

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: P387633

Luminaire Tested: **22CZ2-110VHE-SQR-UNV-L950-CD2-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: P387633
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: 22CZ2-110VHE-SQR-UNV-L950-CD2-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9400.9 lumens
Efficiency: N/A
Efficacy: 107.2 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

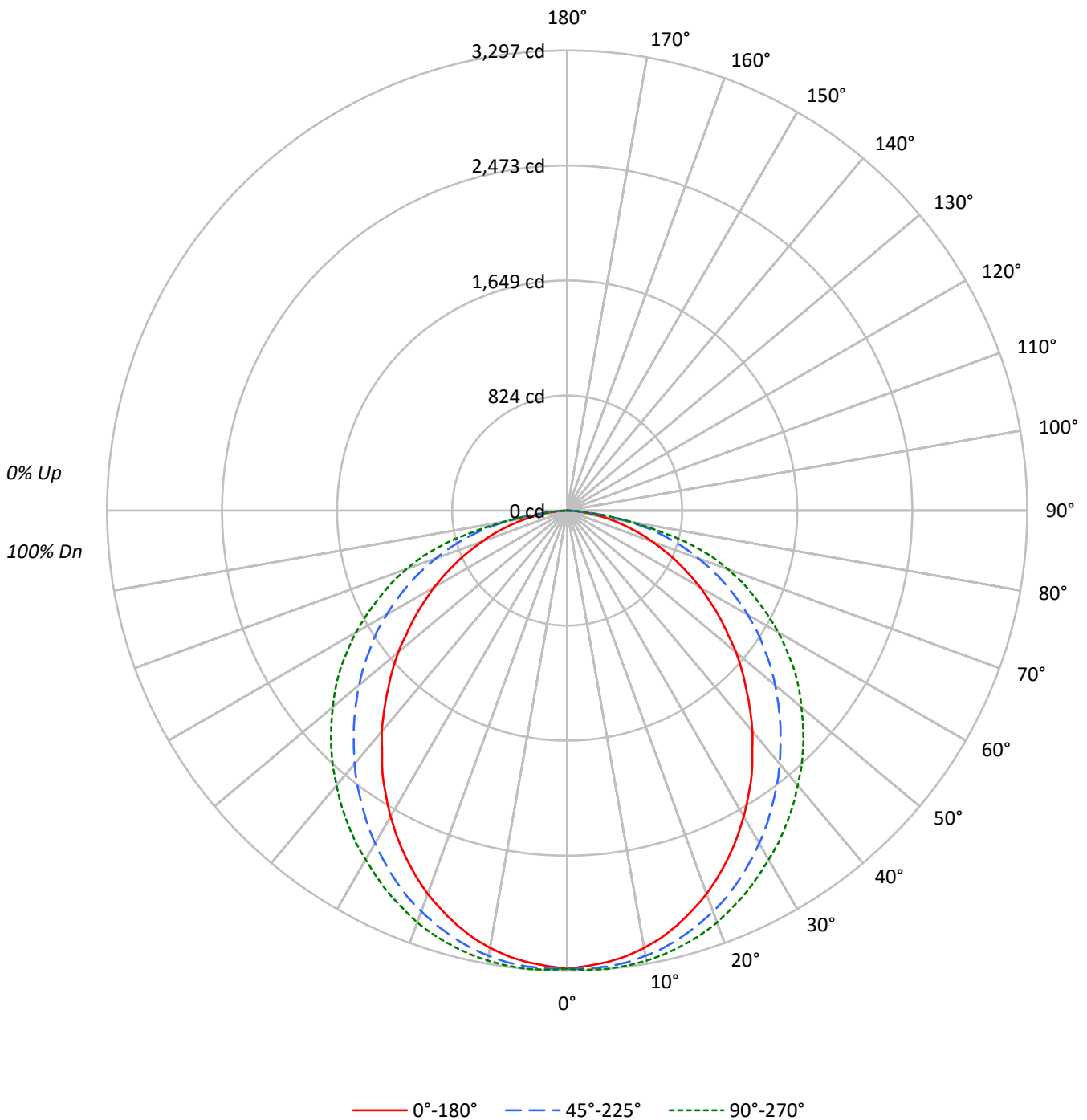
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	8837	8837	8837
5°	8774	8859	8907
10°	8693	8851	8949
15°	8552	8813	8975
20°	8369	8753	8995
25°	8134	8664	8982
30°	7861	8554	8970
35°	7578	8428	9000
40°	7257	8323	9028
45°	6911	8219	9102
50°	6612	8144	9172
55°	6259	8080	9315
60°	5931	8044	9414
65°	5540	7983	9489
70°	5091	7864	9619
75°	4592	7654	9278
80°	3941	6777	6984
85°	3168	3995	3168



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.3	3.3
10°-20°	890.1	9.5
20°-30°	1336.9	14.2
30°-40°	1594.4	17.0
40°-50°	1648.5	17.5
50°-60°	1515.6	16.1
60°-70°	1206.6	12.8
70°-80°	737.2	7.8
80°-90°	160.2	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°	2538.3	27.0
0°-40°	4132.8	44.0
0°-60°	7296.9	77.6
0°-90°	9400.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9400.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3284	3284	3284	3284	3284	
5°	3248	3257	3280	3293	3297	308
15°	3070	3106	3164	3208	3222	865
25°	2740	2806	2918	2998	3025	1260
35°	2307	2405	2566	2700	2740	1439
45°	1816	1945	2160	2334	2392	1404
55°	1334	1481	1722	1919	1986	1193
65°	870	1017	1254	1428	1490	862
75°	442	571	736	866	892	470
85°	103	125	129	112	103	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3284.0	3284.0	3284.0	3284.0	3284.0
2.5°	3266.1	3270.6	3284.0	3292.9	3292.9
5°	3248.3	3257.2	3279.5	3292.9	3297.3
7.5°	3221.5	3234.9	3266.1	3284.0	3288.4
10°	3181.3	3199.2	3239.3	3266.1	3275.0
12.5°	3132.3	3159.0	3208.1	3243.8	3252.7
15°	3069.8	3105.5	3163.5	3208.1	3221.5
17.5°	2998.4	3043.0	3114.4	3168.0	3185.8
20°	2922.5	2967.2	3056.4	3118.9	3141.2
22.5°	2833.3	2891.3	2993.9	3065.3	3083.2
25°	2739.6	2806.5	2918.1	2998.4	3025.2
27.5°	2637.0	2717.3	2837.8	2935.9	2958.2
30°	2529.9	2614.7	2753.0	2860.1	2886.9
32.5°	2418.4	2516.5	2663.8	2784.2	2819.9
35°	2306.8	2405.0	2565.6	2699.5	2739.6
37.5°	2177.4	2293.4	2471.9	2610.2	2659.3
40°	2065.9	2177.4	2369.3	2521.0	2570.1
42.5°	1940.9	2061.4	2262.2	2427.3	2485.3
45°	1816.0	1945.4	2159.6	2333.6	2391.6
47.5°	1700.0	1829.4	2052.5	2235.4	2293.4
50°	1579.5	1713.4	1945.4	2132.8	2190.8
52.5°	1450.1	1597.4	1838.3	2025.7	2092.6
55°	1334.1	1481.4	1722.3	1918.6	1985.5
57.5°	1213.6	1365.3	1615.2	1802.6	1865.1
60°	1102.1	1249.3	1494.7	1677.7	1749.1
62.5°	981.6	1133.3	1374.3	1552.7	1619.7
65°	870.1	1017.3	1253.8	1427.8	1490.3
67.5°	758.5	905.8	1128.9	1294.0	1365.3
70°	647.0	794.2	999.5	1160.1	1222.6
72.5°	548.8	678.2	874.5	1021.8	1079.8
75°	441.7	571.1	736.2	865.6	892.4
77.5°	343.6	459.6	597.9	655.9	664.8
80°	254.3	343.6	437.3	450.7	450.7
82.5°	169.6	236.5	272.2	276.6	272.2
85°	102.6	124.9	129.4	111.5	102.6
87.5°	35.7	35.7	22.3	13.4	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)