

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: P390095

Luminaire Tested: **22CZ2-110VHE-RDP-UNV-L930-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: P390095  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-110VHE-RDP-UNV-L930-CD2-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6140.1 lumens  
Efficiency: N/A  
Efficacy: 70.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

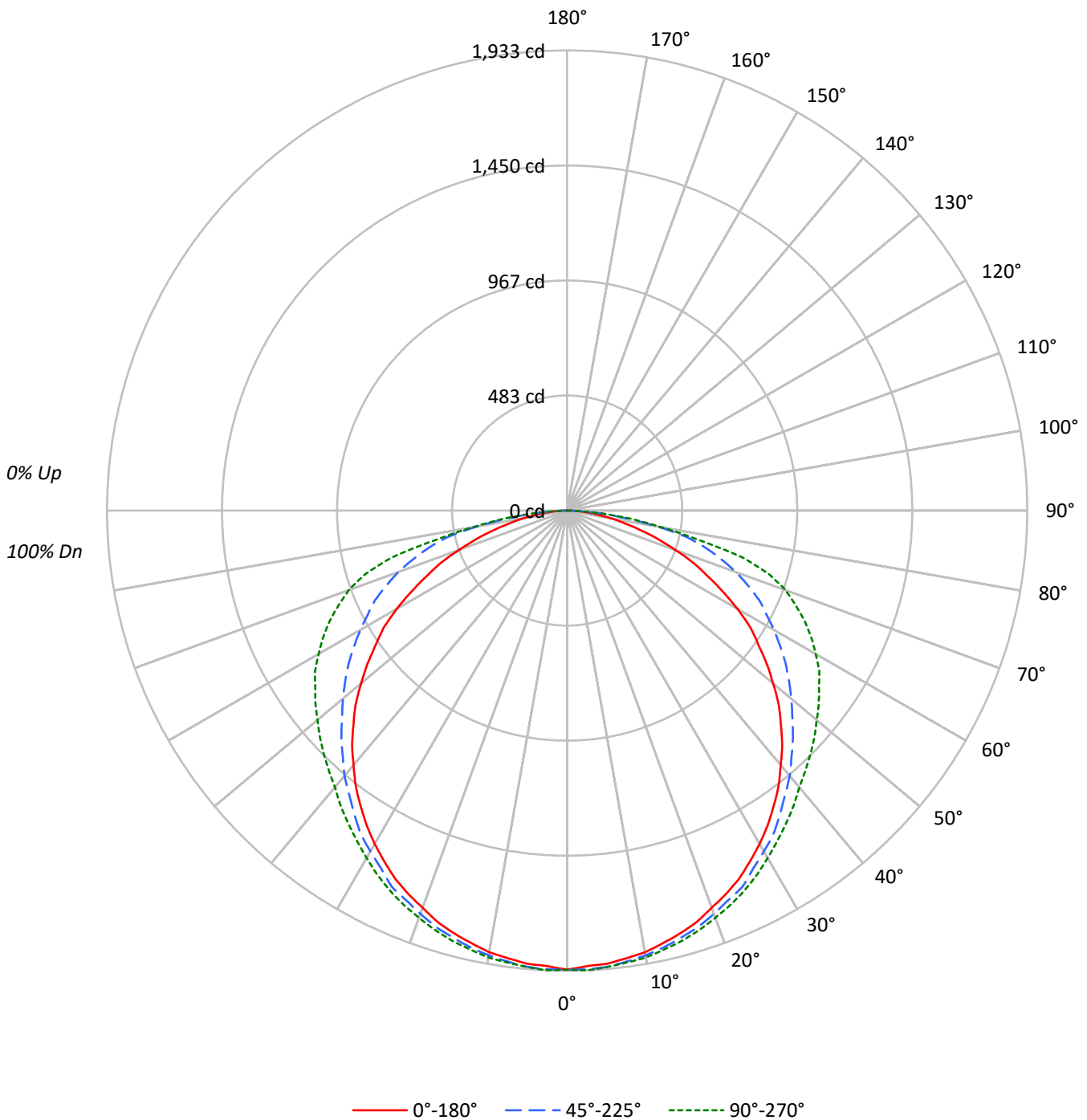
Input Watts (W): 87.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	92	89		92	89	86		88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72		80	75	71		76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60		70	64	59		67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50		61	55	50		59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33		45	38	33		44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29		41	34	29		40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26		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°	5190	5190	5190
5°	5161	5198	5198
10°	5147	5184	5208
15°	5122	5172	5210
20°	5083	5161	5213
25°	5070	5177	5230
30°	5024	5137	5235
35°	4971	5119	5268
40°	4903	5109	5331
45°	4830	5105	5501
50°	4727	5143	5730
55°	4599	5256	6061
60°	4449	5396	6491
65°	4141	5666	7018
70°	3803	5935	7676
75°	3334	6246	7937
80°	2870	5949	6230
85°	2510	4323	4742



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	182.4	3.0
10°-20°	523.8	8.5
20°-30°	799.2	13.0
30°-40°	975.8	15.9
40°-50°	1043.4	17.0
50°-60°	1007.1	16.4
60°-70°	866.9	14.1
70°-80°	586.6	9.6
80°-90°	154.8	2.5
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°	1505.5	24.5
0°-40°	2481.3	40.4
0°-60°	4531.8	73.8
0°-90°	6140.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6140.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1929	1929	1929	1929	1929	
5°	1911	1915	1924	1924	1924	181
15°	1838	1843	1856	1866	1870	519
25°	1707	1716	1744	1753	1762	786
35°	1513	1527	1558	1590	1604	947
45°	1269	1292	1342	1409	1445	980
55°	980	1012	1120	1233	1292	878
65°	650	714	890	1030	1102	647
75°	321	425	601	723	763	344
85°	81	113	140	144	154	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1928.7	1928.7	1928.7	1928.7	1928.7
2.5°	1915.2	1919.7	1928.7	1928.7	1933.2
5°	1910.6	1915.2	1924.2	1924.2	1924.2
7.5°	1897.1	1901.6	1910.6	1915.2	1915.2
10°	1883.5	1888.1	1897.1	1901.6	1906.1
12.5°	1861.0	1865.5	1879.0	1888.1	1888.1
15°	1838.4	1842.9	1856.4	1865.5	1870.0
17.5°	1811.3	1820.3	1833.9	1842.9	1847.4
20°	1775.1	1784.2	1802.2	1815.8	1820.3
22.5°	1743.5	1752.6	1770.6	1784.2	1793.2
25°	1707.4	1716.4	1743.5	1752.6	1761.6
27.5°	1662.2	1671.2	1693.8	1711.9	1725.5
30°	1617.0	1626.1	1653.2	1675.8	1684.8
32.5°	1567.4	1580.9	1612.5	1630.6	1644.1
35°	1513.2	1526.7	1558.3	1589.9	1603.5
37.5°	1459.0	1472.5	1504.1	1544.8	1562.8
40°	1395.7	1413.8	1454.4	1508.6	1517.7
42.5°	1337.0	1359.6	1395.7	1459.0	1481.5
45°	1269.2	1291.8	1341.5	1409.3	1445.4
47.5°	1206.0	1228.6	1282.8	1364.1	1409.3
50°	1129.2	1160.8	1228.6	1323.4	1368.6
52.5°	1057.0	1084.1	1174.4	1278.3	1332.5
55°	980.2	1011.8	1120.2	1233.1	1291.8
57.5°	912.4	939.5	1061.5	1187.9	1255.7
60°	826.6	862.7	1002.7	1138.3	1206.0
62.5°	736.3	790.5	944.0	1084.1	1156.3
65°	650.4	713.7	889.8	1029.9	1102.1
67.5°	573.6	641.4	822.1	971.1	1038.9
70°	483.3	569.1	754.3	898.9	975.6
72.5°	402.0	496.9	677.5	822.1	889.8
75°	320.7	424.6	600.7	722.7	763.4
77.5°	248.4	347.8	514.9	551.1	555.6
80°	185.2	275.5	383.9	388.5	402.0
82.5°	126.5	194.2	248.4	271.0	275.5
85°	81.3	112.9	140.0	144.5	153.6
87.5°	36.1	40.7	49.7	45.2	45.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)