

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge
or Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: 768356_400MP

Luminaire Tested: **TRU40PXX2F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 768356_400MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: TRU40PXX2F
Description: ARCHITECTURAL AREA LUMINAIRE - TYPE II
Light Source: 400 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 40000 (1 lamp)
Luminaire Lumens: 29102 lumens
Efficiency: 72.8%
Efficacy: 64.4 lumens/watt
Luminous Opening: Rectangular (W 1.1' x L: 1.1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G3

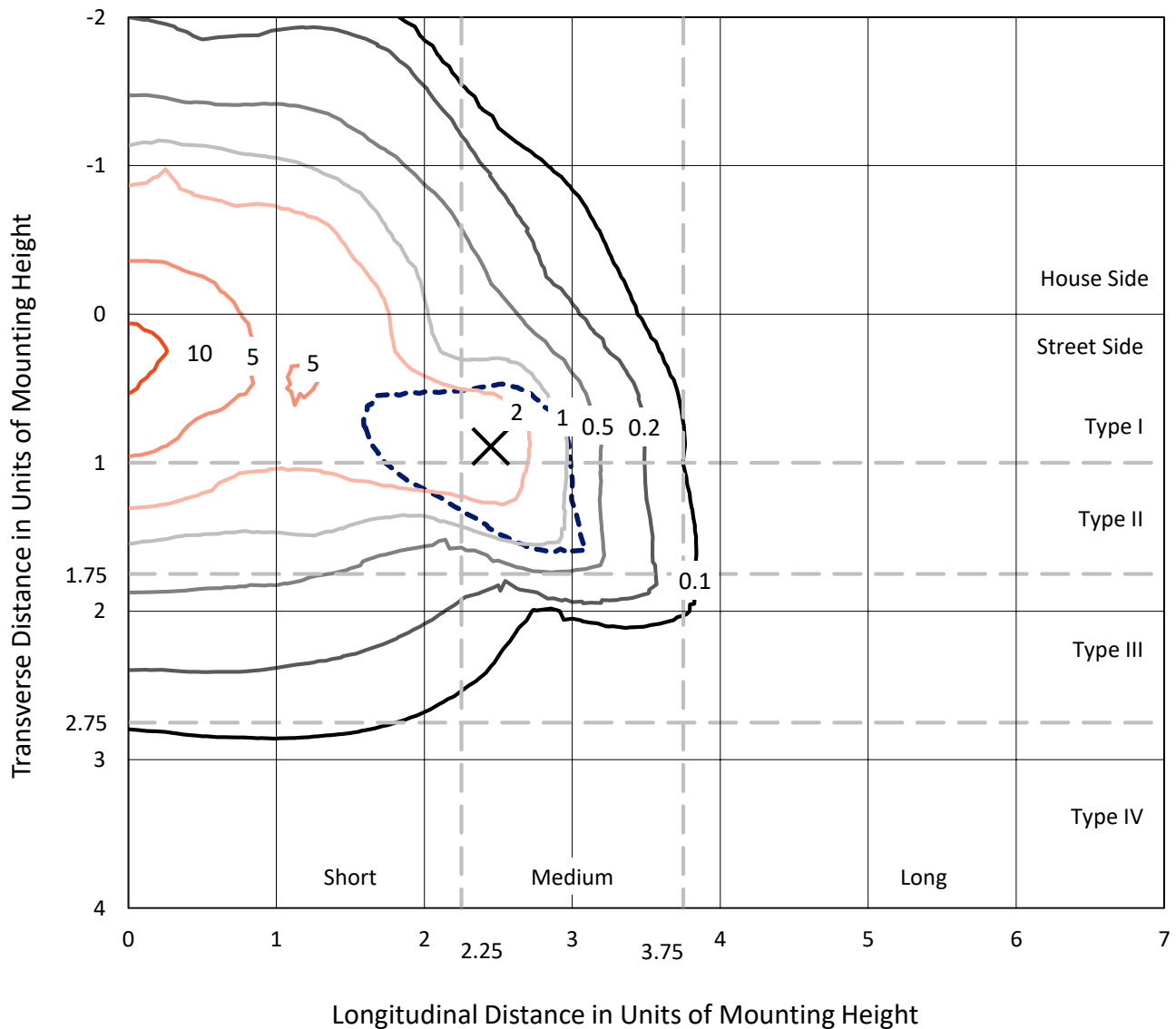
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

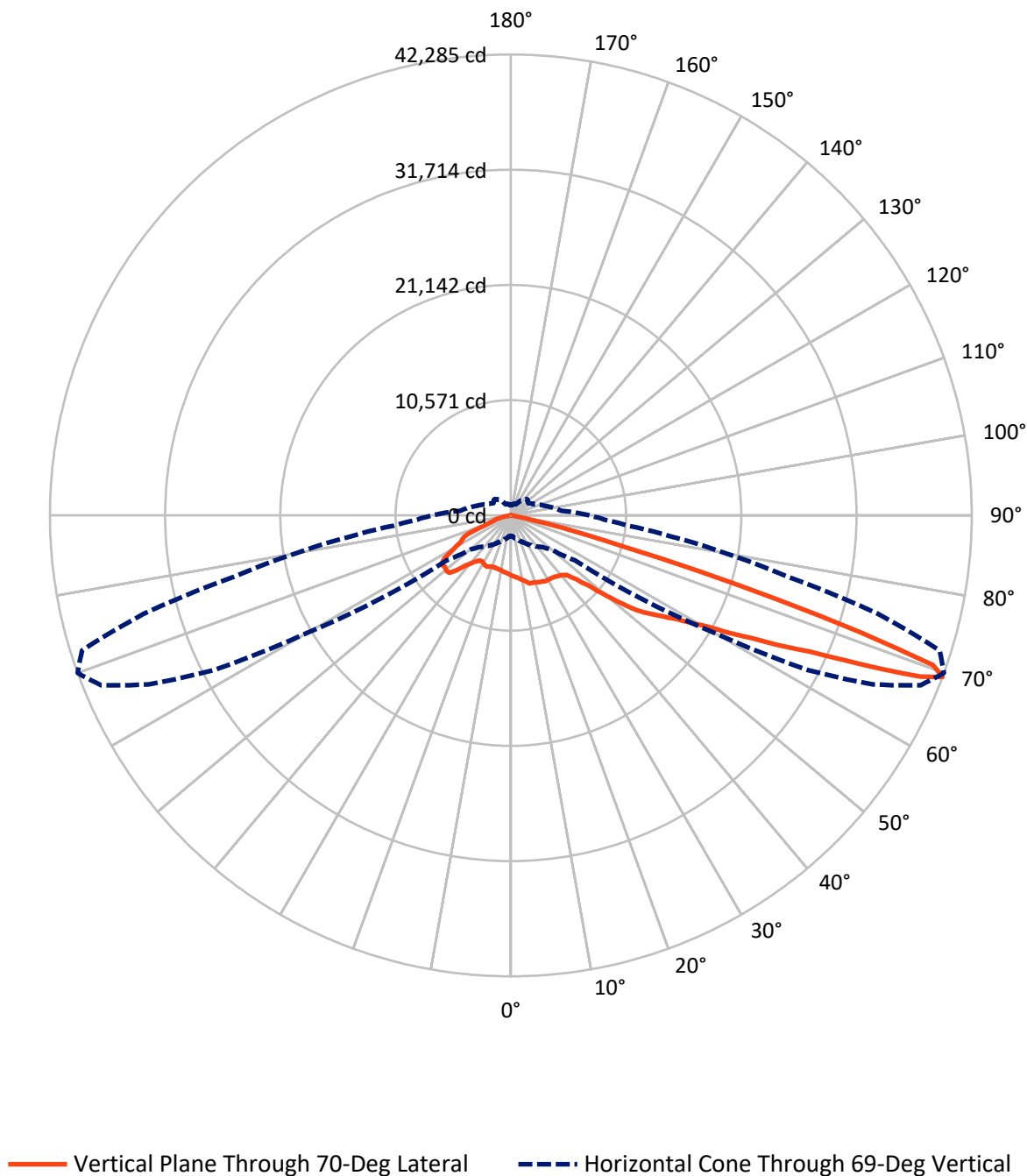
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.7 fc
Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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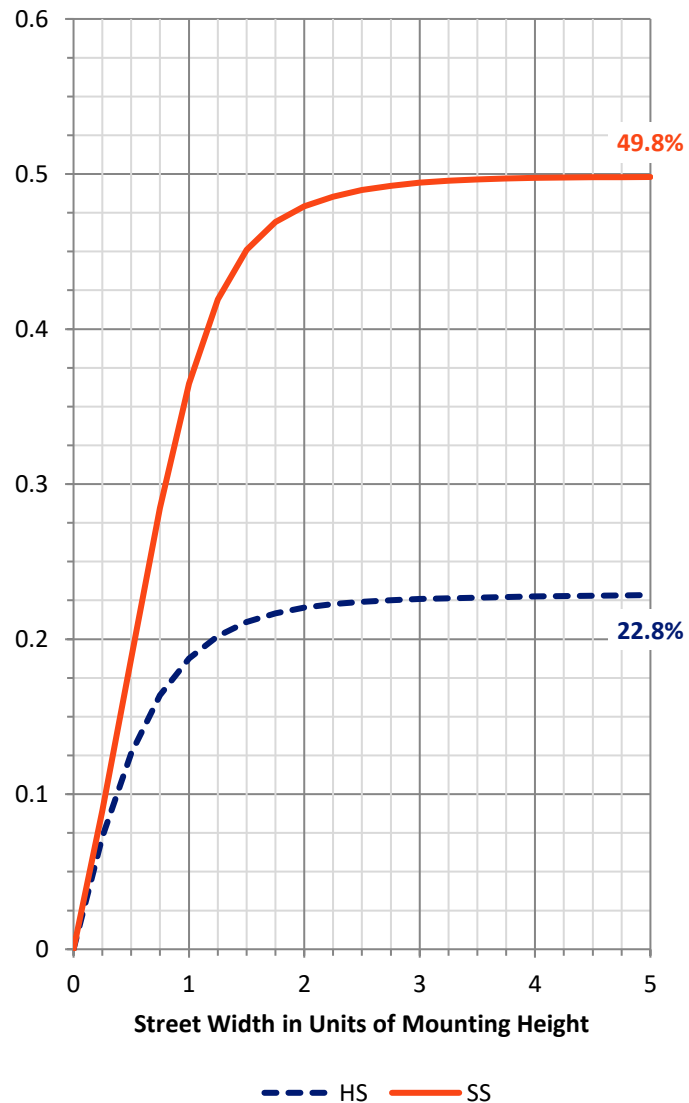
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9179.0	0.0	9179.0
	% Lamp	22.9	0.0	22.9
Street Side	Lumens	19923.0	0.0	19923.0
	% Lamp	49.8	0.0	49.8
Total	Lumens	29102.0	0.0	29102.0
	% Lamp	72.8	0.0	72.8

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	538.0	1.8	1.3
10°-20°	1653.4	5.7	4.1
20°-30°	2722.9	9.4	6.8
30°-40°	3614.7	12.4	9.0
40°-50°	4912.0	16.9	12.3
50°-60°	6169.8	21.2	15.4
60°-70°	6697.3	23.0	16.7
70°-80°	2734.7	9.4	6.8
80°-90°	59.2	0.2	0.1
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	29102.0	100.0	72.8
0°-180°	29102.0	100.0	72.8

Coefficient of Utilization

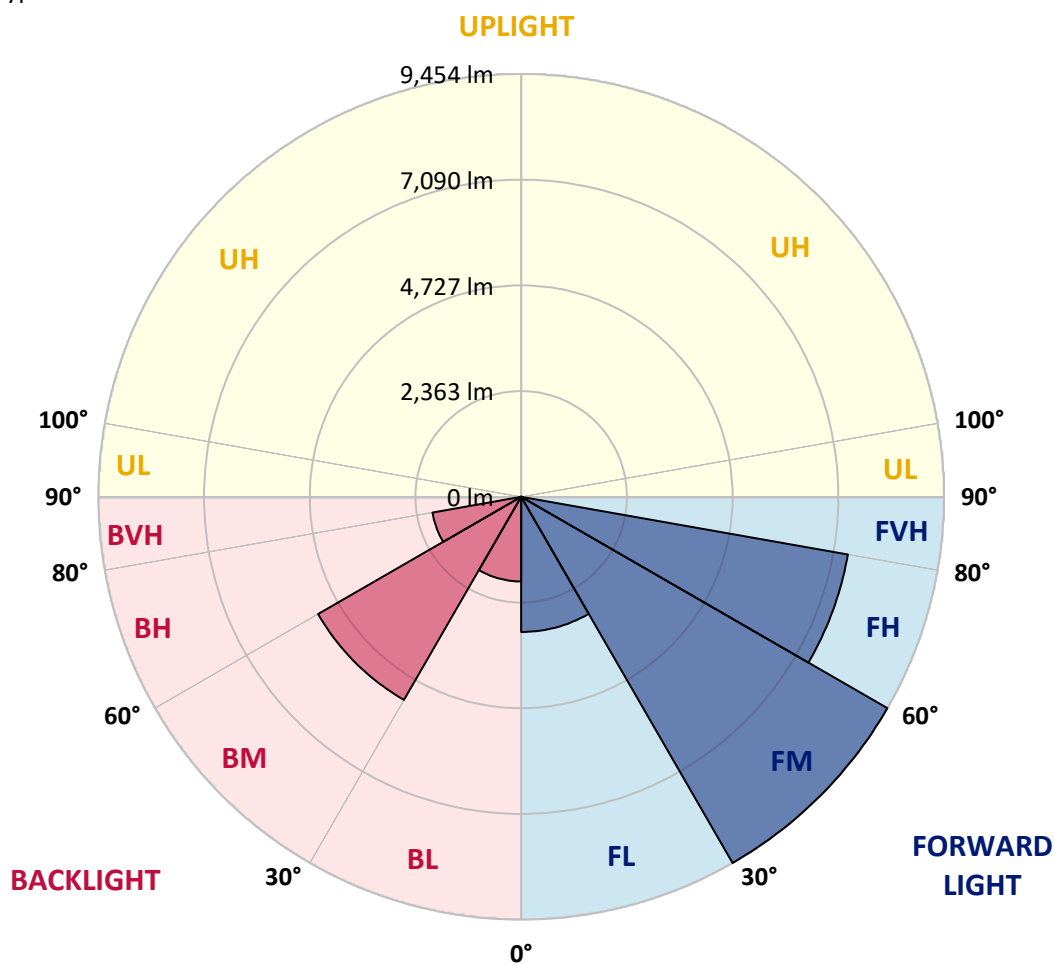


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3021.8	7.6			
FM	(30°-60°)	9453.8	23.6			
FH	(60°-80°)	7418.0	18.5			G3/7500
FVH	(80°-90°)	29.3	0.1			G1/100
BL	(0°-30°)	1892.6	4.7	B3/2500		
BM	(30°-60°)	5242.6	13.1	B4/8500		
BH	(60°-80°)	2014.0	5.0	B3/2500		G3/2500
BVH	(80°-90°)	29.9	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		10898.0	27.2			

BUG Rating: B4-U0-G3
Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	50°	55°	60°	62.5°	65°
0°	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6
2.5°	5924.6	5890.8	5870.5	5829.8	5802.7	5728.3	5711.3	5677.5	5657.2	5636.9	5636.9
5°	6432.4	6412.1	6358.0	6266.6	6165.0	6060.0	5995.7	5877.2	5833.2	5799.4	5762.1
7.5°	7312.7	7194.2	7092.6	6916.6	6713.4	6473.1	6310.6	6181.9	6060.0	6019.4	5961.9
10°	7837.4	7786.6	7634.3	7322.8	6967.4	6652.5	6537.4	6412.1	6283.5	6212.4	6151.5
12.5°	8023.6	8006.7	7854.4	7583.5	7177.3	6838.7	6699.9	6574.6	6449.4	6398.6	6347.8
15°	8023.6	8040.6	7939.0	7651.2	7380.4	7041.8	6974.1	6872.6	6764.2	6710.1	6645.7
17.5°	8165.8	8192.9	8074.4	7752.8	7498.9	7383.8	7312.7	7092.6	6838.7	6757.5	6683.0
20°	8497.6	8480.7	8192.9	7769.7	7617.4	7583.5	7471.8	7234.8	6923.3	6842.1	6730.4
22.5°	8531.5	8599.2	8294.5	7837.4	7752.8	7617.4	7465.0	7312.7	7058.8	6940.3	6859.0
25°	8768.4	8870.0	8311.4	7871.3	7702.0	7600.4	7482.0	7346.5	7160.3	7041.8	6923.3
27.5°	9479.4	9039.3	8274.2	7718.9	7434.6	7505.7	7498.9	7431.2	7278.8	7160.3	7024.9
30°	9242.4	8937.7	8010.1	7397.3	7211.1	7431.2	7603.8	7620.8	7417.6	7245.0	7109.6
32.5°	8666.9	8599.2	7668.2	7024.9	7092.6	7448.1	7644.5	7769.7	7498.9	7329.6	7160.3
35°	8497.6	8396.0	7749.4	6923.3	7024.9	7397.3	7600.4	7803.6	7634.3	7437.9	7278.8
37.5°	8463.8	8345.3	7939.0	7075.7	7008.0	7346.5	7610.6	7898.4	7854.4	7695.2	7475.2
40°	8429.9	8311.4	7888.2	7173.9	6974.1	7465.0	7820.5	8172.6	8074.4	7918.7	7651.2
42.5°	8396.0	8277.5	7939.0	7339.8	6838.7	7752.8	7854.4	8006.7	7989.8	7905.1	7752.8
45°	8226.8	8125.2	7922.1	7515.8	6686.4	7448.1	7600.4	8125.2	8429.9	8582.2	8480.7
47.5°	7685.1	7718.9	7718.9	7397.3	6449.4	7126.5	7807.0	9039.3	9621.6	9784.1	9699.5
50°	6872.6	6794.7	6754.1	6561.1	5762.1	7126.5	8406.2	10244.5	11527.6	11933.9	11764.6
52.5°	5416.8	5382.9	5552.2	5298.3	5433.7	7092.6	8768.4	11629.2	13714.7	13948.3	14134.5
55°	4333.4	4214.9	4275.9	4709.2	5132.4	6974.1	8988.5	12255.5	14845.4	15505.6	15810.3
57.5°	3757.9	3676.7	3730.8	4424.8	5078.2	6787.9	8413.0	11933.9	15224.6	16446.8	17452.3
60°	3311.0	3233.2	3399.0	4022.0	5467.6	7041.8	8176.0	12374.0	16622.8	19077.3	20262.2
62.5°	2904.8	2938.6	3121.4	3605.6	5298.3	8243.7	9411.7	13518.3	19805.2	22371.4	24138.6
65°	2586.5	2586.5	2810.0	3338.1	4181.1	6405.4	8345.3	12485.7	22225.8	26305.3	28959.6
66°	2413.9	2451.1	2681.3	3179.0	3944.1	5450.7	7245.0	11002.9	22344.3	27287.1	31535.9
67°	2248.0	2251.4	2559.4	3067.3	3690.2	4790.5	6253.0	9784.1	22090.4	27574.9	32433.1
68°	2065.2	2095.6	2434.2	2908.1	3554.8	4468.9	5518.4	8582.2	21630.0	28438.2	33871.9
69°	1862.0	1939.9	2292.0	2725.3	3355.0	4096.5	4858.2	7160.3	21565.6	30723.4	36681.9
70°	1686.0	1750.3	2092.2	2549.3	3206.1	3808.7	4316.5	6033.0	21944.8	31993.0	38120.7
71°	1506.5	1584.4	1926.3	2400.3	3067.3	3622.5	3927.2	5349.1	22496.6	33702.7	36546.5
72°	1340.7	1425.3	1770.6	2258.1	2864.1	3392.3	3554.8	4621.2	21802.6	31789.8	32324.8
73°	1171.4	1256.0	1604.7	2102.4	2664.4	3172.2	3097.7	3412.6	18654.1	26440.8	23827.1
74°	934.4	971.6	1222.2	1862.0	2413.9	2654.2	2410.5	2159.9	13779.0	21074.7	16487.4
75°	599.2	711.0	819.3	1300.0	1882.3	1777.4	1371.1	1709.7	8734.6	13152.7	10088.8
77.5°	118.5	125.3	172.7	284.4	446.9	423.2	406.3	633.1	2082.1	3124.8	2437.6
80°	74.5	74.5	71.1	77.9	94.8	135.4	172.7	264.1	399.5	575.5	592.5
82.5°	44.0	44.0	40.6	33.9	40.6	57.6	71.1	108.3	121.9	138.8	135.4
85°	30.5	27.1	20.3	13.5	16.9	20.3	27.1	30.5	37.2	50.8	50.8
87.5°	20.3	20.3	10.2	3.4	0.0	0.0	0.0	3.4	3.4	6.8	6.8
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):

	67.5°	70°	72.5°	75°	77.5°	80°	82.5°	85°	87.5°	90°	95°
0°	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6
2.5°	5623.3	5603.0	5579.3	5575.9	5569.1	5559.0	5548.8	5535.3	5508.2	5494.7	5464.2
5°	5731.7	5714.7	5677.5	5653.8	5636.9	5599.6	5572.5	5545.4	5515.0	5484.5	5440.5
7.5°	5914.5	5853.5	5826.4	5768.9	5728.3	5694.4	5647.0	5619.9	5565.8	5515.0	5433.7
10°	6104.1	6043.1	5978.8	5924.6	5880.6	5812.9	5741.8	5680.9	5609.8	5545.4	5416.8
12.5°	6303.8	6236.1	6198.9	6154.8	6090.5	6016.0	5941.6	5850.1	5755.4	5653.8	5467.6
15°	6567.9	6479.8	6374.9	6273.3	6178.5	6073.6	5968.6	5863.7	5758.7	5650.4	5447.3
17.5°	6608.5	6486.6	6385.1	6280.1	6175.2	6066.8	5955.1	5846.8	5748.6	5657.2	5467.6
20°	6649.1	6554.3	6452.8	6341.0	6253.0	6127.8	6016.0	5914.5	5823.1	5718.1	5545.4
22.5°	6737.1	6645.7	6557.7	6449.4	6344.4	6236.1	6114.2	6033.0	5931.4	5853.5	5670.7
25°	6828.6	6720.2	6645.7	6537.4	6439.2	6320.7	6202.2	6093.9	6002.5	5917.9	5741.8
27.5°	6923.3	6821.8	6696.5	6595.0	6466.3	6334.3	6202.2	6077.0	5968.6	5873.8	5691.0
30°	6957.2	6821.8	6693.1	6584.8	6452.8	6290.3	6175.2	6036.3	5924.6	5809.5	5606.4
32.5°	7024.9	6855.6	6696.5	6574.6	6449.4	6310.6	6151.5	6026.2	5897.5	5785.8	5582.7
35°	7092.6	6923.3	6737.1	6622.0	6510.3	6391.8	6259.8	6127.8	5999.1	5917.9	5718.1
37.5°	7255.1	7058.8	6889.5	6757.5	6632.2	6547.6	6466.3	6391.8	6324.1	6219.2	6022.8
40°	7380.4	7194.2	7028.3	6933.5	6899.6	6903.0	6815.0	6794.7	6754.1	6693.1	6402.0
42.5°	7603.8	7465.0	7431.2	7431.2	7397.3	7414.2	7370.2	7305.9	7224.7	7207.7	6950.4
45°	8429.9	8294.5	8277.5	8277.5	8294.5	8209.8	8176.0	8108.3	8074.4	7854.4	7617.4
47.5°	9750.2	9641.9	9818.0	9767.2	9513.3	9394.8	9350.8	9191.6	9039.3	8836.2	8504.4
50°	11967.7	11933.9	11937.3	11690.1	11172.2	10850.5	10562.8	10393.5	10190.4	9834.9	9157.8
52.5°	13965.2	14456.1	14354.5	14100.6	13477.7	13071.4	12746.4	12340.1	11612.3	10918.2	9801.0
55°	15888.2	16098.1	15945.7	15261.8	14517.0	13999.0	13931.3	14029.5	13728.2	12810.7	10918.2
57.5°	17706.2	17943.2	17442.1	16419.7	15099.3	13934.7	13254.2	12983.4	13186.5	12868.3	10698.2
60°	20922.4	20668.5	19991.4	17638.5	14947.0	12966.5	11832.3	11273.7	11273.7	10816.7	9428.6
62.5°	24291.0	24832.6	22858.9	19029.9	14947.0	11798.5	9767.2	8717.7	8683.8	8091.3	7465.0
65°	30310.4	30147.9	28695.5	22767.5	16131.9	11409.1	8345.3	6974.1	6412.1	6185.3	5785.8
66°	32653.1	33194.8	32659.9	26095.4	17773.9	12086.2	8226.8	6703.3	6361.4	6195.5	6043.1
67°	35910.0	36834.2	36201.2	30147.9	20550.0	13982.1	9496.3	7583.5	7116.3	6923.3	6364.7
68°	38567.6	40372.1	39688.2	33570.6	24358.7	17164.5	12272.4	9242.4	8074.4	7685.1	5755.4
69°	40693.7	42284.9	41245.5	34857.1	26017.6	19991.4	14862.3	10782.8	8551.8	7211.1	4685.5
70°	40575.2	41096.6	39119.5	33668.8	23935.5	18569.5	14249.6	10122.6	7668.2	5704.6	3720.7
71°	35700.1	33888.9	31569.8	28252.0	19686.7	15475.1	11883.1	8531.5	6347.8	4817.6	3118.0
72°	27405.6	25577.5	22496.6	20455.2	15779.8	12434.9	9157.8	6980.9	5010.5	3937.3	2813.4
73°	19534.3	17824.7	14963.9	13694.3	10982.6	8294.5	7035.1	5044.4	3961.0	3219.6	2630.5
74°	12878.4	10931.8	9428.6	8277.5	7465.0	6330.9	5399.9	4035.5	3239.9	2772.7	2444.3
75°	8717.7	7109.6	5785.8	4827.7	4587.4	4028.7	3466.8	2796.4	2501.9	2187.0	2190.4
77.5°	2176.9	1696.1	1266.2	1100.3	1134.1	1218.8	1279.7	1063.0	961.5	914.1	1232.3
80°	443.5	416.4	304.7	321.6	301.3	321.6	325.0	314.9	328.4	314.9	396.1
82.5°	132.0	128.6	132.0	125.3	121.9	111.7	108.3	118.5	105.0	94.8	98.2
85°	44.0	47.4	47.4	44.0	44.0	40.6	33.9	30.5	27.1	27.1	27.1
87.5°	10.2	10.2	10.2	6.8	3.4	3.4	3.4	3.4	3.4	3.4	3.4
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):

	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6	5511.6
2.5°	5406.6	5318.6	5237.4	5213.7	5213.7	5179.8	5146.0	5146.0	5146.0
5°	5352.5	5223.8	5129.0	5027.5	4925.9	4841.3	4875.1	4841.3	4841.3
7.5°	5305.1	5125.6	4976.7	4875.1	4783.7	4688.9	4587.4	4556.9	4570.4
10°	5217.1	5047.8	4875.1	4760.0	4624.6	4523.0	4418.1	4350.4	4333.4
12.5°	5179.8	4963.1	4766.8	4638.1	4468.9	4333.4	4221.7	4113.4	4164.2
15°	5152.7	4902.2	4688.9	4519.6	4333.4	4167.6	4028.7	3944.1	3961.0
17.5°	5162.9	4865.0	4621.2	4401.2	4231.9	4042.3	3893.3	3808.7	3791.8
20°	5186.6	4814.2	4553.5	4299.6	4096.5	3927.2	3798.5	3724.0	3724.0
22.5°	5278.0	4841.3	4401.2	4147.2	4028.7	3859.5	3690.2	3622.5	3588.6
25°	5399.9	4919.1	4316.5	4045.7	3944.1	3774.8	3561.5	3470.1	3453.2
27.5°	5416.8	4919.1	4265.7	3961.0	3876.4	3707.1	3453.2	3412.6	3405.8
30°	5308.5	4804.0	4130.3	3869.6	3825.6	3656.3	3385.5	3304.2	3294.1
32.5°	5223.8	4685.5	4130.3	3825.6	3744.4	3622.5	3361.8	3131.6	3101.1
35°	5325.4	4729.5	4181.1	3825.6	3622.5	3504.0	3175.6	2942.0	2914.9
37.5°	5633.5	4888.7	4353.8	3845.9	3487.1	3344.9	3074.0	2810.0	2816.7
40°	6049.9	5247.5	4570.4	3906.9	3405.8	3141.7	3192.5	2820.1	2867.5
42.5°	6561.1	5812.9	5095.2	3859.5	3304.2	3009.7	3625.9	2850.6	2935.2
45°	7329.6	6662.7	5619.9	3774.8	3179.0	2766.0	4069.4	2549.3	2552.7
47.5°	8023.6	7414.2	5643.6	3544.6	3063.9	2630.5	2999.6	2261.5	2210.7
50°	8328.3	7261.9	5281.4	3487.1	2958.9	2637.3	2258.1	2187.0	2129.5
52.5°	8345.3	6974.1	4892.0	3520.9	2826.9	2518.8	1997.4	2000.8	2011.0
55°	8551.8	7041.8	4722.8	3561.5	2691.5	2187.0	1821.4	1838.3	1797.7
57.5°	7695.2	6838.7	4519.6	3439.7	2562.8	1892.5	1618.3	1672.4	1655.5
60°	6584.8	5616.5	4028.7	3236.5	2471.4	1726.6	1415.1	1550.6	1523.5
62.5°	5636.9	4739.7	3605.6	3097.7	2383.4	1611.5	1242.5	1438.8	1415.1
65°	5501.4	4214.9	3453.2	2921.7	2254.7	1482.8	1110.4	1191.7	1371.1
66°	5349.1	4011.8	3344.9	2803.2	2159.9	1418.5	1066.4	1083.4	1306.8
67°	4841.3	3774.8	3206.1	2674.5	2082.1	1347.4	1066.4	1029.2	1228.9
68°	4072.8	3111.3	2840.4	2515.4	1963.6	1235.7	1073.2	988.6	1127.4
69°	3300.9	2400.3	1956.8	2115.9	1702.9	1113.8	1103.7	934.4	958.1
70°	2803.2	1763.8	1428.7	1381.3	1239.1	900.5	1127.4	836.2	812.5
71°	2556.1	1584.4	1069.8	951.3	914.1	670.3	1124.0	700.8	687.3
72°	2285.2	1367.7	839.6	768.5	748.2	541.7	1100.3	602.6	565.4
73°	2112.6	1188.3	714.3	639.9	619.5	463.8	1086.7	551.8	518.0
74°	1997.4	1052.9	622.9	518.0	460.4	355.5	1083.4	538.3	484.1
75°	1977.1	934.4	545.1	419.8	358.9	270.8	1073.2	521.4	450.3
77.5°	1550.6	589.1	325.0	287.8	189.6	138.8	782.1	480.7	358.9
80°	572.1	223.4	159.1	135.4	98.2	71.1	308.1	294.5	230.2
82.5°	105.0	81.3	71.1	64.3	44.0	33.9	60.9	67.7	50.8
85°	27.1	23.7	27.1	33.9	20.3	13.5	16.9	13.5	13.5
87.5°	3.4	3.4	10.2	10.2	3.4	3.4	6.8	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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