

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: P388849

Luminaire Tested: **24CZ2-50VHE-UNV-L935-CD1-SWPD1-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: P388849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50VHE-UNV-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4228.4 lumens
Efficiency: N/A
Efficacy: 129.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

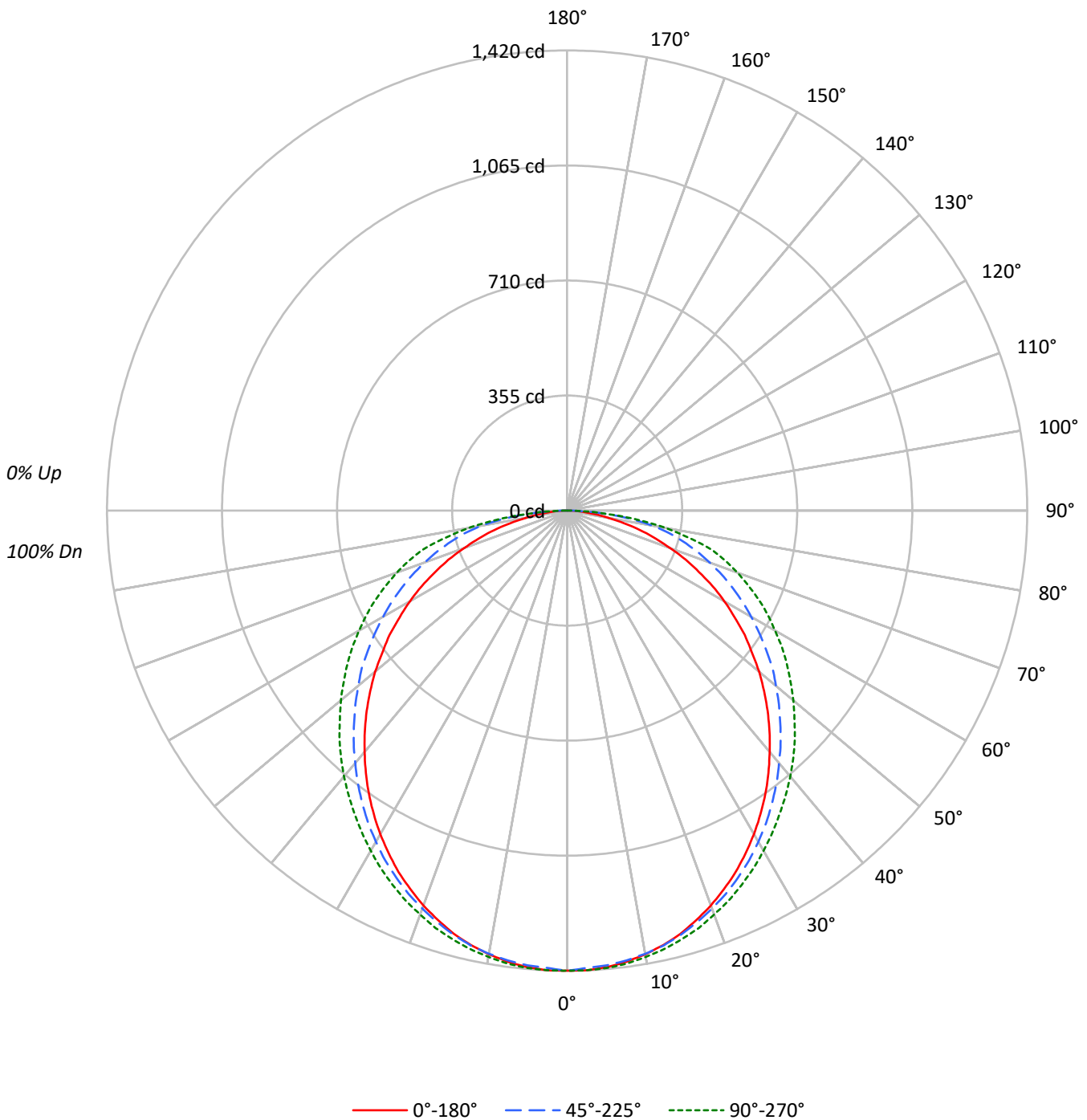
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1910	1910	1910
5°	1910	1902	1914
10°	1899	1897	1911
15°	1883	1887	1907
20°	1857	1871	1899
25°	1827	1854	1892
30°	1791	1833	1883
35°	1752	1810	1878
40°	1708	1787	1881
45°	1665	1770	1890
50°	1619	1761	1908
55°	1569	1758	1943
60°	1507	1766	1994
65°	1429	1793	2080
70°	1327	1838	2198
75°	1210	1929	2384
80°	995	2077	2383
85°	763	1917	2049



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.3	3.2
10°-20°	383.3	9.1
20°-30°	576.8	13.6
30°-40°	691.3	16.3
40°-50°	720.4	17.0
50°-60°	670.2	15.9
60°-70°	552.0	13.1
70°-80°	376.0	8.9
80°-90°	124.1	2.9
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°	1094.4	25.9
0°-40°	1785.7	42.2
0°-60°	3176.3	75.1
0°-90°	4228.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4228.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1420	1420	1420	1420	1420	
5°	1414	1414	1408	1415	1417	134
15°	1352	1353	1355	1368	1369	381
25°	1231	1236	1249	1270	1274	567
35°	1067	1080	1102	1132	1143	667
45°	875	893	930	977	994	675
55°	669	692	749	809	828	596
65°	449	487	563	629	653	445
75°	233	285	371	438	459	246
85°	49	96	124	133	133	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1419.7	1419.7	1419.7	1419.7	1419.7
2.5°	1419.7	1419.7	1412.6	1419.7	1419.7
5°	1414.0	1414.0	1408.4	1415.4	1416.8
7.5°	1404.1	1405.6	1399.9	1408.4	1409.8
10°	1390.0	1391.4	1388.6	1397.1	1398.5
12.5°	1373.1	1374.5	1374.5	1384.4	1385.8
15°	1351.9	1353.3	1354.8	1367.5	1368.9
17.5°	1325.1	1329.4	1332.2	1347.7	1350.5
20°	1296.9	1301.1	1306.8	1323.7	1326.5
22.5°	1264.4	1270.1	1280.0	1298.3	1302.5
25°	1230.6	1236.2	1248.9	1270.1	1274.3
27.5°	1192.5	1200.9	1216.5	1239.0	1244.7
30°	1153.0	1161.4	1179.8	1203.8	1212.2
32.5°	1110.6	1121.9	1143.1	1169.9	1178.4
35°	1066.9	1079.6	1102.1	1131.8	1143.1
37.5°	1020.3	1034.4	1061.2	1093.7	1107.8
40°	972.3	989.3	1017.5	1055.6	1071.1
42.5°	924.3	939.9	975.1	1016.1	1033.0
45°	874.9	893.3	930.0	976.6	993.5
47.5°	824.1	842.5	886.2	935.6	951.2
50°	773.3	791.7	841.1	893.3	911.6
52.5°	718.3	742.3	798.7	851.0	869.3
55°	668.9	691.5	749.3	808.6	828.4
57.5°	612.5	639.3	702.8	764.9	786.0
60°	560.2	588.5	656.2	719.7	740.9
62.5°	506.6	537.7	609.6	674.6	698.5
65°	448.8	486.9	563.1	629.4	653.4
67.5°	396.5	436.1	516.5	584.2	605.4
70°	337.3	385.3	467.1	534.8	558.8
72.5°	286.5	334.5	420.5	486.9	510.9
75°	232.8	285.1	371.1	437.5	458.6
77.5°	179.2	237.1	323.2	374.0	381.0
80°	128.4	189.1	268.1	297.8	307.6
82.5°	90.3	145.4	197.6	217.3	223.0
85°	49.4	96.0	124.2	132.7	132.7
87.5°	21.2	40.9	49.4	50.8	52.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)