

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: P259389

Luminaire Tested: **22CZ-LD5-29-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259389  
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-L83050-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: 3081.0 lumens  
Efficiency: N/A  
Efficacy: 141.0 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

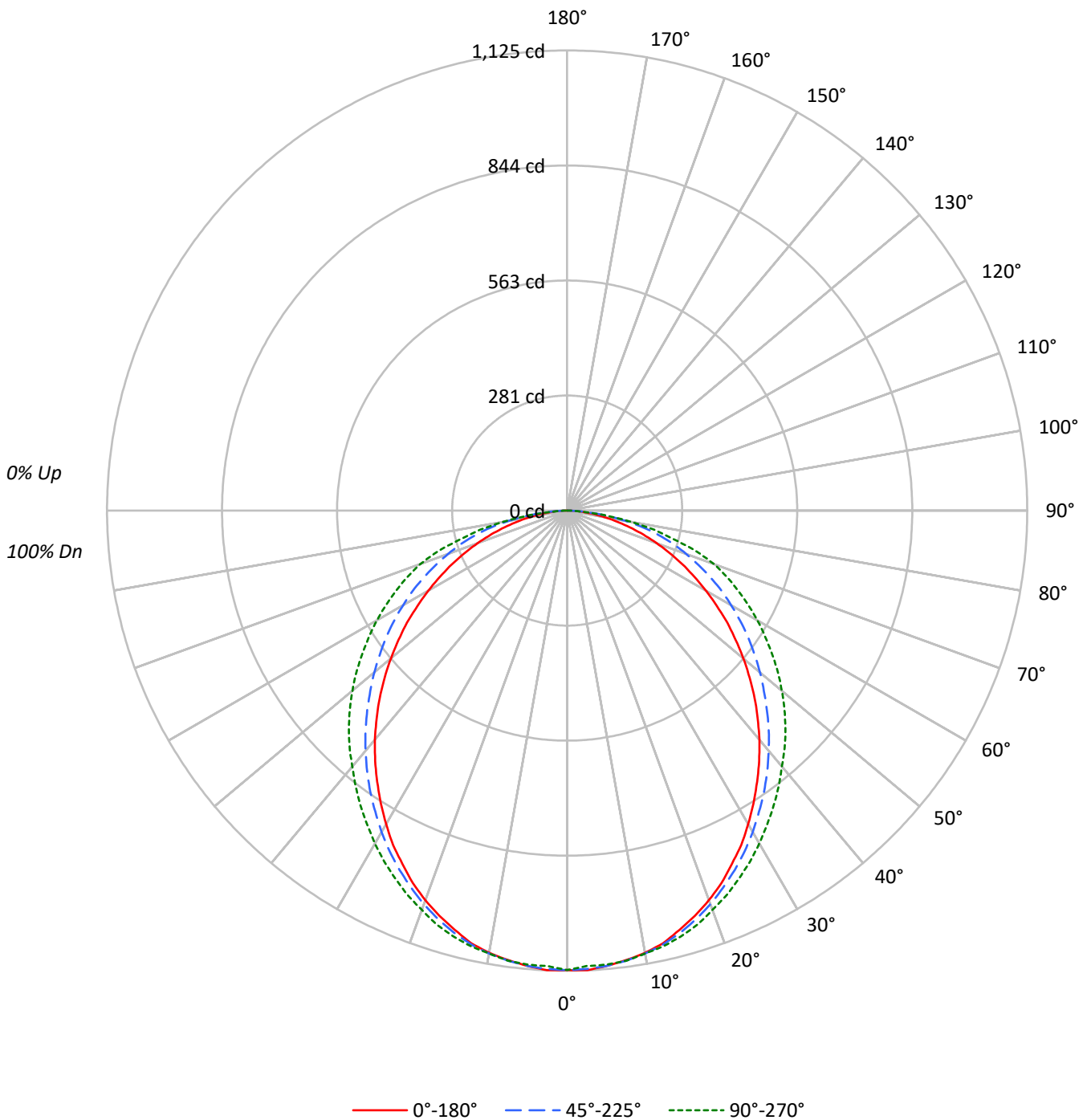
Input Watts (W): 21.855  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3023	3023	3023
5°	3018	3018	3010
10°	3000	3004	3004
15°	2956	2977	3001
20°	2903	2933	2975
25°	2830	2878	2948
30°	2750	2819	2920
35°	2659	2757	2893
40°	2568	2693	2870
45°	2467	2630	2872
50°	2354	2577	2869
55°	2243	2534	2867
60°	2111	2493	2891
65°	1979	2459	2930
70°	1828	2434	3004
75°	1646	2415	2785
80°	1444	2247	2431
85°	1189	1692	1507



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.1	3.4
10°-20°	301.3	9.8
20°-30°	447.5	14.5
30°-40°	526.8	17.1
40°-50°	537.0	17.4
50°-60°	484.4	15.7
60°-70°	381.5	12.4
70°-80°	235.3	7.6
80°-90°	61.1	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°	854.9	27.7
0°-40°	1381.7	44.8
0°-60°	2403.1	78.0
0°-90°	3081.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3081.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1117	1119	1117	1116	1114	106
15°	1061	1066	1068	1074	1077	299
25°	953	959	969	986	993	439
35°	810	818	839	866	880	506
45°	648	658	691	732	755	500
55°	478	494	540	589	611	427
65°	311	333	386	435	460	308
75°	158	185	232	259	268	169
85°	38	49	55	52	49	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1123.2	1123.2	1123.2	1123.2	1123.2
2.5°	1124.7	1124.7	1121.7	1118.8	1114.3
5°	1117.3	1118.8	1117.3	1115.8	1114.3
7.5°	1108.4	1109.9	1109.9	1109.9	1109.9
10°	1098.0	1099.5	1099.5	1099.5	1099.5
12.5°	1083.3	1084.7	1086.2	1087.7	1090.7
15°	1061.1	1065.5	1068.5	1074.4	1077.3
17.5°	1038.9	1043.3	1047.7	1055.1	1061.1
20°	1013.7	1016.7	1024.1	1032.9	1038.9
22.5°	985.6	990.0	997.4	1009.3	1018.1
25°	953.0	958.9	969.3	985.6	993.0
27.5°	921.9	926.4	939.7	957.5	967.8
30°	885.0	890.9	907.1	929.3	939.7
32.5°	848.0	855.4	873.1	898.3	910.1
35°	809.5	818.4	839.1	865.7	880.5
37.5°	771.0	779.9	803.6	833.2	849.4
40°	731.0	739.9	766.6	799.1	816.9
42.5°	689.6	700.0	729.6	766.6	787.3
45°	648.2	658.5	691.1	732.5	754.7
47.5°	605.3	617.1	652.6	698.5	720.7
50°	562.3	575.7	615.6	663.0	685.2
52.5°	519.4	534.2	577.1	626.0	649.7
55°	478.0	494.3	540.1	589.0	611.2
57.5°	433.6	452.8	501.7	549.0	574.2
60°	392.2	412.9	463.2	510.5	537.2
62.5°	350.7	372.9	426.2	473.6	498.7
65°	310.8	333.0	386.2	435.1	460.2
67.5°	270.8	296.0	347.8	396.6	421.8
70°	232.3	259.0	309.3	356.6	381.8
72.5°	195.3	222.0	272.3	316.7	331.5
75°	158.3	185.0	232.3	259.0	267.9
77.5°	124.3	149.5	190.9	207.2	219.0
80°	93.2	115.4	145.0	155.4	156.9
82.5°	63.6	82.9	100.6	102.1	100.6
85°	38.5	48.8	54.8	51.8	48.8
87.5°	17.8	19.2	17.8	11.8	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)