

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: P390093

Luminaire Tested: **22CZ2-110VHE-RDP-UNV-L930-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: P390093  
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-SDWPD1-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: 5990.8 lumens  
Efficiency: N/A  
Efficacy: 68.3 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

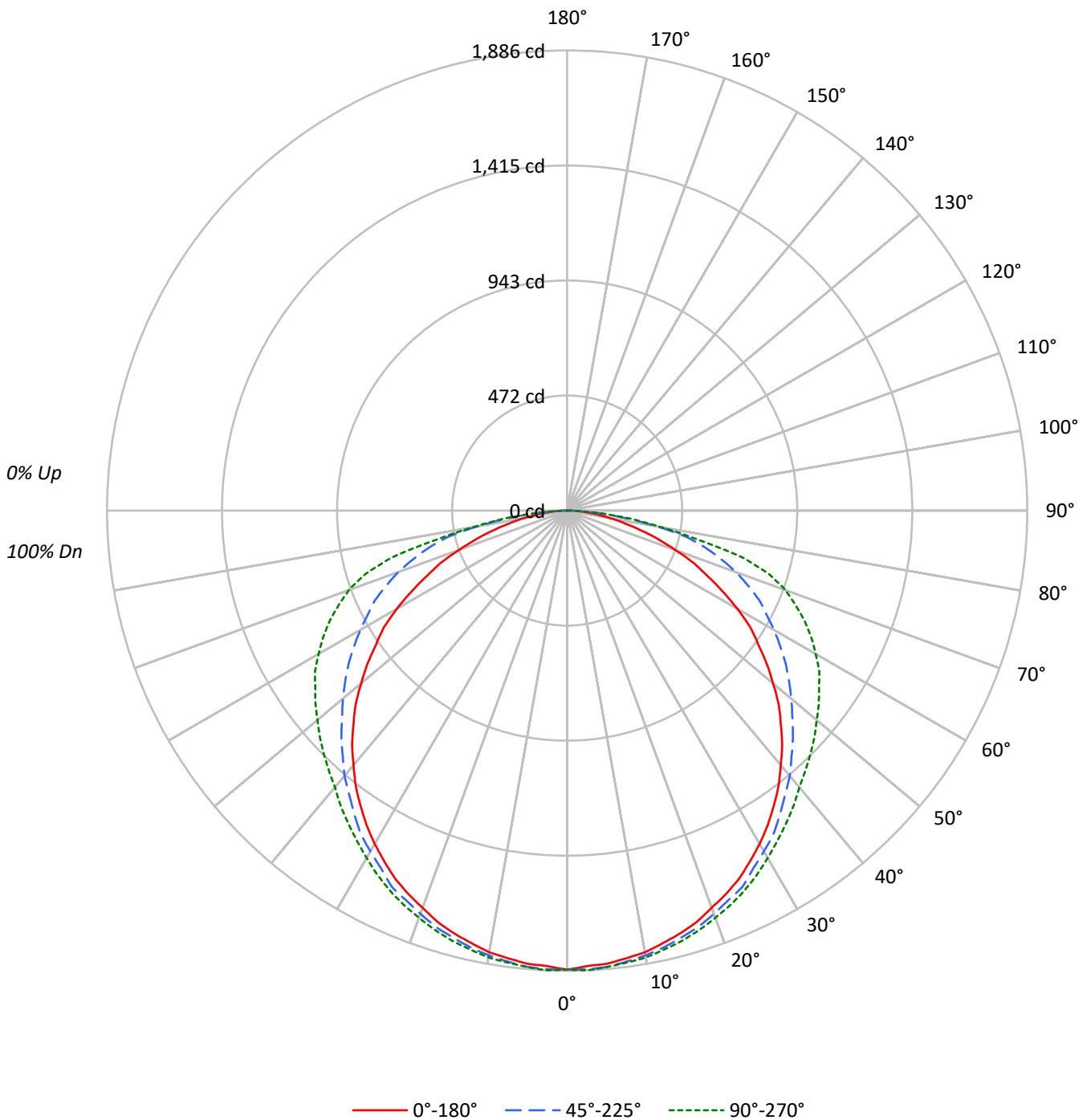
Input Watts (W): 87.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5064	5064	5064
5°	5036	5071	5071
10°	5021	5058	5082
15°	4997	5046	5083
20°	4960	5035	5086
25°	4946	5051	5103
30°	4902	5012	5108
35°	4850	4995	5140
40°	4784	4985	5202
45°	4713	4981	5367
50°	4613	5018	5590
55°	4487	5128	5913
60°	4341	5266	6333
65°	4041	5528	6847
70°	3710	5791	7489
75°	3253	6094	7744
80°	2800	5805	6078
85°	2448	4218	4625



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	178.0	3.0
10°-20°	511.1	8.5
20°-30°	779.8	13.0
30°-40°	952.1	15.9
40°-50°	1018.0	17.0
50°-60°	982.6	16.4
60°-70°	845.9	14.1
70°-80°	572.3	9.6
80°-90°	151.0	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°	1468.9	24.5
0°-40°	2421.0	40.4
0°-60°	4421.6	73.8
0°-90°	5990.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5990.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1882	1882	1882	1882	1882	
5°	1864	1869	1877	1877	1877	177
15°	1794	1798	1811	1820	1824	506
25°	1666	1675	1701	1710	1719	767
35°	1476	1490	1520	1551	1564	924
45°	1238	1260	1309	1375	1410	956
55°	956	987	1093	1203	1260	857
65°	635	696	868	1005	1075	631
75°	313	414	586	705	745	336
85°	79	110	137	141	150	89
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1881.8	1881.8	1881.8	1881.8	1881.8
2.5°	1868.6	1873.0	1881.8	1881.8	1886.2
5°	1864.2	1868.6	1877.4	1877.4	1877.4
7.5°	1851.0	1855.4	1864.2	1868.6	1868.6
10°	1837.7	1842.2	1851.0	1855.4	1859.8
12.5°	1815.7	1820.1	1833.3	1842.2	1842.2
15°	1793.7	1798.1	1811.3	1820.1	1824.5
17.5°	1767.2	1776.0	1789.3	1798.1	1802.5
20°	1732.0	1740.8	1758.4	1771.6	1776.0
22.5°	1701.1	1709.9	1727.6	1740.8	1749.6
25°	1665.9	1674.7	1701.1	1709.9	1718.8
27.5°	1621.8	1630.6	1652.6	1670.3	1683.5
30°	1577.7	1586.5	1613.0	1635.0	1643.8
32.5°	1529.2	1542.5	1573.3	1590.9	1604.2
35°	1476.4	1489.6	1520.4	1551.3	1564.5
37.5°	1423.5	1436.7	1467.6	1507.2	1524.8
40°	1361.8	1379.4	1419.1	1472.0	1480.8
42.5°	1304.5	1326.5	1361.8	1423.5	1445.5
45°	1238.4	1260.4	1308.9	1375.0	1410.3
47.5°	1176.7	1198.7	1251.6	1330.9	1375.0
50°	1101.8	1132.6	1198.7	1291.3	1335.3
52.5°	1031.3	1057.7	1145.8	1247.2	1300.1
55°	956.3	987.2	1093.0	1203.1	1260.4
57.5°	890.2	916.7	1035.7	1159.1	1225.2
60°	806.5	841.7	978.4	1110.6	1176.7
62.5°	718.4	771.2	921.1	1057.7	1128.2
65°	634.6	696.3	868.2	1004.8	1075.3
67.5°	559.7	625.8	802.1	947.5	1013.6
70°	471.6	555.3	736.0	877.0	951.9
72.5°	392.2	484.8	661.1	802.1	868.2
75°	312.9	414.3	586.1	705.1	744.8
77.5°	242.4	339.3	502.4	537.7	542.1
80°	180.7	268.8	374.6	379.0	392.2
82.5°	123.4	189.5	242.4	264.4	268.8
85°	79.3	110.2	136.6	141.0	149.8
87.5°	35.3	39.7	48.5	44.1	44.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)