

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: P390911

Luminaire Tested: **24CZ2-100VHE-RDP-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: P390911
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-RDP-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5655.1 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

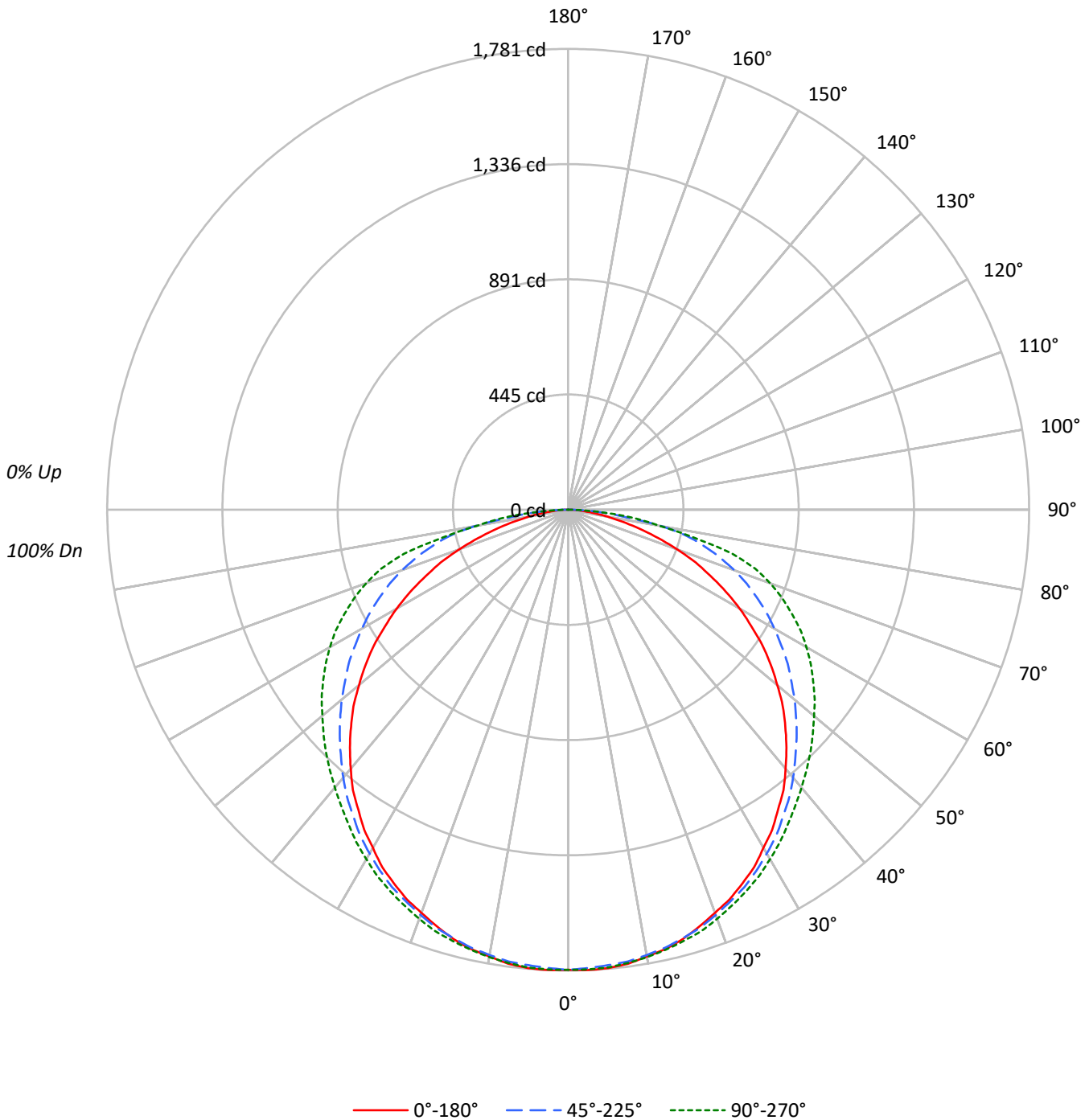
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P390911

CATALOG NUMBER: 24CZ2-100VHE-RDP-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P390911

CATALOG NUMBER: 24CZ2-100VHE-RDP-UNV-L930-CD1-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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2393	2393	2393
5°	2402	2387	2398
10°	2395	2388	2399
15°	2391	2387	2403
20°	2374	2386	2410
25°	2365	2390	2415
30°	2345	2384	2423
35°	2322	2377	2433
40°	2296	2375	2463
45°	2258	2375	2519
50°	2208	2390	2595
55°	2152	2428	2711
60°	2061	2476	2861
65°	1929	2563	3036
70°	1755	2681	3266
75°	1487	2829	3412
80°	1174	2848	2760
85°	866	2164	2425



TEST NUMBER: P390911

CATALOG NUMBER: 24CZ2-100VHE-RDP-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.7	3.0
10°-20°	485.5	8.6
20°-30°	742.4	13.1
30°-40°	907.6	16.0
40°-50°	967.3	17.1
50°-60°	924.9	16.4
60°-70°	783.5	13.9
70°-80°	526.6	9.3
80°-90°	148.5	2.6
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°	1396.6	24.7
0°-40°	2304.2	40.7
0°-60°	4196.5	74.2
0°-90°	5655.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5655.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1778	1778	1778	1778	1778	
5°	1778	1776	1767	1776	1776	169
15°	1717	1717	1714	1728	1725	484
25°	1593	1599	1610	1624	1627	734
35°	1414	1425	1447	1475	1481	886
45°	1186	1206	1248	1302	1324	915
55°	917	951	1035	1116	1156	817
65°	606	668	805	912	954	601
75°	286	390	544	637	656	306
85°	56	115	140	152	157	69
90°	0	0	0	0	0	



TEST NUMBER: P390911

CATALOG NUMBER: 24CZ2-100VHE-RDP-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1778.4	1778.4	1778.4	1778.4	1778.4
2.5°	1781.2	1781.2	1772.8	1778.4	1778.4
5°	1778.4	1775.6	1767.1	1775.6	1775.6
7.5°	1770.0	1767.1	1761.5	1770.0	1767.1
10°	1753.1	1753.1	1747.5	1755.9	1755.9
12.5°	1739.1	1736.3	1733.5	1744.7	1741.9
15°	1716.7	1716.7	1713.9	1727.9	1725.1
17.5°	1688.6	1691.4	1694.2	1705.4	1708.2
20°	1657.8	1663.4	1666.2	1683.0	1683.0
22.5°	1629.7	1632.5	1638.1	1654.9	1654.9
25°	1593.2	1598.8	1610.1	1624.1	1626.9
27.5°	1556.8	1559.6	1573.6	1593.2	1596.0
30°	1509.1	1517.5	1534.3	1556.8	1559.6
32.5°	1467.0	1475.4	1495.1	1517.5	1523.1
35°	1413.7	1424.9	1447.4	1475.4	1481.0
37.5°	1366.0	1374.4	1402.5	1433.4	1441.8
40°	1307.1	1324.0	1352.0	1388.5	1402.5
42.5°	1248.2	1265.1	1298.7	1346.4	1363.2
45°	1186.5	1206.1	1248.2	1301.5	1324.0
47.5°	1124.8	1147.2	1194.9	1256.6	1281.9
50°	1054.7	1082.7	1141.6	1211.8	1239.8
52.5°	987.4	1021.0	1085.5	1164.1	1200.5
55°	917.2	950.9	1035.0	1116.4	1155.7
57.5°	838.7	883.6	976.1	1068.7	1110.8
60°	765.8	807.8	920.0	1021.0	1063.1
62.5°	687.2	743.3	863.9	970.5	1012.6
65°	605.9	667.6	805.0	911.6	953.7
67.5°	532.9	600.3	746.1	852.7	894.8
70°	446.0	530.1	681.6	788.2	830.3
72.5°	364.6	457.2	614.3	718.1	757.3
75°	286.1	389.9	544.2	636.7	656.4
77.5°	213.2	322.6	471.2	510.5	496.5
80°	151.5	258.1	367.5	347.8	356.2
82.5°	98.2	196.3	227.2	258.1	266.5
85°	56.1	115.0	140.2	151.5	157.1
87.5°	25.2	42.1	56.1	56.1	53.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)