

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: P389027

Luminaire Tested: **24CZ2-65VHE-SQR-UNV-L950-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: P389027
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-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5716.7 lumens
Efficiency: N/A
Efficacy: 135.5 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

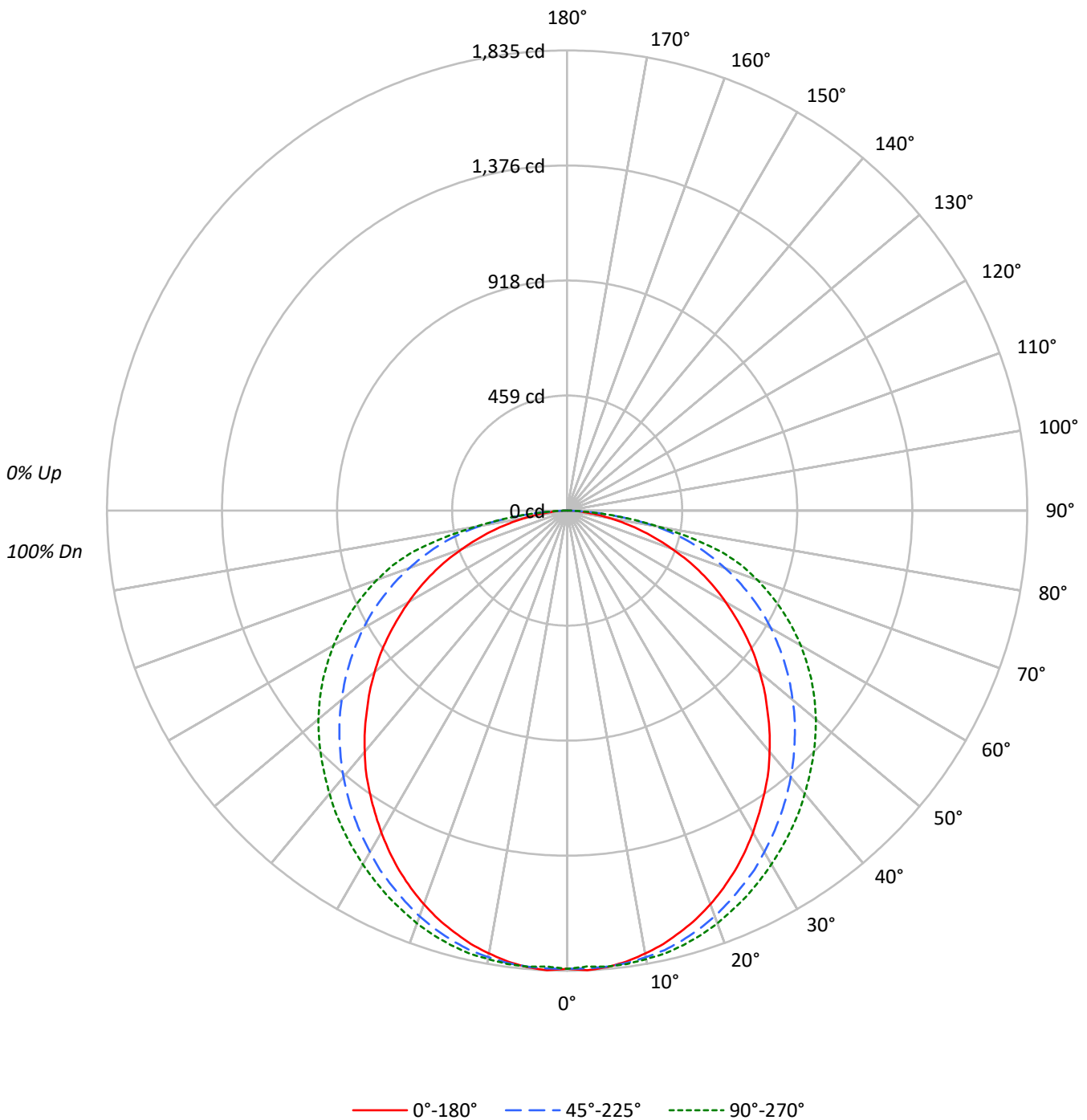
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2459	2459	2459
5°	2468	2465	2465
10°	2450	2471	2481
15°	2424	2472	2498
20°	2392	2465	2508
25°	2351	2452	2517
30°	2302	2443	2531
35°	2254	2437	2555
40°	2205	2437	2589
45°	2148	2443	2640
50°	2098	2458	2711
55°	2037	2484	2794
60°	1966	2525	2895
65°	1881	2572	3017
70°	1745	2636	3171
75°	1580	2728	3317
80°	1331	2735	2852
85°	1020	2069	2069



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.5	3.0
10°-20°	499.1	8.7
20°-30°	758.0	13.3
30°-40°	922.0	16.1
40°-50°	981.7	17.2
50°-60°	935.0	16.4
60°-70°	781.9	13.7
70°-80°	521.3	9.1
80°-90°	144.2	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°	1430.5	25.0
0°-40°	2352.6	41.2
0°-60°	4269.2	74.7
0°-90°	5716.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5716.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1827	1827	1827	1827	1827	
5°	1827	1816	1825	1825	1825	173
15°	1740	1744	1774	1788	1793	491
25°	1584	1605	1652	1680	1695	729
35°	1372	1412	1484	1533	1556	859
45°	1129	1189	1284	1355	1388	873
55°	868	944	1059	1152	1191	776
65°	591	678	808	908	948	584
75°	304	400	525	614	638	322
85°	66	123	134	132	134	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1827.3	1827.3	1827.3	1827.3	1827.3
2.5°	1834.9	1821.7	1827.3	1827.3	1819.8
5°	1827.3	1816.0	1825.4	1825.4	1825.4
7.5°	1814.1	1804.7	1819.8	1823.6	1823.6
10°	1793.4	1789.6	1808.5	1814.1	1816.0
12.5°	1770.7	1768.8	1795.2	1802.8	1808.5
15°	1740.5	1744.3	1774.5	1787.7	1793.4
17.5°	1708.4	1716.0	1749.9	1768.8	1774.5
20°	1670.7	1682.0	1721.6	1740.5	1751.8
22.5°	1629.1	1646.1	1687.6	1710.3	1723.5
25°	1583.8	1604.6	1651.8	1680.1	1695.2
27.5°	1534.7	1561.2	1615.9	1648.0	1663.1
30°	1481.9	1512.1	1572.5	1610.2	1629.1
32.5°	1427.1	1463.0	1529.1	1570.6	1593.3
35°	1372.4	1412.0	1483.8	1532.8	1555.5
37.5°	1317.6	1357.3	1436.6	1489.4	1517.7
40°	1255.3	1302.5	1387.5	1446.0	1474.3
42.5°	1194.9	1245.9	1336.5	1400.7	1430.9
45°	1128.9	1189.3	1283.7	1355.4	1387.5
47.5°	1068.5	1128.9	1230.8	1306.3	1342.2
50°	1002.4	1066.6	1174.2	1257.2	1295.0
52.5°	938.2	1004.3	1117.5	1206.3	1244.0
55°	868.4	943.9	1059.0	1151.5	1191.2
57.5°	798.5	879.7	998.6	1094.9	1134.5
60°	730.6	813.6	938.2	1034.5	1076.0
62.5°	662.6	745.7	875.9	974.1	1013.7
65°	590.9	677.7	808.0	908.0	947.6
67.5°	519.1	609.7	740.0	840.0	877.8
70°	443.6	539.9	670.1	768.3	806.1
72.5°	373.8	470.0	598.4	694.7	730.6
75°	303.9	400.2	524.8	613.5	638.1
77.5°	236.0	332.2	443.6	502.1	507.8
80°	171.8	262.4	353.0	370.0	368.1
82.5°	115.2	196.3	243.5	245.4	251.1
85°	66.1	122.7	134.0	132.1	134.0
87.5°	26.4	43.4	37.8	28.3	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)