

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: P389025

Luminaire Tested: **24CZ2-65VHE-SQR-UNV-L950-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: P389025
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-SDWPD1-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: 5577.7 lumens
Efficiency: N/A
Efficacy: 132.2 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

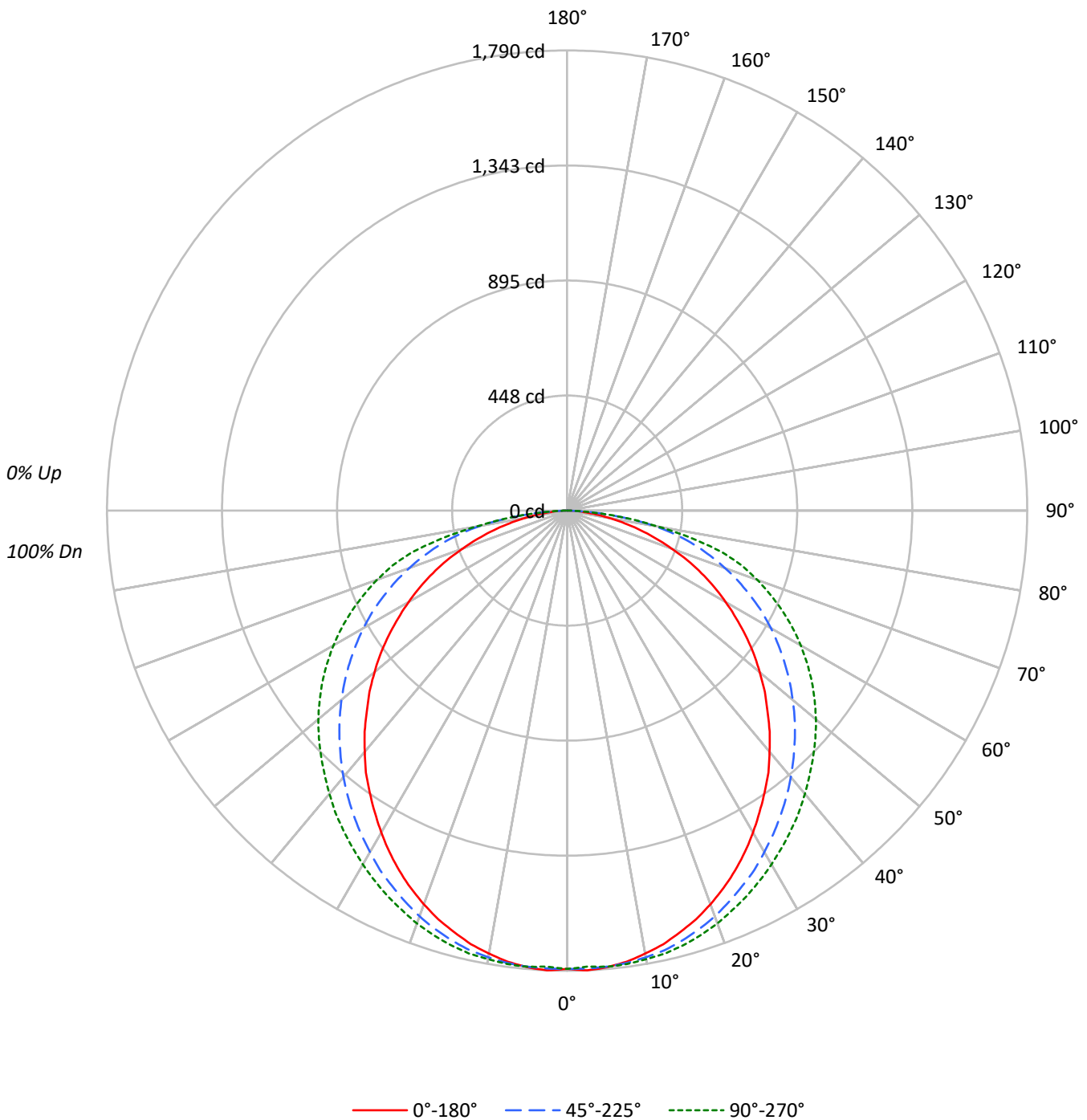
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2399	2399	2399
5°	2408	2406	2406
10°	2391	2411	2421
15°	2366	2412	2437
20°	2334	2405	2447
25°	2294	2393	2456
30°	2246	2384	2470
35°	2199	2378	2493
40°	2151	2378	2527
45°	2096	2383	2576
50°	2047	2398	2645
55°	1987	2424	2726
60°	1918	2463	2825
65°	1835	2510	2944
70°	1703	2572	3094
75°	1541	2662	3236
80°	1299	2669	2783
85°	996	2019	2019



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.2	3.0
10°-20°	486.9	8.7
20°-30°	739.6	13.3
30°-40°	899.6	16.1
40°-50°	957.8	17.2
50°-60°	912.3	16.4
60°-70°	762.9	13.7
70°-80°	508.6	9.1
80°-90°	140.7	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°	1395.8	25.0
0°-40°	2295.4	41.2
0°-60°	4165.4	74.7
0°-90°	5577.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5577.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1783	1783	1783	1783	1783	
5°	1783	1772	1781	1781	1781	169
15°	1698	1702	1731	1744	1750	479
25°	1545	1566	1612	1639	1654	711
35°	1339	1378	1448	1496	1518	838
45°	1101	1160	1252	1322	1354	851
55°	847	921	1033	1124	1162	757
65°	576	661	788	886	925	570
75°	296	390	512	599	622	314
85°	64	120	131	129	131	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1782.9	1782.9	1782.9	1782.9	1782.9
2.5°	1790.3	1777.4	1782.9	1782.9	1775.5
5°	1782.9	1771.9	1781.1	1781.1	1781.1
7.5°	1770.0	1760.8	1775.5	1779.2	1779.2
10°	1749.8	1746.1	1764.5	1770.0	1771.9
12.5°	1727.6	1725.8	1751.6	1759.0	1764.5
15°	1698.2	1701.9	1731.3	1744.2	1749.8
17.5°	1666.9	1674.2	1707.4	1725.8	1731.3
20°	1630.0	1641.1	1679.8	1698.2	1709.2
22.5°	1589.5	1606.1	1646.6	1668.7	1681.6
25°	1545.3	1565.6	1611.6	1639.2	1654.0
27.5°	1497.4	1523.2	1576.6	1607.9	1622.7
30°	1445.8	1475.3	1534.3	1571.1	1589.5
32.5°	1392.4	1427.4	1491.9	1532.4	1554.5
35°	1339.0	1377.7	1447.7	1495.6	1517.7
37.5°	1285.6	1324.3	1401.6	1453.2	1480.8
40°	1224.8	1270.9	1353.8	1410.9	1438.5
42.5°	1165.9	1215.6	1304.0	1366.6	1396.1
45°	1101.4	1160.4	1252.5	1322.4	1353.8
47.5°	1042.5	1101.4	1200.9	1274.6	1309.6
50°	978.0	1040.6	1145.6	1226.7	1263.5
52.5°	915.4	979.9	1090.4	1176.9	1213.8
55°	847.2	920.9	1033.3	1123.5	1162.2
57.5°	779.1	858.3	974.3	1068.3	1106.9
60°	712.8	793.8	915.4	1009.3	1049.9
62.5°	646.5	727.5	854.6	950.4	989.1
65°	576.5	661.2	788.3	885.9	924.6
67.5°	506.5	594.9	722.0	819.6	856.5
70°	432.8	526.8	653.9	749.6	786.5
72.5°	364.7	458.6	583.9	677.8	712.8
75°	296.5	390.5	512.0	598.6	622.5
77.5°	230.2	324.2	432.8	489.9	495.5
80°	167.6	256.0	344.4	361.0	359.2
82.5°	112.4	191.6	237.6	239.4	245.0
85°	64.5	119.7	130.8	128.9	130.8
87.5°	25.8	42.4	36.8	27.6	27.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)