

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: P388760

Luminaire Tested: **24CZ2-50-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: P388760
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: 24CZ2-50-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

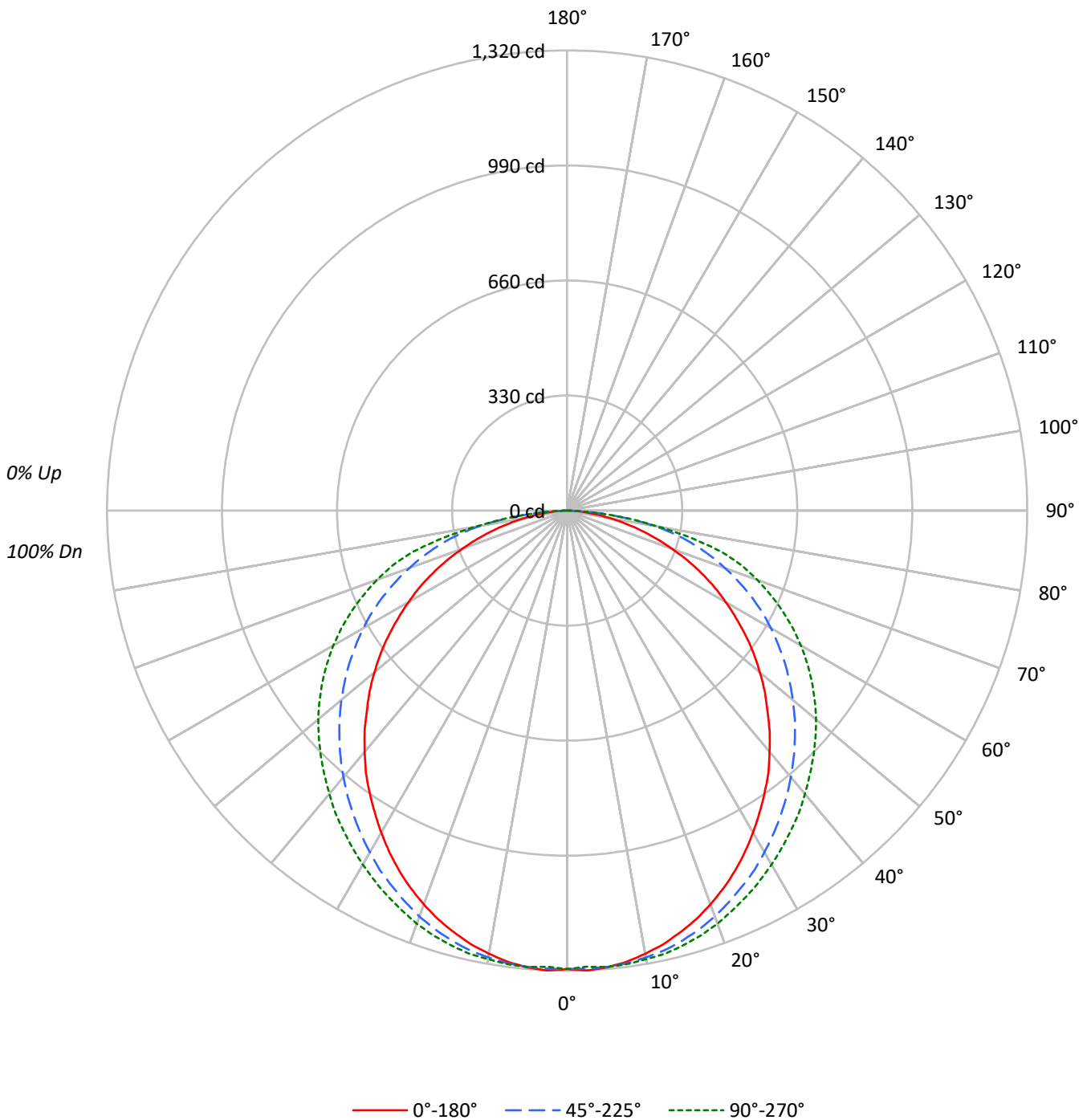
Lumens per Lamp: N/A
Luminaire Lumens: 4114.2 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 48.6
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°	1769	1769	1769
5°	1776	1774	1774
10°	1763	1778	1786
15°	1745	1779	1798
20°	1722	1774	1805
25°	1692	1765	1811
30°	1657	1758	1821
35°	1622	1754	1839
40°	1587	1754	1864
45°	1546	1758	1900
50°	1510	1769	1951
55°	1466	1788	2011
60°	1415	1817	2084
65°	1354	1851	2171
70°	1256	1897	2282
75°	1137	1964	2387
80°	958	1969	2053
85°	735	1490	1490



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.8	3.0
10°-20°	359.2	8.7
20°-30°	545.5	13.3
30°-40°	663.6	16.1
40°-50°	706.5	17.2
50°-60°	672.9	16.4
60°-70°	562.7	13.7
70°-80°	375.2	9.1
80°-90°	103.8	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°	1029.5	25.0
0°-40°	1693.1	41.2
0°-60°	3072.5	74.7
0°-90°	4114.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4114.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1315	1315	1315	1315	1315	
5°	1315	1307	1314	1314	1314	125
15°	1253	1255	1277	1287	1291	353
25°	1140	1155	1189	1209	1220	525
35°	988	1016	1068	1103	1120	618
45°	812	856	924	976	999	628
55°	625	679	762	829	857	559
65°	425	488	582	654	682	420
75°	219	288	378	442	459	232
85°	48	88	96	95	96	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1315.1	1315.1	1315.1	1315.1	1315.1
2.5°	1320.5	1311.0	1315.1	1315.1	1309.7
5°	1315.1	1306.9	1313.7	1313.7	1313.7
7.5°	1305.6	1298.8	1309.7	1312.4	1312.4
10°	1290.6	1287.9	1301.5	1305.6	1306.9
12.5°	1274.3	1273.0	1292.0	1297.4	1301.5
15°	1252.6	1255.3	1277.1	1286.6	1290.6
17.5°	1229.5	1234.9	1259.4	1273.0	1277.1
20°	1202.3	1210.5	1239.0	1252.6	1260.8
22.5°	1172.4	1184.7	1214.6	1230.9	1240.4
25°	1139.8	1154.8	1188.8	1209.1	1220.0
27.5°	1104.5	1123.5	1162.9	1186.0	1196.9
30°	1066.5	1088.2	1131.7	1158.9	1172.4
32.5°	1027.1	1052.9	1100.4	1130.3	1146.6
35°	987.7	1016.2	1067.8	1103.2	1119.5
37.5°	948.3	976.8	1033.9	1071.9	1092.3
40°	903.5	937.4	998.6	1040.7	1061.0
42.5°	860.0	896.7	961.9	1008.1	1029.8
45°	812.4	855.9	923.8	975.5	998.6
47.5°	769.0	812.4	885.8	940.1	965.9
50°	721.4	767.6	845.0	904.8	932.0
52.5°	675.2	722.8	804.3	868.1	895.3
55°	624.9	679.3	762.2	828.7	857.3
57.5°	574.7	633.1	718.7	788.0	816.5
60°	525.8	585.5	675.2	744.5	774.4
62.5°	476.9	536.6	630.4	701.0	729.6
65°	425.2	487.7	581.5	653.5	682.0
67.5°	373.6	438.8	532.6	604.6	631.7
70°	319.3	388.6	482.3	552.9	580.1
72.5°	269.0	338.3	430.7	500.0	525.8
75°	218.7	288.0	377.7	441.5	459.2
77.5°	169.8	239.1	319.3	361.4	365.5
80°	123.6	188.8	254.1	266.3	264.9
82.5°	82.9	141.3	175.3	176.6	180.7
85°	47.6	88.3	96.5	95.1	96.5
87.5°	19.0	31.2	27.2	20.4	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)