

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: P388153

Luminaire Tested: **22CZ2-100VHE-UNV-L935-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: P388153
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-100VHE-UNV-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8440.1 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

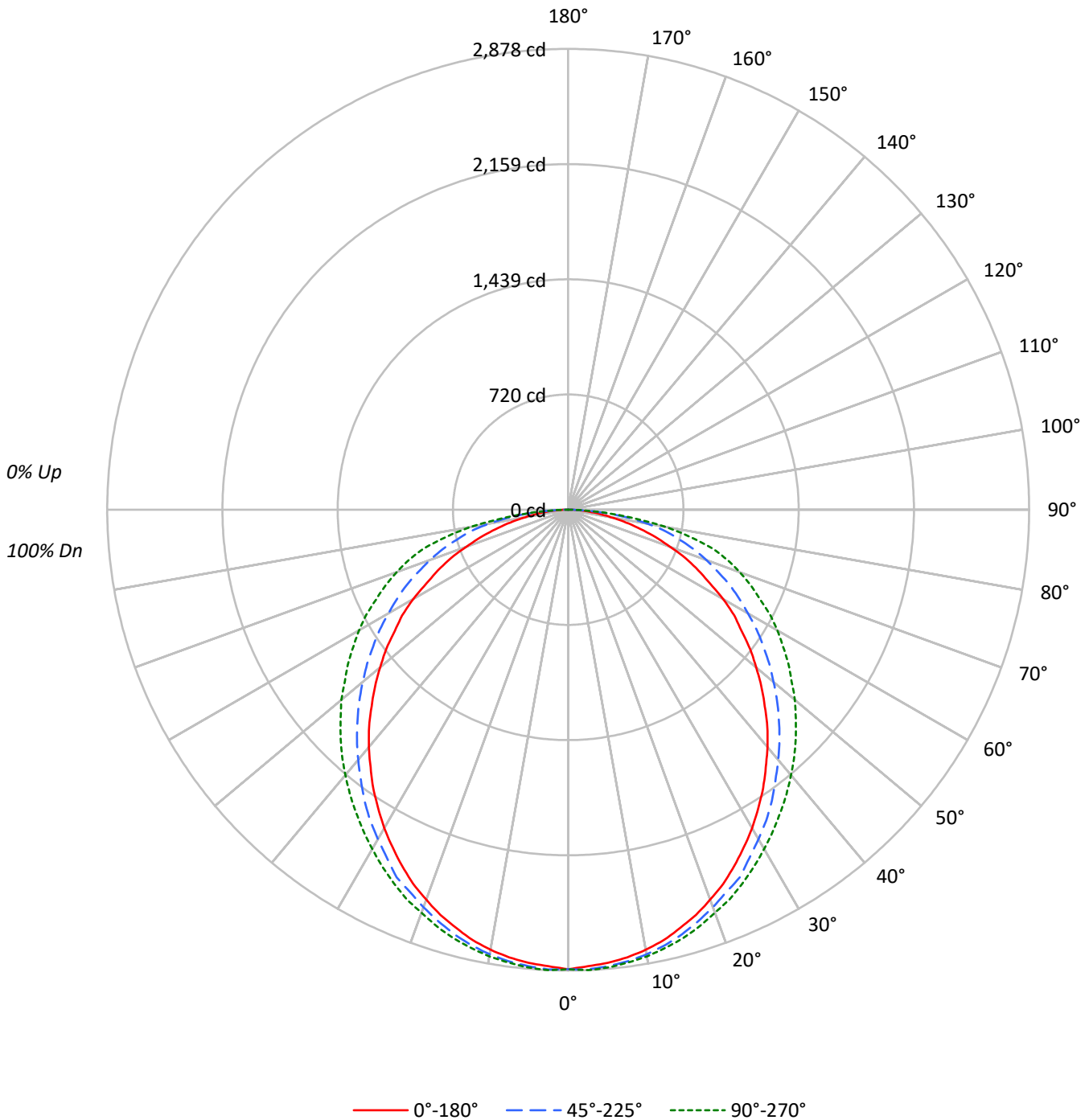
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7723	7723	7723
5°	7673	7730	7752
10°	7626	7706	7740
15°	7532	7648	7717
20°	7421	7564	7671
25°	7288	7522	7645
30°	7136	7382	7601
35°	6972	7286	7586
40°	6798	7163	7601
45°	6607	7081	7650
50°	6416	7007	7737
55°	6196	6975	7872
60°	6013	6974	8114
65°	5712	7087	8409
70°	5327	7221	8953
75°	4879	7470	9672
80°	4248	7787	9526
85°	3717	6925	7565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.4	3.2
10°-20°	773.0	9.2
20°-30°	1160.5	13.7
30°-40°	1386.7	16.4
40°-50°	1441.9	17.1
50°-60°	1336.5	15.8
60°-70°	1096.2	13.0
70°-80°	741.0	8.8
80°-90°	232.9	2.8
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°	2204.9	26.1
0°-40°	3591.6	42.6
0°-60°	6370.0	75.5
0°-90°	8440.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8440.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2870	2870	2870	2870	2870	
5°	2841	2845	2862	2866	2870	270
15°	2704	2716	2745	2762	2770	763
25°	2454	2475	2533	2562	2575	1130
35°	2122	2151	2218	2284	2309	1326
45°	1736	1769	1861	1969	2010	1341
55°	1321	1362	1487	1620	1678	1187
65°	897	947	1113	1258	1321	887
75°	469	548	718	864	930	498
85°	120	166	224	249	245	137
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2869.8	2869.8	2869.8	2869.8	2869.8
2.5°	2853.2	2861.5	2873.9	2878.1	2878.1
5°	2840.7	2844.9	2861.5	2865.6	2869.8
7.5°	2820.0	2828.3	2844.9	2849.0	2853.2
10°	2790.9	2799.2	2820.0	2828.3	2832.4
12.5°	2753.5	2761.8	2786.7	2799.2	2803.3
15°	2703.7	2716.1	2745.2	2761.8	2770.1
17.5°	2653.8	2666.3	2695.4	2720.3	2728.6
20°	2591.5	2620.6	2641.4	2674.6	2678.7
22.5°	2529.2	2545.8	2583.2	2616.5	2633.1
25°	2454.5	2475.2	2533.4	2562.5	2574.9
27.5°	2375.6	2404.6	2450.3	2496.0	2512.6
30°	2296.7	2317.4	2375.6	2429.6	2446.2
32.5°	2209.4	2238.5	2300.8	2354.8	2379.7
35°	2122.2	2151.3	2217.8	2284.2	2309.1
37.5°	2026.7	2059.9	2126.4	2205.3	2238.5
40°	1935.3	1960.3	2039.2	2134.7	2163.8
42.5°	1839.8	1868.9	1952.0	2055.8	2089.0
45°	1736.0	1769.2	1860.6	1968.6	2010.1
47.5°	1636.3	1669.5	1769.2	1877.2	1927.0
50°	1532.5	1574.0	1673.7	1798.3	1848.1
52.5°	1432.8	1470.2	1582.3	1711.1	1756.8
55°	1320.7	1362.2	1486.8	1619.7	1677.9
57.5°	1229.3	1258.4	1395.4	1532.5	1590.6
60°	1117.2	1154.6	1295.8	1441.1	1507.6
62.5°	996.7	1059.0	1204.4	1353.9	1420.4
65°	897.1	946.9	1113.0	1258.4	1320.7
67.5°	793.2	847.2	1009.2	1162.9	1233.5
70°	677.0	747.6	917.8	1071.5	1137.9
72.5°	573.1	647.9	822.3	971.8	1042.4
75°	469.3	548.2	718.5	863.8	930.3
77.5°	369.6	456.8	623.0	735.1	776.6
80°	274.1	357.2	502.5	581.4	614.7
82.5°	191.0	261.6	369.6	411.2	419.5
85°	120.4	166.1	224.3	249.2	245.0
87.5°	54.0	66.4	83.1	91.4	87.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)