

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: P277153

Luminaire Tested: **22CZ2-20HE-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277153  
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-3500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2013.0 lumens  
Efficiency: N/A  
Efficacy: 129.6 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

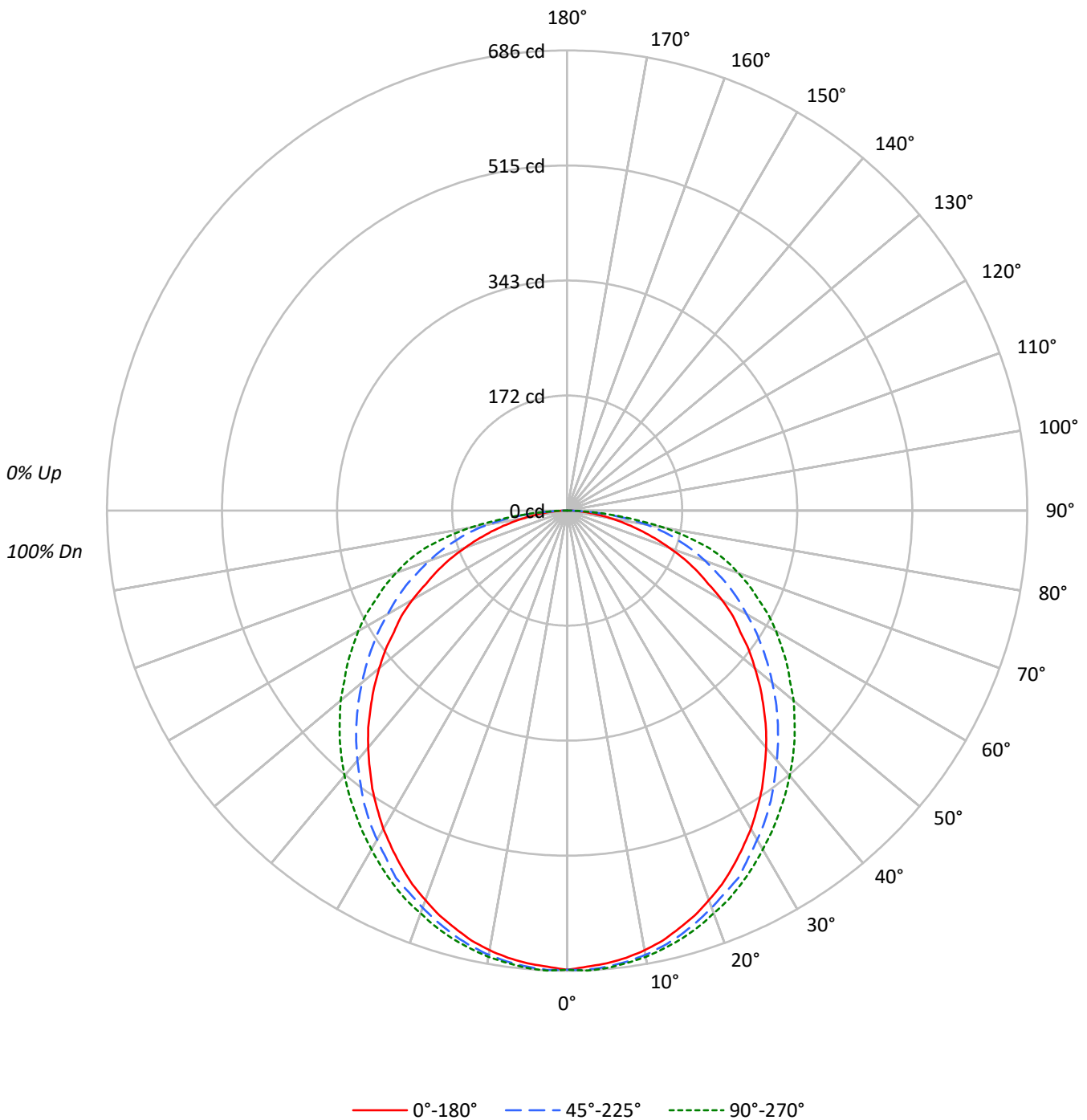
Input Watts (W): 15.531  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1842	1842	1842
5°	1830	1844	1849
10°	1819	1838	1846
15°	1796	1824	1841
20°	1770	1804	1830
25°	1738	1794	1823
30°	1702	1761	1813
35°	1663	1737	1809
40°	1622	1709	1813
45°	1576	1689	1824
50°	1530	1671	1845
55°	1478	1664	1878
60°	1434	1663	1935
65°	1363	1691	2006
70°	1271	1722	2135
75°	1163	1782	2307
80°	1013	1858	2272
85°	886	1652	1803



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.7	3.2
10°-20°	184.4	9.2
20°-30°	276.8	13.7
30°-40°	330.7	16.4
40°-50°	343.9	17.1
50°-60°	318.7	15.8
60°-70°	261.5	13.0
70°-80°	176.8	8.8
80°-90°	55.5	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°	525.9	26.1
0°-40°	856.6	42.6
0°-60°	1519.3	75.5
0°-90°	2013.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2013.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	684	684	684	684	684	
5°	678	678	682	684	684	64
15°	645	648	655	659	661	182
25°	585	590	604	611	614	270
35°	506	513	529	545	551	316
45°	414	422	444	470	479	320
55°	315	325	355	386	400	283
65°	214	226	266	300	315	212
75°	112	131	171	206	222	119
85°	29	40	54	59	58	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	684.5	684.5	684.5	684.5	684.5
2.5°	680.5	682.5	685.4	686.4	686.4
5°	677.5	678.5	682.5	683.5	684.5
7.5°	672.6	674.6	678.5	679.5	680.5
10°	665.6	667.6	672.6	674.6	675.5
12.5°	656.7	658.7	664.6	667.6	668.6
15°	644.8	647.8	654.7	658.7	660.7
17.5°	632.9	635.9	642.9	648.8	650.8
20°	618.1	625.0	630.0	637.9	638.9
22.5°	603.2	607.2	616.1	624.0	628.0
25°	585.4	590.4	604.2	611.2	614.1
27.5°	566.6	573.5	584.4	595.3	599.3
30°	547.8	552.7	566.6	579.5	583.4
32.5°	527.0	533.9	548.8	561.6	567.6
35°	506.2	513.1	528.9	544.8	550.7
37.5°	483.4	491.3	507.2	526.0	533.9
40°	461.6	467.5	486.4	509.1	516.1
42.5°	438.8	445.7	465.5	490.3	498.2
45°	414.0	422.0	443.8	469.5	479.4
47.5°	390.3	398.2	422.0	447.7	459.6
50°	365.5	375.4	399.2	428.9	440.8
52.5°	341.7	350.6	377.4	408.1	419.0
55°	315.0	324.9	354.6	386.3	400.2
57.5°	293.2	300.1	332.8	365.5	379.4
60°	266.5	275.4	309.0	343.7	359.6
62.5°	237.7	252.6	287.3	322.9	338.8
65°	214.0	225.8	265.5	300.1	315.0
67.5°	189.2	202.1	240.7	277.3	294.2
70°	161.5	178.3	218.9	255.6	271.4
72.5°	136.7	154.5	196.1	231.8	248.6
75°	111.9	130.8	171.4	206.0	221.9
77.5°	88.2	109.0	148.6	175.3	185.2
80°	65.4	85.2	119.9	138.7	146.6
82.5°	45.6	62.4	88.2	98.1	100.0
85°	28.7	39.6	53.5	59.4	58.4
87.5°	12.9	15.8	19.8	21.8	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)