

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: P259209

Luminaire Tested: **22CZ-LD5-20-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259209  
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-LD5-20-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: 2160.0 lumens  
Efficiency: N/A  
Efficacy: 139.1 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

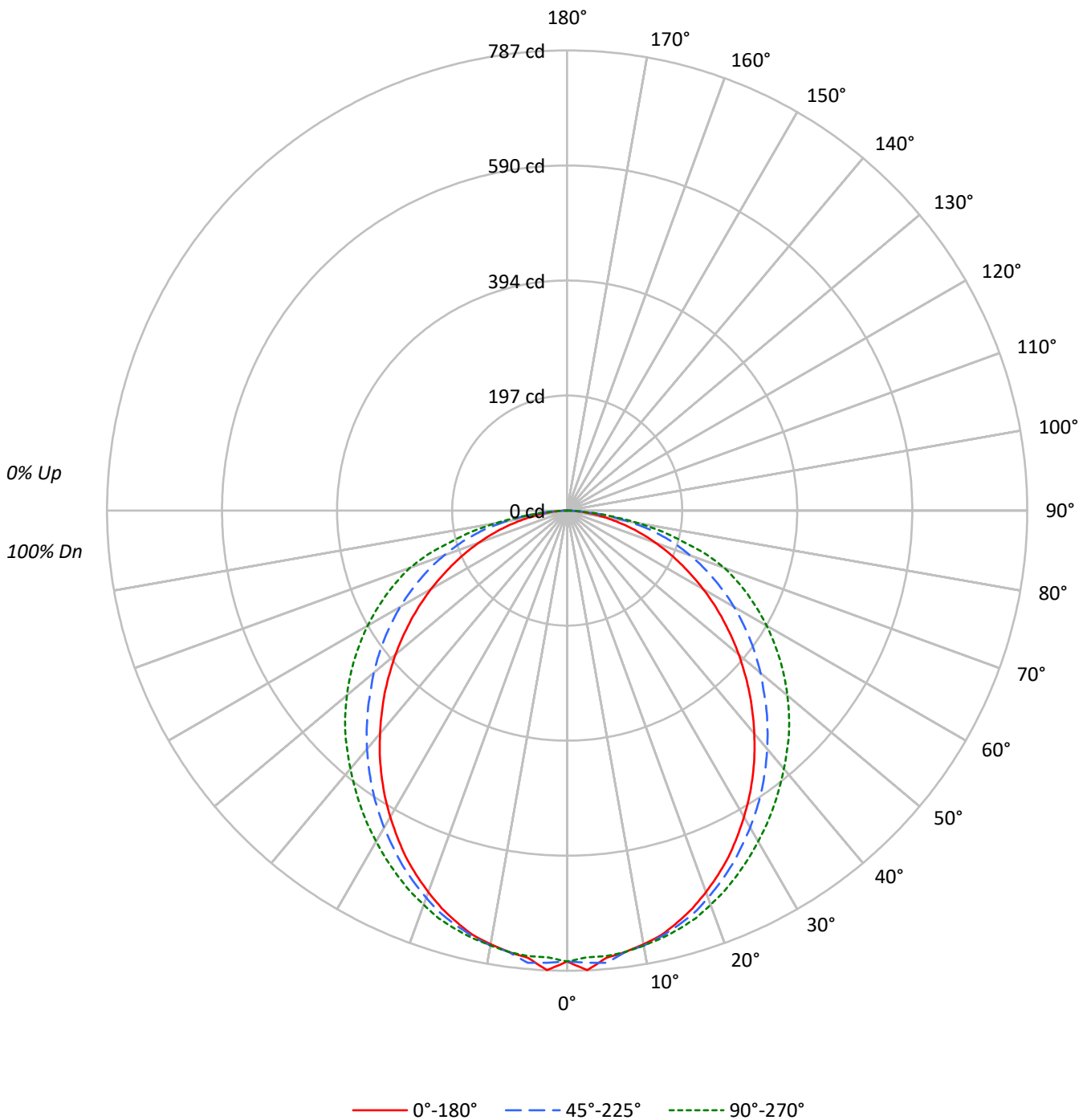
Input Watts (W): 15.531  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2075	2075	2075
5°	2074	2097	2066
10°	2058	2064	2064
15°	2031	2045	2063
20°	1988	2018	2054
25°	1940	1983	2043
30°	1880	1945	2030
35°	1818	1908	2026
40°	1749	1871	2026
45°	1679	1835	2042
50°	1605	1807	2058
55°	1528	1789	2084
60°	1447	1775	2120
65°	1358	1766	2174
70°	1264	1760	2248
75°	1147	1758	2129
80°	993	1627	1888
85°	843	1232	1201



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.1	3.4
10°-20°	207.1	9.6
20°-30°	308.1	14.3
30°-40°	364.4	16.9
40°-50°	374.6	17.3
50°-60°	342.3	15.8
60°-70°	273.8	12.7
70°-80°	171.8	8.0
80°-90°	44.8	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°	588.4	27.2
0°-40°	952.8	44.1
0°-60°	1669.6	77.3
0°-90°	2160.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2160.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	771	771	771	771	771	
5°	768	768	776	771	765	73
15°	729	730	734	738	740	205
25°	653	658	668	680	688	300
35°	554	561	581	603	617	346
45°	441	453	482	518	537	340
55°	326	341	381	423	444	291
65°	213	232	277	319	341	212
75°	110	131	169	194	205	117
85°	27	35	40	39	39	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	771.0	771.0	771.0	771.0	771.0
2.5°	786.7	783.6	774.1	767.8	764.7
5°	767.8	767.8	776.2	771.0	764.7
7.5°	761.5	761.5	761.5	777.3	761.5
10°	753.1	754.2	755.2	761.5	755.2
12.5°	743.7	743.7	745.8	747.9	748.9
15°	729.0	730.0	734.2	738.4	740.5
17.5°	713.2	716.4	721.6	726.9	731.1
20°	694.3	698.5	704.8	713.2	717.4
22.5°	674.3	678.5	686.9	696.4	703.8
25°	653.3	657.5	668.0	679.6	688.0
27.5°	629.2	634.4	647.0	662.8	671.2
30°	605.0	611.3	626.0	643.9	653.3
32.5°	579.8	587.2	604.0	623.9	635.5
35°	553.5	560.9	580.9	602.9	616.6
37.5°	526.2	534.6	556.7	581.9	596.6
40°	497.9	507.3	532.5	559.9	576.7
42.5°	469.5	480.0	507.3	539.9	556.7
45°	441.2	452.7	482.1	517.8	536.7
47.5°	411.7	425.4	455.9	495.8	514.7
50°	383.4	397.0	431.7	472.7	491.6
52.5°	354.0	369.7	406.5	448.5	468.5
55°	325.6	341.4	381.3	423.3	444.3
57.5°	297.3	313.0	355.0	398.1	419.1
60°	268.9	285.7	329.8	371.8	393.9
62.5°	240.5	258.4	303.6	346.6	367.6
65°	213.2	232.1	277.3	319.3	341.4
67.5°	187.0	206.9	251.0	292.0	314.1
70°	160.7	180.7	223.7	263.6	285.7
72.5°	135.5	155.5	197.5	233.2	250.0
75°	110.3	131.3	169.1	194.3	204.8
77.5°	86.1	107.1	139.7	156.5	168.1
80°	64.1	81.9	105.0	117.6	121.8
82.5°	44.1	58.8	73.5	76.7	78.8
85°	27.3	34.7	39.9	38.9	38.9
87.5°	12.6	13.7	11.6	8.4	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)