

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: P259458

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259458  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25712)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-29-S-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2953.0 lumens  
Efficiency: N/A  
Efficacy: 139.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.24 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

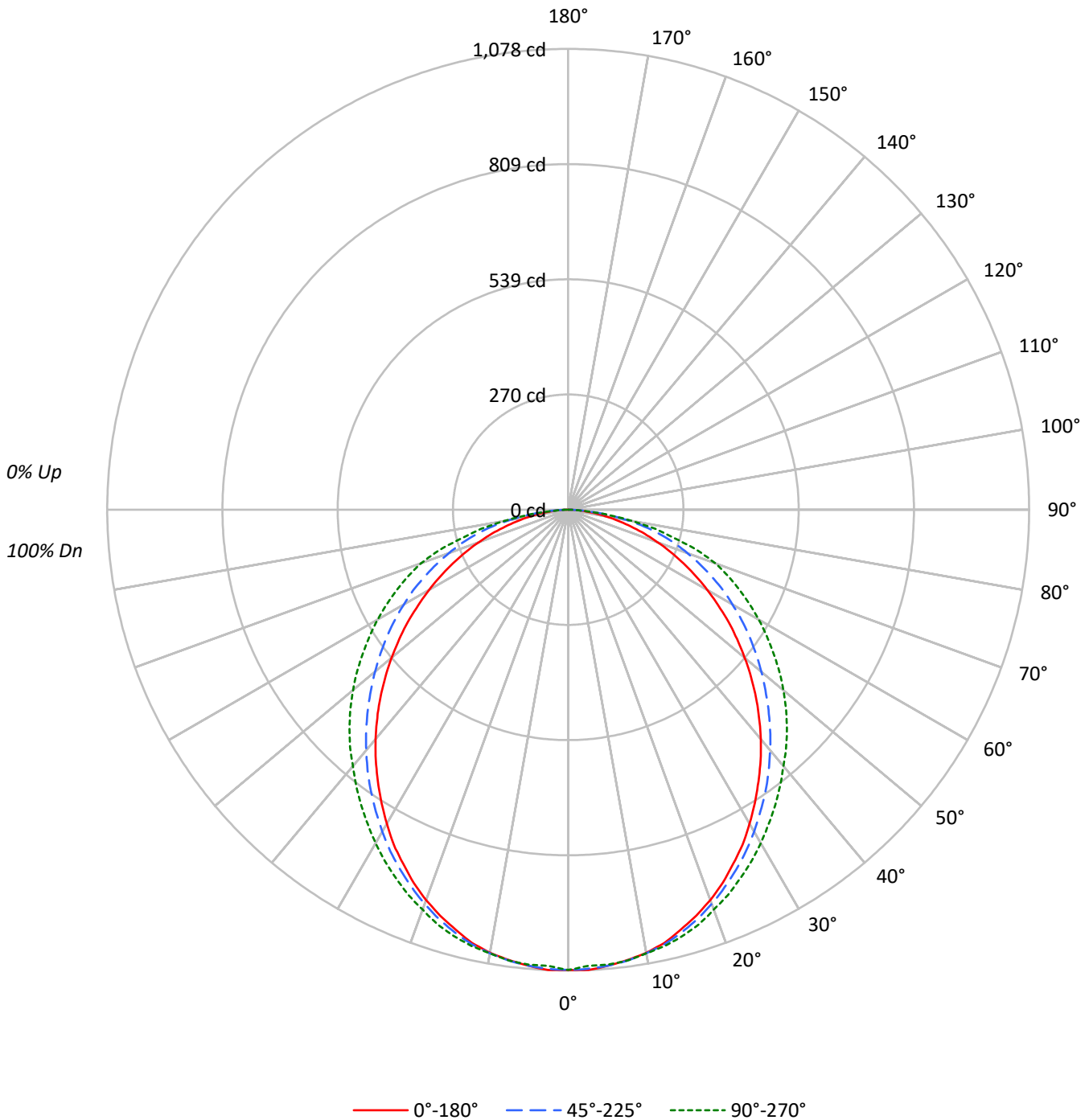
Input Watts (W): 21.204  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P259458

CATALOG NUMBER: 22CZ-LD5-29-S-UNV-L82765-W2A1-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P259458

CATALOG NUMBER: 22CZ-LD5-29-S-UNV-L82765-W2A1-U-4500K

**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	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	64	60	58
4	82	70	61	54	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2897	2897	2897
5°	2893	2893	2885
10°	2876	2879	2879
15°	2833	2853	2877
20°	2782	2811	2851
25°	2712	2758	2826
30°	2636	2702	2799
35°	2549	2642	2772
40°	2461	2581	2750
45°	2364	2521	2753
50°	2256	2470	2749
55°	2149	2429	2748
60°	2023	2389	2771
65°	1897	2357	2809
70°	1752	2332	2879
75°	1578	2315	2669
80°	1385	2154	2329
85°	1139	1621	1445



TEST NUMBER: P259458

CATALOG NUMBER: 22CZ-LD5-29-S-UNV-L82765-W2A1-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.7	3.4
10°-20°	288.8	9.8
20°-30°	428.9	14.5
30°-40°	504.9	17.1
40°-50°	514.7	17.4
50°-60°	464.2	15.7
60°-70°	365.7	12.4
70°-80°	225.6	7.6
80°-90°	58.5	2.0
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°	819.4	27.7
0°-40°	1324.3	44.8
0°-60°	2303.2	78.0
0°-90°	2953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2953.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1076	1076	1076	1076	1076	
5°	1071	1072	1071	1070	1068	102
15°	1017	1021	1024	1030	1033	287
25°	913	919	929	945	952	421
35°	776	784	804	830	844	485
45°	621	631	662	702	723	479
55°	458	474	518	564	586	409
65°	298	319	370	417	441	295
75°	152	177	223	248	257	162
85°	37	47	52	50	47	43
90°	0	0	0	0	0	



TEST NUMBER: P259458

CATALOG NUMBER: 22CZ-LD5-29-S-UNV-L82765-W2A1-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1076.5	1076.5	1076.5	1076.5	1076.5
2.5°	1078.0	1078.0	1075.1	1072.3	1068.0
5°	1070.9	1072.3	1070.9	1069.5	1068.0
7.5°	1062.4	1063.8	1063.8	1063.8	1063.8
10°	1052.4	1053.8	1053.8	1053.8	1053.8
12.5°	1038.2	1039.7	1041.1	1042.5	1045.3
15°	1017.0	1021.2	1024.1	1029.7	1032.6
17.5°	995.7	1000.0	1004.2	1011.3	1017.0
20°	971.6	974.4	981.5	990.0	995.7
22.5°	944.6	948.9	956.0	967.3	975.8
25°	913.4	919.1	929.0	944.6	951.7
27.5°	883.6	887.9	900.7	917.7	927.6
30°	848.2	853.9	869.5	890.7	900.7
32.5°	812.7	819.8	836.8	861.0	872.3
35°	775.8	784.4	804.2	829.7	843.9
37.5°	739.0	747.5	770.2	798.5	814.1
40°	700.7	709.2	734.7	765.9	782.9
42.5°	661.0	670.9	699.3	734.7	754.6
45°	621.2	631.2	662.4	702.1	723.4
47.5°	580.1	591.5	625.5	669.5	690.7
50°	539.0	551.7	590.0	635.4	656.7
52.5°	497.8	512.0	553.2	600.0	622.7
55°	458.1	473.7	517.7	564.5	585.8
57.5°	415.6	434.0	480.8	526.2	550.3
60°	375.9	395.7	443.9	489.3	514.9
62.5°	336.2	357.4	408.5	453.9	478.0
65°	297.9	319.1	370.2	417.0	441.1
67.5°	259.6	283.7	333.3	380.1	404.2
70°	222.7	248.2	296.4	341.8	365.9
72.5°	187.2	212.8	261.0	303.5	317.7
75°	151.8	177.3	222.7	248.2	256.7
77.5°	119.1	143.3	183.0	198.6	209.9
80°	89.4	110.6	139.0	148.9	150.3
82.5°	61.0	79.4	96.4	97.9	96.4
85°	36.9	46.8	52.5	49.6	46.8
87.5°	17.0	18.4	17.0	11.3	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)