

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: P881056

Luminaire Tested: **22CZ2-20VHE-SQR-UNV-B35**

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: P881056  
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-B35  
Description: 2X2 2000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND SQR LENS  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

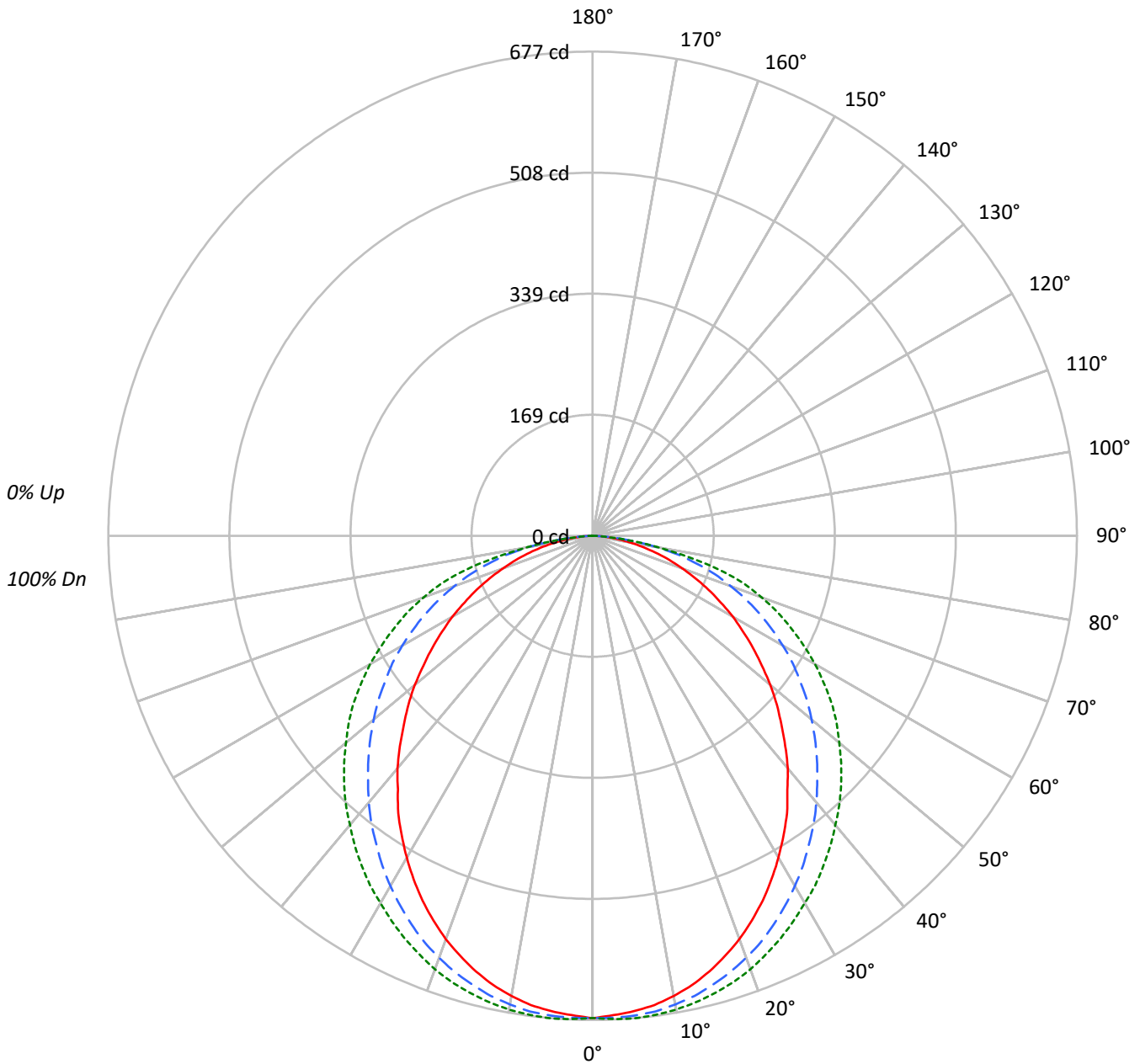
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1931.0 lumens  
Efficiency: N/A  
Efficacy: 120.7 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					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	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°	1914	1914	1914
5°	1900	1919	1929
10°	1883	1917	1938
15°	1852	1909	1944
20°	1812	1896	1948
25°	1762	1877	1946
30°	1702	1853	1943
35°	1641	1826	1950
40°	1572	1803	1955
45°	1497	1780	1972
50°	1432	1764	1986
55°	1356	1750	2018
60°	1285	1743	2039
65°	1200	1729	2055
70°	1102	1702	2083
75°	995	1658	2008
80°	853	1469	1513
85°	687	866	687



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.0	3.3
10°-20°	182.8	9.5
20°-30°	274.6	14.2
30°-40°	327.5	17.0
40°-50°	338.6	17.5
50°-60°	311.3	16.1
60°-70°	247.8	12.8
70°-80°	151.4	7.8
80°-90°	32.9	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°	521.4	27.0
0°-40°	848.9	44.0
0°-60°	1498.9	77.6
0°-90°	1931.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1931.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	667	669	674	676	677	63
15°	631	638	650	659	662	178
25°	563	576	599	616	621	259
35°	474	494	527	555	563	296
45°	373	400	444	479	491	288
55°	274	304	354	394	408	245
65°	179	209	258	293	306	177
75°	91	117	151	178	183	97
85°	21	26	27	23	21	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	674.5	674.5	674.5	674.5	674.5
2.5°	670.9	671.7	674.5	676.4	676.4
5°	667.2	669.0	673.6	676.4	677.3
7.5°	661.8	664.5	670.9	674.5	675.6
10°	653.5	657.2	665.4	670.9	672.7
12.5°	643.4	648.9	659.0	666.3	668.1
15°	630.6	637.9	649.7	659.0	661.8
17.5°	615.9	625.0	639.8	650.8	654.4
20°	600.2	609.5	627.8	640.6	645.2
22.5°	582.0	593.9	615.0	629.7	633.3
25°	562.8	576.5	599.4	615.9	621.4
27.5°	541.6	558.2	582.9	603.1	607.7
30°	519.6	537.1	565.5	587.5	593.0
32.5°	496.7	516.9	547.1	571.9	579.3
35°	473.8	494.0	527.0	554.6	562.8
37.5°	447.2	471.1	507.8	536.2	546.2
40°	424.4	447.2	486.7	517.9	527.9
42.5°	398.6	423.4	464.7	498.6	510.5
45°	373.0	399.6	443.6	479.4	491.3
47.5°	349.1	375.7	421.6	459.2	471.1
50°	324.5	351.9	399.6	438.1	450.0
52.5°	297.9	328.1	377.6	416.1	429.9
55°	274.0	304.2	353.7	394.1	407.9
57.5°	249.2	280.5	331.8	370.3	383.2
60°	226.4	256.6	307.1	344.6	359.3
62.5°	201.6	232.7	282.2	319.0	332.8
65°	178.7	209.0	257.5	293.3	306.1
67.5°	155.7	186.1	231.8	265.8	280.5
70°	132.8	163.2	205.2	238.3	251.1
72.5°	112.8	139.3	179.6	209.9	221.8
75°	90.8	117.4	151.2	177.7	183.2
77.5°	70.6	94.4	122.8	134.7	136.6
80°	52.2	70.6	89.9	92.6	92.6
82.5°	34.8	48.6	55.9	56.8	55.9
85°	21.1	25.6	26.6	22.9	21.1
87.5°	7.3	7.3	4.6	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)