

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: P391856

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L950-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: P391856
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-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7327.7 lumens
Efficiency: N/A
Efficacy: 111.7 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

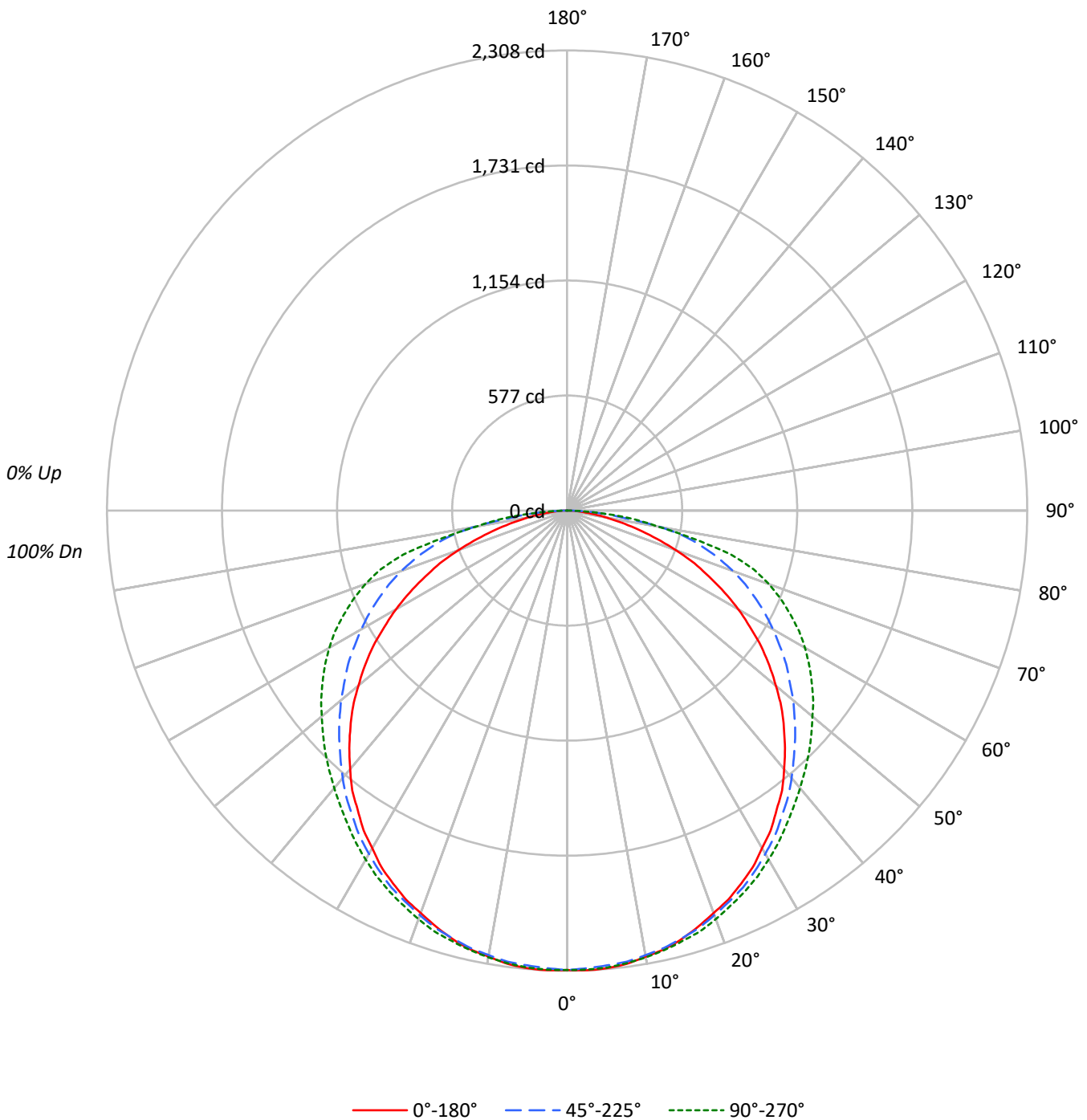
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P391856

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P391856

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L950-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°	3101	3101	3101
5°	3112	3093	3107
10°	3104	3094	3109
15°	3098	3093	3114
20°	3076	3091	3123
25°	3065	3097	3130
30°	3038	3089	3140
35°	3009	3081	3152
40°	2975	3077	3192
45°	2925	3078	3264
50°	2861	3096	3363
55°	2788	3146	3513
60°	2670	3208	3707
65°	2500	3321	3934
70°	2273	3474	4232
75°	1927	3666	4421
80°	1521	3689	3577
85°	1122	2805	3142



TEST NUMBER: P391856

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.6	3.0
10°-20°	629.1	8.6
20°-30°	962.0	13.1
30°-40°	1176.1	16.0
40°-50°	1253.4	17.1
50°-60°	1198.5	16.4
60°-70°	1015.2	13.9
70°-80°	682.3	9.3
80°-90°	192.5	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°	1809.7	24.7
0°-40°	2985.8	40.7
0°-60°	5437.7	74.2
0°-90°	7327.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7327.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2304	2304	2304	2304	2304	
5°	2304	2301	2290	2301	2301	219
15°	2224	2224	2221	2239	2235	627
25°	2064	2072	2086	2104	2108	952
35°	1832	1846	1876	1912	1919	1148
45°	1537	1563	1617	1686	1716	1186
55°	1188	1232	1341	1447	1498	1059
65°	785	865	1043	1181	1236	779
75°	371	505	705	825	850	397
85°	73	149	182	196	204	90
90°	0	0	0	0	0	



TEST NUMBER: P391856

CATALOG NUMBER: 24CZ2-95VHE-HRP-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2304.4	2304.4	2304.4	2304.4	2304.4
2.5°	2308.0	2308.0	2297.1	2304.4	2304.4
5°	2304.4	2300.7	2289.8	2300.7	2300.7
7.5°	2293.4	2289.8	2282.5	2293.4	2289.8
10°	2271.6	2271.6	2264.4	2275.3	2275.3
12.5°	2253.5	2249.8	2246.2	2260.7	2257.1
15°	2224.4	2224.4	2220.8	2238.9	2235.3
17.5°	2188.0	2191.7	2195.3	2209.9	2213.5
20°	2148.1	2155.3	2159.0	2180.8	2180.8
22.5°	2111.7	2115.4	2122.6	2144.4	2144.4
25°	2064.5	2071.7	2086.3	2104.4	2108.1
27.5°	2017.2	2020.9	2039.0	2064.5	2068.1
30°	1955.4	1966.3	1988.1	2017.2	2020.9
32.5°	1900.9	1911.8	1937.3	1966.3	1973.6
35°	1831.9	1846.4	1875.5	1911.8	1919.1
37.5°	1770.1	1781.0	1817.3	1857.3	1868.2
40°	1693.7	1715.5	1751.9	1799.1	1817.3
42.5°	1617.4	1639.2	1682.8	1744.6	1766.4
45°	1537.4	1562.9	1617.4	1686.5	1715.5
47.5°	1457.5	1486.6	1548.4	1628.3	1661.0
50°	1366.6	1403.0	1479.3	1570.2	1606.5
52.5°	1279.4	1323.0	1406.6	1508.4	1555.6
55°	1188.5	1232.1	1341.2	1446.6	1497.5
57.5°	1086.8	1144.9	1264.8	1384.8	1439.3
60°	992.3	1046.8	1192.2	1323.0	1377.5
62.5°	890.5	963.2	1119.5	1257.6	1312.1
65°	785.1	865.0	1043.1	1181.3	1235.8
67.5°	690.6	777.8	966.8	1104.9	1159.4
70°	577.9	686.9	883.2	1021.3	1075.8
72.5°	472.5	592.4	796.0	930.5	981.3
75°	370.7	505.2	705.1	825.1	850.5
77.5°	276.2	418.0	610.6	661.5	643.3
80°	196.3	334.4	476.1	450.7	461.6
82.5°	127.2	254.4	294.4	334.4	345.3
85°	72.7	149.0	181.7	196.3	203.5
87.5°	32.7	54.5	72.7	72.7	69.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)