

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: P276516

Luminaire Tested: **24CZ2-60HE-S-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276516  
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: 24CZ2-60HE-S-UNV-L82765-W2A1-U-2700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5501.7 lumens  
Efficiency: N/A  
Efficacy: 124.3 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

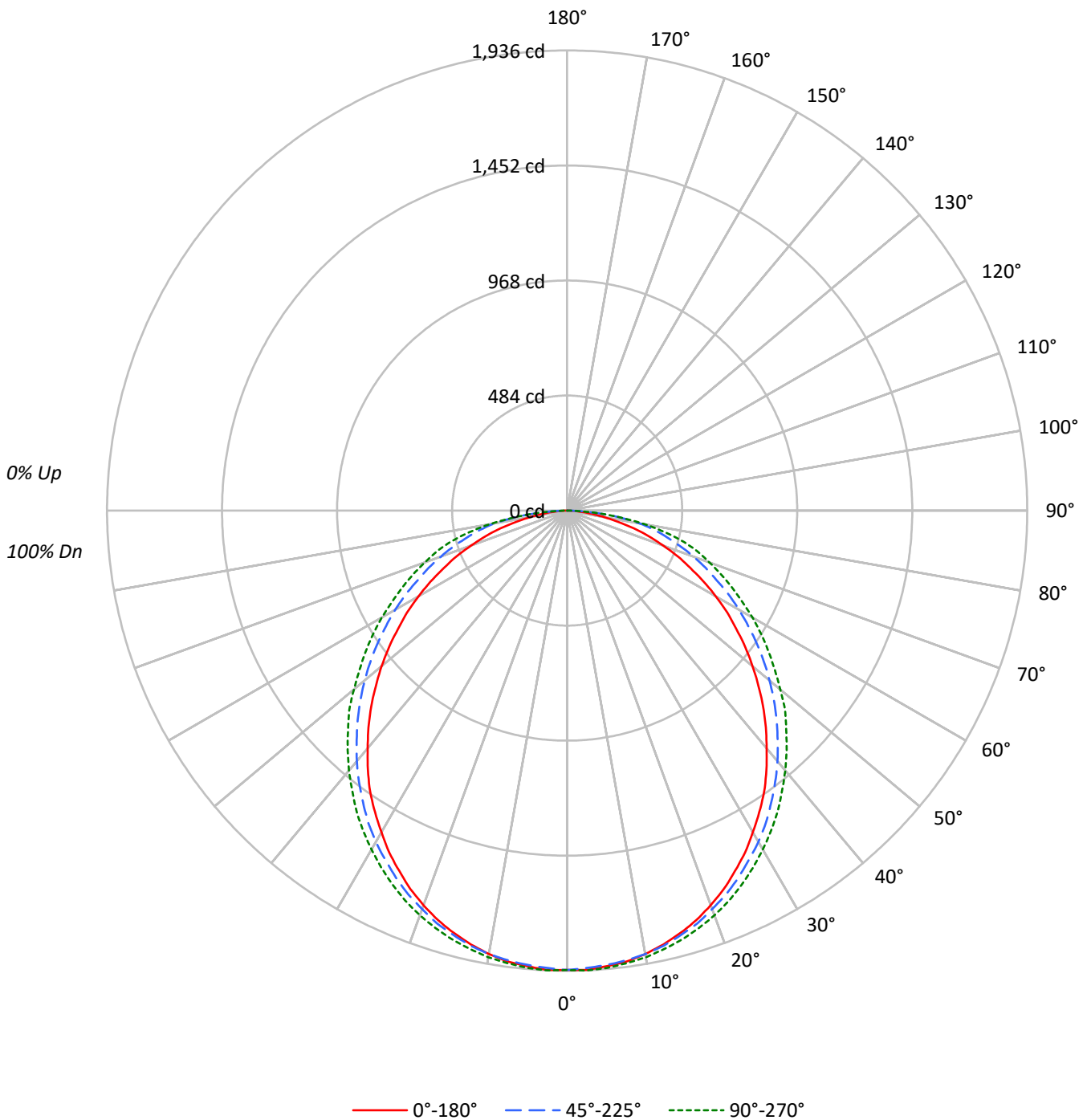
Input Watts (W): 44.268  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276516

CATALOG NUMBER: 24CZ2-60HE-S-UNV-L82765-W2A1-U-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P276516

CATALOG NUMBER: 24CZ2-60HE-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	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°	2601	2601	2601
5°	2599	2592	2608
10°	2588	2588	2607
15°	2563	2575	2602
20°	2530	2555	2595
25°	2483	2530	2579
30°	2427	2501	2558
35°	2374	2460	2537
40°	2293	2419	2508
45°	2218	2371	2481
50°	2133	2326	2451
55°	2037	2283	2427
60°	1942	2248	2422
65°	1819	2209	2437
70°	1685	2221	2502
75°	1508	2262	2643
80°	1219	2397	2586
85°	917	2104	2050



TEST NUMBER: P276516

CATALOG NUMBER: 24CZ2-60HE-S-UNV-L82765-W2A1-U-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.0	3.3
10°-20°	522.8	9.5
20°-30°	785.9	14.3
30°-40°	936.2	17.0
40°-50°	958.1	17.4
50°-60°	862.6	15.7
60°-70°	677.4	12.3
70°-80°	439.7	8.0
80°-90°	136.0	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°	1491.8	27.1
0°-40°	2427.9	44.1
0°-60°	4248.7	77.2
0°-90°	5501.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5501.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1933	1933	1933	1933	1933	
5°	1924	1928	1919	1929	1931	183
15°	1840	1845	1849	1865	1868	519
25°	1672	1686	1704	1732	1737	770
35°	1445	1463	1498	1534	1545	902
45°	1166	1194	1246	1293	1304	899
55°	868	907	973	1024	1035	779
65°	572	615	694	752	765	569
75°	290	346	435	495	508	307
85°	59	110	136	133	133	72
90°	0	0	0	0	0	



TEST NUMBER: P276516

CATALOG NUMBER: 24CZ2-60HE-S-UNV-L82765-W2A1-U-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1932.8	1932.8	1932.8	1932.8	1932.8
2.5°	1934.6	1934.6	1925.8	1934.6	1936.3
5°	1924.1	1927.6	1918.8	1929.3	1931.1
7.5°	1913.6	1913.6	1908.3	1918.8	1920.6
10°	1894.4	1896.1	1894.4	1906.6	1908.3
12.5°	1869.9	1873.4	1875.1	1887.4	1889.1
15°	1840.2	1845.4	1848.9	1864.6	1868.1
17.5°	1807.0	1812.2	1821.0	1838.4	1841.9
20°	1766.8	1773.8	1784.3	1807.0	1812.2
22.5°	1723.1	1730.1	1747.6	1768.5	1777.3
25°	1672.4	1686.4	1703.9	1731.8	1737.1
27.5°	1621.7	1634.0	1656.7	1686.4	1693.4
30°	1562.3	1581.5	1609.5	1639.2	1646.2
32.5°	1504.7	1523.9	1557.1	1588.5	1597.3
35°	1445.2	1462.7	1497.7	1534.4	1544.8
37.5°	1377.1	1399.8	1438.2	1474.9	1485.4
40°	1305.4	1333.4	1377.1	1415.5	1427.8
42.5°	1237.3	1267.0	1310.7	1352.6	1366.6
45°	1165.6	1193.6	1246.0	1293.2	1303.7
47.5°	1092.2	1123.7	1179.6	1226.8	1244.3
50°	1018.8	1052.0	1111.4	1160.4	1170.9
52.5°	945.4	980.4	1043.3	1095.7	1101.0
55°	868.5	907.0	973.4	1024.1	1034.6
57.5°	798.6	831.8	903.5	955.9	968.1
60°	721.7	758.4	835.3	884.3	900.0
62.5°	648.3	686.8	767.2	816.1	830.1
65°	571.5	615.1	693.8	751.5	765.4
67.5°	505.0	547.0	630.9	686.8	700.8
70°	428.2	475.3	564.5	622.1	636.1
72.5°	361.7	410.7	499.8	555.7	576.7
75°	290.1	346.0	435.1	494.6	508.5
77.5°	220.2	284.9	375.7	421.2	421.2
80°	157.3	225.4	309.3	330.3	333.8
82.5°	103.1	169.5	228.9	227.2	227.2
85°	59.4	110.1	136.3	132.8	132.8
87.5°	22.7	45.4	48.9	48.9	47.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)