

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: P388806

Luminaire Tested: **24CZ2-40VHE-UNV-L950-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: P388806
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-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3575.8 lumens
Efficiency: N/A
Efficacy: 136.5 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

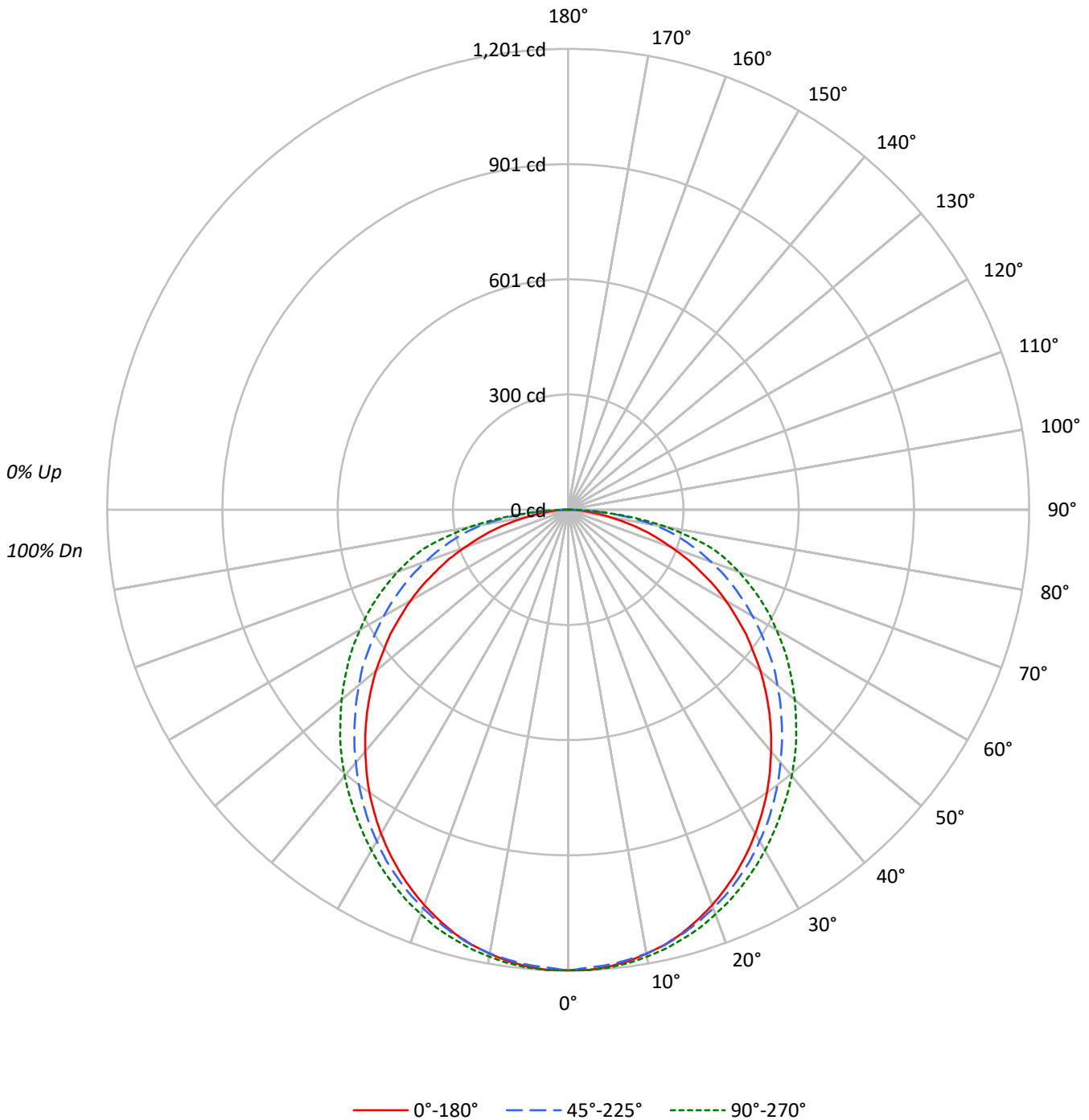
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388806

CATALOG NUMBER: 24CZ2-40VHE-UNV-L950-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388806

CATALOG NUMBER: 24CZ2-40VHE-UNV-L950-CD1-SDWPD1-U

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°	1615	1615	1615
5°	1615	1609	1618
10°	1606	1604	1616
15°	1593	1596	1612
20°	1570	1582	1606
25°	1545	1568	1600
30°	1515	1550	1593
35°	1482	1531	1588
40°	1444	1511	1591
45°	1408	1497	1599
50°	1369	1489	1614
55°	1327	1487	1643
60°	1275	1493	1686
65°	1208	1516	1759
70°	1122	1554	1859
75°	1024	1632	2017
80°	841	1757	2016
85°	645	1621	1732



TEST NUMBER: P388806

CATALOG NUMBER: 24CZ2-40VHE-UNV-L950-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.5	3.2
10°-20°	324.2	9.1
20°-30°	487.8	13.6
30°-40°	584.6	16.3
40°-50°	609.2	17.0
50°-60°	566.8	15.9
60°-70°	466.8	13.1
70°-80°	317.9	8.9
80°-90°	105.0	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°	925.5	25.9
0°-40°	1510.1	42.2
0°-60°	2686.1	75.1
0°-90°	3575.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3575.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1201	1201	1201	1201	1201	
5°	1196	1196	1191	1197	1198	113
15°	1143	1144	1146	1156	1158	322
25°	1041	1045	1056	1074	1078	479
35°	902	913	932	957	967	564
45°	740	755	786	826	840	571
55°	566	585	634	684	700	504
65°	380	412	476	532	552	377
75°	197	241	314	370	388	208
85°	42	81	105	112	112	52
90°	0	0	0	0	0	



TEST NUMBER: P388806

CATALOG NUMBER: 24CZ2-40VHE-UNV-L950-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1200.6	1200.6	1200.6	1200.6	1200.6
2.5°	1200.6	1200.6	1194.6	1200.6	1200.6
5°	1195.8	1195.8	1191.0	1197.0	1198.2
7.5°	1187.4	1188.6	1183.9	1191.0	1192.2
10°	1175.5	1176.7	1174.3	1181.5	1182.7
12.5°	1161.2	1162.4	1162.4	1170.7	1171.9
15°	1143.3	1144.5	1145.7	1156.4	1157.6
17.5°	1120.6	1124.2	1126.6	1139.7	1142.1
20°	1096.7	1100.3	1105.1	1119.4	1121.8
22.5°	1069.3	1074.1	1082.4	1097.9	1101.5
25°	1040.6	1045.4	1056.2	1074.1	1077.6
27.5°	1008.4	1015.6	1028.7	1047.8	1052.6
30°	975.0	982.2	997.7	1018.0	1025.1
32.5°	939.2	948.8	966.7	989.3	996.5
35°	902.2	913.0	932.0	957.1	966.7
37.5°	862.8	874.8	897.4	924.9	936.8
40°	822.3	836.6	860.4	892.7	905.8
42.5°	781.7	794.8	824.6	859.2	873.6
45°	739.9	755.4	786.5	825.8	840.2
47.5°	696.9	712.5	749.5	791.2	804.4
50°	654.0	669.5	711.3	755.4	770.9
52.5°	607.4	627.7	675.5	719.6	735.1
55°	565.7	584.8	633.7	683.8	700.5
57.5°	517.9	540.6	594.3	646.8	664.7
60°	473.8	497.6	554.9	608.6	626.5
62.5°	428.4	454.7	515.5	570.4	590.7
65°	379.5	411.7	476.2	532.3	552.5
67.5°	335.3	368.8	436.8	494.1	512.0
70°	285.2	325.8	395.0	452.3	472.6
72.5°	242.3	282.8	355.6	411.7	432.0
75°	196.9	241.1	313.9	370.0	387.9
77.5°	151.6	200.5	273.3	316.3	322.2
80°	108.6	159.9	226.7	251.8	260.2
82.5°	76.4	122.9	167.1	183.8	188.6
85°	41.8	81.2	105.0	112.2	112.2
87.5°	17.9	34.6	41.8	43.0	44.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)