

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: P230828

Luminaire Tested: **22CZ-LD5-32SE-SQP-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230828
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25713)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-32SE-SQP-UNV-L930-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SQP LENS
Light Source: (56) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1833.0 lumens
Efficiency: N/A
Efficacy: 60.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

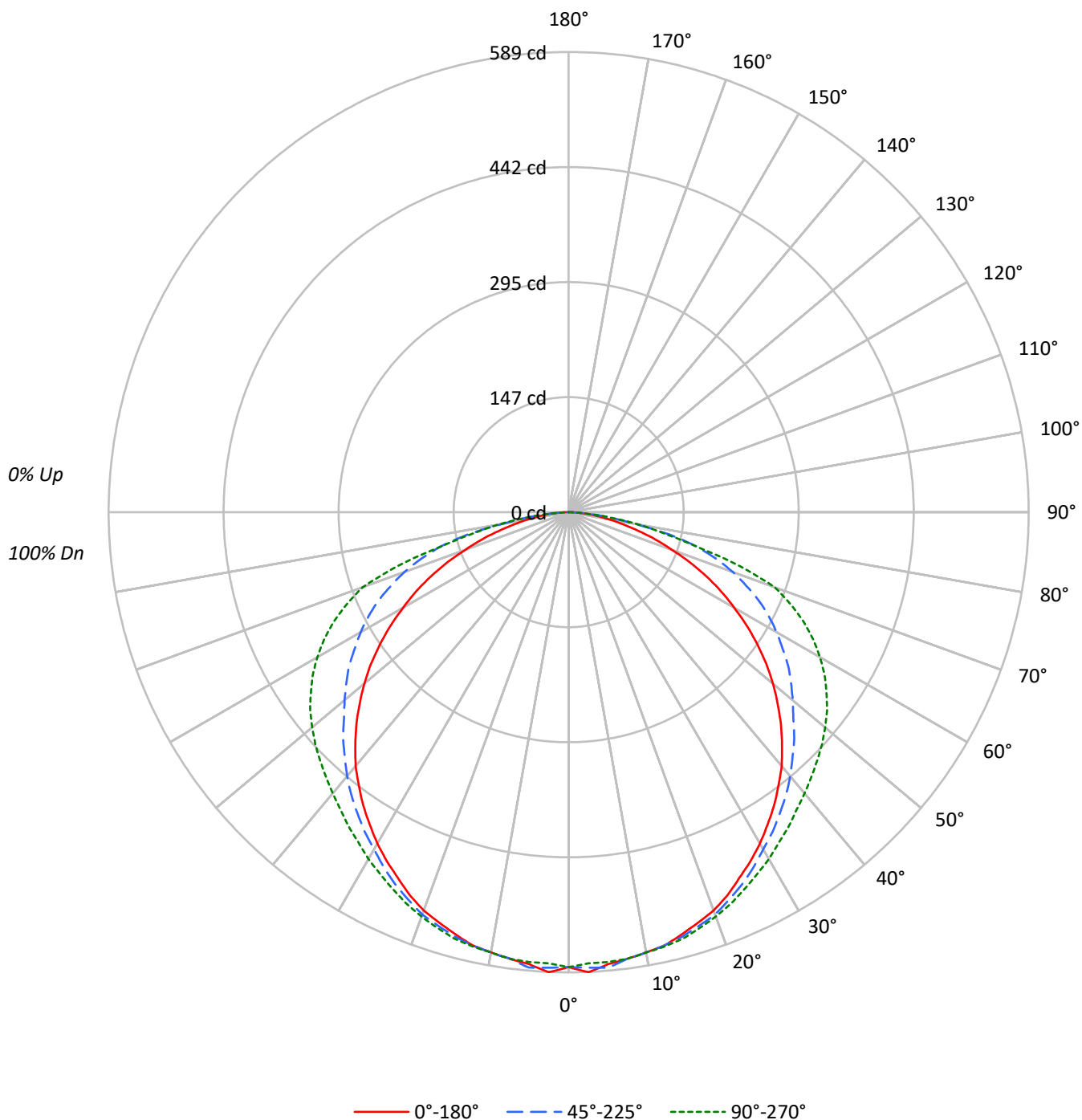
Input Watts (W): 30.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43
6	68	55	45	39	66	54	45	39	52	44	38	50	43	38	48	42	37
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	35	28	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1567	1567	1567
5°	1569	1581	1561
10°	1564	1564	1564
15°	1558	1567	1574
20°	1553	1569	1578
25°	1534	1560	1581
30°	1522	1548	1592
35°	1506	1548	1613
40°	1490	1550	1650
45°	1462	1555	1712
50°	1430	1567	1794
55°	1383	1610	1890
60°	1318	1655	1999
65°	1242	1713	2112
70°	1109	1758	2206
75°	962	1761	1747
80°	817	1302	1412
85°	704	880	790



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.3	3.0
10°-20°	158.8	8.7
20°-30°	241.9	13.2
30°-40°	296.0	16.1
40°-50°	318.5	17.4
50°-60°	308.5	16.8
60°-70°	261.3	14.3
70°-80°	158.0	8.6
80°-90°	34.7	1.9
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°	456.0	24.9
0°-40°	752.0	41.0
0°-60°	1379.0	75.2
0°-90°	1833.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1833.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	582	582	582	582	582	
5°	581	581	585	582	578	55
15°	559	561	562	564	565	158
25°	517	520	525	530	532	239
35°	458	461	471	484	491	287
45°	384	392	408	434	450	296
55°	295	308	343	383	403	263
65°	195	216	269	312	332	192
75°	92	125	169	172	168	99
85°	23	27	28	27	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	582.2	582.2	582.2	582.2	582.2
2.5°	589.3	587.9	583.6	580.8	577.9
5°	580.8	580.8	585.1	582.2	577.9
7.5°	576.5	576.5	576.5	583.6	576.5
10°	572.2	573.7	572.2	577.9	572.2
12.5°	568.0	568.0	568.0	569.4	569.4
15°	559.4	560.9	562.3	563.7	565.1
17.5°	550.9	552.3	555.2	556.6	558.0
20°	542.4	543.8	548.0	548.0	550.9
22.5°	531.0	531.0	536.7	538.1	542.4
25°	516.7	519.6	525.3	529.5	532.4
27.5°	503.9	506.8	512.5	518.2	522.4
30°	489.7	492.5	498.2	506.8	512.5
32.5°	474.0	476.9	485.4	495.4	501.1
35°	458.4	461.2	471.2	484.0	491.1
37.5°	441.3	445.6	456.9	471.2	479.7
40°	424.2	428.5	441.3	456.9	469.8
42.5°	404.3	410.0	424.2	445.6	459.8
45°	384.3	391.5	408.5	434.2	449.8
47.5°	363.0	370.1	390.0	422.8	439.9
50°	341.6	350.2	374.4	410.0	428.5
52.5°	318.9	327.4	358.7	397.2	417.1
55°	294.7	307.5	343.1	382.9	402.8
57.5°	270.5	284.7	324.6	367.3	388.6
60°	244.8	261.9	307.5	350.2	371.5
62.5°	220.6	239.1	289.0	331.7	353.0
65°	195.0	216.4	269.0	311.7	331.7
67.5°	168.0	195.0	246.3	287.5	307.5
70°	140.9	172.2	223.5	261.9	280.4
72.5°	116.7	149.5	197.9	230.6	230.6
75°	92.5	125.3	169.4	172.2	168.0
77.5°	71.2	102.5	132.4	121.0	123.8
80°	52.7	78.3	84.0	88.3	91.1
82.5°	35.6	52.7	54.1	56.9	56.9
85°	22.8	27.0	28.5	27.0	25.6
87.5°	10.0	11.4	8.5	5.7	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)