

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: P261176

Luminaire Tested: **24CZ-LD5-60-S-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261176  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-60-S-UNV-L82765-W2A1-U-2700K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5646.0 lumens  
Efficiency: N/A  
Efficacy: 127.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

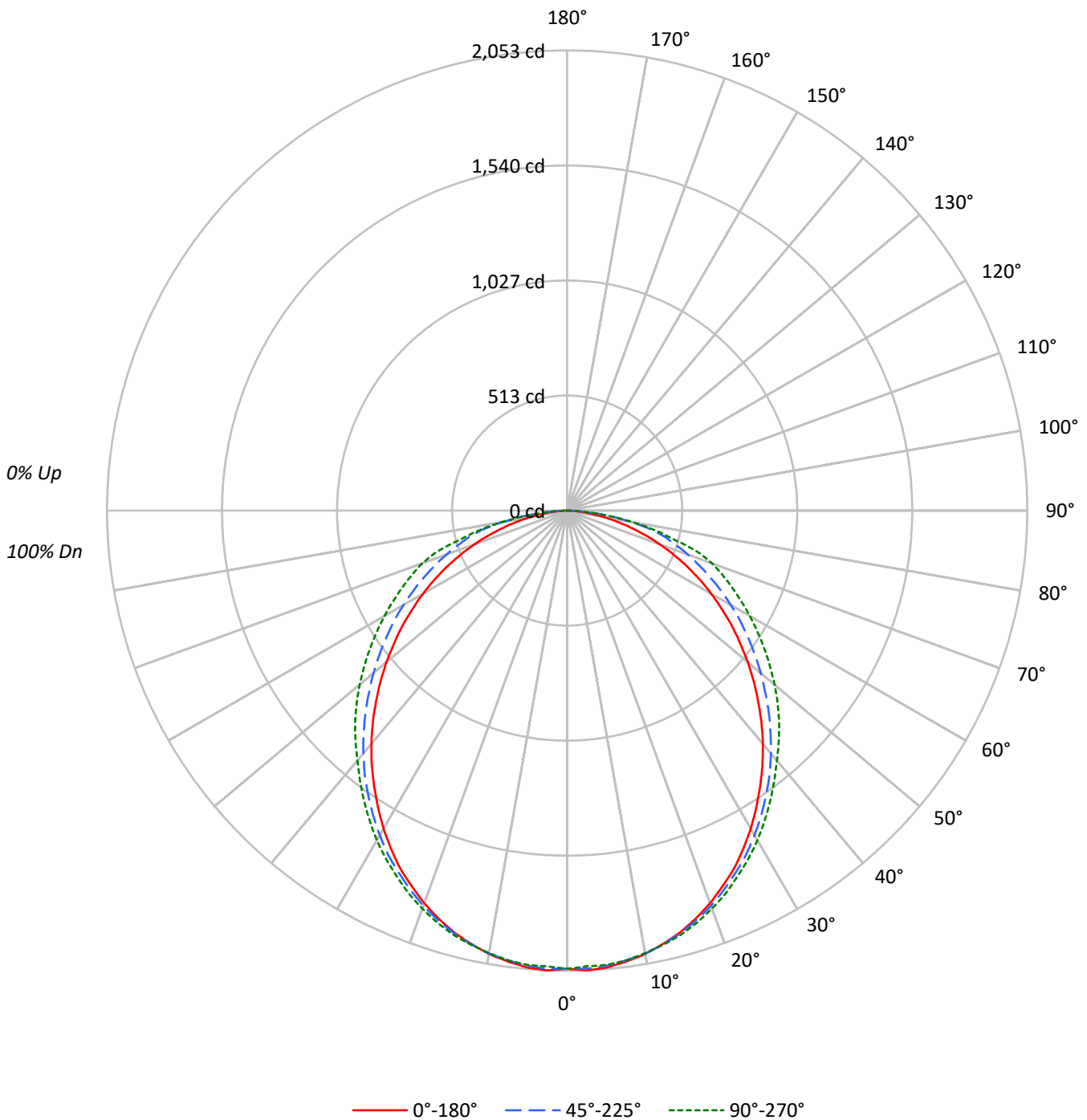
Input Watts (W): 44.268  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P261176

CATALOG NUMBER: 24CZ-LD5-60-S-UNV-L82765-W2A1-U-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P261176

CATALOG NUMBER: 24CZ-LD5-60-S-UNV-L82765-W2A1-U-2700K

**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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2750	2750	2750
5°	2763	2753	2748
10°	2744	2741	2739
15°	2714	2719	2729
20°	2668	2687	2706
25°	2616	2644	2672
30°	2545	2598	2639
35°	2465	2543	2595
40°	2386	2485	2557
45°	2295	2420	2545
50°	2202	2359	2529
55°	2107	2309	2521
60°	1997	2270	2533
65°	1878	2243	2584
70°	1729	2254	2705
75°	1533	2334	2520
80°	1281	2213	2271
85°	957	1769	1624



TEST NUMBER: P261176

CATALOG NUMBER: 24CZ-LD5-60-S-UNV-L82765-W2A1-U-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.2	3.4
10°-20°	549.6	9.7
20°-30°	819.0	14.5
30°-40°	964.1	17.1
40°-50°	979.8	17.4
50°-60°	880.9	15.6
60°-70°	695.9	12.3
70°-80°	441.5	7.8
80°-90°	121.9	2.2
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°	1561.9	27.7
0°-40°	2526.0	44.7
0°-60°	4386.7	77.7
0°-90°	5646.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5646.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2044	2044	2044	2044	2044	
5°	2046	2029	2038	2035	2035	194
15°	1948	1939	1952	1958	1959	549
25°	1762	1760	1781	1792	1800	810
35°	1501	1510	1548	1565	1580	939
45°	1206	1223	1272	1309	1338	931
55°	898	920	984	1048	1075	802
65°	590	620	704	782	812	584
75°	295	346	449	488	485	314
85°	62	107	115	105	105	76
90°	0	0	0	0	0	



TEST NUMBER: P261176

CATALOG NUMBER: 24CZ-LD5-60-S-UNV-L82765-W2A1-U-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2044.0	2044.0	2044.0	2044.0	2044.0
2.5°	2053.3	2038.3	2045.8	2042.1	2034.6
5°	2045.8	2028.9	2038.3	2034.6	2034.6
7.5°	2028.9	2015.8	2023.3	2021.4	2023.3
10°	2008.3	1995.1	2006.4	2006.4	2004.5
12.5°	1980.1	1968.8	1982.0	1982.0	1983.8
15°	1948.1	1938.8	1951.9	1957.5	1959.4
17.5°	1908.7	1899.3	1916.2	1921.8	1927.5
20°	1863.6	1859.8	1876.8	1882.4	1889.9
22.5°	1812.9	1812.9	1829.8	1837.3	1848.6
25°	1762.2	1760.3	1780.9	1792.2	1799.7
27.5°	1702.0	1703.9	1730.2	1741.5	1750.9
30°	1638.2	1641.9	1672.0	1685.1	1698.3
32.5°	1570.5	1578.1	1611.9	1626.9	1640.0
35°	1501.0	1510.4	1548.0	1564.9	1579.9
37.5°	1431.5	1444.7	1484.1	1501.0	1517.9
40°	1358.3	1369.5	1414.6	1435.3	1455.9
42.5°	1283.1	1298.1	1343.2	1373.3	1397.7
45°	1206.1	1223.0	1271.8	1309.4	1337.6
47.5°	1129.1	1151.6	1198.6	1249.3	1273.7
50°	1052.0	1074.6	1127.2	1183.5	1208.0
52.5°	973.1	995.7	1055.8	1114.0	1140.3
55°	898.0	920.5	984.4	1048.3	1074.6
57.5°	819.1	843.5	914.9	980.6	1006.9
60°	742.1	766.5	843.5	913.0	941.2
62.5°	666.9	693.2	774.0	847.3	875.4
65°	589.9	619.9	704.5	781.5	811.6
67.5°	514.7	548.6	636.9	717.6	749.6
70°	439.6	479.1	573.0	655.6	687.6
72.5°	366.3	409.5	509.1	591.8	608.7
75°	294.9	345.7	449.0	488.4	484.7
77.5°	227.3	283.7	381.4	388.9	400.1
80°	165.3	227.3	285.6	300.6	293.1
82.5°	109.0	171.0	204.8	197.3	195.4
85°	62.0	107.1	114.6	105.2	105.2
87.5°	26.3	43.2	37.6	28.2	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)