

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: P277472

Luminaire Tested: **22CZ2-39HE-S-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277472  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39HE-S-UNV-L92765-W2A1-U-3500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3311.0 lumens  
Efficiency: N/A  
Efficacy: 109.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

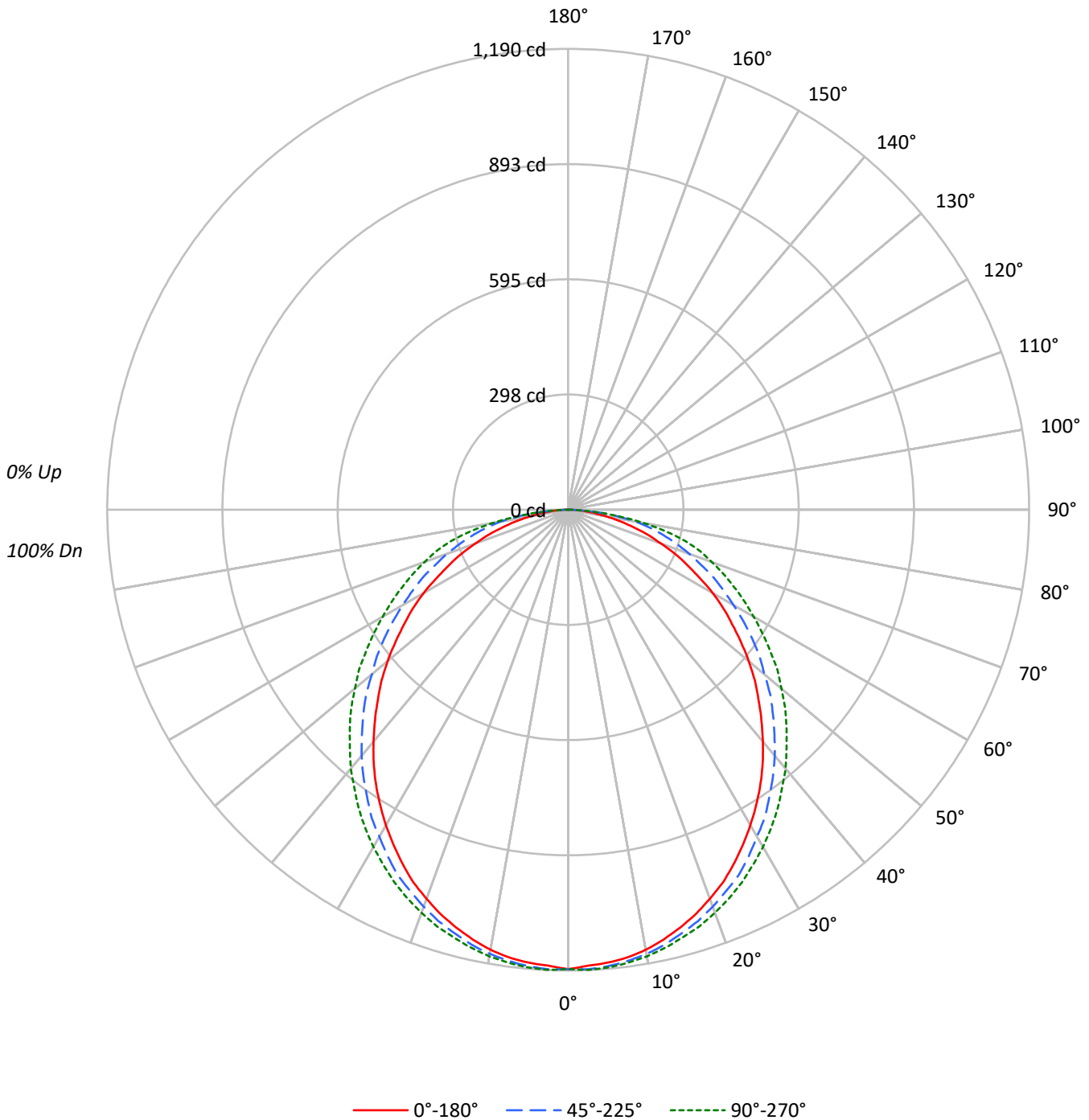
Input Watts (W): 30.225  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	3193	3193	3193
5°	3172	3196	3205
10°	3153	3183	3200
15°	3112	3155	3185
20°	3061	3123	3172
25°	3000	3091	3151
30°	2923	3029	3125
35°	2842	2974	3096
40°	2746	2914	3066
45°	2646	2845	3033
50°	2548	2768	3007
55°	2428	2718	2986
60°	2320	2652	2977
65°	2164	2636	3010
70°	1994	2613	3099
75°	1799	2650	3261
80°	1556	2729	3064
85°	1288	2291	2291



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.2	3.4
10°-20°	319.3	9.6
20°-30°	477.8	14.4
30°-40°	565.8	17.1
40°-50°	576.6	17.4
50°-60°	516.8	15.6
60°-70°	404.6	12.2
70°-80°	260.9	7.9
80°-90°	77.1	2.3
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°	909.2	27.5
0°-40°	1475.0	44.5
0°-60°	2568.4	77.6
0°-90°	3311.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3311.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1174	1177	1183	1185	1186	111
15°	1117	1123	1132	1142	1143	315
25°	1010	1020	1041	1055	1061	465
35°	865	876	905	933	942	541
45°	695	711	748	786	797	537
55°	518	534	579	620	636	464
65°	340	360	414	454	473	338
75°	173	199	255	298	314	186
85°	42	57	74	74	74	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1186.4	1186.4	1186.4	1186.4	1186.4
2.5°	1178.7	1181.8	1188.0	1189.5	1189.5
5°	1174.1	1177.2	1183.3	1184.9	1186.4
7.5°	1166.4	1167.9	1175.6	1178.7	1180.3
10°	1154.0	1157.1	1164.8	1169.4	1171.0
12.5°	1137.0	1141.6	1150.9	1157.1	1158.6
15°	1116.9	1123.1	1132.4	1141.6	1143.2
17.5°	1095.3	1101.5	1113.8	1124.6	1127.7
20°	1069.0	1076.8	1090.7	1103.0	1107.6
22.5°	1042.8	1048.9	1065.9	1081.4	1086.0
25°	1010.3	1019.6	1041.2	1055.1	1061.3
27.5°	976.3	987.2	1008.8	1027.3	1033.5
30°	940.8	951.6	974.8	998.0	1005.7
32.5°	903.7	916.1	943.9	967.1	974.8
35°	865.1	875.9	905.3	933.1	942.4
37.5°	824.9	834.2	868.2	897.6	906.8
40°	781.7	794.0	829.6	863.6	872.8
42.5°	738.4	752.3	787.9	824.9	834.2
45°	695.2	710.6	747.7	786.3	797.1
47.5°	653.5	665.8	707.5	744.6	760.1
50°	608.7	621.0	661.2	702.9	718.3
52.5°	562.3	579.3	622.6	662.7	681.3
55°	517.5	534.5	579.3	619.5	636.5
57.5°	475.8	489.7	536.1	577.8	594.8
60°	431.0	443.4	492.8	537.6	553.1
62.5°	383.1	401.7	452.6	494.3	512.9
65°	339.9	359.9	414.0	454.2	472.7
67.5°	299.7	318.2	370.8	414.0	434.1
70°	253.4	278.1	332.1	375.4	393.9
72.5°	216.3	237.9	293.5	336.8	356.9
75°	173.0	199.3	254.9	298.2	313.6
77.5°	137.5	163.8	216.3	250.3	258.0
80°	100.4	126.7	176.1	193.1	197.7
82.5°	68.0	92.7	126.7	131.3	132.9
85°	41.7	57.2	74.2	74.2	74.2
87.5°	20.1	23.2	26.3	24.7	24.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)