

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: P388755

Luminaire Tested: **24CZ2-50-SQR-UNV-L935-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: P388755
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-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3973.1 lumens
Efficiency: N/A
Efficacy: 81.8 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

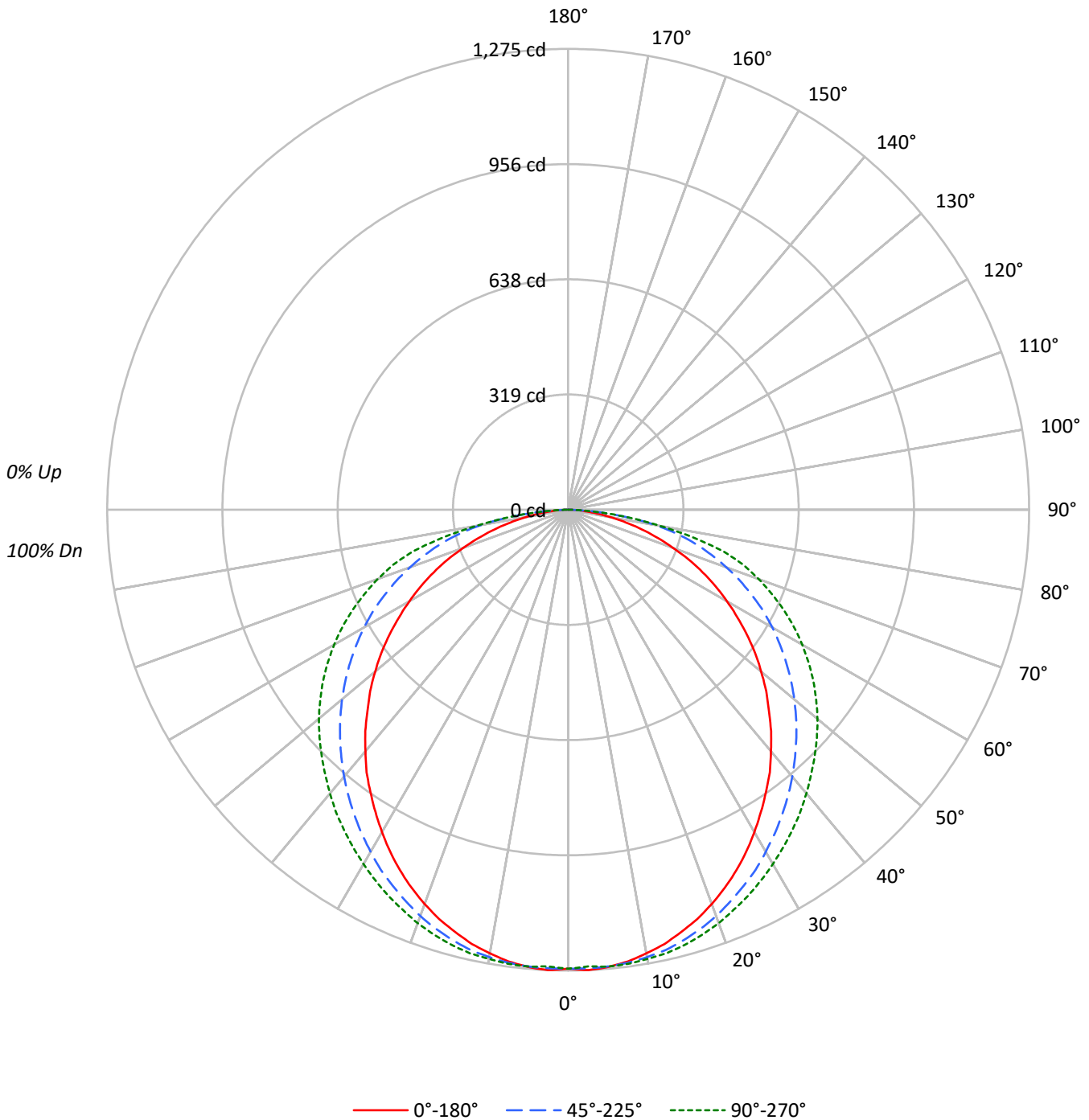
Input Watts (W): 48.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1709	1709	1709
5°	1715	1714	1714
10°	1703	1717	1724
15°	1685	1718	1736
20°	1663	1713	1743
25°	1634	1704	1749
30°	1600	1698	1759
35°	1567	1694	1776
40°	1532	1694	1800
45°	1493	1697	1835
50°	1458	1708	1884
55°	1416	1727	1942
60°	1366	1755	2012
65°	1307	1788	2097
70°	1213	1832	2204
75°	1098	1896	2305
80°	925	1901	1982
85°	709	1439	1439



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.6	3.0
10°-20°	346.8	8.7
20°-30°	526.8	13.3
30°-40°	640.8	16.1
40°-50°	682.3	17.2
50°-60°	649.8	16.4
60°-70°	543.4	13.7
70°-80°	362.3	9.1
80°-90°	100.2	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°	994.2	25.0
0°-40°	1635.0	41.2
0°-60°	2967.1	74.7
0°-90°	3973.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3973.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1270	1270	1270	1270	1270	
5°	1270	1262	1269	1269	1269	120
15°	1210	1212	1233	1242	1246	341
25°	1101	1115	1148	1168	1178	507
35°	954	981	1031	1065	1081	597
45°	785	826	892	942	964	607
55°	604	656	736	800	828	540
65°	411	471	562	631	659	406
75°	211	278	365	426	443	224
85°	46	85	93	92	93	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1270.0	1270.0	1270.0	1270.0	1270.0
2.5°	1275.2	1266.1	1270.0	1270.0	1264.7
5°	1270.0	1262.1	1268.7	1268.7	1268.7
7.5°	1260.8	1254.3	1264.7	1267.4	1267.4
10°	1246.4	1243.8	1256.9	1260.8	1262.1
12.5°	1230.6	1229.3	1247.7	1252.9	1256.9
15°	1209.6	1212.3	1233.3	1242.4	1246.4
17.5°	1187.3	1192.6	1216.2	1229.3	1233.3
20°	1161.1	1169.0	1196.5	1209.6	1217.5
22.5°	1132.2	1144.0	1172.9	1188.7	1197.8
25°	1100.8	1115.2	1148.0	1167.7	1178.2
27.5°	1066.6	1085.0	1123.1	1145.4	1155.9
30°	1029.9	1050.9	1092.9	1119.1	1132.2
32.5°	991.9	1016.8	1062.7	1091.6	1107.3
35°	953.8	981.4	1031.2	1065.3	1081.1
37.5°	915.8	943.3	998.4	1035.2	1054.8
40°	872.5	905.3	964.3	1005.0	1024.7
42.5°	830.5	865.9	928.9	973.5	994.5
45°	784.6	826.5	892.1	942.0	964.3
47.5°	742.6	784.6	855.4	907.9	932.8
50°	696.7	741.3	816.1	873.8	900.0
52.5°	652.1	698.0	776.7	838.4	864.6
55°	603.5	656.0	736.0	800.3	827.9
57.5°	555.0	611.4	694.0	760.9	788.5
60°	507.7	565.5	652.1	719.0	747.8
62.5°	460.5	518.2	608.8	677.0	704.5
65°	410.6	471.0	561.5	631.1	658.6
67.5°	360.8	423.8	514.3	583.8	610.1
70°	308.3	375.2	465.8	534.0	560.2
72.5°	259.8	326.7	415.9	482.8	507.7
75°	211.2	278.1	364.7	426.4	443.4
77.5°	164.0	230.9	308.3	349.0	352.9
80°	119.4	182.4	245.3	257.1	255.8
82.5°	80.0	136.4	169.2	170.6	174.5
85°	45.9	85.3	93.2	91.8	93.2
87.5°	18.4	30.2	26.2	19.7	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)