

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: P390915

Luminaire Tested: **24CZ2-100VHE-RDP-UNV-L940-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: P390915
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-RDP-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5712.6 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

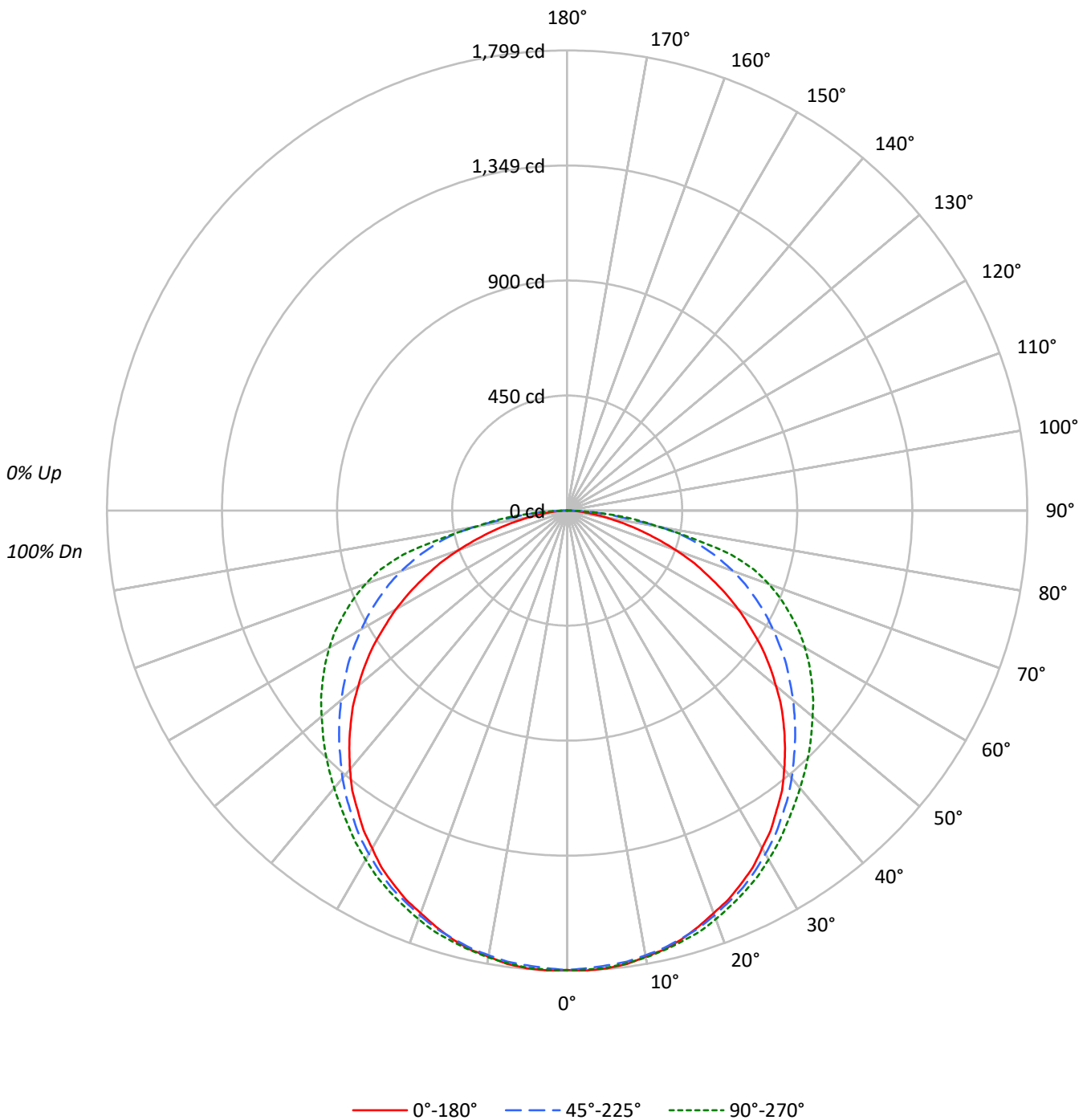
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2417	2417	2417
5°	2426	2411	2422
10°	2419	2412	2423
15°	2416	2412	2427
20°	2398	2410	2434
25°	2389	2415	2440
30°	2368	2408	2448
35°	2346	2402	2457
40°	2319	2399	2488
45°	2281	2399	2545
50°	2230	2414	2622
55°	2174	2453	2738
60°	2082	2501	2890
65°	1948	2589	3067
70°	1772	2709	3299
75°	1502	2858	3447
80°	1185	2876	2789
85°	875	2188	2450



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.4	3.0
10°-20°	490.4	8.6
20°-30°	750.0	13.1
30°-40°	916.8	16.0
40°-50°	977.2	17.1
50°-60°	934.3	16.4
60°-70°	791.5	13.9
70°-80°	531.9	9.3
80°-90°	150.1	2.6
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
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0°-30°	1410.8	24.7
0°-40°	2327.7	40.7
0°-60°	4239.1	74.2
0°-90°	5712.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5712.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1796	1796	1796	1796	1796	
5°	1796	1794	1785	1794	1794	171
15°	1734	1734	1731	1745	1743	489
25°	1609	1615	1626	1641	1643	742
35°	1428	1439	1462	1490	1496	895
45°	1199	1218	1261	1315	1337	924
55°	927	961	1046	1128	1167	825
65°	612	674	813	921	963	608
75°	289	394	550	643	663	309
85°	57	116	142	153	159	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1796.4	1796.4	1796.4	1796.4	1796.4
2.5°	1799.3	1799.3	1790.8	1796.4	1796.4
5°	1796.4	1793.6	1785.1	1793.6	1793.6
7.5°	1787.9	1785.1	1779.4	1787.9	1785.1
10°	1770.9	1770.9	1765.3	1773.8	1773.8
12.5°	1756.8	1753.9	1751.1	1762.4	1759.6
15°	1734.1	1734.1	1731.3	1745.4	1742.6
17.5°	1705.8	1708.6	1711.4	1722.8	1725.6
20°	1674.6	1680.3	1683.1	1700.1	1700.1
22.5°	1646.3	1649.1	1654.8	1671.8	1671.8
25°	1609.4	1615.1	1626.4	1640.6	1643.4
27.5°	1572.6	1575.4	1589.6	1609.4	1612.3
30°	1524.4	1532.9	1549.9	1572.6	1575.4
32.5°	1481.9	1490.4	1510.3	1532.9	1538.6
35°	1428.1	1439.4	1462.1	1490.4	1496.1
37.5°	1379.9	1388.4	1416.8	1447.9	1456.4
40°	1320.4	1337.4	1365.8	1402.6	1416.8
42.5°	1260.9	1277.9	1311.9	1360.1	1377.1
45°	1198.6	1218.4	1260.9	1314.8	1337.4
47.5°	1136.2	1158.9	1207.1	1269.4	1294.9
50°	1065.4	1093.7	1153.2	1224.1	1252.4
52.5°	997.4	1031.4	1096.6	1175.9	1212.7
55°	926.6	960.6	1045.6	1127.7	1167.4
57.5°	847.2	892.6	986.1	1079.6	1122.1
60°	773.6	816.1	929.4	1031.4	1073.9
62.5°	694.2	750.9	872.7	980.4	1022.9
65°	612.0	674.4	813.2	920.9	963.4
67.5°	538.4	606.4	753.7	861.4	903.9
70°	450.5	535.5	688.5	796.2	838.7
72.5°	368.4	461.9	620.5	725.4	765.0
75°	289.0	393.9	549.7	643.2	663.0
77.5°	215.3	325.9	476.0	515.7	501.5
80°	153.0	260.7	371.2	351.4	359.9
82.5°	99.2	198.3	229.5	260.7	269.2
85°	56.7	116.2	141.7	153.0	158.7
87.5°	25.5	42.5	56.7	56.7	53.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)