

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: P388304

Luminaire Tested: **22CZ2-39VHE-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: P388304  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39VHE-UNV-L950-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

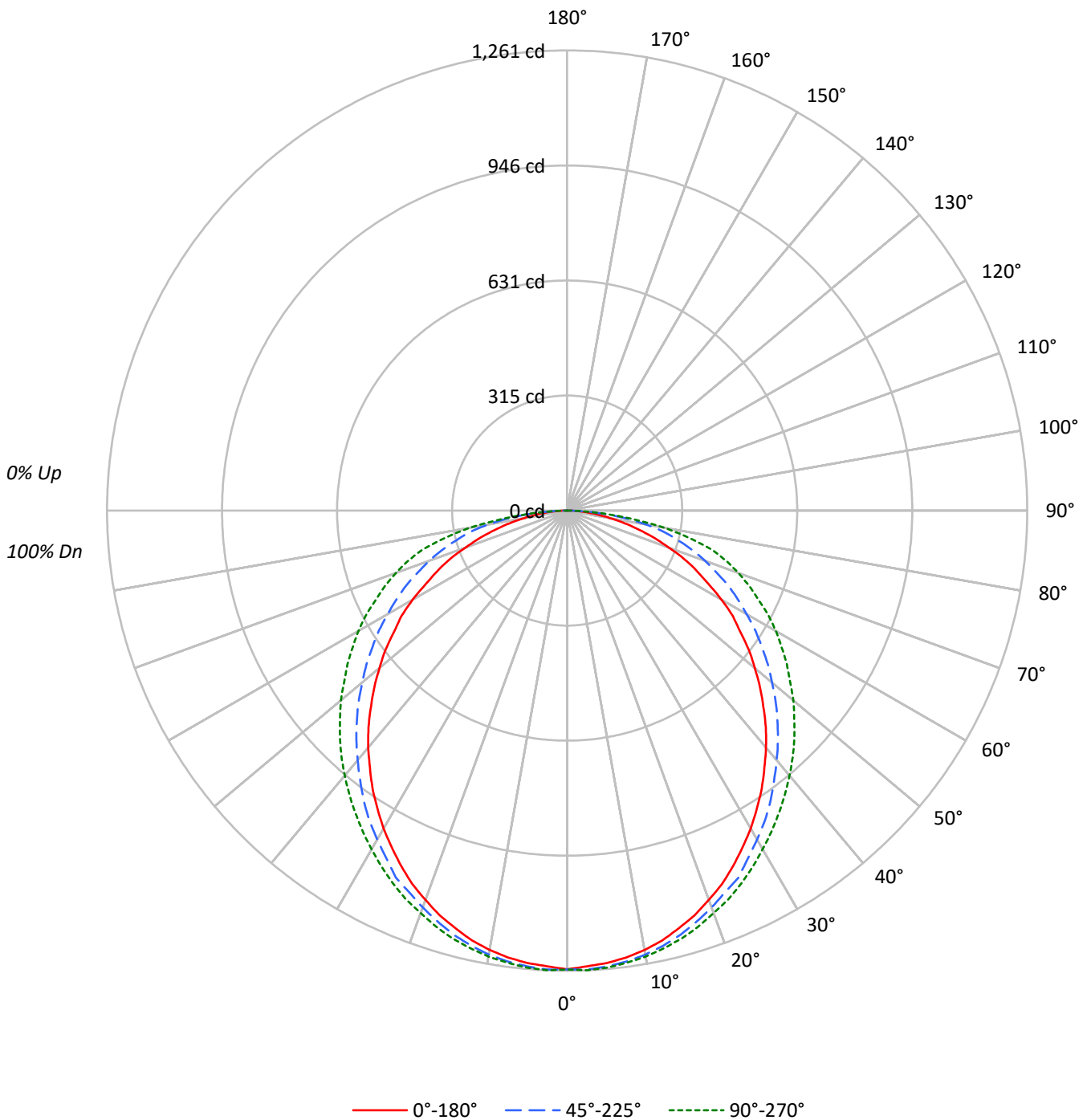
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3697.5 lumens  
Efficiency: N/A  
Efficacy: 129.3 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): 28.6  
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: P388304  
CATALOG NUMBER: 22CZ2-39VHE-UNV-L950-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P388304

CATALOG NUMBER: 22CZ2-39VHE-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	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°	3383	3383	3383
5°	3362	3386	3396
10°	3341	3376	3390
15°	3300	3350	3381
20°	3251	3314	3361
25°	3193	3295	3349
30°	3126	3234	3330
35°	3054	3192	3323
40°	2978	3138	3330
45°	2894	3102	3351
50°	2811	3069	3389
55°	2715	3056	3448
60°	2634	3055	3554
65°	2502	3105	3684
70°	2334	3164	3922
75°	2138	3273	4237
80°	1861	3411	4173
85°	1630	3032	3313



TEST NUMBER: P388304

CATALOG NUMBER: 22CZ2-39VHE-UNV-L950-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.9	3.2
10°-20°	338.7	9.2
20°-30°	508.4	13.7
30°-40°	607.5	16.4
40°-50°	631.7	17.1
50°-60°	585.5	15.8
60°-70°	480.2	13.0
70°-80°	324.6	8.8
80°-90°	102.0	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°	965.9	26.1
0°-40°	1573.4	42.6
0°-60°	2790.6	75.5
0°-90°	3697.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3697.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1257	1257	1257	1257	1257	
5°	1244	1246	1254	1255	1257	118
15°	1184	1190	1203	1210	1214	334
25°	1075	1084	1110	1123	1128	495
35°	930	942	972	1001	1012	581
45°	760	775	815	862	881	587
55°	579	597	651	710	735	520
65°	393	415	488	551	579	388
75°	206	240	315	378	408	218
85°	53	73	98	109	107	60
90°	0	0	0	0	0	



TEST NUMBER: P388304

CATALOG NUMBER: 22CZ2-39VHE-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1257.2	1257.2	1257.2	1257.2	1257.2
2.5°	1249.9	1253.6	1259.0	1260.9	1260.9
5°	1244.5	1246.3	1253.6	1255.4	1257.2
7.5°	1235.4	1239.0	1246.3	1248.1	1249.9
10°	1222.6	1226.3	1235.4	1239.0	1240.8
12.5°	1206.3	1209.9	1220.8	1226.3	1228.1
15°	1184.4	1189.9	1202.6	1209.9	1213.6
17.5°	1162.6	1168.1	1180.8	1191.7	1195.4
20°	1135.3	1148.1	1157.2	1171.7	1173.5
22.5°	1108.0	1115.3	1131.7	1146.2	1153.5
25°	1075.3	1084.4	1109.8	1122.6	1128.0
27.5°	1040.7	1053.4	1073.5	1093.5	1100.7
30°	1006.1	1015.2	1040.7	1064.4	1071.6
32.5°	967.9	980.7	1008.0	1031.6	1042.5
35°	929.7	942.5	971.6	1000.7	1011.6
37.5°	887.9	902.4	931.5	966.1	980.7
40°	847.8	858.8	893.3	935.2	947.9
42.5°	806.0	818.7	855.1	900.6	915.2
45°	760.5	775.1	815.1	862.4	880.6
47.5°	716.9	731.4	775.1	822.4	844.2
50°	671.4	689.6	733.2	787.8	809.6
52.5°	627.7	644.1	693.2	749.6	769.6
55°	578.6	596.8	651.4	709.6	735.0
57.5°	538.5	551.3	611.3	671.4	696.8
60°	489.4	505.8	567.7	631.3	660.4
62.5°	436.7	464.0	527.6	593.1	622.2
65°	393.0	414.8	487.6	551.3	578.6
67.5°	347.5	371.2	442.1	509.4	540.4
70°	296.6	327.5	402.1	469.4	498.5
72.5°	251.1	283.8	360.2	425.7	456.7
75°	205.6	240.2	314.8	378.4	407.5
77.5°	161.9	200.1	272.9	322.0	340.2
80°	120.1	156.5	220.1	254.7	269.3
82.5°	83.7	114.6	161.9	180.1	183.8
85°	52.8	72.8	98.2	109.2	107.3
87.5°	23.7	29.1	36.4	40.0	38.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)