

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: P259290

Luminaire Tested: **22CZ-LD5-29-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259290  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-29-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2x2 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: 2895.0 lumens  
Efficiency: N/A  
Efficacy: 136.5 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

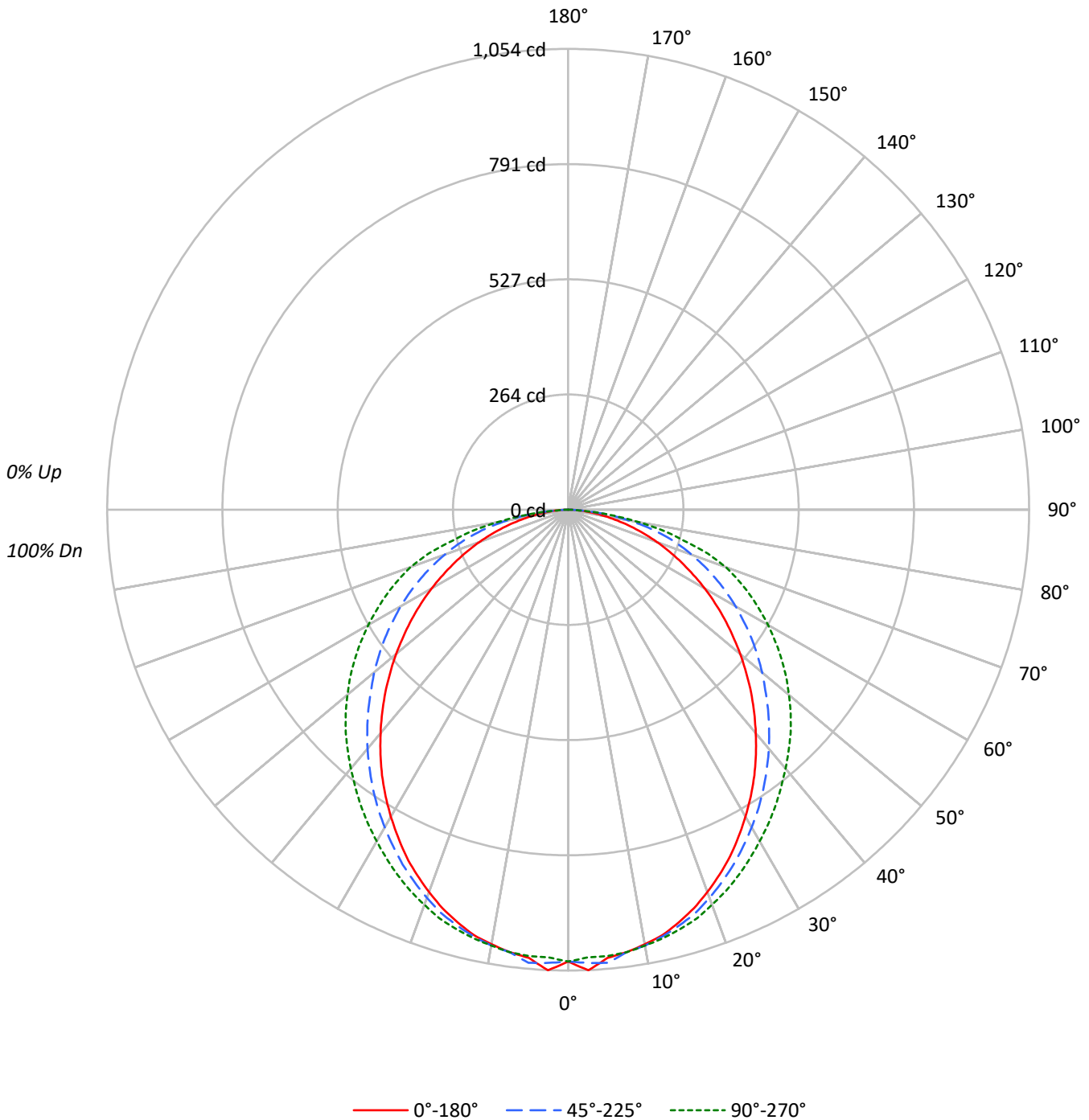
Input Watts (W): 21.204  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33					33			
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	2781	2781	2781
5°	2780	2810	2769
10°	2758	2766	2766
15°	2722	2742	2765
20°	2665	2705	2753
25°	2600	2659	2738
30°	2520	2607	2721
35°	2437	2557	2715
40°	2344	2507	2715
45°	2250	2459	2738
50°	2151	2422	2758
55°	2047	2397	2794
60°	1940	2379	2841
65°	1820	2367	2913
70°	1695	2360	3013
75°	1537	2357	2854
80°	1331	2182	2531
85°	1130	1652	1609



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.0	3.4
10°-20°	277.6	9.6
20°-30°	413.0	14.3
30°-40°	488.4	16.9
40°-50°	502.0	17.3
50°-60°	458.7	15.8
60°-70°	367.0	12.7
70°-80°	230.3	8.0
80°-90°	60.0	2.1
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°	788.6	27.2
0°-40°	1277.0	44.1
0°-60°	2237.8	77.3
0°-90°	2895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2895.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1033	1033	1033	1033	1033	
5°	1029	1029	1040	1033	1025	98
15°	977	978	984	990	992	275
25°	876	881	895	911	922	403
35°	742	752	778	808	826	464
45°	591	607	646	694	719	456
55°	436	458	511	567	596	390
65°	286	311	372	428	458	284
75°	148	176	227	260	274	157
85°	37	46	54	52	52	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1033.3	1033.3	1033.3	1033.3	1033.3
2.5°	1054.4	1050.2	1037.5	1029.1	1024.9
5°	1029.1	1029.1	1040.4	1033.3	1024.9
7.5°	1020.7	1020.7	1020.7	1041.8	1020.7
10°	1009.4	1010.8	1012.2	1020.7	1012.2
12.5°	996.7	996.7	999.5	1002.4	1003.8
15°	977.0	978.4	984.1	989.7	992.5
17.5°	955.9	960.1	967.2	974.2	979.8
20°	930.6	936.2	944.6	955.9	961.5
22.5°	903.8	909.4	920.7	933.4	943.2
25°	875.6	881.3	895.4	910.8	922.1
27.5°	843.3	850.3	867.2	888.3	899.6
30°	810.9	819.3	839.0	863.0	875.6
32.5°	777.1	787.0	809.5	836.2	851.7
35°	741.9	751.8	778.5	808.1	826.4
37.5°	705.3	716.6	746.1	779.9	799.6
40°	667.3	680.0	713.8	750.4	772.9
42.5°	629.3	643.4	680.0	723.6	746.1
45°	591.3	606.8	646.2	694.0	719.4
47.5°	551.9	570.2	611.0	664.5	689.8
50°	513.8	532.1	578.6	633.5	658.8
52.5°	474.4	495.5	544.8	601.1	627.9
55°	436.4	457.5	511.0	567.3	595.5
57.5°	398.4	419.5	475.8	533.6	561.7
60°	360.4	382.9	442.0	498.4	527.9
62.5°	322.4	346.3	406.9	464.6	492.7
65°	285.8	311.1	371.7	428.0	457.5
67.5°	250.6	277.3	336.5	391.4	420.9
70°	215.4	242.1	299.9	353.4	382.9
72.5°	181.6	208.4	264.7	312.5	335.1
75°	147.8	176.0	226.7	260.4	274.5
77.5°	115.4	143.6	187.2	209.8	225.2
80°	85.9	109.8	140.8	157.7	163.3
82.5°	59.1	78.8	98.5	102.8	105.6
85°	36.6	46.5	53.5	52.1	52.1
87.5°	16.9	18.3	15.5	11.3	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)