

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: P390050

Luminaire Tested: **22CZ2-100VHE-RDP-UNV-L935-CD1-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: P390050  
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: 22CZ2-100VHE-RDP-UNV-L935-CD1-U  
Description: 2x2 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: 5747.8 lumens  
Efficiency: N/A  
Efficacy: 74.0 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

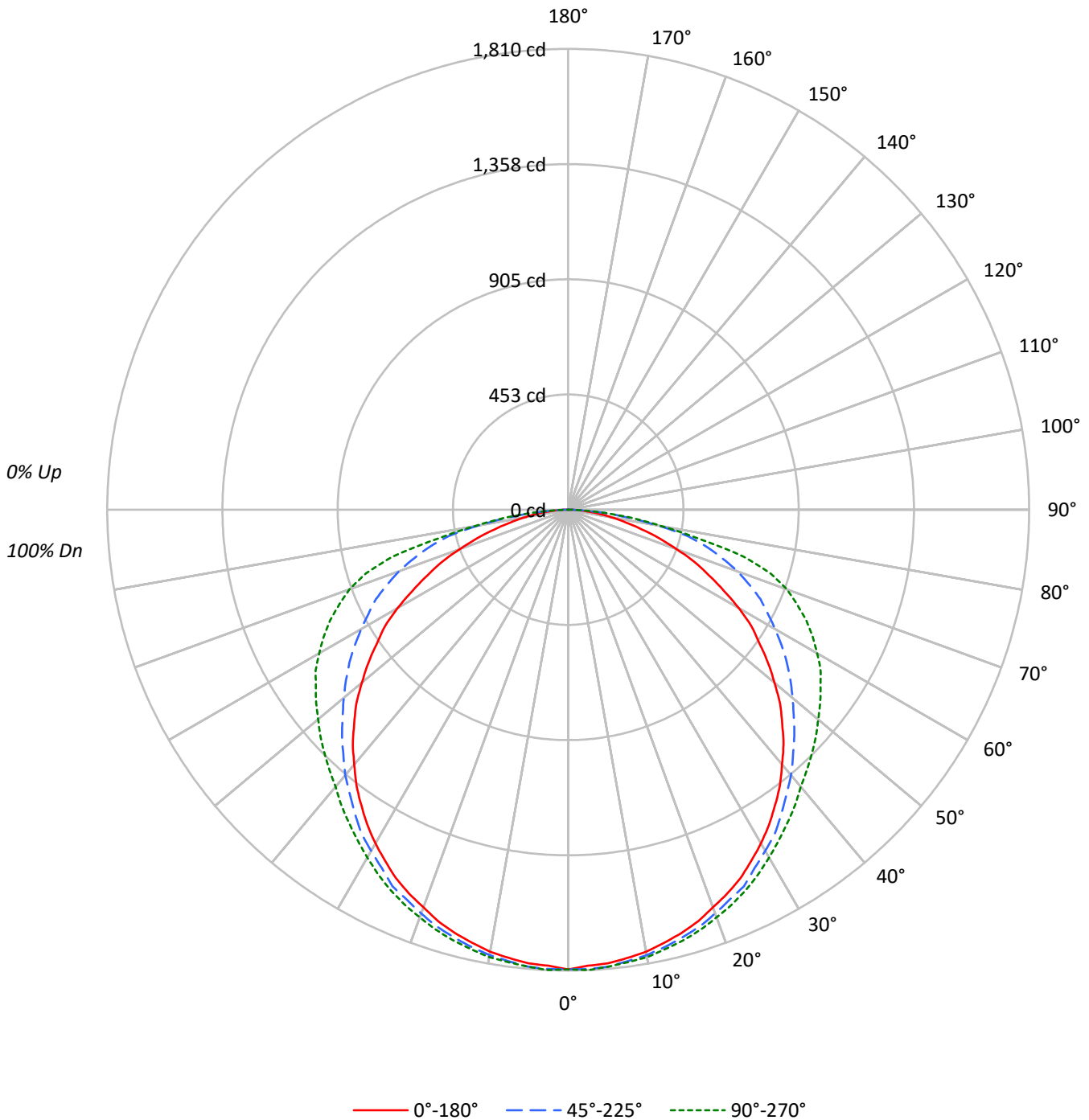
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4859	4859	4859
5°	4831	4866	4866
10°	4818	4853	4876
15°	4794	4841	4877
20°	4759	4831	4880
25°	4746	4846	4896
30°	4703	4809	4901
35°	4653	4792	4931
40°	4590	4783	4991
45°	4522	4779	5149
50°	4425	4815	5364
55°	4305	4920	5674
60°	4165	5052	6076
65°	3877	5304	6569
70°	3559	5556	7186
75°	3121	5847	7430
80°	2687	5570	5831
85°	2350	4048	4440



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.8	3.0
10°-20°	490.4	8.5
20°-30°	748.1	13.0
30°-40°	913.5	15.9
40°-50°	976.7	17.0
50°-60°	942.8	16.4
60°-70°	811.6	14.1
70°-80°	549.1	9.6
80°-90°	144.9	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°	1409.3	24.5
0°-40°	2322.8	40.4
0°-60°	4242.3	73.8
0°-90°	5747.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5747.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1806	1806	1806	1806	1806	
5°	1789	1793	1801	1801	1801	170
15°	1721	1725	1738	1746	1750	486
25°	1598	1607	1632	1641	1649	736
35°	1416	1429	1459	1488	1501	886
45°	1188	1209	1256	1319	1353	917
55°	918	947	1049	1154	1209	822
65°	609	668	833	964	1032	606
75°	300	398	562	676	715	322
85°	76	106	131	135	144	86
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1805.5	1805.5	1805.5	1805.5	1805.5
2.5°	1792.8	1797.0	1805.5	1805.5	1809.7
5°	1788.6	1792.8	1801.3	1801.3	1801.3
7.5°	1775.9	1780.1	1788.6	1792.8	1792.8
10°	1763.2	1767.4	1775.9	1780.1	1784.3
12.5°	1742.1	1746.3	1759.0	1767.4	1767.4
15°	1720.9	1725.1	1737.8	1746.3	1750.5
17.5°	1695.5	1704.0	1716.7	1725.1	1729.4
20°	1661.7	1670.2	1687.1	1699.8	1704.0
22.5°	1632.1	1640.6	1657.5	1670.2	1678.6
25°	1598.3	1606.8	1632.1	1640.6	1649.0
27.5°	1556.0	1564.5	1585.6	1602.5	1615.2
30°	1513.7	1522.2	1547.6	1568.7	1577.2
32.5°	1467.2	1479.9	1509.5	1526.4	1539.1
35°	1416.5	1429.2	1458.8	1488.4	1501.0
37.5°	1365.7	1378.4	1408.0	1446.1	1463.0
40°	1306.5	1323.5	1361.5	1412.3	1420.7
42.5°	1251.6	1272.7	1306.5	1365.7	1386.9
45°	1188.2	1209.3	1255.8	1319.2	1353.1
47.5°	1129.0	1150.1	1200.8	1276.9	1319.2
50°	1057.1	1086.7	1150.1	1238.9	1281.2
52.5°	989.4	1014.8	1099.4	1196.6	1247.3
55°	917.5	947.1	1048.6	1154.3	1209.3
57.5°	854.1	879.5	993.7	1112.0	1175.5
60°	773.8	807.6	938.7	1065.5	1129.0
62.5°	689.2	740.0	883.7	1014.8	1082.4
65°	608.9	668.1	833.0	964.1	1031.7
67.5°	537.0	600.4	769.6	909.1	972.5
70°	452.4	532.8	706.1	841.4	913.3
72.5°	376.3	465.1	634.2	769.6	833.0
75°	300.2	397.5	562.4	676.5	714.6
77.5°	232.6	325.6	482.0	515.9	520.1
80°	173.4	257.9	359.4	363.6	376.3
82.5°	118.4	181.8	232.6	253.7	257.9
85°	76.1	105.7	131.1	135.3	143.8
87.5°	33.8	38.1	46.5	42.3	42.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)