

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: P230600

Luminaire Tested: **22CZ-LD5-20SE-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230600
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25712)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-20SE-S-UNV-L930-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (56) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1748.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.24 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

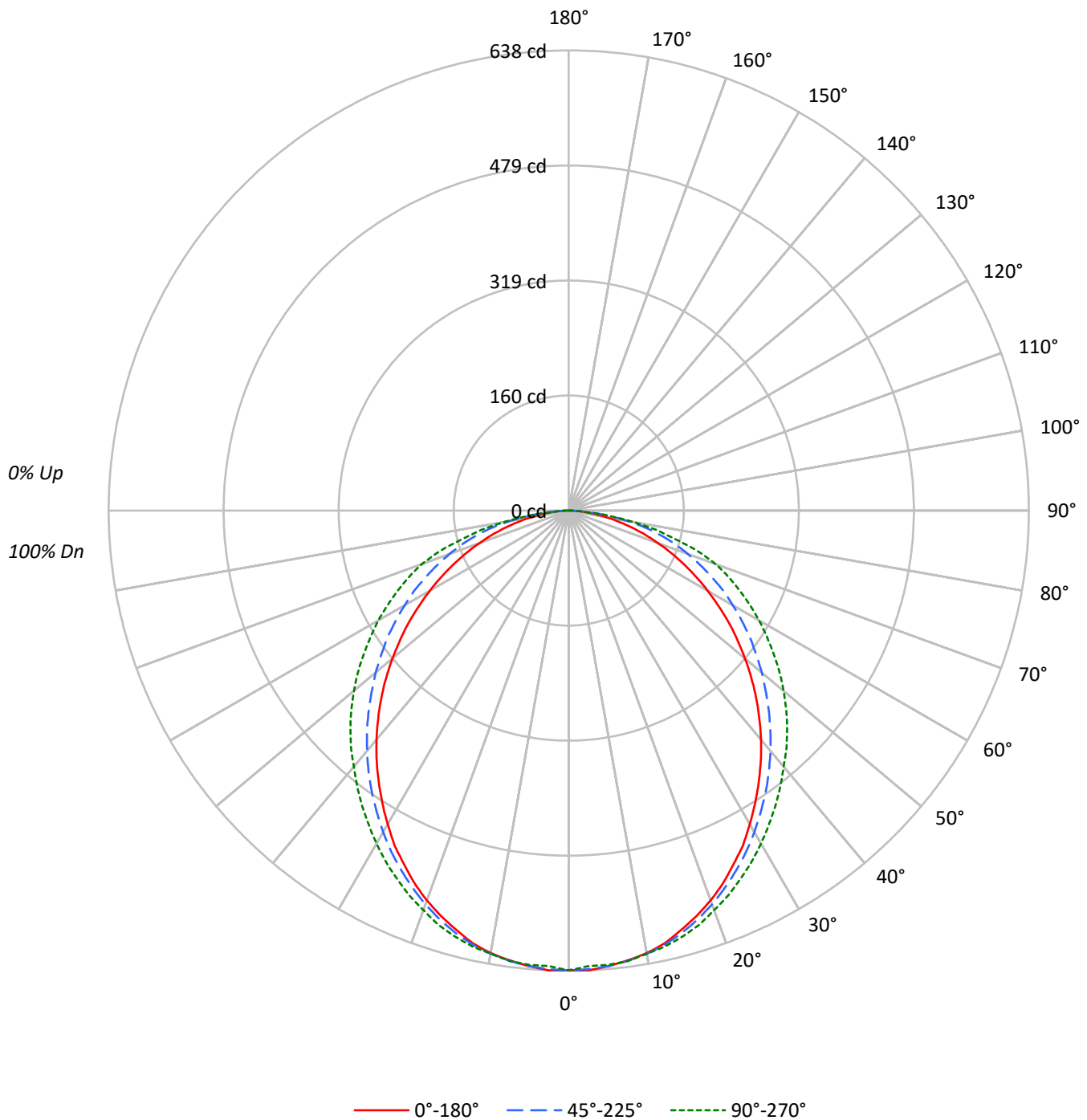
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	99	95	106	101	97	94		97	94	91		93	91	88		90	87	85
2	99	90	83	77	96	88	82	77		85	79	75		81	77	73		78	75	71
3	90	79	71	64	87	78	70	64		75	68	63		72	66	62		69	64	60
4	82	70	61	54	80	69	61	54		66	59	53		64	58	53		62	56	52
5	76	63	54	47	74	62	53	47		59	52	46		57	51	46		56	50	45
6	70	56	47	41	68	56	47	41		54	46	40		52	45	40		50	44	40
7	65	51	42	36	63	50	42	36		49	41	36		47	41	36		46	40	35
8	60	47	38	32	59	46	38	32		45	37	32		43	37	32		42	36	32
9	56	43	35	29	55	42	34	29		41	34	29		40	34	29		39	33	29
10	53	40	32	26	52	39	32	26		38	31	26		37	31	26		36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1715	1715	1715
5°	1712	1712	1708
10°	1702	1705	1705
15°	1677	1689	1703
20°	1647	1664	1688
25°	1605	1633	1673
30°	1560	1599	1656
35°	1509	1564	1641
40°	1457	1528	1628
45°	1399	1492	1630
50°	1335	1462	1627
55°	1272	1438	1627
60°	1197	1414	1640
65°	1123	1395	1663
70°	1037	1381	1704
75°	934	1370	1580
80°	820	1275	1379
85°	673	960	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.2	3.4
10°-20°	170.9	9.8
20°-30°	253.9	14.5
30°-40°	298.9	17.1
40°-50°	304.7	17.4
50°-60°	274.8	15.7
60°-70°	216.4	12.4
70°-80°	133.5	7.6
80°-90°	34.7	2.0
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°	485.0	27.7
0°-40°	783.9	44.8
0°-60°	1363.4	78.0
0°-90°	1748.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1748.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	634	635	634	633	632	60
15°	602	604	606	610	611	170
25°	541	544	550	559	563	249
35°	459	464	476	491	500	287
45°	368	374	392	416	428	283
55°	271	280	306	334	347	242
65°	176	189	219	247	261	175
75°	90	105	132	147	152	96
85°	22	28	31	29	28	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	637.2	637.2	637.2	637.2	637.2
2.5°	638.1	638.1	636.4	634.7	632.2
5°	633.9	634.7	633.9	633.1	632.2
7.5°	628.9	629.7	629.7	629.7	629.7
10°	623.0	623.8	623.8	623.8	623.8
12.5°	614.6	615.4	616.3	617.1	618.8
15°	602.0	604.5	606.2	609.5	611.2
17.5°	589.4	591.9	594.4	598.6	602.0
20°	575.1	576.8	581.0	586.0	589.4
22.5°	559.2	561.7	565.9	572.6	577.6
25°	540.7	544.1	549.9	559.2	563.4
27.5°	523.1	525.6	533.1	543.2	549.1
30°	502.1	505.4	514.7	527.3	533.1
32.5°	481.1	485.3	495.4	509.6	516.3
35°	459.3	464.3	476.0	491.2	499.6
37.5°	437.4	442.5	455.9	472.7	481.9
40°	414.8	419.8	434.9	453.4	463.5
42.5°	391.2	397.1	413.9	434.9	446.7
45°	367.7	373.6	392.1	415.6	428.2
47.5°	343.4	350.1	370.3	396.3	408.9
50°	319.0	326.6	349.3	376.1	388.7
52.5°	294.7	303.1	327.4	355.1	368.6
55°	271.2	280.4	306.5	334.2	346.8
57.5°	246.0	256.9	284.6	311.5	325.8
60°	222.5	234.2	262.8	289.7	304.8
62.5°	199.0	211.6	241.8	268.7	282.9
65°	176.3	188.9	219.1	246.8	261.1
67.5°	153.6	167.9	197.3	225.0	239.3
70°	131.8	146.9	175.5	202.3	216.6
72.5°	110.8	125.9	154.5	179.7	188.1
75°	89.8	104.9	131.8	146.9	152.0
77.5°	70.5	84.8	108.3	117.5	124.3
80°	52.9	65.5	82.3	88.2	89.0
82.5°	36.1	47.0	57.1	57.9	57.1
85°	21.8	27.7	31.1	29.4	27.7
87.5°	10.1	10.9	10.1	6.7	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)