

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: P388799

Luminaire Tested: **24CZ2-40VHE-UNV-L930-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: P388799
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-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

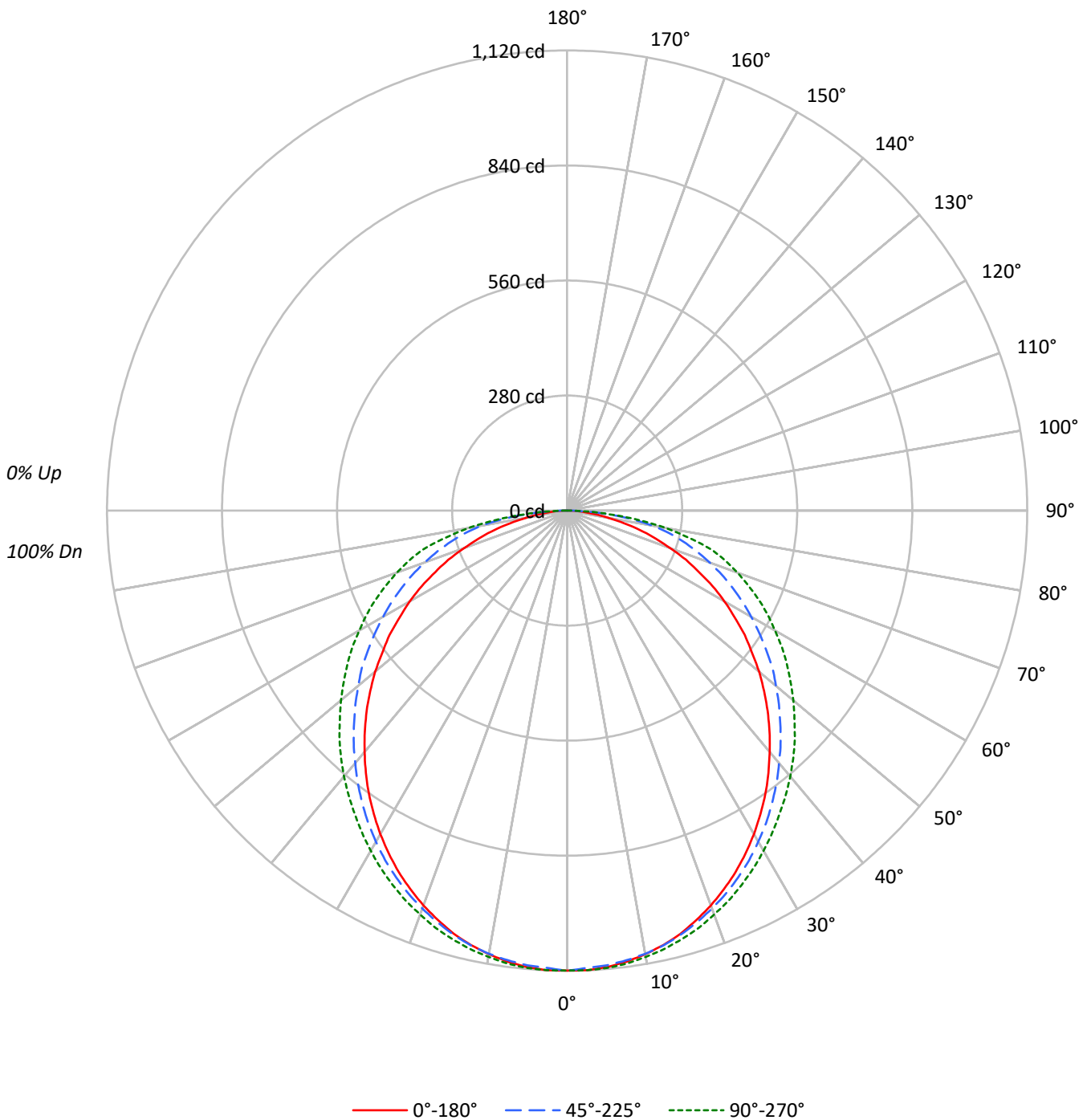
Lumens per Lamp: N/A
Luminaire Lumens: 3334.9 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82				82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67				67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56				56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36				36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32				32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28				28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25				25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23				23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1507	1507	1507
5°	1506	1500	1509
10°	1498	1496	1507
15°	1485	1488	1504
20°	1464	1476	1498
25°	1441	1462	1492
30°	1413	1446	1485
35°	1382	1428	1481
40°	1347	1410	1484
45°	1313	1396	1491
50°	1277	1388	1505
55°	1238	1386	1533
60°	1189	1393	1572
65°	1127	1414	1641
70°	1046	1449	1734
75°	954	1522	1880
80°	785	1639	1880
85°	602	1511	1615



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.9	3.2
10°-20°	302.3	9.1
20°-30°	454.9	13.6
30°-40°	545.2	16.3
40°-50°	568.2	17.0
50°-60°	528.6	15.9
60°-70°	435.4	13.1
70°-80°	296.5	8.9
80°-90°	97.9	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°	863.2	25.9
0°-40°	1408.4	42.2
0°-60°	2505.1	75.1
0°-90°	3334.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3334.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1115	1115	1111	1116	1118	106
15°	1066	1067	1068	1078	1080	300
25°	970	975	985	1002	1005	447
35°	841	851	869	893	902	526
45°	690	704	734	770	784	532
55°	528	545	591	638	653	470
65°	354	384	444	496	515	351
75°	184	225	293	345	362	194
85°	39	76	98	105	105	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1119.7	1119.7	1119.7	1119.7	1119.7
2.5°	1119.7	1119.7	1114.1	1119.7	1119.7
5°	1115.2	1115.2	1110.8	1116.3	1117.5
7.5°	1107.4	1108.6	1104.1	1110.8	1111.9
10°	1096.3	1097.4	1095.2	1101.9	1103.0
12.5°	1083.0	1084.1	1084.1	1091.9	1093.0
15°	1066.3	1067.4	1068.5	1078.5	1079.6
17.5°	1045.1	1048.4	1050.7	1062.9	1065.1
20°	1022.8	1026.2	1030.6	1044.0	1046.2
22.5°	997.3	1001.7	1009.5	1024.0	1027.3
25°	970.5	975.0	985.0	1001.7	1005.0
27.5°	940.5	947.2	959.4	977.2	981.7
30°	909.3	916.0	930.5	949.4	956.1
32.5°	875.9	884.8	901.5	922.7	929.4
35°	841.4	851.4	869.3	892.6	901.5
37.5°	804.7	815.8	837.0	862.6	873.7
40°	766.9	780.2	802.5	832.5	844.8
42.5°	729.0	741.3	769.1	801.4	814.7
45°	690.1	704.5	733.5	770.2	783.6
47.5°	650.0	664.5	699.0	737.9	750.2
50°	609.9	624.4	663.3	704.5	719.0
52.5°	566.5	585.4	630.0	671.1	685.6
55°	527.6	545.4	591.0	637.8	653.3
57.5°	483.0	504.2	554.3	603.2	619.9
60°	441.9	464.1	517.5	567.6	584.3
62.5°	399.6	424.1	480.8	532.0	550.9
65°	353.9	384.0	444.1	496.4	515.3
67.5°	312.8	343.9	407.4	460.8	477.5
70°	266.0	303.8	368.4	421.8	440.7
72.5°	225.9	263.8	331.7	384.0	402.9
75°	183.6	224.8	292.7	345.0	361.7
77.5°	141.4	187.0	254.9	294.9	300.5
80°	101.3	149.1	211.5	234.8	242.6
82.5°	71.2	114.6	155.8	171.4	175.9
85°	39.0	75.7	97.9	104.6	104.6
87.5°	16.7	32.3	39.0	40.1	41.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)