

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: P387707

Luminaire Tested: **22CZ2-20VHE-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: P387707  
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-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**

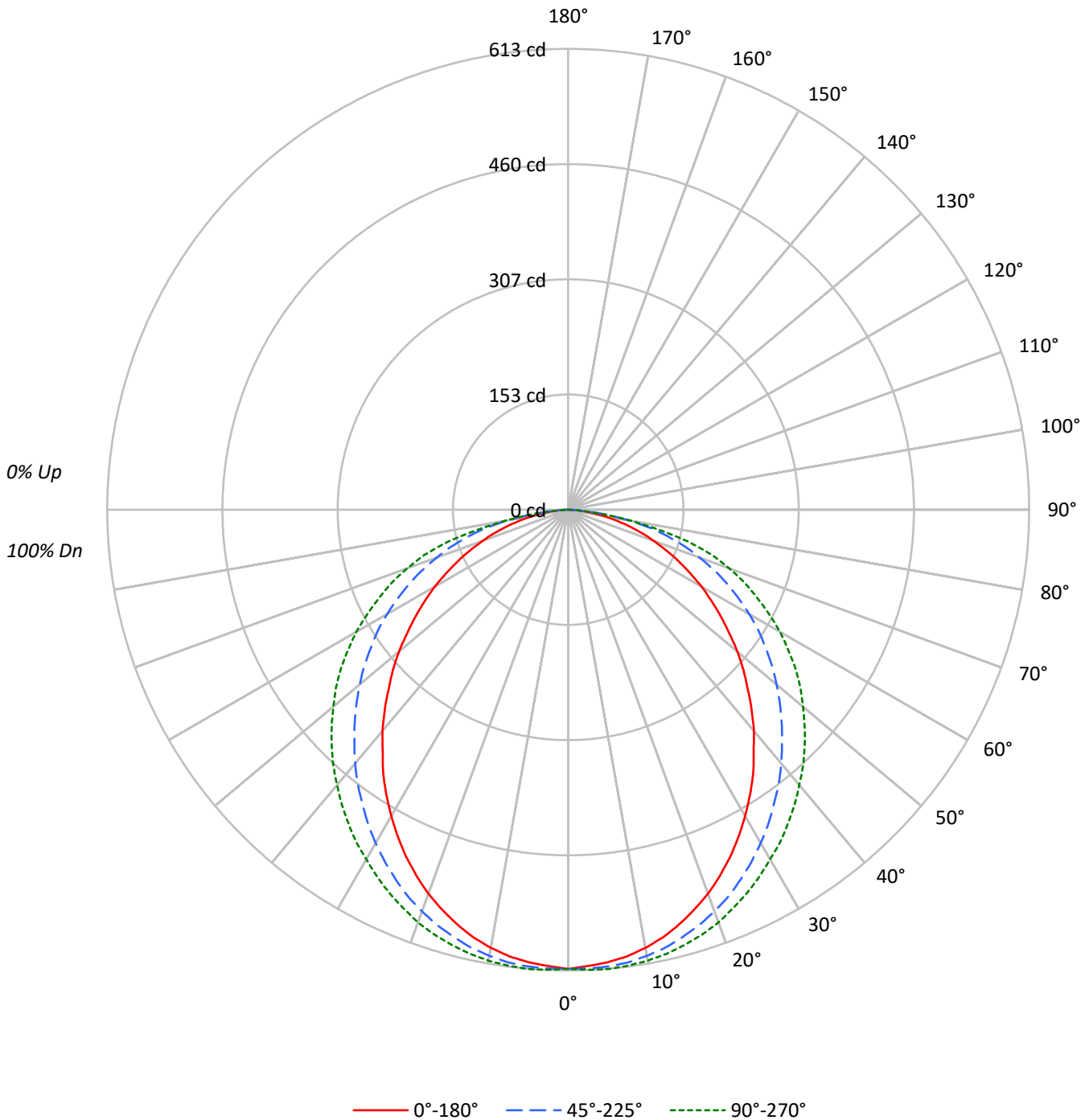
Lumens per Lamp: N/A  
Luminaire Lumens: 1748.5 lumens  
Efficiency: N/A  
Efficacy: 123.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 14.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1644	1644	1644
5°	1632	1648	1657
10°	1617	1646	1664
15°	1591	1639	1669
20°	1557	1628	1673
25°	1513	1611	1671
30°	1462	1591	1668
35°	1409	1568	1674
40°	1350	1548	1679
45°	1286	1529	1693
50°	1230	1515	1706
55°	1164	1503	1733
60°	1103	1496	1751
65°	1030	1485	1765
70°	947	1463	1789
75°	855	1423	1726
80°	733	1260	1299
85°	590	744	590



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.9	3.3
10°-20°	165.6	9.5
20°-30°	248.7	14.2
30°-40°	296.6	17.0
40°-50°	306.6	17.5
50°-60°	281.9	16.1
60°-70°	224.4	12.8
70°-80°	137.1	7.8
80°-90°	29.8	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°	472.1	27.0
0°-40°	768.7	44.0
0°-60°	1357.2	77.6
0°-90°	1748.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1748.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	611	611	611	611	611	
5°	604	606	610	612	613	57
15°	571	578	588	597	599	161
25°	510	522	543	558	563	234
35°	429	447	477	502	510	268
45°	338	362	402	434	445	261
55°	248	276	320	357	369	222
65°	162	189	233	266	277	160
75°	82	106	137	161	166	88
85°	19	23	24	21	19	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	610.8	610.8	610.8	610.8	610.8
2.5°	607.5	608.3	610.8	612.5	612.5
5°	604.2	605.8	610.0	612.5	613.3
7.5°	599.2	601.7	607.5	610.8	611.6
10°	591.7	595.0	602.5	607.5	609.1
12.5°	582.6	587.6	596.7	603.3	605.0
15°	571.0	577.6	588.4	596.7	599.2
17.5°	557.7	566.0	579.3	589.2	592.5
20°	543.6	551.9	568.5	580.1	584.2
22.5°	527.0	537.8	556.9	570.1	573.4
25°	509.5	522.0	542.7	557.7	562.7
27.5°	490.5	505.4	527.8	546.1	550.2
30°	470.5	486.3	512.0	532.0	536.9
32.5°	449.8	468.1	495.4	517.8	524.5
35°	429.0	447.3	477.2	502.1	509.5
37.5°	405.0	426.6	459.8	485.5	494.6
40°	384.2	405.0	440.7	468.9	478.0
42.5°	361.0	383.4	420.8	451.5	462.2
45°	337.8	361.8	401.7	434.0	444.8
47.5°	316.2	340.3	381.7	415.8	426.6
50°	293.8	318.7	361.8	396.7	407.5
52.5°	269.7	297.1	341.9	376.8	389.2
55°	248.1	275.5	320.3	356.8	369.3
57.5°	225.7	253.9	300.4	335.3	346.9
60°	205.0	232.4	278.0	312.0	325.3
62.5°	182.6	210.8	255.6	288.8	301.2
65°	161.8	189.2	233.2	265.6	277.2
67.5°	141.1	168.5	210.0	240.7	253.9
70°	120.3	147.7	185.9	215.8	227.4
72.5°	102.1	126.1	162.7	190.0	200.8
75°	82.2	106.2	136.9	161.0	166.0
77.5°	63.9	85.5	111.2	122.0	123.7
80°	47.3	63.9	81.3	83.8	83.8
82.5°	31.5	44.0	50.6	51.5	50.6
85°	19.1	23.2	24.1	20.7	19.1
87.5°	6.6	6.6	4.1	2.5	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)