

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: P388666

Luminaire Tested: **24CZ2-40VHE-SQR-UNV-L950-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: P388666
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-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3476.0 lumens
Efficiency: N/A
Efficacy: 132.7 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

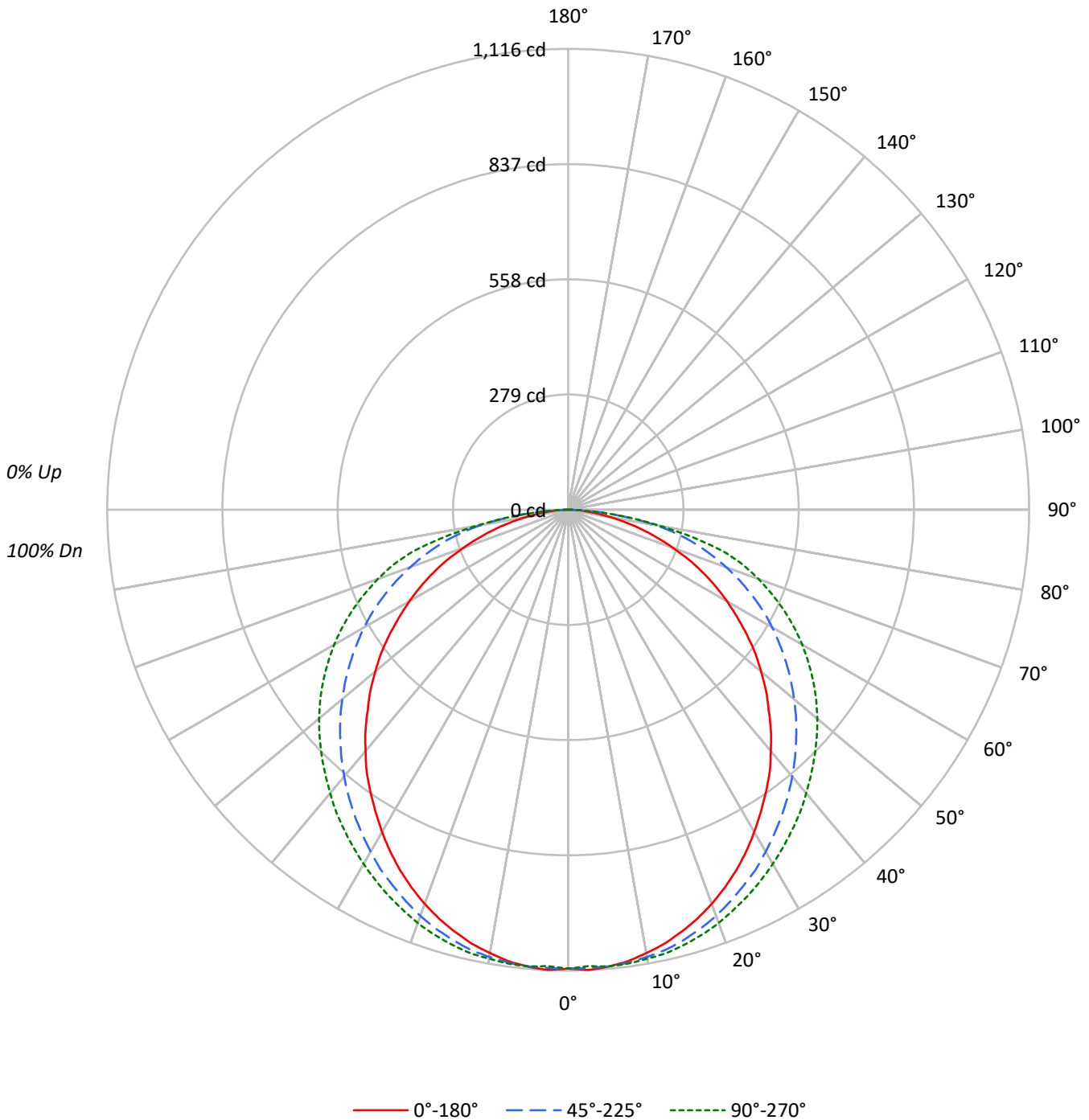
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1495	1495	1495
5°	1501	1499	1499
10°	1490	1502	1509
15°	1474	1503	1519
20°	1454	1499	1525
25°	1430	1491	1530
30°	1400	1485	1539
35°	1371	1482	1554
40°	1341	1482	1575
45°	1306	1485	1605
50°	1276	1494	1648
55°	1239	1510	1699
60°	1195	1535	1761
65°	1144	1564	1834
70°	1061	1603	1928
75°	961	1659	2017
80°	810	1663	1734
85°	621	1258	1258



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.5	3.0
10°-20°	303.4	8.7
20°-30°	460.9	13.3
30°-40°	560.6	16.1
40°-50°	596.9	17.2
50°-60°	568.5	16.4
60°-70°	475.4	13.7
70°-80°	317.0	9.1
80°-90°	87.7	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°	869.8	25.0
0°-40°	1430.5	41.2
0°-60°	2595.9	74.7
0°-90°	3476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3476.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1111	1111	1111	1111	1111	
5°	1111	1104	1110	1110	1110	105
15°	1058	1061	1079	1087	1090	298
25°	963	976	1004	1022	1031	443
35°	834	859	902	932	946	522
45°	686	723	780	824	844	531
55°	528	574	644	700	724	472
65°	359	412	491	552	576	355
75°	185	243	319	373	388	196
85°	40	75	82	80	82	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1111.1	1111.1	1111.1	1111.1	1111.1
2.5°	1115.7	1107.7	1111.1	1111.1	1106.5
5°	1111.1	1104.2	1110.0	1110.0	1110.0
7.5°	1103.1	1097.3	1106.5	1108.8	1108.8
10°	1090.4	1088.1	1099.6	1103.1	1104.2
12.5°	1076.7	1075.5	1091.6	1096.2	1099.6
15°	1058.3	1060.6	1079.0	1087.0	1090.4
17.5°	1038.8	1043.4	1064.0	1075.5	1079.0
20°	1015.8	1022.7	1046.8	1058.3	1065.2
22.5°	990.6	1000.9	1026.2	1039.9	1048.0
25°	963.0	975.7	1004.4	1021.6	1030.8
27.5°	933.2	949.3	982.5	1002.1	1011.2
30°	901.0	919.4	956.1	979.1	990.6
32.5°	867.8	889.6	929.7	955.0	968.8
35°	834.5	858.6	902.2	932.0	945.8
37.5°	801.2	825.3	873.5	905.6	922.9
40°	763.3	792.0	843.7	879.2	896.5
42.5°	726.6	757.6	812.7	851.7	870.1
45°	686.4	723.1	780.5	824.1	843.7
47.5°	649.7	686.4	748.4	794.3	816.1
50°	609.5	648.5	713.9	764.5	787.4
52.5°	570.5	610.6	679.5	733.5	756.4
55°	528.0	573.9	643.9	700.2	724.3
57.5°	485.5	534.9	607.2	665.7	689.8
60°	444.2	494.7	570.5	629.0	654.3
62.5°	402.9	453.4	532.6	592.3	616.4
65°	359.3	412.1	491.3	552.1	576.2
67.5°	315.7	370.7	449.9	510.8	533.7
70°	269.7	328.3	407.5	467.2	490.1
72.5°	227.3	285.8	363.9	422.4	444.2
75°	184.8	243.3	319.1	373.0	388.0
77.5°	143.5	202.0	269.7	305.3	308.8
80°	104.5	159.5	214.6	225.0	223.8
82.5°	70.0	119.4	148.1	149.2	152.7
85°	40.2	74.6	81.5	80.3	81.5
87.5°	16.1	26.4	23.0	17.2	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)