

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: P271084

Luminaire Tested: **NVN-AF-05-LED-U-SL4-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271084
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24284)
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-SL4-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20135.1 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

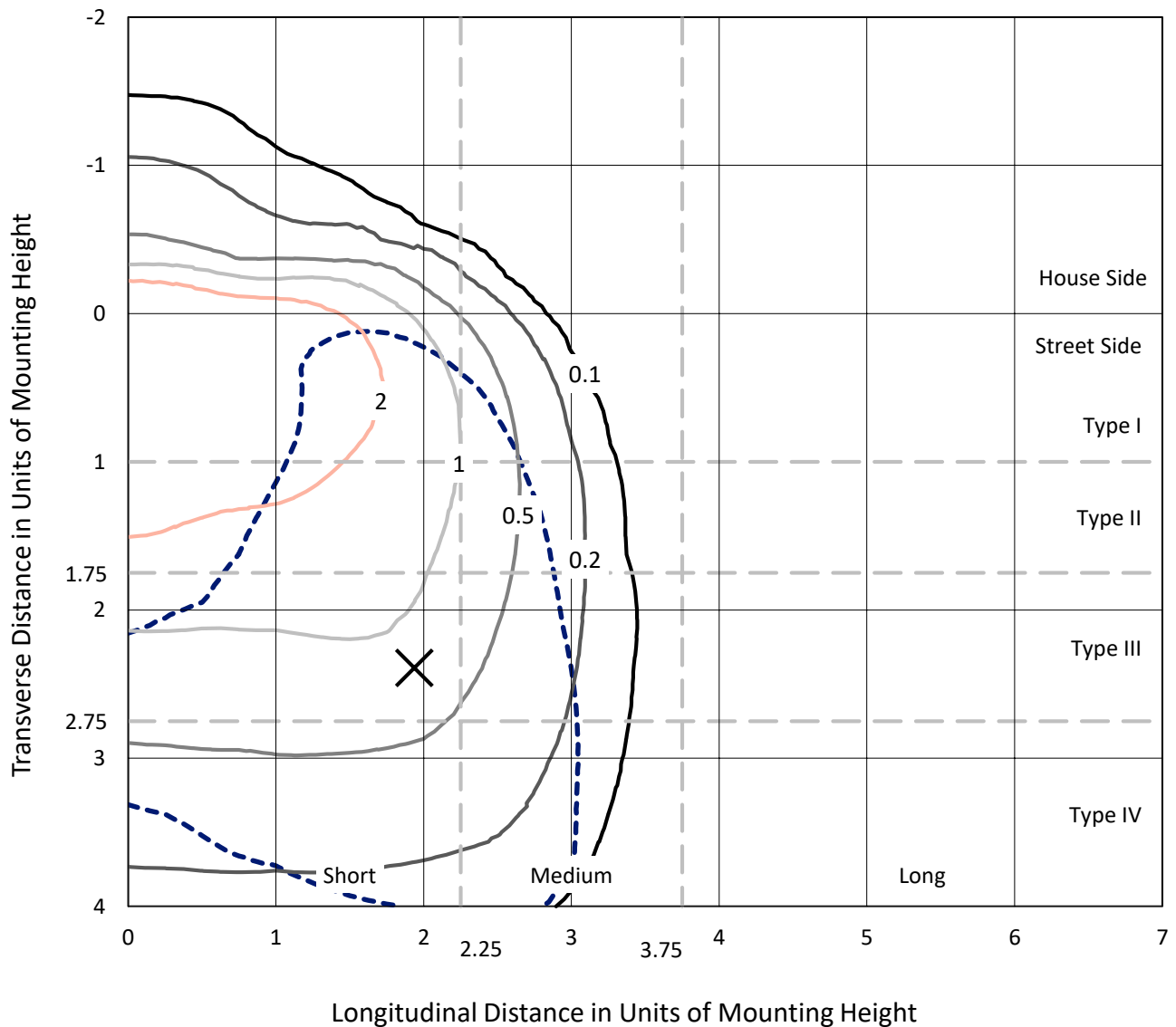
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P271084
 CATALOG NUMBER: NVN-AF-05-LED-U-SL4-7027-800

Iso-Footcandle Lines of Horizontal Illumination

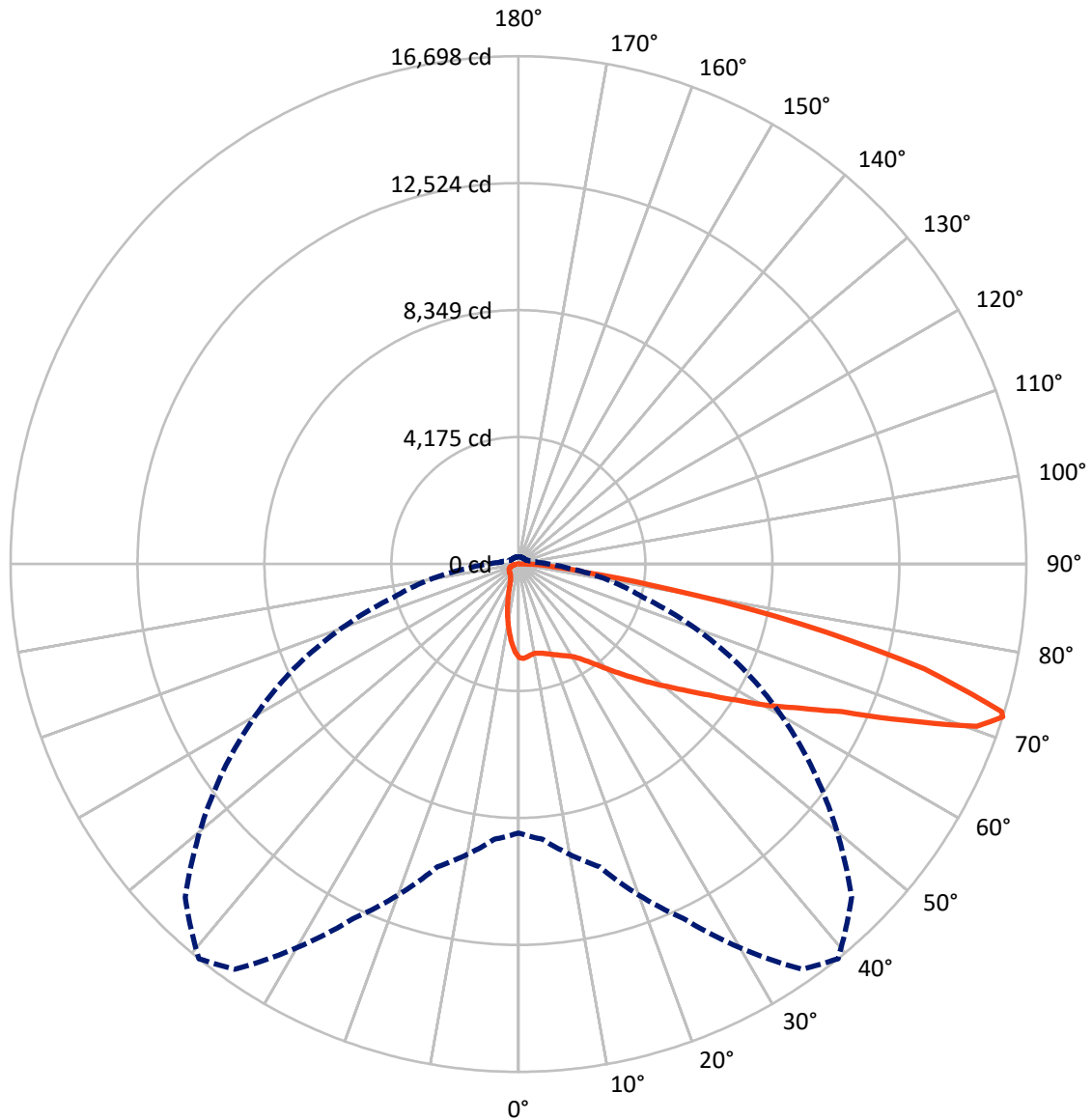
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P271084
CATALOG NUMBER: NVN-AF-05-LED-U-SL4-7027-800

Luminous Intensity Polar Plot



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

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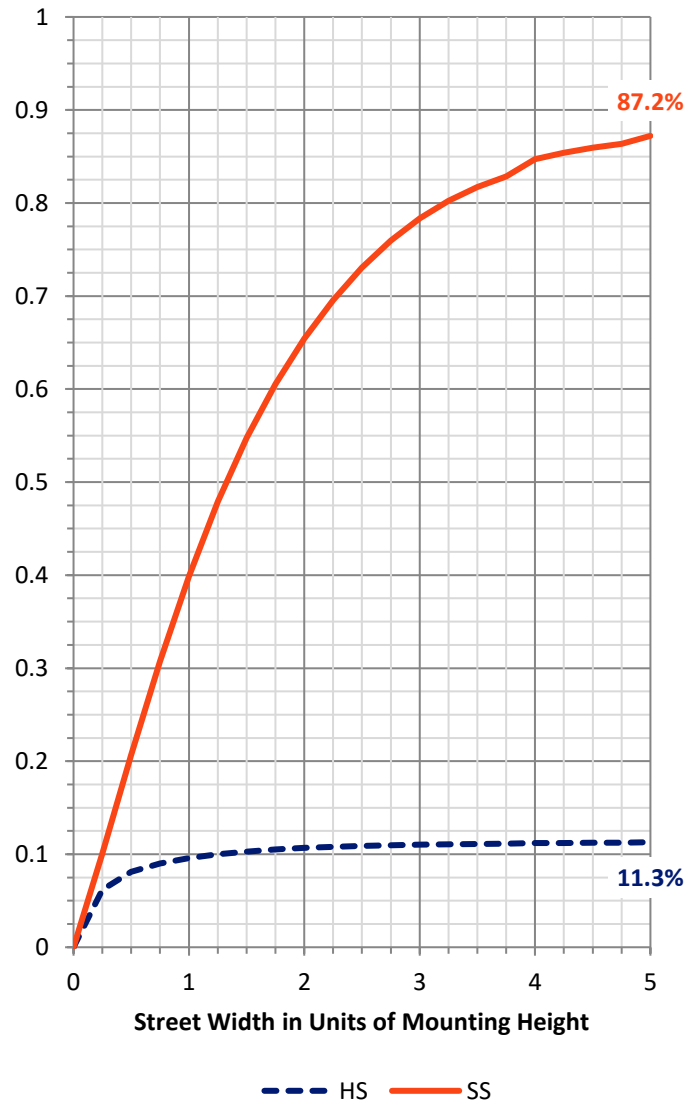
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2308.8	0.0	2308.8
	% Fixture	11.5	0.0	11.5
Street Side	Lumens	17826.3	0.0	17826.3
	% Fixture	88.5	0.0	88.5
Total	Lumens	20135.1	0.0	20135.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.3	1.3
10°-20°	664.0	3.3
20°-30°	1034.8	5.1
30°-40°	1593.2	7.9
40°-50°	2597.3	12.9
50°-60°	4036.0	20.0
60°-70°	5402.0	26.8
70°-80°	3884.9	19.3
80°-90°	658.6	3.3
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°	20135.1	100.0
0°-180°	20135.1	100.0

Coefficient of Utilization



REPORT NUMBER: P271084

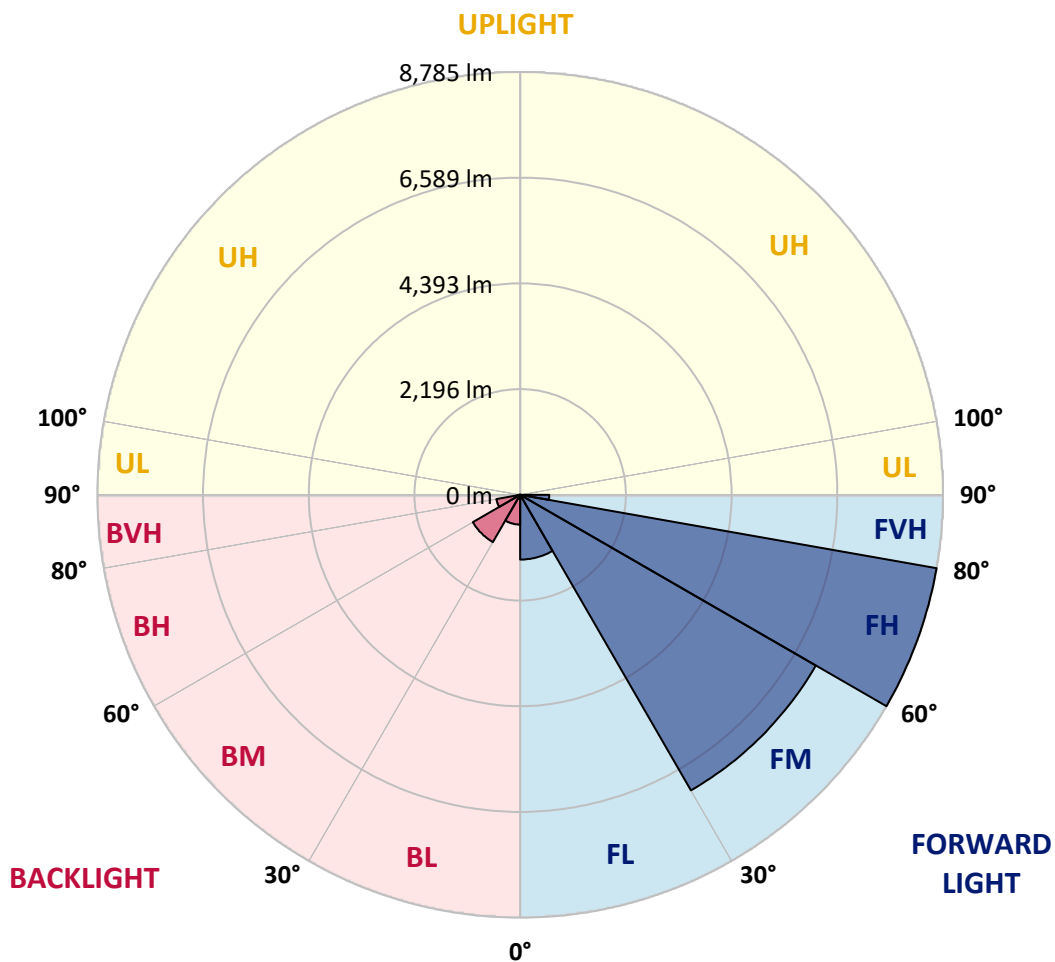
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1345.0	6.7			
FM	(30°-60°)	7092.0	35.2			
FH	(60°-80°)	8785.3	43.6			G4/12000
FVH	(80°-90°)	604.1	3.0			G4/750
BL	(0°-30°)	618.1	3.1	B2/1000		
BM	(30°-60°)	1134.6	5.6	B2/2500		
BH	(60°-80°)	501.6	2.5	B2/1000		G2/1000
BVH	(80°-90°)	54.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short





REPORT NUMBER: P271084

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0
2.5°	3141.3	3142.6	3138.5	3126.3	3115.5	3110.1	3100.7	3084.4	3062.9	3047.9	3035.8
5°	3111.5	3115.5	3112.8	3092.5	3073.6	3062.9	3047.9	3025.0	2996.6	2984.3	2956.1
7.5°	3088.6	3091.2	3083.2	3060.2	3023.7	3010.1	2983.1	2953.4	2927.7	2910.1	2876.4
10°	3072.4	3075.0	3068.3	3045.3	3004.7	2988.5	2956.1	2923.7	2889.8	2868.2	2830.3
12.5°	3049.2	3054.7	3054.7	3043.8	3016.9	3006.1	2973.6	2938.4	2907.4	2884.4	2837.0
15°	3045.3	3052.0	3064.2	3062.9	3054.7	3046.6	3020.9	2985.7	2958.7	2931.7	2873.6
17.5°	3079.0	3093.9	3118.2	3126.3	3120.9	3103.4	3073.6	3041.2	3011.5	2985.7	2914.1
20°	3164.2	3172.4	3208.7	3225.1	3198.0	3172.4	3133.1	3091.2	3064.2	3043.8	2952.0
22.5°	3292.6	3303.3	3333.2	3334.5	3277.7	3246.7	3196.7	3145.2	3119.6	3111.5	3003.4
25°	3498.1	3495.3	3503.5	3469.7	3366.9	3330.5	3269.7	3210.2	3192.5	3208.7	3079.0
27.5°	3744.0	3737.3	3711.5	3623.8	3468.4	3421.0	3348.1	3295.3	3295.3	3333.2	3181.7
30°	4027.9	4021.2	3937.4	3789.9	3588.5	3534.6	3457.4	3402.2	3430.4	3503.5	3320.9
32.5°	4327.9	4303.6	4186.0	3988.7	3760.2	3700.7	3626.5	3569.7	3623.8	3748.1	3521.0
35°	4610.5	4596.9	4452.3	4218.5	3981.9	3931.9	3880.6	3810.3	3896.8	4090.1	3803.6
37.5°	4902.4	4891.6	4714.6	4465.8	4252.2	4218.5	4175.2	4126.5	4265.8	4519.9	4186.0
40°	5228.1	5206.5	4983.4	4734.7	4567.3	4551.1	4527.9	4514.5	4738.9	5117.4	4669.8
42.5°	5597.2	5555.3	5267.3	5030.8	4910.6	4924.0	4911.9	4965.9	5309.3	5806.6	5245.7
45°	6018.9	5935.1	5549.9	5345.8	5290.4	5344.3	5370.1	5508.0	5983.7	6602.8	5889.1
47.5°	6413.5	6305.5	5859.4	5687.7	5718.8	5812.0	5885.1	6128.3	6723.1	7389.5	6545.9
50°	6777.2	6655.5	6190.5	6041.8	6193.3	6325.7	6477.0	6820.4	7509.7	8199.1	7148.8
52.5°	7046.1	6958.4	6521.6	6428.5	6737.9	6913.6	7155.5	7589.5	8304.6	8970.8	7686.7
55°	7254.3	7206.9	6844.7	6871.8	7354.3	7605.7	7898.9	8397.7	9145.3	9662.9	8119.3
57.5°	7494.9	7459.7	7213.7	7407.1	8119.3	8435.7	8781.7	9335.8	9945.3	10272.5	8458.6
60°	7749.0	7749.0	7624.6	8051.8	9076.3	9438.5	9783.3	10214.4	10742.9	10821.3	8596.5
62.5°	7940.8	7991.0	8035.5	8738.4	9984.7	10434.7	10813.2	11226.7	11568.7	11091.6	8272.0
65°	8219.3	8326.1	8577.6	9531.7	11109.2	11698.4	12209.5	12556.8	12237.8	10876.7	7213.7
67.5°	8697.7	8856.0	9391.2	10713.1	12831.2	13713.7	14209.7	13609.7	12106.6	9523.7	5525.6
70°	9128.9	9352.1	10267.1	12212.1	15069.4	15985.9	15757.4	13365.1	10544.1	6981.3	3399.4
72°	8842.5	9085.7	10307.6	12864.9	16265.7	16698.2	15493.8	11844.4	8147.6	4260.4	1676.1
72.5°	8654.6	8907.4	10176.4	12848.7	16298.0	16607.7	15127.5	11240.3	7396.1	3727.8	1355.7
75°	7230.0	7446.2	8750.5	11387.6	14362.6	13794.9	11805.3	7274.6	3399.4	1204.3	697.4
77.5°	4721.3	4886.2	6033.7	7889.5	10060.3	9514.2	7185.4	3406.2	1274.5	731.2	524.4
80°	2372.2	2489.7	3229.0	4148.3	5429.5	4995.7	3316.9	1647.6	852.9	528.6	412.2
82.5°	1650.4	1758.5	2223.5	2118.1	2269.4	2196.4	1559.7	1374.6	637.9	333.9	216.2
85°	1384.1	1496.2	1839.5	1509.8	1235.3	1125.9	1117.9	1298.9	421.8	164.8	182.4
87.5°	1207.1	1377.3	1517.9	1102.9	847.6	747.5	823.1	1190.9	133.8	90.5	55.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0	3075.0
2.5°	3015.5	3011.5	2991.1	2960.2	2937.1	2922.2	2893.9	2892.5	2895.1	2871.0	2880.3
5°	2930.5	2914.1	2861.5	2789.7	2731.7	2676.3	2615.4	2595.2	2577.5	2541.0	2545.2
7.5°	2841.2	2812.8	2720.8	2603.3	2491.1	2388.4	2286.9	2237.0	2199.1	2151.8	2151.8
10°	2788.5	2743.9	2603.3	2431.6	2253.2	2103.1	1951.7	1861.2	1795.1	1734.2	1730.0
12.5°	2785.7	2718.1	2522.3	2285.6	2040.9	1830.1	1623.3	1484.1	1385.5	1313.9	1307.0
15°	2807.4	2712.7	2454.6	2149.1	1840.9	1566.6	1311.0	1134.0	1008.3	928.6	920.5
17.5°	2826.2	2706.0	2381.5	2005.8	1646.4	1312.5	1028.6	844.8	725.8	661.0	654.1
20°	2843.9	2691.1	2288.3	1854.5	1431.4	1074.6	804.3	655.6	577.2	540.7	536.6
22.5°	2869.5	2677.6	2191.1	1684.1	1220.5	874.5	663.7	556.9	515.0	497.4	494.6
25°	2911.4	2678.9	2096.5	1509.8	1027.2	728.5	574.5	508.3	485.3	473.0	473.0
27.5°	2972.2	2695.2	2003.1	1332.7	863.7	628.5	521.7	482.5	467.7	458.2	455.5
30°	3061.5	2724.9	1904.4	1165.1	733.9	559.6	490.7	466.3	454.2	446.1	444.8
32.5°	3191.1	2777.6	1800.5	1012.4	635.3	511.0	467.7	452.7	443.4	436.5	435.1
35°	3384.5	2871.0	1699.1	882.7	564.9	475.8	448.8	436.5	431.1	428.5	427.1
37.5°	3668.4	3020.9	1603.0	781.3	519.0	452.7	429.7	423.0	420.3	420.3	420.3
40°	4025.1	3218.3	1516.6	709.7	493.3	435.1	416.4	411.0	411.0	412.2	412.2
42.5°	4459.0	3465.7	1442.1	661.0	478.4	423.0	406.8	404.1	402.8	402.8	404.1
45°	4963.2	3757.6	1396.2	623.2	467.7	416.4	400.0	398.8	393.3	390.7	390.7
47.5°	5470.0	4069.9	1393.5	601.4	454.2	408.2	393.3	393.3	382.5	377.1	378.5
50°	5943.1	4349.7	1423.3	596.0	446.1	396.1	386.6	387.9	373.1	366.2	364.9
52.5°	6324.3	4563.1	1459.7	602.9	446.1	385.3	374.5	381.2	364.9	356.8	355.5
55°	6619.0	4711.8	1473.3	617.8	451.5	375.8	363.6	374.5	362.2	351.4	351.4
57.5°	6829.9	4759.1	1415.2	624.4	459.6	374.5	352.8	373.1	366.2	352.8	352.8
60°	6752.7	4484.8	1198.9	598.8	458.2	371.7	344.7	375.8	379.9	364.9	364.9
62.5°	6151.4	3752.2	962.4	540.7	435.1	362.2	335.2	373.1	389.2	383.8	381.2
65°	5007.8	2752.0	746.1	471.7	396.1	342.0	314.9	348.7	367.6	373.1	374.5
67.5°	3529.1	1742.3	579.9	401.5	347.4	312.3	291.9	308.2	314.9	317.6	323.0
70°	1930.2	943.4	460.9	337.9	297.3	282.4	267.6	269.0	266.3	263.6	266.3
72°	969.1	616.3	389.2	293.2	263.6	254.1	247.4	243.4	243.4	239.3	240.6
72.5°	833.9	573.1	375.8	282.4	255.5	247.4	242.0	238.0	236.6	233.7	235.1
75°	555.5	454.2	313.6	236.6	217.6	212.2	215.0	210.8	212.2	209.6	210.8
77.5°	448.8	390.7	266.3	200.1	186.5	178.5	183.9	185.2	187.8	185.2	183.9
80°	375.8	332.6	223.0	164.8	155.4	148.7	151.4	160.8	162.2	154.1	152.7
82.5°	243.4	267.6	175.7	128.4	118.9	116.2	123.0	132.5	135.1	124.3	121.6
85°	204.1	215.0	127.1	87.9	78.4	75.6	89.2	98.6	105.5	94.6	91.8
87.5°	56.8	105.5	62.2	42.0	35.2	35.2	43.3	51.4	60.8	62.2	62.2
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)