

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: P387409

Luminaire Tested: **14CZ2-25-SQR-UNV-L930-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: P387409  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-25-SQR-UNV-L930-CD1-SWPD1-U  
Description: 1x4 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: 1935.3 lumens  
Efficiency: N/A  
Efficacy: 94.4 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

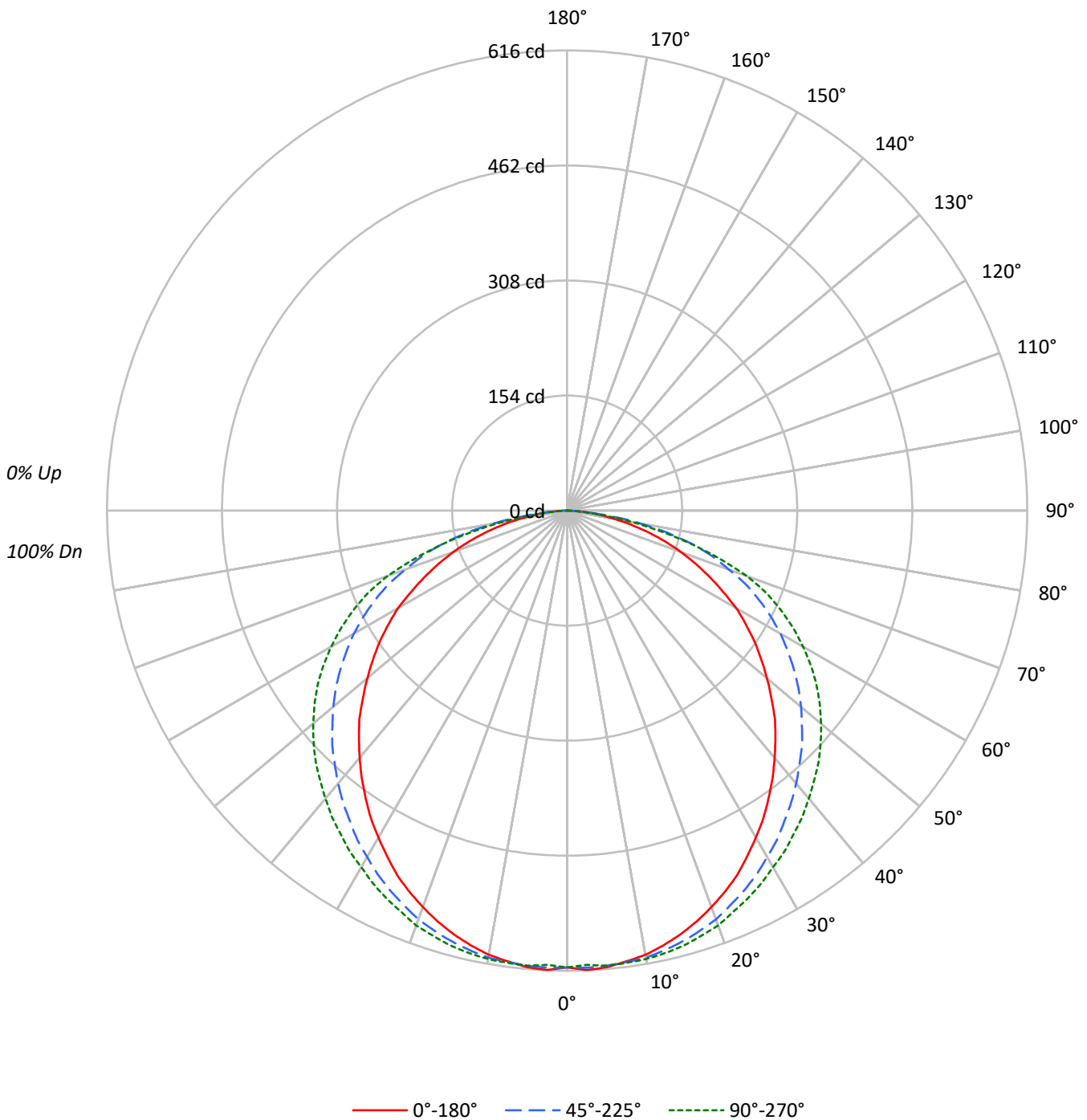
Input Watts (W): 20.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1646	1646	1646
5°	1657	1652	1652
10°	1650	1661	1666
15°	1636	1663	1679
20°	1617	1668	1693
25°	1599	1665	1700
30°	1570	1664	1712
35°	1544	1666	1737
40°	1518	1676	1768
45°	1496	1693	1811
50°	1462	1711	1858
55°	1437	1739	1913
60°	1407	1774	1963
65°	1342	1807	2012
70°	1274	1811	2011
75°	1167	1805	1775
80°	998	1542	1376
85°	784	874	513



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.1	3.0
10°-20°	167.9	8.7
20°-30°	256.8	13.3
30°-40°	314.7	16.3
40°-50°	338.5	17.5
50°-60°	325.3	16.8
60°-70°	270.8	14.0
70°-80°	166.2	8.6
80°-90°	37.0	1.9
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°	482.8	24.9
0°-40°	797.5	41.2
0°-60°	1461.2	75.5
0°-90°	1935.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1935.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	612	612	612	612	612	
5°	614	608	612	612	612	58
15°	587	585	597	601	603	166
25°	538	543	561	568	573	248
35°	470	482	507	521	529	294
45°	393	411	445	465	476	302
55°	306	333	371	396	408	274
65°	211	243	284	307	316	209
75°	112	146	174	173	171	119
85°	25	38	28	20	17	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	611.6	611.6	611.6	611.6	611.6
2.5°	615.5	609.6	612.5	611.6	608.6
5°	613.5	607.7	611.6	611.6	611.6
7.5°	608.6	603.8	609.6	610.6	610.6
10°	603.8	599.9	607.7	608.6	609.6
12.5°	596.0	593.0	602.8	604.7	606.7
15°	587.2	585.2	596.9	600.8	602.8
17.5°	576.5	577.4	590.1	595.0	596.9
20°	564.8	567.7	582.3	587.2	591.1
22.5°	552.1	556.0	571.6	577.4	581.3
25°	538.4	543.3	560.9	567.7	572.6
27.5°	521.8	529.6	549.1	557.9	562.8
30°	505.3	514.0	535.5	546.2	551.1
32.5°	488.7	498.4	522.8	533.5	541.3
35°	470.1	481.8	507.2	520.9	528.7
37.5°	451.6	465.3	492.6	508.2	517.0
40°	432.1	446.7	477.0	494.5	503.3
42.5°	412.6	429.2	460.4	479.9	489.6
45°	393.1	410.6	444.8	465.3	476.0
47.5°	370.6	392.1	426.2	449.7	460.4
50°	349.2	372.6	408.7	433.1	443.8
52.5°	327.7	352.1	390.2	415.5	426.2
55°	306.3	332.6	370.6	396.0	407.7
57.5°	283.8	311.2	350.2	376.5	387.2
60°	261.4	289.7	329.7	354.1	364.8
62.5°	235.1	268.2	307.2	331.6	341.4
65°	210.7	242.9	283.8	307.2	316.0
67.5°	186.3	219.5	259.5	280.9	288.7
70°	161.9	195.1	230.2	250.7	255.6
72.5°	137.5	170.7	203.9	215.6	213.6
75°	112.2	146.3	173.6	172.6	170.7
77.5°	87.8	120.9	137.5	130.7	127.8
80°	64.4	96.6	99.5	92.7	88.8
82.5°	43.9	69.3	62.4	54.6	50.7
85°	25.4	38.0	28.3	19.5	16.6
87.5°	10.7	9.8	2.9	2.9	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)