

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: P388152

Luminaire Tested: **22CZ2-100VHE-UNV-L935-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: P388152  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-100VHE-UNV-L935-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8338.3 lumens  
Efficiency: N/A  
Efficacy: 107.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

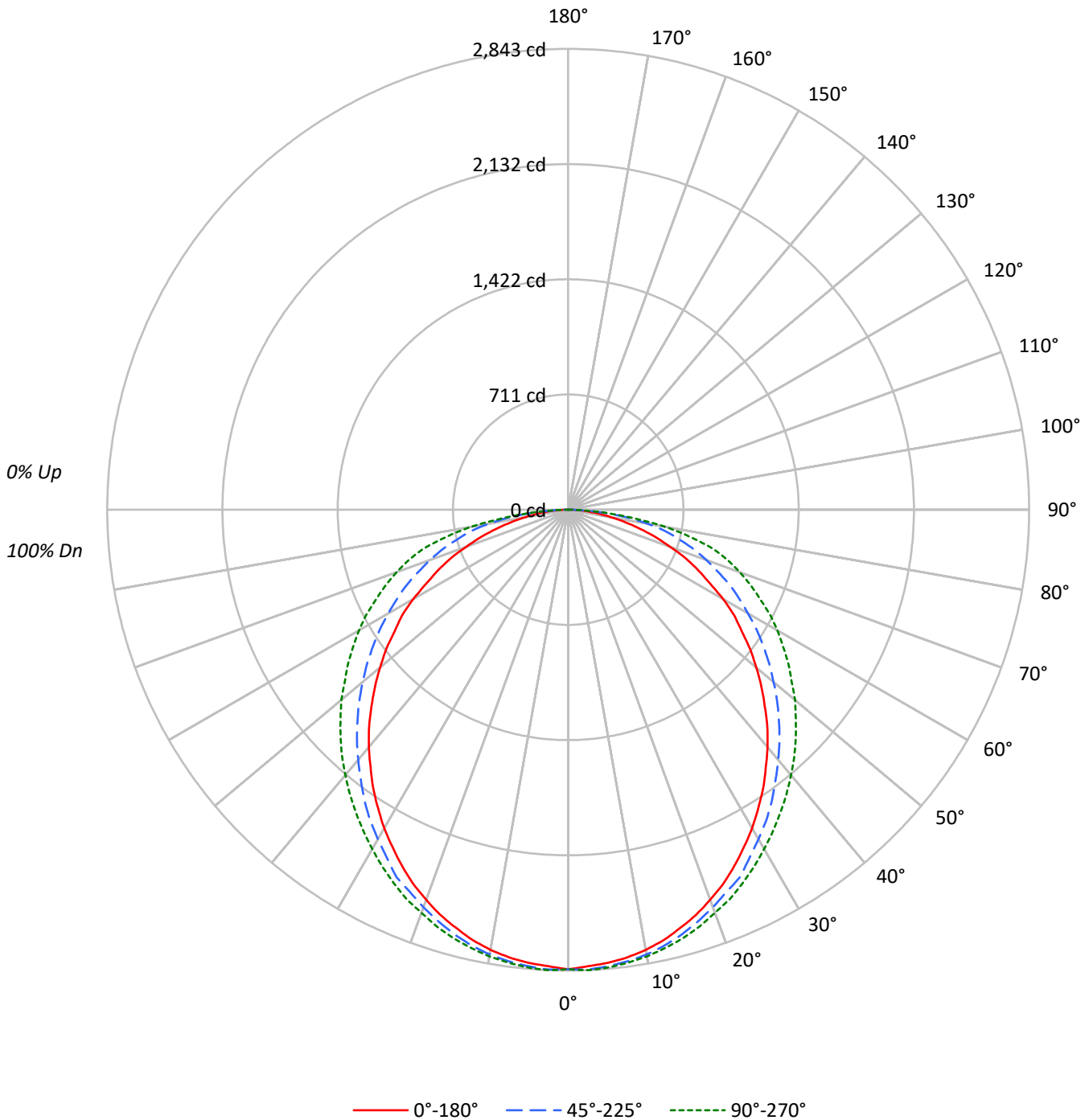
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	7629	7629	7629
5°	7581	7636	7659
10°	7534	7612	7646
15°	7441	7556	7624
20°	7332	7473	7578
25°	7200	7431	7553
30°	7050	7292	7509
35°	6887	7198	7494
40°	6717	7077	7509
45°	6527	6995	7558
50°	6338	6922	7644
55°	6122	6891	7777
60°	5940	6889	8016
65°	5643	7002	8308
70°	5262	7135	8845
75°	4820	7380	9556
80°	4197	7694	9410
85°	3674	6842	7475



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.1	3.2
10°-20°	763.7	9.2
20°-30°	1146.5	13.7
30°-40°	1370.0	16.4
40°-50°	1424.5	17.1
50°-60°	1320.3	15.8
60°-70°	1083.0	13.0
70°-80°	732.1	8.8
80°-90°	230.1	2.8
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°	2178.3	26.1
0°-40°	3548.3	42.6
0°-60°	6293.2	75.5
0°-90°	8338.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8338.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2835	2835	2835	2835	2835	
5°	2806	2811	2827	2831	2835	266
15°	2671	2683	2712	2728	2737	753
25°	2425	2445	2503	2532	2544	1117
35°	2097	2125	2191	2257	2281	1310
45°	1715	1748	1838	1945	1986	1324
55°	1305	1346	1469	1600	1658	1173
65°	886	936	1100	1243	1305	876
75°	464	542	710	853	919	492
85°	119	164	222	246	242	135
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2835.2	2835.2	2835.2	2835.2	2835.2
2.5°	2818.8	2827.0	2839.3	2843.4	2843.4
5°	2806.5	2810.6	2827.0	2831.1	2835.2
7.5°	2785.9	2794.1	2810.6	2814.7	2818.8
10°	2757.2	2765.4	2785.9	2794.1	2798.2
12.5°	2720.3	2728.5	2753.1	2765.4	2769.5
15°	2671.1	2683.4	2712.1	2728.5	2736.7
17.5°	2621.8	2634.1	2662.8	2687.5	2695.7
20°	2560.3	2589.0	2609.5	2642.3	2646.4
22.5°	2498.7	2515.1	2552.1	2584.9	2601.3
25°	2424.9	2445.4	2502.8	2531.6	2543.9
27.5°	2346.9	2375.6	2420.8	2465.9	2482.3
30°	2269.0	2289.5	2346.9	2400.3	2416.7
32.5°	2182.8	2211.5	2273.1	2326.4	2351.0
35°	2096.6	2125.4	2191.0	2256.7	2281.3
37.5°	2002.3	2035.1	2100.7	2178.7	2211.5
40°	1912.0	1936.6	2014.6	2108.9	2137.7
42.5°	1817.6	1846.4	1928.4	2031.0	2063.8
45°	1715.1	1747.9	1838.1	1944.8	1985.9
47.5°	1616.6	1649.4	1747.9	1854.6	1903.8
50°	1514.0	1555.0	1653.5	1776.6	1825.8
52.5°	1415.5	1452.5	1563.2	1690.4	1735.6
55°	1304.8	1345.8	1468.9	1600.2	1657.6
57.5°	1214.5	1243.2	1378.6	1514.0	1571.5
60°	1103.7	1140.6	1280.1	1423.7	1489.4
62.5°	984.7	1046.3	1189.9	1337.6	1403.2
65°	886.2	935.5	1099.6	1243.2	1304.8
67.5°	783.7	837.0	997.0	1148.8	1218.6
70°	668.8	738.5	906.8	1058.6	1124.2
72.5°	566.2	640.1	812.4	960.1	1029.9
75°	463.6	541.6	709.8	853.4	919.1
77.5°	365.2	451.3	615.5	726.2	767.3
80°	270.8	352.9	496.5	574.4	607.2
82.5°	188.7	258.5	365.2	406.2	414.4
85°	119.0	164.1	221.6	246.2	242.1
87.5°	53.3	65.6	82.1	90.3	86.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)