

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: P391414

Luminaire Tested: **24CZ2-50VHE-HRP-UNV-L930-CD1-SWPD1-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: P391414
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: 24CZ2-50VHE-HRP-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3502.6 lumens
Efficiency: N/A
Efficacy: 107.1 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

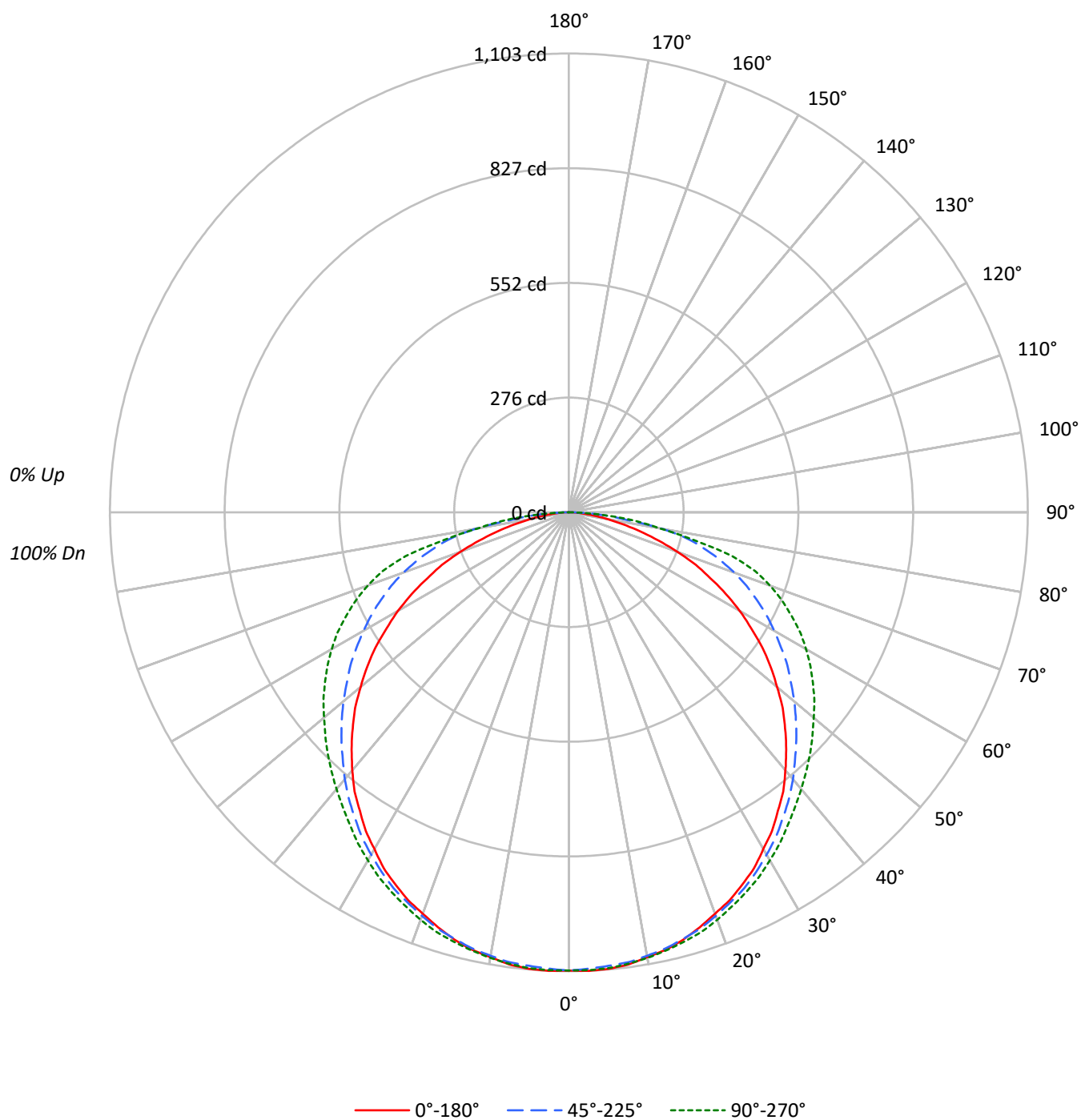
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	98	94	105	100	96	92		96	93	89		92	89	87		88	86	84
2	97	89	81	75	95	87	80	74		83	77	72		80	75	71		77	73	69
3	88	77	68	62	86	76	67	61		72	66	60		70	64	59		67	62	58
4	81	68	59	52	78	67	58	51		64	57	51		62	55	50		59	54	49
5	74	60	51	44	72	59	51	44		57	49	43		55	48	43		53	47	42
6	68	54	45	38	66	53	45	38		51	44	38		50	43	37		48	42	37
7	63	49	40	34	61	48	40	34		47	39	33		45	38	33		44	38	33
8	59	45	36	30	57	44	36	30		43	35	30		41	34	29		40	34	29
9	55	41	33	27	53	40	32	27		39	32	27		38	31	26		37	31	26
10	51	38	30	24	50	37	29	24		36	29	24		35	29	24		34	28	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1482	1482	1482
5°	1488	1478	1485
10°	1483	1479	1486
15°	1481	1479	1488
20°	1470	1478	1493
25°	1465	1480	1496
30°	1452	1476	1501
35°	1438	1473	1507
40°	1422	1471	1526
45°	1398	1471	1560
50°	1367	1480	1607
55°	1333	1504	1679
60°	1276	1533	1772
65°	1195	1587	1881
70°	1087	1661	2023
75°	921	1752	2113
80°	727	1764	1709
85°	536	1342	1502



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.5	3.0
10°-20°	300.7	8.6
20°-30°	459.8	13.1
30°-40°	562.2	16.0
40°-50°	599.1	17.1
50°-60°	572.9	16.4
60°-70°	485.3	13.9
70°-80°	326.2	9.3
80°-90°	92.0	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°	865.0	24.7
0°-40°	1427.2	40.7
0°-60°	2599.2	74.2
0°-90°	3502.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3502.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1102	1100	1094	1100	1100	105
15°	1063	1063	1062	1070	1068	300
25°	987	990	997	1006	1008	455
35°	876	883	896	914	917	549
45°	735	747	773	806	820	567
55°	568	589	641	692	716	506
65°	375	414	499	565	591	373
75°	177	242	337	394	406	190
85°	35	71	87	94	97	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1101.5	1101.5	1101.5	1101.5	1101.5
2.5°	1103.2	1103.2	1098.0	1101.5	1101.5
5°	1101.5	1099.7	1094.5	1099.7	1099.7
7.5°	1096.3	1094.5	1091.0	1096.3	1094.5
10°	1085.8	1085.8	1082.4	1087.6	1087.6
12.5°	1077.1	1075.4	1073.7	1080.6	1078.9
15°	1063.2	1063.2	1061.5	1070.2	1068.5
17.5°	1045.9	1047.6	1049.3	1056.3	1058.0
20°	1026.8	1030.2	1032.0	1042.4	1042.4
22.5°	1009.4	1011.1	1014.6	1025.0	1025.0
25°	986.8	990.3	997.2	1005.9	1007.7
27.5°	964.2	966.0	974.6	986.8	988.5
30°	934.7	939.9	950.3	964.2	966.0
32.5°	908.6	913.8	926.0	939.9	943.4
35°	875.6	882.6	896.5	913.8	917.3
37.5°	846.1	851.3	868.7	887.8	893.0
40°	809.6	820.0	837.4	860.0	868.7
42.5°	773.1	783.5	804.4	833.9	844.3
45°	734.9	747.1	773.1	806.1	820.0
47.5°	696.7	710.6	740.1	778.3	794.0
50°	653.2	670.6	707.1	750.5	767.9
52.5°	611.5	632.4	672.3	721.0	743.6
55°	568.1	589.0	641.1	691.5	715.8
57.5°	519.5	547.3	604.6	661.9	688.0
60°	474.3	500.4	569.8	632.4	658.4
62.5°	425.6	460.4	535.1	601.1	627.2
65°	375.3	413.5	498.6	564.6	590.7
67.5°	330.1	371.8	462.1	528.1	554.2
70°	276.2	328.4	422.2	488.2	514.2
72.5°	225.9	283.2	380.5	444.8	469.1
75°	177.2	241.5	337.0	394.4	406.5
77.5°	132.0	199.8	291.9	316.2	307.5
80°	93.8	159.8	227.6	215.4	220.6
82.5°	60.8	121.6	140.7	159.8	165.0
85°	34.7	71.2	86.9	93.8	97.3
87.5°	15.6	26.1	34.7	34.7	33.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)