

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: P261162

Luminaire Tested: **24CZ-LD5-50-S-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261162  
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-LD5-50-S-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5208.0 lumens  
Efficiency: N/A  
Efficacy: 143.2 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

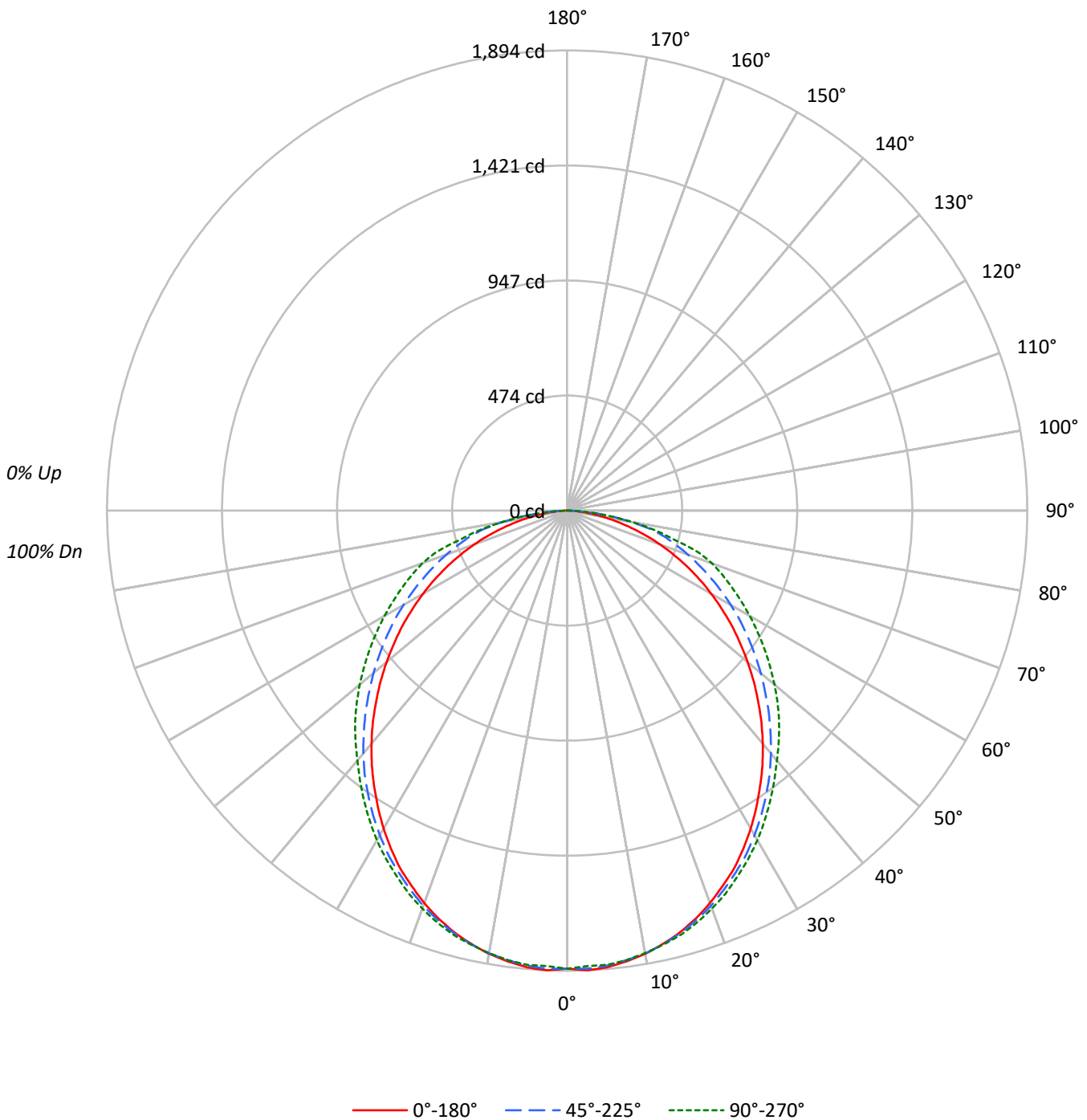
Input Watts (W): 36.363  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2537	2537	2537
5°	2549	2539	2535
10°	2531	2529	2526
15°	2503	2508	2518
20°	2461	2479	2496
25°	2413	2439	2465
30°	2348	2396	2434
35°	2274	2345	2394
40°	2201	2292	2359
45°	2117	2232	2348
50°	2031	2176	2332
55°	1943	2130	2325
60°	1842	2094	2336
65°	1732	2069	2383
70°	1595	2079	2495
75°	1415	2153	2324
80°	1182	2041	2094
85°	883	1632	1497



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	178.3	3.4
10°-20°	507.0	9.7
20°-30°	755.5	14.5
30°-40°	889.4	17.1
40°-50°	903.8	17.4
50°-60°	812.6	15.6
60°-70°	641.9	12.3
70°-80°	407.3	7.8
80°-90°	112.4	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°	1440.7	27.7
0°-40°	2330.1	44.7
0°-60°	4046.4	77.7
0°-90°	5208.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5208.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1885	1885	1885	1885	1885	
5°	1887	1872	1880	1877	1877	179
15°	1797	1788	1800	1806	1807	506
25°	1626	1624	1643	1653	1660	747
35°	1385	1393	1428	1444	1457	866
45°	1112	1128	1173	1208	1234	858
55°	828	849	908	967	991	740
65°	544	572	650	721	749	539
75°	272	319	414	451	447	290
85°	57	99	106	97	97	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1885.4	1885.4	1885.4	1885.4	1885.4
2.5°	1894.1	1880.2	1887.1	1883.7	1876.7
5°	1887.1	1871.5	1880.2	1876.7	1876.7
7.5°	1871.5	1859.4	1866.3	1864.6	1866.3
10°	1852.5	1840.3	1850.7	1850.7	1849.0
12.5°	1826.5	1816.1	1828.2	1828.2	1829.9
15°	1797.0	1788.3	1800.5	1805.7	1807.4
17.5°	1760.6	1752.0	1767.6	1772.8	1778.0
20°	1719.0	1715.6	1731.2	1736.4	1743.3
22.5°	1672.2	1672.2	1687.8	1694.8	1705.2
25°	1625.5	1623.7	1642.8	1653.2	1660.1
27.5°	1570.0	1571.7	1596.0	1606.4	1615.1
30°	1511.1	1514.6	1542.3	1554.4	1566.5
32.5°	1448.7	1455.6	1486.8	1500.7	1512.8
35°	1384.6	1393.2	1427.9	1443.5	1457.4
37.5°	1320.5	1332.6	1369.0	1384.6	1400.2
40°	1252.9	1263.3	1304.9	1323.9	1343.0
42.5°	1183.6	1197.4	1239.0	1266.7	1289.3
45°	1112.5	1128.1	1173.2	1207.8	1233.8
47.5°	1041.5	1062.3	1105.6	1152.4	1174.9
50°	970.4	991.2	1039.7	1091.7	1114.3
52.5°	897.6	918.4	973.9	1027.6	1051.9
55°	828.3	849.1	908.0	967.0	991.2
57.5°	755.5	778.1	843.9	904.6	928.8
60°	684.5	707.0	778.1	842.2	868.2
62.5°	615.2	639.4	714.0	781.5	807.5
65°	544.1	571.9	649.8	720.9	748.6
67.5°	474.8	506.0	587.5	662.0	691.4
70°	405.5	441.9	528.5	604.8	634.2
72.5°	337.9	377.8	469.6	545.9	561.5
75°	272.1	318.9	414.2	450.6	447.1
77.5°	209.7	261.7	351.8	358.7	369.1
80°	152.5	209.7	263.4	277.3	270.3
82.5°	100.5	157.7	188.9	182.0	180.2
85°	57.2	98.8	105.7	97.0	97.0
87.5°	24.3	39.9	34.7	26.0	24.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)