

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: P390818

Luminaire Tested: **22CZ2-90VHE-RDP-UNV-L935-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: P390818
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: 22CZ2-90VHE-RDP-UNV-L935-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5188.8 lumens
Efficiency: N/A
Efficacy: 76.1 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

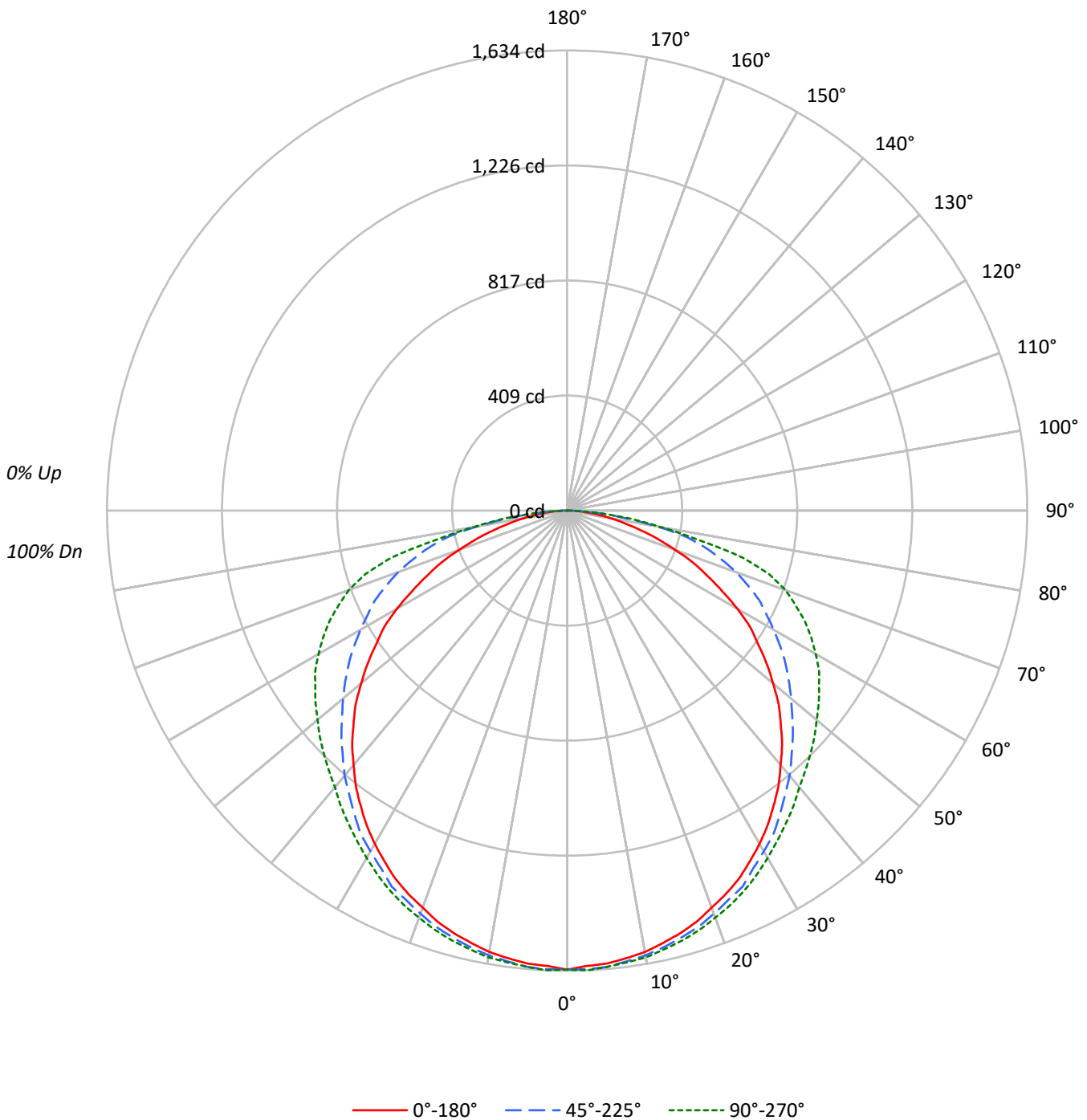
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4386	4386	4386
5°	4361	4393	4393
10°	4349	4381	4401
15°	4328	4371	4403
20°	4296	4361	4405
25°	4284	4375	4420
30°	4246	4341	4424
35°	4201	4326	4452
40°	4143	4318	4505
45°	4082	4314	4649
50°	3995	4346	4842
55°	3886	4441	5122
60°	3759	4561	5485
65°	3500	4788	5931
70°	3213	5016	6487
75°	2818	5279	6707
80°	2425	5029	5264
85°	2121	3653	4008



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.2	3.0
10°-20°	442.7	8.5
20°-30°	675.4	13.0
30°-40°	824.7	15.9
40°-50°	881.7	17.0
50°-60°	851.1	16.4
60°-70°	732.6	14.1
70°-80°	495.7	9.6
80°-90°	130.8	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°	1272.2	24.5
0°-40°	2096.9	40.4
0°-60°	3829.7	73.8
0°-90°	5188.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5188.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1630	1630	1630	1630	1630	
5°	1615	1618	1626	1626	1626	153
15°	1554	1557	1569	1576	1580	438
25°	1443	1450	1473	1481	1489	664
35°	1279	1290	1317	1344	1355	800
45°	1073	1092	1134	1191	1222	828
55°	828	855	947	1042	1092	742
65°	550	603	752	870	931	547
75°	271	359	508	611	645	291
85°	69	95	118	122	130	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1629.9	1629.9	1629.9	1629.9	1629.9
2.5°	1618.4	1622.3	1629.9	1629.9	1633.7
5°	1614.6	1618.4	1626.1	1626.1	1626.1
7.5°	1603.2	1607.0	1614.6	1618.4	1618.4
10°	1591.7	1595.5	1603.2	1607.0	1610.8
12.5°	1572.6	1576.5	1587.9	1595.5	1595.5
15°	1553.6	1557.4	1568.8	1576.5	1580.3
17.5°	1530.6	1538.3	1549.7	1557.4	1561.2
20°	1500.1	1507.7	1523.0	1534.5	1538.3
22.5°	1473.4	1481.0	1496.3	1507.7	1515.4
25°	1442.9	1450.5	1473.4	1481.0	1488.7
27.5°	1404.7	1412.3	1431.4	1446.7	1458.1
30°	1366.5	1374.1	1397.1	1416.1	1423.8
32.5°	1324.5	1336.0	1362.7	1378.0	1389.4
35°	1278.7	1290.2	1316.9	1343.6	1355.1
37.5°	1232.9	1244.4	1271.1	1305.4	1320.7
40°	1179.5	1194.7	1229.1	1274.9	1282.5
42.5°	1129.9	1148.9	1179.5	1232.9	1252.0
45°	1072.6	1091.7	1133.7	1190.9	1221.5
47.5°	1019.2	1038.2	1084.1	1152.8	1190.9
50°	954.3	981.0	1038.2	1118.4	1156.6
52.5°	893.2	916.1	992.4	1080.2	1126.0
55°	828.3	855.0	946.6	1042.1	1091.7
57.5°	771.0	794.0	897.0	1003.9	1061.1
60°	698.5	729.1	847.4	961.9	1019.2
62.5°	622.2	668.0	797.8	916.1	977.2
65°	549.7	603.1	752.0	870.3	931.4
67.5°	484.8	542.0	694.7	820.7	877.9
70°	408.4	481.0	637.5	759.6	824.5
72.5°	339.7	419.9	572.6	694.7	752.0
75°	271.0	358.8	507.7	610.7	645.1
77.5°	209.9	293.9	435.1	465.7	469.5
80°	156.5	232.8	324.5	328.3	339.7
82.5°	106.9	164.1	209.9	229.0	232.8
85°	68.7	95.4	118.3	122.1	129.8
87.5°	30.5	34.4	42.0	38.2	38.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)