

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: P388060

Luminaire Tested: **22CZ2-50VHE-SQR-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: P388060  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-50VHE-SQR-UNV-L935-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4085.7 lumens  
Efficiency: N/A  
Efficacy: 112.9 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

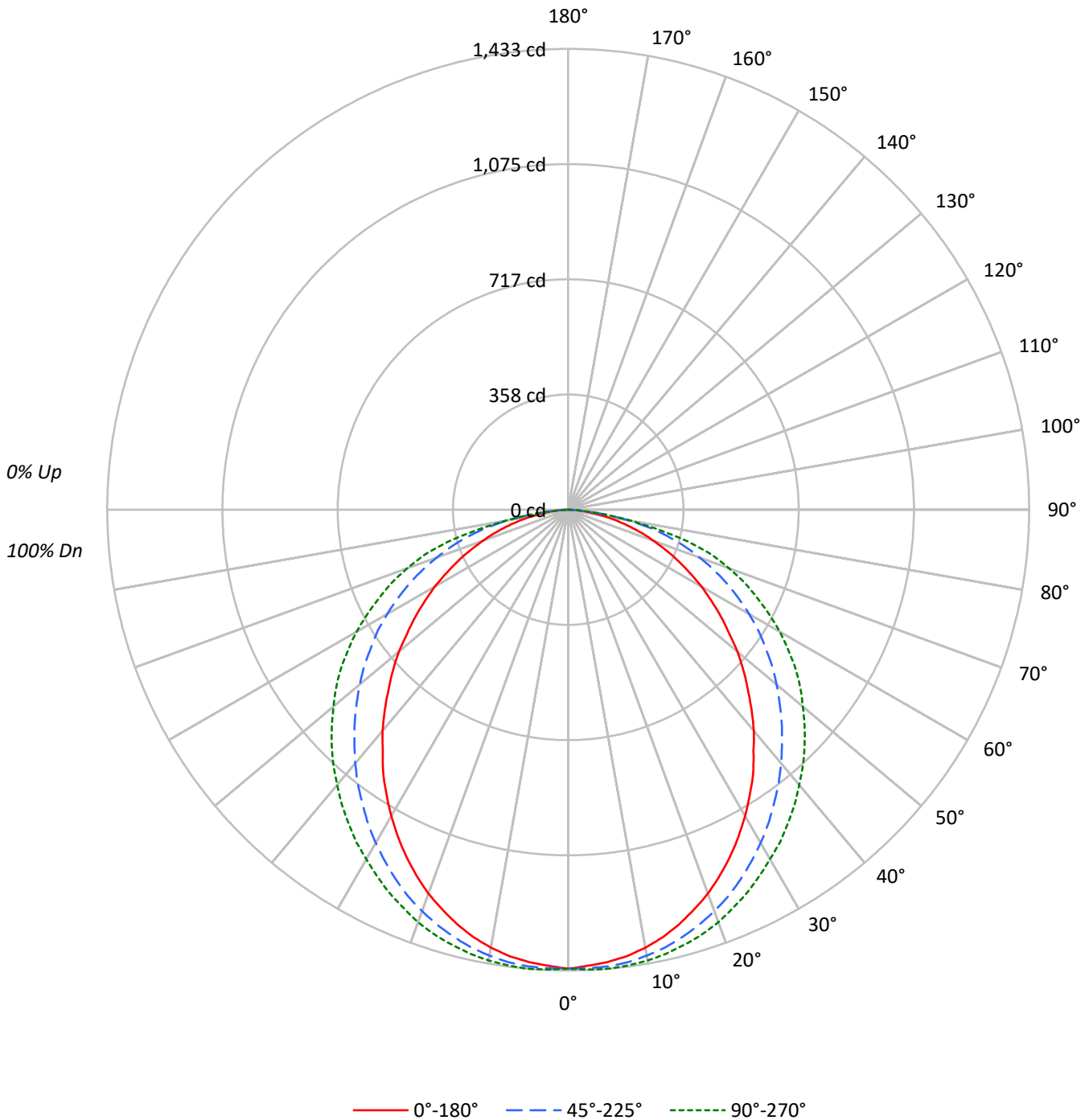
Input Watts (W): 36.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	3841	3841	3841
5°	3813	3850	3871
10°	3778	3847	3889
15°	3717	3830	3901
20°	3637	3804	3909
25°	3535	3765	3904
30°	3416	3718	3898
35°	3294	3663	3912
40°	3154	3617	3924
45°	3003	3572	3956
50°	2874	3540	3986
55°	2720	3512	4048
60°	2578	3496	4091
65°	2408	3470	4124
70°	2212	3418	4180
75°	1996	3327	4032
80°	1712	2944	3036
85°	1377	1735	1377



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.3	3.3
10°-20°	386.9	9.5
20°-30°	581.0	14.2
30°-40°	693.0	17.0
40°-50°	716.5	17.5
50°-60°	658.7	16.1
60°-70°	524.4	12.8
70°-80°	320.4	7.8
80°-90°	69.6	1.7
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°	1103.2	27.0
0°-40°	1796.1	44.0
0°-60°	3171.3	77.6
0°-90°	4085.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4085.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1427	1427	1427	1427	1427	
5°	1412	1416	1425	1431	1433	134
15°	1334	1350	1375	1394	1400	376
25°	1191	1220	1268	1303	1315	548
35°	1003	1045	1115	1173	1191	625
45°	789	846	939	1014	1039	610
55°	580	644	748	834	863	519
65°	378	442	545	620	648	375
75°	192	248	320	376	388	204
85°	45	54	56	48	45	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1427.2	1427.2	1427.2	1427.2	1427.2
2.5°	1419.5	1421.4	1427.2	1431.1	1431.1
5°	1411.7	1415.6	1425.3	1431.1	1433.1
7.5°	1400.1	1405.9	1419.5	1427.2	1429.2
10°	1382.6	1390.4	1407.8	1419.5	1423.4
12.5°	1361.3	1372.9	1394.3	1409.8	1413.7
15°	1334.2	1349.7	1374.9	1394.3	1400.1
17.5°	1303.1	1322.5	1353.5	1376.8	1384.6
20°	1270.2	1289.6	1328.3	1355.5	1365.2
22.5°	1231.4	1256.6	1301.2	1332.2	1340.0
25°	1190.7	1219.7	1268.2	1303.1	1314.8
27.5°	1146.1	1181.0	1233.3	1276.0	1285.7
30°	1099.5	1136.4	1196.5	1243.0	1254.6
32.5°	1051.0	1093.7	1157.7	1210.0	1225.6
35°	1002.6	1045.2	1115.0	1173.2	1190.7
37.5°	946.3	996.7	1074.3	1134.4	1155.7
40°	897.8	946.3	1029.7	1095.6	1117.0
42.5°	843.5	895.9	983.2	1054.9	1080.1
45°	789.2	845.5	938.6	1014.2	1039.4
47.5°	738.8	795.1	892.0	971.5	996.7
50°	686.5	744.6	845.5	926.9	952.1
52.5°	630.2	694.2	798.9	880.4	909.5
55°	579.8	643.8	748.5	833.8	862.9
57.5°	527.5	593.4	702.0	783.4	810.6
60°	479.0	543.0	649.6	729.1	760.2
62.5°	426.6	492.6	597.3	674.8	703.9
65°	378.1	442.1	544.9	620.5	647.7
67.5°	329.7	393.7	490.6	562.4	593.4
70°	281.2	345.2	434.4	504.2	531.3
72.5°	238.5	294.8	380.1	444.1	469.3
75°	192.0	248.2	320.0	376.2	387.8
77.5°	149.3	199.7	259.8	285.1	288.9
80°	110.5	149.3	190.0	195.9	195.9
82.5°	73.7	102.8	118.3	120.2	118.3
85°	44.6	54.3	56.2	48.5	44.6
87.5°	15.5	15.5	9.7	5.8	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)