

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: P387703

Luminaire Tested: **22CZ2-20VHE-SQR-UNV-L940-CD1-SWPD1-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: P387703
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: 22CZ2-20VHE-SQR-UNV-L940-CD1-SWPD1-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: 1626.9 lumens
Efficiency: N/A
Efficacy: 114.6 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

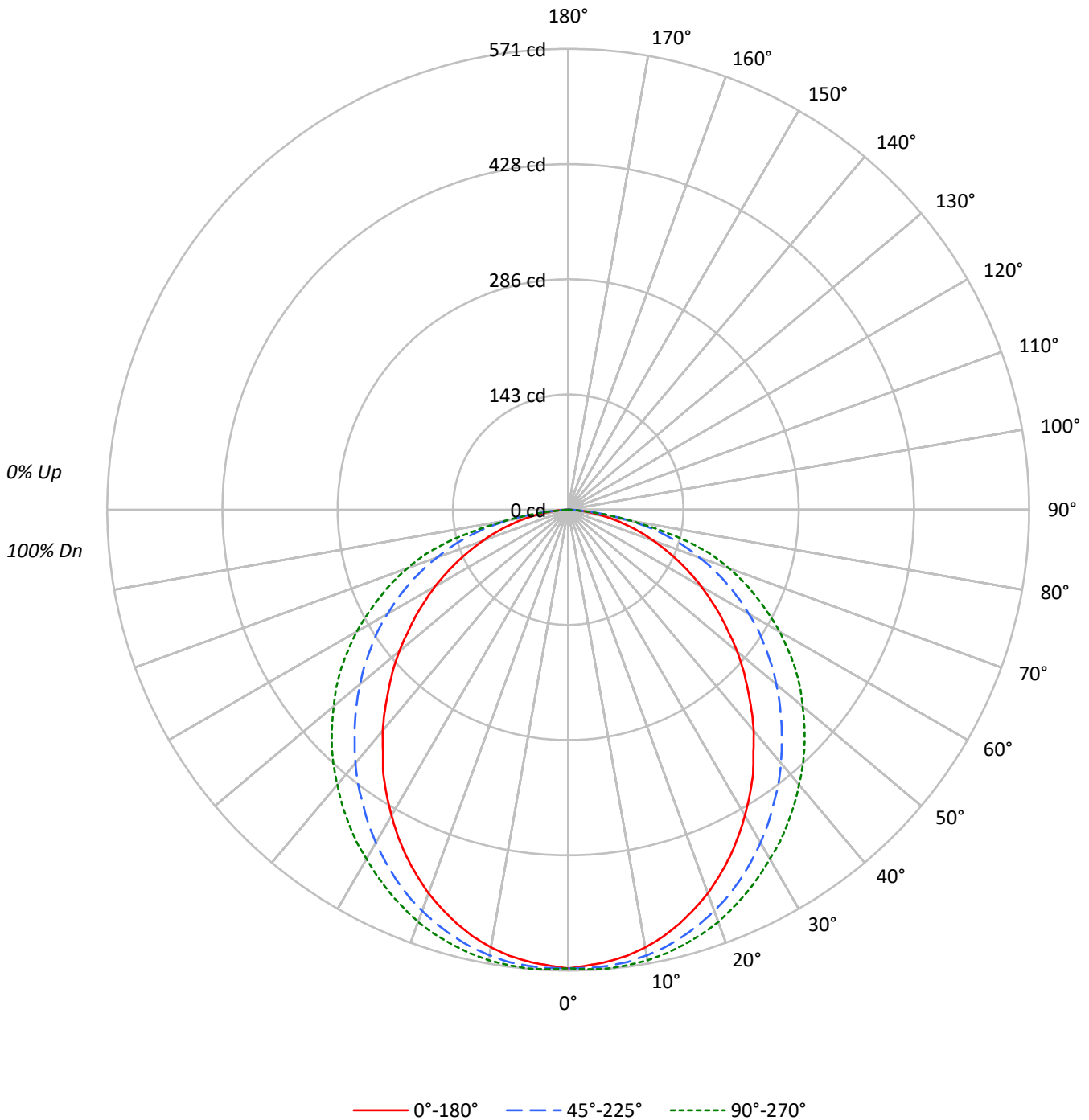
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P387703

CATALOG NUMBER: 22CZ2-20VHE-SQR-UNV-L940-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P387703

CATALOG NUMBER: 22CZ2-20VHE-SQR-UNV-L940-CD1-SWPD1-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°	1529	1529	1529
5°	1518	1533	1541
10°	1505	1532	1549
15°	1480	1525	1553
20°	1448	1515	1557
25°	1408	1499	1554
30°	1360	1480	1552
35°	1311	1459	1557
40°	1256	1440	1563
45°	1196	1422	1575
50°	1144	1410	1587
55°	1083	1399	1612
60°	1026	1392	1629
65°	959	1382	1642
70°	881	1361	1665
75°	794	1325	1605
80°	682	1173	1209
85°	550	692	550



TEST NUMBER: P387703

CATALOG NUMBER: 22CZ2-20VHE-SQR-UNV-L940-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	3.3
10°-20°	154.0	9.5
20°-30°	231.4	14.2
30°-40°	275.9	17.0
40°-50°	285.3	17.5
50°-60°	262.3	16.1
60°-70°	208.8	12.8
70°-80°	127.6	7.8
80°-90°	27.7	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°	439.3	27.0
0°-40°	715.2	44.0
0°-60°	1262.8	77.6
0°-90°	1626.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1626.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	562	564	568	570	571	53
15°	531	537	548	555	558	150
25°	474	486	505	519	524	218
35°	399	416	444	467	474	249
45°	314	337	374	404	414	243
55°	231	256	298	332	344	207
65°	151	176	217	247	258	149
75°	76	99	127	150	154	81
85°	18	22	22	19	18	20
90°	0	0	0	0	0	



TEST NUMBER: P387703

CATALOG NUMBER: 22CZ2-20VHE-SQR-UNV-L940-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	568.3	568.3	568.3	568.3	568.3
2.5°	565.2	566.0	568.3	569.9	569.9
5°	562.1	563.7	567.5	569.9	570.6
7.5°	557.5	559.8	565.2	568.3	569.1
10°	550.6	553.6	560.6	565.2	566.8
12.5°	542.1	546.7	555.2	561.4	562.9
15°	531.3	537.4	547.5	555.2	557.5
17.5°	518.9	526.6	539.0	548.2	551.3
20°	505.8	513.5	528.9	539.7	543.6
22.5°	490.3	500.4	518.1	530.5	533.6
25°	474.1	485.7	505.0	518.9	523.5
27.5°	456.4	470.3	491.1	508.1	511.9
30°	437.8	452.5	476.4	495.0	499.6
32.5°	418.5	435.5	461.0	481.8	488.0
35°	399.2	416.2	444.0	467.2	474.1
37.5°	376.8	396.9	427.8	451.7	460.2
40°	357.5	376.8	410.0	436.3	444.8
42.5°	335.9	356.7	391.5	420.1	430.1
45°	314.3	336.7	373.7	403.8	413.9
47.5°	294.2	316.6	355.2	386.9	396.9
50°	273.3	296.5	336.7	369.1	379.1
52.5°	251.0	276.4	318.1	350.6	362.1
55°	230.9	256.4	298.1	332.0	343.6
57.5°	210.0	236.3	279.5	312.0	322.8
60°	190.7	216.2	258.7	290.3	302.7
62.5°	169.9	196.1	237.8	268.7	280.3
65°	150.6	176.1	217.0	247.1	257.9
67.5°	131.3	156.8	195.4	223.9	236.3
70°	112.0	137.4	173.0	200.8	211.6
72.5°	95.0	117.4	151.3	176.8	186.9
75°	76.4	98.8	127.4	149.8	154.4
77.5°	59.5	79.5	103.5	113.5	115.1
80°	44.0	59.5	75.7	78.0	78.0
82.5°	29.3	40.9	47.1	47.9	47.1
85°	17.8	21.6	22.4	19.3	17.8
87.5°	6.2	6.2	3.9	2.3	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)