

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: P387680

Luminaire Tested: **22CZ2-20HE-SQR-UNV-L940-CD1-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: P387680
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-SQR-UNV-L940-CD1-U
Description: 2x2 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: 1676.9 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

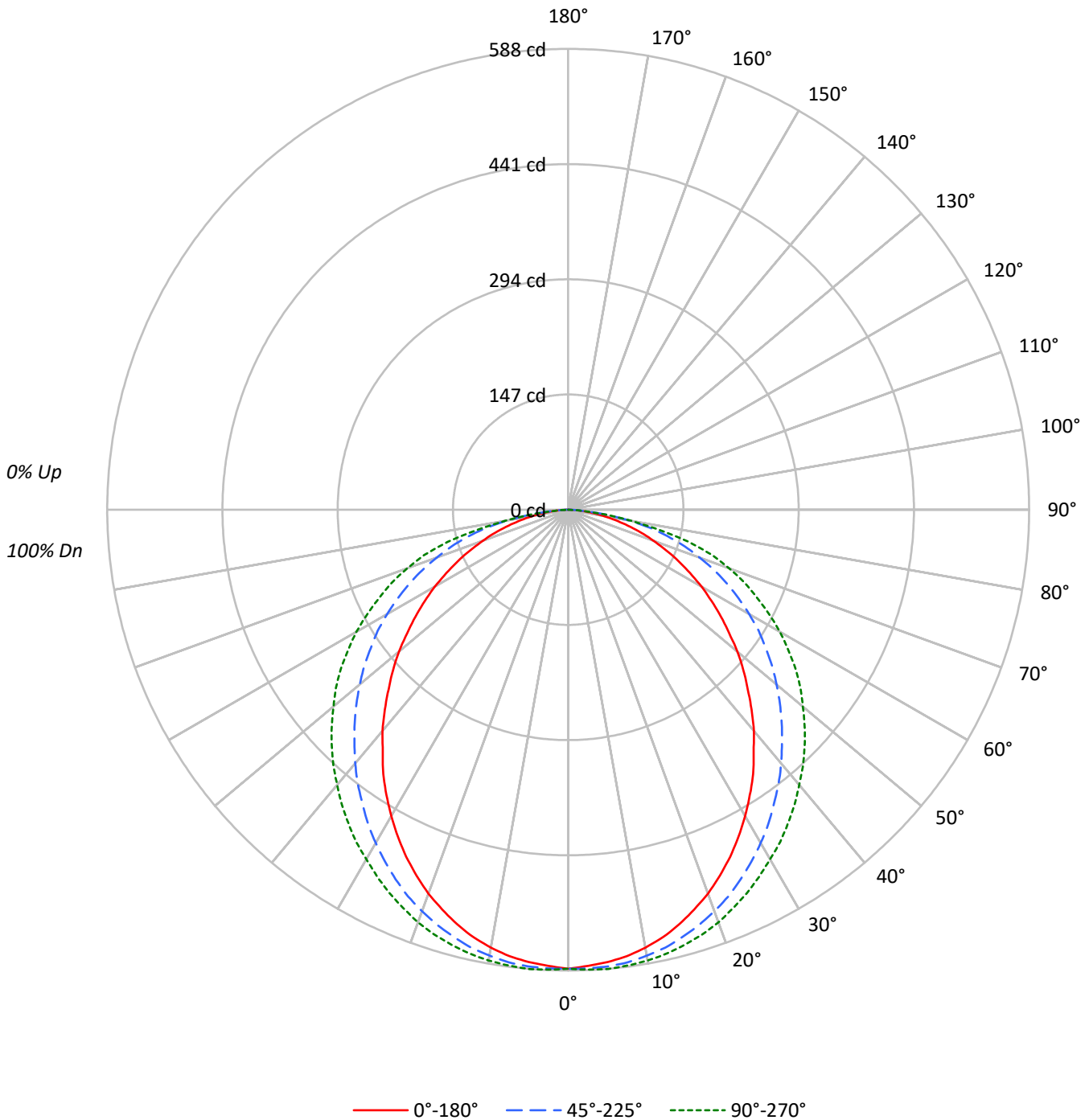
Input Watts (W): 16
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P387680

CATALOG NUMBER: 22CZ2-20HE-SQR-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P387680

CATALOG NUMBER: 22CZ2-20HE-SQR-UNV-L940-CD1-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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1576	1576	1576
5°	1565	1580	1589
10°	1551	1579	1596
15°	1526	1572	1601
20°	1493	1561	1605
25°	1451	1545	1602
30°	1402	1526	1600
35°	1352	1503	1605
40°	1294	1485	1610
45°	1233	1466	1623
50°	1179	1453	1636
55°	1117	1441	1662
60°	1058	1435	1679
65°	988	1424	1692
70°	908	1403	1716
75°	819	1365	1655
80°	704	1209	1246
85°	565	713	565



TEST NUMBER: P387680

CATALOG NUMBER: 22CZ2-20HE-SQR-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.5	3.3
10°-20°	158.8	9.5
20°-30°	238.5	14.2
30°-40°	284.4	17.0
40°-50°	294.0	17.5
50°-60°	270.3	16.1
60°-70°	215.2	12.8
70°-80°	131.5	7.8
80°-90°	28.6	1.7
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°	452.8	27.0
0°-40°	737.2	44.0
0°-60°	1301.6	77.6
0°-90°	1676.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1676.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	586	586	586	586	586	
5°	579	581	585	587	588	55
15°	548	554	564	572	575	154
25°	489	501	520	535	540	225
35°	412	429	458	482	489	257
45°	324	347	385	416	427	250
55°	238	264	307	342	354	213
65°	155	182	224	255	266	154
75°	79	102	131	154	159	84
85°	18	22	23	20	18	21
90°	0	0	0	0	0	



TEST NUMBER: P387680

CATALOG NUMBER: 22CZ2-20HE-SQR-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	585.8	585.8	585.8	585.8	585.8
2.5°	582.6	583.4	585.8	587.4	587.4
5°	579.4	581.0	585.0	587.4	588.2
7.5°	574.6	577.0	582.6	585.8	586.6
10°	567.5	570.7	577.8	582.6	584.2
12.5°	558.7	563.5	572.3	578.6	580.2
15°	547.6	553.9	564.3	572.3	574.6
17.5°	534.8	542.8	555.5	565.1	568.3
20°	521.3	529.3	545.2	556.3	560.3
22.5°	505.4	515.7	534.0	546.8	550.0
25°	488.7	500.6	520.5	534.8	539.6
27.5°	470.4	484.7	506.2	523.7	527.7
30°	451.3	466.4	491.1	510.2	514.9
32.5°	431.4	448.9	475.2	496.6	503.0
35°	411.5	429.0	457.6	481.5	488.7
37.5°	388.4	409.1	440.9	465.6	474.4
40°	368.5	388.4	422.6	449.7	458.4
42.5°	346.2	367.7	403.5	433.0	443.3
45°	323.9	347.0	385.2	416.3	426.6
47.5°	303.2	326.3	366.1	398.7	409.1
50°	281.7	305.6	347.0	380.4	390.8
52.5°	258.7	284.9	327.9	361.3	373.3
55°	238.0	264.2	307.2	342.2	354.2
57.5°	216.5	243.5	288.1	321.5	332.7
60°	196.6	222.9	266.6	299.3	312.0
62.5°	175.1	202.2	245.1	277.0	288.9
65°	155.2	181.5	223.6	254.7	265.8
67.5°	135.3	161.6	201.4	230.8	243.5
70°	115.4	141.7	178.3	206.9	218.1
72.5°	97.9	121.0	156.0	182.3	192.6
75°	78.8	101.9	131.3	154.4	159.2
77.5°	61.3	82.0	106.7	117.0	118.6
80°	45.4	61.3	78.0	80.4	80.4
82.5°	30.2	42.2	48.5	49.3	48.5
85°	18.3	22.3	23.1	19.9	18.3
87.5°	6.4	6.4	4.0	2.4	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)