

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: P229956

Luminaire Tested: **24CZ-LD5-30-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229956  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-30-UNV-L930-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2493.0 lumens  
Efficiency: N/A  
Efficacy: 115.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

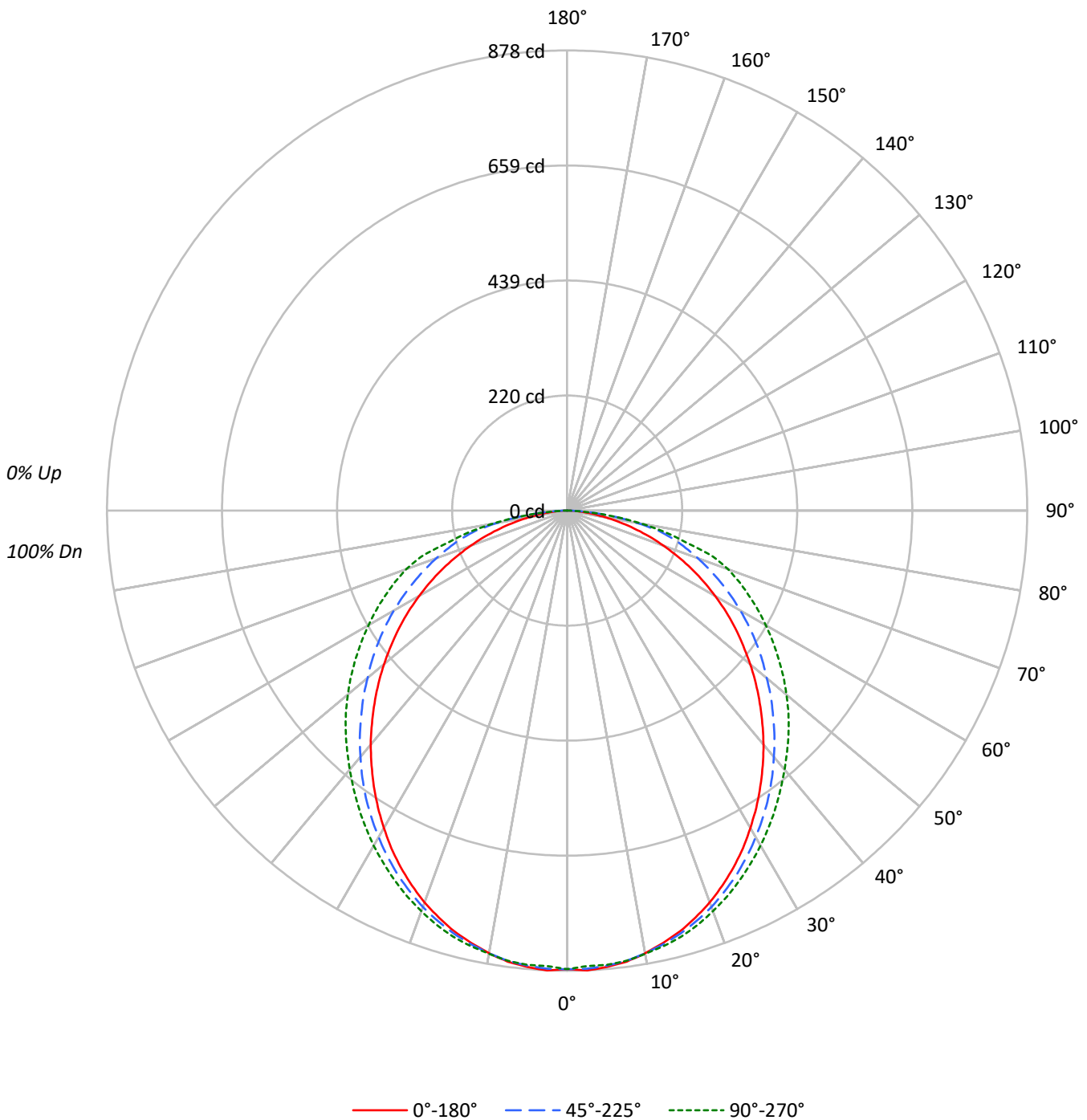
Input Watts (W): 21.62  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	1177	1177	1177
5°	1181	1177	1175
10°	1172	1172	1173
15°	1158	1164	1172
20°	1139	1152	1165
25°	1115	1137	1156
30°	1086	1118	1147
35°	1056	1099	1138
40°	1024	1078	1133
45°	989	1057	1137
50°	954	1040	1144
55°	919	1033	1155
60°	878	1027	1178
65°	832	1027	1217
70°	769	1044	1283
75°	688	1092	1220
80°	576	1045	1118
85°	435	804	764



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.7	3.3
10°-20°	235.3	9.4
20°-30°	351.8	14.1
30°-40°	417.3	16.7
40°-50°	429.5	17.2
50°-60°	394.0	15.8
60°-70°	318.6	12.8
70°-80°	206.8	8.3
80°-90°	57.0	2.3
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°	669.8	26.9
0°-40°	1087.1	43.6
0°-60°	1910.6	76.6
0°-90°	2493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2493.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	874	868	872	871	870	83
15°	831	828	836	839	842	234
25°	751	752	766	772	778	346
35°	643	648	669	684	693	402
45°	520	528	556	582	598	401
55°	392	404	440	476	492	350
65°	261	277	323	365	382	258
75°	132	157	210	235	235	141
85°	28	48	52	50	50	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	874.9	874.9	874.9	874.9	874.9
2.5°	878.3	871.5	874.9	874.1	869.8
5°	874.1	868.1	871.5	870.6	869.8
7.5°	868.1	862.1	866.4	865.5	866.4
10°	857.8	852.7	857.8	858.7	858.7
12.5°	845.0	840.8	847.6	849.3	851.0
15°	831.4	828.0	835.6	839.1	841.6
17.5°	814.3	811.7	821.1	825.4	828.8
20°	795.5	794.7	804.9	809.2	813.5
22.5°	774.2	774.2	786.1	791.3	797.2
25°	751.1	752.0	765.7	772.5	778.5
27.5°	726.4	727.2	743.5	752.0	758.8
30°	699.1	702.5	719.6	730.7	738.3
32.5°	671.8	676.0	694.8	707.6	716.1
35°	642.7	647.9	669.2	683.7	693.1
37.5°	612.9	618.8	641.9	658.1	669.2
40°	583.0	589.8	613.7	632.5	645.3
42.5°	551.4	559.1	585.6	607.7	621.4
45°	519.8	528.4	555.7	582.1	597.5
47.5°	488.2	498.5	527.5	556.5	572.7
50°	455.8	466.1	496.8	530.1	546.3
52.5°	423.4	435.3	469.5	503.6	519.8
55°	391.8	403.7	440.4	476.3	492.5
57.5°	359.4	371.3	411.4	449.0	465.2
60°	326.1	339.7	381.5	420.0	437.9
62.5°	293.6	308.1	352.5	393.5	410.6
65°	261.2	276.6	322.7	365.3	382.4
67.5°	227.9	245.8	293.6	337.2	355.1
70°	195.5	215.1	265.5	309.0	326.1
72.5°	163.9	185.2	237.3	281.7	291.9
75°	132.3	157.1	210.0	234.7	234.7
77.5°	102.4	129.7	179.3	188.6	193.8
80°	74.3	104.1	134.9	146.0	144.3
82.5°	49.5	79.4	96.5	96.5	93.9
85°	28.2	47.8	52.1	50.4	49.5
87.5°	12.0	17.9	16.2	12.8	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)