

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: P277189

Luminaire Tested: **22CZ2-24HE-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277189  
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: 22CZ2-24HE-UNV-L93050-W2A1-U-4000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2085.0 lumens  
Efficiency: N/A  
Efficacy: 115.6 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

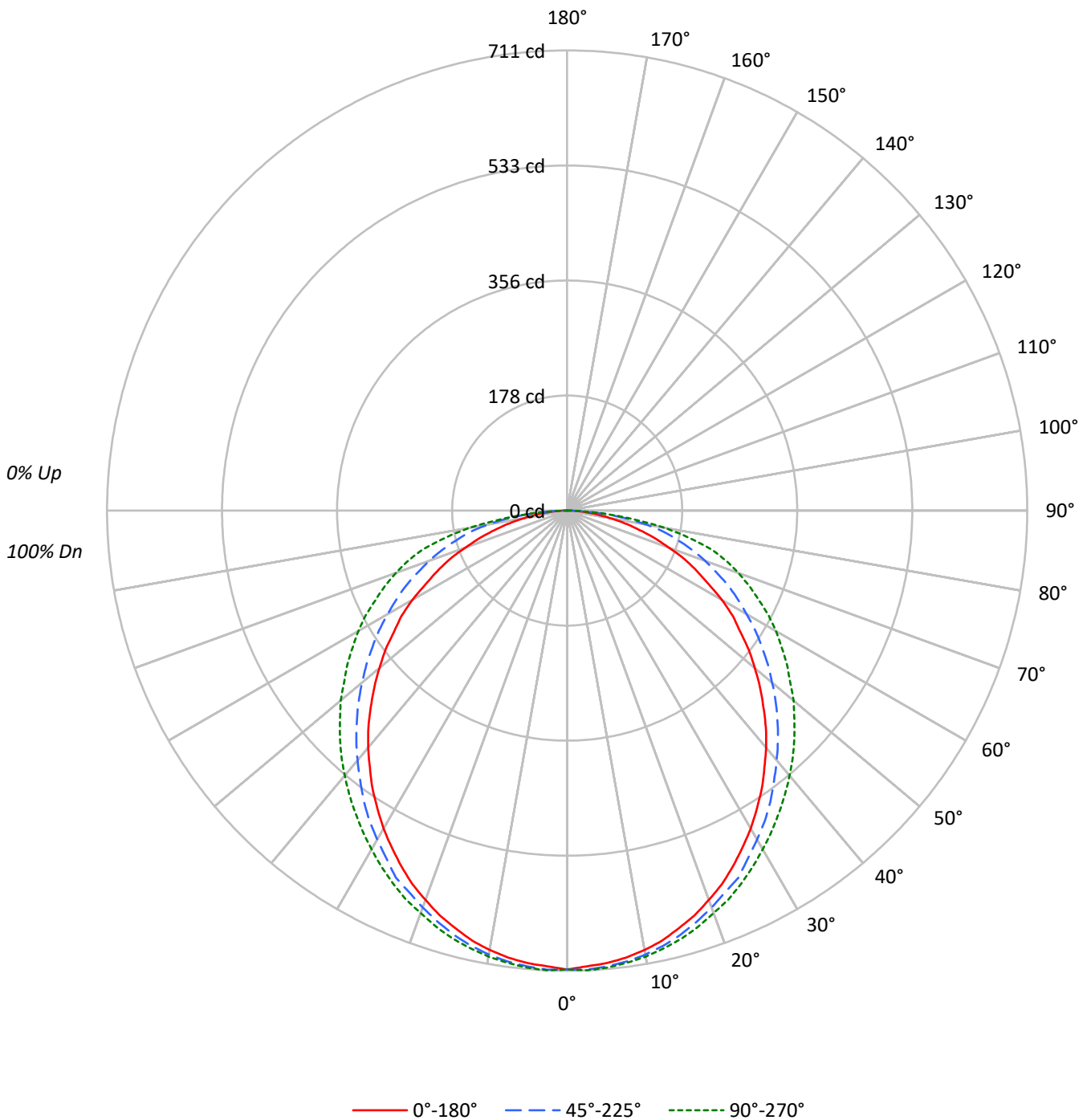
Input Watts (W): 18.034002  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1908	1908	1908
5°	1896	1910	1915
10°	1884	1903	1912
15°	1861	1889	1906
20°	1833	1869	1895
25°	1800	1858	1889
30°	1763	1823	1878
35°	1722	1800	1874
40°	1679	1769	1878
45°	1632	1749	1890
50°	1585	1731	1912
55°	1531	1723	1945
60°	1485	1723	2004
65°	1411	1751	2078
70°	1316	1784	2212
75°	1205	1845	2389
80°	1049	1923	2352
85°	920	1711	1868



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.0	3.2
10°-20°	191.0	9.2
20°-30°	286.7	13.7
30°-40°	342.6	16.4
40°-50°	356.2	17.1
50°-60°	330.2	15.8
60°-70°	270.8	13.0
70°-80°	183.1	8.8
80°-90°	57.5	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°	544.7	26.1
0°-40°	887.3	42.6
0°-60°	1573.6	75.5
0°-90°	2085.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2085.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	702	703	707	708	709	67
15°	668	671	678	682	684	188
25°	606	612	626	633	636	279
35°	524	531	548	564	570	328
45°	429	437	460	486	497	331
55°	326	336	367	400	414	293
65°	222	234	275	311	326	219
75°	116	135	178	213	230	123
85°	30	41	55	62	60	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	708.9	708.9	708.9	708.9	708.9
2.5°	704.8	706.9	710.0	711.0	711.0
5°	701.8	702.8	706.9	707.9	708.9
7.5°	696.6	698.7	702.8	703.8	704.8
10°	689.4	691.5	696.6	698.7	699.7
12.5°	680.2	682.3	688.4	691.5	692.5
15°	667.9	671.0	678.2	682.3	684.3
17.5°	655.6	658.7	665.8	672.0	674.1
20°	640.2	647.4	652.5	660.7	661.7
22.5°	624.8	628.9	638.1	646.4	650.5
25°	606.3	611.5	625.8	633.0	636.1
27.5°	586.8	594.0	605.3	616.6	620.7
30°	567.4	572.5	586.8	600.2	604.3
32.5°	545.8	553.0	568.4	581.7	587.9
35°	524.3	531.4	547.9	564.3	570.4
37.5°	500.7	508.9	525.3	544.8	553.0
40°	478.1	484.3	503.7	527.3	534.5
42.5°	454.5	461.7	482.2	507.9	516.1
45°	428.9	437.1	459.6	486.3	496.6
47.5°	404.2	412.4	437.1	463.7	476.0
50°	378.6	388.8	413.5	444.2	456.6
52.5°	354.0	363.2	390.9	422.7	434.0
55°	326.3	336.5	367.3	400.1	414.5
57.5°	303.7	310.9	344.7	378.6	392.9
60°	276.0	285.2	320.1	356.0	372.4
62.5°	246.2	261.6	297.5	334.5	350.9
65°	221.6	233.9	275.0	310.9	326.3
67.5°	196.0	209.3	249.3	287.3	304.7
70°	167.2	184.7	226.7	264.7	281.1
72.5°	141.6	160.0	203.1	240.1	257.5
75°	115.9	135.4	177.5	213.4	229.8
77.5°	91.3	112.9	153.9	181.6	191.9
80°	67.7	88.2	124.1	143.6	151.8
82.5°	47.2	64.6	91.3	101.6	103.6
85°	29.8	41.0	55.4	61.6	60.5
87.5°	13.3	16.4	20.5	22.6	21.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)