

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: INVUE

Report Number: P677358

Luminaire Tested: **CCW-SA-2E-840-U-SLL-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677358
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2E-840-U-SLL-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1050mA w/
SLL distribution lens and House Side Shield
Light Source: (32) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

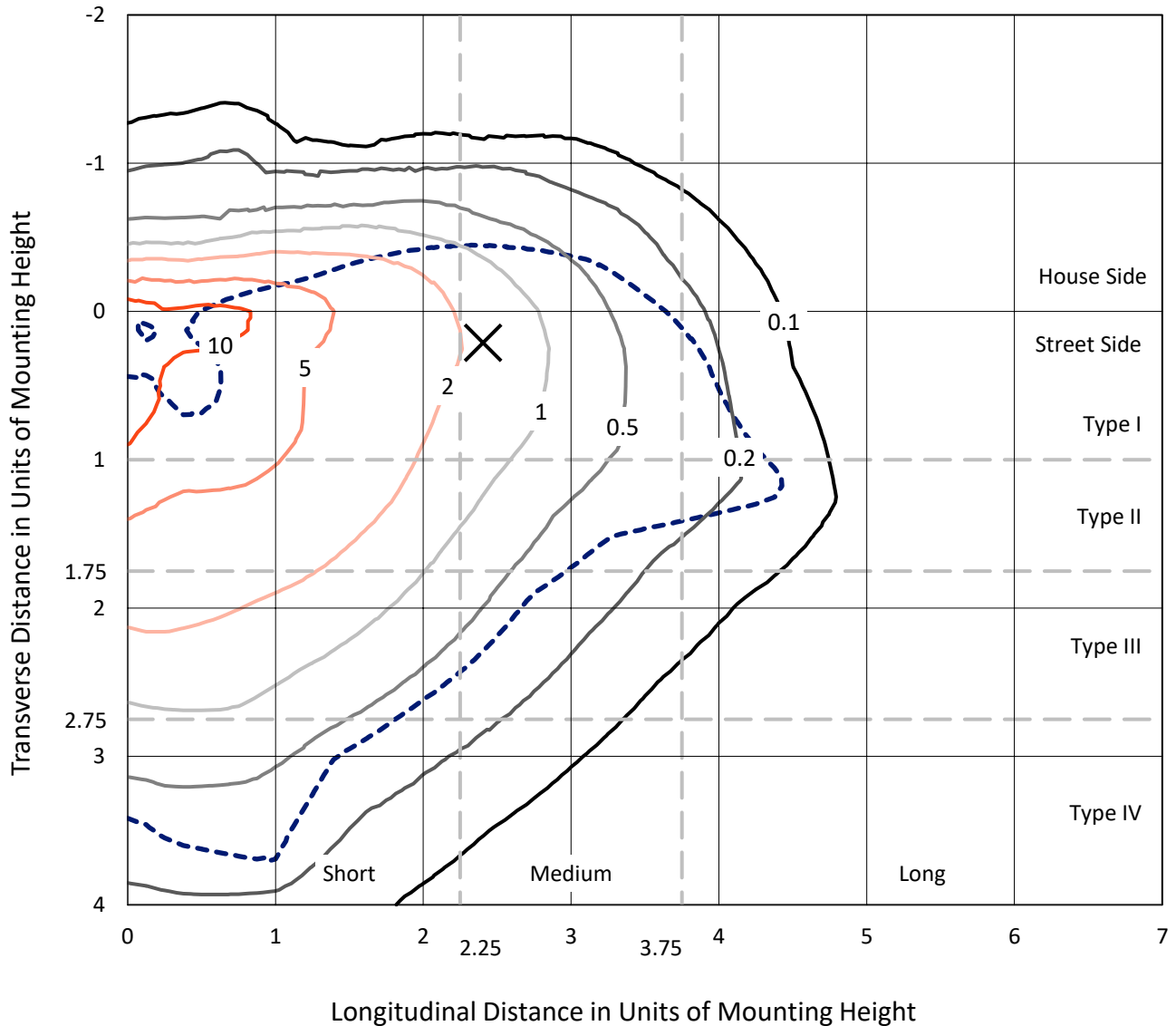
Lumens per Lamp: N/A
Luminaire Lumens: 8458.1 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 106.6
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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Iso-Footcandle Lines of Horizontal Illumination

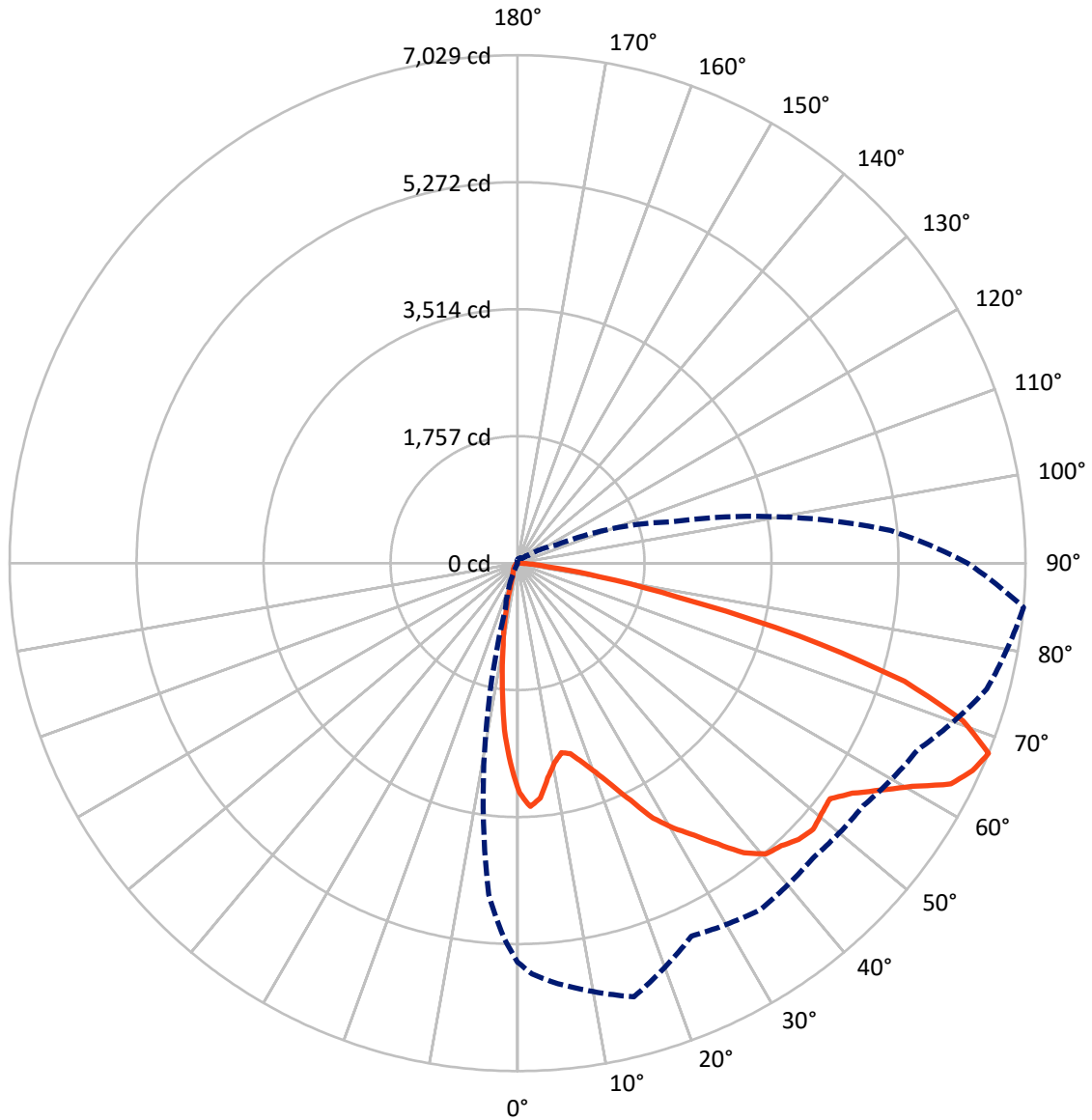
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 15.9 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1468.6	0.0	1468.6
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	6989.5	0.0	6989.5
	% Fixture	82.6	0.0	82.6
Total	Lumens	8458.1	0.0	8458.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.6	2.9
10°-20°	473.8	5.6
20°-30°	655.6	7.8
30°-40°	926.5	11.0
40°-50°	1261.5	14.9
50°-60°	1670.8	19.8
60°-70°	1939.9	22.9
70°-80°	1098.6	13.0
80°-90°	189.8	2.2
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°-90°	8458.1	100.0
0°-180°	8458.1	100.0



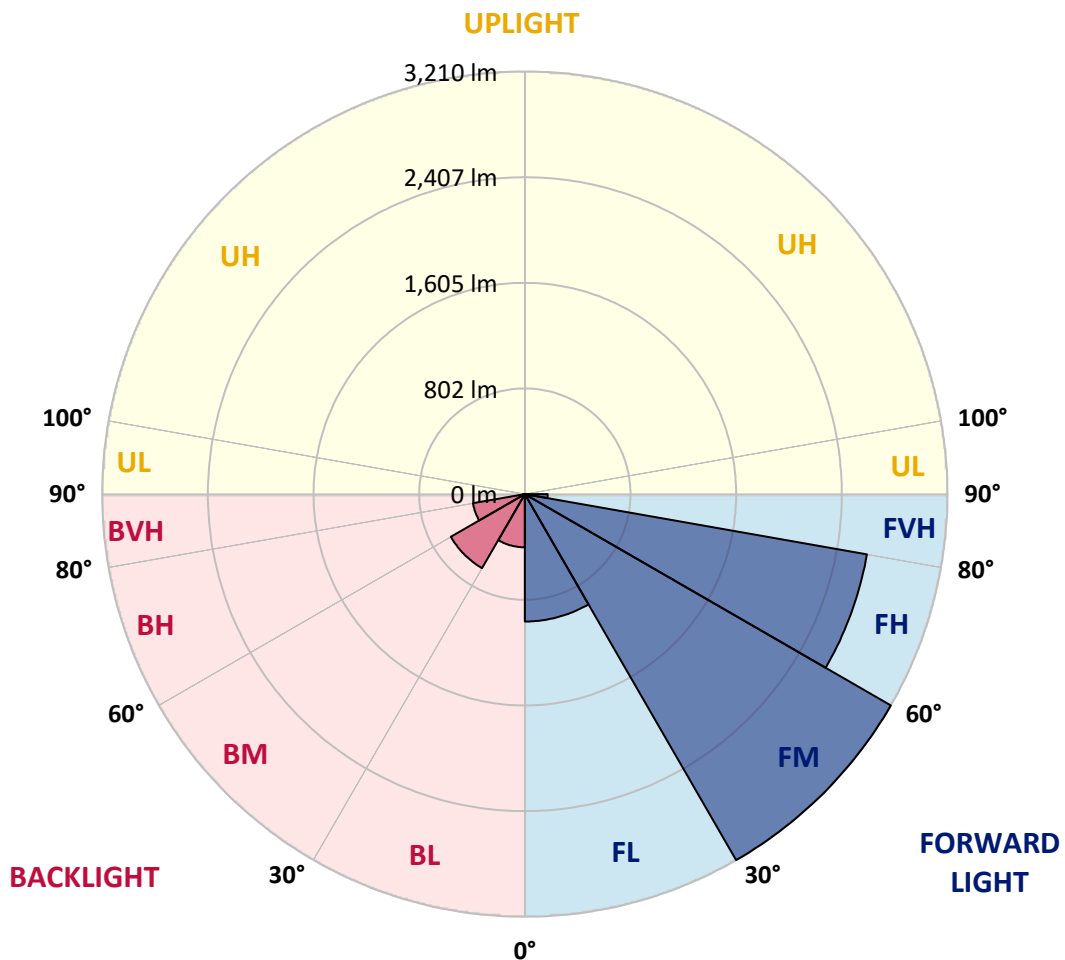
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	967.2	11.4			
FM (30°-60°)	3209.9	38.0			
FH (60°-80°)	2638.5	31.2			G2/5000
FVH (80°-90°)	173.8	2.1			G2/225
BL (0°-30°)	403.7	4.8	B1/500		
BM (30°-60°)	648.9	7.7	B1/1000		
BH (60°-80°)	400.0	4.7	B1/500		G1/500
BVH (80°-90°)	16.0	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2
2.5°	3304.4	3374.4	3376.7	3408.3	3439.9	3439.9	3514.5	3496.4	3430.9	3419.6	3372.2
5°	3329.3	3354.1	3372.2	3532.5	3668.1	3654.5	3695.2	3668.1	3541.6	3378.9	3268.3
7.5°	3114.7	3141.8	3214.1	3487.4	3670.3	3731.3	3808.1	3638.7	3505.4	3211.8	2999.5
10°	2830.1	2882.0	3015.3	3327.0	3552.9	3747.1	3747.1	3611.6	3354.1	3067.2	2807.5
12.5°	2672.0	2775.9	2848.2	3164.4	3458.0	3591.3	3586.7	3514.5	3347.3	2985.9	2692.3
15°	2699.1	2728.5	2882.0	3128.2	3322.5	3315.7	3397.0	3374.4	3257.0	3058.2	2735.2
17.5°	2823.3	2868.5	3001.7	3128.2	3220.8	3193.7	3191.5	3299.9	3306.7	3180.2	2895.6
20°	3026.6	3159.9	3223.1	3261.5	3148.6	3033.4	3019.8	3171.1	3288.6	3336.0	3087.6
22.5°	3351.8	3439.9	3568.7	3372.2	3078.5	2934.0	2906.9	3074.0	3311.2	3521.2	3336.0
25°	3670.3	3738.1	3862.3	3609.3	3157.6	2913.7	2866.2	3010.8	3397.0	3778.7	3636.4
27.5°	4006.8	4065.6	4079.1	3783.2	3200.5	2873.0	2816.5	3010.8	3469.3	3914.2	3995.6
30°	4212.4	4282.4	4296.0	3936.8	3270.5	2906.9	2879.8	3024.3	3519.0	4029.4	4253.0
32.5°	4442.8	4460.8	4449.5	3963.9	3347.3	3006.3	2893.3	3114.7	3575.4	4167.2	4487.9
35°	4718.3	4749.9	4634.8	4088.2	3519.0	3069.5	3028.9	3225.4	3672.6	4230.5	4772.5
37.5°	4928.4	5027.8	4768.0	4135.6	3552.9	3202.8	3209.5	3455.7	3740.3	4307.2	5086.5
40°	5323.6	5156.5	4993.9	4298.2	3681.6	3428.6	3392.5	3692.9	3968.5	4356.9	5292.0
42.5°	5540.5	5452.4	5082.0	4314.0	3880.4	3740.3	3749.4	3961.7	4088.2	4497.0	5348.5
45°	5594.7	5502.1	5201.7	4325.3	4076.9	4108.5	4264.3	4305.0	4264.3	4589.6	5454.6
47.5°	5732.5	5531.4	5188.1	4476.6	4395.3	4517.3	4716.1	4804.2	4503.8	4555.7	5504.3
50°	5705.4	5590.2	5158.8	4539.9	4783.8	5106.8	5240.1	5203.9	4770.3	4485.7	5450.1
52.5°	5592.4	5468.2	5249.1	4711.5	5147.5	5538.2	5723.4	5633.1	5007.4	4643.8	5414.0
55°	5757.3	5662.4	5366.6	4944.2	5420.8	5917.7	6048.7	5980.9	5298.8	4790.6	5619.5
57.5°	5935.7	5915.4	5685.0	5217.5	5743.8	6308.4	6308.4	6224.8	5551.8	5002.9	5924.4
60°	6193.2	6238.4	5919.9	5398.2	5854.4	6285.8	6613.3	6516.2	5807.0	5375.6	6270.0
62.5°	6109.7	6254.2	6222.6	5786.7	5980.9	6396.5	6574.9	6647.2	6123.2	5829.6	6730.8
65°	5840.9	5994.5	6220.3	6041.9	5886.0	6127.7	6218.1	6437.2	6281.3	6256.5	6920.5
67.5°	5520.1	5687.3	5827.3	6213.6	5694.1	5854.4	5775.4	5845.4	6109.7	6724.0	7028.9
70°	4820.0	4980.3	5201.7	5831.8	5185.9	5041.3	5021.0	4987.1	5398.2	6556.9	6536.5
72.5°	3963.9	4038.5	4404.4	4740.9	3837.4	3810.3	3842.0	3803.6	4280.1	5935.7	5599.2
75°	2967.9	3042.4	3250.2	3640.9	2613.3	2457.4	2638.1	2816.5	3268.3	4607.7	4022.7
77.5°	2231.5	2326.4	2457.4	2723.9	1917.6	1673.7	1698.5	1867.9	2362.6	3690.6	2254.1
80°	1447.8	1436.5	1689.5	1874.7	1443.3	1488.5	1425.2	1549.4	1712.1	1974.1	1151.9
82.5°	835.7	847.0	953.2	1075.1	1005.1	1149.7	828.9	1384.6	1221.9	804.1	429.1
85°	469.8	490.1	587.2	745.4	630.2	422.4	345.6	686.6	767.9	329.8	207.8
87.5°	47.4	40.7	79.1	282.3	171.7	70.0	103.9	164.9	185.2	124.2	61.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2
2.5°	3304.4	3304.4	3247.9	3153.1	3114.7	3046.9	2954.3	2983.7	2952.1	2836.9	2807.5
5°	3168.9	3060.5	2943.0	2798.5	2714.9	2543.2	2489.0	2391.9	2407.7	2310.6	2315.1
7.5°	2886.6	2800.7	2602.0	2412.2	2247.4	2098.3	1888.2	1809.2	1732.4	1694.0	1739.2
10°	2721.7	2561.3	2290.3	2041.8	1822.7	1689.5	1549.4	1441.0	1341.6	1267.1	1251.3
12.5°	2602.0	2459.7	2132.2	1829.5	1657.9	1549.4	1420.7	1271.6	1174.5	1045.8	1007.4
15°	2565.8	2391.9	2046.3	1745.9	1578.8	1400.4	1253.6	1106.7	980.3	844.7	797.3
17.5°	2690.1	2489.0	2044.1	1678.2	1443.3	1251.3	1048.0	883.1	754.4	630.2	600.8
20°	2900.1	2592.9	2109.6	1637.5	1314.5	1057.0	826.7	661.8	517.2	435.9	415.6
22.5°	3139.5	2769.1	2116.4	1529.1	1185.8	862.8	603.1	435.9	354.6	316.2	304.9
25°	3433.2	3051.4	2197.7	1441.0	1034.5	655.0	429.1	334.3	286.8	264.3	259.7
27.5°	3674.8	3247.9	2285.8	1348.4	885.4	485.6	336.5	273.3	248.5	225.9	223.6
30°	3925.5	3473.8	2310.6	1291.9	756.6	399.8	289.1	241.7	214.6	203.3	201.0
32.5°	4144.6	3720.0	2389.7	1199.3	634.7	352.3	262.0	216.8	198.8	180.7	178.4
35°	4427.0	3862.3	2428.1	1149.7	589.5	318.5	239.4	198.8	171.7	160.4	155.8
37.5°	4729.6	4000.1	2452.9	1111.3	551.1	298.1	225.9	187.5	162.6	146.8	142.3
40°	5011.9	4194.3	2416.8	1063.8	521.7	273.3	216.8	173.9	151.3	135.5	128.7
42.5°	5228.8	4384.0	2405.5	1018.7	490.1	264.3	205.5	167.1	142.3	124.2	122.0
45°	5350.7	4512.8	2326.4	982.5	465.3	268.8	201.0	158.1	135.5	119.7	110.7
47.5°	5321.4	4612.2	2346.7	971.2	431.4	250.7	198.8	151.3	124.2	110.7	103.9
50°	5484.0	4813.2	2312.9	935.1	406.6	225.9	216.8	151.3	122.0	106.2	99.4
52.5°	5511.1	4996.1	2385.1	869.6	368.2	207.8	214.6	149.1	117.4	101.6	92.6
55°	5737.0	5208.5	2525.2	833.4	336.5	180.7	196.5	144.6	106.2	92.6	88.1
57.5°	6044.2	5648.9	2615.5	799.6	293.6	158.1	164.9	142.3	97.1	85.8	79.1
60°	6340.0	5825.1	2622.3	738.6	253.0	142.3	128.7	142.3	90.3	76.8	70.0
62.5°	6561.4	5825.1	2577.1	686.6	221.3	126.5	112.9	135.5	81.3	67.8	63.2
65°	6441.7	5669.2	2459.7	643.7	201.0	110.7	97.1	103.9	72.3	58.7	54.2
67.5°	6227.1	5183.6	2199.9	591.8	198.8	97.1	83.6	76.8	63.2	51.9	47.4
70°	5883.8	4528.6	1831.8	533.0	194.2	88.1	74.5	65.5	56.5	45.2	40.7
72.5°	4740.9	3740.3	1504.3	499.2	189.7	76.8	63.2	56.5	47.4	38.4	33.9
75°	3284.1	2389.7	1158.7	426.9	185.2	70.0	58.7	49.7	40.7	31.6	29.4
77.5°	1969.5	1596.9	747.6	320.7	122.0	56.5	49.7	38.4	33.9	27.1	24.8
80°	921.5	754.4	302.7	124.2	58.7	40.7	33.9	29.4	27.1	22.6	20.3
82.5°	361.4	318.5	146.8	72.3	47.4	31.6	27.1	24.8	22.6	18.1	15.8
85°	194.2	171.7	70.0	49.7	33.9	22.6	22.6	20.3	18.1	15.8	13.6
87.5°	42.9	31.6	29.4	29.4	24.8	18.1	18.1	15.8	13.6	11.3	9.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2
2.5°	2791.7	2825.6	2771.4	2805.2	2757.8	2794.0	2798.5	2764.6	2773.6	2818.8	2839.1
5°	2378.4	2355.8	2306.1	2290.3	2292.5	2263.2	2274.5	2290.3	2315.1	2328.7	2369.3
7.5°	1714.3	1766.3	1764.0	1802.4	1804.7	1800.1	1768.5	1700.8	1723.4	1705.3	1727.9
10°	1226.4	1249.0	1291.9	1316.8	1362.0	1337.1	1264.8	1237.7	1224.2	1221.9	1244.5
12.5°	980.3	926.0	921.5	930.6	953.2	923.8	887.7	856.0	871.8	903.5	928.3
15°	758.9	713.7	655.0	646.0	650.5	636.9	598.5	557.9	569.2	600.8	618.9
17.5°	582.7	530.8	490.1	463.0	454.0	406.6	350.1	316.2	307.2	304.9	320.7
20°	393.0	384.0	377.2	343.3	343.3	275.6	228.1	203.3	203.3	207.8	210.1
22.5°	293.6	282.3	284.6	277.8	259.7	205.5	180.7	173.9	173.9	178.4	178.4
25°	255.2	239.4	234.9	232.6	214.6	176.2	158.1	151.3	151.3	155.8	155.8
27.5°	216.8	212.3	205.5	196.5	180.7	151.3	140.0	133.3	135.5	137.8	135.5
30°	198.8	187.5	178.4	178.4	160.4	135.5	126.5	122.0	117.4	122.0	124.2
32.5°	176.2	169.4	164.9	158.1	137.8	119.7	110.7	106.2	103.9	103.9	106.2
35°	151.3	151.3	146.8	137.8	119.7	108.4	97.1	92.6	90.3	92.6	92.6
37.5°	135.5	128.7	131.0	122.0	106.2	94.9	83.6	79.1	79.1	76.8	79.1
40°	126.5	115.2	108.4	103.9	94.9	81.3	72.3	67.8	65.5	65.5	65.5
42.5°	112.9	103.9	90.3	88.1	85.8	70.0	58.7	56.5	54.2	51.9	51.9
45°	106.2	92.6	81.3	70.0	70.0	58.7	49.7	45.2	42.9	40.7	42.9
47.5°	97.1	83.6	70.0	58.7	56.5	47.4	38.4	33.9	31.6	31.6	31.6
50°	92.6	74.5	61.0	49.7	42.9	38.4	29.4	24.8	22.6	22.6	22.6
52.5°	85.8	70.0	54.2	42.9	33.9	29.4	22.6	18.1	15.8	15.8	15.8
55°	76.8	63.2	47.4	36.1	29.4	22.6	15.8	11.3	9.0	9.0	9.0
57.5°	72.3	56.5	40.7	31.6	22.6	15.8	9.0	6.8	6.8	4.5	6.8
60°	65.5	49.7	33.9	24.8	18.1	11.3	6.8	2.3	2.3	2.3	2.3
62.5°	56.5	42.9	29.4	20.3	13.6	6.8	2.3	0.0	0.0	0.0	0.0
65°	47.4	33.9	22.6	15.8	9.0	2.3	0.0	0.0	0.0	0.0	0.0
67.5°	40.7	29.4	18.1	11.3	6.8	0.0	0.0	0.0	0.0	0.0	0.0
70°	36.1	24.8	13.6	9.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	29.4	20.3	11.3	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	24.8	15.8	6.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	20.3	11.3	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	15.8	9.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.6	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2	3180.2
2.5°	2868.5	2854.9	2922.7	3033.4	3089.8	3200.5	3227.6	3297.6	3279.6	3304.4
5°	2373.8	2400.9	2500.3	2663.0	2721.7	2882.0	3033.4	3184.7	3281.8	3329.3
7.5°	1761.7	1852.1	1974.1	2123.1	2274.5	2484.5	2742.0	2918.2	3013.0	3114.7
10°	1312.3	1409.4	1549.4	1696.2	1942.4	2177.3	2434.8	2653.9	2735.2	2830.1
12.5°	1032.2	1183.5	1346.2	1504.3	1651.1	1874.7	2193.2	2511.6	2599.7	2672.0
15°	718.3	903.5	1136.1	1341.6	1547.2	1741.4	2071.2	2457.4	2577.1	2699.1
17.5°	397.5	544.3	810.9	1100.0	1402.6	1700.8	2111.8	2556.8	2737.5	2823.3
20°	230.4	289.1	478.8	822.1	1221.9	1612.7	2132.2	2744.3	2983.7	3026.6
22.5°	189.7	210.1	271.0	515.0	1000.6	1556.2	2236.1	3006.3	3250.2	3351.8
25°	162.6	178.4	210.1	309.4	756.6	1436.5	2301.6	3333.8	3559.6	3670.3
27.5°	144.6	160.4	185.2	228.1	515.0	1271.6	2410.0	3629.7	3855.5	4006.8
30°	126.5	140.0	164.9	194.2	356.9	1086.4	2502.6	3846.5	4165.0	4212.4
32.5°	112.9	124.2	142.3	167.1	264.3	824.4	2577.1	4070.1	4338.9	4442.8
35°	97.1	110.7	122.0	142.3	201.0	621.1	2531.9	4244.0	4594.1	4718.3
37.5°	85.8	94.9	106.2	119.7	169.4	485.6	2439.3	4451.8	4813.2	4928.4
40°	72.3	79.1	92.6	106.2	153.6	374.9	2333.2	4702.5	5120.4	5323.6
42.5°	61.0	67.8	76.8	99.4	126.5	277.8	2118.6	4896.8	5368.8	5540.5
45°	47.4	56.5	70.0	99.4	101.6	205.5	1897.3	5041.3	5508.9	5594.7
47.5°	36.1	45.2	67.8	85.8	81.3	142.3	1635.3	5206.2	5653.4	5732.5
50°	27.1	36.1	76.8	74.5	67.8	108.4	1470.4	5321.4	5662.4	5705.4
52.5°	18.1	27.1	63.2	56.5	56.5	94.9	1425.2	5316.9	5685.0	5592.4
55°	13.6	20.3	36.1	40.7	49.7	83.6	1384.6	5486.3	5691.8	5757.3
57.5°	9.0	15.8	24.8	31.6	42.9	72.3	1301.0	5689.5	5901.9	5935.7
60°	4.5	11.3	18.1	24.8	36.1	63.2	1183.5	5838.6	6157.1	6193.2
62.5°	2.3	6.8	13.6	20.3	29.4	49.7	1061.6	5601.5	6046.4	6109.7
65°	0.0	4.5	9.0	13.6	18.1	36.1	862.8	5057.1	5608.2	5840.9
67.5°	0.0	0.0	4.5	9.0	11.3	27.1	650.5	4600.9	5203.9	5520.1
70°	0.0	0.0	2.3	2.3	6.8	20.3	415.6	3810.3	4646.0	4820.0
72.5°	0.0	0.0	0.0	0.0	2.3	13.6	241.7	2830.1	3640.9	3963.9
75°	0.0	0.0	0.0	0.0	0.0	11.3	122.0	1820.5	2534.2	2967.9
77.5°	0.0	0.0	0.0	0.0	0.0	9.0	65.5	1174.5	1867.9	2231.5
80°	0.0	0.0	0.0	0.0	0.0	2.3	38.4	682.1	1194.8	1447.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	15.8	334.3	713.7	835.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	4.5	178.4	356.9	469.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	24.8	47.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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