

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: P966685

Luminaire Tested: **NAV-SB4C-735-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966685
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23293.1 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

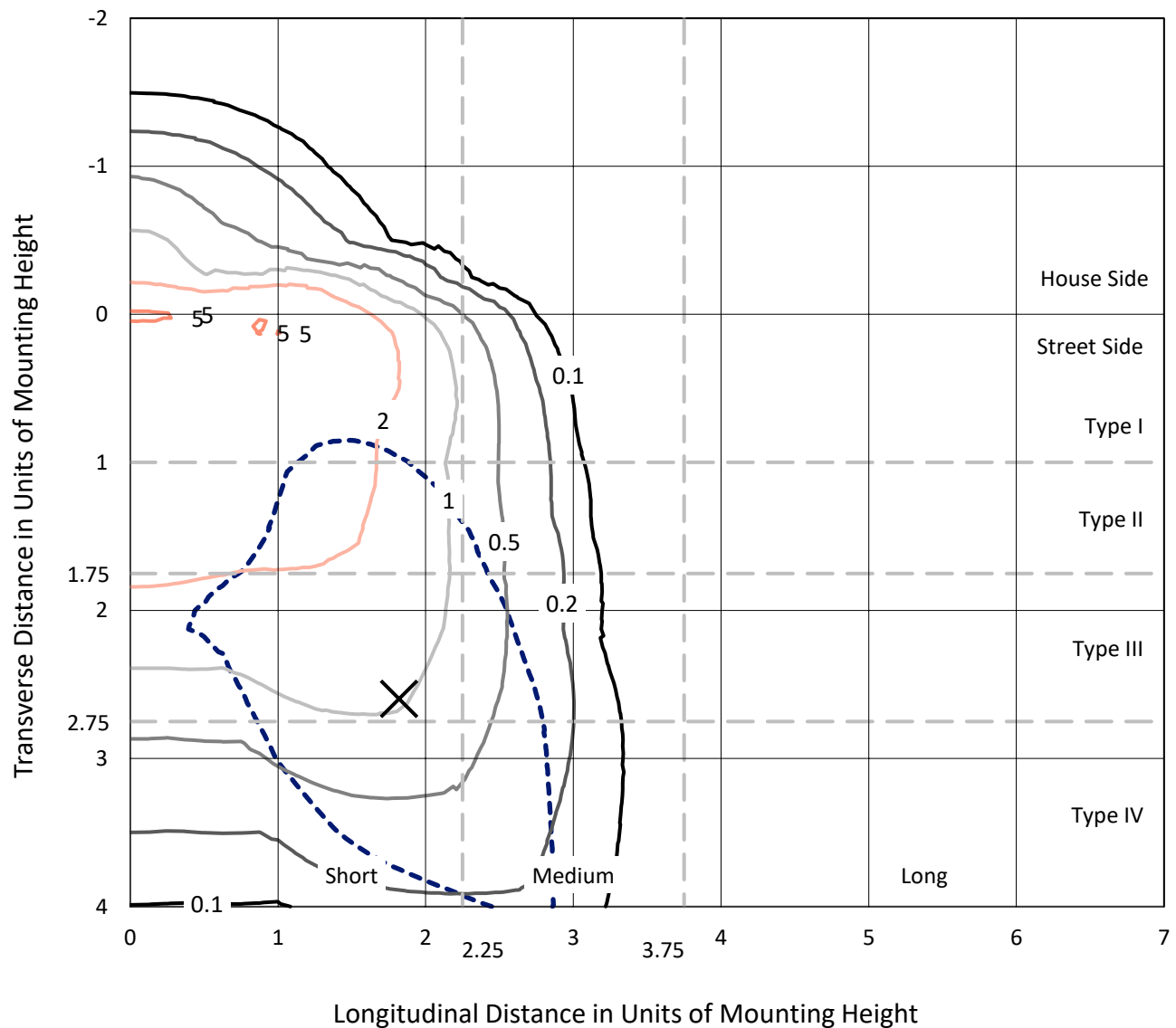
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

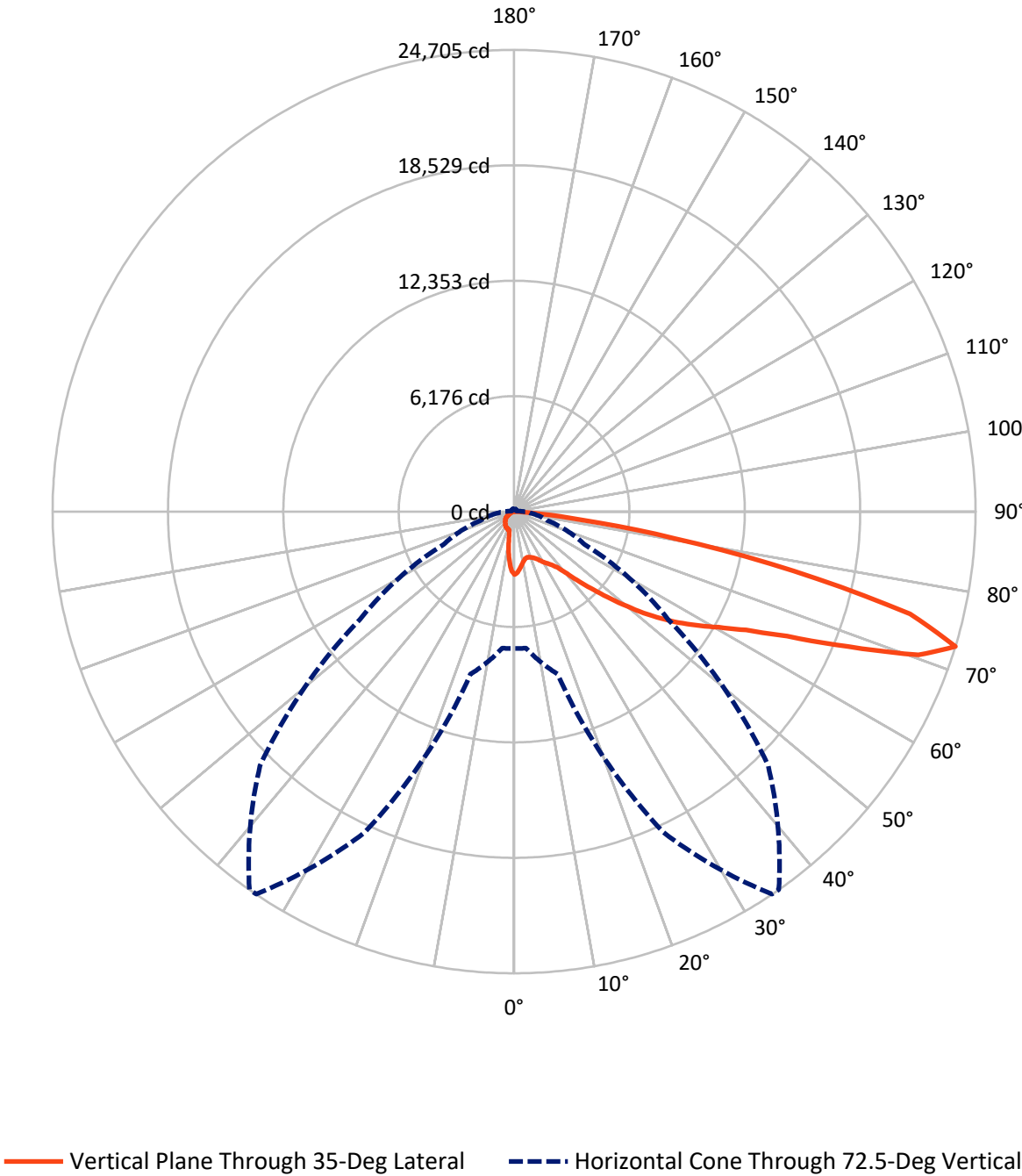
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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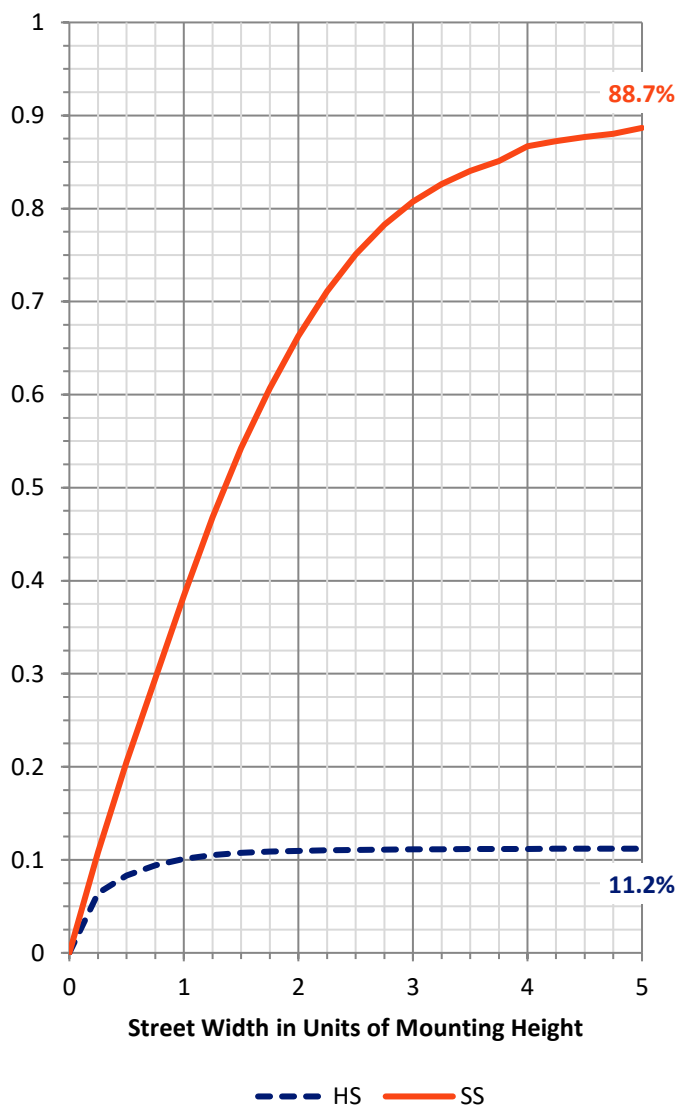
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2621.5	0.0	2621.5
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	20671.6	0.0	20671.6
	% Fixture	88.7	0.0	88.7
Total	Lumens	23293.1	0.0	23293.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.4	1.2
10°-20°	649.0	2.8
20°-30°	1054.2	4.5
30°-40°	1759.0	7.6
40°-50°	3328.1	14.3
50°-60°	5288.3	22.7
60°-70°	6542.0	28.1
70°-80°	4066.5	17.5
80°-90°	328.6	1.4
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°	23293.1	100.0
0°-180°	23293.1	100.0

Coefficient of Utilization



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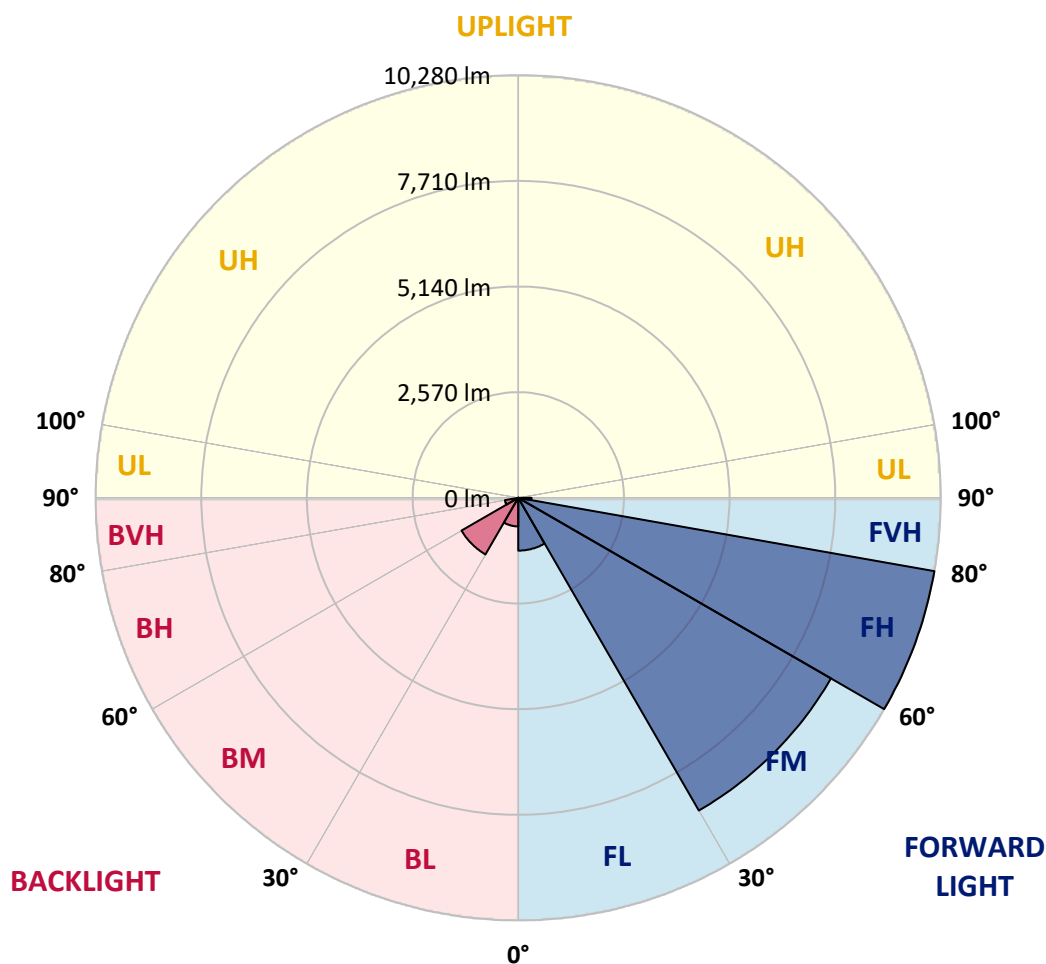
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1284.0	5.5			
FM	(30°-60°)	8783.8	37.7			
FH	(60°-80°)	10279.5	44.1			G4/12000
FVH	(80°-90°)	324.2	1.4			G3/500
BL	(0°-30°)	696.6	3.0	B2/1000		
BM	(30°-60°)	1591.5	6.8	B2/2500		
BH	(60°-80°)	329.0	1.4	B1/500		G1/500
BVH	(80°-90°)	4.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9
2.5°	3225.8	3253.0	3258.2	3266.7	3266.7	3276.9	3294.0	3317.9	3357.2	3377.7	3391.3
5°	2973.1	2993.6	3019.2	3039.7	3079.0	3084.1	3150.6	3215.5	3305.9	3374.2	3422.1
7.5°	2718.8	2742.8	2776.9	2826.3	2877.6	2893.0	2993.6	3102.9	3246.3	3374.2	3454.5
10°	2539.6	2541.4	2572.0	2621.5	2703.5	2722.3	2845.2	3000.5	3179.7	3353.8	3485.2
12.5°	2439.0	2450.9	2464.5	2502.1	2580.6	2592.5	2723.9	2906.6	3113.1	3341.8	3521.0
15°	2439.0	2447.5	2456.0	2474.8	2537.9	2548.1	2664.3	2846.8	3079.0	3346.9	3579.1
17.5°	2464.5	2478.2	2471.4	2493.5	2560.1	2566.9	2669.4	2829.8	3077.3	3379.3	3667.9
20°	2526.0	2536.3	2522.6	2536.3	2602.8	2616.4	2722.3	2862.2	3106.3	3435.7	3778.8
22.5°	2623.3	2628.4	2596.0	2606.2	2674.4	2691.5	2814.4	2954.4	3176.3	3526.1	3927.2
25°	2746.2	2756.4	2706.9	2718.8	2783.7	2804.2	2945.8	3092.6	3287.2	3650.7	4116.7
27.5°	2887.8	2893.0	2850.3	2848.6	2932.2	2961.2	3104.6	3263.3	3435.7	3807.8	4355.6
30°	3050.0	3065.4	3024.4	3017.5	3123.4	3147.3	3288.9	3473.2	3654.1	4043.3	4695.3
32.5°	3178.0	3189.9	3166.0	3183.1	3290.7	3309.4	3512.5	3770.3	3997.2	4377.8	5157.8
35°	3362.3	3369.2	3314.5	3345.2	3468.1	3516.0	3818.0	4186.6	4429.0	4797.7	5762.0
37.5°	4029.7	4029.7	3797.5	3645.6	3763.4	3806.0	4236.1	4710.6	4961.5	5361.0	6523.2
40°	4953.0	4937.6	4597.9	4287.4	4272.0	4355.6	4831.8	5371.1	5649.4	6036.7	7380.0
42.5°	5937.8	5913.9	5451.4	5144.2	5092.9	5121.9	5519.6	6185.3	6468.6	6861.1	8301.7
45°	6811.6	6804.8	6381.5	5968.5	5876.3	5968.5	6378.2	7137.6	7340.7	7753.8	9221.6
47.5°	7543.8	7543.8	7235.0	6965.3	6917.4	6972.0	7540.4	8194.2	8175.3	8704.4	10117.7
50°	8387.0	8380.2	8086.6	7970.5	8020.0	8096.8	8878.6	9306.9	9039.0	9638.1	10918.1
52.5°	8977.5	9018.5	8917.8	8899.0	9151.6	9284.8	10237.1	10395.9	9812.1	10523.9	11517.2
55°	9445.2	9492.9	9609.0	9740.5	10226.8	10401.0	11553.0	11428.4	10459.0	11291.9	11861.9
57.5°	10107.4	10039.2	10218.3	10477.8	11264.5	11474.5	12828.0	12403.0	10979.5	11914.8	11899.4
60°	10911.2	10921.5	10952.2	11279.9	12300.5	12570.2	14084.1	13324.6	11314.1	12297.1	11483.1
62.5°	11877.3	11892.7	11955.8	12459.3	13691.5	13945.8	15422.3	14079.0	11467.7	12189.6	10407.7
65°	11810.8	11875.5	12580.4	14302.5	15806.2	16057.1	16983.8	14608.1	11235.5	11206.5	8474.0
67.5°	10759.3	10865.2	12044.6	16504.2	18994.5	19274.3	18871.6	14712.2	10233.7	8714.7	5528.1
70°	9380.3	9417.9	10836.2	18484.1	22686.1	22969.4	20561.2	13567.0	7765.7	4860.9	2476.5
72.5°	7325.4	7333.9	8998.0	18943.2	24689.9	24705.3	19235.0	10071.5	4176.5	1867.1	860.2
75°	5232.9	5181.7	6026.6	15362.5	21721.8	21895.9	14420.3	4724.3	1595.8	882.4	428.3
77.5°	2805.9	2862.2	3410.1	9110.6	15005.8	15302.7	7868.1	1362.0	812.4	600.8	283.3
80°	867.0	914.8	1397.8	4171.3	8499.6	8678.9	2916.8	605.9	566.6	428.3	186.0
82.5°	273.1	283.3	652.0	1752.9	3527.8	3609.7	844.8	343.1	387.4	283.3	109.3
85°	78.5	80.3	290.2	653.6	872.2	889.2	237.3	133.1	221.9	175.8	56.3
87.5°	8.5	27.3	109.3	109.3	76.8	75.1	25.6	29.0	63.1	22.1	10.2
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°	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9	3375.9
2.5°	3382.8	3384.4	3362.3	3324.8	3283.8	3249.7	3207.0	3172.9	3149.0	3142.1	3154.0
5°	3406.7	3394.7	3331.6	3217.3	3080.6	2963.0	2831.5	2727.4	2659.2	2630.1	2640.3
7.5°	3442.6	3408.4	3270.2	3044.9	2783.7	2551.6	2316.1	2133.4	2017.4	1959.4	1967.9
10°	3473.2	3404.9	3167.8	2795.7	2396.2	2044.7	1727.2	1507.1	1384.2	1326.1	1327.9
12.5°	3502.2	3403.3	3034.6	2500.4	1959.4	1529.3	1234.0	1124.7	1090.6	1078.7	1075.2
15°	3556.9	3408.4	2867.3	2162.4	1524.2	1155.5	1048.0	1046.2	1053.1	1049.7	1048.0
17.5°	3632.0	3413.5	2677.9	1804.0	1176.0	1019.0	1013.8	1029.2	1039.5	1034.3	1032.6
20°	3729.3	3434.0	2476.5	1449.0	1010.4	984.8	996.7	1010.4	1019.0	1010.4	1008.7
22.5°	3865.8	3469.8	2256.3	1164.0	957.5	964.3	974.6	989.9	998.5	986.5	984.8
25°	4033.1	3526.1	2039.5	1012.1	931.9	940.4	955.8	972.8	983.1	971.2	969.4
27.5°	4249.9	3616.6	1839.9	978.0	906.3	911.4	933.6	959.2	972.8	957.5	957.5
30°	4563.8	3765.1	1667.5	993.3	890.9	878.9	909.7	945.6	960.9	947.2	945.6
32.5°	4980.3	3975.1	1561.7	1017.2	884.1	841.4	870.4	916.6	942.1	933.6	933.6
35°	5526.5	4294.2	1520.7	1044.6	878.9	802.2	822.7	872.2	916.6	925.1	925.1
37.5°	6188.6	4738.0	1532.7	1056.5	863.7	769.8	780.0	822.7	880.7	907.9	914.8
40°	6941.4	5255.1	1600.9	1044.6	846.5	742.4	744.2	776.5	827.8	868.7	882.4
42.5°	7717.9	5859.3	1727.2	1000.2	831.2	718.5	713.4	735.6	769.8	798.8	810.7
45°	8457.0	6480.6	1851.9	938.7	812.4	694.6	682.6	691.3	698.0	710.0	716.9
47.5°	9102.1	6917.4	1816.0	882.4	786.8	667.4	646.9	643.5	623.0	621.3	619.5
50°	9547.6	7013.0	1612.8	826.0	749.3	636.6	604.2	583.7	547.9	530.8	532.5
52.5°	9689.2	6635.8	1317.6	769.8	687.8	595.6	549.6	517.1	472.7	457.5	455.7
55°	9501.4	5896.8	1053.1	701.5	602.5	541.0	489.8	447.2	411.3	392.6	392.6
57.5°	9042.3	4956.4	832.9	621.3	512.0	479.6	428.3	385.7	355.0	336.2	332.8
60°	8281.2	3935.8	658.8	525.7	437.0	413.1	360.1	332.8	305.6	283.3	278.2
62.5°	7125.7	2809.3	517.1	416.5	365.2	337.9	307.2	286.7	254.3	223.6	218.4
65°	5560.6	1718.7	399.3	305.6	293.6	279.9	261.2	242.3	203.1	172.4	167.3
67.5°	3507.3	814.2	285.1	230.4	232.2	225.3	216.8	201.4	172.4	145.0	141.7
70°	1544.6	394.2	187.8	175.8	172.4	172.4	179.2	174.0	146.8	121.2	116.0
72.5°	525.7	211.7	139.9	133.1	124.6	122.9	150.2	145.0	117.8	93.9	88.8
75°	274.8	141.7	102.4	95.5	75.1	90.5	119.5	112.6	83.6	61.4	56.3
77.5°	179.2	100.7	70.0	61.4	42.6	59.8	88.8	78.5	49.5	30.7	27.3
80°	112.6	66.5	41.0	29.0	20.5	32.4	47.8	34.1	18.8	6.9	5.1
82.5°	59.8	34.1	15.4	10.2	8.5	10.2	12.0	8.5	3.4	0.0	0.0
85°	23.9	12.0	5.1	3.4	1.7	0.0	3.4	1.7	0.0	0.0	0.0
87.5°	8.5	1.7	0.0	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)