

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: P230909

Luminaire Tested: **14CZ-LD5-20-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230909  
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-L935-CD1-U  
Description: CRUZE 1x4 LED TROFFER  
WITH SMOOTH LENS  
Light Source: (84) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1781.0 lumens  
Efficiency: N/A  
Efficacy: 109.3 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

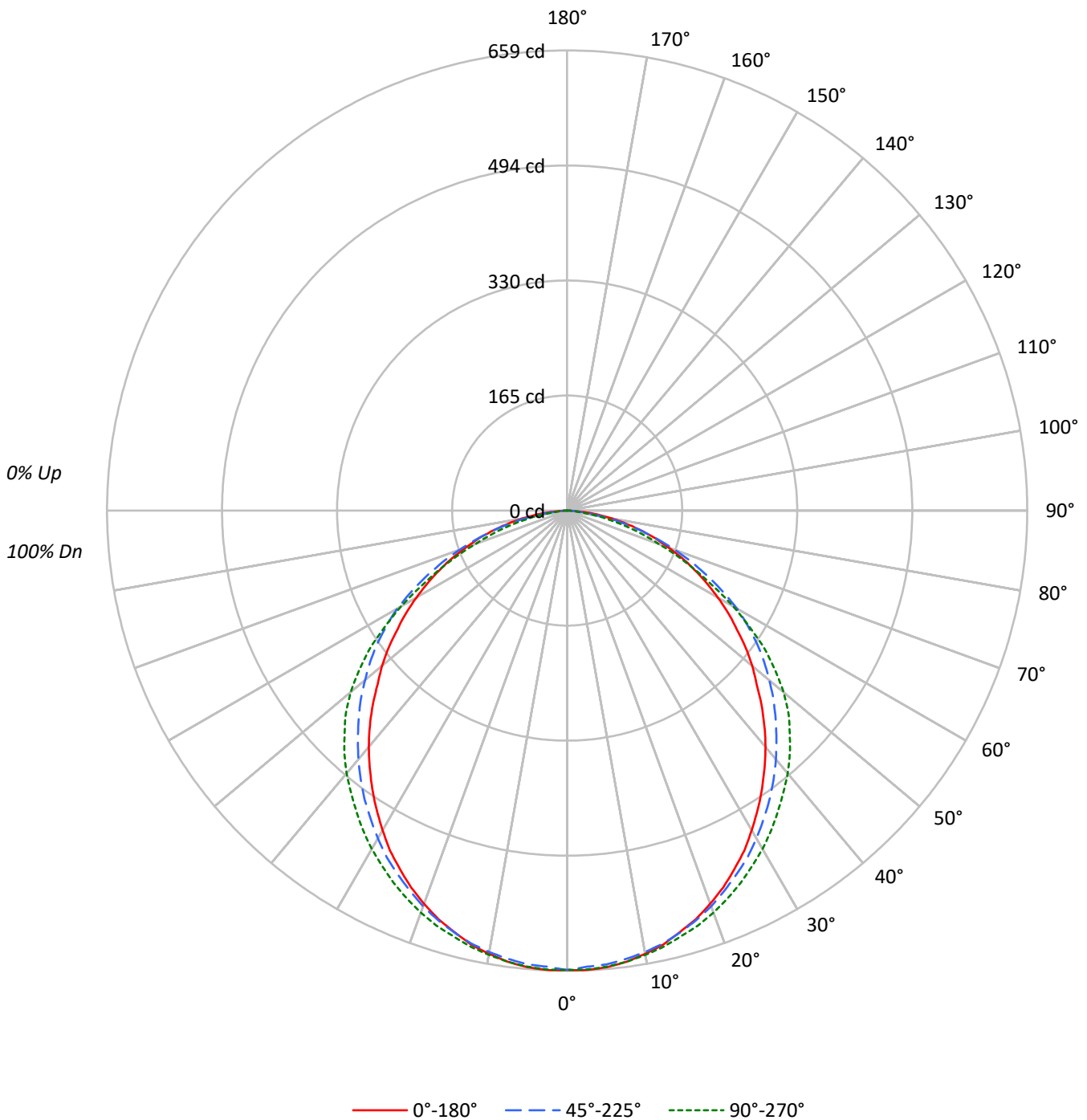
Input Watts (W): 16.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1770	1770	1770
5°	1773	1762	1771
10°	1761	1754	1765
15°	1740	1742	1758
20°	1716	1727	1755
25°	1682	1706	1746
30°	1642	1684	1739
35°	1598	1661	1729
40°	1553	1634	1725
45°	1498	1607	1716
50°	1449	1582	1694
55°	1392	1556	1620
60°	1341	1512	1478
65°	1284	1415	1299
70°	1212	1286	1099
75°	1130	1114	908
80°	996	862	665
85°	784	417	367



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.2	3.5
10°-20°	177.1	9.9
20°-30°	265.8	14.9
30°-40°	316.9	17.8
40°-50°	326.4	18.3
50°-60°	290.9	16.3
60°-70°	209.6	11.8
70°-80°	109.6	6.2
80°-90°	22.7	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°	505.1	28.4
0°-40°	821.9	46.1
0°-60°	1439.1	80.8
0°-90°	1781.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1781.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	658	658	658	658	658	
5°	656	655	652	656	656	62
15°	625	625	625	632	631	176
25°	567	570	575	586	588	261
35°	486	493	506	522	526	304
45°	394	402	422	446	451	304
55°	297	306	332	347	345	266
65°	202	209	222	212	204	200
75°	109	114	107	93	87	115
85°	25	22	14	12	12	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	657.9	657.9	657.9	657.9	657.9
2.5°	658.7	657.1	653.9	657.9	657.9
5°	656.3	654.7	652.3	656.3	655.5
7.5°	651.6	650.0	647.6	652.3	651.6
10°	644.4	643.6	642.0	646.8	646.0
12.5°	636.5	635.7	634.9	639.6	639.6
15°	624.6	625.4	625.4	631.7	630.9
17.5°	613.5	614.3	615.0	623.0	623.0
20°	599.2	600.0	603.1	611.9	612.7
22.5°	584.1	584.9	588.9	599.2	600.8
25°	566.6	569.8	574.6	585.7	588.1
27.5°	549.2	551.6	559.5	572.2	573.8
30°	528.5	533.3	542.0	556.3	559.5
32.5°	507.9	513.5	523.8	539.7	543.6
35°	486.5	492.8	505.5	522.2	526.2
37.5°	464.3	469.8	485.7	503.1	508.7
40°	442.0	447.6	465.1	484.9	491.2
42.5°	418.2	426.2	443.6	465.8	472.2
45°	393.6	402.4	422.2	446.0	450.8
47.5°	368.2	377.8	400.8	424.6	430.1
50°	346.0	354.7	377.8	400.8	404.7
52.5°	322.2	330.1	355.5	374.6	375.4
55°	296.8	306.3	331.7	346.8	345.2
57.5°	273.8	281.7	306.3	314.3	309.5
60°	249.2	256.3	280.9	281.7	274.6
62.5°	225.4	232.5	251.6	246.0	237.3
65°	201.6	208.7	222.2	211.9	204.0
67.5°	178.6	184.9	192.8	179.4	171.4
70°	154.0	162.7	163.5	147.6	139.7
72.5°	132.5	137.3	135.7	120.6	113.5
75°	108.7	114.3	107.1	92.9	87.3
77.5°	86.5	90.5	80.9	67.5	63.5
80°	64.3	66.7	55.6	45.2	42.9
82.5°	43.6	43.6	31.7	24.6	22.2
85°	25.4	22.2	13.5	11.9	11.9
87.5°	8.7	5.6	5.6	5.6	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)