

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: P388801

Luminaire Tested: **24CZ2-40VHE-UNV-L935-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: P388801
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40VHE-UNV-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3375.0 lumens
Efficiency: N/A
Efficacy: 128.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

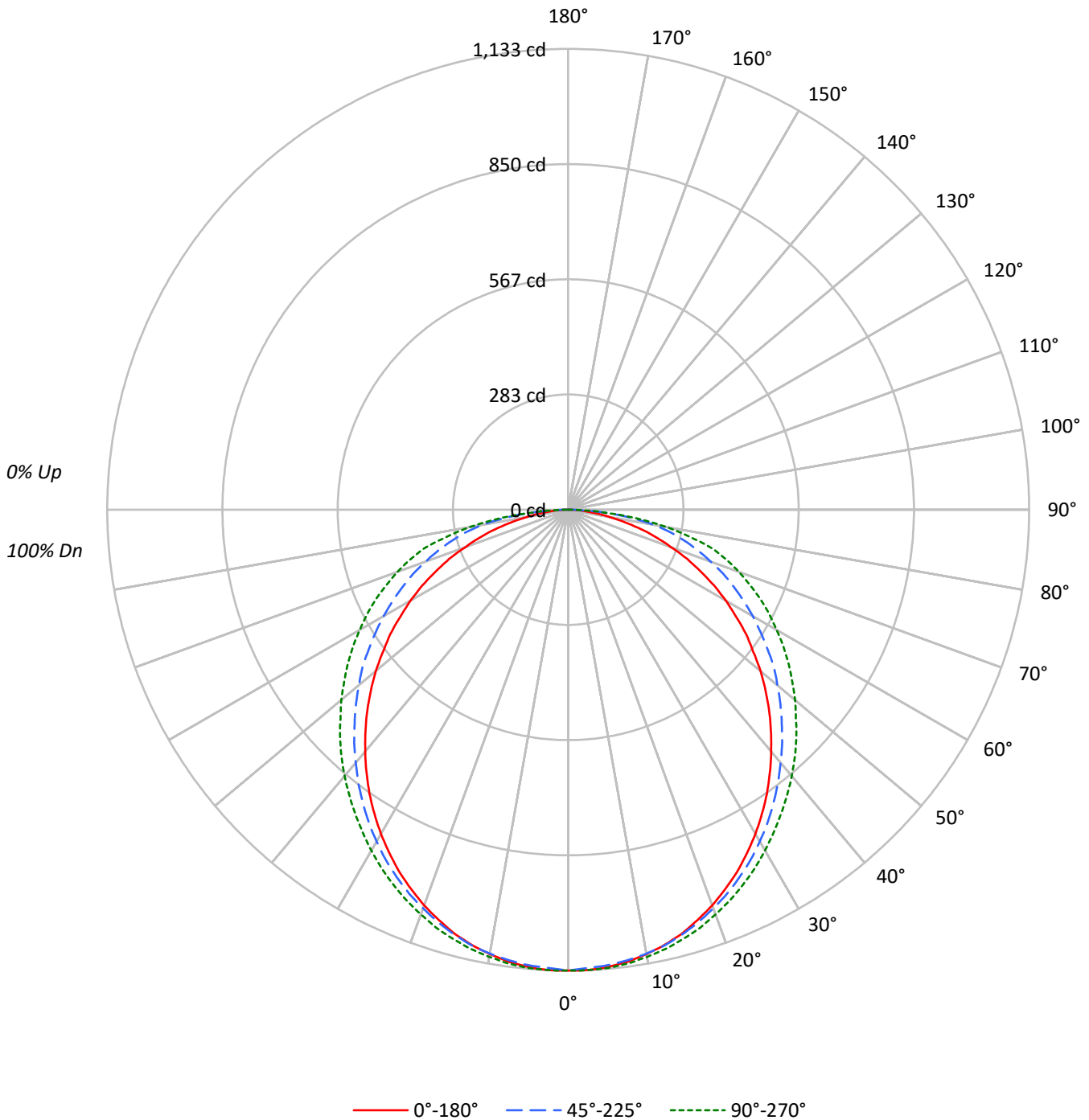
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1525	1525	1525
5°	1524	1518	1527
10°	1516	1514	1525
15°	1503	1506	1522
20°	1482	1493	1516
25°	1458	1480	1510
30°	1430	1463	1503
35°	1399	1445	1499
40°	1363	1426	1502
45°	1329	1412	1509
50°	1292	1405	1523
55°	1252	1403	1551
60°	1203	1410	1591
65°	1140	1431	1660
70°	1059	1467	1755
75°	966	1540	1903
80°	794	1658	1903
85°	608	1530	1635



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.2	3.2
10°-20°	306.0	9.1
20°-30°	460.4	13.6
30°-40°	551.8	16.3
40°-50°	575.0	17.0
50°-60°	535.0	15.9
60°-70°	440.6	13.1
70°-80°	300.1	8.9
80°-90°	99.1	2.9
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°	873.5	25.9
0°-40°	1425.3	42.2
0°-60°	2535.3	75.1
0°-90°	3375.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3375.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1133	1133	1133	1133	1133	
5°	1129	1129	1124	1130	1131	107
15°	1079	1080	1081	1092	1093	304
25°	982	987	997	1014	1017	452
35°	852	862	880	903	912	532
45°	698	713	742	780	793	539
55°	534	552	598	645	661	476
65°	358	389	449	502	522	356
75°	186	228	296	349	366	196
85°	39	77	99	106	106	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1133.1	1133.1	1133.1	1133.1	1133.1
2.5°	1133.1	1133.1	1127.5	1133.1	1133.1
5°	1128.6	1128.6	1124.1	1129.8	1130.9
7.5°	1120.8	1121.9	1117.4	1124.1	1125.3
10°	1109.5	1110.6	1108.4	1115.1	1116.2
12.5°	1096.0	1097.1	1097.1	1105.0	1106.1
15°	1079.1	1080.2	1081.3	1091.5	1092.6
17.5°	1057.7	1061.1	1063.3	1075.7	1078.0
20°	1035.1	1038.5	1043.0	1056.6	1058.8
22.5°	1009.2	1013.7	1021.6	1036.3	1039.7
25°	982.2	986.7	996.9	1013.7	1017.1
27.5°	951.8	958.6	970.9	989.0	993.5
30°	920.3	927.0	941.7	960.8	967.6
32.5°	886.5	895.5	912.4	933.8	940.5
35°	851.5	861.7	879.7	903.4	912.4
37.5°	814.4	825.6	847.0	872.9	884.2
40°	776.1	789.6	812.1	842.5	854.9
42.5°	737.8	750.2	778.3	811.0	824.5
45°	698.4	713.0	742.3	779.5	793.0
47.5°	657.8	672.5	707.4	746.8	759.2
50°	617.3	631.9	671.3	713.0	727.6
52.5°	573.3	592.5	637.5	679.2	693.9
55°	533.9	551.9	598.1	645.4	661.2
57.5°	488.9	510.3	560.9	610.5	627.4
60°	447.2	469.7	523.8	574.5	591.4
62.5°	404.4	429.2	486.6	538.4	557.6
65°	358.2	388.6	449.4	502.4	521.5
67.5°	316.5	348.1	412.3	466.3	483.2
70°	269.2	307.5	372.8	426.9	446.0
72.5°	228.7	267.0	335.7	388.6	407.8
75°	185.9	227.5	296.2	349.2	366.1
77.5°	143.1	189.2	257.9	298.5	304.1
80°	102.5	150.9	214.0	237.7	245.6
82.5°	72.1	116.0	157.7	173.5	178.0
85°	39.4	76.6	99.1	105.9	105.9
87.5°	16.9	32.7	39.4	40.5	41.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)