

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: P388797

Luminaire Tested: **24CZ2-40VHE-UNV-L930-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: P388797
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-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3253.8 lumens
Efficiency: N/A
Efficacy: 124.2 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

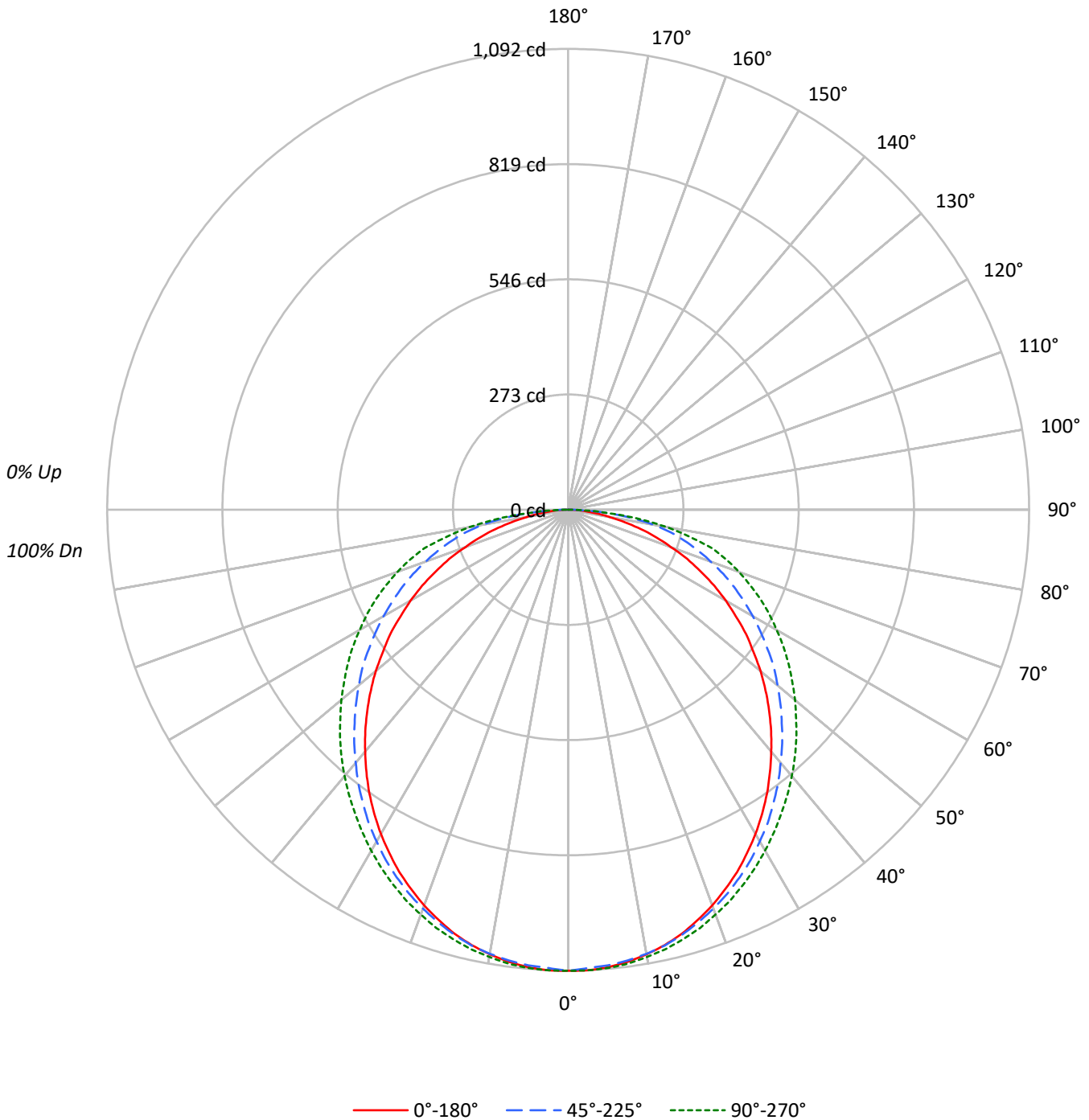
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1470	1470	1470
5°	1470	1464	1473
10°	1461	1460	1470
15°	1449	1452	1467
20°	1429	1440	1462
25°	1406	1427	1456
30°	1378	1410	1449
35°	1349	1393	1445
40°	1314	1375	1448
45°	1281	1362	1455
50°	1246	1355	1468
55°	1207	1353	1495
60°	1160	1359	1534
65°	1099	1379	1601
70°	1021	1414	1692
75°	932	1485	1835
80°	766	1598	1834
85°	587	1476	1576



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.3	3.2
10°-20°	295.0	9.1
20°-30°	443.9	13.6
30°-40°	531.9	16.3
40°-50°	554.3	17.0
50°-60°	515.7	15.9
60°-70°	424.8	13.1
70°-80°	289.3	8.9
80°-90°	95.5	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°	842.2	25.9
0°-40°	1374.1	42.2
0°-60°	2444.2	75.1
0°-90°	3253.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3253.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1092	1092	1092	1092	1092	
5°	1088	1088	1084	1089	1090	103
15°	1040	1041	1042	1052	1053	293
25°	947	951	961	977	981	436
35°	821	831	848	871	880	513
45°	673	687	716	752	764	519
55°	515	532	577	622	637	459
65°	345	375	433	484	503	343
75°	179	219	286	337	353	189
85°	38	74	96	102	102	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1092.5	1092.5	1092.5	1092.5	1092.5
2.5°	1092.5	1092.5	1087.0	1092.5	1092.5
5°	1088.1	1088.1	1083.8	1089.2	1090.3
7.5°	1080.5	1081.6	1077.2	1083.8	1084.9
10°	1069.6	1070.7	1068.6	1075.1	1076.2
12.5°	1056.6	1057.7	1057.7	1065.3	1066.4
15°	1040.3	1041.4	1042.5	1052.3	1053.4
17.5°	1019.7	1023.0	1025.1	1037.1	1039.2
20°	998.0	1001.2	1005.6	1018.6	1020.8
22.5°	973.0	977.3	984.9	999.1	1002.3
25°	946.9	951.3	961.1	977.3	980.6
27.5°	917.6	924.1	936.1	953.5	957.8
30°	887.2	893.7	907.8	926.3	932.8
32.5°	854.6	863.3	879.6	900.2	906.8
35°	821.0	830.7	848.1	870.9	879.6
37.5°	785.1	796.0	816.6	841.6	852.5
40°	748.2	761.2	783.0	812.3	824.2
42.5°	711.3	723.2	750.4	781.9	794.9
45°	673.3	687.4	715.6	751.5	764.5
47.5°	634.2	648.3	682.0	720.0	731.9
50°	595.1	609.2	647.2	687.4	701.5
52.5°	552.7	571.2	614.6	654.8	668.9
55°	514.7	532.1	576.6	622.2	637.4
57.5°	471.3	491.9	540.8	588.6	604.9
60°	431.1	452.8	505.0	553.8	570.1
62.5°	389.9	413.7	469.1	519.1	537.5
65°	345.3	374.6	433.3	484.3	502.8
67.5°	305.1	335.6	397.5	449.6	465.9
70°	259.5	296.5	359.4	411.6	430.0
72.5°	220.4	257.4	323.6	374.6	393.1
75°	179.2	219.4	285.6	336.6	352.9
77.5°	137.9	182.4	248.7	287.8	293.2
80°	98.8	145.5	206.3	229.1	236.7
82.5°	69.5	111.9	152.0	167.2	171.6
85°	38.0	73.8	95.6	102.1	102.1
87.5°	16.3	31.5	38.0	39.1	40.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)