

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: P259216

Luminaire Tested: **22CZ-LD5-24-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259216  
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-LD5-24-UNV-L83050-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: 2583.0 lumens  
Efficiency: N/A  
Efficacy: 140.3 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

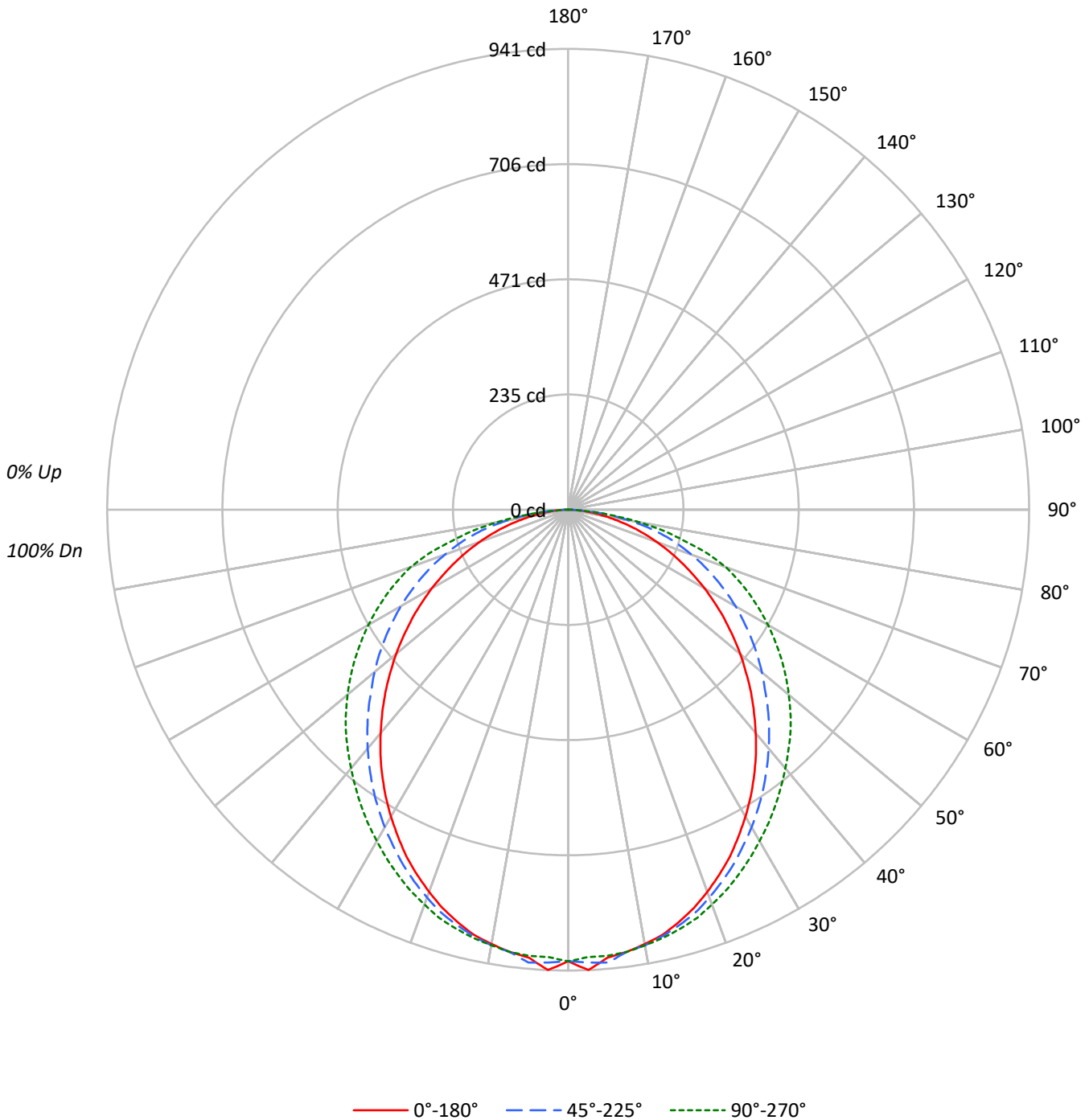
Input Watts (W): 18.414  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2481	2481	2481
5°	2480	2507	2470
10°	2461	2468	2468
15°	2428	2446	2467
20°	2378	2414	2457
25°	2320	2372	2443
30°	2248	2326	2428
35°	2175	2282	2422
40°	2092	2237	2422
45°	2008	2194	2443
50°	1919	2161	2461
55°	1827	2139	2493
60°	1731	2123	2535
65°	1624	2111	2599
70°	1512	2105	2688
75°	1371	2102	2546
80°	1187	1946	2258
85°	1010	1473	1436



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.4	3.4
10°-20°	247.7	9.6
20°-30°	368.5	14.3
30°-40°	435.8	16.9
40°-50°	447.9	17.3
50°-60°	409.3	15.8
60°-70°	327.4	12.7
70°-80°	205.5	8.0
80°-90°	53.5	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°	703.6	27.2
0°-40°	1139.4	44.1
0°-60°	1996.6	77.3
0°-90°	2583.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2583.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	922	922	922	922	922	
5°	918	918	928	922	914	87
15°	872	873	878	883	886	246
25°	781	786	799	813	823	359
35°	662	671	695	721	737	414
45°	528	541	576	619	642	407
55°	389	408	456	506	531	348
65°	255	278	332	382	408	253
75°	132	157	202	232	245	140
85°	33	42	48	46	46	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	922.0	922.0	922.0	922.0	922.0
2.5°	940.8	937.0	925.7	918.2	914.4
5°	918.2	918.2	928.2	922.0	914.4
7.5°	910.7	910.7	910.7	929.5	910.7
10°	900.6	901.9	903.1	910.7	903.1
12.5°	889.3	889.3	891.8	894.3	895.6
15°	871.7	873.0	878.0	883.0	885.5
17.5°	852.9	856.6	862.9	869.2	874.2
20°	830.3	835.3	842.8	852.9	857.9
22.5°	806.4	811.4	821.5	832.8	841.6
25°	781.3	786.3	798.9	812.7	822.7
27.5°	752.4	758.7	773.7	792.6	802.6
30°	723.5	731.0	748.6	770.0	781.3
32.5°	693.4	702.1	722.2	746.1	759.9
35°	662.0	670.7	694.6	721.0	737.3
37.5°	629.3	639.3	665.7	695.9	713.5
40°	595.4	606.7	636.8	669.5	689.6
42.5°	561.5	574.0	606.7	645.6	665.7
45°	527.6	541.4	576.5	619.2	641.9
47.5°	492.4	508.7	545.1	592.9	615.5
50°	458.5	474.8	516.2	565.2	587.8
52.5°	423.3	442.1	486.1	536.3	560.2
55°	389.4	408.2	456.0	506.2	531.3
57.5°	355.5	374.3	424.6	476.1	501.2
60°	321.6	341.7	394.4	444.7	471.0
62.5°	287.6	309.0	363.0	414.5	439.6
65°	255.0	277.6	331.6	381.8	408.2
67.5°	223.6	247.4	300.2	349.2	375.6
70°	192.2	216.0	267.5	315.3	341.7
72.5°	162.0	185.9	236.1	278.8	298.9
75°	131.9	157.0	202.2	232.4	244.9
77.5°	103.0	128.1	167.1	187.2	201.0
80°	76.6	98.0	125.6	140.7	145.7
82.5°	52.8	70.3	87.9	91.7	94.2
85°	32.7	41.5	47.7	46.5	46.5
87.5°	15.1	16.3	13.8	10.0	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)