

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: P388156

Luminaire Tested: **22CZ2-100VHE-UNV-L940-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: P388156
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-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8527.4 lumens
Efficiency: N/A
Efficacy: 109.7 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

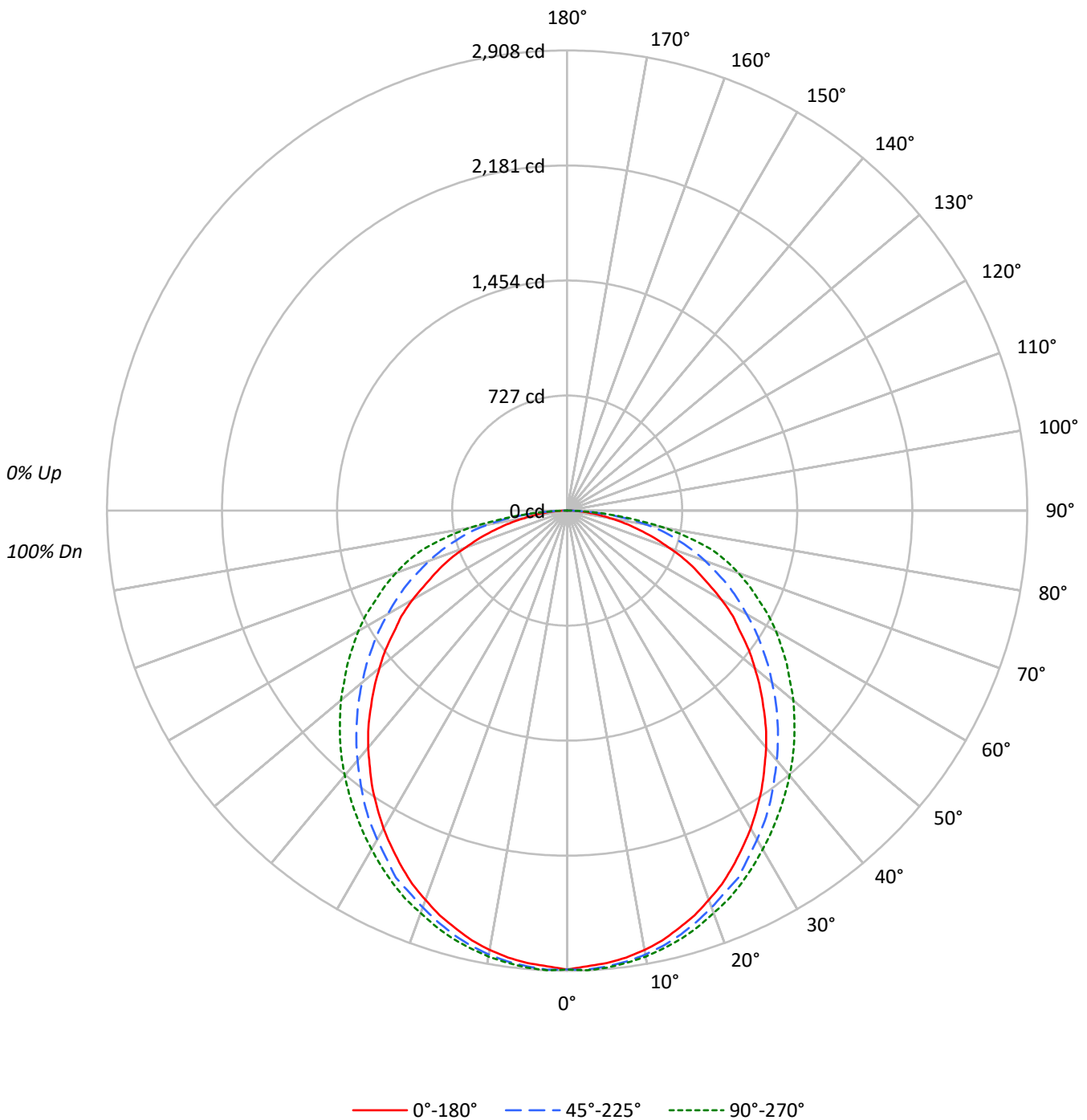
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7802	7802	7802
5°	7753	7810	7832
10°	7705	7785	7820
15°	7610	7727	7797
20°	7498	7642	7751
25°	7363	7600	7725
30°	7210	7458	7680
35°	7044	7361	7664
40°	6869	7237	7679
45°	6675	7154	7729
50°	6482	7079	7817
55°	6260	7048	7953
60°	6075	7046	8198
65°	5771	7160	8496
70°	5382	7296	9046
75°	4930	7547	9772
80°	4291	7868	9623
85°	3758	6996	7645



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.2	3.2
10°-20°	781.0	9.2
20°-30°	1172.5	13.7
30°-40°	1401.0	16.4
40°-50°	1456.8	17.1
50°-60°	1350.3	15.8
60°-70°	1107.5	13.0
70°-80°	748.7	8.8
80°-90°	235.3	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°	2227.7	26.1
0°-40°	3628.8	42.6
0°-60°	6435.9	75.5
0°-90°	8527.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8527.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2900	2900	2900	2900	2900	
5°	2870	2874	2891	2895	2900	272
15°	2732	2744	2774	2790	2799	771
25°	2480	2501	2560	2589	2602	1142
35°	2144	2174	2241	2308	2333	1340
45°	1754	1788	1880	1989	2031	1354
55°	1334	1376	1502	1636	1695	1199
65°	906	957	1124	1271	1334	896
75°	474	554	726	873	940	503
85°	122	168	227	252	248	138
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2899.5	2899.5	2899.5	2899.5	2899.5
2.5°	2882.7	2891.1	2903.7	2907.9	2907.9
5°	2870.1	2874.3	2891.1	2895.3	2899.5
7.5°	2849.1	2857.5	2874.3	2878.5	2882.7
10°	2819.7	2828.1	2849.1	2857.5	2861.7
12.5°	2782.0	2790.4	2815.6	2828.1	2832.3
15°	2731.6	2744.2	2773.6	2790.4	2798.8
17.5°	2681.3	2693.9	2723.2	2748.4	2756.8
20°	2618.3	2647.7	2668.7	2702.3	2706.5
22.5°	2555.4	2572.2	2609.9	2643.5	2660.3
25°	2479.9	2500.8	2559.6	2589.0	2601.6
27.5°	2400.1	2429.5	2475.7	2521.8	2538.6
30°	2320.4	2341.4	2400.1	2454.7	2471.5
32.5°	2232.3	2261.7	2324.6	2379.2	2404.3
35°	2144.2	2173.6	2240.7	2307.8	2333.0
37.5°	2047.7	2081.2	2148.4	2228.1	2261.7
40°	1955.4	1980.5	2060.3	2156.8	2186.1
42.5°	1858.9	1888.2	1972.1	2077.0	2110.6
45°	1754.0	1787.5	1879.8	1988.9	2030.9
47.5°	1653.2	1686.8	1787.5	1896.6	1947.0
50°	1548.3	1590.3	1691.0	1816.9	1867.2
52.5°	1447.6	1485.4	1598.7	1728.8	1774.9
55°	1334.3	1376.3	1502.2	1636.5	1695.2
57.5°	1242.0	1271.4	1409.9	1548.3	1607.1
60°	1128.7	1166.5	1309.2	1456.0	1523.2
62.5°	1007.1	1070.0	1216.9	1367.9	1435.1
65°	906.3	956.7	1124.5	1271.4	1334.3
67.5°	801.4	856.0	1019.6	1174.9	1246.2
70°	684.0	755.3	927.3	1082.6	1149.7
72.5°	579.1	654.6	830.8	981.9	1053.2
75°	474.2	553.9	725.9	872.8	939.9
77.5°	373.4	461.6	629.4	742.7	784.7
80°	276.9	360.9	507.7	587.4	621.0
82.5°	193.0	264.4	373.4	415.4	423.8
85°	121.7	167.8	226.6	251.8	247.6
87.5°	54.5	67.1	83.9	92.3	88.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)