

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: P230920

Luminaire Tested: **14CZ-LD5-35-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230920
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-LD5-35-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

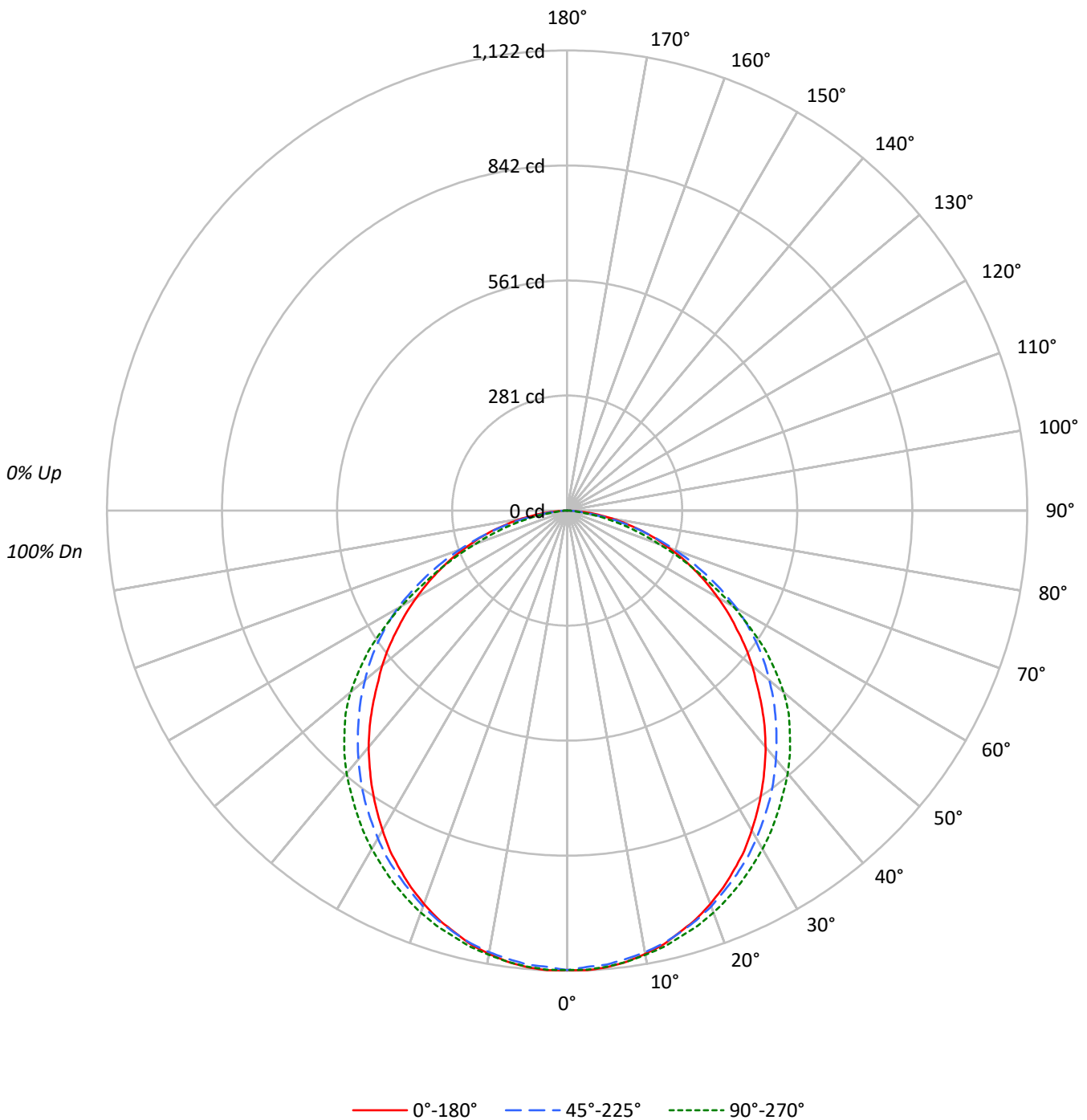
Lumens per Lamp: N/A
Luminaire Lumens: 3033.0 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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°	3015	3015	3015
5°	3019	3001	3015
10°	2999	2988	3006
15°	2963	2967	2993
20°	2922	2941	2988
25°	2865	2905	2974
30°	2797	2868	2961
35°	2722	2828	2943
40°	2644	2782	2939
45°	2551	2736	2922
50°	2467	2693	2886
55°	2372	2650	2758
60°	2284	2575	2517
65°	2186	2409	2211
70°	2063	2190	1872
75°	1926	1897	1546
80°	1697	1466	1131
85°	1334	710	627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.9	3.5
10°-20°	301.6	9.9
20°-30°	452.6	14.9
30°-40°	539.6	17.8
40°-50°	555.8	18.3
50°-60°	495.3	16.3
60°-70°	356.9	11.8
70°-80°	186.7	6.2
80°-90°	38.6	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°	860.1	28.4
0°-40°	1399.7	46.1
0°-60°	2450.8	80.8
0°-90°	3033.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3033.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1118	1115	1111	1118	1116	106
15°	1064	1065	1065	1076	1074	300
25°	965	970	978	997	1002	444
35°	828	839	861	889	896	518
45°	670	685	719	760	768	517
55°	506	522	565	591	588	453
65°	343	355	378	361	347	340
75°	185	195	182	158	149	196
85°	43	38	23	20	20	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1120.4	1120.4	1120.4	1120.4	1120.4
2.5°	1121.7	1119.0	1113.6	1120.4	1120.4
5°	1117.7	1115.0	1110.9	1117.7	1116.3
7.5°	1109.6	1106.9	1102.8	1110.9	1109.6
10°	1097.4	1096.1	1093.4	1101.5	1100.1
12.5°	1083.9	1082.5	1081.2	1089.3	1089.3
15°	1063.6	1065.0	1065.0	1075.8	1074.4
17.5°	1044.7	1046.1	1047.4	1060.9	1060.9
20°	1020.4	1021.7	1027.1	1042.0	1043.4
22.5°	994.7	996.1	1002.8	1020.4	1023.1
25°	965.0	970.4	978.5	997.4	1001.5
27.5°	935.2	939.3	952.8	974.4	977.1
30°	900.1	908.2	923.1	947.4	952.8
32.5°	865.0	874.4	892.0	919.0	925.8
35°	828.5	839.3	860.9	889.3	896.0
37.5°	790.6	800.1	827.1	856.8	866.3
40°	752.8	762.2	792.0	825.8	836.6
42.5°	712.2	725.8	755.5	793.3	804.1
45°	670.3	685.2	719.0	759.5	767.7
47.5°	627.1	643.3	682.5	723.1	732.5
50°	589.3	604.1	643.3	682.5	689.3
52.5°	548.7	562.2	605.5	637.9	639.3
55°	505.5	521.7	564.9	590.6	587.9
57.5°	466.3	479.8	521.7	535.2	527.1
60°	424.4	436.5	478.4	479.8	467.6
62.5°	383.8	396.0	428.4	419.0	404.1
65°	343.3	355.4	378.4	360.8	347.3
67.5°	304.1	314.9	328.4	305.4	291.9
70°	262.2	277.1	278.4	251.4	237.9
72.5°	225.7	233.8	231.1	205.4	193.3
75°	185.2	194.6	182.5	158.1	148.7
77.5°	147.3	154.1	137.9	114.9	108.1
80°	109.5	113.5	94.6	77.0	73.0
82.5°	74.3	74.3	54.1	41.9	37.8
85°	43.2	37.8	23.0	20.3	20.3
87.5°	14.9	9.5	9.5	9.5	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)