

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: P388665

Luminaire Tested: **24CZ2-40VHE-SQR-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: P388665
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40VHE-SQR-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3434.1 lumens
Efficiency: N/A
Efficacy: 131.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

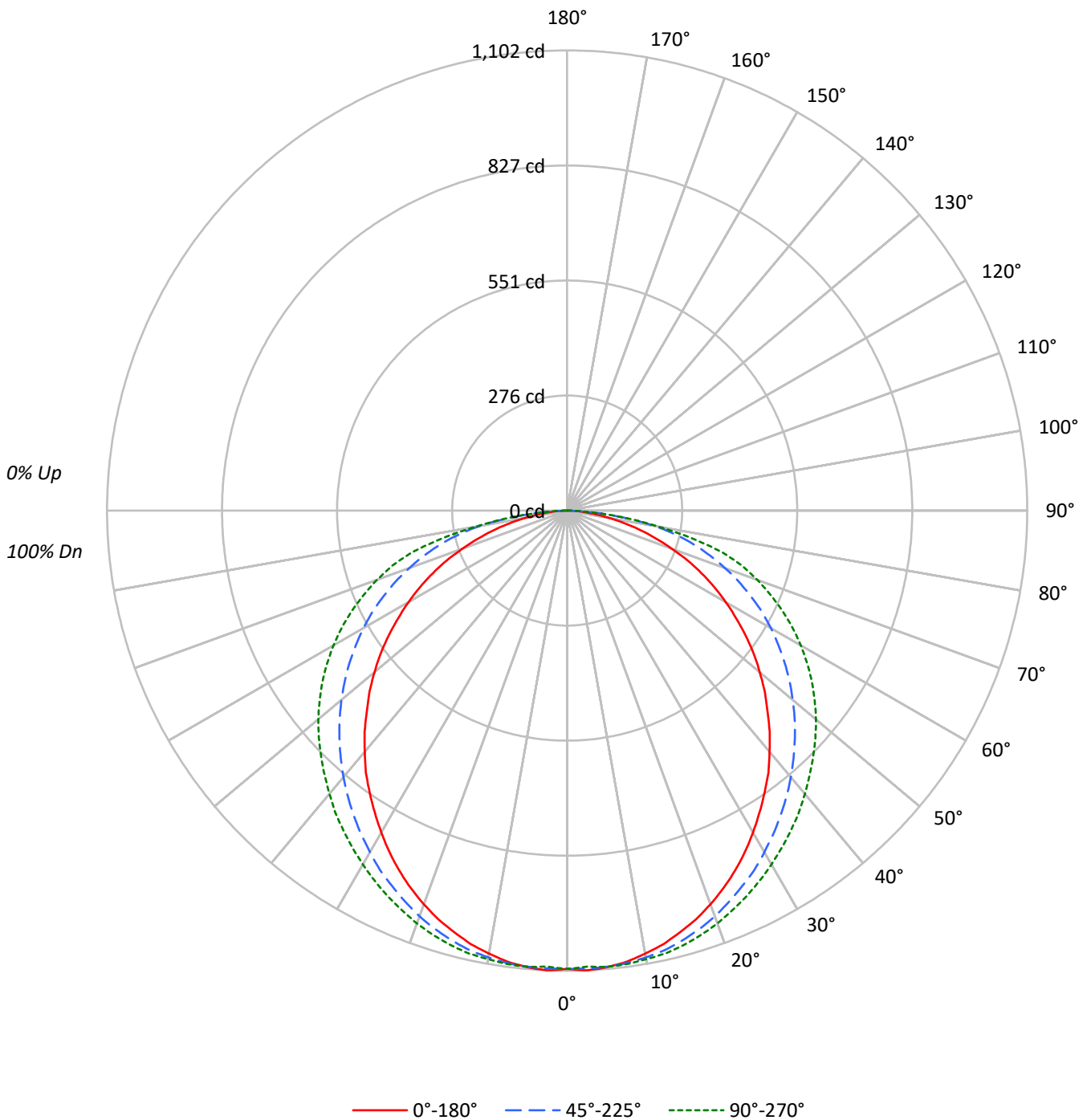
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388665

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

Luminous Intensity Polar Plot





TEST NUMBER: P388665

CATALOG NUMBER: 24CZ2-40VHE-SQR-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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1477	1477	1477
5°	1483	1481	1481
10°	1472	1484	1490
15°	1456	1485	1501
20°	1437	1481	1507
25°	1412	1473	1512
30°	1383	1468	1520
35°	1354	1464	1535
40°	1325	1464	1555
45°	1290	1467	1586
50°	1261	1476	1628
55°	1224	1492	1678
60°	1181	1517	1739
65°	1130	1545	1812
70°	1048	1584	1905
75°	949	1639	1993
80°	800	1643	1713
85°	613	1243	1243



TEST NUMBER: P388665

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.2	3.0
10°-20°	299.8	8.7
20°-30°	455.4	13.3
30°-40°	553.9	16.1
40°-50°	589.7	17.2
50°-60°	561.7	16.4
60°-70°	469.7	13.7
70°-80°	313.2	9.1
80°-90°	86.7	2.5
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°	859.3	25.0
0°-40°	1413.2	41.2
0°-60°	2564.6	74.7
0°-90°	3434.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3434.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1098	1098	1098	1098	1098	
5°	1098	1091	1097	1097	1097	104
15°	1046	1048	1066	1074	1077	295
25°	951	964	992	1009	1018	438
35°	824	848	891	921	934	516
45°	678	714	771	814	834	524
55°	522	567	636	692	716	466
65°	355	407	485	546	569	351
75°	183	240	315	368	383	193
85°	40	74	80	79	80	48
90°	0	0	0	0	0	



TEST NUMBER: P388665

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1097.7	1097.7	1097.7	1097.7	1097.7
2.5°	1102.2	1094.3	1097.7	1097.7	1093.2
5°	1097.7	1090.9	1096.6	1096.6	1096.6
7.5°	1089.8	1084.1	1093.2	1095.4	1095.4
10°	1077.3	1075.0	1086.4	1089.8	1090.9
12.5°	1063.7	1062.6	1078.4	1083.0	1086.4
15°	1045.5	1047.8	1066.0	1073.9	1077.3
17.5°	1026.3	1030.8	1051.2	1062.6	1066.0
20°	1003.6	1010.4	1034.2	1045.5	1052.3
22.5°	978.6	988.8	1013.8	1027.4	1035.3
25°	951.4	963.9	992.2	1009.3	1018.3
27.5°	921.9	937.8	970.7	990.0	999.0
30°	890.2	908.3	944.6	967.3	978.6
32.5°	857.3	878.8	918.5	943.5	957.1
35°	824.4	848.2	891.3	920.8	934.4
37.5°	791.5	815.3	863.0	894.7	911.7
40°	754.1	782.5	833.5	868.6	885.6
42.5°	717.8	748.4	802.9	841.4	859.6
45°	678.1	714.4	771.1	814.2	833.5
47.5°	641.8	678.1	739.4	784.7	806.3
50°	602.2	640.7	705.3	755.2	777.9
52.5°	563.6	603.3	671.3	724.6	747.3
55°	521.6	567.0	636.2	691.7	715.5
57.5°	479.7	528.4	599.9	657.7	681.5
60°	438.9	488.8	563.6	621.4	646.4
62.5°	398.0	447.9	526.2	585.1	609.0
65°	354.9	407.1	485.3	545.5	569.3
67.5°	311.8	366.3	444.5	504.6	527.3
70°	266.5	324.3	402.6	461.5	484.2
72.5°	224.5	282.4	359.5	417.3	438.9
75°	182.6	240.4	315.3	368.5	383.3
77.5°	141.7	199.6	266.5	301.6	305.0
80°	103.2	157.6	212.1	222.3	221.1
82.5°	69.2	117.9	146.3	147.4	150.8
85°	39.7	73.7	80.5	79.4	80.5
87.5°	15.9	26.1	22.7	17.0	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)