

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: P391850

Luminaire Tested: **24CZ2-95VHE-HRP-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: P391850
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-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6832.9 lumens
Efficiency: N/A
Efficacy: 104.2 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

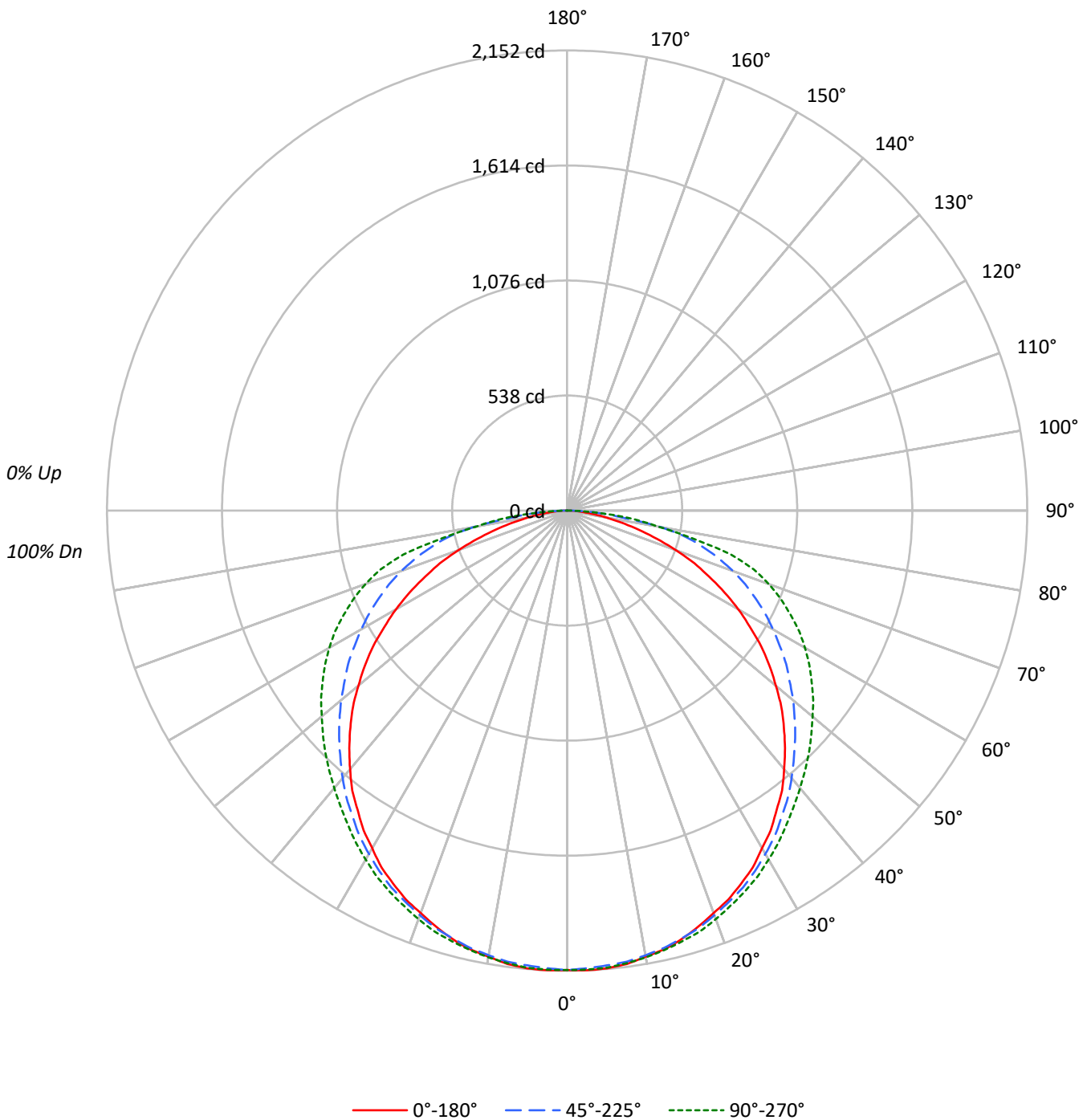
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P391850

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P391850

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L935-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°	2891	2891	2891
5°	2902	2884	2898
10°	2894	2885	2899
15°	2889	2885	2903
20°	2868	2883	2912
25°	2858	2888	2918
30°	2833	2880	2928
35°	2806	2872	2939
40°	2774	2869	2976
45°	2728	2870	3044
50°	2667	2887	3136
55°	2600	2934	3275
60°	2490	2992	3457
65°	2331	3097	3669
70°	2120	3240	3947
75°	1797	3418	4123
80°	1418	3440	3335
85°	1047	2617	2930



TEST NUMBER: P391850

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.8	3.0
10°-20°	586.6	8.6
20°-30°	897.1	13.1
30°-40°	1096.6	16.0
40°-50°	1168.8	17.1
50°-60°	1117.5	16.4
60°-70°	946.7	13.9
70°-80°	636.2	9.3
80°-90°	179.5	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°	1687.5	24.7
0°-40°	2784.2	40.7
0°-60°	5070.5	74.2
0°-90°	6832.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6832.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2149	2149	2149	2149	2149	
5°	2149	2145	2135	2145	2145	204
15°	2074	2074	2071	2088	2084	585
25°	1925	1932	1945	1962	1966	887
35°	1708	1722	1749	1783	1790	1070
45°	1434	1457	1508	1573	1600	1106
55°	1108	1149	1251	1349	1396	987
65°	732	807	973	1102	1152	727
75°	346	471	658	769	793	370
85°	68	139	170	183	190	84
90°	0	0	0	0	0	



TEST NUMBER: P391850

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2148.8	2148.8	2148.8	2148.8	2148.8
2.5°	2152.1	2152.1	2142.0	2148.8	2148.8
5°	2148.8	2145.4	2135.2	2145.4	2145.4
7.5°	2138.6	2135.2	2128.4	2138.6	2135.2
10°	2118.2	2118.2	2111.5	2121.6	2121.6
12.5°	2101.3	2097.9	2094.5	2108.1	2104.7
15°	2074.2	2074.2	2070.8	2087.7	2084.4
17.5°	2040.3	2043.7	2047.1	2060.6	2064.0
20°	2003.0	2009.8	2013.2	2033.5	2033.5
22.5°	1969.1	1972.5	1979.3	1999.6	1999.6
25°	1925.1	1931.8	1945.4	1962.3	1965.7
27.5°	1881.0	1884.4	1901.3	1925.1	1928.5
30°	1823.4	1833.6	1853.9	1881.0	1884.4
32.5°	1772.6	1782.7	1806.4	1833.6	1840.3
35°	1708.2	1721.7	1748.8	1782.7	1789.5
37.5°	1650.5	1660.7	1694.6	1731.9	1742.0
40°	1579.4	1599.7	1633.6	1677.7	1694.6
42.5°	1508.2	1528.5	1569.2	1626.8	1647.2
45°	1433.6	1457.4	1508.2	1572.6	1599.7
47.5°	1359.1	1386.2	1443.8	1518.4	1548.9
50°	1274.3	1308.2	1379.4	1464.1	1498.0
52.5°	1193.0	1233.7	1311.6	1406.5	1450.6
55°	1108.3	1148.9	1250.6	1348.9	1396.3
57.5°	1013.4	1067.6	1179.4	1291.3	1342.1
60°	925.3	976.1	1111.7	1233.7	1284.5
62.5°	830.4	898.1	1043.9	1172.7	1223.5
65°	732.1	806.6	972.7	1101.5	1152.3
67.5°	643.9	725.3	901.5	1030.3	1081.2
70°	538.9	640.6	823.6	952.4	1003.2
72.5°	440.6	552.4	742.2	867.6	915.1
75°	345.7	471.1	657.5	769.3	793.1
77.5°	257.6	389.8	569.4	616.8	599.9
80°	183.0	311.8	444.0	420.3	430.4
82.5°	118.6	237.2	274.5	311.8	322.0
85°	67.8	139.0	169.5	183.0	189.8
87.5°	30.5	50.8	67.8	67.8	64.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)