

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: P259219

Luminaire Tested: **22CZ-LD5-29-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259219  
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-L83050-W2A1-U-3500K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2850.0 lumens  
Efficiency: N/A  
Efficacy: 136.8 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

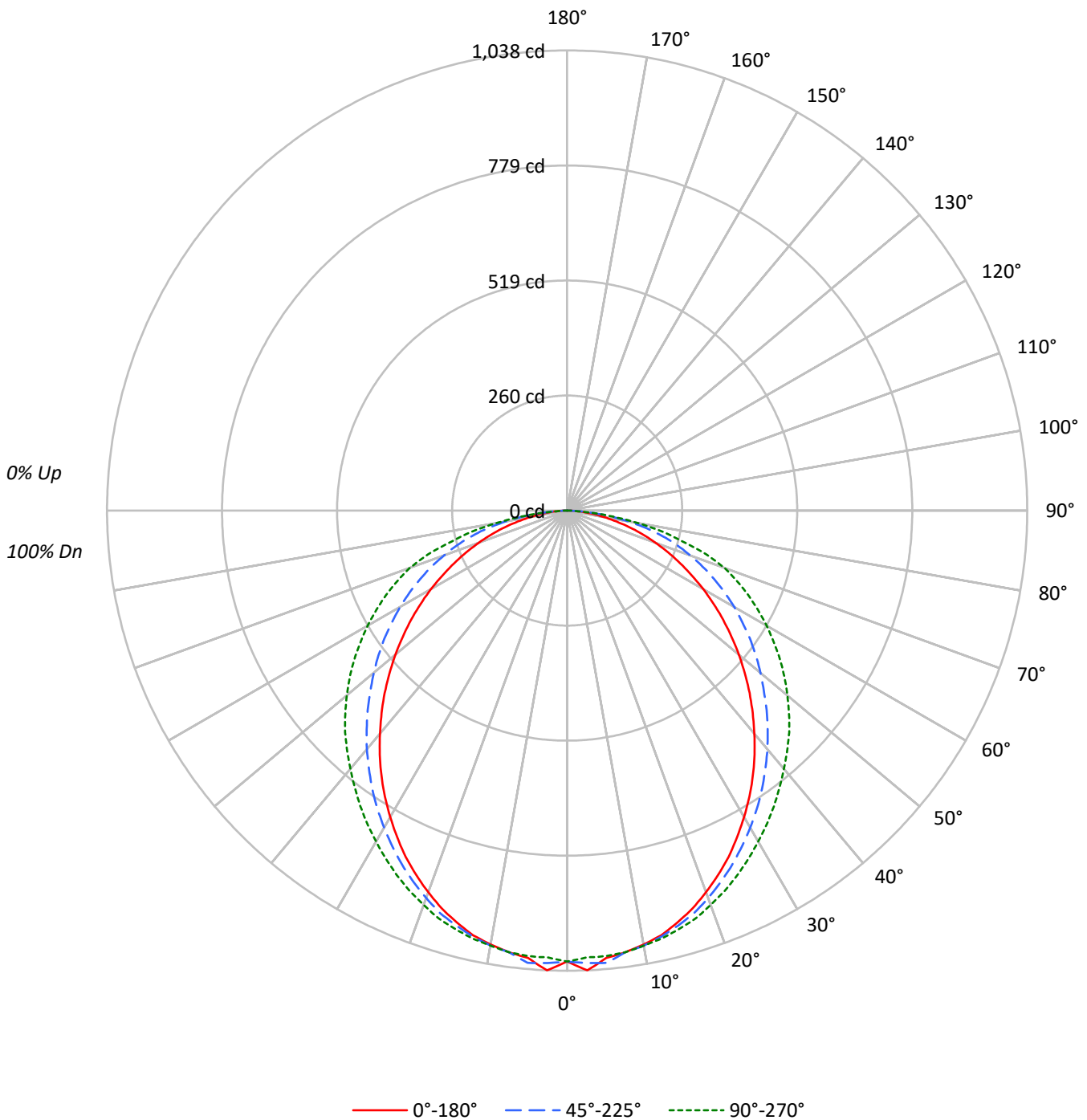
Input Watts (W): 20.832  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	2738	2738	2738
5°	2737	2767	2725
10°	2715	2723	2723
15°	2679	2699	2722
20°	2623	2663	2711
25°	2559	2617	2695
30°	2481	2567	2678
35°	2399	2518	2672
40°	2308	2468	2673
45°	2215	2421	2695
50°	2118	2385	2715
55°	2016	2360	2750
60°	1910	2342	2797
65°	1791	2330	2868
70°	1668	2323	2966
75°	1513	2320	2810
80°	1309	2148	2492
85°	1112	1627	1584



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.5	3.4
10°-20°	273.3	9.6
20°-30°	406.6	14.3
30°-40°	480.8	16.9
40°-50°	494.2	17.3
50°-60°	451.6	15.8
60°-70°	361.3	12.7
70°-80°	226.7	8.0
80°-90°	59.0	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°	776.3	27.2
0°-40°	1257.2	44.1
0°-60°	2203.0	77.3
0°-90°	2850.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2850.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1017	1017	1017	1017	1017	
5°	1013	1013	1024	1017	1009	96
15°	962	963	969	974	977	271
25°	862	868	881	897	908	396
35°	730	740	766	796	814	456
45°	582	597	636	683	708	449
55°	430	450	503	558	586	384
65°	281	306	366	421	450	279
75°	146	173	223	256	270	155
85°	36	46	53	51	51	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1017.3	1017.3	1017.3	1017.3	1017.3
2.5°	1038.0	1033.9	1021.4	1013.1	1008.9
5°	1013.1	1013.1	1024.2	1017.3	1008.9
7.5°	1004.8	1004.8	1004.8	1025.6	1004.8
10°	993.7	995.1	996.5	1004.8	996.5
12.5°	981.2	981.2	984.0	986.8	988.2
15°	961.8	963.2	968.8	974.3	977.1
17.5°	941.0	945.2	952.1	959.1	964.6
20°	916.1	921.6	929.9	941.0	946.6
22.5°	889.8	895.3	906.4	918.9	928.6
25°	862.0	867.6	881.4	896.7	907.8
27.5°	830.2	837.1	853.7	874.5	885.6
30°	798.3	806.6	826.0	849.6	862.0
32.5°	765.0	774.7	796.9	823.2	838.5
35°	730.4	740.1	766.4	795.5	813.5
37.5°	694.3	705.4	734.5	767.8	787.2
40°	656.9	669.4	702.7	738.7	760.9
42.5°	619.5	633.4	669.4	712.4	734.5
45°	582.1	597.3	636.1	683.3	708.2
47.5°	543.3	561.3	601.5	654.2	679.1
50°	505.9	523.9	569.6	623.7	648.6
52.5°	467.1	487.8	536.3	591.8	618.1
55°	429.6	450.4	503.1	558.5	586.2
57.5°	392.2	413.0	468.4	525.3	553.0
60°	354.8	377.0	435.2	490.6	519.7
62.5°	317.4	340.9	400.5	457.4	485.1
65°	281.3	306.3	365.9	421.3	450.4
67.5°	246.7	273.0	331.2	385.3	414.4
70°	212.0	238.4	295.2	347.9	377.0
72.5°	178.8	205.1	260.6	307.7	329.8
75°	145.5	173.2	223.1	256.4	270.3
77.5°	113.6	141.4	184.3	206.5	221.7
80°	84.5	108.1	138.6	155.2	160.8
82.5°	58.2	77.6	97.0	101.2	103.9
85°	36.0	45.7	52.7	51.3	51.3
87.5°	16.6	18.0	15.2	11.1	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)