

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: P389073

Luminaire Tested: **24CZ2-70VHE-SQR-UNV-L950-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: P389073
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: 24CZ2-70VHE-SQR-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5997.4 lumens
Efficiency: N/A
Efficacy: 131.2 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

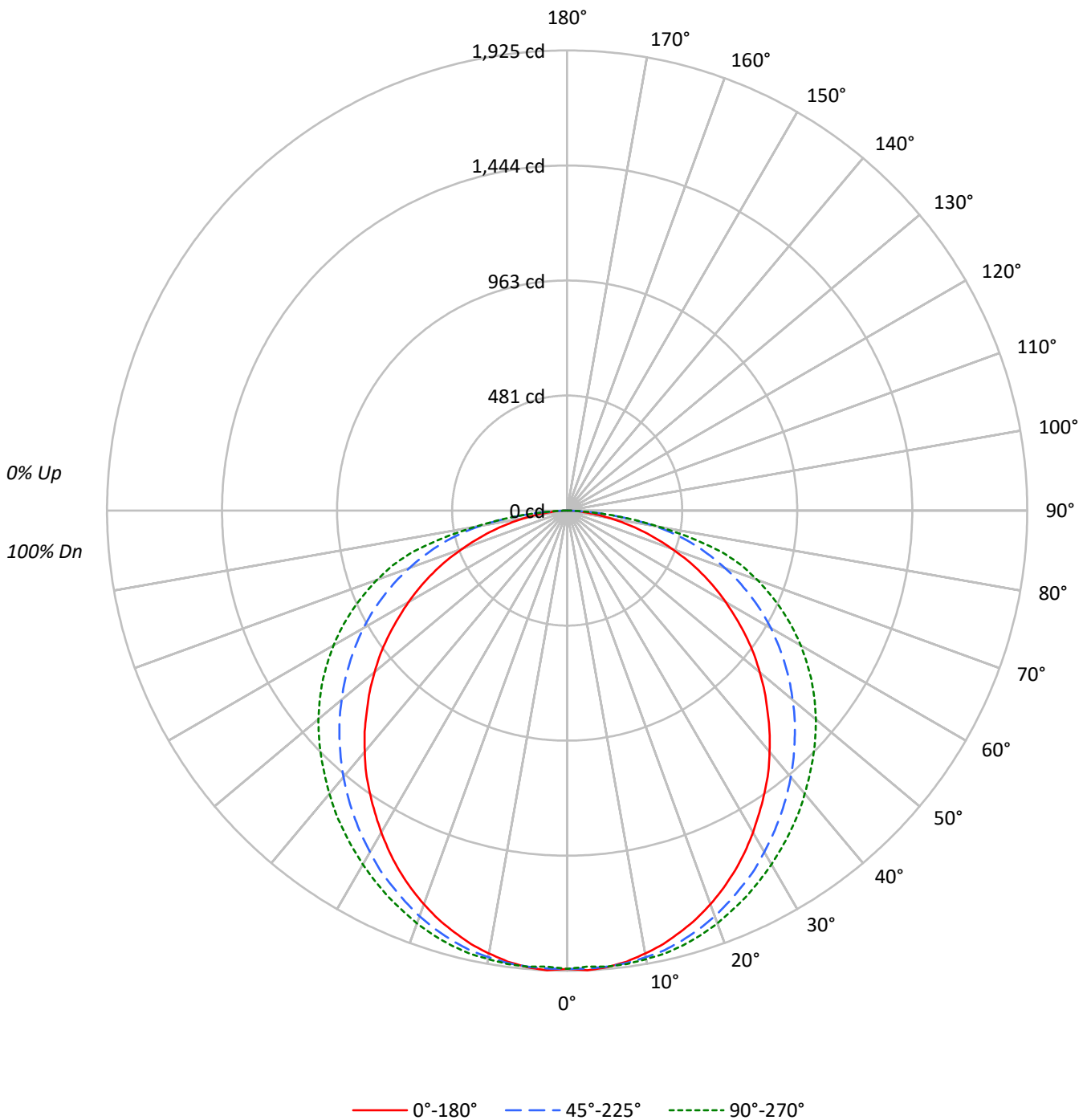
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	2587	2587
10°	2570	2592	2603
15°	2544	2593	2621
20°	2510	2586	2631
25°	2467	2573	2640
30°	2415	2563	2655
35°	2365	2557	2680
40°	2313	2557	2717
45°	2253	2563	2770
50°	2201	2578	2844
55°	2137	2606	2932
60°	2062	2649	3038
65°	1974	2699	3165
70°	1831	2766	3327
75°	1658	2862	3480
80°	1396	2869	2992
85°	1070	2171	2171



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.0	3.0
10°-20°	523.6	8.7
20°-30°	795.2	13.3
30°-40°	967.3	16.1
40°-50°	1029.9	17.2
50°-60°	980.9	16.4
60°-70°	820.3	13.7
70°-80°	546.9	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°	1500.8	25.0
0°-40°	2468.1	41.2
0°-60°	4478.9	74.7
0°-90°	5997.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5997.4	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	1862	1876	1881	515
25°	1662	1683	1733	1763	1778	765
35°	1440	1481	1557	1608	1632	901
45°	1184	1248	1347	1422	1456	916
55°	911	990	1111	1208	1250	814
65°	620	711	848	953	994	612
75°	319	420	551	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°	1917.1	1917.1	1917.1	1917.1	1917.1
2.5°	1925.0	1911.1	1917.1	1917.1	1909.1
5°	1917.1	1905.2	1915.1	1915.1	1915.1
7.5°	1903.2	1893.3	1909.1	1913.1	1913.1
10°	1881.4	1877.5	1897.3	1903.2	1905.2
12.5°	1857.6	1855.7	1883.4	1891.3	1897.3
15°	1826.0	1829.9	1861.6	1875.5	1881.4
17.5°	1792.3	1800.2	1835.9	1855.7	1861.6
20°	1752.7	1764.6	1806.2	1826.0	1837.8
22.5°	1709.1	1726.9	1770.5	1794.3	1808.1
25°	1661.6	1683.4	1732.9	1762.6	1778.4
27.5°	1610.1	1637.8	1695.3	1728.9	1744.8
30°	1554.6	1586.3	1649.7	1689.3	1709.1
32.5°	1497.2	1534.8	1604.2	1647.7	1671.5
35°	1439.8	1481.4	1556.6	1608.1	1631.9
37.5°	1382.3	1423.9	1507.1	1562.6	1592.3
40°	1317.0	1366.5	1455.6	1517.0	1546.7
42.5°	1253.6	1307.1	1402.1	1469.5	1501.2
45°	1184.3	1247.7	1346.7	1422.0	1455.6
47.5°	1120.9	1184.3	1291.2	1370.5	1408.1
50°	1051.6	1118.9	1231.8	1319.0	1358.6
52.5°	984.3	1053.6	1172.4	1265.5	1305.1
55°	911.0	990.2	1111.0	1208.1	1249.7
57.5°	837.7	922.9	1047.7	1148.7	1190.2
60°	766.4	853.6	984.3	1085.3	1128.8
62.5°	695.1	782.3	918.9	1021.9	1063.5
65°	619.9	711.0	847.6	952.6	994.2
67.5°	544.6	639.7	776.3	881.3	920.9
70°	465.4	566.4	703.1	806.0	845.6
72.5°	392.1	493.1	627.8	728.8	766.4
75°	318.9	419.9	550.6	643.6	669.4
77.5°	247.6	348.6	465.4	526.8	532.7
80°	180.2	275.3	370.3	388.2	386.2
82.5°	120.8	206.0	255.5	257.5	263.4
85°	69.3	128.7	140.6	138.6	140.6
87.5°	27.7	45.6	39.6	29.7	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)