

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: P389024

Luminaire Tested: **24CZ2-65VHE-SQR-UNV-L940-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: P389024
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-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5385.8 lumens
Efficiency: N/A
Efficacy: 127.6 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

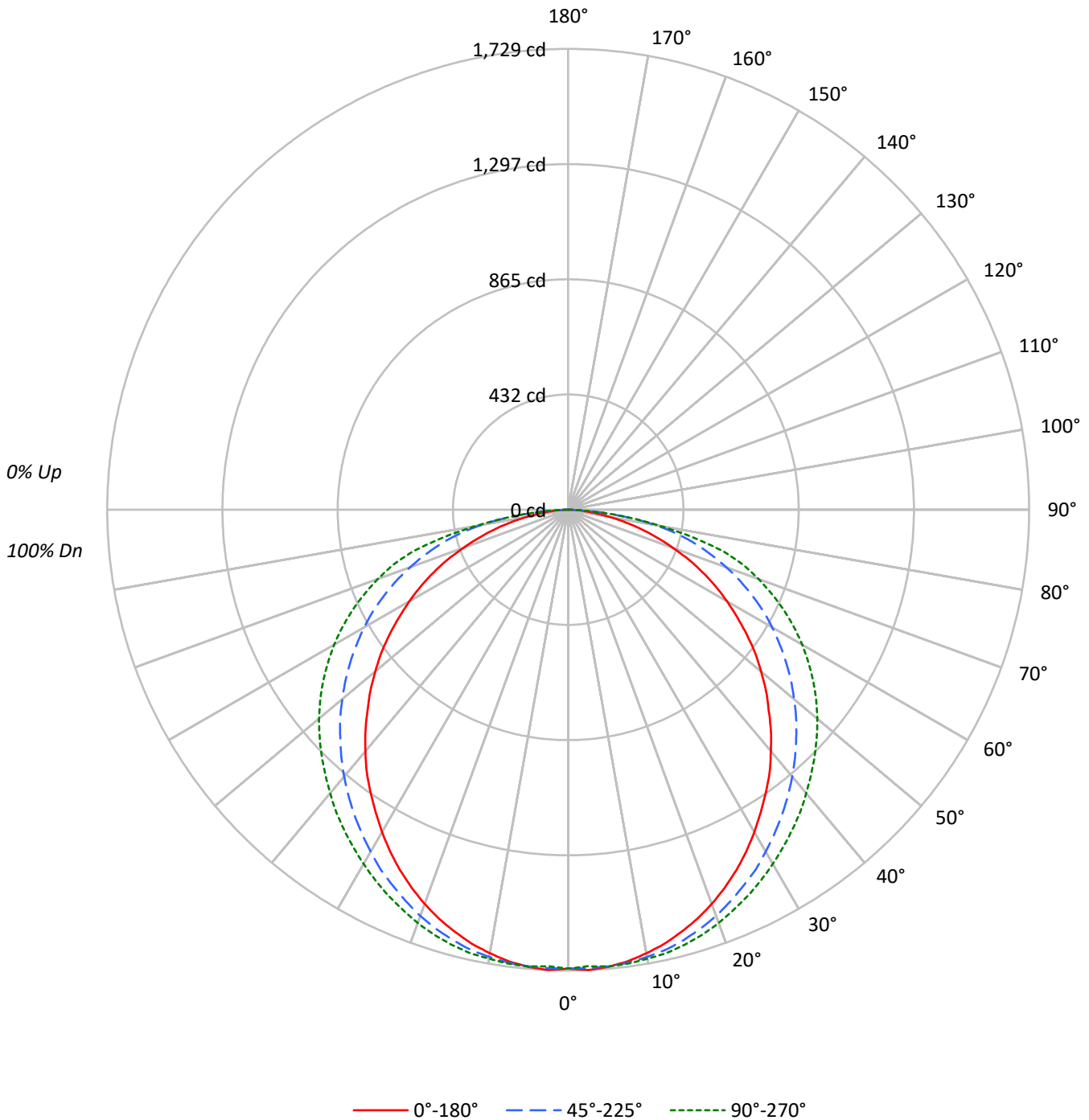
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2316	2316	2316
5°	2325	2323	2323
10°	2308	2328	2338
15°	2284	2329	2354
20°	2254	2322	2363
25°	2215	2310	2371
30°	2169	2302	2385
35°	2124	2296	2407
40°	2077	2296	2440
45°	2024	2301	2487
50°	1977	2316	2554
55°	1919	2340	2632
60°	1852	2379	2728
65°	1772	2423	2842
70°	1644	2484	2987
75°	1488	2570	3125
80°	1254	2577	2687
85°	960	1950	1950



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.4	3.0
10°-20°	470.2	8.7
20°-30°	714.1	13.3
30°-40°	868.7	16.1
40°-50°	924.8	17.2
50°-60°	880.9	16.4
60°-70°	736.6	13.7
70°-80°	491.1	9.1
80°-90°	135.9	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°	1347.7	25.0
0°-40°	2216.4	41.2
0°-60°	4022.1	74.7
0°-90°	5385.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5385.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1722	1722	1722	1722	1722	
5°	1722	1711	1720	1720	1720	163
15°	1640	1643	1672	1684	1690	462
25°	1492	1512	1556	1583	1597	687
35°	1293	1330	1398	1444	1466	809
45°	1064	1120	1209	1277	1307	822
55°	818	889	998	1085	1122	731
65°	557	638	761	855	893	550
75°	286	377	494	578	601	303
85°	62	116	126	124	126	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1721.6	1721.6	1721.6	1721.6	1721.6
2.5°	1728.7	1716.2	1721.6	1721.6	1714.4
5°	1721.6	1710.9	1719.8	1719.8	1719.8
7.5°	1709.1	1700.2	1714.4	1718.0	1718.0
10°	1689.6	1686.0	1703.8	1709.1	1710.9
12.5°	1668.2	1666.4	1691.3	1698.4	1703.8
15°	1639.8	1643.3	1671.8	1684.2	1689.6
17.5°	1609.5	1616.6	1648.6	1666.4	1671.8
20°	1574.0	1584.6	1622.0	1639.8	1650.4
22.5°	1534.8	1550.8	1590.0	1611.3	1623.7
25°	1492.1	1511.7	1556.2	1582.8	1597.1
27.5°	1445.9	1470.8	1522.4	1552.6	1566.8
30°	1396.1	1424.6	1481.5	1517.0	1534.8
32.5°	1344.5	1378.3	1440.6	1479.7	1501.0
35°	1293.0	1330.3	1397.9	1444.1	1465.5
37.5°	1241.4	1278.7	1353.4	1403.2	1429.9
40°	1182.7	1227.1	1307.2	1362.3	1389.0
42.5°	1125.8	1173.8	1259.2	1319.6	1348.1
45°	1063.5	1120.4	1209.4	1276.9	1307.2
47.5°	1006.6	1063.5	1159.6	1230.7	1264.5
50°	944.4	1004.8	1106.2	1184.5	1220.0
52.5°	883.9	946.1	1052.9	1136.4	1172.0
55°	818.1	889.2	997.7	1084.9	1122.2
57.5°	752.3	828.8	940.8	1031.5	1068.9
60°	688.3	766.5	883.9	974.6	1013.7
62.5°	624.2	702.5	825.2	917.7	955.0
65°	556.7	638.5	761.2	855.4	892.8
67.5°	489.1	574.4	697.2	791.4	827.0
70°	417.9	508.6	631.4	723.8	759.4
72.5°	352.1	442.8	563.8	654.5	688.3
75°	286.3	377.0	494.4	578.0	601.1
77.5°	222.3	313.0	417.9	473.1	478.4
80°	161.8	247.2	332.6	348.6	346.8
82.5°	108.5	185.0	229.4	231.2	236.5
85°	62.2	115.6	126.3	124.5	126.3
87.5°	24.9	40.9	35.6	26.7	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)