

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: P388612

Luminaire Tested: **24CZ2-40-SQR-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: P388612
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-SWPD1-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: 3364.8 lumens
Efficiency: N/A
Efficacy: 93.0 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

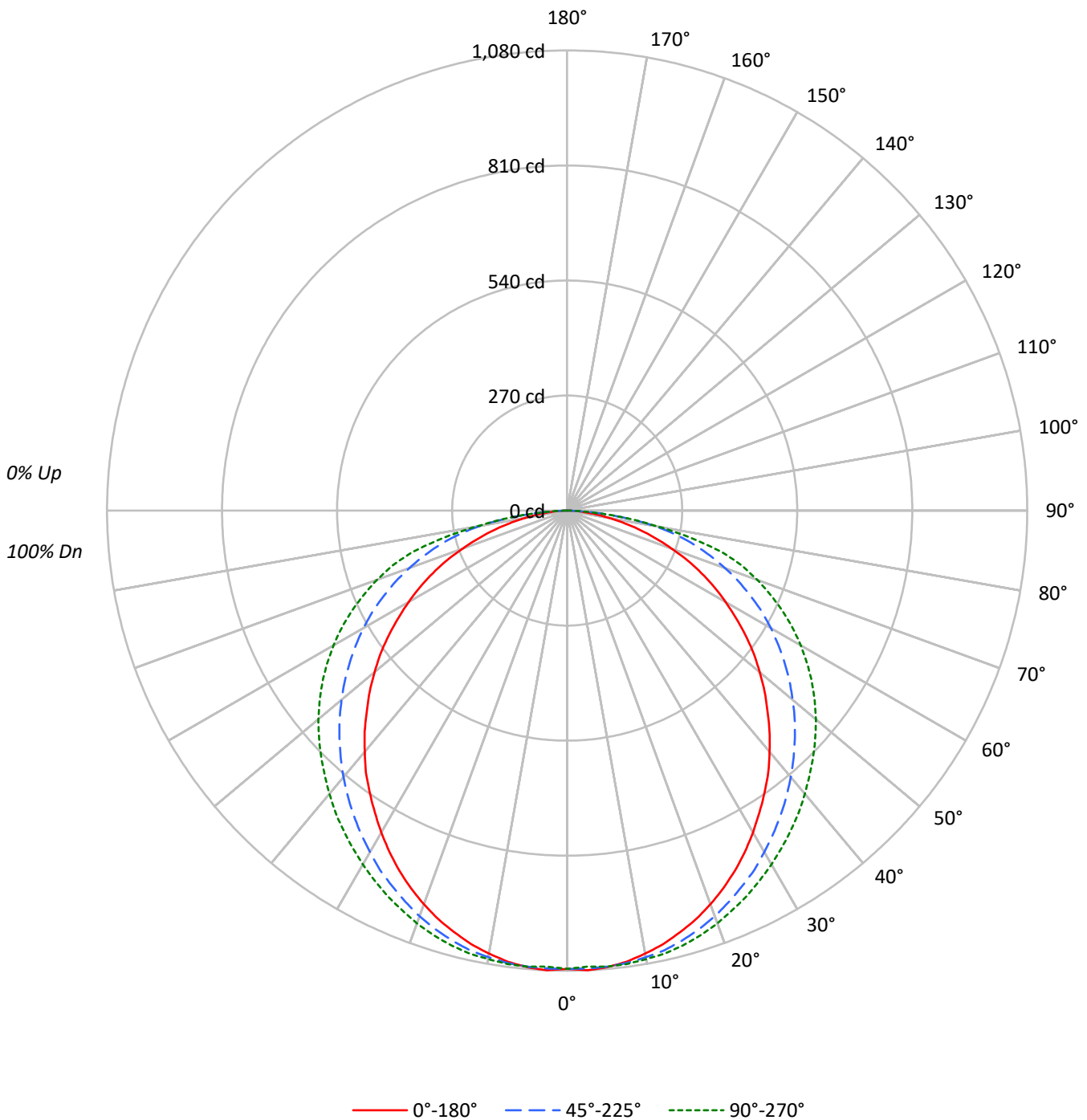
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1447	1447	1447
5°	1453	1451	1451
10°	1442	1454	1460
15°	1427	1455	1470
20°	1408	1451	1476
25°	1384	1443	1481
30°	1355	1438	1490
35°	1327	1434	1504
40°	1298	1434	1524
45°	1264	1438	1554
50°	1235	1447	1595
55°	1199	1462	1645
60°	1157	1486	1704
65°	1107	1514	1776
70°	1027	1552	1866
75°	930	1606	1953
80°	783	1610	1679
85°	601	1218	1218



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.1	3.0
10°-20°	293.7	8.7
20°-30°	446.2	13.3
30°-40°	542.7	16.1
40°-50°	577.8	17.2
50°-60°	550.3	16.4
60°-70°	460.2	13.7
70°-80°	306.9	9.1
80°-90°	84.9	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°	842.0	25.0
0°-40°	1384.7	41.2
0°-60°	2512.8	74.7
0°-90°	3364.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3364.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1076	1076	1076	1076	1076	
5°	1076	1069	1074	1074	1074	102
15°	1024	1027	1044	1052	1056	289
25°	932	944	972	989	998	429
35°	808	831	873	902	916	505
45°	664	700	756	798	817	514
55°	511	556	623	678	701	457
65°	348	399	476	534	558	344
75°	179	236	309	361	376	190
85°	39	72	79	78	79	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1075.6	1075.6	1075.6	1075.6	1075.6
2.5°	1080.0	1072.2	1075.6	1075.6	1071.1
5°	1075.6	1068.9	1074.4	1074.4	1074.4
7.5°	1067.8	1062.2	1071.1	1073.3	1073.3
10°	1055.6	1053.3	1064.4	1067.8	1068.9
12.5°	1042.2	1041.1	1056.7	1061.1	1064.4
15°	1024.4	1026.7	1044.4	1052.2	1055.6
17.5°	1005.6	1010.0	1030.0	1041.1	1044.4
20°	983.3	990.0	1013.3	1024.4	1031.1
22.5°	958.9	968.9	993.3	1006.7	1014.4
25°	932.2	944.4	972.2	988.9	997.8
27.5°	903.3	918.9	951.1	970.0	978.9
30°	872.2	890.0	925.6	947.8	958.9
32.5°	840.0	861.1	900.0	924.4	937.8
35°	807.8	831.1	873.3	902.2	915.6
37.5°	775.6	798.9	845.6	876.7	893.3
40°	738.9	766.7	816.7	851.1	867.8
42.5°	703.3	733.3	786.7	824.4	842.2
45°	664.4	700.0	755.6	797.8	816.7
47.5°	628.9	664.4	724.4	768.9	790.0
50°	590.0	627.8	691.1	740.0	762.2
52.5°	552.2	591.1	657.8	710.0	732.2
55°	511.1	555.6	623.3	677.8	701.1
57.5°	470.0	517.8	587.8	644.4	667.8
60°	430.0	478.9	552.2	608.9	633.3
62.5°	390.0	438.9	515.6	573.3	596.7
65°	347.8	398.9	475.6	534.4	557.8
67.5°	305.6	358.9	435.6	494.4	516.7
70°	261.1	317.8	394.4	452.2	474.4
72.5°	220.0	276.7	352.2	408.9	430.0
75°	178.9	235.6	308.9	361.1	375.6
77.5°	138.9	195.6	261.1	295.6	298.9
80°	101.1	154.4	207.8	217.8	216.7
82.5°	67.8	115.6	143.3	144.4	147.8
85°	38.9	72.2	78.9	77.8	78.9
87.5°	15.6	25.6	22.2	16.7	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)