

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: P276726

Luminaire Tested: **24CZ2-50-S-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P276726
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-L92765-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4391.5 lumens
Efficiency: N/A
Efficacy: 109.3 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

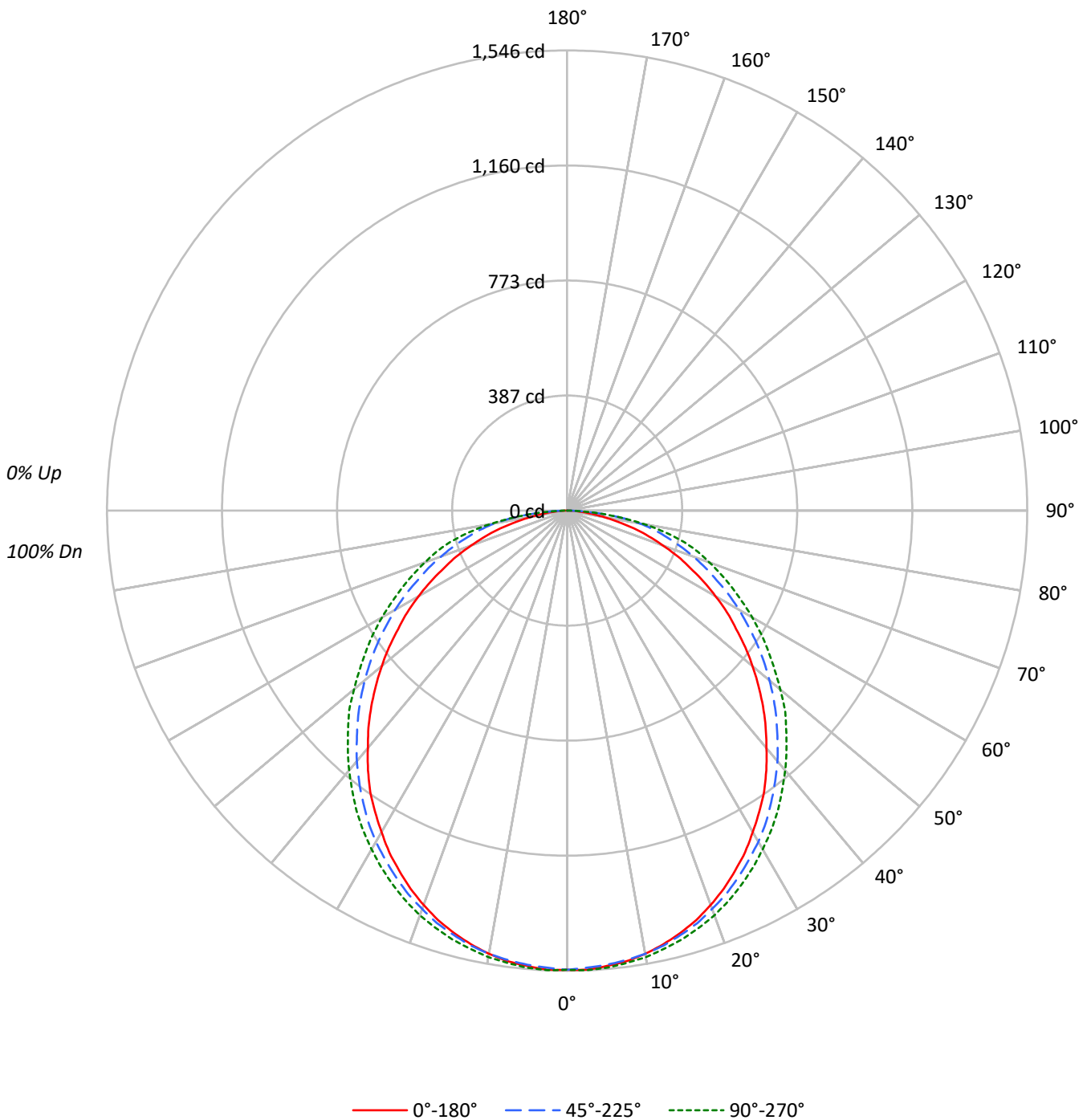
Input Watts (W): 40.176
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P276726

CATALOG NUMBER: 24CZ2-50-S-UNV-L92765-W2A1-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P276726

CATALOG NUMBER: 24CZ2-50-S-UNV-L92765-W2A1-U-4000K

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°	2076	2076	2076
5°	2074	2069	2082
10°	2066	2066	2081
15°	2046	2056	2077
20°	2019	2039	2071
25°	1982	2019	2058
30°	1937	1996	2041
35°	1895	1963	2025
40°	1830	1931	2002
45°	1770	1893	1980
50°	1702	1857	1956
55°	1626	1823	1937
60°	1550	1794	1933
65°	1452	1763	1945
70°	1344	1773	1997
75°	1204	1805	2110
80°	972	1913	2064
85°	732	1680	1636



TEST NUMBER: P276726

CATALOG NUMBER: 24CZ2-50-S-UNV-L92765-W2A1-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.1	3.3
10°-20°	417.3	9.5
20°-30°	627.3	14.3
30°-40°	747.3	17.0
40°-50°	764.8	17.4
50°-60°	688.5	15.7
60°-70°	540.7	12.3
70°-80°	350.9	8.0
80°-90°	108.5	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°	1190.7	27.1
0°-40°	1938.0	44.1
0°-60°	3391.3	77.2
0°-90°	4391.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4391.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1543	1543	1543	1543	1543	
5°	1536	1539	1532	1540	1541	146
15°	1469	1473	1476	1488	1491	414
25°	1335	1346	1360	1382	1386	615
35°	1154	1168	1195	1225	1233	720
45°	930	953	995	1032	1041	717
55°	693	724	777	817	826	622
65°	456	491	554	600	611	454
75°	232	276	347	395	406	245
85°	47	88	109	106	106	57
90°	0	0	0	0	0	



TEST NUMBER: P276726

CATALOG NUMBER: 24CZ2-50-S-UNV-L92765-W2A1-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1542.8	1542.8	1542.8	1542.8	1542.8
2.5°	1544.1	1544.1	1537.2	1544.1	1545.5
5°	1535.8	1538.6	1531.6	1540.0	1541.4
7.5°	1527.4	1527.4	1523.2	1531.6	1533.0
10°	1512.1	1513.5	1512.1	1521.8	1523.2
12.5°	1492.5	1495.3	1496.7	1506.5	1507.9
15°	1468.8	1473.0	1475.8	1488.4	1491.1
17.5°	1442.3	1446.5	1453.5	1467.4	1470.2
20°	1410.2	1415.8	1424.2	1442.3	1446.5
22.5°	1375.4	1380.9	1394.9	1411.6	1418.6
25°	1334.9	1346.1	1360.0	1382.3	1386.5
27.5°	1294.5	1304.2	1322.4	1346.1	1351.7
30°	1247.0	1262.4	1284.7	1308.4	1314.0
32.5°	1201.0	1216.3	1242.8	1268.0	1274.9
35°	1153.6	1167.5	1195.4	1224.7	1233.1
37.5°	1099.2	1117.3	1148.0	1177.3	1185.7
40°	1042.0	1064.3	1099.2	1129.9	1139.6
42.5°	987.6	1011.3	1046.2	1079.6	1090.8
45°	930.4	952.7	994.6	1032.2	1040.6
47.5°	871.8	896.9	941.6	979.2	993.2
50°	813.2	839.7	887.2	926.2	934.6
52.5°	754.6	782.5	832.8	874.6	878.8
55°	693.3	723.9	777.0	817.4	825.8
57.5°	637.5	664.0	721.2	763.0	772.8
60°	576.1	605.4	666.8	705.8	718.4
62.5°	517.5	548.2	612.4	651.4	662.6
65°	456.1	491.0	553.8	599.8	611.0
67.5°	403.1	436.6	503.6	548.2	559.4
70°	341.7	379.4	450.6	496.6	507.7
72.5°	288.7	327.8	398.9	443.6	460.3
75°	231.6	276.2	347.3	394.8	405.9
77.5°	175.8	227.4	299.9	336.2	336.2
80°	125.5	179.9	246.9	263.6	266.4
82.5°	82.3	135.3	182.7	181.3	181.3
85°	47.4	87.9	108.8	106.0	106.0
87.5°	18.1	36.3	39.1	39.1	37.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)