

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: P391750

Luminaire Tested: **24CZ2-85VHE-HRP-UNV-L930-CD1-SWPD1-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: P391750
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: 24CZ2-85VHE-HRP-UNV-L930-CD1-SWPD1-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: 5948.3 lumens
Efficiency: N/A
Efficacy: 102.7 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

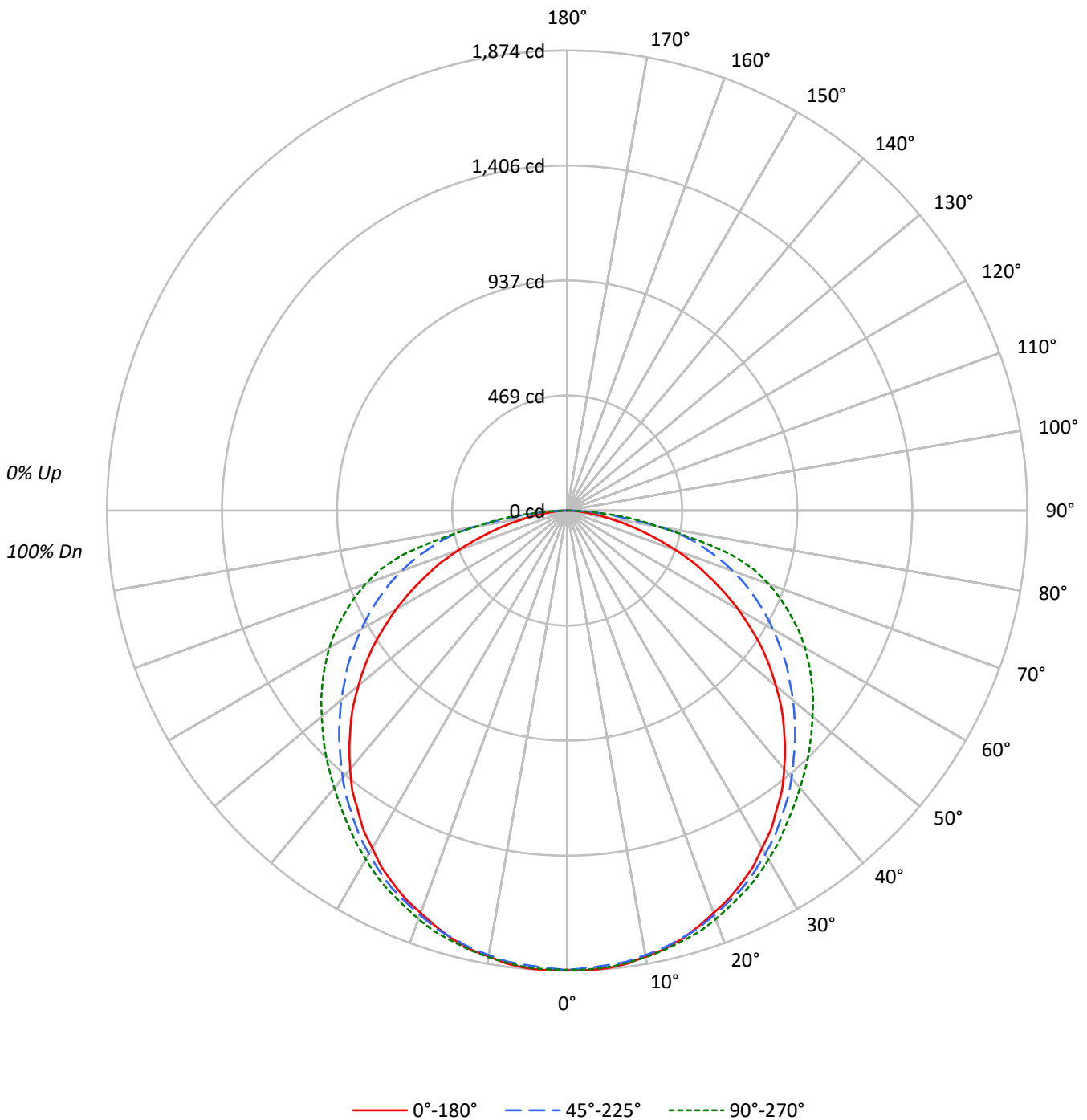
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P391750

CATALOG NUMBER: 24CZ2-85VHE-HRP-UNV-L930-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P391750

CATALOG NUMBER: 24CZ2-85VHE-HRP-UNV-L930-CD1-SWPD1-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°	2517	2517	2517
5°	2526	2511	2522
10°	2519	2511	2523
15°	2515	2511	2528
20°	2497	2509	2535
25°	2488	2514	2540
30°	2466	2507	2549
35°	2442	2501	2559
40°	2415	2498	2591
45°	2375	2498	2650
50°	2322	2514	2730
55°	2263	2554	2852
60°	2168	2604	3009
65°	2029	2696	3194
70°	1845	2821	3436
75°	1564	2976	3589
80°	1234	2995	2903
85°	911	2277	2550



TEST NUMBER: P391750

CATALOG NUMBER: 24CZ2-85VHE-HRP-UNV-L930-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.4	3.0
10°-20°	510.7	8.6
20°-30°	780.9	13.1
30°-40°	954.7	16.0
40°-50°	1017.5	17.1
50°-60°	972.9	16.4
60°-70°	824.1	13.9
70°-80°	553.9	9.3
80°-90°	156.2	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°	1469.0	24.7
0°-40°	2423.7	40.7
0°-60°	4414.1	74.2
0°-90°	5948.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5948.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1871	1871	1871	1871	1871	
5°	1871	1868	1859	1868	1868	178
15°	1806	1806	1803	1818	1814	509
25°	1676	1682	1694	1708	1711	772
35°	1487	1499	1522	1552	1558	932
45°	1248	1269	1313	1369	1393	963
55°	965	1000	1089	1174	1216	859
65°	637	702	847	959	1003	633
75°	301	410	572	670	690	322
85°	59	121	148	159	165	73
90°	0	0	0	0	0	



TEST NUMBER: P391750

CATALOG NUMBER: 24CZ2-85VHE-HRP-UNV-L930-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1870.6	1870.6	1870.6	1870.6	1870.6
2.5°	1873.5	1873.5	1864.7	1870.6	1870.6
5°	1870.6	1867.6	1858.8	1867.6	1867.6
7.5°	1861.7	1858.8	1852.9	1861.7	1858.8
10°	1844.0	1844.0	1838.1	1847.0	1847.0
12.5°	1829.3	1826.3	1823.4	1835.2	1832.2
15°	1805.7	1805.7	1802.7	1817.5	1814.5
17.5°	1776.2	1779.1	1782.1	1793.9	1796.8
20°	1743.7	1749.6	1752.6	1770.3	1770.3
22.5°	1714.2	1717.1	1723.0	1740.8	1740.8
25°	1675.8	1681.7	1693.5	1708.3	1711.2
27.5°	1637.5	1640.4	1655.2	1675.8	1678.8
30°	1587.3	1596.2	1613.9	1637.5	1640.4
32.5°	1543.1	1551.9	1572.6	1596.2	1602.1
35°	1487.0	1498.8	1522.4	1551.9	1557.8
37.5°	1436.9	1445.7	1475.2	1507.7	1516.5
40°	1374.9	1392.6	1422.1	1460.5	1475.2
42.5°	1312.9	1330.6	1366.0	1416.2	1433.9
45°	1248.0	1268.7	1312.9	1369.0	1392.6
47.5°	1183.1	1206.7	1256.9	1321.8	1348.3
50°	1109.4	1138.9	1200.8	1274.6	1304.1
52.5°	1038.6	1074.0	1141.8	1224.4	1262.8
55°	964.8	1000.2	1088.7	1174.3	1215.6
57.5°	882.2	929.4	1026.7	1124.1	1168.4
60°	805.5	849.7	967.7	1074.0	1118.2
62.5°	722.9	781.9	908.7	1020.8	1065.1
65°	637.3	702.2	846.8	958.9	1003.1
67.5°	560.6	631.4	784.8	896.9	941.2
70°	469.1	557.6	717.0	829.1	873.3
72.5°	383.6	480.9	646.1	755.3	796.6
75°	300.9	410.1	572.4	669.7	690.4
77.5°	224.2	339.3	495.7	537.0	522.2
80°	159.3	271.4	386.5	365.9	374.7
82.5°	103.3	206.5	239.0	271.4	280.3
85°	59.0	121.0	147.5	159.3	165.2
87.5°	26.6	44.3	59.0	59.0	56.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)