

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: P388640

Luminaire Tested: **24CZ2-40HE-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: P388640
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: 24CZ2-40HE-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: 3305.3 lumens
Efficiency: N/A
Efficacy: 108.0 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

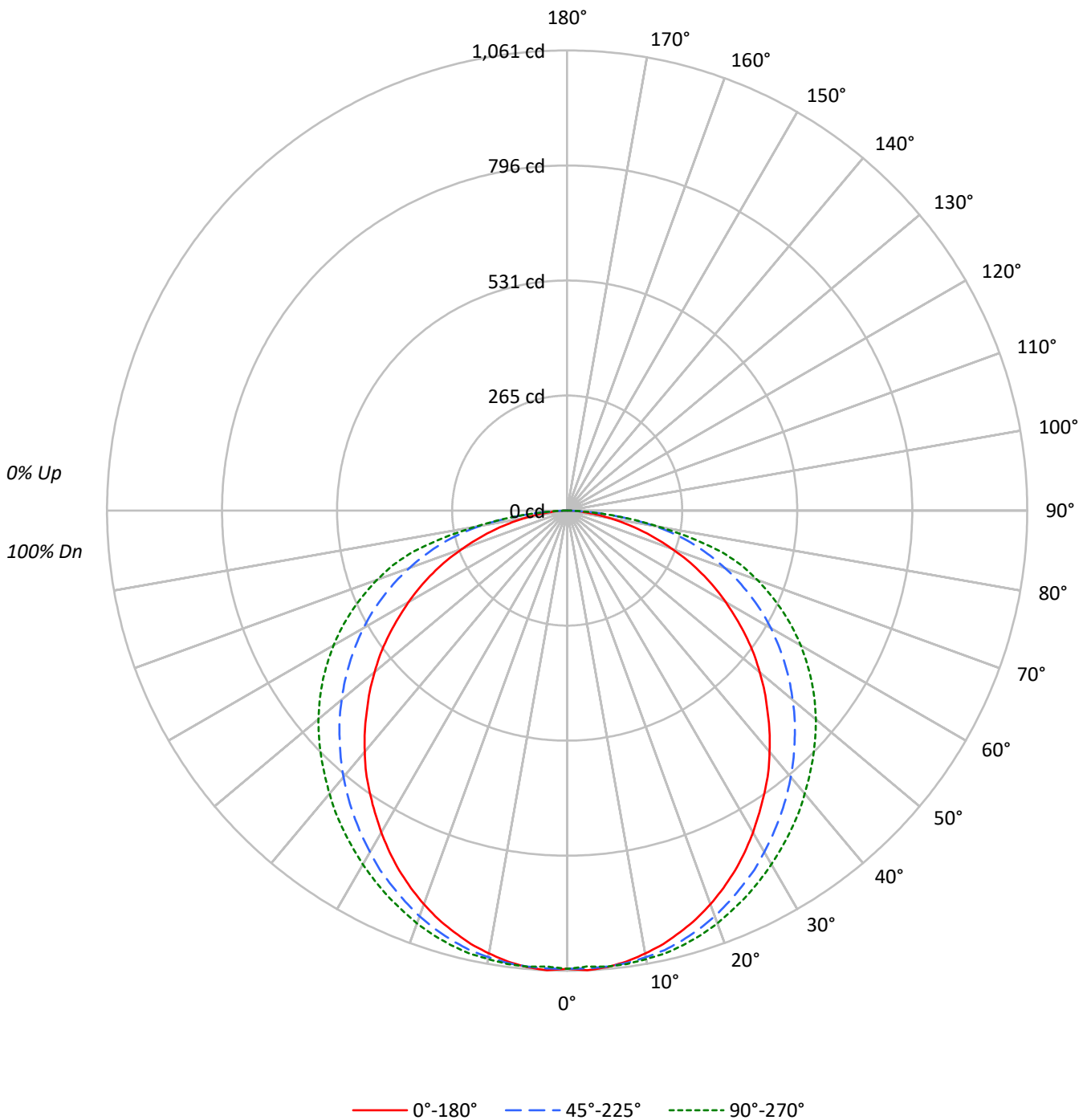
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1422	1422	1422
5°	1427	1425	1425
10°	1417	1429	1435
15°	1402	1429	1444
20°	1383	1425	1450
25°	1359	1418	1455
30°	1331	1413	1463
35°	1303	1409	1477
40°	1275	1409	1497
45°	1242	1412	1526
50°	1213	1421	1567
55°	1178	1436	1616
60°	1137	1460	1674
65°	1088	1487	1744
70°	1009	1524	1834
75°	913	1577	1918
80°	769	1581	1649
85°	590	1196	1196



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.3	3.0
10°-20°	288.5	8.7
20°-30°	438.3	13.3
30°-40°	533.1	16.1
40°-50°	567.6	17.2
50°-60°	540.6	16.4
60°-70°	452.1	13.7
70°-80°	301.4	9.1
80°-90°	83.4	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°	827.1	25.0
0°-40°	1360.2	41.2
0°-60°	2468.4	74.7
0°-90°	3305.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3305.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1056	1056	1056	1056	1056	
5°	1056	1050	1055	1055	1055	100
15°	1006	1008	1026	1034	1037	284
25°	916	928	955	971	980	422
35°	794	816	858	886	899	497
45°	653	688	742	784	802	505
55°	502	546	612	666	689	449
65°	342	392	467	525	548	338
75°	176	231	303	355	369	186
85°	38	71	78	76	78	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1056.5	1056.5	1056.5	1056.5	1056.5
2.5°	1060.9	1053.3	1056.5	1056.5	1052.2
5°	1056.5	1050.0	1055.4	1055.4	1055.4
7.5°	1048.9	1043.4	1052.2	1054.4	1054.4
10°	1036.9	1034.7	1045.6	1048.9	1050.0
12.5°	1023.8	1022.7	1038.0	1042.3	1045.6
15°	1006.3	1008.5	1026.0	1033.6	1036.9
17.5°	987.8	992.1	1011.8	1022.7	1026.0
20°	965.9	972.5	995.4	1006.3	1012.9
22.5°	941.9	951.8	975.8	988.9	996.5
25°	915.7	927.7	955.0	971.4	980.1
27.5°	887.4	902.6	934.3	952.8	961.6
30°	856.8	874.3	909.2	931.0	941.9
32.5°	825.1	845.9	884.1	908.1	921.2
35°	793.5	816.4	857.9	886.3	899.4
37.5°	761.8	784.8	830.6	861.2	877.5
40°	725.8	753.1	802.2	836.1	852.4
42.5°	690.9	720.4	772.8	809.9	827.3
45°	652.7	687.6	742.2	783.7	802.2
47.5°	617.8	652.7	711.6	755.3	776.0
50°	579.6	616.7	678.9	726.9	748.7
52.5°	542.5	580.7	646.1	697.4	719.3
55°	502.1	545.7	612.3	665.8	688.7
57.5°	461.7	508.6	577.4	633.0	656.0
60°	422.4	470.4	542.5	598.1	622.1
62.5°	383.1	431.1	506.4	563.2	586.1
65°	341.6	391.8	467.1	525.0	547.9
67.5°	300.2	352.5	427.9	485.7	507.5
70°	256.5	312.2	387.5	444.2	466.1
72.5°	216.1	271.8	346.0	401.7	422.4
75°	175.7	231.4	303.4	354.7	368.9
77.5°	136.4	192.1	256.5	290.3	293.6
80°	99.3	151.7	204.1	213.9	212.8
82.5°	66.6	113.5	140.8	141.9	145.2
85°	38.2	70.9	77.5	76.4	77.5
87.5°	15.3	25.1	21.8	16.4	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)