

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: P260828

Luminaire Tested: **24CZ-LD5-50SE-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260828  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-50SE-UNV-L82765-W2A1-U-2700K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4590.0 lumens  
Efficiency: N/A  
Efficacy: 115.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

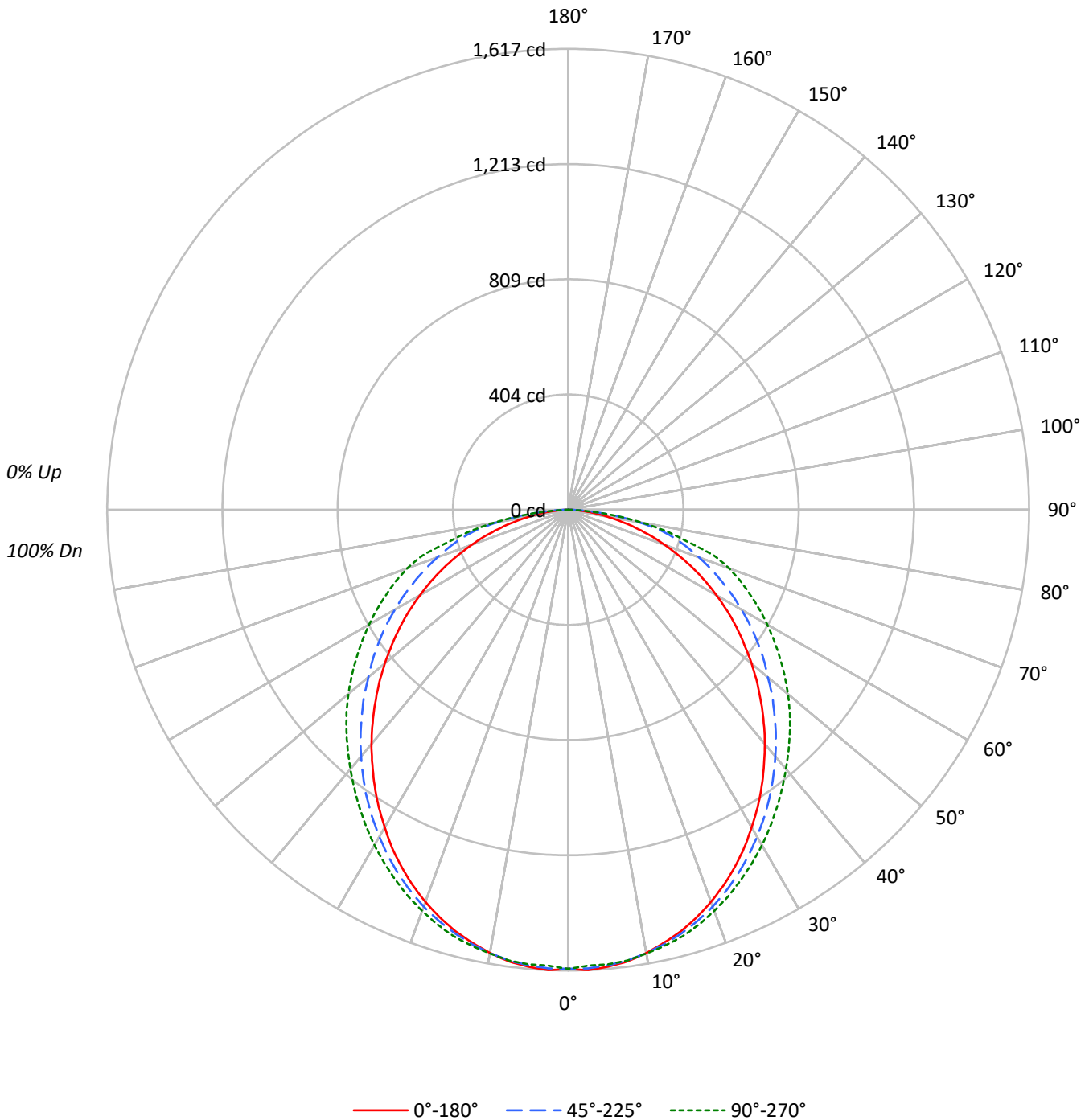
Input Watts (W): 39.711  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P260828

CATALOG NUMBER: 24CZ-LD5-50SE-UNV-L82765-W2A1-U-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P260828

CATALOG NUMBER: 24CZ-LD5-50SE-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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

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

	0°	45°	90°
0°	2167	2167	2167
5°	2174	2167	2163
10°	2158	2158	2160
15°	2132	2143	2159
20°	2097	2122	2144
25°	2053	2093	2128
30°	2000	2058	2112
35°	1944	2024	2096
40°	1885	1985	2087
45°	1821	1947	2093
50°	1757	1914	2105
55°	1692	1902	2127
60°	1615	1890	2169
65°	1531	1891	2242
70°	1416	1923	2362
75°	1266	2010	2247
80°	1059	1924	2058
85°	801	1480	1408



TEST NUMBER: P260828

CATALOG NUMBER: 24CZ-LD5-50SE-UNV-L82765-W2A1-U-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.2	3.3
10°-20°	433.2	9.4
20°-30°	647.7	14.1
30°-40°	768.3	16.7
40°-50°	790.8	17.2
50°-60°	725.5	15.8
60°-70°	586.6	12.8
70°-80°	380.7	8.3
80°-90°	105.0	2.3
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°	1233.1	26.9
0°-40°	2001.5	43.6
0°-60°	3517.7	76.6
0°-90°	4590.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4590.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1611	1611	1611	1611	1611	
5°	1609	1598	1605	1603	1601	153
15°	1531	1524	1539	1545	1550	431
25°	1383	1384	1410	1422	1433	637
35°	1183	1193	1232	1259	1276	740
45°	957	973	1023	1072	1100	739
55°	721	743	811	877	907	644
65°	481	509	594	673	704	475
75°	244	289	387	432	432	259
85°	52	88	96	93	91	63
90°	0	0	0	0	0	



TEST NUMBER: P260828

CATALOG NUMBER: 24CZ-LD5-50SE-UNV-L82765-W2A1-U-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1610.9	1610.9	1610.9	1610.9	1610.9
2.5°	1617.1	1604.6	1610.9	1609.3	1601.4
5°	1609.3	1598.3	1604.6	1603.0	1601.4
7.5°	1598.3	1587.3	1595.1	1593.6	1595.1
10°	1579.4	1570.0	1579.4	1581.0	1581.0
12.5°	1555.8	1548.0	1560.6	1563.7	1566.8
15°	1530.7	1524.4	1538.6	1544.8	1549.6
17.5°	1499.3	1494.6	1511.8	1519.7	1526.0
20°	1464.7	1463.1	1482.0	1489.8	1497.7
22.5°	1425.4	1425.4	1447.4	1456.8	1467.8
25°	1383.0	1384.5	1409.7	1422.3	1433.3
27.5°	1337.4	1339.0	1368.8	1384.5	1397.1
30°	1287.1	1293.4	1324.8	1345.3	1359.4
32.5°	1236.8	1244.7	1279.3	1302.8	1318.5
35°	1183.4	1192.8	1232.1	1258.8	1276.1
37.5°	1128.4	1139.4	1181.8	1211.7	1232.1
40°	1073.4	1085.9	1130.0	1164.5	1188.1
42.5°	1015.2	1029.4	1078.1	1119.0	1144.1
45°	957.1	972.8	1023.1	1071.8	1100.1
47.5°	898.9	917.8	971.2	1024.7	1054.5
50°	839.2	858.1	914.6	975.9	1005.8
52.5°	779.5	801.5	864.4	927.2	957.1
55°	721.3	743.3	810.9	876.9	906.8
57.5°	661.6	683.6	757.5	826.6	856.5
60°	600.3	625.5	702.5	773.2	806.2
62.5°	540.6	567.3	649.1	724.5	755.9
65°	480.9	509.2	594.1	672.6	704.1
67.5°	419.6	452.6	540.6	620.8	653.8
70°	359.9	396.0	488.8	568.9	600.3
72.5°	301.7	341.0	436.9	518.6	537.5
75°	243.6	289.2	386.6	432.2	432.2
77.5°	188.6	238.9	330.0	347.3	356.7
80°	136.7	191.7	248.3	268.7	265.6
82.5°	91.2	146.2	177.6	177.6	172.9
85°	51.9	88.0	95.9	92.7	91.2
87.5°	22.0	33.0	29.9	23.6	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)