

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: P389306

Luminaire Tested: **22CZ2-55VHE-S-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: P389306  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-55VHE-S-UNV-L935-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4912.7 lumens  
Efficiency: N/A  
Efficacy: 124.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

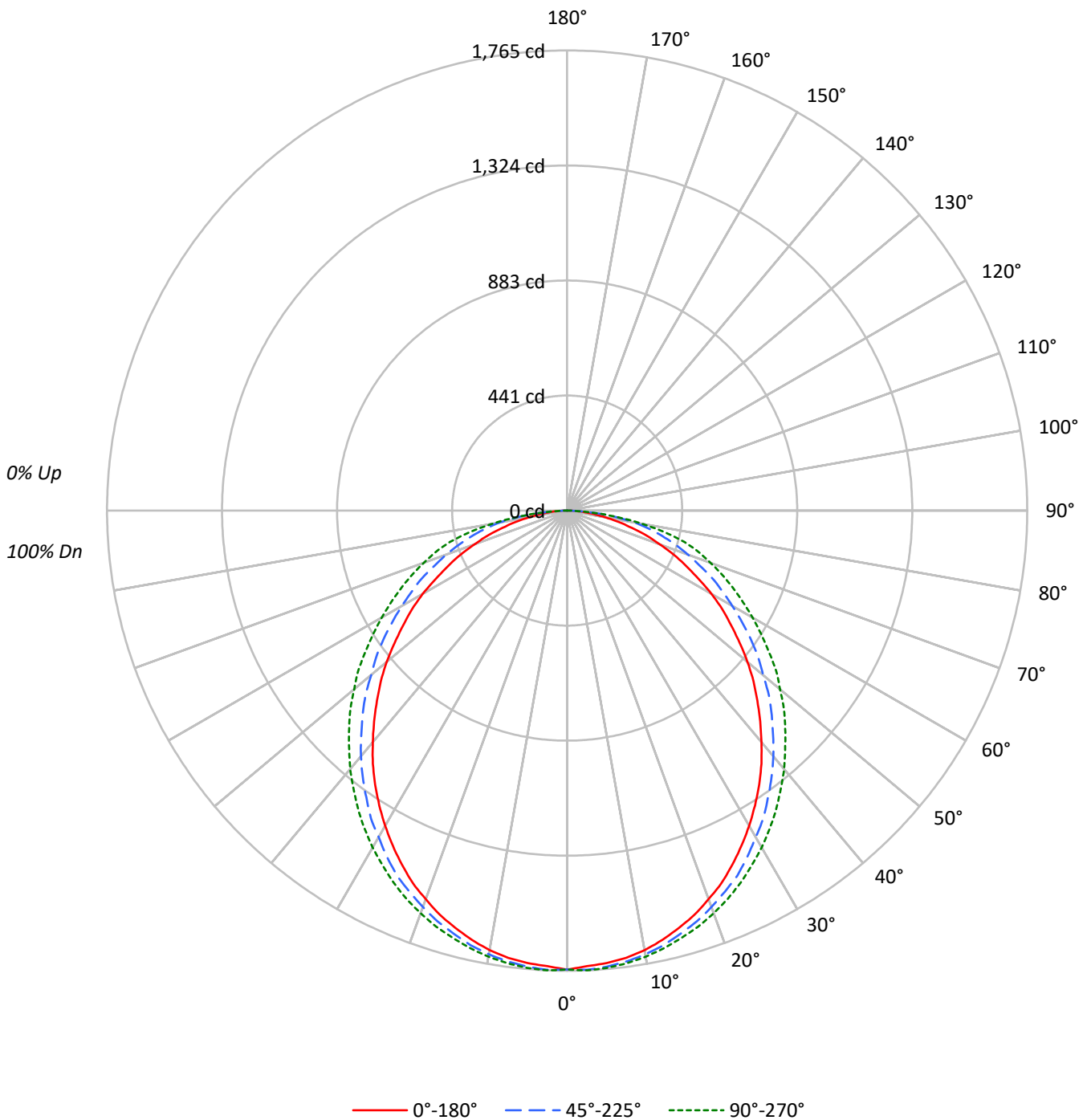
Input Watts (W): 39.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4737	4737	4737
5°	4706	4743	4755
10°	4679	4723	4748
15°	4617	4681	4725
20°	4542	4634	4706
25°	4451	4587	4676
30°	4337	4494	4637
35°	4217	4413	4593
40°	4074	4324	4549
45°	3925	4222	4501
50°	3781	4107	4462
55°	3603	4033	4431
60°	3442	3935	4416
65°	3211	3911	4466
70°	2958	3877	4599
75°	2669	3932	4838
80°	2309	4049	4547
85°	1911	3396	3396



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.5	3.4
10°-20°	473.8	9.6
20°-30°	708.9	14.4
30°-40°	839.5	17.1
40°-50°	855.5	17.4
50°-60°	766.8	15.6
60°-70°	600.3	12.2
70°-80°	387.1	7.9
80°-90°	114.4	2.3
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°	1349.1	27.5
0°-40°	2188.6	44.5
0°-60°	3810.9	77.6
0°-90°	4912.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4912.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1760	1760	1760	1760	1760	
5°	1742	1747	1756	1758	1760	165
15°	1657	1666	1680	1694	1696	467
25°	1499	1513	1545	1566	1575	690
35°	1284	1300	1343	1384	1398	802
45°	1032	1054	1109	1167	1183	797
55°	768	793	860	919	944	688
65°	504	534	614	674	701	501
75°	257	296	378	442	465	275
85°	62	85	110	110	110	73
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1760.4	1760.4	1760.4	1760.4	1760.4
2.5°	1748.9	1753.5	1762.7	1765.0	1765.0
5°	1742.0	1746.6	1755.8	1758.1	1760.4
7.5°	1730.6	1732.9	1744.3	1748.9	1751.2
10°	1712.2	1716.8	1728.3	1735.2	1737.5
12.5°	1687.0	1693.9	1707.7	1716.8	1719.1
15°	1657.2	1666.4	1680.1	1693.9	1696.2
17.5°	1625.1	1634.3	1652.6	1668.7	1673.3
20°	1586.2	1597.6	1618.3	1636.6	1643.5
22.5°	1547.2	1556.4	1581.6	1604.5	1611.4
25°	1499.1	1512.8	1544.9	1565.5	1574.7
27.5°	1448.6	1464.7	1496.8	1524.3	1533.5
30°	1395.9	1412.0	1446.3	1480.7	1492.2
32.5°	1340.9	1359.2	1400.5	1434.9	1446.3
35°	1283.6	1299.7	1343.2	1384.5	1398.2
37.5°	1224.0	1237.8	1288.2	1331.7	1345.5
40°	1159.8	1178.2	1230.9	1281.3	1295.1
42.5°	1095.6	1116.3	1169.0	1224.0	1237.8
45°	1031.5	1054.4	1109.4	1166.7	1182.8
47.5°	969.6	987.9	1049.8	1104.8	1127.7
50°	903.1	921.4	981.0	1042.9	1065.9
52.5°	834.3	859.6	923.7	983.3	1010.8
55°	767.9	793.1	859.6	919.2	944.4
57.5°	706.0	726.6	795.4	857.3	882.5
60°	639.5	657.8	731.2	797.7	820.6
62.5°	568.5	596.0	671.6	733.5	761.0
65°	504.3	534.1	614.3	673.9	701.4
67.5°	444.7	472.2	550.1	614.3	644.1
70°	375.9	412.6	492.8	557.0	584.5
72.5°	320.9	353.0	435.5	499.7	529.5
75°	256.7	295.7	378.2	442.4	465.3
77.5°	204.0	243.0	320.9	371.3	382.8
80°	149.0	188.0	261.3	286.5	293.4
82.5°	100.9	137.5	188.0	194.8	197.1
85°	61.9	84.8	110.0	110.0	110.0
87.5°	29.8	34.4	39.0	36.7	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)