

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: P390045

Luminaire Tested: **22CZ2-100VHE-RDP-UNV-L930-CD1-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: P390045  
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-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: 5472.7 lumens  
Efficiency: N/A  
Efficacy: 70.4 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

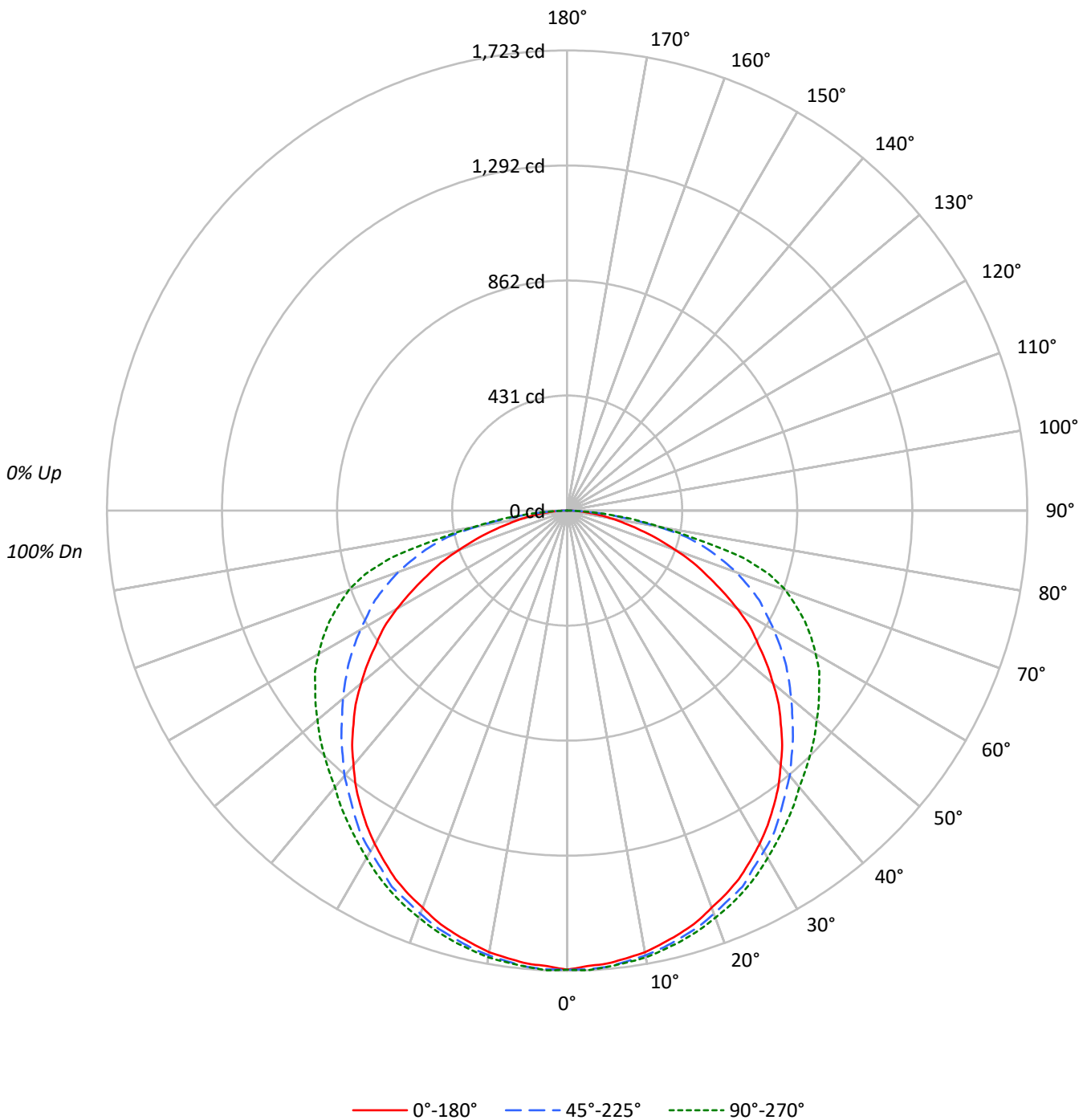
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4626	4626	4626
5°	4600	4633	4633
10°	4587	4620	4642
15°	4565	4610	4643
20°	4531	4600	4646
25°	4518	4614	4662
30°	4479	4579	4666
35°	4431	4563	4695
40°	4370	4554	4752
45°	4305	4550	4903
50°	4214	4585	5107
55°	4099	4684	5402
60°	3965	4810	5785
65°	3691	5050	6255
70°	3389	5290	6842
75°	2972	5567	7074
80°	2559	5303	5552
85°	2238	3853	4227



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.6	3.0
10°-20°	466.9	8.5
20°-30°	712.3	13.0
30°-40°	869.8	15.9
40°-50°	930.0	17.0
50°-60°	897.6	16.4
60°-70°	772.7	14.1
70°-80°	522.8	9.6
80°-90°	137.9	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°	1341.8	24.5
0°-40°	2211.6	40.4
0°-60°	4039.2	73.8
0°-90°	5472.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5472.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1719	1719	1719	1719	1719	
5°	1703	1707	1715	1715	1715	162
15°	1639	1643	1655	1663	1667	462
25°	1522	1530	1554	1562	1570	700
35°	1349	1361	1389	1417	1429	844
45°	1131	1151	1196	1256	1288	873
55°	874	902	998	1099	1151	783
65°	580	636	793	918	982	577
75°	286	378	535	644	680	307
85°	72	101	125	129	137	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1719.1	1719.1	1719.1	1719.1	1719.1
2.5°	1707.0	1711.0	1719.1	1719.1	1723.1
5°	1703.0	1707.0	1715.0	1715.0	1715.0
7.5°	1690.9	1694.9	1703.0	1707.0	1707.0
10°	1678.8	1682.8	1690.9	1694.9	1698.9
12.5°	1658.7	1662.7	1674.8	1682.8	1682.8
15°	1638.6	1642.6	1654.7	1662.7	1666.7
17.5°	1614.4	1622.4	1634.5	1642.6	1646.6
20°	1582.2	1590.2	1606.3	1618.4	1622.4
22.5°	1554.0	1562.1	1578.2	1590.2	1598.3
25°	1521.8	1529.9	1554.0	1562.1	1570.1
27.5°	1481.5	1489.6	1509.7	1525.8	1537.9
30°	1441.3	1449.3	1473.5	1493.6	1501.7
32.5°	1397.0	1409.1	1437.3	1453.4	1465.4
35°	1348.7	1360.8	1388.9	1417.1	1429.2
37.5°	1300.4	1312.5	1340.6	1376.9	1393.0
40°	1244.0	1260.1	1296.3	1344.7	1352.7
42.5°	1191.7	1211.8	1244.0	1300.4	1320.5
45°	1131.3	1151.4	1195.7	1256.1	1288.3
47.5°	1074.9	1095.1	1143.4	1215.8	1256.1
50°	1006.5	1034.7	1095.1	1179.6	1219.9
52.5°	942.1	966.2	1046.7	1139.3	1187.6
55°	873.6	901.8	998.4	1099.1	1151.4
57.5°	813.2	837.4	946.1	1058.8	1119.2
60°	736.7	769.0	893.8	1014.5	1074.9
62.5°	656.2	704.5	841.4	966.2	1030.6
65°	579.7	636.1	793.1	917.9	982.3
67.5°	511.3	571.7	732.7	865.6	926.0
70°	430.8	507.3	672.3	801.2	869.6
72.5°	358.3	442.9	603.9	732.7	793.1
75°	285.8	378.4	535.4	644.1	680.4
77.5°	221.4	310.0	459.0	491.2	495.2
80°	165.1	245.6	342.2	346.2	358.3
82.5°	112.7	173.1	221.4	241.6	245.6
85°	72.5	100.6	124.8	128.8	136.9
87.5°	32.2	36.2	44.3	40.3	40.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)