

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: P965106

Luminaire Tested: **NAV-SB3D-735-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965106
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-735-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24105.9 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

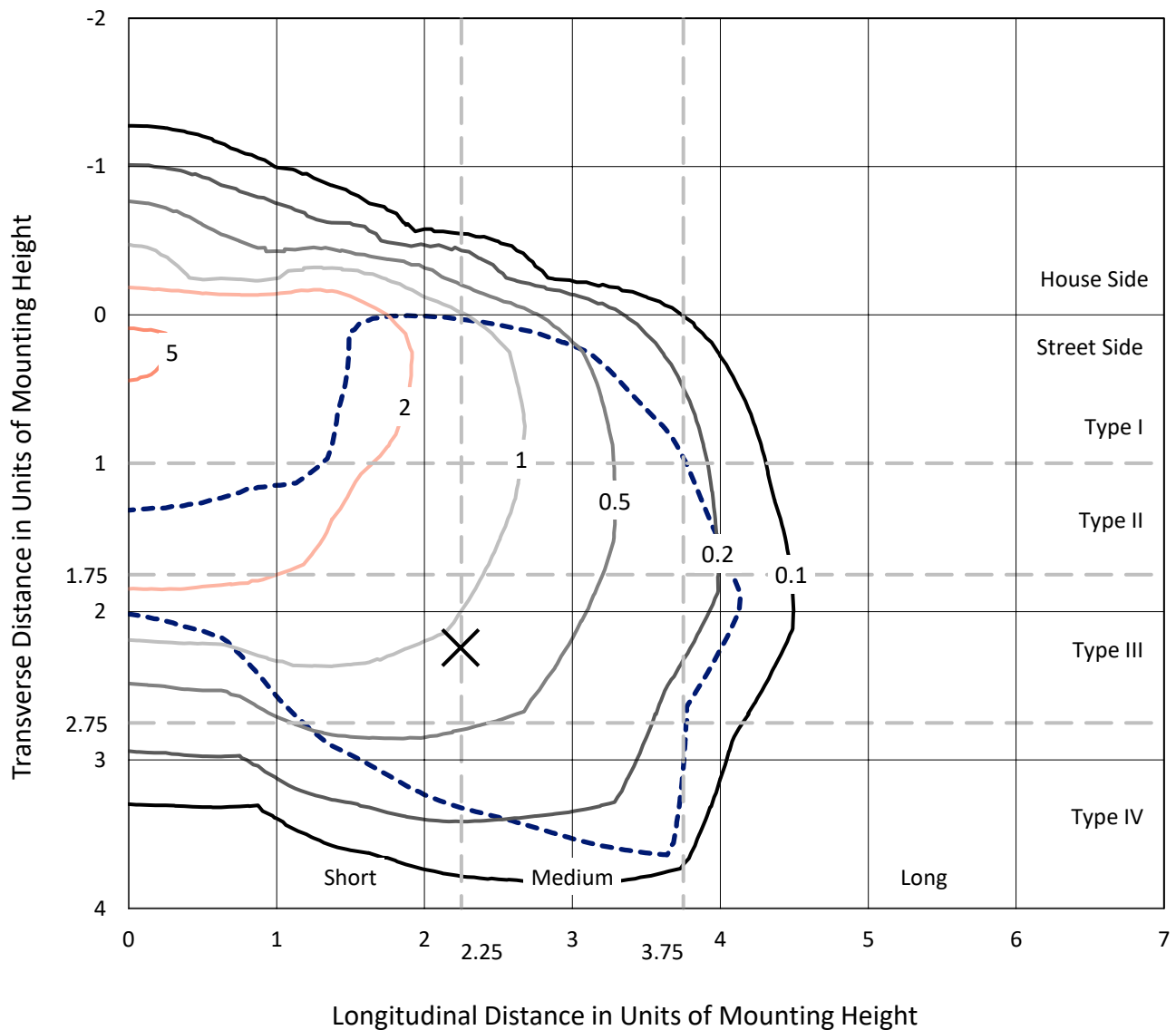
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

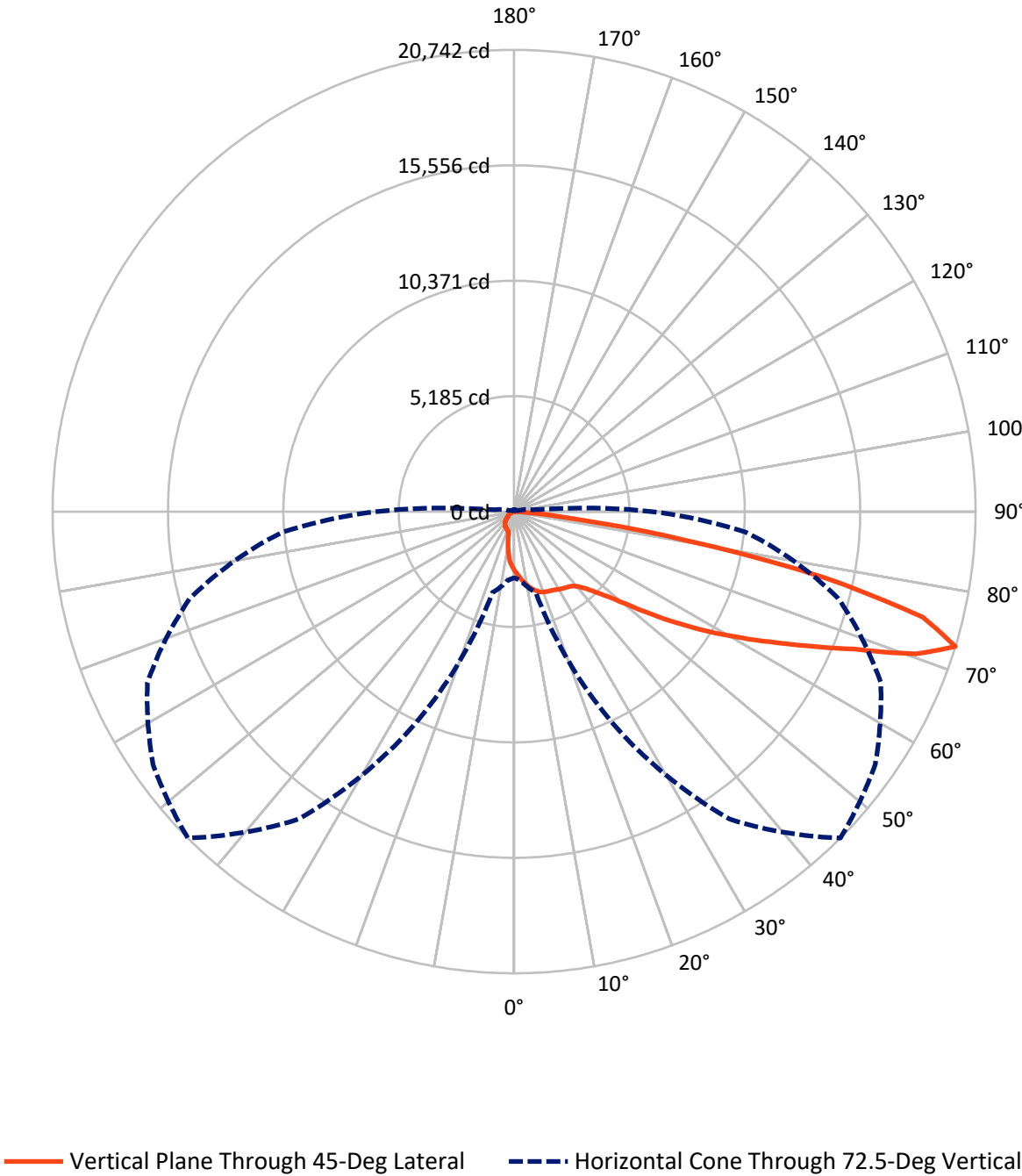
× Max cd
- - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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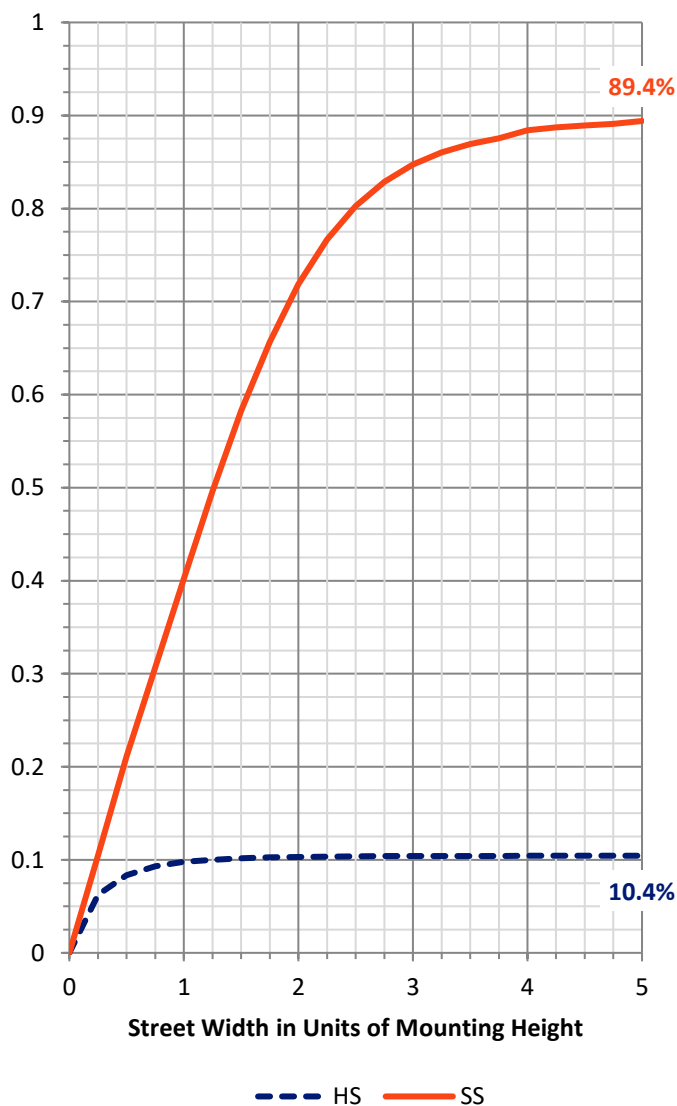
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2532.9	0.0	2532.9
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	21573.1	0.0	21573.1
	% Fixture	89.5	0.0	89.5
Total	Lumens	24105.9	0.0	24105.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.8	1.0
10°-20°	727.2	3.0
20°-30°	1194.2	5.0
30°-40°	1693.6	7.0
40°-50°	2799.4	11.6
50°-60°	5028.8	20.9
60°-70°	6982.7	29.0
70°-80°	5065.1	21.0
80°-90°	366.2	1.5
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°	24105.9	100.0
0°-180°	24105.9	100.0

Coefficient of Utilization



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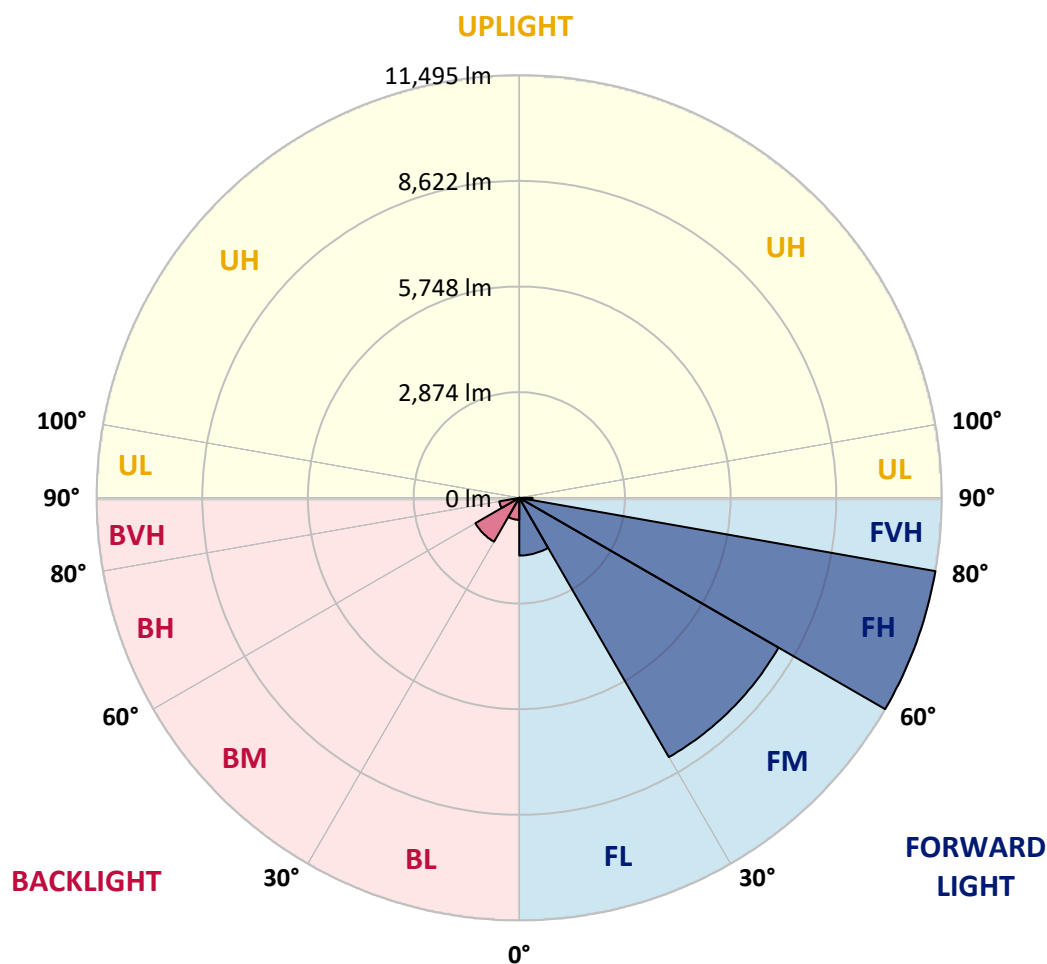
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1570.3	6.5			
FM	(30°-60°)	8144.3	33.8			
FH	(60°-80°)	11495.4	47.7			G4/12000
FVH	(80°-90°)	363.1	1.5			G3/500
BL	(0°-30°)	599.9	2.5	B2/1000		
BM	(30°-60°)	1377.5	5.7	B2/2500		
BH	(60°-80°)	552.3	2.3	B2/1000		G2/1000
BVH	(80°-90°)	3.1	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°	35°	45°	46°	55°	65°	75°	85°
0°	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8
2.5°	2884.4	2889.3	2886.0	2866.3	2833.4	2815.3	2805.4	2772.5	2751.1	2713.3	2673.8
5°	3149.3	3169.0	3157.5	3118.0	3055.5	3011.0	2997.9	2930.5	2869.6	2798.9	2716.6
7.5°	3430.7	3440.5	3419.1	3368.2	3284.2	3208.6	3197.0	3103.2	3006.1	2897.6	2785.6
10°	3674.2	3685.7	3652.8	3578.7	3483.3	3389.5	3373.1	3269.4	3154.2	3021.0	2877.8
12.5°	3878.2	3889.7	3846.9	3758.1	3652.8	3555.7	3539.2	3430.7	3304.0	3155.9	2978.1
15°	4032.9	4054.3	3996.7	3901.3	3787.7	3690.6	3682.4	3575.4	3452.0	3287.5	3098.3
17.5°	4123.4	4144.8	4090.5	3975.3	3878.2	3795.9	3786.0	3697.2	3582.1	3424.1	3215.1
20°	4138.1	4157.9	4100.3	4000.0	3919.3	3853.5	3848.6	3784.4	3700.5	3549.2	3341.8
22.5°	4093.7	4118.4	4065.8	3985.1	3929.2	3894.7	3888.0	3851.8	3804.2	3675.9	3460.3
25°	4047.6	4067.4	4027.9	3957.2	3927.6	3924.3	3929.2	3922.6	3912.7	3804.2	3598.5
27.5°	4044.3	4065.8	4021.4	3953.8	3937.4	3972.0	3976.9	4008.2	4016.4	3920.9	3731.7
30°	4072.3	4087.2	4044.3	3973.6	3965.4	4044.3	4046.0	4101.9	4115.2	4019.7	3863.4
32.5°	4133.2	4149.7	4106.9	4003.2	3991.8	4101.9	4106.9	4181.0	4202.3	4125.0	4001.6
35°	4276.4	4296.1	4246.8	4085.5	4044.3	4156.3	4171.0	4258.3	4301.1	4236.9	4144.8
37.5°	4633.4	4575.8	4508.4	4251.7	4164.5	4241.9	4266.5	4368.5	4444.2	4370.2	4315.9
40°	5520.3	5339.3	5128.7	4534.7	4375.1	4424.5	4444.2	4546.2	4649.9	4577.4	4551.2
42.5°	6851.4	6637.5	6298.5	5186.3	4692.7	4717.4	4732.1	4821.0	4967.5	4909.9	4916.4
45°	8037.7	7960.5	7614.9	6298.5	5286.6	5164.9	5183.0	5229.0	5444.6	5423.2	5466.0
47.5°	8949.3	8904.9	8638.3	7575.4	6290.3	5712.8	5763.8	5785.2	6096.2	6171.8	6287.0
50°	9650.3	9633.8	9395.3	8710.8	7601.7	6520.7	6538.8	6492.8	6958.4	7146.0	7364.8
52.5°	10311.7	10367.7	10191.6	9765.4	9002.0	7578.6	7575.4	7358.2	7986.7	8269.8	8643.2
55°	10909.0	10928.8	10946.8	10841.5	10410.4	8783.1	8751.9	8396.5	9179.7	9472.5	9877.3
57.5°	11470.1	11478.3	11639.5	11855.0	11876.5	10076.4	10018.8	9592.7	10482.8	10691.8	10940.2
60°	11846.8	11884.7	12225.3	12824.2	13085.9	11410.8	11379.6	10945.2	11809.0	11906.1	11860.0
62.5°	11303.9	11534.2	12393.1	13581.0	14227.7	12890.0	12875.2	12467.2	13204.3	13125.3	12730.4
65°	9150.1	9540.0	11050.4	14092.8	15348.2	14542.0	14563.4	14129.0	14637.4	14380.7	13438.0
67.5°	6400.6	6811.9	8598.8	14133.9	16600.4	16481.9	16605.3	15924.1	16159.4	15583.5	13605.7
70°	4426.2	4638.3	5801.7	13248.7	17576.1	19154.1	19150.8	18129.0	17673.2	16131.4	12750.2
72.5°	2976.5	3086.8	3768.0	10510.8	16858.7	20741.8	20646.4	19813.9	18183.3	15086.7	10417.0
75°	1255.4	1336.1	1744.1	5907.0	13337.6	18976.3	18718.0	17510.3	16156.2	11879.7	6499.3
77.5°	398.2	432.8	687.8	2114.4	7346.7	14263.9	13990.8	10935.3	10828.3	5959.7	2376.0
80°	189.2	220.5	386.6	849.0	2890.9	7758.0	7720.2	4960.9	4658.1	1609.1	477.1
82.5°	82.3	97.1	213.9	454.2	1293.2	2767.6	2823.5	1688.2	1397.0	610.5	146.5
85°	26.3	34.5	98.7	209.0	546.2	687.8	679.6	401.5	562.7	332.4	51.0
87.5°	0.0	0.0	32.9	47.8	56.0	39.5	44.4	34.5	156.3	92.1	18.1
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°	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8	2640.8
2.5°	2654.0	2627.7	2581.7	2538.8	2501.0	2463.2	2440.1	2407.2	2403.9	2403.9	2412.1
5°	2672.1	2629.3	2547.0	2459.9	2359.4	2264.0	2168.6	2076.4	2046.8	2025.5	2035.3
7.5°	2724.8	2657.3	2527.3	2361.2	2170.2	1961.3	1814.9	1656.9	1596.0	1563.1	1568.0
10°	2800.5	2708.4	2510.8	2219.6	1910.3	1625.6	1416.7	1245.6	1179.8	1151.8	1151.8
12.5°	2884.4	2770.9	2481.2	2043.5	1625.6	1285.0	1081.1	1002.0	992.2	992.2	992.2
15°	2984.7	2846.5	2430.3	1836.3	1327.8	1016.9	944.4	947.7	957.7	964.2	964.2
17.5°	3088.4	2927.2	2349.6	1604.2	1064.6	914.8	916.5	921.4	929.7	936.2	936.2
20°	3200.3	3007.8	2242.7	1357.4	913.2	885.2	890.1	895.1	901.7	905.0	906.6
22.5°	3320.4	3083.5	2116.0	1115.6	862.2	860.6	862.2	867.2	875.4	875.4	878.6
25°	3448.7	3167.4	1971.2	939.5	835.9	835.9	839.2	842.4	849.0	849.0	850.6
27.5°	3580.4	3244.7	1818.1	847.4	812.8	811.2	811.2	816.1	819.4	821.0	822.7
30°	3725.2	3335.2	1665.1	827.6	794.7	786.5	781.6	784.8	788.1	789.8	793.0
32.5°	3873.3	3422.4	1528.6	835.9	776.6	761.8	745.4	742.1	742.1	748.7	753.6
35°	4037.8	3517.9	1423.3	863.9	766.8	725.6	699.3	684.5	686.1	696.0	700.9
37.5°	4235.2	3633.0	1345.9	888.5	760.1	684.5	641.8	623.6	612.1	623.6	620.3
40°	4493.6	3802.5	1290.0	908.3	751.9	636.7	579.2	549.6	528.2	534.7	531.5
42.5°	4873.7	4069.0	1268.6	909.9	733.8	580.9	515.0	475.5	444.2	445.9	439.3
45°	5406.8	4490.3	1378.8	888.5	694.3	520.0	447.5	394.9	375.2	370.2	363.7
47.5°	6137.3	5104.0	1633.8	844.1	636.7	460.7	381.7	337.3	322.5	314.3	309.3
50°	7116.4	5892.1	1916.9	794.7	579.2	404.8	327.4	299.5	289.6	281.4	279.7
52.5°	8251.7	6691.8	2148.9	745.4	521.6	355.4	292.8	276.4	268.2	261.6	259.9
55°	9293.2	7243.1	2135.7	692.7	465.7	315.9	268.2	258.3	248.5	241.9	238.6
57.5°	9941.5	7320.3	1760.5	635.1	401.5	284.6	245.2	238.6	227.0	218.8	217.2
60°	10239.3	6879.4	1234.0	559.4	337.3	255.0	220.5	217.2	202.3	190.9	187.6
62.5°	10293.6	6060.0	822.7	465.7	281.4	227.0	195.8	190.9	171.1	151.4	141.6
65°	10073.1	4888.4	569.3	363.7	240.3	197.4	167.8	158.0	136.5	116.8	110.3
67.5°	9375.5	3432.3	396.6	261.6	204.1	156.3	133.2	130.0	113.6	97.1	92.1
70°	8097.0	1956.4	264.9	195.8	161.2	106.9	105.3	108.5	92.1	79.0	72.4
72.5°	6208.1	895.1	164.5	143.2	110.3	72.4	83.9	85.6	70.7	59.2	52.7
75°	3654.4	383.3	103.6	92.1	56.0	47.8	60.9	62.5	47.8	37.8	32.9
77.5°	1243.9	144.8	65.8	54.3	28.0	26.3	39.5	39.5	26.3	14.8	11.5
80°	283.0	54.3	32.9	21.4	13.1	11.5	13.1	11.5	6.6	1.6	0.0
82.5°	80.7	21.4	13.1	8.2	4.9	4.9	1.6	0.0	0.0	0.0	0.0
85°	23.1	9.8	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.8	1.6	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)