

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: P387603

Luminaire Tested: **22CZ2-100VHE-SQR-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: P387603  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-100VHE-SQR-UNV-L935-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8007.9 lumens  
Efficiency: N/A  
Efficacy: 103.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

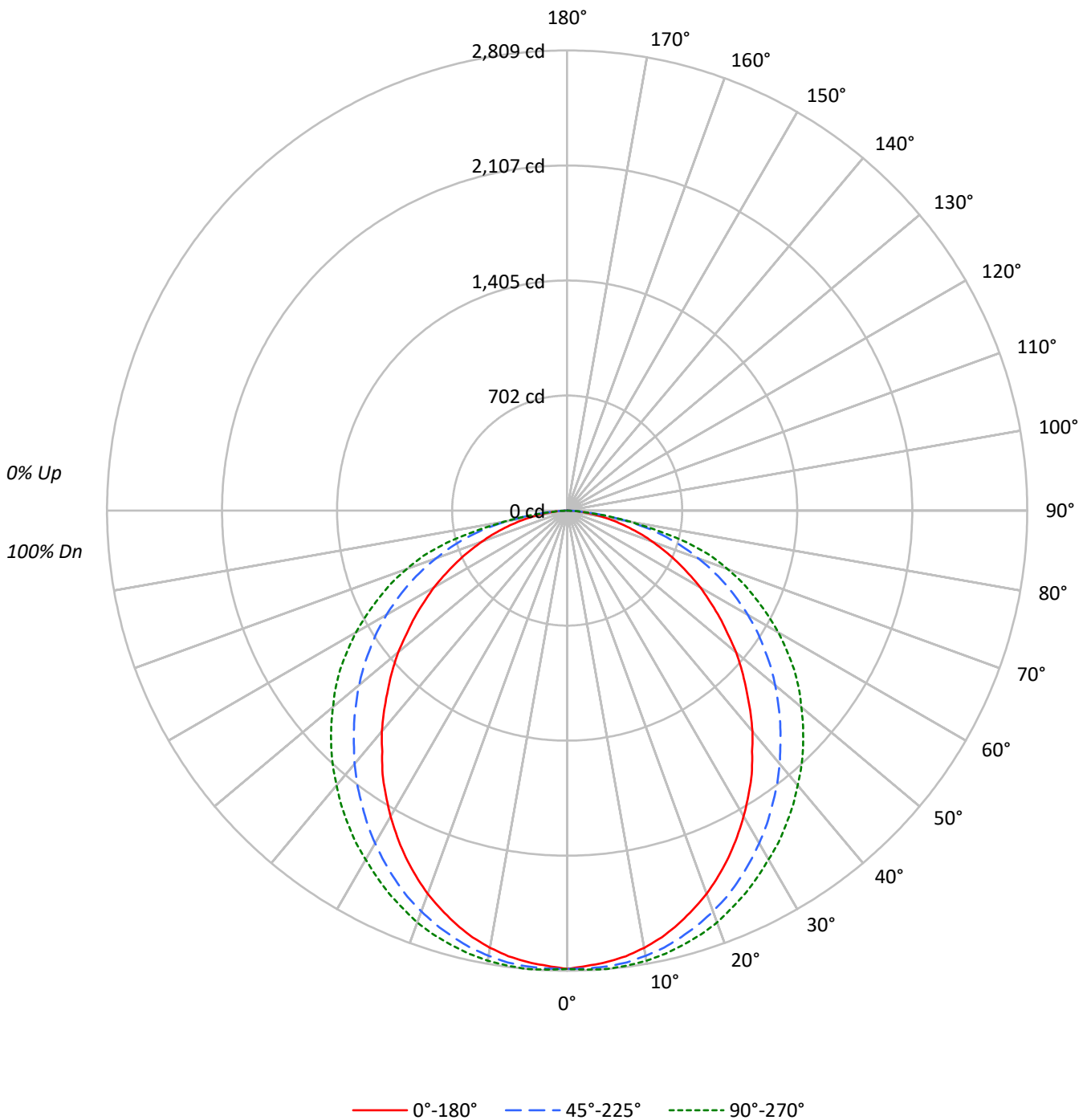
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	7528	7528	7528
5°	7474	7546	7587
10°	7405	7540	7623
15°	7285	7507	7645
20°	7129	7456	7662
25°	6929	7380	7651
30°	6696	7287	7641
35°	6455	7179	7666
40°	6182	7090	7690
45°	5887	7001	7753
50°	5633	6937	7813
55°	5332	6883	7935
60°	5053	6853	8019
65°	4719	6800	8083
70°	4336	6699	8194
75°	3912	6520	7904
80°	3357	5773	5949
85°	2699	3402	2699



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	265.2	3.3
10°-20°	758.2	9.5
20°-30°	1138.8	14.2
30°-40°	1358.2	17.0
40°-50°	1404.2	17.5
50°-60°	1291.0	16.1
60°-70°	1027.8	12.8
70°-80°	627.9	7.8
80°-90°	136.5	1.7
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°	2162.2	27.0
0°-40°	3520.4	44.0
0°-60°	6215.7	77.6
0°-90°	8007.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8007.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2797	2797	2797	2797	2797	
5°	2767	2774	2794	2805	2809	262
15°	2615	2645	2695	2733	2744	736
25°	2334	2391	2486	2554	2577	1073
35°	1965	2049	2185	2300	2334	1226
45°	1547	1657	1840	1988	2037	1196
55°	1136	1262	1467	1634	1691	1016
65°	741	867	1068	1216	1270	734
75°	376	486	627	737	760	401
85°	87	106	110	95	87	101
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2797.4	2797.4	2797.4	2797.4	2797.4
2.5°	2782.1	2786.0	2797.4	2805.0	2805.0
5°	2766.9	2774.5	2793.6	2805.0	2808.8
7.5°	2744.1	2755.5	2782.1	2797.4	2801.2
10°	2709.9	2725.1	2759.3	2782.1	2789.8
12.5°	2668.1	2690.9	2732.7	2763.1	2770.7
15°	2614.9	2645.3	2694.7	2732.7	2744.1
17.5°	2554.1	2592.1	2652.9	2698.5	2713.7
20°	2489.5	2527.5	2603.5	2656.7	2675.7
22.5°	2413.5	2462.9	2550.3	2611.1	2626.3
25°	2333.7	2390.7	2485.7	2554.1	2576.9
27.5°	2246.2	2314.7	2417.3	2500.9	2519.9
30°	2155.0	2227.2	2345.1	2436.3	2459.1
32.5°	2060.0	2143.6	2269.0	2371.7	2402.1
35°	1965.0	2048.6	2185.4	2299.5	2333.7
37.5°	1854.8	1953.6	2105.6	2223.4	2265.2
40°	1759.7	1854.8	2018.2	2147.4	2189.2
42.5°	1653.3	1755.9	1927.0	2067.6	2117.0
45°	1546.9	1657.1	1839.6	1987.8	2037.2
47.5°	1448.1	1558.3	1748.3	1904.2	1953.6
50°	1345.5	1459.5	1657.1	1816.8	1866.2
52.5°	1235.2	1360.7	1565.9	1725.5	1782.6
55°	1136.4	1261.8	1467.1	1634.3	1691.3
57.5°	1033.8	1163.0	1375.9	1535.5	1588.7
60°	938.8	1064.2	1273.3	1429.1	1489.9
62.5°	836.2	965.4	1170.6	1322.7	1379.7
65°	741.1	866.6	1068.0	1216.2	1269.5
67.5°	646.1	771.6	961.6	1102.2	1163.0
70°	551.1	676.5	851.4	988.2	1041.4
72.5°	467.5	577.7	744.9	870.4	919.8
75°	376.3	486.5	627.1	737.3	760.2
77.5°	292.7	391.5	509.3	558.7	566.3
80°	216.6	292.7	372.5	383.9	383.9
82.5°	144.4	201.4	231.8	235.6	231.8
85°	87.4	106.4	110.2	95.0	87.4
87.5°	30.4	30.4	19.0	11.4	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)