

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: P388592

Luminaire Tested: **24CZ2-100VHE-UNV-L950-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: P388592
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9240.2 lumens
Efficiency: N/A
Efficacy: 132.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

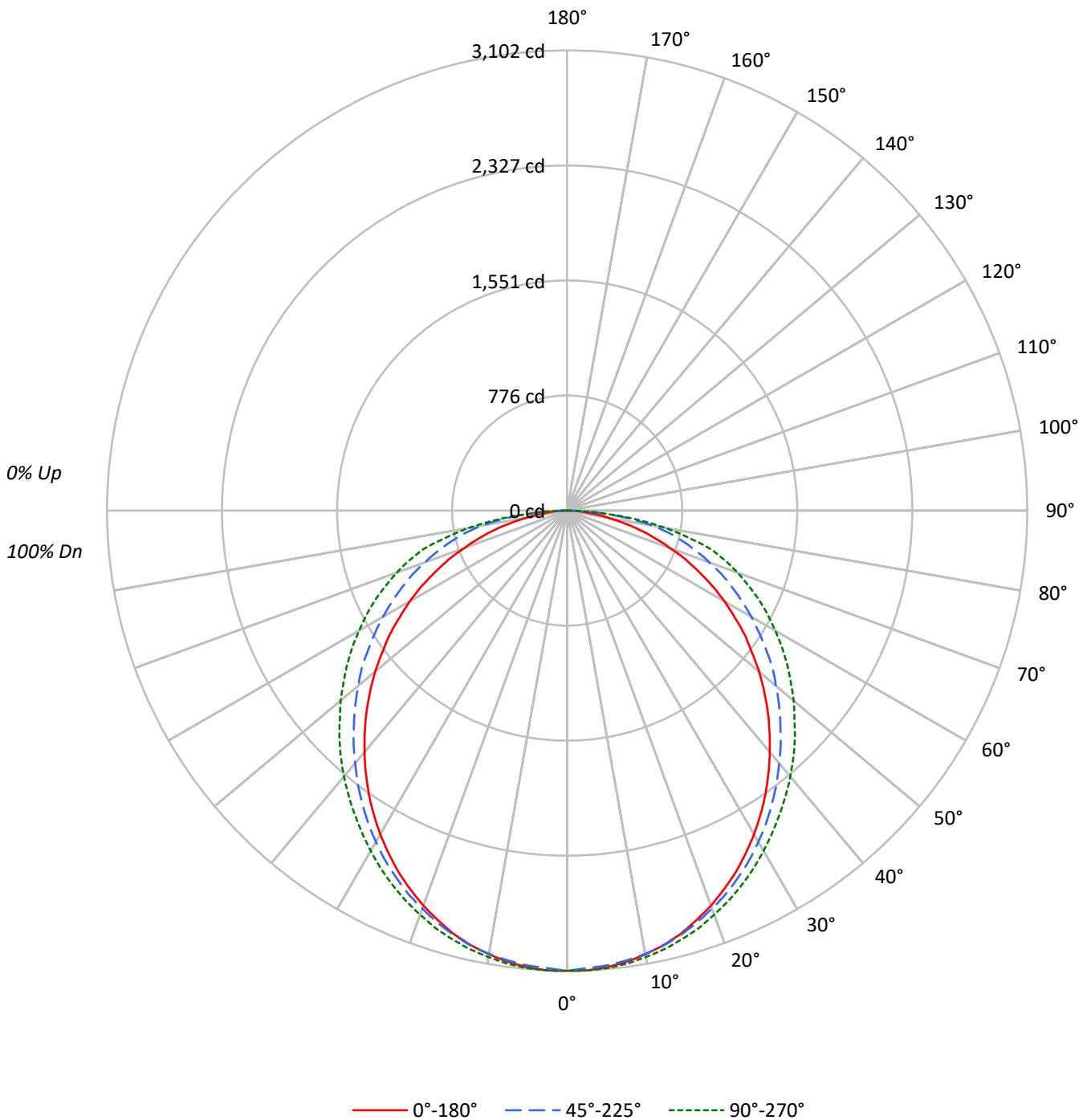
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4174	4174	4174
5°	4173	4157	4182
10°	4150	4146	4175
15°	4115	4124	4167
20°	4058	4089	4151
25°	3992	4052	4134
30°	3914	4005	4116
35°	3829	3956	4103
40°	3732	3905	4111
45°	3638	3867	4131
50°	3538	3847	4170
55°	3429	3841	4246
60°	3295	3859	4357
65°	3122	3918	4546
70°	2899	4016	4804
75°	2645	4217	5211
80°	2174	4540	5209
85°	1666	4190	4475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.4	3.2
10°-20°	837.7	9.1
20°-30°	1260.5	13.6
30°-40°	1510.6	16.3
40°-50°	1574.2	17.0
50°-60°	1464.7	15.9
60°-70°	1206.3	13.1
70°-80°	821.6	8.9
80°-90°	271.2	2.9
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°	2391.6	25.9
0°-40°	3902.2	42.2
0°-60°	6941.1	75.1
0°-90°	9240.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9240.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3102	3102	3102	3102	3102	
5°	3090	3090	3078	3093	3096	293
15°	2954	2957	2960	2988	2991	832
25°	2689	2702	2729	2776	2785	1238
35°	2331	2359	2408	2473	2498	1457
45°	1912	1952	2032	2134	2171	1475
55°	1462	1511	1638	1767	1810	1303
65°	981	1064	1230	1375	1428	973
75°	509	623	811	956	1002	537
85°	108	210	271	290	290	134
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3102.4	3102.4	3102.4	3102.4	3102.4
2.5°	3102.4	3102.4	3086.9	3102.4	3102.4
5°	3090.0	3090.0	3077.7	3093.1	3096.2
7.5°	3068.4	3071.5	3059.2	3077.7	3080.8
10°	3037.6	3040.7	3034.5	3053.0	3056.1
12.5°	3000.6	3003.7	3003.7	3025.3	3028.4
15°	2954.3	2957.4	2960.5	2988.3	2991.3
17.5°	2895.7	2905.0	2911.2	2945.1	2951.3
20°	2834.1	2843.3	2855.7	2892.7	2898.8
22.5°	2763.1	2775.5	2797.1	2837.2	2846.4
25°	2689.1	2701.5	2729.2	2775.5	2784.7
27.5°	2605.9	2624.4	2658.3	2707.6	2720.0
30°	2519.5	2538.0	2578.1	2630.5	2649.0
32.5°	2427.0	2451.7	2497.9	2556.5	2575.0
35°	2331.4	2359.2	2408.5	2473.3	2497.9
37.5°	2229.6	2260.5	2319.1	2390.0	2420.8
40°	2124.8	2161.8	2223.5	2306.7	2340.7
42.5°	2019.9	2053.9	2130.9	2220.4	2257.4
45°	1912.0	1952.1	2032.3	2134.0	2171.0
47.5°	1801.0	1841.1	1936.7	2044.6	2078.5
50°	1690.0	1730.0	1838.0	1952.1	1992.2
52.5°	1569.7	1622.1	1745.5	1859.6	1899.7
55°	1461.8	1511.1	1637.5	1767.1	1810.2
57.5°	1338.4	1397.0	1535.8	1671.5	1717.7
60°	1224.3	1286.0	1434.0	1572.8	1619.0
62.5°	1107.1	1175.0	1332.2	1474.1	1526.5
65°	980.7	1063.9	1230.5	1375.4	1427.8
67.5°	866.6	952.9	1128.7	1276.7	1323.0
70°	737.0	841.9	1020.8	1168.8	1221.2
72.5°	626.0	730.9	919.0	1063.9	1116.4
75°	508.8	622.9	811.1	956.0	1002.3
77.5°	391.7	518.1	706.2	817.2	832.6
80°	280.6	413.2	585.9	650.7	672.3
82.5°	197.4	317.6	431.7	474.9	487.3
85°	107.9	209.7	271.4	289.9	289.9
87.5°	46.3	89.4	107.9	111.0	114.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)