

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: P389001

Luminaire Tested: **24CZ2-65HE-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: P389001
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: 24CZ2-65HE-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: 5598.9 lumens
Efficiency: N/A
Efficacy: 114.5 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

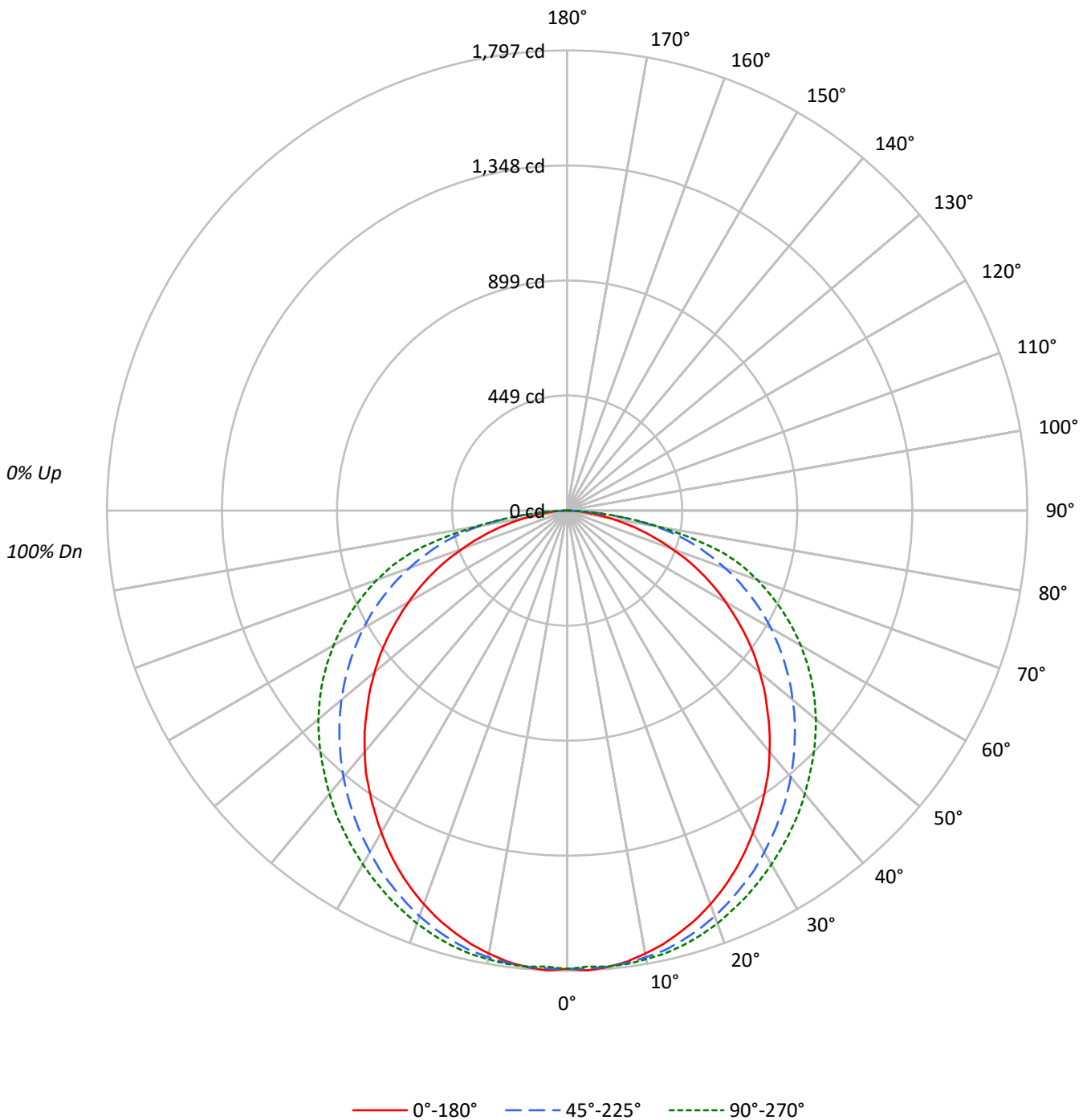
Input Watts (W): 48.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2408	2408	2408
5°	2417	2415	2415
10°	2400	2420	2430
15°	2374	2421	2447
20°	2343	2414	2457
25°	2303	2402	2465
30°	2255	2393	2479
35°	2208	2387	2502
40°	2160	2387	2536
45°	2104	2392	2586
50°	2055	2407	2655
55°	1995	2433	2737
60°	1925	2473	2836
65°	1842	2519	2955
70°	1709	2582	3106
75°	1548	2672	3249
80°	1303	2679	2793
85°	999	2027	2027



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.9	3.0
10°-20°	488.8	8.7
20°-30°	742.4	13.3
30°-40°	903.0	16.1
40°-50°	961.4	17.2
50°-60°	915.7	16.4
60°-70°	765.8	13.7
70°-80°	510.6	9.1
80°-90°	141.3	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°	1401.1	25.0
0°-40°	2304.1	41.2
0°-60°	4181.2	74.7
0°-90°	5598.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5598.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1790	1790	1790	1790	1790	
5°	1790	1779	1788	1788	1788	170
15°	1705	1708	1738	1751	1756	481
25°	1551	1572	1618	1646	1660	714
35°	1344	1383	1453	1501	1523	841
45°	1106	1165	1257	1328	1359	855
55°	850	924	1037	1128	1167	760
65°	579	664	791	889	928	572
75°	298	392	514	601	625	315
85°	65	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°	1789.7	1789.7	1789.7	1789.7	1789.7
2.5°	1797.1	1784.1	1789.7	1789.7	1782.3
5°	1789.7	1778.6	1787.8	1787.8	1787.8
7.5°	1776.7	1767.5	1782.3	1786.0	1786.0
10°	1756.4	1752.7	1771.2	1776.7	1778.6
12.5°	1734.2	1732.4	1758.3	1765.6	1771.2
15°	1704.6	1708.3	1737.9	1750.9	1756.4
17.5°	1673.2	1680.6	1713.9	1732.4	1737.9
20°	1636.2	1647.3	1686.1	1704.6	1715.7
22.5°	1595.6	1612.2	1652.9	1675.1	1688.0
25°	1551.2	1571.5	1617.7	1645.5	1660.3
27.5°	1503.1	1529.0	1582.6	1614.0	1628.8
30°	1451.3	1480.9	1540.1	1577.1	1595.6
32.5°	1397.7	1432.9	1497.6	1538.2	1560.4
35°	1344.1	1382.9	1453.2	1501.3	1523.4
37.5°	1290.5	1329.3	1407.0	1458.7	1486.5
40°	1229.5	1275.7	1358.9	1416.2	1443.9
42.5°	1170.3	1220.2	1309.0	1371.8	1401.4
45°	1105.6	1164.8	1257.2	1327.5	1358.9
47.5°	1046.4	1105.6	1205.4	1279.4	1314.5
50°	981.7	1044.6	1150.0	1231.3	1268.3
52.5°	918.9	983.6	1094.5	1181.4	1218.4
55°	850.5	924.4	1037.2	1127.8	1166.6
57.5°	782.1	861.6	978.0	1072.3	1111.2
60°	715.5	796.9	918.9	1013.2	1053.8
62.5°	648.9	730.3	857.9	954.0	992.8
65°	578.7	663.7	791.3	889.3	928.1
67.5°	508.4	597.2	724.7	822.7	859.7
70°	434.5	528.8	656.3	752.5	789.5
72.5°	366.1	460.4	586.1	680.4	715.5
75°	297.7	392.0	514.0	600.9	624.9
77.5°	231.1	325.4	434.5	491.8	497.3
80°	168.2	257.0	345.7	362.4	360.5
82.5°	112.8	192.3	238.5	240.3	245.9
85°	64.7	120.2	131.3	129.4	131.3
87.5°	25.9	42.5	37.0	27.7	27.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)