

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: P391010

Luminaire Tested: **24CZ2-120VHE-RDP-UNV-L935-CD2-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: P391010
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-L935-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6943.7 lumens
Efficiency: N/A
Efficacy: 83.1 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

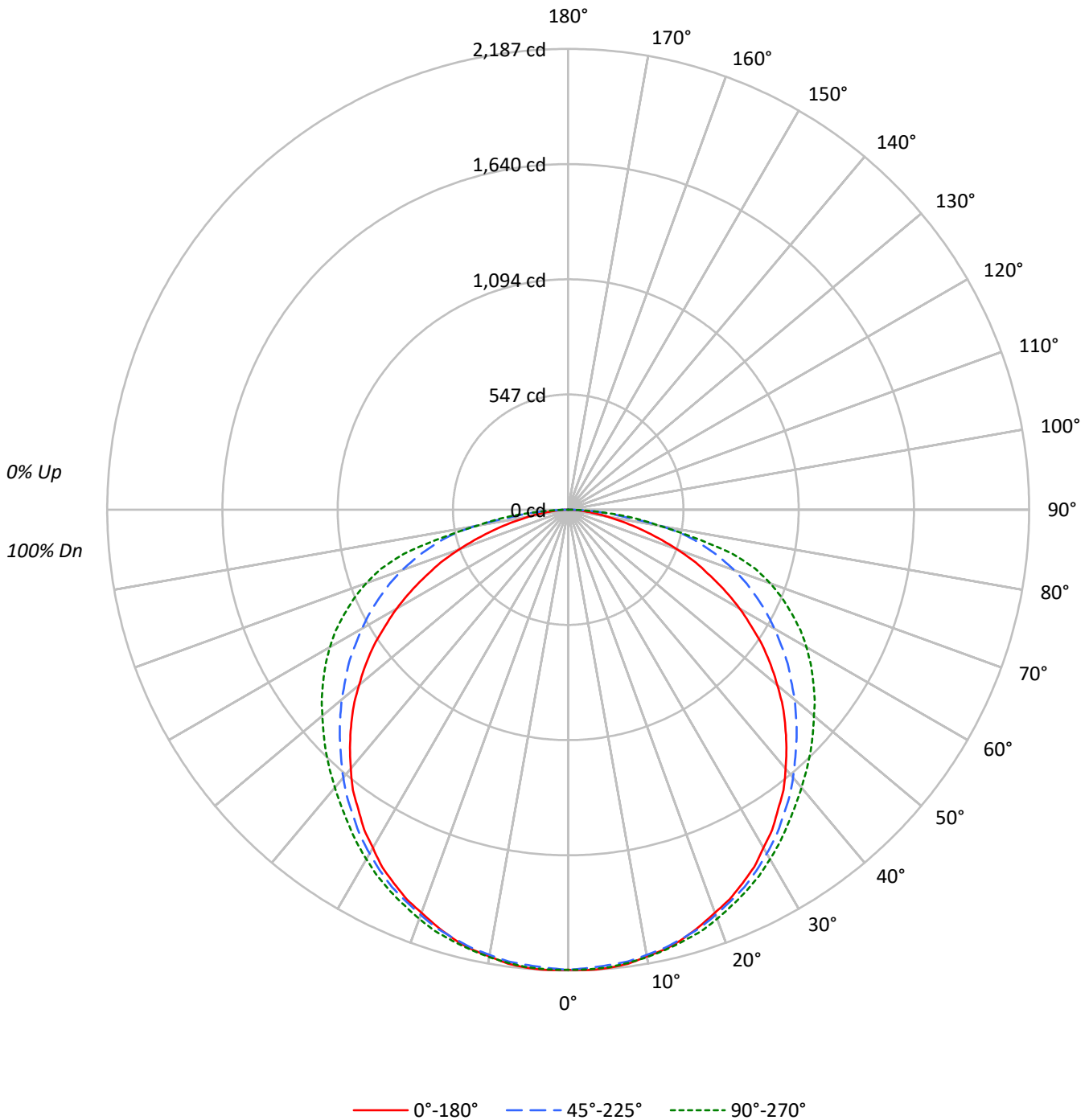
Input Watts (W): 83.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P391010

CATALOG NUMBER: 24CZ2-120VHE-RDP-UNV-L935-CD2-U

Luminous Intensity Polar Plot





TEST NUMBER: P391010

CATALOG NUMBER: 24CZ2-120VHE-RDP-UNV-L935-CD2-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°	2938	2938	2938
5°	2949	2931	2945
10°	2941	2932	2946
15°	2936	2931	2951
20°	2915	2929	2959
25°	2904	2935	2966
30°	2879	2927	2975
35°	2851	2919	2987
40°	2819	2916	3025
45°	2772	2916	3093
50°	2711	2934	3186
55°	2642	2981	3329
60°	2530	3040	3513
65°	2368	3147	3728
70°	2154	3292	4011
75°	1826	3474	4190
80°	1441	3496	3389
85°	1064	2658	2978



TEST NUMBER: P391010

CATALOG NUMBER: 24CZ2-120VHE-RDP-UNV-L935-CD2-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.1	3.0
10°-20°	596.1	8.6
20°-30°	911.6	13.1
30°-40°	1114.4	16.0
40°-50°	1187.8	17.1
50°-60°	1135.7	16.4
60°-70°	962.0	13.9
70°-80°	646.6	9.3
80°-90°	182.4	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°	1714.9	24.7
0°-40°	2829.3	40.7
0°-60°	5152.7	74.2
0°-90°	6943.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6943.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2184	2184	2184	2184	2184	
5°	2184	2180	2170	2180	2180	207
15°	2108	2108	2104	2122	2118	594
25°	1956	1963	1977	1994	1998	902
35°	1736	1750	1777	1812	1818	1087
45°	1457	1481	1533	1598	1626	1124
55°	1126	1168	1271	1371	1419	1003
65°	744	820	988	1119	1171	739
75°	351	479	668	782	806	376
85°	69	141	172	186	193	85
90°	0	0	0	0	0	



TEST NUMBER: P391010

CATALOG NUMBER: 24CZ2-120VHE-RDP-UNV-L935-CD2-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2183.6	2183.6	2183.6	2183.6	2183.6
2.5°	2187.0	2187.0	2176.7	2183.6	2183.6
5°	2183.6	2180.2	2169.8	2180.2	2180.2
7.5°	2173.3	2169.8	2162.9	2173.3	2169.8
10°	2152.6	2152.6	2145.7	2156.0	2156.0
12.5°	2135.4	2131.9	2128.5	2142.3	2138.8
15°	2107.8	2107.8	2104.4	2121.6	2118.2
17.5°	2073.4	2076.8	2080.3	2094.0	2097.5
20°	2035.5	2042.4	2045.8	2066.5	2066.5
22.5°	2001.1	2004.5	2011.4	2032.1	2032.1
25°	1956.3	1963.2	1976.9	1994.2	1997.6
27.5°	1911.5	1915.0	1932.2	1956.3	1959.7
30°	1853.0	1863.3	1884.0	1911.5	1915.0
32.5°	1801.3	1811.6	1835.7	1863.3	1870.2
35°	1735.9	1749.6	1777.2	1811.6	1818.5
37.5°	1677.3	1687.6	1722.1	1760.0	1770.3
40°	1605.0	1625.6	1660.1	1704.9	1722.1
42.5°	1532.6	1553.3	1594.6	1653.2	1673.9
45°	1456.9	1481.0	1532.6	1598.1	1625.6
47.5°	1381.1	1408.7	1467.2	1543.0	1574.0
50°	1295.0	1329.4	1401.8	1487.9	1522.3
52.5°	1212.3	1253.7	1332.9	1429.3	1474.1
55°	1126.2	1167.6	1270.9	1370.8	1419.0
57.5°	1029.8	1084.9	1198.6	1312.2	1363.9
60°	940.3	991.9	1129.7	1253.7	1305.3
62.5°	843.8	912.7	1060.8	1191.7	1243.3
65°	743.9	819.7	988.5	1119.4	1171.0
67.5°	654.4	737.0	916.1	1047.0	1098.7
70°	547.6	650.9	836.9	967.8	1019.5
72.5°	447.7	561.4	754.3	881.7	929.9
75°	351.3	478.7	668.2	781.8	805.9
77.5°	261.8	396.1	578.6	626.8	609.6
80°	186.0	316.9	451.2	427.1	437.4
82.5°	120.5	241.1	279.0	316.9	327.2
85°	68.9	141.2	172.2	186.0	192.9
87.5°	31.0	51.7	68.9	68.9	65.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)