

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: P388658

Luminaire Tested: **24CZ2-40VHE-SQR-UNV-L930-CD1-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: P388658
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: 24CZ2-40VHE-SQR-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3202.8 lumens
Efficiency: N/A
Efficacy: 122.2 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

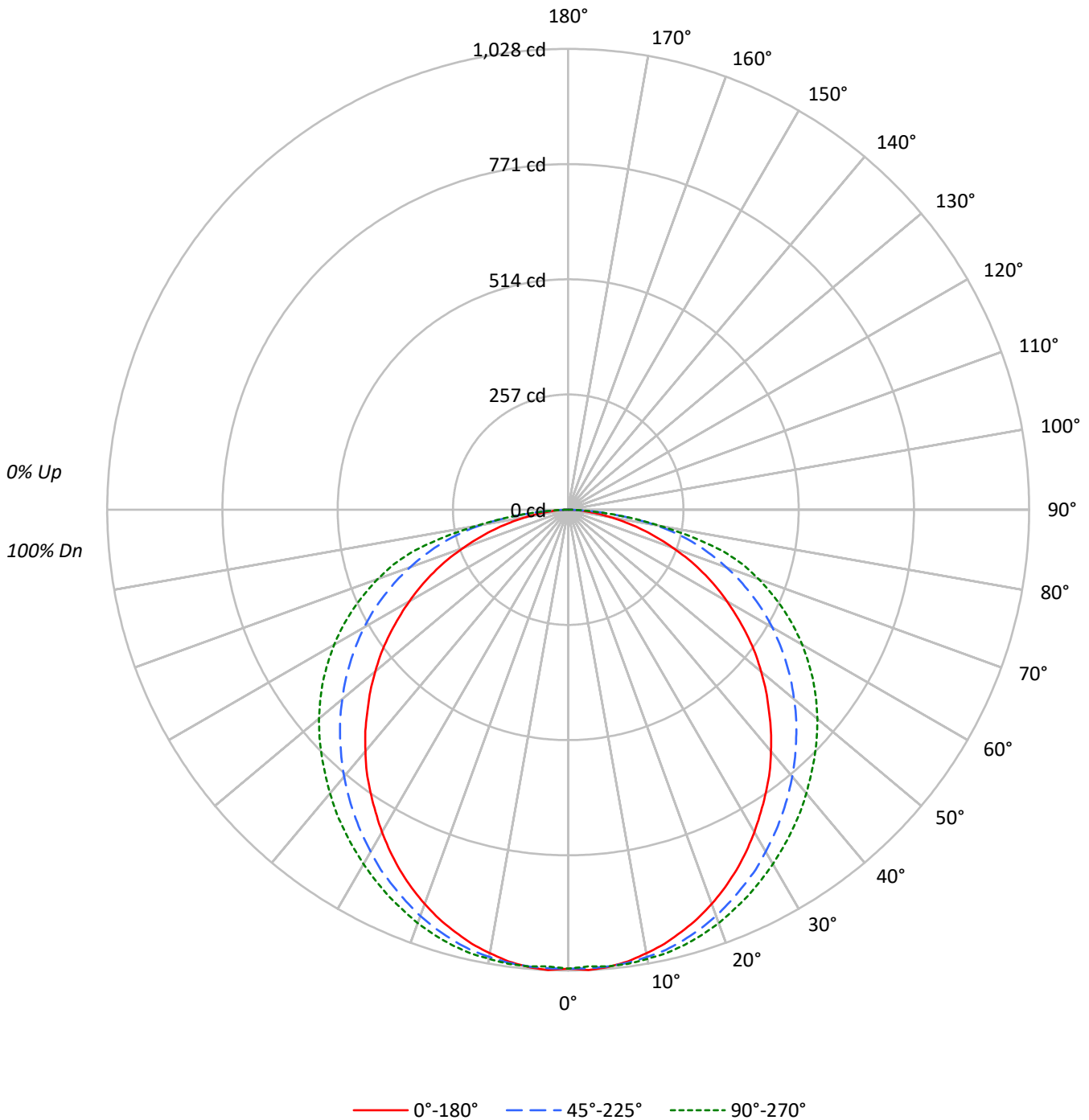
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1378	1378	1378
5°	1383	1381	1381
10°	1373	1384	1390
15°	1358	1385	1399
20°	1340	1381	1405
25°	1317	1374	1410
30°	1290	1369	1418
35°	1263	1365	1431
40°	1235	1365	1451
45°	1204	1369	1479
50°	1176	1377	1519
55°	1141	1392	1566
60°	1101	1414	1622
65°	1054	1441	1690
70°	978	1477	1777
75°	885	1528	1858
80°	745	1533	1598
85°	571	1159	1159



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.2	3.0
10°-20°	279.6	8.7
20°-30°	424.7	13.3
30°-40°	516.6	16.1
40°-50°	550.0	17.2
50°-60°	523.8	16.4
60°-70°	438.1	13.7
70°-80°	292.1	9.1
80°-90°	80.8	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°	801.5	25.0
0°-40°	1318.0	41.2
0°-60°	2391.8	74.7
0°-90°	3202.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3202.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1024	1024	1024	1024	1024	
5°	1024	1017	1023	1023	1023	97
15°	975	977	994	1002	1005	275
25°	887	899	925	941	950	409
35°	769	791	831	859	872	481
45°	632	666	719	759	777	489
55°	486	529	593	645	667	435
65°	331	380	453	509	531	327
75°	170	224	294	344	358	180
85°	37	69	75	74	75	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1023.8	1023.8	1023.8	1023.8	1023.8
2.5°	1028.0	1020.6	1023.8	1023.8	1019.5
5°	1023.8	1017.4	1022.7	1022.7	1022.7
7.5°	1016.4	1011.1	1019.5	1021.7	1021.7
10°	1004.7	1002.6	1013.2	1016.4	1017.4
12.5°	992.0	991.0	1005.8	1010.0	1013.2
15°	975.1	977.2	994.2	1001.6	1004.7
17.5°	957.1	961.4	980.4	991.0	994.2
20°	936.0	942.3	964.5	975.1	981.5
22.5°	912.7	922.2	945.5	958.2	965.6
25°	887.3	899.0	925.4	941.3	949.7
27.5°	859.8	874.6	905.3	923.3	931.8
30°	830.2	847.1	881.0	902.1	912.7
32.5°	799.6	819.7	856.7	879.9	892.6
35°	768.9	791.1	831.3	858.8	871.5
37.5°	738.2	760.4	804.8	834.5	850.3
40°	703.3	729.8	777.3	810.1	826.0
42.5°	669.5	698.0	748.8	784.7	801.7
45°	632.5	666.3	719.2	759.4	777.3
47.5°	598.6	632.5	689.6	731.9	752.0
50°	561.6	597.6	657.8	704.4	725.5
52.5°	525.6	562.7	626.1	675.8	697.0
55°	486.5	528.8	593.3	645.1	667.4
57.5°	447.4	492.8	559.5	613.4	635.6
60°	409.3	455.8	525.6	579.6	602.8
62.5°	371.2	417.8	490.7	545.7	567.9
65°	331.0	379.7	452.7	508.7	530.9
67.5°	290.8	341.6	414.6	470.6	491.8
70°	248.5	302.5	375.5	430.4	451.6
72.5°	209.4	263.3	335.3	389.2	409.3
75°	170.3	224.2	294.0	343.7	357.5
77.5°	132.2	186.1	248.5	281.3	284.5
80°	96.2	147.0	197.8	207.3	206.2
82.5°	64.5	110.0	136.4	137.5	140.7
85°	37.0	68.7	75.1	74.0	75.1
87.5°	14.8	24.3	21.2	15.9	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)