

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: P389216

Luminaire Tested: **22CZ2-34VHE-S-UNV-L950-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P389216  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-34VHE-S-UNV-L950-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3427.8 lumens  
Efficiency: N/A  
Efficacy: 136.6 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

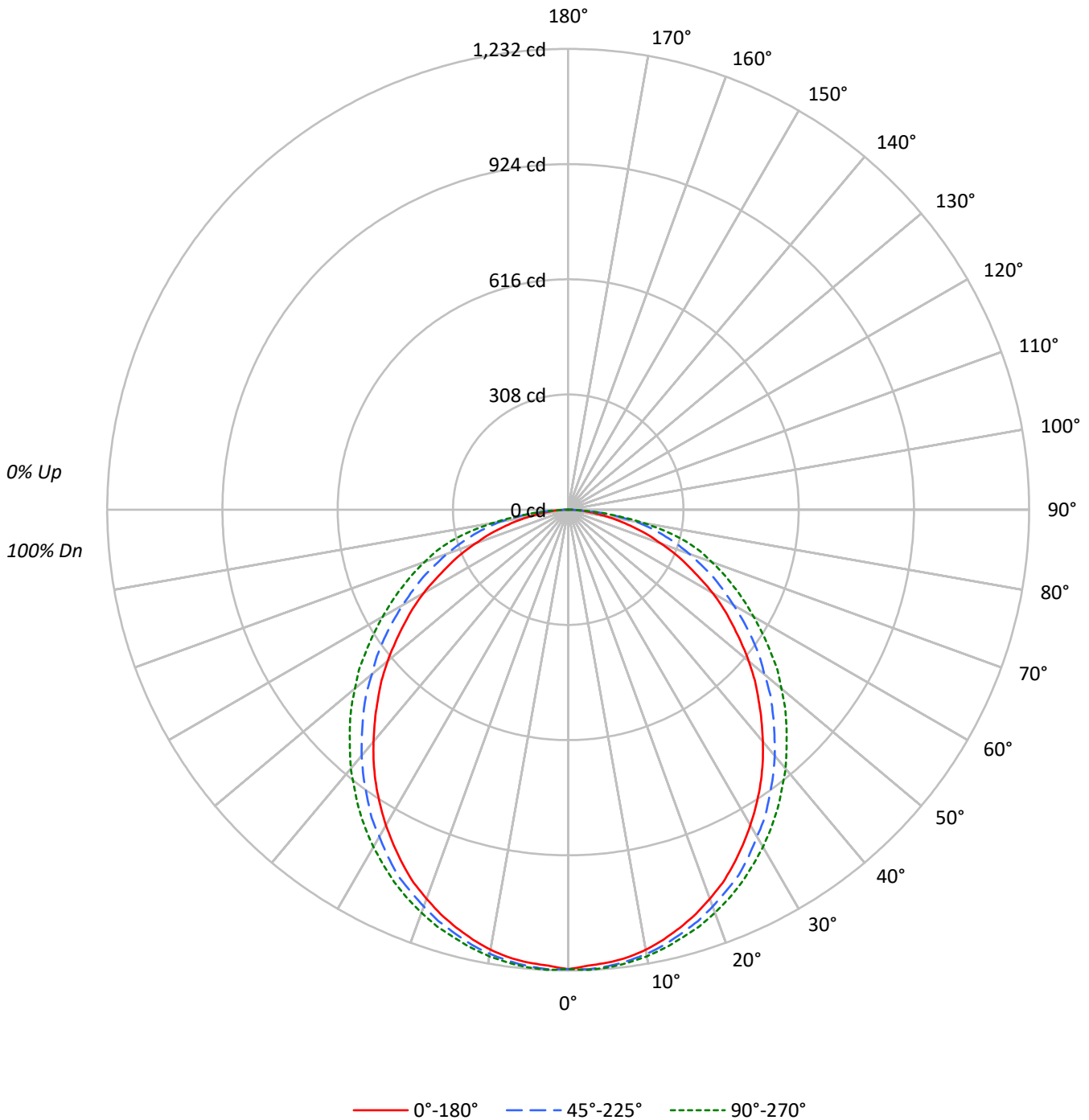
Input Watts (W): 25.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P389216

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L950-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P389216

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L950-CD1-U

**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°	3305	3305	3305
5°	3283	3309	3318
10°	3265	3295	3313
15°	3221	3266	3297
20°	3169	3233	3284
25°	3106	3201	3262
30°	3026	3136	3235
35°	2942	3079	3205
40°	2843	3017	3174
45°	2739	2946	3141
50°	2638	2866	3113
55°	2514	2814	3091
60°	2401	2746	3082
65°	2241	2729	3116
70°	2064	2706	3209
75°	1862	2744	3376
80°	1612	2825	3172
85°	1334	2371	2371



TEST NUMBER: P389216

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L950-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.2	3.4
10°-20°	330.6	9.6
20°-30°	494.6	14.4
30°-40°	585.7	17.1
40°-50°	596.9	17.4
50°-60°	535.0	15.6
60°-70°	418.9	12.2
70°-80°	270.1	7.9
80°-90°	79.8	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°	941.3	27.5
0°-40°	1527.1	44.5
0°-60°	2659.0	77.6
0°-90°	3427.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3427.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1216	1219	1225	1227	1228	115
15°	1156	1163	1172	1182	1184	326
25°	1046	1056	1078	1092	1099	481
35°	896	907	937	966	976	560
45°	720	736	774	814	825	556
55°	536	553	600	641	659	480
65°	352	373	429	470	489	350
75°	179	206	264	309	325	192
85°	43	59	77	77	77	51
90°	0	0	0	0	0	



TEST NUMBER: P389216

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1228.3	1228.3	1228.3	1228.3	1228.3
2.5°	1220.3	1223.5	1229.9	1231.5	1231.5
5°	1215.5	1218.7	1225.1	1226.7	1228.3
7.5°	1207.5	1209.1	1217.1	1220.3	1221.9
10°	1194.7	1197.9	1205.9	1210.7	1212.3
12.5°	1177.1	1181.9	1191.5	1197.9	1199.5
15°	1156.3	1162.7	1172.3	1181.9	1183.5
17.5°	1133.9	1140.3	1153.1	1164.3	1167.5
20°	1106.7	1114.7	1129.1	1141.9	1146.7
22.5°	1079.5	1085.9	1103.5	1119.5	1124.3
25°	1046.0	1055.6	1078.0	1092.3	1098.7
27.5°	1010.8	1022.0	1044.4	1063.6	1070.0
30°	974.0	985.2	1009.2	1033.2	1041.2
32.5°	935.6	948.4	977.2	1001.2	1009.2
35°	895.6	906.8	937.2	966.0	975.6
37.5°	854.0	863.6	898.8	929.2	938.8
40°	809.3	822.1	858.8	894.0	903.6
42.5°	764.5	778.9	815.7	854.0	863.6
45°	719.7	735.7	774.1	814.1	825.3
47.5°	676.5	689.3	732.5	770.9	786.9
50°	630.1	642.9	684.5	727.7	743.7
52.5°	582.2	599.7	644.5	686.1	705.3
55°	535.8	553.4	599.7	641.3	658.9
57.5°	492.6	507.0	555.0	598.2	615.7
60°	446.2	459.0	510.2	556.6	572.6
62.5°	396.6	415.8	468.6	511.8	531.0
65°	351.9	372.6	428.6	470.2	489.4
67.5°	310.3	329.5	383.8	428.6	449.4
70°	262.3	287.9	343.9	388.6	407.8
72.5°	223.9	246.3	303.9	348.7	369.4
75°	179.1	206.3	263.9	308.7	324.7
77.5°	142.3	169.5	223.9	259.1	267.1
80°	104.0	131.1	182.3	199.9	204.7
82.5°	70.4	96.0	131.1	135.9	137.5
85°	43.2	59.2	76.8	76.8	76.8
87.5°	20.8	24.0	27.2	25.6	25.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)