

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: P390047

Luminaire Tested: **22CZ2-100VHE-RDP-UNV-L930-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: P390047
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-L930-CD1-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: 5609.1 lumens
Efficiency: N/A
Efficacy: 72.2 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

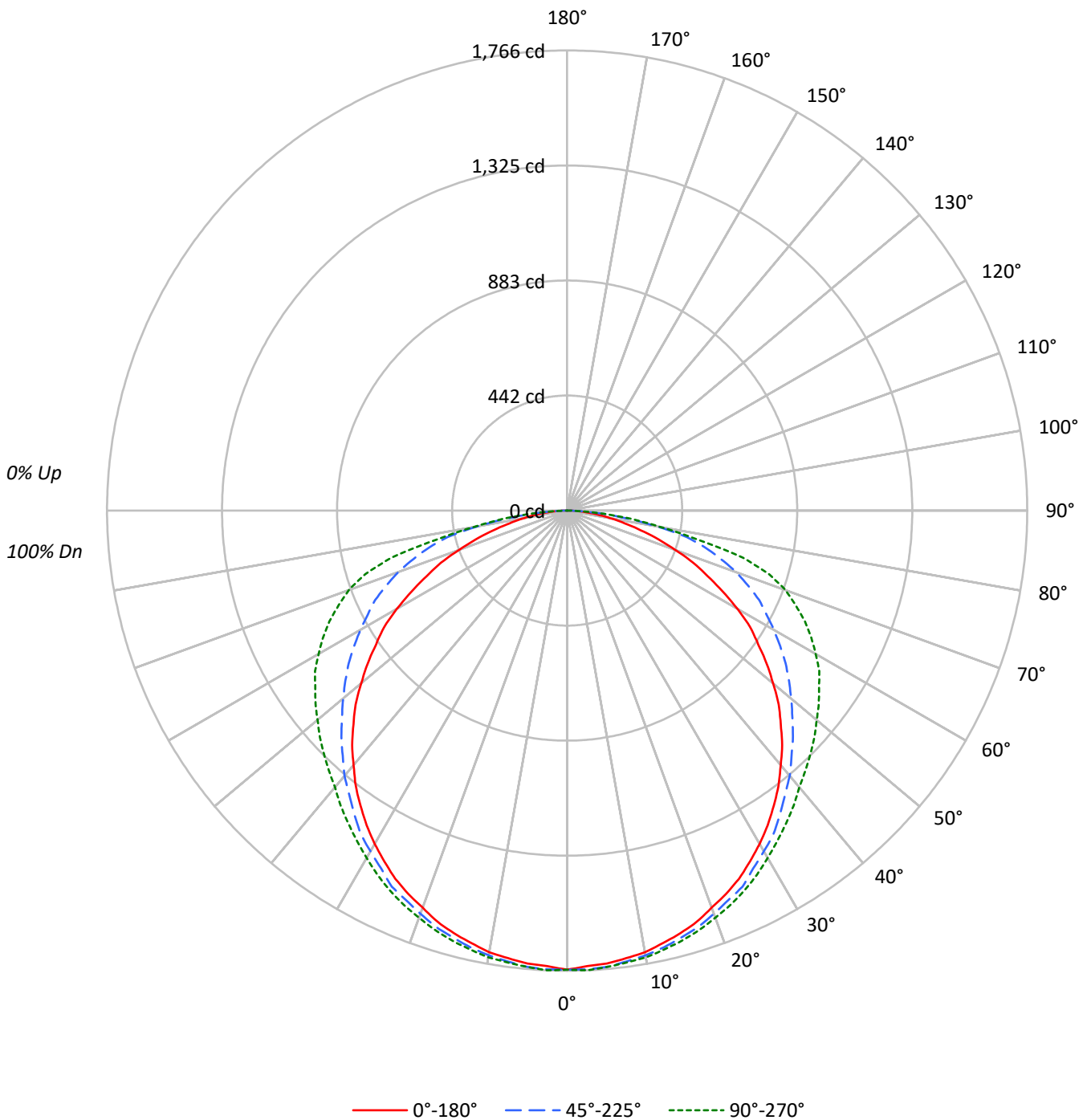
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4741	4741	4741
5°	4715	4748	4748
10°	4702	4735	4758
15°	4679	4725	4759
20°	4644	4715	4762
25°	4631	4729	4778
30°	4590	4693	4782
35°	4541	4677	4812
40°	4479	4667	4870
45°	4413	4664	5025
50°	4319	4698	5234
55°	4201	4801	5537
60°	4064	4930	5929
65°	3784	5176	6411
70°	3474	5422	7013
75°	3046	5706	7250
80°	2622	5435	5690
85°	2294	3949	4332



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.7	3.0
10°-20°	478.5	8.5
20°-30°	730.1	13.0
30°-40°	891.5	15.9
40°-50°	953.2	17.0
50°-60°	920.0	16.4
60°-70°	792.0	14.1
70°-80°	535.8	9.6
80°-90°	141.4	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°	1375.3	24.5
0°-40°	2266.7	40.4
0°-60°	4139.9	73.8
0°-90°	5609.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5609.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1762	1762	1762	1762	1762	
5°	1745	1750	1758	1758	1758	166
15°	1679	1684	1696	1704	1708	474
25°	1560	1568	1593	1601	1609	718
35°	1382	1395	1424	1452	1465	865
45°	1160	1180	1226	1287	1320	895
55°	895	924	1023	1126	1180	802
65°	594	652	813	941	1007	591
75°	293	388	549	660	697	314
85°	74	103	128	132	140	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1761.9	1761.9	1761.9	1761.9	1761.9
2.5°	1749.5	1753.7	1761.9	1761.9	1766.0
5°	1745.4	1749.5	1757.8	1757.8	1757.8
7.5°	1733.0	1737.2	1745.4	1749.5	1749.5
10°	1720.7	1724.8	1733.0	1737.2	1741.3
12.5°	1700.0	1704.1	1716.5	1724.8	1724.8
15°	1679.4	1683.5	1695.9	1704.1	1708.3
17.5°	1654.6	1662.9	1675.3	1683.5	1687.6
20°	1621.6	1629.9	1646.4	1658.8	1662.9
22.5°	1592.7	1601.0	1617.5	1629.9	1638.1
25°	1559.7	1568.0	1592.7	1601.0	1609.2
27.5°	1518.5	1526.7	1547.4	1563.9	1576.2
30°	1477.2	1485.5	1510.2	1530.8	1539.1
32.5°	1431.8	1444.2	1473.1	1489.6	1502.0
35°	1382.3	1394.7	1423.6	1452.4	1464.8
37.5°	1332.8	1345.2	1374.0	1411.2	1427.7
40°	1275.0	1291.5	1328.7	1378.2	1386.4
42.5°	1221.4	1242.0	1275.0	1332.8	1353.4
45°	1159.5	1180.1	1225.5	1287.4	1320.4
47.5°	1101.7	1122.3	1171.9	1246.1	1287.4
50°	1031.6	1060.5	1122.3	1209.0	1250.3
52.5°	965.5	990.3	1072.8	1167.7	1217.2
55°	895.4	924.3	1023.3	1126.5	1180.1
57.5°	833.5	858.3	969.7	1085.2	1147.1
60°	755.1	788.1	916.0	1039.8	1101.7
62.5°	672.6	722.1	862.4	990.3	1056.3
65°	594.2	652.0	812.9	940.8	1006.8
67.5°	524.0	585.9	751.0	887.1	949.0
70°	441.5	519.9	689.1	821.1	891.3
72.5°	367.2	453.9	618.9	751.0	812.9
75°	293.0	387.9	548.8	660.2	697.3
77.5°	226.9	317.7	470.4	503.4	507.5
80°	169.2	251.7	350.7	354.9	367.2
82.5°	115.5	177.4	226.9	247.6	251.7
85°	74.3	103.2	127.9	132.0	140.3
87.5°	33.0	37.1	45.4	41.3	41.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)