

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: P388033

Luminaire Tested: **22CZ2-44VHE-SQR-UNV-L930-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: P388033
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-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3615.4 lumens
Efficiency: N/A
Efficacy: 110.9 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

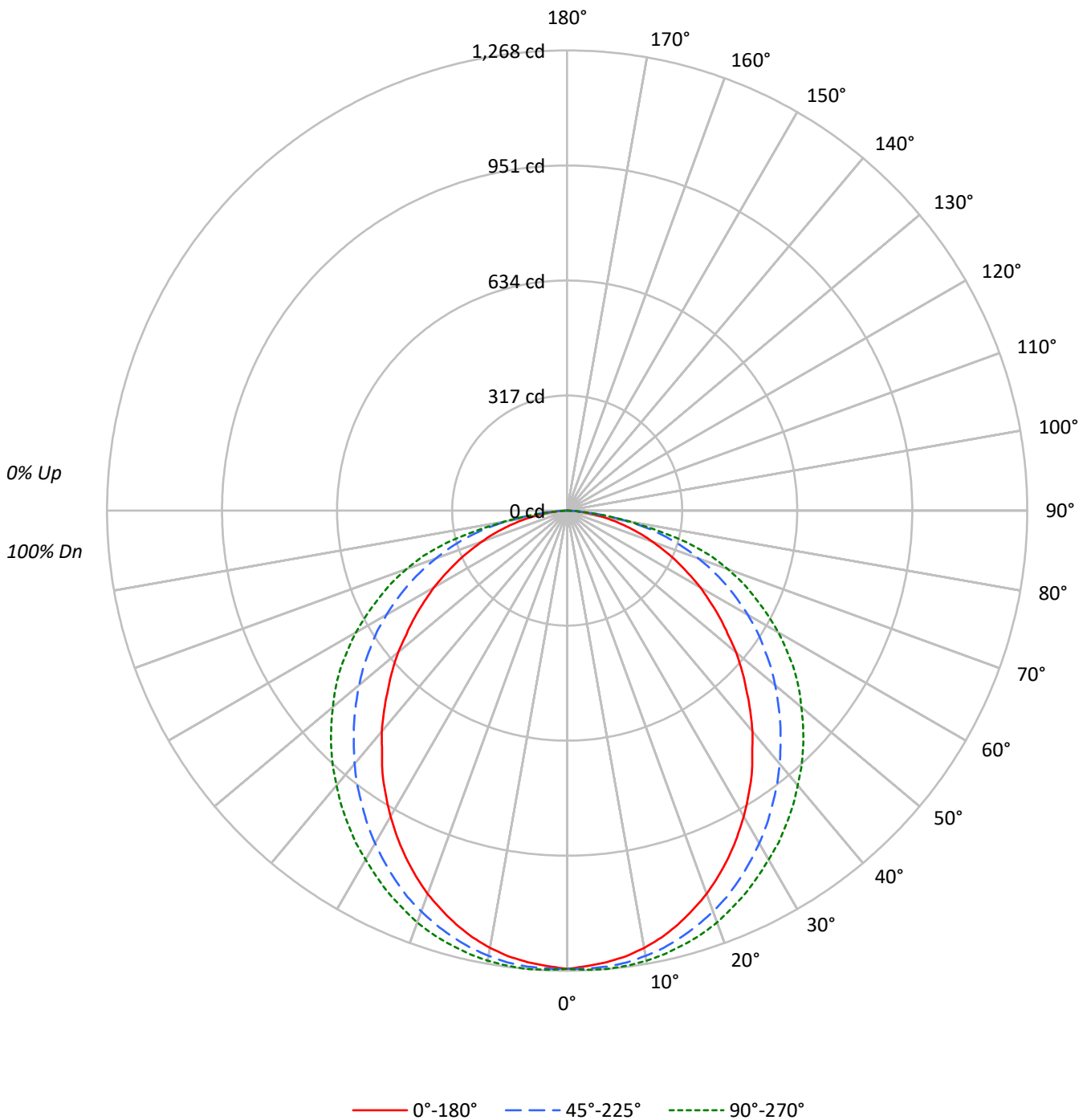
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388033

CATALOG NUMBER: 22CZ2-44VHE-SQR-UNV-L930-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388033

CATALOG NUMBER: 22CZ2-44VHE-SQR-UNV-L930-CD1-SWPD1-U

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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3398	3398	3398
5°	3374	3407	3425
10°	3343	3404	3442
15°	3289	3389	3451
20°	3219	3366	3459
25°	3128	3332	3454
30°	3023	3290	3450
35°	2915	3241	3461
40°	2791	3201	3472
45°	2658	3161	3500
50°	2543	3132	3527
55°	2407	3108	3582
60°	2281	3094	3620
65°	2131	3070	3649
70°	1958	3024	3699
75°	1766	2943	3568
80°	1516	2607	2686
85°	1220	1538	1220



TEST NUMBER: P388033

CATALOG NUMBER: 22CZ2-44VHE-SQR-UNV-L930-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.7	3.3
10°-20°	342.3	9.5
20°-30°	514.1	14.2
30°-40°	613.2	17.0
40°-50°	634.0	17.5
50°-60°	582.9	16.1
60°-70°	464.0	12.8
70°-80°	283.5	7.8
80°-90°	61.6	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°	976.2	27.0
0°-40°	1589.4	44.0
0°-60°	2806.2	77.6
0°-90°	3615.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3615.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1263	1263	1263	1263	1263	
5°	1249	1253	1261	1266	1268	118
15°	1181	1194	1217	1234	1239	332
25°	1054	1079	1122	1153	1163	485
35°	887	925	987	1038	1054	553
45°	698	748	830	897	920	540
55°	513	570	662	738	764	459
65°	335	391	482	549	573	331
75°	170	220	283	333	343	181
85°	40	48	50	43	40	46
90°	0	0	0	0	0	



TEST NUMBER: P388033

CATALOG NUMBER: 22CZ2-44VHE-SQR-UNV-L930-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1262.9	1262.9	1262.9	1262.9	1262.9
2.5°	1256.1	1257.8	1262.9	1266.4	1266.4
5°	1249.2	1252.7	1261.2	1266.4	1268.1
7.5°	1238.9	1244.1	1256.1	1262.9	1264.7
10°	1223.5	1230.3	1245.8	1256.1	1259.5
12.5°	1204.6	1214.9	1233.8	1247.5	1250.9
15°	1180.6	1194.3	1216.6	1233.8	1238.9
17.5°	1153.1	1170.3	1197.7	1218.3	1225.2
20°	1124.0	1141.1	1175.4	1199.5	1208.0
22.5°	1089.6	1111.9	1151.4	1178.9	1185.7
25°	1053.6	1079.3	1122.2	1153.1	1163.4
27.5°	1014.1	1045.0	1091.4	1129.1	1137.7
30°	972.9	1005.6	1058.7	1099.9	1110.2
32.5°	930.1	967.8	1024.4	1070.8	1084.5
35°	887.2	924.9	986.7	1038.2	1053.6
37.5°	837.4	882.0	950.6	1003.8	1022.7
40°	794.5	837.4	911.2	969.5	988.4
42.5°	746.4	792.8	870.0	933.5	955.8
45°	698.4	748.2	830.5	897.4	919.8
47.5°	653.8	703.5	789.3	859.7	882.0
50°	607.4	658.9	748.2	820.2	842.5
52.5°	557.7	614.3	707.0	779.0	804.8
55°	513.1	569.7	662.4	737.9	763.6
57.5°	466.7	525.1	621.2	693.2	717.3
60°	423.8	480.5	574.8	645.2	672.7
62.5°	377.5	435.9	528.5	597.2	622.9
65°	334.6	391.2	482.2	549.1	573.1
67.5°	291.7	348.3	434.1	497.6	525.1
70°	248.8	305.4	384.4	446.1	470.2
72.5°	211.1	260.8	336.3	393.0	415.3
75°	169.9	219.6	283.1	332.9	343.2
77.5°	132.1	176.7	229.9	252.2	255.7
80°	97.8	132.1	168.2	173.3	173.3
82.5°	65.2	90.9	104.7	106.4	104.7
85°	39.5	48.0	49.8	42.9	39.5
87.5°	13.7	13.7	8.6	5.1	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)