

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: P387724

Luminaire Tested: **22CZ2-24-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: P387724  
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: 22CZ2-24-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: 1964.7 lumens  
Efficiency: N/A  
Efficacy: 89.7 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

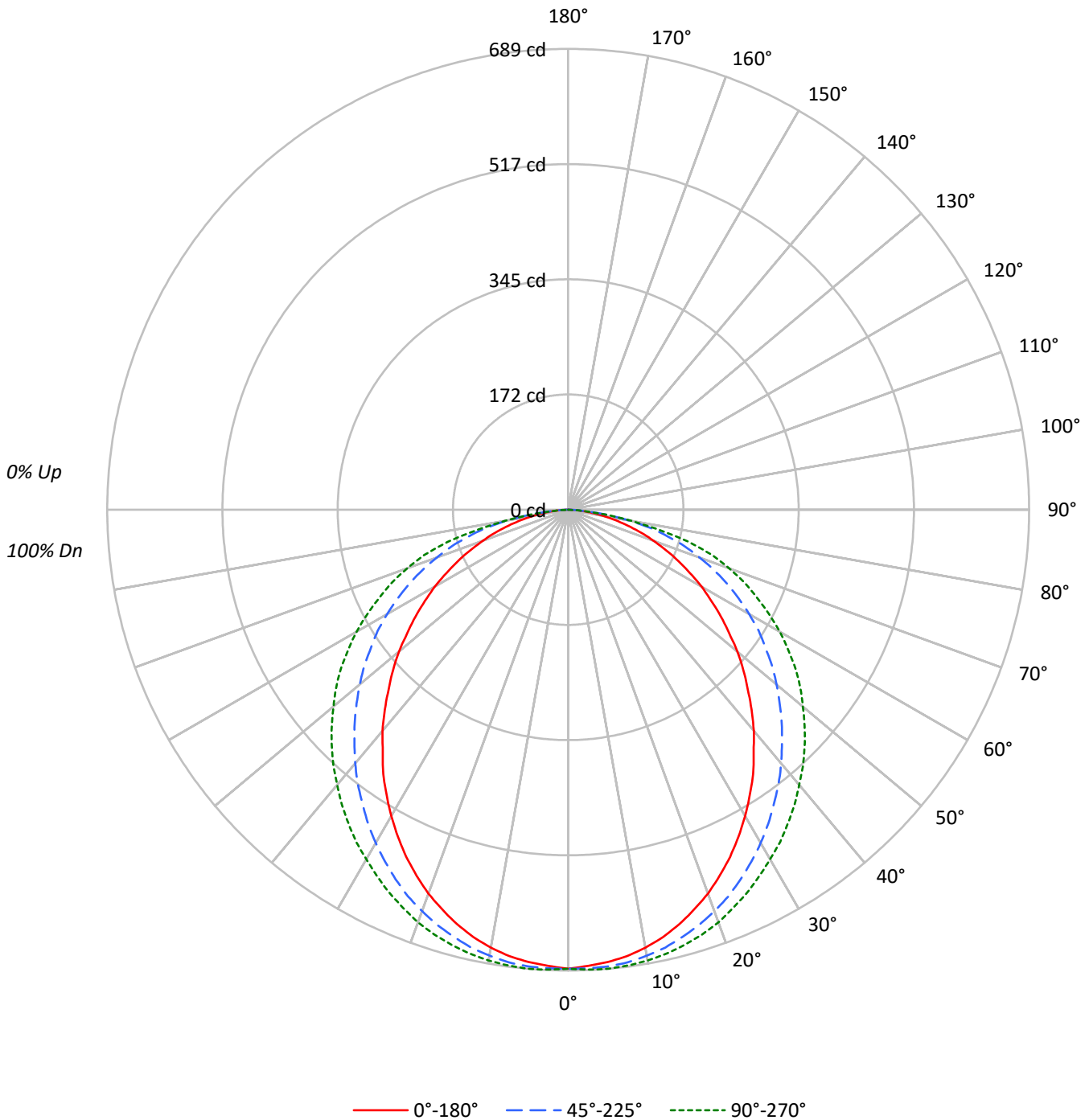
Input Watts (W): 21.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1847	1847	1847
5°	1834	1851	1861
10°	1817	1850	1870
15°	1787	1842	1876
20°	1749	1829	1880
25°	1700	1811	1877
30°	1643	1788	1875
35°	1584	1761	1881
40°	1516	1740	1887
45°	1444	1717	1902
50°	1382	1702	1917
55°	1308	1688	1947
60°	1239	1681	1967
65°	1158	1668	1983
70°	1064	1644	2010
75°	960	1600	1939
80°	824	1416	1460
85°	661	834	661



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.1	3.3
10°-20°	186.0	9.5
20°-30°	279.4	14.2
30°-40°	333.2	17.0
40°-50°	344.5	17.5
50°-60°	316.7	16.1
60°-70°	252.2	12.8
70°-80°	154.1	7.8
80°-90°	33.5	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°	530.5	27.0
0°-40°	863.7	44.0
0°-60°	1525.0	77.6
0°-90°	1964.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1964.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	686	686	686	686	686	
5°	679	681	685	688	689	64
15°	642	649	661	670	673	181
25°	573	586	610	627	632	263
35°	482	503	536	564	573	301
45°	380	407	451	488	500	293
55°	279	310	360	401	415	249
65°	182	213	262	298	312	180
75°	92	119	154	181	186	98
85°	21	26	27	23	21	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	686.3	686.3	686.3	686.3	686.3
2.5°	682.6	683.5	686.3	688.2	688.2
5°	678.9	680.7	685.4	688.2	689.1
7.5°	673.3	676.1	682.6	686.3	687.2
10°	664.9	668.6	677.0	682.6	684.5
12.5°	654.6	660.2	670.5	677.9	679.8
15°	641.6	649.0	661.1	670.5	673.3
17.5°	626.6	636.0	650.9	662.1	665.8
20°	610.8	620.1	638.8	651.8	656.5
22.5°	592.1	604.3	625.7	640.6	644.4
25°	572.6	586.5	609.9	626.6	632.2
27.5°	551.1	567.9	593.1	613.6	618.2
30°	528.7	546.4	575.4	597.7	603.3
32.5°	505.4	525.9	556.7	581.9	589.3
35°	482.1	502.6	536.2	564.2	572.6
37.5°	455.1	479.3	516.6	545.5	555.8
40°	431.7	455.1	495.2	526.9	537.1
42.5°	405.6	430.8	472.8	507.3	519.4
45°	379.5	406.6	451.3	487.7	499.8
47.5°	355.3	382.3	428.9	467.2	479.3
50°	330.1	358.1	406.6	445.7	457.9
52.5°	303.1	333.8	384.2	423.4	437.3
55°	278.8	309.6	359.9	401.0	415.0
57.5°	253.6	285.3	337.6	376.7	389.8
60°	230.3	261.1	312.4	350.6	365.5
62.5°	205.1	236.9	287.2	324.5	338.5
65°	181.8	212.6	262.0	298.4	311.5
67.5°	158.5	189.3	235.9	270.4	285.3
70°	135.2	166.0	208.9	242.4	255.5
72.5°	114.7	141.7	182.8	213.5	225.7
75°	92.3	119.4	153.9	180.9	186.5
77.5°	71.8	96.0	125.0	137.1	138.9
80°	53.2	71.8	91.4	94.2	94.2
82.5°	35.4	49.4	56.9	57.8	56.9
85°	21.4	26.1	27.0	23.3	21.4
87.5°	7.5	7.5	4.7	2.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)