

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: P277540

Luminaire Tested: **22CZ2-39HE-RDP-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277540  
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-4000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2255.0 lumens  
Efficiency: N/A  
Efficacy: 72.9 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

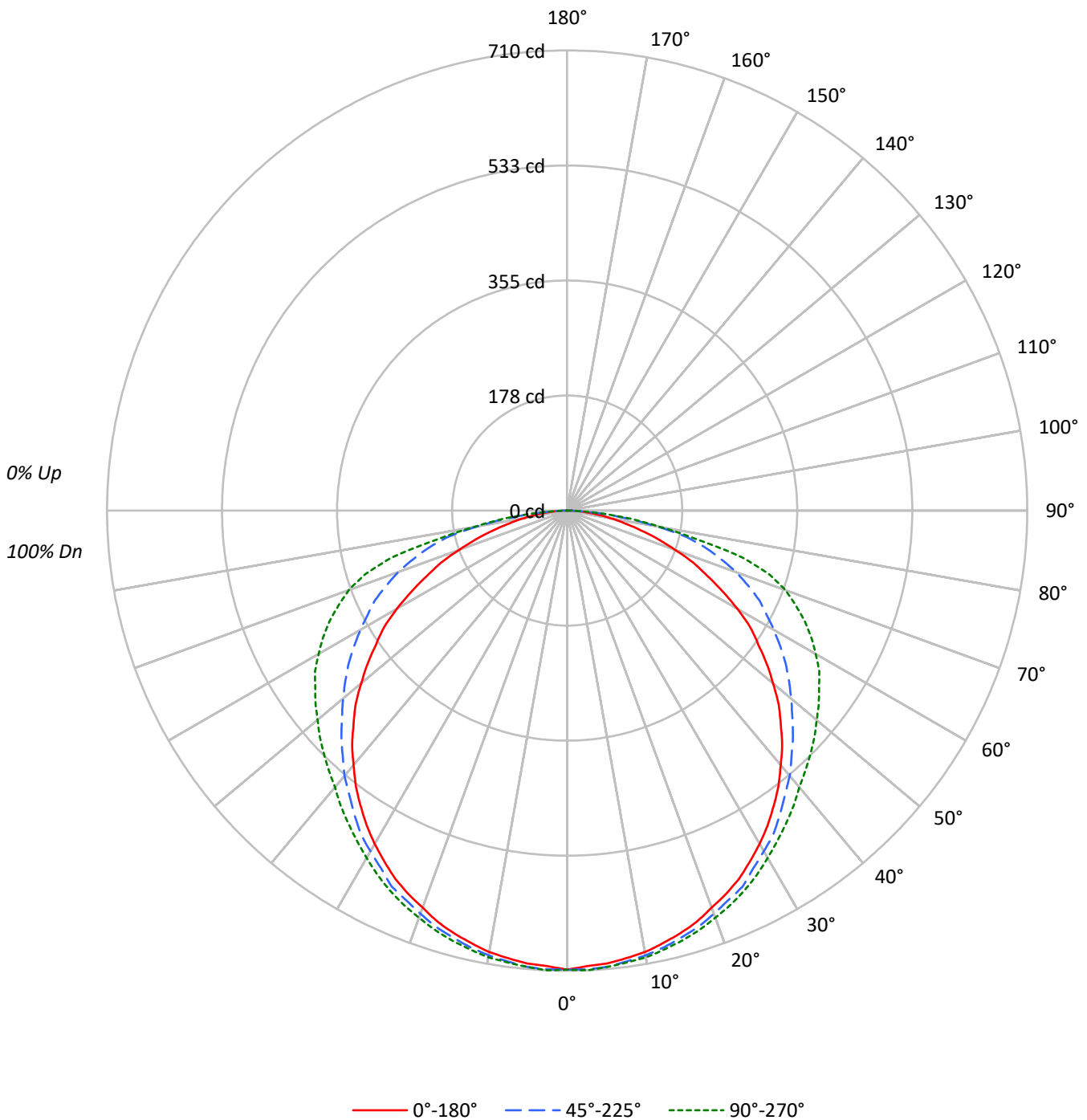
Input Watts (W): 30.915432  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1906	1906	1906
5°	1895	1909	1909
10°	1890	1904	1913
15°	1881	1899	1913
20°	1867	1895	1914
25°	1862	1901	1921
30°	1845	1886	1923
35°	1826	1880	1935
40°	1801	1877	1958
45°	1774	1875	2020
50°	1736	1889	2104
55°	1689	1930	2226
60°	1634	1982	2384
65°	1521	2081	2578
70°	1397	2179	2819
75°	1225	2294	2914
80°	1054	2185	2287
85°	923	1587	1741



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.0	3.0
10°-20°	192.4	8.5
20°-30°	293.5	13.0
30°-40°	358.4	15.9
40°-50°	383.2	17.0
50°-60°	369.9	16.4
60°-70°	318.4	14.1
70°-80°	215.4	9.6
80°-90°	56.8	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°	552.9	24.5
0°-40°	911.3	40.4
0°-60°	1664.3	73.8
0°-90°	2255.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2255.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	702	703	707	707	707	67
15°	675	677	682	685	687	190
25°	627	630	640	644	647	289
35°	556	561	572	584	589	348
45°	466	474	493	518	531	360
55°	360	372	411	453	474	323
65°	239	262	327	378	405	238
75°	118	156	221	265	280	126
85°	30	42	51	53	56	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	708.3	708.3	708.3	708.3	708.3
2.5°	703.4	705.0	708.3	708.3	710.0
5°	701.7	703.4	706.7	706.7	706.7
7.5°	696.7	698.4	701.7	703.4	703.4
10°	691.7	693.4	696.7	698.4	700.0
12.5°	683.5	685.1	690.1	693.4	693.4
15°	675.2	676.8	681.8	685.1	686.8
17.5°	665.2	668.5	673.5	676.8	678.5
20°	651.9	655.3	661.9	666.9	668.5
22.5°	640.3	643.6	650.3	655.3	658.6
25°	627.1	630.4	640.3	643.6	647.0
27.5°	610.5	613.8	622.1	628.7	633.7
30°	593.9	597.2	607.1	615.4	618.8
32.5°	575.6	580.6	592.2	598.8	603.8
35°	555.7	560.7	572.3	583.9	588.9
37.5°	535.8	540.8	552.4	567.3	574.0
40°	512.6	519.2	534.2	554.1	557.4
42.5°	491.0	499.3	512.6	535.8	544.1
45°	466.1	474.4	492.7	517.6	530.8
47.5°	442.9	451.2	471.1	501.0	517.6
50°	414.7	426.3	451.2	486.0	502.6
52.5°	388.2	398.1	431.3	469.5	489.4
55°	360.0	371.6	411.4	452.9	474.4
57.5°	335.1	345.0	389.8	436.3	461.2
60°	303.6	316.8	368.3	418.0	442.9
62.5°	270.4	290.3	346.7	398.1	424.7
65°	238.9	262.1	326.8	378.2	404.8
67.5°	210.7	235.6	301.9	356.7	381.5
70°	177.5	209.0	277.0	330.1	358.3
72.5°	147.6	182.5	248.8	301.9	326.8
75°	117.8	155.9	220.6	265.4	280.3
77.5°	91.2	127.7	189.1	202.4	204.0
80°	68.0	101.2	141.0	142.7	147.6
82.5°	46.4	71.3	91.2	99.5	101.2
85°	29.9	41.5	51.4	53.1	56.4
87.5°	13.3	14.9	18.2	16.6	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)