

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: P391821

Luminaire Tested: **24CZ2-90VHE-RDP-UNV-L930-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: P391821
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-90VHE-RDP-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4901.5 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

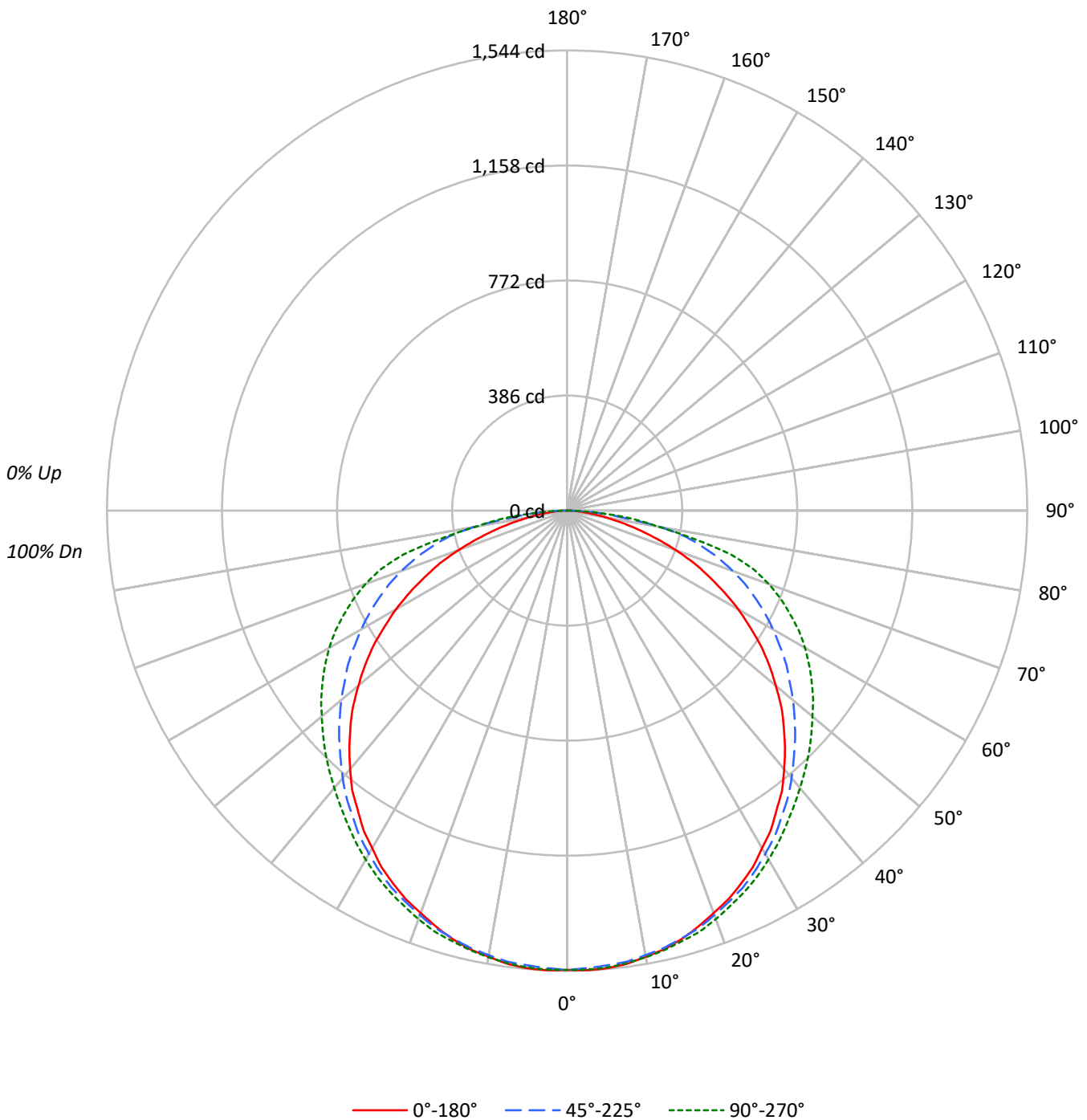
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	2074	2074	2074
5°	2082	2069	2079
10°	2076	2069	2079
15°	2073	2069	2083
20°	2057	2068	2089
25°	2050	2072	2093
30°	2032	2066	2100
35°	2013	2061	2109
40°	1990	2058	2135
45°	1957	2059	2183
50°	1913	2071	2249
55°	1865	2104	2350
60°	1786	2146	2479
65°	1672	2222	2632
70°	1521	2324	2831
75°	1289	2452	2957
80°	1017	2468	2393
85°	750	1877	2101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.2	3.0
10°-20°	420.8	8.6
20°-30°	643.5	13.1
30°-40°	786.7	16.0
40°-50°	838.4	17.1
50°-60°	801.7	16.4
60°-70°	679.1	13.9
70°-80°	456.4	9.3
80°-90°	128.8	2.6
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°	1210.5	24.7
0°-40°	1997.2	40.7
0°-60°	3637.3	74.2
0°-90°	4901.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4901.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1541	1541	1541	1541	1541	
5°	1541	1539	1532	1539	1539	146
15°	1488	1488	1486	1498	1495	420
25°	1381	1386	1396	1408	1410	636
35°	1225	1235	1254	1279	1284	768
45°	1028	1045	1082	1128	1148	793
55°	795	824	897	968	1002	708
65°	525	579	698	790	827	521
75°	248	338	472	552	569	266
85°	49	100	122	131	136	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1541.4	1541.4	1541.4	1541.4	1541.4
2.5°	1543.8	1543.8	1536.5	1541.4	1541.4
5°	1541.4	1539.0	1531.7	1539.0	1539.0
7.5°	1534.1	1531.7	1526.8	1534.1	1531.7
10°	1519.5	1519.5	1514.6	1521.9	1521.9
12.5°	1507.3	1504.9	1502.5	1512.2	1509.8
15°	1487.9	1487.9	1485.5	1497.6	1495.2
17.5°	1463.6	1466.0	1468.4	1478.2	1480.6
20°	1436.8	1441.7	1444.1	1458.7	1458.7
22.5°	1412.5	1415.0	1419.8	1434.4	1434.4
25°	1380.9	1385.8	1395.5	1407.7	1410.1
27.5°	1349.3	1351.7	1363.9	1380.9	1383.4
30°	1308.0	1315.3	1329.9	1349.3	1351.7
32.5°	1271.5	1278.8	1295.8	1315.3	1320.1
35°	1225.3	1235.1	1254.5	1278.8	1283.7
37.5°	1184.0	1191.3	1215.6	1242.3	1249.6
40°	1132.9	1147.5	1171.8	1203.4	1215.6
42.5°	1081.9	1096.5	1125.6	1167.0	1181.6
45°	1028.4	1045.4	1081.9	1128.1	1147.5
47.5°	974.9	994.4	1035.7	1089.2	1111.1
50°	914.1	938.4	989.5	1050.3	1074.6
52.5°	855.8	885.0	940.9	1008.9	1040.6
55°	795.0	824.2	897.1	967.6	1001.7
57.5°	726.9	765.8	846.1	926.3	962.8
60°	663.7	700.2	797.4	885.0	921.4
62.5°	595.6	644.3	748.8	841.2	877.7
65°	525.1	578.6	697.8	790.1	826.6
67.5°	461.9	520.3	646.7	739.1	775.6
70°	386.6	459.5	590.8	683.2	719.6
72.5°	316.1	396.3	532.4	622.4	656.4
75°	248.0	337.9	471.7	551.9	568.9
77.5°	184.8	279.6	408.4	442.5	430.3
80°	131.3	223.7	318.5	301.5	308.8
82.5°	85.1	170.2	196.9	223.7	231.0
85°	48.6	99.7	121.6	131.3	136.1
87.5°	21.9	36.5	48.6	48.6	46.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)