

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: P388753

Luminaire Tested: **24CZ2-50-SQR-UNV-L930-CD1-SWPD1-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: P388753
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-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3924.5 lumens
Efficiency: N/A
Efficacy: 80.8 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

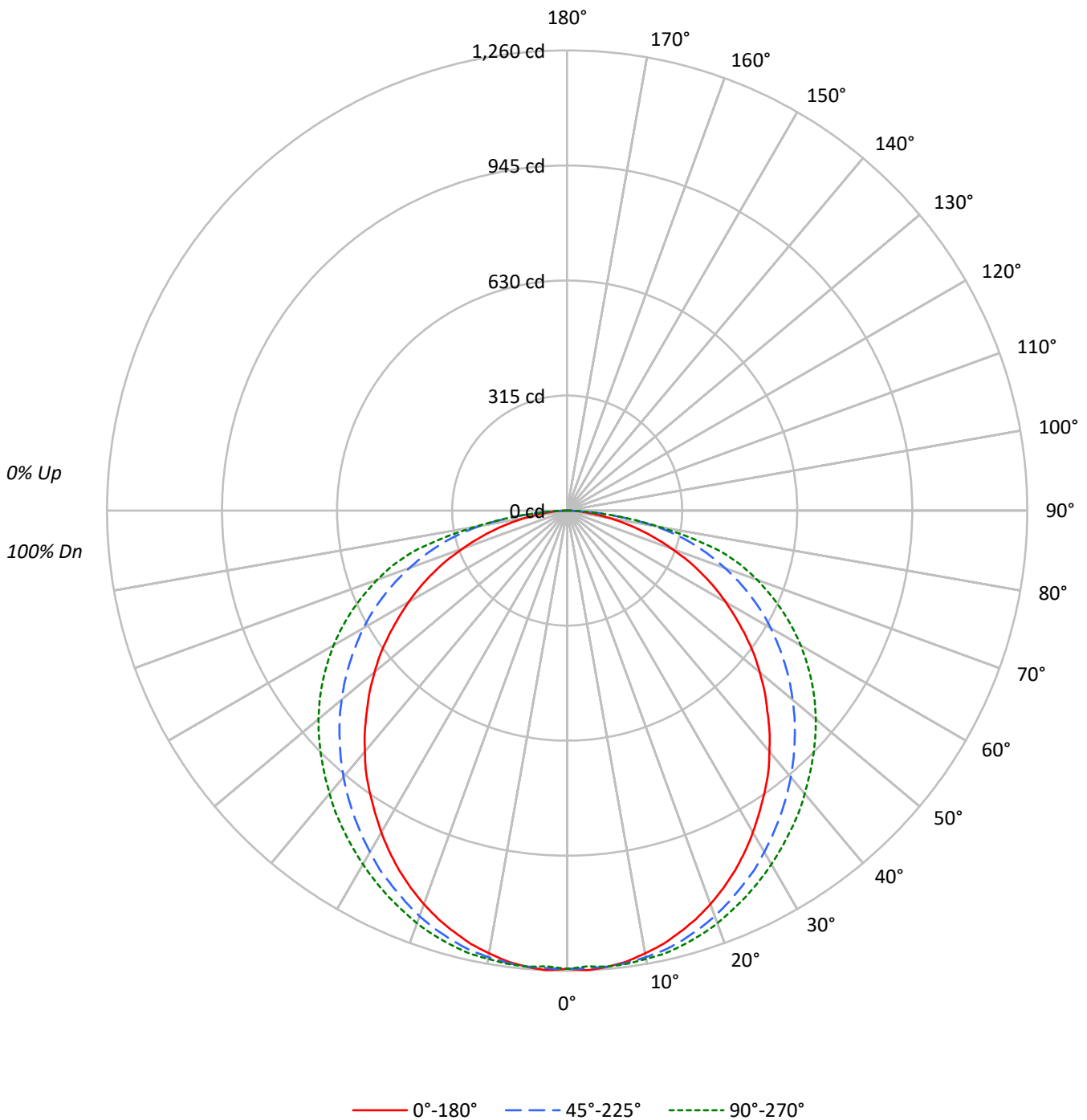
Input Watts (W): 48.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388753

CATALOG NUMBER: 24CZ2-50-SQR-UNV-L930-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388753

CATALOG NUMBER: 24CZ2-50-SQR-UNV-L930-CD1-SWPD1-U

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°	1688	1688	1688
5°	1694	1693	1693
10°	1682	1696	1703
15°	1664	1697	1715
20°	1642	1692	1722
25°	1614	1683	1728
30°	1581	1677	1738
35°	1547	1673	1754
40°	1514	1673	1778
45°	1475	1677	1812
50°	1440	1687	1861
55°	1398	1705	1918
60°	1350	1733	1988
65°	1291	1766	2071
70°	1198	1810	2177
75°	1084	1873	2277
80°	914	1877	1958
85°	701	1420	1420



TEST NUMBER: P388753

CATALOG NUMBER: 24CZ2-50-SQR-UNV-L930-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.1	3.0
10°-20°	342.6	8.7
20°-30°	520.4	13.3
30°-40°	633.0	16.1
40°-50°	673.9	17.2
50°-60°	641.9	16.4
60°-70°	536.8	13.7
70°-80°	357.9	9.1
80°-90°	99.0	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°	982.1	25.0
0°-40°	1615.0	41.2
0°-60°	2930.8	74.7
0°-90°	3924.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3924.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1254	1254	1254	1254	1254	
5°	1254	1247	1253	1253	1253	119
15°	1195	1197	1218	1227	1231	337
25°	1087	1102	1134	1153	1164	501
35°	942	969	1019	1052	1068	590
45°	775	816	881	930	952	599
55°	596	648	727	790	818	533
65°	406	465	555	623	651	401
75°	209	275	360	421	438	221
85°	45	84	92	91	92	55
90°	0	0	0	0	0	



TEST NUMBER: P388753

CATALOG NUMBER: 24CZ2-50-SQR-UNV-L930-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1254.5	1254.5	1254.5	1254.5	1254.5
2.5°	1259.6	1250.6	1254.5	1254.5	1249.3
5°	1254.5	1246.7	1253.2	1253.2	1253.2
7.5°	1245.4	1238.9	1249.3	1251.9	1251.9
10°	1231.1	1228.5	1241.5	1245.4	1246.7
12.5°	1215.6	1214.3	1232.4	1237.6	1241.5
15°	1194.8	1197.4	1218.2	1227.2	1231.1
17.5°	1172.8	1178.0	1201.3	1214.3	1218.2
20°	1146.9	1154.7	1181.9	1194.8	1202.6
22.5°	1118.4	1130.1	1158.6	1174.1	1183.2
25°	1087.3	1101.5	1133.9	1153.4	1163.7
27.5°	1053.6	1071.7	1109.3	1131.3	1141.7
30°	1017.3	1038.0	1079.5	1105.4	1118.4
32.5°	979.7	1004.3	1049.7	1078.2	1093.8
35°	942.1	969.4	1018.6	1052.3	1067.8
37.5°	904.6	931.8	986.2	1022.5	1041.9
40°	861.8	894.2	952.5	992.7	1012.1
42.5°	820.3	855.3	917.5	961.6	982.3
45°	775.0	816.4	881.2	930.5	952.5
47.5°	733.5	775.0	844.9	896.8	921.4
50°	688.1	732.2	806.1	863.1	889.0
52.5°	644.1	689.4	767.2	828.1	854.0
55°	596.1	648.0	727.0	790.5	817.7
57.5°	548.2	603.9	685.5	751.6	778.9
60°	501.5	558.5	644.1	710.2	738.7
62.5°	454.9	511.9	601.3	668.7	695.9
65°	405.6	465.2	554.7	623.3	650.6
67.5°	356.4	418.6	508.0	576.7	602.6
70°	304.5	370.6	460.1	527.4	553.4
72.5°	256.6	322.7	410.8	476.9	501.5
75°	208.6	274.7	360.3	421.2	438.0
77.5°	162.0	228.1	304.5	344.7	348.6
80°	117.9	180.1	242.3	254.0	252.7
82.5°	79.1	134.8	167.2	168.5	172.4
85°	45.4	84.2	92.0	90.7	92.0
87.5°	18.1	29.8	25.9	19.4	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)