

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: P388946

Luminaire Tested: **24CZ2-70VHE-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: P388946
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: 24CZ2-70VHE-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

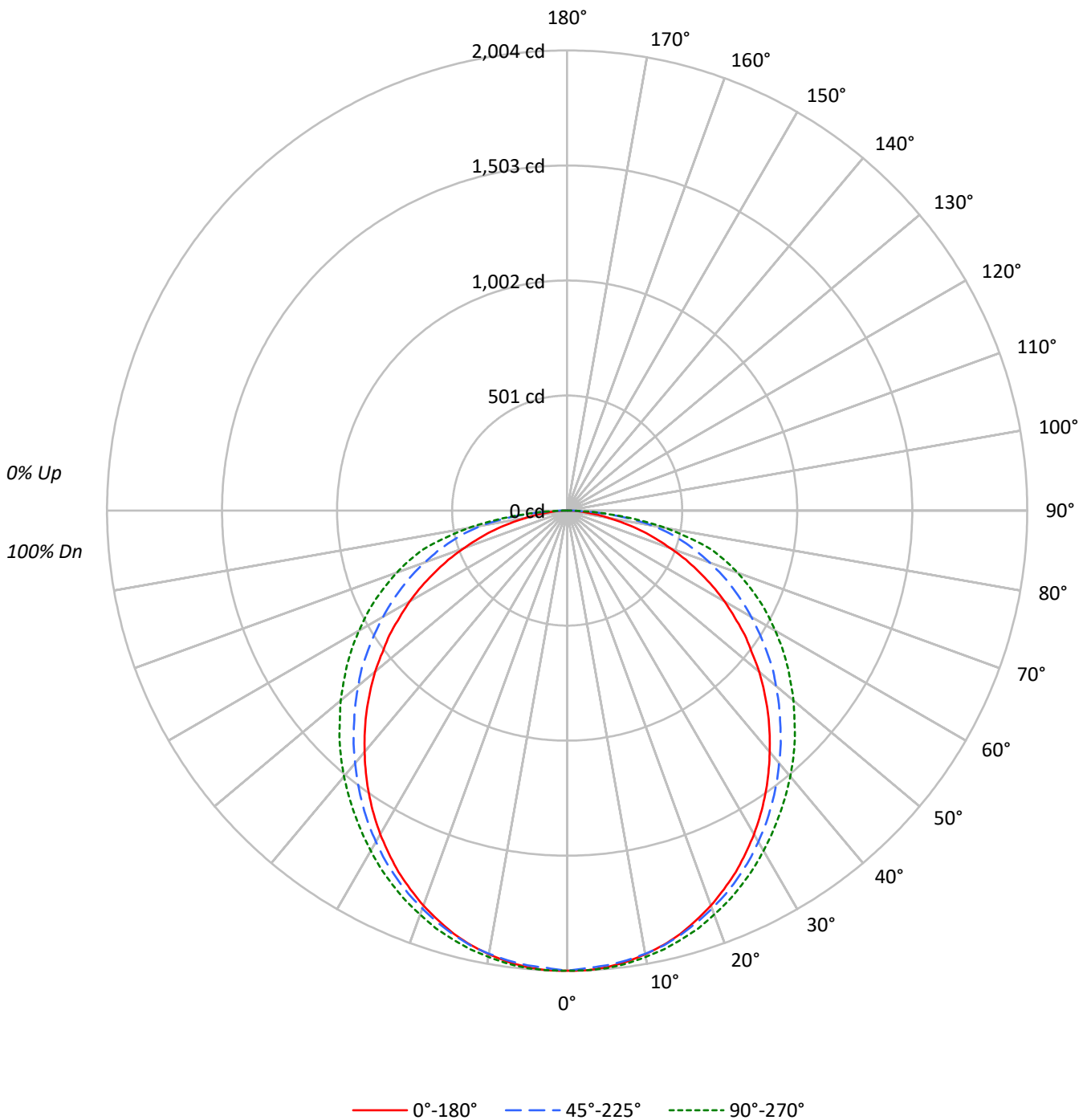
Lumens per Lamp: N/A
Luminaire Lumens: 5968.3 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 45.7
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	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°	2696	2696	2696
5°	2696	2685	2701
10°	2681	2678	2697
15°	2658	2664	2691
20°	2621	2641	2681
25°	2579	2617	2670
30°	2528	2587	2658
35°	2473	2555	2650
40°	2410	2522	2655
45°	2350	2498	2668
50°	2285	2485	2694
55°	2215	2481	2743
60°	2128	2492	2814
65°	2017	2530	2936
70°	1873	2594	3103
75°	1709	2724	3366
80°	1405	2933	3364
85°	1076	2706	2890



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.5	3.2
10°-20°	541.0	9.1
20°-30°	814.2	13.6
30°-40°	975.7	16.3
40°-50°	1016.8	17.0
50°-60°	946.0	15.9
60°-70°	779.2	13.1
70°-80°	530.7	8.9
80°-90°	175.2	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°	1544.7	25.9
0°-40°	2520.5	42.2
0°-60°	4483.3	75.1
0°-90°	5968.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5968.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2004	2004	2004	2004	2004	
5°	1996	1996	1988	1998	2000	189
15°	1908	1910	1912	1930	1932	538
25°	1737	1745	1763	1793	1799	800
35°	1506	1524	1556	1598	1613	941
45°	1235	1261	1313	1378	1402	952
55°	944	976	1058	1141	1169	842
65°	633	687	795	888	922	629
75°	329	402	524	618	647	347
85°	70	135	175	187	187	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2003.8	2003.8	2003.8	2003.8	2003.8
2.5°	2003.8	2003.8	1993.9	2003.8	2003.8
5°	1995.9	1995.9	1987.9	1997.9	1999.9
7.5°	1981.9	1983.9	1975.9	1987.9	1989.9
10°	1962.0	1964.0	1960.0	1972.0	1974.0
12.5°	1938.1	1940.1	1940.1	1954.0	1956.0
15°	1908.2	1910.2	1912.2	1930.1	1932.1
17.5°	1870.4	1876.4	1880.3	1902.2	1906.2
20°	1830.5	1836.5	1844.5	1868.4	1872.4
22.5°	1784.7	1792.7	1806.6	1832.5	1838.5
25°	1736.9	1744.9	1762.8	1792.7	1798.7
27.5°	1683.1	1695.1	1717.0	1748.9	1756.8
30°	1627.4	1639.3	1665.2	1699.1	1711.0
32.5°	1567.6	1583.5	1613.4	1651.3	1663.2
35°	1505.9	1523.8	1555.7	1597.5	1613.4
37.5°	1440.1	1460.1	1497.9	1543.7	1563.6
40°	1372.4	1396.3	1436.1	1489.9	1511.8
42.5°	1304.7	1326.6	1376.4	1434.2	1458.1
45°	1235.0	1260.9	1312.7	1378.4	1402.3
47.5°	1163.3	1189.2	1250.9	1320.6	1342.5
50°	1091.6	1117.4	1187.2	1260.9	1286.8
52.5°	1013.9	1047.7	1127.4	1201.1	1227.0
55°	944.2	976.0	1057.7	1141.3	1169.2
57.5°	864.5	902.3	992.0	1079.6	1109.5
60°	790.8	830.6	926.2	1015.9	1045.7
62.5°	715.1	758.9	860.5	952.1	986.0
65°	633.4	687.2	794.8	888.4	922.2
67.5°	559.7	615.5	729.0	824.6	854.5
70°	476.1	543.8	659.3	754.9	788.8
72.5°	404.4	472.1	593.6	687.2	721.1
75°	328.7	402.4	523.9	617.5	647.4
77.5°	253.0	334.6	456.1	527.8	537.8
80°	181.3	266.9	378.5	420.3	434.2
82.5°	127.5	205.2	278.9	306.8	314.7
85°	69.7	135.4	175.3	187.2	187.2
87.5°	29.9	57.8	69.7	71.7	73.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)