

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: P389253

Luminaire Tested: **22CZ2-44VHE-S-UNV-L930-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: P389253  
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: 22CZ2-44VHE-S-UNV-L930-CD1-SDWPD1-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: 3907.8 lumens  
Efficiency: N/A  
Efficacy: 119.9 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

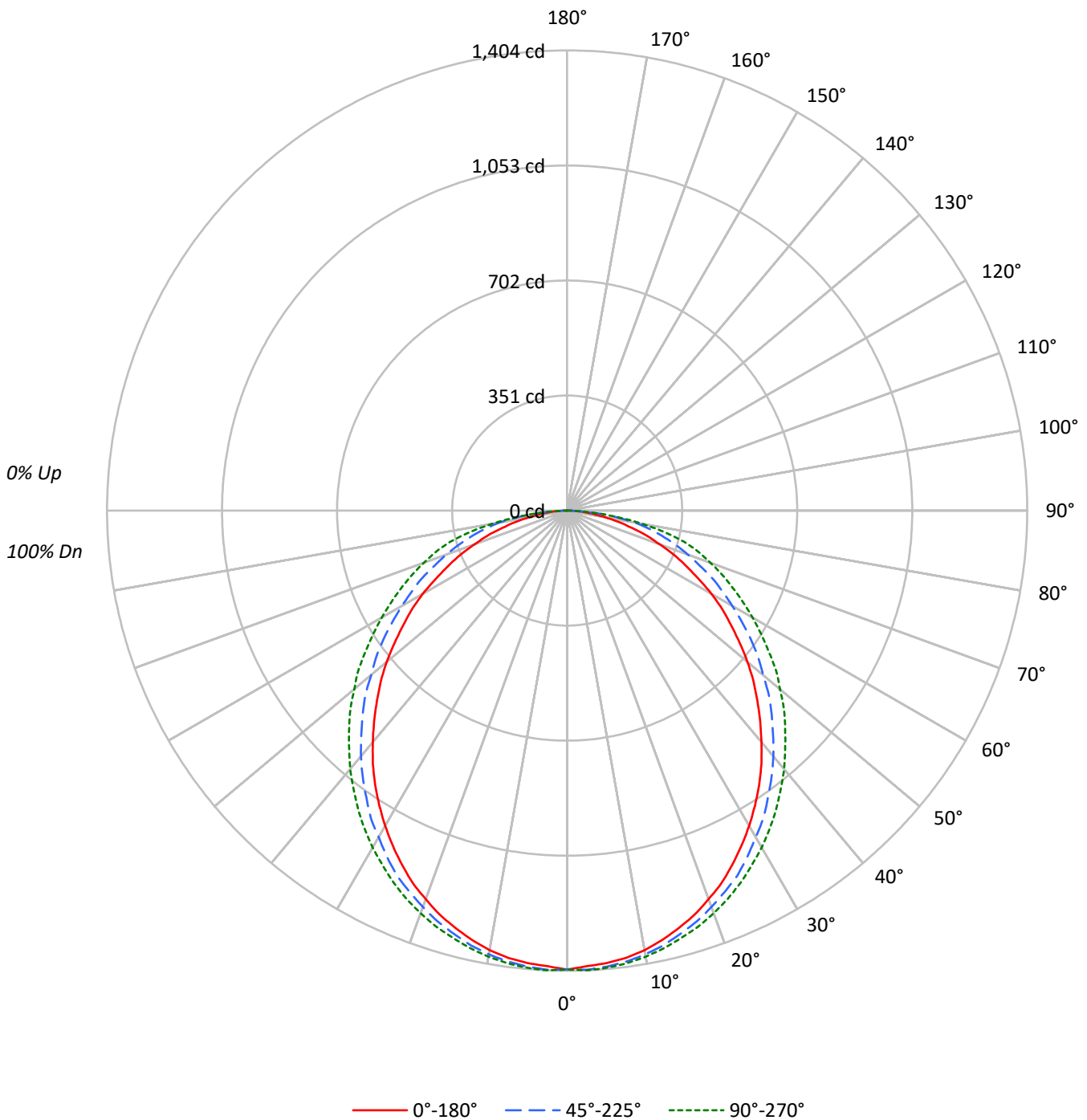
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3768	3768	3768
5°	3743	3773	3783
10°	3722	3757	3777
15°	3672	3723	3759
20°	3613	3686	3744
25°	3540	3649	3719
30°	3450	3575	3688
35°	3354	3510	3654
40°	3241	3439	3619
45°	3123	3358	3580
50°	3008	3267	3549
55°	2866	3208	3524
60°	2738	3130	3513
65°	2554	3111	3552
70°	2353	3084	3658
75°	2123	3127	3848
80°	1836	3222	3617
85°	1519	2702	2702



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.4	3.4
10°-20°	376.8	9.6
20°-30°	563.9	14.4
30°-40°	667.8	17.1
40°-50°	680.5	17.4
50°-60°	609.9	15.6
60°-70°	477.5	12.2
70°-80°	307.9	7.9
80°-90°	91.0	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°	1073.1	27.5
0°-40°	1740.9	44.5
0°-60°	3031.4	77.6
0°-90°	3907.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3907.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1400	1400	1400	1400	1400	
5°	1386	1389	1397	1398	1400	132
15°	1318	1326	1336	1347	1349	372
25°	1192	1203	1229	1245	1253	549
35°	1021	1034	1068	1101	1112	638
45°	820	839	882	928	941	634
55°	611	631	684	731	751	548
65°	401	425	489	536	558	398
75°	204	235	301	352	370	219
85°	49	68	88	88	88	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1400.3	1400.3	1400.3	1400.3	1400.3
2.5°	1391.2	1394.8	1402.1	1403.9	1403.9
5°	1385.7	1389.3	1396.6	1398.5	1400.3
7.5°	1376.6	1378.4	1387.5	1391.2	1393.0
10°	1362.0	1365.6	1374.8	1380.2	1382.1
12.5°	1341.9	1347.4	1358.4	1365.6	1367.5
15°	1318.2	1325.5	1336.5	1347.4	1349.2
17.5°	1292.7	1300.0	1314.6	1327.4	1331.0
20°	1261.7	1270.8	1287.2	1301.8	1307.3
22.5°	1230.7	1238.0	1258.1	1276.3	1281.8
25°	1192.4	1203.4	1228.9	1245.3	1252.6
27.5°	1152.3	1165.1	1190.6	1212.5	1219.8
30°	1110.4	1123.1	1150.5	1177.8	1187.0
32.5°	1066.6	1081.2	1114.0	1141.4	1150.5
35°	1021.0	1033.8	1068.4	1101.3	1112.2
37.5°	973.6	984.6	1024.7	1059.3	1070.3
40°	922.6	937.2	979.1	1019.2	1030.2
42.5°	871.5	887.9	929.9	973.6	984.6
45°	820.5	838.7	882.5	928.1	940.8
47.5°	771.3	785.8	835.1	878.8	897.1
50°	718.4	733.0	780.4	829.6	847.8
52.5°	663.7	683.7	734.8	782.2	804.1
55°	610.8	630.9	683.7	731.1	751.2
57.5°	561.6	578.0	632.7	681.9	702.0
60°	508.7	523.3	581.6	634.5	652.7
62.5°	452.2	474.1	534.2	583.5	605.3
65°	401.1	424.8	488.6	536.0	557.9
67.5°	353.7	375.6	437.6	488.6	512.3
70°	299.0	328.2	392.0	443.1	464.9
72.5°	255.3	280.8	346.4	397.5	421.2
75°	204.2	235.2	300.8	351.9	370.1
77.5°	162.3	193.3	255.3	295.4	304.5
80°	118.5	149.5	207.9	227.9	233.4
82.5°	80.2	109.4	149.5	155.0	156.8
85°	49.2	67.5	87.5	87.5	87.5
87.5°	23.7	27.3	31.0	29.2	29.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)