

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: P388802

Luminaire Tested: **24CZ2-50VHE-SQR-UNV-L930-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: P388802
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: 24CZ2-50VHE-SQR-UNV-L930-CD1-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: 4012.6 lumens
Efficiency: N/A
Efficacy: 122.7 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

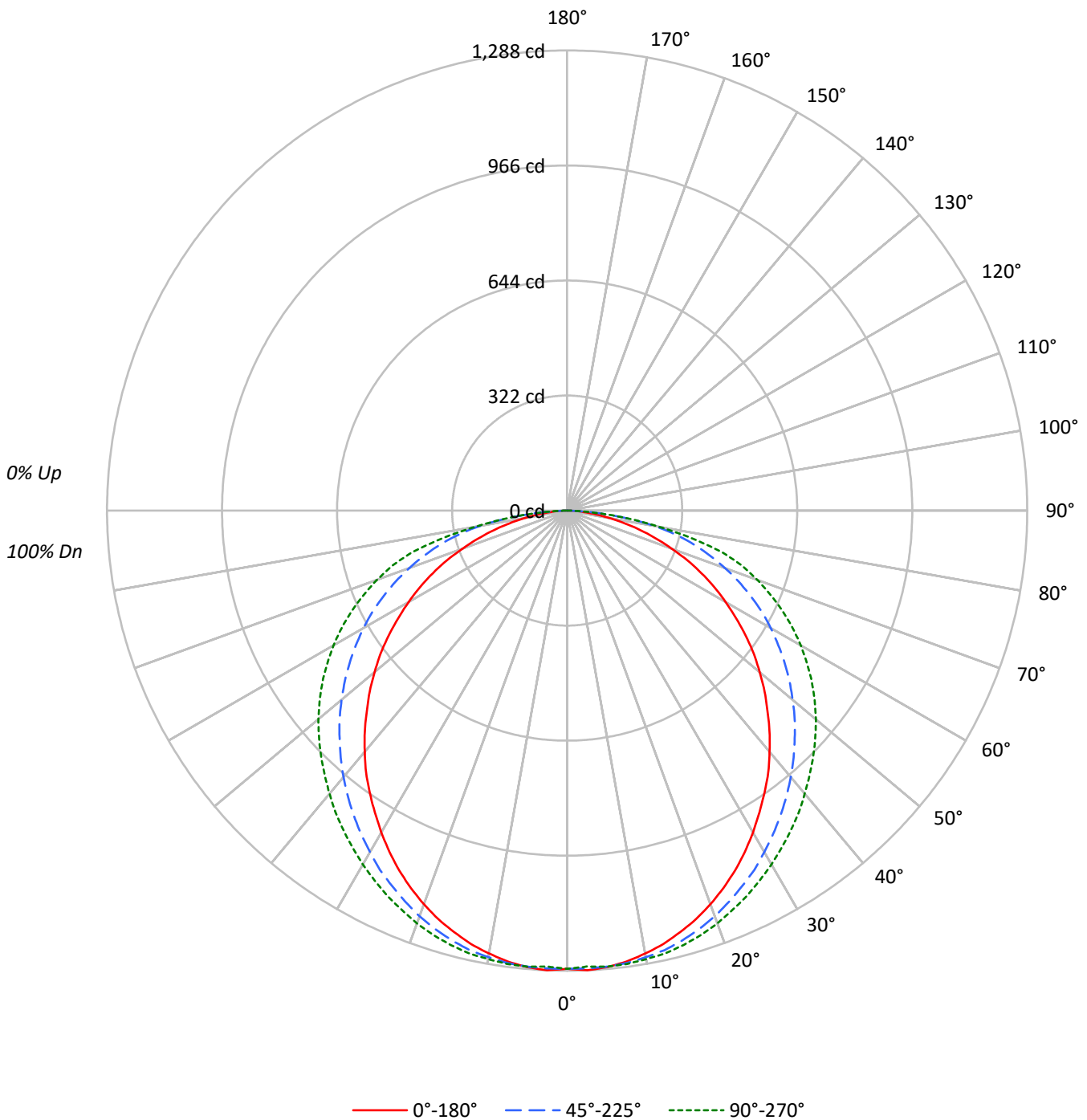
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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°	1732	1731	1731
10°	1720	1734	1742
15°	1702	1735	1753
20°	1679	1730	1761
25°	1650	1721	1767
30°	1616	1715	1777
35°	1582	1711	1793
40°	1548	1711	1818
45°	1508	1714	1853
50°	1473	1725	1903
55°	1430	1744	1961
60°	1380	1772	2032
65°	1320	1805	2118
70°	1225	1851	2226
75°	1109	1915	2328
80°	934	1920	2002
85°	716	1453	1453



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.7	3.0
10°-20°	350.3	8.7
20°-30°	532.1	13.3
30°-40°	647.2	16.1
40°-50°	689.0	17.2
50°-60°	656.3	16.4
60°-70°	548.8	13.7
70°-80°	365.9	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°	1004.1	25.0
0°-40°	1651.3	41.2
0°-60°	2996.6	74.7
0°-90°	4012.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4012.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1283	1283	1283	1283	1283	
5°	1283	1275	1281	1281	1281	122
15°	1222	1224	1246	1255	1259	345
25°	1112	1126	1159	1179	1190	512
35°	963	991	1042	1076	1092	603
45°	792	835	901	951	974	613
55°	610	662	743	808	836	545
65°	415	476	567	637	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°	1282.6	1282.6	1282.6	1282.6	1282.6
2.5°	1287.9	1278.6	1282.6	1282.6	1277.3
5°	1282.6	1274.7	1281.3	1281.3	1281.3
7.5°	1273.3	1266.7	1277.3	1280.0	1280.0
10°	1258.8	1256.1	1269.4	1273.3	1274.7
12.5°	1242.9	1241.5	1260.1	1265.4	1269.4
15°	1221.7	1224.3	1245.5	1254.8	1258.8
17.5°	1199.1	1204.4	1228.3	1241.5	1245.5
20°	1172.6	1180.6	1208.4	1221.7	1229.6
22.5°	1143.5	1155.4	1184.6	1200.5	1209.7
25°	1111.7	1126.3	1159.4	1179.3	1189.9
27.5°	1077.2	1095.8	1134.2	1156.7	1167.3
30°	1040.1	1061.3	1103.7	1130.2	1143.5
32.5°	1001.7	1026.9	1073.3	1102.4	1118.3
35°	963.3	991.1	1041.5	1075.9	1091.8
37.5°	924.9	952.7	1008.3	1045.4	1065.3
40°	881.1	914.3	973.9	1015.0	1034.8
42.5°	838.7	874.5	938.1	983.2	1004.4
45°	792.4	834.8	901.0	951.4	973.9
47.5°	750.0	792.4	863.9	916.9	942.1
50°	703.6	748.6	824.2	882.5	909.0
52.5°	658.5	704.9	784.4	846.7	873.2
55°	609.5	662.5	743.3	808.3	836.1
57.5°	560.5	617.5	700.9	768.5	796.3
60°	512.8	571.1	658.5	726.1	755.3
62.5°	465.1	523.4	614.8	683.7	711.5
65°	414.7	475.7	567.1	637.3	665.2
67.5°	364.4	428.0	519.4	589.6	616.1
70°	311.4	379.0	470.4	539.3	565.8
72.5°	262.4	329.9	420.0	487.6	512.8
75°	213.3	280.9	368.4	430.6	447.9
77.5°	165.6	233.2	311.4	352.5	356.4
80°	120.6	184.2	247.8	259.7	258.4
82.5°	80.8	137.8	170.9	172.3	176.2
85°	46.4	86.1	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)