

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: P389522

Luminaire Tested: **24CZ2-100VHE-S-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: P389522
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-S-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9053.4 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

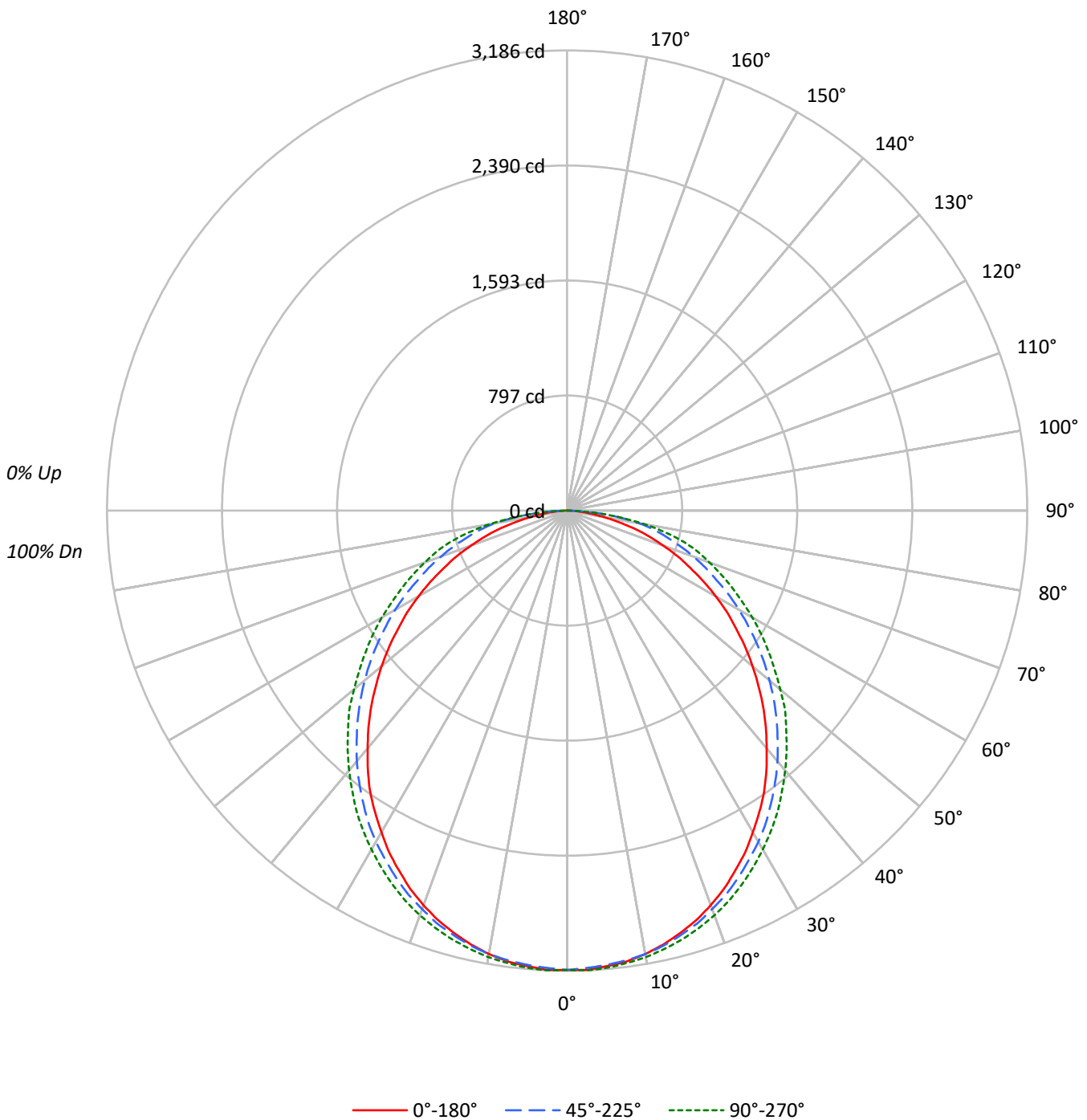
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	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°	4279	4279	4279
5°	4276	4265	4292
10°	4259	4259	4290
15°	4218	4238	4282
20°	4163	4204	4270
25°	4086	4162	4244
30°	3994	4115	4209
35°	3906	4048	4175
40°	3773	3980	4127
45°	3650	3902	4082
50°	3509	3828	4033
55°	3353	3757	3993
60°	3196	3699	3985
65°	2994	3635	4010
70°	2771	3654	4118
75°	2482	3722	4350
80°	2005	3944	4256
85°	1510	3463	3375



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.1	3.3
10°-20°	860.4	9.5
20°-30°	1293.3	14.3
30°-40°	1540.5	17.0
40°-50°	1576.7	17.4
50°-60°	1419.5	15.7
60°-70°	1114.7	12.3
70°-80°	723.5	8.0
80°-90°	223.8	2.5
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°	2454.8	27.1
0°-40°	3995.3	44.1
0°-60°	6991.4	77.2
0°-90°	9053.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9053.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3180	3180	3180	3180	3180	
5°	3166	3172	3158	3175	3178	301
15°	3028	3037	3042	3068	3074	854
25°	2752	2775	2804	2850	2858	1268
35°	2378	2407	2464	2525	2542	1484
45°	1918	1964	2050	2128	2145	1479
55°	1429	1492	1602	1685	1702	1281
65°	940	1012	1142	1236	1260	936
75°	477	569	716	814	837	505
85°	98	181	224	219	219	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3180.5	3180.5	3180.5	3180.5	3180.5
2.5°	3183.4	3183.4	3169.0	3183.4	3186.3
5°	3166.1	3171.9	3157.5	3174.8	3177.6
7.5°	3148.9	3148.9	3140.3	3157.5	3160.4
10°	3117.3	3120.1	3117.3	3137.4	3140.3
12.5°	3077.0	3082.7	3085.6	3105.8	3108.6
15°	3028.1	3036.7	3042.5	3068.4	3074.1
17.5°	2973.5	2982.1	2996.5	3025.2	3031.0
20°	2907.3	2918.8	2936.1	2973.5	2982.1
22.5°	2835.4	2846.9	2875.7	2910.2	2924.6
25°	2752.0	2775.0	2803.8	2849.8	2858.4
27.5°	2668.6	2688.8	2726.2	2775.0	2786.5
30°	2570.9	2602.5	2648.5	2697.4	2708.9
32.5°	2476.0	2507.6	2562.2	2614.0	2628.4
35°	2378.2	2407.0	2464.5	2524.9	2542.1
37.5°	2266.0	2303.4	2366.7	2427.1	2444.3
40°	2148.1	2194.2	2266.0	2329.3	2349.4
42.5°	2036.0	2084.9	2156.8	2225.8	2248.8
45°	1918.1	1964.1	2050.4	2128.0	2145.3
47.5°	1797.3	1849.1	1941.1	2018.7	2047.5
50°	1676.5	1731.2	1828.9	1909.5	1926.7
52.5°	1555.8	1613.3	1716.8	1803.1	1811.7
55°	1429.2	1492.5	1601.8	1685.2	1702.4
57.5°	1314.2	1368.8	1486.7	1573.0	1593.1
60°	1187.7	1248.1	1374.6	1455.1	1481.0
62.5°	1066.9	1130.1	1262.4	1342.9	1366.0
65°	940.4	1012.2	1141.7	1236.5	1259.6
67.5°	831.1	900.1	1038.1	1130.1	1153.2
70°	704.5	782.2	928.8	1023.7	1046.8
72.5°	595.3	675.8	822.4	914.5	949.0
75°	477.4	569.4	716.0	813.8	836.8
77.5°	362.3	468.7	618.3	693.0	693.0
80°	258.8	371.0	509.0	543.5	549.3
82.5°	169.7	278.9	376.7	373.8	373.8
85°	97.8	181.2	224.3	218.6	218.6
87.5°	37.4	74.8	80.5	80.5	77.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)