

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: P387701

Luminaire Tested: **22CZ2-20VHE-SQR-UNV-L935-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: P387701
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-L935-CD1-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: 1630.5 lumens
Efficiency: N/A
Efficacy: 114.8 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

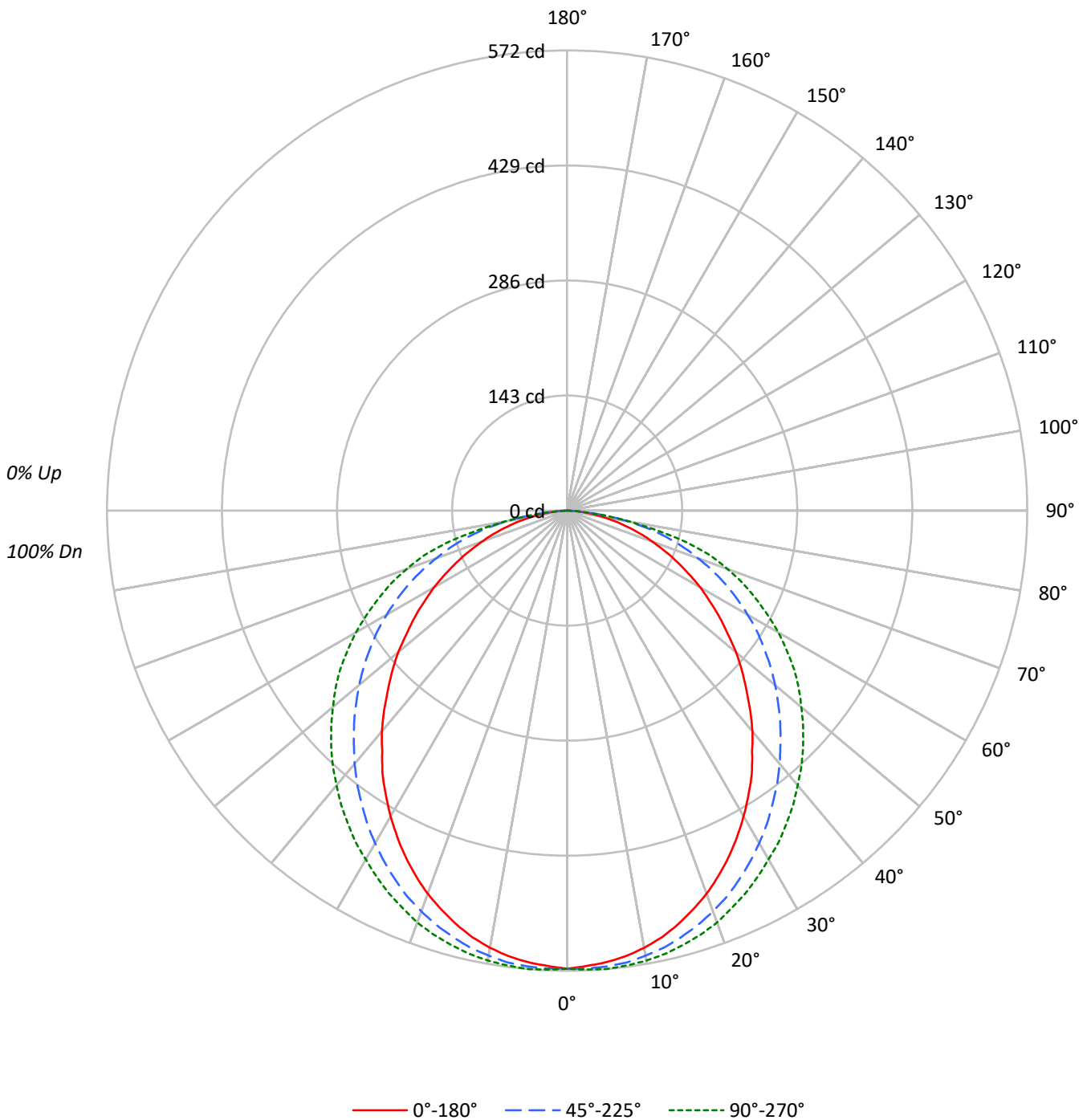
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1533	1533	1533
5°	1522	1536	1545
10°	1508	1535	1552
15°	1483	1529	1556
20°	1452	1518	1560
25°	1411	1503	1558
30°	1363	1484	1556
35°	1314	1462	1561
40°	1259	1443	1566
45°	1199	1426	1579
50°	1147	1412	1591
55°	1086	1401	1616
60°	1028	1395	1633
65°	961	1385	1646
70°	883	1364	1668
75°	796	1328	1609
80°	683	1175	1212
85°	550	692	550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	3.3
10°-20°	154.4	9.5
20°-30°	231.9	14.2
30°-40°	276.5	17.0
40°-50°	285.9	17.5
50°-60°	262.9	16.1
60°-70°	209.3	12.8
70°-80°	127.9	7.8
80°-90°	27.8	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°	440.3	27.0
0°-40°	716.8	44.0
0°-60°	1265.6	77.6
0°-90°	1630.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1630.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	563	565	569	571	572	53
15°	532	539	549	556	559	150
25°	475	487	506	520	525	219
35°	400	417	445	468	475	250
45°	315	337	375	405	415	244
55°	231	257	299	333	344	207
65°	151	176	218	248	258	150
75°	77	99	128	150	155	82
85°	18	22	22	19	18	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	569.6	569.6	569.6	569.6	569.6
2.5°	566.5	567.3	569.6	571.1	571.1
5°	563.4	564.9	568.8	571.1	571.9
7.5°	558.7	561.1	566.5	569.6	570.3
10°	551.8	554.9	561.8	566.5	568.0
12.5°	543.3	547.9	556.4	562.6	564.2
15°	532.4	538.6	548.7	556.4	558.7
17.5°	520.0	527.8	540.2	549.5	552.5
20°	506.9	514.6	530.1	540.9	544.8
22.5°	491.4	501.5	519.3	531.7	534.7
25°	475.2	486.8	506.1	520.0	524.7
27.5°	457.4	471.3	492.2	509.2	513.1
30°	438.8	453.5	477.5	496.1	500.7
32.5°	419.4	436.5	462.0	482.9	489.1
35°	400.1	417.1	445.0	468.2	475.2
37.5°	377.7	397.8	428.7	452.7	461.2
40°	358.3	377.7	410.9	437.2	445.8
42.5°	336.6	357.5	392.4	421.0	431.0
45°	315.0	337.4	374.6	404.7	414.8
47.5°	294.8	317.3	356.0	387.7	397.8
50°	274.0	297.2	337.4	369.9	380.0
52.5°	251.5	277.0	318.8	351.3	362.9
55°	231.4	256.9	298.7	332.8	344.4
57.5°	210.5	236.8	280.1	312.6	323.5
60°	191.1	216.7	259.2	291.0	303.4
62.5°	170.3	196.6	238.4	269.3	280.9
65°	150.9	176.4	217.5	247.6	258.5
67.5°	131.6	157.1	195.8	224.4	236.8
70°	112.2	137.7	173.3	201.2	212.0
72.5°	95.2	117.6	151.7	177.2	187.3
75°	76.6	99.1	127.7	150.1	154.8
77.5°	59.6	79.7	103.7	113.8	115.3
80°	44.1	59.6	75.8	78.2	78.2
82.5°	29.4	41.0	47.2	48.0	47.2
85°	17.8	21.7	22.4	19.3	17.8
87.5°	6.2	6.2	3.9	2.3	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)