

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: P277154

Luminaire Tested: **22CZ2-20HE-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277154  
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-L83050-W2A1-U-4000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2114.0 lumens  
Efficiency: N/A  
Efficacy: 132.9 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

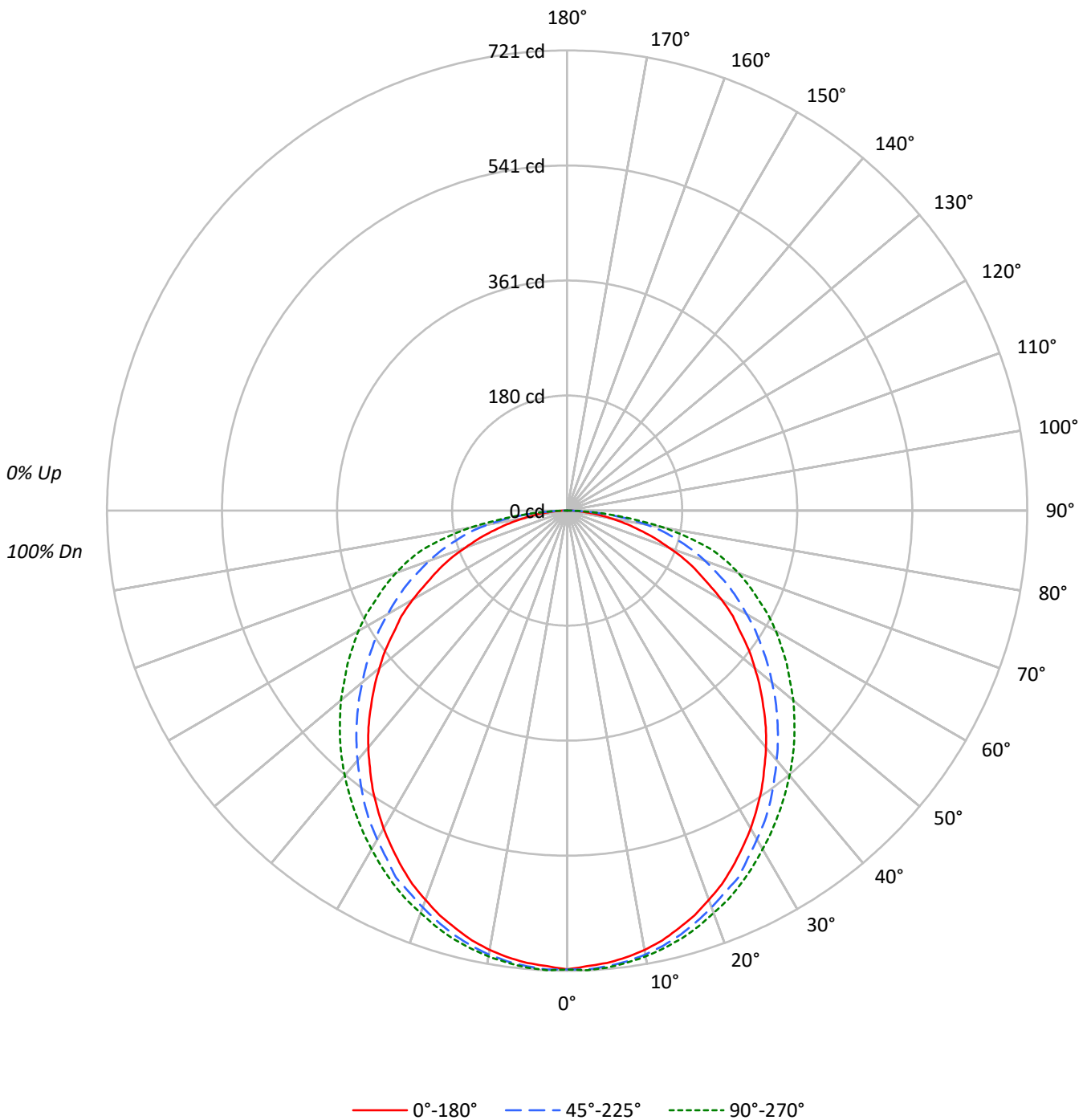
Input Watts (W): 15.903  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1934	1934	1934
5°	1922	1936	1942
10°	1910	1930	1938
15°	1887	1916	1933
20°	1859	1895	1921
25°	1825	1884	1915
30°	1787	1849	1904
35°	1746	1825	1900
40°	1703	1794	1904
45°	1655	1773	1916
50°	1607	1755	1938
55°	1552	1747	1972
60°	1506	1747	2032
65°	1431	1775	2106
70°	1334	1809	2242
75°	1222	1871	2423
80°	1065	1951	2386
85°	932	1735	1896



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.0	3.2
10°-20°	193.6	9.2
20°-30°	290.7	13.7
30°-40°	347.3	16.4
40°-50°	361.2	17.1
50°-60°	334.7	15.8
60°-70°	274.6	13.0
70°-80°	185.6	8.8
80°-90°	58.3	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°	552.3	26.1
0°-40°	899.6	42.6
0°-60°	1595.5	75.5
0°-90°	2114.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2114.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	719	719	719	719	719	
5°	712	713	717	718	719	68
15°	677	680	688	692	694	191
25°	615	620	634	642	645	283
35°	532	539	556	572	578	332
45°	435	443	466	493	504	336
55°	331	341	372	406	420	297
65°	225	237	279	315	331	222
75°	118	137	180	216	233	125
85°	30	42	56	62	61	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	718.8	718.8	718.8	718.8	718.8
2.5°	714.6	716.7	719.8	720.9	720.9
5°	711.5	712.6	716.7	717.8	718.8
7.5°	706.3	708.4	712.6	713.6	714.6
10°	699.0	701.1	706.3	708.4	709.4
12.5°	689.7	691.8	698.0	701.1	702.2
15°	677.2	680.3	687.6	691.8	693.8
17.5°	664.7	667.8	675.1	681.4	683.4
20°	649.1	656.4	661.6	669.9	670.9
22.5°	633.5	637.7	647.0	655.3	659.5
25°	614.8	620.0	634.5	641.8	644.9
27.5°	595.0	602.3	613.7	625.2	629.3
30°	575.2	580.4	595.0	608.5	612.7
32.5°	553.4	560.7	576.3	589.8	596.1
35°	531.6	538.8	555.5	572.1	578.4
37.5°	507.6	516.0	532.6	552.4	560.7
40°	484.7	491.0	510.8	534.7	542.0
42.5°	460.8	468.1	488.9	514.9	523.2
45°	434.8	443.1	466.0	493.1	503.5
47.5°	409.9	418.2	443.1	470.2	482.7
50°	383.8	394.2	419.2	450.4	462.9
52.5°	358.9	368.2	396.3	428.6	440.0
55°	330.8	341.2	372.4	405.7	420.3
57.5°	307.9	315.2	349.5	383.8	398.4
60°	279.8	289.2	324.6	361.0	377.6
62.5°	249.7	265.3	301.7	339.1	355.8
65°	224.7	237.2	278.8	315.2	330.8
67.5°	198.7	212.2	252.8	291.3	308.9
70°	169.6	187.2	229.9	268.4	285.0
72.5°	143.6	162.3	206.0	243.4	261.1
75°	117.5	137.3	180.0	216.4	233.0
77.5°	92.6	114.4	156.0	184.1	194.5
80°	68.7	89.5	125.9	145.6	154.0
82.5°	47.9	65.5	92.6	103.0	105.1
85°	30.2	41.6	56.2	62.4	61.4
87.5°	13.5	16.6	20.8	22.9	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)