

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: P230885

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230885  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ-LD5-20-UNV-L935-CD1-U  
Description: CRUZE 1x4 LED TROFFER  
WITH RIBBED LENS  
Light Source: (84) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1746.0 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

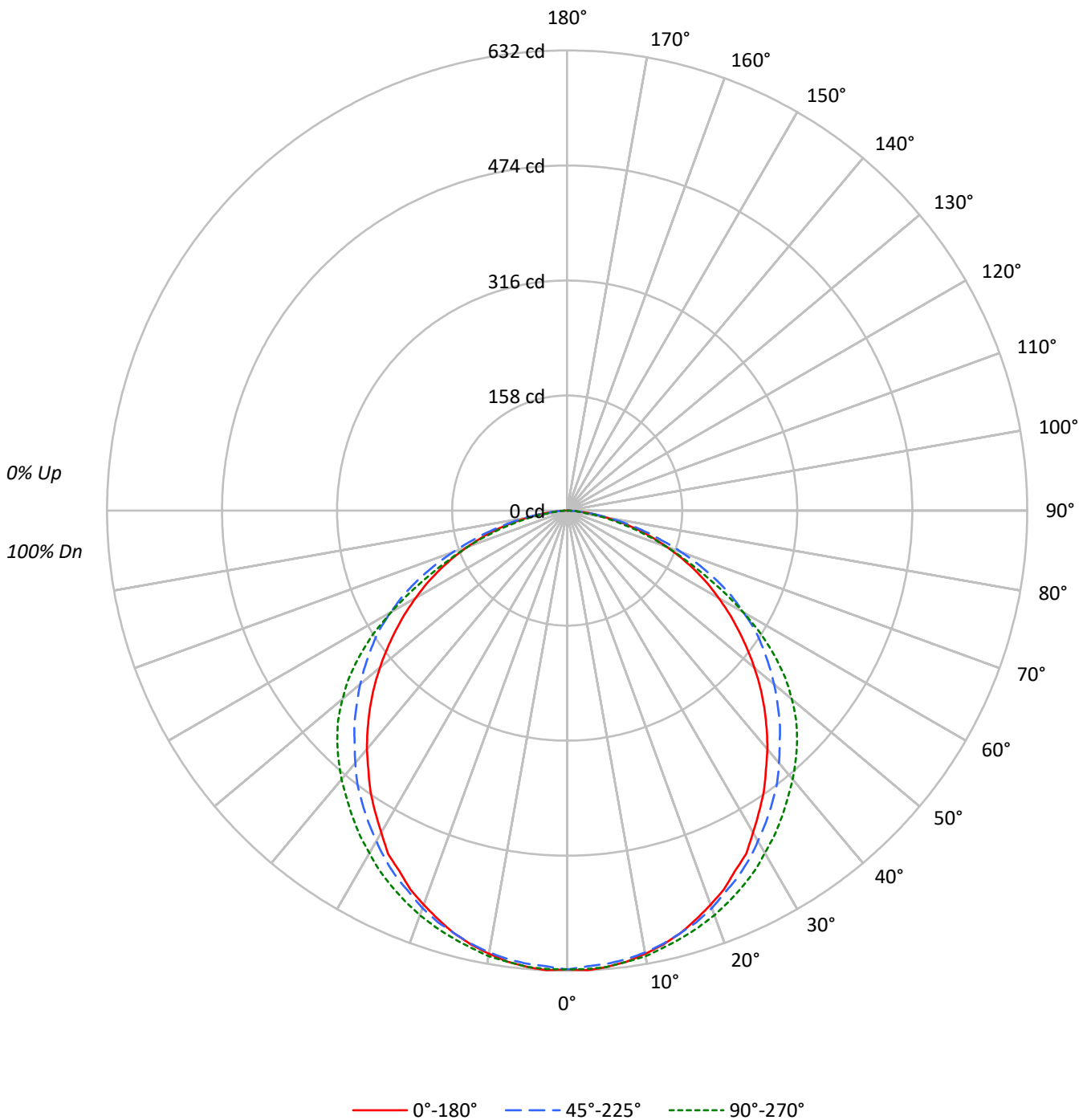
Input Watts (W): 16.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25

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

	0°	45°	90°
0°	1696	1696	1696
5°	1700	1688	1700
10°	1689	1684	1698
15°	1674	1674	1693
20°	1649	1664	1693
25°	1620	1648	1692
30°	1586	1629	1688
35°	1547	1612	1688
40°	1503	1591	1693
45°	1458	1572	1700
50°	1405	1553	1686
55°	1349	1539	1632
60°	1293	1505	1501
65°	1233	1442	1316
70°	1145	1314	1138
75°	1038	1146	940
80°	828	907	694
85°	584	506	398



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.6	3.4
10°-20°	170.3	9.8
20°-30°	256.8	14.7
30°-40°	307.8	17.6
40°-50°	319.4	18.3
50°-60°	288.1	16.5
60°-70°	210.2	12.0
70°-80°	110.3	6.3
80°-90°	23.5	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°	486.7	27.9
0°-40°	794.5	45.5
0°-60°	1402.0	80.3
0°-90°	1746.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1746.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	630	630	630	630	630	
5°	629	628	625	629	629	60
15°	601	601	601	608	608	169
25°	546	548	555	567	570	252
35°	471	476	491	509	514	294
45°	383	391	413	438	447	295
55°	288	298	328	350	348	257
65°	194	205	226	218	207	191
75°	100	114	110	96	90	105
85°	19	23	16	14	13	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	630.1	630.1	630.1	630.1	630.1
2.5°	631.8	630.1	626.6	630.1	630.1
5°	629.2	627.5	624.9	629.2	629.2
7.5°	624.9	623.2	621.5	625.8	624.9
10°	618.0	617.2	616.3	621.5	621.5
12.5°	610.3	610.3	609.4	615.4	614.6
15°	600.8	600.8	600.8	607.7	607.7
17.5°	588.8	590.5	592.2	600.0	600.0
20°	575.9	577.6	581.0	590.5	591.3
22.5°	562.9	563.8	567.2	578.4	581.0
25°	545.7	548.3	555.2	567.2	569.8
27.5°	532.0	532.8	540.6	554.3	557.8
30°	510.4	516.5	524.2	539.7	543.1
32.5°	490.6	495.8	507.9	524.2	529.4
35°	470.8	476.0	490.6	508.7	513.9
37.5°	448.5	456.2	473.4	491.5	497.5
40°	427.8	434.7	452.8	475.1	482.0
42.5°	405.4	412.3	432.1	457.1	464.8
45°	383.0	390.8	413.2	438.1	446.7
47.5°	359.8	368.4	391.6	419.2	426.9
50°	335.7	345.2	371.0	399.4	402.8
52.5°	311.6	321.9	349.5	374.4	377.9
55°	287.5	297.8	328.0	349.5	347.8
57.5°	264.3	275.4	306.4	317.6	315.9
60°	240.2	252.2	279.7	284.9	278.9
62.5°	217.8	229.0	254.8	250.5	242.7
65°	193.7	204.9	226.4	217.8	206.6
67.5°	169.6	183.3	197.1	182.5	173.9
70°	145.5	161.0	167.0	152.4	144.6
72.5°	122.2	138.6	136.9	122.2	117.1
75°	99.8	113.6	110.2	95.5	90.4
77.5°	75.7	91.2	83.5	71.4	67.1
80°	53.4	67.1	58.5	48.2	44.8
82.5°	35.3	44.8	36.2	28.4	25.8
85°	18.9	23.2	16.4	13.8	12.9
87.5°	7.7	6.9	6.0	6.0	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)