

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: P962994

Luminaire Tested: **NAV-SB2D-735-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962994
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-735-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

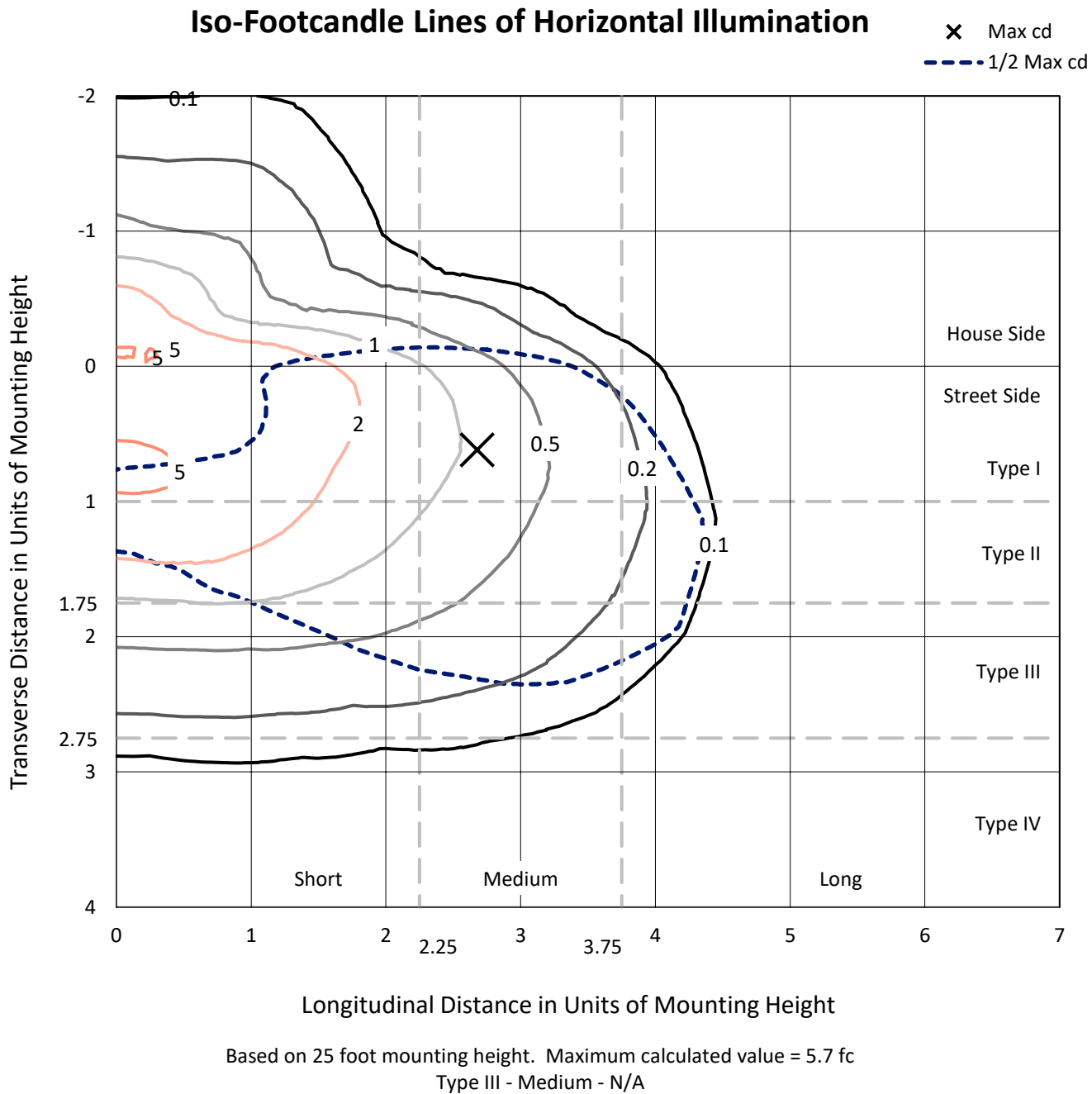
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21414.3 lumens
Efficiency: N/A
Efficacy: 145.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
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

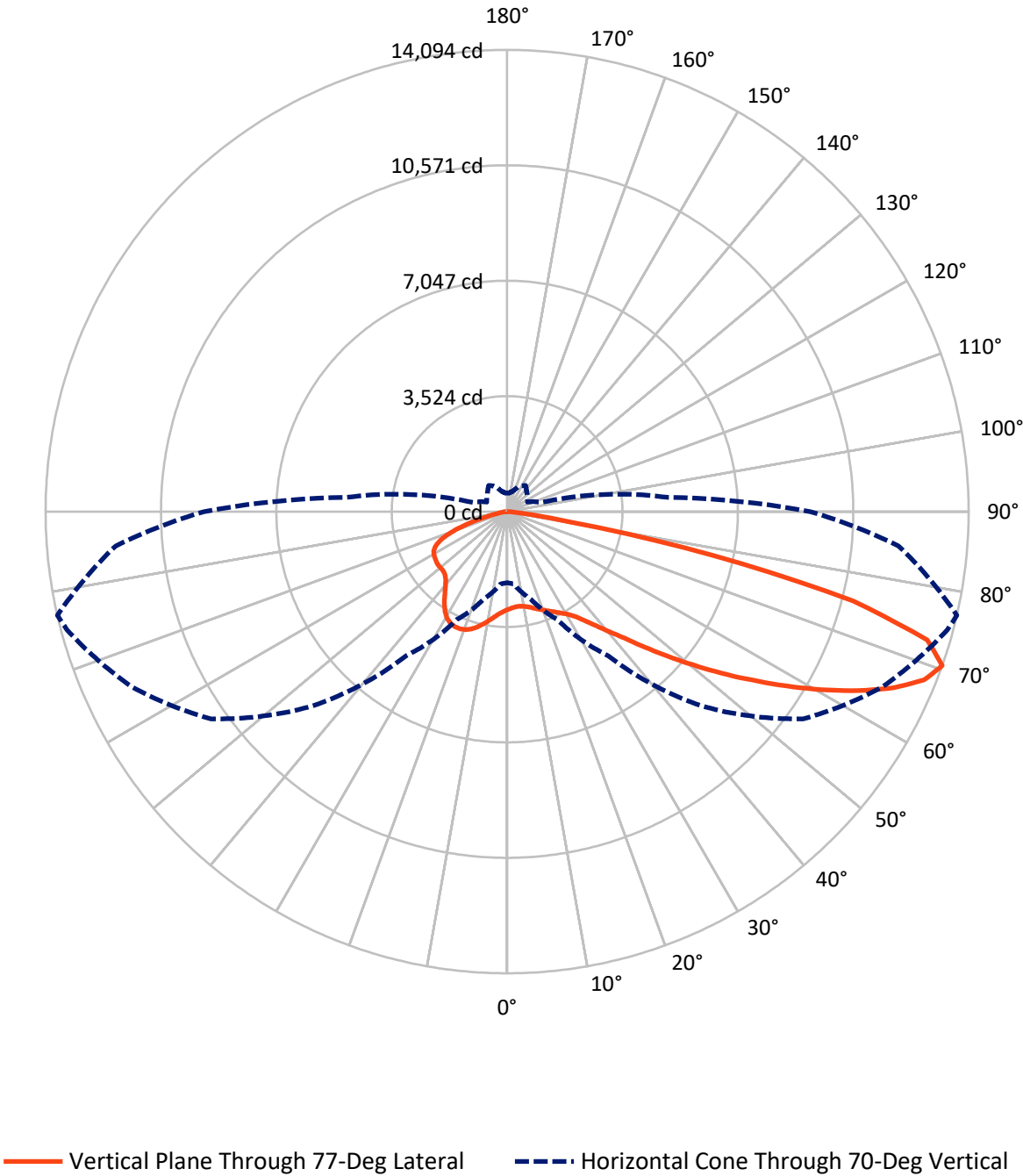


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Luminous Intensity Polar Plot



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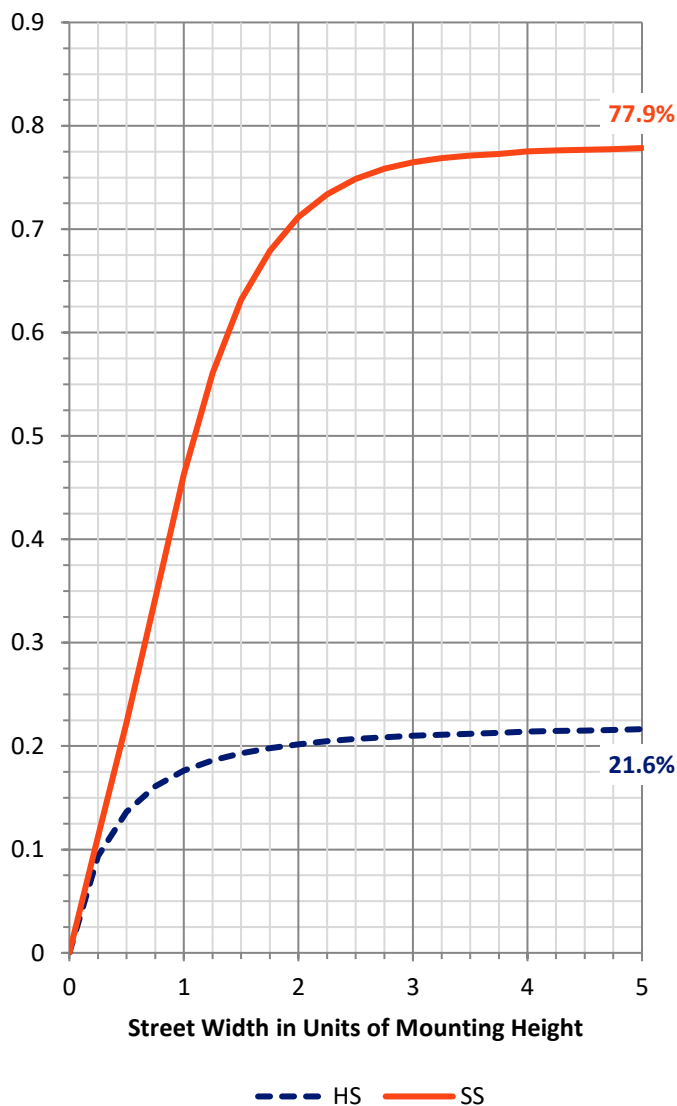
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4689.4	0.0	4689.4
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	16724.9	0.0	16724.9
	% Fixture	78.1	0.0	78.1
Total	Lumens	21414.3	0.0	21414.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.9	1.3
10°-20°	822.3	3.8
20°-30°	1406.3	6.6
30°-40°	2261.5	10.6
40°-50°	3530.7	16.5
50°-60°	4716.2	22.0
60°-70°	5026.8	23.5
70°-80°	3094.4	14.5
80°-90°	271.2	1.3
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°	21414.3	100.0
0°-180°	21414.3	100.0

Coefficient of Utilization



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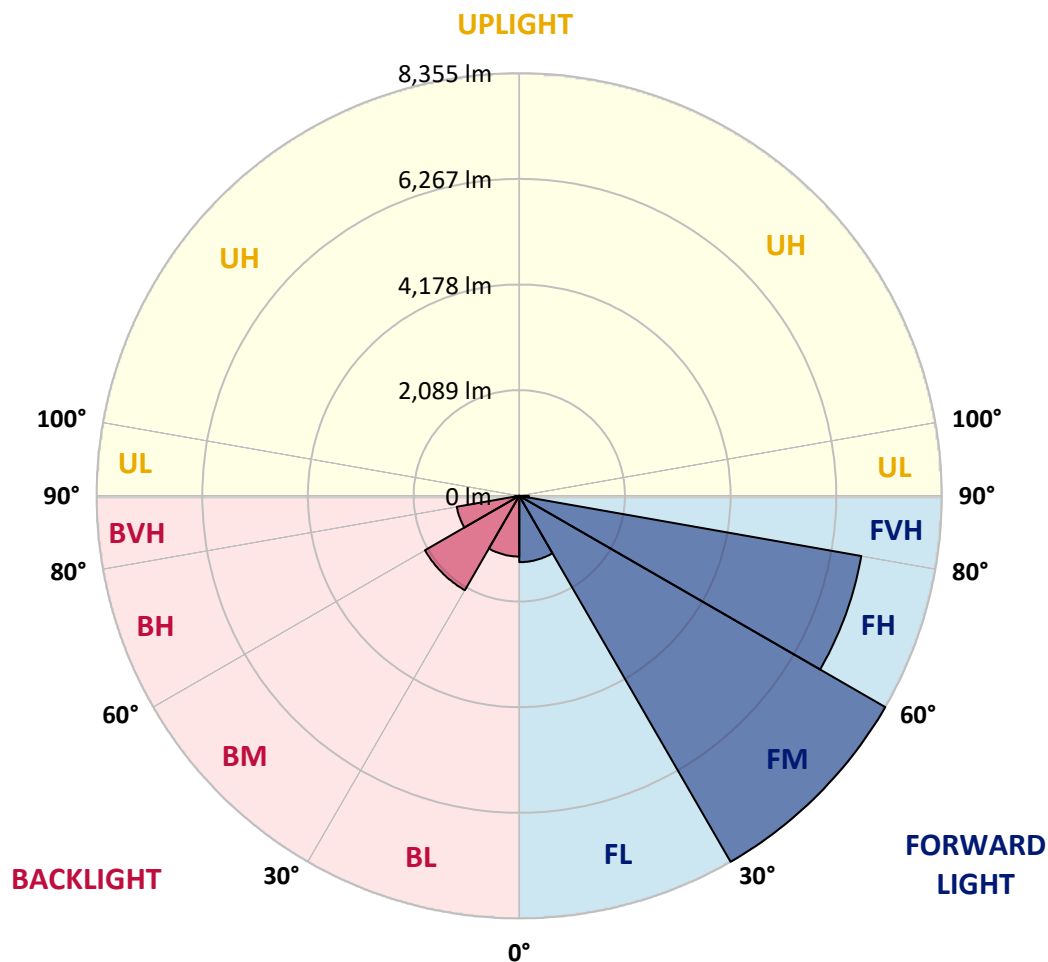
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1312.0	6.1			
FM	(30°-60°)	8355.4	39.0			
FH	(60°-80°)	6867.9	32.1			G3/7500
FVH	(80°-90°)	189.6	0.9			G2/225
BL	(0°-30°)	1201.6	5.6	B3/2500		
BM	(30°-60°)	2153.0	10.1	B2/2500		
BH	(60°-80°)	1253.3	5.9	B3/2500		G3/2500
BVH	(80°-90°)	81.6	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5
2.5°	2753.9	2752.7	2767.1	2771.4	2797.7	2816.4	2851.4	2888.8	2937.0	2942.6	2972.1
5°	2594.9	2594.9	2611.3	2628.8	2662.8	2700.2	2753.9	2818.5	2902.0	2915.1	2988.6
7.5°	2460.0	2468.7	2483.0	2517.0	2556.5	2610.3	2692.5	2784.6	2894.3	2915.1	3033.6
10°	2351.4	2361.3	2378.8	2406.2	2465.4	2540.1	2647.5	2766.0	2912.9	2945.8	3099.4
12.5°	2317.4	2327.3	2337.1	2358.0	2412.8	2500.6	2628.8	2774.7	2957.8	2990.7	3189.3
15°	2396.3	2408.4	2400.8	2395.2	2423.8	2503.9	2637.6	2806.6	3013.8	3061.0	3300.1
17.5°	2578.4	2582.8	2565.3	2513.7	2509.3	2552.0	2679.4	2850.4	3084.0	3135.6	3411.9
20°	2872.4	2864.7	2828.5	2726.5	2668.4	2659.6	2750.6	2916.2	3156.4	3211.2	3532.6
22.5°	3271.5	3262.8	3190.4	3029.2	2899.7	2814.2	2853.7	3001.7	3237.6	3299.0	3649.9
25°	3769.4	3757.4	3651.0	3431.7	3231.0	3019.3	2994.0	3114.7	3337.3	3394.4	3772.7
27.5°	4350.7	4340.9	4225.7	3936.2	3646.6	3300.1	3168.5	3247.4	3441.5	3506.2	3910.9
30°	4975.9	5004.4	4800.4	4488.9	4122.7	3666.3	3403.1	3410.8	3576.4	3634.5	4078.8
32.5°	5710.7	5760.0	5514.4	5119.6	4619.5	4064.4	3699.2	3639.0	3772.7	3821.0	4290.4
35°	6438.9	6494.8	6290.8	5854.4	5278.5	4533.9	4008.6	3901.0	4033.8	4086.4	4571.2
37.5°	7068.4	7143.0	7037.8	6658.2	5983.7	5099.8	4412.1	4209.3	4355.1	4420.9	4948.4
40°	7565.2	7679.3	7671.6	7434.7	6815.1	5786.3	4924.3	4589.8	4754.4	4825.6	5405.7
42.5°	7968.9	8067.6	8153.1	8141.1	7682.6	6566.2	5526.4	5084.4	5209.5	5291.8	5920.2
45°	8247.4	8352.7	8536.9	8735.5	8517.2	7400.7	6216.2	5671.2	5785.2	5909.2	6533.2
47.5°	8496.3	8615.9	8855.0	9169.8	9225.7	8238.6	6971.9	6354.5	6458.6	6587.0	7148.5
50°	8518.3	8621.4	8992.1	9438.4	9729.1	9043.7	7783.4	7121.1	7218.7	7355.8	7807.6
52.5°	7988.5	8150.9	8798.0	9430.8	9960.5	9717.0	8589.6	7918.4	8028.1	8192.5	8489.8
55°	6200.9	6438.9	8228.8	9136.8	9878.2	10152.4	9356.2	8766.1	8906.5	9078.7	9176.3
57.5°	5341.1	5445.2	6532.1	8601.7	9503.2	10265.4	10003.3	9622.7	9848.6	10037.3	9902.3
60°	4800.4	4887.0	5529.7	7769.2	9009.6	10086.6	10503.4	10421.1	10811.6	11036.4	10644.8
62.5°	4221.4	4303.6	4888.1	6487.1	8377.9	9789.4	10819.2	11158.2	11798.6	12044.3	11344.6
65°	3646.6	3716.9	4277.2	5450.7	7575.1	9492.2	10982.7	11795.3	12712.2	12966.7	11925.9
67.5°	3006.1	3064.2	3594.0	4598.6	6599.1	9085.3	11063.8	12296.5	13507.3	13725.6	12213.2
70°	2169.3	2214.3	2761.6	3636.8	5374.0	8385.6	11030.9	12651.9	13919.7	14094.1	11996.0
72.5°	1025.4	1066.0	1708.7	2361.3	3795.8	7023.4	10365.2	12370.0	13500.7	13414.1	10666.8
75°	547.2	582.4	981.5	1295.2	2004.8	4814.6	8482.1	10655.8	11336.9	10915.7	7883.3
77.5°	370.7	398.1	607.6	777.6	915.7	2285.5	5451.9	7377.7	7098.0	6402.7	3948.2
80°	294.0	322.5	497.9	526.4	443.1	825.8	2252.6	3415.2	2453.3	1962.1	1123.1
82.5°	225.9	257.7	418.9	381.7	241.3	338.9	655.8	1080.2	628.4	478.2	272.0
85°	138.2	172.2	329.0	243.4	136.0	154.7	222.6	300.5	191.9	160.1	97.6
87.5°	70.2	98.7	166.7	88.9	61.4	36.2	59.2	59.2	50.4	43.9	25.2
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°	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5
2.5°	2998.4	3020.4	3057.7	3092.7	3120.2	3146.5	3172.9	3187.1	3191.4	3209.1	3218.9
5°	3033.6	3074.2	3146.5	3214.5	3257.2	3283.6	3302.2	3313.2	3315.4	3320.9	3329.7
7.5°	3098.3	3162.9	3263.9	3331.9	3363.6	3361.5	3353.8	3326.3	3315.4	3305.5	3307.8
10°	3189.3	3274.9	3398.8	3445.9	3426.2	3373.6	3305.5	3225.5	3188.2	3152.0	3141.0
12.5°	3302.2	3410.8	3532.6	3530.4	3432.7	3297.8	3140.0	3017.1	2939.2	2883.3	2870.1
15°	3439.4	3564.3	3657.6	3583.0	3369.2	3126.8	2895.3	2735.2	2665.1	2603.6	2597.0
17.5°	3580.8	3714.6	3757.4	3566.6	3209.1	2873.4	2611.3	2485.2	2416.1	2383.2	2393.1
20°	3719.0	3851.7	3816.6	3472.3	2965.5	2586.1	2352.5	2283.4	2269.1	2276.8	2273.6
22.5°	3864.9	3983.4	3828.7	3290.1	2655.2	2292.2	2163.9	2166.0	2197.8	2220.9	2226.4
25°	4014.0	4094.1	3796.9	3026.9	2321.7	2076.1	2044.3	2079.4	2141.9	2186.8	2198.9
27.5°	4157.7	4192.8	3727.8	2701.3	2035.5	1921.5	1927.0	1999.4	2093.7	2156.2	2171.6
30°	4320.0	4280.5	3595.1	2335.0	1837.0	1788.7	1834.9	1919.3	2013.6	2069.6	2082.7
32.5°	4503.1	4356.2	3384.6	1996.1	1696.7	1682.3	1758.1	1812.9	1854.5	1871.0	1879.7
35°	4731.3	4462.5	3114.7	1758.1	1570.5	1604.5	1676.9	1649.4	1633.0	1624.2	1633.0
37.5°	5027.4	4606.2	2798.9	1603.4	1468.5	1548.6	1578.2	1492.6	1427.9	1396.2	1403.8
40°	5383.8	4816.9	2495.1	1483.9	1403.8	1500.3	1448.7	1345.7	1263.4	1218.4	1221.8
42.5°	5779.8	5037.3	2239.5	1393.9	1367.7	1460.8	1353.4	1230.5	1097.8	1083.5	1097.8
45°	6195.4	5264.3	2065.2	1324.8	1350.0	1426.8	1298.6	1100.0	1005.7	1063.8	1094.5
47.5°	6611.0	5472.7	1959.9	1273.3	1341.3	1388.5	1250.3	1027.7	960.7	1045.2	1084.7
50°	7073.9	5659.1	1912.6	1236.0	1331.5	1373.1	1177.9	1009.0	913.6	969.5	1011.2
52.5°	7533.4	5803.9	1877.6	1198.7	1317.1	1361.0	1142.8	987.1	856.6	859.9	882.8
55°	7991.8	5898.3	1839.3	1149.3	1285.4	1334.8	1139.5	962.9	813.7	798.4	809.3
57.5°	8481.1	5952.0	1792.0	1094.5	1230.5	1267.8	1136.2	944.3	800.6	775.4	778.7
60°	8978.9	6030.9	1730.6	1027.7	1157.0	1187.8	1128.5	937.7	792.9	750.2	753.5
62.5°	9425.3	6058.4	1657.1	964.0	1062.7	1108.7	1112.1	932.2	772.1	698.6	698.6
65°	9718.1	5939.9	1528.9	891.6	960.7	1027.7	1080.2	913.6	734.8	661.3	661.3
67.5°	9706.0	5602.1	1328.1	798.4	862.0	937.7	1034.2	881.8	689.8	615.3	618.6
70°	9254.2	4935.3	1073.7	689.8	753.5	841.2	975.0	834.7	636.1	564.8	571.4
72.5°	7937.0	3862.7	779.8	562.6	627.3	741.4	898.2	777.6	581.3	519.9	516.6
75°	5670.1	2444.6	528.6	432.1	488.0	628.4	802.8	710.6	530.8	522.0	492.4
77.5°	2896.4	1168.0	349.8	315.9	340.0	495.7	674.4	635.0	538.5	431.0	383.9
80°	942.1	431.0	220.5	214.9	225.9	330.2	522.0	520.9	408.0	292.8	258.8
82.5°	300.5	185.3	143.7	138.2	132.7	207.3	364.1	412.4	275.3	185.3	184.3
85°	119.5	110.8	84.5	77.9	56.0	97.6	190.9	274.2	205.1	133.8	137.0
87.5°	43.9	43.9	23.1	16.4	12.1	32.9	51.6	82.2	117.4	69.1	68.0
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)