

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: P387602

Luminaire Tested: **22CZ2-100VHE-SQR-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: P387602
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-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8009.4 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

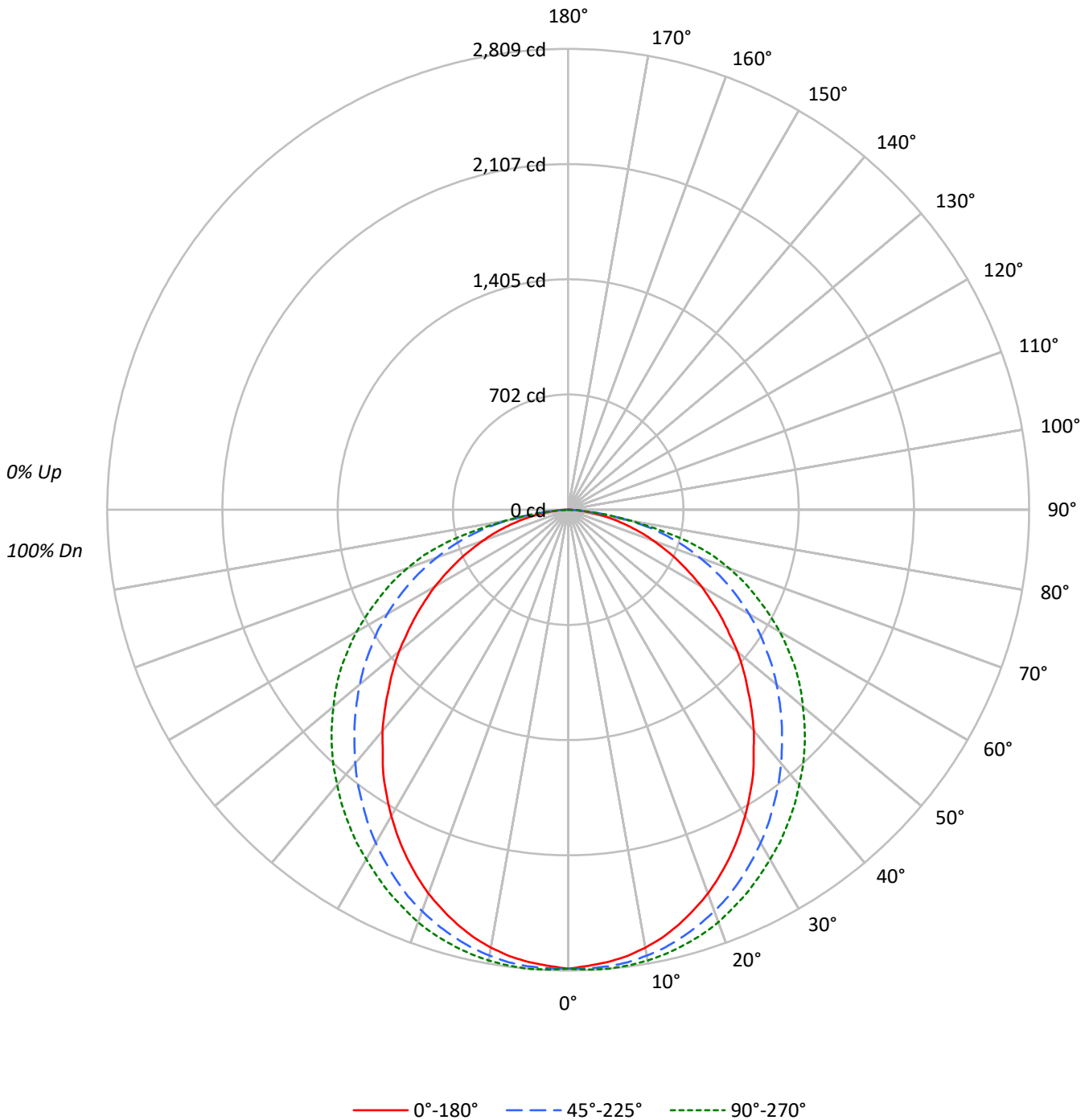
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91		93	91	88		90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75		81	77	73		78	75	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	68	60	54	66	59	53		64	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7529	7529	7529
5°	7476	7548	7589
10°	7406	7541	7624
15°	7286	7509	7646
20°	7131	7457	7664
25°	6930	7382	7653
30°	6697	7288	7642
35°	6456	7181	7668
40°	6183	7091	7692
45°	5888	7002	7754
50°	5634	6939	7814
55°	5332	6884	7937
60°	5054	6854	8020
65°	4720	6802	8085
70°	4337	6700	8195
75°	3912	6521	7905
80°	3358	5773	5949
85°	2699	3402	2699



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.2	3.3
10°-20°	758.4	9.5
20°-30°	1139.0	14.2
30°-40°	1358.4	17.0
40°-50°	1404.5	17.5
50°-60°	1291.3	16.1
60°-70°	1028.0	12.8
70°-80°	628.0	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°	2162.6	27.0
0°-40°	3521.1	44.0
0°-60°	6216.9	77.6
0°-90°	8009.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8009.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2798	2798	2798	2798	2798	
5°	2768	2775	2794	2806	2809	262
15°	2615	2646	2695	2733	2745	737
25°	2334	2391	2486	2555	2577	1074
35°	1965	2049	2186	2300	2334	1226
45°	1547	1657	1840	1988	2038	1196
55°	1137	1262	1467	1635	1692	1017
65°	741	867	1068	1216	1270	734
75°	376	487	627	738	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°	2797.9	2797.9	2797.9	2797.9	2797.9
2.5°	2782.7	2786.5	2797.9	2805.5	2805.5
5°	2767.5	2775.1	2794.1	2805.5	2809.3
7.5°	2744.7	2756.1	2782.7	2797.9	2801.7
10°	2710.4	2725.6	2759.9	2782.7	2790.3
12.5°	2668.6	2691.4	2733.3	2763.7	2771.3
15°	2615.4	2645.8	2695.2	2733.3	2744.7
17.5°	2554.6	2592.6	2653.4	2699.0	2714.2
20°	2490.0	2528.0	2604.0	2657.2	2676.2
22.5°	2413.9	2463.3	2550.8	2611.6	2626.8
25°	2334.1	2391.1	2486.2	2554.6	2577.4
27.5°	2246.7	2315.1	2417.7	2501.4	2520.4
30°	2155.4	2227.7	2345.5	2436.7	2459.5
32.5°	2060.4	2144.0	2269.5	2372.1	2402.5
35°	1965.4	2049.0	2185.8	2299.9	2334.1
37.5°	1855.1	1954.0	2106.0	2223.9	2265.7
40°	1760.1	1855.1	2018.6	2147.8	2189.6
42.5°	1653.6	1756.3	1927.3	2068.0	2117.4
45°	1547.2	1657.4	1839.9	1988.2	2037.6
47.5°	1448.4	1558.6	1748.7	1904.5	1954.0
50°	1345.7	1459.8	1657.4	1817.1	1866.5
52.5°	1235.5	1360.9	1566.2	1725.9	1782.9
55°	1136.6	1262.1	1467.4	1634.6	1691.7
57.5°	1034.0	1163.2	1376.1	1535.8	1589.0
60°	939.0	1064.4	1273.5	1429.3	1490.2
62.5°	836.3	965.6	1170.9	1322.9	1379.9
65°	741.3	866.7	1068.2	1216.5	1269.7
67.5°	646.2	771.7	961.8	1102.4	1163.2
70°	551.2	676.7	851.5	988.4	1041.6
72.5°	467.6	577.8	745.1	870.5	920.0
75°	376.3	486.6	627.2	737.5	760.3
77.5°	292.7	391.6	509.4	558.8	566.4
80°	216.7	292.7	372.5	383.9	383.9
82.5°	144.5	201.5	231.9	235.7	231.9
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)