

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: P277539

Luminaire Tested: **22CZ2-39HE-RDP-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277539  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39HE-RDP-UNV-L93050-W2A1-U-3500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2088.0 lumens  
Efficiency: N/A  
Efficacy: 68.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

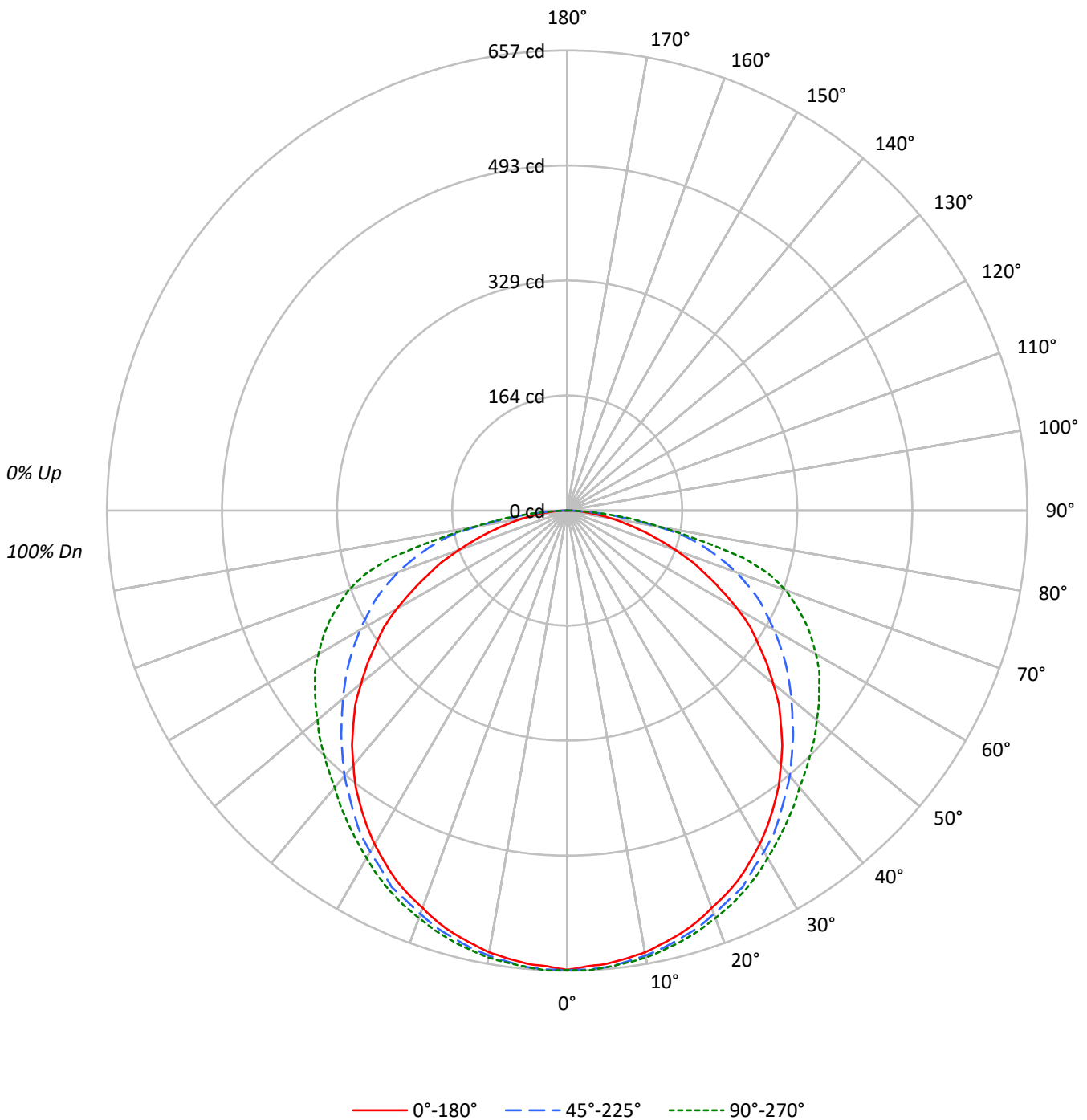
Input Watts (W): 30.704508  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1765	1765	1765
5°	1755	1767	1767
10°	1750	1763	1771
15°	1742	1759	1772
20°	1729	1755	1773
25°	1724	1760	1779
30°	1709	1747	1780
35°	1691	1741	1791
40°	1667	1737	1813
45°	1643	1736	1870
50°	1608	1749	1948
55°	1564	1787	2061
60°	1513	1835	2207
65°	1408	1927	2387
70°	1293	2018	2611
75°	1134	2124	2699
80°	976	2024	2118
85°	852	1470	1612



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.0	3.0
10°-20°	178.1	8.5
20°-30°	271.8	13.0
30°-40°	331.8	15.9
40°-50°	354.8	17.0
50°-60°	342.5	16.4
60°-70°	294.8	14.1
70°-80°	199.5	9.6
80°-90°	52.6	2.5
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°	512.0	24.5
0°-40°	843.8	40.4
0°-60°	1541.1	73.8
0°-90°	2088.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2088.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	656	656	656	656	656	
5°	650	651	654	654	654	62
15°	625	627	631	634	636	176
25°	581	584	593	596	599	267
35°	515	519	530	541	545	322
45°	432	439	456	479	492	333
55°	333	344	381	419	439	299
65°	221	243	303	350	375	220
75°	109	144	204	246	260	117
85°	28	38	48	49	52	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	655.9	655.9	655.9	655.9	655.9
2.5°	651.3	652.8	655.9	655.9	657.4
5°	649.7	651.3	654.3	654.3	654.3
7.5°	645.1	646.7	649.7	651.3	651.3
10°	640.5	642.1	645.1	646.7	648.2
12.5°	632.8	634.4	639.0	642.1	642.1
15°	625.2	626.7	631.3	634.4	635.9
17.5°	615.9	619.0	623.6	626.7	628.2
20°	603.7	606.7	612.9	617.5	619.0
22.5°	592.9	596.0	602.1	606.7	609.8
25°	580.6	583.7	592.9	596.0	599.0
27.5°	565.3	568.3	576.0	582.1	586.8
30°	549.9	553.0	562.2	569.9	572.9
32.5°	533.0	537.6	548.4	554.5	559.1
35°	514.6	519.2	529.9	540.7	545.3
37.5°	496.1	500.7	511.5	525.3	531.5
40°	474.6	480.8	494.6	513.0	516.1
42.5°	454.7	462.3	474.6	496.1	503.8
45°	431.6	439.3	456.2	479.2	491.5
47.5°	410.1	417.8	436.2	463.9	479.2
50°	384.0	394.8	417.8	450.1	465.4
52.5°	359.4	368.6	399.4	434.7	453.1
55°	333.3	344.1	380.9	419.3	439.3
57.5°	310.3	319.5	361.0	404.0	427.0
60°	281.1	293.4	341.0	387.1	410.1
62.5°	250.4	268.8	321.0	368.6	393.2
65°	221.2	242.7	302.6	350.2	374.8
67.5°	195.1	218.1	279.6	330.2	353.3
70°	164.4	193.5	256.5	305.7	331.8
72.5°	136.7	169.0	230.4	279.6	302.6
75°	109.1	144.4	204.3	245.8	259.6
77.5°	84.5	118.3	175.1	187.4	188.9
80°	63.0	93.7	130.6	132.1	136.7
82.5°	43.0	66.0	84.5	92.2	93.7
85°	27.6	38.4	47.6	49.2	52.2
87.5°	12.3	13.8	16.9	15.4	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)