

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: P963654

Luminaire Tested: **NAV-SB3A-830-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963654
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-830-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10568.8 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 84.7
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

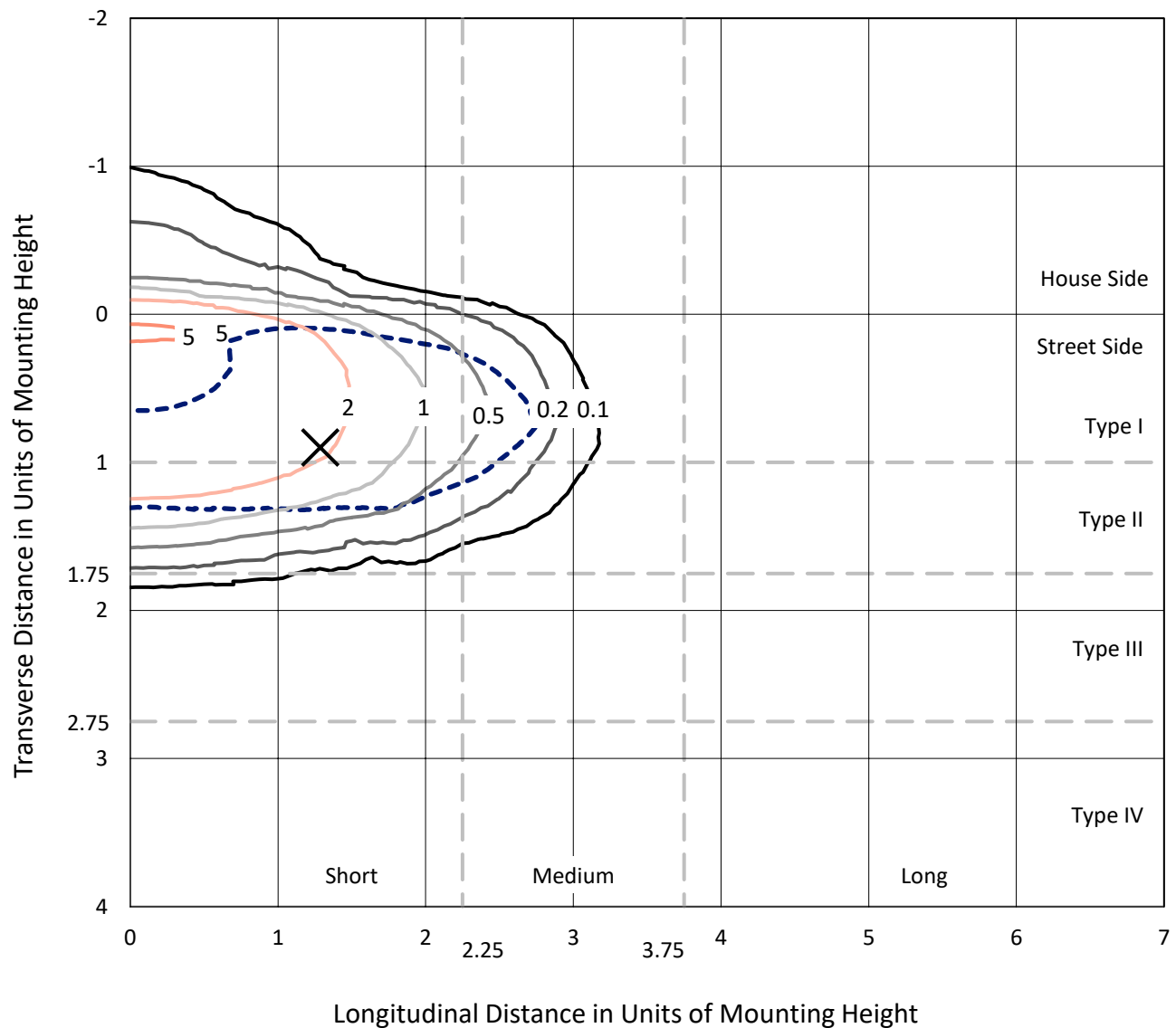


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Iso-Footcandle Lines of Horizontal Illumination

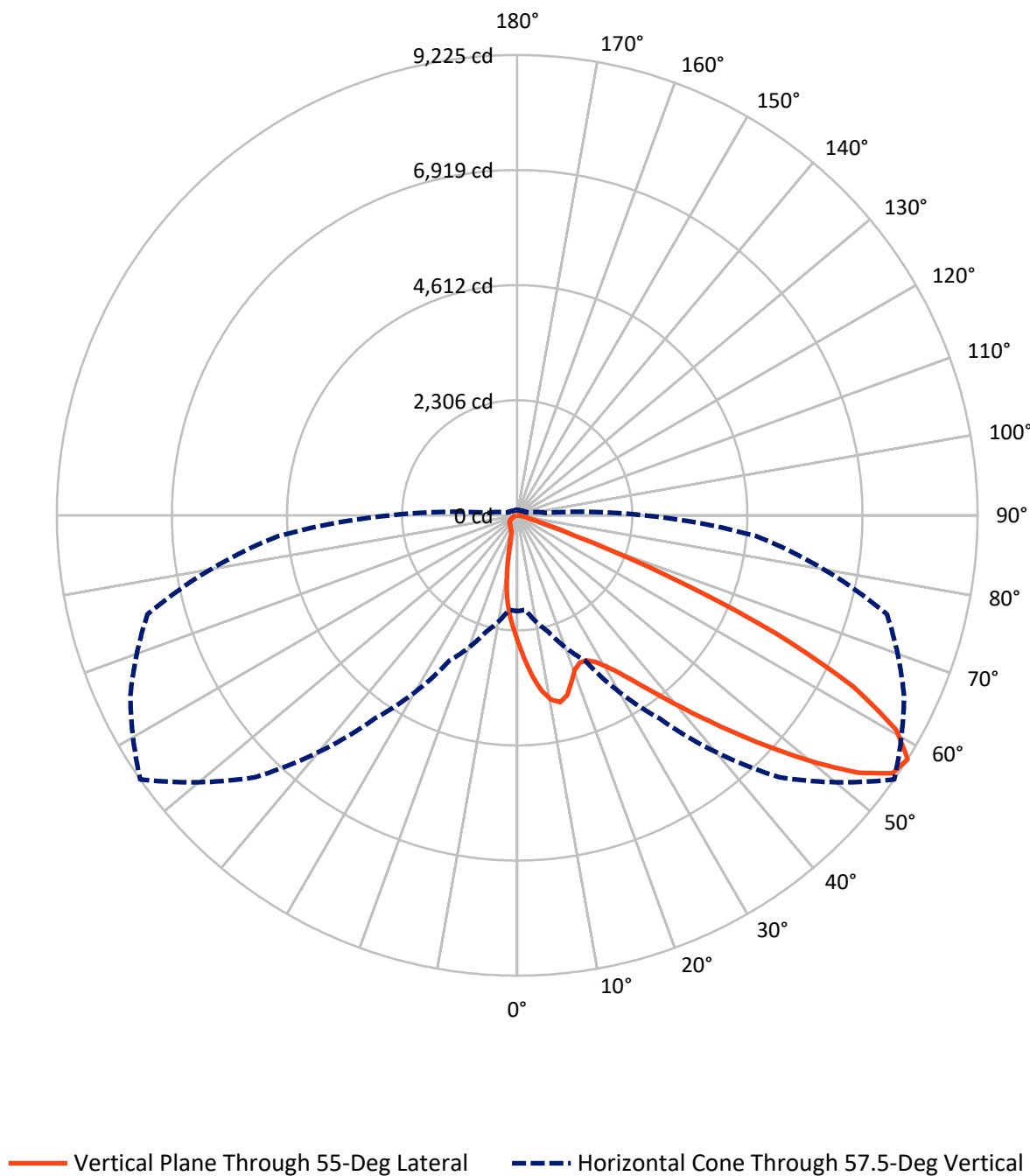
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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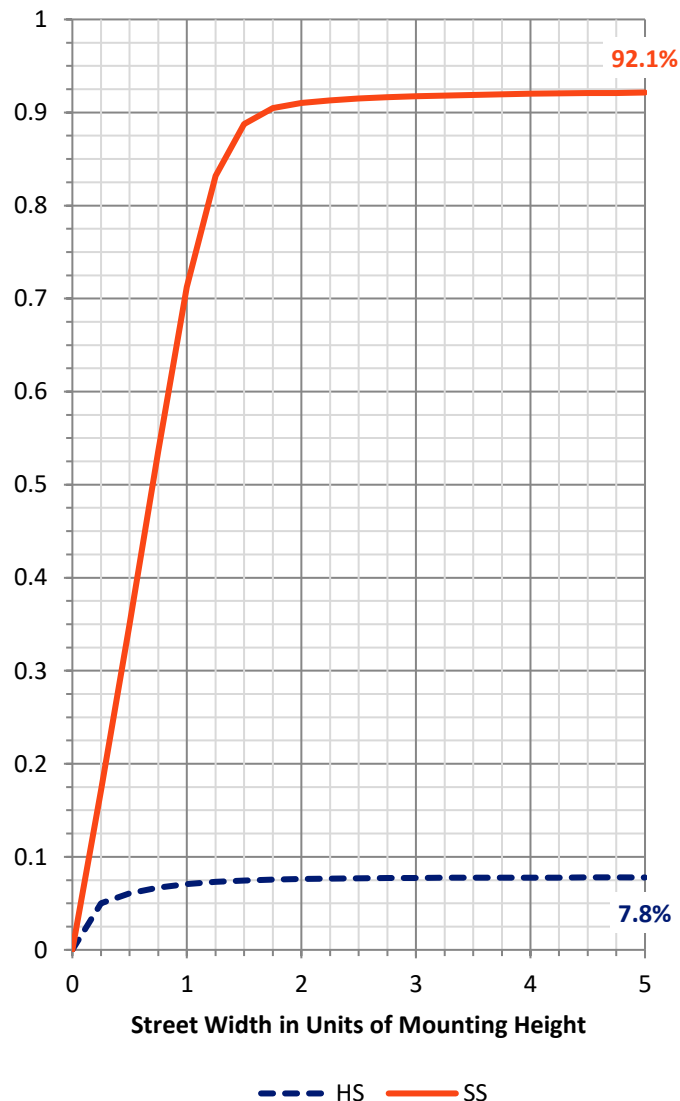
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	825.4	0.0	825.4
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	9743.4	0.0	9743.4
	% Fixture	92.2	0.0	92.2
Total	Lumens	10568.8	0.0	10568.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.0	2.2
10°-20°	572.4	5.4
20°-30°	915.8	8.7
30°-40°	1550.1	14.7
40°-50°	2544.9	24.1
50°-60°	2797.0	26.5
60°-70°	1604.4	15.2
70°-80°	327.8	3.1
80°-90°	19.3	0.2
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°	10568.8	100.0
0°-180°	10568.8	100.0

Coefficient of Utilization



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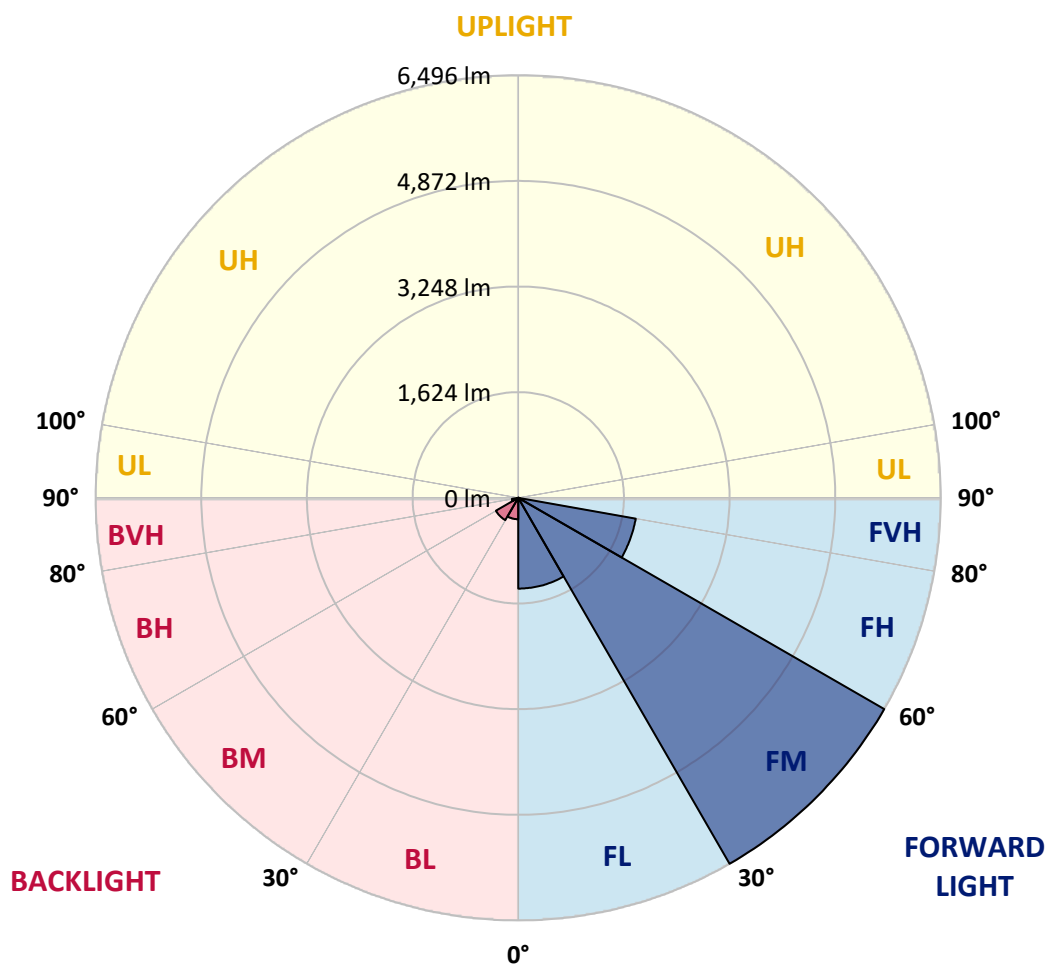
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1395.7	13.2			
FM	(30°-60°)	6495.6	61.5			
FH	(60°-80°)	1834.1	17.4			G2/5000
FVH	(80°-90°)	18.0	0.2			G1/100
BL	(0°-30°)	329.5	3.1	B1/500		
BM	(30°-60°)	396.4	3.8	B1/1000		
BH	(60°-80°)	98.2	0.9	B0/110		G0/110
BVH	(80°-90°)	1.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8
2.5°	3160.1	3120.3	3114.5	3106.6	3031.0	2974.3	2892.2	2802.2	2701.3	2598.3	2552.7
5°	3650.7	3619.5	3613.6	3577.1	3491.2	3394.7	3248.7	3064.2	2875.9	2654.3	2559.2
7.5°	3746.0	3740.0	3766.8	3765.4	3753.8	3677.5	3554.3	3334.7	3051.8	2723.4	2576.1
10°	3321.7	3336.7	3416.2	3485.9	3674.2	3783.7	3757.0	3575.8	3233.1	2802.2	2595.0
12.5°	2935.2	2917.7	2974.3	3053.2	3272.1	3598.0	3841.1	3777.2	3440.3	2891.5	2623.1
15°	2692.8	2685.6	2717.6	2754.1	2920.8	3249.4	3743.3	3940.8	3639.7	2997.1	2665.4
17.5°	2615.3	2609.3	2619.2	2628.3	2736.4	2990.6	3510.6	4041.2	3830.6	3117.7	2712.4
20°	2678.4	2670.6	2669.3	2662.1	2707.1	2880.5	3300.2	4048.3	4002.0	3227.2	2752.7
22.5°	2862.9	2853.8	2821.8	2793.1	2797.0	2895.4	3206.3	3976.6	4131.1	3329.5	2778.2
25°	3197.2	3182.2	3115.7	3019.3	2958.0	2999.8	3220.7	3882.1	4254.3	3409.7	2765.8
27.5°	3615.6	3596.0	3510.6	3367.3	3227.2	3176.4	3324.3	3817.0	4356.6	3471.0	2739.1
30°	4025.5	4000.1	3916.0	3804.6	3599.9	3439.6	3511.3	3845.6	4478.4	3534.8	2703.8
32.5°	4468.0	4443.9	4332.5	4194.3	4024.9	3809.1	3767.4	3985.7	4627.7	3624.1	2679.1
35°	5027.8	4990.0	4831.6	4643.4	4463.5	4245.1	4114.1	4227.5	4826.4	3760.3	2692.8
37.5°	5665.2	5614.3	5443.6	5183.5	4948.9	4704.5	4536.4	4559.9	5117.7	3942.8	2735.1
40°	6266.0	6219.8	6062.1	5817.0	5522.4	5226.0	5046.7	4994.6	5519.8	4165.0	2809.4
42.5°	6626.4	6584.7	6518.2	6414.7	6166.3	5863.9	5637.8	5525.1	5995.5	4430.9	2900.0
45°	6646.6	6610.1	6699.4	6819.9	6771.0	6569.7	6294.0	6087.5	6473.3	4680.5	2993.9
47.5°	6323.3	6298.6	6569.7	6990.7	7200.5	7285.3	7031.1	6602.9	6867.5	4859.6	3032.4
50°	5442.2	5433.1	5991.0	6763.9	7364.1	7912.2	7808.6	7082.5	7173.2	4952.2	2995.9
52.5°	4718.9	4685.7	5010.8	6038.0	7126.2	8241.9	8568.5	7553.1	7387.0	4969.8	2910.5
55°	3579.1	3549.8	3957.7	4823.1	6359.2	8124.7	9124.3	8038.7	7540.1	4924.8	2757.4
57.5°	1919.9	1901.7	2417.2	3210.2	4971.1	7420.8	9224.7	8552.2	7669.2	4805.6	2542.9
60°	747.5	744.3	937.2	1557.6	3021.3	6037.2	8718.3	8860.4	7749.9	4658.9	2363.6
62.5°	452.2	462.1	493.3	699.3	1334.7	3750.5	7551.2	8509.8	7804.0	4524.7	2215.7
65°	374.0	374.7	378.6	480.3	639.3	1569.3	5684.8	7356.3	7670.4	4285.5	2005.9
67.5°	320.6	326.5	341.5	381.2	451.0	688.2	3272.8	5698.4	6857.8	3729.0	1678.7
70°	252.9	260.7	279.6	313.4	348.0	430.8	1209.5	3791.6	5239.0	2810.8	1269.5
72.5°	213.1	212.5	222.2	254.8	276.3	303.0	465.4	2124.5	3044.7	1341.8	628.2
75°	164.9	171.4	183.8	213.1	226.1	219.7	252.3	776.1	1090.9	406.6	213.7
77.5°	129.0	134.3	145.3	174.0	187.1	155.8	145.3	277.6	350.7	146.0	96.5
80°	58.0	62.5	99.0	128.4	152.5	107.5	78.8	142.1	155.8	66.5	48.9
82.5°	10.5	17.6	58.0	67.8	78.2	69.7	41.1	73.6	76.3	26.8	16.9
85°	0.6	1.3	20.2	24.8	31.3	22.9	12.4	29.3	25.4	9.1	6.6
87.5°	0.0	0.0	0.0	0.6	0.6	3.3	3.9	5.2	3.9	3.3	2.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8	2546.8
2.5°	2505.7	2413.3	2323.3	2249.7	2206.6	2133.6	2085.5	2077.6	2057.4	2075.0
5°	2457.5	2292.0	2124.5	1974.7	1851.5	1692.5	1573.9	1523.7	1480.0	1495.0
7.5°	2434.7	2173.4	1912.8	1656.6	1393.3	1139.2	950.2	871.4	811.4	819.8
10°	2404.1	2050.2	1641.6	1250.6	898.0	647.1	516.8	468.5	441.9	442.5
12.5°	2380.7	1902.9	1326.9	847.9	546.7	413.2	372.8	361.0	353.2	353.8
15°	2368.9	1729.6	1016.0	565.0	391.0	349.9	340.2	335.0	329.7	329.1
17.5°	2349.4	1536.7	743.5	412.6	342.1	327.8	319.3	313.4	307.0	305.7
20°	2320.0	1317.7	543.6	348.7	320.6	309.5	297.9	290.0	282.2	280.8
22.5°	2266.0	1086.4	417.7	322.6	305.0	292.6	278.3	269.2	261.4	260.0
25°	2165.6	869.4	351.9	306.3	291.3	276.3	260.7	248.3	241.1	239.8
27.5°	2038.5	683.0	319.3	291.3	273.7	260.0	242.4	230.7	224.2	222.8
30°	1888.6	525.9	300.4	274.4	252.9	241.1	225.5	215.7	211.8	211.8
32.5°	1727.0	420.4	292.6	257.4	234.6	221.6	209.2	205.3	204.0	203.4
35°	1575.1	364.9	288.7	243.7	218.3	205.9	200.7	201.4	204.0	204.0
37.5°	1440.2	347.4	286.8	234.0	204.0	192.9	196.2	202.0	199.5	199.5
40°	1318.4	349.3	285.5	226.8	192.3	185.7	192.3	187.7	181.2	180.5
42.5°	1225.2	365.6	282.8	220.9	185.1	180.5	177.9	170.8	170.0	171.4
45°	1157.4	380.0	282.2	218.3	177.2	168.8	165.5	158.4	171.4	174.7
47.5°	1077.3	380.0	282.2	209.2	164.2	160.9	155.8	147.9	160.9	164.2
50°	973.6	355.8	271.1	198.7	153.8	151.8	142.7	132.9	130.4	132.3
52.5°	842.7	312.1	243.1	184.4	143.4	139.5	128.4	121.3	119.3	119.3
55°	693.4	261.4	205.3	163.6	132.3	125.2	117.3	114.1	112.1	110.8
57.5°	563.8	214.4	164.9	145.3	121.9	112.7	110.1	106.2	103.0	101.0
60°	462.7	168.8	136.2	129.0	111.4	103.0	102.3	97.1	88.7	87.3
62.5°	357.1	123.8	114.7	112.1	101.0	93.9	92.6	82.1	69.1	66.5
65°	252.3	96.5	92.6	98.4	89.9	83.4	80.2	64.5	50.8	48.9
67.5°	177.2	80.8	73.0	86.0	78.2	69.7	67.8	54.7	42.3	41.1
70°	126.4	65.8	60.0	73.6	62.5	61.3	57.4	45.6	34.5	33.2
72.5°	89.3	50.2	46.2	63.9	43.0	52.8	46.9	35.2	26.0	24.8
75°	65.8	35.9	32.6	37.1	31.3	39.8	33.2	23.5	16.3	15.7
77.5°	48.2	22.9	19.6	18.2	18.2	24.8	18.2	9.7	7.2	6.6
80°	33.9	10.5	9.1	7.8	7.2	5.8	2.6	1.3	0.6	0.6
82.5°	20.2	4.6	4.6	3.3	1.9	0.0	0.0	0.0	0.0	0.0
85°	4.6	1.9	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)