

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: P389305

Luminaire Tested: **22CZ2-55VHE-S-UNV-L935-CD1-SWPD1-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: P389305  
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-SWPD1-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: 4851.8 lumens  
Efficiency: N/A  
Efficacy: 123.1 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

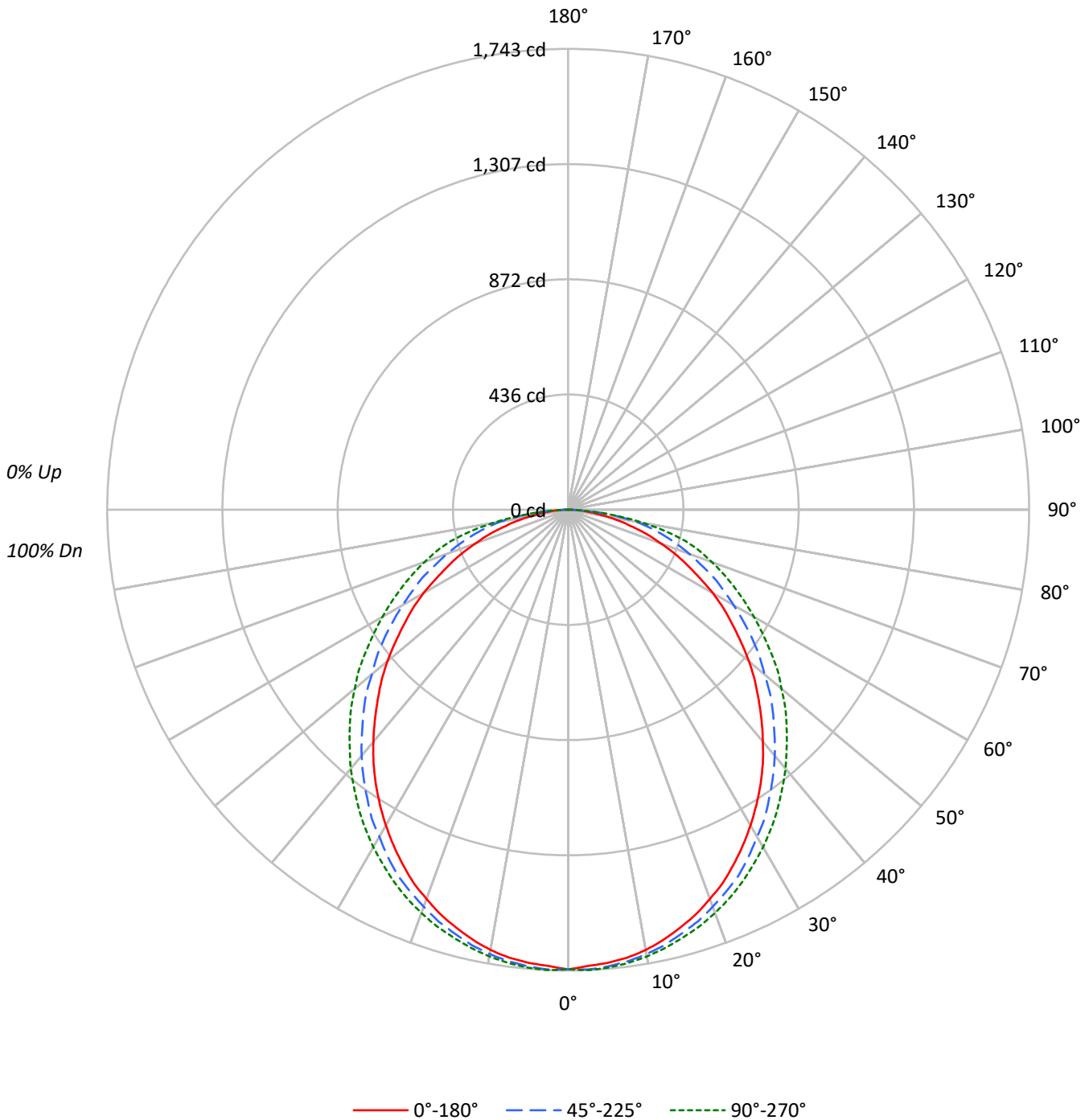
Input Watts (W): 39.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4679	4679	4679
5°	4647	4684	4696
10°	4621	4664	4689
15°	4560	4623	4667
20°	4486	4577	4648
25°	4396	4530	4618
30°	4284	4438	4579
35°	4164	4358	4536
40°	4024	4270	4493
45°	3877	4169	4445
50°	3734	4056	4407
55°	3558	3983	4376
60°	3399	3886	4362
65°	3171	3863	4411
70°	2921	3829	4542
75°	2636	3883	4777
80°	2280	4000	4491
85°	1886	3356	3356



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.4	3.4
10°-20°	467.9	9.6
20°-30°	700.1	14.4
30°-40°	829.1	17.1
40°-50°	844.9	17.4
50°-60°	757.3	15.6
60°-70°	592.9	12.2
70°-80°	382.3	7.9
80°-90°	112.9	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°	1332.4	27.5
0°-40°	2161.4	44.5
0°-60°	3763.6	77.6
0°-90°	4851.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4851.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1739	1739	1739	1739	1739	
5°	1720	1725	1734	1736	1739	163
15°	1637	1646	1659	1673	1675	461
25°	1480	1494	1526	1546	1555	682
35°	1268	1284	1327	1367	1381	792
45°	1019	1041	1096	1152	1168	787
55°	758	783	849	908	933	680
65°	498	528	607	666	693	495
75°	254	292	374	437	460	272
85°	61	84	109	109	109	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1738.6	1738.6	1738.6	1738.6	1738.6
2.5°	1727.2	1731.8	1740.8	1743.1	1743.1
5°	1720.4	1725.0	1734.0	1736.3	1738.6
7.5°	1709.1	1711.4	1722.7	1727.2	1729.5
10°	1691.0	1695.5	1706.9	1713.7	1715.9
12.5°	1666.1	1672.9	1686.5	1695.5	1697.8
15°	1636.7	1645.7	1659.3	1672.9	1675.2
17.5°	1605.0	1614.0	1632.2	1648.0	1652.5
20°	1566.5	1577.8	1598.2	1616.3	1623.1
22.5°	1528.0	1537.1	1562.0	1584.6	1591.4
25°	1480.5	1494.1	1525.8	1546.1	1555.2
27.5°	1430.7	1446.5	1478.2	1505.4	1514.4
30°	1378.6	1394.5	1428.4	1462.4	1473.7
32.5°	1324.3	1342.4	1383.1	1417.1	1428.4
35°	1267.7	1283.5	1326.6	1367.3	1380.9
37.5°	1208.8	1222.4	1272.2	1315.2	1328.8
40°	1145.5	1163.6	1215.6	1265.4	1279.0
42.5°	1082.1	1102.4	1154.5	1208.8	1222.4
45°	1018.7	1041.3	1095.6	1152.2	1168.1
47.5°	957.6	975.7	1036.8	1091.1	1113.8
50°	891.9	910.0	968.9	1030.0	1052.6
52.5°	824.0	848.9	912.3	971.1	998.3
55°	758.4	783.3	848.9	907.8	932.7
57.5°	697.2	717.6	785.5	846.6	871.5
60°	631.6	649.7	722.1	787.8	810.4
62.5°	561.4	588.6	663.3	724.4	751.6
65°	498.0	527.5	606.7	665.5	692.7
67.5°	439.2	466.3	543.3	606.7	636.1
70°	371.3	407.5	486.7	550.1	577.3
72.5°	316.9	348.6	430.1	493.5	522.9
75°	253.5	292.0	373.5	436.9	459.5
77.5°	201.5	240.0	316.9	366.7	378.0
80°	147.1	185.6	258.1	283.0	289.8
82.5°	99.6	135.8	185.6	192.4	194.7
85°	61.1	83.8	108.7	108.7	108.7
87.5°	29.4	34.0	38.5	36.2	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)