

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: P388039

Luminaire Tested: **22CZ2-44VHE-SQR-UNV-L940-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: P388039
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-SWPD1-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: 3743.1 lumens
Efficiency: N/A
Efficacy: 114.8 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

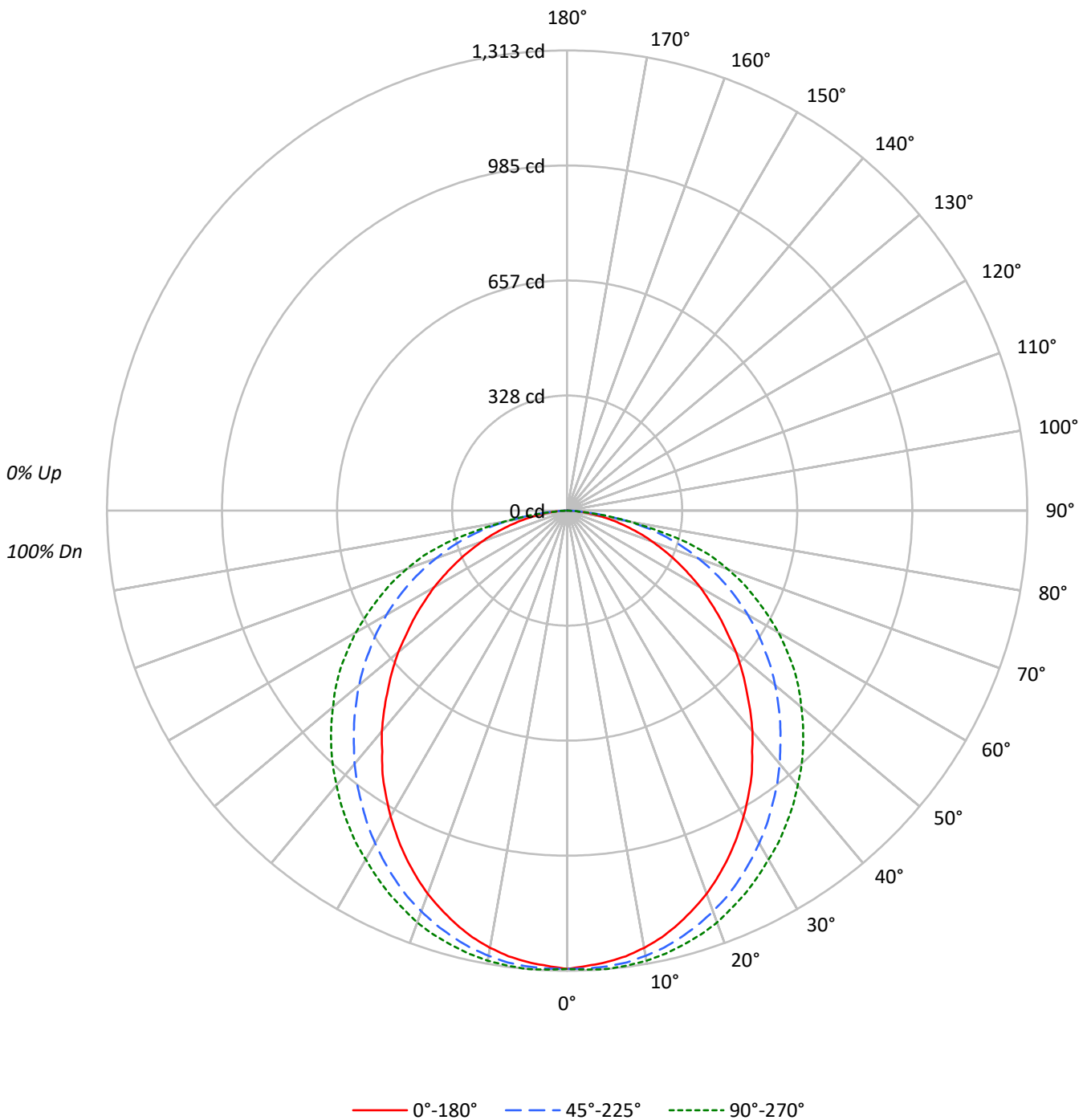
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3519	3519	3519
5°	3494	3527	3546
10°	3461	3524	3563
15°	3405	3509	3573
20°	3332	3485	3582
25°	3239	3450	3576
30°	3130	3406	3572
35°	3017	3356	3583
40°	2890	3314	3595
45°	2752	3272	3624
50°	2633	3243	3652
55°	2492	3217	3709
60°	2362	3203	3748
65°	2206	3179	3778
70°	2027	3131	3830
75°	1829	3047	3694
80°	1570	2698	2780
85°	1263	1590	1263



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	3.3
10°-20°	354.4	9.5
20°-30°	532.3	14.2
30°-40°	634.9	17.0
40°-50°	656.4	17.5
50°-60°	603.5	16.1
60°-70°	480.4	12.8
70°-80°	293.5	7.8
80°-90°	63.8	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°	1010.7	27.0
0°-40°	1645.5	44.0
0°-60°	2905.4	77.6
0°-90°	3743.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3743.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1308	1308	1308	1308	1308	
5°	1293	1297	1306	1311	1313	123
15°	1222	1236	1260	1277	1283	344
25°	1091	1118	1162	1194	1204	502
35°	918	958	1022	1075	1091	573
45°	723	775	860	929	952	559
55°	531	590	686	764	791	475
65°	346	405	499	568	593	343
75°	176	227	293	345	355	187
85°	41	50	52	44	41	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1307.6	1307.6	1307.6	1307.6	1307.6
2.5°	1300.4	1302.2	1307.6	1311.1	1311.1
5°	1293.3	1296.9	1305.8	1311.1	1312.9
7.5°	1282.7	1288.0	1300.4	1307.6	1309.3
10°	1266.7	1273.8	1289.8	1300.4	1304.0
12.5°	1247.2	1257.8	1277.4	1291.6	1295.1
15°	1222.3	1236.5	1259.6	1277.4	1282.7
17.5°	1193.9	1211.6	1240.0	1261.4	1268.5
20°	1163.7	1181.4	1216.9	1241.8	1250.7
22.5°	1128.1	1151.2	1192.1	1220.5	1227.6
25°	1090.8	1117.5	1161.9	1193.9	1204.5
27.5°	1050.0	1081.9	1129.9	1169.0	1177.9
30°	1007.3	1041.1	1096.1	1138.8	1149.4
32.5°	962.9	1002.0	1060.6	1108.6	1122.8
35°	918.5	957.6	1021.5	1074.8	1090.8
37.5°	867.0	913.2	984.2	1039.3	1058.8
40°	822.6	867.0	943.4	1003.8	1023.3
42.5°	772.8	820.8	900.7	966.5	989.5
45°	723.1	774.6	859.9	929.1	952.2
47.5°	676.9	728.4	817.2	890.1	913.2
50°	628.9	682.2	774.6	849.2	872.3
52.5°	577.4	636.0	731.9	806.6	833.2
55°	531.2	589.8	685.8	763.9	790.6
57.5°	483.2	543.6	643.1	717.7	742.6
60°	438.8	497.4	595.2	668.0	696.4
62.5°	390.8	451.2	547.2	618.2	644.9
65°	346.4	405.1	499.2	568.5	593.4
67.5°	302.0	360.6	449.5	515.2	543.6
70°	257.6	316.2	398.0	461.9	486.8
72.5°	218.5	270.0	348.2	406.8	429.9
75°	175.9	227.4	293.1	344.7	355.3
77.5°	136.8	183.0	238.1	261.2	264.7
80°	101.3	136.8	174.1	179.4	179.4
82.5°	67.5	94.2	108.4	110.1	108.4
85°	40.9	49.7	51.5	44.4	40.9
87.5°	14.2	14.2	8.9	5.3	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)