

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: P390964

Luminaire Tested: **24CZ2-110VHE-RDP-UNV-L940-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: P390964
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-L940-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6296.9 lumens
Efficiency: N/A
Efficacy: 81.4 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

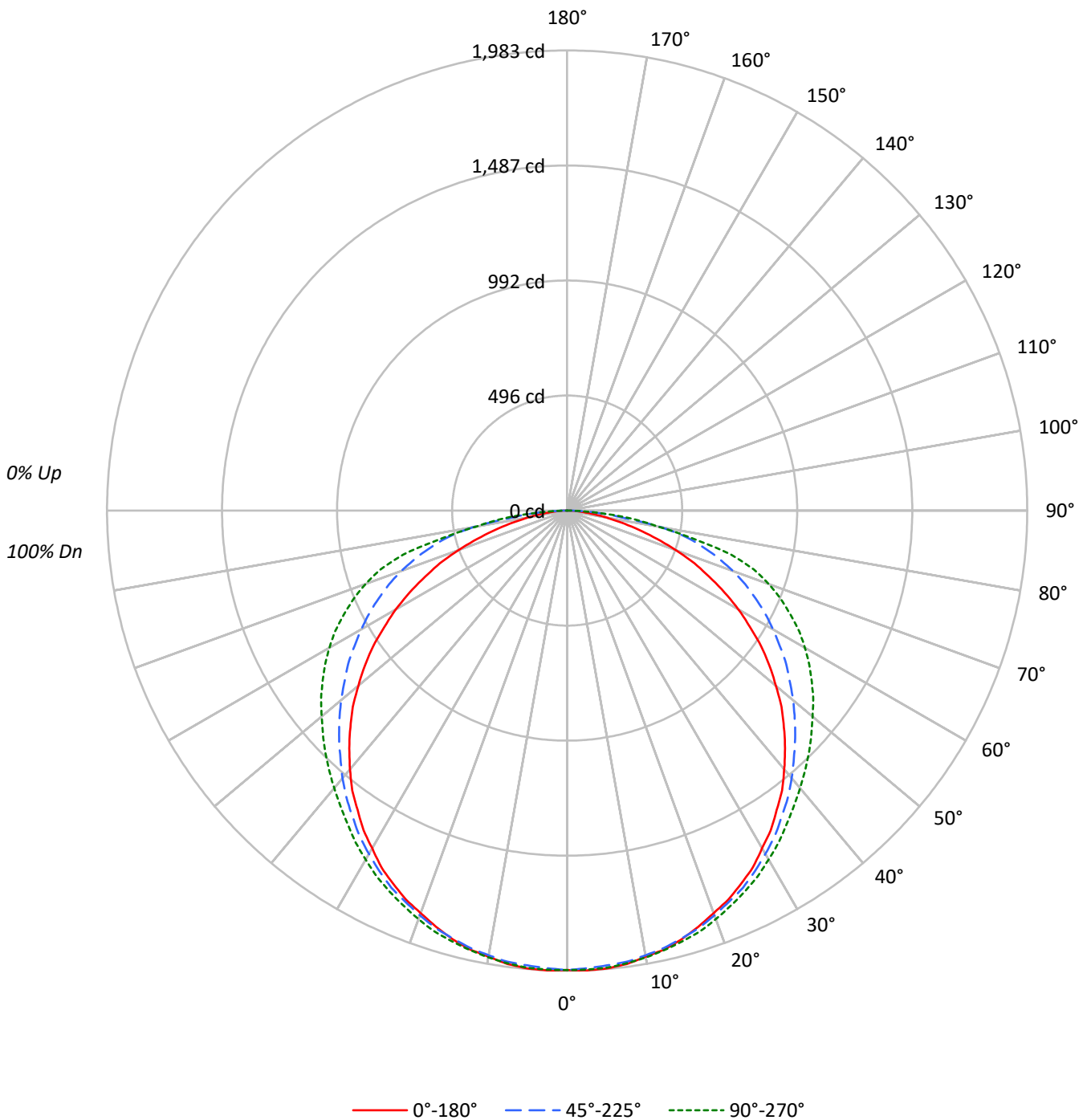
Input Watts (W): 77.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82					82			
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67					67			
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35					35			
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27					27			
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2664	2664	2664
5°	2675	2658	2670
10°	2667	2658	2671
15°	2663	2658	2676
20°	2643	2656	2683
25°	2634	2662	2689
30°	2611	2654	2698
35°	2586	2647	2709
40°	2556	2644	2743
45°	2514	2645	2805
50°	2458	2661	2890
55°	2396	2704	3019
60°	2295	2757	3185
65°	2148	2854	3381
70°	1954	2986	3637
75°	1656	3150	3800
80°	1307	3171	3074
85°	965	2411	2700



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.8	3.0
10°-20°	540.6	8.6
20°-30°	826.7	13.1
30°-40°	1010.6	16.0
40°-50°	1077.1	17.1
50°-60°	1029.9	16.4
60°-70°	872.4	13.9
70°-80°	586.3	9.3
80°-90°	165.4	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°	1555.1	24.7
0°-40°	2565.8	40.7
0°-60°	4672.7	74.2
0°-90°	6296.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6296.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1980	1980	1980	1980	1980	
5°	1980	1977	1968	1977	1977	188
15°	1912	1912	1908	1924	1921	539
25°	1774	1780	1793	1808	1812	818
35°	1574	1587	1612	1643	1649	986
45°	1321	1343	1390	1449	1474	1019
55°	1021	1059	1152	1243	1287	910
65°	675	743	896	1015	1062	670
75°	319	434	606	709	731	341
85°	62	128	156	169	175	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1980.2	1980.2	1980.2	1980.2	1980.2
2.5°	1983.3	1983.3	1973.9	1980.2	1980.2
5°	1980.2	1977.1	1967.7	1977.1	1977.1
7.5°	1970.8	1967.7	1961.5	1970.8	1967.7
10°	1952.1	1952.1	1945.8	1955.2	1955.2
12.5°	1936.5	1933.3	1930.2	1942.7	1939.6
15°	1911.5	1911.5	1908.4	1924.0	1920.9
17.5°	1880.2	1883.4	1886.5	1899.0	1902.1
20°	1845.9	1852.1	1855.3	1874.0	1874.0
22.5°	1814.7	1817.8	1824.0	1842.8	1842.8
25°	1774.1	1780.3	1792.8	1808.4	1811.5
27.5°	1733.5	1736.6	1752.2	1774.1	1777.2
30°	1680.4	1689.7	1708.5	1733.5	1736.6
32.5°	1633.5	1642.9	1664.7	1689.7	1696.0
35°	1574.2	1586.7	1611.6	1642.9	1649.1
37.5°	1521.1	1530.4	1561.7	1596.0	1605.4
40°	1455.5	1474.2	1505.4	1546.1	1561.7
42.5°	1389.9	1408.6	1446.1	1499.2	1517.9
45°	1321.2	1343.0	1389.9	1449.2	1474.2
47.5°	1252.5	1277.4	1330.5	1399.3	1427.4
50°	1174.4	1205.6	1271.2	1349.3	1380.5
52.5°	1099.4	1136.9	1208.7	1296.2	1336.8
55°	1021.3	1058.8	1152.5	1243.1	1286.8
57.5°	933.9	983.9	1086.9	1190.0	1236.8
60°	852.7	899.5	1024.5	1136.9	1183.7
62.5°	765.2	827.7	962.0	1080.7	1127.5
65°	674.6	743.4	896.4	1015.1	1061.9
67.5°	593.4	668.4	830.8	949.5	996.3
70°	496.6	590.3	759.0	877.7	924.5
72.5°	406.0	509.1	684.0	799.6	843.3
75°	318.6	434.1	605.9	709.0	730.9
77.5°	237.4	359.2	524.7	568.4	552.8
80°	168.7	287.3	409.2	387.3	396.7
82.5°	109.3	218.6	253.0	287.3	296.7
85°	62.5	128.1	156.2	168.7	174.9
87.5°	28.1	46.9	62.5	62.5	59.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)