

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: LUMARK

Report Number: P967723

Luminaire Tested: **NAV-SB5A-735-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967723
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-735-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23023.5 lumens
Efficiency: N/A
Efficacy: 162.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 141.7
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: 24 FT



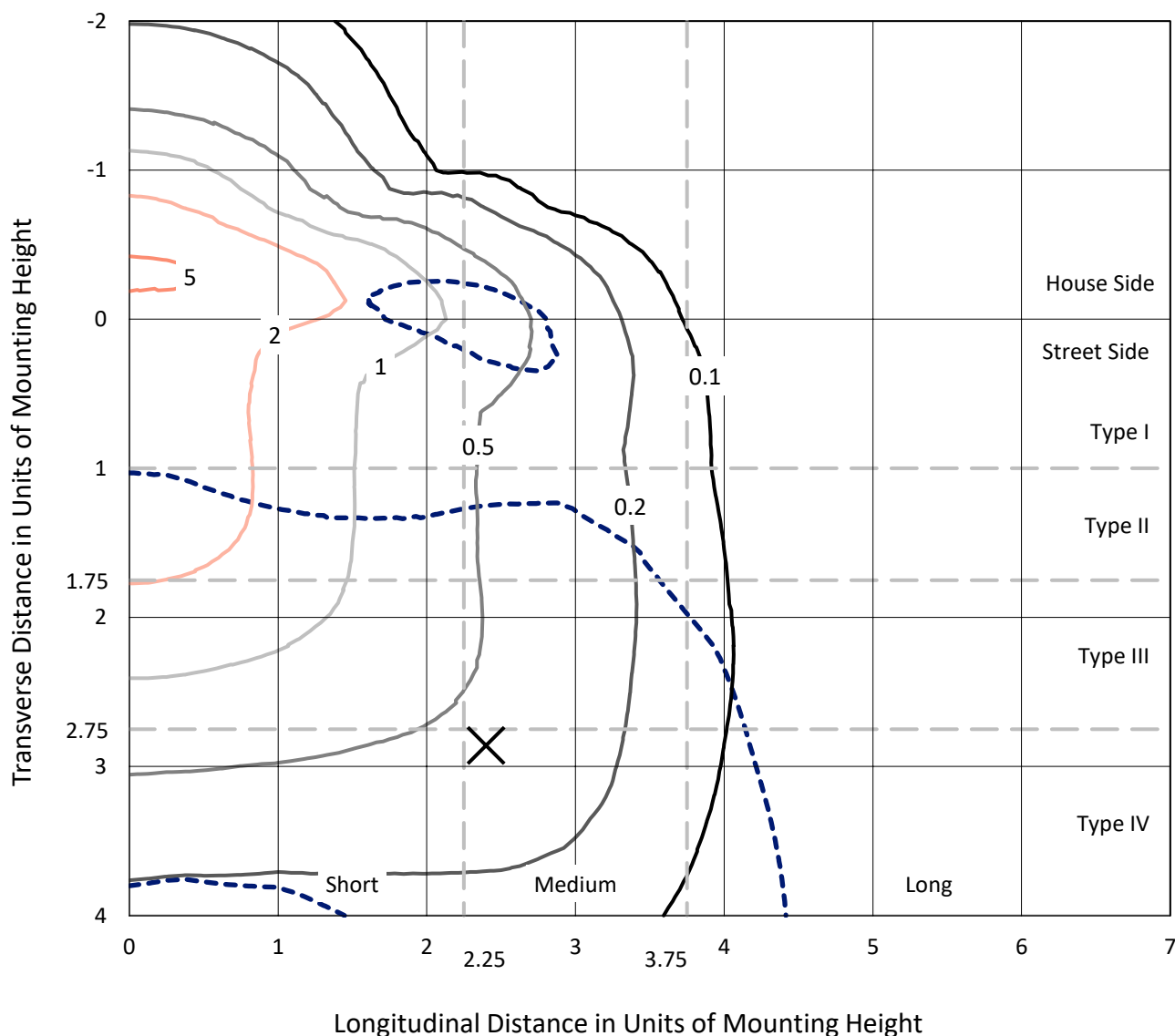
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

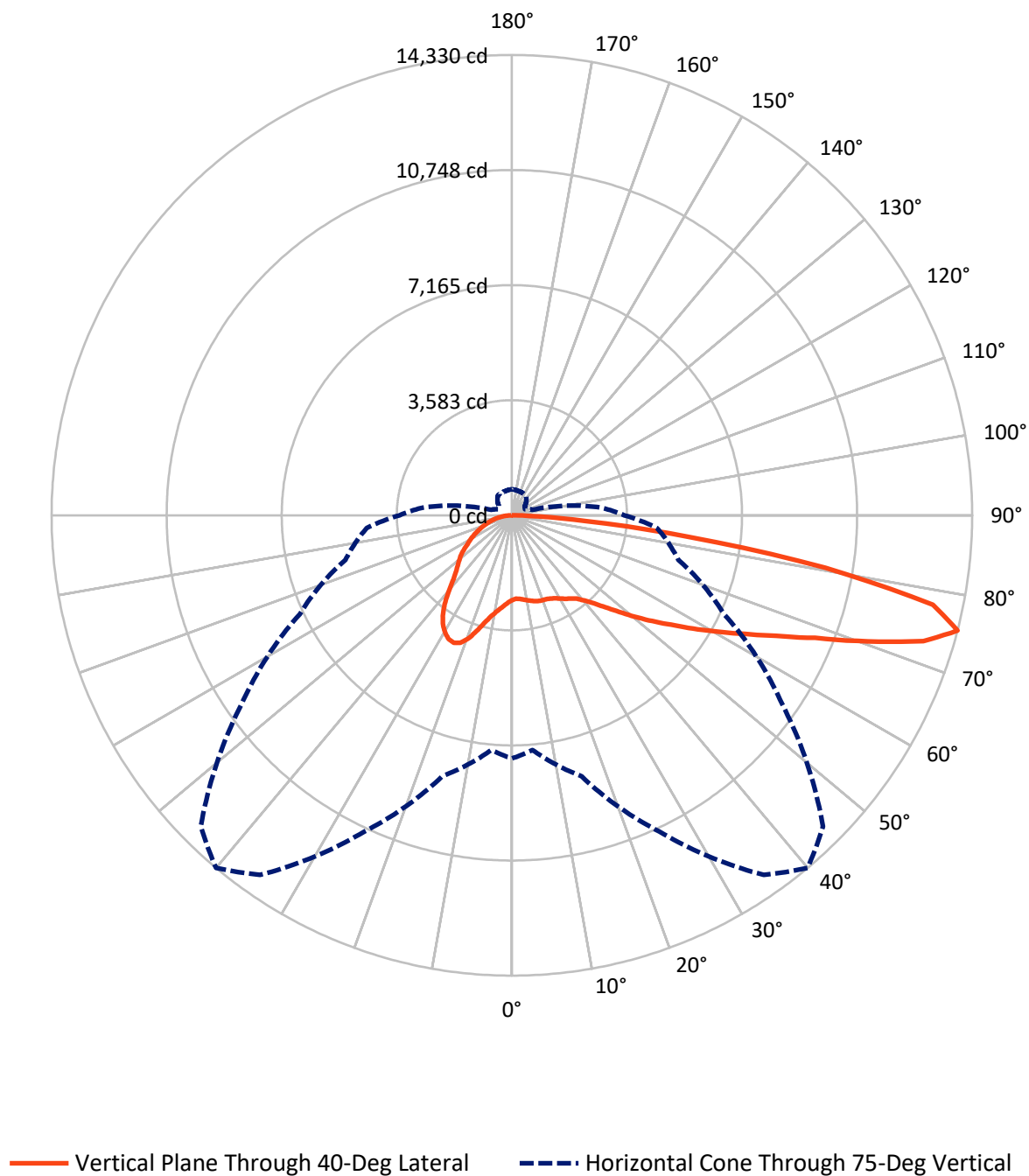


Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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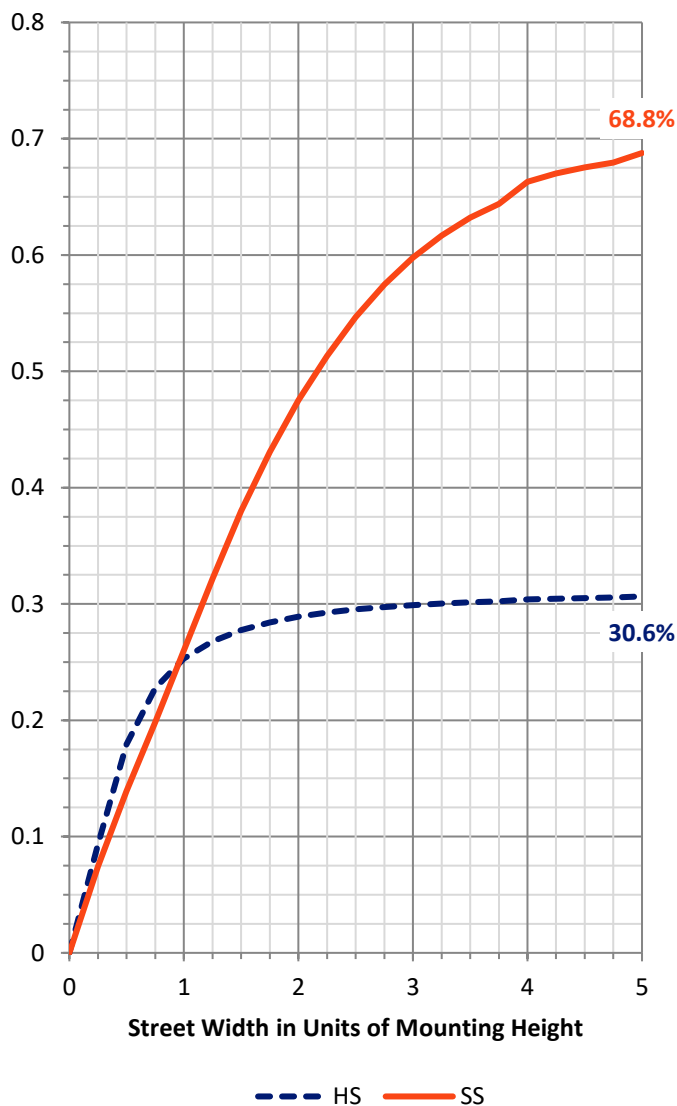
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7133.5	0.0	7133.5
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	15890.1	0.0	15890.1
	% Fixture	69.0	0.0	69.0
Total	Lumens	23023.5	0.0	23023.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.8	1.1
10°-20°	882.3	3.8
20°-30°	1611.1	7.0
30°-40°	2285.0	9.9
40°-50°	3085.4	13.4
50°-60°	4150.7	18.0
60°-70°	5268.2	22.9
70°-80°	4781.2	20.8
80°-90°	696.9	3.0
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°	23023.5	100.0
0°-180°	23023.5	100.0

Coefficient of Utilization



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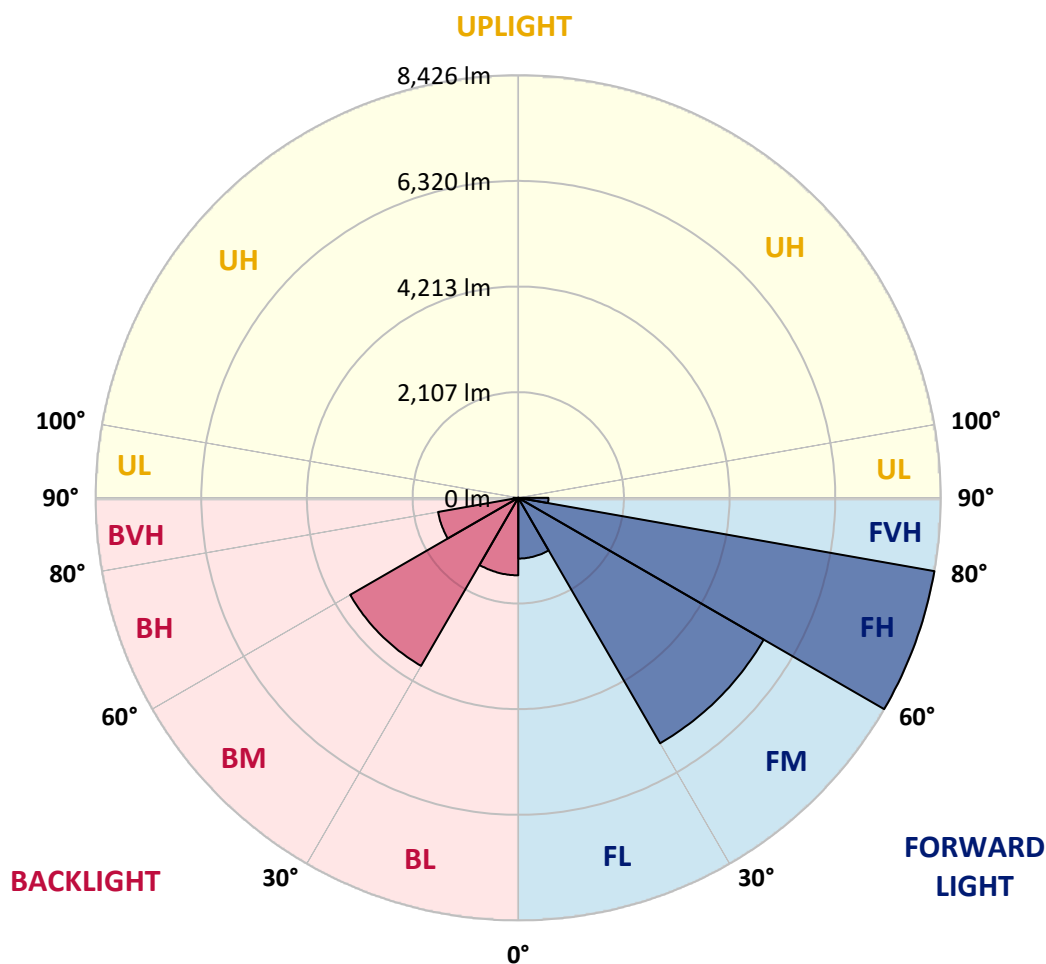
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1211.1	5.3			
FM	(30°-60°)	5651.8	24.5			
FH	(60°-80°)	8426.3	36.6			G4/12000
FVH	(80°-90°)	601.0	2.6			G4/750
BL	(0°-30°)	1545.2	6.7	B3/2500		
BM	(30°-60°)	3869.3	16.8	B3/5000		
BH	(60°-80°)	1623.1	7.0	B3/2500		G3/2500
BVH	(80°-90°)	96.0	0.4			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 IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8
2.5°	2592.4	2607.1	2603.5	2598.6	2598.6	2599.8	2598.6	2607.1	2615.7	2624.2	2637.6
5°	2619.4	2634.0	2626.7	2620.5	2615.7	2614.5	2610.8	2609.5	2614.5	2625.4	2643.8
7.5°	2671.9	2686.5	2675.6	2664.5	2654.7	2649.8	2645.0	2637.6	2634.0	2640.1	2665.7
10°	2730.5	2745.2	2731.7	2712.1	2696.3	2690.2	2685.3	2677.9	2673.1	2676.7	2704.8
12.5°	2789.1	2803.7	2785.4	2758.6	2737.8	2734.1	2728.0	2725.6	2724.3	2723.1	2751.2
15°	2844.1	2856.3	2833.0	2801.3	2779.3	2773.2	2767.1	2770.8	2776.8	2784.2	2816.0
17.5°	2886.8	2899.0	2864.8	2823.3	2802.6	2800.1	2796.4	2808.6	2825.7	2844.1	2883.1
20°	2925.9	2938.1	2894.1	2837.9	2813.5	2813.5	2814.8	2840.4	2864.8	2891.6	2945.3
22.5°	2980.8	2990.5	2936.8	2860.0	2824.5	2827.0	2836.7	2862.3	2892.9	2929.6	3004.0
25°	3062.6	3070.0	3004.0	2901.5	2861.1	2868.5	2877.0	2889.2	2918.5	2961.2	3061.4
27.5°	3194.5	3200.6	3114.0	2974.7	2913.7	2925.9	2938.1	2929.6	2943.0	2979.6	3107.8
30°	3380.1	3383.7	3273.8	3089.5	3002.7	3008.9	3011.3	2975.9	2950.3	2979.6	3140.8
32.5°	3599.9	3598.7	3468.0	3228.6	3104.1	3098.1	3077.3	3007.7	2947.8	2973.4	3170.1
35°	3940.6	3927.2	3758.7	3424.1	3218.9	3181.1	3132.2	3043.1	2960.0	2967.4	3195.7
37.5°	4504.8	4463.3	4230.1	3744.0	3389.9	3293.4	3221.4	3100.4	2987.0	2964.9	3226.3
40°	5141.0	5088.5	4832.1	4182.4	3646.3	3491.3	3375.2	3182.3	3030.8	2975.9	3271.4
42.5°	5895.7	5821.2	5545.1	4698.9	3971.2	3746.5	3571.8	3286.0	3095.6	3011.3	3332.5
45°	6822.5	6723.6	6332.9	5281.4	4380.2	4081.0	3847.8	3443.6	3194.5	3079.7	3424.1
47.5°	7759.1	7783.5	7227.9	5948.2	4871.1	4493.8	4193.4	3680.5	3338.6	3189.6	3571.8
50°	8754.3	8771.4	8118.1	6687.0	5428.0	4960.3	4581.8	3945.5	3538.8	3345.9	3792.8
52.5°	9531.0	9533.4	8926.5	7459.9	6008.0	5473.1	5000.6	4248.3	3770.9	3553.5	4087.2
55°	10017.0	10010.9	9493.1	8191.4	6674.7	6011.6	5464.6	4592.7	4054.2	3797.7	4457.1
57.5°	10369.9	10351.6	9883.9	8820.3	7385.4	6647.8	5989.7	4983.4	4388.7	4088.4	4944.4
60°	10504.2	10493.2	10148.8	9363.7	8132.8	7351.3	6595.4	5420.6	4768.5	4431.5	5570.9
62.5°	10555.6	10576.3	10409.0	9890.0	8932.7	8130.3	7260.9	5943.3	5195.9	4819.9	6231.5
65°	10736.3	10774.1	10739.9	10578.7	9836.3	9042.6	8143.7	6564.8	5662.4	5236.2	6921.4
67.5°	11094.1	11131.9	11146.6	11403.0	10940.1	10179.4	9245.2	7339.0	6208.2	5668.6	7440.4
70°	11085.5	11074.5	11333.4	12058.7	12322.6	11753.5	10730.1	8291.5	6859.1	6027.5	7506.4
72.5°	10090.3	10002.4	10614.2	12051.4	13472.8	13397.1	12543.5	9520.0	7420.9	6071.5	6513.6
75°	7569.8	7335.4	8416.1	10860.8	13664.6	14330.0	13696.3	10282.0	7287.7	5364.4	4532.9
77.5°	3237.3	3001.5	4275.2	8040.0	12229.7	13395.9	12638.8	8970.5	5817.5	3547.4	2226.1
80°	847.5	846.2	1292.0	3645.1	8317.2	9892.5	8678.7	5793.1	3324.0	1267.5	614.3
82.5°	350.4	341.9	475.0	1417.8	4063.9	5551.3	4530.4	2583.9	1200.4	343.2	204.0
85°	130.7	129.5	230.8	489.6	1433.6	2289.6	1657.1	660.6	299.2	167.3	91.6
87.5°	36.6	35.4	50.0	169.7	349.2	529.9	283.3	108.6	84.3	65.9	26.9
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°	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8
2.5°	2641.3	2647.5	2658.4	2666.9	2677.9	2690.2	2707.2	2718.3	2729.3	2736.5	2731.7
5°	2652.3	2665.7	2693.8	2721.9	2754.9	2785.4	2820.8	2846.4	2867.2	2873.4	2875.7
7.5°	2676.7	2698.7	2746.4	2793.9	2846.4	2896.5	2947.8	2991.8	3027.2	3040.7	3041.9
10°	2719.4	2748.7	2816.0	2883.1	2952.7	3029.6	3095.6	3159.0	3209.2	3229.9	3231.1
12.5°	2773.2	2809.8	2897.8	2990.5	3087.0	3193.3	3278.8	3356.9	3419.2	3447.3	3447.3
15°	2842.8	2890.4	3002.7	3127.4	3269.0	3416.7	3525.4	3612.1	3681.7	3715.9	3713.5
17.5°	2918.5	2982.0	3123.7	3311.8	3514.4	3708.6	3835.6	3899.1	3971.2	4004.2	4002.9
20°	2991.8	3070.0	3272.6	3546.2	3816.1	4022.4	4125.0	4142.1	4146.9	4150.6	4160.4
22.5°	3067.5	3172.5	3459.5	3841.7	4131.2	4273.9	4288.6	4215.4	4112.8	4065.2	4078.6
25°	3150.5	3289.7	3703.7	4167.8	4402.2	4419.3	4306.9	4128.7	3934.5	3845.4	3858.8
27.5°	3231.1	3425.2	3996.8	4479.1	4597.5	4447.4	4205.6	3952.8	3718.4	3624.3	3635.4
30°	3311.8	3580.4	4320.4	4751.5	4686.7	4377.8	4045.7	3763.6	3527.8	3428.9	3439.9
32.5°	3393.6	3761.1	4692.9	4948.1	4670.8	4230.1	3846.6	3551.1	3343.4	3239.7	3253.1
35°	3486.3	3983.4	5045.8	5055.5	4564.6	4012.7	3584.0	3297.1	3116.3	3033.3	3051.6
37.5°	3607.3	4265.4	5357.2	5082.4	4379.0	3693.9	3258.0	2996.7	2847.7	2809.8	2836.7
40°	3757.4	4604.9	5595.3	5039.6	4104.2	3306.9	2901.5	2692.6	2608.3	2616.9	2646.2
42.5°	3952.8	4984.7	5762.5	4929.7	3722.0	2907.5	2588.8	2496.0	2536.3	2570.5	2602.3
45°	4206.8	5379.1	5866.4	4742.9	3289.7	2569.3	2404.4	2426.4	2456.9	2460.6	2485.0
47.5°	4531.6	5778.4	5934.7	4460.8	2848.9	2331.2	2287.2	2292.1	2286.0	2260.3	2279.9
50°	4937.0	6166.7	5995.7	4087.2	2474.0	2182.1	2123.6	2106.5	2022.2	1939.2	1950.2
52.5°	5398.7	6523.3	6021.5	3623.1	2182.1	2057.6	1962.4	1854.9	1697.4	1671.8	1680.3
55°	5911.5	6853.0	5955.5	3052.9	1936.7	1897.7	1753.6	1624.1	1607.0	1585.1	1588.7
57.5°	6524.5	7208.4	5821.2	2416.6	1685.2	1710.8	1570.4	1585.1	1554.5	1520.3	1514.2
60°	7195.0	7576.0	5585.5	1836.6	1425.1	1477.5	1522.7	1521.5	1513.0	1484.9	1475.2
62.5°	7798.2	7817.7	5121.4	1406.7	1196.7	1296.8	1420.1	1419.0	1411.6	1395.7	1389.7
65°	8157.2	7781.1	4347.2	1107.6	1008.7	1147.9	1280.9	1290.8	1292.0	1290.8	1290.8
67.5°	8093.7	7352.4	3284.8	881.7	853.6	996.4	1143.0	1156.4	1166.1	1168.6	1171.1
70°	7375.7	6411.0	2141.8	703.4	715.6	863.4	1012.3	1025.7	1034.3	1044.1	1049.0
72.5°	5749.1	4713.6	1226.0	569.1	594.7	748.6	882.8	898.7	903.6	922.0	929.3
75°	3503.4	2772.0	661.8	448.1	488.4	639.9	754.7	773.0	781.6	803.5	806.0
77.5°	1665.6	1200.4	377.3	349.2	393.2	522.6	637.4	658.2	635.0	647.2	637.4
80°	562.9	445.7	238.1	266.2	300.4	407.8	510.4	531.2	482.4	479.9	475.0
82.5°	196.6	180.7	151.4	177.0	194.1	291.8	385.9	412.8	359.1	357.8	340.7
85°	77.0	73.3	84.3	96.5	116.0	179.5	254.0	267.4	221.0	178.2	175.9
87.5°	15.9	17.1	20.8	21.9	35.4	62.3	91.6	112.3	89.2	75.7	69.6
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)