

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: P388973

Luminaire Tested: **24CZ2-65-SQR-UNV-L935-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: P388973
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: 24CZ2-65-SQR-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

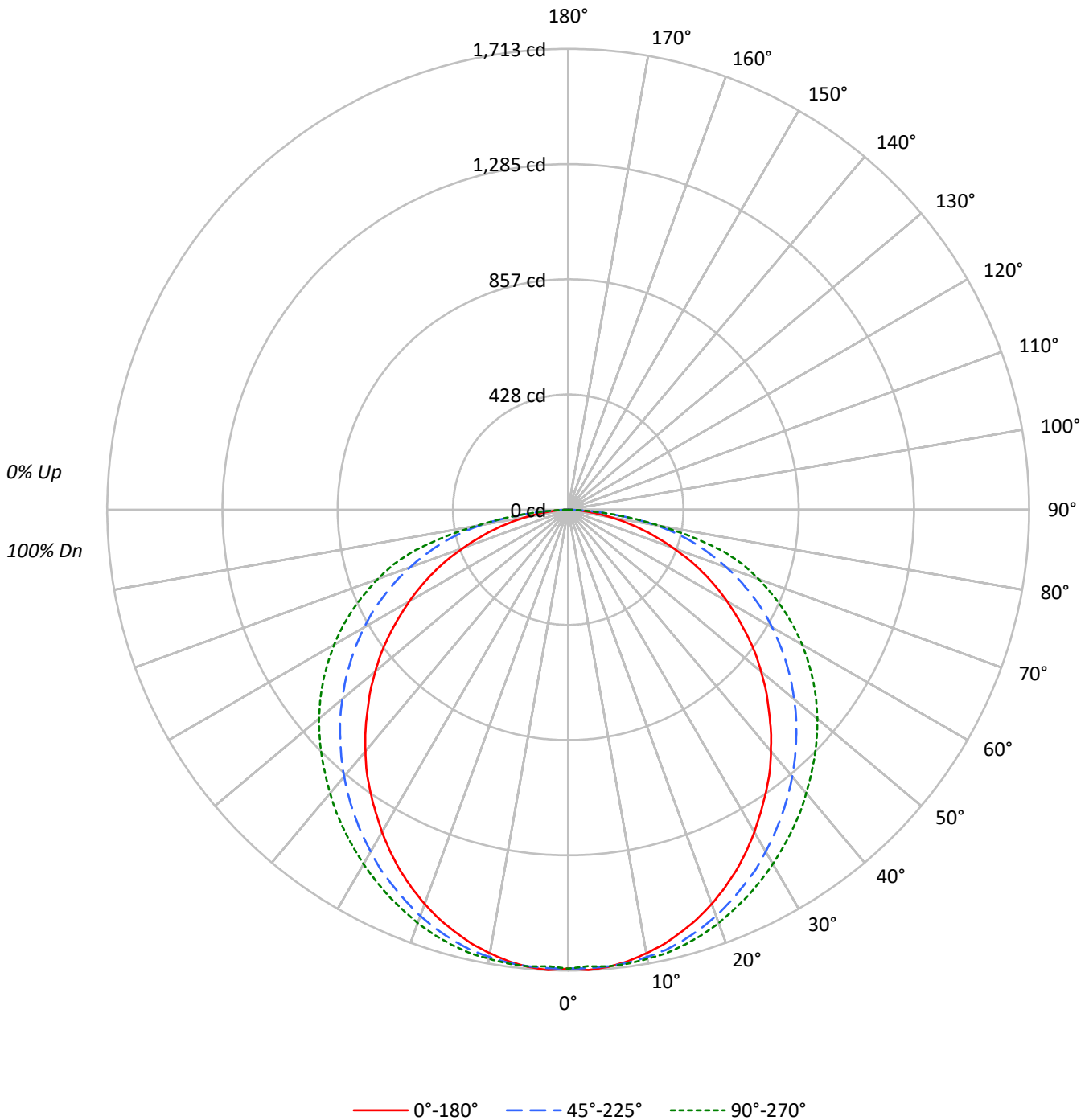
Lumens per Lamp: N/A
Luminaire Lumens: 5336.4 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 62.8
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°	2295	2295	2295
5°	2304	2301	2301
10°	2287	2306	2316
15°	2263	2307	2332
20°	2233	2301	2341
25°	2195	2289	2349
30°	2149	2281	2363
35°	2104	2275	2385
40°	2058	2275	2417
45°	2005	2280	2465
50°	1959	2294	2530
55°	1901	2319	2608
60°	1835	2357	2703
65°	1756	2401	2816
70°	1629	2461	2960
75°	1475	2547	3096
80°	1243	2553	2662
85°	953	1931	1931



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.9	3.0
10°-20°	465.9	8.7
20°-30°	707.6	13.3
30°-40°	860.7	16.1
40°-50°	916.4	17.2
50°-60°	872.8	16.4
60°-70°	729.9	13.7
70°-80°	486.6	9.1
80°-90°	134.6	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°	1335.4	25.0
0°-40°	2196.1	41.2
0°-60°	3985.2	74.7
0°-90°	5336.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5336.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1706	1695	1704	1704	1704	162
15°	1625	1628	1656	1669	1674	458
25°	1478	1498	1542	1568	1582	681
35°	1281	1318	1385	1431	1452	802
45°	1054	1110	1198	1265	1295	815
55°	811	881	989	1075	1112	725
65°	552	633	754	848	885	545
75°	284	374	490	573	596	301
85°	62	114	125	123	125	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1705.8	1705.8	1705.8	1705.8	1705.8
2.5°	1712.8	1700.5	1705.8	1705.8	1698.7
5°	1705.8	1695.2	1704.0	1704.0	1704.0
7.5°	1693.4	1684.6	1698.7	1702.2	1702.2
10°	1674.1	1670.5	1688.2	1693.4	1695.2
12.5°	1652.9	1651.1	1675.8	1682.9	1688.2
15°	1624.7	1628.2	1656.4	1668.8	1674.1
17.5°	1594.8	1601.8	1633.5	1651.1	1656.4
20°	1559.5	1570.1	1607.1	1624.7	1635.3
22.5°	1520.7	1536.6	1575.4	1596.5	1608.9
25°	1478.5	1497.8	1541.9	1568.3	1582.4
27.5°	1432.6	1457.3	1508.4	1538.4	1552.5
30°	1383.3	1411.5	1467.9	1503.1	1520.7
32.5°	1332.2	1365.7	1427.4	1466.1	1487.3
35°	1281.1	1318.1	1385.1	1430.9	1452.0
37.5°	1230.0	1267.0	1341.0	1390.3	1416.8
40°	1171.8	1215.9	1295.2	1349.8	1376.2
42.5°	1115.4	1163.0	1247.6	1307.5	1335.7
45°	1053.8	1110.2	1198.3	1265.2	1295.2
47.5°	997.4	1053.8	1148.9	1219.4	1252.9
50°	935.7	995.6	1096.1	1173.6	1208.8
52.5°	875.8	937.5	1043.2	1126.0	1161.3
55°	810.6	881.1	988.6	1074.9	1111.9
57.5°	745.4	821.2	932.2	1022.1	1059.1
60°	682.0	759.5	875.8	965.7	1004.4
62.5°	618.5	696.1	817.6	909.3	946.3
65°	551.6	632.6	754.2	847.6	884.6
67.5°	484.6	569.2	690.8	784.2	819.4
70°	414.1	504.0	625.6	717.2	752.4
72.5°	348.9	438.8	558.6	648.5	682.0
75°	283.7	373.6	489.9	572.7	595.6
77.5°	220.3	310.1	414.1	468.7	474.0
80°	160.4	244.9	329.5	345.4	343.6
82.5°	107.5	183.3	227.3	229.1	234.4
85°	61.7	114.5	125.1	123.4	125.1
87.5°	24.7	40.5	35.2	26.4	26.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)