

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: P881193

Luminaire Tested: **24CZ2-40VHE-SQR-UNV-B50**

Issue Date: 10/2/2024

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: P881193
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P474669)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 10/2/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40VHE-SQR-UNV-B50
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND SQR LENS

Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

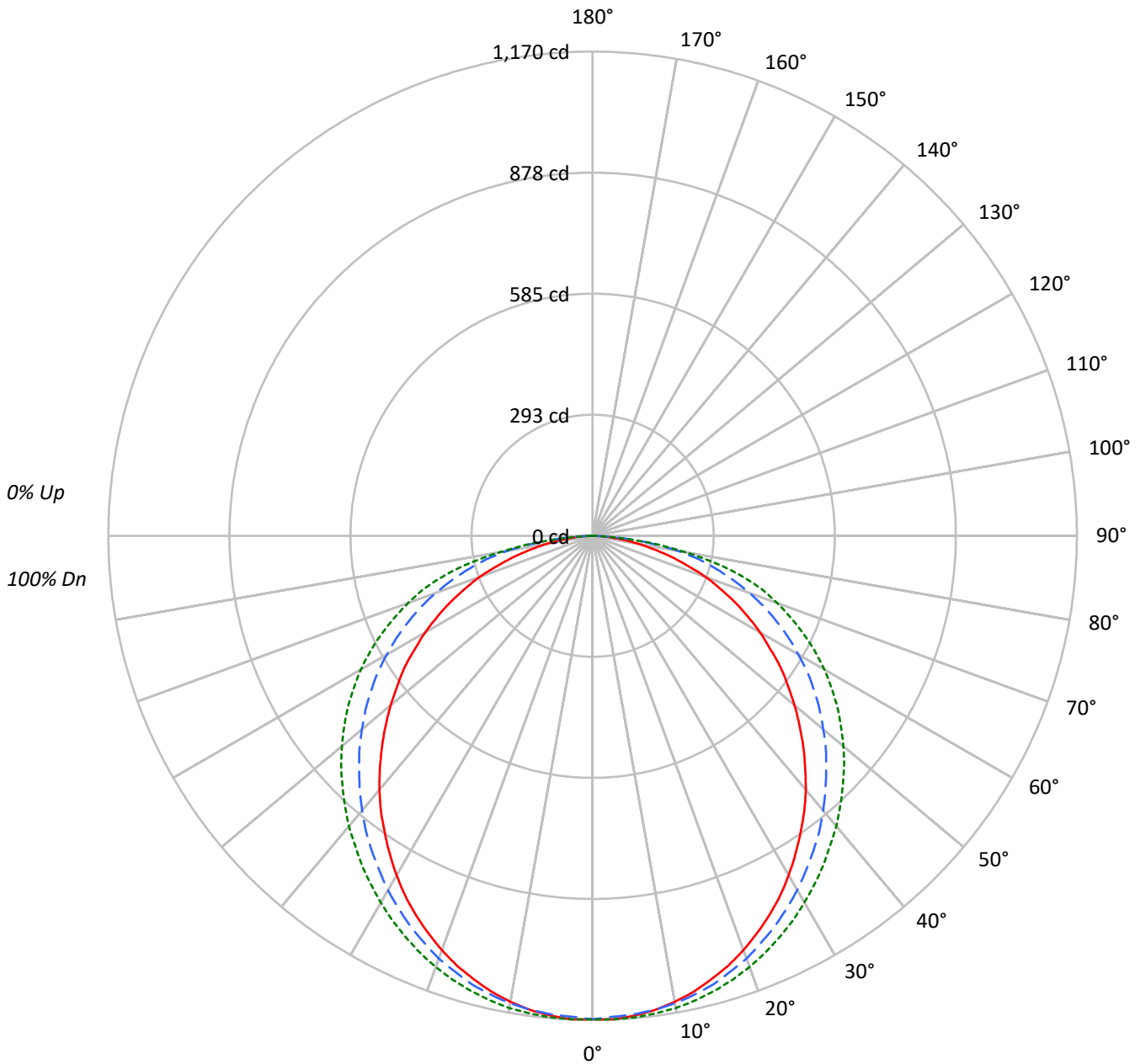
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3557.0 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 30
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: P881193
CATALOG NUMBER: 24CZ2-40VHE-SQR-UNV-B50

Luminous Intensity Polar Plot





TEST NUMBER: P881193

CATALOG NUMBER: 24CZ2-40VHE-SQR-UNV-B50

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								
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82								
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68								
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56								
4	81	69	59	53	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	43	38	49	43	38	36								
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31								
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	27	40	32	27	39	32	27	38	31	27	25								
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1649	1649	1649
5°	1649	1644	1655
10°	1639	1644	1661
15°	1621	1641	1663
20°	1600	1633	1665
25°	1574	1621	1665
30°	1544	1611	1668
35°	1509	1602	1674
40°	1476	1597	1688
45°	1436	1593	1706
50°	1398	1597	1737
55°	1365	1608	1776
60°	1318	1620	1825
65°	1266	1640	1880
70°	1201	1663	1956
75°	1075	1686	2020
80°	905	1691	1833
85°	672	1278	1205



TEST NUMBER: P881193

CATALOG NUMBER: 24CZ2-40VHE-SQR-UNV-B50

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.7	3.1
10°-20°	317.3	8.9
20°-30°	480.4	13.5
30°-40°	581.1	16.3
40°-50°	613.4	17.2
50°-60°	578.4	16.3
60°-70°	476.9	13.4
70°-80°	312.8	8.8
80°-90°	86.0	2.4
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°	908.4	25.5
0°-40°	1489.5	41.9
0°-60°	2681.3	75.4
0°-90°	3557.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3557.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1164	1164	1160	1168	1168	110
15°	1109	1116	1123	1136	1138	313
25°	1011	1023	1041	1063	1069	466
35°	876	898	930	962	972	548
45°	719	752	798	840	855	555
55°	555	594	654	702	722	494
65°	379	424	491	543	563	374
75°	197	248	309	358	370	208
85°	42	72	79	77	74	51
90°	0	0	0	0	0	



TEST NUMBER: P881193

CATALOG NUMBER: 24CZ2-40VHE-SQR-UNV-B50

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1168.4	1168.4	1168.4	<i>1168.4</i>	1168.4
2.5°	<i>1169.5</i>	<i>1168.4</i>	<i>1163.3</i>	<i>1170.0</i>	<i>1169.5</i>
5°	1163.8	1163.8	1160.4	<i>1168.4</i>	1168.4
7.5°	1155.8	1156.4	1155.2	<i>1164.4</i>	1164.4
10°	1143.4	1145.6	1147.3	<i>1157.6</i>	1158.7
12.5°	1128.6	1132.6	1135.9	<i>1148.5</i>	1149.7
15°	1109.2	1115.5	1122.9	<i>1135.9</i>	1138.3
17.5°	1089.3	1096.8	1104.7	<i>1121.8</i>	1124.7
20°	1065.5	1074.0	1087.1	<i>1104.2</i>	1108.7
22.5°	1038.8	1050.7	1064.3	<i>1084.8</i>	1090.5
25°	1011.0	1023.4	1041.1	<i>1062.7</i>	1069.4
27.5°	980.9	995.6	1015.5	<i>1040.5</i>	1047.9
30°	947.3	964.3	988.8	<i>1015.5</i>	1023.4
32.5°	912.0	931.9	959.2	<i>988.8</i>	997.8
35°	875.8	898.4	929.7	<i>961.6</i>	971.8
37.5°	839.8	862.6	899.6	<i>933.1</i>	942.7
40°	801.2	826.2	866.6	<i>902.4</i>	916.1
42.5°	760.3	789.9	832.5	<i>872.3</i>	885.4
45°	719.4	751.8	797.9	<i>840.4</i>	854.7
47.5°	677.9	713.7	764.3	<i>807.5</i>	824.0
50°	636.5	674.5	727.4	<i>773.9</i>	791.0
52.5°	594.4	634.2	691.6	<i>741.0</i>	756.4
55°	554.7	593.8	653.5	<i>702.4</i>	721.7
57.5°	508.6	552.9	616.0	<i>665.5</i>	684.2
60°	467.1	510.4	574.0	<i>626.3</i>	646.7
62.5°	422.2	466.5	533.6	<i>585.9</i>	605.8
65°	379.0	424.5	491.0	<i>543.3</i>	563.1
67.5°	332.5	380.2	448.4	<i>499.0</i>	518.3
70°	291.0	335.9	402.9	<i>454.7</i>	474.0
72.5°	240.4	291.6	355.7	<i>406.9</i>	427.9
75°	197.2	247.7	309.1	<i>358.1</i>	370.5
77.5°	151.7	202.3	263.1	<i>294.9</i>	303.4
80°	111.4	159.1	208.0	<i>225.1</i>	225.5
82.5°	75.0	117.1	145.0	<i>153.5</i>	152.3
85°	41.5	71.6	78.9	<i>76.7</i>	74.4
87.5°	17.1	23.8	19.3	<i>13.6</i>	10.8
90°	0.0	0.0	0.0	<i>0.0</i>	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)