

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: P388614

Luminaire Tested: **24CZ2-40-SQR-UNV-L940-CD1-SDWPD1-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: P388614
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-L940-CD1-SDWPD1-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: 3358.6 lumens
Efficiency: N/A
Efficacy: 92.8 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

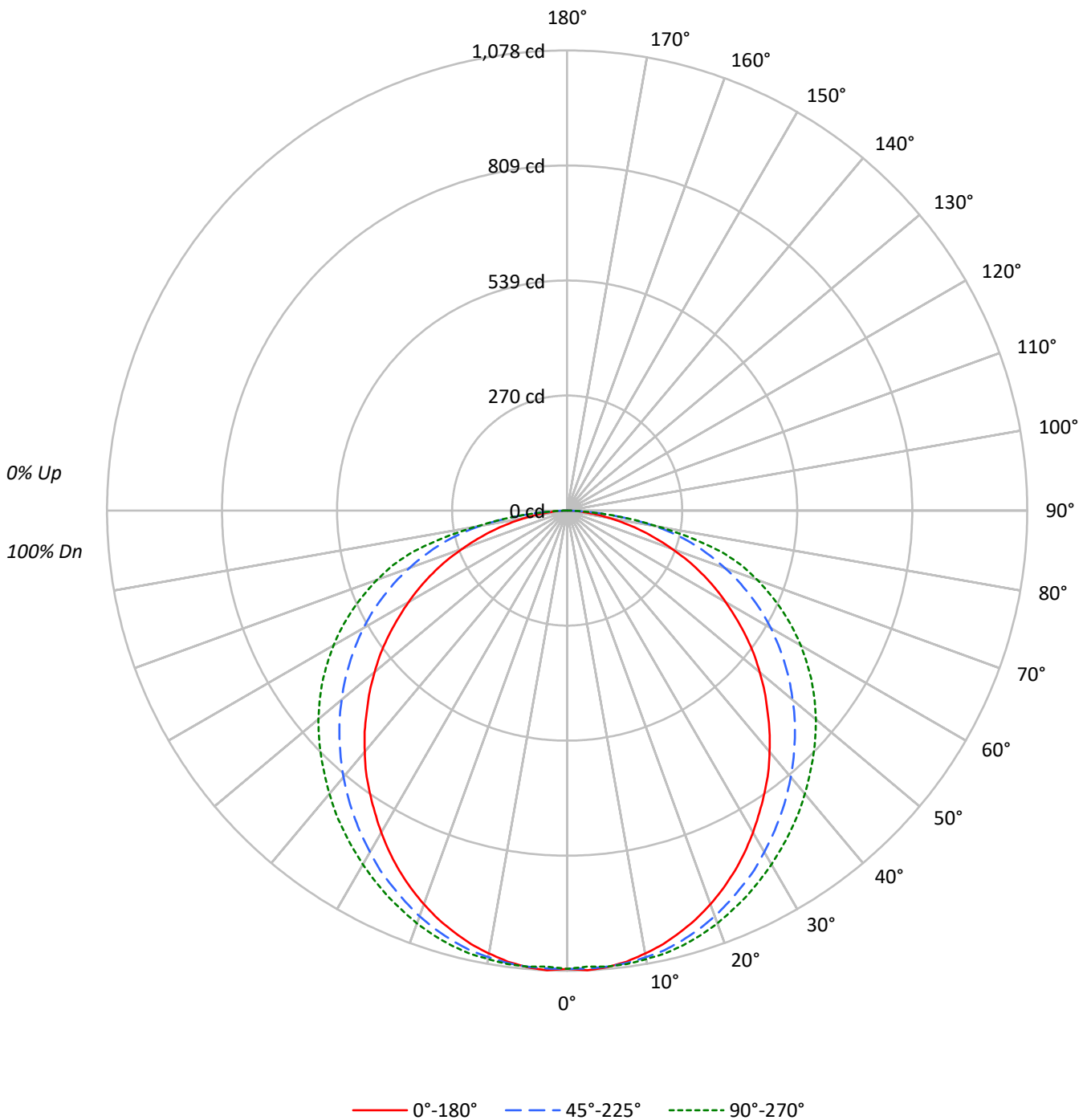
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1445	1445	1445
5°	1450	1449	1449
10°	1439	1452	1458
15°	1424	1452	1468
20°	1405	1448	1474
25°	1381	1441	1478
30°	1353	1435	1487
35°	1324	1432	1501
40°	1295	1432	1521
45°	1262	1435	1551
50°	1233	1444	1593
55°	1197	1460	1642
60°	1155	1483	1701
65°	1105	1511	1772
70°	1025	1549	1863
75°	928	1603	1949
80°	782	1607	1676
85°	599	1215	1215



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.9	3.0
10°-20°	293.2	8.7
20°-30°	445.3	13.3
30°-40°	541.7	16.1
40°-50°	576.7	17.2
50°-60°	549.3	16.4
60°-70°	459.4	13.7
70°-80°	306.3	9.1
80°-90°	84.7	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°	840.5	25.0
0°-40°	1382.1	41.2
0°-60°	2508.2	74.7
0°-90°	3358.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3358.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1074	1074	1074	1074	1074	
5°	1074	1067	1072	1072	1072	102
15°	1023	1025	1042	1050	1054	288
25°	930	943	970	987	996	428
35°	806	830	872	901	914	505
45°	663	699	754	796	815	513
55°	510	554	622	676	700	456
65°	347	398	475	534	557	343
75°	179	235	308	360	375	189
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°	1073.6	1073.6	1073.6	1073.6	1073.6
2.5°	1078.0	1070.2	1073.6	1073.6	1069.1
5°	1073.6	1066.9	1072.5	1072.5	1072.5
7.5°	1065.8	1060.3	1069.1	1071.4	1071.4
10°	1053.6	1051.4	1062.5	1065.8	1066.9
12.5°	1040.3	1039.2	1054.7	1059.2	1062.5
15°	1022.6	1024.8	1042.5	1050.3	1053.6
17.5°	1003.7	1008.1	1028.1	1039.2	1042.5
20°	981.5	988.2	1011.5	1022.6	1029.2
22.5°	957.1	967.1	991.5	1004.8	1012.6
25°	930.5	942.7	970.4	987.1	995.9
27.5°	901.7	917.2	949.4	968.2	977.1
30°	870.6	888.4	923.8	946.0	957.1
32.5°	838.5	859.5	898.3	922.7	936.0
35°	806.3	829.6	871.7	900.6	913.9
37.5°	774.1	797.4	844.0	875.0	891.7
40°	737.5	765.3	815.2	849.5	866.2
42.5°	702.0	732.0	785.2	822.9	840.7
45°	663.2	698.7	754.2	796.3	815.2
47.5°	627.7	663.2	723.1	767.5	788.5
50°	588.9	626.6	689.8	738.6	760.8
52.5°	551.2	590.0	656.6	708.7	730.9
55°	510.2	554.5	622.2	676.5	699.8
57.5°	469.1	516.8	586.7	643.3	666.5
60°	429.2	478.0	551.2	607.8	632.2
62.5°	389.3	438.1	514.6	572.3	595.6
65°	347.1	398.2	474.7	533.5	556.7
67.5°	305.0	358.2	434.8	493.5	515.7
70°	260.6	317.2	393.7	451.4	473.6
72.5°	219.6	276.2	351.6	408.1	429.2
75°	178.6	235.1	308.3	360.4	374.9
77.5°	138.6	195.2	260.6	295.0	298.3
80°	100.9	154.2	207.4	217.4	216.3
82.5°	67.7	115.3	143.1	144.2	147.5
85°	38.8	72.1	78.7	77.6	78.7
87.5°	15.5	25.5	22.2	16.6	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)