

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: P391054

Luminaire Tested: **24CZ2-130VHE-RDP-UNV-L930-CD2-SWPD1-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: P391054  
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: 24CZ2-130VHE-RDP-UNV-L930-CD2-SWPD1-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: 7272.9 lumens  
Efficiency: N/A  
Efficacy: 80.2 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

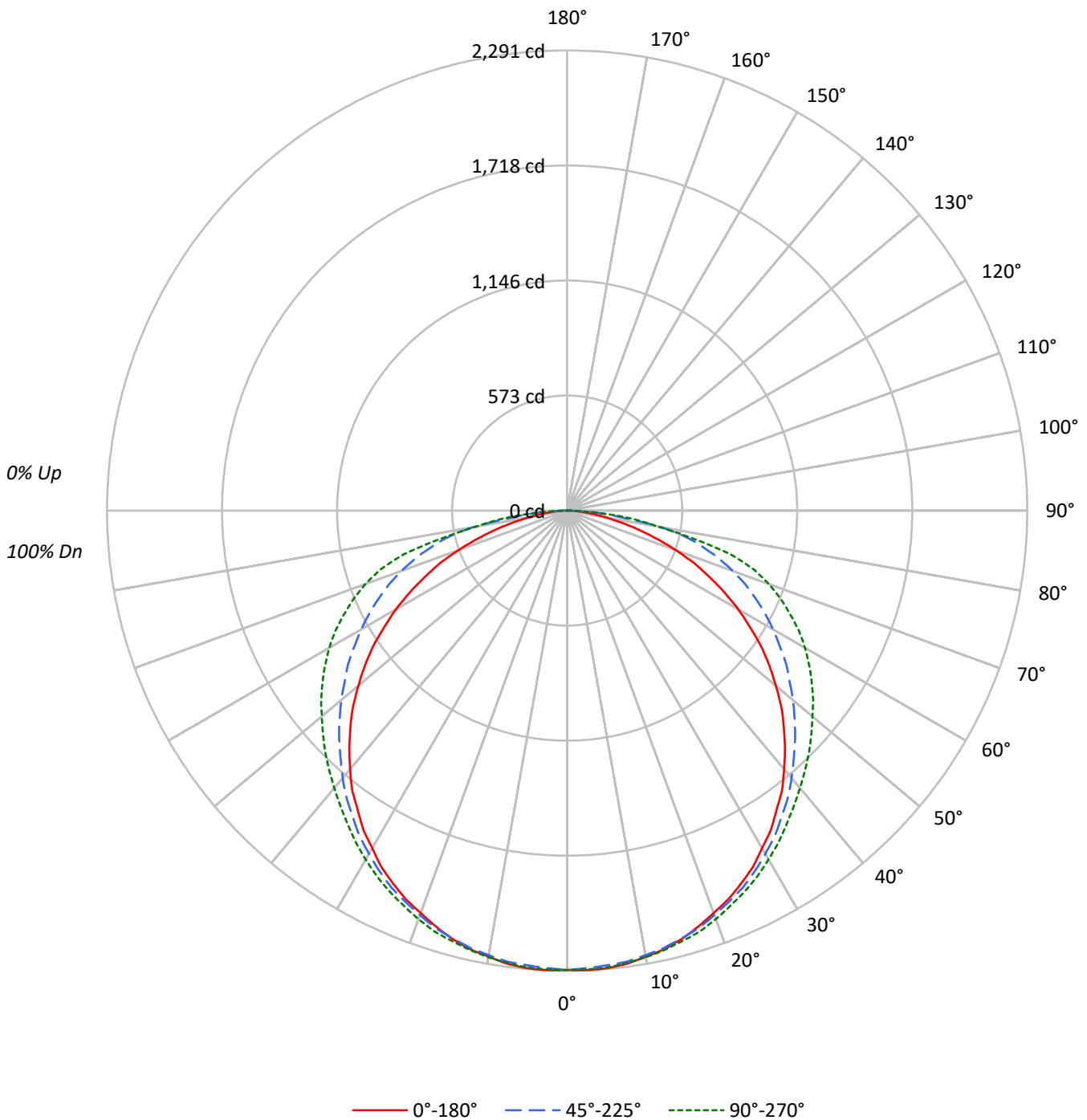
Input Watts (W): 90.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P391054

CATALOG NUMBER: 24CZ2-130VHE-RDP-UNV-L930-CD2-SWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P391054

CATALOG NUMBER: 24CZ2-130VHE-RDP-UNV-L930-CD2-SWPD1-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°	3077	3077	3077
5°	3089	3070	3084
10°	3080	3071	3085
15°	3075	3070	3090
20°	3053	3068	3099
25°	3042	3074	3106
30°	3015	3066	3116
35°	2986	3057	3129
40°	2953	3054	3168
45°	2903	3055	3240
50°	2839	3073	3338
55°	2767	3122	3487
60°	2650	3184	3679
65°	2481	3296	3905
70°	2257	3448	4201
75°	1913	3638	4388
80°	1509	3662	3550
85°	1113	2785	3118



TEST NUMBER: P391054

CATALOG NUMBER: 24CZ2-130VHE-RDP-UNV-L930-CD2-SWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	217.0	3.0
10°-20°	624.4	8.6
20°-30°	954.8	13.1
30°-40°	1167.3	16.0
40°-50°	1244.1	17.1
50°-60°	1189.5	16.4
60°-70°	1007.6	13.9
70°-80°	677.2	9.3
80°-90°	191.0	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°	1796.2	24.7
0°-40°	2963.4	40.7
0°-60°	5397.0	74.2
0°-90°	7272.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7272.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2287	2287	2287	2287	2287	
5°	2287	2284	2273	2284	2284	217
15°	2208	2208	2204	2222	2219	622
25°	2049	2056	2071	2089	2092	944
35°	1818	1833	1861	1898	1905	1139
45°	1526	1551	1605	1674	1703	1177
55°	1180	1223	1331	1436	1486	1051
65°	779	859	1035	1172	1226	774
75°	368	501	700	819	844	394
85°	72	148	180	195	202	89
90°	0	0	0	0	0	



TEST NUMBER: P391054

CATALOG NUMBER: 24CZ2-130VHE-RDP-UNV-L930-CD2-SWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2287.1	2287.1	2287.1	2287.1	2287.1
2.5°	2290.7	2290.7	2279.9	2287.1	2287.1
5°	2287.1	2283.5	2272.7	2283.5	2283.5
7.5°	2276.3	2272.7	2265.5	2276.3	2272.7
10°	2254.7	2254.7	2247.4	2258.3	2258.3
12.5°	2236.6	2233.0	2229.4	2243.8	2240.2
15°	2207.8	2207.8	2204.1	2222.2	2218.6
17.5°	2171.7	2175.3	2178.9	2193.3	2196.9
20°	2132.0	2139.2	2142.8	2164.5	2164.5
22.5°	2095.9	2099.5	2106.7	2128.4	2128.4
25°	2049.0	2056.2	2070.7	2088.7	2092.3
27.5°	2002.1	2005.7	2023.8	2049.0	2052.6
30°	1940.8	1951.6	1973.3	2002.1	2005.7
32.5°	1886.7	1897.5	1922.8	1951.6	1958.8
35°	1818.2	1832.6	1861.4	1897.5	1904.7
37.5°	1756.8	1767.6	1803.7	1843.4	1854.2
40°	1681.1	1702.7	1738.8	1785.7	1803.7
42.5°	1605.3	1627.0	1670.2	1731.6	1753.2
45°	1525.9	1551.2	1605.3	1673.9	1702.7
47.5°	1446.6	1475.4	1536.8	1616.1	1648.6
50°	1356.4	1392.5	1468.2	1558.4	1594.5
52.5°	1269.8	1313.1	1396.1	1497.1	1544.0
55°	1179.6	1222.9	1331.1	1435.8	1486.3
57.5°	1078.6	1136.3	1255.4	1374.4	1428.5
60°	984.8	1038.9	1183.2	1313.1	1367.2
62.5°	883.8	956.0	1111.1	1248.2	1302.3
65°	779.2	858.6	1035.3	1172.4	1226.5
67.5°	685.4	772.0	959.6	1096.7	1150.8
70°	573.6	681.8	876.6	1013.7	1067.8
72.5°	469.0	588.0	790.0	923.5	974.0
75°	368.0	501.4	699.8	818.9	844.1
77.5°	274.2	414.9	606.1	656.6	638.5
80°	194.8	331.9	472.6	447.3	458.1
82.5°	126.3	252.5	292.2	331.9	342.7
85°	72.1	147.9	180.4	194.8	202.0
87.5°	32.5	54.1	72.1	72.1	68.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)