

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: P258549

Luminaire Tested: **14CZ-LD5-29-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258549  
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-LD5-29-UNV-L83050-W2A1-U-4500K  
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3116.4 lumens  
Efficiency: N/A  
Efficacy: 134.0 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

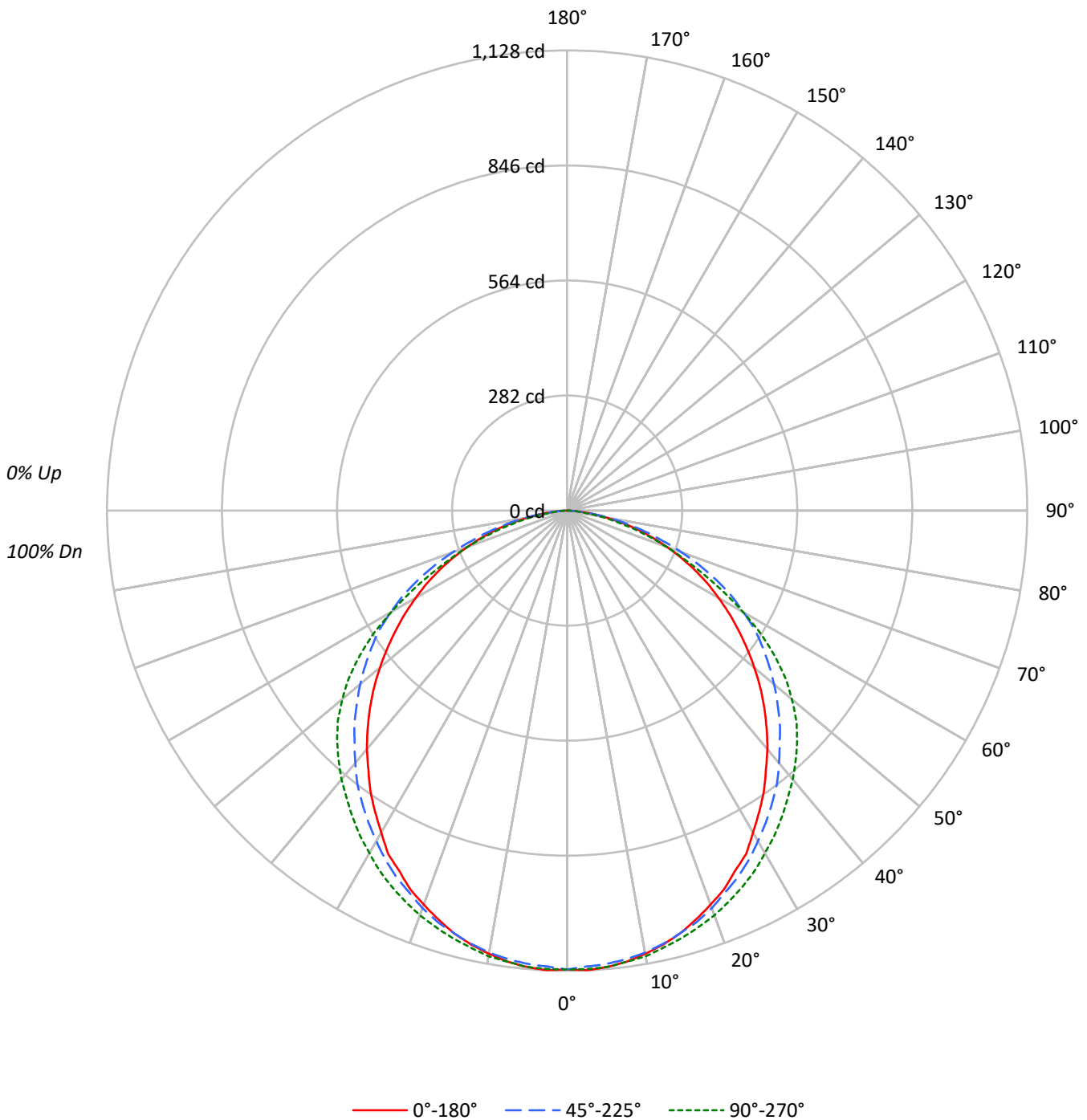
Input Watts (W): 23.25  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3026	3026	3026
5°	3034	3013	3034
10°	3014	3006	3031
15°	2988	2988	3022
20°	2943	2970	3023
25°	2892	2942	3020
30°	2831	2907	3012
35°	2761	2877	3013
40°	2682	2839	3022
45°	2602	2807	3035
50°	2509	2772	3010
55°	2407	2746	2912
60°	2307	2687	2679
65°	2201	2573	2348
70°	2043	2345	2031
75°	1853	2045	1677
80°	1477	1619	1238
85°	1044	902	710



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.4	3.4
10°-20°	304.0	9.8
20°-30°	458.3	14.7
30°-40°	549.4	17.6
40°-50°	570.1	18.3
50°-60°	514.2	16.5
60°-70°	375.1	12.0
70°-80°	196.8	6.3
80°-90°	42.0	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°	868.7	27.9
0°-40°	1418.1	45.5
0°-60°	2502.5	80.3
0°-90°	3116.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3116.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1125	1125	1125	1125	1125	
5°	1123	1120	1115	1123	1123	107
15°	1072	1072	1072	1085	1085	302
25°	974	979	991	1012	1017	449
35°	840	850	876	908	917	525
45°	684	698	738	782	797	527
55°	513	532	585	624	621	459
65°	346	366	404	389	369	342
75°	178	203	197	170	161	187
85°	34	42	29	25	23	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1124.6	1124.6	1124.6	1124.6	1124.6
2.5°	1127.7	1124.6	1118.5	1124.6	1124.6
5°	1123.1	1120.0	1115.4	1123.1	1123.1
7.5°	1115.4	1112.3	1109.3	1116.9	1115.4
10°	1103.1	1101.6	1100.0	1109.3	1109.3
12.5°	1089.3	1089.3	1087.7	1098.5	1097.0
15°	1072.4	1072.4	1072.4	1084.7	1084.7
17.5°	1050.9	1053.9	1057.0	1070.8	1070.8
20°	1027.8	1030.9	1037.0	1053.9	1055.5
22.5°	1004.8	1006.3	1012.5	1032.4	1037.0
25°	974.1	978.7	991.0	1012.5	1017.1
27.5°	949.5	951.0	964.8	989.4	995.6
30°	911.1	921.8	935.6	963.3	969.4
32.5°	875.7	884.9	906.5	935.6	944.9
35°	840.4	849.6	875.7	908.0	917.2
37.5°	800.4	814.3	845.0	877.3	888.0
40°	763.6	775.9	808.1	848.1	860.4
42.5°	723.6	735.9	771.3	815.8	829.6
45°	683.7	697.5	737.5	782.0	797.4
47.5°	642.2	657.6	699.0	748.2	762.0
50°	599.2	616.1	662.2	712.9	719.0
52.5°	556.2	574.6	623.8	668.3	674.5
55°	513.1	531.6	585.4	623.8	620.7
57.5°	471.7	491.6	546.9	566.9	563.8
60°	428.6	450.2	499.3	508.5	497.8
62.5°	388.7	408.7	454.8	447.1	433.3
65°	345.7	365.7	404.1	388.7	368.7
67.5°	302.7	327.2	351.8	325.7	310.3
70°	259.6	287.3	298.1	271.9	258.1
72.5°	218.2	247.4	244.3	218.2	208.9
75°	178.2	202.8	196.7	170.5	161.3
77.5°	135.2	162.9	149.0	127.5	119.8
80°	95.3	119.8	104.5	86.0	79.9
82.5°	63.0	79.9	64.5	50.7	46.1
85°	33.8	41.5	29.2	24.6	23.0
87.5°	13.8	12.3	10.8	10.8	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)