

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: P388225

Luminaire Tested: **22CZ2-24VHE-UNV-L935-CD1-SWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P388225  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-24VHE-UNV-L935-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2088.3 lumens  
Efficiency: N/A  
Efficacy: 119.3 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

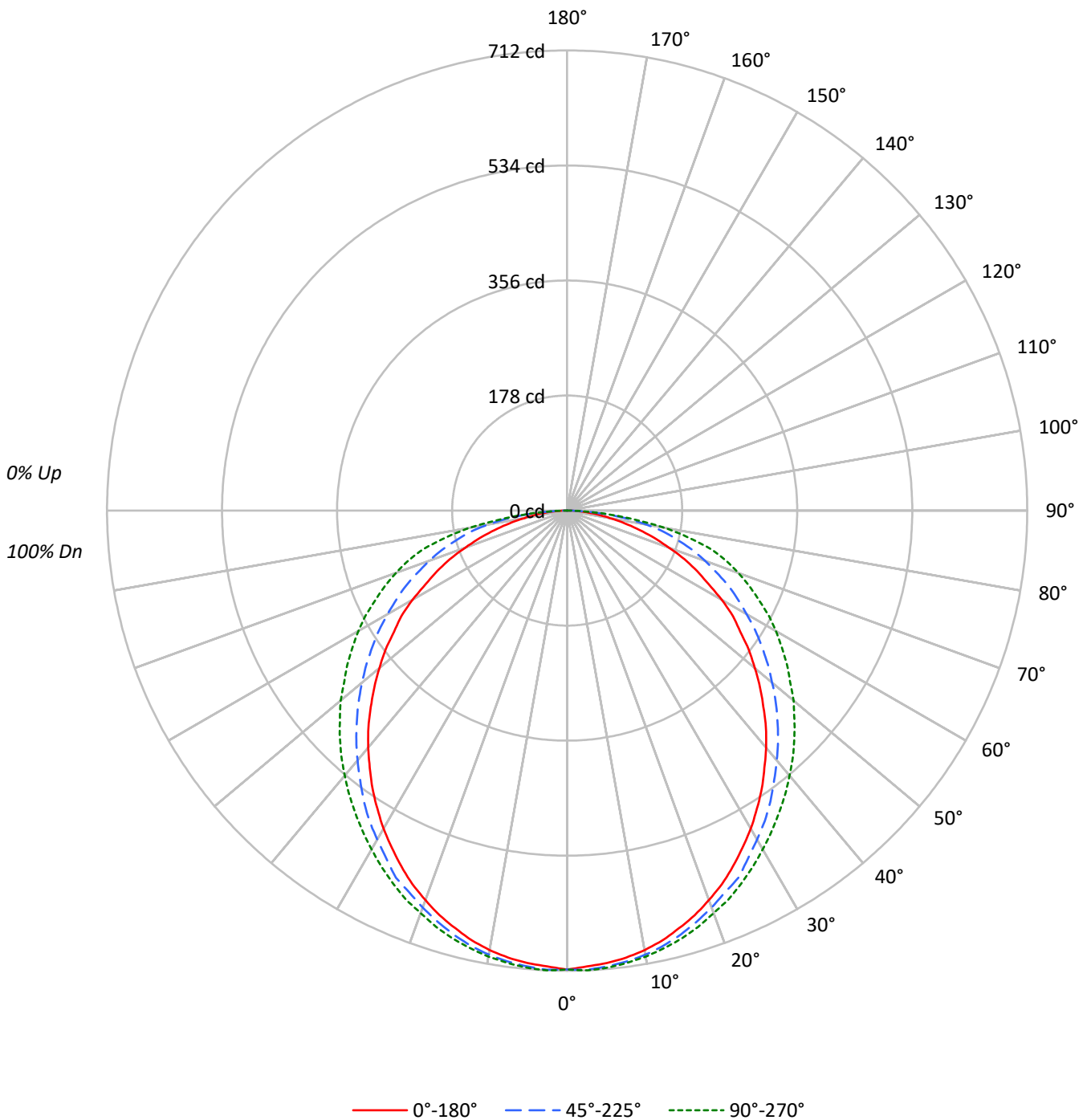
Input Watts (W): 17.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1911	1911	1911
5°	1899	1912	1918
10°	1887	1906	1915
15°	1864	1892	1909
20°	1836	1871	1898
25°	1803	1861	1892
30°	1766	1826	1881
35°	1725	1803	1877
40°	1682	1772	1881
45°	1635	1752	1893
50°	1587	1734	1914
55°	1533	1726	1947
60°	1488	1725	2007
65°	1414	1754	2081
70°	1318	1787	2216
75°	1207	1849	2393
80°	1051	1926	2357
85°	920	1714	1871



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.2	3.2
10°-20°	191.3	9.2
20°-30°	287.1	13.7
30°-40°	343.1	16.4
40°-50°	356.8	17.1
50°-60°	330.7	15.8
60°-70°	271.2	13.0
70°-80°	183.4	8.8
80°-90°	57.6	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°	545.6	26.1
0°-40°	888.7	42.6
0°-60°	1576.1	75.5
0°-90°	2088.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2088.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	710	710	710	710	710	
5°	703	704	708	709	710	67
15°	669	672	679	683	685	189
25°	607	612	627	634	637	280
35°	525	532	549	565	571	328
45°	430	438	460	487	497	332
55°	327	337	368	401	415	294
65°	222	234	275	311	327	219
75°	116	136	178	214	230	123
85°	30	41	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°	710.1	710.1	710.1	710.1	710.1
2.5°	706.0	708.0	711.1	712.1	712.1
5°	702.9	703.9	708.0	709.0	710.1
7.5°	697.7	699.8	703.9	704.9	706.0
10°	690.5	692.6	697.7	699.8	700.8
12.5°	681.3	683.3	689.5	692.6	693.6
15°	669.0	672.0	679.2	683.3	685.4
17.5°	656.6	659.7	666.9	673.1	675.1
20°	641.2	648.4	653.5	661.8	662.8
22.5°	625.8	629.9	639.2	647.4	651.5
25°	607.3	612.4	626.8	634.0	637.1
27.5°	587.8	595.0	606.3	617.6	621.7
30°	568.3	573.4	587.8	601.1	605.2
32.5°	546.7	553.9	569.3	582.6	588.8
35°	525.1	532.3	548.7	565.2	571.3
37.5°	501.5	509.7	526.1	545.6	553.9
40°	478.9	485.0	504.5	528.2	535.4
42.5°	455.2	462.4	483.0	508.7	516.9
45°	429.5	437.8	460.4	487.1	497.4
47.5°	404.9	413.1	437.8	464.5	476.8
50°	379.2	389.5	414.1	444.9	457.3
52.5°	354.5	363.8	391.5	423.4	434.7
55°	326.8	337.0	367.9	400.8	415.1
57.5°	304.2	311.4	345.3	379.2	393.6
60°	276.4	285.7	320.6	356.6	373.0
62.5°	246.6	262.0	298.0	335.0	351.4
65°	222.0	234.3	275.4	311.4	326.8
67.5°	196.3	209.6	249.7	287.7	305.2
70°	167.5	185.0	227.1	265.1	281.6
72.5°	141.8	160.3	203.5	240.5	257.9
75°	116.1	135.6	177.8	213.7	230.2
77.5°	91.5	113.0	154.1	181.9	192.2
80°	67.8	88.4	124.3	143.9	152.1
82.5°	47.3	64.7	91.5	101.7	103.8
85°	29.8	41.1	55.5	61.7	60.6
87.5°	13.4	16.4	20.6	22.6	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)