

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: P967895

Luminaire Tested: **NAV-SB5A-830-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967895
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20627.1 lumens
Efficiency: N/A
Efficacy: 145.6 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): 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



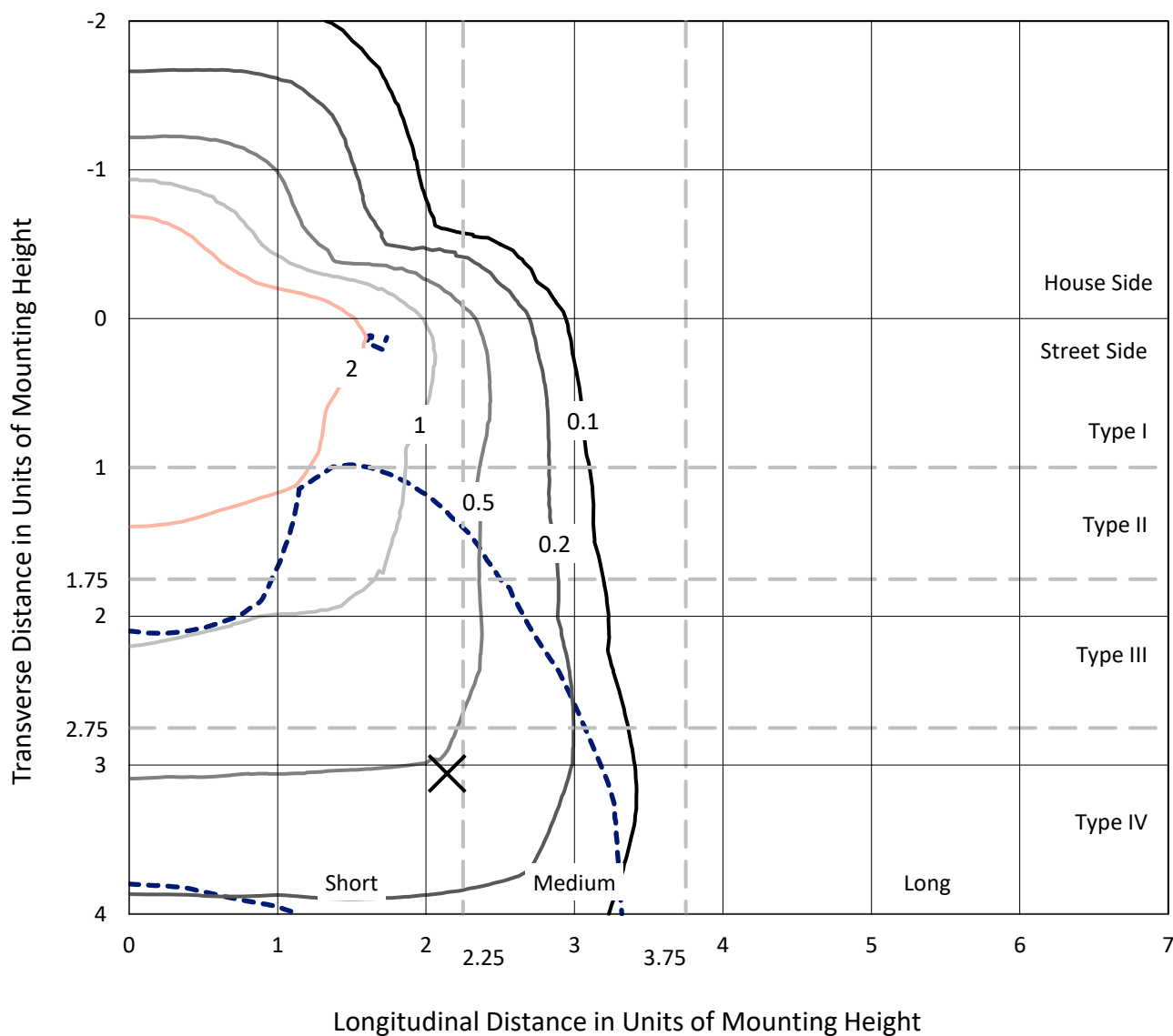
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

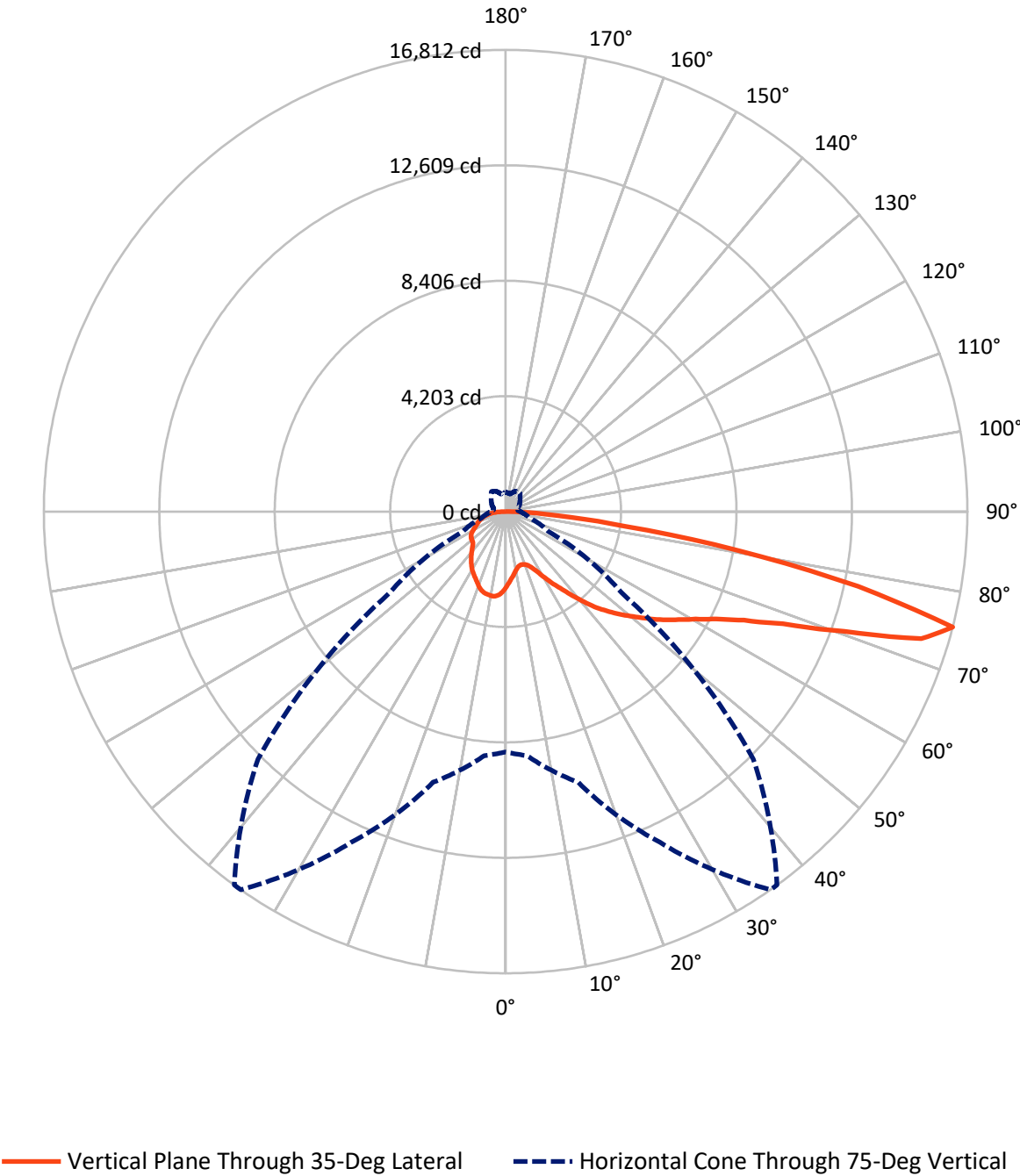


Based on 25 foot mounting height. Maximum calculated value = 4.9 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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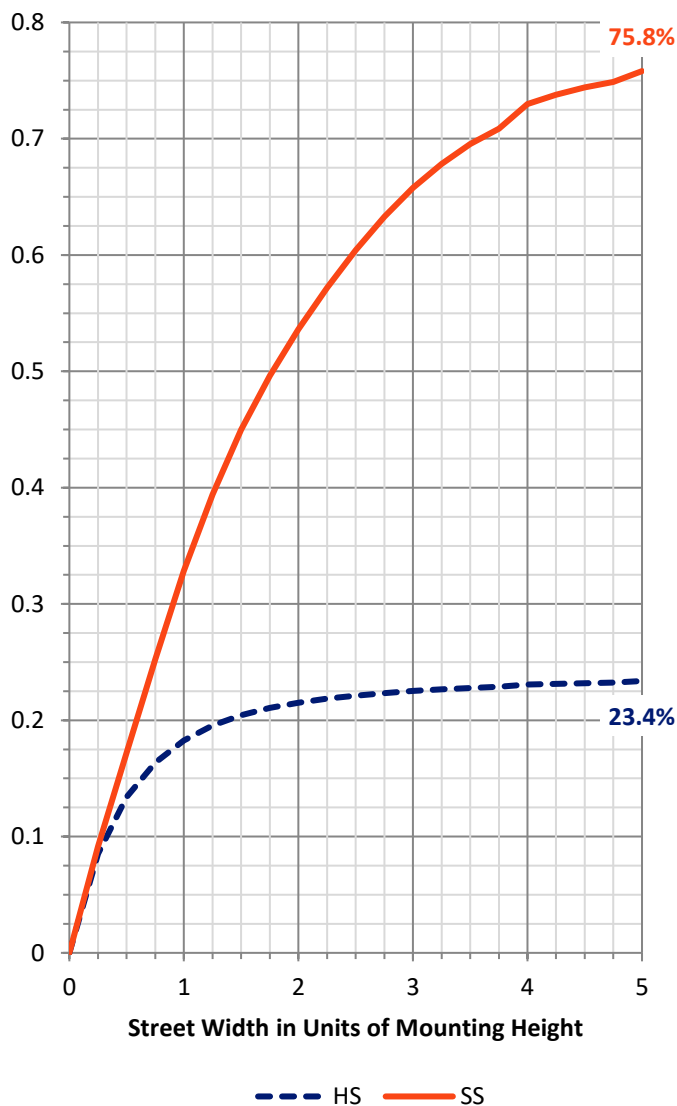
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4908.7	0.0	4908.7
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	15718.4	0.0	15718.4
	% Fixture	76.2	0.0	76.2
Total	Lumens	20627.1	0.0	20627.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.2	1.3
10°-20°	750.7	3.6
20°-30°	1260.6	6.1
30°-40°	1959.1	9.5
40°-50°	2907.8	14.1
50°-60°	4014.4	19.5
60°-70°	4870.4	23.6
70°-80°	4025.0	19.5
80°-90°	578.9	2.8
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°	20627.1	100.0
0°-180°	20627.1	100.0

Coefficient of Utilization



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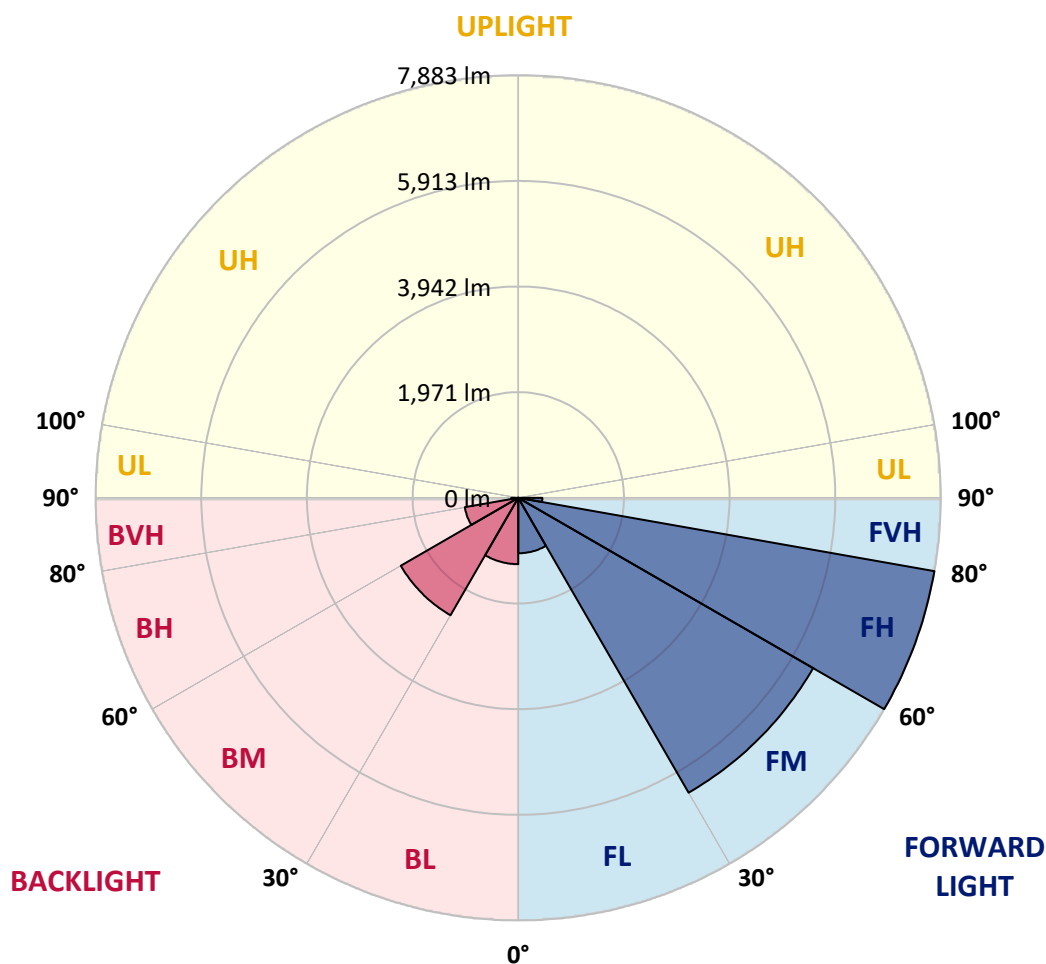
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1034.4	5.0			
FM	(30°-60°)	6352.0	30.8			
FH	(60°-80°)	7883.4	38.2			G4/12000
FVH	(80°-90°)	448.6	2.2			G3/500
BL	(0°-30°)	1237.1	6.0	B3/2500		
BM	(30°-60°)	2529.3	12.3	B3/5000		
BH	(60°-80°)	1012.0	4.9	B3/2500		G3/2500
BVH	(80°-90°)	130.4	0.6			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°	36°	45°	55°	65°	75°	85°
0°	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7
2.5°	2534.6	2550.2	2556.9	2553.6	2570.3	2568.0	2591.5	2620.5	2660.6	2699.6	2756.5
5°	2339.5	2356.2	2370.7	2384.0	2416.4	2426.5	2463.3	2519.0	2592.6	2667.3	2760.9
7.5°	2157.7	2172.2	2194.5	2219.0	2273.7	2283.7	2345.0	2432.0	2534.6	2643.9	2773.2
10°	2009.4	2023.9	2047.3	2075.2	2143.2	2155.5	2233.6	2349.5	2483.3	2621.5	2786.6
12.5°	1945.9	1950.3	1963.7	1991.6	2050.6	2058.5	2144.3	2277.0	2433.1	2604.8	2806.7
15°	1942.5	1951.4	1952.5	1967.0	2016.1	2019.5	2098.6	2230.2	2401.9	2601.6	2836.8
17.5°	1975.9	1982.7	1972.6	1981.5	2022.7	2028.4	2090.8	2207.8	2391.8	2616.0	2888.0
20°	2065.2	2070.7	2040.6	2028.4	2058.5	2062.9	2124.2	2222.4	2401.9	2646.1	2958.4
22.5°	2254.7	2258.1	2184.5	2134.3	2136.5	2138.8	2192.3	2281.4	2440.9	2700.8	3047.5
25°	2550.2	2547.9	2430.9	2333.9	2278.2	2265.9	2301.5	2377.4	2506.7	2773.2	3162.4
27.5°	2895.9	2879.1	2762.1	2617.1	2495.6	2477.7	2469.9	2502.2	2600.4	2869.2	3302.9
30°	3286.2	3270.6	3144.6	2955.0	2786.6	2757.7	2684.1	2667.3	2739.8	2999.6	3498.0
32.5°	3714.4	3704.3	3553.8	3324.1	3098.9	3065.4	2941.6	2897.0	2953.8	3197.0	3770.2
35°	4073.5	4064.5	3939.6	3703.2	3427.8	3386.5	3260.5	3210.3	3239.3	3450.0	4125.8
37.5°	4398.0	4393.5	4286.4	4100.2	3815.9	3765.6	3624.1	3607.3	3601.7	3783.5	4557.4
40°	4699.0	4687.8	4576.3	4478.2	4267.5	4221.8	4096.8	4082.4	4039.9	4193.9	5045.8
42.5°	5032.4	5003.4	4841.7	4796.0	4739.2	4701.3	4626.5	4628.7	4535.1	4656.6	5563.2
45°	5304.5	5287.8	5121.6	5094.9	5156.2	5140.6	5205.3	5222.0	5040.2	5141.7	6100.7
47.5°	5596.6	5581.0	5440.5	5421.5	5587.7	5592.2	5820.8	5826.3	5533.1	5645.7	6639.2
50°	5956.8	5934.5	5795.1	5818.5	6004.8	6021.5	6439.7	6401.7	5986.9	6157.6	7173.4
52.5°	6194.4	6207.7	6177.6	6215.5	6469.8	6485.4	7048.5	6951.4	6436.3	6662.7	7697.4
55°	6369.5	6396.2	6489.8	6576.8	6960.4	6976.0	7622.7	7474.5	6808.8	7131.0	8190.4
57.5°	6594.6	6556.7	6731.8	6901.3	7426.5	7467.7	8181.4	7978.5	7138.8	7534.7	8528.2
60°	6918.0	6891.3	7027.3	7278.2	7948.4	8014.2	8772.5	8432.4	7380.8	7854.7	8594.0
62.5°	7573.7	7506.8	7528.0	7749.9	8606.3	8693.2	9439.2	8828.2	7501.3	7979.6	8241.6
65°	8553.8	8439.0	8331.9	8485.9	9532.9	9618.8	10192.0	9139.3	7456.6	7737.6	7306.1
67.5°	9788.2	9674.6	9543.0	9687.9	10897.8	10965.9	11120.8	9314.4	7105.4	6805.4	5652.4
70°	10806.4	10763.9	10921.2	11517.8	13077.8	13080.0	12311.7	9169.4	6143.0	4825.0	3270.6
72.5°	10671.4	10645.8	11474.3	13318.6	15825.4	15766.2	13439.1	8072.2	4138.1	2176.7	1225.5
75°	8754.6	8920.8	10204.2	13286.4	16812.3	16804.5	12748.8	5131.7	1711.6	902.1	633.3
77.5°	4694.5	4957.7	6624.8	9809.5	13124.6	13322.0	8963.1	1795.3	734.8	577.6	438.2
80°	1531.0	1760.7	2640.5	4994.5	8528.2	8491.4	3841.5	704.7	502.9	409.3	303.3
82.5°	650.1	676.9	1179.8	2358.4	4376.8	4308.7	1223.2	404.8	353.5	279.9	187.4
85°	254.2	284.3	520.7	1090.6	1895.6	1854.4	441.6	200.7	226.3	182.9	111.5
87.5°	83.6	101.5	186.2	373.5	589.9	568.7	108.1	69.1	98.1	83.6	40.2
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°	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7	2748.7
2.5°	2772.1	2789.9	2811.2	2842.3	2869.2	2891.4	2914.9	2929.3	2934.9	2951.7	2950.6
5°	2792.2	2831.3	2883.6	2934.9	2985.1	3015.2	3042.0	3055.3	3067.6	3076.5	3078.8
7.5°	2825.6	2875.8	2958.4	3025.3	3067.6	3092.1	3110.0	3105.5	3110.0	3112.2	3115.6
10°	2854.6	2924.8	3023.0	3086.6	3118.9	3120.0	3115.6	3099.9	3092.1	3093.2	3095.5
12.5°	2889.2	2967.3	3073.2	3126.8	3135.7	3111.1	3092.1	3065.4	3055.3	3050.9	3048.7
15°	2936.0	3025.3	3127.8	3147.9	3125.6	3094.4	3062.1	3018.5	2996.3	2978.4	2984.0
17.5°	2992.9	3091.0	3170.2	3155.7	3107.8	3056.4	3004.1	2938.3	2892.5	2873.6	2874.7
20°	3072.0	3160.2	3202.5	3139.0	3066.5	2988.5	2899.2	2819.0	2776.6	2757.7	2755.4
22.5°	3168.0	3252.7	3233.8	3110.0	3007.5	2882.5	2771.0	2711.9	2690.7	2677.3	2679.6
25°	3282.9	3355.3	3256.1	3067.6	2910.4	2742.0	2656.2	2637.2	2627.2	2617.1	2617.1
27.5°	3432.2	3471.3	3272.8	3005.2	2758.8	2592.6	2561.4	2564.8	2561.4	2544.7	2547.9
30°	3629.6	3621.8	3288.4	2903.7	2584.7	2457.6	2459.9	2474.4	2476.6	2465.4	2471.1
32.5°	3889.5	3810.2	3296.2	2772.1	2418.6	2339.5	2341.7	2357.3	2368.5	2349.5	2358.4
35°	4203.9	4029.9	3283.9	2607.1	2290.4	2226.8	2210.1	2214.6	2217.9	2200.1	2212.4
37.5°	4570.8	4276.4	3229.3	2424.2	2184.5	2116.4	2080.8	2050.6	2032.8	2016.1	2027.2
40°	4973.3	4545.2	3128.9	2245.8	2066.3	1999.4	1945.9	1889.0	1828.7	1806.5	1816.5
42.5°	5394.8	4821.7	3007.5	2075.2	1930.2	1875.5	1818.8	1736.2	1645.8	1600.1	1605.8
45°	5831.9	5104.9	2888.0	1906.8	1790.9	1767.4	1701.6	1602.4	1504.3	1446.3	1441.8
47.5°	6260.1	5372.5	2713.0	1737.3	1660.4	1686.0	1634.8	1543.2	1434.0	1342.5	1332.5
50°	6669.4	5623.5	2426.5	1565.6	1554.4	1661.5	1612.4	1480.8	1356.0	1238.9	1228.9
52.5°	7075.3	5826.3	2059.5	1409.5	1497.5	1654.8	1583.4	1438.5	1285.7	1163.1	1149.6
55°	7419.8	5931.2	1706.1	1275.7	1415.0	1598.0	1548.9	1388.3	1186.4	1056.0	1044.9
57.5°	7616.1	5846.4	1411.7	1144.1	1301.3	1504.3	1489.7	1281.2	1068.3	967.9	954.5
60°	7531.3	5503.0	1170.9	1029.2	1193.1	1402.8	1387.1	1175.3	978.0	883.1	869.8
62.5°	7064.1	4848.5	980.2	928.9	1095.0	1299.1	1284.6	1093.9	908.8	817.3	802.9
65°	6122.9	3944.1	831.9	845.2	995.8	1174.2	1195.4	1025.9	854.1	765.0	750.5
67.5°	4670.0	2856.9	715.9	772.7	898.7	1051.5	1112.8	976.8	808.4	723.6	710.3
70°	2661.7	1622.5	617.8	702.5	812.9	937.8	1049.3	937.8	759.4	689.1	680.2
72.5°	1009.1	744.9	534.1	632.2	730.4	841.9	979.1	876.5	702.5	650.1	641.1
75°	538.6	453.9	449.4	549.7	635.6	748.2	890.9	816.2	660.1	686.9	709.2
77.5°	366.8	321.1	375.8	470.6	531.9	644.5	797.2	724.8	572.1	569.8	525.2
80°	254.2	227.4	305.6	379.1	411.4	541.9	695.8	622.2	466.1	434.9	415.9
82.5°	152.7	148.3	228.6	283.2	291.0	418.2	576.5	521.8	381.4	332.3	334.6
85°	83.6	88.0	146.1	166.2	169.5	292.1	451.6	403.6	293.3	246.4	248.7
87.5°	23.4	30.1	53.5	65.8	81.4	151.7	268.8	239.7	147.2	102.6	102.6
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)