

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: P389303

Luminaire Tested: **22CZ2-55VHE-S-UNV-L930-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: P389303  
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-L930-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4794.1 lumens  
Efficiency: N/A  
Efficacy: 121.7 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

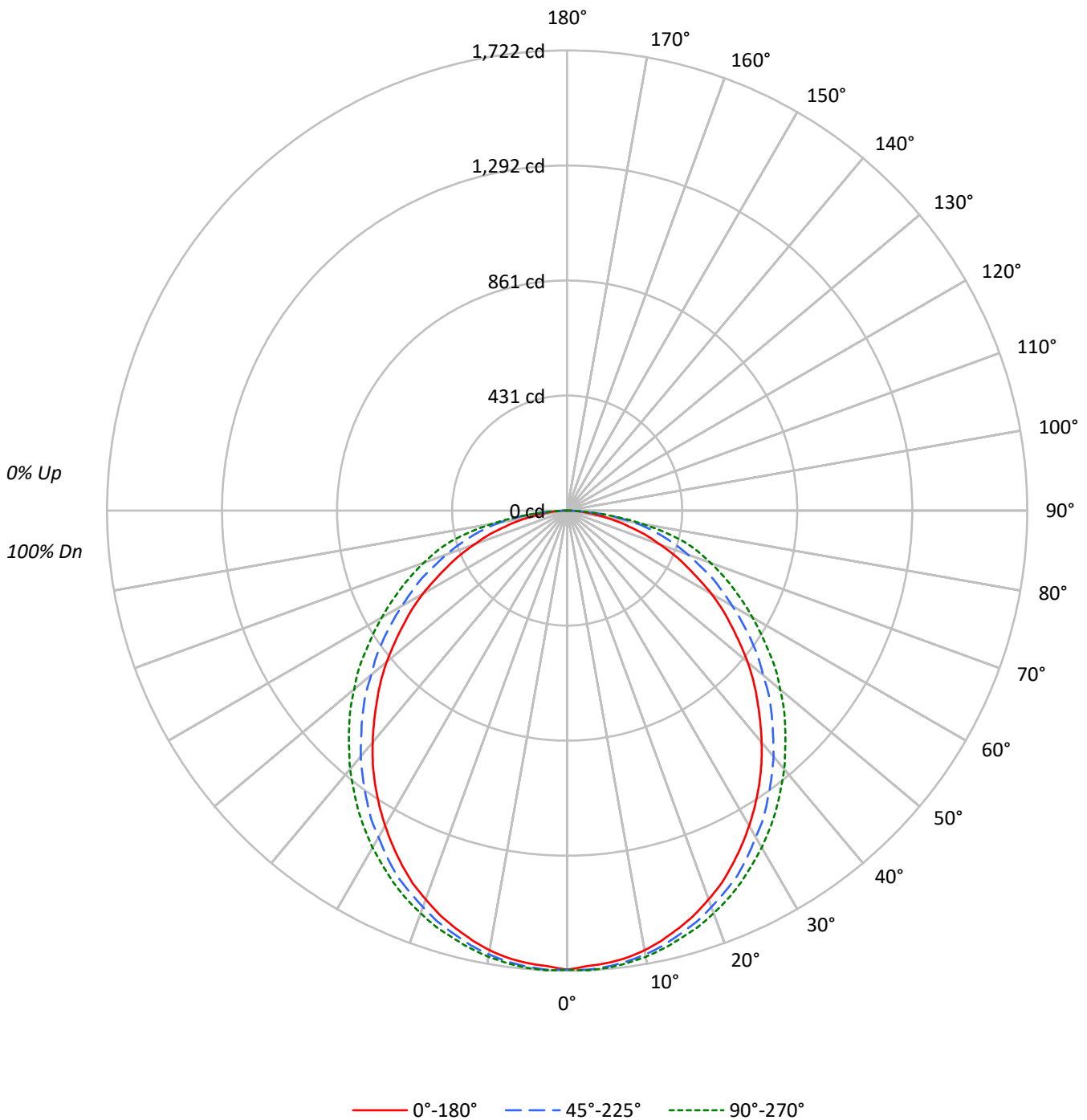
Input Watts (W): 39.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

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

	0°	45°	90°
0°	4623	4623	4623
5°	4592	4628	4640
10°	4566	4609	4633
15°	4505	4568	4611
20°	4433	4522	4593
25°	4344	4476	4563
30°	4233	4386	4525
35°	4115	4306	4482
40°	3976	4220	4440
45°	3831	4120	4392
50°	3689	4008	4354
55°	3515	3935	4324
60°	3359	3840	4310
65°	3133	3817	4358
70°	2886	3784	4488
75°	2604	3838	4721
80°	2253	3952	4437
85°	1865	3316	3316



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.5	3.4
10°-20°	462.3	9.6
20°-30°	691.8	14.4
30°-40°	819.2	17.1
40°-50°	834.9	17.4
50°-60°	748.3	15.6
60°-70°	585.8	12.2
70°-80°	377.8	7.9
80°-90°	111.6	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°	1316.5	27.5
0°-40°	2135.7	44.5
0°-60°	3718.9	77.6
0°-90°	4794.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4794.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1718	1718	1718	1718	1718	
5°	1700	1704	1713	1716	1718	161
15°	1617	1626	1640	1653	1655	456
25°	1463	1476	1508	1528	1537	673
35°	1253	1268	1311	1351	1364	783
45°	1007	1029	1083	1138	1154	777
55°	749	774	839	897	922	672
65°	492	521	600	658	684	489
75°	250	288	369	432	454	269
85°	60	83	107	107	107	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1717.9	1717.9	1717.9	1717.9	1717.9
2.5°	1706.7	1711.2	1720.1	1722.3	1722.3
5°	1700.0	1704.5	1713.4	1715.6	1717.9
7.5°	1688.8	1691.0	1702.2	1706.7	1708.9
10°	1670.9	1675.4	1686.6	1693.3	1695.5
12.5°	1646.3	1653.0	1666.4	1675.4	1677.6
15°	1617.2	1626.2	1639.6	1653.0	1655.2
17.5°	1585.9	1594.9	1612.7	1628.4	1632.9
20°	1547.9	1559.1	1579.2	1597.1	1603.8
22.5°	1509.9	1518.8	1543.4	1565.8	1572.5
25°	1462.9	1476.3	1507.6	1527.7	1536.7
27.5°	1413.7	1429.3	1460.6	1487.5	1496.4
30°	1362.2	1377.9	1411.4	1445.0	1456.2
32.5°	1308.5	1326.4	1366.7	1400.2	1411.4
35°	1252.6	1268.3	1310.8	1351.0	1364.5
37.5°	1194.5	1207.9	1257.1	1299.6	1313.0
40°	1131.8	1149.7	1201.2	1250.4	1263.8
42.5°	1069.2	1089.3	1140.8	1194.5	1207.9
45°	1006.6	1028.9	1082.6	1138.5	1154.2
47.5°	946.2	964.1	1024.5	1078.1	1100.5
50°	881.3	899.2	957.4	1017.8	1040.1
52.5°	814.2	838.8	901.4	959.6	986.4
55°	749.3	773.9	838.8	897.0	921.6
57.5°	688.9	709.1	776.2	836.6	861.2
60°	624.1	642.0	713.5	778.4	800.8
62.5°	554.7	581.6	655.4	715.8	742.6
65°	492.1	521.2	599.5	657.6	684.5
67.5°	433.9	460.8	536.8	599.5	628.5
70°	366.8	402.6	480.9	543.5	570.4
72.5°	313.2	344.5	425.0	487.6	516.7
75°	250.5	288.5	369.1	431.7	454.1
77.5°	199.1	237.1	313.2	362.4	373.5
80°	145.4	183.4	255.0	279.6	286.3
82.5°	98.4	134.2	183.4	190.1	192.4
85°	60.4	82.8	107.4	107.4	107.4
87.5°	29.1	33.6	38.0	35.8	35.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)