

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: P258821

Luminaire Tested: **14CZ-LD5-20-S-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258821  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35112)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ-LD5-20-S-UNV-L92765-W2A1-U-4000K  
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1899.0 lumens  
Efficiency: N/A  
Efficacy: 122.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

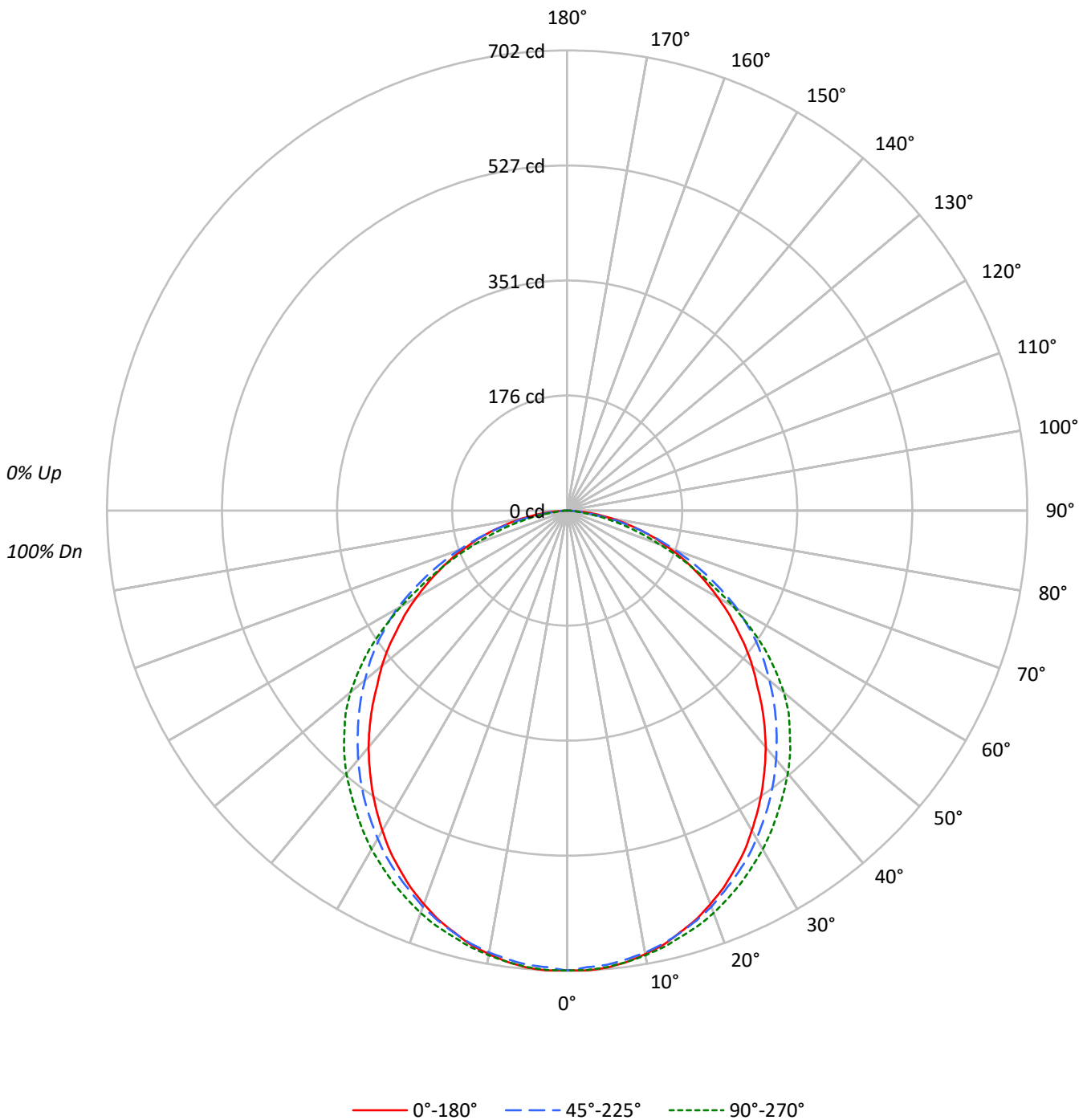
Input Watts (W): 15.531  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P258821

CATALOG NUMBER: 14CZ-LD5-20-S-UNV-L92765-W2A1-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P258821

CATALOG NUMBER: 14CZ-LD5-20-S-UNV-L92765-W2A1-U-4000K

**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	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	89	87	85					85			
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60					60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31					31			
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28					28			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25					25			

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

	0°	45°	90°
0°	1888	1888	1888
5°	1890	1879	1888
10°	1877	1871	1882
15°	1855	1858	1874
20°	1830	1842	1871
25°	1794	1819	1862
30°	1751	1796	1854
35°	1704	1771	1843
40°	1656	1742	1840
45°	1597	1713	1829
50°	1544	1686	1807
55°	1485	1659	1727
60°	1430	1612	1576
65°	1368	1508	1385
70°	1292	1371	1172
75°	1205	1187	968
80°	1062	917	708
85°	837	445	392



TEST NUMBER: P258821

CATALOG NUMBER: 14CZ-LD5-20-S-UNV-L92765-W2A1-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.3	3.5
10°-20°	188.8	9.9
20°-30°	283.4	14.9
30°-40°	337.9	17.8
40°-50°	348.0	18.3
50°-60°	310.1	16.3
60°-70°	223.5	11.8
70°-80°	116.9	6.2
80°-90°	24.2	1.3
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°	538.5	28.4
0°-40°	876.4	46.1
0°-60°	1534.5	80.8
0°-90°	1899.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1899.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	700	698	696	700	699	66
15°	666	667	667	674	673	188
25°	604	608	613	624	627	278
35°	519	526	539	557	561	324
45°	420	429	450	476	481	324
55°	316	327	354	370	368	284
65°	215	222	237	226	218	213
75°	116	122	114	99	93	123
85°	27	24	14	13	13	32
90°	0	0	0	0	0	



TEST NUMBER: P258821

CATALOG NUMBER: 14CZ-LD5-20-S-UNV-L92765-W2A1-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	701.5	701.5	701.5	701.5	701.5
2.5°	702.3	700.6	697.3	701.5	701.5
5°	699.8	698.1	695.6	699.8	699.0
7.5°	694.7	693.0	690.5	695.6	694.7
10°	687.1	686.3	684.6	689.6	688.8
12.5°	678.6	677.8	677.0	682.0	682.0
15°	666.0	666.8	666.8	673.6	672.7
17.5°	654.1	655.0	655.8	664.3	664.3
20°	638.9	639.7	643.1	652.4	653.3
22.5°	622.8	623.6	627.9	638.9	640.6
25°	604.2	607.6	612.6	624.5	627.0
27.5°	585.6	588.1	596.6	610.1	611.8
30°	563.6	568.6	577.9	593.2	596.6
32.5°	541.6	547.5	558.5	575.4	579.6
35°	518.7	525.5	539.0	556.8	561.0
37.5°	495.0	500.9	517.9	536.5	542.4
40°	471.3	477.3	495.9	517.0	523.8
42.5°	445.9	454.4	473.0	496.7	503.5
45°	419.7	429.0	450.2	475.6	480.6
47.5°	392.6	402.8	427.3	452.7	458.6
50°	368.9	378.2	402.8	427.3	431.6
52.5°	343.6	352.0	379.1	399.4	400.2
55°	316.5	326.6	353.7	369.8	368.1
57.5°	291.9	300.4	326.6	335.1	330.0
60°	265.7	273.3	299.6	300.4	292.8
62.5°	240.3	247.9	268.2	262.3	253.0
65°	214.9	222.5	236.9	225.9	217.5
67.5°	190.4	197.2	205.6	191.2	182.8
70°	164.2	173.5	174.3	157.4	148.9
72.5°	141.3	146.4	144.7	128.6	121.0
75°	115.9	121.9	114.2	99.0	93.1
77.5°	92.2	96.5	86.3	71.9	67.7
80°	68.5	71.1	59.2	48.2	45.7
82.5°	46.5	46.5	33.8	26.2	23.7
85°	27.1	23.7	14.4	12.7	12.7
87.5°	9.3	5.9	5.9	5.9	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)