

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: P388664

Luminaire Tested: **24CZ2-40VHE-SQR-UNV-L940-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: P388664
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-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3316.0 lumens
Efficiency: N/A
Efficacy: 126.6 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

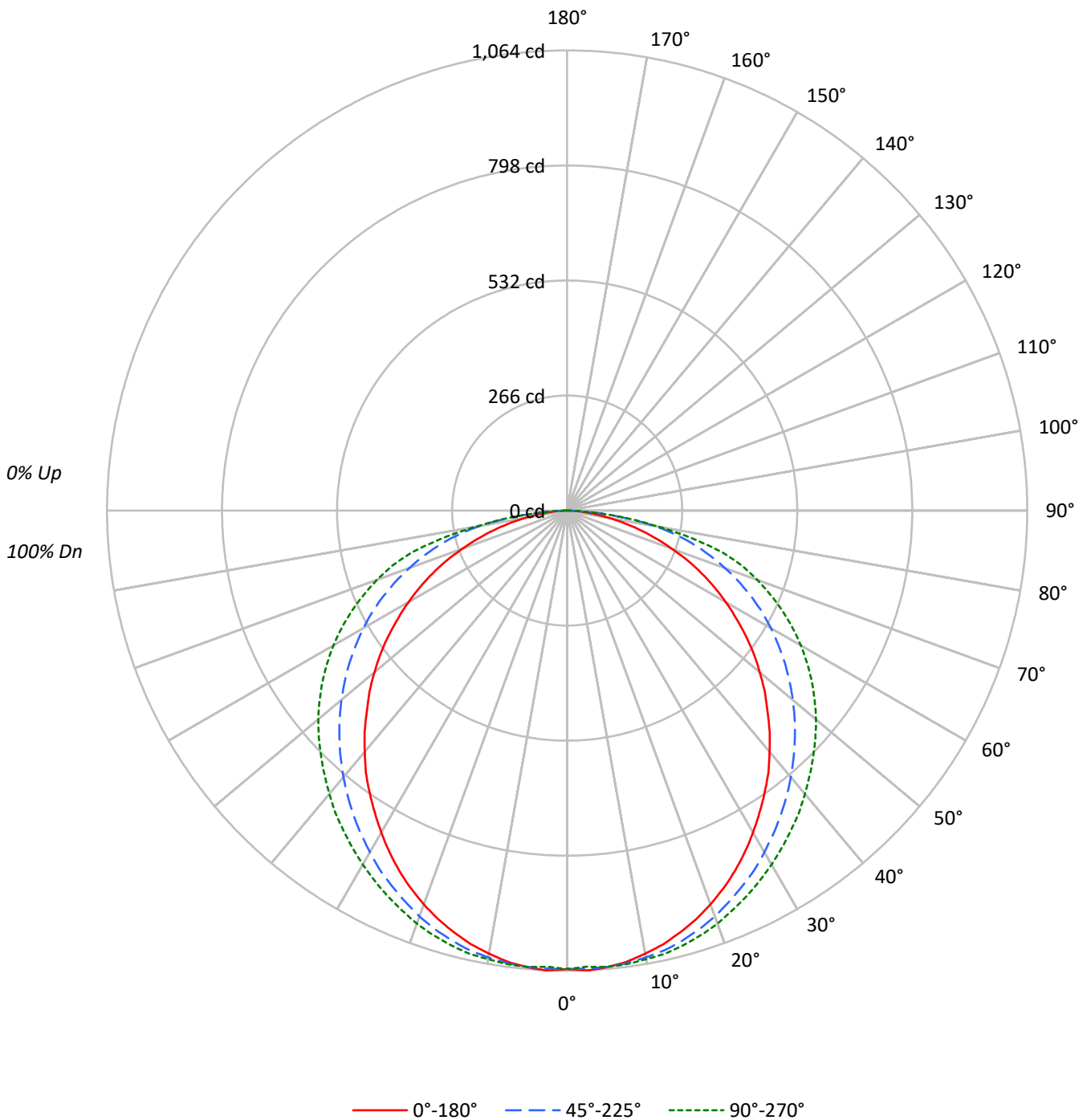
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1426	1426	1426
5°	1432	1430	1430
10°	1421	1433	1439
15°	1406	1434	1449
20°	1388	1430	1455
25°	1364	1422	1460
30°	1336	1417	1468
35°	1308	1414	1482
40°	1279	1414	1502
45°	1246	1417	1531
50°	1217	1426	1572
55°	1182	1441	1621
60°	1140	1464	1679
65°	1091	1492	1750
70°	1012	1529	1840
75°	917	1582	1924
80°	772	1587	1654
85°	591	1200	1200



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.6	3.0
10°-20°	289.5	8.7
20°-30°	439.7	13.3
30°-40°	534.8	16.1
40°-50°	569.4	17.2
50°-60°	542.3	16.4
60°-70°	453.6	13.7
70°-80°	302.4	9.1
80°-90°	83.7	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°	829.8	25.0
0°-40°	1364.6	41.2
0°-60°	2476.4	74.7
0°-90°	3316.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3316.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1060	1053	1059	1059	1059	101
15°	1010	1012	1029	1037	1040	285
25°	919	931	958	974	983	423
35°	796	819	861	889	902	498
45°	655	690	745	786	805	506
55°	504	548	614	668	691	450
65°	343	393	469	527	550	339
75°	176	232	304	356	370	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°	1060.0	1060.0	1060.0	1060.0	1060.0
2.5°	1064.3	1056.7	1060.0	1060.0	1055.6
5°	1060.0	1053.4	1058.9	1058.9	1058.9
7.5°	1052.3	1046.8	1055.6	1057.8	1057.8
10°	1040.2	1038.1	1049.0	1052.3	1053.4
12.5°	1027.1	1026.0	1041.3	1045.7	1049.0
15°	1009.6	1011.8	1029.3	1037.0	1040.2
17.5°	991.0	995.4	1015.1	1026.0	1029.3
20°	969.1	975.6	998.6	1009.6	1016.2
22.5°	945.0	954.8	978.9	992.1	999.7
25°	918.7	930.7	958.1	974.5	983.3
27.5°	890.2	905.6	937.3	955.9	964.7
30°	859.6	877.1	912.1	934.0	945.0
32.5°	827.8	848.6	886.9	911.0	924.2
35°	796.1	819.1	860.7	889.1	902.3
37.5°	764.3	787.3	833.3	864.0	880.4
40°	728.2	755.5	804.8	838.8	855.2
42.5°	693.1	722.7	775.3	812.5	830.0
45°	654.8	689.8	744.6	786.2	804.8
47.5°	619.8	654.8	713.9	757.7	778.5
50°	581.4	618.7	681.1	729.3	751.2
52.5°	544.2	582.5	648.2	699.7	721.6
55°	503.7	547.5	614.3	667.9	690.9
57.5°	463.2	510.3	579.3	635.1	658.1
60°	423.8	471.9	544.2	600.1	624.1
62.5°	384.3	432.5	508.1	565.0	588.0
65°	342.7	393.1	468.7	526.7	549.7
67.5°	301.1	353.7	429.2	487.3	509.2
70°	257.3	313.2	388.7	445.7	467.6
72.5°	216.8	272.7	347.1	403.0	423.8
75°	176.3	232.1	304.4	355.9	370.1
77.5°	136.9	192.7	257.3	291.3	294.6
80°	99.6	152.2	204.8	214.6	213.5
82.5°	66.8	113.9	141.3	142.3	145.6
85°	38.3	71.2	77.7	76.6	77.7
87.5°	15.3	25.2	21.9	16.4	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)