

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: P968424

Luminaire Tested: **NAV-SB5B-830-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968424
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-830-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26146.7 lumens
Efficiency: N/A
Efficacy: 143.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 182.7
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



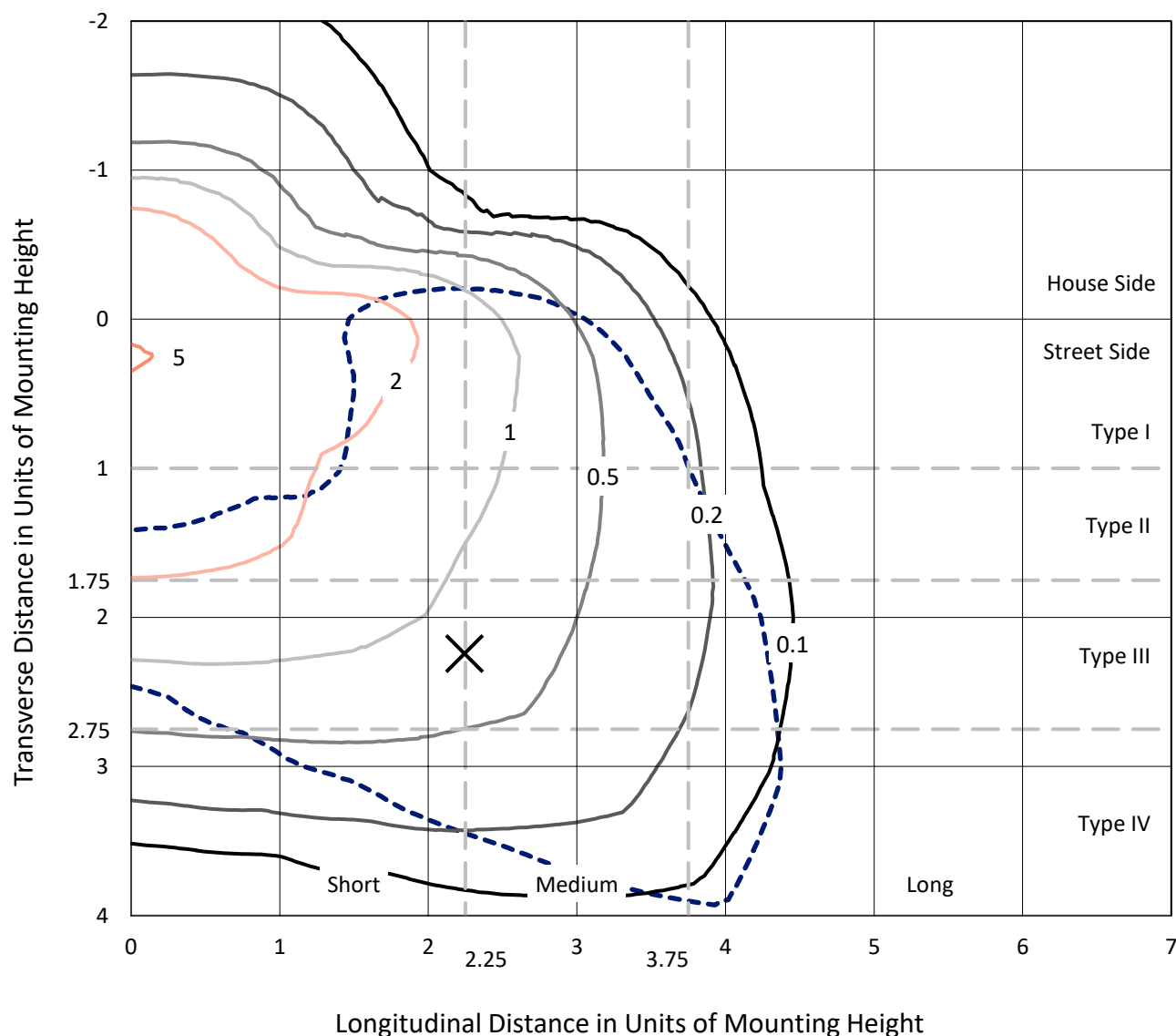
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

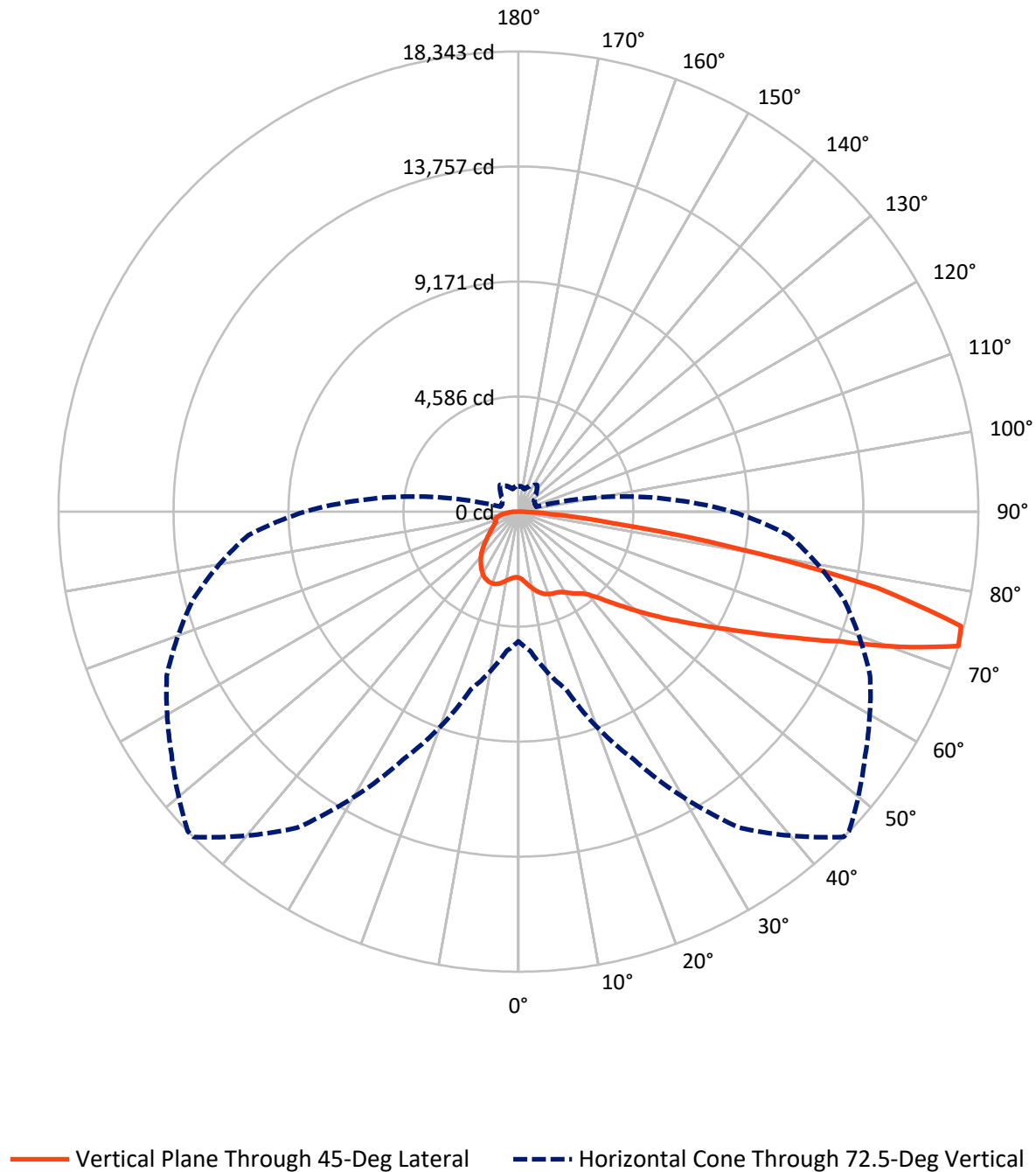


Based on 25 foot mounting height. Maximum calculated value = 5.2 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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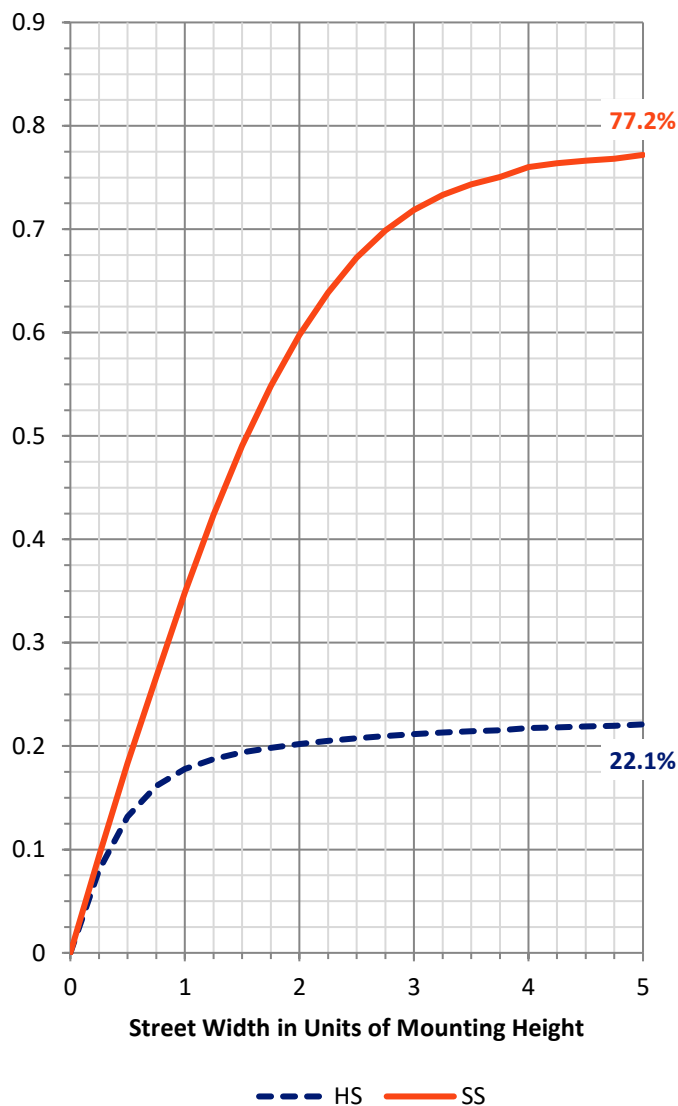
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5910.9	0.0	5910.9
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	20235.8	0.0	20235.8
	% Fixture	77.4	0.0	77.4
Total	Lumens	26146.7	0.0	26146.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.5	1.0
10°-20°	895.1	3.4
20°-30°	1557.1	6.0
30°-40°	2232.2	8.5
40°-50°	3143.0	12.0
50°-60°	4814.2	18.4
60°-70°	6974.0	26.7
70°-80°	5569.2	21.3
80°-90°	693.6	2.7
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°	26146.7	100.0
0°-180°	26146.7	100.0

Coefficient of Utilization



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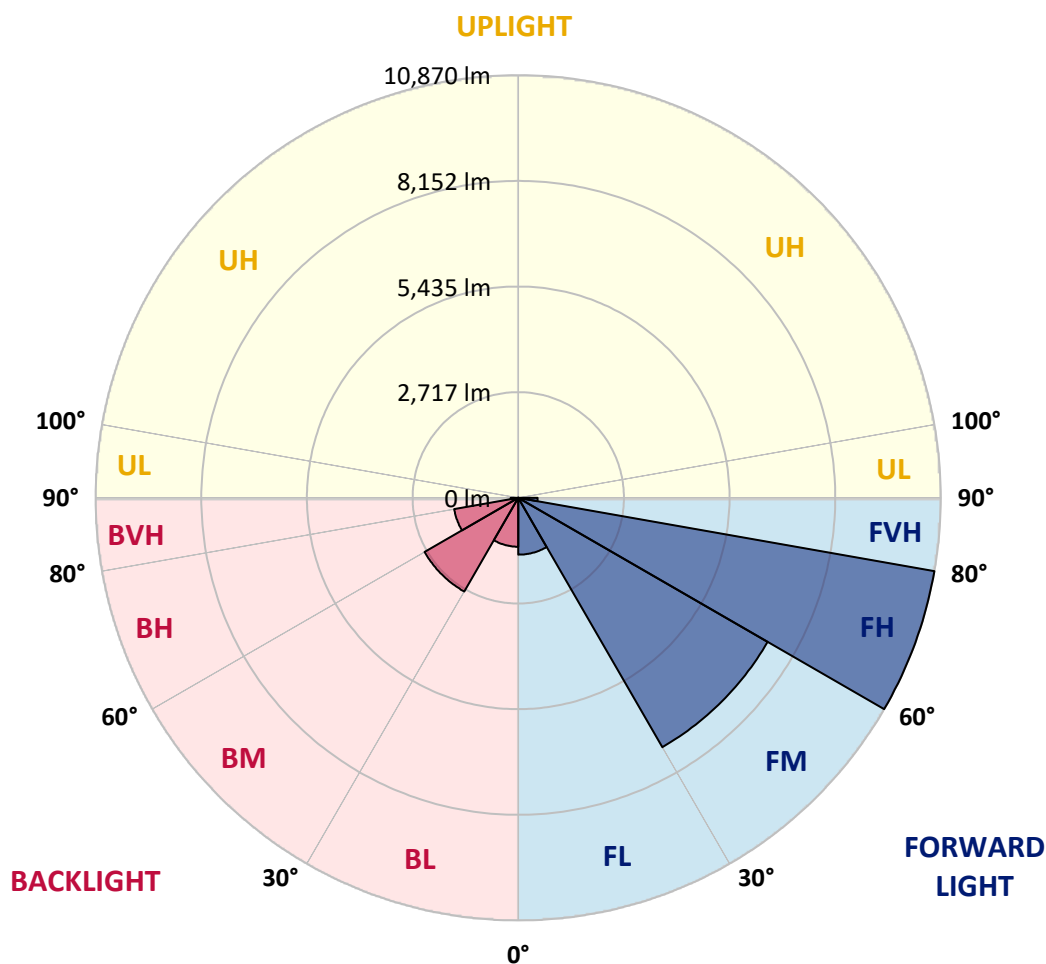
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1462.2	5.6			
FM	(30°-60°)	7406.1	28.3			
FH	(60°-80°)	10870.0	41.6			G4/12000
FVH	(80°-90°)	497.6	1.9			G3/500
BL	(0°-30°)	1258.5	4.8	B3/2500		
BM	(30°-60°)	2783.2	10.6	B3/5000		
BH	(60°-80°)	1673.2	6.4	B3/2500		G3/2500
BVH	(80°-90°)	196.0	0.7			G2/225
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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7
2.5°	2741.0	2758.9	2742.4	2727.2	2720.4	2702.4	2701.1	2690.0	2683.1	2663.9	2658.3
5°	2932.4	2955.9	2928.3	2898.0	2870.5	2826.4	2820.9	2789.2	2753.4	2712.0	2688.7
7.5°	3148.7	3169.4	3137.7	3092.2	3044.0	2971.1	2969.6	2911.8	2855.3	2785.0	2745.2
10°	3337.4	3365.0	3322.2	3260.3	3199.6	3117.0	3107.4	3041.3	2969.6	2878.7	2818.1
12.5°	3504.1	3523.3	3482.0	3406.3	3336.1	3253.4	3240.9	3168.0	3088.1	2984.8	2907.6
15°	3636.3	3661.1	3606.0	3524.8	3450.4	3369.1	3358.1	3292.0	3212.0	3103.3	3004.1
17.5°	3723.1	3743.7	3687.2	3596.3	3524.8	3457.2	3449.0	3393.9	3323.7	3213.5	3107.4
20°	3756.1	3778.2	3718.9	3626.7	3560.5	3508.2	3504.1	3464.1	3415.9	3315.4	3207.9
22.5°	3789.2	3809.8	3732.7	3636.3	3578.5	3545.4	3544.0	3517.8	3498.5	3415.9	3311.3
25°	3922.8	3928.3	3825.0	3685.9	3603.3	3574.3	3572.9	3571.6	3579.8	3515.1	3422.8
27.5°	4038.5	4037.2	3949.0	3818.1	3690.0	3629.4	3628.0	3641.8	3668.0	3614.3	3538.5
30°	4207.9	4192.8	4088.1	3951.7	3834.6	3740.9	3732.7	3720.3	3740.9	3698.3	3654.2
32.5°	4567.4	4519.2	4349.8	4107.4	3954.4	3882.8	3871.8	3794.7	3803.0	3776.8	3754.8
35°	5082.6	5019.2	4793.3	4402.2	4103.3	4001.3	3995.8	3898.0	3881.5	3858.1	3866.3
37.5°	5695.5	5617.0	5353.9	4829.1	4359.4	4139.1	4130.8	4042.6	3975.2	3950.3	3997.2
40°	6311.2	6212.0	5994.4	5349.8	4736.8	4369.1	4342.9	4209.3	4132.2	4090.9	4190.0
42.5°	6909.0	6826.3	6640.4	5933.8	5202.4	4705.2	4647.3	4418.7	4360.8	4322.2	4501.3
45°	7437.9	7363.5	7227.2	6557.7	5747.8	5162.4	5105.9	4732.7	4714.8	4714.8	4973.7
47.5°	7867.6	7851.1	7706.5	7194.1	6391.1	5683.1	5585.3	5169.4	5217.6	5291.9	5644.6
50°	8344.2	8298.7	8144.4	7820.9	7147.2	6279.5	6199.6	5705.2	5885.5	6089.4	6614.2
52.5°	8782.2	8807.0	8634.8	8473.7	8001.3	6944.8	6804.3	6337.4	6727.2	7064.6	7750.5
55°	9232.6	9234.0	9185.7	9163.7	8896.6	7680.3	7526.1	7097.7	7717.5	8136.2	9075.6
57.5°	9655.5	9658.3	9729.8	9924.0	9935.1	8528.8	8353.9	8031.6	8818.1	9245.0	10442.0
60°	10032.9	10052.2	10247.7	10702.3	10848.3	9501.2	9335.9	9134.8	9955.7	10385.5	11878.6
62.5°	10159.6	10229.8	10665.1	11311.1	11750.5	10694.0	10531.5	10411.6	11151.3	11550.7	13079.6
65°	9944.8	10105.9	10947.5	11813.8	12678.8	12111.4	11950.2	11819.4	12393.7	12769.8	14065.9
67.5°	9417.2	9625.2	10930.9	12341.4	13805.5	13816.6	13666.4	13359.2	13725.7	13870.3	14386.8
70°	8027.4	8338.7	9968.1	12538.3	15098.9	16148.5	16003.8	15213.3	15054.8	14355.1	13483.3
72.5°	5172.0	5590.9	7340.1	10917.2	15386.8	18342.7	18334.4	16886.8	15474.9	13412.9	10813.9
75°	1887.0	2143.2	3410.4	6852.5	12915.7	18231.1	18284.8	16600.3	14126.4	10360.7	6736.8
77.5°	687.4	752.0	1112.9	2633.5	7943.3	14627.9	14739.4	13271.1	10054.9	5199.6	2669.4
80°	360.9	396.7	570.2	1022.0	3403.5	8687.2	8862.2	7887.0	4725.9	1566.1	800.2
82.5°	199.7	216.3	319.6	555.0	1533.0	3714.8	3819.5	3115.7	1662.6	663.9	330.6
85°	107.4	114.3	150.2	303.0	749.3	1287.8	1316.8	931.1	662.6	389.8	159.8
87.5°	31.7	38.5	49.6	96.5	293.4	289.3	296.1	184.6	261.7	197.0	52.4
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°	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7	2637.7
2.5°	2650.1	2645.9	2630.8	2623.9	2615.7	2614.3	2621.1	2622.6	2623.9	2625.3	2630.8
5°	2674.8	2661.1	2647.4	2639.1	2641.8	2643.2	2657.0	2666.6	2673.5	2679.0	2681.8
7.5°	2723.1	2712.0	2688.7	2687.2	2691.4	2703.8	2721.7	2743.7	2756.1	2765.8	2768.5
10°	2794.8	2774.1	2746.5	2750.7	2758.9	2776.8	2814.0	2831.9	2852.6	2870.5	2866.3
12.5°	2867.7	2849.8	2818.1	2820.9	2834.6	2866.3	2902.2	2924.2	2938.0	2951.7	2957.2
15°	2962.8	2931.1	2896.6	2896.6	2921.5	2955.9	2972.4	2990.3	2998.5	3013.7	3019.2
17.5°	3060.5	3019.2	2973.7	2971.1	3001.3	3017.8	3027.5	3030.2	3033.0	3049.6	3055.0
20°	3158.3	3112.9	3048.1	3042.6	3049.6	3046.8	3045.4	3042.6	3046.8	3067.4	3075.7
22.5°	3254.8	3202.4	3112.9	3088.1	3068.8	3042.6	3041.3	3039.8	3042.6	3063.3	3077.0
25°	3367.7	3304.4	3184.5	3110.2	3045.4	3009.6	3013.7	3015.1	3017.8	3034.4	3056.4
27.5°	3490.3	3420.0	3250.6	3103.3	2986.1	2961.4	2954.5	2958.7	2968.3	2994.4	3020.6
30°	3612.9	3530.2	3311.3	3075.7	2911.8	2877.4	2855.3	2865.0	2895.3	2921.5	2950.4
32.5°	3724.4	3641.8	3359.4	3015.1	2816.8	2763.0	2734.1	2746.5	2776.8	2786.5	2820.9
35°	3855.3	3761.6	3380.1	2918.7	2713.5	2630.8	2592.2	2574.3	2589.5	2579.8	2610.2
37.5°	4001.3	3903.5	3377.4	2792.0	2592.2	2497.2	2443.5	2376.0	2344.3	2311.3	2331.9
40°	4217.6	4077.0	3344.3	2639.1	2442.1	2355.3	2258.9	2144.6	2073.0	2008.2	2012.4
42.5°	4512.4	4318.1	3283.7	2471.1	2272.7	2191.4	2060.6	1927.0	1814.0	1706.6	1697.0
45°	4951.7	4633.5	3207.9	2292.0	2089.5	2009.6	1867.8	1717.6	1589.5	1451.8	1435.2
47.5°	5585.3	5057.8	3136.3	2088.1	1896.7	1823.7	1695.6	1556.5	1405.0	1271.3	1256.1
50°	6455.9	5666.6	3070.2	1889.8	1706.6	1651.5	1549.6	1407.7	1254.8	1147.4	1140.5
52.5°	7563.3	6494.4	3042.6	1698.3	1528.9	1508.3	1427.0	1294.8	1150.2	1059.2	1052.4
55°	8834.6	7484.8	3042.6	1515.2	1373.3	1380.2	1323.7	1201.1	1075.7	994.5	986.3
57.5°	10132.0	8487.4	2987.6	1345.7	1241.1	1270.0	1234.1	1126.7	1013.7	929.8	915.9
60°	11327.6	9327.7	2764.4	1191.5	1123.9	1169.4	1145.9	1053.7	915.9	845.7	834.7
62.5°	12246.4	9801.5	2334.6	1068.9	1027.6	1079.8	1067.4	957.2	898.1	869.1	859.5
65°	12706.4	9724.4	1785.1	960.0	946.3	1027.6	1001.3	997.2	950.4	917.4	906.3
67.5°	12424.0	9060.5	1294.8	880.2	899.4	979.3	1079.8	1096.4	1009.6	944.8	933.9
70°	11185.7	7859.4	964.2	804.4	840.2	980.7	1231.4	1147.4	990.4	914.6	902.2
72.5°	8509.4	5860.7	747.9	724.5	763.1	987.6	1298.9	1123.9	935.2	1011.0	1002.8
75°	4866.3	3217.6	600.5	626.7	666.7	922.8	1264.4	1063.3	892.6	928.3	928.3
77.5°	1855.4	1236.9	495.9	530.3	535.8	805.8	1209.3	1059.2	849.8	829.2	756.1
80°	643.3	483.5	410.5	421.5	414.6	716.3	1159.8	921.5	695.6	622.6	601.9
82.5°	263.1	241.1	325.0	311.3	294.8	556.5	936.6	753.5	568.9	502.8	497.2
85°	114.3	152.9	214.8	188.7	170.8	385.7	750.7	637.8	480.7	414.6	413.2
87.5°	23.4	57.8	90.9	85.4	88.1	257.6	533.0	453.2	340.2	254.8	199.7
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)