

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: P388641

Luminaire Tested: **24CZ2-40HE-SQR-UNV-L950-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: P388641
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-L950-CD1-SDWPD1-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: 3423.1 lumens
Efficiency: N/A
Efficacy: 111.9 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

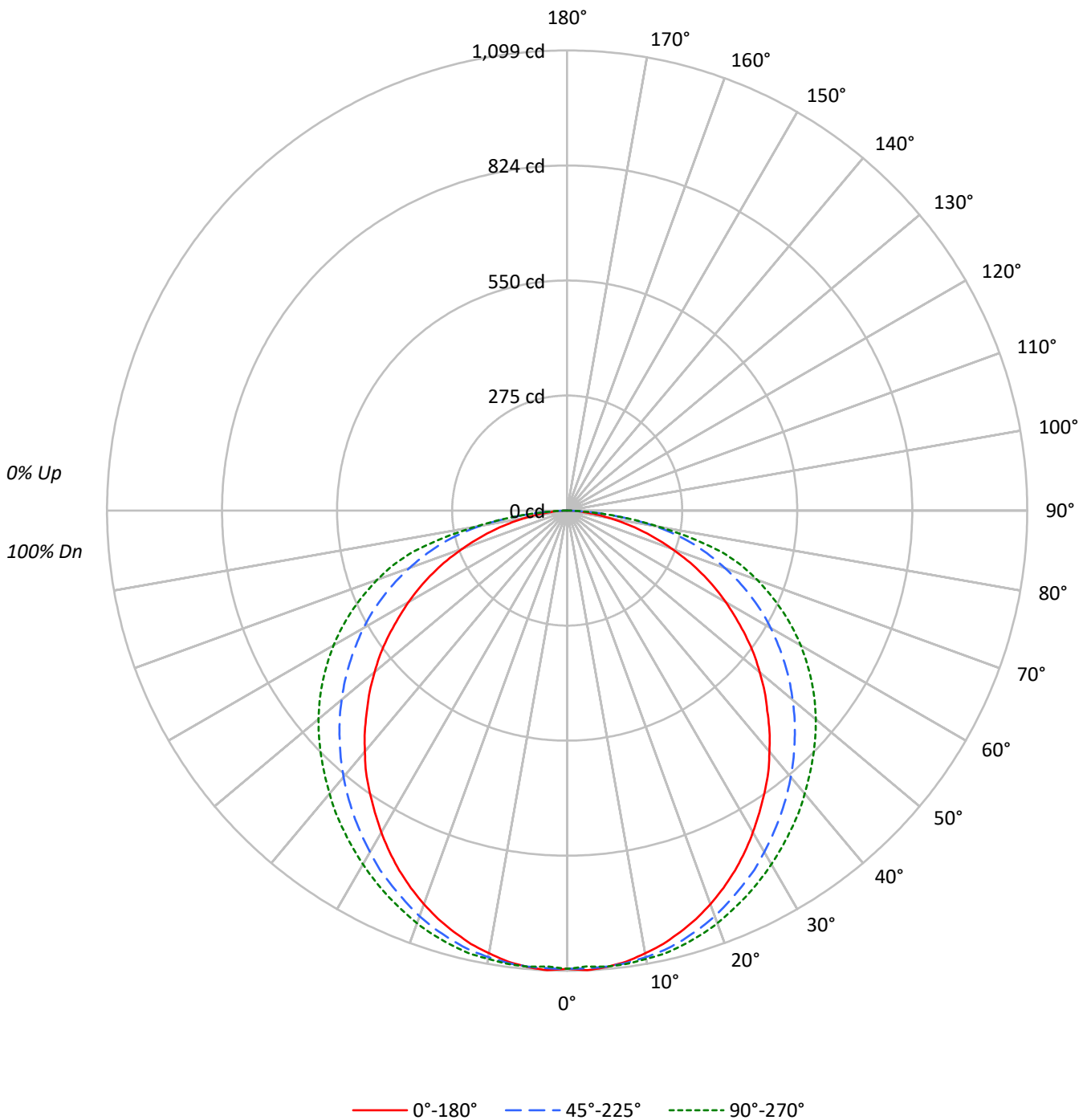
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1472	1472	1472
5°	1478	1476	1476
10°	1467	1480	1486
15°	1452	1480	1496
20°	1432	1476	1502
25°	1408	1468	1507
30°	1379	1463	1516
35°	1350	1459	1530
40°	1320	1459	1551
45°	1286	1462	1581
50°	1256	1472	1623
55°	1220	1487	1673
60°	1177	1512	1734
65°	1126	1540	1806
70°	1045	1579	1899
75°	946	1633	1986
80°	797	1638	1708
85°	611	1240	1240



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.9	3.0
10°-20°	298.8	8.7
20°-30°	453.9	13.3
30°-40°	552.1	16.1
40°-50°	587.8	17.2
50°-60°	559.9	16.4
60°-70°	468.2	13.7
70°-80°	312.2	9.1
80°-90°	86.4	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°	856.6	25.0
0°-40°	1408.7	41.2
0°-60°	2556.4	74.7
0°-90°	3423.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3423.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1094	1094	1094	1094	1094	
5°	1094	1087	1093	1093	1093	104
15°	1042	1044	1062	1070	1074	294
25°	948	961	989	1006	1015	437
35°	822	846	888	918	931	514
45°	676	712	769	812	831	523
55°	520	565	634	690	713	465
65°	354	406	484	544	567	350
75°	182	240	314	367	382	193
85°	40	74	80	79	80	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1094.2	1094.2	1094.2	1094.2	1094.2
2.5°	1098.7	1090.8	1094.2	1094.2	1089.7
5°	1094.2	1087.4	1093.1	1093.1	1093.1
7.5°	1086.3	1080.6	1089.7	1091.9	1091.9
10°	1073.8	1071.6	1082.9	1086.3	1087.4
12.5°	1060.3	1059.1	1075.0	1079.5	1082.9
15°	1042.2	1044.5	1062.5	1070.5	1073.8
17.5°	1023.0	1027.5	1047.8	1059.1	1062.5
20°	1000.4	1007.2	1030.9	1042.2	1049.0
22.5°	975.5	985.7	1010.5	1024.1	1032.0
25°	948.4	960.8	989.1	1006.0	1015.1
27.5°	919.0	934.8	967.6	986.8	995.8
30°	887.3	905.4	941.6	964.2	975.5
32.5°	854.6	876.0	915.6	940.5	954.0
35°	821.8	845.5	888.5	917.9	931.4
37.5°	789.0	812.7	860.2	891.9	908.8
40°	751.7	779.9	830.8	865.9	882.8
42.5°	715.5	746.0	800.3	838.7	856.8
45°	676.0	712.1	768.6	811.6	830.8
47.5°	639.8	676.0	737.0	782.2	803.7
50°	600.2	638.7	703.1	752.8	775.4
52.5°	561.8	601.4	669.2	722.3	744.9
55°	520.0	565.2	634.1	689.5	713.3
57.5°	478.1	526.7	598.0	655.6	679.3
60°	437.4	487.2	561.8	619.4	644.3
62.5°	396.8	446.5	524.5	583.3	607.0
65°	353.8	405.8	483.8	543.7	567.4
67.5°	310.8	365.1	443.1	503.0	525.6
70°	265.6	323.3	401.3	460.1	482.7
72.5°	223.8	281.5	358.3	416.0	437.4
75°	182.0	239.6	314.2	367.4	382.1
77.5°	141.3	198.9	265.6	300.7	304.1
80°	102.9	157.1	211.4	221.6	220.4
82.5°	69.0	117.6	145.8	146.9	150.3
85°	39.6	73.5	80.3	79.1	80.3
87.5°	15.8	26.0	22.6	17.0	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)