
35°	2247	2329	2402
40°	2171	2290	2374
45°	2100	2245	2348
50°	2019	2202	2320
55°	1929	2162	2297
60°	1839	2128	2293
65°	1722	2091	2307
70°	1594	2102	2369
75°	1428	2142	2503
80°	1154	2269	2448
85°	869	1991	1941



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.2	3.3
10°-20°	495.0	9.5
20°-30°	744.1	14.3
30°-40°	886.3	17.0
40°-50°	907.1	17.4
50°-60°	816.6	15.7
60°-70°	641.3	12.3
70°-80°	416.2	8.0
80°-90°	128.7	2.5
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°	1412.3	27.1
0°-40°	2298.6	44.1
0°-60°	4022.3	77.2
0°-90°	5208.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5208.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1830	1830	1830	1830	1830	
5°	1822	1825	1817	1826	1828	173
15°	1742	1747	1750	1765	1769	491
25°	1583	1596	1613	1640	1644	729
35°	1368	1385	1418	1453	1462	854
45°	1104	1130	1180	1224	1234	851
55°	822	859	922	970	979	737
65°	541	582	657	711	725	539
75°	275	328	412	468	481	291
85°	56	104	129	126	126	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1829.8	1829.8	1829.8	1829.8	1829.8
2.5°	1831.4	1831.4	1823.2	1831.4	1833.1
5°	1821.5	1824.8	1816.6	1826.5	1828.1
7.5°	1811.6	1811.6	1806.6	1816.6	1818.2
10°	1793.4	1795.0	1793.4	1805.0	1806.6
12.5°	1770.2	1773.5	1775.2	1786.8	1788.4
15°	1742.1	1747.1	1750.4	1765.3	1768.6
17.5°	1710.7	1715.6	1723.9	1740.5	1743.8
20°	1672.6	1679.2	1689.2	1710.7	1715.6
22.5°	1631.3	1637.9	1654.4	1674.3	1682.5
25°	1583.3	1596.5	1613.1	1639.5	1644.5
27.5°	1535.3	1546.9	1568.4	1596.5	1603.1
30°	1479.1	1497.3	1523.7	1551.8	1558.5
32.5°	1424.5	1442.7	1474.1	1503.9	1512.1
35°	1368.2	1384.8	1417.8	1452.6	1462.5
37.5°	1303.7	1325.2	1361.6	1396.3	1406.3
40°	1235.9	1262.3	1303.7	1340.1	1351.7
42.5°	1171.3	1199.5	1240.8	1280.5	1293.8
45°	1103.5	1130.0	1179.6	1224.3	1234.2
47.5°	1034.0	1063.8	1116.7	1161.4	1177.9
50°	964.5	996.0	1052.2	1098.5	1108.5
52.5°	895.0	928.1	987.7	1037.3	1042.3
55°	822.2	858.6	921.5	969.5	979.4
57.5°	756.1	787.5	855.3	905.0	916.5
60°	683.3	718.0	790.8	837.1	852.0
62.5°	613.8	650.2	726.3	772.6	785.9
65°	541.0	582.4	656.8	711.4	724.6
67.5°	478.1	517.8	597.2	650.2	663.4
70°	405.3	450.0	534.4	589.0	602.2
72.5°	342.5	388.8	473.2	526.1	546.0
75°	274.6	327.6	412.0	468.2	481.4
77.5°	208.5	269.7	355.7	398.7	398.7
80°	148.9	213.4	292.8	312.7	316.0
82.5°	97.6	160.5	216.7	215.1	215.1
85°	56.3	104.2	129.0	125.7	125.7
87.5°	21.5	43.0	46.3	46.3	44.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)