

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: P387725

Luminaire Tested: **22CZ2-24-SQR-UNV-L935-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: P387725  
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-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: 1989.4 lumens  
Efficiency: N/A  
Efficacy: 90.8 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

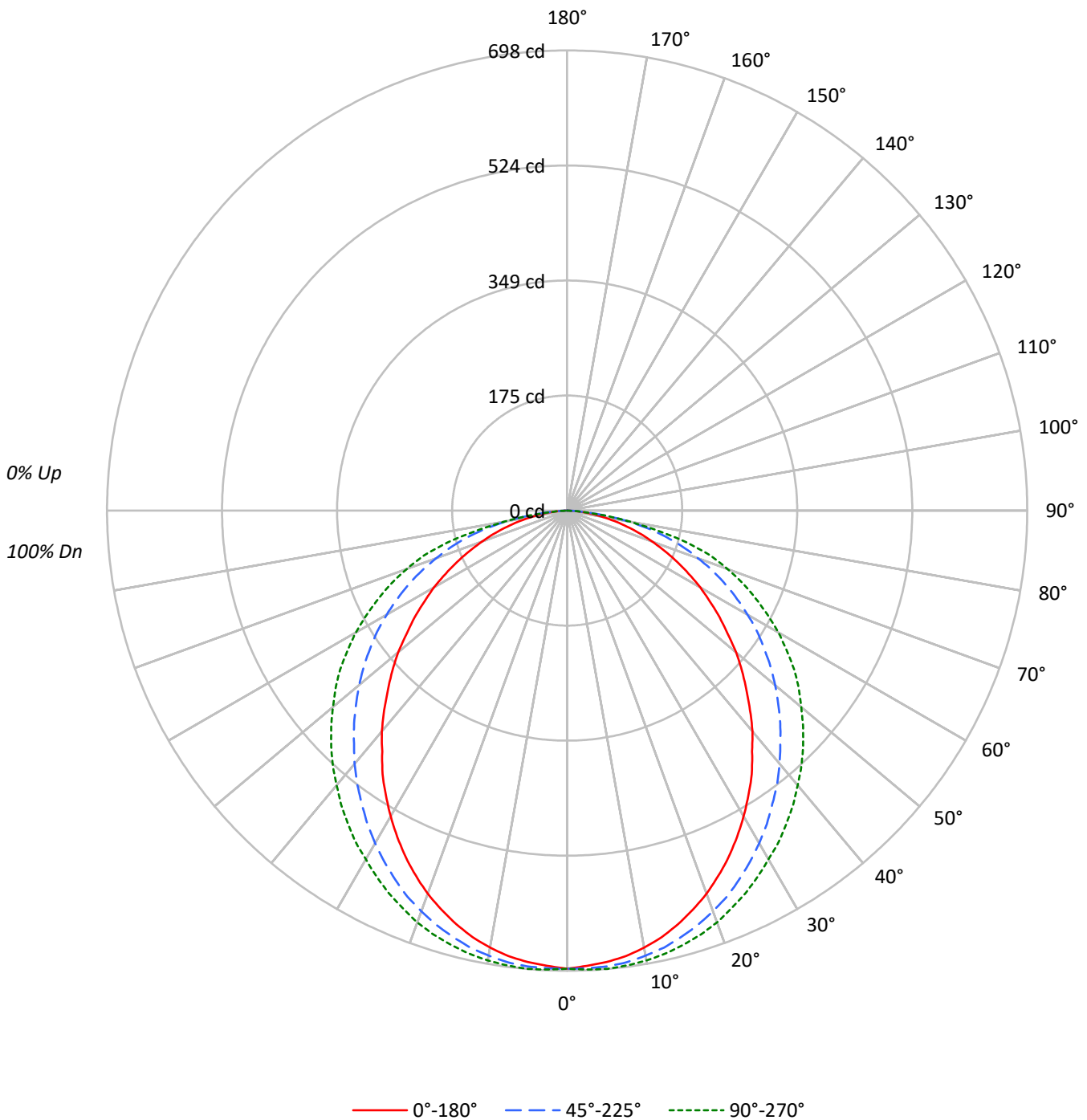
Input Watts (W): 21.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1870	1870	1870
5°	1857	1875	1885
10°	1840	1873	1894
15°	1810	1865	1899
20°	1771	1852	1903
25°	1722	1833	1901
30°	1664	1810	1898
35°	1604	1783	1905
40°	1536	1761	1911
45°	1462	1739	1926
50°	1400	1724	1941
55°	1324	1710	1971
60°	1255	1702	1992
65°	1172	1689	2008
70°	1077	1664	2035
75°	972	1620	1963
80°	834	1433	1478
85°	670	846	670



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.9	3.3
10°-20°	188.4	9.5
20°-30°	282.9	14.2
30°-40°	337.4	17.0
40°-50°	348.9	17.5
50°-60°	320.7	16.1
60°-70°	255.3	12.8
70°-80°	156.0	7.8
80°-90°	33.9	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°	537.2	27.0
0°-40°	874.6	44.0
0°-60°	1544.2	77.6
0°-90°	1989.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1989.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	687	689	694	697	698	65
15°	650	657	670	679	682	183
25°	580	594	618	634	640	267
35°	488	509	543	571	580	305
45°	384	412	457	494	506	297
55°	282	314	364	406	420	253
65°	184	215	265	302	315	182
75°	94	121	156	183	189	100
85°	22	26	27	24	22	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	694.9	694.9	694.9	694.9	694.9
2.5°	691.2	692.1	694.9	696.8	696.8
5°	687.4	689.3	694.0	696.8	697.8
7.5°	681.7	684.6	691.2	694.9	695.9
10°	673.2	677.0	685.5	691.2	693.1
12.5°	662.8	668.5	678.9	686.4	688.3
15°	649.6	657.2	669.5	678.9	681.7
17.5°	634.5	644.0	659.1	670.4	674.2
20°	618.5	627.9	646.8	660.0	664.7
22.5°	599.6	611.9	633.6	648.7	652.5
25°	579.8	593.9	617.5	634.5	640.2
27.5°	558.0	575.0	600.5	621.3	626.0
30°	535.4	553.3	582.6	605.2	610.9
32.5°	511.8	532.5	563.7	589.2	596.7
35°	488.2	508.9	542.9	571.3	579.8
37.5°	460.8	485.3	523.1	552.4	562.8
40°	437.2	460.8	501.4	533.5	543.9
42.5°	410.7	436.2	478.7	513.7	525.9
45°	384.3	411.7	457.0	493.8	506.1
47.5°	359.7	387.1	434.3	473.1	485.3
50°	334.3	362.6	411.7	451.3	463.6
52.5°	306.9	338.0	389.0	428.7	442.8
55°	282.3	313.5	364.5	406.0	420.2
57.5°	256.8	288.9	341.8	381.5	394.7
60°	233.2	264.4	316.3	355.0	370.1
62.5°	207.7	239.8	290.8	328.6	342.8
65°	184.1	215.3	265.3	302.2	315.4
67.5°	160.5	191.7	238.9	273.8	288.9
70°	136.9	168.1	211.5	245.5	258.7
72.5°	116.1	143.5	185.1	216.2	228.5
75°	93.5	120.9	155.8	183.2	188.8
77.5°	72.7	97.3	126.5	138.8	140.7
80°	53.8	72.7	92.5	95.4	95.4
82.5°	35.9	50.0	57.6	58.5	57.6
85°	21.7	26.4	27.4	23.6	21.7
87.5°	7.6	7.6	4.7	2.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)