

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: P390960

Luminaire Tested: **24CZ2-110VHE-RDP-UNV-L935-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: P390960  
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-SDWPD1-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: 6157.3 lumens  
Efficiency: N/A  
Efficacy: 79.6 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

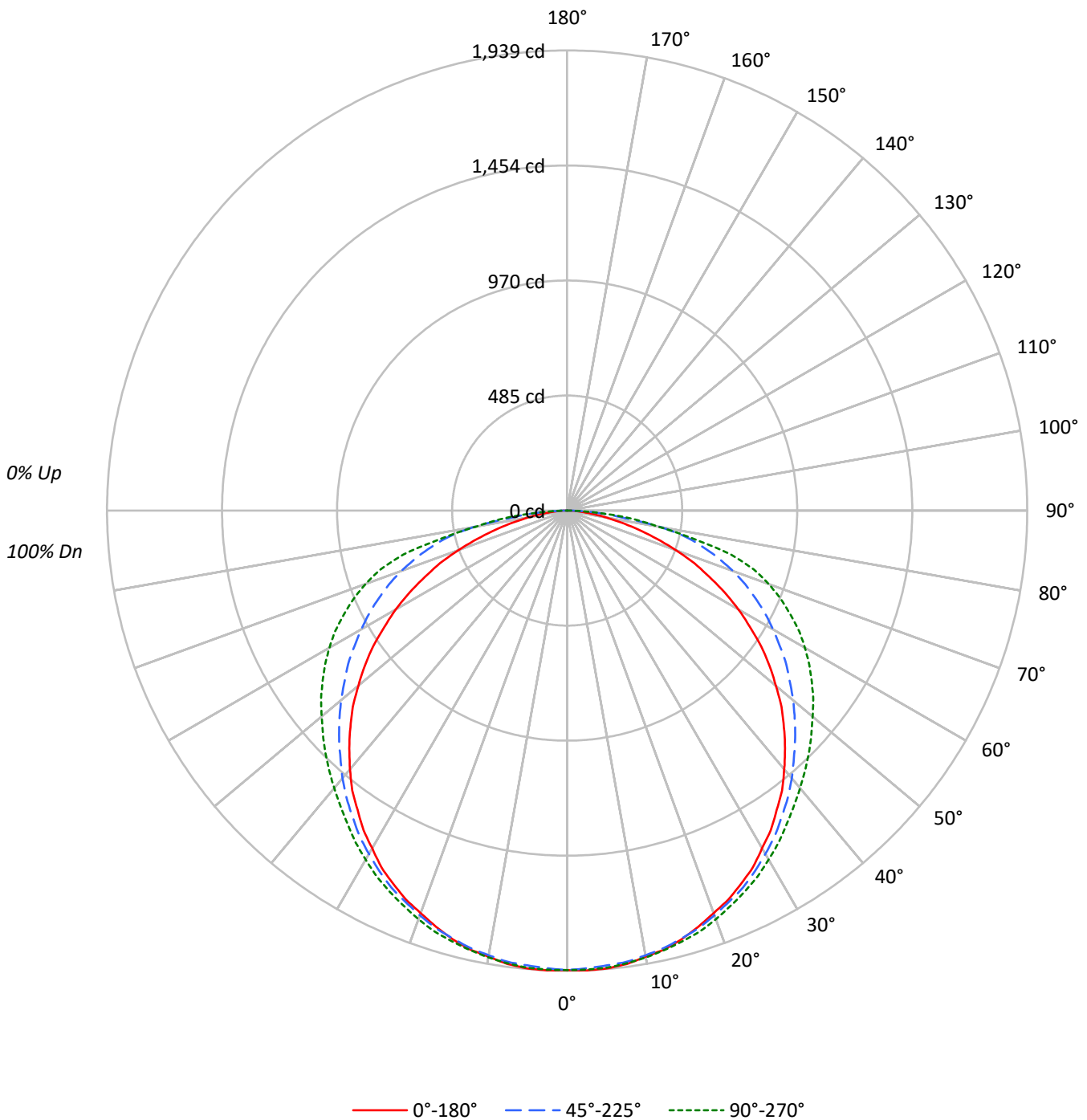
Input Watts (W): 77.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2605	2605	2605
5°	2615	2599	2611
10°	2608	2600	2612
15°	2604	2599	2616
20°	2584	2598	2624
25°	2575	2602	2630
30°	2553	2596	2638
35°	2528	2588	2649
40°	2500	2586	2682
45°	2458	2586	2743
50°	2404	2602	2826
55°	2343	2644	2952
60°	2244	2696	3115
65°	2100	2791	3306
70°	1910	2919	3556
75°	1619	3080	3715
80°	1278	3100	3006
85°	943	2357	2640



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.7	3.0
10°-20°	528.6	8.6
20°-30°	808.4	13.1
30°-40°	988.2	16.0
40°-50°	1053.2	17.1
50°-60°	1007.0	16.4
60°-70°	853.1	13.9
70°-80°	573.3	9.3
80°-90°	161.7	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°	1520.7	24.7
0°-40°	2508.9	40.7
0°-60°	4569.1	74.2
0°-90°	6157.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6157.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1936	1936	1936	1936	1936	
5°	1936	1933	1924	1933	1933	184
15°	1869	1869	1866	1881	1878	527
25°	1735	1741	1753	1768	1771	800
35°	1539	1552	1576	1606	1613	964
45°	1292	1313	1359	1417	1442	996
55°	999	1035	1127	1216	1258	889
65°	660	727	876	993	1038	655
75°	312	424	592	693	715	334
85°	61	125	153	165	171	76
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1936.3	1936.3	1936.3	1936.3	1936.3
2.5°	1939.3	1939.3	1930.2	1936.3	1936.3
5°	1936.3	1933.2	1924.1	1933.2	1933.2
7.5°	1927.1	1924.1	1918.0	1927.1	1924.1
10°	1908.8	1908.8	1902.7	1911.9	1911.9
12.5°	1893.5	1890.5	1887.4	1899.6	1896.6
15°	1869.1	1869.1	1866.1	1881.3	1878.3
17.5°	1838.6	1841.6	1844.7	1856.9	1859.9
20°	1805.0	1811.1	1814.1	1832.5	1832.5
22.5°	1774.4	1777.5	1783.6	1801.9	1801.9
25°	1734.7	1740.8	1753.0	1768.3	1771.4
27.5°	1695.0	1698.1	1713.3	1734.7	1737.8
30°	1643.1	1652.3	1670.6	1695.0	1698.1
32.5°	1597.3	1606.5	1627.8	1652.3	1658.4
35°	1539.3	1551.5	1575.9	1606.5	1612.6
37.5°	1487.3	1496.5	1527.0	1560.6	1569.8
40°	1423.2	1441.5	1472.1	1511.8	1527.0
42.5°	1359.1	1377.4	1414.0	1466.0	1484.3
45°	1291.9	1313.3	1359.1	1417.1	1441.5
47.5°	1224.7	1249.1	1301.0	1368.2	1395.7
50°	1148.3	1178.9	1243.0	1319.4	1349.9
52.5°	1075.0	1111.7	1181.9	1267.4	1307.2
55°	998.7	1035.3	1127.0	1215.5	1258.3
57.5°	913.2	962.0	1062.8	1163.6	1209.4
60°	833.8	879.6	1001.7	1111.7	1157.5
62.5°	748.3	809.3	940.7	1056.7	1102.5
65°	659.7	726.9	876.5	992.6	1038.4
67.5°	580.3	653.6	812.4	928.4	974.3
70°	485.6	577.2	742.1	858.2	904.0
72.5°	397.0	497.8	668.8	781.8	824.6
75°	311.5	424.5	592.5	693.3	714.7
77.5°	232.1	351.2	513.1	555.8	540.6
80°	164.9	281.0	400.1	378.7	387.9
82.5°	106.9	213.8	247.4	281.0	290.1
85°	61.1	125.2	152.7	164.9	171.0
87.5°	27.5	45.8	61.1	61.1	58.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)