

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: P276384

Luminaire Tested: **24CZ2-50-S-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276384  
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: 24CZ2-50-S-UNV-L83050-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5221.0 lumens  
Efficiency: N/A  
Efficacy: 128.5 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

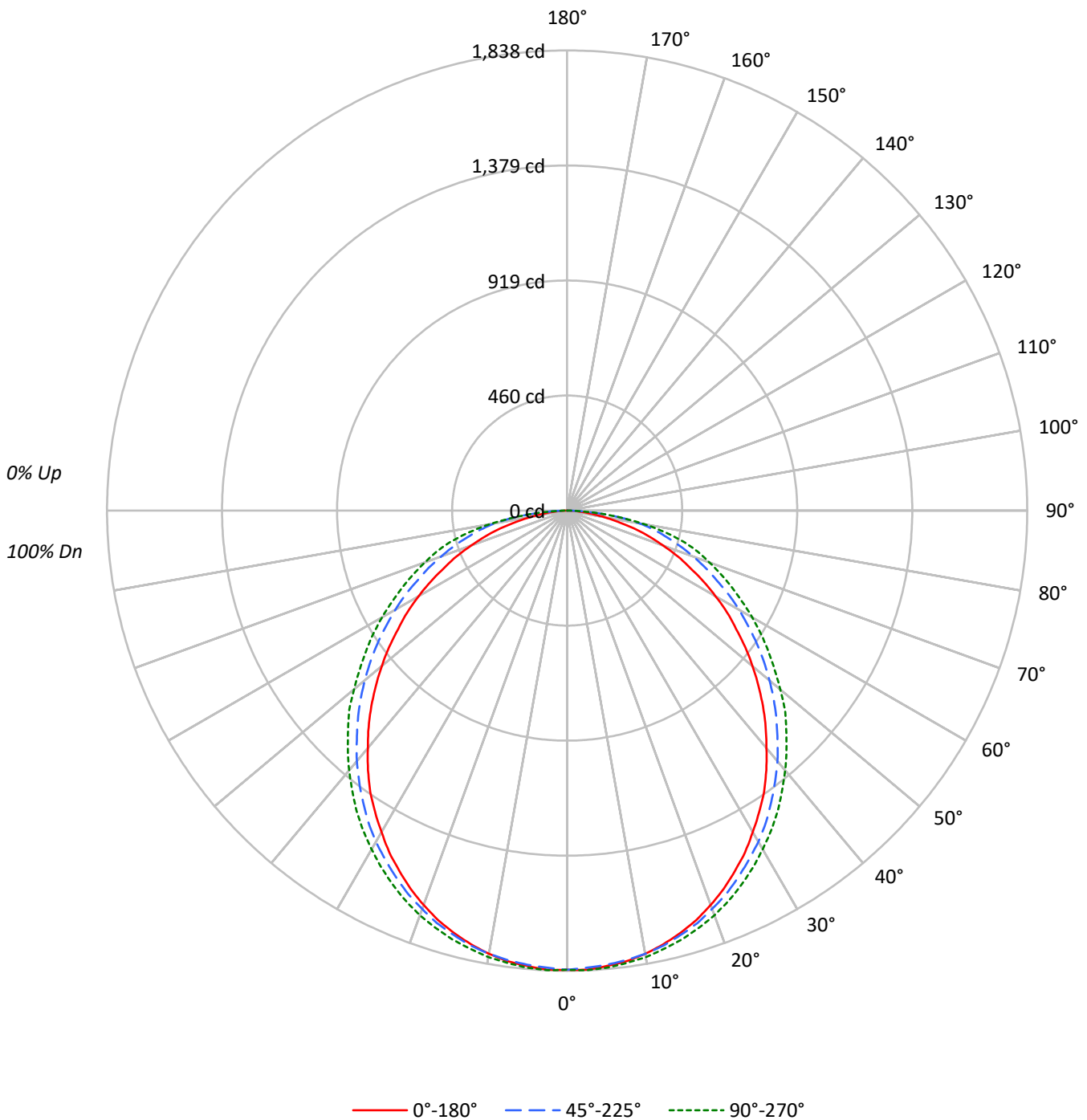
Input Watts (W): 40.624353  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2468	2468	2468
5°	2466	2459	2475
10°	2456	2456	2474
15°	2433	2444	2469
20°	2401	2424	2462
25°	2356	2400	2447
30°	2303	2373	2427
35°	2253	2334	2408
40°	2176	2295	2380
45°	2105	2250	2354
50°	2024	2208	2326
55°	1933	2167	2303
60°	1843	2133	2298
65°	1727	2096	2313
70°	1598	2107	2375
75°	1431	2146	2509
80°	1157	2274	2455
85°	871	1998	1945



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.6	3.3
10°-20°	496.2	9.5
20°-30°	745.8	14.3
30°-40°	888.4	17.0
40°-50°	909.2	17.4
50°-60°	818.6	15.7
60°-70°	642.9	12.3
70°-80°	417.2	8.0
80°-90°	129.0	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°	1415.6	27.1
0°-40°	2304.0	44.1
0°-60°	4031.9	77.2
0°-90°	5221.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5221.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1834	1834	1834	1834	1834	
5°	1826	1829	1821	1831	1832	173
15°	1746	1751	1755	1770	1773	492
25°	1587	1600	1617	1644	1648	731
35°	1372	1388	1421	1456	1466	856
45°	1106	1133	1182	1227	1237	853
55°	824	861	924	972	982	739
65°	542	584	658	713	726	540
75°	275	328	413	469	483	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°	1834.2	1834.2	1834.2	1834.2	1834.2
2.5°	1835.8	1835.8	1827.5	1835.8	1837.5
5°	1825.9	1829.2	1820.9	1830.9	1832.5
7.5°	1815.9	1815.9	1811.0	1820.9	1822.6
10°	1797.7	1799.3	1797.7	1809.3	1811.0
12.5°	1774.5	1777.8	1779.4	1791.1	1792.7
15°	1746.3	1751.3	1754.6	1769.5	1772.8
17.5°	1714.8	1719.7	1728.0	1744.6	1747.9
20°	1676.6	1683.3	1693.2	1714.8	1719.7
22.5°	1635.2	1641.8	1658.4	1678.3	1686.6
25°	1587.1	1600.3	1616.9	1643.5	1648.4
27.5°	1539.0	1550.6	1572.1	1600.3	1607.0
30°	1482.6	1500.8	1527.4	1555.6	1562.2
32.5°	1427.9	1446.1	1477.6	1507.5	1515.8
35°	1371.5	1388.1	1421.2	1456.1	1466.0
37.5°	1306.8	1328.4	1364.8	1399.7	1409.6
40°	1238.8	1265.3	1306.8	1343.3	1354.9
42.5°	1174.1	1202.3	1243.8	1283.6	1296.9
45°	1106.1	1132.7	1182.4	1227.2	1237.2
47.5°	1036.5	1066.3	1119.4	1164.2	1180.8
50°	966.8	998.3	1054.7	1101.2	1111.1
52.5°	897.2	930.4	990.1	1039.8	1044.8
55°	824.2	860.7	923.7	971.8	981.8
57.5°	757.9	789.4	857.4	907.1	918.7
60°	684.9	719.7	792.7	839.1	854.1
62.5°	615.3	651.7	728.0	774.5	787.7
65°	542.3	583.8	658.4	713.1	726.4
67.5°	479.3	519.1	598.7	651.7	665.0
70°	406.3	451.1	535.7	590.4	603.7
72.5°	343.3	389.7	474.3	527.4	547.3
75°	275.3	328.4	412.9	469.3	482.6
77.5°	209.0	270.3	356.6	399.7	399.7
80°	149.3	213.9	293.5	313.4	316.8
82.5°	97.8	160.9	217.2	215.6	215.6
85°	56.4	104.5	129.4	126.0	126.0
87.5°	21.6	43.1	46.4	46.4	44.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)