

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: P387651

Luminaire Tested: **22CZ2-20-SQR-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: P387651
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: 22CZ2-20-SQR-UNV-L935-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1664.5 lumens
Efficiency: N/A
Efficacy: 93.0 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

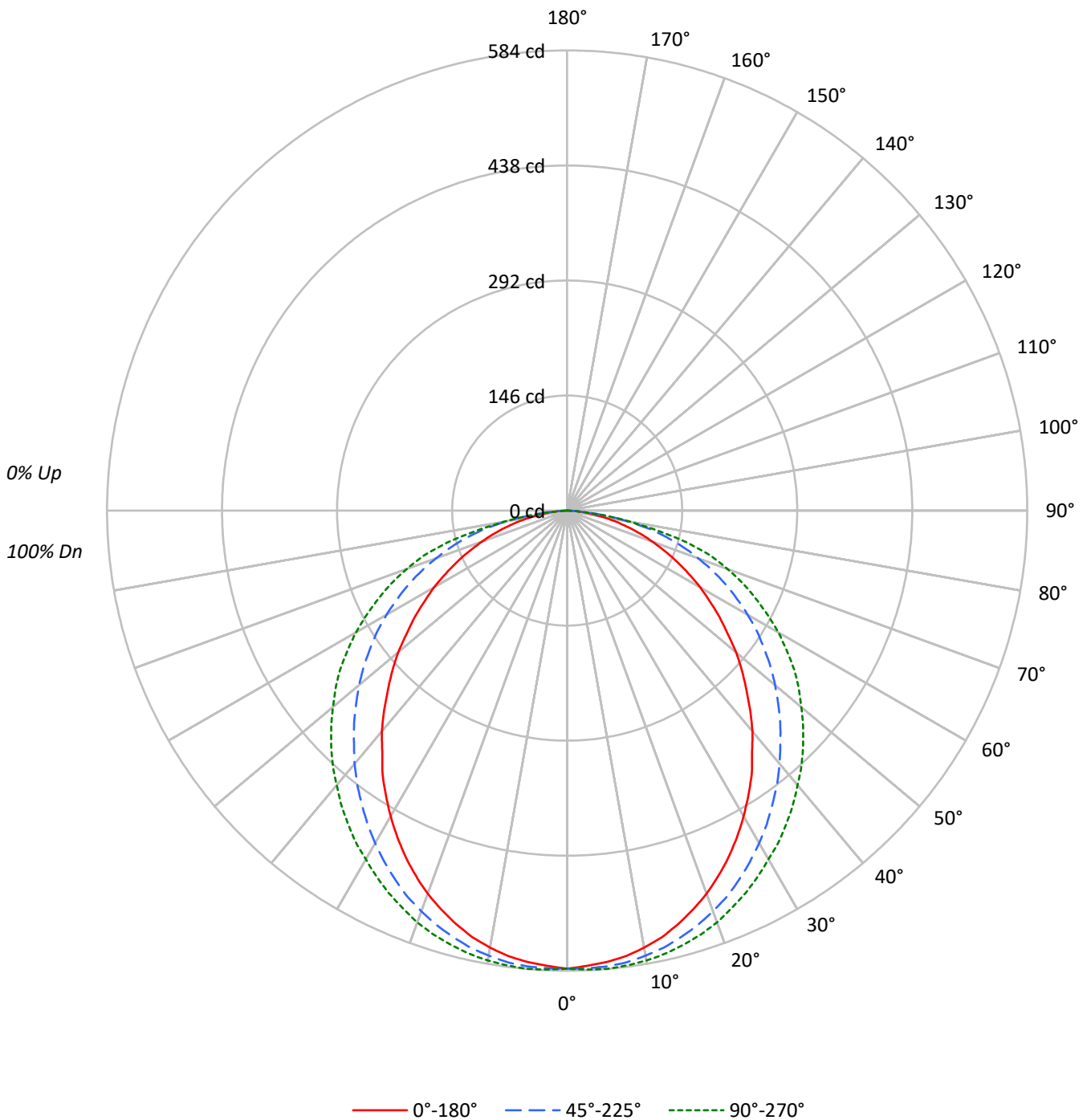
Input Watts (W): 17.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1565	1565	1565
5°	1553	1569	1577
10°	1539	1567	1585
15°	1514	1560	1589
20°	1482	1550	1593
25°	1440	1534	1590
30°	1392	1514	1588
35°	1342	1492	1594
40°	1285	1474	1598
45°	1224	1455	1611
50°	1171	1442	1624
55°	1108	1430	1650
60°	1050	1425	1667
65°	981	1414	1680
70°	902	1393	1703
75°	813	1356	1643
80°	697	1199	1237
85°	562	707	562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	3.3
10°-20°	157.6	9.5
20°-30°	236.7	14.2
30°-40°	282.3	17.0
40°-50°	291.9	17.5
50°-60°	268.4	16.1
60°-70°	213.6	12.8
70°-80°	130.5	7.8
80°-90°	28.4	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°	449.4	27.0
0°-40°	731.7	44.0
0°-60°	1292.0	77.6
0°-90°	1664.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1664.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	575	577	581	583	584	55
15°	544	550	560	568	570	153
25°	485	497	517	531	536	223
35°	408	426	454	478	485	255
45°	322	344	382	413	423	249
55°	236	262	305	340	352	211
65°	154	180	222	253	264	153
75°	78	101	130	153	158	83
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°	581.4	581.4	581.4	581.4	581.4
2.5°	578.3	579.1	581.4	583.0	583.0
5°	575.1	576.7	580.7	583.0	583.8
7.5°	570.4	572.8	578.3	581.4	582.2
10°	563.3	566.4	573.5	578.3	579.9
12.5°	554.6	559.3	568.0	574.3	575.9
15°	543.5	549.8	560.1	568.0	570.4
17.5°	530.9	538.8	551.4	560.9	564.1
20°	517.5	525.4	541.2	552.2	556.2
22.5°	501.7	511.9	530.1	542.7	545.9
25°	485.1	496.9	516.7	530.9	535.6
27.5°	466.9	481.1	502.4	519.8	523.8
30°	447.9	462.9	487.4	506.4	511.1
32.5°	428.2	445.6	471.6	493.0	499.3
35°	408.4	425.8	454.3	478.0	485.1
37.5°	385.5	406.1	437.7	462.2	470.8
40°	365.8	385.5	419.5	446.4	455.0
42.5°	343.7	365.0	400.5	429.8	440.0
45°	321.5	344.4	382.4	413.2	423.4
47.5°	301.0	323.9	363.4	395.8	406.1
50°	279.7	303.4	344.4	377.6	387.9
52.5°	256.8	282.8	325.5	358.7	370.5
55°	236.2	262.3	304.9	339.7	351.6
57.5°	214.9	241.7	286.0	319.2	330.2
60°	195.1	221.2	264.7	297.0	309.7
62.5°	173.8	200.7	243.3	274.9	286.8
65°	154.1	180.1	222.0	252.8	263.9
67.5°	134.3	160.4	199.9	229.1	241.7
70°	114.6	140.6	177.0	205.4	216.5
72.5°	97.2	120.1	154.8	180.9	191.2
75°	78.2	101.1	130.4	153.3	158.0
77.5°	60.8	81.4	105.9	116.1	117.7
80°	45.0	60.8	77.4	79.8	79.8
82.5°	30.0	41.9	48.2	49.0	48.2
85°	18.2	22.1	22.9	19.8	18.2
87.5°	6.3	6.3	4.0	2.4	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)