

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: P277250

Luminaire Tested: **22CZ2-39HE-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277250  
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: 22CZ2-39HE-UNV-L82765-W2A1-U-3500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3584.0 lumens  
Efficiency: N/A  
Efficacy: 118.2 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

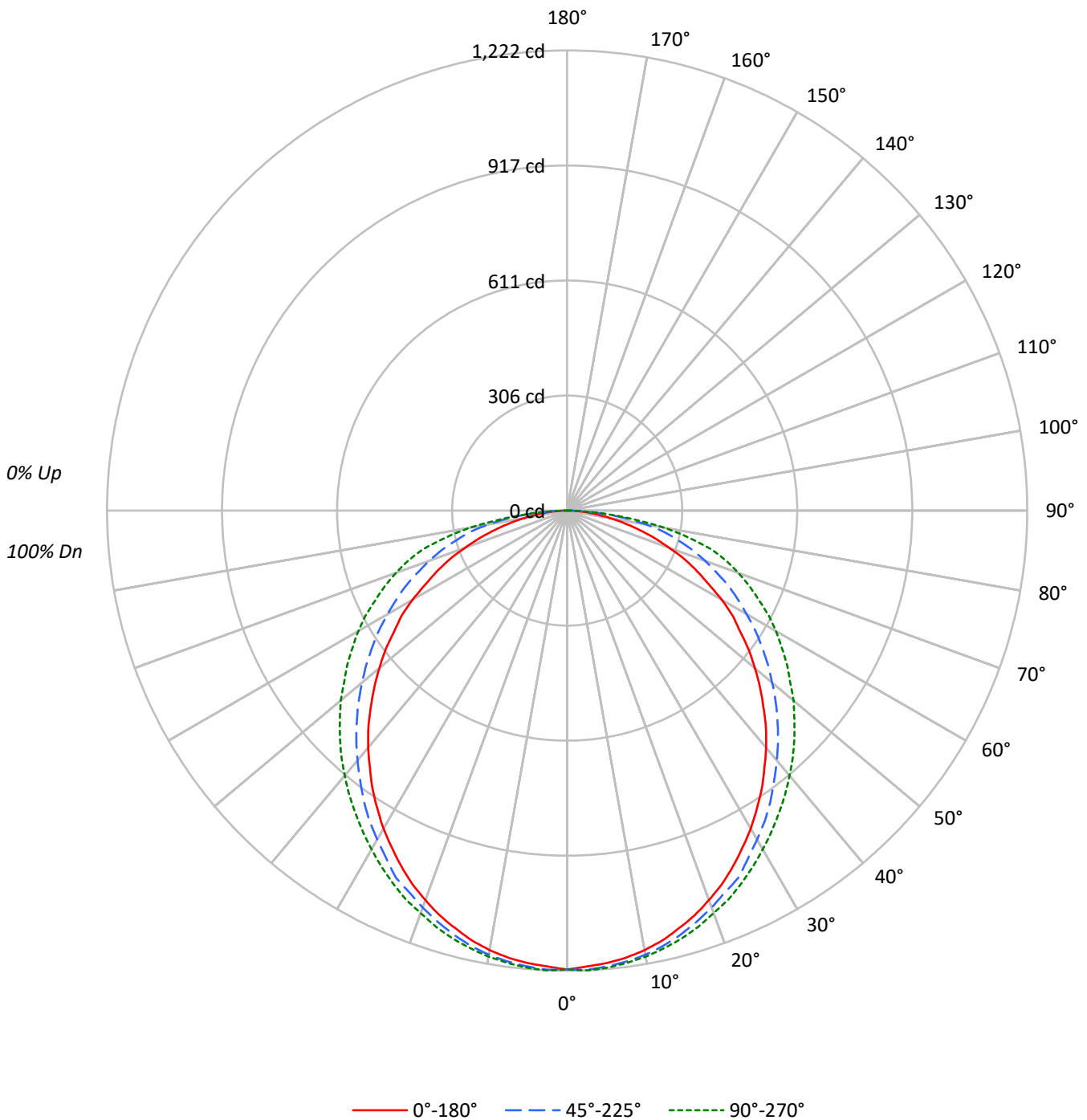
Input Watts (W): 30.318  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P277250

CATALOG NUMBER: 22CZ2-39HE-UNV-L82765-W2A1-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P277250

CATALOG NUMBER: 22CZ2-39HE-UNV-L82765-W2A1-U-3500K

**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°	3279	3279	3279
5°	3259	3282	3292
10°	3238	3272	3287
15°	3198	3248	3277
20°	3151	3212	3257
25°	3095	3194	3246
30°	3031	3135	3228
35°	2961	3094	3221
40°	2887	3042	3228
45°	2806	3007	3248
50°	2725	2975	3286
55°	2631	2962	3343
60°	2553	2961	3446
65°	2425	3009	3571
70°	2262	3066	3802
75°	2072	3172	4107
80°	1804	3307	4045
85°	1578	2939	3214



TEST NUMBER: P277250

CATALOG NUMBER: 22CZ2-39HE-UNV-L82765-W2A1-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.2	3.2
10°-20°	328.3	9.2
20°-30°	492.8	13.7
30°-40°	588.8	16.4
40°-50°	612.3	17.1
50°-60°	567.5	15.8
60°-70°	465.5	13.0
70°-80°	314.7	8.8
80°-90°	98.9	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°	936.3	26.1
0°-40°	1525.1	42.6
0°-60°	2705.0	75.5
0°-90°	3584.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3584.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1219	1219	1219	1219	1219	
5°	1206	1208	1215	1217	1219	114
15°	1148	1153	1166	1173	1176	324
25°	1042	1051	1076	1088	1093	480
35°	901	914	942	970	980	563
45°	737	751	790	836	854	569
55°	561	578	631	688	712	504
65°	381	402	473	534	561	377
75°	199	233	305	367	395	211
85°	51	70	95	106	104	58
90°	0	0	0	0	0	



TEST NUMBER: P277250

CATALOG NUMBER: 22CZ2-39HE-UNV-L82765-W2A1-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1218.6	1218.6	1218.6	1218.6	1218.6
2.5°	1211.6	1215.1	1220.4	1222.2	1222.2
5°	1206.3	1208.0	1215.1	1216.9	1218.6
7.5°	1197.5	1201.0	1208.0	1209.8	1211.6
10°	1185.1	1188.6	1197.5	1201.0	1202.8
12.5°	1169.2	1172.8	1183.4	1188.6	1190.4
15°	1148.1	1153.4	1165.7	1172.8	1176.3
17.5°	1126.9	1132.2	1144.6	1155.1	1158.7
20°	1100.5	1112.8	1121.6	1135.7	1137.5
22.5°	1074.0	1081.1	1096.9	1111.0	1118.1
25°	1042.3	1051.1	1075.8	1088.1	1093.4
27.5°	1008.8	1021.1	1040.5	1059.9	1067.0
30°	975.3	984.1	1008.8	1031.7	1038.7
32.5°	938.2	950.6	977.0	999.9	1010.5
35°	901.2	913.5	941.7	970.0	980.5
37.5°	860.6	874.7	902.9	936.5	950.6
40°	821.8	832.4	865.9	906.5	918.8
42.5°	781.3	793.6	828.9	873.0	887.1
45°	737.2	751.3	790.1	835.9	853.6
47.5°	694.8	709.0	751.3	797.1	818.3
50°	650.8	668.4	710.7	763.6	784.8
52.5°	608.4	624.3	671.9	726.6	746.0
55°	560.8	578.5	631.4	687.8	712.5
57.5°	522.0	534.4	592.6	650.8	675.4
60°	474.4	490.3	550.2	612.0	640.2
62.5°	423.3	449.7	511.4	574.9	603.1
65°	380.9	402.1	472.6	534.4	560.8
67.5°	336.8	359.8	428.5	493.8	523.8
70°	287.5	317.4	389.7	455.0	483.2
72.5°	243.4	275.1	349.2	412.7	442.7
75°	199.3	232.8	305.1	366.8	395.0
77.5°	157.0	194.0	264.5	312.2	329.8
80°	116.4	151.7	213.4	246.9	261.0
82.5°	81.1	111.1	157.0	174.6	178.1
85°	51.1	70.5	95.2	105.8	104.1
87.5°	22.9	28.2	35.3	38.8	37.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)