

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: P965107

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965107
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
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
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31233.8 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

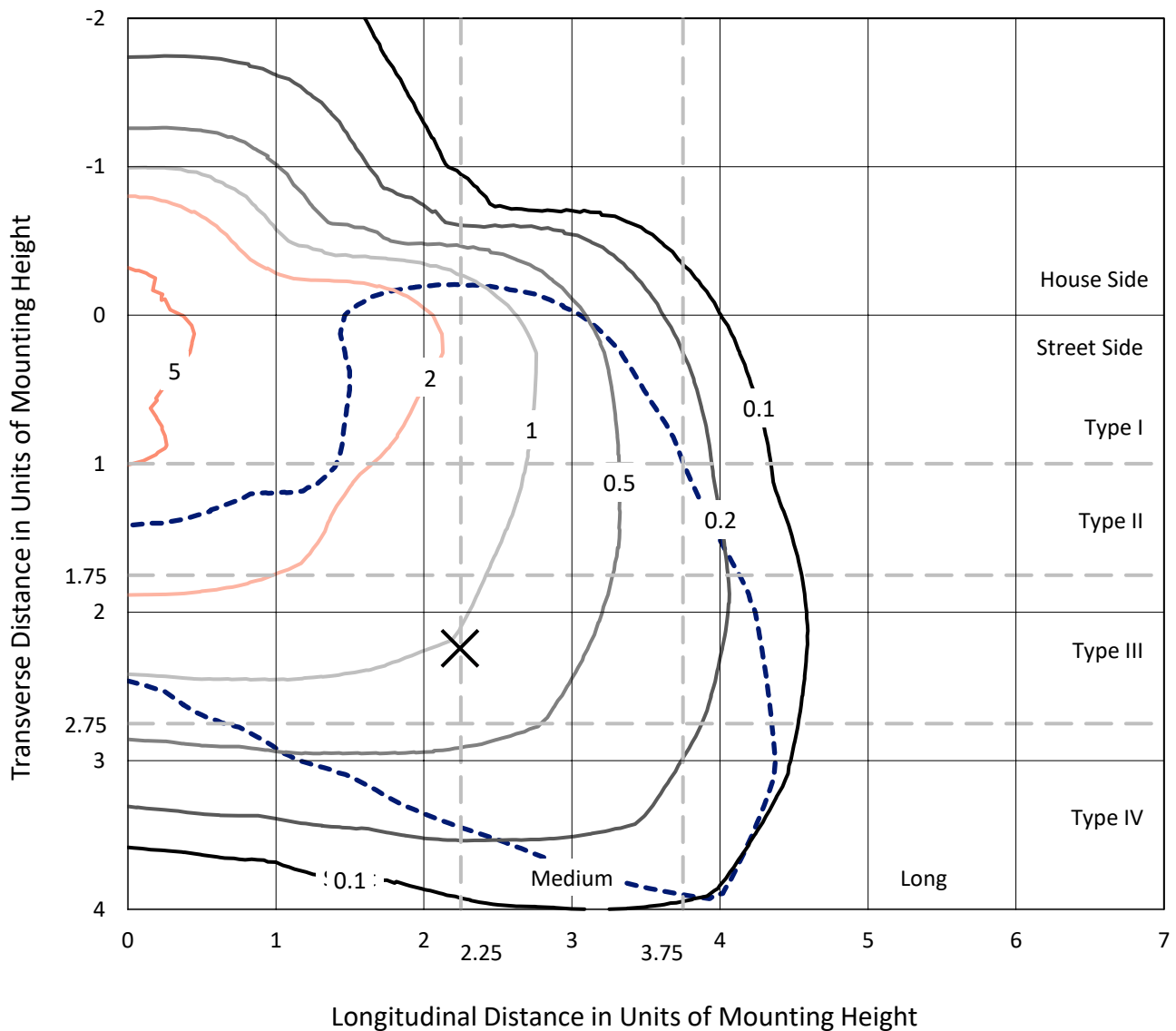
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

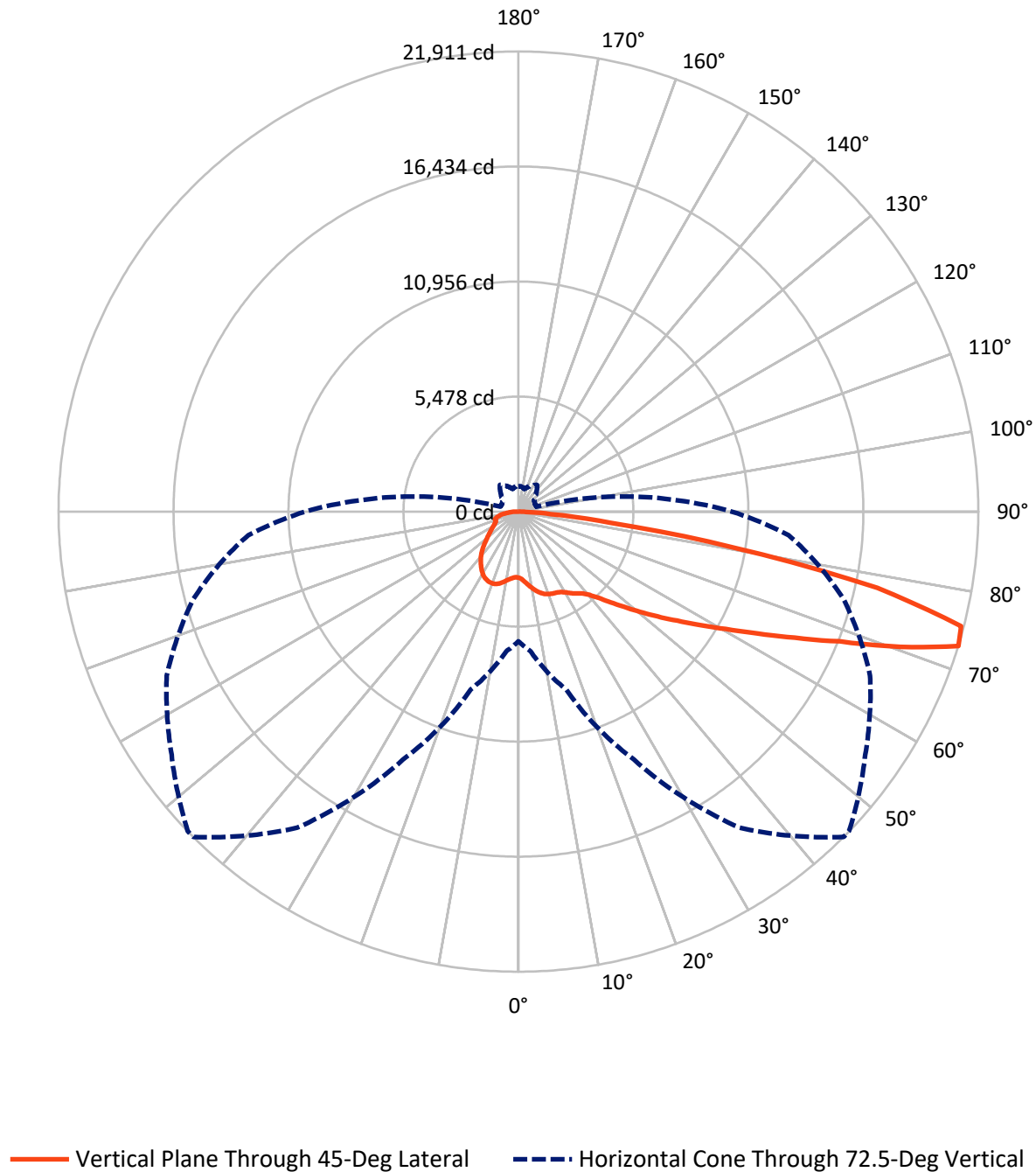
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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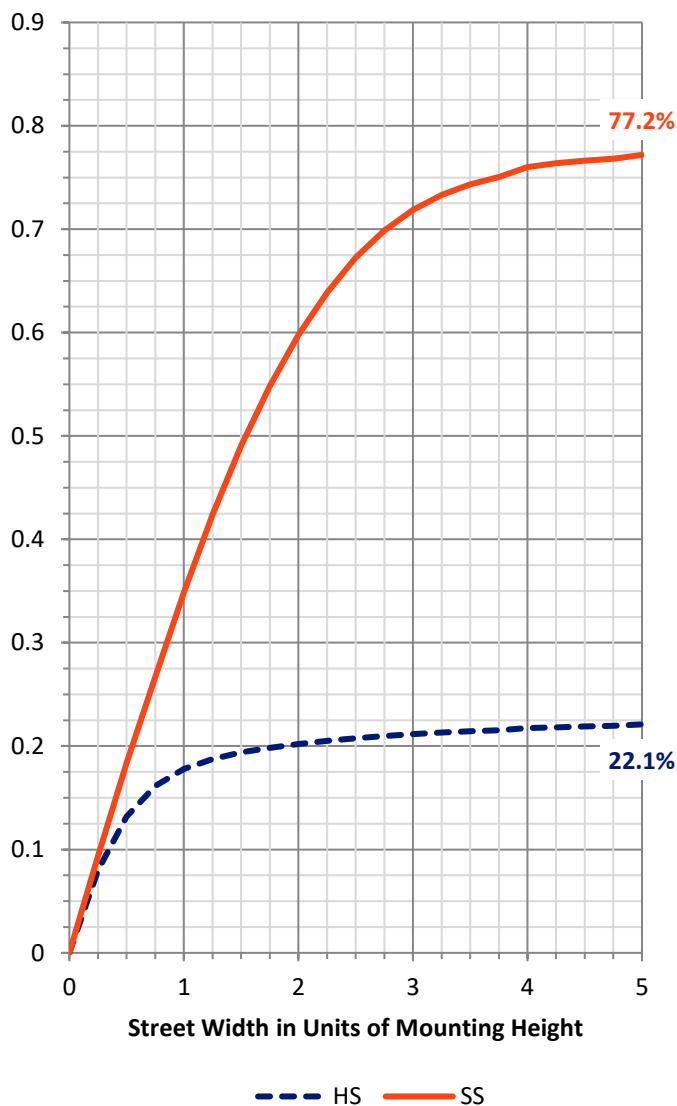
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7060.9	0.0	7060.9
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	24172.9	0.0	24172.9
	% Fixture	77.4	0.0	77.4
Total	Lumens	31233.8	0.0	31233.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.7	1.0
10°-20°	1069.2	3.4
20°-30°	1860.0	6.0
30°-40°	2666.4	8.5
40°-50°	3754.5	12.0
50°-60°	5750.8	18.4
60°-70°	8330.9	26.7
70°-80°	6652.7	21.3
80°-90°	828.6	2.7
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°	31233.8	100.0
0°-180°	31233.8	100.0

Coefficient of Utilization



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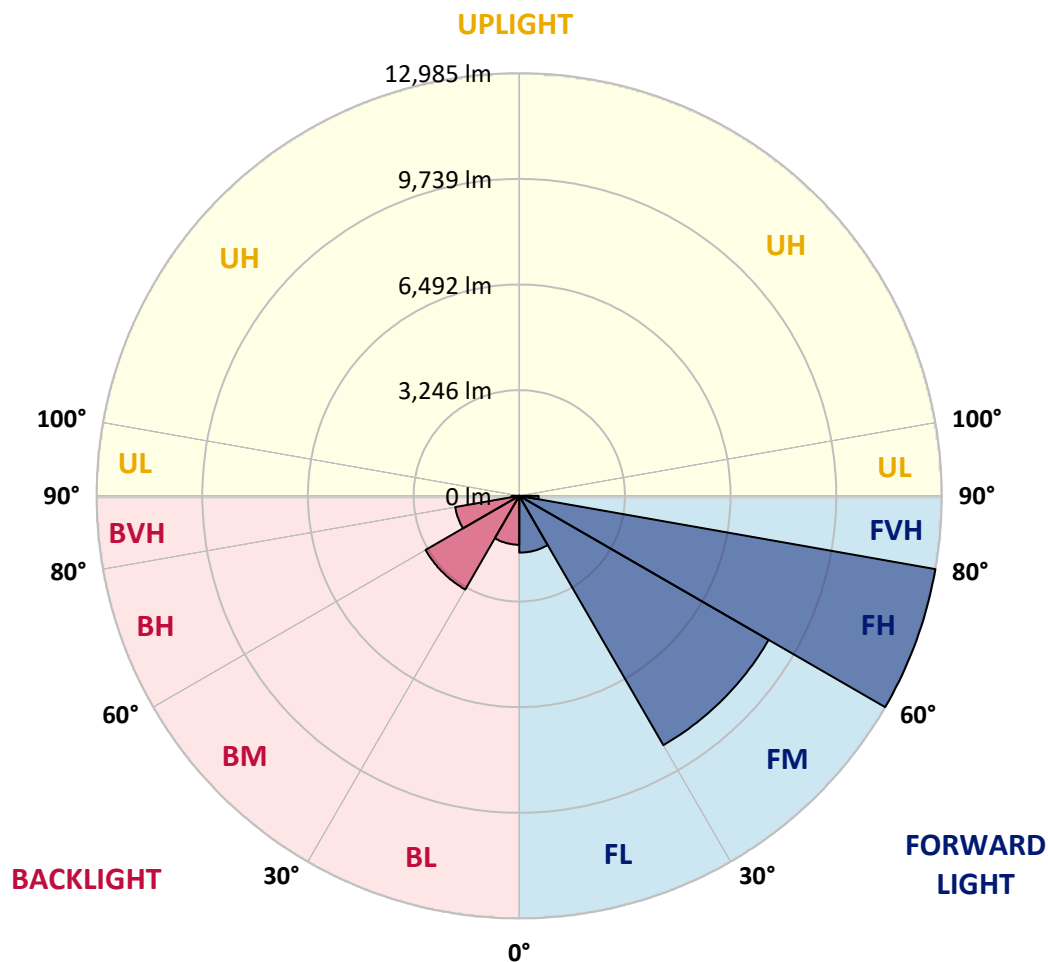
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1746.6	5.6			
FM	(30°-60°)	8847.0	28.3			
FH	(60°-80°)	12984.8	41.6			G5
FVH	(80°-90°)	594.4	1.9			G4/750
BL	(0°-30°)	1503.3	4.8	B3/2500		
BM	(30°-60°)	3324.7	10.6	B3/5000		
BH	(60°-80°)	1998.7	6.4	B3/2500		G3/2500
BVH	(80°-90°)	234.1	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8
2.5°	3274.3	3295.7	3275.9	3257.9	3249.6	3228.2	3226.6	3213.4	3205.2	3182.1	3175.6
5°	3503.0	3530.9	3498.0	3461.8	3428.9	3376.2	3369.7	3331.9	3289.1	3239.7	3211.7
7.5°	3761.3	3786.0	3748.1	3693.9	3636.3	3549.1	3547.4	3478.3	3410.9	3326.9	3279.2
10°	3986.7	4019.6	3968.6	3894.6	3822.2	3723.5	3711.9	3633.0	3547.4	3438.8	3366.4
12.5°	4185.8	4208.9	4159.4	4069.0	3985.1	3886.4	3871.5	3784.3	3688.9	3565.6	3473.4
15°	4343.7	4373.4	4307.6	4210.5	4121.6	4024.6	4011.4	3932.4	3837.0	3707.0	3588.5
17.5°	4447.5	4472.1	4404.6	4296.1	4210.5	4129.8	4120.0	4054.2	3970.2	3838.6	3711.9
20°	4486.9	4513.3	4442.5	4332.3	4253.2	4190.7	4185.8	4138.1	4080.5	3960.4	3832.1
22.5°	4526.4	4551.1	4459.0	4343.7	4274.7	4235.2	4233.6	4202.3	4179.2	4080.5	3955.5
25°	4686.0	4692.6	4569.1	4403.0	4304.3	4269.7	4268.1	4266.5	4276.3	4199.0	4088.7
27.5°	4824.3	4822.6	4717.3	4560.9	4407.9	4335.5	4333.9	4350.4	4381.7	4317.4	4227.0
30°	5026.6	5008.5	4883.4	4720.5	4580.7	4468.8	4459.0	4444.1	4468.8	4417.9	4365.2
32.5°	5456.1	5398.5	5196.0	4906.5	4723.8	4638.3	4625.1	4533.0	4542.9	4511.6	4485.3
35°	6071.4	5995.7	5725.9	5258.6	4901.5	4779.8	4773.2	4656.4	4636.7	4608.7	4618.5
37.5°	6803.6	6709.9	6395.6	5768.7	5207.6	4944.3	4934.5	4829.2	4748.5	4718.9	4774.9
40°	7539.1	7420.6	7160.6	6390.6	5658.4	5219.1	5187.8	5028.2	4936.1	4886.8	5005.2
42.5°	8253.2	8154.5	7932.4	7088.3	6214.6	5620.6	5551.5	5278.3	5209.3	5163.1	5377.0
45°	8885.0	8796.1	8633.3	7833.6	6866.2	6166.8	6099.4	5653.5	5632.1	5632.1	5941.4
47.5°	9398.3	9378.6	9205.8	8593.8	7634.5	6788.8	6671.9	6175.1	6232.6	6321.5	6742.8
50°	9967.6	9913.4	9729.1	9342.4	8537.8	7501.3	7405.8	6815.1	7030.7	7274.2	7901.1
52.5°	10490.9	10520.5	10314.8	10122.3	9557.9	8295.9	8128.1	7570.3	8036.0	8439.1	9258.5
55°	11028.9	11030.5	10972.9	10946.7	10627.4	9174.6	8990.3	8478.6	9219.1	9719.2	10841.3
57.5°	11534.0	11537.3	11622.9	11854.8	11868.1	10188.1	9979.2	9594.1	10533.6	11043.8	12473.5
60°	11984.9	12007.9	12241.6	12784.5	12959.0	11349.7	11152.3	10912.0	11892.8	12406.1	14189.7
62.5°	12136.2	12220.2	12740.1	13511.8	14036.7	12774.7	12580.5	12437.3	13320.9	13798.0	15624.4
65°	11879.5	12072.0	13077.4	14112.3	15145.6	14467.8	14275.2	14119.0	14805.0	15254.3	16802.5
67.5°	11249.4	11497.8	13057.7	14742.5	16491.5	16504.7	16325.4	15958.4	16396.1	16568.9	17185.9
70°	9589.2	9961.1	11907.5	14977.8	18036.5	19290.3	19117.6	18173.1	17983.9	17148.0	16106.5
72.5°	6178.4	6678.6	8768.2	13041.2	18380.4	21911.4	21901.5	20172.2	18485.8	16022.6	12917.8
75°	2254.2	2560.2	4074.0	8185.8	15428.6	21778.1	21842.2	19830.0	16874.9	12376.5	8047.5
77.5°	821.0	898.4	1329.4	3145.9	9488.8	17473.8	17607.1	15853.2	12011.2	6211.3	3188.8
80°	431.1	473.9	681.2	1220.9	4065.7	10377.3	10586.3	9421.4	5645.3	1870.8	955.9
82.5°	238.6	258.3	381.7	663.1	1831.3	4437.5	4562.6	3721.8	1985.9	793.0	394.9
85°	128.3	136.5	179.4	362.0	895.0	1538.4	1573.0	1112.2	791.4	465.7	190.9
87.5°	37.8	46.0	59.2	115.2	350.4	345.5	353.7	220.5	312.6	235.2	62.5
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°	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8	3150.8
2.5°	3165.7	3160.8	3142.6	3134.4	3124.5	3122.9	3131.2	3132.8	3134.4	3136.1	3142.6
5°	3195.3	3178.8	3162.4	3152.5	3155.8	3157.5	3173.9	3185.4	3193.7	3200.3	3203.5
7.5°	3252.9	3239.7	3211.7	3210.1	3215.0	3229.9	3251.3	3277.5	3292.4	3303.9	3307.2
10°	3338.4	3313.8	3280.8	3285.8	3295.7	3317.1	3361.5	3382.9	3407.5	3428.9	3424.0
12.5°	3425.7	3404.2	3366.4	3369.7	3386.2	3424.0	3466.8	3493.1	3509.6	3526.0	3532.6
15°	3539.2	3501.3	3460.2	3460.2	3489.8	3530.9	3550.7	3572.1	3582.0	3600.1	3606.7
17.5°	3656.0	3606.7	3552.3	3549.1	3585.2	3605.0	3616.5	3619.8	3623.1	3642.8	3649.4
20°	3772.8	3718.5	3641.2	3634.6	3642.8	3639.6	3637.9	3634.6	3639.6	3664.3	3674.1
22.5°	3888.0	3825.5	3718.5	3688.9	3665.9	3634.6	3633.0	3631.4	3634.6	3659.4	3675.8
25°	4022.9	3947.3	3804.1	3715.2	3637.9	3595.1	3600.1	3601.7	3605.0	3624.7	3651.0
27.5°	4169.4	4085.4	3883.1	3707.0	3567.2	3537.6	3529.3	3534.3	3545.8	3577.0	3608.3
30°	4315.8	4217.1	3955.5	3674.1	3478.3	3437.1	3410.9	3422.4	3458.6	3489.8	3524.4
32.5°	4449.1	4350.4	4013.1	3601.7	3364.8	3300.6	3266.1	3280.8	3317.1	3328.6	3369.7
35°	4605.4	4493.5	4037.8	3486.5	3241.4	3142.6	3096.6	3075.2	3093.2	3081.8	3117.9
37.5°	4779.8	4662.9	4034.4	3335.1	3096.6	2983.1	2918.9	2838.2	2800.4	2760.9	2785.6
40°	5038.1	4870.3	3994.9	3152.5	2917.3	2813.6	2698.4	2561.9	2476.3	2398.9	2403.9
42.5°	5390.3	5158.2	3922.6	2951.8	2714.8	2617.7	2461.4	2301.8	2167.0	2038.6	2027.1
45°	5915.1	5535.0	3832.1	2737.9	2496.0	2400.5	2231.1	2051.7	1898.7	1734.2	1714.5
47.5°	6671.9	6041.8	3746.5	2494.3	2265.7	2178.4	2025.4	1859.2	1678.2	1518.6	1500.6
50°	7711.9	6769.1	3667.6	2257.5	2038.6	1972.8	1851.0	1681.6	1499.0	1370.6	1362.3
52.5°	9034.8	7757.9	3634.6	2028.8	1826.3	1801.6	1704.6	1546.6	1373.9	1265.3	1257.1
55°	10553.4	8941.0	3634.6	1809.9	1640.4	1648.6	1581.2	1434.8	1285.0	1188.0	1178.1
57.5°	12103.3	10138.8	3568.8	1607.5	1482.5	1517.0	1474.3	1345.9	1211.0	1110.6	1094.2
60°	13531.5	11142.5	3302.2	1423.2	1342.6	1396.9	1369.0	1258.7	1094.2	1010.2	997.1
62.5°	14629.0	11708.5	2788.9	1276.8	1227.4	1290.0	1275.2	1143.5	1072.8	1038.2	1026.7
65°	15178.5	11616.3	2132.4	1146.9	1130.4	1227.4	1196.2	1191.3	1135.3	1095.8	1082.6
67.5°	14841.3	10823.3	1546.6	1051.3	1074.4	1169.8	1290.0	1309.7	1206.0	1128.7	1115.6
70°	13362.0	9388.5	1151.8	960.9	1003.7	1171.5	1471.0	1370.6	1183.1	1092.5	1077.7
72.5°	10165.1	7001.1	893.4	865.5	911.5	1179.8	1551.5	1342.6	1117.2	1207.7	1197.8
75°	5813.1	3843.5	717.4	748.7	796.3	1102.4	1510.4	1270.2	1066.2	1108.9	1108.9
77.5°	2216.4	1477.5	592.3	633.4	640.0	962.6	1444.6	1265.3	1015.2	990.6	903.3
80°	768.3	577.5	490.4	503.5	495.3	855.6	1385.4	1100.7	830.9	743.7	719.0
82.5°	314.3	287.9	388.3	371.9	352.1	664.7	1118.9	900.1	679.6	600.5	594.0
85°	136.5	182.7	256.7	225.4	204.0	460.7	896.8	761.8	574.2	495.3	493.6
87.5°	28.0	69.1	108.5	102.0	105.3	307.7	636.7	541.3	406.4	304.4	238.6
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)