

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: P391538

Luminaire Tested: **24CZ2-60VHE-RDP-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: P391538
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60VHE-RDP-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3443.1 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

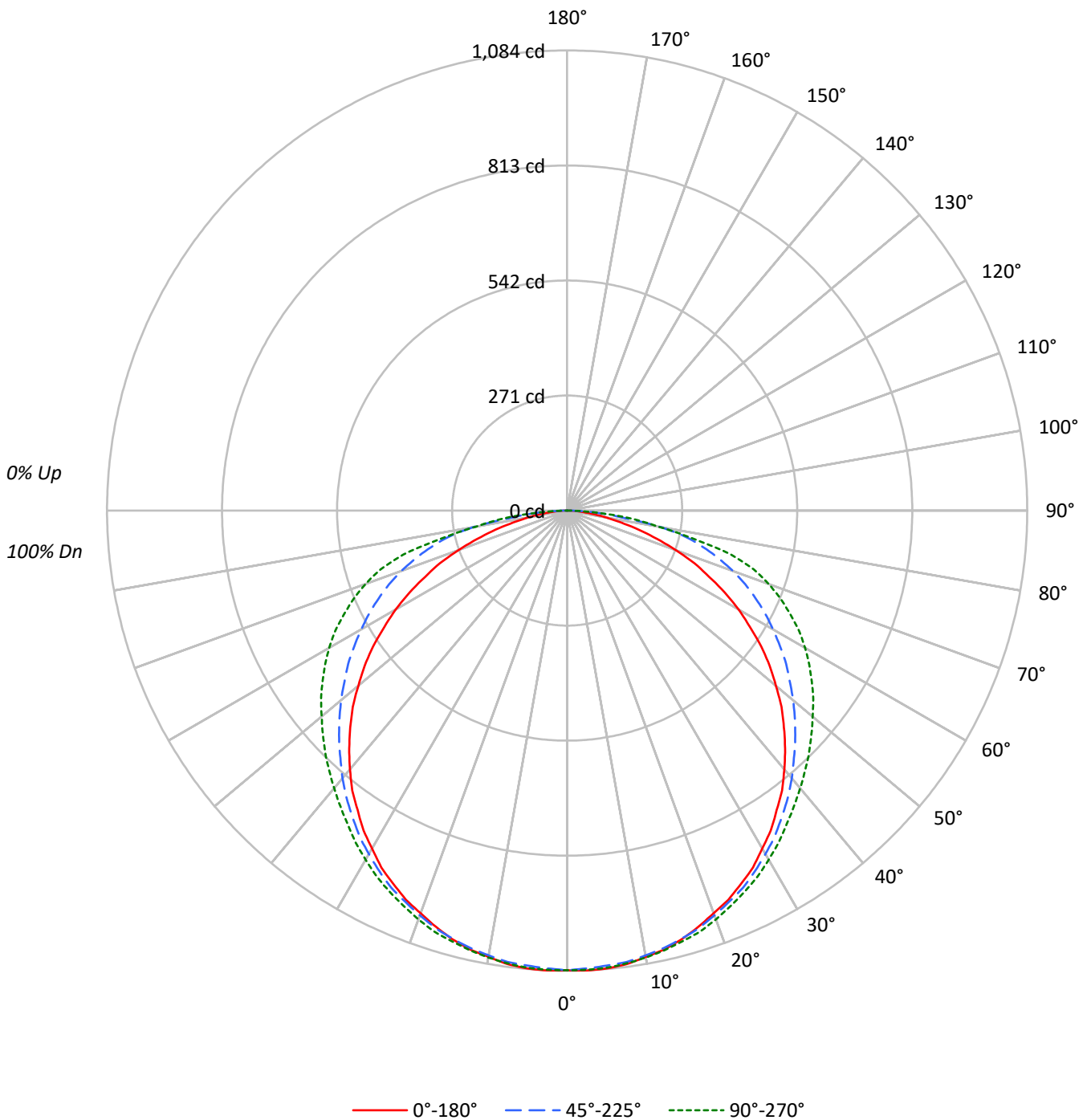
Input Watts (W): 38.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1457	1457	1457
5°	1462	1453	1460
10°	1458	1454	1461
15°	1456	1454	1463
20°	1445	1452	1467
25°	1440	1455	1470
30°	1427	1451	1475
35°	1414	1447	1481
40°	1398	1446	1500
45°	1375	1446	1534
50°	1344	1455	1580
55°	1310	1478	1650
60°	1255	1507	1742
65°	1174	1560	1849
70°	1068	1633	1989
75°	906	1722	2077
80°	714	1733	1681
85°	528	1318	1476



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.7	3.0
10°-20°	295.6	8.6
20°-30°	452.0	13.1
30°-40°	552.6	16.0
40°-50°	589.0	17.1
50°-60°	563.1	16.4
60°-70°	477.0	13.9
70°-80°	320.6	9.3
80°-90°	90.4	2.6
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°	850.3	24.7
0°-40°	1402.9	40.7
0°-60°	2555.0	74.2
0°-90°	3443.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3443.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1083	1083	1083	1083	1083	
5°	1083	1081	1076	1081	1081	103
15°	1045	1045	1044	1052	1050	295
25°	970	974	980	989	990	447
35°	861	868	881	898	902	539
45°	722	734	760	792	806	557
55°	558	579	630	680	704	497
65°	369	406	490	555	581	366
75°	174	237	331	388	400	187
85°	34	70	85	92	96	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1082.8	1082.8	1082.8	1082.8	1082.8
2.5°	1084.5	1084.5	1079.3	1082.8	1082.8
5°	1082.8	1081.0	1075.9	1081.0	1081.0
7.5°	1077.6	1075.9	1072.5	1077.6	1075.9
10°	1067.4	1067.4	1064.0	1069.1	1069.1
12.5°	1058.8	1057.1	1055.4	1062.3	1060.6
15°	1045.2	1045.2	1043.5	1052.0	1050.3
17.5°	1028.1	1029.8	1031.5	1038.4	1040.1
20°	1009.3	1012.7	1014.4	1024.7	1024.7
22.5°	992.2	994.0	997.4	1007.6	1007.6
25°	970.0	973.5	980.3	988.8	990.5
27.5°	947.8	949.5	958.1	970.0	971.7
30°	918.8	923.9	934.2	947.8	949.5
32.5°	893.2	898.3	910.3	923.9	927.3
35°	860.7	867.6	881.2	898.3	901.7
37.5°	831.7	836.8	853.9	872.7	877.8
40°	795.8	806.1	823.2	845.4	853.9
42.5°	760.0	770.2	790.7	819.8	830.0
45°	722.4	734.4	760.0	792.4	806.1
47.5°	684.8	698.5	727.5	765.1	780.5
50°	642.1	659.2	695.1	737.8	754.9
52.5°	601.2	621.6	660.9	708.7	730.9
55°	558.5	579.0	630.2	679.7	703.6
57.5°	510.6	538.0	594.3	650.7	676.3
60°	466.2	491.9	560.2	621.6	647.3
62.5°	418.4	452.6	526.0	590.9	616.5
65°	368.9	406.5	490.1	555.0	580.7
67.5°	324.5	365.5	454.3	519.2	544.8
70°	271.5	322.8	415.0	479.9	505.5
72.5°	222.0	278.4	374.0	437.2	461.1
75°	174.2	237.4	331.3	387.7	399.6
77.5°	129.8	196.4	286.9	310.8	302.3
80°	92.2	157.1	223.7	211.8	216.9
82.5°	59.8	119.5	138.3	157.1	162.2
85°	34.2	70.0	85.4	92.2	95.6
87.5°	15.4	25.6	34.2	34.2	32.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)