

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: P388798

Luminaire Tested: **24CZ2-40VHE-UNV-L930-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: P388798
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: 24CZ2-40VHE-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3293.6 lumens
Efficiency: N/A
Efficacy: 125.7 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

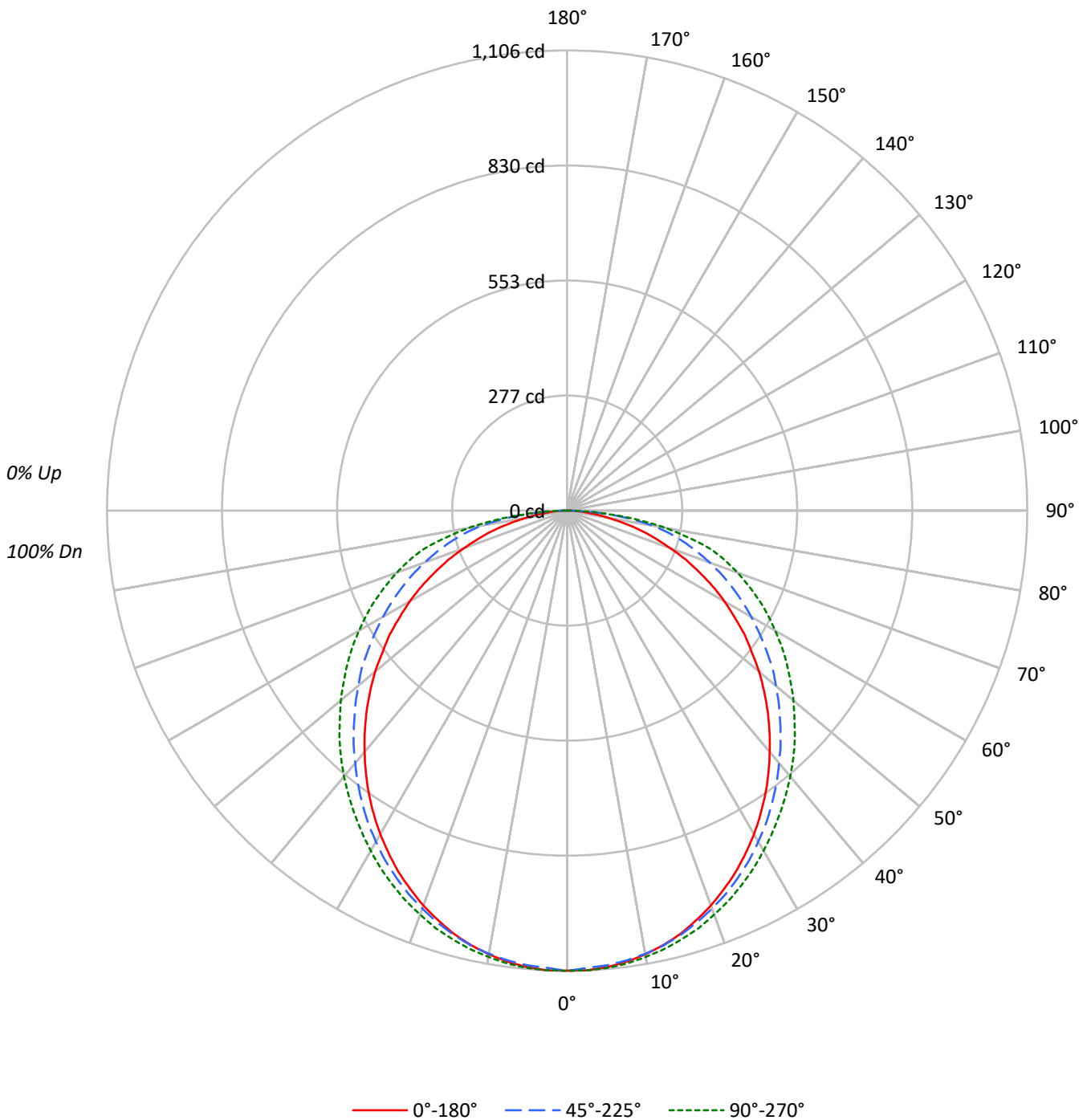
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1488	1488	1488
5°	1488	1482	1491
10°	1479	1478	1488
15°	1467	1470	1485
20°	1446	1457	1480
25°	1423	1444	1474
30°	1395	1428	1467
35°	1365	1410	1463
40°	1330	1392	1465
45°	1297	1378	1473
50°	1261	1371	1486
55°	1222	1369	1514
60°	1174	1375	1553
65°	1113	1396	1620
70°	1033	1431	1712
75°	943	1503	1857
80°	775	1619	1857
85°	594	1493	1595



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.6	3.2
10°-20°	298.6	9.1
20°-30°	449.3	13.6
30°-40°	538.5	16.3
40°-50°	561.1	17.0
50°-60°	522.1	15.9
60°-70°	430.0	13.1
70°-80°	292.8	8.9
80°-90°	96.7	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°	852.5	25.9
0°-40°	1390.9	42.2
0°-60°	2474.1	75.1
0°-90°	3293.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3293.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1106	1106	1106	1106	1106	
5°	1101	1101	1097	1102	1104	105
15°	1053	1054	1055	1065	1066	297
25°	958	963	973	989	993	441
35°	831	841	858	882	890	519
45°	682	696	724	761	774	526
55°	521	539	584	630	645	464
65°	350	379	439	490	509	347
75°	181	222	289	341	357	191
85°	38	75	97	103	103	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1105.8	1105.8	1105.8	1105.8	1105.8
2.5°	1105.8	1105.8	1100.3	1105.8	1105.8
5°	1101.4	1101.4	1097.0	1102.5	1103.6
7.5°	1093.7	1094.8	1090.4	1097.0	1098.1
10°	1082.7	1083.8	1081.6	1088.2	1089.3
12.5°	1069.5	1070.6	1070.6	1078.3	1079.4
15°	1053.1	1054.2	1055.3	1065.1	1066.2
17.5°	1032.2	1035.5	1037.7	1049.8	1052.0
20°	1010.2	1013.5	1017.9	1031.1	1033.3
22.5°	984.9	989.3	997.0	1011.3	1014.6
25°	958.5	962.9	972.8	989.3	992.6
27.5°	928.8	935.4	947.5	965.1	969.5
30°	898.1	904.7	918.9	937.6	944.2
32.5°	865.1	873.9	890.4	911.3	917.8
35°	831.0	840.9	858.5	881.6	890.4
37.5°	794.7	805.7	826.6	851.9	862.9
40°	757.4	770.6	792.5	822.2	834.3
42.5°	720.0	732.1	759.6	791.4	804.6
45°	681.5	695.8	724.4	760.7	773.9
47.5°	641.9	656.2	690.3	728.8	740.9
50°	602.4	616.7	655.1	695.8	710.1
52.5°	559.5	578.2	622.2	662.8	677.1
55°	521.0	538.6	583.7	629.9	645.2
57.5°	477.1	497.9	547.4	595.8	612.3
60°	436.4	458.4	511.1	560.6	577.1
62.5°	394.6	418.8	474.9	525.4	544.1
65°	349.6	379.2	438.6	490.3	508.9
67.5°	308.9	339.7	402.3	455.1	471.6
70°	262.7	300.1	363.8	416.6	435.3
72.5°	223.1	260.5	327.6	379.2	397.9
75°	181.4	222.0	289.1	340.8	357.2
77.5°	139.6	184.7	251.7	291.3	296.8
80°	100.0	147.3	208.9	231.9	239.6
82.5°	70.4	113.2	153.9	169.3	173.7
85°	38.5	74.7	96.7	103.3	103.3
87.5°	16.5	31.9	38.5	39.6	40.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)