

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: P387700

Luminaire Tested: **22CZ2-20VHE-SQR-UNV-L935-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: P387700
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-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1610.2 lumens
Efficiency: N/A
Efficacy: 113.4 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

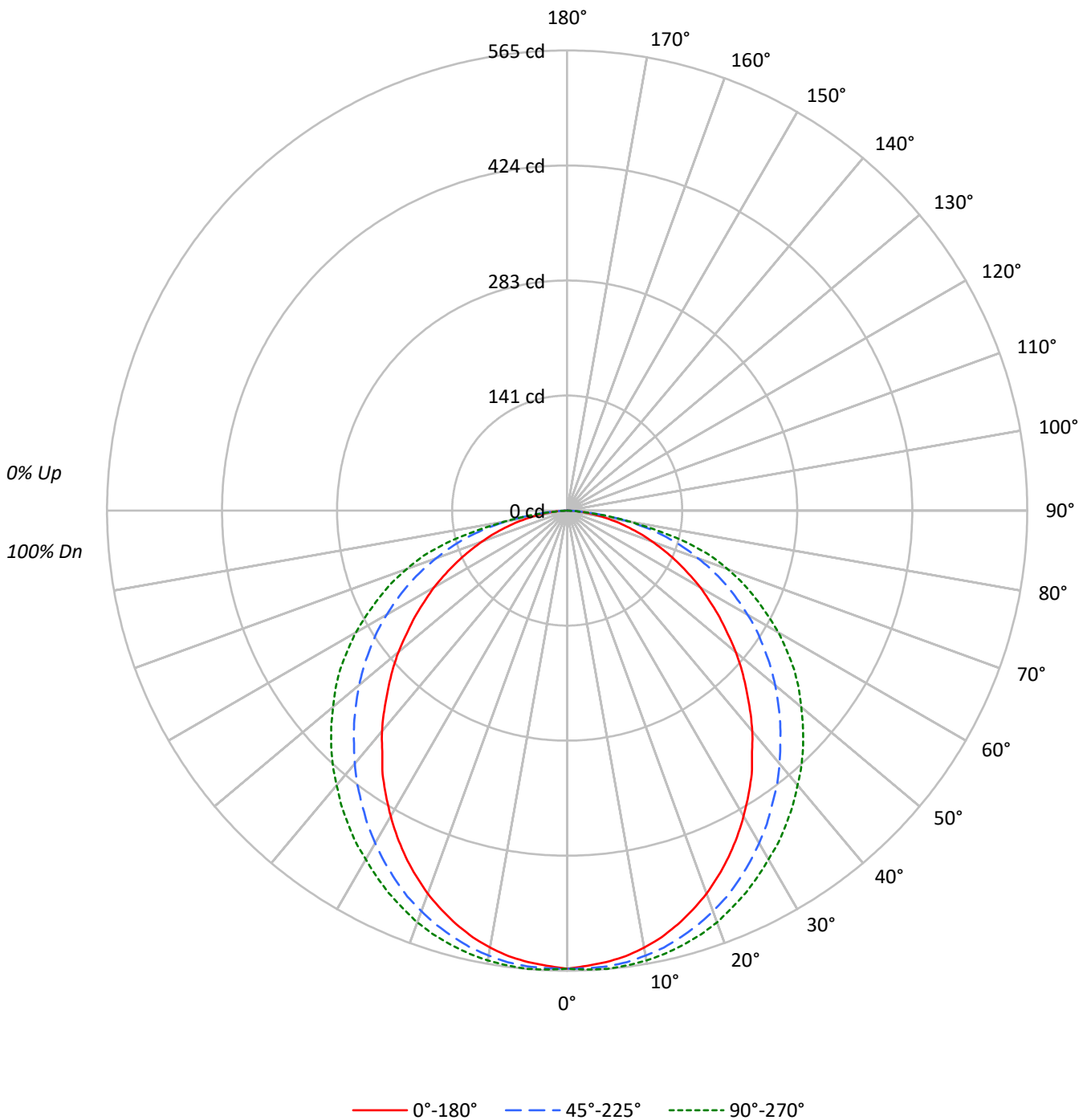
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1514	1514	1514
5°	1503	1517	1526
10°	1489	1516	1533
15°	1465	1509	1537
20°	1434	1499	1541
25°	1393	1484	1539
30°	1346	1465	1537
35°	1298	1443	1541
40°	1243	1426	1546
45°	1184	1408	1559
50°	1132	1395	1571
55°	1072	1384	1596
60°	1016	1378	1612
65°	949	1368	1626
70°	872	1347	1648
75°	787	1311	1589
80°	676	1161	1196
85°	543	685	543



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	3.3
10°-20°	152.5	9.5
20°-30°	229.0	14.2
30°-40°	273.1	17.0
40°-50°	282.4	17.5
50°-60°	259.6	16.1
60°-70°	206.7	12.8
70°-80°	126.3	7.8
80°-90°	27.4	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°	434.8	27.0
0°-40°	707.9	44.0
0°-60°	1249.8	77.6
0°-90°	1610.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1610.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	562	562	562	562	562	
5°	556	558	562	564	565	53
15°	526	532	542	550	552	148
25°	469	481	500	514	518	216
35°	395	412	439	462	469	246
45°	311	333	370	400	410	241
55°	228	254	295	329	340	204
65°	149	174	215	245	255	148
75°	76	98	126	148	153	81
85°	18	21	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°	562.5	562.5	562.5	562.5	562.5
2.5°	559.4	560.2	562.5	564.0	564.0
5°	556.4	557.9	561.7	564.0	564.8
7.5°	551.8	554.1	559.4	562.5	563.2
10°	544.9	548.0	554.8	559.4	561.0
12.5°	536.5	541.1	549.5	555.6	557.1
15°	525.8	531.9	541.8	549.5	551.8
17.5°	513.6	521.2	533.4	542.6	545.7
20°	500.6	508.2	523.5	534.2	538.0
22.5°	485.3	495.2	512.8	525.0	528.1
25°	469.2	480.7	499.8	513.6	518.2
27.5°	451.7	465.4	486.1	502.9	506.7
30°	433.3	447.8	471.5	489.9	494.5
32.5°	414.2	431.0	456.3	476.9	483.0
35°	395.1	411.9	439.4	462.4	469.2
37.5°	372.9	392.8	423.4	447.1	455.5
40°	353.8	372.9	405.8	431.8	440.2
42.5°	332.4	353.1	387.5	415.7	425.7
45°	311.0	333.2	369.9	399.7	409.6
47.5°	291.2	313.3	351.6	382.9	392.8
50°	270.5	293.5	333.2	365.3	375.2
52.5°	248.4	273.6	314.9	347.0	358.4
55°	228.5	253.7	295.0	328.6	340.1
57.5°	207.9	233.9	276.7	308.8	319.5
60°	188.8	214.0	256.0	287.4	299.6
62.5°	168.1	194.1	235.4	266.0	277.4
65°	149.0	174.2	214.8	244.6	255.3
67.5°	129.9	155.1	193.4	221.6	233.9
70°	110.8	136.0	171.2	198.7	209.4
72.5°	94.0	116.2	149.8	175.0	184.9
75°	75.7	97.8	126.1	148.3	152.8
77.5°	58.8	78.7	102.4	112.3	113.9
80°	43.6	58.8	74.9	77.2	77.2
82.5°	29.0	40.5	46.6	47.4	46.6
85°	17.6	21.4	22.2	19.1	17.6
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)