

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: P388611

Luminaire Tested: **24CZ2-40-SQR-UNV-L935-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: P388611
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: 24CZ2-40-SQR-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3324.2 lumens
Efficiency: N/A
Efficacy: 91.8 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

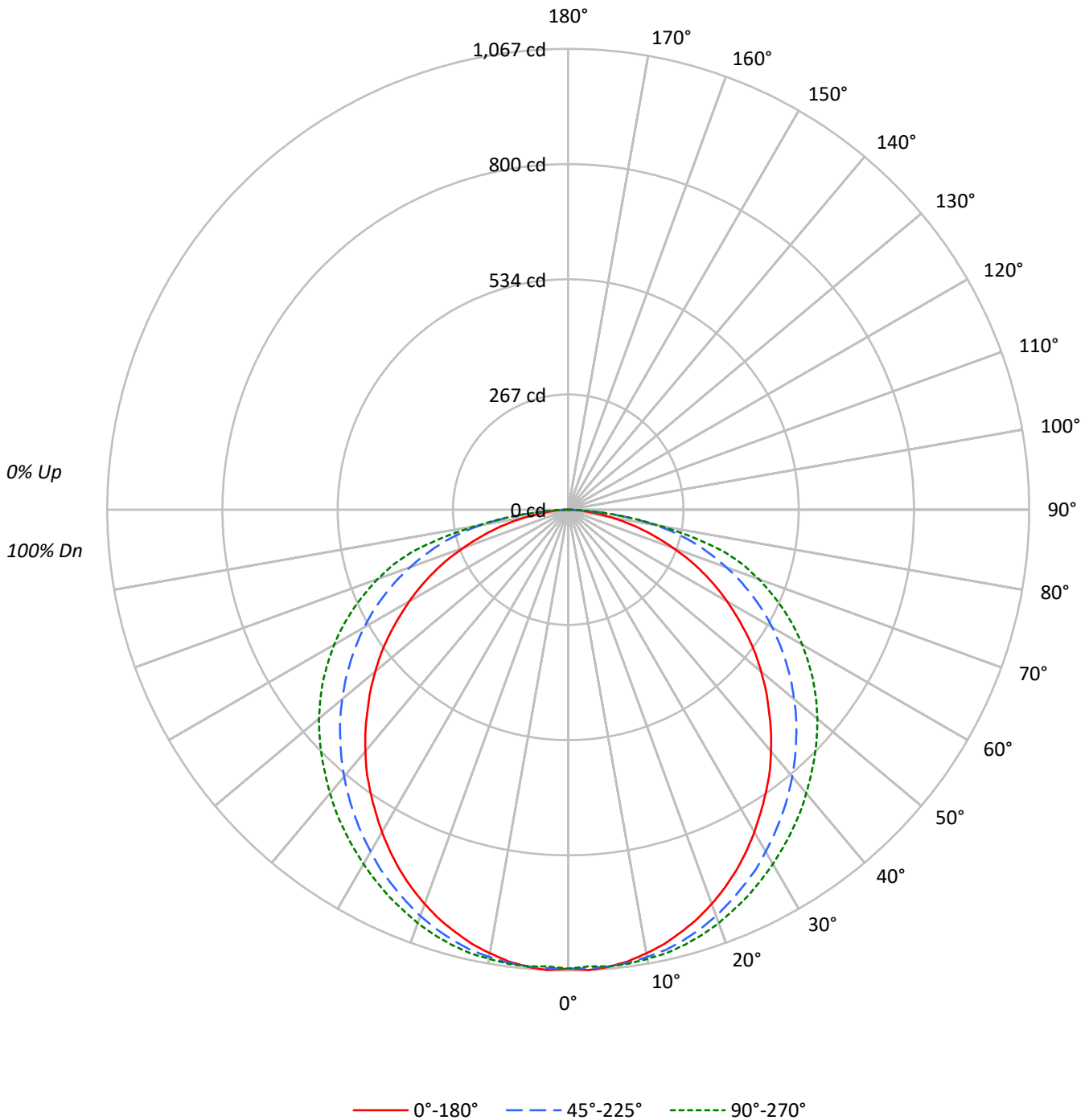
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1430	1430	1430
5°	1435	1434	1434
10°	1425	1437	1443
15°	1410	1437	1453
20°	1391	1433	1459
25°	1367	1426	1463
30°	1339	1421	1472
35°	1311	1417	1486
40°	1282	1417	1506
45°	1249	1420	1535
50°	1220	1429	1576
55°	1184	1445	1625
60°	1143	1468	1684
65°	1094	1496	1754
70°	1015	1533	1844
75°	919	1587	1929
80°	774	1591	1659
85°	593	1203	1203



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	3.0
10°-20°	290.2	8.7
20°-30°	440.8	13.3
30°-40°	536.2	16.1
40°-50°	570.8	17.2
50°-60°	543.7	16.4
60°-70°	454.7	13.7
70°-80°	303.1	9.1
80°-90°	83.9	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°	831.8	25.0
0°-40°	1368.0	41.2
0°-60°	2482.5	74.7
0°-90°	3324.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3324.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1063	1063	1063	1063	1063	
5°	1063	1056	1062	1062	1062	101
15°	1012	1014	1032	1040	1043	285
25°	921	933	960	977	986	424
35°	798	821	863	891	904	499
45°	656	692	746	788	807	507
55°	505	549	616	670	693	451
65°	344	394	470	528	551	339
75°	177	233	305	357	371	187
85°	38	71	78	77	78	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1062.6	1062.6	1062.6	1062.6	1062.6
2.5°	1067.0	1059.3	1062.6	1062.6	1058.2
5°	1062.6	1056.0	1061.5	1061.5	1061.5
7.5°	1054.9	1049.4	1058.2	1060.4	1060.4
10°	1042.8	1040.6	1051.6	1054.9	1056.0
12.5°	1029.6	1028.5	1043.9	1048.3	1051.6
15°	1012.1	1014.3	1031.8	1039.5	1042.8
17.5°	993.4	997.8	1017.6	1028.5	1031.8
20°	971.5	978.1	1001.1	1012.1	1018.7
22.5°	947.3	957.2	981.3	994.5	1002.2
25°	921.0	933.0	960.5	977.0	985.7
27.5°	892.4	907.8	939.6	958.3	967.1
30°	861.7	879.3	914.4	936.3	947.3
32.5°	829.9	850.7	889.1	913.3	926.5
35°	798.0	821.1	862.8	891.3	904.5
37.5°	766.2	789.2	835.4	866.1	882.6
40°	730.0	757.4	806.8	840.8	857.3
42.5°	694.8	724.5	777.2	814.5	832.1
45°	656.4	691.6	746.4	788.2	806.8
47.5°	621.3	656.4	715.7	759.6	780.5
50°	582.9	620.2	682.8	731.1	753.0
52.5°	545.6	584.0	649.8	701.4	723.4
55°	504.9	548.9	615.8	669.6	692.7
57.5°	464.3	511.5	580.7	636.7	659.7
60°	424.8	473.1	545.6	601.5	625.7
62.5°	385.3	433.6	509.3	566.4	589.5
65°	343.6	394.1	469.8	528.0	551.0
67.5°	301.9	354.6	430.3	488.5	510.4
70°	258.0	313.9	389.7	446.8	468.7
72.5°	217.3	273.3	348.0	404.0	424.8
75°	176.7	232.7	305.2	356.8	371.0
77.5°	137.2	193.2	258.0	292.0	295.3
80°	99.9	152.6	205.3	215.1	214.1
82.5°	67.0	114.2	141.6	142.7	146.0
85°	38.4	71.4	77.9	76.8	77.9
87.5°	15.4	25.2	22.0	16.5	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)