

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: P388752

Luminaire Tested: **24CZ2-50-SQR-UNV-L930-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: P388752
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-SDWPD1-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: 3877.2 lumens
Efficiency: N/A
Efficacy: 79.8 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

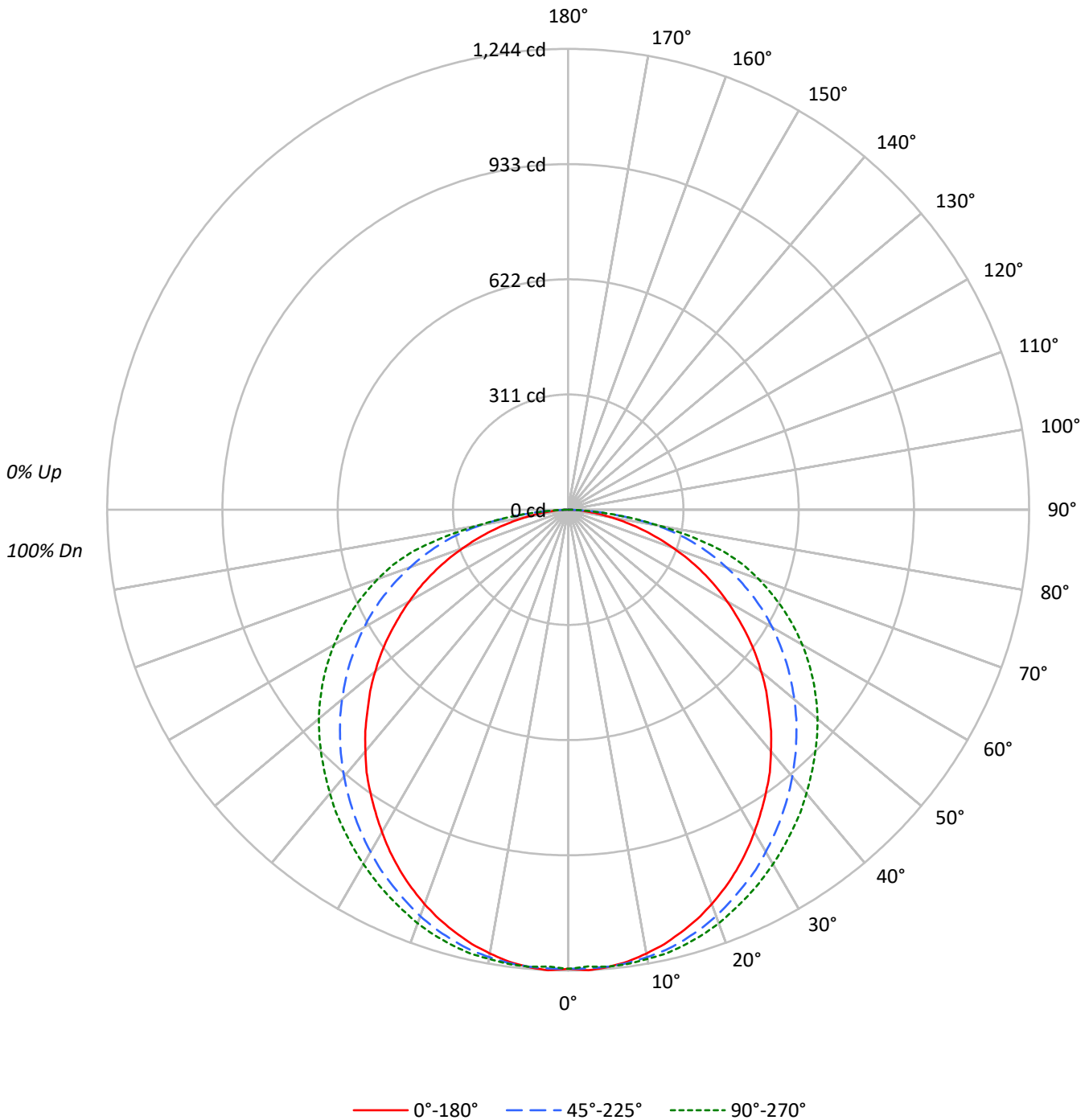
Input Watts (W): 48.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1667	1667	1667
5°	1674	1672	1672
10°	1662	1676	1683
15°	1644	1676	1694
20°	1622	1672	1701
25°	1595	1663	1707
30°	1561	1657	1717
35°	1529	1653	1733
40°	1495	1653	1756
45°	1457	1657	1791
50°	1423	1667	1838
55°	1381	1685	1895
60°	1333	1712	1964
65°	1276	1745	2046
70°	1184	1788	2151
75°	1071	1850	2249
80°	903	1855	1935
85°	692	1403	1403



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.6	3.0
10°-20°	338.5	8.7
20°-30°	514.1	13.3
30°-40°	625.3	16.1
40°-50°	665.8	17.2
50°-60°	634.1	16.4
60°-70°	530.3	13.7
70°-80°	353.6	9.1
80°-90°	97.8	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°	970.2	25.0
0°-40°	1595.6	41.2
0°-60°	2895.5	74.7
0°-90°	3877.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3877.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1239	1239	1239	1239	1239	
5°	1239	1232	1238	1238	1238	118
15°	1180	1183	1204	1212	1216	333
25°	1074	1088	1120	1140	1150	495
35°	931	958	1006	1040	1055	582
45°	766	807	871	919	941	592
55°	589	640	718	781	808	526
65°	401	460	548	616	643	396
75°	206	271	356	416	433	218
85°	45	83	91	90	91	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1239.3	1239.3	1239.3	1239.3	1239.3
2.5°	1244.5	1235.5	1239.3	1239.3	1234.2
5°	1239.3	1231.7	1238.1	1238.1	1238.1
7.5°	1230.4	1224.0	1234.2	1236.8	1236.8
10°	1216.3	1213.7	1226.5	1230.4	1231.7
12.5°	1200.9	1199.7	1217.6	1222.7	1226.5
15°	1180.4	1183.0	1203.5	1212.5	1216.3
17.5°	1158.7	1163.8	1186.8	1199.7	1203.5
20°	1133.1	1140.8	1167.6	1180.4	1188.1
22.5°	1104.9	1116.4	1144.6	1160.0	1168.9
25°	1074.2	1088.3	1120.3	1139.5	1149.7
27.5°	1040.9	1058.8	1095.9	1117.7	1128.0
30°	1005.0	1025.5	1066.5	1092.1	1104.9
32.5°	967.9	992.2	1037.1	1065.2	1080.6
35°	930.8	957.7	1006.3	1039.6	1055.0
37.5°	893.7	920.5	974.3	1010.2	1029.4
40°	851.4	883.4	941.0	980.7	999.9
42.5°	810.4	845.0	906.5	950.0	970.5
45°	765.6	806.6	870.6	919.3	941.0
47.5°	724.7	765.6	834.8	886.0	910.3
50°	679.8	723.4	796.4	852.7	878.3
52.5°	636.3	681.1	757.9	818.1	843.7
55°	588.9	640.2	718.3	781.0	807.9
57.5°	541.6	596.6	677.3	742.6	769.5
60°	495.5	551.8	636.3	701.6	729.8
62.5°	449.4	505.7	594.1	660.6	687.5
65°	400.7	459.6	548.0	615.8	642.7
67.5°	352.1	413.5	501.9	569.7	595.3
70°	300.9	366.2	454.5	521.1	546.7
72.5°	253.5	318.8	405.9	471.2	495.5
75°	206.1	271.4	355.9	416.1	432.7
77.5°	160.0	225.3	300.9	340.6	344.4
80°	116.5	178.0	239.4	250.9	249.7
82.5°	78.1	133.2	165.2	166.4	170.3
85°	44.8	83.2	90.9	89.6	90.9
87.5°	17.9	29.4	25.6	19.2	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)