

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: P391005

Luminaire Tested: **24CZ2-120VHE-RDP-UNV-L930-CD2-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: P391005  
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: 24CZ2-120VHE-RDP-UNV-L930-CD2-SDWPD1-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: 6611.3 lumens  
Efficiency: N/A  
Efficacy: 79.1 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

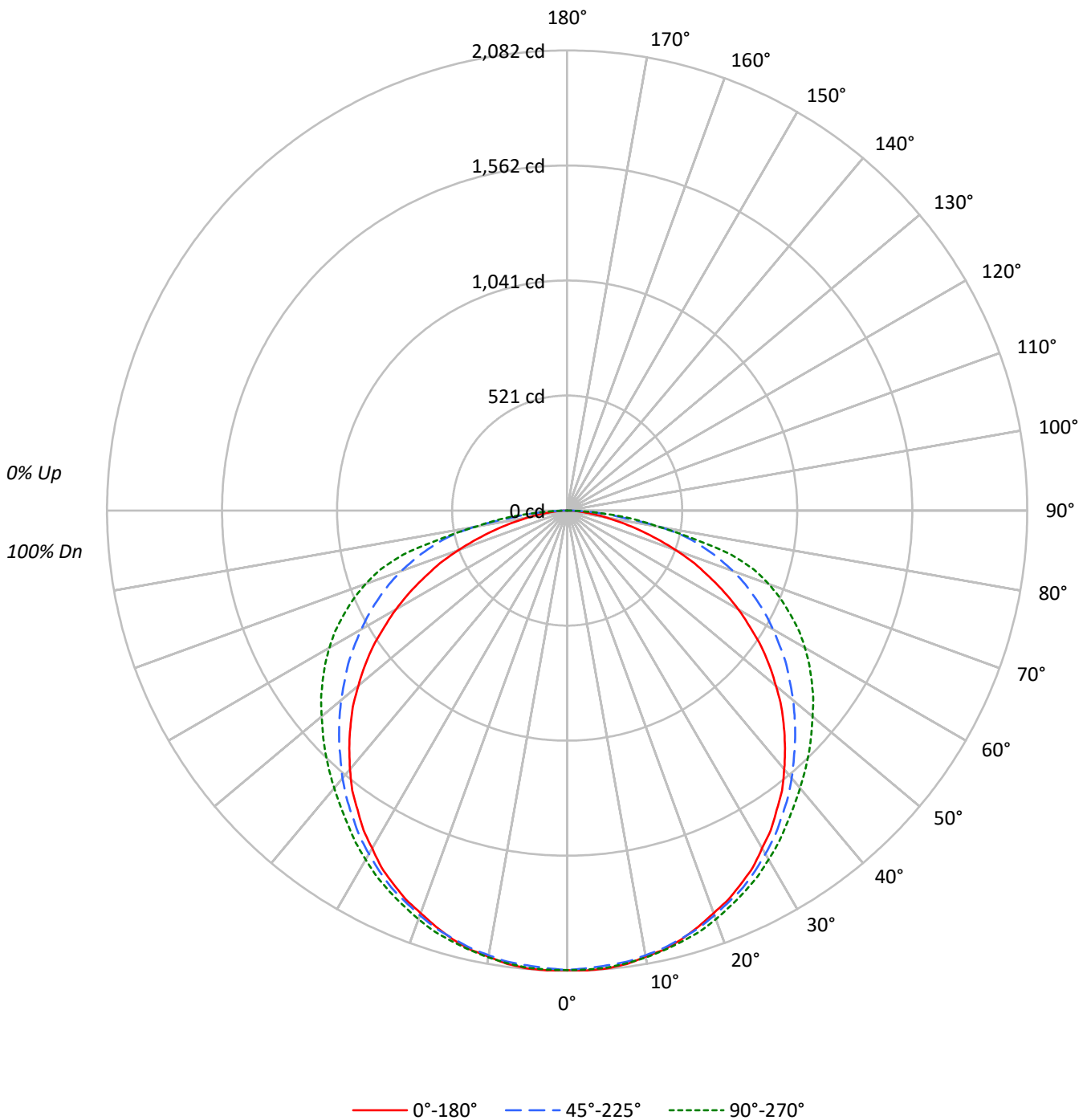
Input Watts (W): 83.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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°	2797	2797	2797
5°	2808	2790	2804
10°	2800	2791	2805
15°	2796	2791	2809
20°	2775	2789	2817
25°	2765	2794	2824
30°	2741	2787	2833
35°	2715	2779	2844
40°	2684	2776	2880
45°	2639	2777	2945
50°	2581	2794	3034
55°	2515	2839	3169
60°	2409	2894	3344
65°	2255	2996	3550
70°	2051	3135	3819
75°	1739	3307	3989
80°	1372	3329	3227
85°	1013	2532	2834



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.2	3.0
10°-20°	567.6	8.6
20°-30°	868.0	13.1
30°-40°	1061.1	16.0
40°-50°	1130.9	17.1
50°-60°	1081.3	16.4
60°-70°	916.0	13.9
70°-80°	615.6	9.3
80°-90°	173.7	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°	1632.8	24.7
0°-40°	2693.9	40.7
0°-60°	4906.1	74.2
0°-90°	6611.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6611.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2079	2079	2079	2079	2079	
5°	2079	2076	2066	2076	2076	198
15°	2007	2007	2004	2020	2017	566
25°	1863	1869	1882	1899	1902	858
35°	1653	1666	1692	1725	1732	1035
45°	1387	1410	1459	1522	1548	1070
55°	1072	1112	1210	1305	1351	955
65°	708	780	941	1066	1115	703
75°	334	456	636	744	767	358
85°	66	134	164	177	184	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2079.1	2079.1	2079.1	2079.1	2079.1
2.5°	2082.3	2082.3	2072.5	2079.1	2079.1
5°	2079.1	2075.8	2065.9	2075.8	2075.8
7.5°	2069.2	2065.9	2059.4	2069.2	2065.9
10°	2049.6	2049.6	2043.0	2052.8	2052.8
12.5°	2033.2	2029.9	2026.6	2039.7	2036.4
15°	2006.9	2006.9	2003.6	2020.0	2016.8
17.5°	1974.1	1977.4	1980.7	1993.8	1997.1
20°	1938.1	1944.6	1947.9	1967.6	1967.6
22.5°	1905.3	1908.5	1915.1	1934.8	1934.8
25°	1862.6	1869.2	1882.3	1898.7	1902.0
27.5°	1820.0	1823.3	1839.7	1862.6	1865.9
30°	1764.3	1774.1	1793.8	1820.0	1823.3
32.5°	1715.1	1724.9	1747.9	1774.1	1780.7
35°	1652.8	1665.9	1692.1	1724.9	1731.5
37.5°	1597.0	1606.8	1639.6	1675.7	1685.6
40°	1528.1	1547.8	1580.6	1623.2	1639.6
42.5°	1459.3	1479.0	1518.3	1574.1	1593.7
45°	1387.1	1410.1	1459.3	1521.6	1547.8
47.5°	1315.0	1341.2	1397.0	1469.1	1498.6
50°	1233.0	1265.8	1334.7	1416.7	1449.4
52.5°	1154.3	1193.7	1269.1	1360.9	1403.5
55°	1072.3	1111.7	1210.1	1305.2	1351.1
57.5°	980.5	1033.0	1141.2	1249.4	1298.6
60°	895.2	944.4	1075.6	1193.7	1242.8
62.5°	803.4	869.0	1010.0	1134.6	1183.8
65°	708.3	780.5	941.2	1065.8	1115.0
67.5°	623.1	701.8	872.3	996.9	1046.1
70°	521.4	619.8	796.9	921.5	970.7
72.5°	426.3	534.5	718.2	839.5	885.4
75°	334.5	455.8	636.2	744.4	767.4
77.5°	249.2	377.1	550.9	596.8	580.4
80°	177.1	301.7	429.6	406.6	416.5
82.5°	114.8	229.5	265.6	301.7	311.5
85°	65.6	134.5	164.0	177.1	183.6
87.5°	29.5	49.2	65.6	65.6	62.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)