

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: P389019

Luminaire Tested: **24CZ2-65VHE-SQR-UNV-L935-CD1-SDWPD1-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: P389019
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: 24CZ2-65VHE-SQR-UNV-L935-CD1-SDWPD1-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: 5201.0 lumens
Efficiency: N/A
Efficacy: 123.2 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

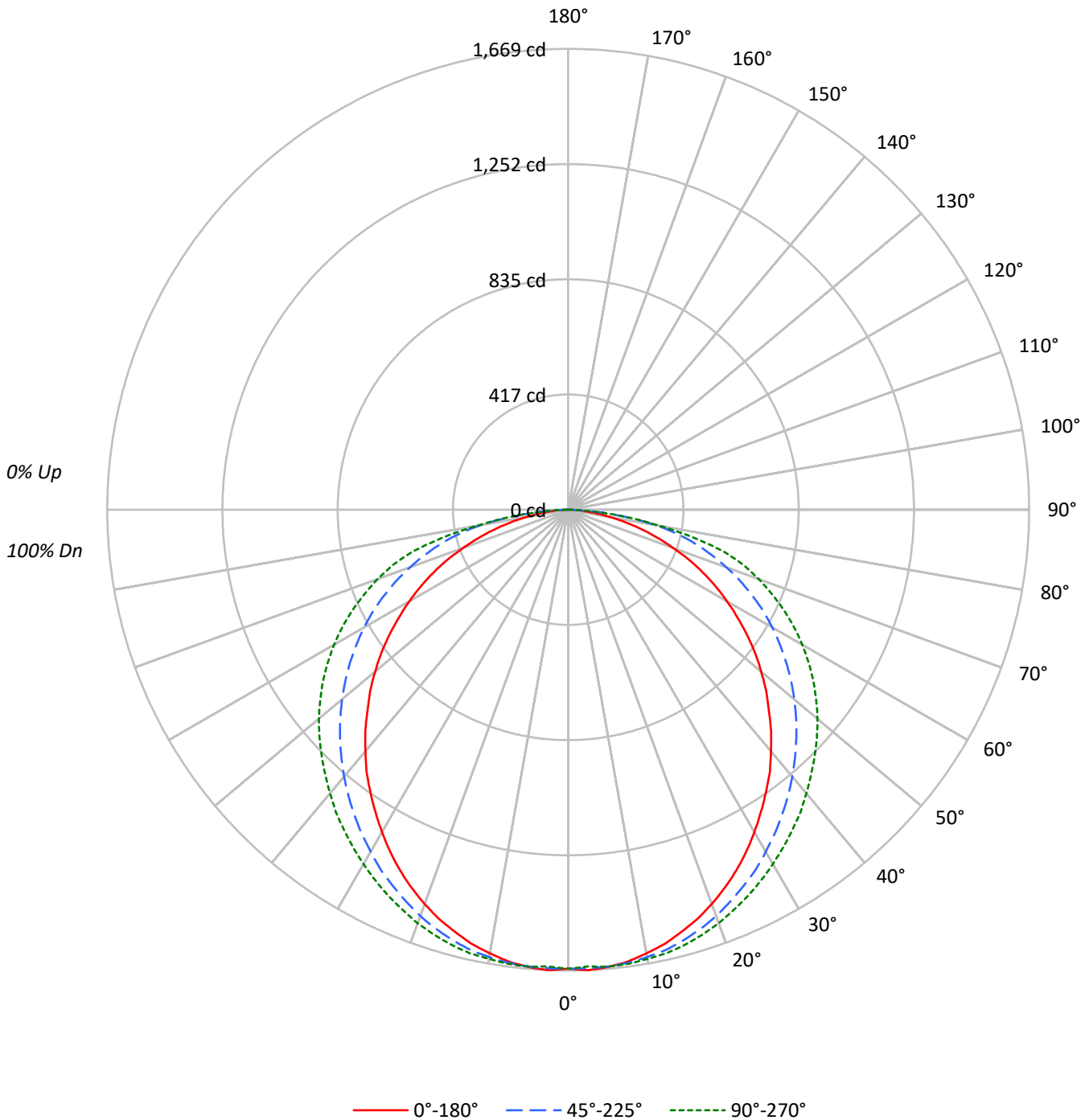
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2237	2237	2237
5°	2245	2243	2243
10°	2229	2248	2257
15°	2206	2249	2273
20°	2176	2243	2282
25°	2139	2231	2290
30°	2095	2223	2303
35°	2051	2217	2325
40°	2006	2217	2356
45°	1954	2222	2402
50°	1909	2236	2466
55°	1853	2260	2542
60°	1789	2297	2634
65°	1712	2340	2745
70°	1588	2399	2885
75°	1437	2482	3018
80°	1211	2489	2595
85°	928	1882	1882



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.8	3.0
10°-20°	454.0	8.7
20°-30°	689.6	13.3
30°-40°	838.9	16.1
40°-50°	893.1	17.2
50°-60°	850.6	16.4
60°-70°	711.4	13.7
70°-80°	474.3	9.1
80°-90°	131.2	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°	1301.5	25.0
0°-40°	2140.3	41.2
0°-60°	3884.1	74.7
0°-90°	5201.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5201.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1662	1662	1662	1662	1662	
5°	1662	1652	1661	1661	1661	158
15°	1584	1587	1614	1626	1632	447
25°	1441	1460	1503	1528	1542	663
35°	1249	1285	1350	1395	1415	781
45°	1027	1082	1168	1233	1262	794
55°	790	859	964	1048	1084	706
65°	538	617	735	826	862	531
75°	276	364	478	558	580	293
85°	60	112	122	120	122	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1662.5	1662.5	1662.5	1662.5	1662.5
2.5°	1669.4	1657.3	1662.5	1662.5	1655.6
5°	1662.5	1652.2	1660.8	1660.8	1660.8
7.5°	1650.5	1641.9	1655.6	1659.1	1659.1
10°	1631.6	1628.1	1645.3	1650.5	1652.2
12.5°	1611.0	1609.3	1633.3	1640.2	1645.3
15°	1583.5	1586.9	1614.4	1626.4	1631.6
17.5°	1554.3	1561.2	1592.1	1609.3	1614.4
20°	1519.9	1530.2	1566.3	1583.5	1593.8
22.5°	1482.2	1497.6	1535.4	1556.0	1568.0
25°	1440.9	1459.8	1502.8	1528.5	1542.3
27.5°	1396.3	1420.3	1470.1	1499.3	1513.1
30°	1348.2	1375.7	1430.6	1465.0	1482.2
32.5°	1298.4	1331.0	1391.1	1428.9	1449.5
35°	1248.6	1284.7	1349.9	1394.6	1415.2
37.5°	1198.8	1234.8	1307.0	1355.1	1380.8
40°	1142.1	1185.0	1262.3	1315.6	1341.3
42.5°	1087.1	1133.5	1216.0	1274.3	1301.8
45°	1027.0	1082.0	1167.9	1233.1	1262.3
47.5°	972.1	1027.0	1119.8	1188.5	1221.1
50°	912.0	970.4	1068.3	1143.8	1178.2
52.5°	853.6	913.7	1016.7	1097.5	1131.8
55°	790.0	858.7	963.5	1047.6	1083.7
57.5°	726.5	800.3	908.5	996.1	1032.2
60°	664.7	740.2	853.6	941.2	978.9
62.5°	602.8	678.4	796.9	886.2	922.3
65°	537.6	616.6	735.1	826.1	862.2
67.5°	472.3	554.7	673.2	764.3	798.6
70°	403.6	491.2	609.7	699.0	733.4
72.5°	340.1	427.6	544.4	632.0	664.7
75°	276.5	364.1	477.5	558.2	580.5
77.5°	214.7	302.3	403.6	456.8	462.0
80°	156.3	238.7	321.2	336.6	334.9
82.5°	104.8	178.6	221.6	223.3	228.4
85°	60.1	111.6	121.9	120.2	121.9
87.5°	24.0	39.5	34.3	25.8	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)