

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: P387390

Luminaire Tested: **14CZ2-20-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: P387390
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)
Test Lab: INNOVATIONS CENTER(G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-20-SQR-UNV-L940-CD1-SDWPD1-U
Description: 1x4 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: 1607.3 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

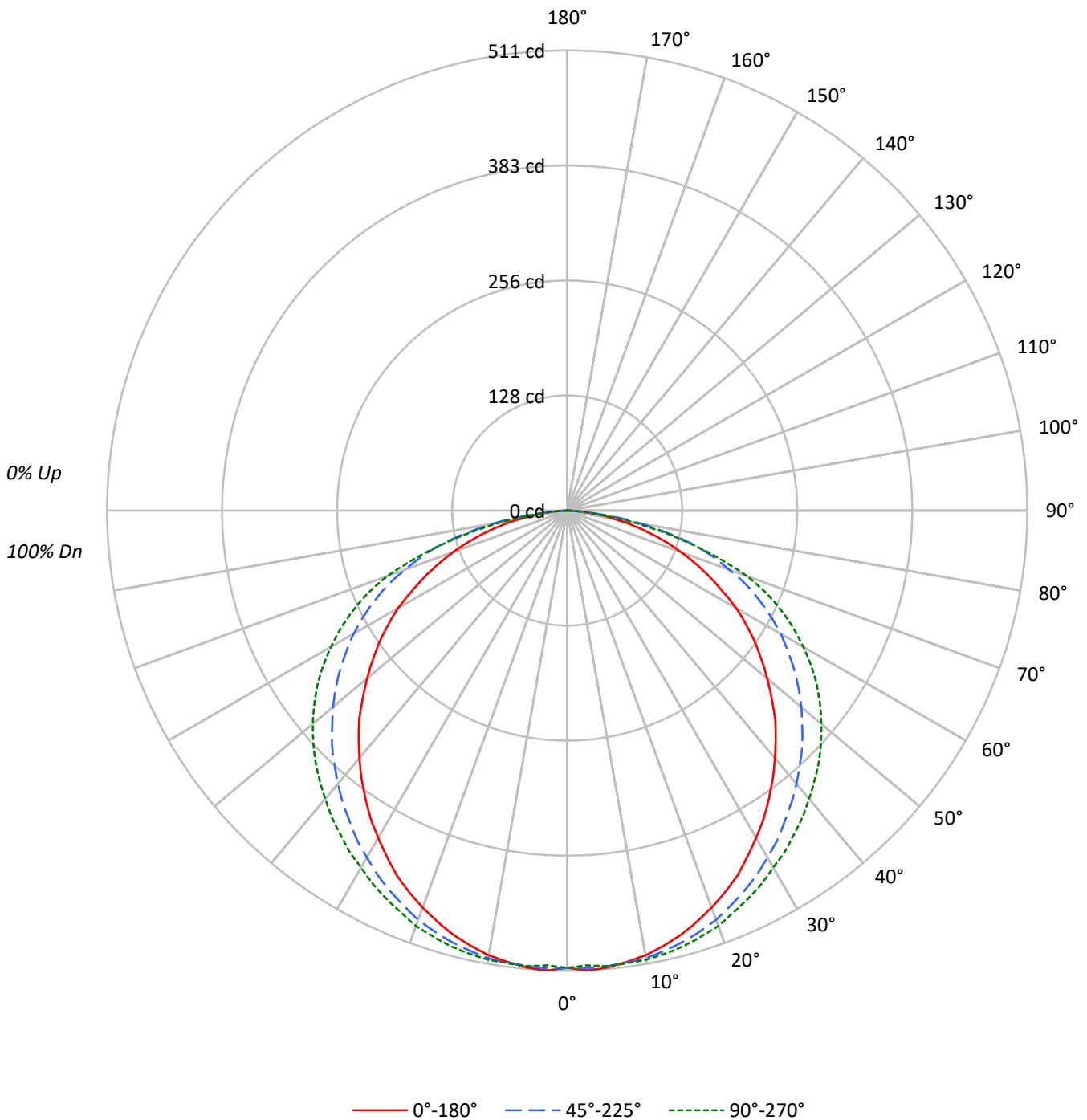
Input Watts (W): 16.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P387390

CATALOG NUMBER: 14CZ2-20-SQR-UNV-L940-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P387390

CATALOG NUMBER: 14CZ2-20-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	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	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	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°	1367	1367	1367
5°	1376	1372	1372
10°	1370	1379	1383
15°	1359	1381	1395
20°	1343	1385	1406
25°	1328	1383	1412
30°	1304	1382	1422
35°	1283	1384	1442
40°	1261	1391	1468
45°	1243	1406	1504
50°	1214	1421	1543
55°	1194	1444	1589
60°	1168	1474	1631
65°	1114	1501	1671
70°	1058	1504	1670
75°	969	1499	1474
80°	829	1280	1142
85°	651	726	426



TEST NUMBER: P387390

CATALOG NUMBER: 14CZ2-20-SQR-UNV-L940-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.3	3.0
10°-20°	139.4	8.7
20°-30°	213.2	13.3
30°-40°	261.4	16.3
40°-50°	281.1	17.5
50°-60°	270.1	16.8
60°-70°	224.9	14.0
70°-80°	138.1	8.6
80°-90°	30.8	1.9
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°	401.0	24.9
0°-40°	662.3	41.2
0°-60°	1213.6	75.5
0°-90°	1607.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1607.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	508	508	508	508	508	
5°	510	505	508	508	508	48
15°	488	486	496	499	501	137
25°	447	451	466	472	476	206
35°	390	400	421	433	439	244
45°	326	341	369	386	395	251
55°	254	276	308	329	339	227
65°	175	202	236	255	262	173
75°	93	122	144	143	142	99
85°	21	32	24	16	14	25
90°	0	0	0	0	0	



TEST NUMBER: P387390

CATALOG NUMBER: 14CZ2-20-SQR-UNV-L940-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	507.9	507.9	507.9	507.9	507.9
2.5°	511.2	506.3	508.7	507.9	505.5
5°	509.5	504.7	507.9	507.9	507.9
7.5°	505.5	501.4	506.3	507.1	507.1
10°	501.4	498.2	504.7	505.5	506.3
12.5°	495.0	492.5	500.6	502.3	503.9
15°	487.7	486.0	495.8	499.0	500.6
17.5°	478.8	479.6	490.1	494.1	495.8
20°	469.0	471.5	483.6	487.7	490.9
22.5°	458.5	461.7	474.7	479.6	482.8
25°	447.2	451.2	465.8	471.5	475.5
27.5°	433.4	439.9	456.1	463.4	467.4
30°	419.6	426.9	444.7	453.6	457.7
32.5°	405.9	414.0	434.2	443.1	449.6
35°	390.5	400.2	421.2	432.6	439.1
37.5°	375.1	386.4	409.1	422.1	429.3
40°	358.9	371.0	396.1	410.7	418.0
42.5°	342.7	356.4	382.4	398.6	406.7
45°	326.5	341.0	369.4	386.4	395.3
47.5°	307.8	325.7	354.0	373.4	382.4
50°	290.0	309.5	339.4	359.7	368.6
52.5°	272.2	292.4	324.0	345.1	354.0
55°	254.4	276.2	307.8	328.9	338.6
57.5°	235.7	258.4	290.8	312.7	321.6
60°	217.1	240.6	273.8	294.1	303.0
62.5°	195.2	222.8	255.2	275.4	283.5
65°	175.0	201.7	235.7	255.2	262.5
67.5°	154.7	182.3	215.5	233.3	239.8
70°	134.5	162.0	191.2	208.2	212.2
72.5°	114.2	141.8	169.3	179.0	177.4
75°	93.2	121.5	144.2	143.4	141.8
77.5°	72.9	100.5	114.2	108.6	106.1
80°	53.5	80.2	82.6	77.0	73.7
82.5°	36.5	57.5	51.8	45.4	42.1
85°	21.1	31.6	23.5	16.2	13.8
87.5°	8.9	8.1	2.4	2.4	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)