

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: P388300

Luminaire Tested: **24CZ2-100VHE-SQR-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: P388300
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-SQR-UNV-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8172.3 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

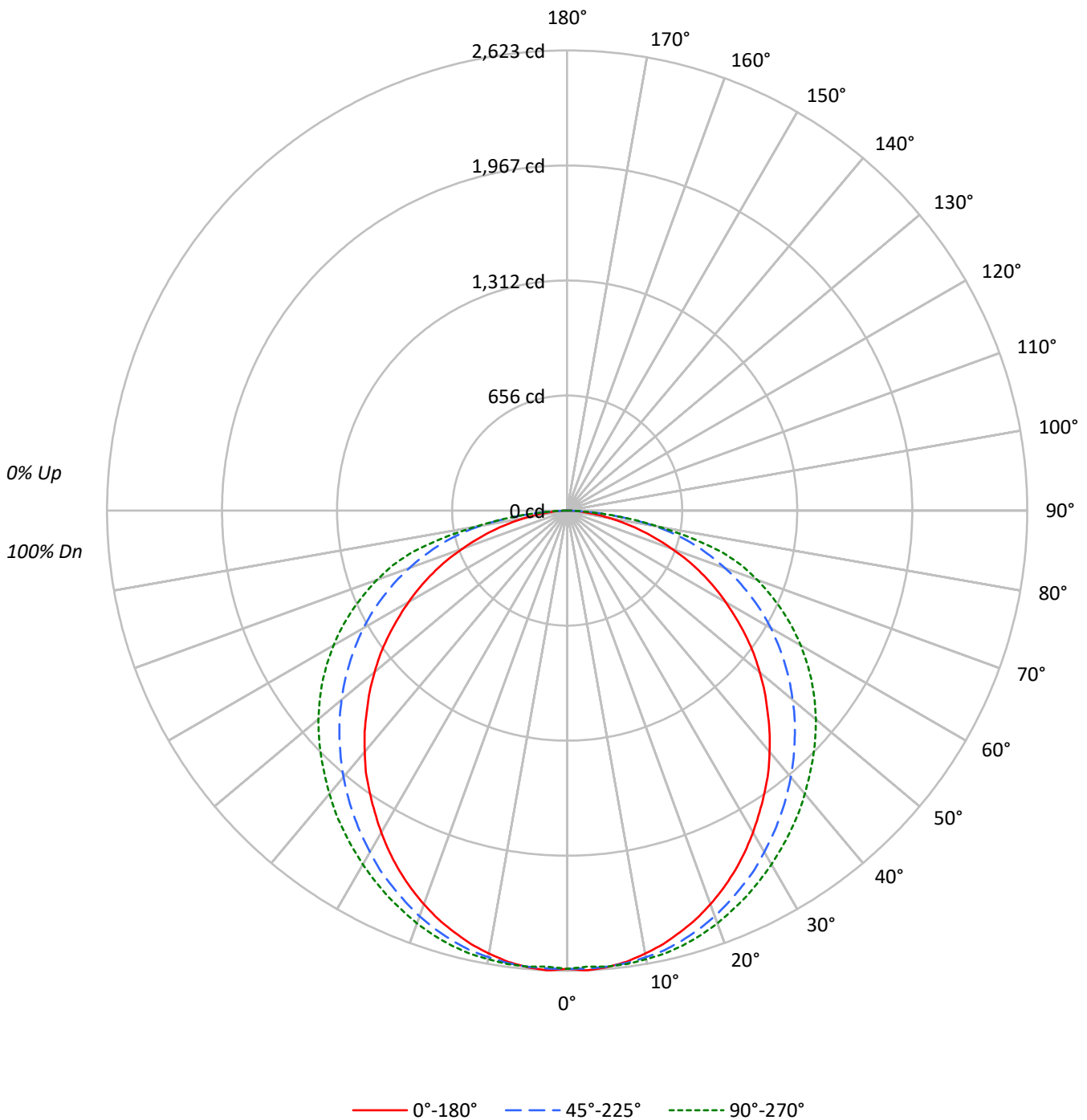
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3515	3515	3515
5°	3528	3525	3525
10°	3503	3532	3547
15°	3466	3534	3571
20°	3420	3524	3586
25°	3361	3506	3598
30°	3291	3493	3618
35°	3222	3484	3653
40°	3152	3484	3702
45°	3071	3492	3774
50°	3000	3513	3875
55°	2912	3551	3994
60°	2810	3609	4139
65°	2689	3677	4313
70°	2495	3769	4533
75°	2259	3900	4742
80°	1903	3910	4077
85°	1459	2958	2958



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.0	3.0
10°-20°	713.4	8.7
20°-30°	1083.6	13.3
30°-40°	1318.1	16.1
40°-50°	1403.3	17.2
50°-60°	1336.6	16.4
60°-70°	1117.8	13.7
70°-80°	745.2	9.1
80°-90°	206.2	2.5
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°	2045.0	25.0
0°-40°	3363.1	41.2
0°-60°	6103.1	74.7
0°-90°	8172.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8172.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2612	2612	2612	2612	2612	
5°	2612	2596	2610	2610	2610	248
15°	2488	2494	2537	2556	2564	702
25°	2264	2294	2361	2402	2423	1042
35°	1962	2019	2121	2191	2224	1228
45°	1614	1700	1835	1938	1984	1248
55°	1241	1349	1514	1646	1703	1110
65°	845	969	1155	1298	1355	835
75°	434	572	750	877	912	460
85°	94	175	192	189	192	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2612.3	2612.3	2612.3	2612.3	2612.3
2.5°	2623.1	2604.2	2612.3	2612.3	2601.5
5°	2612.3	2596.1	2609.6	2609.6	2609.6
7.5°	2593.4	2579.9	2601.5	2606.9	2606.9
10°	2563.7	2558.3	2585.3	2593.4	2596.1
12.5°	2531.3	2528.6	2566.4	2577.2	2585.3
15°	2488.1	2493.5	2536.7	2555.6	2563.7
17.5°	2442.3	2453.0	2501.6	2528.6	2536.7
20°	2388.3	2404.5	2461.1	2488.1	2504.3
22.5°	2328.9	2353.2	2412.6	2445.0	2463.8
25°	2264.1	2293.8	2361.3	2401.8	2423.4
27.5°	2194.0	2231.8	2310.0	2355.9	2377.5
30°	2118.4	2161.6	2248.0	2301.9	2328.9
32.5°	2040.2	2091.4	2185.9	2245.3	2277.6
35°	1961.9	2018.6	2121.1	2191.3	2223.7
37.5°	1883.6	1940.3	2053.7	2129.2	2169.7
40°	1794.6	1862.0	1983.5	2067.1	2107.6
42.5°	1708.2	1781.1	1910.6	2002.4	2045.6
45°	1613.8	1700.1	1835.1	1937.6	1983.5
47.5°	1527.4	1613.8	1759.5	1867.4	1918.7
50°	1433.0	1524.7	1678.5	1797.3	1851.3
52.5°	1341.2	1435.7	1597.6	1724.4	1778.4
55°	1241.4	1349.3	1513.9	1646.2	1702.8
57.5°	1141.5	1257.6	1427.6	1565.2	1621.9
60°	1044.4	1163.1	1341.2	1478.8	1538.2
62.5°	947.2	1066.0	1252.2	1392.5	1449.2
65°	844.7	968.8	1155.0	1298.0	1354.7
67.5°	742.1	871.7	1057.9	1200.9	1254.9
70°	634.2	771.8	958.0	1098.3	1152.3
72.5°	534.3	672.0	855.5	993.1	1044.4
75°	434.5	572.1	750.2	877.1	912.1
77.5°	337.3	475.0	634.2	717.8	725.9
80°	245.6	375.1	504.6	528.9	526.2
82.5°	164.6	280.7	348.1	350.8	358.9
85°	94.5	175.4	191.6	188.9	191.6
87.5°	37.8	62.1	54.0	40.5	40.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)