

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: P388781

Luminaire Tested: **24CZ2-50HE-SQR-UNV-L935-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: P388781
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: 24CZ2-50HE-SQR-UNV-L935-CD1-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: 4077.0 lumens
Efficiency: N/A
Efficacy: 105.6 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

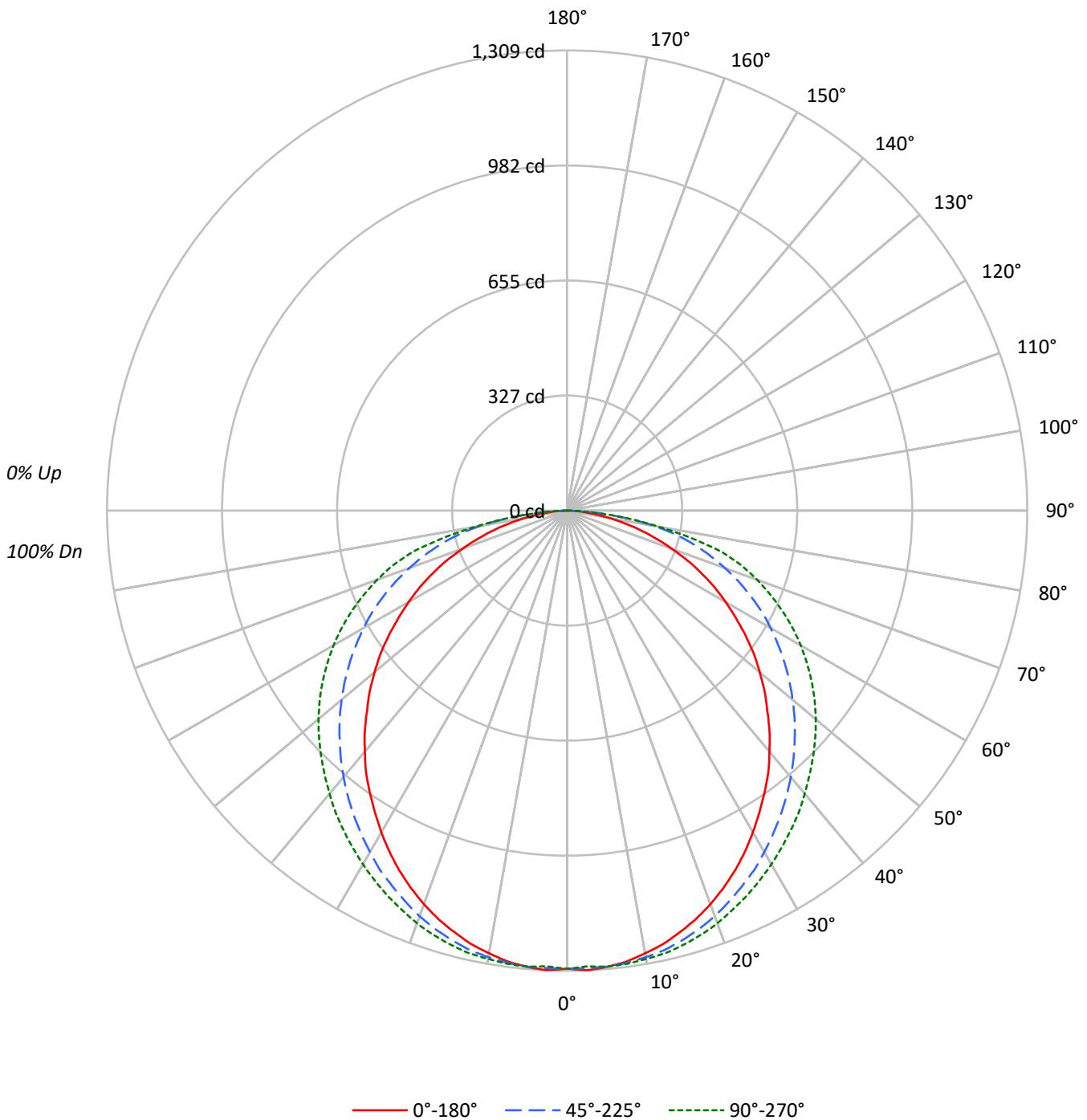
Input Watts (W): 38.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1753	1753	1753
5°	1760	1758	1758
10°	1747	1762	1769
15°	1729	1763	1782
20°	1706	1758	1789
25°	1677	1749	1795
30°	1642	1742	1805
35°	1608	1738	1822
40°	1573	1738	1847
45°	1532	1742	1883
50°	1496	1753	1933
55°	1453	1772	1993
60°	1402	1801	2065
65°	1342	1834	2152
70°	1245	1880	2262
75°	1127	1946	2365
80°	949	1951	2034
85°	727	1476	1476



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	3.0
10°-20°	355.9	8.7
20°-30°	540.6	13.3
30°-40°	657.6	16.1
40°-50°	700.1	17.2
50°-60°	666.8	16.4
60°-70°	557.6	13.7
70°-80°	371.8	9.1
80°-90°	102.9	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°	1020.2	25.0
0°-40°	1677.8	41.2
0°-60°	3044.7	74.7
0°-90°	4077.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4077.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1303	1303	1303	1303	1303	
5°	1303	1295	1302	1302	1302	124
15°	1241	1244	1266	1275	1279	350
25°	1130	1144	1178	1198	1209	520
35°	979	1007	1058	1093	1109	612
45°	805	848	916	967	990	622
55°	619	673	755	821	850	554
65°	421	483	576	648	676	416
75°	217	285	374	438	455	230
85°	47	88	96	94	96	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1303.2	1303.2	1303.2	1303.2	1303.2
2.5°	1308.6	1299.2	1303.2	1303.2	1297.8
5°	1303.2	1295.1	1301.9	1301.9	1301.9
7.5°	1293.8	1287.1	1297.8	1300.5	1300.5
10°	1279.0	1276.3	1289.7	1293.8	1295.1
12.5°	1262.8	1261.5	1280.3	1285.7	1289.7
15°	1241.3	1244.0	1265.5	1274.9	1279.0
17.5°	1218.4	1223.8	1248.0	1261.5	1265.5
20°	1191.5	1199.5	1227.8	1241.3	1249.4
22.5°	1161.8	1174.0	1203.6	1219.7	1229.2
25°	1129.5	1144.3	1178.0	1198.2	1209.0
27.5°	1094.5	1113.4	1152.4	1175.3	1186.1
30°	1056.8	1078.4	1121.5	1148.4	1161.8
32.5°	1017.8	1043.4	1090.5	1120.1	1136.3
35°	978.8	1007.0	1058.2	1093.2	1109.3
37.5°	939.7	968.0	1024.5	1062.2	1082.4
40°	895.3	928.9	989.5	1031.3	1051.5
42.5°	852.2	888.6	953.2	998.9	1020.5
45°	805.1	848.2	915.5	966.6	989.5
47.5°	762.0	805.1	877.8	931.6	957.2
50°	714.9	760.7	837.4	896.6	923.6
52.5°	669.1	716.2	797.0	860.3	887.2
55°	619.3	673.1	755.3	821.2	849.5
57.5°	569.5	627.4	712.2	780.8	809.1
60°	521.0	580.3	669.1	737.8	767.4
62.5°	472.5	531.8	624.7	694.7	723.0
65°	421.4	483.3	576.2	647.6	675.8
67.5°	370.2	434.9	527.7	599.1	626.0
70°	316.4	385.0	477.9	547.9	574.9
72.5°	266.6	335.2	426.8	495.4	521.0
75°	216.8	285.4	374.3	437.5	455.0
77.5°	168.3	236.9	316.4	358.1	362.2
80°	122.5	187.1	251.8	263.9	262.5
82.5°	82.1	140.0	173.7	175.0	179.1
85°	47.1	87.5	95.6	94.2	95.6
87.5°	18.8	31.0	26.9	20.2	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)