

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: P389136

Luminaire Tested: **24CZ2-80VHE-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: P389136
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: 24CZ2-80VHE-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: 6283.9 lumens
Efficiency: N/A
Efficacy: 116.8 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

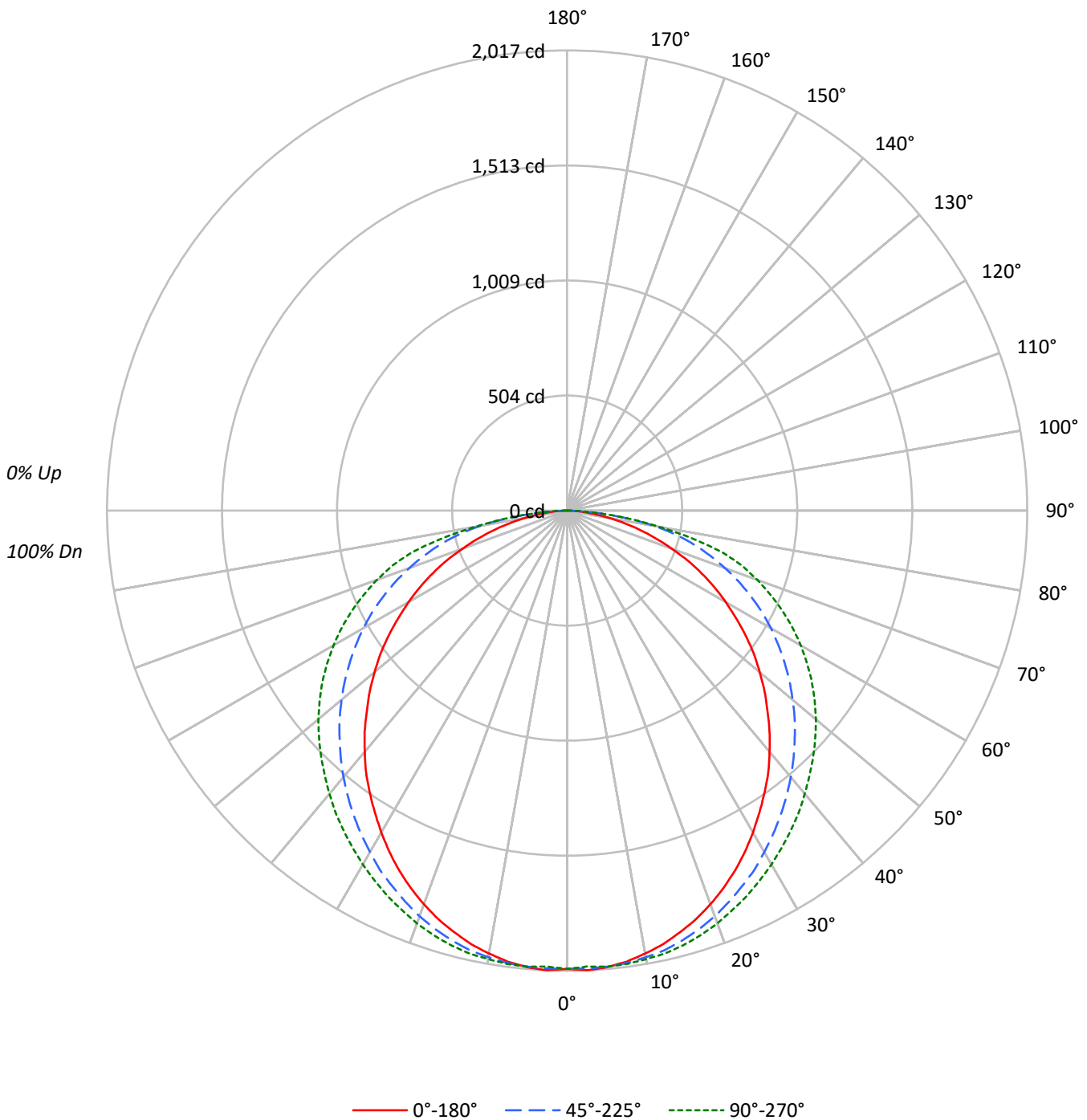
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389136

CATALOG NUMBER: 24CZ2-80VHE-SQR-UNV-L930-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389136

CATALOG NUMBER: 24CZ2-80VHE-SQR-UNV-L930-CD1-SDWPD1-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°	2703	2703	2703
5°	2713	2710	2710
10°	2693	2716	2727
15°	2665	2717	2746
20°	2629	2710	2757
25°	2585	2696	2766
30°	2531	2685	2782
35°	2478	2679	2808
40°	2424	2679	2846
45°	2361	2685	2902
50°	2306	2702	2980
55°	2239	2731	3072
60°	2161	2775	3183
65°	2068	2827	3316
70°	1918	2898	3485
75°	1737	2999	3646
80°	1463	3006	3135
85°	1121	2274	2274



TEST NUMBER: P389136

CATALOG NUMBER: 24CZ2-80VHE-SQR-UNV-L930-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.7	3.0
10°-20°	548.6	8.7
20°-30°	833.2	13.3
30°-40°	1013.5	16.1
40°-50°	1079.1	17.2
50°-60°	1027.8	16.4
60°-70°	859.5	13.7
70°-80°	573.0	9.1
80°-90°	158.6	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°	1572.5	25.0
0°-40°	2586.0	41.2
0°-60°	4692.8	74.7
0°-90°	6283.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6283.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2009	2009	2009	2009	2009	
5°	2009	1996	2007	2007	2007	191
15°	1913	1917	1950	1965	1971	540
25°	1741	1764	1816	1847	1863	802
35°	1509	1552	1631	1685	1710	944
45°	1241	1307	1411	1490	1525	959
55°	954	1038	1164	1266	1309	853
65°	650	745	888	998	1042	642
75°	334	440	577	674	701	354
85°	73	135	147	145	147	88
90°	0	0	0	0	0	



TEST NUMBER: P389136

CATALOG NUMBER: 24CZ2-80VHE-SQR-UNV-L930-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2008.6	2008.6	2008.6	2008.6	2008.6
2.5°	2016.9	2002.4	2008.6	2008.6	2000.3
5°	2008.6	1996.2	2006.6	2006.6	2006.6
7.5°	1994.1	1983.7	2000.3	2004.5	2004.5
10°	1971.3	1967.1	1987.9	1994.1	1996.2
12.5°	1946.4	1944.3	1973.4	1981.7	1987.9
15°	1913.2	1917.3	1950.5	1965.1	1971.3
17.5°	1877.9	1886.2	1923.6	1944.3	1950.5
20°	1836.4	1848.9	1892.4	1913.2	1925.6
22.5°	1790.8	1809.4	1855.1	1880.0	1894.5
25°	1741.0	1763.8	1815.7	1846.8	1863.4
27.5°	1687.0	1716.1	1776.2	1811.5	1828.1
30°	1628.9	1662.1	1728.5	1770.0	1790.8
32.5°	1568.7	1608.2	1680.8	1726.4	1751.3
35°	1508.6	1552.1	1631.0	1684.9	1709.8
37.5°	1448.4	1492.0	1579.1	1637.2	1668.3
40°	1379.9	1431.8	1525.2	1589.5	1620.6
42.5°	1313.5	1369.5	1469.1	1539.7	1572.9
45°	1240.9	1307.3	1411.0	1489.9	1525.2
47.5°	1174.5	1240.9	1352.9	1435.9	1475.4
50°	1101.8	1172.4	1290.7	1382.0	1423.5
52.5°	1031.3	1103.9	1228.4	1326.0	1367.5
55°	954.5	1037.5	1164.1	1265.8	1309.4
57.5°	877.7	967.0	1097.7	1203.5	1247.1
60°	803.0	894.3	1031.3	1137.1	1182.8
62.5°	728.3	819.6	962.8	1070.7	1114.3
65°	649.5	744.9	888.1	998.1	1041.7
67.5°	570.6	670.2	813.4	923.4	964.9
70°	487.6	593.5	736.6	844.5	886.0
72.5°	410.9	516.7	657.8	763.6	803.0
75°	334.1	439.9	576.9	674.4	701.4
77.5°	259.4	365.2	487.6	552.0	558.2
80°	188.8	288.4	388.0	406.7	404.6
82.5°	126.6	215.8	267.7	269.8	276.0
85°	72.6	134.9	147.3	145.3	147.3
87.5°	29.1	47.7	41.5	31.1	31.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)