

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: P389094

Luminaire Tested: **22CZ2-100VHE-S-UNV-L950-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: P389094  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-100VHE-S-UNV-L950-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9395.8 lumens  
Efficiency: N/A  
Efficacy: 120.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

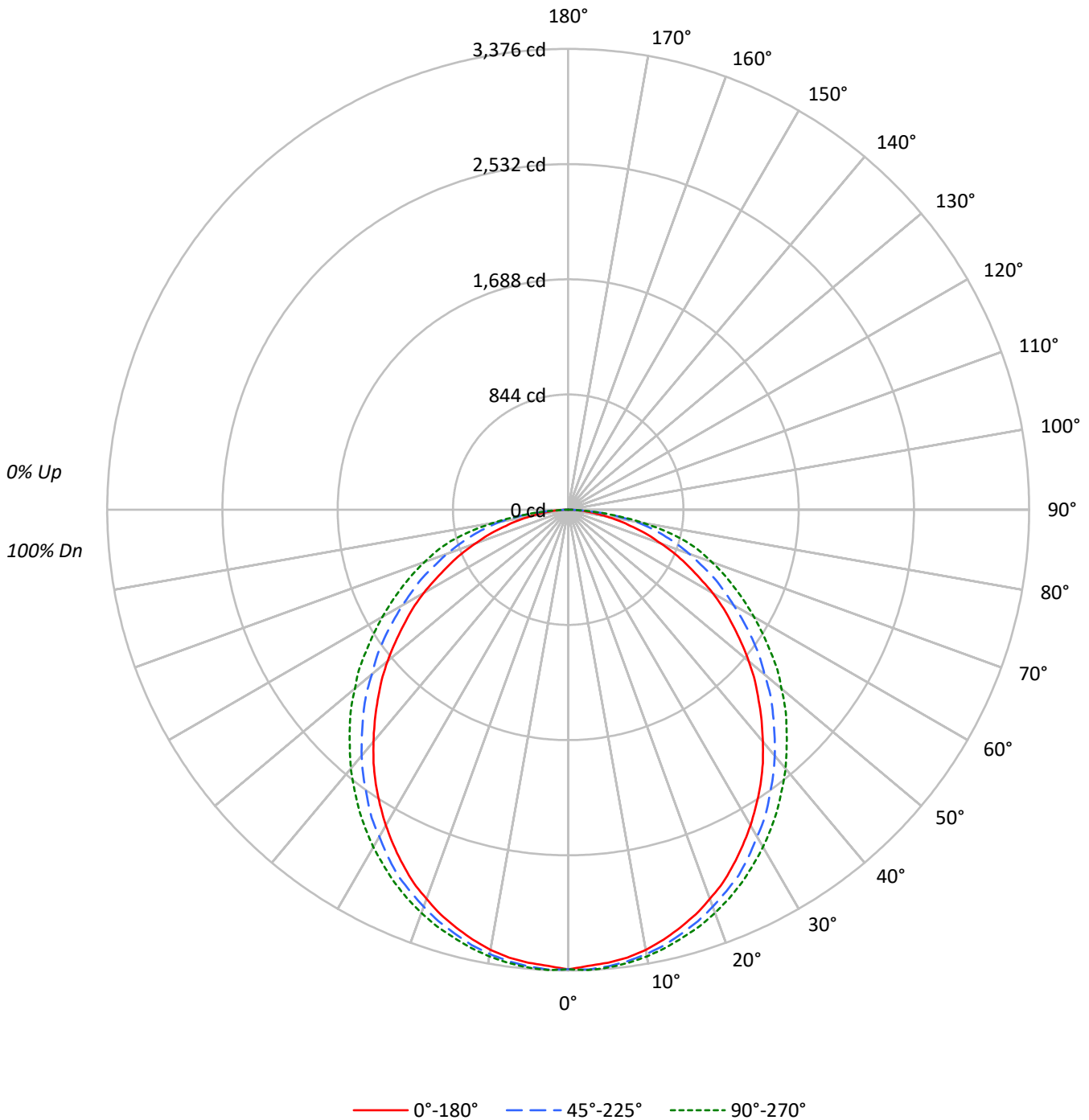
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	9060	9060	9060
5°	9000	9071	9095
10°	8948	9032	9080
15°	8830	8952	9038
20°	8687	8863	9001
25°	8513	8773	8942
30°	8296	8595	8868
35°	8065	8439	8785
40°	7792	8270	8701
45°	7507	8075	8609
50°	7231	7855	8534
55°	6890	7712	8474
60°	6583	7527	8446
65°	6141	7481	8542
70°	5657	7415	8796
75°	5105	7520	9252
80°	4417	7745	8695
85°	3656	6496	6496



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	318.4	3.4
10°-20°	906.1	9.6
20°-30°	1355.7	14.4
30°-40°	1605.5	17.1
40°-50°	1636.2	17.4
50°-60°	1466.5	15.6
60°-70°	1148.2	12.2
70°-80°	740.4	7.9
80°-90°	218.7	2.3
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°	2580.2	27.5
0°-40°	4185.8	44.5
0°-60°	7288.5	77.6
0°-90°	9395.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9395.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3367	3367	3367	3367	3367	
5°	3332	3340	3358	3362	3367	316
15°	3170	3187	3213	3240	3244	894
25°	2867	2893	2955	2994	3012	1320
35°	2455	2486	2569	2648	2674	1534
45°	1973	2017	2122	2231	2262	1523
55°	1469	1517	1644	1758	1806	1317
65°	964	1021	1175	1289	1342	958
75°	491	566	723	846	890	526
85°	118	162	210	210	210	139
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3366.8	3366.8	3366.8	3366.8	3366.8
2.5°	3344.9	3353.7	3371.2	3375.6	3375.6
5°	3331.7	3340.5	3358.0	3362.4	3366.8
7.5°	3309.8	3314.2	3336.1	3344.9	3349.3
10°	3274.7	3283.5	3305.4	3318.6	3323.0
12.5°	3226.5	3239.7	3266.0	3283.5	3287.9
15°	3169.5	3187.1	3213.4	3239.7	3244.1
17.5°	3108.2	3125.7	3160.8	3191.5	3200.2
20°	3033.6	3055.6	3095.0	3130.1	3143.2
22.5°	2959.1	2976.6	3024.9	3068.7	3081.9
25°	2867.0	2893.4	2954.7	2994.2	3011.7
27.5°	2770.6	2801.3	2862.7	2915.3	2932.8
30°	2669.8	2700.5	2766.2	2832.0	2853.9
32.5°	2564.6	2599.6	2678.5	2744.3	2766.2
35°	2455.0	2485.7	2568.9	2647.9	2674.2
37.5°	2341.0	2367.3	2463.7	2547.0	2573.3
40°	2218.2	2253.3	2354.1	2450.6	2476.9
42.5°	2095.5	2134.9	2235.8	2341.0	2367.3
45°	1972.7	2016.6	2121.8	2231.4	2262.1
47.5°	1854.4	1889.4	2007.8	2113.0	2156.9
50°	1727.2	1762.3	1876.3	1994.7	2038.5
52.5°	1595.7	1643.9	1766.7	1880.7	1933.3
55°	1468.6	1516.8	1643.9	1757.9	1806.2
57.5°	1350.2	1389.7	1521.2	1639.6	1687.8
60°	1223.1	1258.2	1398.5	1525.6	1569.4
62.5°	1087.2	1139.8	1284.5	1402.8	1455.4
65°	964.5	1021.4	1174.9	1288.9	1341.5
67.5°	850.5	903.1	1052.1	1174.9	1231.9
70°	719.0	789.1	942.5	1065.3	1117.9
72.5°	613.7	675.1	832.9	955.7	1012.7
75°	491.0	565.5	723.3	846.1	889.9
77.5°	390.2	464.7	613.7	710.2	732.1
80°	285.0	359.5	499.8	548.0	561.1
82.5°	192.9	263.0	359.5	372.6	377.0
85°	118.4	162.2	210.4	210.4	210.4
87.5°	57.0	65.8	74.5	70.1	70.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)