

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: P965229

Luminaire Tested: **NAV-SB3D-827-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965229
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-SB3D-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26897 lumens
Efficiency: N/A
Efficacy: 123.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 218.1
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



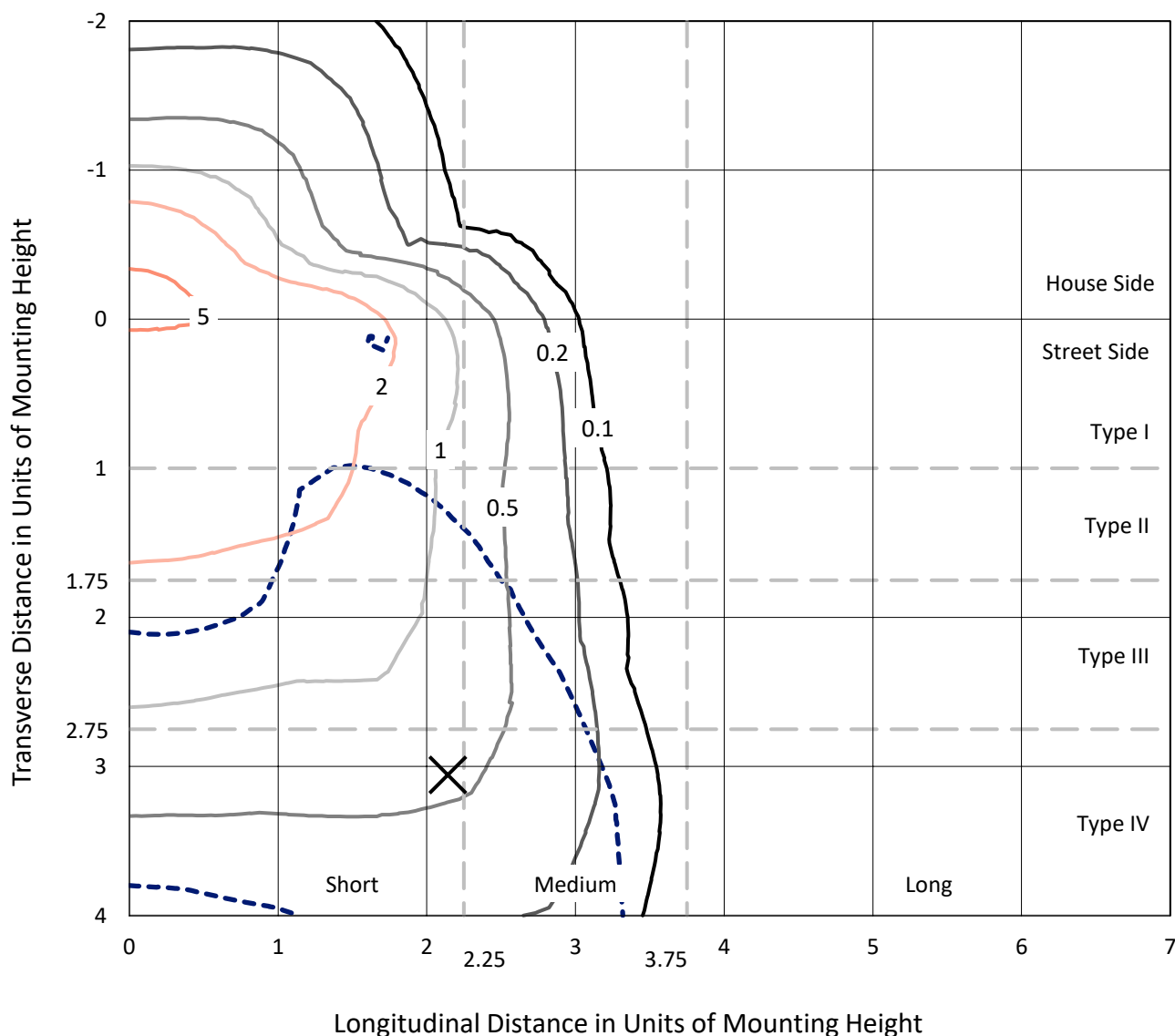
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

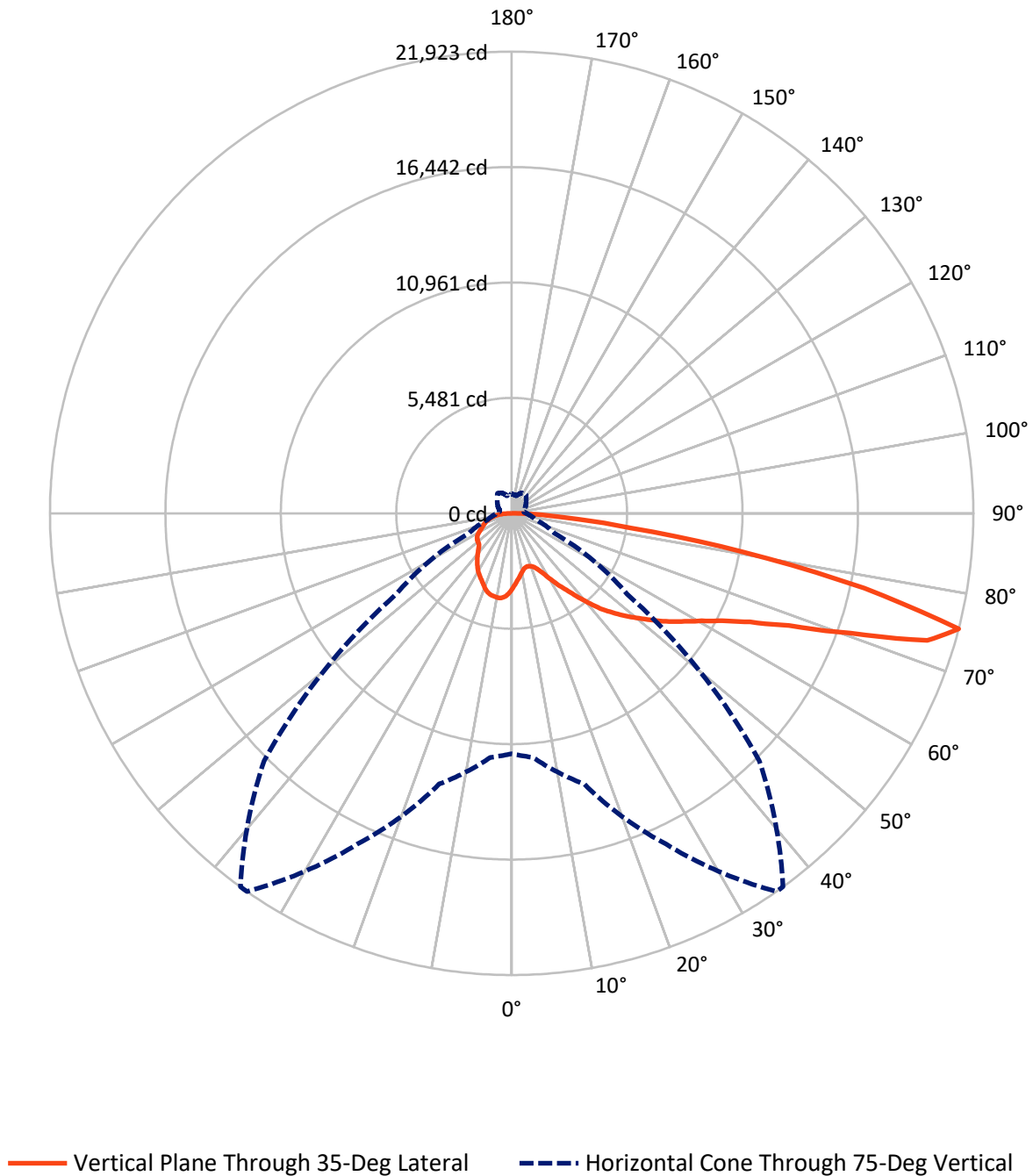


Based on 25 foot mounting height. Maximum calculated value = 6.3 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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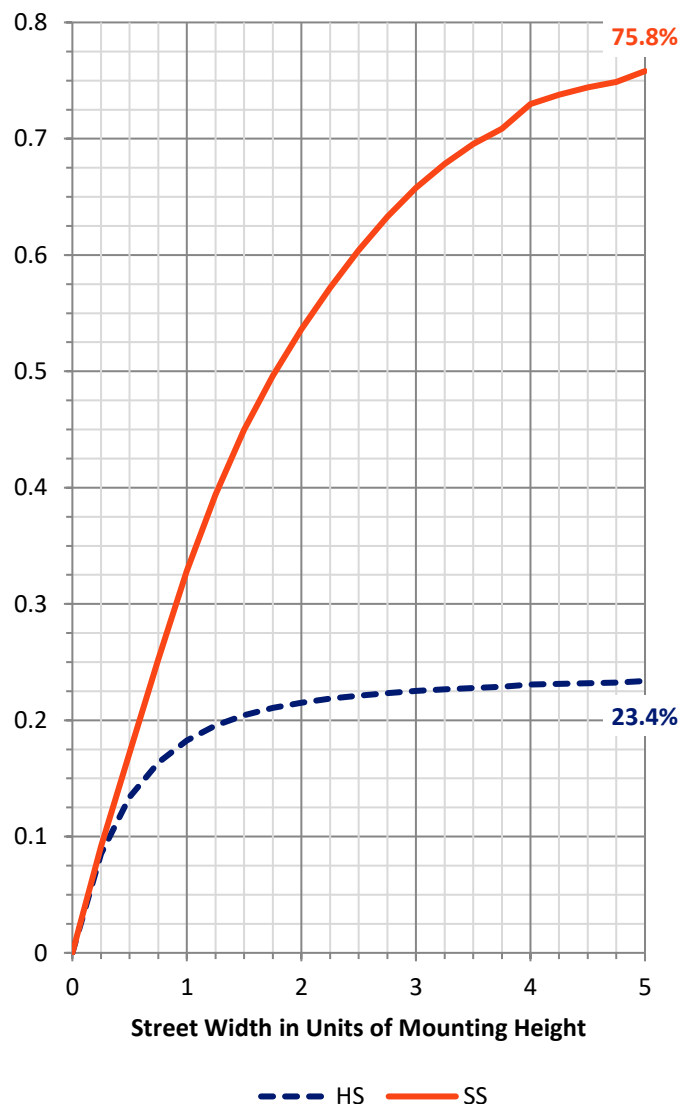
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6400.8	0.0	6400.8
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	20496.2	0.0	20496.2
	% Fixture	76.2	0.0	76.2
Total	Lumens	26897.0	0.0	26897.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.4	1.3
10°-20°	978.8	3.6
20°-30°	1643.7	6.1
30°-40°	2554.6	9.5
40°-50°	3791.7	14.1
50°-60°	5234.6	19.5
60°-70°	6350.8	23.6
70°-80°	5248.5	19.5
80°-90°	754.9	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°	26897.0	100.0
0°-180°	26897.0	100.0

Coefficient of Utilization



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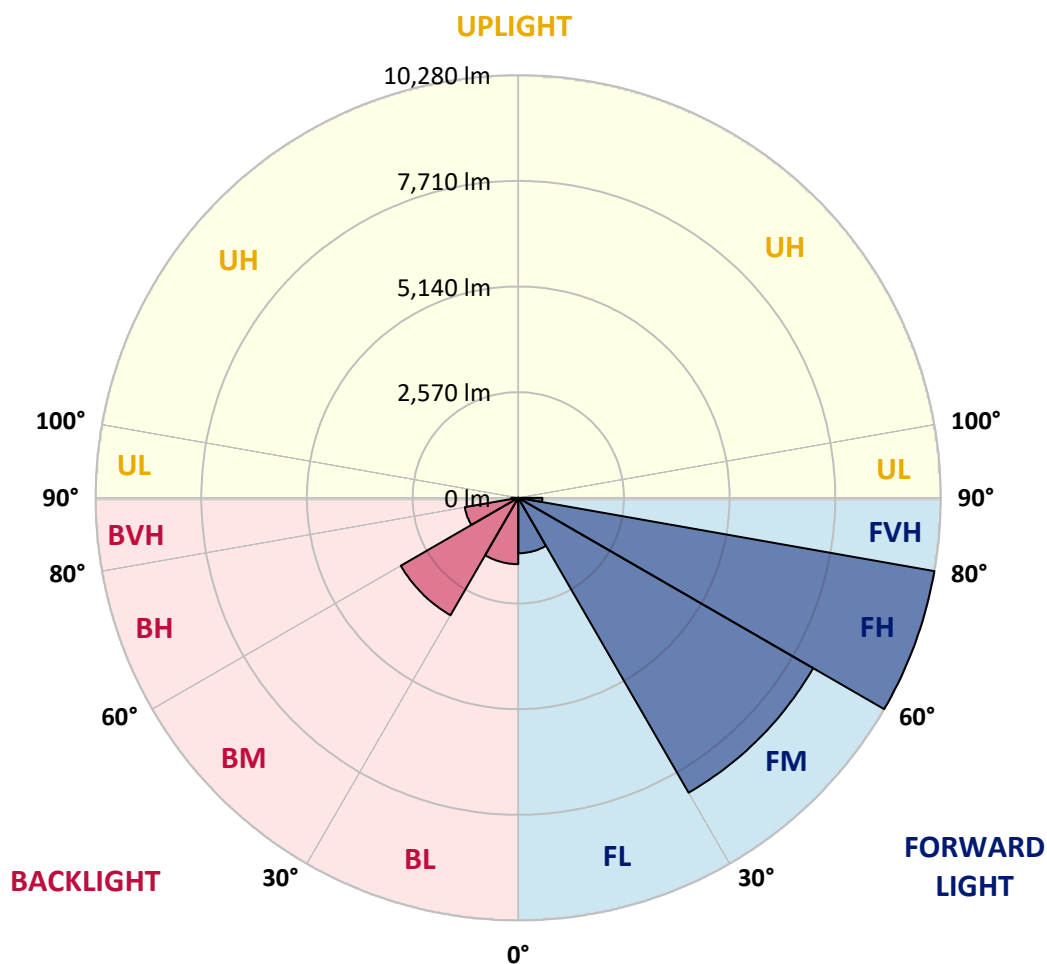
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1348.8	5.0			
FM	(30°-60°)	8282.8	30.8			
FH	(60°-80°)	10279.6	38.2			G4/12000
FVH	(80°-90°)	584.9	2.2			G4/750
BL	(0°-30°)	1613.1	6.0	B3/2500		
BM	(30°-60°)	3298.1	12.3	B3/5000		
BH	(60°-80°)	1319.7	4.9	B3/2500		G3/2500
BVH	(80°-90°)	170.0	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°	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2
2.5°	3305.0	3325.4	3334.1	3329.7	3351.5	3348.7	3379.2	3417.0	3469.3	3520.3	3594.4
5°	3050.6	3072.4	3091.3	3108.7	3151.0	3164.0	3211.9	3284.7	3380.7	3478.0	3600.2
7.5°	2813.5	2832.5	2861.6	2893.6	2964.8	2977.8	3057.9	3171.2	3305.0	3447.5	3616.2
10°	2620.2	2639.1	2669.6	2706.0	2794.7	2810.7	2912.4	3063.6	3238.2	3418.5	3633.6
12.5°	2537.3	2543.1	2560.6	2596.9	2674.0	2684.2	2796.1	2969.1	3172.7	3396.6	3659.9
15°	2533.0	2544.6	2546.0	2565.0	2628.9	2633.2	2736.5	2908.1	3132.0	3392.2	3699.1
17.5°	2576.5	2585.3	2572.2	2583.8	2637.6	2644.9	2726.3	2879.0	3118.9	3411.2	3766.0
20°	2692.9	2700.2	2660.9	2644.9	2684.2	2690.0	2770.0	2897.9	3132.0	3450.5	3857.6
22.5°	2940.1	2944.4	2848.5	2783.1	2786.0	2788.8	2858.6	2975.0	3182.9	3521.7	3973.9
25°	3325.4	3322.4	3169.8	3043.3	2970.7	2954.6	3001.1	3100.0	3268.7	3616.2	4123.7
27.5°	3776.1	3754.4	3601.6	3412.6	3254.2	3230.9	3220.7	3262.9	3390.8	3741.2	4306.8
30°	4285.0	4264.7	4100.4	3853.2	3633.6	3595.8	3499.9	3478.0	3572.5	3911.4	4561.4
32.5°	4843.4	4830.3	4634.0	4334.5	4040.8	3997.2	3835.8	3777.6	3851.7	4168.8	4916.1
35°	5311.7	5300.0	5137.1	4828.9	4469.7	4415.9	4251.6	4186.2	4224.0	4498.8	5379.9
37.5°	5734.8	5728.9	5589.3	5346.5	4975.8	4910.3	4725.7	4703.8	4696.5	4933.5	5942.6
40°	6127.3	6112.8	5967.3	5839.4	5564.6	5505.0	5342.1	5323.2	5268.0	5468.7	6579.6
42.5°	6562.0	6524.3	6313.5	6253.8	6179.6	6130.2	6032.8	6035.7	5913.6	6072.1	7254.2
45°	6916.9	6895.1	6678.4	6643.5	6723.5	6703.1	6787.4	6809.3	6572.3	6704.6	7955.0
47.5°	7297.8	7277.5	7094.2	7069.5	7286.2	7292.1	7590.1	7597.4	7215.0	7361.9	8657.4
50°	7767.4	7738.4	7556.6	7587.2	7830.0	7851.8	8397.1	8347.6	7806.7	8029.2	9353.8
52.5°	8077.2	8094.6	8055.4	8104.8	8436.4	8456.7	9191.0	9064.5	8392.7	8687.9	10037.2
55°	8305.5	8340.4	8462.5	8576.0	9076.2	9096.5	9939.8	9746.4	8878.3	9298.6	10679.9
57.5°	8599.2	8549.7	8778.0	8999.1	9683.9	9737.7	10668.3	10403.6	9308.7	9824.9	11120.5
60°	9020.8	8986.0	9163.4	9490.5	10364.4	10450.2	11438.9	10995.5	9624.3	10242.3	11206.3
62.5°	9875.9	9788.6	9816.2	10105.6	11222.3	11335.7	12308.4	11511.7	9781.4	10405.1	10746.8
65°	11153.9	11004.2	10864.6	11065.3	12430.6	12542.5	13289.9	11917.4	9723.2	10089.6	9526.9
67.5°	12763.6	12615.3	12443.7	12632.7	14210.3	14299.1	14501.2	12145.6	9265.2	8874.0	7370.6
70°	14091.1	14035.8	14240.8	15018.8	17053.0	17055.9	16054.1	11956.6	8010.3	6291.7	4264.7
72.5°	13915.2	13881.7	14962.1	17367.1	20635.7	20558.7	17524.1	10525.8	5395.9	2838.3	1598.0
75°	11415.6	11632.3	13305.9	17324.9	21922.6	21912.3	16624.1	6691.5	2231.9	1176.3	825.9
77.5°	6121.5	6464.7	8638.5	12791.2	17114.0	17371.4	11687.6	2341.0	958.2	753.2	571.4
80°	1996.4	2295.9	3443.2	6512.6	11120.5	11072.6	5009.2	918.9	655.8	533.6	395.5
82.5°	847.7	882.6	1538.4	3075.3	5707.1	5618.4	1595.1	527.8	460.9	365.0	244.3
85°	331.5	370.7	679.1	1422.1	2471.9	2418.1	575.8	261.7	295.2	238.4	145.4
87.5°	109.1	132.3	242.8	487.1	769.2	741.6	141.0	90.2	127.9	109.1	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°	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2	3584.2
2.5°	3614.8	3638.0	3665.6	3706.4	3741.2	3770.4	3800.9	3819.8	3827.0	3848.9	3847.4
5°	3640.9	3691.8	3760.1	3827.0	3892.4	3931.7	3966.6	3984.1	4000.1	4011.7	4014.6
7.5°	3684.6	3750.0	3857.6	3944.8	4000.1	4032.0	4055.3	4049.5	4055.3	4058.2	4062.6
10°	3722.4	3813.9	3941.9	4024.8	4067.0	4068.4	4062.6	4042.2	4032.0	4033.5	4036.4
12.5°	3767.4	3869.2	4007.3	4077.1	4088.7	4056.7	4032.0	3997.2	3984.1	3978.2	3975.4
15°	3828.5	3944.8	4078.6	4104.7	4075.7	4034.9	3992.8	3936.1	3907.0	3883.7	3891.0
17.5°	3902.7	4030.6	4133.8	4115.0	4052.4	3985.5	3917.1	3831.3	3771.8	3747.1	3748.5
20°	4005.9	4120.7	4176.1	4093.1	3998.6	3896.8	3780.5	3675.9	3620.6	3595.8	3592.9
22.5°	4131.0	4241.4	4216.7	4055.3	3921.5	3758.7	3613.3	3536.2	3508.6	3491.2	3494.0
25°	4280.7	4375.2	4245.8	4000.1	3795.1	3575.5	3463.5	3438.8	3425.8	3412.6	3412.6
27.5°	4475.6	4526.4	4267.6	3918.7	3597.3	3380.7	3340.0	3344.3	3340.0	3318.1	3322.4
30°	4732.9	4722.7	4288.0	3786.3	3370.5	3204.7	3207.6	3226.5	3229.5	3214.9	3222.2
32.5°	5071.7	4968.5	4298.1	3614.8	3153.8	3050.6	3053.5	3073.9	3088.4	3063.6	3075.3
35°	5481.7	5254.9	4282.1	3399.5	2986.6	2903.7	2881.9	2887.7	2892.0	2868.9	2884.9
37.5°	5960.1	5576.2	4210.9	3161.1	2848.5	2759.8	2713.3	2674.0	2650.8	2628.9	2643.5
40°	6485.1	5926.7	4080.0	2928.4	2694.3	2607.1	2537.3	2463.2	2384.7	2355.6	2368.7
42.5°	7034.7	6287.2	3921.5	2706.0	2517.0	2445.6	2371.5	2263.9	2146.1	2086.6	2093.8
45°	7604.7	6656.6	3766.0	2486.4	2335.2	2304.6	2218.8	2089.5	1961.5	1885.9	1880.1
47.5°	8163.0	7005.6	3537.7	2265.4	2165.1	2198.5	2131.6	2012.4	1869.9	1750.7	1737.6
50°	8696.6	7332.7	3164.0	2041.5	2026.9	2166.5	2102.6	1931.0	1768.1	1615.4	1602.4
52.5°	9225.9	7597.4	2685.6	1837.9	1952.7	2157.8	2064.8	1875.7	1676.5	1516.6	1499.2
55°	9675.2	7734.0	2224.7	1663.5	1845.2	2083.6	2019.7	1810.3	1547.1	1377.0	1362.4
57.5°	9931.1	7623.5	1840.8	1491.9	1696.9	1961.5	1942.6	1670.6	1393.0	1262.1	1244.7
60°	9820.6	7175.7	1526.7	1342.0	1555.8	1829.2	1808.8	1532.6	1275.2	1151.6	1134.2
62.5°	9211.4	6322.2	1278.1	1211.2	1427.8	1693.9	1675.1	1426.4	1185.0	1065.8	1046.9
65°	7984.1	5142.9	1084.8	1102.2	1298.5	1531.1	1558.7	1337.7	1113.8	997.4	978.6
67.5°	6089.5	3725.3	933.5	1007.7	1172.0	1371.1	1451.1	1273.8	1054.2	943.7	926.2
70°	3470.8	2115.6	805.5	916.0	1060.0	1222.8	1368.3	1222.8	990.3	898.6	886.9
72.5°	1315.9	971.3	696.5	824.4	952.4	1097.8	1276.6	1142.9	916.0	847.7	836.1
75°	702.3	591.8	586.0	716.9	828.8	975.7	1161.7	1064.4	860.8	895.6	924.8
77.5°	478.4	418.7	490.1	613.6	693.6	840.4	1039.7	945.2	745.9	743.0	684.8
80°	331.5	296.6	398.4	494.4	536.6	706.6	907.3	811.4	607.8	567.0	542.3
82.5°	199.2	193.4	298.1	369.3	379.5	545.3	751.7	680.5	497.3	433.3	436.2
85°	109.1	114.9	190.4	216.7	221.0	381.0	588.9	526.3	382.4	321.3	324.2
87.5°	30.5	39.3	69.8	85.8	106.2	197.7	350.4	312.6	192.0	133.8	133.8
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)