

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: P390104

Luminaire Tested: **22CZ2-110VHE-RDP-UNV-L950-CD2-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: P390104
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-110VHE-RDP-UNV-L950-CD2-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6747.6 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

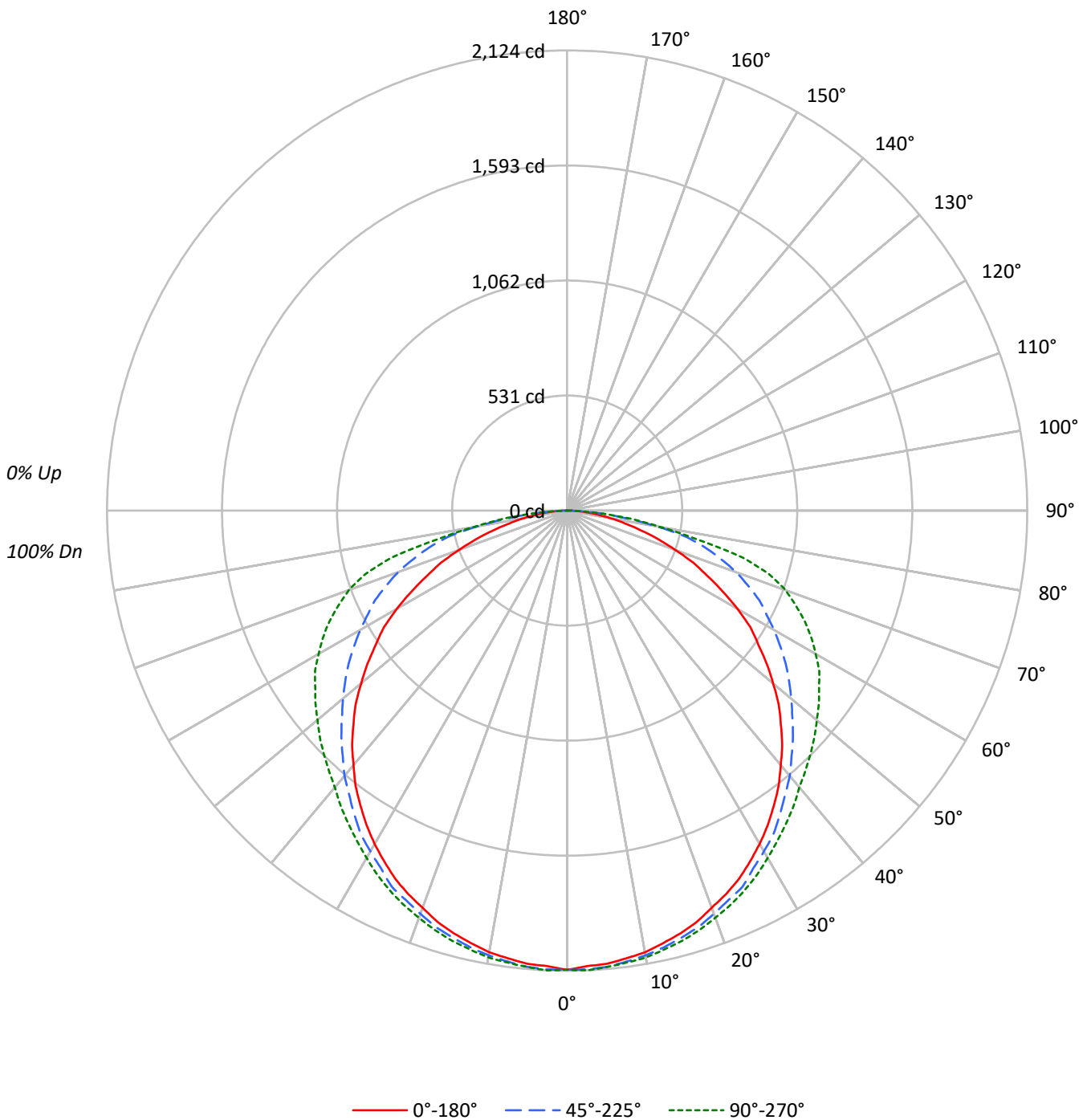
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	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°	5704	5704	5704
5°	5672	5712	5712
10°	5656	5697	5724
15°	5628	5684	5725
20°	5586	5672	5729
25°	5571	5689	5748
30°	5522	5645	5753
35°	5463	5626	5789
40°	5388	5615	5859
45°	5308	5610	6045
50°	5195	5653	6296
55°	5053	5775	6660
60°	4889	5931	7133
65°	4551	6227	7712
70°	4179	6522	8436
75°	3664	6864	8722
80°	3154	6538	6846
85°	2757	4752	5212



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.5	3.0
10°-20°	575.7	8.5
20°-30°	878.3	13.0
30°-40°	1072.4	15.9
40°-50°	1146.6	17.0
50°-60°	1106.8	16.4
60°-70°	952.7	14.1
70°-80°	644.6	9.6
80°-90°	170.1	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°	1654.4	24.5
0°-40°	2726.8	40.4
0°-60°	4980.2	73.8
0°-90°	6747.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6747.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2120	2120	2120	2120	2120	
5°	2100	2105	2115	2115	2115	199
15°	2020	2025	2040	2050	2055	570
25°	1876	1886	1916	1926	1936	864
35°	1663	1678	1712	1747	1762	1040
45°	1395	1420	1474	1549	1588	1077
55°	1077	1112	1231	1355	1420	965
65°	715	784	978	1132	1211	711
75°	352	467	660	794	839	378
85°	89	124	154	159	169	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2119.5	2119.5	2119.5	2119.5	2119.5
2.5°	2104.6	2109.6	2119.5	2119.5	2124.5
5°	2099.7	2104.6	2114.6	2114.6	2114.6
7.5°	2084.8	2089.8	2099.7	2104.6	2104.6
10°	2069.9	2074.9	2084.8	2089.8	2094.7
12.5°	2045.1	2050.0	2064.9	2074.9	2074.9
15°	2020.3	2025.2	2040.1	2050.0	2055.0
17.5°	1990.5	2000.4	2015.3	2025.2	2030.2
20°	1950.8	1960.7	1980.6	1995.4	2000.4
22.5°	1916.0	1926.0	1945.8	1960.7	1970.6
25°	1876.3	1886.2	1916.0	1926.0	1935.9
27.5°	1826.7	1836.6	1861.4	1881.3	1896.2
30°	1777.0	1787.0	1816.7	1841.6	1851.5
32.5°	1722.4	1737.3	1772.1	1791.9	1806.8
35°	1662.9	1677.8	1712.5	1747.3	1762.1
37.5°	1603.3	1618.2	1652.9	1697.6	1717.5
40°	1533.8	1553.7	1598.3	1657.9	1667.8
42.5°	1469.3	1494.1	1533.8	1603.3	1628.1
45°	1394.8	1419.6	1474.2	1548.7	1588.4
47.5°	1325.3	1350.2	1409.7	1499.1	1548.7
50°	1240.9	1275.7	1350.2	1454.4	1504.0
52.5°	1161.5	1191.3	1290.6	1404.8	1464.3
55°	1077.1	1111.9	1231.0	1355.1	1419.6
57.5°	1002.7	1032.5	1166.5	1305.5	1379.9
60°	908.4	948.1	1102.0	1250.9	1325.3
62.5°	809.1	868.7	1037.4	1191.3	1270.7
65°	714.8	784.3	977.9	1131.7	1211.2
67.5°	630.4	704.9	903.4	1067.2	1141.7
70°	531.1	625.4	829.0	987.8	1072.2
72.5°	441.8	546.0	744.6	903.4	977.9
75°	352.4	466.6	660.2	794.2	838.9
77.5°	273.0	382.2	565.9	605.6	610.5
80°	203.5	302.8	421.9	426.9	441.8
82.5°	139.0	213.4	273.0	297.8	302.8
85°	89.3	124.1	153.9	158.8	168.8
87.5°	39.7	44.7	54.6	49.6	49.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)