

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: P277183

Luminaire Tested: **22CZ2-20HE-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277183  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-20HE-UNV-L93050-W2A1-U-3500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1711.0 lumens  
Efficiency: N/A  
Efficacy: 108.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

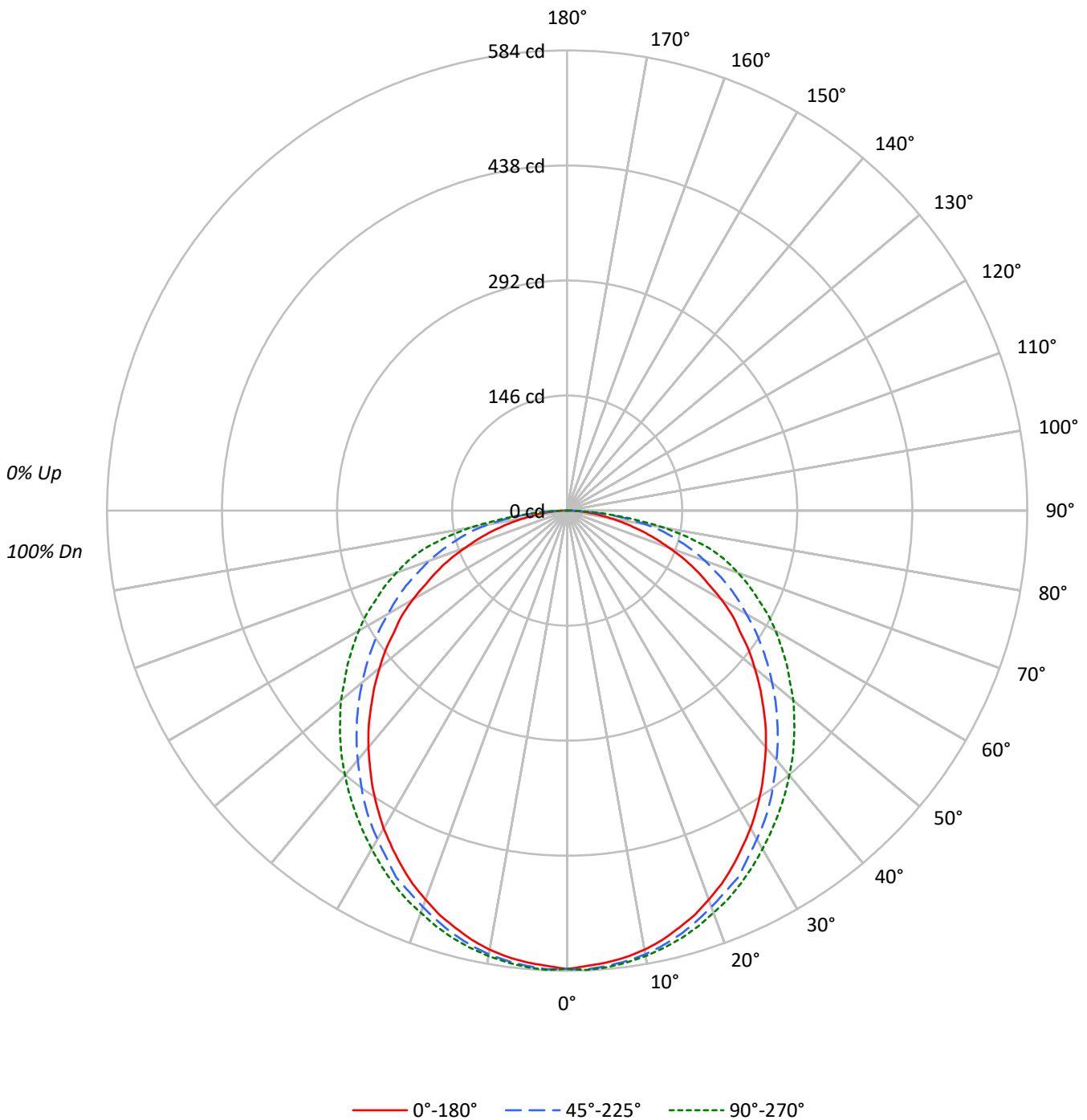
Input Watts (W): 15.826089  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	98	94	105	101	96	93	96	93	90		92	90	87		89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61		70	65	60		68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52		63	56	51		60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44		56	49	44		54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39		51	44	39		49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34		46	39	34		45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31		42	35	30		41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28		39	32	27		38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25		36	30	25		35	29	25	23

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

	0°	45°	90°
0°	1566	1566	1566
5°	1556	1567	1572
10°	1546	1562	1569
15°	1527	1550	1565
20°	1505	1534	1555
25°	1477	1525	1550
30°	1447	1496	1541
35°	1413	1477	1538
40°	1378	1452	1541
45°	1339	1435	1551
50°	1301	1420	1569
55°	1256	1414	1596
60°	1219	1414	1645
65°	1158	1436	1705
70°	1079	1464	1815
75°	989	1515	1961
80°	862	1579	1931
85°	753	1405	1535



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.0	3.2
10°-20°	156.7	9.2
20°-30°	235.3	13.7
30°-40°	281.1	16.4
40°-50°	292.3	17.1
50°-60°	270.9	15.8
60°-70°	222.2	13.0
70°-80°	150.2	8.8
80°-90°	47.2	2.8
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°	447.0	26.1
0°-40°	728.1	42.6
0°-60°	1291.4	75.5
0°-90°	1711.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1711.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	582	582	582	582	582	
5°	576	577	580	581	582	55
15°	548	551	556	560	562	155
25°	498	502	514	520	522	229
35°	430	436	450	463	468	269
45°	352	359	377	399	408	272
55°	268	276	301	328	340	241
65°	182	192	226	255	268	180
75°	95	111	146	175	189	101
85°	24	34	46	50	50	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	581.8	581.8	581.8	581.8	581.8
2.5°	578.4	580.1	582.6	583.5	583.5
5°	575.9	576.7	580.1	580.9	581.8
7.5°	571.7	573.4	576.7	577.6	578.4
10°	565.8	567.5	571.7	573.4	574.2
12.5°	558.2	559.9	564.9	567.5	568.3
15°	548.1	550.6	556.5	559.9	561.6
17.5°	538.0	540.5	546.4	551.5	553.1
20°	525.4	531.3	535.5	542.2	543.0
22.5°	512.7	516.1	523.7	530.4	533.8
25°	497.6	501.8	513.6	519.5	522.0
27.5°	481.6	487.5	496.7	506.0	509.4
30°	465.6	469.8	481.6	492.5	495.9
32.5°	447.9	453.8	466.4	477.4	482.4
35°	430.2	436.1	449.6	463.1	468.1
37.5°	410.9	417.6	431.1	447.1	453.8
40°	392.3	397.4	413.4	432.8	438.6
42.5°	373.0	378.9	395.7	416.8	423.5
45°	351.9	358.7	377.2	399.1	407.5
47.5°	331.7	338.5	358.7	380.6	390.7
50°	310.7	319.1	339.3	364.6	374.7
52.5°	290.5	298.0	320.8	346.9	356.1
55°	267.7	276.2	301.4	328.4	340.1
57.5°	249.2	255.1	282.9	310.7	322.5
60°	226.5	234.1	262.7	292.1	305.6
62.5°	202.1	214.7	244.2	274.5	287.9
65°	181.9	192.0	225.6	255.1	267.7
67.5°	160.8	171.8	204.6	235.7	250.1
70°	137.2	151.5	186.1	217.2	230.7
72.5°	116.2	131.3	166.7	197.0	211.3
75°	95.1	111.1	145.7	175.1	188.6
77.5°	74.9	92.6	126.3	149.0	157.4
80°	55.6	72.4	101.9	117.9	124.6
82.5°	38.7	53.0	74.9	83.4	85.0
85°	24.4	33.7	45.5	50.5	49.7
87.5°	10.9	13.5	16.8	18.5	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)