

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: P388782

Luminaire Tested: **24CZ2-50HE-SQR-UNV-L940-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: P388782
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: 24CZ2-50HE-SQR-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4019.0 lumens
Efficiency: N/A
Efficacy: 104.1 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

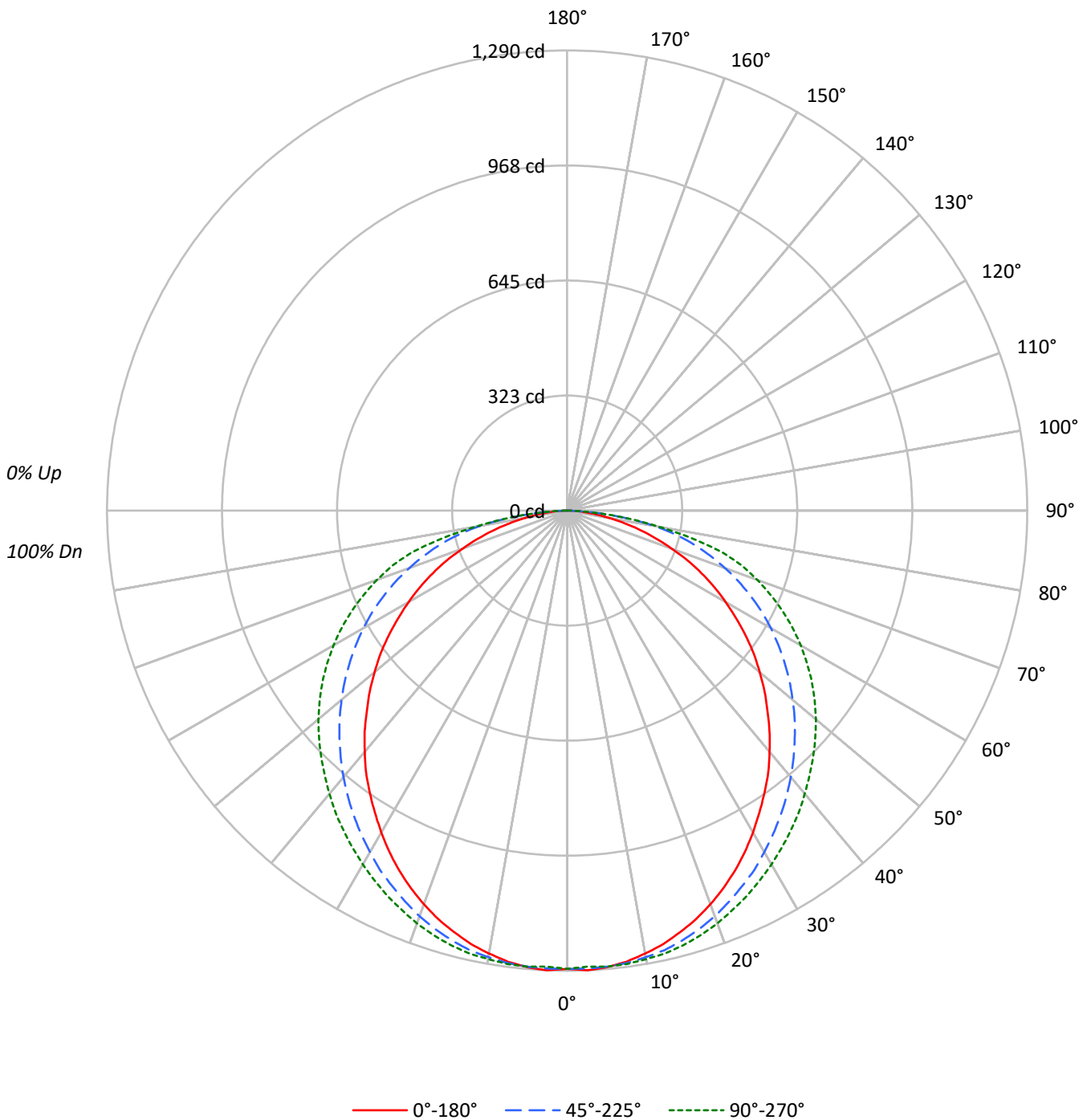
Input Watts (W): 38.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388782

CATALOG NUMBER: 24CZ2-50HE-SQR-UNV-L940-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388782

CATALOG NUMBER: 24CZ2-50HE-SQR-UNV-L940-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	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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67					67			
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47					47			
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41					41			
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35					35			
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28					28			
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25					25			
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1729	1729	1729
5°	1735	1733	1733
10°	1723	1737	1744
15°	1704	1738	1756
20°	1682	1733	1763
25°	1653	1724	1769
30°	1619	1718	1779
35°	1585	1713	1796
40°	1550	1713	1821
45°	1510	1717	1856
50°	1475	1728	1906
55°	1432	1746	1964
60°	1382	1775	2036
65°	1323	1808	2121
70°	1227	1853	2229
75°	1111	1918	2332
80°	936	1923	2005
85°	716	1454	1454



TEST NUMBER: P388782

CATALOG NUMBER: 24CZ2-50HE-SQR-UNV-L940-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.9	3.0
10°-20°	350.8	8.7
20°-30°	532.9	13.3
30°-40°	648.2	16.1
40°-50°	690.1	17.2
50°-60°	657.3	16.4
60°-70°	549.7	13.7
70°-80°	366.5	9.1
80°-90°	101.4	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°	1005.7	25.0
0°-40°	1653.9	41.2
0°-60°	3001.4	74.7
0°-90°	4019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4019.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1285	1285	1285	1285	1285	
5°	1285	1277	1283	1283	1283	122
15°	1224	1226	1248	1257	1261	345
25°	1114	1128	1161	1181	1192	513
35°	965	993	1043	1078	1094	604
45°	794	836	902	953	975	614
55°	610	664	744	810	837	546
65°	415	476	568	638	666	410
75°	214	281	369	431	449	226
85°	46	86	94	93	94	56
90°	0	0	0	0	0	



TEST NUMBER: P388782

CATALOG NUMBER: 24CZ2-50HE-SQR-UNV-L940-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1284.7	1284.7	1284.7	1284.7	1284.7
2.5°	1290.0	1280.7	1284.7	1284.7	1279.4
5°	1284.7	1276.7	1283.3	1283.3	1283.3
7.5°	1275.4	1268.7	1279.4	1282.0	1282.0
10°	1260.8	1258.1	1271.4	1275.4	1276.7
12.5°	1244.9	1243.5	1262.1	1267.4	1271.4
15°	1223.6	1226.3	1247.5	1256.8	1260.8
17.5°	1201.1	1206.4	1230.3	1243.5	1247.5
20°	1174.5	1182.5	1210.3	1223.6	1231.6
22.5°	1145.3	1157.3	1186.5	1202.4	1211.7
25°	1113.5	1128.1	1161.2	1181.2	1191.8
27.5°	1079.0	1097.5	1136.0	1158.6	1169.2
30°	1041.8	1063.0	1105.5	1132.0	1145.3
32.5°	1003.3	1028.5	1075.0	1104.2	1120.1
35°	964.8	992.7	1043.1	1077.6	1093.6
37.5°	926.3	954.2	1010.0	1047.1	1067.0
40°	882.5	915.7	975.4	1016.6	1036.5
42.5°	840.1	875.9	939.6	984.7	1006.0
45°	793.6	836.1	902.5	952.9	975.4
47.5°	751.2	793.6	865.3	918.4	943.6
50°	704.7	749.8	825.5	883.9	910.4
52.5°	659.6	706.0	785.7	848.0	874.6
55°	610.5	663.6	744.5	809.6	837.4
57.5°	561.4	618.4	702.1	769.7	797.6
60°	513.6	572.0	659.6	727.3	756.5
62.5°	465.8	524.2	615.8	684.8	712.7
65°	415.4	476.4	568.0	638.4	666.2
67.5°	365.0	428.7	520.2	590.6	617.1
70°	311.9	379.6	471.1	540.1	566.7
72.5°	262.8	330.5	420.7	488.4	513.6
75°	213.7	281.4	368.9	431.3	448.6
77.5°	165.9	233.6	311.9	353.0	357.0
80°	120.8	184.5	248.2	260.1	258.8
82.5°	81.0	138.0	171.2	172.5	176.5
85°	46.4	86.3	94.2	92.9	94.2
87.5°	18.6	30.5	26.5	19.9	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)