

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: P388763

Luminaire Tested: **24CZ2-50-SQR-UNV-L950-CD1-U**

Issue Date: 2/28/2020

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: P388763
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-SQR-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

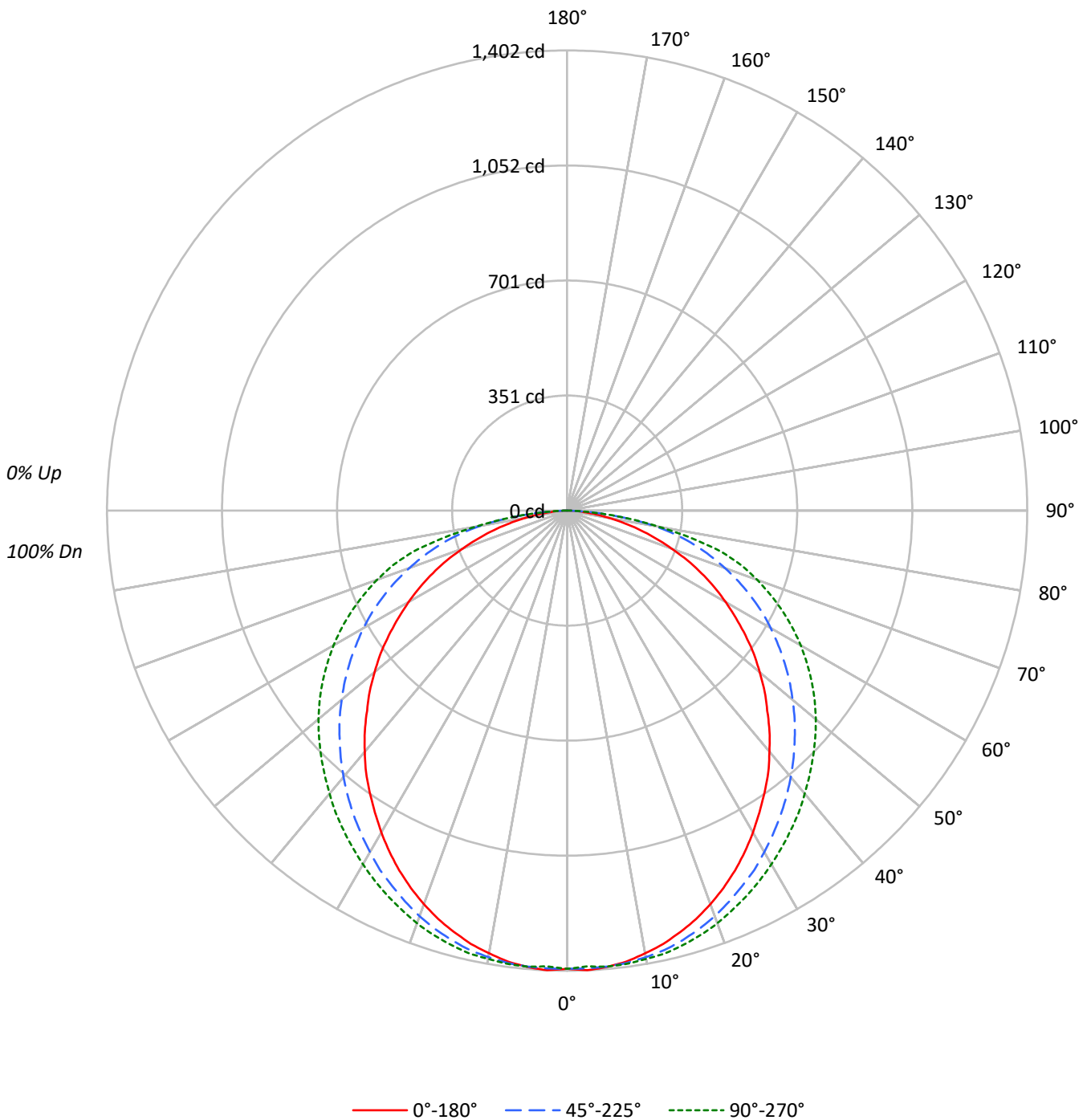
Lumens per Lamp: N/A
Luminaire Lumens: 4367.0 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 48.6
Input Voltage (V): NR
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	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1878	1878	1878
5°	1885	1883	1883
10°	1872	1887	1895
15°	1852	1888	1908
20°	1827	1883	1916
25°	1796	1873	1923
30°	1759	1866	1934
35°	1722	1862	1952
40°	1684	1862	1978
45°	1641	1866	2017
50°	1603	1878	2071
55°	1556	1898	2134
60°	1502	1929	2212
65°	1437	1965	2305
70°	1333	2014	2423
75°	1207	2084	2534
80°	1017	2090	2179
85°	780	1581	1581



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.5	3.0
10°-20°	381.2	8.7
20°-30°	579.1	13.3
30°-40°	704.3	16.1
40°-50°	749.9	17.2
50°-60°	714.2	16.4
60°-70°	597.3	13.7
70°-80°	398.2	9.1
80°-90°	110.2	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°	1092.8	25.0
0°-40°	1797.1	41.2
0°-60°	3261.3	74.7
0°-90°	4367.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4367.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1396	1396	1396	1396	1396	
5°	1396	1387	1394	1394	1394	132
15°	1330	1332	1356	1366	1370	375
25°	1210	1226	1262	1283	1295	557
35°	1048	1079	1134	1171	1188	656
45°	862	908	981	1035	1060	667
55°	663	721	809	880	910	593
65°	451	518	617	694	724	446
75°	232	306	401	469	487	246
85°	50	94	102	101	102	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1395.9	1395.9	1395.9	1395.9	1395.9
2.5°	1401.7	1391.6	1395.9	1395.9	1390.1
5°	1395.9	1387.3	1394.5	1394.5	1394.5
7.5°	1385.8	1378.6	1390.1	1393.0	1393.0
10°	1369.9	1367.1	1381.5	1385.8	1387.3
12.5°	1352.6	1351.2	1371.4	1377.2	1381.5
15°	1329.6	1332.5	1355.5	1365.6	1369.9
17.5°	1305.1	1310.8	1336.8	1351.2	1355.5
20°	1276.2	1284.9	1315.2	1329.6	1338.2
22.5°	1244.5	1257.5	1289.2	1306.5	1316.6
25°	1209.9	1225.7	1261.8	1283.4	1295.0
27.5°	1172.4	1192.6	1234.4	1258.9	1270.4
30°	1132.0	1155.1	1201.2	1230.1	1244.5
32.5°	1090.2	1117.6	1168.1	1199.8	1217.1
35°	1048.4	1078.7	1133.5	1170.9	1188.3
37.5°	1006.6	1036.8	1097.4	1137.8	1159.4
40°	959.0	995.0	1059.9	1104.6	1126.2
42.5°	912.8	951.8	1021.0	1070.0	1093.1
45°	862.3	908.5	980.6	1035.4	1059.9
47.5°	816.2	862.3	940.2	997.9	1025.3
50°	765.7	814.8	897.0	960.4	989.2
52.5°	716.7	767.2	853.7	921.5	950.3
55°	663.3	721.0	809.0	879.7	909.9
57.5°	610.0	672.0	762.8	836.4	866.7
60°	558.1	621.5	716.7	790.2	822.0
62.5°	506.2	569.6	669.1	744.1	774.4
65°	451.4	517.7	617.2	693.6	723.9
67.5°	396.6	465.8	565.3	641.7	670.6
70°	338.9	412.4	511.9	586.9	615.8
72.5°	285.5	359.1	457.1	530.7	558.1
75°	232.2	305.7	400.9	468.7	487.4
77.5°	180.3	253.8	338.9	383.6	387.9
80°	131.2	200.4	269.7	282.6	281.2
82.5°	88.0	150.0	186.0	187.5	191.8
85°	50.5	93.7	102.4	100.9	102.4
87.5°	20.2	33.2	28.8	21.6	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)