

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: P230908

Luminaire Tested: **14CZ-LD5-20-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230908  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35112)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ-LD5-20-S-UNV-L930-CD1-U  
Description: CRUZE 1x4 LED TROFFER  
WITH SMOOTH LENS  
Light Source: (84) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1714.0 lumens  
Efficiency: N/A  
Efficacy: 105.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

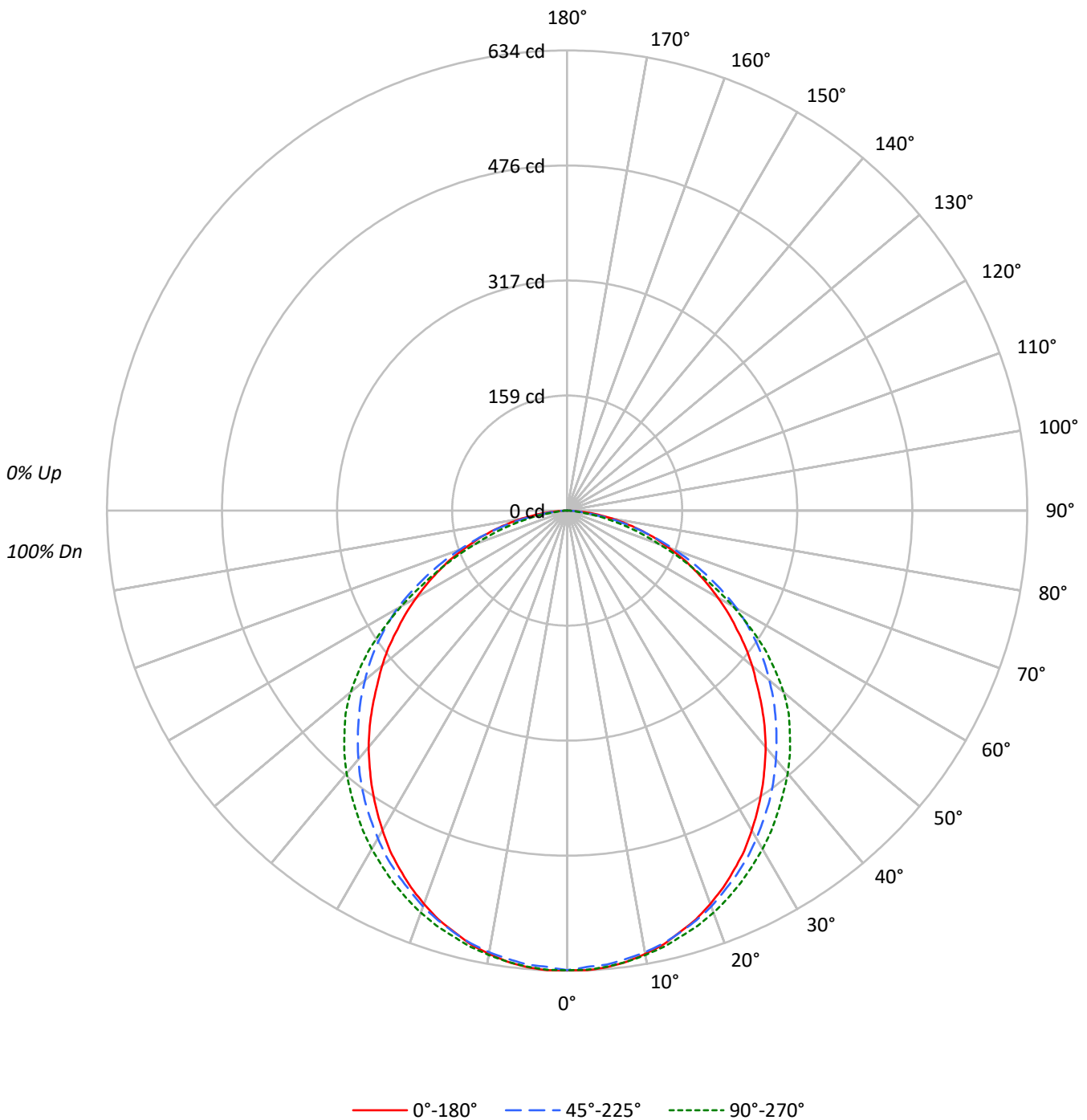
Input Watts (W): 16.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	100	97	106	102	98	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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

	0°	45°	90°
0°	1704	1704	1704
5°	1706	1696	1704
10°	1695	1688	1699
15°	1675	1677	1692
20°	1651	1662	1688
25°	1619	1642	1680
30°	1581	1621	1673
35°	1538	1598	1664
40°	1494	1572	1661
45°	1442	1546	1651
50°	1394	1522	1631
55°	1340	1498	1559
60°	1291	1455	1422
65°	1235	1362	1250
70°	1166	1238	1057
75°	1088	1072	873
80°	959	829	638
85°	753	401	355



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	3.5
10°-20°	170.4	9.9
20°-30°	255.8	14.9
30°-40°	304.9	17.8
40°-50°	314.1	18.3
50°-60°	279.9	16.3
60°-70°	201.7	11.8
70°-80°	105.5	6.2
80°-90°	21.8	1.3
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°	486.0	28.4
0°-40°	791.0	46.1
0°-60°	1385.0	80.8
0°-90°	1714.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1714.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	632	630	628	632	631	60
15°	601	602	602	608	607	170
25°	545	548	553	564	566	251
35°	468	474	486	503	506	293
45°	379	387	406	429	434	292
55°	286	295	319	334	332	256
65°	194	201	214	204	196	192
75°	105	110	103	89	84	111
85°	24	21	13	12	12	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	633.2	633.2	633.2	633.2	633.2
2.5°	633.9	632.4	629.3	633.2	633.2
5°	631.6	630.1	627.8	631.6	630.9
7.5°	627.0	625.5	623.2	627.8	627.0
10°	620.2	619.4	617.9	622.5	621.7
12.5°	612.5	611.8	611.0	615.6	615.6
15°	601.1	601.8	601.8	607.9	607.2
17.5°	590.4	591.1	591.9	599.5	599.5
20°	576.6	577.4	580.5	588.9	589.6
22.5°	562.1	562.9	566.7	576.6	578.2
25°	545.3	548.4	553.0	563.7	565.9
27.5°	528.5	530.8	538.4	550.7	552.2
30°	508.7	513.2	521.6	535.4	538.4
32.5°	488.8	494.1	504.1	519.4	523.2
35°	468.2	474.3	486.5	502.6	506.4
37.5°	446.8	452.1	467.4	484.2	489.6
40°	425.4	430.8	447.6	466.7	472.8
42.5°	402.5	410.1	426.9	448.3	454.4
45°	378.8	387.2	406.3	429.2	433.8
47.5°	354.4	363.5	385.7	408.6	414.0
50°	333.0	341.4	363.5	385.7	389.5
52.5°	310.1	317.7	342.2	360.5	361.3
55°	285.6	294.8	319.2	333.8	332.2
57.5°	263.5	271.1	294.8	302.4	297.9
60°	239.8	246.7	270.4	271.1	264.3
62.5°	216.9	223.8	242.1	236.8	228.4
65°	194.0	200.9	213.9	203.9	196.3
67.5°	171.8	178.0	185.6	172.6	165.0
70°	148.2	156.6	157.3	142.1	134.4
72.5°	127.5	132.1	130.6	116.1	109.2
75°	104.6	110.0	103.1	89.4	84.0
77.5°	83.2	87.1	77.9	64.9	61.1
80°	61.9	64.2	53.5	43.5	41.2
82.5°	42.0	42.0	30.6	23.7	21.4
85°	24.4	21.4	13.0	11.5	11.5
87.5°	8.4	5.3	5.3	5.3	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)