

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: P277438

Luminaire Tested: **22CZ2-20HE-S-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277438  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-20HE-S-UNV-L92765-W2A1-U-4500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1924.0 lumens  
Efficiency: N/A  
Efficacy: 121.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

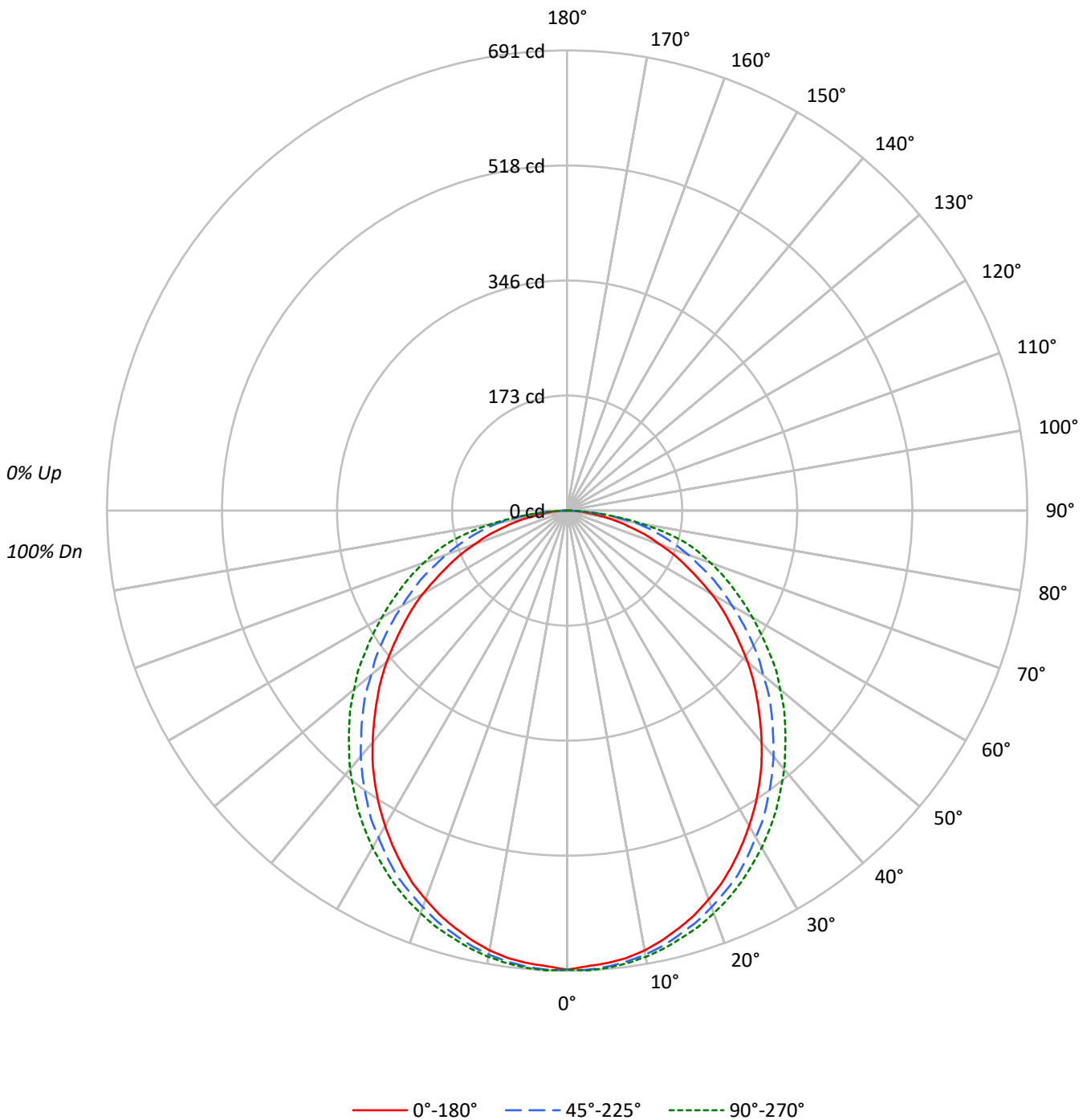
Input Watts (W): 15.81  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	1855	1855	1855
5°	1843	1857	1862
10°	1832	1850	1859
15°	1808	1833	1851
20°	1779	1815	1843
25°	1743	1796	1831
30°	1699	1760	1816
35°	1651	1728	1799
40°	1596	1694	1782
45°	1537	1654	1763
50°	1481	1608	1747
55°	1411	1579	1735
60°	1348	1541	1730
65°	1258	1532	1749
70°	1158	1519	1801
75°	1045	1540	1894
80°	905	1585	1781
85°	747	1331	1331



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.2	3.4
10°-20°	185.5	9.6
20°-30°	277.6	14.4
30°-40°	328.8	17.1
40°-50°	335.1	17.4
50°-60°	300.3	15.6
60°-70°	235.1	12.2
70°-80°	151.6	7.9
80°-90°	44.8	2.3
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°	528.4	27.5
0°-40°	857.1	44.5
0°-60°	1492.5	77.6
0°-90°	1924.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1924.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	689	689	689	689	689	
5°	682	684	688	688	689	65
15°	649	653	658	663	664	183
25°	587	592	605	613	617	270
35°	503	509	526	542	548	314
45°	404	413	434	457	463	312
55°	301	311	337	360	370	270
65°	198	209	241	264	275	196
75°	100	116	148	173	182	108
85°	24	33	43	43	43	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	689.4	689.4	689.4	689.4	689.4
2.5°	684.9	686.7	690.3	691.2	691.2
5°	682.2	684.0	687.6	688.5	689.4
7.5°	677.8	678.7	683.1	684.9	685.8
10°	670.6	672.4	676.9	679.6	680.5
12.5°	660.7	663.4	668.8	672.4	673.3
15°	649.0	652.6	658.0	663.4	664.3
17.5°	636.5	640.1	647.2	653.5	655.3
20°	621.2	625.7	633.8	641.0	643.6
22.5°	605.9	609.5	619.4	628.4	631.1
25°	587.1	592.5	605.0	613.1	616.7
27.5°	567.3	573.6	586.2	597.0	600.6
30°	546.7	553.0	566.4	579.9	584.4
32.5°	525.2	532.3	548.5	562.0	566.4
35°	502.7	509.0	526.0	542.2	547.6
37.5°	479.4	484.8	504.5	521.6	526.9
40°	454.2	461.4	482.1	501.8	507.2
42.5°	429.1	437.2	457.8	479.4	484.8
45°	404.0	412.9	434.5	456.9	463.2
47.5°	379.7	386.9	411.1	432.7	441.7
50°	353.7	360.9	384.2	408.5	417.4
52.5°	326.8	336.6	361.8	385.1	395.9
55°	300.7	310.6	336.6	360.0	369.9
57.5°	276.5	284.6	311.5	335.7	345.6
60°	250.5	257.6	286.4	312.4	321.4
62.5°	222.6	233.4	263.0	287.3	298.0
65°	197.5	209.2	240.6	263.9	274.7
67.5°	174.2	184.9	215.4	240.6	252.3
70°	147.2	161.6	193.0	218.1	228.9
72.5°	125.7	138.2	170.6	195.7	207.4
75°	100.5	115.8	148.1	173.3	182.2
77.5°	79.9	95.2	125.7	145.4	149.9
80°	58.4	73.6	102.3	112.2	114.9
82.5°	39.5	53.9	73.6	76.3	77.2
85°	24.2	33.2	43.1	43.1	43.1
87.5°	11.7	13.5	15.3	14.4	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)