

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: P389086

Luminaire Tested: **22CZ2-100VHE-S-UNV-L930-CD1-SWPD1-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: P389086
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: 22CZ2-100VHE-S-UNV-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8654.2 lumens
Efficiency: N/A
Efficacy: 111.4 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

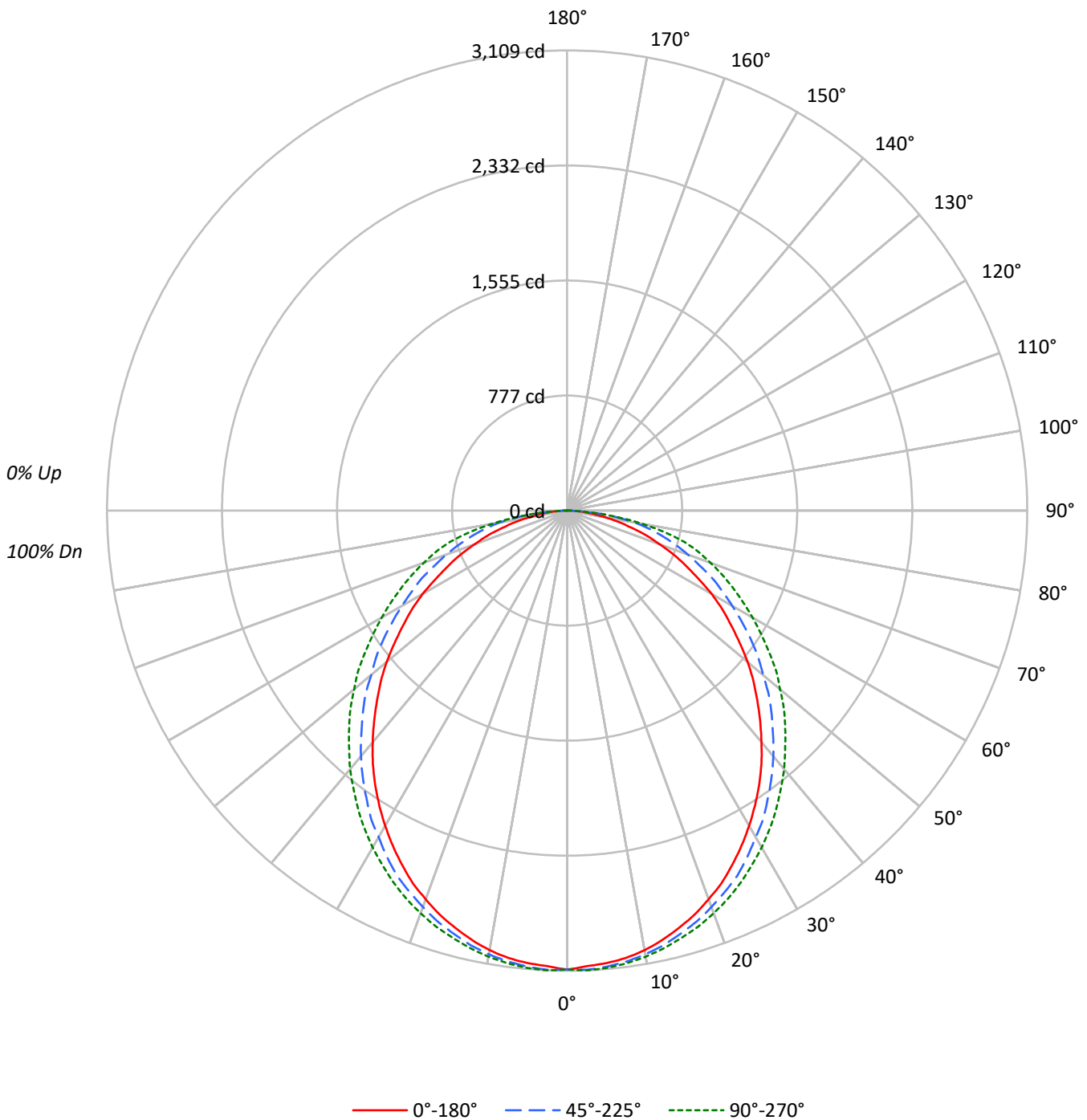
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8345	8345	8345
5°	8290	8355	8377
10°	8242	8319	8363
15°	8133	8245	8324
20°	8002	8163	8291
25°	7841	8081	8236
30°	7641	7917	8168
35°	7428	7773	8091
40°	7177	7617	8014
45°	6915	7437	7929
50°	6660	7235	7860
55°	6346	7104	7805
60°	6063	6932	7780
65°	5656	6890	7868
70°	5210	6830	8102
75°	4702	6927	8523
80°	4068	7133	8009
85°	3365	5984	5984



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.3	3.4
10°-20°	834.6	9.6
20°-30°	1248.7	14.4
30°-40°	1478.8	17.1
40°-50°	1507.1	17.4
50°-60°	1350.8	15.6
60°-70°	1057.5	12.2
70°-80°	681.9	7.9
80°-90°	201.5	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°	2376.6	27.5
0°-40°	3855.4	44.5
0°-60°	6713.3	77.6
0°-90°	8654.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8654.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3101	3101	3101	3101	3101	
5°	3069	3077	3093	3097	3101	291
15°	2919	2936	2960	2984	2988	823
25°	2641	2665	2722	2758	2774	1216
35°	2261	2290	2366	2439	2463	1413
45°	1817	1857	1954	2055	2084	1403
55°	1353	1397	1514	1619	1664	1213
65°	888	941	1082	1187	1236	882
75°	452	521	666	779	820	485
85°	109	149	194	194	194	128
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3101.1	3101.1	3101.1	<i>3101.1</i>	3101.1
2.5°	<i>3080.9</i>	<i>3089.0</i>	<i>3105.1</i>	<i>3109.1</i>	<i>3109.1</i>
5°	3068.8	3076.8	3093.0	<i>3097.0</i>	3101.1
7.5°	3048.6	3052.6	3072.8	<i>3080.9</i>	3084.9
10°	3016.3	3024.4	3044.5	<i>3056.7</i>	3060.7
12.5°	2971.9	2984.0	3008.2	<i>3024.4</i>	3028.4
15°	2919.4	2935.5	2959.7	<i>2984.0</i>	2988.0
17.5°	2862.8	2879.0	2911.3	<i>2939.6</i>	2947.6
20°	2794.2	2814.4	2850.7	<i>2883.0</i>	2895.1
22.5°	2725.5	2741.7	2786.1	<i>2826.5</i>	2838.6
25°	2640.8	2665.0	2721.5	<i>2757.9</i>	2774.0
27.5°	2551.9	2580.2	2636.7	<i>2685.2</i>	2701.3
30°	2459.1	2487.3	2547.9	<i>2608.5</i>	2628.6
32.5°	2362.1	2394.4	2467.1	<i>2527.7</i>	2547.9
35°	2261.2	2289.5	2366.2	<i>2438.9</i>	2463.1
37.5°	2156.2	2180.4	2269.3	<i>2346.0</i>	2370.2
40°	2043.2	2075.5	2168.3	<i>2257.2</i>	2281.4
42.5°	1930.1	1966.4	2059.3	<i>2156.2</i>	2180.4
45°	1817.0	1857.4	1954.3	<i>2055.3</i>	2083.5
47.5°	1708.0	1740.3	1849.3	<i>1946.2</i>	1986.6
50°	1590.9	1623.2	1728.2	<i>1837.2</i>	1877.6
52.5°	1469.8	1514.2	1627.3	<i>1732.2</i>	1780.7
55°	1352.7	1397.1	1514.2	<i>1619.2</i>	1663.6
57.5°	1243.7	1280.0	1401.1	<i>1510.2</i>	1554.6
60°	1126.6	1158.9	1288.1	<i>1405.2</i>	1445.6
62.5°	1001.4	1049.8	1183.1	<i>1292.1</i>	1340.6
65°	888.3	940.8	1082.1	<i>1187.1</i>	1235.6
67.5°	783.3	831.8	969.1	<i>1082.1</i>	1134.6
70°	662.2	726.8	868.1	<i>981.2</i>	1029.7
72.5°	565.3	621.8	767.2	<i>880.3</i>	932.7
75°	452.2	520.9	666.2	<i>779.3</i>	819.7
77.5°	359.4	428.0	565.3	<i>654.1</i>	674.3
80°	262.5	331.1	460.3	<i>504.7</i>	516.8
82.5°	177.7	242.3	331.1	<i>343.2</i>	347.3
85°	109.0	149.4	193.8	<i>193.8</i>	193.8
87.5°	52.5	60.6	68.6	<i>64.6</i>	64.6
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)