

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: P271088

Luminaire Tested: **NVN-AF-05-LED-U-SL4-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271088
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24285)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-05-LED-U-SL4-7027-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21282.5 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G4

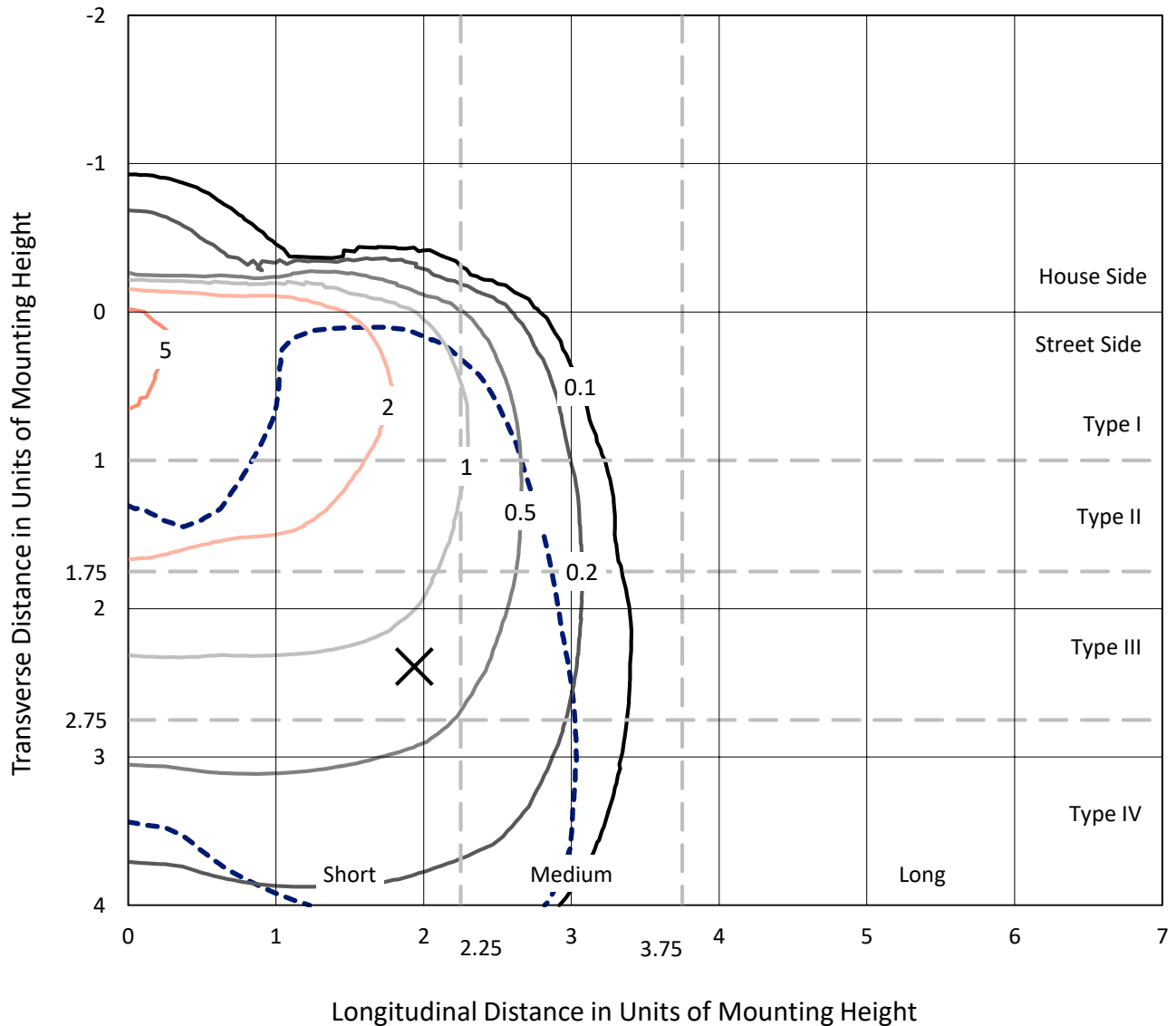
Input Watts (W): 279
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

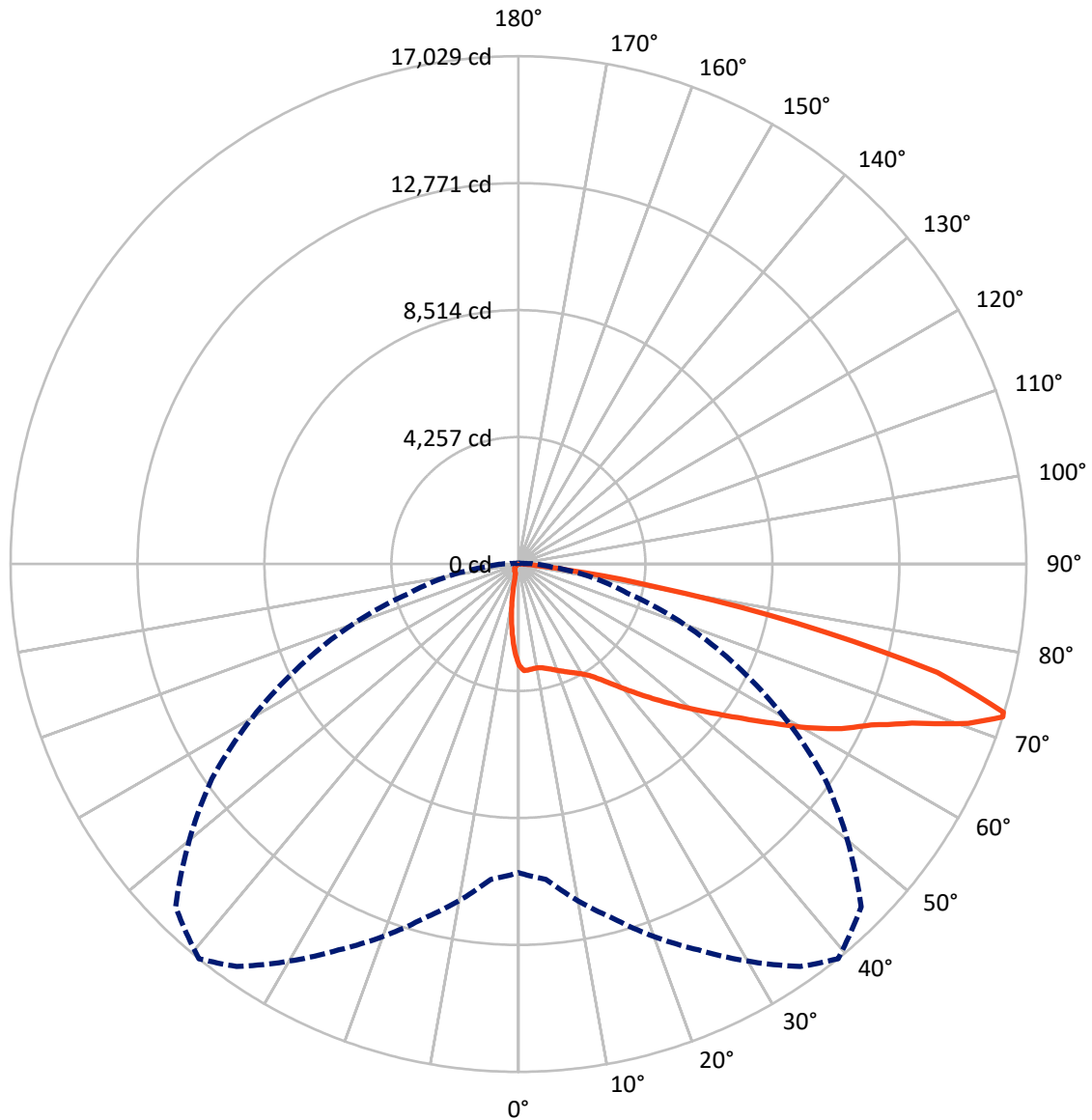
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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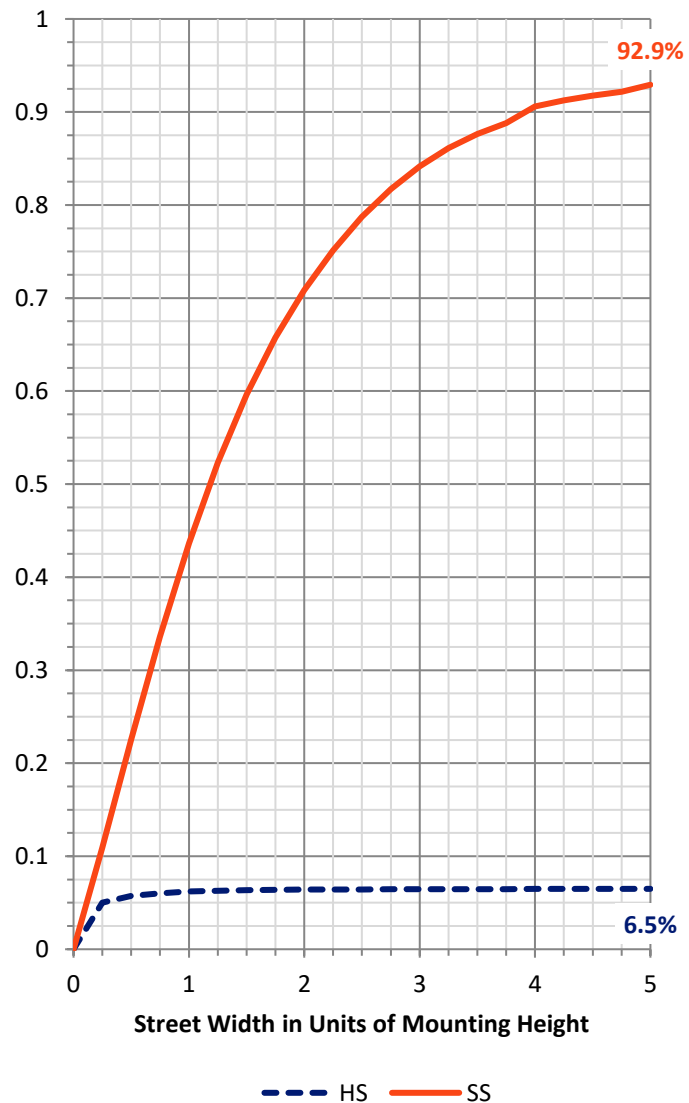
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1394.8	0.0	1394.8
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	19887.6	0.0	19887.6
	% Fixture	93.4	0.0	93.4
Total	Lumens	21282.5	0.0	21282.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.1	1.3
10°-20°	670.8	3.2
20°-30°	1114.0	5.2
30°-40°	1775.6	8.3
40°-50°	2930.8	13.8
50°-60°	4426.0	20.8
60°-70°	5765.6	27.1
70°-80°	3895.9	18.3
80°-90°	426.7	2.0
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°	21282.5	100.0
0°-180°	21282.5	100.0

Coefficient of Utilization



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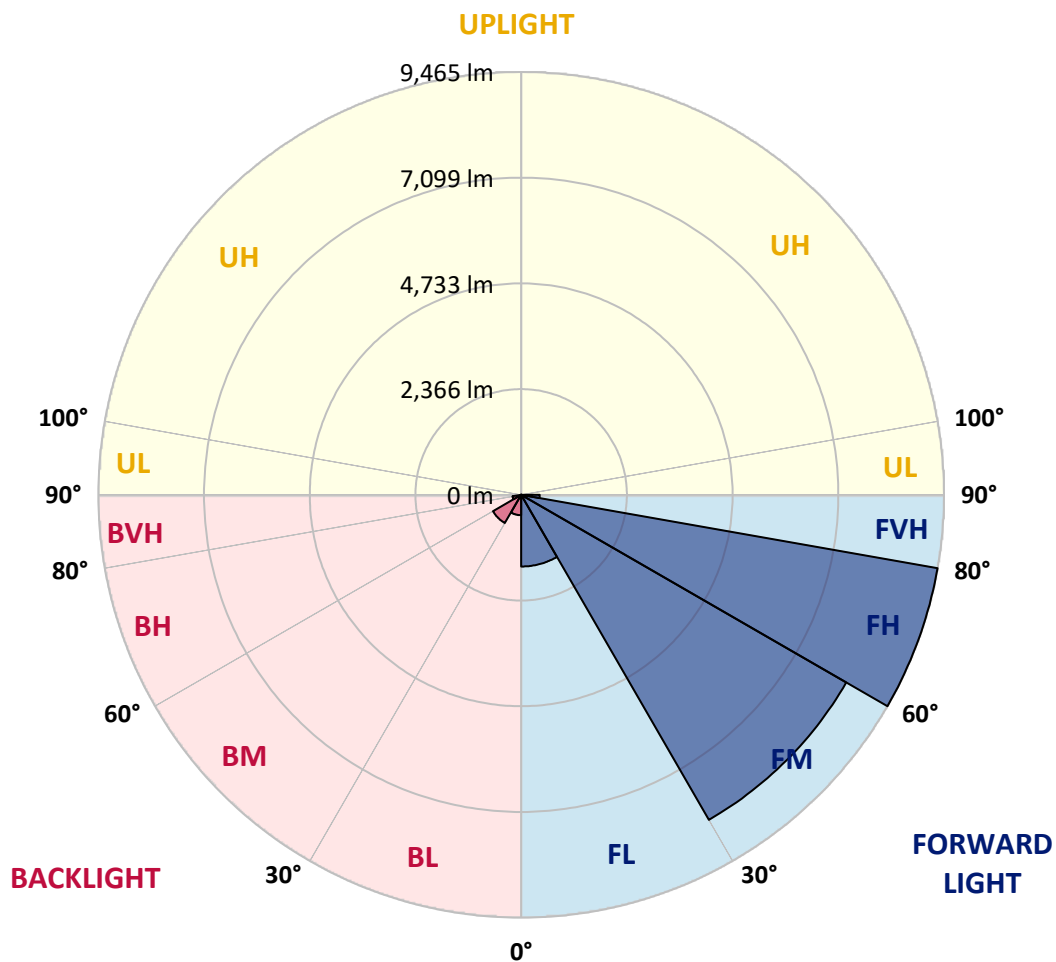
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1605.2	7.5			
FM	(30°-60°)	8402.6	39.5			
FH	(60°-80°)	9465.5	44.5			G4/12000
FVH	(80°-90°)	414.4	1.9			G3/500
BL	(0°-30°)	456.7	2.1	B1/500		
BM	(30°-60°)	729.8	3.4	B1/1000		
BH	(60°-80°)	196.1	0.9	B1/500		G1/500
BVH	(80°-90°)	12.3	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5
2.5°	3627.3	3634.0	3625.6	3610.5	3588.8	3575.3	3557.0	3516.9	3466.6	3423.1	3373.0
5°	3655.7	3659.1	3648.9	3620.6	3587.1	3568.6	3545.3	3501.8	3449.9	3389.7	3299.4
7.5°	3664.0	3662.4	3650.6	3615.5	3563.7	3540.2	3500.1	3446.5	3393.0	3337.8	3235.8
10°	3660.8	3660.8	3652.2	3618.9	3560.3	3538.6	3493.4	3436.5	3369.6	3314.3	3205.6
12.5°	3648.9	3655.7	3650.6	3632.2	3588.8	3572.0	3531.9	3475.1	3411.5	3354.5	3239.1
15°	3664.0	3674.1	3684.0	3677.4	3652.2	3637.2	3600.4	3541.8	3490.1	3429.8	3306.0
17.5°	3724.3	3746.0	3769.5	3771.2	3744.3	3717.5	3675.8	3615.5	3565.4	3510.1	3376.3
20°	3838.1	3854.7	3898.3	3906.6	3853.1	3814.7	3756.1	3685.7	3635.6	3588.8	3441.5
22.5°	4007.0	4025.5	4060.6	4048.8	3958.6	3913.3	3839.7	3759.3	3707.6	3680.7	3516.9
25°	4262.9	4268.0	4276.4	4224.5	4075.6	4025.5	3935.0	3844.7	3803.0	3799.7	3623.9
27.5°	4564.2	4570.8	4534.0	4418.7	4206.1	4140.8	4038.8	3956.9	3936.7	3961.9	3759.3
30°	4908.8	4910.4	4808.4	4621.1	4356.7	4284.7	4179.4	4089.1	4107.4	4169.4	3933.4
32.5°	5261.8	5245.2	5104.6	4860.3	4562.5	4475.4	4385.2	4294.7	4348.3	4473.7	4187.7
35°	5584.8	5578.0	5412.4	5128.0	4830.1	4753.2	4688.0	4592.7	4679.6	4883.7	4534.0
37.5°	5907.7	5902.7	5713.6	5417.5	5159.8	5104.6	5056.0	4982.4	5124.7	5424.1	4997.5
40°	6264.1	6255.6	6023.0	5738.6	5542.9	5512.8	5484.3	5452.5	5695.2	6111.8	5574.7
42.5°	6704.1	6667.2	6350.9	6088.4	5964.6	5972.9	5974.5	6006.3	6386.1	6930.0	6255.6
45°	7209.3	7127.3	6680.6	6463.1	6428.0	6478.1	6528.3	6660.6	7190.9	7871.8	7008.5
47.5°	7699.6	7567.3	7060.4	6866.4	6938.2	7042.1	7162.5	7420.1	8094.4	8857.3	7691.2
50°	8121.1	7985.7	7436.9	7276.2	7505.5	7659.4	7873.6	8263.4	9048.0	9690.5	8121.1
52.5°	8452.4	8345.3	7835.0	7727.9	8134.5	8345.3	8681.6	9193.6	9948.1	10239.2	8422.2
55°	8696.8	8643.1	8216.4	8231.6	8833.8	9138.4	9556.7	10135.5	10707.7	10665.8	8648.2
57.5°	8972.7	8930.9	8616.4	8825.5	9675.5	10068.7	10552.1	11017.3	11259.9	11008.9	8869.0
60°	9255.4	9268.9	9101.5	9544.9	10716.2	11151.1	11572.8	11688.1	11733.3	11356.9	9101.5
62.5°	9469.7	9526.5	9541.5	10321.3	11783.4	12155.0	12337.3	12255.3	12245.2	11823.8	9083.1
65°	9715.6	9864.5	10112.1	11172.8	12753.9	12998.1	13128.6	13247.5	12996.5	11962.5	8189.8
67.5°	10140.5	10374.7	10932.0	12216.8	13875.0	14236.2	14606.0	14480.5	13108.5	10552.1	6238.9
70°	10712.7	10998.8	11982.6	13580.3	15395.7	16001.4	16310.9	14381.9	11129.3	7291.4	3290.9
72°	10351.3	10610.7	12307.1	14276.5	16473.2	17028.6	16254.0	12544.8	8067.6	3779.4	1102.6
72.5°	10000.0	10267.6	12203.5	14268.0	16580.2	17005.2	15884.2	11820.3	7139.0	2941.3	759.5
75°	6938.2	7276.2	10461.8	12825.8	14972.4	14505.7	12153.3	7157.4	2586.6	505.2	250.9
77.5°	3587.1	3848.1	6345.9	9063.1	10435.0	9556.7	7182.6	3105.3	716.0	267.6	165.6
80°	2223.6	2352.3	2968.0	4465.5	5420.8	4741.6	3168.9	1254.8	458.5	158.9	132.2
82.5°	1151.1	1249.8	1868.8	1801.9	2002.7	1664.6	1169.5	1050.7	282.7	98.8	135.6
85°	378.1	401.5	1147.8	1197.9	856.7	575.5	518.6	1002.1	81.9	63.6	115.4
87.5°	50.1	58.6	403.2	685.9	421.7	261.0	311.3	353.0	28.4	35.2	31.8
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5	3406.5
2.5°	3339.4	3317.7	3249.1	3180.4	3101.8	3030.0	2973.1	2936.3	2953.0	2897.8	2906.1
5°	3244.0	3189.0	3038.2	2876.1	2700.3	2536.4	2405.9	2308.9	2290.5	2206.7	2210.1
7.5°	3152.2	3061.8	2817.4	2549.7	2258.7	2022.8	1808.6	1621.3	1554.2	1485.6	1445.6
10°	3101.8	2978.2	2631.8	2241.9	1832.1	1485.6	1184.5	948.6	849.9	778.0	742.9
12.5°	3116.9	2953.0	2492.8	1962.5	1423.9	983.7	669.2	496.9	436.7	403.2	391.5
15°	3167.2	2957.9	2367.5	1689.8	1035.7	595.7	393.2	336.2	331.3	329.6	327.9
17.5°	3214.0	2963.0	2235.3	1405.4	692.7	379.9	316.3	311.3	311.3	311.3	311.3
20°	3262.6	2964.6	2089.6	1107.6	455.1	311.3	297.8	294.5	297.8	297.8	297.8
22.5°	3319.3	2976.4	1949.1	818.1	336.2	292.8	284.5	282.7	284.5	284.5	282.7
25°	3389.7	3001.4	1796.9	585.5	304.4	281.1	272.7	271.1	272.7	271.1	271.1
27.5°	3483.4	3035.0	1619.6	420.0	291.1	269.3	261.0	261.0	261.0	259.3	259.3
30°	3603.8	3075.1	1382.0	331.3	277.8	257.6	250.9	250.9	249.3	247.7	247.7
32.5°	3776.1	3140.4	1122.6	299.4	262.7	242.6	236.0	237.6	236.0	234.3	232.5
35°	4020.5	3242.4	866.7	282.7	247.7	227.5	220.9	220.9	220.9	217.5	217.5
37.5°	4366.8	3398.0	649.1	266.0	232.5	212.4	204.2	204.2	202.5	199.2	200.9
40°	4795.1	3593.8	470.2	250.9	217.5	195.7	189.1	185.7	182.4	179.0	179.0
42.5°	5310.4	3784.5	353.0	236.0	202.5	182.4	174.0	170.7	164.0	160.5	158.9
45°	5887.6	3986.9	292.8	217.5	185.7	167.4	160.5	153.9	145.5	140.6	138.9
47.5°	6374.5	4110.7	261.0	199.2	169.1	152.3	145.5	135.6	125.5	122.1	122.1
50°	6667.2	4058.9	234.3	180.6	152.3	137.3	128.8	115.4	108.8	105.5	103.8
52.5°	6831.3	3904.9	212.4	165.6	137.3	120.5	108.8	97.0	93.8	90.4	90.4
55°	6943.3	3682.4	189.1	150.6	123.7	105.5	92.0	83.6	80.3	78.6	77.0
57.5°	7050.3	3411.5	167.4	137.3	110.4	93.8	78.6	75.3	68.6	67.0	67.0
60°	7082.1	3038.2	147.2	122.1	98.8	81.9	68.6	63.6	57.0	55.2	55.2
62.5°	6677.3	2417.6	130.6	103.8	87.0	70.2	60.2	53.4	46.8	46.8	46.8
65°	5579.7	1641.4	112.1	90.4	77.0	60.2	51.8	43.5	40.2	40.2	40.2
67.5°	3886.5	915.2	95.4	77.0	65.2	50.1	43.5	36.8	35.2	36.8	36.8
70°	1751.8	363.1	80.3	63.6	53.4	41.9	36.8	31.8	35.2	35.2	35.2
72°	525.4	194.0	67.0	51.8	43.5	36.8	31.8	30.2	33.4	35.2	35.2
72.5°	389.9	174.0	63.6	50.1	43.5	35.2	30.2	30.2	33.4	35.2	35.2
75°	200.9	118.8	48.5	36.8	31.8	28.4	25.2	28.4	33.4	33.4	33.4
77.5°	157.3	97.0	40.2	28.4	26.8	25.2	23.4	26.8	30.2	30.2	30.2
80°	147.2	63.6	31.8	26.8	23.4	21.7	21.7	23.4	26.8	28.4	28.4
82.5°	148.8	51.8	28.4	25.2	21.7	20.1	20.1	21.7	25.2	26.8	26.8
85°	95.4	35.2	25.2	21.7	20.1	18.4	18.4	20.1	23.4	25.2	25.2
87.5°	31.8	26.8	21.7	20.1	16.7	16.7	16.7	16.7	20.1	21.7	23.4
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)