

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: P388737

Luminaire Tested: **24CZ2-45VHE-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: P388737
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: 24CZ2-45VHE-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: 3873.4 lumens
Efficiency: N/A
Efficacy: 130.9 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

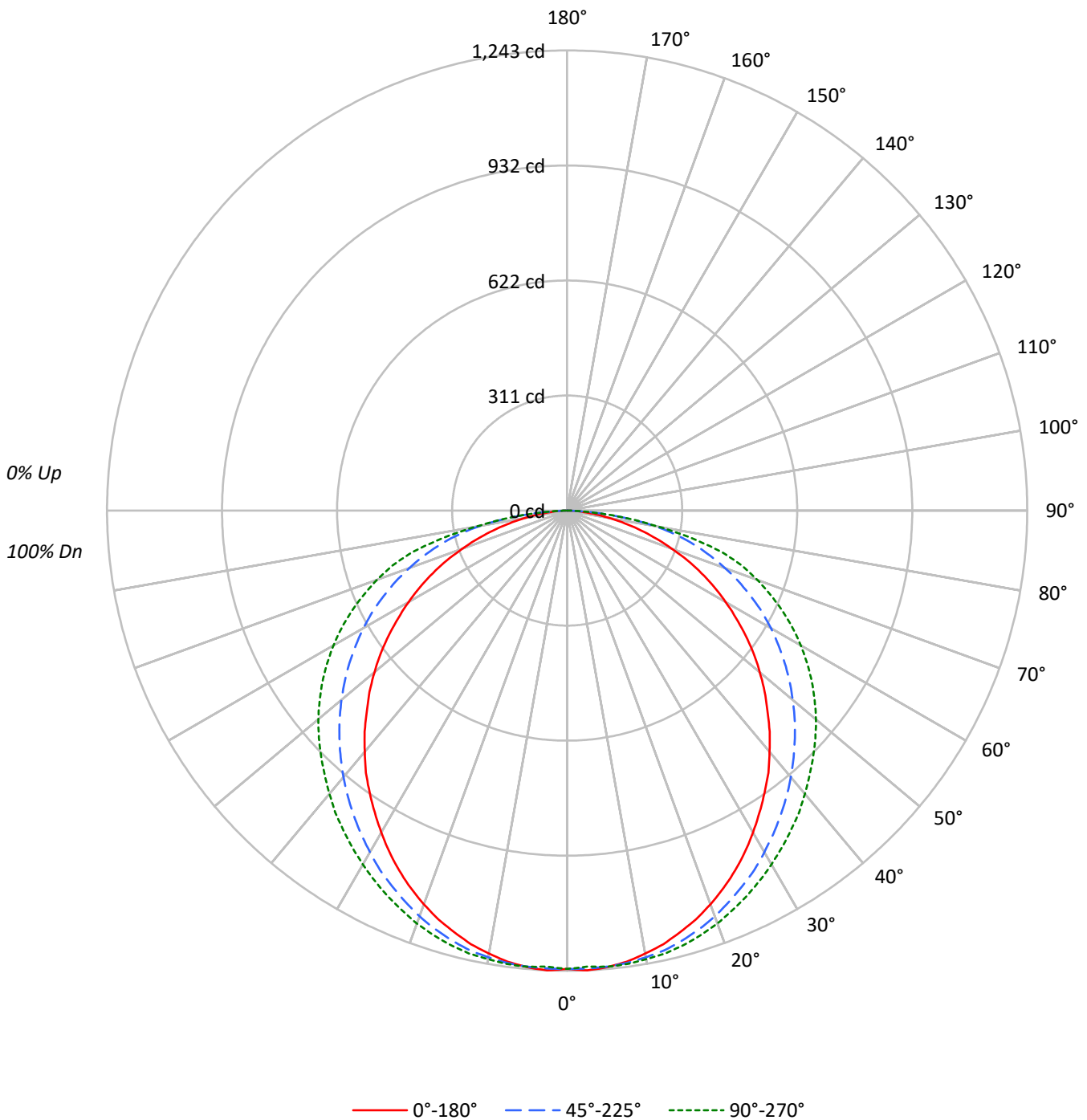
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1666	1666	1666
5°	1672	1670	1670
10°	1660	1674	1681
15°	1643	1675	1693
20°	1621	1670	1700
25°	1593	1662	1705
30°	1560	1655	1715
35°	1527	1651	1731
40°	1494	1651	1754
45°	1455	1655	1789
50°	1422	1665	1837
55°	1380	1683	1893
60°	1332	1711	1962
65°	1274	1743	2044
70°	1183	1786	2149
75°	1070	1849	2247
80°	902	1853	1932
85°	692	1402	1402



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.5	3.0
10°-20°	338.1	8.7
20°-30°	513.6	13.3
30°-40°	624.7	16.1
40°-50°	665.1	17.2
50°-60°	633.5	16.4
60°-70°	529.8	13.7
70°-80°	353.2	9.1
80°-90°	97.7	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°	969.3	25.0
0°-40°	1594.0	41.2
0°-60°	2892.7	74.7
0°-90°	3873.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3873.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1238	1238	1238	1238	1238	
5°	1238	1230	1237	1237	1237	117
15°	1179	1182	1202	1211	1215	333
25°	1073	1087	1119	1138	1149	494
35°	930	957	1005	1039	1054	582
45°	765	806	870	918	940	591
55°	588	640	718	780	807	526
65°	400	459	547	615	642	395
75°	206	271	356	416	432	218
85°	45	83	91	90	91	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1238.1	1238.1	1238.1	1238.1	1238.1
2.5°	1243.2	1234.3	1238.1	1238.1	1233.0
5°	1238.1	1230.5	1236.8	1236.8	1236.8
7.5°	1229.2	1222.8	1233.0	1235.6	1235.6
10°	1215.1	1212.5	1225.3	1229.2	1230.5
12.5°	1199.8	1198.5	1216.4	1221.5	1225.3
15°	1179.3	1181.8	1202.3	1211.3	1215.1
17.5°	1157.5	1162.7	1185.7	1198.5	1202.3
20°	1132.0	1139.6	1166.5	1179.3	1187.0
22.5°	1103.8	1115.3	1143.5	1158.8	1167.8
25°	1073.1	1087.2	1119.2	1138.4	1148.6
27.5°	1039.9	1057.8	1094.9	1116.6	1126.8
30°	1004.1	1024.5	1065.5	1091.0	1103.8
32.5°	967.0	991.3	1036.0	1064.2	1079.5
35°	929.9	956.7	1005.3	1038.6	1053.9
37.5°	892.8	919.6	973.4	1009.2	1028.4
40°	850.6	882.5	940.1	979.8	998.9
42.5°	809.6	844.2	905.6	949.1	969.5
45°	764.9	805.8	869.8	918.4	940.1
47.5°	723.9	764.9	833.9	885.1	909.4
50°	679.2	722.7	795.6	851.9	877.4
52.5°	635.7	680.5	757.2	817.3	842.9
55°	588.4	639.5	717.6	780.2	807.1
57.5°	541.0	596.0	676.6	741.9	768.7
60°	495.0	551.3	635.7	700.9	729.1
62.5°	448.9	505.2	593.5	660.0	686.9
65°	400.3	459.2	547.4	615.2	642.1
67.5°	351.7	413.1	501.4	569.2	594.8
70°	300.6	365.8	454.1	520.6	546.2
72.5°	253.3	318.5	405.5	470.7	495.0
75°	205.9	271.2	355.6	415.7	432.3
77.5°	159.9	225.1	300.6	340.2	344.1
80°	116.4	177.8	239.2	250.7	249.4
82.5°	78.0	133.0	165.0	166.3	170.1
85°	44.8	83.1	90.8	89.5	90.8
87.5°	17.9	29.4	25.6	19.2	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)