

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: P388038

Luminaire Tested: **22CZ2-44VHE-SQR-UNV-L940-CD1-SDWPD1-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: P388038  
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: 22CZ2-44VHE-SQR-UNV-L940-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3698.0 lumens  
Efficiency: N/A  
Efficacy: 113.4 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

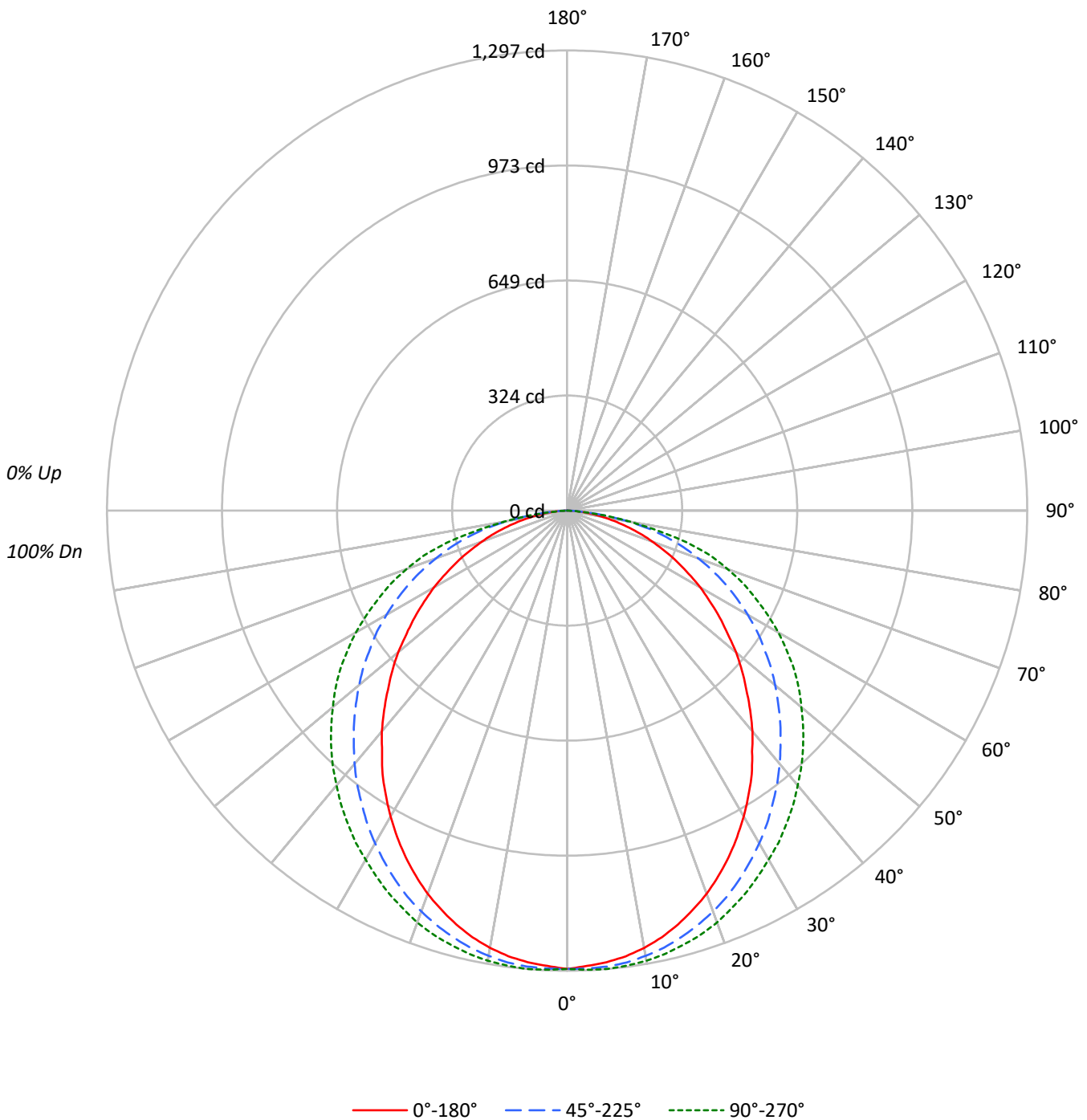
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3476	3476	3476
5°	3452	3485	3504
10°	3419	3482	3520
15°	3364	3467	3530
20°	3292	3443	3538
25°	3200	3408	3533
30°	3092	3365	3529
35°	2981	3315	3540
40°	2855	3274	3551
45°	2719	3233	3580
50°	2601	3204	3608
55°	2462	3179	3664
60°	2333	3165	3703
65°	2180	3140	3733
70°	2002	3094	3784
75°	1807	3011	3649
80°	1550	2665	2748
85°	1247	1572	1247



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.5	3.3
10°-20°	350.1	9.5
20°-30°	525.9	14.2
30°-40°	627.2	17.0
40°-50°	648.5	17.5
50°-60°	596.2	16.1
60°-70°	474.6	12.8
70°-80°	290.0	7.8
80°-90°	63.0	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°	998.5	27.0
0°-40°	1625.7	44.0
0°-60°	2870.4	77.6
0°-90°	3698.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3698.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1292	1292	1292	1292	1292	
5°	1278	1281	1290	1295	1297	121
15°	1208	1222	1244	1262	1267	340
25°	1078	1104	1148	1180	1190	496
35°	907	946	1009	1062	1078	566
45°	714	765	850	918	941	552
55°	525	583	678	755	781	469
65°	342	400	493	562	586	339
75°	174	225	290	340	351	185
85°	40	49	51	44	40	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1291.8	1291.8	1291.8	1291.8	1291.8
2.5°	1284.8	1286.5	1291.8	1295.3	1295.3
5°	1277.8	1281.3	1290.0	1295.3	1297.1
7.5°	1267.2	1272.5	1284.8	1291.8	1293.6
10°	1251.4	1258.5	1274.2	1284.8	1288.3
12.5°	1232.1	1242.7	1262.0	1276.0	1279.5
15°	1207.6	1221.6	1244.4	1262.0	1267.2
17.5°	1179.5	1197.0	1225.1	1246.2	1253.2
20°	1149.6	1167.2	1202.3	1226.9	1235.6
22.5°	1114.5	1137.3	1177.7	1205.8	1212.8
25°	1077.7	1104.0	1147.9	1179.5	1190.0
27.5°	1037.3	1068.9	1116.3	1154.9	1163.7
30°	995.2	1028.5	1082.9	1125.1	1135.6
32.5°	951.3	989.9	1047.8	1095.2	1109.3
35°	907.4	946.0	1009.2	1061.9	1077.7
37.5°	856.5	902.2	972.4	1026.8	1046.1
40°	812.6	856.5	932.0	991.7	1011.0
42.5°	763.5	810.9	889.9	954.8	977.6
45°	714.4	765.3	849.5	918.0	940.8
47.5°	668.7	719.6	807.4	879.3	902.2
50°	621.3	674.0	765.3	839.0	861.8
52.5°	570.4	628.3	723.1	796.8	823.2
55°	524.8	582.7	677.5	754.7	781.0
57.5°	477.4	537.1	635.4	709.1	733.7
60°	433.5	491.4	588.0	659.9	688.0
62.5°	386.1	445.8	540.6	610.8	637.1
65°	342.3	400.2	493.2	561.7	586.2
67.5°	298.4	356.3	444.1	509.0	537.1
70°	254.5	312.4	393.2	456.3	480.9
72.5°	215.9	266.8	344.0	401.9	424.7
75°	173.8	224.7	289.6	340.5	351.0
77.5°	135.1	180.8	235.2	258.0	261.5
80°	100.0	135.1	172.0	177.3	177.3
82.5°	66.7	93.0	107.1	108.8	107.1
85°	40.4	49.1	50.9	43.9	40.4
87.5°	14.0	14.0	8.8	5.3	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)