

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: P391845

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L930-CD1-SDWPD1-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: P391845
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-SDWPD1-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: 6505.9 lumens
Efficiency: N/A
Efficacy: 99.2 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

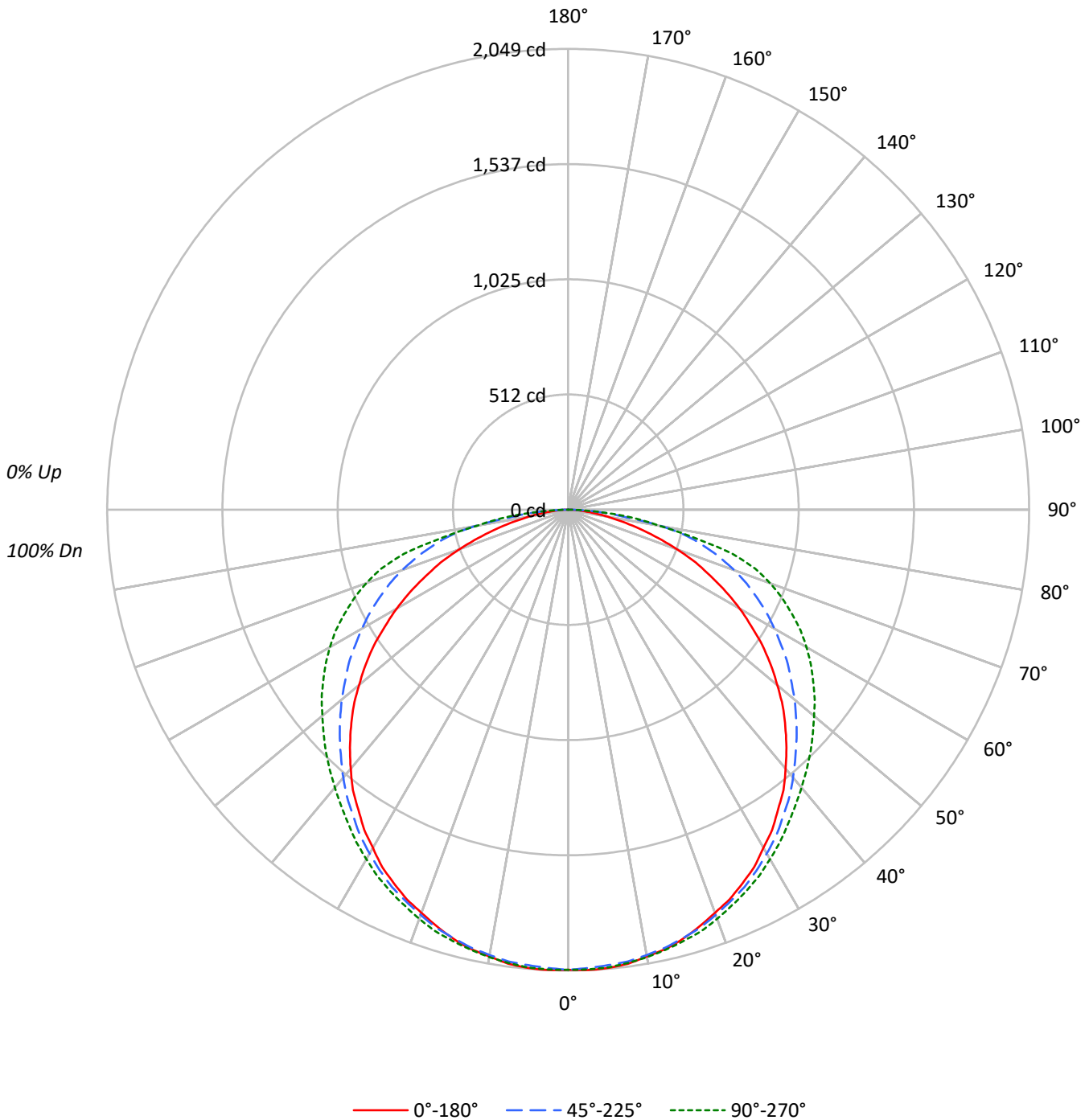
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2753	2753	2753
5°	2763	2746	2759
10°	2756	2747	2760
15°	2751	2746	2764
20°	2731	2745	2772
25°	2721	2750	2779
30°	2697	2742	2788
35°	2671	2735	2799
40°	2641	2732	2834
45°	2597	2732	2898
50°	2540	2749	2986
55°	2475	2793	3119
60°	2371	2848	3291
65°	2219	2948	3493
70°	2019	3085	3758
75°	1711	3254	3925
80°	1351	3275	3175
85°	996	2492	2790



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.1	3.0
10°-20°	558.5	8.6
20°-30°	854.1	13.1
30°-40°	1044.2	16.0
40°-50°	1112.9	17.1
50°-60°	1064.1	16.4
60°-70°	901.4	13.9
70°-80°	605.8	9.3
80°-90°	170.9	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°	1606.7	24.7
0°-40°	2650.9	40.7
0°-60°	4827.8	74.2
0°-90°	6505.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6505.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2046	2046	2046	2046	2046	
5°	2046	2043	2033	2043	2043	194
15°	1975	1975	1972	1988	1985	557
25°	1833	1839	1852	1868	1872	845
35°	1626	1639	1665	1697	1704	1019
45°	1365	1388	1436	1497	1523	1053
55°	1055	1094	1191	1284	1330	940
65°	697	768	926	1049	1097	692
75°	329	449	626	732	755	352
85°	64	132	161	174	181	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2045.9	2045.9	2045.9	2045.9	2045.9
2.5°	2049.1	2049.1	2039.5	2045.9	2045.9
5°	2045.9	2042.7	2033.0	2042.7	2042.7
7.5°	2036.2	2033.0	2026.6	2036.2	2033.0
10°	2016.9	2016.9	2010.4	2020.1	2020.1
12.5°	2000.7	1997.5	1994.3	2007.2	2004.0
15°	1974.9	1974.9	1971.7	1987.8	1984.6
17.5°	1942.7	1945.9	1949.1	1962.0	1965.2
20°	1907.2	1913.6	1916.8	1936.2	1936.2
22.5°	1874.9	1878.1	1884.6	1903.9	1903.9
25°	1832.9	1839.4	1852.3	1868.4	1871.7
27.5°	1791.0	1794.2	1810.3	1832.9	1836.2
30°	1736.1	1745.8	1765.2	1791.0	1794.2
32.5°	1687.7	1697.4	1720.0	1745.8	1752.3
35°	1626.4	1639.3	1665.1	1697.4	1703.9
37.5°	1571.6	1581.2	1613.5	1649.0	1658.7
40°	1503.8	1523.1	1555.4	1597.4	1613.5
42.5°	1436.0	1455.4	1494.1	1549.0	1568.3
45°	1365.0	1387.6	1436.0	1497.3	1523.1
47.5°	1294.0	1319.8	1374.7	1445.7	1474.7
50°	1213.4	1245.6	1313.4	1394.1	1426.3
52.5°	1135.9	1174.6	1248.9	1339.2	1381.2
55°	1055.2	1094.0	1190.8	1284.3	1329.5
57.5°	964.9	1016.5	1123.0	1229.5	1277.9
60°	881.0	929.4	1058.5	1174.6	1223.0
62.5°	790.6	855.2	993.9	1116.5	1164.9
65°	697.0	768.0	926.1	1048.8	1097.2
67.5°	613.1	690.6	858.4	981.0	1029.4
70°	513.1	609.9	784.2	906.8	955.2
72.5°	419.5	526.0	706.7	826.1	871.3
75°	329.2	448.6	626.0	732.5	755.1
77.5°	245.3	371.1	542.1	587.3	571.2
80°	174.3	296.9	422.7	400.1	409.8
82.5°	112.9	225.9	261.4	296.9	306.6
85°	64.5	132.3	161.4	174.3	180.7
87.5°	29.0	48.4	64.5	64.5	61.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)