

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: P387704

Luminaire Tested: **22CZ2-20VHE-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: P387704
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-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: 1647.3 lumens
Efficiency: N/A
Efficacy: 116.0 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

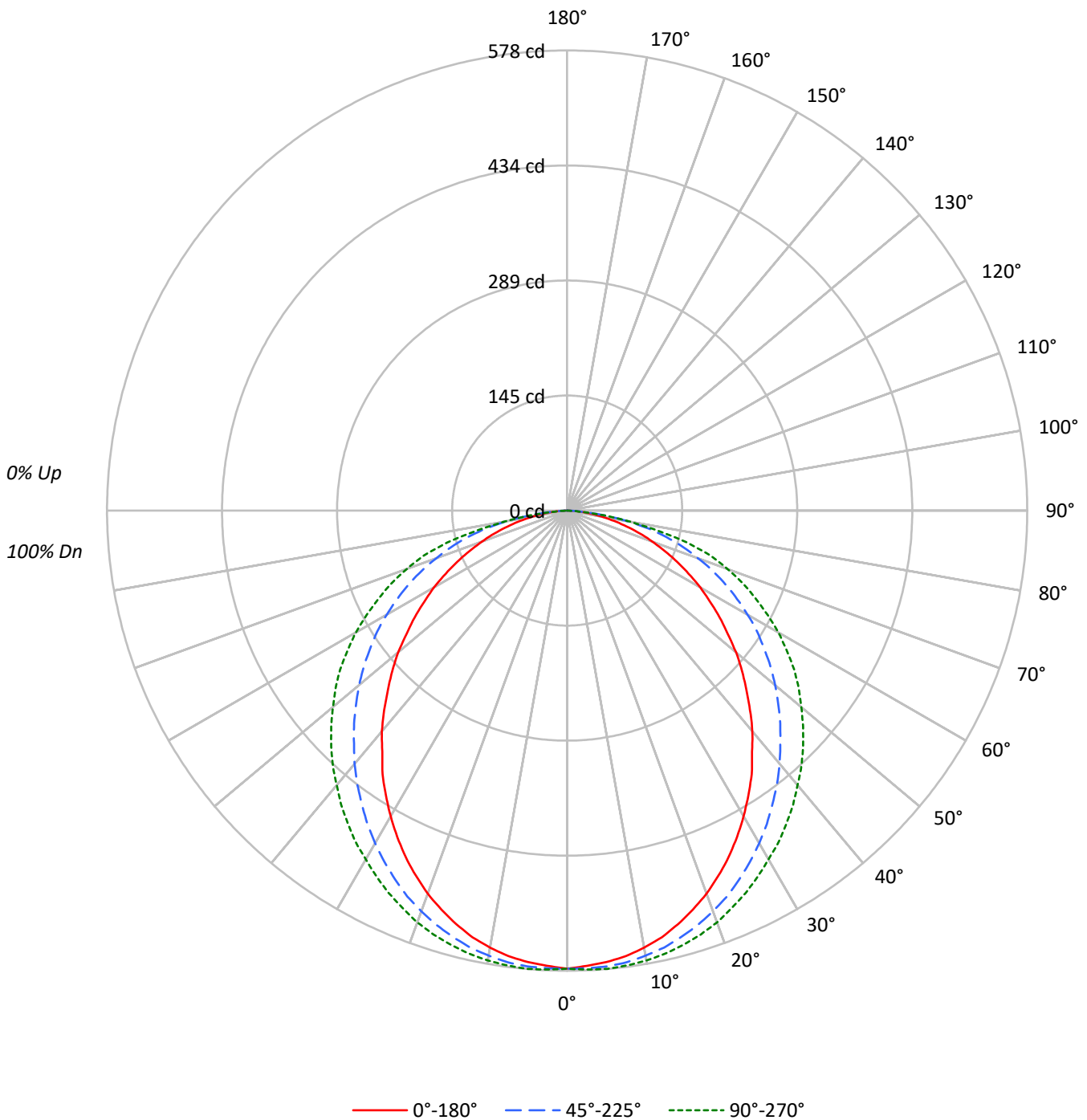
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1548	1548	1548
5°	1538	1552	1561
10°	1523	1551	1568
15°	1499	1544	1573
20°	1466	1534	1576
25°	1425	1518	1574
30°	1377	1499	1572
35°	1328	1477	1577
40°	1272	1459	1582
45°	1211	1440	1595
50°	1159	1427	1607
55°	1097	1416	1632
60°	1039	1410	1650
65°	971	1399	1663
70°	892	1378	1685
75°	805	1341	1626
80°	691	1187	1224
85°	556	701	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.6	3.3
10°-20°	156.0	9.5
20°-30°	234.3	14.2
30°-40°	279.4	17.0
40°-50°	288.9	17.5
50°-60°	265.6	16.1
60°-70°	211.4	12.8
70°-80°	129.2	7.8
80°-90°	28.1	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°	444.8	27.0
0°-40°	724.2	44.0
0°-60°	1278.6	77.6
0°-90°	1647.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1647.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	575	575	575	575	575	
5°	569	571	575	577	578	54
15°	538	544	554	562	564	151
25°	480	492	511	525	530	221
35°	404	421	450	473	480	252
45°	318	341	378	409	419	246
55°	234	260	302	336	348	209
65°	152	178	220	250	261	151
75°	77	100	129	152	156	82
85°	18	22	23	20	18	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	575.4	575.4	575.4	575.4	575.4
2.5°	572.3	573.1	575.4	577.0	577.0
5°	569.2	570.8	574.7	577.0	577.8
7.5°	564.5	566.8	572.3	575.4	576.2
10°	557.5	560.6	567.6	572.3	573.9
12.5°	548.9	553.5	562.2	568.4	570.0
15°	537.9	544.2	554.3	562.2	564.5
17.5°	525.4	533.2	545.7	555.1	558.2
20°	512.1	519.9	535.6	546.5	550.4
22.5°	496.5	506.6	524.6	537.1	540.3
25°	480.1	491.8	511.3	525.4	530.1
27.5°	462.1	476.1	497.3	514.5	518.4
30°	443.3	458.2	482.4	501.2	505.9
32.5°	423.8	441.0	466.8	487.9	494.1
35°	404.2	421.4	449.6	473.0	480.1
37.5°	381.5	401.9	433.1	457.4	466.0
40°	362.0	381.5	415.2	441.7	450.3
42.5°	340.1	361.2	396.4	425.3	435.5
45°	318.2	340.9	378.4	408.9	419.1
47.5°	297.9	320.6	359.7	391.7	401.9
50°	276.8	300.2	340.9	373.7	383.9
52.5°	254.1	279.9	322.1	355.0	366.7
55°	233.8	259.6	301.8	336.2	347.9
57.5°	212.7	239.2	283.0	315.9	326.8
60°	193.1	218.9	261.9	294.0	306.5
62.5°	172.0	198.6	240.8	272.1	283.8
65°	152.5	178.3	219.7	250.2	261.1
67.5°	132.9	158.7	197.8	226.7	239.2
70°	113.4	139.2	175.1	203.3	214.2
72.5°	96.2	118.8	153.2	179.0	189.2
75°	77.4	100.1	129.0	151.7	156.4
77.5°	60.2	80.5	104.8	114.9	116.5
80°	44.6	60.2	76.6	79.0	79.0
82.5°	29.7	41.4	47.7	48.5	47.7
85°	18.0	21.9	22.7	19.5	18.0
87.5°	6.3	6.3	3.9	2.3	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)