

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: P387722

Luminaire Tested: **22CZ2-24-SQR-UNV-L930-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: P387722  
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-L930-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

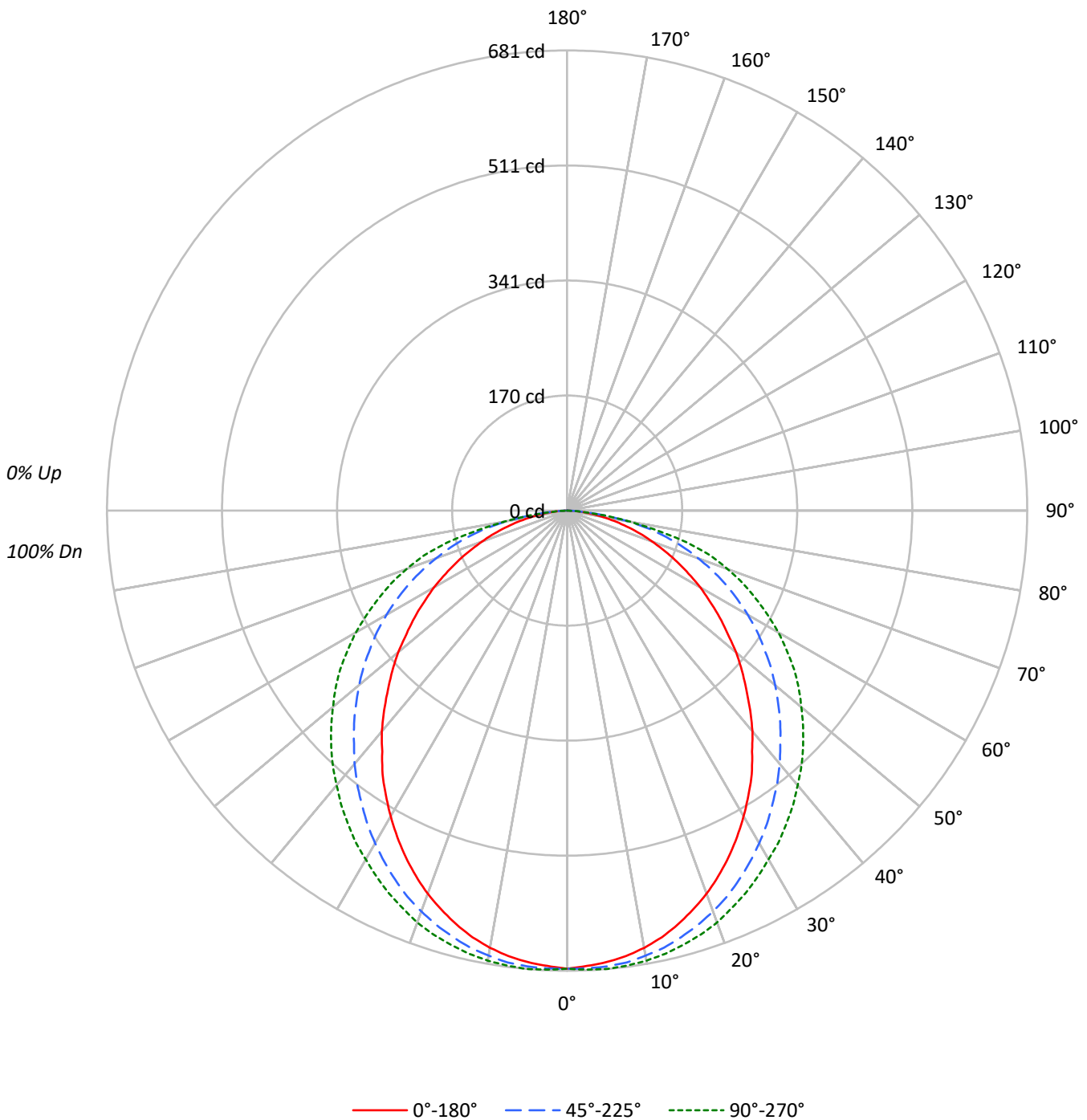
Lumens per Lamp: N/A  
Luminaire Lumens: 1941.3 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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°	1825	1825	1825
5°	1812	1829	1839
10°	1795	1828	1848
15°	1766	1820	1853
20°	1728	1808	1858
25°	1680	1789	1855
30°	1623	1766	1852
35°	1565	1740	1858
40°	1499	1719	1864
45°	1427	1697	1880
50°	1366	1682	1894
55°	1293	1669	1924
60°	1225	1661	1944
65°	1144	1649	1959
70°	1051	1624	1987
75°	948	1580	1916
80°	814	1399	1443
85°	655	824	655



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.3	3.3
10°-20°	183.8	9.5
20°-30°	276.1	14.2
30°-40°	329.2	17.0
40°-50°	340.4	17.5
50°-60°	313.0	16.1
60°-70°	249.2	12.8
70°-80°	152.2	7.8
80°-90°	33.1	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°	524.2	27.0
0°-40°	853.4	44.0
0°-60°	1506.8	77.6
0°-90°	1941.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1941.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	678	678	678	678	678	
5°	671	673	677	680	681	64
15°	634	641	653	662	665	179
25°	566	580	603	619	625	260
35°	476	497	530	557	566	297
45°	375	402	446	482	494	290
55°	276	306	356	396	410	246
65°	180	210	259	295	308	178
75°	91	118	152	179	184	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°	678.1	678.1	678.1	678.1	678.1
2.5°	674.5	675.4	678.1	680.0	680.0
5°	670.8	672.6	677.2	680.0	680.9
7.5°	665.2	668.0	674.5	678.1	679.1
10°	657.0	660.6	668.9	674.5	676.3
12.5°	646.8	652.3	662.5	669.9	671.7
15°	633.9	641.3	653.3	662.5	665.2
17.5°	619.2	628.4	643.1	654.2	657.9
20°	603.5	612.7	631.2	644.1	648.7
22.5°	585.1	597.1	618.3	633.0	636.7
25°	565.7	579.6	602.6	619.2	624.7
27.5°	544.5	561.1	586.0	606.3	610.9
30°	522.4	539.9	568.5	590.6	596.1
32.5°	499.4	519.7	550.1	574.9	582.3
35°	476.4	496.6	529.8	557.4	565.7
37.5°	449.6	473.6	510.4	539.0	549.1
40°	426.6	449.6	489.3	520.6	530.7
42.5°	400.8	425.7	467.1	501.2	513.2
45°	375.0	401.7	446.0	481.9	493.9
47.5°	351.0	377.8	423.8	461.6	473.6
50°	326.2	353.8	401.7	440.4	452.4
52.5°	299.5	329.9	379.6	418.3	432.1
55°	275.5	305.9	355.7	396.2	410.0
57.5°	250.6	281.9	333.5	372.2	385.1
60°	227.6	258.0	308.7	346.4	361.2
62.5°	202.7	234.0	283.8	320.6	334.5
65°	179.7	210.1	258.9	294.8	307.7
67.5°	156.6	187.0	233.1	267.2	281.9
70°	133.6	164.0	206.4	239.6	252.5
72.5°	113.3	140.1	180.6	211.0	223.0
75°	91.2	117.9	152.0	178.7	184.3
77.5°	70.9	94.9	123.5	135.4	137.3
80°	52.5	70.9	90.3	93.1	93.1
82.5°	35.0	48.8	56.2	57.1	56.2
85°	21.2	25.8	26.7	23.0	21.2
87.5°	7.4	7.4	4.6	2.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)