

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: P230928

Luminaire Tested: **14CZ-LD5-44-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230928  
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-LD5-44-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: 3715.0 lumens  
Efficiency: N/A  
Efficacy: 90.4 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

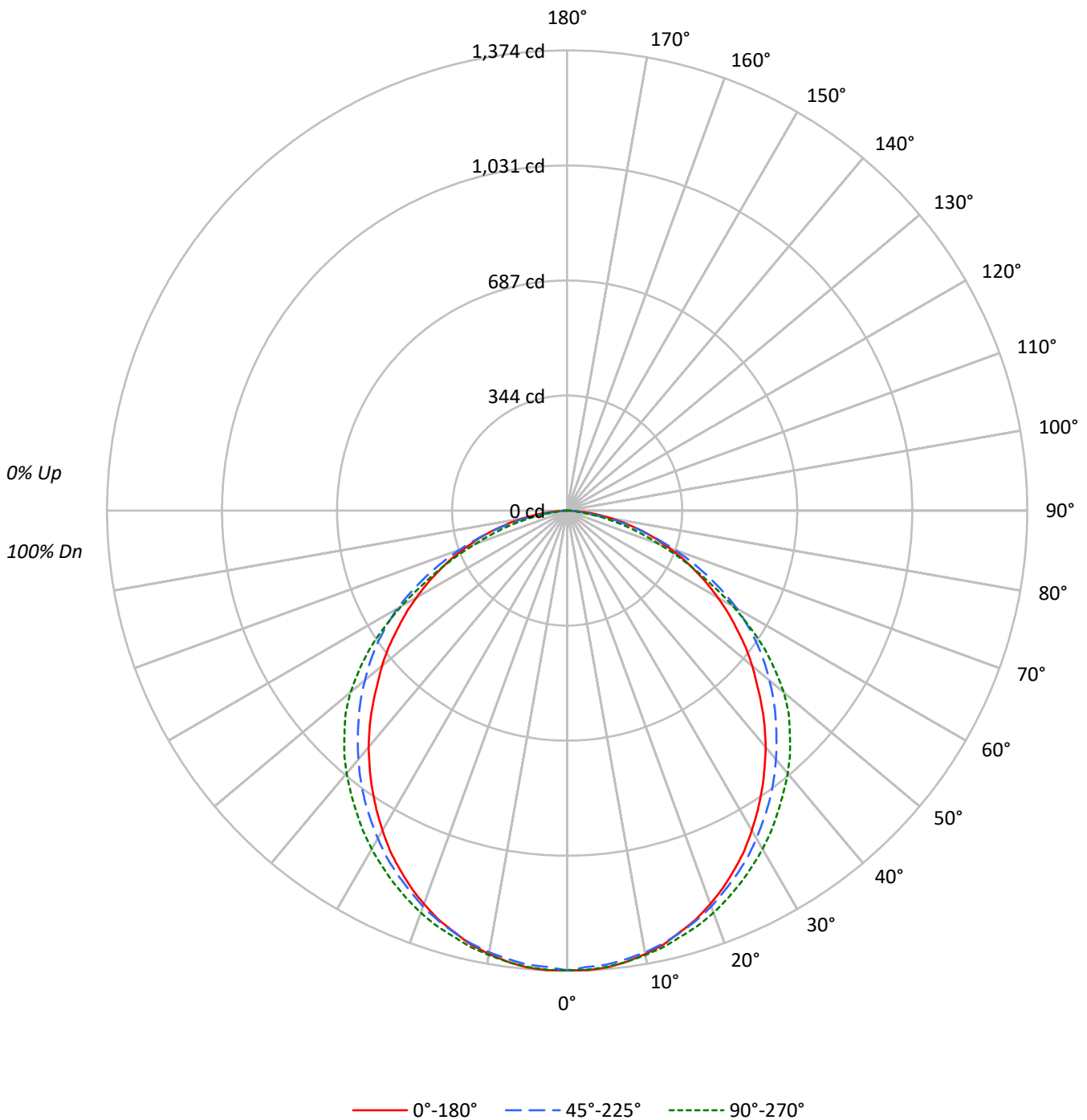
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	89	87	85					85			
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60					60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31					31			
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28					28			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25					25			

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

	0°	45°	90°
0°	3693	3693	3693
5°	3698	3676	3694
10°	3673	3659	3682
15°	3629	3634	3666
20°	3579	3603	3660
25°	3510	3559	3642
30°	3426	3513	3627
35°	3334	3464	3605
40°	3239	3408	3600
45°	3125	3352	3578
50°	3022	3299	3535
55°	2905	3247	3378
60°	2798	3154	3083
65°	2677	2951	2709
70°	2526	2683	2292
75°	2358	2324	1893
80°	2078	1796	1385
85°	1636	868	766



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.7	3.5
10°-20°	369.4	9.9
20°-30°	554.4	14.9
30°-40°	660.9	17.8
40°-50°	680.8	18.3
50°-60°	606.7	16.3
60°-70°	437.2	11.8
70°-80°	228.6	6.2
80°-90°	47.3	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°	1053.5	28.4
0°-40°	1714.4	46.1
0°-60°	3001.9	80.8
0°-90°	3715.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3715.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1372	1372	1372	1372	1372	
5°	1369	1366	1361	1369	1367	130
15°	1303	1304	1304	1318	1316	368
25°	1182	1189	1198	1222	1227	544
35°	1015	1028	1054	1089	1098	635
45°	821	839	881	930	940	634
55°	619	639	692	723	720	555
65°	420	435	464	442	425	417
75°	227	238	224	194	182	240
85°	53	46	28	25	25	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1372.3	1372.3	1372.3	1372.3	1372.3
2.5°	1374.0	1370.7	1364.0	1372.3	1372.3
5°	1369.0	1365.7	1360.7	1369.0	1367.4
7.5°	1359.1	1355.8	1350.8	1360.7	1359.1
10°	1344.2	1342.5	1339.2	1349.1	1347.5
12.5°	1327.6	1326.0	1324.3	1334.2	1334.2
15°	1302.8	1304.5	1304.5	1317.7	1316.0
17.5°	1279.6	1281.3	1282.9	1299.5	1299.5
20°	1249.8	1251.5	1258.1	1276.3	1278.0
22.5°	1218.4	1220.0	1228.3	1249.8	1253.1
25°	1182.0	1188.6	1198.5	1221.7	1226.6
27.5°	1145.5	1150.5	1167.1	1193.5	1196.9
30°	1102.5	1112.4	1130.6	1160.4	1167.1
32.5°	1059.5	1071.0	1092.6	1125.7	1133.9
35°	1014.8	1028.0	1054.5	1089.2	1097.5
37.5°	968.4	980.0	1013.1	1049.5	1061.1
40°	922.1	933.6	970.1	1011.4	1024.7
42.5°	872.4	888.9	925.4	971.7	985.0
45°	821.1	839.3	880.7	930.3	940.3
47.5°	768.1	788.0	836.0	885.6	897.2
50°	721.8	740.0	788.0	836.0	844.3
52.5°	672.1	688.6	741.6	781.3	783.0
55°	619.1	639.0	692.0	723.4	720.1
57.5°	571.1	587.7	639.0	655.5	645.6
60°	519.8	534.7	586.0	587.7	572.8
62.5°	470.1	485.0	524.8	513.2	495.0
65°	420.5	435.4	463.5	442.0	425.4
67.5°	372.5	385.7	402.3	374.1	357.6
70°	321.1	339.4	341.0	307.9	291.3
72.5°	276.5	286.4	283.1	251.6	236.7
75°	226.8	238.4	223.5	193.7	182.1
77.5°	180.4	188.7	168.9	140.7	132.4
80°	134.1	139.1	115.9	94.4	89.4
82.5°	91.0	91.0	66.2	51.3	46.4
85°	53.0	46.4	28.1	24.8	24.8
87.5°	18.2	11.6	11.6	11.6	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)