

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: P387605

Luminaire Tested: **22CZ2-100VHE-SQR-UNV-L935-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: P387605
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-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: 8207.5 lumens
Efficiency: N/A
Efficacy: 105.6 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

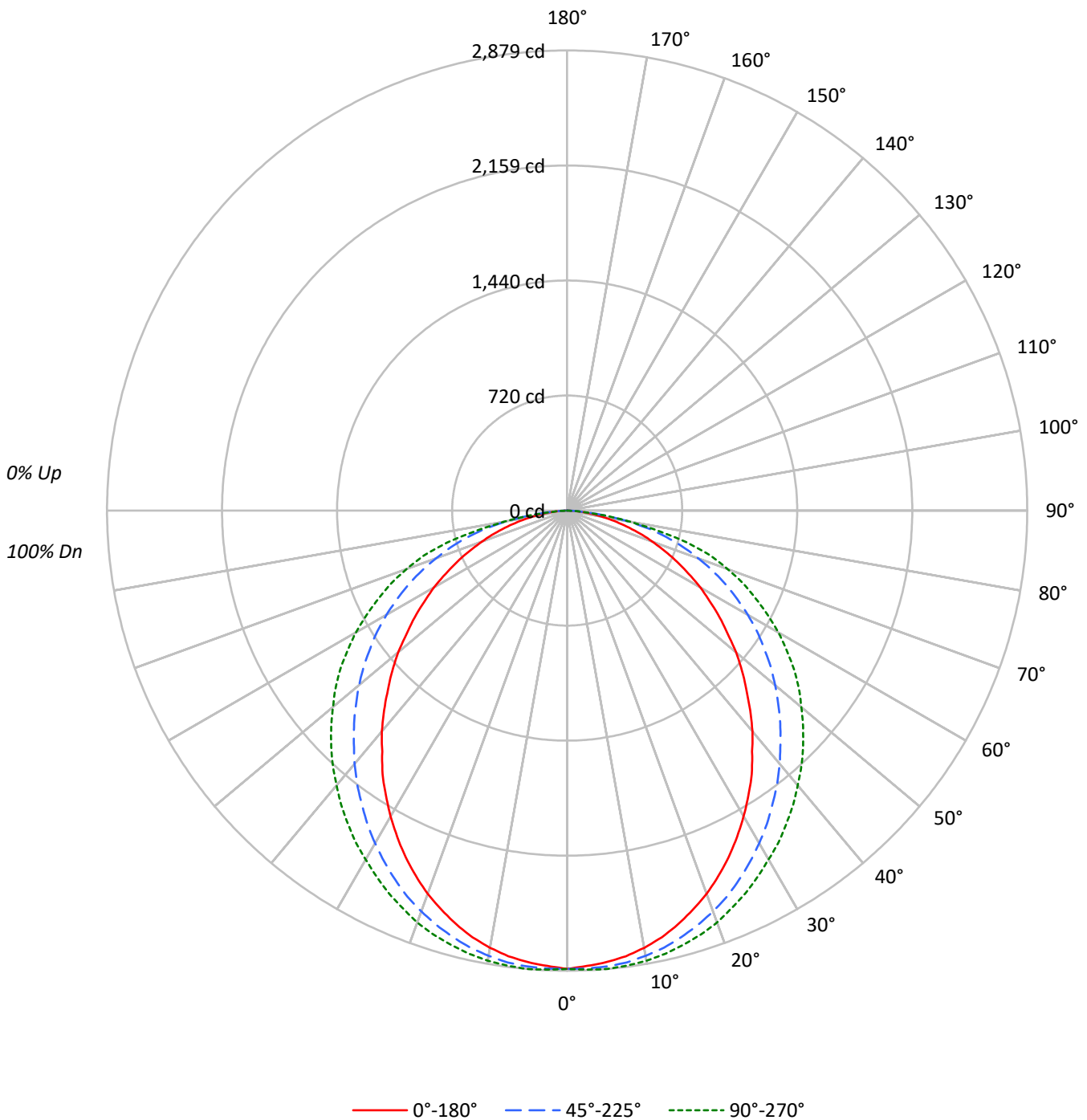
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7715	7715	7715
5°	7660	7734	7776
10°	7589	7728	7813
15°	7467	7694	7835
20°	7307	7641	7853
25°	7102	7564	7842
30°	6863	7468	7832
35°	6616	7358	7857
40°	6336	7266	7882
45°	6034	7175	7946
50°	5773	7110	8007
55°	5465	7055	8133
60°	5179	7023	8218
65°	4837	6970	8285
70°	4444	6866	8398
75°	4010	6683	8100
80°	3440	5917	6096
85°	2766	3489	2766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.8	3.3
10°-20°	777.1	9.5
20°-30°	1167.2	14.2
30°-40°	1392.0	17.0
40°-50°	1439.2	17.5
50°-60°	1323.2	16.1
60°-70°	1053.4	12.8
70°-80°	643.6	7.8
80°-90°	139.9	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°	2216.1	27.0
0°-40°	3608.2	44.0
0°-60°	6370.6	77.6
0°-90°	8207.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8207.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2867	2867	2867	2867	2867	
5°	2836	2844	2863	2875	2879	269
15°	2680	2711	2762	2801	2812	755
25°	2392	2450	2548	2618	2641	1100
35°	2014	2100	2240	2357	2392	1256
45°	1586	1698	1885	2037	2088	1226
55°	1165	1293	1504	1675	1734	1042
65°	760	888	1095	1247	1301	752
75°	386	499	643	756	779	411
85°	90	109	113	97	90	103
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2867.1	2867.1	2867.1	2867.1	2867.1
2.5°	2851.5	2855.4	2867.1	2874.9	2874.9
5°	2835.9	2843.7	2863.2	2874.9	2878.8
7.5°	2812.5	2824.2	2851.5	2867.1	2871.0
10°	2777.5	2793.1	2828.1	2851.5	2859.3
12.5°	2734.6	2758.0	2800.9	2832.0	2839.8
15°	2680.1	2711.3	2761.9	2800.9	2812.5
17.5°	2617.8	2656.7	2719.0	2765.8	2781.4
20°	2551.5	2590.5	2668.4	2722.9	2742.4
22.5°	2473.6	2524.3	2613.9	2676.2	2691.8
25°	2391.8	2450.3	2547.6	2617.8	2641.1
27.5°	2302.2	2372.4	2477.5	2563.2	2582.7
30°	2208.7	2282.8	2403.5	2497.0	2520.4
32.5°	2111.4	2197.1	2325.6	2430.8	2461.9
35°	2014.0	2099.7	2239.9	2356.8	2391.8
37.5°	1901.0	2002.3	2158.1	2278.9	2321.7
40°	1803.6	1901.0	2068.5	2200.9	2243.8
42.5°	1694.5	1799.7	1975.0	2119.1	2169.8
45°	1585.5	1698.4	1885.4	2037.3	2088.0
47.5°	1484.2	1597.1	1791.9	1951.6	2002.3
50°	1379.0	1495.9	1698.4	1862.0	1912.7
52.5°	1266.0	1394.6	1604.9	1768.6	1827.0
55°	1164.8	1293.3	1503.7	1675.1	1733.5
57.5°	1059.6	1192.0	1410.2	1573.8	1628.3
60°	962.2	1090.7	1305.0	1464.7	1527.0
62.5°	857.0	989.5	1199.8	1355.6	1414.1
65°	759.6	888.2	1094.6	1246.6	1301.1
67.5°	662.2	790.8	985.6	1129.7	1192.0
70°	564.8	693.4	872.6	1012.8	1067.4
72.5°	479.1	592.1	763.5	892.1	942.7
75°	385.7	498.6	642.8	755.7	779.1
77.5°	300.0	401.2	522.0	572.6	580.4
80°	222.0	300.0	381.8	393.4	393.4
82.5°	148.0	206.5	237.6	241.5	237.6
85°	89.6	109.1	113.0	97.4	89.6
87.5°	31.2	31.2	19.5	11.7	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)