

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: P387659

Luminaire Tested: **22CZ2-20-SQR-UNV-L950-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: P387659  
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: 22CZ2-20-SQR-UNV-L950-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

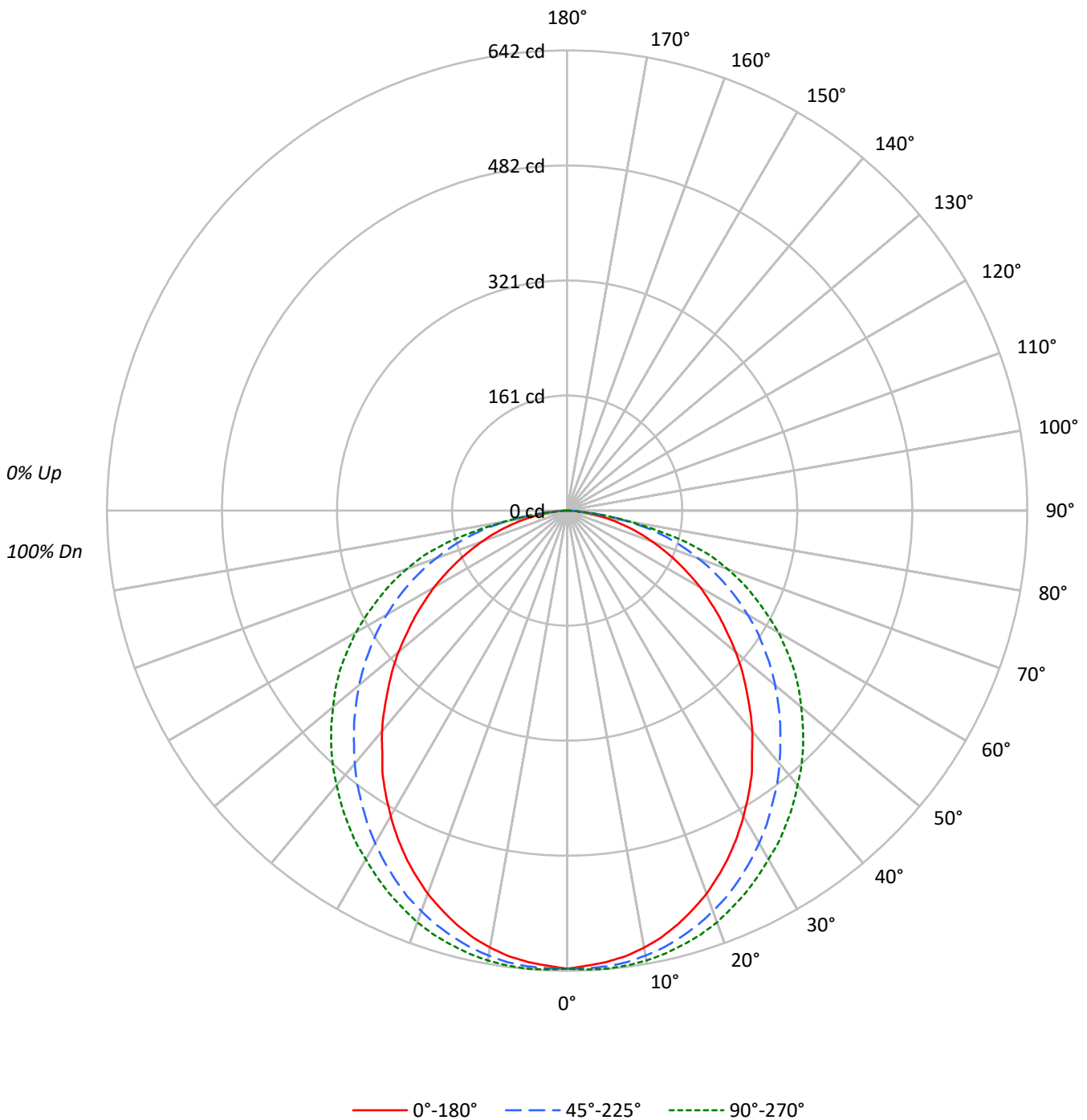
Lumens per Lamp: N/A  
Luminaire Lumens: 1829.5 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 17.9  
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°	1720	1720	1720
5°	1707	1724	1733
10°	1692	1723	1742
15°	1664	1715	1746
20°	1629	1703	1751
25°	1583	1686	1748
30°	1530	1665	1746
35°	1475	1640	1752
40°	1412	1620	1757
45°	1345	1600	1771
50°	1287	1585	1785
55°	1218	1573	1813
60°	1154	1566	1832
65°	1078	1554	1847
70°	991	1530	1872
75°	894	1490	1806
80°	767	1319	1359
85°	618	778	618



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.6	3.3
10°-20°	173.2	9.5
20°-30°	260.2	14.2
30°-40°	310.3	17.0
40°-50°	320.8	17.5
50°-60°	295.0	16.1
60°-70°	234.8	12.8
70°-80°	143.5	7.8
80°-90°	31.2	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°	494.0	27.0
0°-40°	804.3	44.0
0°-60°	1420.0	77.6
0°-90°	1829.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1829.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	639	639	639	639	639	
5°	632	634	638	641	642	60
15°	597	604	616	624	627	168
25°	533	546	568	584	589	245
35°	449	468	499	525	533	280
45°	353	379	420	454	465	273
55°	260	288	335	373	386	232
65°	169	198	244	278	290	168
75°	86	111	143	168	174	92
85°	20	24	25	22	20	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	639.1	639.1	639.1	639.1	639.1
2.5°	635.6	636.5	639.1	640.8	640.8
5°	632.1	633.9	638.2	640.8	641.7
7.5°	626.9	629.5	635.6	639.1	640.0
10°	619.1	622.6	630.4	635.6	637.4
12.5°	609.6	614.8	624.3	631.3	633.0
15°	597.4	604.4	615.6	624.3	626.9
17.5°	583.5	592.2	606.1	616.5	620.0
20°	568.8	577.4	594.8	607.0	611.3
22.5°	551.4	562.7	582.6	596.5	600.0
25°	533.2	546.2	567.9	583.5	588.7
27.5°	513.2	528.8	552.3	571.4	575.7
30°	492.3	508.8	535.8	556.6	561.8
32.5°	470.6	489.7	518.4	541.8	548.8
35°	448.9	468.0	499.3	525.3	533.2
37.5°	423.7	446.3	481.1	508.0	517.5
40°	402.0	423.7	461.1	490.6	500.2
42.5°	377.7	401.2	440.2	472.4	483.7
45°	353.4	378.6	420.3	454.1	465.4
47.5°	330.8	356.0	399.4	435.0	446.3
50°	307.4	333.4	378.6	415.1	426.3
52.5°	282.2	310.9	357.8	394.2	407.2
55°	259.6	288.3	335.2	373.4	386.4
57.5°	236.2	265.7	314.3	350.8	363.0
60°	214.5	243.1	290.9	326.5	340.4
62.5°	191.0	220.6	267.4	302.2	315.2
65°	169.3	198.0	244.0	277.9	290.0
67.5°	147.6	176.3	219.7	251.8	265.7
70°	125.9	154.6	194.5	225.8	237.9
72.5°	106.8	132.0	170.2	198.8	210.1
75°	86.0	111.1	143.3	168.5	173.7
77.5°	66.9	89.4	116.4	127.6	129.4
80°	49.5	66.9	85.1	87.7	87.7
82.5°	33.0	46.0	53.0	53.8	53.0
85°	20.0	24.3	25.2	21.7	20.0
87.5°	6.9	6.9	4.3	2.6	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)