

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: P388586

Luminaire Tested: **24CZ2-100VHE-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: P388586
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8616.3 lumens
Efficiency: N/A
Efficacy: 123.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

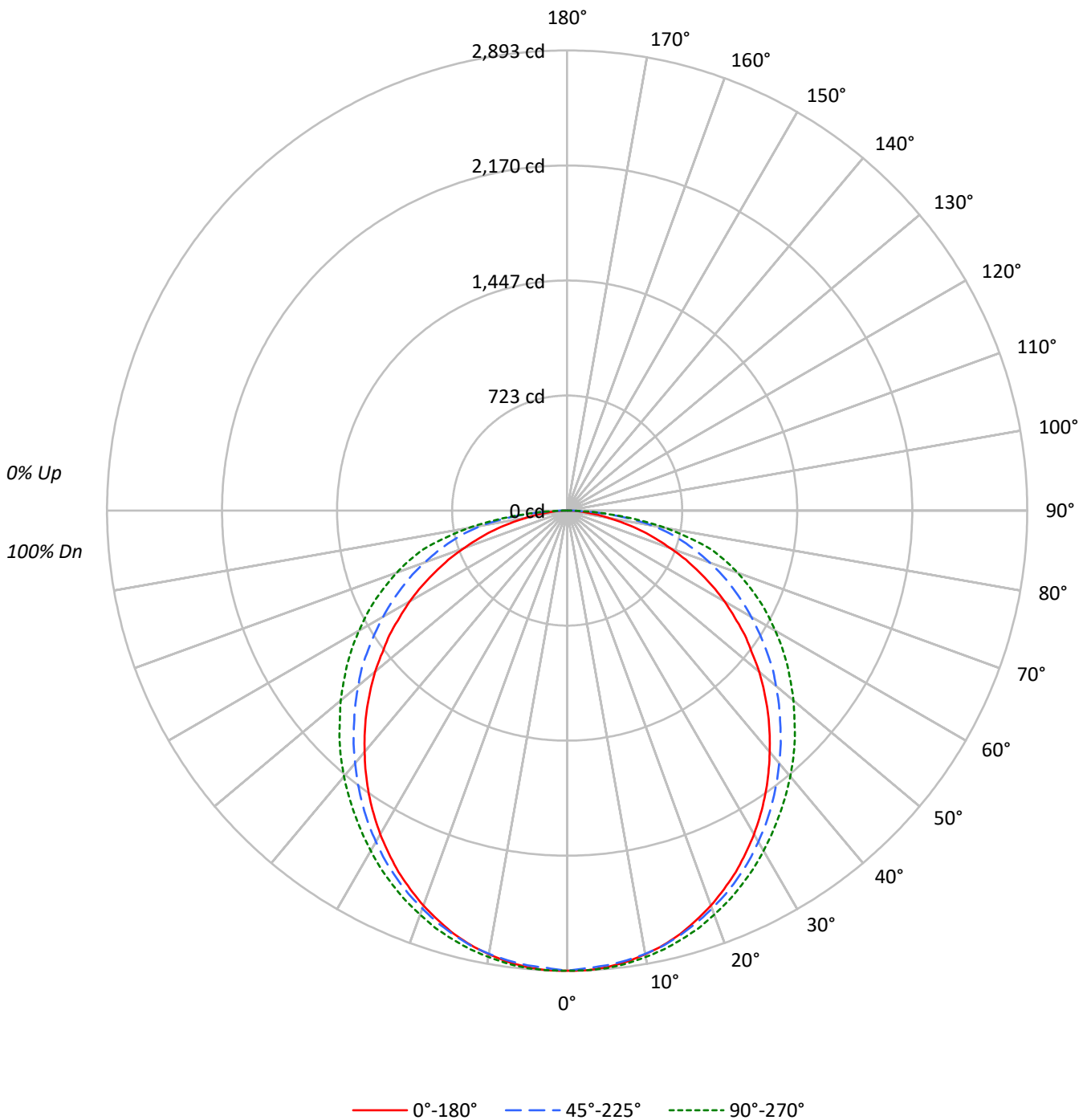
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3892	3892	3892
5°	3892	3876	3899
10°	3870	3866	3894
15°	3837	3845	3886
20°	3784	3813	3870
25°	3723	3778	3855
30°	3650	3735	3838
35°	3571	3689	3826
40°	3480	3642	3834
45°	3393	3606	3852
50°	3299	3588	3889
55°	3198	3582	3960
60°	3072	3598	4063
65°	2911	3653	4239
70°	2704	3744	4480
75°	2467	3932	4859
80°	2028	4234	4857
85°	1553	3907	4173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.6	3.2
10°-20°	781.1	9.1
20°-30°	1175.4	13.6
30°-40°	1408.6	16.3
40°-50°	1467.9	17.0
50°-60°	1365.8	15.9
60°-70°	1124.9	13.1
70°-80°	766.1	8.9
80°-90°	252.9	2.9
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°	2230.1	25.9
0°-40°	3638.8	42.2
0°-60°	6472.5	75.1
0°-90°	8616.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8616.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2893	2893	2893	2893	2893	
5°	2881	2881	2870	2884	2887	273
15°	2755	2758	2761	2786	2789	776
25°	2508	2519	2545	2588	2597	1154
35°	2174	2200	2246	2306	2329	1359
45°	1783	1820	1895	1990	2024	1375
55°	1363	1409	1527	1648	1688	1215
65°	914	992	1147	1282	1331	908
75°	474	581	756	891	935	500
85°	101	196	253	270	270	125
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2892.9	2892.9	2892.9	2892.9	2892.9
2.5°	2892.9	2892.9	2878.5	2892.9	2892.9
5°	2881.4	2881.4	2869.9	2884.3	2887.1
7.5°	2861.3	2864.1	2852.6	2869.9	2872.8
10°	2832.5	2835.4	2829.6	2846.9	2849.8
12.5°	2798.0	2800.9	2800.9	2821.0	2823.9
15°	2754.9	2757.7	2760.6	2786.5	2789.4
17.5°	2700.2	2708.9	2714.6	2746.2	2752.0
20°	2642.7	2651.3	2662.8	2697.3	2703.1
22.5°	2576.6	2588.1	2608.2	2645.6	2654.2
25°	2507.6	2519.1	2544.9	2588.1	2596.7
27.5°	2429.9	2447.2	2478.8	2524.8	2536.3
30°	2349.4	2366.7	2404.0	2452.9	2470.2
32.5°	2263.1	2286.1	2329.3	2383.9	2401.2
35°	2174.0	2199.9	2245.9	2306.3	2329.3
37.5°	2079.1	2107.8	2162.5	2228.6	2257.4
40°	1981.3	2015.8	2073.3	2151.0	2182.6
42.5°	1883.5	1915.2	1987.1	2070.5	2105.0
45°	1782.9	1820.3	1895.0	1989.9	2024.4
47.5°	1679.4	1716.8	1805.9	1906.5	1938.2
50°	1575.9	1613.2	1713.9	1820.3	1857.7
52.5°	1463.7	1512.6	1627.6	1734.0	1771.4
55°	1363.1	1409.1	1527.0	1647.7	1688.0
57.5°	1248.0	1302.7	1432.1	1558.6	1601.7
60°	1141.6	1199.1	1337.2	1466.6	1509.7
62.5°	1032.4	1095.6	1242.3	1374.6	1423.4
65°	914.5	992.1	1147.4	1282.5	1331.4
67.5°	808.1	888.6	1052.5	1190.5	1233.6
70°	687.3	785.0	951.8	1089.9	1138.8
72.5°	583.8	681.5	856.9	992.1	1041.0
75°	474.5	580.9	756.3	891.4	934.6
77.5°	365.2	483.1	658.5	762.0	776.4
80°	261.7	385.3	546.4	606.8	626.9
82.5°	184.0	296.2	402.6	442.8	454.4
85°	100.6	195.5	253.1	270.3	270.3
87.5°	43.1	83.4	100.6	103.5	106.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)