

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: P387698

Luminaire Tested: **22CZ2-20VHE-SQR-UNV-L930-CD1-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: P387698
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: 22CZ2-20VHE-SQR-UNV-L930-CD1-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: 1591.1 lumens
Efficiency: N/A
Efficacy: 112.0 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

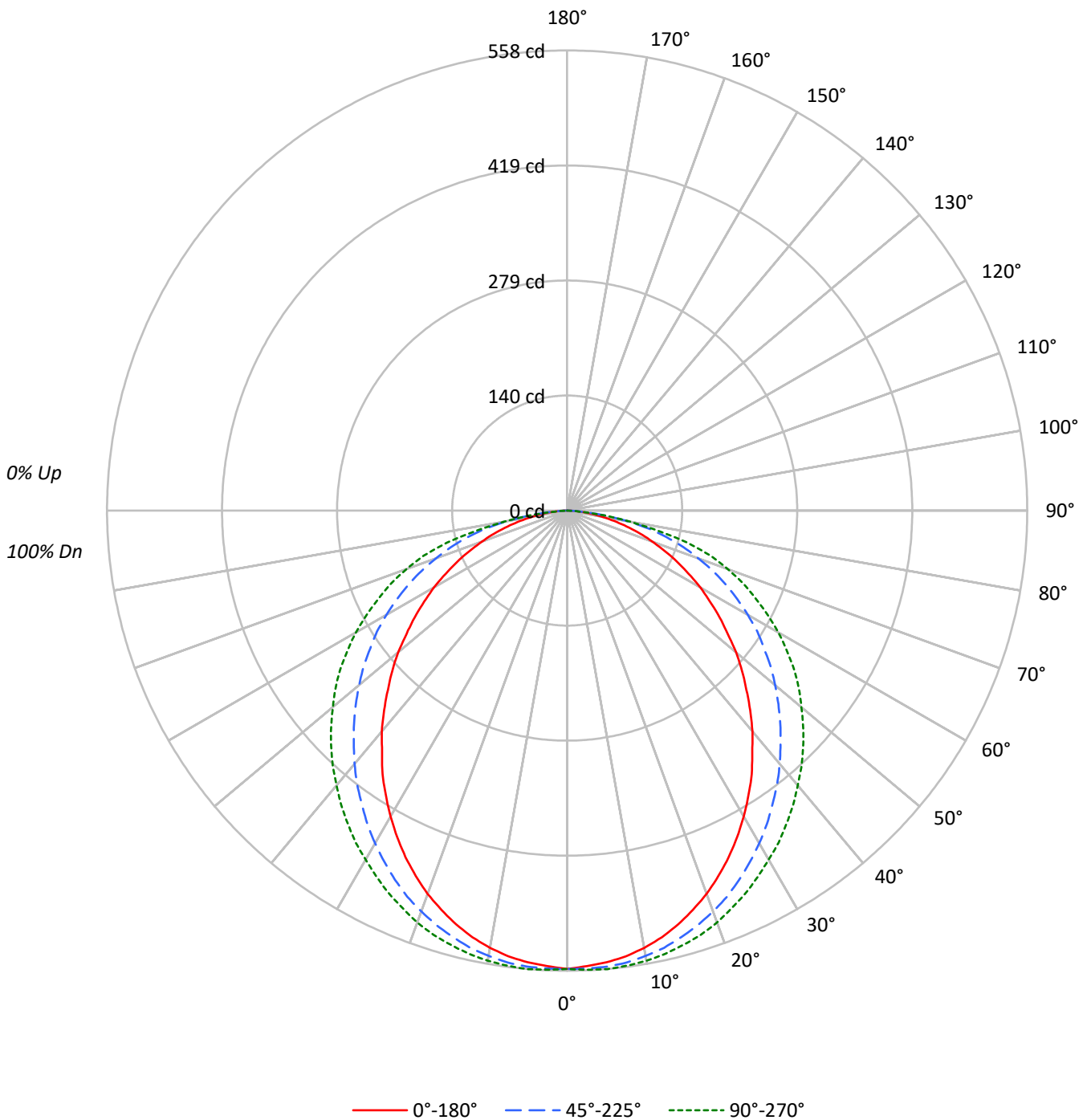
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1496	1496	1496
5°	1485	1499	1508
10°	1471	1498	1515
15°	1448	1492	1519
20°	1416	1481	1522
25°	1377	1466	1520
30°	1331	1448	1518
35°	1282	1426	1523
40°	1228	1409	1528
45°	1170	1391	1541
50°	1119	1379	1552
55°	1059	1368	1577
60°	1004	1362	1593
65°	938	1351	1606
70°	862	1331	1628
75°	778	1295	1570
80°	666	1147	1182
85°	537	676	537



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	3.3
10°-20°	150.7	9.5
20°-30°	226.3	14.2
30°-40°	269.9	17.0
40°-50°	279.0	17.5
50°-60°	256.5	16.1
60°-70°	204.2	12.8
70°-80°	124.8	7.8
80°-90°	27.1	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°	429.6	27.0
0°-40°	699.5	44.0
0°-60°	1235.0	77.6
0°-90°	1591.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1591.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	550	551	555	557	558	52
15°	520	526	535	543	545	146
25°	464	475	494	508	512	213
35°	390	407	434	457	464	244
45°	307	329	366	395	405	238
55°	226	251	292	325	336	202
65°	147	172	212	242	252	146
75°	75	97	125	146	151	80
85°	17	21	22	19	17	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	555.8	555.8	555.8	555.8	555.8
2.5°	552.8	553.5	555.8	557.3	557.3
5°	549.8	551.3	555.1	557.3	558.1
7.5°	545.2	547.5	552.8	555.8	556.6
10°	538.4	541.5	548.3	552.8	554.3
12.5°	530.1	534.7	543.0	549.0	550.5
15°	519.6	525.6	535.4	543.0	545.2
17.5°	507.5	515.0	527.1	536.2	539.2
20°	494.6	502.2	517.3	527.9	531.6
22.5°	479.5	489.4	506.7	518.8	521.8
25°	463.7	475.0	493.9	507.5	512.0
27.5°	446.3	459.9	480.3	496.9	500.7
30°	428.2	442.5	465.9	484.1	488.6
32.5°	409.3	425.9	450.8	471.2	477.3
35°	390.4	407.0	434.2	456.9	463.7
37.5°	368.5	388.2	418.4	441.8	450.1
40°	349.6	368.5	401.0	426.7	435.0
42.5°	328.5	348.9	382.9	410.8	420.6
45°	307.4	329.3	365.5	395.0	404.8
47.5°	287.7	309.6	347.4	378.3	388.2
50°	267.3	290.0	329.3	361.0	370.8
52.5°	245.4	270.4	311.1	342.8	354.2
55°	225.8	250.7	291.5	324.7	336.1
57.5°	205.4	231.1	273.4	305.1	315.7
60°	186.5	211.4	253.0	283.9	296.0
62.5°	166.1	191.8	232.6	262.8	274.1
65°	147.3	172.2	212.2	241.7	252.2
67.5°	128.4	153.3	191.1	219.0	231.1
70°	109.5	134.4	169.2	196.3	206.9
72.5°	92.9	114.8	148.0	172.9	182.8
75°	74.8	96.7	124.6	146.5	151.0
77.5°	58.1	77.8	101.2	111.0	112.5
80°	43.0	58.1	74.0	76.3	76.3
82.5°	28.7	40.0	46.1	46.8	46.1
85°	17.4	21.1	21.9	18.9	17.4
87.5°	6.0	6.0	3.8	2.3	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)