

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: P387720

Luminaire Tested: **22CZ2-24-SQR-UNV-L930-CD1-SDWPD1-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: P387720  
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-SDWPD1-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: 1894.1 lumens  
Efficiency: N/A  
Efficacy: 86.5 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

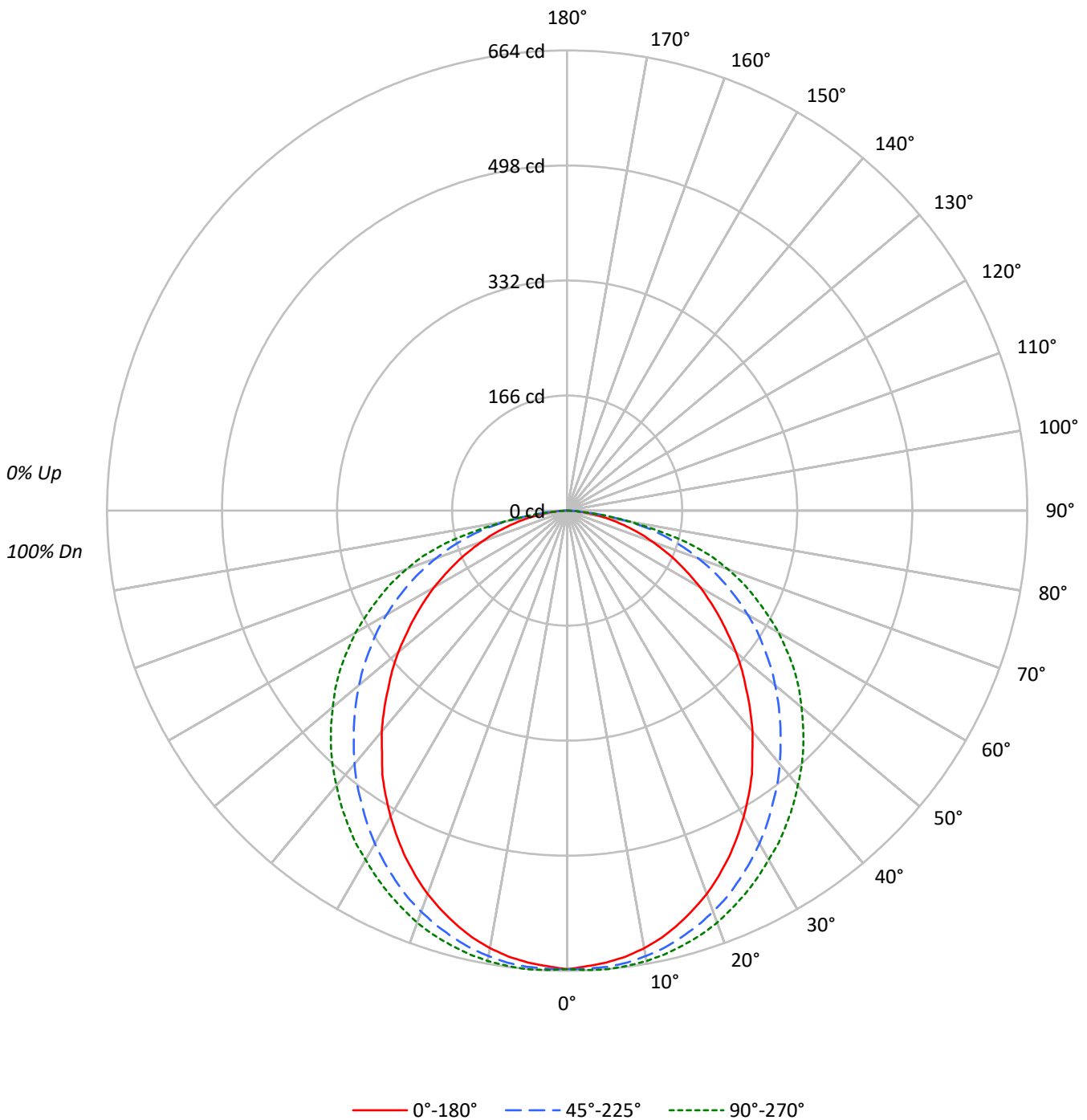
Input Watts (W): 21.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1781	1781	1781
5°	1768	1785	1795
10°	1752	1783	1803
15°	1723	1776	1808
20°	1686	1763	1812
25°	1639	1746	1810
30°	1584	1724	1807
35°	1527	1698	1813
40°	1462	1677	1819
45°	1392	1656	1834
50°	1332	1641	1848
55°	1261	1628	1877
60°	1195	1621	1897
65°	1116	1608	1912
70°	1026	1585	1938
75°	925	1542	1869
80°	793	1365	1407
85°	639	806	639



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.7	3.3
10°-20°	179.3	9.5
20°-30°	269.4	14.2
30°-40°	321.3	17.0
40°-50°	332.1	17.5
50°-60°	305.4	16.1
60°-70°	243.1	12.8
70°-80°	148.5	7.8
80°-90°	32.3	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°	511.4	27.0
0°-40°	832.7	44.0
0°-60°	1470.2	77.6
0°-90°	1894.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1894.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	662	662	662	662	662	
5°	654	656	661	664	664	62
15°	618	626	637	646	649	174
25°	552	566	588	604	610	254
35°	465	485	517	544	552	290
45°	366	392	435	470	482	283
55°	269	298	347	387	400	240
65°	175	205	253	288	300	174
75°	89	115	148	174	180	95
85°	21	25	26	22	21	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	661.7	661.7	661.7	661.7	661.7
2.5°	658.1	659.0	661.7	663.5	663.5
5°	654.5	656.3	660.8	663.5	664.4
7.5°	649.1	651.8	658.1	661.7	662.6
10°	641.0	644.6	652.7	658.1	659.9
12.5°	631.1	636.5	646.4	653.6	655.4
15°	618.5	625.7	637.4	646.4	649.1
17.5°	604.1	613.1	627.5	638.3	641.9
20°	588.8	597.8	615.8	628.4	632.9
22.5°	570.9	582.5	603.2	617.6	621.2
25°	552.0	565.5	587.9	604.1	609.5
27.5°	531.3	547.5	571.8	591.5	596.0
30°	509.7	526.8	554.7	576.3	581.6
32.5°	487.3	507.0	536.7	561.0	568.2
35°	464.8	484.6	516.9	543.9	552.0
37.5°	438.7	462.1	498.0	525.9	535.8
40°	416.2	438.7	477.4	507.9	517.8
42.5°	391.1	415.3	455.8	489.0	500.7
45°	365.9	392.0	435.1	470.2	481.9
47.5°	342.5	368.6	413.5	450.4	462.1
50°	318.2	345.2	392.0	429.7	441.4
52.5°	292.2	321.8	370.4	408.1	421.6
55°	268.8	298.5	347.0	386.6	400.0
57.5°	244.5	275.1	325.4	363.2	375.8
60°	222.0	251.7	301.2	338.0	352.4
62.5°	197.8	228.3	276.9	312.8	326.3
65°	175.3	205.0	252.6	287.7	300.3
67.5°	152.8	182.5	227.4	260.7	275.1
70°	130.4	160.0	201.4	233.7	246.3
72.5°	110.6	136.6	176.2	205.9	217.6
75°	89.0	115.1	148.3	174.4	179.8
77.5°	69.2	92.6	120.5	132.2	133.9
80°	51.2	69.2	88.1	90.8	90.8
82.5°	34.2	47.6	54.8	55.7	54.8
85°	20.7	25.2	26.1	22.5	20.7
87.5°	7.2	7.2	4.5	2.7	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)