

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: P388952

Luminaire Tested: **24CZ2-70VHE-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: P388952
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70VHE-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6400.4 lumens
Efficiency: N/A
Efficacy: 140.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

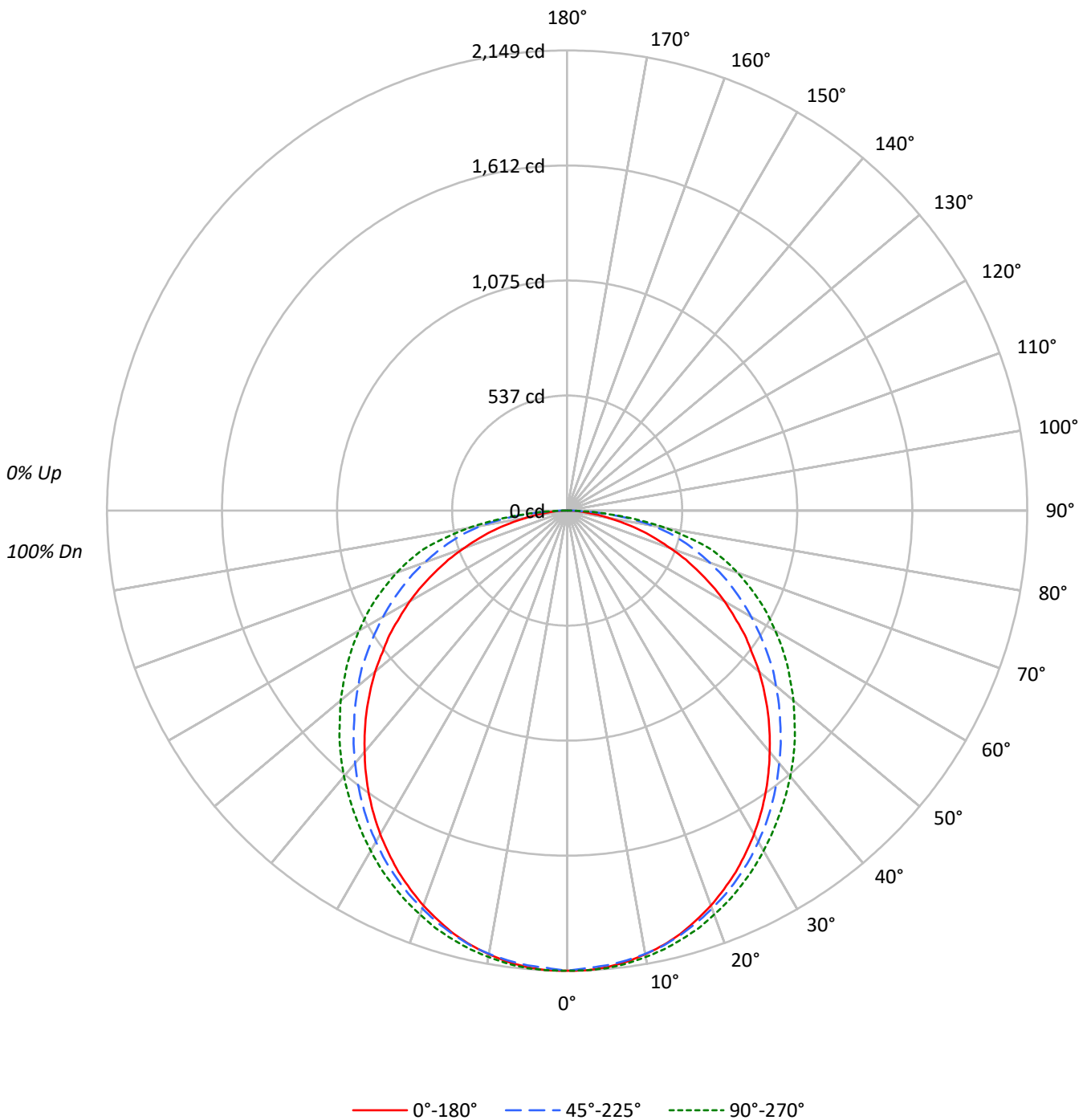
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388952

CATALOG NUMBER: 24CZ2-70VHE-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388952

CATALOG NUMBER: 24CZ2-70VHE-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	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2891	2891	2891
5°	2891	2879	2897
10°	2875	2872	2892
15°	2851	2857	2886
20°	2811	2832	2875
25°	2765	2806	2864
30°	2711	2774	2851
35°	2653	2740	2842
40°	2585	2705	2848
45°	2520	2679	2861
50°	2450	2665	2888
55°	2375	2661	2941
60°	2282	2673	3018
65°	2163	2713	3149
70°	2008	2781	3328
75°	1832	2921	3609
80°	1506	3145	3608
85°	1155	2902	3100



TEST NUMBER: P388952

CATALOG NUMBER: 24CZ2-70VHE-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.2	3.2
10°-20°	580.2	9.1
20°-30°	873.1	13.6
30°-40°	1046.4	16.3
40°-50°	1090.4	17.0
50°-60°	1014.5	15.9
60°-70°	835.6	13.1
70°-80°	569.1	8.9
80°-90°	187.9	2.9
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°	1656.6	25.9
0°-40°	2703.0	42.2
0°-60°	4807.9	75.1
0°-90°	6400.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6400.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2149	2149	2149	2149	2149	
5°	2140	2140	2132	2142	2145	203
15°	2046	2048	2051	2070	2072	577
25°	1863	1871	1890	1922	1929	857
35°	1615	1634	1668	1713	1730	1009
45°	1324	1352	1408	1478	1504	1021
55°	1012	1047	1134	1224	1254	903
65°	679	737	852	953	989	674
75°	352	432	562	662	694	372
85°	75	145	188	201	201	93
90°	0	0	0	0	0	



TEST NUMBER: P388952

CATALOG NUMBER: 24CZ2-70VHE-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2148.9	2148.9	2148.9	2148.9	2148.9
2.5°	2148.9	2148.9	2138.2	2148.9	2148.9
5°	2140.4	2140.4	2131.8	2142.5	2144.6
7.5°	2125.4	2127.6	2119.0	2131.8	2134.0
10°	2104.1	2106.2	2101.9	2114.7	2116.9
12.5°	2078.4	2080.6	2080.6	2095.5	2097.6
15°	2046.4	2048.5	2050.7	2069.9	2072.0
17.5°	2005.8	2012.2	2016.5	2040.0	2044.2
20°	1963.1	1969.5	1978.0	2003.7	2007.9
22.5°	1913.9	1922.5	1937.4	1965.2	1971.6
25°	1862.7	1871.2	1890.4	1922.5	1928.9
27.5°	1805.0	1817.8	1841.3	1875.5	1884.0
30°	1745.2	1758.0	1785.8	1822.1	1834.9
32.5°	1681.1	1698.2	1730.2	1770.8	1783.6
35°	1614.9	1634.1	1668.3	1713.1	1730.2
37.5°	1544.4	1565.8	1606.3	1655.5	1676.8
40°	1471.8	1497.4	1540.1	1597.8	1621.3
42.5°	1399.1	1422.6	1476.0	1538.0	1563.6
45°	1324.4	1352.1	1407.7	1478.2	1503.8
47.5°	1247.5	1275.2	1341.5	1416.2	1439.7
50°	1170.6	1198.3	1273.1	1352.1	1379.9
52.5°	1087.3	1123.6	1209.0	1288.1	1315.8
55°	1012.5	1046.7	1134.3	1224.0	1253.9
57.5°	927.1	967.7	1063.8	1157.8	1189.8
60°	848.0	890.8	993.3	1089.4	1121.5
62.5°	766.9	813.9	922.8	1021.1	1057.4
65°	679.3	737.0	852.3	952.7	989.0
67.5°	600.2	660.1	781.8	884.3	916.4
70°	510.5	583.2	707.0	809.6	845.9
72.5°	433.6	506.3	636.6	737.0	773.3
75°	352.5	431.5	561.8	662.2	694.2
77.5°	271.3	358.9	489.2	566.1	576.7
80°	194.4	286.2	405.9	450.7	465.7
82.5°	136.7	220.0	299.1	329.0	337.5
85°	74.8	145.3	188.0	200.8	200.8
87.5°	32.0	61.9	74.8	76.9	79.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)