

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: P388660

Luminaire Tested: **24CZ2-40VHE-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: P388660
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-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: 3241.3 lumens
Efficiency: N/A
Efficacy: 123.7 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

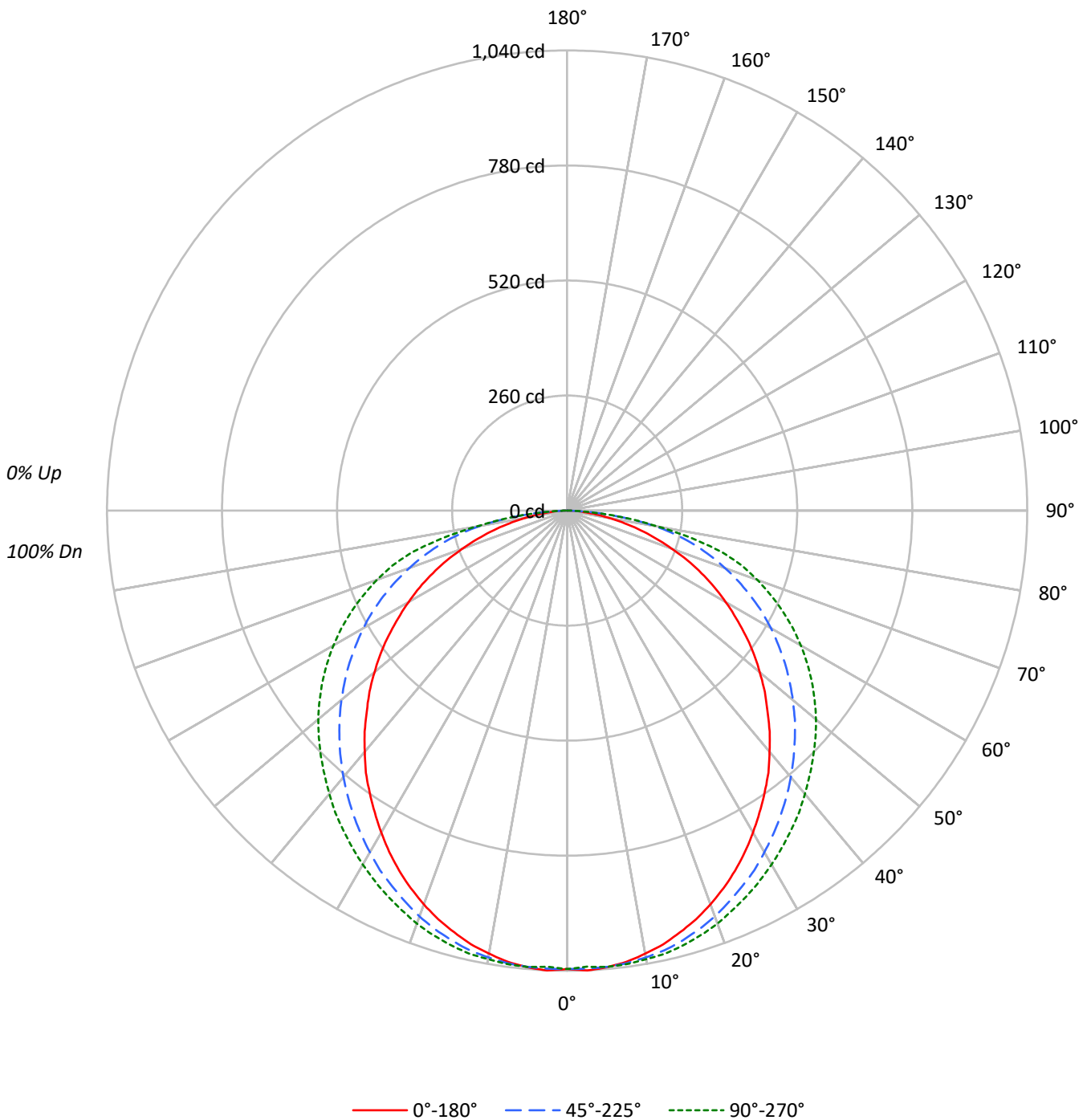
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1394	1394	1394
5°	1399	1398	1398
10°	1389	1401	1407
15°	1375	1401	1416
20°	1356	1398	1422
25°	1333	1390	1427
30°	1305	1385	1435
35°	1278	1382	1449
40°	1250	1382	1468
45°	1218	1385	1497
50°	1190	1393	1537
55°	1155	1409	1584
60°	1115	1432	1642
65°	1067	1458	1711
70°	989	1495	1798
75°	896	1547	1881
80°	755	1551	1617
85°	579	1173	1173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.3	3.0
10°-20°	283.0	8.7
20°-30°	429.8	13.3
30°-40°	522.8	16.1
40°-50°	556.6	17.2
50°-60°	530.1	16.4
60°-70°	443.3	13.7
70°-80°	295.6	9.1
80°-90°	81.8	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°	811.1	25.0
0°-40°	1333.9	41.2
0°-60°	2420.6	74.7
0°-90°	3241.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3241.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1036	1036	1036	1036	1036	
5°	1036	1030	1035	1035	1035	98
15°	987	989	1006	1014	1017	278
25°	898	910	936	953	961	413
35°	778	801	841	869	882	487
45°	640	674	728	768	787	495
55°	492	535	600	653	675	440
65°	335	384	458	515	537	331
75°	172	227	298	348	362	183
85°	38	70	76	75	76	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1036.1	1036.1	1036.1	1036.1	1036.1
2.5°	1040.4	1032.9	1036.1	1036.1	1031.8
5°	1036.1	1029.7	1035.0	1035.0	1035.0
7.5°	1028.6	1023.2	1031.8	1033.9	1033.9
10°	1016.8	1014.7	1025.4	1028.6	1029.7
12.5°	1004.0	1002.9	1017.9	1022.2	1025.4
15°	986.8	989.0	1006.1	1013.6	1016.8
17.5°	968.6	972.9	992.2	1002.9	1006.1
20°	947.2	953.7	976.1	986.8	993.3
22.5°	923.7	933.3	956.9	969.7	977.2
25°	898.0	909.8	936.5	952.6	961.2
27.5°	870.2	885.2	916.2	934.4	943.0
30°	840.2	857.3	891.6	913.0	923.7
32.5°	809.2	829.5	867.0	890.5	903.4
35°	778.1	800.6	841.3	869.1	882.0
37.5°	747.1	769.6	814.5	844.5	860.5
40°	711.8	738.5	786.7	819.9	835.9
42.5°	677.5	706.4	757.8	794.2	811.3
45°	640.1	674.3	727.8	768.5	786.7
47.5°	605.8	640.1	697.9	740.7	761.0
50°	568.3	604.7	665.7	712.8	734.2
52.5°	532.0	569.4	633.6	683.9	705.3
55°	492.4	535.2	600.5	652.9	675.4
57.5°	452.7	498.8	566.2	620.8	643.3
60°	414.2	461.3	532.0	586.5	610.1
62.5°	375.7	422.8	496.6	552.3	574.8
65°	335.0	384.2	458.1	514.8	537.3
67.5°	294.3	345.7	419.6	476.3	497.7
70°	251.5	306.1	380.0	435.6	457.0
72.5°	211.9	266.5	339.3	393.9	414.2
75°	172.3	226.9	297.6	347.9	361.8
77.5°	133.8	188.4	251.5	284.7	287.9
80°	97.4	148.8	200.2	209.8	208.7
82.5°	65.3	111.3	138.1	139.1	142.4
85°	37.5	69.6	76.0	74.9	76.0
87.5°	15.0	24.6	21.4	16.1	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)