

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: P388968

Luminaire Tested: **24CZ2-65-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: P388968
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: 24CZ2-65-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: 5080.9 lumens
Efficiency: N/A
Efficacy: 80.9 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

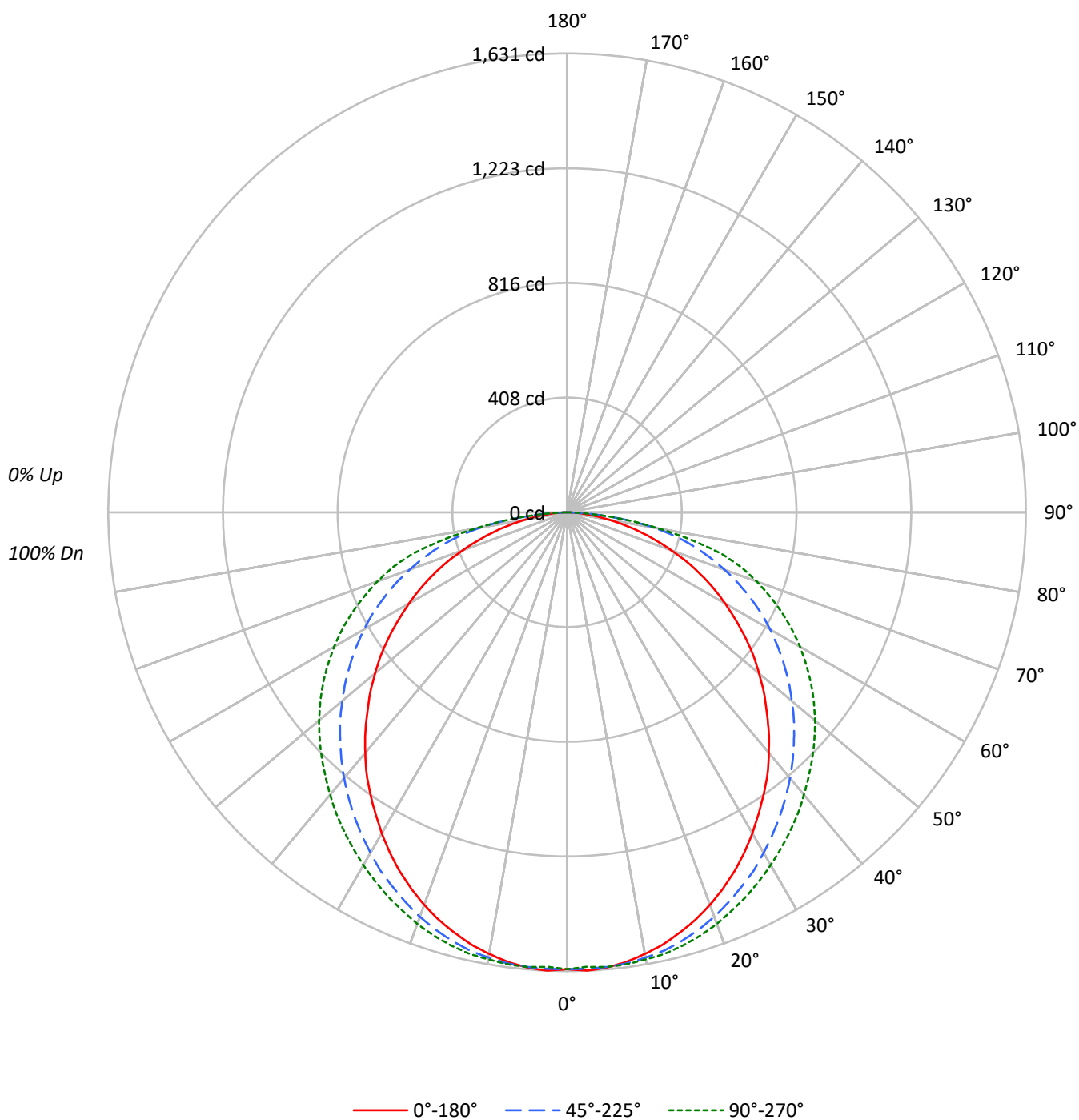
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388968

CATALOG NUMBER: 24CZ2-65-SQR-UNV-L930-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388968

CATALOG NUMBER: 24CZ2-65-SQR-UNV-L930-CD1-SDWPD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	98	94	105	100	96	92		96	93	89		92	89	87		89	86	84
2	98	89	81	75	95	87	80	74		83	78	73		80	75	71		77	73	69
3	89	77	69	62	86	76	68	61		73	66	60		70	64	59		67	62	58
4	81	68	59	52	78	67	58	52		64	57	51		62	55	50		60	54	49
5	74	61	51	44	72	60	51	44		57	50	44		55	49	43		54	48	43
6	68	55	45	39	66	54	45	38		52	44	38		50	43	38		48	42	37
7	63	49	40	34	62	49	40	34		47	39	34		45	39	33		44	38	33
8	59	45	36	30	57	44	36	30		43	35	30		42	35	30		40	34	30
9	55	41	33	27	54	41	33	27		39	32	27		38	32	27		37	31	27
10	52	38	30	25	50	37	30	24		36	29	24		36	29	24		35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2185	2185	2185
5°	2194	2191	2191
10°	2178	2196	2205
15°	2155	2197	2220
20°	2126	2191	2229
25°	2090	2180	2237
30°	2046	2171	2250
35°	2004	2166	2271
40°	1960	2166	2302
45°	1909	2171	2347
50°	1865	2184	2409
55°	1810	2208	2483
60°	1747	2244	2573
65°	1672	2286	2682
70°	1551	2343	2818
75°	1404	2425	2948
80°	1183	2431	2535
85°	906	1839	1839



TEST NUMBER: P388968

CATALOG NUMBER: 24CZ2-65-SQR-UNV-L930-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.2	3.0
10°-20°	443.5	8.7
20°-30°	673.7	13.3
30°-40°	819.5	16.1
40°-50°	872.5	17.2
50°-60°	831.0	16.4
60°-70°	694.9	13.7
70°-80°	463.3	9.1
80°-90°	128.2	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°	1271.4	25.0
0°-40°	2090.9	41.2
0°-60°	3794.4	74.7
0°-90°	5080.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5080.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1624	1624	1624	1624	1624	
5°	1624	1614	1622	1622	1622	154
15°	1547	1550	1577	1589	1594	436
25°	1408	1426	1468	1493	1507	648
35°	1220	1255	1319	1362	1382	763
45°	1003	1057	1141	1205	1233	776
55°	772	839	941	1024	1059	690
65°	525	602	718	807	842	519
75°	270	356	466	545	567	286
85°	59	109	119	117	119	71
90°	0	0	0	0	0	



TEST NUMBER: P388968

CATALOG NUMBER: 24CZ2-65-SQR-UNV-L930-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1624.1	1624.1	1624.1	1624.1	1624.1
2.5°	1630.8	1619.1	1624.1	1624.1	1617.4
5°	1624.1	1614.0	1622.4	1622.4	1622.4
7.5°	1612.4	1604.0	1617.4	1620.7	1620.7
10°	1593.9	1590.5	1607.3	1612.4	1614.0
12.5°	1573.8	1572.1	1595.6	1602.3	1607.3
15°	1546.9	1550.3	1577.1	1588.9	1593.9
17.5°	1518.4	1525.1	1555.3	1572.1	1577.1
20°	1484.8	1494.9	1530.1	1546.9	1557.0
22.5°	1447.9	1463.0	1499.9	1520.1	1531.8
25°	1407.7	1426.1	1468.1	1493.2	1506.7
27.5°	1364.0	1387.5	1436.2	1464.7	1478.1
30°	1317.1	1343.9	1397.6	1431.2	1447.9
32.5°	1268.4	1300.3	1359.0	1395.9	1416.1
35°	1219.8	1255.0	1318.7	1362.4	1382.5
37.5°	1171.1	1206.3	1276.8	1323.8	1348.9
40°	1115.7	1157.7	1233.2	1285.2	1310.4
42.5°	1062.0	1107.3	1187.9	1244.9	1271.8
45°	1003.3	1057.0	1140.9	1204.7	1233.2
47.5°	949.6	1003.3	1093.9	1161.0	1192.9
50°	890.9	948.0	1043.6	1117.4	1151.0
52.5°	833.9	892.6	993.3	1072.1	1105.7
55°	771.8	838.9	941.2	1023.5	1058.7
57.5°	709.7	781.9	887.6	973.1	1008.4
60°	649.3	723.1	833.9	919.4	956.3
62.5°	588.9	662.7	778.5	865.7	901.0
65°	525.1	602.3	718.1	807.0	842.3
67.5°	461.4	541.9	657.7	746.6	780.2
70°	394.3	479.8	595.6	682.9	716.4
72.5°	332.2	417.8	531.9	617.4	649.3
75°	270.1	355.7	466.4	545.3	567.1
77.5°	209.7	295.3	394.3	446.3	451.3
80°	152.7	233.2	313.7	328.8	327.2
82.5°	102.3	174.5	216.4	218.1	223.1
85°	58.7	109.1	119.1	117.4	119.1
87.5°	23.5	38.6	33.6	25.2	25.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)