

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: P881057

Luminaire Tested: **22CZ2-20VHE-SQR-UNV-B40**

Issue Date: 10/2/2024

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: P881057  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P475230)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-20VHE-SQR-UNV-B40  
Description: 2X2 2000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND SQR LENS  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

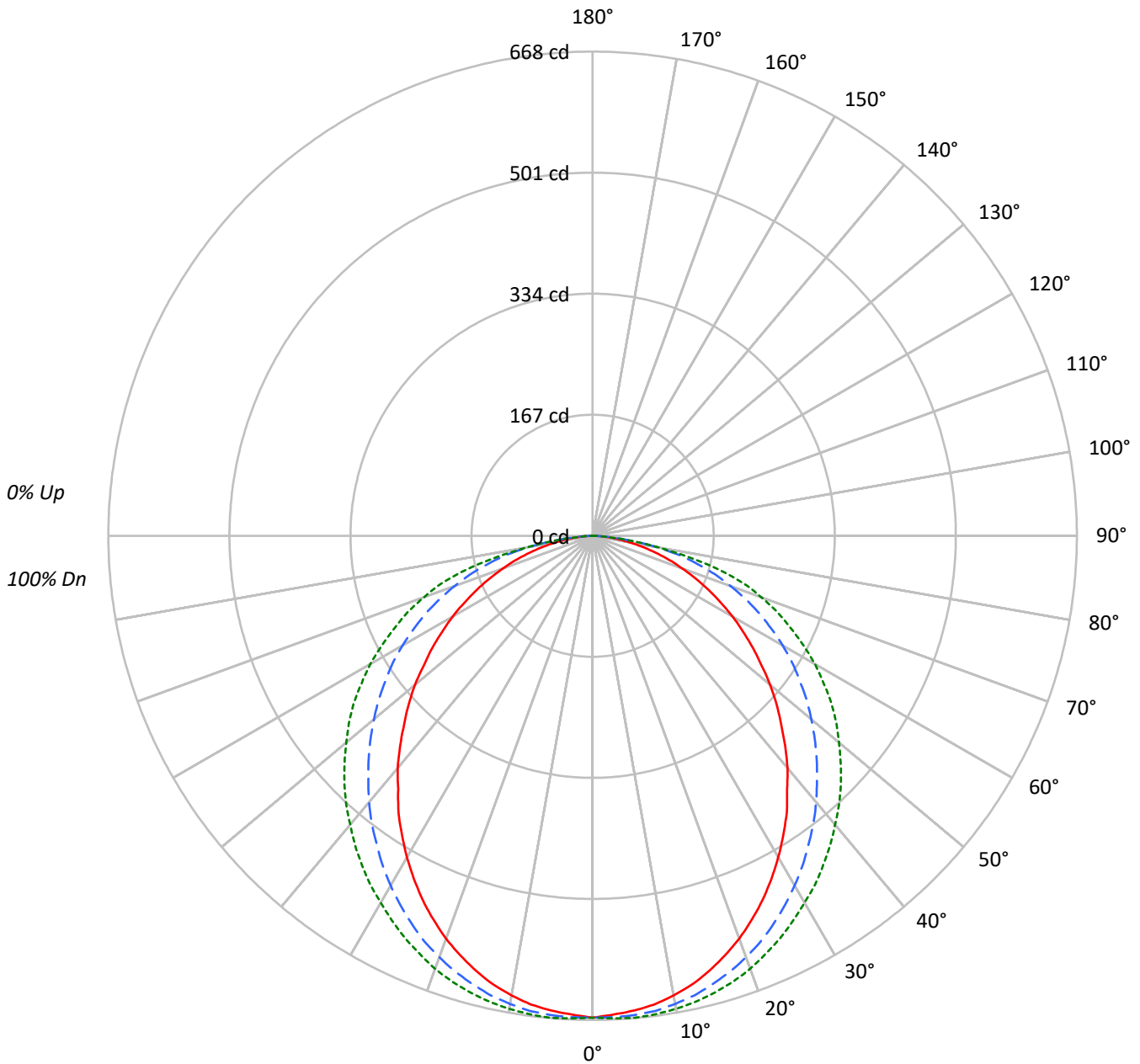
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1903.0 lumens  
Efficiency: N/A  
Efficacy: 118.9 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 1.92' x L: 1.98' 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									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	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°	1886	1886	1886
5°	1873	1891	1901
10°	1856	1890	1910
15°	1826	1881	1916
20°	1786	1868	1920
25°	1736	1849	1917
30°	1678	1826	1915
35°	1617	1799	1921
40°	1549	1777	1927
45°	1475	1754	1943
50°	1411	1738	1958
55°	1336	1725	1989
60°	1266	1718	2010
65°	1182	1704	2025
70°	1086	1678	2053
75°	981	1634	1980
80°	840	1448	1490
85°	677	853	677



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.0	3.3
10°-20°	180.2	9.5
20°-30°	270.6	14.2
30°-40°	322.8	17.0
40°-50°	333.7	17.5
50°-60°	306.8	16.1
60°-70°	244.2	12.8
70°-80°	149.2	7.8
80°-90°	32.4	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°	513.8	27.0
0°-40°	836.6	44.0
0°-60°	1477.1	77.6
0°-90°	1903.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1903.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	665	665	665	665	665	
5°	658	659	664	667	668	62
15°	622	629	640	649	652	175
25°	555	568	591	607	612	255
35°	467	487	519	546	555	291
45°	368	394	437	472	484	284
55°	270	300	349	388	402	242
65°	176	206	254	289	302	174
75°	90	116	149	175	181	95
85°	21	25	26	23	21	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	664.8	664.8	664.8	664.8	664.8
2.5°	661.2	662.0	664.8	666.6	666.6
5°	657.5	659.3	663.8	666.6	667.5
7.5°	652.2	654.8	661.2	664.8	665.8
10°	644.0	647.7	655.8	661.2	662.9
12.5°	634.1	639.5	649.4	656.7	658.4
15°	621.5	628.7	640.3	649.4	652.2
17.5°	607.0	616.0	630.5	641.3	644.9
20°	591.5	600.6	618.7	631.3	635.8
22.5°	573.5	585.3	606.1	620.6	624.2
25°	554.6	568.1	590.7	607.0	612.4
27.5°	533.8	550.1	574.5	594.4	598.9
30°	512.1	529.3	557.3	579.0	584.4
32.5°	489.5	509.4	539.2	563.6	570.9
35°	466.9	486.8	519.3	546.5	554.6
37.5°	440.7	464.2	500.4	528.4	538.3
40°	418.2	440.7	479.7	510.3	520.3
42.5°	392.9	417.3	458.0	491.3	503.1
45°	367.6	393.8	437.1	472.4	484.2
47.5°	344.1	370.3	415.5	452.6	464.2
50°	319.7	346.8	393.8	431.7	443.5
52.5°	293.6	323.3	372.1	410.0	423.6
55°	270.1	299.8	348.6	388.4	402.0
57.5°	245.6	276.4	327.0	364.9	377.6
60°	223.1	252.9	302.7	339.6	354.1
62.5°	198.7	229.4	278.1	314.3	327.9
65°	176.1	205.9	253.8	289.1	301.6
67.5°	153.5	183.4	228.4	262.0	276.4
70°	130.9	160.8	202.3	234.9	247.5
72.5°	111.1	137.3	177.0	206.9	218.6
75°	89.5	115.6	149.0	175.2	180.6
77.5°	69.5	93.1	121.1	132.7	134.7
80°	51.4	69.5	88.6	91.2	91.2
82.5°	34.3	47.9	55.1	55.9	55.1
85°	20.8	25.3	26.2	22.6	20.8
87.5°	7.2	7.2	4.5	2.7	0.9
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)