

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: P387965

Luminaire Tested: **22CZ2-39VHE-SQR-UNV-L935-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: P387965
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-L935-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3311.3 lumens
Efficiency: N/A
Efficacy: 115.8 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

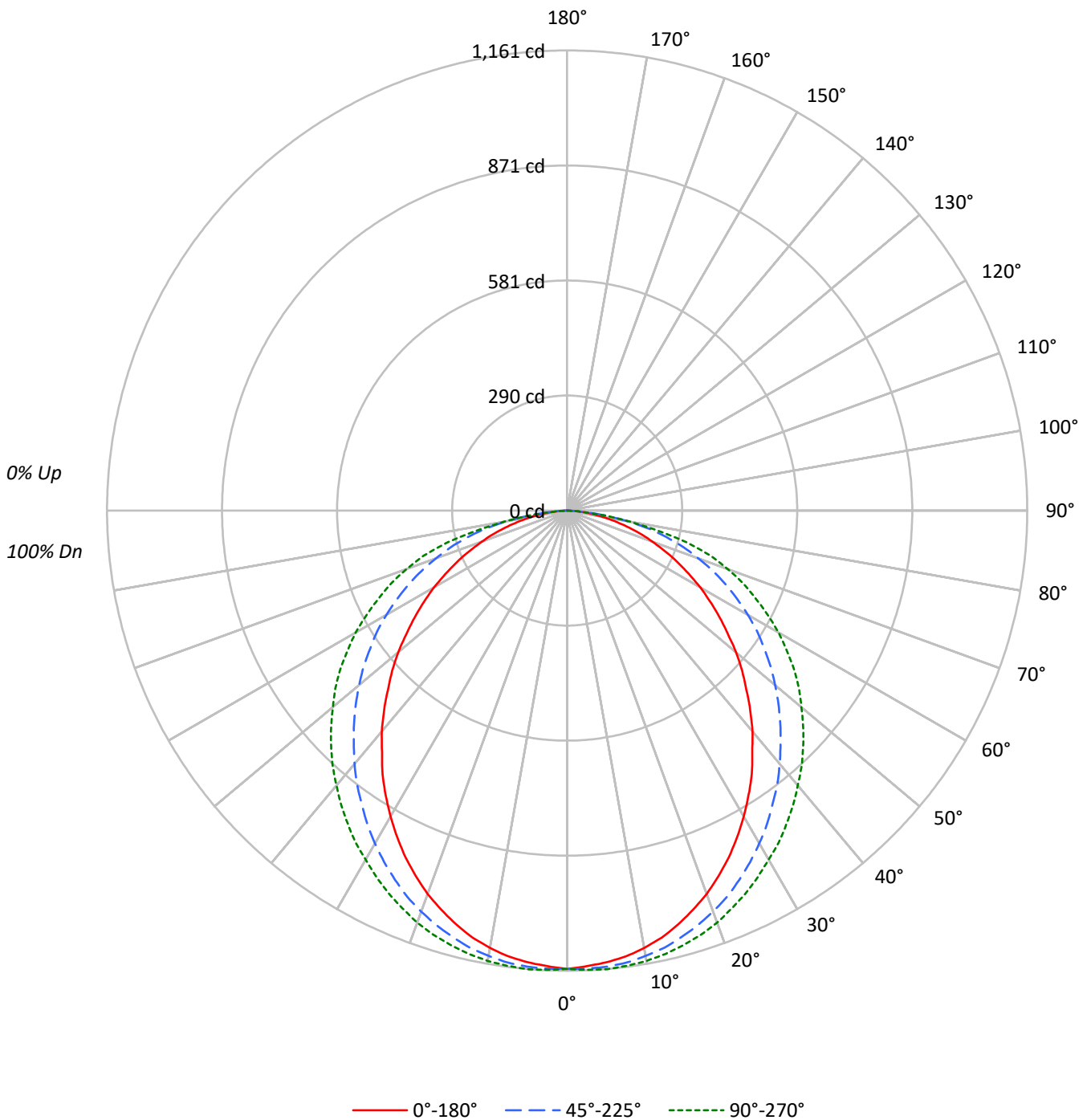
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3113	3113	3113
5°	3091	3120	3137
10°	3062	3118	3152
15°	3012	3104	3161
20°	2948	3083	3168
25°	2865	3052	3164
30°	2769	3013	3159
35°	2669	2969	3170
40°	2556	2931	3180
45°	2434	2895	3206
50°	2329	2869	3231
55°	2205	2846	3281
60°	2089	2834	3316
65°	1952	2812	3342
70°	1793	2769	3388
75°	1618	2696	3268
80°	1389	2386	2459
85°	1115	1408	1115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.7	3.3
10°-20°	313.5	9.5
20°-30°	470.9	14.2
30°-40°	561.6	17.0
40°-50°	580.7	17.5
50°-60°	533.8	16.1
60°-70°	425.0	12.8
70°-80°	259.6	7.8
80°-90°	56.4	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°	894.1	27.0
0°-40°	1455.7	44.0
0°-60°	2570.2	77.6
0°-90°	3311.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3311.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1157	1157	1157	1157	1157	
5°	1144	1147	1155	1160	1161	108
15°	1081	1094	1114	1130	1135	305
25°	965	989	1028	1056	1066	444
35°	812	847	904	951	965	507
45°	640	685	761	822	842	495
55°	470	522	607	676	699	420
65°	306	358	442	503	525	304
75°	156	201	259	305	314	166
85°	36	44	46	39	36	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1156.7	1156.7	1156.7	1156.7	1156.7
2.5°	1150.4	1152.0	1156.7	1159.9	1159.9
5°	1144.1	1147.3	1155.1	1159.9	1161.4
7.5°	1134.7	1139.4	1150.4	1156.7	1158.3
10°	1120.6	1126.9	1141.0	1150.4	1153.6
12.5°	1103.3	1112.7	1130.0	1142.6	1145.7
15°	1081.3	1093.9	1114.3	1130.0	1134.7
17.5°	1056.1	1071.8	1097.0	1115.9	1122.1
20°	1029.4	1045.1	1076.6	1098.6	1106.4
22.5°	998.0	1018.4	1054.6	1079.7	1086.0
25°	965.0	988.6	1027.8	1056.1	1065.6
27.5°	928.8	957.1	999.6	1034.1	1042.0
30°	891.1	921.0	969.7	1007.4	1016.8
32.5°	851.8	886.4	938.3	980.7	993.3
35°	812.5	847.1	903.7	950.8	965.0
37.5°	767.0	807.8	870.7	919.4	936.7
40°	727.7	767.0	834.5	888.0	905.3
42.5°	683.7	726.1	796.8	855.0	875.4
45°	639.7	685.2	760.7	822.0	842.4
47.5°	598.8	644.4	722.9	787.4	807.8
50°	556.4	603.5	685.2	751.2	771.7
52.5°	510.8	562.6	647.5	713.5	737.1
55°	469.9	521.8	606.6	675.8	699.4
57.5°	427.5	480.9	568.9	634.9	656.9
60°	388.2	440.1	526.5	590.9	616.1
62.5°	345.8	399.2	484.1	546.9	570.5
65°	306.5	358.3	441.6	502.9	524.9
67.5°	267.2	319.0	397.6	455.8	480.9
70°	227.9	279.7	352.0	408.6	430.6
72.5°	193.3	238.9	308.0	359.9	380.3
75°	155.6	201.2	259.3	304.9	314.3
77.5°	121.0	161.9	210.6	231.0	234.2
80°	89.6	121.0	154.0	158.7	158.7
82.5°	59.7	83.3	95.9	97.4	95.9
85°	36.1	44.0	45.6	39.3	36.1
87.5°	12.6	12.6	7.9	4.7	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)