

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: P387697

Luminaire Tested: **22CZ2-20VHE-SQR-UNV-L930-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: P387697
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-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1571.4 lumens
Efficiency: N/A
Efficacy: 110.7 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

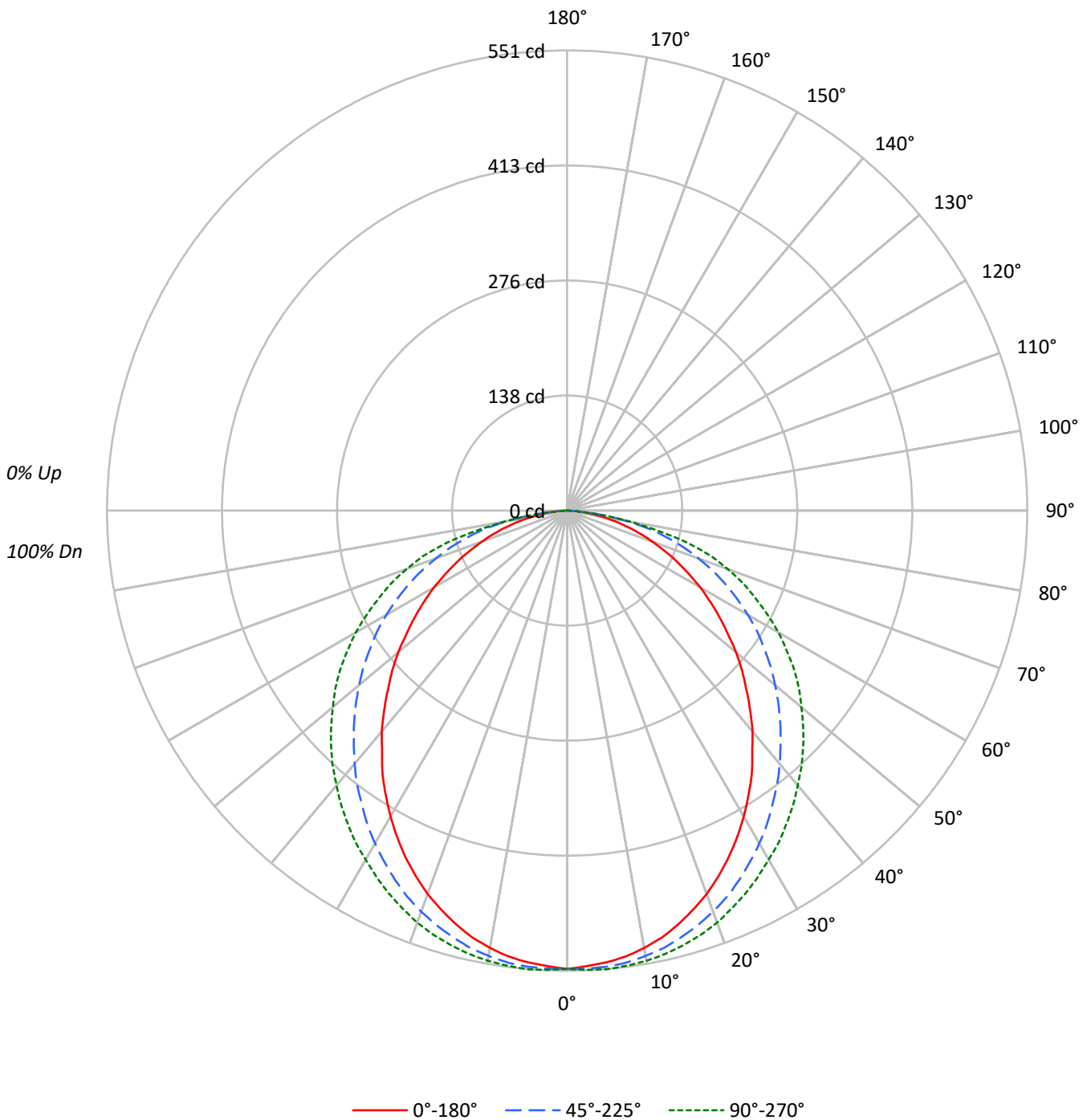
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1477	1477	1477
5°	1467	1481	1489
10°	1453	1480	1496
15°	1429	1473	1500
20°	1399	1463	1504
25°	1360	1448	1502
30°	1314	1430	1499
35°	1267	1409	1504
40°	1213	1391	1509
45°	1155	1374	1521
50°	1105	1361	1533
55°	1046	1351	1557
60°	991	1345	1574
65°	926	1335	1586
70°	851	1315	1608
75°	767	1280	1551
80°	659	1133	1167
85°	531	667	531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.0	3.3
10°-20°	148.8	9.5
20°-30°	223.5	14.2
30°-40°	266.5	17.0
40°-50°	275.6	17.5
50°-60°	253.3	16.1
60°-70°	201.7	12.8
70°-80°	123.2	7.8
80°-90°	26.8	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°	424.3	27.0
0°-40°	690.8	44.0
0°-60°	1219.7	77.6
0°-90°	1571.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1571.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	549	549	549	549	549	
5°	543	544	548	550	551	51
15°	513	519	529	536	538	145
25°	458	469	488	501	506	211
35°	386	402	429	451	458	241
45°	304	325	361	390	400	235
55°	223	248	288	321	332	199
65°	145	170	210	239	249	144
75°	74	96	123	145	149	79
85°	17	21	22	19	17	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	548.9	548.9	548.9	548.9	548.9
2.5°	545.9	546.7	548.9	550.4	550.4
5°	543.0	544.5	548.2	550.4	551.2
7.5°	538.5	540.7	545.9	548.9	549.7
10°	531.8	534.8	541.5	545.9	547.4
12.5°	523.6	528.0	536.2	542.2	543.7
15°	513.1	519.1	528.8	536.2	538.5
17.5°	501.2	508.7	520.6	529.5	532.5
20°	488.5	496.0	510.9	521.3	525.1
22.5°	473.6	483.3	500.4	512.4	515.4
25°	457.9	469.1	487.8	501.2	505.7
27.5°	440.8	454.2	474.3	490.8	494.5
30°	422.9	437.1	460.2	478.1	482.5
32.5°	404.2	420.6	445.3	465.4	471.4
35°	385.6	402.0	428.8	451.2	457.9
37.5°	364.0	383.4	413.2	436.3	444.5
40°	345.3	364.0	396.0	421.4	429.6
42.5°	324.4	344.6	378.1	405.7	415.4
45°	303.6	325.2	361.0	390.1	399.8
47.5°	284.2	305.8	343.1	373.7	383.4
50°	264.0	286.4	325.2	356.5	366.2
52.5°	242.4	267.0	307.3	338.6	349.8
55°	223.0	247.6	287.9	320.7	331.9
57.5°	202.9	228.2	270.0	301.3	311.8
60°	184.2	208.8	249.9	280.4	292.4
62.5°	164.1	189.4	229.7	259.5	270.7
65°	145.4	170.0	209.6	238.7	249.1
67.5°	126.8	151.4	188.7	216.3	228.2
70°	108.1	132.8	167.1	193.9	204.4
72.5°	91.7	113.4	146.2	170.8	180.5
75°	73.8	95.5	123.1	144.7	149.2
77.5°	57.4	76.8	99.9	109.6	111.1
80°	42.5	57.4	73.1	75.3	75.3
82.5°	28.3	39.5	45.5	46.2	45.5
85°	17.2	20.9	21.6	18.6	17.2
87.5°	6.0	6.0	3.7	2.2	0.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)