

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: P387630

Luminaire Tested: **22CZ2-110VHE-SQR-UNV-L940-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: P387630
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-L940-CD2-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: 8856.8 lumens
Efficiency: N/A
Efficacy: 101.0 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

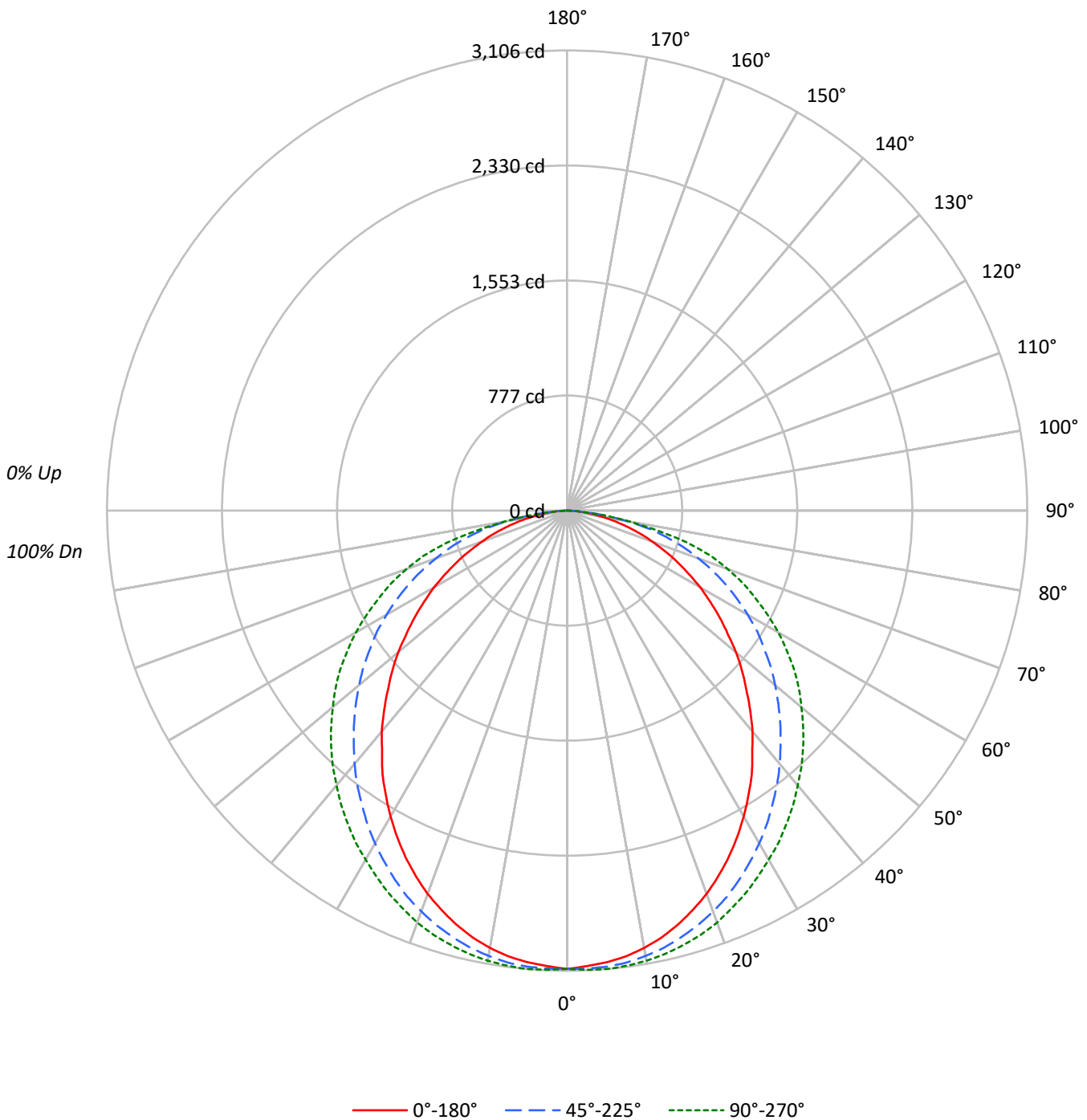
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	8326	8326	8326
5°	8267	8346	8391
10°	8190	8339	8431
15°	8057	8303	8455
20°	7885	8246	8475
25°	7663	8163	8462
30°	7406	8059	8451
35°	7139	7940	8479
40°	6837	7841	8506
45°	6511	7743	8575
50°	6230	7673	8641
55°	5897	7613	8776
60°	5588	7579	8868
65°	5219	7521	8940
70°	4795	7408	9062
75°	4327	7211	8741
80°	3713	6385	6580
85°	2986	3764	2986



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.3	3.3
10°-20°	838.6	9.5
20°-30°	1259.5	14.2
30°-40°	1502.2	17.0
40°-50°	1553.1	17.5
50°-60°	1427.9	16.1
60°-70°	1136.7	12.8
70°-80°	694.5	7.8
80°-90°	151.0	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°	2391.4	27.0
0°-40°	3893.6	44.0
0°-60°	6874.6	77.6
0°-90°	8856.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8856.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3094	3094	3094	3094	3094	
5°	3060	3069	3090	3102	3106	290
15°	2892	2926	2980	3022	3035	814
25°	2581	2644	2749	2825	2850	1187
35°	2173	2266	2417	2543	2581	1356
45°	1711	1833	2035	2198	2253	1323
55°	1257	1396	1623	1808	1871	1124
65°	820	958	1181	1345	1404	812
75°	416	538	694	816	841	443
85°	97	118	122	105	97	111
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3093.9	3093.9	3093.9	3093.9	3093.9
2.5°	3077.1	3081.3	3093.9	3102.3	3102.3
5°	3060.3	3068.7	3089.7	3102.3	3106.5
7.5°	3035.0	3047.7	3077.1	3093.9	3098.1
10°	2997.2	3014.0	3051.9	3077.1	3085.5
12.5°	2951.0	2976.2	3022.4	3056.1	3064.5
15°	2892.1	2925.7	2980.4	3022.4	3035.0
17.5°	2824.9	2866.9	2934.2	2984.6	3001.4
20°	2753.4	2795.4	2879.5	2938.4	2959.4
22.5°	2669.3	2724.0	2820.7	2887.9	2904.7
25°	2581.0	2644.1	2749.2	2824.9	2850.1
27.5°	2484.4	2560.0	2673.5	2766.0	2787.0
30°	2383.5	2463.3	2593.7	2694.5	2719.8
32.5°	2278.4	2370.9	2509.6	2623.1	2656.7
35°	2173.3	2265.8	2417.1	2543.2	2581.0
37.5°	2051.4	2160.7	2328.8	2459.1	2505.4
40°	1946.3	2051.4	2232.1	2375.1	2421.3
42.5°	1828.6	1942.1	2131.3	2286.8	2341.4
45°	1710.9	1832.8	2034.6	2198.5	2253.2
47.5°	1601.6	1723.5	1933.7	2106.0	2160.7
50°	1488.1	1614.2	1832.8	2009.3	2064.0
52.5°	1366.2	1504.9	1731.9	1908.5	1971.5
55°	1256.9	1395.6	1622.6	1807.6	1870.6
57.5°	1143.4	1286.3	1521.7	1698.3	1757.1
60°	1038.3	1177.0	1408.2	1580.6	1647.8
62.5°	924.8	1067.7	1294.7	1462.9	1525.9
65°	819.7	958.4	1181.2	1345.2	1404.0
67.5°	714.6	853.3	1063.5	1219.1	1286.3
70°	609.5	748.3	941.6	1093.0	1151.8
72.5°	517.1	639.0	823.9	962.6	1017.3
75°	416.2	538.1	693.6	815.5	840.7
77.5°	323.7	433.0	563.3	617.9	626.3
80°	239.6	323.7	412.0	424.6	424.6
82.5°	159.7	222.8	256.4	260.6	256.4
85°	96.7	117.7	121.9	105.1	96.7
87.5°	33.6	33.6	21.0	12.6	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)