

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: P387696

Luminaire Tested: **22CZ2-20VHE-SQR-UNV-L930-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: P387696
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-SDWPD1-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: 1552.4 lumens
Efficiency: N/A
Efficacy: 109.3 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

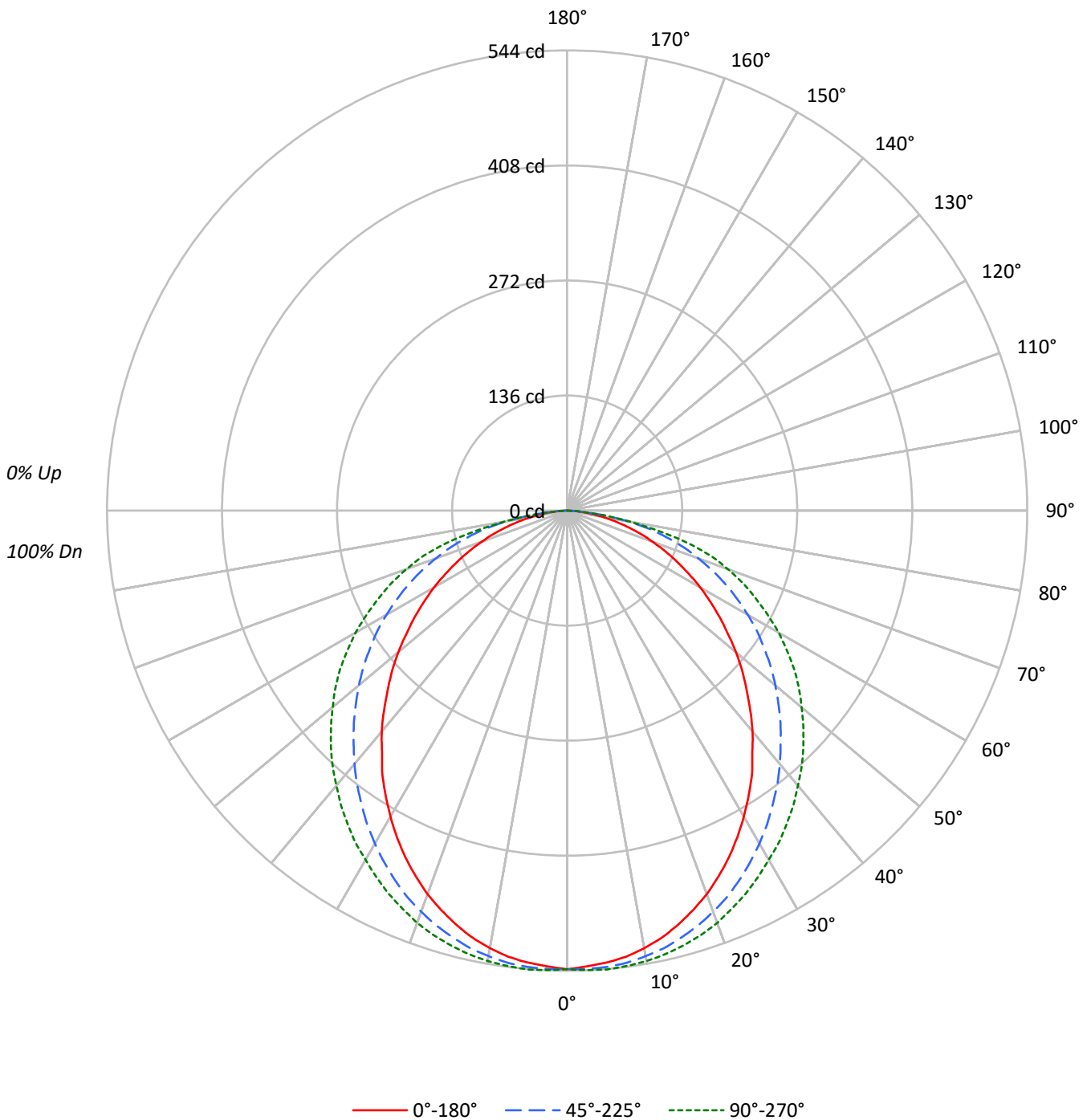
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1459	1459	1459
5°	1449	1463	1471
10°	1435	1462	1478
15°	1412	1455	1482
20°	1382	1445	1485
25°	1343	1431	1483
30°	1298	1413	1481
35°	1251	1392	1486
40°	1198	1374	1491
45°	1141	1357	1503
50°	1092	1345	1515
55°	1034	1334	1538
60°	980	1328	1554
65°	915	1318	1567
70°	840	1298	1589
75°	758	1264	1533
80°	651	1119	1153
85°	522	661	522



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.4	3.3
10°-20°	147.0	9.5
20°-30°	220.8	14.2
30°-40°	263.3	17.0
40°-50°	272.2	17.5
50°-60°	250.3	16.1
60°-70°	199.2	12.8
70°-80°	121.7	7.8
80°-90°	26.5	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°	419.2	27.0
0°-40°	682.5	44.0
0°-60°	1205.0	77.6
0°-90°	1552.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1552.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	542	542	542	542	542	
5°	536	538	542	544	544	51
15°	507	513	522	530	532	143
25°	452	464	482	495	500	208
35°	381	397	424	446	452	238
45°	300	321	357	385	395	232
55°	220	245	284	317	328	197
65°	144	168	207	236	246	142
75°	73	94	122	143	147	78
85°	17	21	21	18	17	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	542.3	542.3	542.3	542.3	542.3
2.5°	539.3	540.1	542.3	543.8	543.8
5°	536.4	537.9	541.6	543.8	544.5
7.5°	532.0	534.2	539.3	542.3	543.0
10°	525.3	528.3	534.9	539.3	540.8
12.5°	517.2	521.7	529.8	535.7	537.1
15°	506.9	512.8	522.4	529.8	532.0
17.5°	495.1	502.5	514.3	523.1	526.1
20°	482.6	490.0	504.7	515.0	518.7
22.5°	467.9	477.5	494.4	506.2	509.1
25°	452.4	463.5	481.9	495.1	499.6
27.5°	435.5	448.7	468.6	484.8	488.5
30°	417.8	431.8	454.6	472.3	476.7
32.5°	399.3	415.6	439.9	459.8	465.7
35°	380.9	397.1	423.7	445.8	452.4
37.5°	359.6	378.7	408.2	431.0	439.1
40°	341.1	359.6	391.2	416.3	424.4
42.5°	320.5	340.4	373.6	400.8	410.4
45°	299.9	321.2	356.6	385.4	394.9
47.5°	280.7	302.1	338.9	369.1	378.7
50°	260.8	282.9	321.2	352.2	361.8
52.5°	239.5	263.8	303.6	334.5	345.6
55°	220.3	244.6	284.4	316.8	327.9
57.5°	200.4	225.5	266.7	297.7	308.0
60°	182.0	206.3	246.8	277.0	288.8
62.5°	162.1	187.1	226.9	256.4	267.5
65°	143.7	168.0	207.0	235.8	246.1
67.5°	125.3	149.6	186.4	213.7	225.5
70°	106.8	131.2	165.0	191.6	201.9
72.5°	90.6	112.0	144.4	168.7	178.3
75°	72.9	94.3	121.6	142.9	147.4
77.5°	56.7	75.9	98.7	108.3	109.8
80°	42.0	56.7	72.2	74.4	74.4
82.5°	28.0	39.1	44.9	45.7	44.9
85°	16.9	20.6	21.4	18.4	16.9
87.5°	5.9	5.9	3.7	2.2	0.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)