

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: P388733

Luminaire Tested: **24CZ2-45VHE-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: P388733
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-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: 3701.8 lumens
Efficiency: N/A
Efficacy: 125.1 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

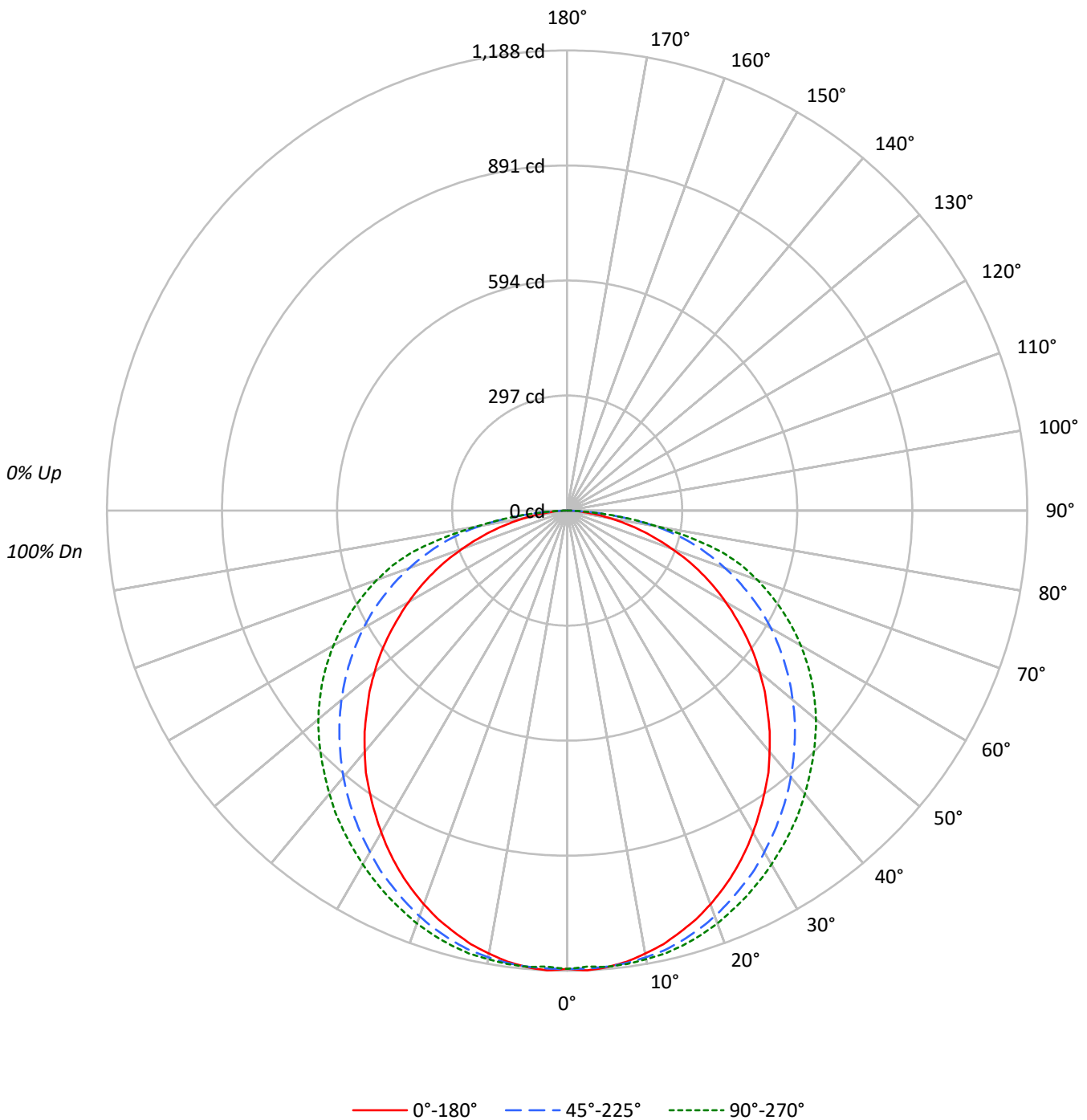
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1592	1592	1592
5°	1598	1597	1597
10°	1587	1600	1607
15°	1570	1601	1618
20°	1549	1596	1624
25°	1523	1588	1630
30°	1491	1582	1639
35°	1460	1578	1655
40°	1428	1578	1677
45°	1391	1582	1710
50°	1359	1591	1755
55°	1319	1609	1809
60°	1273	1635	1875
65°	1218	1666	1954
70°	1130	1707	2054
75°	1023	1766	2148
80°	862	1771	1847
85°	661	1340	1340



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.3	3.0
10°-20°	323.2	8.7
20°-30°	490.8	13.3
30°-40°	597.1	16.1
40°-50°	635.7	17.2
50°-60°	605.5	16.4
60°-70°	506.3	13.7
70°-80°	337.6	9.1
80°-90°	93.4	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°	926.3	25.0
0°-40°	1523.4	41.2
0°-60°	2764.5	74.7
0°-90°	3701.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3701.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1183	1183	1183	1183	1183	
5°	1183	1176	1182	1182	1182	112
15°	1127	1130	1149	1158	1161	318
25°	1026	1039	1070	1088	1098	472
35°	889	914	961	993	1007	556
45°	731	770	831	878	898	565
55°	562	611	686	746	771	503
65°	383	439	523	588	614	378
75°	197	259	340	397	413	208
85°	43	80	87	86	87	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1183.3	1183.3	1183.3	1183.3	1183.3
2.5°	1188.2	1179.6	1183.3	1183.3	1178.4
5°	1183.3	1175.9	1182.1	1182.1	1182.1
7.5°	1174.7	1168.6	1178.4	1180.8	1180.8
10°	1161.3	1158.8	1171.1	1174.7	1175.9
12.5°	1146.6	1145.4	1162.5	1167.4	1171.1
15°	1127.0	1129.5	1149.0	1157.6	1161.3
17.5°	1106.3	1111.2	1133.2	1145.4	1149.0
20°	1081.8	1089.2	1114.8	1127.0	1134.4
22.5°	1054.9	1065.9	1092.8	1107.5	1116.0
25°	1025.6	1039.0	1069.6	1087.9	1097.7
27.5°	993.8	1010.9	1046.4	1067.1	1076.9
30°	959.6	979.1	1018.3	1042.7	1054.9
32.5°	924.1	947.4	990.1	1017.0	1031.7
35°	888.7	914.3	960.8	992.6	1007.3
37.5°	853.2	878.9	930.2	964.5	982.8
40°	812.9	843.5	898.5	936.4	954.7
42.5°	773.8	806.8	865.5	907.0	926.6
45°	731.0	770.1	831.2	877.7	898.5
47.5°	691.9	731.0	797.0	845.9	869.1
50°	649.1	690.7	760.3	814.1	838.6
52.5°	607.5	650.3	723.7	781.1	805.6
55°	562.3	611.2	685.8	745.7	771.3
57.5°	517.1	569.6	646.6	709.0	734.7
60°	473.1	526.9	607.5	669.9	696.8
62.5°	429.1	482.8	567.2	630.8	656.4
65°	382.6	438.8	523.2	588.0	613.6
67.5°	336.2	394.8	479.2	544.0	568.4
70°	287.3	349.6	433.9	497.5	522.0
72.5°	242.0	304.4	387.5	449.8	473.1
75°	196.8	259.1	339.8	397.3	413.2
77.5°	152.8	215.1	287.3	325.2	328.8
80°	111.2	169.9	228.6	239.6	238.4
82.5°	74.6	127.1	157.7	158.9	162.6
85°	42.8	79.5	86.8	85.6	86.8
87.5°	17.1	28.1	24.4	18.3	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)