

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: P388585

Luminaire Tested: **24CZ2-100VHE-UNV-L935-CD1-SWPD1-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: P388585
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-SWPD1-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: 8509.4 lumens
Efficiency: N/A
Efficacy: 122.3 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

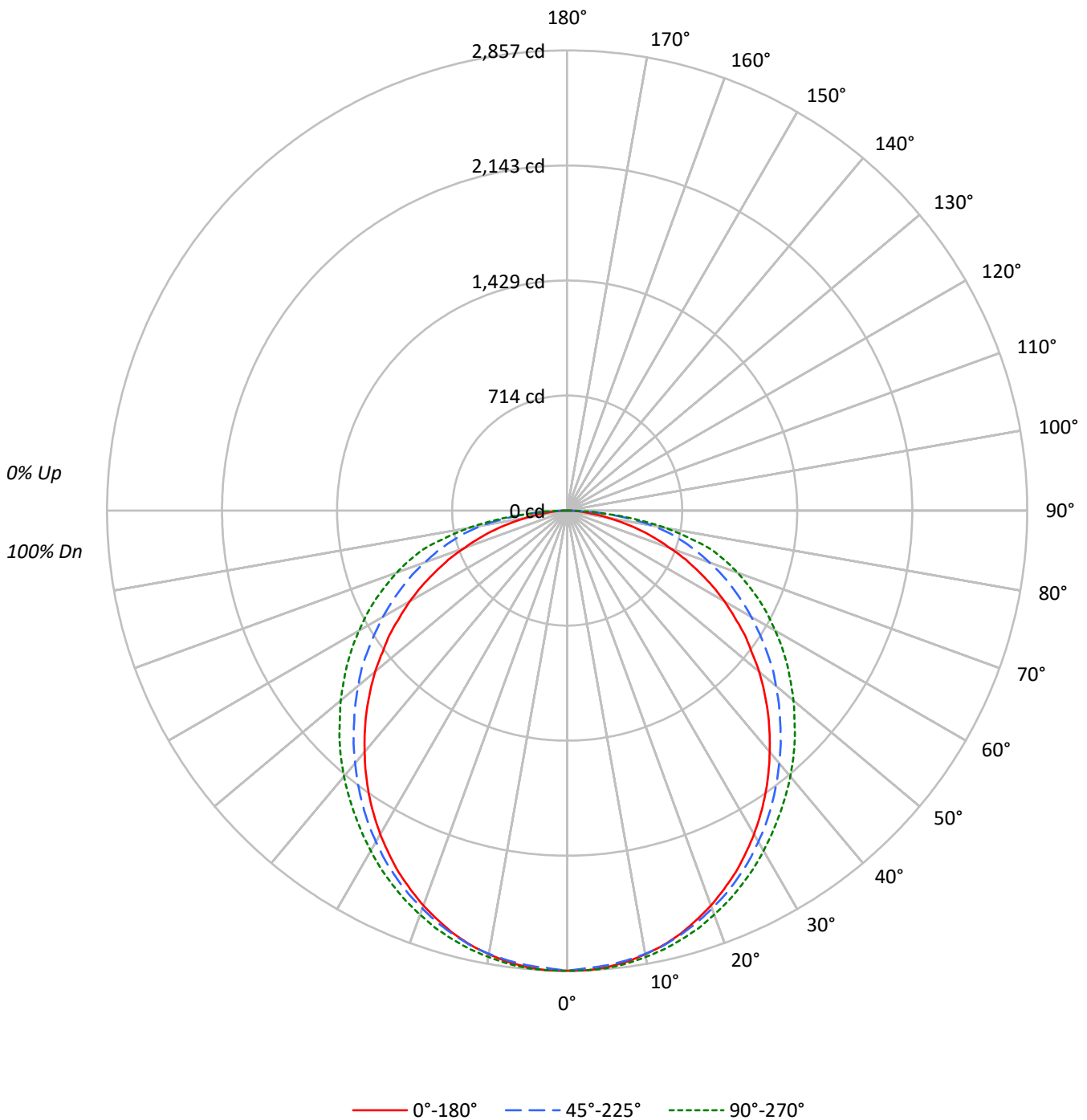
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3844	3844	3844
5°	3843	3828	3851
10°	3822	3818	3845
15°	3790	3798	3837
20°	3737	3765	3822
25°	3676	3731	3807
30°	3605	3689	3790
35°	3527	3643	3778
40°	3437	3596	3786
45°	3350	3561	3804
50°	3258	3543	3840
55°	3158	3537	3911
60°	3034	3554	4012
65°	2875	3607	4186
70°	2670	3698	4424
75°	2436	3883	4798
80°	2002	4181	4797
85°	1535	3858	4122



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.2	3.2
10°-20°	771.4	9.1
20°-30°	1160.8	13.6
30°-40°	1391.2	16.3
40°-50°	1449.7	17.0
50°-60°	1348.8	15.9
60°-70°	1110.9	13.1
70°-80°	756.6	8.9
80°-90°	249.8	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°	2202.5	25.9
0°-40°	3593.6	42.2
0°-60°	6392.1	75.1
0°-90°	8509.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8509.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2857	2857	2857	2857	2857	
5°	2846	2846	2834	2848	2851	270
15°	2721	2724	2726	2752	2755	766
25°	2476	2488	2513	2556	2564	1140
35°	2147	2173	2218	2278	2300	1342
45°	1761	1798	1872	1965	1999	1358
55°	1346	1392	1508	1627	1667	1200
65°	903	980	1133	1267	1315	896
75°	469	574	747	880	923	494
85°	99	193	250	267	267	123
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2857.0	2857.0	2857.0	2857.0	2857.0
2.5°	2857.0	2857.0	2842.8	2857.0	2857.0
5°	2845.6	2845.6	2834.3	2848.5	2851.3
7.5°	2825.8	2828.6	2817.2	2834.3	2837.1
10°	2797.4	2800.2	2794.5	2811.6	2814.4
12.5°	2763.3	2766.1	2766.1	2786.0	2788.8
15°	2720.7	2723.5	2726.4	2751.9	2754.8
17.5°	2666.7	2675.2	2680.9	2712.2	2717.8
20°	2609.9	2618.4	2629.8	2663.9	2669.6
22.5°	2544.6	2556.0	2575.8	2612.8	2621.3
25°	2476.4	2487.8	2513.4	2556.0	2564.5
27.5°	2399.8	2416.8	2448.0	2493.5	2504.8
30°	2320.2	2337.3	2374.2	2422.5	2439.5
32.5°	2235.0	2257.8	2300.4	2354.3	2371.4
35°	2147.0	2172.6	2218.0	2277.6	2300.4
37.5°	2053.3	2081.7	2135.7	2201.0	2229.4
40°	1956.7	1990.8	2047.6	2124.3	2155.5
42.5°	1860.2	1891.4	1962.4	2044.8	2078.9
45°	1760.8	1797.7	1871.5	1965.3	1999.3
47.5°	1658.5	1695.5	1783.5	1882.9	1914.1
50°	1556.3	1593.2	1692.6	1797.7	1834.6
52.5°	1445.5	1493.8	1607.4	1712.5	1749.4
55°	1346.1	1391.6	1508.0	1627.3	1667.1
57.5°	1232.5	1286.5	1414.3	1539.3	1581.9
60°	1127.5	1184.3	1320.6	1448.4	1491.0
62.5°	1019.5	1082.0	1226.9	1357.5	1405.8
65°	903.1	979.8	1133.1	1266.6	1314.9
67.5°	798.0	877.5	1039.4	1175.7	1218.3
70°	678.8	775.3	940.0	1076.3	1124.6
72.5°	576.5	673.1	846.3	979.8	1028.1
75°	468.6	573.7	746.9	880.4	923.0
77.5°	360.7	477.1	650.4	752.6	766.8
80°	258.4	380.6	539.6	599.2	619.1
82.5°	181.8	292.5	397.6	437.4	448.7
85°	99.4	193.1	249.9	267.0	267.0
87.5°	42.6	82.4	99.4	102.2	105.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)