

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: P389075

Luminaire Tested: **24CZ2-70VHE-SQR-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: P389075
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-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: 6146.9 lumens
Efficiency: N/A
Efficacy: 134.5 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

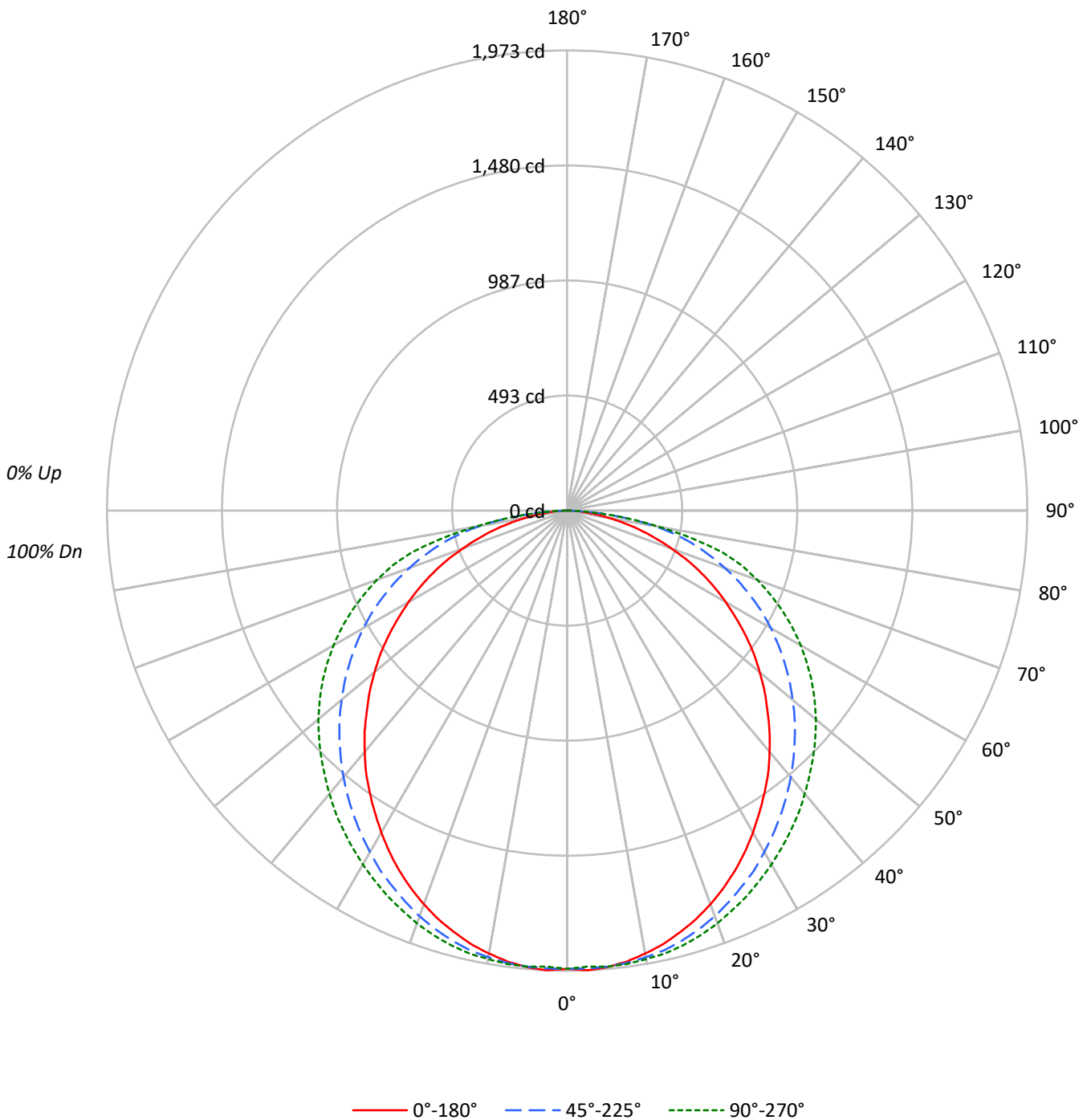
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20				20			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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82	82	
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67	67	
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56	56	
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47	47	
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41	41	
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35	35	
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31	31	
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28	28	
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25	25	
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22	22	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2644	2644	2644
5°	2654	2651	2651
10°	2635	2657	2668
15°	2607	2658	2686
20°	2572	2651	2697
25°	2528	2637	2706
30°	2476	2627	2722
35°	2424	2621	2747
40°	2371	2620	2784
45°	2310	2626	2839
50°	2256	2643	2915
55°	2190	2671	3004
60°	2114	2715	3113
65°	2023	2766	3244
70°	1876	2835	3410
75°	1699	2934	3567
80°	1431	2941	3067
85°	1096	2225	2225



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.5	3.0
10°-20°	536.6	8.7
20°-30°	815.1	13.3
30°-40°	991.4	16.1
40°-50°	1055.5	17.2
50°-60°	1005.3	16.4
60°-70°	840.8	13.7
70°-80°	560.5	9.1
80°-90°	155.1	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°	1538.2	25.0
0°-40°	2529.6	41.2
0°-60°	4590.5	74.7
0°-90°	6146.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6146.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1965	1965	1965	1965	1965	
5°	1965	1953	1963	1963	1963	186
15°	1872	1876	1908	1922	1928	528
25°	1703	1725	1776	1806	1823	784
35°	1476	1518	1595	1648	1673	923
45°	1214	1279	1380	1457	1492	938
55°	934	1015	1139	1238	1281	835
65°	635	729	869	976	1019	628
75°	327	430	564	660	686	346
85°	71	132	144	142	144	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1964.8	1964.8	1964.8	1964.8	1964.8
2.5°	1973.0	1958.8	1964.8	1964.8	1956.7
5°	1964.8	1952.7	1962.8	1962.8	1962.8
7.5°	1950.6	1940.5	1956.7	1960.8	1960.8
10°	1928.3	1924.3	1944.6	1950.6	1952.7
12.5°	1904.0	1901.9	1930.3	1938.5	1944.6
15°	1871.5	1875.5	1908.0	1922.2	1928.3
17.5°	1837.0	1845.1	1881.6	1901.9	1908.0
20°	1796.4	1808.6	1851.2	1871.5	1883.7
22.5°	1751.7	1770.0	1814.6	1839.0	1853.2
25°	1703.0	1725.3	1776.1	1806.5	1822.8
27.5°	1650.2	1678.6	1737.5	1772.0	1788.3
30°	1593.4	1625.9	1690.8	1731.4	1751.7
32.5°	1534.5	1573.1	1644.1	1688.8	1713.2
35°	1475.7	1518.3	1595.4	1648.2	1672.6
37.5°	1416.8	1459.4	1544.7	1601.5	1632.0
40°	1349.8	1400.6	1491.9	1554.8	1585.3
42.5°	1284.9	1339.7	1437.1	1506.1	1538.6
45°	1213.8	1278.8	1380.3	1457.4	1491.9
47.5°	1148.9	1213.8	1323.4	1404.6	1443.2
50°	1077.8	1146.8	1262.5	1351.8	1392.4
52.5°	1008.8	1079.9	1201.6	1297.0	1337.6
55°	933.7	1014.9	1138.7	1238.2	1280.8
57.5°	858.6	945.9	1073.8	1177.3	1219.9
60°	785.5	874.8	1008.8	1112.3	1157.0
62.5°	712.5	801.8	941.8	1047.4	1090.0
65°	635.3	728.7	868.8	976.3	1019.0
67.5°	558.2	655.6	795.7	903.3	943.9
70°	477.0	580.5	720.6	826.1	866.7
72.5°	401.9	505.4	643.4	747.0	785.5
75°	326.8	430.3	564.3	659.7	686.1
77.5°	253.7	357.2	477.0	539.9	546.0
80°	184.7	282.1	379.6	397.8	395.8
82.5°	123.8	211.1	261.8	263.9	270.0
85°	71.0	131.9	144.1	142.1	144.1
87.5°	28.4	46.7	40.6	30.4	30.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)