

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: STREETWORKS

Report Number: P157421

Luminaire Tested: **VST-E12-LED-E-U-5MQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157421
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33708)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E12-LED-E-U-5MQ-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (252) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39388.4 lumens
Efficiency: N/A
Efficacy: 135.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 291.7
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



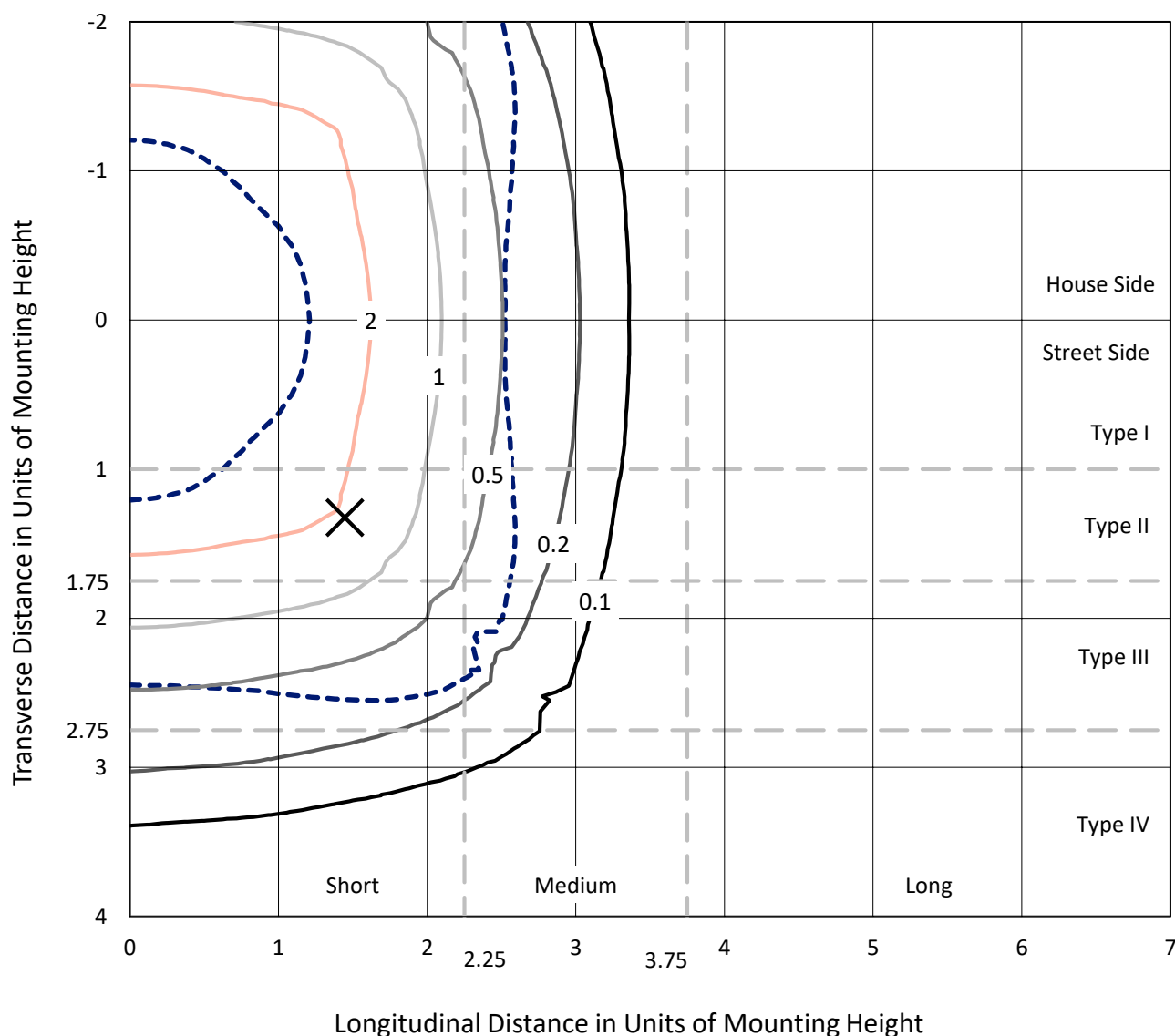
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

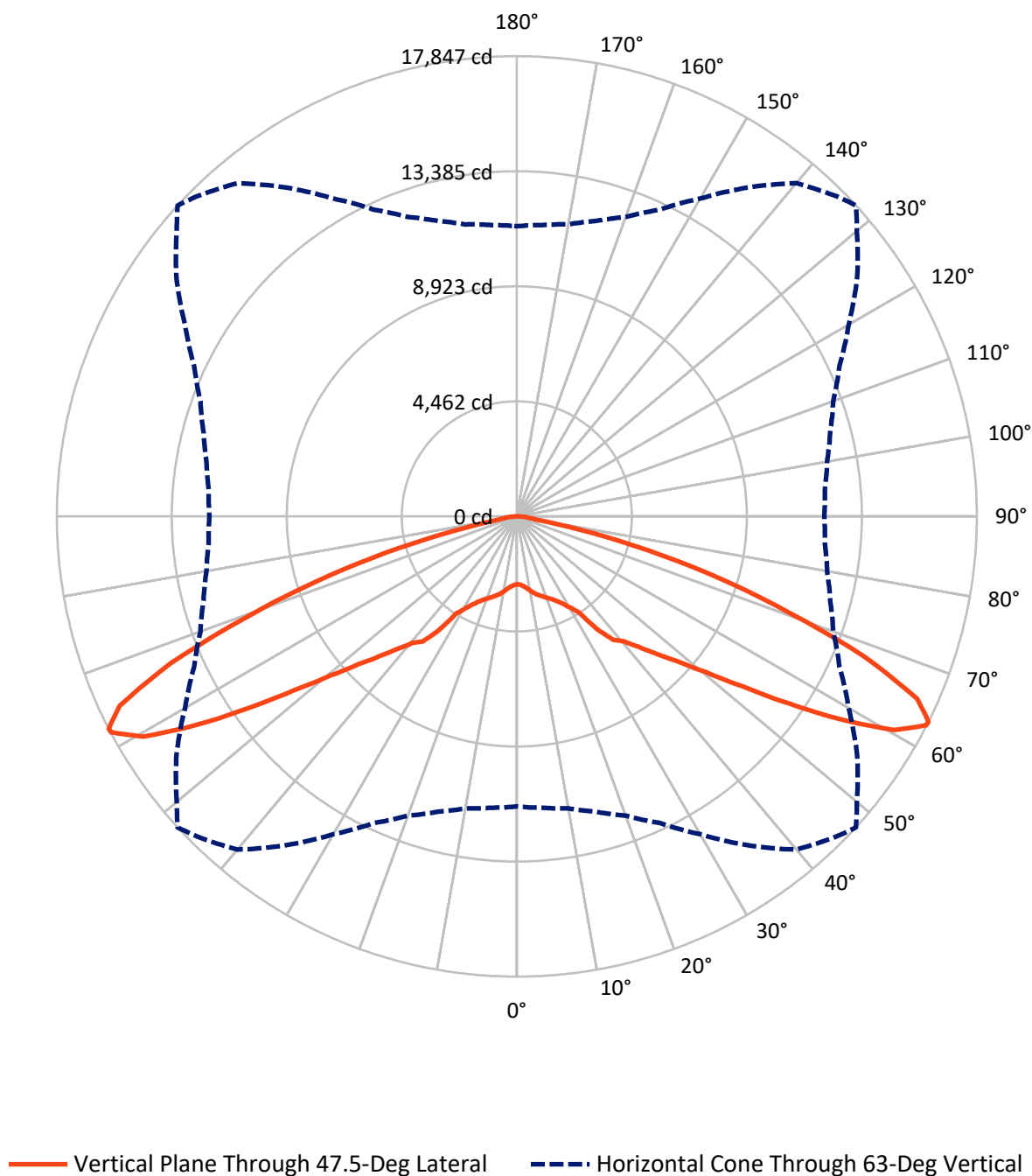


Based on 30 foot mounting height. Maximum calculated value = 3.2 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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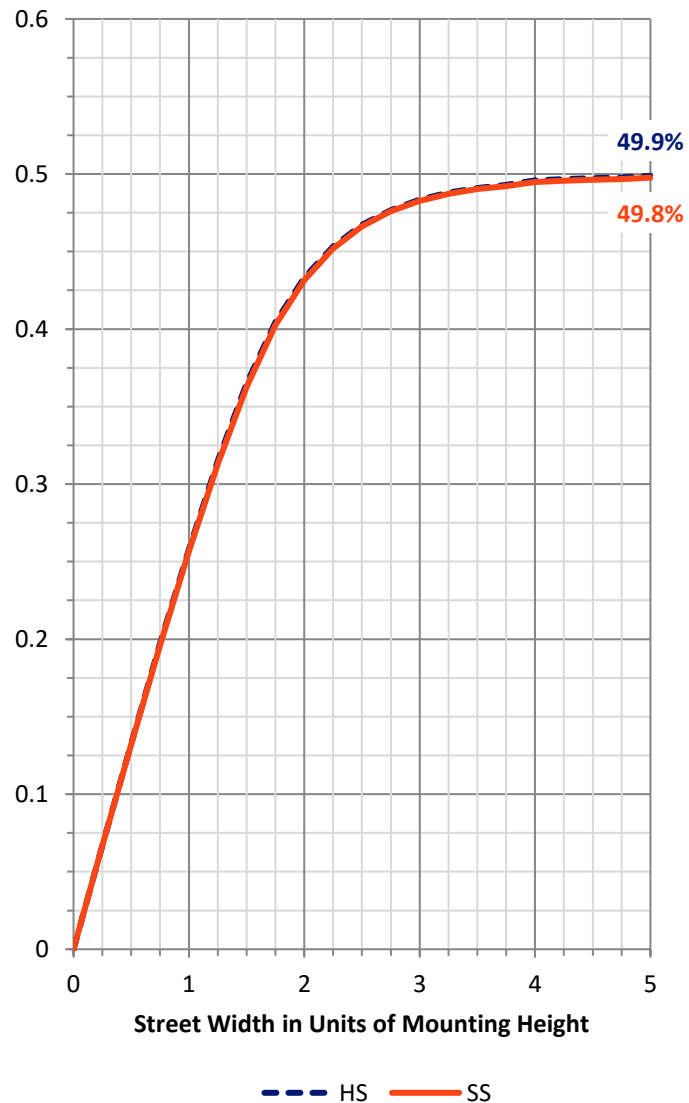
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	19694.2	0.0	19694.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	19694.2	0.0	19694.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	39388.4	0.0	39388.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.1	0.7
10°-20°	897.6	2.3
20°-30°	1716.9	4.4
30°-40°	3284.2	8.3
40°-50°	5682.8	14.4
50°-60°	10206.1	25.9
60°-70°	12410.7	31.5
70°-80°	4482.1	11.4
80°-90°	443.9	1.1
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°	39388.4	100.0
0°-180°	39388.4	100.0

Coefficient of Utilization



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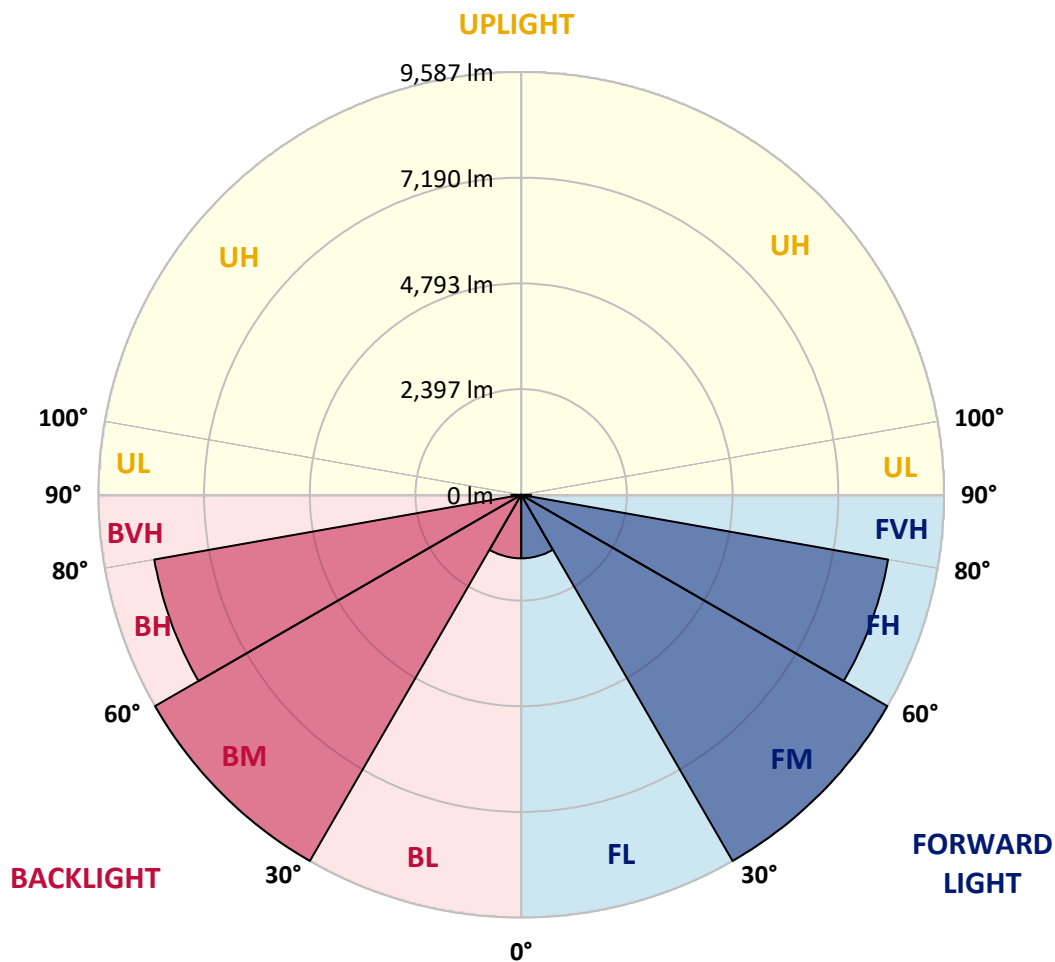
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1439.3	3.7			
FM	(30°-60°)	9586.6	24.3			
FH	(60°-80°)	8446.4	21.4			G4/12000
FVH	(80°-90°)	222.0	0.6			G2/225
BL	(0°-30°)	1439.3	3.7	B3/2500		
BM	(30°-60°)	9586.6	24.3	B5		
BH	(60°-80°)	8446.4	21.4	B5		G4/12000
BVH	(80°-90°)	222.0	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	2630.1	2630.1	2630.1	2630.1	2630.1	2630.1	2630.1	2630.1	2630.1	2630.1	2630.1
2.5°	2647.4	2642.4	2644.9	2647.4	2644.9	2642.4	2642.4	2642.4	2647.4	2642.4	2654.7
5°	2699.1	2694.1	2696.6	2696.6	2696.6	2691.7	2691.7	2691.7	2689.2	2691.7	2718.8
7.5°	2797.6	2790.2	2787.7	2792.6	2787.7	2785.3	2782.8	2782.8	2777.9	2777.9	2812.3
10°	2915.8	2905.9	2910.9	2913.3	2905.9	2901.0	2901.0	2901.0	2893.6	2891.2	2935.5
12.5°	3046.3	3041.4	3041.4	3036.5	3034.0	3029.1	3026.6	3029.1	3019.2	3019.2	3063.5
15°	3171.9	3162.0	3164.5	3157.1	3152.2	3147.3	3144.8	3142.3	3137.4	3137.4	3164.5
17.5°	3287.6	3280.3	3277.8	3270.4	3263.0	3255.6	3250.7	3248.2	3240.9	3240.9	3265.5
20°	3408.3	3400.9	3396.0	3383.7	3371.4	3364.0	3354.1	3349.2	3339.4	3341.8	3368.9
22.5°	3546.2	3533.9	3524.1	3514.2	3492.0	3477.3	3465.0	3455.1	3450.2	3450.2	3487.1
25°	3730.9	3723.5	3708.8	3676.7	3649.7	3627.5	3607.8	3597.9	3588.1	3583.2	3639.8
27.5°	3957.5	3950.1	3930.4	3898.4	3861.4	3824.5	3802.3	3785.1	3772.8	3765.4	3846.7
30°	4257.9	4245.6	4228.4	4176.7	4144.6	4088.0	4063.4	4038.8	4011.7	4019.0	4115.1
32.5°	4846.5	4829.3	4775.1	4718.4	4619.9	4543.6	4464.8	4405.7	4349.0	4341.7	4445.1
35°	5380.9	5373.5	5363.7	5324.3	5287.3	5240.5	5203.6	5142.0	5090.3	5078.0	5368.6
37.5°	5669.0	5686.3	5671.5	5666.6	5666.6	5688.7	5757.7	5826.6	5875.9	5905.4	6068.0
40°	6109.8	6109.8	6092.6	6082.8	6063.1	6092.6	6122.2	6173.9	6196.0	6198.5	6363.5
42.5°	6609.8	6612.2	6595.0	6565.4	6555.6	6582.7	6622.1	6671.3	6700.9	6708.3	6900.4
45°	7166.3	7158.9	7144.2	7134.3	7141.7	7166.3	7213.1	7309.2	7353.5	7388.0	7597.3
47.5°	7769.7	7818.9	7777.1	7784.4	7784.4	7860.8	7966.7	8045.5	8116.9	8183.4	8405.0
50°	8560.2	8567.6	8575.0	8597.1	8611.9	8712.9	8845.8	8939.4	9042.9	9129.1	9491.1
52.5°	9616.7	9601.9	9638.8	9663.5	9747.2	9801.4	10023.0	10141.2	10284.0	10394.9	10924.3
55°	10880.0	10872.6	10926.8	10946.5	11057.3	11190.3	11436.6	11695.1	11938.9	12074.4	12798.4
57.5°	11786.3	11806.0	11899.5	12030.1	12246.8	12530.0	12896.9	13468.2	13931.2	14079.0	14876.9
60°	11985.7	12049.8	12190.1	12451.2	12823.0	13350.0	14071.6	14945.8	15793.0	16076.2	16824.8
62.5°	11426.7	11500.6	11707.5	12020.2	12505.4	13286.0	14327.7	15561.5	16819.9	17450.4	17827.1
63°	11249.4	11340.5	11495.7	11857.7	12350.2	13121.0	14229.2	15559.0	16864.2	17551.3	17846.8
65°	10417.0	10434.3	10665.8	11027.8	11581.9	12382.2	13500.3	15037.0	16485.0	17278.0	17073.6
67.5°	8964.1	9035.5	9230.0	9594.5	10133.8	10966.2	12180.3	13601.2	14874.4	15507.3	14593.7
70°	7242.7	7237.7	7479.1	7772.1	8247.4	8978.8	10042.7	11325.7	12335.4	12795.9	11266.6
72.5°	5174.0	5046.0	5223.3	5548.4	5937.5	6521.1	7363.3	8360.7	9264.5	9663.5	8237.6
75°	2356.8	2322.3	2479.9	2802.5	3196.5	3716.1	4408.1	5270.1	6136.9	6604.8	5247.9
77.5°	793.0	802.8	864.4	980.1	1191.9	1453.0	1883.9	2435.6	3137.4	3600.4	2462.7
80°	531.9	546.7	566.4	583.6	608.3	647.7	741.3	884.1	1100.8	1332.3	778.2
82.5°	435.9	453.1	497.5	517.2	531.9	544.2	551.6	561.5	561.5	566.4	492.5
85°	312.8	342.3	401.4	438.4	453.1	463.0	475.3	490.1	467.9	448.2	381.7
87.5°	108.4	147.8	216.7	238.9	256.1	258.6	275.8	305.4	290.6	236.4	115.7
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	2630.1	2630.1	2630.1	2630.1	2630.1	2630.1	2630.1	2630.1	2630.1
2.5°	2642.4	2640.0	2642.4	2644.9	2644.9	2644.9	2647.4	2649.8	2649.8
5°	2691.7	2694.1	2691.7	2694.1	2694.1	2696.6	2696.6	2701.5	2701.5
7.5°	2775.4	2780.3	2777.9	2782.8	2782.8	2787.7	2785.3	2792.6	2792.6
10°	2888.7	2893.6	2898.5	2901.0	2898.5	2903.5	2908.4	2910.9	2908.4
12.5°	3016.8	3019.2	3016.8	3021.7	3021.7	3026.6	3026.6	3034.0	3034.0
15°	3135.0	3132.5	3130.0	3137.4	3142.3	3144.8	3149.7	3157.1	3149.7
17.5°	3240.9	3243.3	3238.4	3245.8	3255.6	3263.0	3267.9	3277.8	3275.3
20°	3346.7	3341.8	3346.7	3359.1	3368.9	3378.8	3388.6	3403.4	3400.9
22.5°	3450.2	3455.1	3467.4	3477.3	3494.5	3509.3	3521.6	3541.3	3548.7
25°	3595.5	3595.5	3615.2	3627.5	3652.1	3671.8	3698.9	3721.1	3733.4
27.5°	3780.2	3780.2	3802.3	3829.4	3866.4	3900.8	3930.4	3959.9	3955.0
30°	4031.4	4043.7	4063.4	4097.9	4147.1	4189.0	4228.4	4257.9	4260.4
32.5°	4361.4	4376.1	4435.2	4523.9	4627.3	4706.1	4765.2	4836.7	4846.5
35°	5110.0	5146.9	5223.3	5294.7	5336.6	5383.4	5412.9	5415.4	5420.3
37.5°	5898.1	5834.0	5774.9	5720.7	5696.1	5691.2	5691.2	5701.0	5706.0
40°	6186.2	6154.2	6127.1	6092.6	6102.5	6100.0	6117.2	6132.0	6141.9
42.5°	6678.7	6654.1	6629.5	6585.1	6609.8	6602.4	6627.0	6649.2	6661.5
45°	7365.8	7289.5	7235.3	7163.9	7188.5	7173.7	7173.7	7200.8	7205.7
47.5°	8124.3	8035.6	7924.8	7836.2	7806.6	7779.5	7804.1	7804.1	7777.1
50°	9033.0	8927.1	8796.6	8653.8	8604.5	8577.4	8587.3	8599.6	8523.2
52.5°	10266.8	10148.6	9963.9	9747.2	9700.4	9678.2	9673.3	9656.1	9636.4
55°	11938.9	11717.3	11490.7	11205.1	11118.9	11094.3	11096.7	11077.0	11123.8
57.5°	13911.5	13586.5	13064.4	12717.1	12510.3	12431.5	12360.1	12330.5	12333.0
60°	15864.4	15202.0	14421.3	13815.5	13382.1	13106.2	12889.5	12768.9	12734.4
62.5°	17122.8	16081.1	14908.9	13926.3	13214.6	12759.0	12416.7	12200.0	12131.0
63°	17221.3	16118.1	14864.6	13810.6	13061.9	12584.2	12224.6	12000.5	11926.6
65°	17007.1	15746.2	14285.9	13029.9	12209.8	11680.4	11291.3	11079.5	11022.8
67.5°	15342.3	14293.2	12805.8	11508.0	10680.5	10143.7	9697.9	9496.0	9432.0
70°	12480.7	11761.6	10542.6	9434.4	8663.6	8146.5	7695.8	7528.3	7525.9
72.5°	9252.2	8318.8	7592.4	6779.7	6107.4	5696.1	5304.6	5117.4	5023.8
75°	6119.7	5119.9	4307.2	3622.6	2952.7	2583.3	2142.5	1952.9	1842.1
77.5°	3083.2	2285.3	1637.7	1135.3	881.6	724.0	662.5	630.4	628.0
80°	1026.9	770.8	662.5	620.6	608.3	610.7	603.4	591.0	576.3
82.5°	568.9	598.4	603.4	586.1	586.1	576.3	566.4	519.6	495.0
85°	487.6	536.9	541.8	531.9	529.5	514.7	497.5	433.4	396.5
87.5°	305.4	352.2	344.8	307.8	339.8	317.7	300.4	194.5	142.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)