

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: P388200

Luminaire Tested: **22CZ2-20VHE-UNV-L935-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: P388200
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20VHE-UNV-L935-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1656.4 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

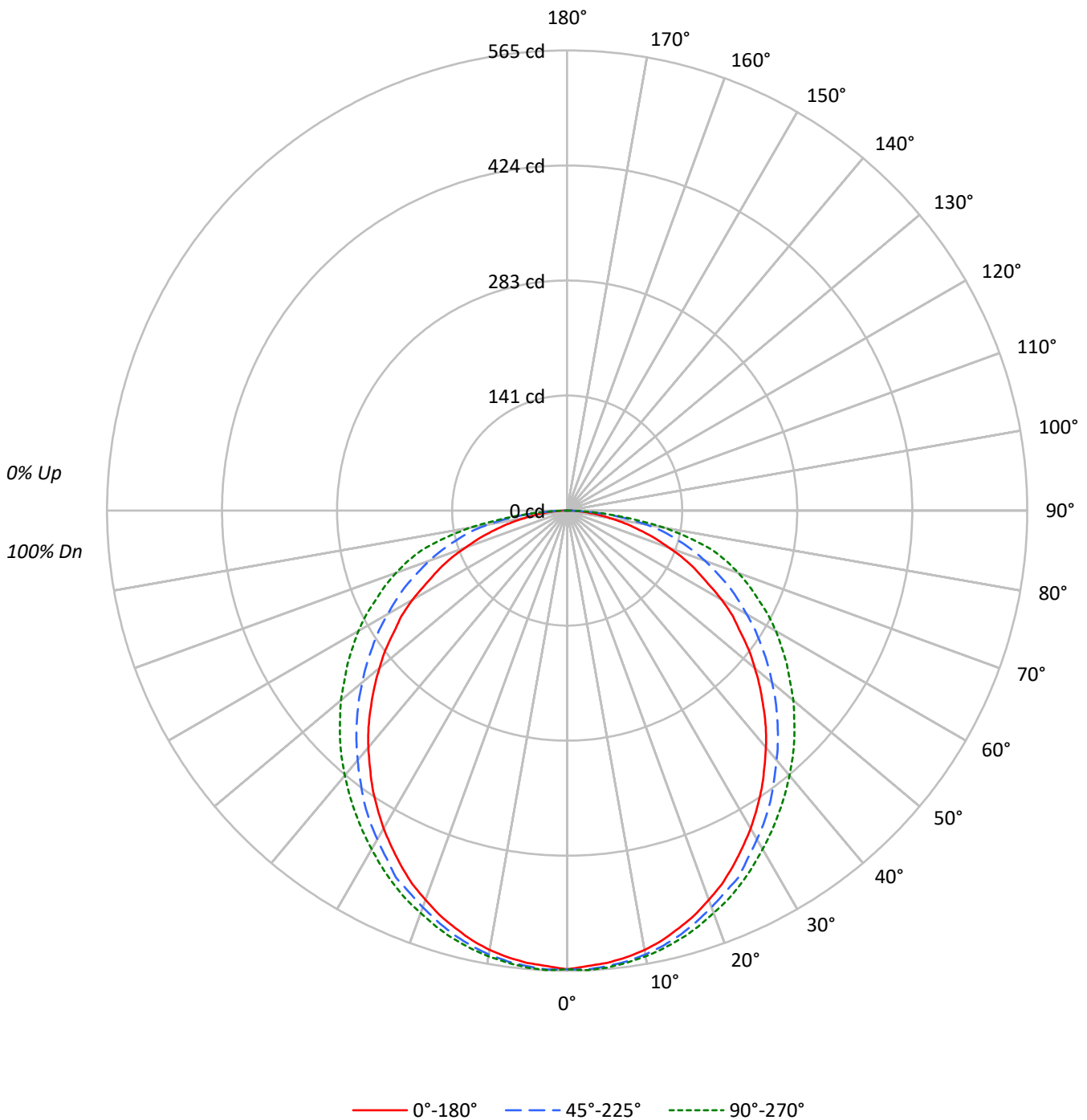
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1516	1516	1516
5°	1506	1517	1521
10°	1497	1512	1519
15°	1478	1501	1514
20°	1456	1485	1505
25°	1430	1476	1500
30°	1400	1449	1492
35°	1368	1430	1489
40°	1334	1406	1492
45°	1297	1389	1501
50°	1259	1375	1518
55°	1216	1369	1545
60°	1180	1369	1593
65°	1121	1391	1650
70°	1046	1417	1757
75°	958	1466	1899
80°	834	1528	1869
85°	729	1359	1485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	3.2
10°-20°	151.7	9.2
20°-30°	227.8	13.7
30°-40°	272.1	16.4
40°-50°	283.0	17.1
50°-60°	262.3	15.8
60°-70°	215.1	13.0
70°-80°	145.4	8.8
80°-90°	45.7	2.8
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°	432.7	26.1
0°-40°	704.9	42.6
0°-60°	1250.1	75.5
0°-90°	1656.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1656.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	563	563	563	563	563	
5°	558	558	562	562	563	53
15°	531	533	539	542	544	150
25°	482	486	497	503	505	222
35°	416	422	435	448	453	260
45°	341	347	365	386	394	263
55°	259	267	292	318	329	233
65°	176	186	218	247	259	174
75°	92	108	141	170	183	98
85°	24	33	44	49	48	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	563.2	563.2	563.2	563.2	563.2
2.5°	559.9	561.6	564.0	564.8	564.8
5°	557.5	558.3	561.6	562.4	563.2
7.5°	553.4	555.1	558.3	559.1	559.9
10°	547.7	549.4	553.4	555.1	555.9
12.5°	540.4	542.0	546.9	549.4	550.2
15°	530.6	533.0	538.8	542.0	543.6
17.5°	520.8	523.3	529.0	533.9	535.5
20°	508.6	514.3	518.4	524.9	525.7
22.5°	496.4	499.6	507.0	513.5	516.7
25°	481.7	485.8	497.2	502.9	505.3
27.5°	466.2	471.9	480.9	489.9	493.1
30°	450.7	454.8	466.2	476.8	480.1
32.5°	433.6	439.3	451.5	462.1	467.0
35°	416.5	422.2	435.2	448.3	453.2
37.5°	397.7	404.3	417.3	432.8	439.3
40°	379.8	384.7	400.2	418.9	424.6
42.5°	361.1	366.8	383.1	403.5	410.0
45°	340.7	347.2	365.1	386.3	394.5
47.5°	321.1	327.7	347.2	368.4	378.2
50°	300.8	308.9	328.5	352.9	362.7
52.5°	281.2	288.5	310.5	335.8	344.8
55°	259.2	267.3	291.8	317.9	329.3
57.5°	241.3	247.0	273.9	300.8	312.2
60°	219.3	226.6	254.3	282.8	295.9
62.5°	195.6	207.8	236.4	265.7	278.8
65°	176.1	185.8	218.4	247.0	259.2
67.5°	155.7	166.3	198.1	228.2	242.1
70°	132.9	146.7	180.1	210.3	223.3
72.5°	112.5	127.1	161.4	190.7	204.6
75°	92.1	107.6	141.0	169.5	182.6
77.5°	72.5	89.7	122.3	144.3	152.4
80°	53.8	70.1	98.6	114.1	120.6
82.5°	37.5	51.3	72.5	80.7	82.3
85°	23.6	32.6	44.0	48.9	48.1
87.5°	10.6	13.0	16.3	17.9	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)