

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: P387674

Luminaire Tested: **22CZ2-20HE-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: P387674
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: 22CZ2-20HE-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: 1619.6 lumens
Efficiency: N/A
Efficacy: 101.2 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

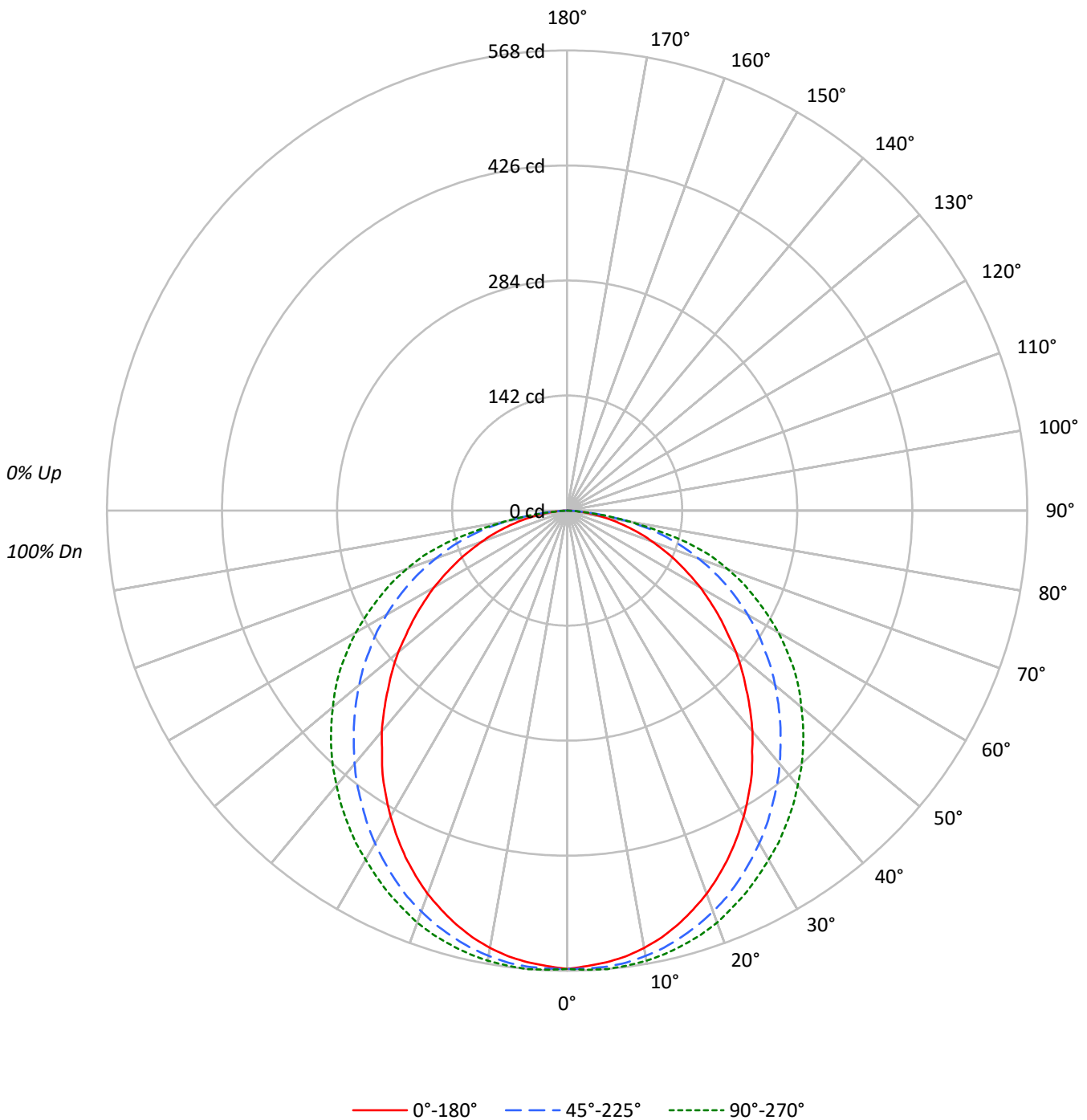
Input Watts (W): 16
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1523	1523	1523
5°	1512	1526	1535
10°	1498	1525	1542
15°	1473	1518	1546
20°	1442	1508	1550
25°	1401	1493	1548
30°	1354	1474	1546
35°	1305	1452	1551
40°	1250	1434	1555
45°	1191	1416	1568
50°	1139	1403	1580
55°	1078	1392	1605
60°	1022	1386	1622
65°	954	1375	1635
70°	877	1355	1657
75°	791	1318	1598
80°	679	1167	1203
85°	546	689	546



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	3.3
10°-20°	153.4	9.5
20°-30°	230.3	14.2
30°-40°	274.7	17.0
40°-50°	284.0	17.5
50°-60°	261.1	16.1
60°-70°	207.9	12.8
70°-80°	127.0	7.8
80°-90°	27.6	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°	437.3	27.0
0°-40°	712.0	44.0
0°-60°	1257.1	77.6
0°-90°	1619.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1619.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	560	561	565	567	568	53
15°	529	535	545	553	555	149
25°	472	484	503	517	521	217
35°	397	414	442	465	472	248
45°	313	335	372	402	412	242
55°	230	255	297	330	342	206
65°	150	175	216	246	257	149
75°	76	98	127	149	154	81
85°	18	22	22	19	18	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	565.8	565.8	565.8	565.8	565.8
2.5°	562.7	563.5	565.8	567.3	567.3
5°	559.6	561.2	565.0	567.3	568.1
7.5°	555.0	557.3	562.7	565.8	566.5
10°	548.1	551.2	558.1	562.7	564.2
12.5°	539.6	544.2	552.7	558.8	560.4
15°	528.9	535.0	545.0	552.7	555.0
17.5°	516.6	524.3	536.6	545.8	548.9
20°	503.5	511.2	526.6	537.3	541.2
22.5°	488.1	498.1	515.8	528.1	531.2
25°	472.0	483.5	502.7	516.6	521.2
27.5°	454.3	468.1	488.9	505.8	509.6
30°	435.9	450.5	474.3	492.7	497.4
32.5°	416.6	433.5	458.9	479.7	485.8
35°	397.4	414.3	442.0	465.1	472.0
37.5°	375.1	395.1	425.9	449.7	458.1
40°	355.9	375.1	408.2	434.3	442.8
42.5°	334.4	355.1	389.7	418.2	428.2
45°	312.9	335.2	372.1	402.0	412.0
47.5°	292.9	315.2	353.6	385.1	395.1
50°	272.1	295.2	335.2	367.4	377.4
52.5°	249.8	275.2	316.7	349.0	360.5
55°	229.8	255.2	296.7	330.5	342.1
57.5°	209.1	235.2	278.3	310.6	321.3
60°	189.9	215.2	257.5	289.0	301.3
62.5°	169.1	195.3	236.8	267.5	279.0
65°	149.9	175.3	216.0	246.0	256.7
67.5°	130.7	156.0	194.5	222.9	235.2
70°	111.5	136.8	172.2	199.9	210.6
72.5°	94.6	116.8	150.7	176.0	186.0
75°	76.1	98.4	126.8	149.1	153.7
77.5°	59.2	79.2	103.0	113.0	114.5
80°	43.8	59.2	75.3	77.6	77.6
82.5°	29.2	40.7	46.9	47.7	46.9
85°	17.7	21.5	22.3	19.2	17.7
87.5°	6.1	6.1	3.8	2.3	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)