

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: P390967

Luminaire Tested: **24CZ2-110VHE-RDP-UNV-L950-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: P390967
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: 24CZ2-110VHE-RDP-UNV-L950-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6683.8 lumens
Efficiency: N/A
Efficacy: 86.4 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

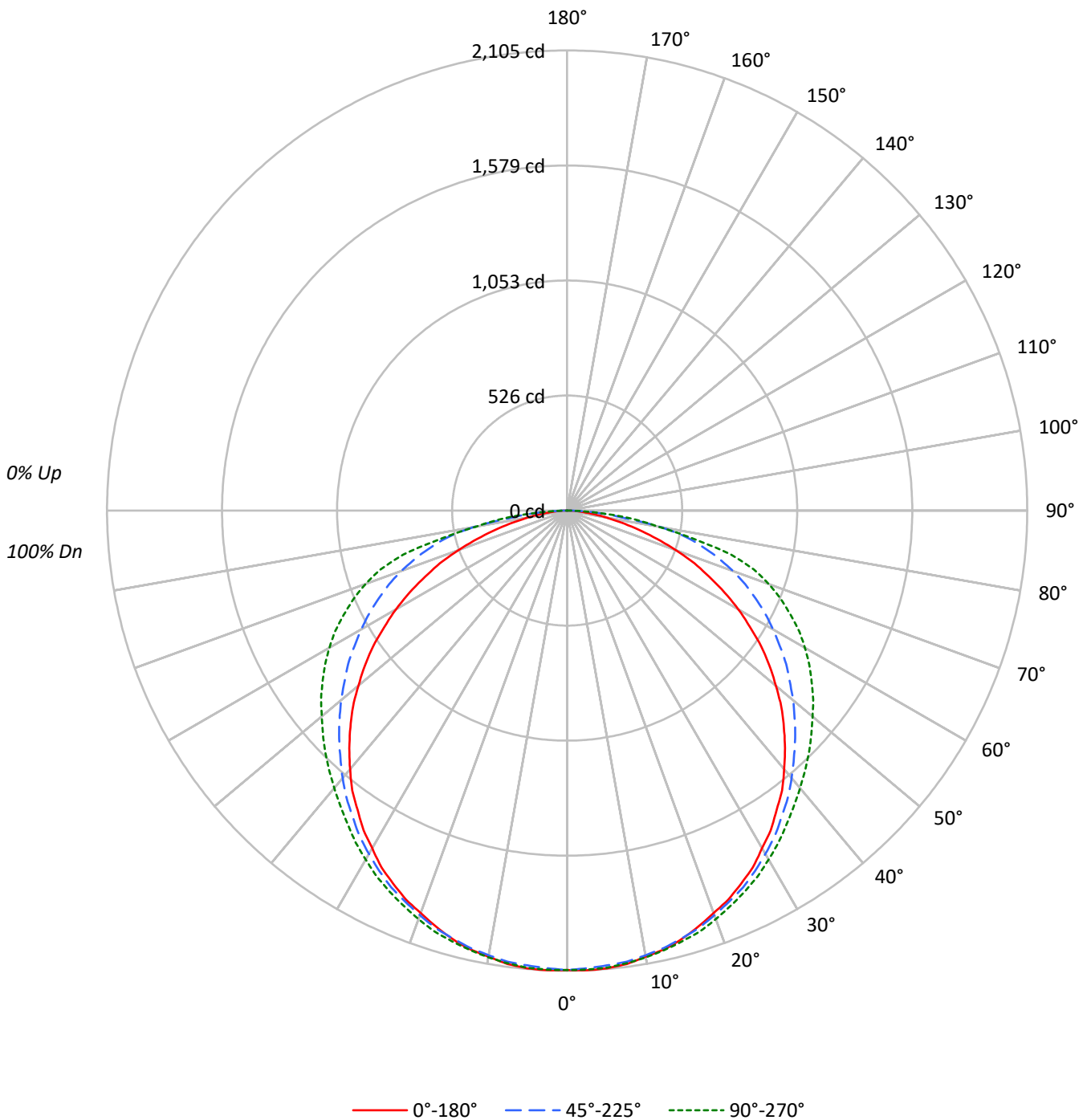
Input Watts (W): 77.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2828	2828	2828
5°	2839	2821	2834
10°	2831	2822	2835
15°	2826	2822	2840
20°	2805	2820	2848
25°	2796	2825	2855
30°	2771	2817	2864
35°	2745	2810	2875
40°	2713	2807	2911
45°	2668	2807	2978
50°	2609	2824	3067
55°	2543	2870	3204
60°	2436	2926	3381
65°	2280	3029	3589
70°	2074	3169	3860
75°	1758	3344	4033
80°	1387	3365	3262
85°	1024	2560	2867



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.4	3.0
10°-20°	573.8	8.6
20°-30°	877.5	13.1
30°-40°	1072.7	16.0
40°-50°	1143.3	17.1
50°-60°	1093.1	16.4
60°-70°	926.0	13.9
70°-80°	622.4	9.3
80°-90°	175.5	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°	1650.7	24.7
0°-40°	2723.4	40.7
0°-60°	4959.8	74.2
0°-90°	6683.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6683.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2102	2102	2102	2102	2102	
5°	2102	2098	2089	2098	2098	200
15°	2029	2029	2026	2042	2039	572
25°	1883	1890	1903	1920	1923	868
35°	1671	1684	1711	1744	1750	1047
45°	1402	1426	1475	1538	1565	1082
55°	1084	1124	1223	1320	1366	966
65°	716	789	952	1078	1127	711
75°	338	461	643	753	776	362
85°	66	136	166	179	186	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2101.9	2101.9	2101.9	2101.9	2101.9
2.5°	2105.2	2105.2	2095.2	2101.9	2101.9
5°	2101.9	2098.5	2088.6	2098.5	2098.5
7.5°	2091.9	2088.6	2082.0	2091.9	2088.6
10°	2072.0	2072.0	2065.4	2075.3	2075.3
12.5°	2055.5	2052.1	2048.8	2062.1	2058.8
15°	2028.9	2028.9	2025.6	2042.2	2038.9
17.5°	1995.8	1999.1	2002.4	2015.7	2019.0
20°	1959.3	1965.9	1969.3	1989.1	1989.1
22.5°	1926.2	1929.5	1936.1	1956.0	1956.0
25°	1883.1	1889.7	1902.9	1919.5	1922.8
27.5°	1840.0	1843.3	1859.9	1883.1	1886.4
30°	1783.6	1793.5	1813.4	1840.0	1843.3
32.5°	1733.9	1743.8	1767.0	1793.5	1800.2
35°	1670.9	1684.1	1710.7	1743.8	1750.4
37.5°	1614.5	1624.5	1657.6	1694.1	1704.0
40°	1544.9	1564.8	1597.9	1641.0	1657.6
42.5°	1475.3	1495.2	1535.0	1591.3	1611.2
45°	1402.3	1425.6	1475.3	1538.3	1564.8
47.5°	1329.4	1355.9	1412.3	1485.2	1515.1
50°	1246.5	1279.7	1349.3	1432.2	1465.3
52.5°	1167.0	1206.7	1283.0	1375.8	1418.9
55°	1084.1	1123.9	1223.3	1319.5	1365.9
57.5°	991.3	1044.3	1153.7	1263.1	1312.8
60°	905.1	954.8	1087.4	1206.7	1256.5
62.5°	812.2	878.5	1021.1	1147.1	1196.8
65°	716.1	789.0	951.5	1077.5	1127.2
67.5°	629.9	709.5	881.9	1007.8	1057.6
70°	527.1	626.6	805.6	931.6	981.3
72.5°	431.0	540.4	726.0	848.7	895.1
75°	338.2	460.8	643.2	752.6	775.8
77.5°	252.0	381.3	557.0	603.4	586.8
80°	179.0	305.0	434.3	411.1	421.0
82.5°	116.0	232.1	268.5	305.0	314.9
85°	66.3	135.9	165.8	179.0	185.7
87.5°	29.8	49.7	66.3	66.3	63.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)