

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: P389210

Luminaire Tested: **24CZ2-95VHE-SQR-UNV-L930-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: P389210
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: 24CZ2-95VHE-SQR-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7544.3 lumens
Efficiency: N/A
Efficacy: 115.0 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

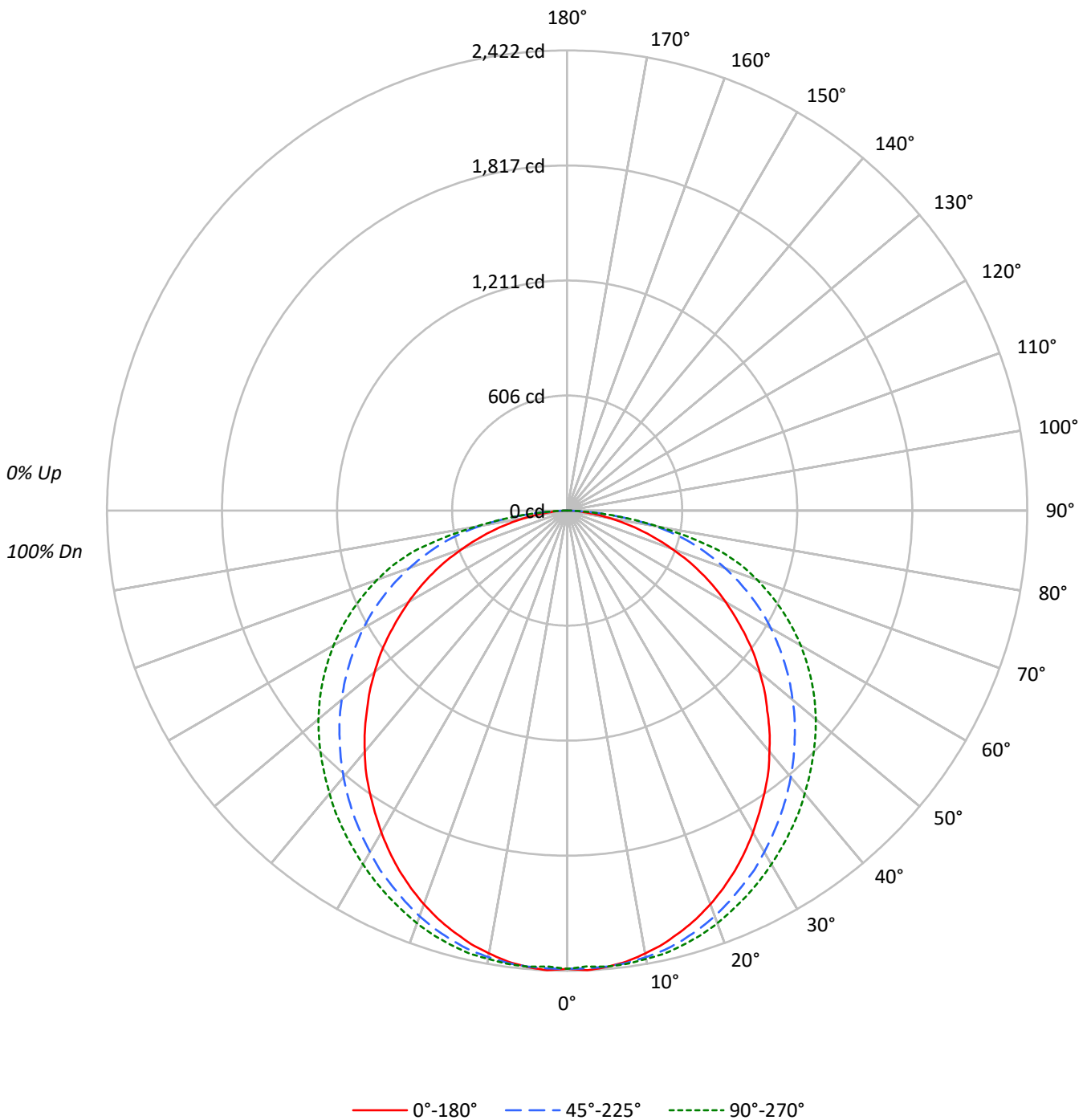
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3245	3245	3245
5°	3257	3254	3254
10°	3233	3261	3274
15°	3199	3262	3297
20°	3157	3253	3310
25°	3103	3236	3321
30°	3038	3224	3340
35°	2975	3216	3372
40°	2910	3216	3417
45°	2835	3223	3484
50°	2769	3244	3577
55°	2688	3278	3688
60°	2594	3332	3821
65°	2483	3395	3982
70°	2303	3479	4185
75°	2085	3601	4377
80°	1757	3610	3764
85°	1346	2731	2731



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.9	3.0
10°-20°	658.6	8.7
20°-30°	1000.4	13.3
30°-40°	1216.8	16.1
40°-50°	1295.5	17.2
50°-60°	1233.9	16.4
60°-70°	1031.9	13.7
70°-80°	688.0	9.1
80°-90°	190.4	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°	1887.9	25.0
0°-40°	3104.7	41.2
0°-60°	5634.1	74.7
0°-90°	7544.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7544.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2412	2412	2412	2412	2412	
5°	2412	2397	2409	2409	2409	229
15°	2297	2302	2342	2359	2367	648
25°	2090	2118	2180	2217	2237	962
35°	1811	1864	1958	2023	2053	1133
45°	1490	1570	1694	1789	1831	1152
55°	1146	1246	1398	1520	1572	1024
65°	780	894	1066	1198	1251	770
75°	401	528	693	810	842	425
85°	87	162	177	174	177	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2411.5	2411.5	2411.5	2411.5	2411.5
2.5°	2421.5	2404.1	2411.5	2411.5	2401.6
5°	2411.5	2396.6	2409.0	2409.0	2409.0
7.5°	2394.1	2381.6	2401.6	2406.5	2406.5
10°	2366.7	2361.7	2386.6	2394.1	2396.6
12.5°	2336.8	2334.3	2369.2	2379.1	2386.6
15°	2296.9	2301.9	2341.8	2359.2	2366.7
17.5°	2254.6	2264.5	2309.4	2334.3	2341.8
20°	2204.8	2219.7	2272.0	2296.9	2311.9
22.5°	2149.9	2172.4	2227.2	2257.1	2274.5
25°	2090.2	2117.6	2179.8	2217.2	2237.1
27.5°	2025.4	2060.3	2132.5	2174.9	2194.8
30°	1955.6	1995.5	2075.2	2125.0	2149.9
32.5°	1883.4	1930.7	2017.9	2072.7	2102.6
35°	1811.1	1863.5	1958.1	2022.9	2052.8
37.5°	1738.9	1791.2	1895.8	1965.6	2003.0
40°	1656.7	1719.0	1831.1	1908.3	1945.7
42.5°	1577.0	1644.2	1763.8	1848.5	1888.4
45°	1489.8	1569.5	1694.0	1788.7	1831.1
47.5°	1410.0	1489.8	1624.3	1723.9	1771.3
50°	1322.9	1407.6	1549.6	1659.2	1709.0
52.5°	1238.1	1325.3	1474.8	1591.9	1641.7
55°	1146.0	1245.6	1397.6	1519.7	1572.0
57.5°	1053.8	1160.9	1317.9	1444.9	1497.2
60°	964.1	1073.7	1238.1	1365.2	1420.0
62.5°	874.4	984.0	1155.9	1285.5	1337.8
65°	779.8	894.4	1066.3	1198.3	1250.6
67.5°	685.1	804.7	976.6	1108.6	1158.4
70°	585.4	712.5	884.4	1013.9	1063.8
72.5°	493.3	620.3	789.7	916.8	964.1
75°	401.1	528.1	692.6	809.7	842.0
77.5°	311.4	438.5	585.4	662.7	670.1
80°	226.7	346.3	465.9	488.3	485.8
82.5°	152.0	259.1	321.4	323.9	331.3
85°	87.2	161.9	176.9	174.4	176.9
87.5°	34.9	57.3	49.8	37.4	37.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)