

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: P388758

Luminaire Tested: **24CZ2-50-SQR-UNV-L940-CD1-SDWPD1-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: P388758
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-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4014.2 lumens
Efficiency: N/A
Efficacy: 82.6 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

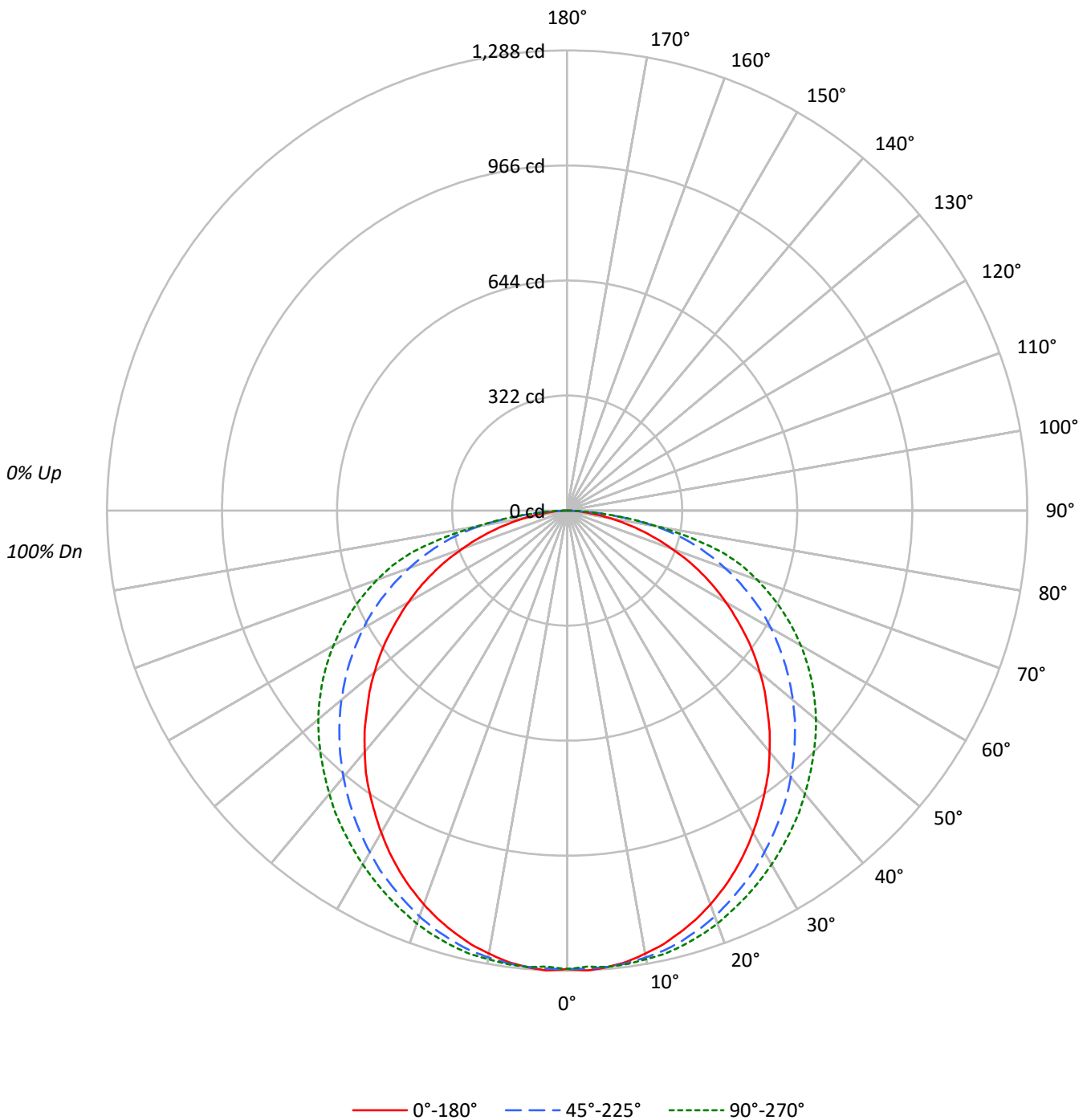
Input Watts (W): 48.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1726	1726	1726
5°	1733	1731	1731
10°	1721	1735	1742
15°	1702	1736	1754
20°	1680	1731	1761
25°	1651	1722	1767
30°	1617	1716	1777
35°	1583	1711	1794
40°	1548	1711	1818
45°	1508	1715	1854
50°	1473	1726	1903
55°	1430	1744	1962
60°	1380	1773	2033
65°	1321	1806	2118
70°	1225	1851	2227
75°	1109	1916	2329
80°	934	1921	2003
85°	716	1453	1453



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.8	3.0
10°-20°	350.4	8.7
20°-30°	532.3	13.3
30°-40°	647.4	16.1
40°-50°	689.3	17.2
50°-60°	656.5	16.4
60°-70°	549.1	13.7
70°-80°	366.1	9.1
80°-90°	101.3	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°	1004.5	25.0
0°-40°	1651.9	41.2
0°-60°	2997.8	74.7
0°-90°	4014.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4014.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1283	1283	1283	1283	1283	
5°	1283	1275	1282	1282	1282	122
15°	1222	1225	1246	1255	1259	345
25°	1112	1127	1160	1180	1190	512
35°	964	992	1042	1076	1092	603
45°	793	835	901	952	974	613
55°	610	663	744	809	836	545
65°	415	476	567	638	665	410
75°	213	281	368	431	448	226
85°	46	86	94	93	94	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1283.1	1283.1	1283.1	1283.1	1283.1
2.5°	1288.4	1279.2	1283.1	1283.1	1277.8
5°	1283.1	1275.2	1281.8	1281.8	1281.8
7.5°	1273.9	1267.2	1277.8	1280.5	1280.5
10°	1259.3	1256.6	1269.9	1273.9	1275.2
12.5°	1243.4	1242.0	1260.6	1265.9	1269.9
15°	1222.2	1224.8	1246.0	1255.3	1259.3
17.5°	1199.6	1204.9	1228.8	1242.0	1246.0
20°	1173.1	1181.1	1208.9	1222.2	1230.1
22.5°	1144.0	1155.9	1185.0	1200.9	1210.2
25°	1112.1	1126.7	1159.9	1179.7	1190.3
27.5°	1077.7	1096.2	1134.7	1157.2	1167.8
30°	1040.6	1061.8	1104.2	1130.7	1144.0
32.5°	1002.1	1027.3	1073.7	1102.9	1118.8
35°	963.7	991.5	1041.9	1076.3	1092.3
37.5°	925.2	953.1	1008.7	1045.9	1065.7
40°	881.5	914.6	974.3	1015.4	1035.3
42.5°	839.1	874.9	938.5	983.6	1004.8
45°	792.7	835.1	901.4	951.7	974.3
47.5°	750.3	792.7	864.3	917.3	942.5
50°	703.9	748.9	824.5	882.8	909.3
52.5°	658.8	705.2	784.7	847.0	873.5
55°	609.8	662.8	743.6	808.6	836.4
57.5°	560.7	617.7	701.2	768.8	796.7
60°	513.0	571.3	658.8	726.4	755.6
62.5°	465.3	523.6	615.1	684.0	711.8
65°	414.9	475.9	567.3	637.6	665.4
67.5°	364.5	428.2	519.6	589.9	616.4
70°	311.5	379.1	470.6	539.5	566.0
72.5°	262.5	330.1	420.2	487.8	513.0
75°	213.4	281.0	368.5	430.8	448.0
77.5°	165.7	233.3	311.5	352.6	356.6
80°	120.6	184.3	247.9	259.8	258.5
82.5°	80.9	137.9	171.0	172.3	176.3
85°	46.4	86.2	94.1	92.8	94.1
87.5°	18.6	30.5	26.5	19.9	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)