

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: P389113

Luminaire Tested: **24CZ2-75VHE-SQR-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: P389113
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-SQR-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5995.9 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

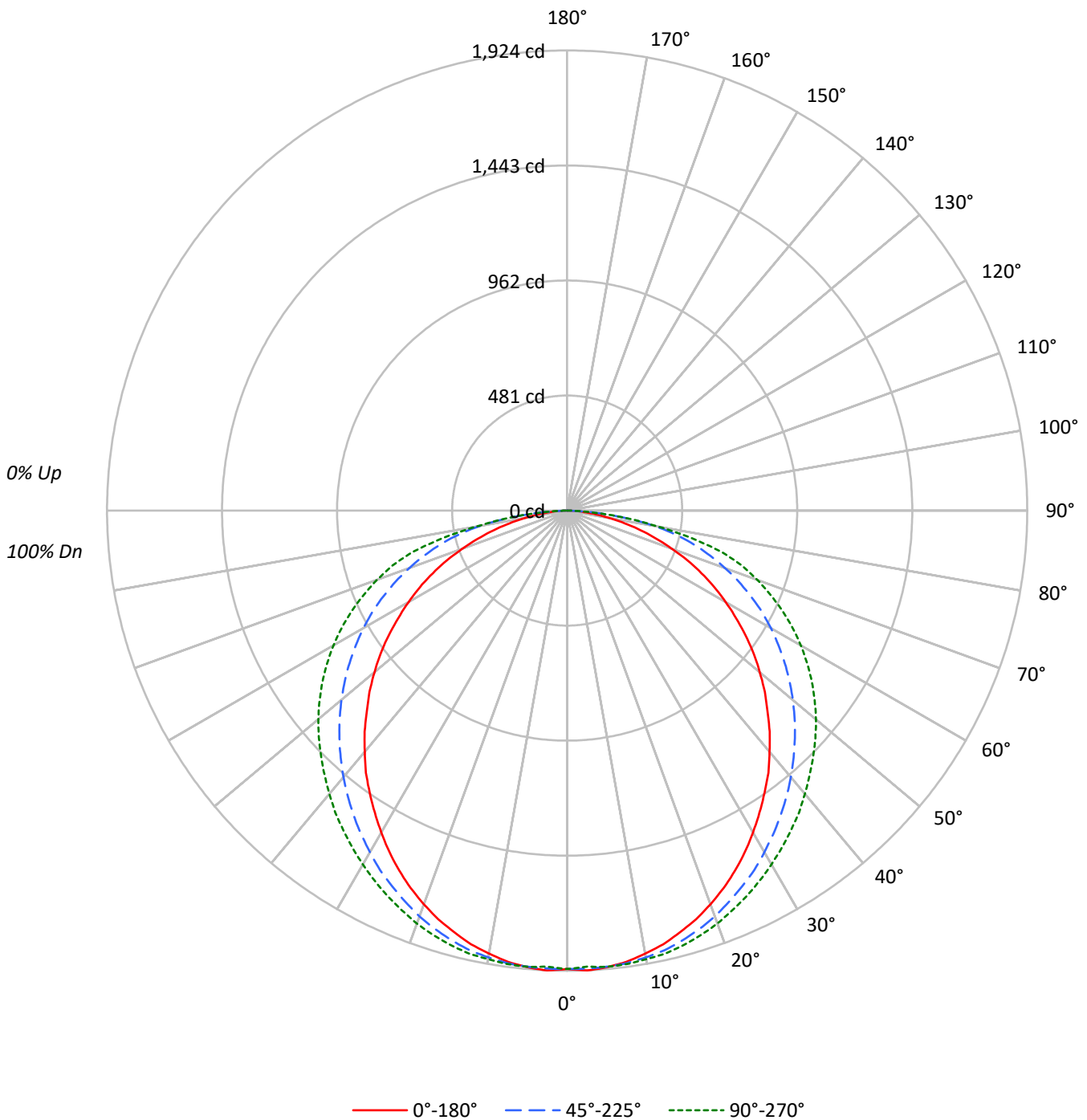
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2579	2579	2579
5°	2589	2586	2586
10°	2570	2591	2602
15°	2543	2592	2620
20°	2509	2585	2631
25°	2466	2572	2640
30°	2415	2562	2655
35°	2364	2556	2680
40°	2313	2556	2716
45°	2253	2562	2769
50°	2201	2578	2843
55°	2137	2605	2931
60°	2062	2648	3037
65°	1973	2698	3164
70°	1830	2765	3326
75°	1657	2861	3479
80°	1396	2868	2992
85°	1070	2171	2171



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.9	3.0
10°-20°	523.4	8.7
20°-30°	795.0	13.3
30°-40°	967.1	16.1
40°-50°	1029.6	17.2
50°-60°	980.7	16.4
60°-70°	820.1	13.7
70°-80°	546.8	9.1
80°-90°	151.3	2.5
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°	1500.4	25.0
0°-40°	2467.5	41.2
0°-60°	4477.7	74.7
0°-90°	5995.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5995.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1917	1917	1917	1917	1917	
5°	1917	1905	1915	1915	1915	182
15°	1826	1830	1861	1875	1881	515
25°	1661	1683	1732	1762	1778	765
35°	1439	1481	1556	1608	1632	901
45°	1184	1247	1346	1422	1455	915
55°	911	990	1111	1208	1249	814
65°	620	711	847	952	994	612
75°	319	420	550	644	669	338
85°	69	129	141	139	141	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1916.6	1916.6	1916.6	1916.6	1916.6
2.5°	1924.5	1910.6	1916.6	1916.6	1908.7
5°	1916.6	1904.7	1914.6	1914.6	1914.6
7.5°	1902.7	1892.8	1908.7	1912.6	1912.6
10°	1880.9	1877.0	1896.8	1902.7	1904.7
12.5°	1857.2	1855.2	1882.9	1890.8	1896.8
15°	1825.5	1829.5	1861.1	1875.0	1880.9
17.5°	1791.8	1799.8	1835.4	1855.2	1861.1
20°	1752.2	1764.1	1805.7	1825.5	1837.4
22.5°	1708.7	1726.5	1770.1	1793.8	1807.7
25°	1661.2	1682.9	1732.4	1762.1	1778.0
27.5°	1609.7	1637.4	1694.8	1728.5	1744.3
30°	1554.3	1585.9	1649.3	1688.9	1708.7
32.5°	1496.8	1534.5	1603.8	1647.3	1671.1
35°	1439.4	1481.0	1556.2	1607.7	1631.5
37.5°	1382.0	1423.6	1506.7	1562.2	1591.9
40°	1316.7	1366.2	1455.3	1516.6	1546.3
42.5°	1253.3	1306.8	1401.8	1469.1	1500.8
45°	1184.0	1247.4	1346.4	1421.6	1455.3
47.5°	1120.6	1184.0	1290.9	1370.1	1407.7
50°	1051.3	1118.7	1231.5	1318.6	1358.2
52.5°	984.0	1053.3	1172.1	1265.2	1304.8
55°	910.8	990.0	1110.7	1207.8	1249.3
57.5°	837.5	922.7	1047.4	1148.4	1189.9
60°	766.2	853.4	984.0	1085.0	1128.6
62.5°	695.0	782.1	918.7	1021.6	1063.2
65°	619.7	710.8	847.4	952.4	993.9
67.5°	544.5	639.5	776.1	881.1	920.7
70°	465.3	566.3	702.9	805.8	845.4
72.5°	392.0	493.0	627.6	728.6	766.2
75°	318.8	419.7	550.4	643.5	669.2
77.5°	247.5	348.5	465.3	526.7	532.6
80°	180.2	275.2	370.2	388.1	386.1
82.5°	120.8	205.9	255.4	257.4	263.3
85°	69.3	128.7	140.6	138.6	140.6
87.5°	27.7	45.5	39.6	29.7	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)