

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: P258587

Luminaire Tested: **14CZ-LD5-39-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258587  
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-LD5-39-UNV-L93050-W2A1-U-3500K  
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3316.0 lumens  
Efficiency: N/A  
Efficacy: 105.2 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

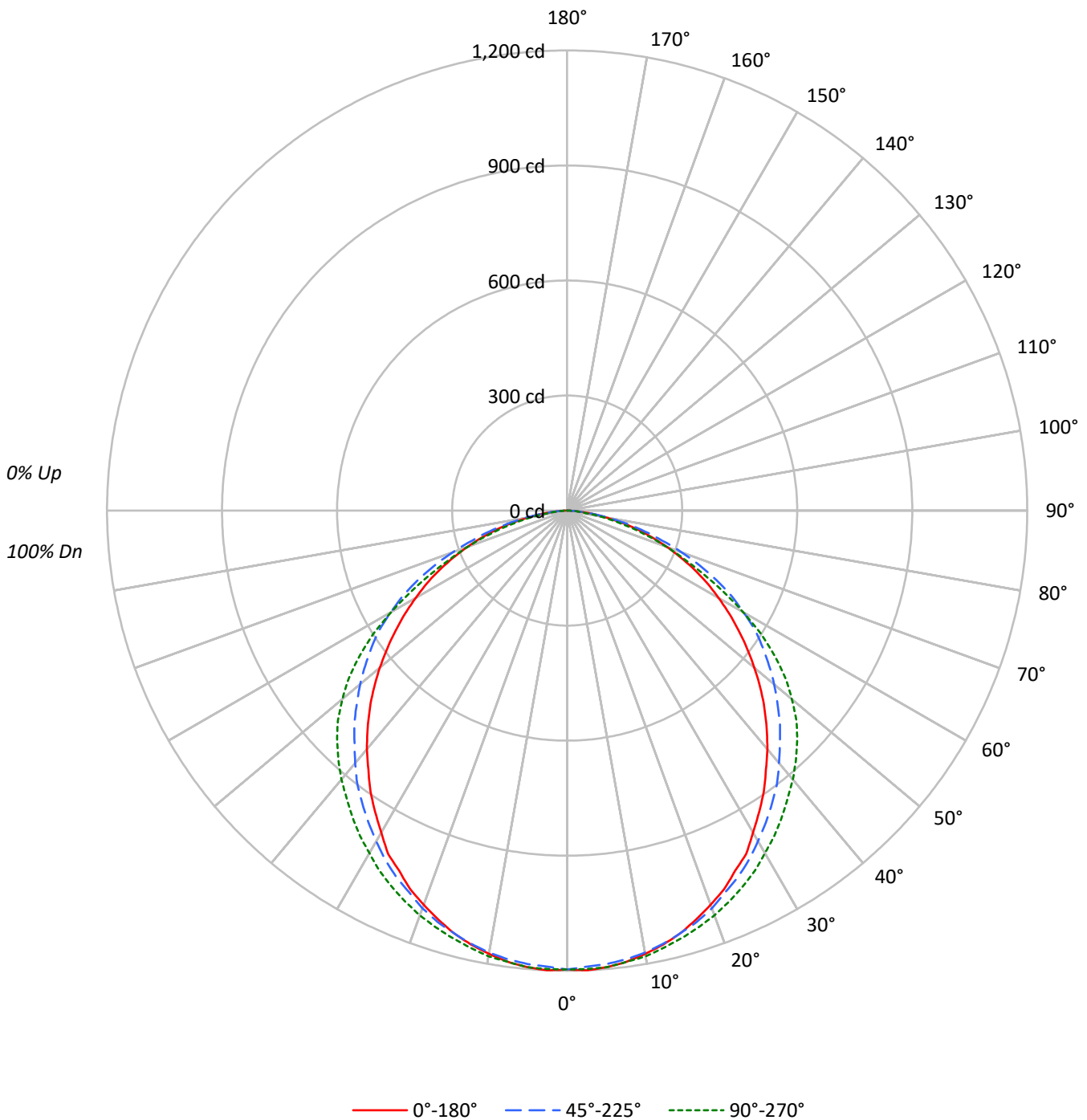
Input Watts (W): 31.527  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	3220	3220	3220
5°	3228	3206	3228
10°	3207	3198	3225
15°	3179	3179	3215
20°	3132	3160	3216
25°	3077	3131	3213
30°	3012	3094	3205
35°	2938	3061	3206
40°	2854	3021	3216
45°	2769	2986	3229
50°	2669	2950	3203
55°	2562	2922	3098
60°	2455	2859	2851
65°	2342	2737	2498
70°	2174	2495	2161
75°	1971	2176	1785
80°	1571	1723	1317
85°	1112	960	756



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.2	3.4
10°-20°	323.5	9.8
20°-30°	487.7	14.7
30°-40°	584.6	17.6
40°-50°	606.7	18.3
50°-60°	547.2	16.5
60°-70°	399.1	12.0
70°-80°	209.4	6.3
80°-90°	44.7	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°	924.4	27.9
0°-40°	1508.9	45.5
0°-60°	2662.8	80.3
0°-90°	3316.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3316.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1197	1197	1197	1197	1197	
5°	1195	1192	1187	1195	1195	113
15°	1141	1141	1141	1154	1154	321
25°	1036	1041	1054	1077	1082	478
35°	894	904	932	966	976	559
45°	728	742	785	832	848	561
55°	546	566	623	664	660	489
65°	368	389	430	414	392	364
75°	190	216	209	182	172	199
85°	36	44	31	26	24	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1196.7	1196.7	1196.7	1196.7	1196.7
2.5°	1199.9	1196.7	1190.1	1196.7	1196.7
5°	1195.0	1191.7	1186.8	1195.0	1195.0
7.5°	1186.8	1183.6	1180.3	1188.5	1186.8
10°	1173.8	1172.1	1170.5	1180.3	1180.3
12.5°	1159.1	1159.1	1157.4	1168.9	1167.2
15°	1141.1	1141.1	1141.1	1154.1	1154.1
17.5°	1118.2	1121.5	1124.7	1139.4	1139.4
20°	1093.7	1096.9	1103.5	1121.5	1123.1
22.5°	1069.1	1070.8	1077.3	1098.6	1103.5
25°	1036.4	1041.3	1054.4	1077.3	1082.2
27.5°	1010.3	1011.9	1026.6	1052.8	1059.3
30°	969.4	980.9	995.6	1025.0	1031.5
32.5°	931.8	941.6	964.5	995.6	1005.4
35°	894.2	904.0	931.8	966.1	976.0
37.5°	851.7	866.4	899.1	933.5	944.9
40°	812.5	825.6	859.9	902.4	915.5
42.5°	770.0	783.1	820.7	868.1	882.8
45°	727.5	742.2	784.7	832.1	848.4
47.5°	683.3	699.7	743.8	796.1	810.8
50°	637.6	655.5	704.6	758.5	765.1
52.5°	591.8	611.4	663.7	711.1	717.7
55°	546.0	565.6	622.8	663.7	660.4
57.5°	501.9	523.1	582.0	603.2	600.0
60°	456.1	479.0	531.3	541.1	529.7
62.5°	413.6	434.8	483.9	475.7	461.0
65°	367.8	389.1	429.9	413.6	392.3
67.5°	322.0	348.2	374.4	346.6	330.2
70°	276.3	305.7	317.1	289.4	274.6
72.5°	232.1	263.2	259.9	232.1	222.3
75°	189.6	215.8	209.3	181.5	171.7
77.5°	143.9	173.3	158.6	135.7	127.5
80°	101.4	127.5	111.2	91.5	85.0
82.5°	67.0	85.0	68.7	53.9	49.0
85°	36.0	44.1	31.1	26.2	24.5
87.5°	14.7	13.1	11.4	11.4	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)