

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: P387966

Luminaire Tested: **22CZ2-39VHE-SQR-UNV-L940-CD1-SDWPD1-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: P387966  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39VHE-SQR-UNV-L940-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3264.2 lumens  
Efficiency: N/A  
Efficacy: 114.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

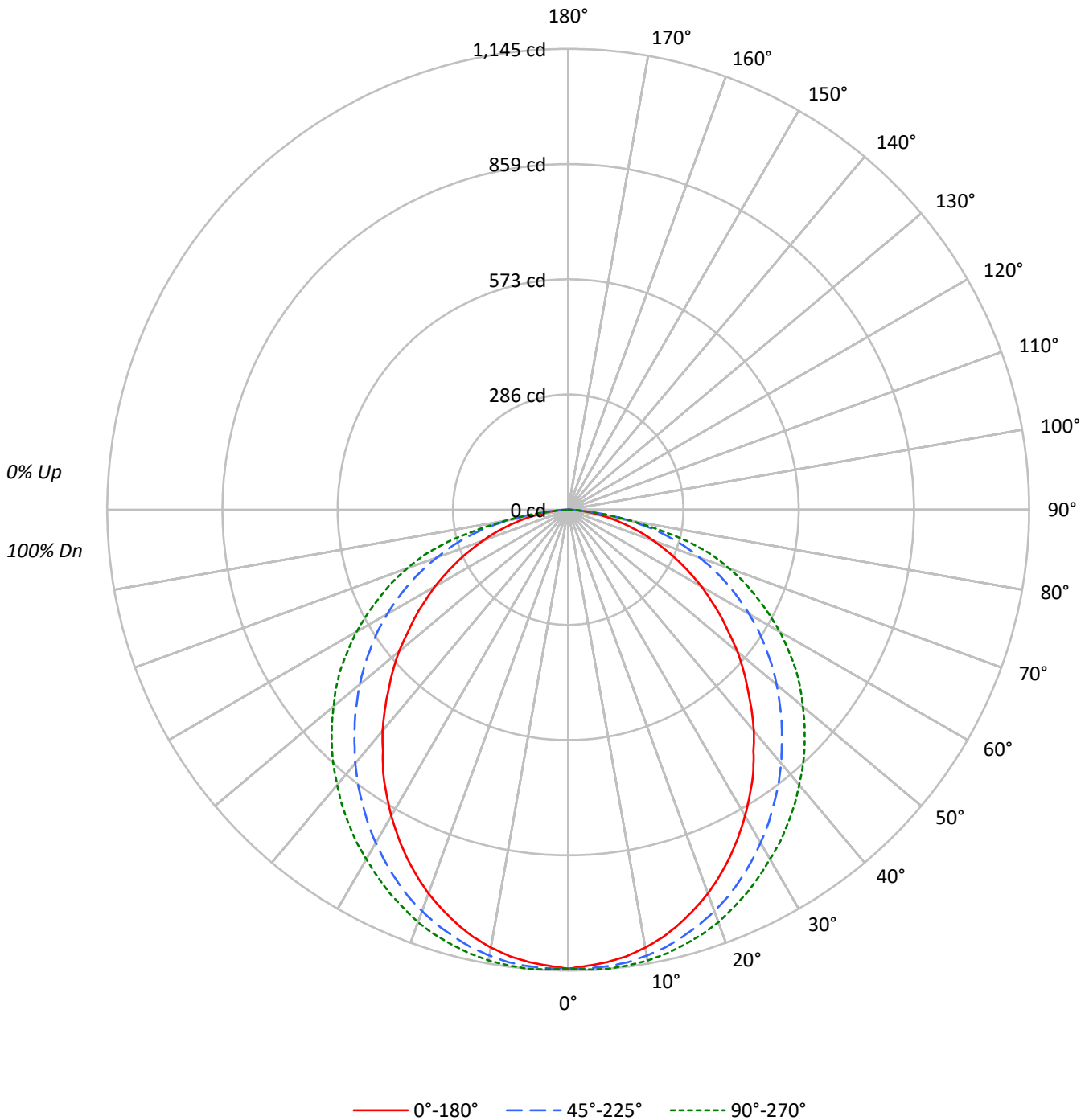
Input Watts (W): 28.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	3069	3069	3069
5°	3047	3076	3093
10°	3018	3074	3107
15°	2969	3060	3116
20°	2906	3039	3123
25°	2825	3008	3119
30°	2729	2970	3115
35°	2631	2926	3125
40°	2520	2890	3135
45°	2400	2853	3160
50°	2296	2828	3185
55°	2173	2806	3234
60°	2060	2793	3268
65°	1924	2772	3295
70°	1767	2730	3340
75°	1595	2658	3222
80°	1368	2352	2425
85°	1099	1386	1099



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.1	3.3
10°-20°	309.1	9.5
20°-30°	464.2	14.2
30°-40°	553.6	17.0
40°-50°	572.4	17.5
50°-60°	526.3	16.1
60°-70°	418.9	12.8
70°-80°	256.0	7.8
80°-90°	55.6	1.7
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°	881.4	27.0
0°-40°	1435.0	44.0
0°-60°	2533.7	77.6
0°-90°	3264.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3264.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1140	1140	1140	1140	1140	
5°	1128	1131	1139	1143	1145	107
15°	1066	1078	1098	1114	1119	300
25°	951	974	1013	1041	1050	438
35°	801	835	891	937	951	500
45°	631	676	750	810	830	488
55°	463	514	598	666	689	414
65°	302	353	435	496	518	299
75°	153	198	256	301	310	163
85°	36	43	45	39	36	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1140.3	1140.3	1140.3	1140.3	1140.3
2.5°	1134.1	1135.6	1140.3	1143.4	1143.4
5°	1127.9	1131.0	1138.7	1143.4	1144.9
7.5°	1118.6	1123.2	1134.1	1140.3	1141.8
10°	1104.6	1110.8	1124.8	1134.1	1137.2
12.5°	1087.6	1096.9	1113.9	1126.3	1129.4
15°	1065.9	1078.3	1098.4	1113.9	1118.6
17.5°	1041.1	1056.6	1081.4	1100.0	1106.2
20°	1014.8	1030.3	1061.3	1082.9	1090.7
22.5°	983.8	1003.9	1039.6	1064.3	1070.5
25°	951.3	974.5	1013.2	1041.1	1050.4
27.5°	915.6	943.5	985.3	1019.4	1027.2
30°	878.4	907.9	955.9	993.1	1002.4
32.5°	839.7	873.8	924.9	966.7	979.1
35°	801.0	835.1	890.8	937.3	951.3
37.5°	756.0	796.3	858.3	906.3	923.4
40°	717.3	756.0	822.7	875.3	892.4
42.5°	673.9	715.8	785.5	842.8	862.9
45°	630.6	675.5	749.8	810.3	830.4
47.5°	590.3	635.2	712.7	776.2	796.3
50°	548.4	594.9	675.5	740.6	760.7
52.5°	503.5	554.6	638.3	703.4	726.6
55°	463.2	514.4	598.0	666.2	689.4
57.5°	421.4	474.1	560.8	625.9	647.6
60°	382.7	433.8	519.0	582.5	607.3
62.5°	340.8	393.5	477.2	539.1	562.4
65°	302.1	353.2	435.3	495.8	517.5
67.5°	263.4	314.5	392.0	449.3	474.1
70°	224.6	275.8	347.0	402.8	424.5
72.5°	190.6	235.5	303.7	354.8	374.9
75°	153.4	198.3	255.6	300.6	309.9
77.5°	119.3	159.6	207.6	227.7	230.8
80°	88.3	119.3	151.8	156.5	156.5
82.5°	58.9	82.1	94.5	96.1	94.5
85°	35.6	43.4	44.9	38.7	35.6
87.5°	12.4	12.4	7.7	4.6	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)