

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: P391847

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L930-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: P391847
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-HRP-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6668.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

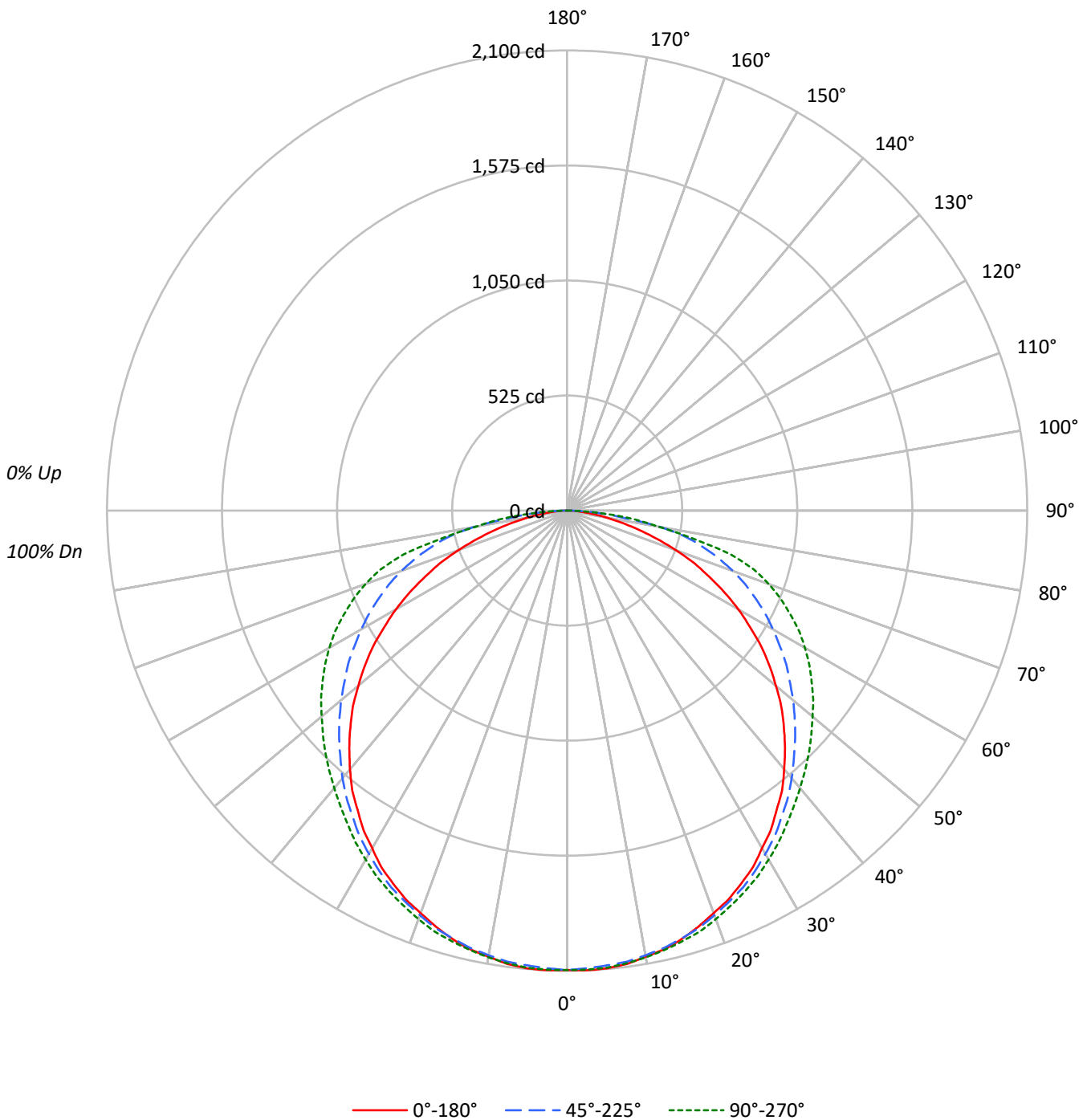
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P391847

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P391847

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L930-CD1-U

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		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2821	2821	2821
5°	2832	2814	2828
10°	2824	2815	2829
15°	2819	2815	2833
20°	2799	2813	2841
25°	2789	2818	2848
30°	2765	2811	2857
35°	2738	2803	2868
40°	2707	2800	2905
45°	2662	2801	2970
50°	2603	2818	3060
55°	2537	2863	3197
60°	2430	2919	3373
65°	2274	3022	3580
70°	2069	3162	3851
75°	1754	3335	4023
80°	1384	3357	3254
85°	1020	2553	2859



TEST NUMBER: P391847

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.9	3.0
10°-20°	572.5	8.6
20°-30°	875.4	13.1
30°-40°	1070.2	16.0
40°-50°	1140.6	17.1
50°-60°	1090.6	16.4
60°-70°	923.9	13.9
70°-80°	620.9	9.3
80°-90°	175.1	2.6
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°	1646.8	24.7
0°-40°	2717.0	40.7
0°-60°	4948.1	74.2
0°-90°	6668.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6668.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2097	2097	2097	2097	2097	
5°	2097	2094	2084	2094	2094	199
15°	2024	2024	2021	2037	2034	571
25°	1879	1885	1898	1915	1918	866
35°	1667	1680	1707	1740	1746	1044
45°	1399	1422	1472	1535	1561	1079
55°	1082	1121	1220	1316	1363	963
65°	714	787	949	1075	1124	709
75°	337	460	642	751	774	361
85°	66	136	165	179	185	82
90°	0	0	0	0	0	



TEST NUMBER: P391847

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2096.9	2096.9	2096.9	2096.9	2096.9
2.5°	2100.2	2100.2	2090.3	2096.9	2096.9
5°	2096.9	2093.6	2083.7	2093.6	2093.6
7.5°	2087.0	2083.7	2077.1	2087.0	2083.7
10°	2067.1	2067.1	2060.5	2070.4	2070.4
12.5°	2050.6	2047.3	2044.0	2057.2	2053.9
15°	2024.1	2024.1	2020.8	2037.4	2034.1
17.5°	1991.1	1994.4	1997.7	2010.9	2014.2
20°	1954.7	1961.3	1964.6	1984.4	1984.4
22.5°	1921.6	1924.9	1931.5	1951.4	1951.4
25°	1878.6	1885.2	1898.5	1915.0	1918.3
27.5°	1835.6	1838.9	1855.5	1878.6	1881.9
30°	1779.4	1789.3	1809.2	1835.6	1838.9
32.5°	1729.8	1739.7	1762.8	1789.3	1795.9
35°	1666.9	1680.2	1706.6	1739.7	1746.3
37.5°	1610.7	1620.6	1653.7	1690.1	1700.0
40°	1541.3	1561.1	1594.2	1637.2	1653.7
42.5°	1471.8	1491.6	1531.3	1587.6	1607.4
45°	1399.0	1422.2	1471.8	1534.6	1561.1
47.5°	1326.3	1352.7	1409.0	1481.7	1511.5
50°	1243.6	1276.7	1346.1	1428.8	1461.9
52.5°	1164.2	1203.9	1280.0	1372.6	1415.6
55°	1081.5	1121.2	1220.4	1316.3	1362.7
57.5°	988.9	1041.8	1151.0	1260.1	1309.7
60°	902.9	952.5	1084.8	1203.9	1253.5
62.5°	810.3	876.5	1018.7	1144.4	1194.0
65°	714.4	787.2	949.2	1074.9	1124.5
67.5°	628.4	707.8	879.8	1005.5	1055.1
70°	525.9	625.1	803.7	929.4	979.0
72.5°	430.0	539.1	724.3	846.7	893.0
75°	337.4	459.7	641.6	750.8	773.9
77.5°	251.4	380.4	555.6	601.9	585.4
80°	178.6	304.3	433.3	410.1	420.0
82.5°	115.8	231.5	267.9	304.3	314.2
85°	66.1	135.6	165.4	178.6	185.2
87.5°	29.8	49.6	66.1	66.1	62.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)