

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: P968290

Luminaire Tested: **NAV-SB5B-740-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968290
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-740-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23574 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

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

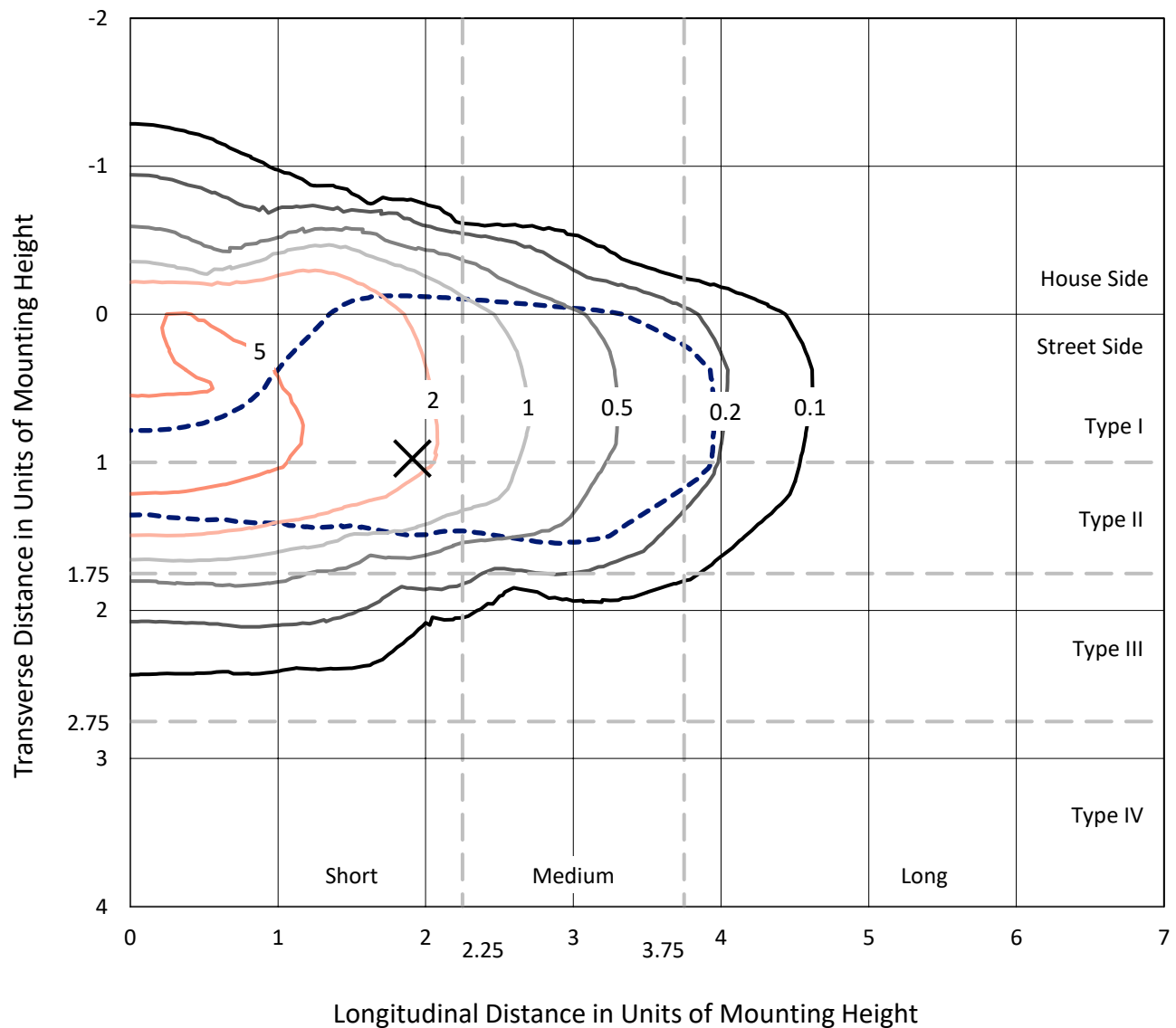


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Iso-Footcandle Lines of Horizontal Illumination

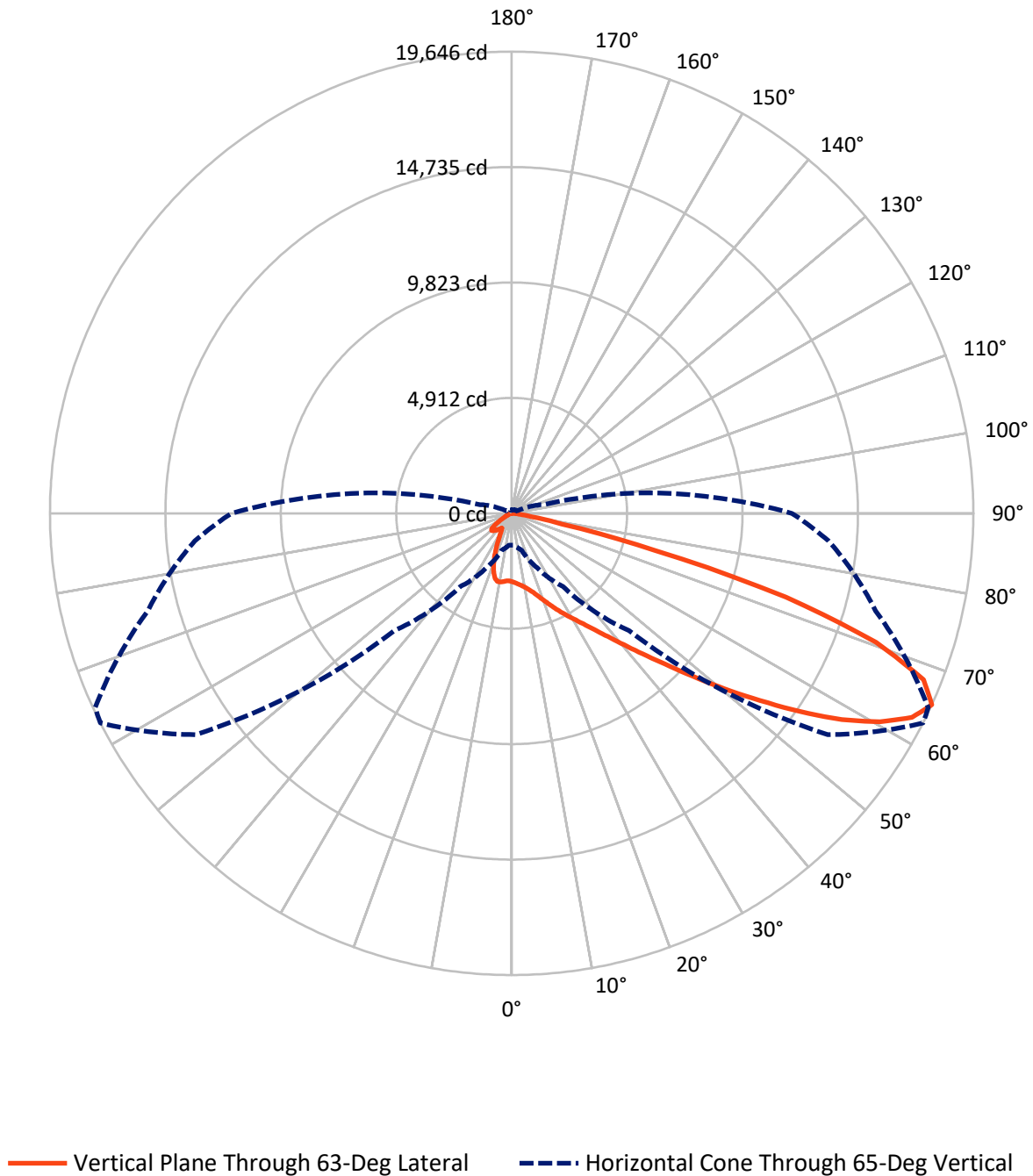
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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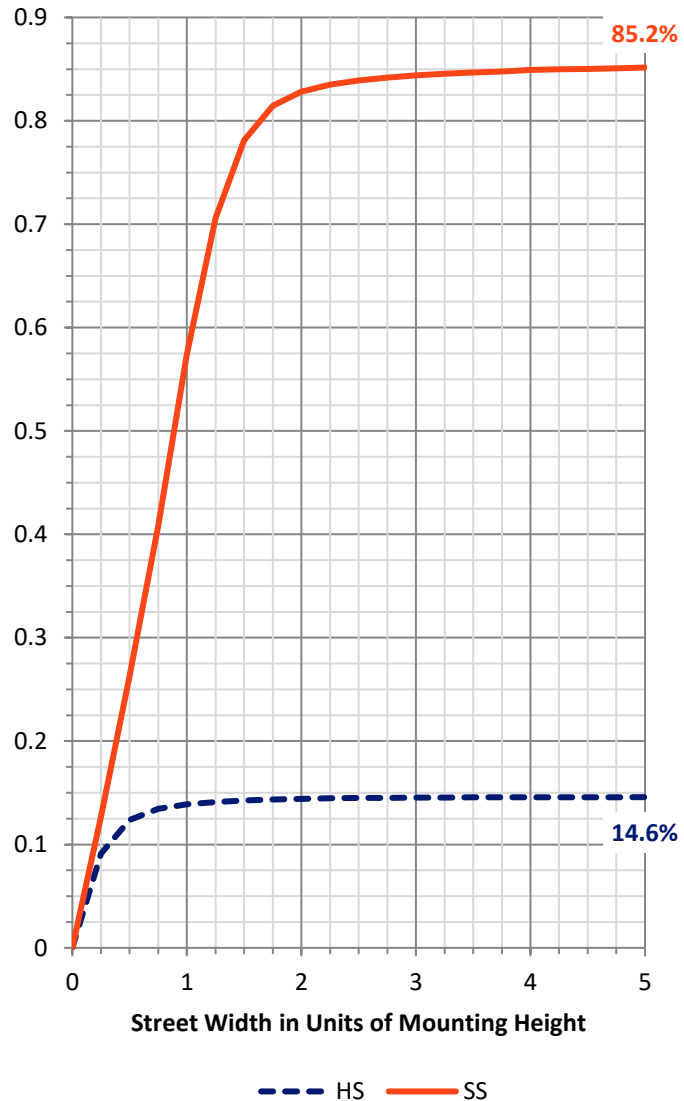
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3465.2	0.0	3465.2
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	20108.8	0.0	20108.8
	% Fixture	85.3	0.0	85.3
Total	Lumens	23574.0	0.0	23574.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.1	1.2
10°-20°	760.6	3.2
20°-30°	1324.4	5.6
30°-40°	2387.1	10.1
40°-50°	4734.4	20.1
50°-60°	6449.0	27.4
60°-70°	5147.5	21.8
70°-80°	2329.4	9.9
80°-90°	167.4	0.7
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°	23574.0	100.0
0°-180°	23574.0	100.0

Coefficient of Utilization



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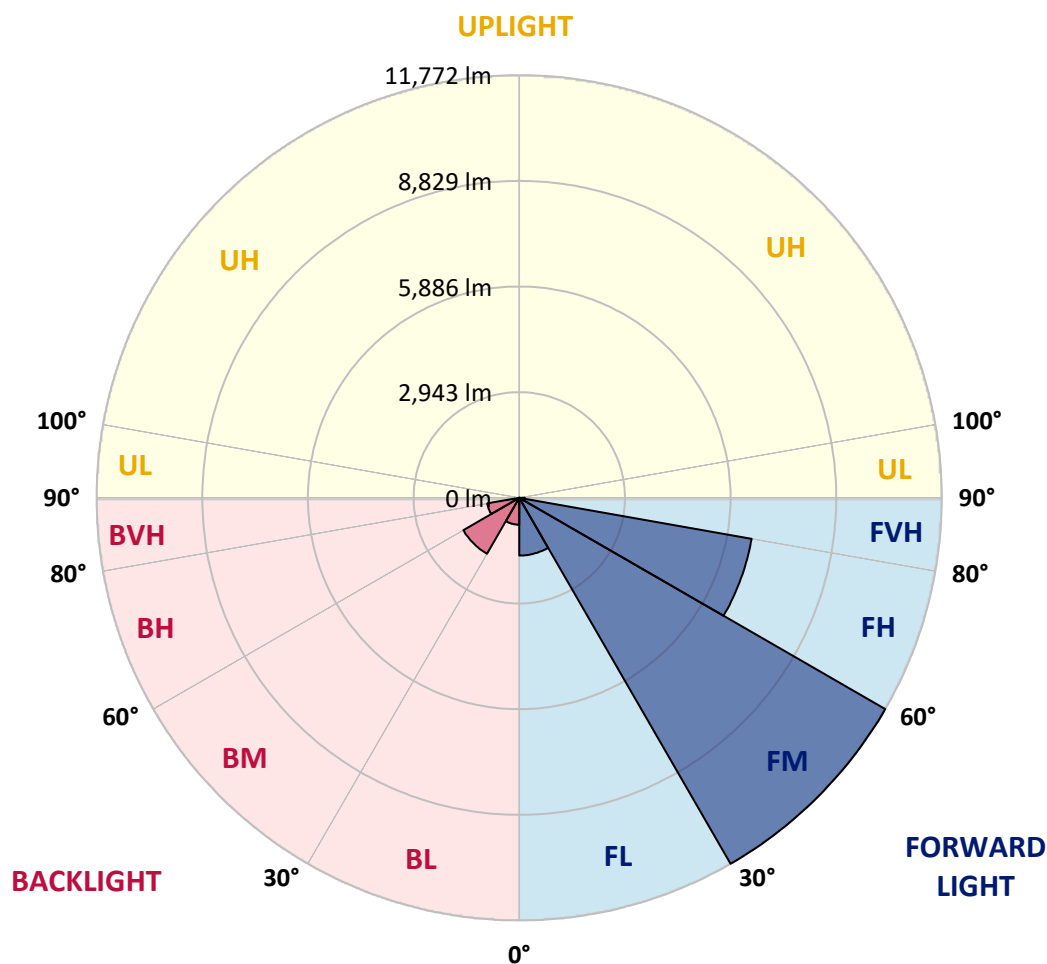
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1609.2	6.8			
FM	(30°-60°)	11772.2	49.9			
FH	(60°-80°)	6572.3	27.9			G3/7500
FVH	(80°-90°)	155.0	0.7			G2/225
BL	(0°-30°)	749.9	3.2	B2/1000		
BM	(30°-60°)	1798.2	7.6	B2/2500		
BH	(60°-80°)	904.6	3.8	B2/1000		G2/1000
BVH	(80°-90°)	12.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5
2.5°	2977.6	2969.5	2980.8	2976.0	2972.7	2966.2	2963.0	2959.8	2953.2	2948.4	2928.9
5°	2985.7	2980.8	2992.2	3001.9	3011.7	3021.4	3026.2	3032.8	3026.2	3013.3	2993.8
7.5°	2917.6	2914.4	2938.7	2967.9	3011.7	3049.0	3089.5	3112.2	3113.8	3108.9	3087.9
10°	2912.7	2904.6	2928.9	2964.6	3021.4	3087.9	3159.3	3207.8	3214.4	3235.4	3212.8
12.5°	2988.9	2980.8	3014.9	3053.8	3112.2	3181.9	3269.5	3337.6	3347.3	3376.6	3360.4
15°	3117.0	3105.7	3144.6	3194.9	3269.5	3349.0	3441.4	3503.0	3511.1	3546.8	3517.6
17.5°	3266.3	3254.9	3300.3	3353.8	3435.0	3543.6	3650.6	3718.7	3728.4	3751.2	3697.7
20°	3457.6	3443.1	3478.7	3527.3	3613.3	3743.1	3871.2	3968.5	3966.9	3966.9	3879.3
22.5°	3679.9	3657.1	3688.0	3726.9	3808.0	3965.2	4135.6	4250.7	4250.7	4205.3	4060.9
25°	3918.3	3895.5	3929.5	3965.2	4036.7	4215.0	4414.5	4557.3	4563.7	4485.8	4255.6
27.5°	4216.6	4187.4	4213.4	4255.6	4297.7	4479.4	4716.1	4881.6	4884.8	4764.8	4440.4
30°	4790.7	4708.0	4627.0	4581.5	4601.0	4781.0	5034.0	5217.2	5233.4	5068.1	4641.5
32.5°	5841.7	5825.5	5540.0	5167.0	4972.4	5105.3	5389.1	5609.7	5619.5	5407.0	4902.7
35°	7474.8	7455.3	6996.3	6286.0	5652.0	5540.0	5820.6	6081.6	6075.2	5835.1	5241.6
37.5°	9424.2	9406.3	8801.4	7851.0	6824.4	6196.8	6376.8	6650.9	6691.5	6376.8	5679.5
40°	11089.8	11023.3	10640.5	9724.2	8381.3	7286.6	7168.2	7349.9	7392.1	7019.1	6235.8
42.5°	12351.5	12294.7	12100.1	11527.7	10265.9	8898.7	8100.8	8170.5	8217.5	7769.9	6874.8
45°	13005.1	12992.1	13069.9	13016.4	12186.0	10877.3	9433.9	9143.6	9161.4	8601.9	7599.7
47.5°	13097.4	13091.0	13446.2	13948.9	13837.0	13108.8	11144.8	10356.7	10293.5	9540.9	8387.9
50°	12552.6	12539.6	13220.8	14163.0	14939.9	14983.7	13087.8	11723.8	11584.3	10512.4	9210.1
52.5°	10812.4	10809.1	11928.2	13496.5	15327.4	16624.9	15007.9	13225.6	12992.1	11540.6	10079.3
55°	8319.7	8379.8	9662.6	11516.3	14620.4	17414.6	16731.9	14892.8	14534.4	12575.3	10880.5
57.5°	5893.5	5981.1	7249.3	8900.3	12427.7	16947.6	17897.9	16563.3	16177.3	13606.8	11693.0
60°	3165.7	3243.5	4513.4	6483.8	9245.8	15205.8	18512.6	18013.1	17648.2	14586.3	12426.1
62.5°	1886.1	1912.0	2437.6	4185.8	6253.6	11616.8	18251.6	19117.6	18817.6	15408.5	13063.4
65°	1354.2	1359.0	1623.4	2555.9	3796.6	7057.9	16420.5	19646.3	19553.8	16028.0	13535.3
67.5°	1140.1	1136.8	1247.1	1698.0	2586.7	3535.4	12585.1	18898.6	19291.1	16420.5	13803.0
70°	978.0	982.8	1112.5	1243.9	1944.5	2001.3	6256.8	16454.6	17291.4	16524.3	13786.8
72.5°	728.2	744.4	864.4	1133.6	1467.7	1376.9	2160.2	12200.7	13713.8	15569.1	13071.5
75°	514.1	522.2	608.1	953.6	1094.7	1002.2	1102.8	6307.1	8246.7	11936.3	10698.8
77.5°	395.8	410.3	460.6	666.6	1078.5	703.9	674.7	2182.9	3353.8	7210.5	7335.3
80°	214.1	240.1	332.5	481.6	757.4	497.8	334.0	869.3	1136.8	3371.6	2828.4
82.5°	110.3	123.2	232.0	347.1	431.4	434.6	165.4	361.6	468.7	1041.2	387.7
85°	43.8	53.5	155.7	191.4	222.2	214.1	74.6	146.0	168.7	288.6	118.4
87.5°	9.7	16.2	56.8	43.8	42.1	45.4	17.8	34.0	32.4	34.0	21.1
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°	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5	2909.5
2.5°	2927.3	2920.8	2903.0	2883.5	2860.8	2847.9	2839.8	2838.1	2826.7	2818.6	2826.7
5°	2976.0	2969.5	2935.4	2894.9	2851.1	2817.0	2784.6	2755.4	2713.3	2705.2	2701.9
7.5°	3073.3	3055.4	3000.3	2945.1	2862.4	2763.5	2643.5	2505.6	2382.4	2345.1	2327.3
10°	3193.3	3169.0	3099.2	3001.9	2818.6	2549.5	2259.1	1989.9	1775.8	1715.8	1693.1
12.5°	3329.5	3308.4	3216.0	3035.9	2635.4	2147.3	1702.8	1368.8	1161.2	1109.3	1094.7
15°	3491.7	3460.9	3332.8	2984.1	2307.8	1631.5	1169.3	971.5	896.9	887.1	877.4
17.5°	3663.6	3613.3	3436.5	2797.5	1866.6	1159.6	903.3	846.5	814.2	804.4	799.5
20°	3820.9	3756.0	3498.2	2515.4	1394.7	903.3	809.2	771.9	742.8	731.4	725.0
22.5°	3978.2	3885.8	3498.2	2131.0	1046.0	801.1	742.8	708.7	674.7	660.1	652.0
25°	4142.0	4018.8	3436.5	1702.8	841.7	734.6	679.6	642.3	613.1	595.2	588.7
27.5°	4301.0	4130.6	3295.5	1297.4	749.3	676.3	621.2	585.5	557.9	544.9	544.9
30°	4451.8	4240.9	3097.5	984.4	689.2	619.5	567.6	536.8	509.2	496.3	497.8
32.5°	4656.2	4380.4	2886.8	807.6	637.3	566.0	519.0	489.7	465.5	455.7	455.7
35°	4940.0	4586.4	2705.2	793.0	593.6	522.2	475.2	447.6	423.3	415.1	415.1
37.5°	5342.1	4918.9	2609.4	890.3	557.9	483.3	439.5	410.3	387.7	381.1	379.5
40°	5838.4	5369.7	2661.3	987.7	533.6	449.3	407.0	377.9	358.4	350.3	348.7
42.5°	6427.2	5925.9	2948.4	1062.3	517.3	420.0	376.3	343.8	330.9	327.6	327.6
45°	7103.4	6537.3	3387.9	1141.7	491.4	392.5	345.4	321.1	311.4	309.8	308.1
47.5°	7872.1	7208.8	3897.2	1240.7	465.5	366.5	321.1	304.9	296.7	293.6	293.6
50°	8634.4	7885.1	4420.9	1295.8	444.3	342.1	301.7	288.6	282.2	280.5	280.5
52.5°	9432.3	8580.9	4844.3	1243.9	426.5	322.8	285.5	275.7	269.2	267.6	267.6
55°	10192.9	9143.6	4917.2	1055.8	390.8	303.3	267.6	262.7	254.6	254.6	253.0
57.5°	10848.1	9425.8	4401.6	775.2	355.2	274.1	249.8	244.9	238.4	236.8	235.1
60°	11449.8	9344.7	3397.7	522.2	316.2	244.9	227.0	223.8	217.3	209.2	207.6
62.5°	11788.7	8987.9	2324.0	340.6	277.4	214.1	201.1	199.5	184.9	168.7	165.4
65°	11916.9	8254.8	1449.9	248.2	232.0	183.3	173.5	170.3	149.2	131.4	129.8
67.5°	11804.9	7048.2	731.4	196.2	183.3	152.4	142.7	142.7	128.1	111.9	110.3
70°	11357.3	5283.8	308.1	157.3	141.1	116.7	116.7	123.2	108.6	90.8	89.2
72.5°	10385.9	3554.9	163.8	120.0	105.4	82.7	95.7	100.6	86.0	68.2	68.2
75°	8256.5	2168.3	113.6	89.2	66.5	58.4	73.0	76.3	58.4	45.4	43.8
77.5°	5647.0	1245.5	76.3	56.8	42.1	34.0	50.2	47.0	30.9	21.1	22.8
80°	2479.7	519.0	43.8	25.9	16.2	13.0	17.8	13.0	9.7	6.5	6.5
82.5°	290.3	121.7	16.2	9.7	6.5	3.3	1.6	0.0	0.0	0.0	0.0
85°	60.0	14.6	8.1	3.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.4	3.3	1.6	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	0.0

(END OF REPORT)