

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: P390961

Luminaire Tested: **24CZ2-110VHE-RDP-UNV-L935-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: P390961
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-L935-CD2-SWPD1-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: 6232.5 lumens
Efficiency: N/A
Efficacy: 80.5 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

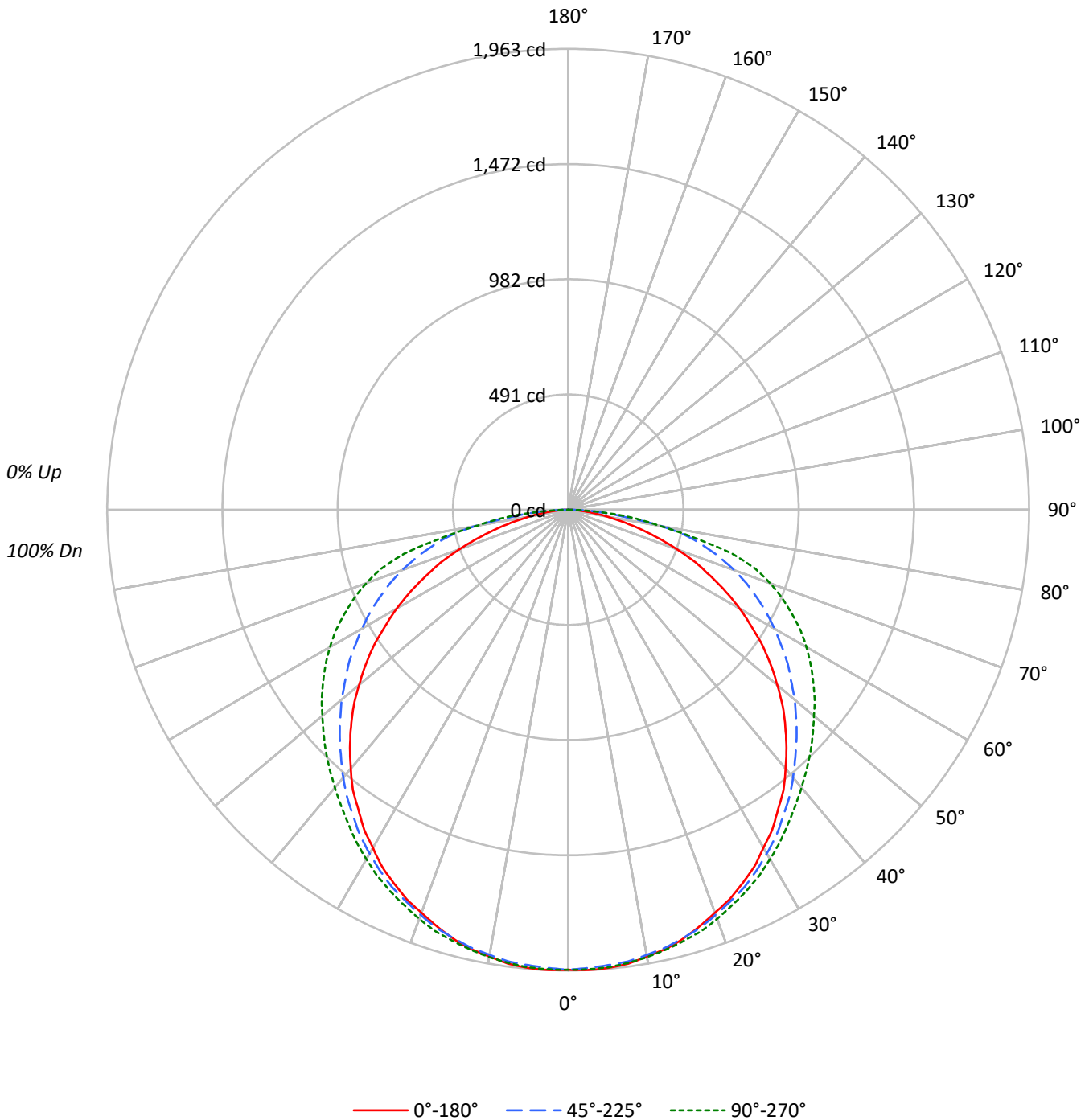
Input Watts (W): 77.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2637	2637	2637
5°	2647	2630	2643
10°	2640	2631	2644
15°	2635	2631	2648
20°	2616	2629	2656
25°	2607	2634	2662
30°	2584	2627	2670
35°	2559	2620	2681
40°	2530	2617	2715
45°	2488	2618	2776
50°	2433	2634	2860
55°	2371	2676	2988
60°	2271	2729	3153
65°	2126	2825	3346
70°	1934	2955	3600
75°	1639	3118	3761
80°	1293	3138	3042
85°	954	2387	2672



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.9	3.0
10°-20°	535.1	8.6
20°-30°	818.2	13.1
30°-40°	1000.3	16.0
40°-50°	1066.1	17.1
50°-60°	1019.3	16.4
60°-70°	863.5	13.9
70°-80°	580.3	9.3
80°-90°	163.7	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°	1539.2	24.7
0°-40°	2539.5	40.7
0°-60°	4625.0	74.2
0°-90°	6232.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6232.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1960	1960	1960	1960	1960	
5°	1960	1957	1948	1957	1957	186
15°	1892	1892	1889	1904	1901	533
25°	1756	1762	1774	1790	1793	809
35°	1558	1570	1595	1626	1632	976
45°	1308	1329	1376	1434	1459	1009
55°	1011	1048	1141	1230	1274	900
65°	668	736	887	1005	1051	663
75°	315	430	600	702	723	338
85°	62	127	155	167	173	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1959.9	1959.9	1959.9	1959.9	1959.9
2.5°	1963.0	1963.0	1953.8	1959.9	1959.9
5°	1959.9	1956.9	1947.6	1956.9	1956.9
7.5°	1950.7	1947.6	1941.4	1950.7	1947.6
10°	1932.1	1932.1	1925.9	1935.2	1935.2
12.5°	1916.7	1913.6	1910.5	1922.8	1919.8
15°	1891.9	1891.9	1888.8	1904.3	1901.2
17.5°	1861.0	1864.1	1867.2	1879.6	1882.7
20°	1827.0	1833.2	1836.3	1854.8	1854.8
22.5°	1796.1	1799.2	1805.4	1823.9	1823.9
25°	1755.9	1762.1	1774.5	1789.9	1793.0
27.5°	1715.7	1718.8	1734.3	1755.9	1759.0
30°	1663.2	1672.4	1691.0	1715.7	1718.8
32.5°	1616.8	1626.1	1647.7	1672.4	1678.6
35°	1558.1	1570.4	1595.2	1626.1	1632.3
37.5°	1505.5	1514.8	1545.7	1579.7	1589.0
40°	1440.6	1459.1	1490.1	1530.2	1545.7
42.5°	1375.7	1394.2	1431.3	1483.9	1502.4
45°	1307.7	1329.3	1375.7	1434.4	1459.1
47.5°	1239.6	1264.4	1316.9	1384.9	1412.8
50°	1162.4	1193.3	1258.2	1335.5	1366.4
52.5°	1088.2	1125.3	1196.4	1282.9	1323.1
55°	1010.9	1048.0	1140.7	1230.4	1273.7
57.5°	924.3	973.8	1075.8	1177.8	1224.2
60°	844.0	890.3	1014.0	1125.3	1171.6
62.5°	757.4	819.2	952.1	1069.6	1116.0
65°	667.7	735.8	887.2	1004.7	1051.1
67.5°	587.4	661.6	822.3	939.8	986.2
70°	491.5	584.3	751.2	868.7	915.1
72.5°	401.9	503.9	677.0	791.4	834.7
75°	315.3	429.7	599.7	701.7	723.4
77.5°	234.9	355.5	519.4	562.6	547.2
80°	166.9	284.4	405.0	383.3	392.6
82.5°	108.2	216.4	250.4	284.4	293.7
85°	61.8	126.7	154.6	166.9	173.1
87.5°	27.8	46.4	61.8	61.8	58.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)