

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: P196102

Luminaire Tested: **NVN-AF-04-LED-U-SL2-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196102  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-AF-04-LED-U-SL2-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 26840.2 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

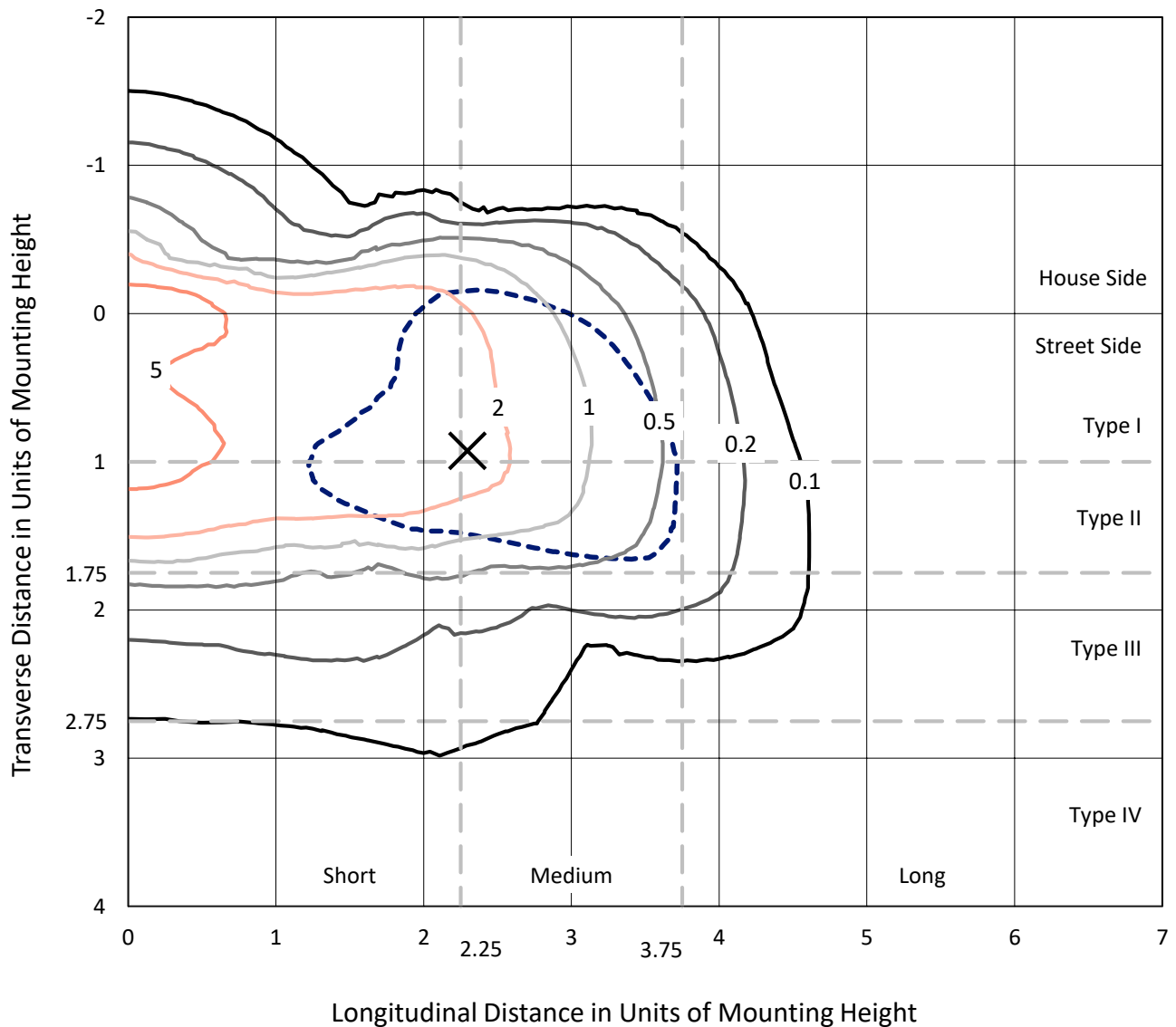
Input Watts (W): 258  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

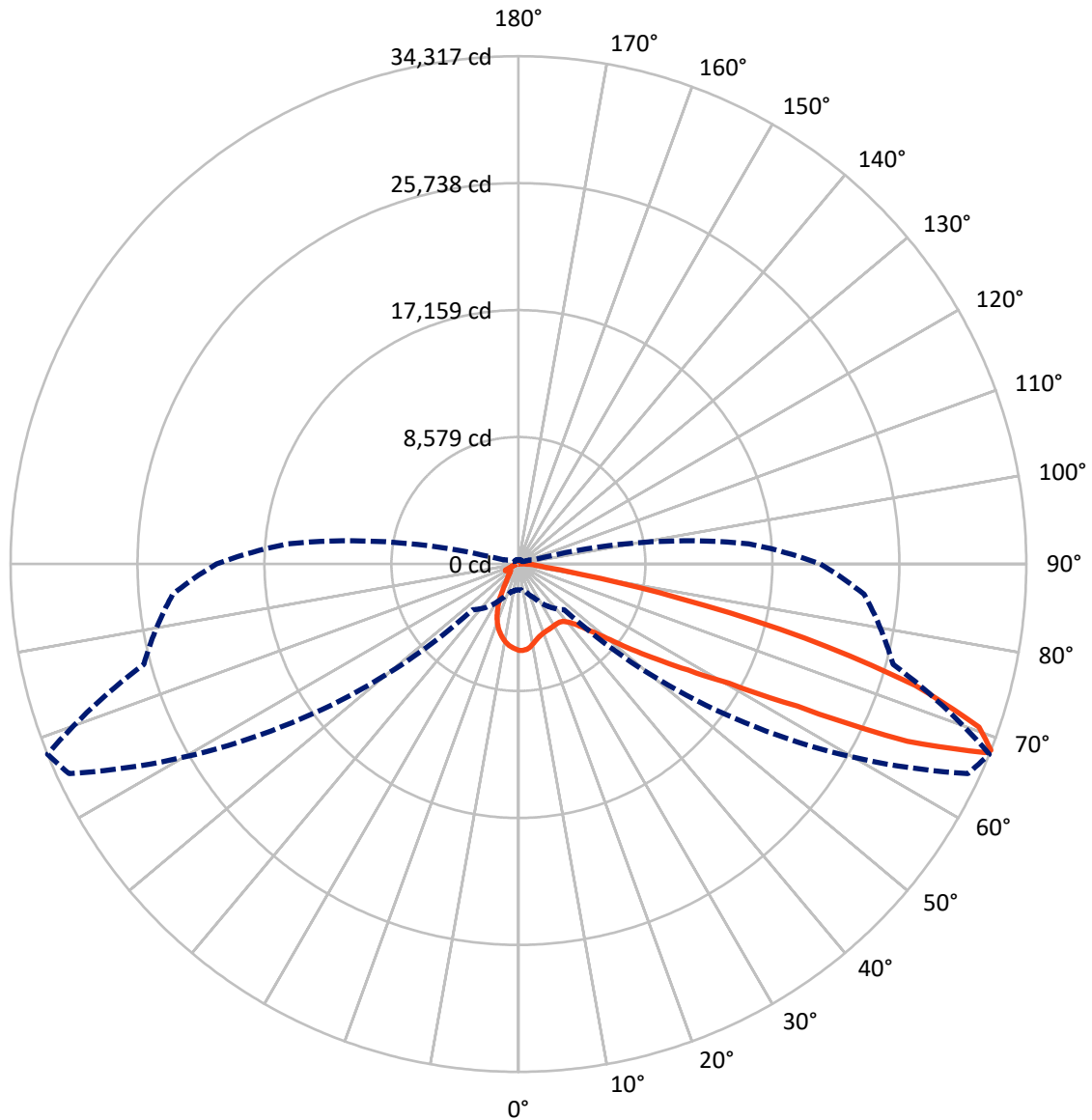
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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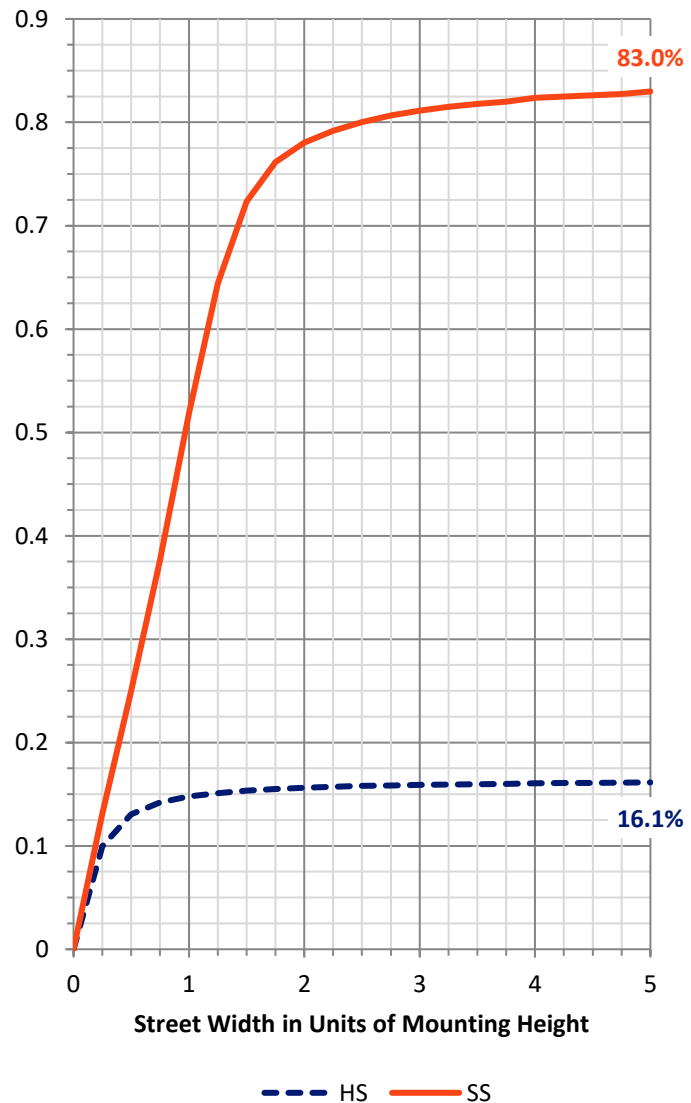
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4391.1	0.0	4391.1
	% Fixture	16.4	0.0	16.4
<b>Street Side</b>	Lumens	22449.0	0.0	22449.0
	% Fixture	83.6	0.0	83.6
<b>Total</b>	Lumens	26840.2	0.0	26840.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	500.4	1.9
10°-20°	1160.6	4.3
20°-30°	1569.7	5.8
30°-40°	2213.2	8.2
40°-50°	3639.3	13.6
50°-60°	5641.3	21.0
60°-70°	7314.4	27.3
70°-80°	4197.4	15.6
80°-90°	603.9	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°	26840.2	100.0
0°-180°	26840.2	100.0

**Coefficient of Utilization**



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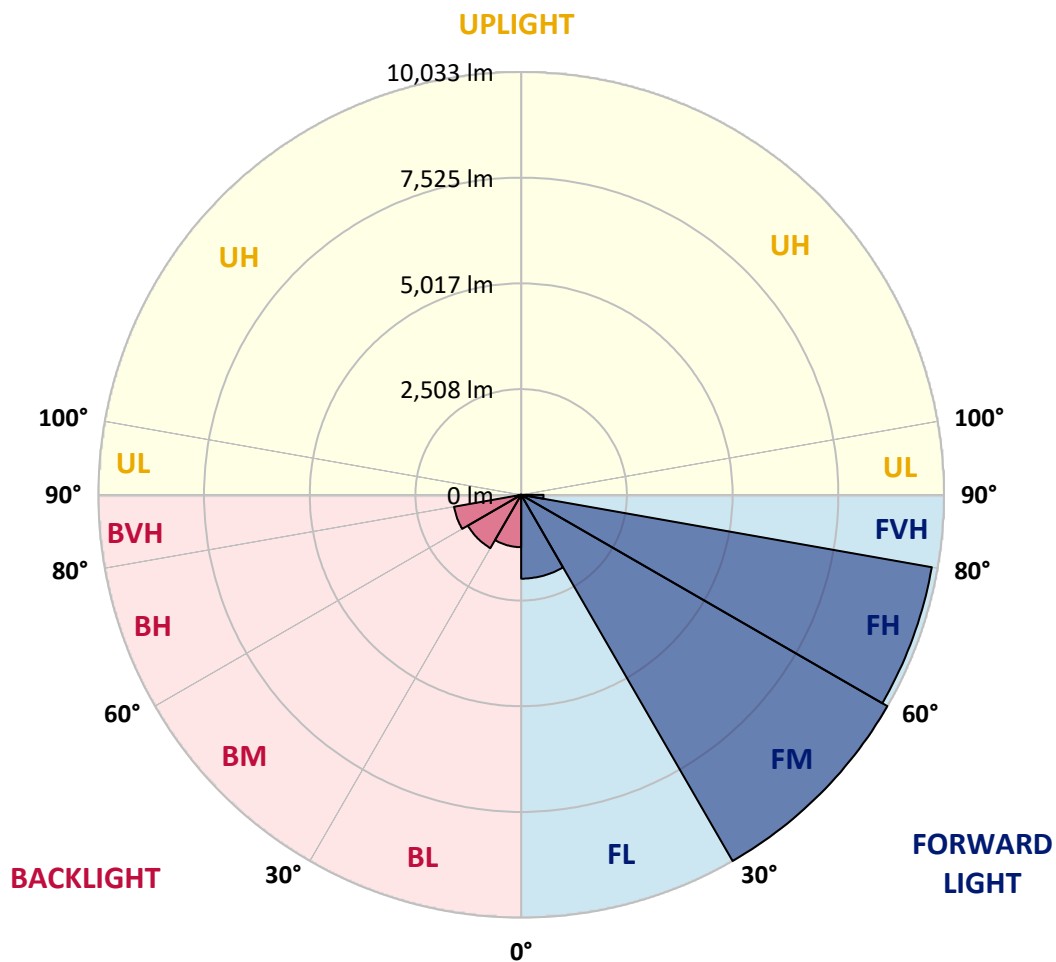
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1989.3	7.4			
FM	(30°-60°)	10033.3	37.4			
FH	(60°-80°)	9894.5	36.9			G4/12000
FVH	(80°-90°)	531.9	2.0			G4/750
BL	(0°-30°)	1241.4	4.6	B3/2500		
BM	(30°-60°)	1460.5	5.4	B2/2500		
BH	(60°-80°)	1617.2	6.0	B3/2500		G3/2500
BVH	(80°-90°)	72.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2
2.5°	5684.1	5729.8	5729.8	5763.0	5792.9	5817.4	5838.4	5838.4	5838.4	5824.4	5812.1
5°	5086.3	5147.6	5156.4	5240.6	5351.1	5486.0	5636.8	5770.1	5796.3	5845.4	5864.7
7.5°	4670.8	4690.0	4723.4	4781.2	4893.4	5059.9	5296.6	5594.7	5666.6	5820.9	5901.5
10°	4376.2	4391.9	4420.1	4477.9	4579.5	4730.3	4963.6	5351.1	5470.2	5743.8	5903.3
12.5°	4160.5	4172.8	4199.1	4251.7	4355.1	4490.1	4728.6	5131.8	5279.1	5666.6	5927.9
15°	3992.3	4013.2	4034.3	4085.2	4190.3	4320.1	4562.1	4972.4	5131.8	5605.3	5973.4
17.5°	3925.6	3936.1	3939.6	3965.9	4060.6	4192.1	4434.1	4860.1	5024.9	5556.2	6008.5
20°	3967.7	3969.5	3934.4	3916.9	3971.2	4092.2	4327.1	4776.0	4944.2	5512.3	6022.5
22.5°	4151.7	4151.7	4060.6	3983.5	3946.6	4022.0	4255.2	4718.1	4900.4	5479.0	6022.5
25°	4502.4	4486.7	4344.7	4192.1	4029.0	3997.5	4209.6	4681.2	4867.1	5461.4	5999.7
27.5°	4963.6	4949.5	4768.9	4542.7	4248.2	4050.1	4193.9	4651.5	4833.7	5435.1	5950.6
30°	5524.5	5512.3	5307.2	5010.9	4576.1	4216.6	4230.7	4630.4	4807.5	5391.4	5868.3
32.5°	6083.9	6076.8	5913.8	5610.5	5028.4	4498.9	4327.1	4626.9	4793.4	5338.8	5768.3
35°	6646.7	6646.7	6546.8	6290.7	5636.8	4923.3	4528.7	4691.8	4819.7	5310.6	5682.4
37.5°	7477.8	7444.4	7258.6	6993.8	6403.0	5473.7	4854.8	4828.5	4921.4	5358.0	5654.4
40°	8764.6	8668.2	8203.7	7758.3	7239.3	6178.5	5331.7	5093.3	5149.4	5519.3	5721.0
42.5°	10111.2	9958.6	9343.2	8631.5	8103.7	7048.2	5957.7	5522.8	5521.1	5831.4	5933.1
45°	11266.6	11187.7	10521.5	9618.5	9090.8	8026.5	6748.4	6161.0	6097.9	6315.3	6341.6
47.5°	11938.1	11885.5	11484.0	10663.4	10261.9	9181.9	7751.3	7046.4	6927.2	7056.9	7016.6
50°	11752.3	11803.1	11687.4	11268.3	11520.8	10805.5	9029.4	8259.7	8033.5	8163.2	8065.1
52.5°	10773.9	10910.7	11014.1	11094.8	12244.9	12977.8	10635.4	9774.5	9587.0	9564.2	9469.5
55°	9011.9	9229.3	9555.4	10148.0	12050.4	14722.3	13440.7	11606.7	11333.2	11189.4	11226.3
57.5°	6133.0	6462.6	7165.7	8293.1	11038.7	15465.7	17588.9	13973.7	13510.8	12998.8	13118.0
60°	3378.6	3653.9	4490.1	5626.3	8729.6	15355.2	21265.6	17820.3	16363.4	15006.4	15251.8
62.5°	2186.4	2246.0	2868.4	3843.2	5358.0	13556.3	23308.1	24249.7	21162.1	17653.8	17999.2
65°	1756.8	1798.9	2103.9	3099.8	3732.7	8720.9	23399.3	30919.1	28883.5	21251.5	21262.0
67.5°	1716.5	1735.7	1912.8	2607.1	3501.4	4747.9	20225.9	33549.1	34020.7	25498.0	23444.9
68°	1741.0	1763.8	1942.7	2526.5	3499.5	4376.2	18693.5	33508.7	34317.0	26208.1	23444.9
70°	1535.9	1563.9	1981.3	2614.2	3350.6	3762.5	12800.7	31729.2	33030.1	27840.4	22245.6
72.5°	803.0	780.2	980.1	2063.6	3771.3	3920.4	6762.4	26507.9	28026.2	25783.8	19219.5
75°	625.9	569.8	548.8	815.3	3317.2	4065.8	3927.3	18840.8	19987.4	18586.5	12846.3
77.5°	589.1	520.7	480.4	482.1	1460.5	4230.7	3177.0	11087.8	11087.8	8866.3	4099.2
80°	473.4	410.3	384.0	438.3	704.8	3899.3	3315.5	5053.0	4309.6	2291.5	1129.1
82.5°	312.1	278.8	280.5	355.9	534.8	2603.6	3839.6	2494.9	1874.3	1015.2	664.5
85°	198.1	170.1	189.3	249.0	399.8	1160.6	3801.1	1734.0	1241.4	569.8	331.3
87.5°	99.9	77.1	94.7	129.7	243.7	333.1	3129.6	1548.1	920.5	236.7	180.6
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°	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2
2.5°	5812.1	5773.5	5754.3	5722.7	5684.1	5645.6	5619.3	5607.0	5599.9	5603.5	5601.8
5°	5854.2	5803.4	5721.0	5603.5	5482.5	5354.5	5256.3	5180.9	5133.6	5119.6	5116.1
7.5°	5885.8	5812.1	5657.8	5443.9	5237.1	5012.7	4821.6	4669.0	4565.5	4518.2	4516.4
10°	5880.5	5785.8	5542.1	5226.6	4923.3	4593.6	4293.8	4037.8	3851.9	3762.5	3759.0
12.5°	5885.8	5756.0	5400.2	4972.4	4537.5	4065.8	3620.5	3222.5	2945.5	2814.0	2808.7
15°	5906.8	5724.4	5254.6	4688.3	4086.9	3420.6	2784.2	2284.6	2032.1	1946.2	1946.2
17.5°	5905.1	5671.9	5086.3	4358.7	3552.2	2659.8	1900.5	1592.0	1567.5	1646.3	1658.6
20°	5870.0	5587.7	4868.8	3967.7	2924.5	1840.9	1288.7	1244.8	1441.2	1658.6	1683.2
22.5°	5815.7	5479.0	4618.1	3513.5	2193.3	1199.2	994.1	1060.7	1327.3	1597.2	1635.8
25°	5740.3	5347.5	4330.6	2985.9	1458.7	862.7	829.3	911.8	1099.3	1279.9	1307.9
27.5°	5629.8	5180.9	4016.8	2414.3	931.0	710.0	722.3	780.2	860.8	938.0	953.8
30°	5491.3	4986.4	3674.8	1781.4	706.6	634.6	655.7	690.8	725.9	775.0	785.4
32.5°	5351.1	4788.2	3319.0	1223.8	617.1	594.3	615.4	634.6	664.5	697.9	704.8
35°	5224.8	4604.1	2952.5	853.9	578.6	568.0	578.6	590.9	620.6	654.0	657.5
37.5°	5133.6	4453.3	2570.3	675.0	555.8	545.2	550.6	555.8	590.9	640.0	645.2
40°	5121.3	4353.4	2182.9	606.6	538.3	524.3	520.7	524.3	569.8	625.9	631.2
42.5°	5240.6	4358.7	1804.2	578.6	524.3	508.4	494.4	501.5	541.8	585.6	589.1
45°	5522.8	4481.3	1476.2	566.3	512.0	499.7	478.6	482.1	501.5	524.3	527.7
47.5°	6020.8	4749.7	1225.5	559.2	501.5	490.9	464.6	454.1	455.8	468.1	468.1
50°	6816.7	5198.5	1073.0	552.3	492.7	473.4	443.6	422.6	417.3	424.3	426.1
52.5°	8003.8	5968.2	999.3	538.3	476.9	450.6	417.3	396.3	387.5	394.4	394.4
55°	9608.0	7197.2	964.3	518.9	457.6	422.6	392.7	375.2	368.2	373.5	373.5
57.5°	11436.7	8794.5	1023.9	492.7	433.0	392.7	371.7	359.5	354.1	359.5	361.2
60°	13609.0	10884.4	1434.2	459.4	406.7	366.4	354.1	347.2	343.6	348.9	348.9
62.5°	16496.6	13665.1	2219.7	433.0	378.7	341.9	338.4	334.9	331.3	336.7	336.7
65°	19614.0	16195.1	2284.6	417.3	354.1	320.9	322.6	322.6	319.1	324.4	324.4
67.5°	20606.3	15975.9	1276.4	398.0	324.4	299.8	306.8	306.8	305.0	310.4	308.6
68°	20395.9	15628.7	1111.5	392.7	319.1	294.5	301.6	303.3	301.6	306.8	305.0
70°	18828.5	13721.1	731.1	362.9	296.3	277.0	287.6	289.3	287.6	294.5	292.8
72.5°	15542.8	10291.8	540.0	317.3	268.2	254.2	264.7	266.5	268.2	275.3	273.5
75°	9871.0	5684.1	426.1	270.0	240.2	227.9	238.4	243.7	247.2	257.8	252.5
77.5°	2703.6	1725.2	345.3	229.7	206.8	201.6	208.7	215.6	219.1	231.4	222.7
80°	946.7	762.7	287.6	194.6	171.9	170.1	177.1	184.1	187.6	198.1	187.6
82.5°	575.1	498.0	229.7	152.5	135.0	133.3	142.0	149.0	152.5	152.5	145.6
85°	299.8	263.0	168.3	107.0	92.9	87.7	103.4	112.2	114.0	112.2	107.0
87.5°	168.3	149.0	89.4	50.8	42.0	43.8	54.3	66.6	71.9	70.2	66.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)