

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: P389282

Luminaire Tested: **22CZ2-50VHE-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: P389282  
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: 22CZ2-50VHE-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: 4526.3 lumens  
Efficiency: N/A  
Efficacy: 125.0 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

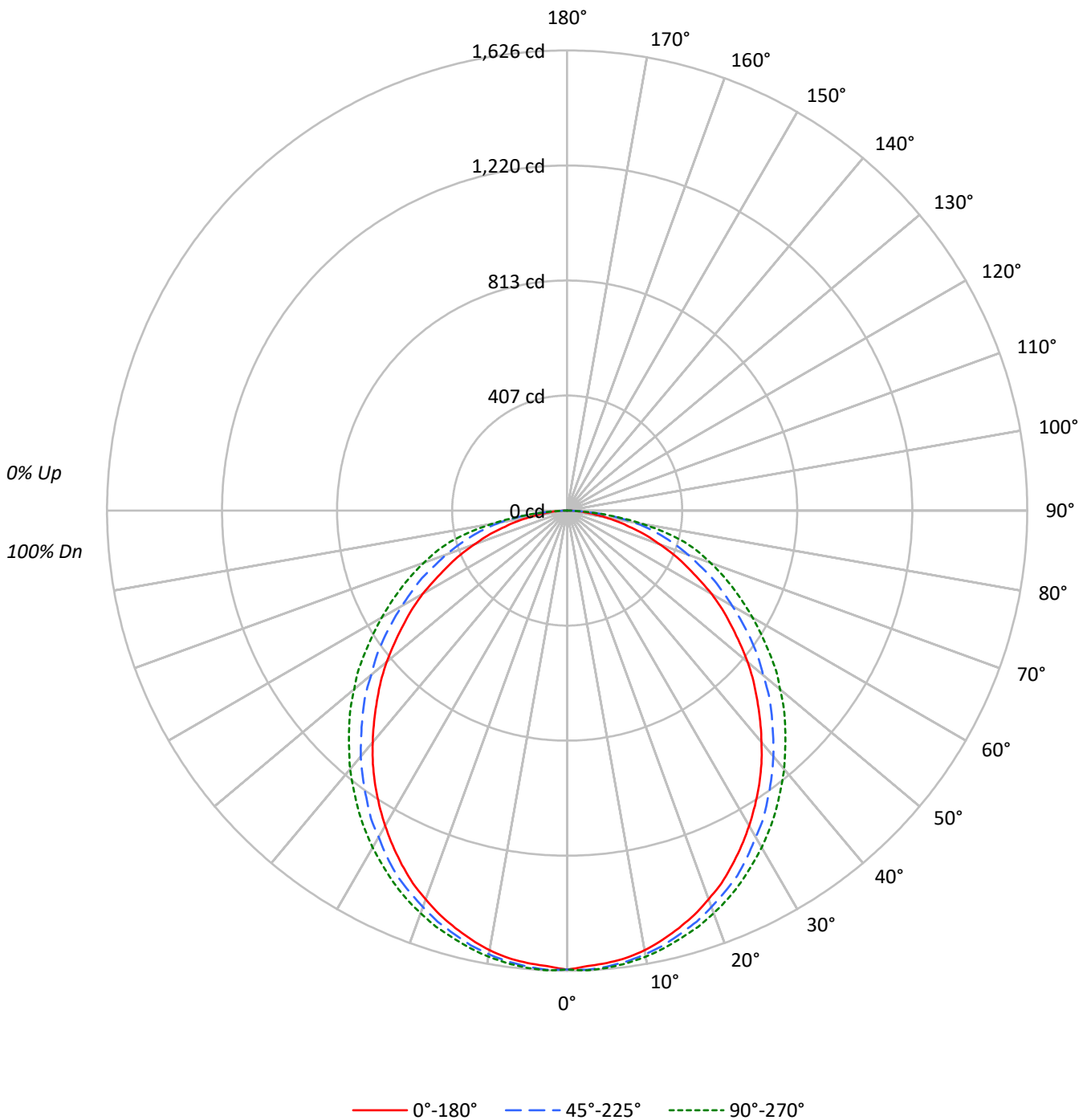
Input Watts (W): 36.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4364	4364	4364
5°	4336	4370	4381
10°	4311	4351	4374
15°	4254	4313	4354
20°	4185	4270	4336
25°	4101	4226	4308
30°	3996	4141	4272
35°	3885	4066	4232
40°	3754	3984	4192
45°	3616	3890	4147
50°	3484	3784	4111
55°	3319	3716	4082
60°	3171	3626	4069
65°	2958	3604	4115
70°	2725	3573	4237
75°	2459	3623	4457
80°	2128	3732	4189
85°	1760	3131	3131



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.4	3.4
10°-20°	436.5	9.6
20°-30°	653.1	14.4
30°-40°	773.4	17.1
40°-50°	788.2	17.4
50°-60°	706.5	15.6
60°-70°	553.1	12.2
70°-80°	356.7	7.9
80°-90°	105.4	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°	1243.0	27.5
0°-40°	2016.4	44.5
0°-60°	3511.2	77.6
0°-90°	4526.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4526.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1622	1622	1622	1622	1622	
5°	1605	1609	1618	1620	1622	152
15°	1527	1535	1548	1561	1563	430
25°	1381	1394	1423	1442	1451	636
35°	1183	1197	1238	1276	1288	739
45°	950	972	1022	1075	1090	734
55°	708	731	792	847	870	634
65°	465	492	566	621	646	461
75°	236	272	348	408	429	254
85°	57	78	101	101	101	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1621.9	1621.9	1621.9	1621.9	1621.9
2.5°	1611.4	1615.6	1624.0	1626.1	1626.1
5°	1605.0	1609.2	1617.7	1619.8	1621.9
7.5°	1594.5	1596.6	1607.1	1611.4	1613.5
10°	1577.6	1581.8	1592.3	1598.7	1600.8
12.5°	1554.3	1560.7	1573.3	1581.8	1583.9
15°	1526.9	1535.3	1548.0	1560.7	1562.8
17.5°	1497.3	1505.8	1522.7	1537.4	1541.7
20°	1461.4	1472.0	1491.0	1507.9	1514.2
22.5°	1425.5	1434.0	1457.2	1478.3	1484.6
25°	1381.2	1393.8	1423.4	1442.4	1450.9
27.5°	1334.7	1349.5	1379.0	1404.4	1412.8
30°	1286.1	1300.9	1332.6	1364.3	1374.8
32.5°	1235.4	1252.3	1290.4	1322.0	1332.6
35°	1182.6	1197.4	1237.6	1275.6	1288.2
37.5°	1127.7	1140.4	1186.9	1227.0	1239.7
40°	1068.6	1085.5	1134.1	1180.5	1193.2
42.5°	1009.5	1028.5	1077.1	1127.7	1140.4
45°	950.3	971.5	1022.1	1074.9	1089.7
47.5°	893.3	910.2	967.2	1017.9	1039.0
50°	832.1	849.0	903.9	960.9	982.0
52.5°	768.7	792.0	851.1	906.0	931.3
55°	707.5	730.7	792.0	846.9	870.1
57.5°	650.5	669.5	732.8	789.8	813.1
60°	589.2	606.1	673.7	734.9	756.0
62.5°	523.7	549.1	618.8	675.8	701.1
65°	464.6	492.1	566.0	620.9	646.2
67.5°	409.7	435.0	506.8	566.0	593.4
70°	346.3	380.1	454.1	513.2	538.5
72.5°	295.7	325.2	401.3	460.4	487.8
75°	236.5	272.4	348.5	407.6	428.7
77.5°	188.0	223.9	295.7	342.1	352.7
80°	137.3	173.2	240.8	264.0	270.3
82.5°	92.9	126.7	173.2	179.5	181.6
85°	57.0	78.1	101.4	101.4	101.4
87.5°	27.5	31.7	35.9	33.8	33.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)