

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: P969318

Luminaire Tested: **NAV-SB5D-735-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969318
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-SB5D-735-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 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: 54090.3 lumens
Efficiency: N/A
Efficacy: 148.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G5

Input Watts (W): 364.9
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



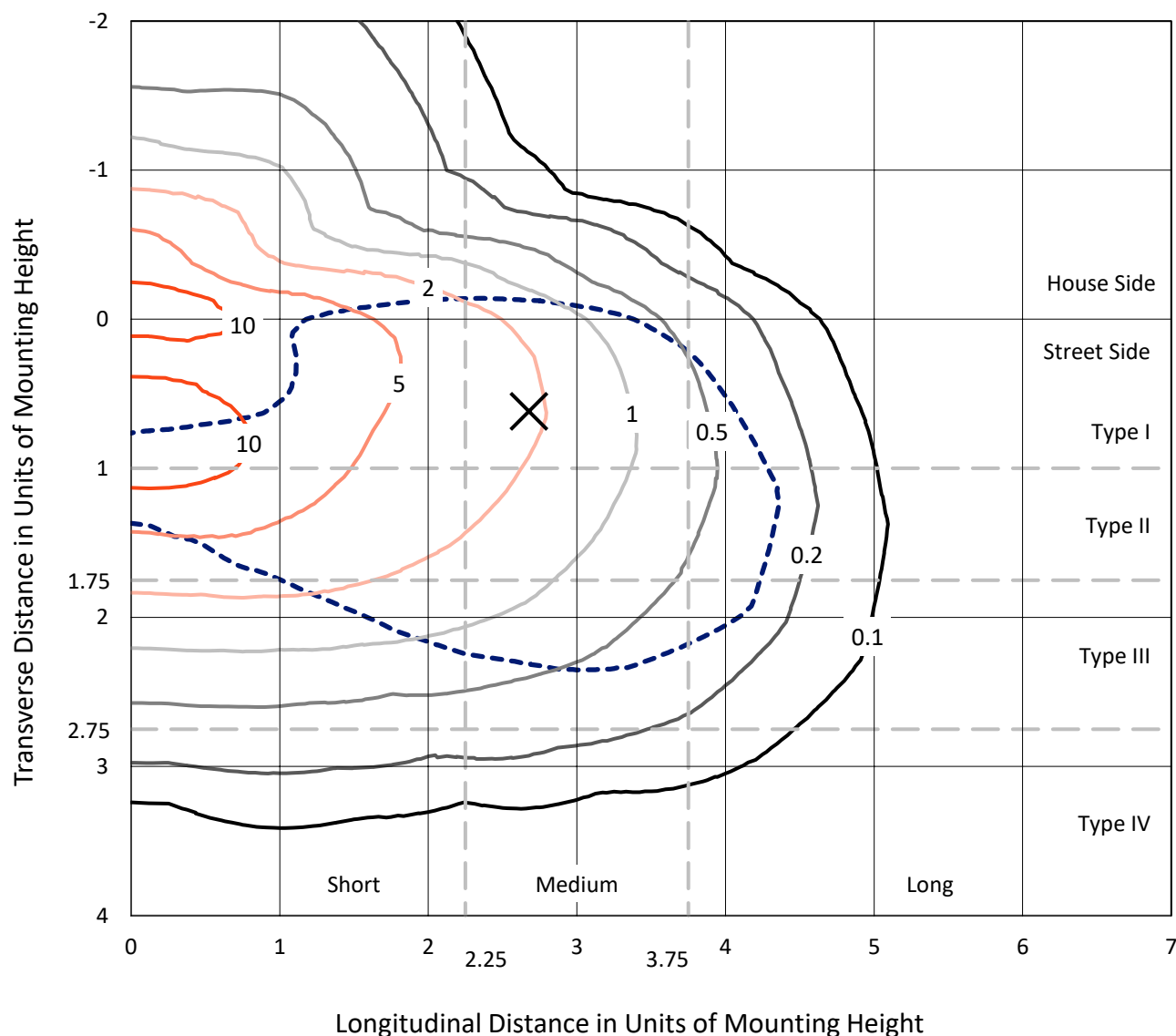
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

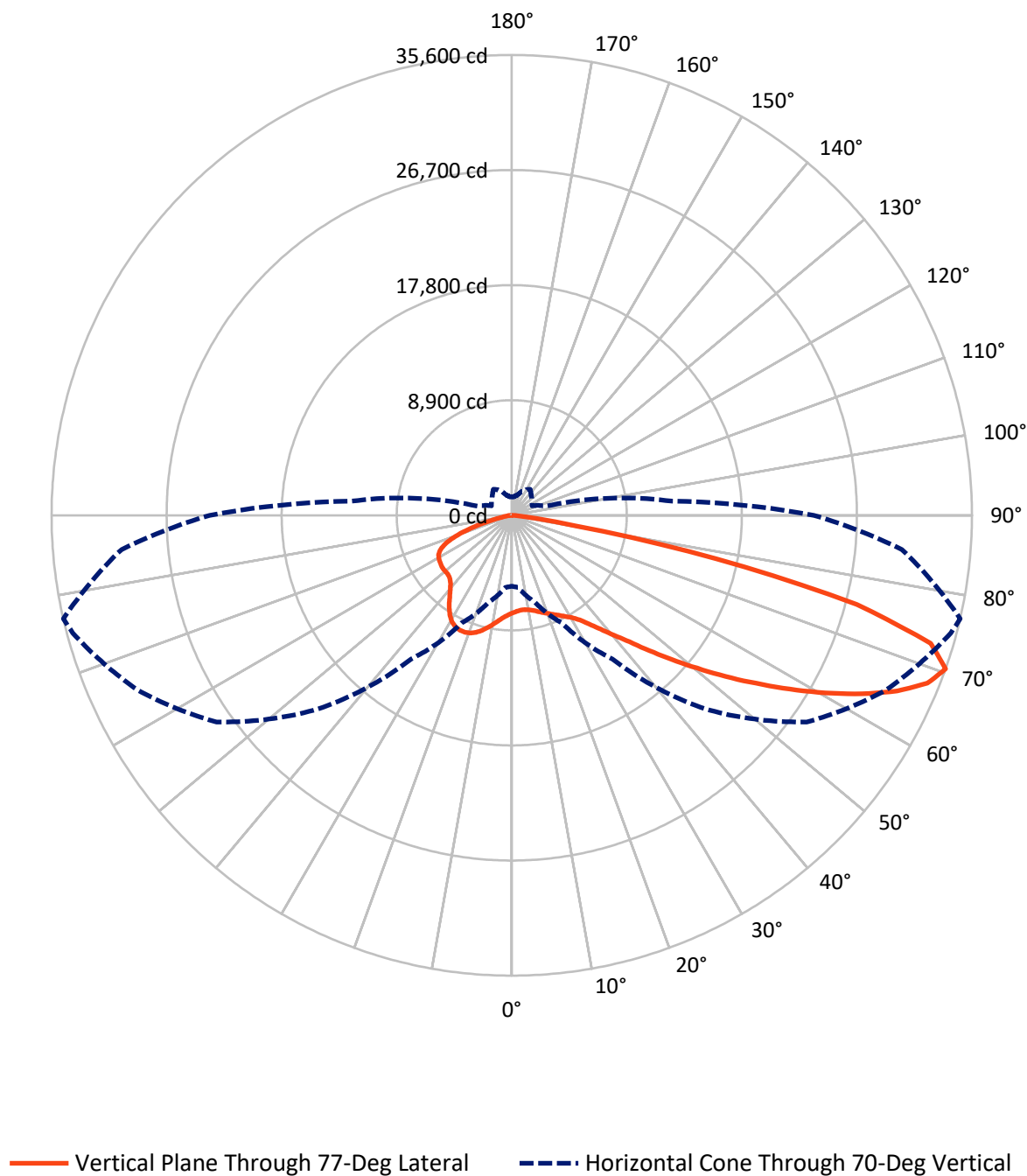


Based on 25 foot mounting height. Maximum calculated value = 14.3 fc

Type III - Medium - N/A

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Luminous Intensity Polar Plot



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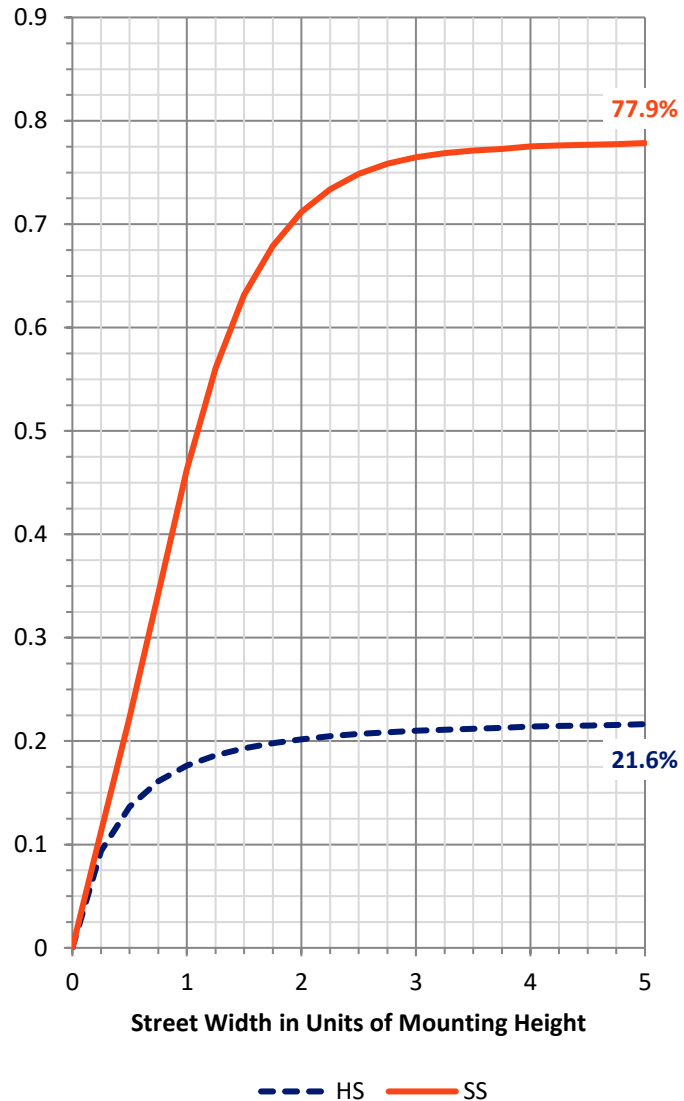
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11844.9	0.0	11844.9
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	42245.3	0.0	42245.3
	% Fixture	78.1	0.0	78.1
Total	Lumens	54090.3	0.0	54090.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	719.7	1.3
10°-20°	2077.1	3.8
20°-30°	3552.1	6.6
30°-40°	5712.2	10.6
40°-50°	8918.3	16.5
50°-60°	11912.7	22.0
60°-70°	12697.1	23.5
70°-80°	7816.2	14.5
80°-90°	684.9	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°	54090.3	100.0
0°-180°	54090.3	100.0

Coefficient of Utilization



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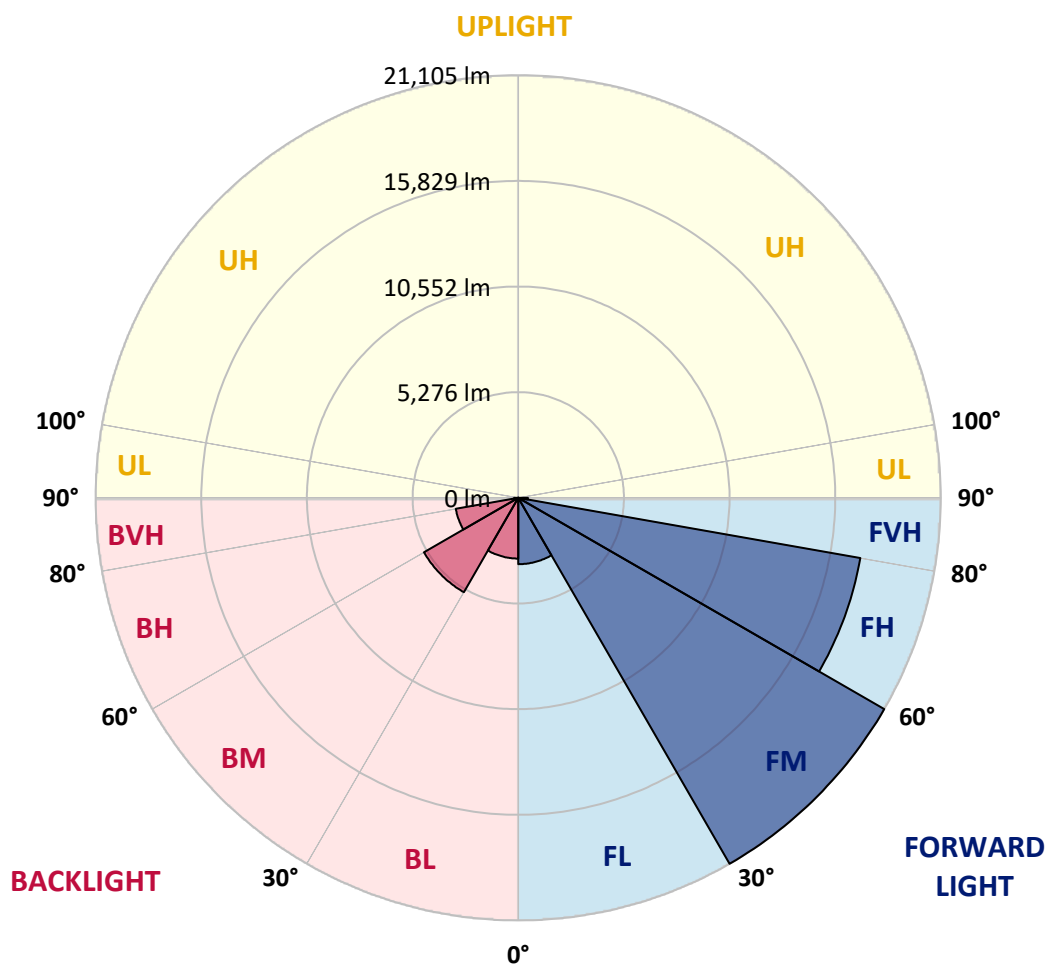
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3313.9	6.1			
FM	(30°-60°)	21104.9	39.0			
FH	(60°-80°)	17347.7	32.1			G5
FVH	(80°-90°)	478.9	0.9			G3/500
BL	(0°-30°)	3035.0	5.6	B4/5000		
BM	(30°-60°)	5438.3	10.1	B4/8500		
BH	(60°-80°)	3165.6	5.9	B4/5000		G4/5000
BVH	(80°-90°)	206.0	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0
2.5°	6956.1	6953.3	6989.3	7000.3	7066.9	7113.9	7202.6	7296.8	7418.6	7432.5	7507.3
5°	6554.4	6554.4	6595.9	6640.3	6726.0	6820.2	6956.1	7119.4	7330.0	7363.3	7548.8
7.5°	6213.7	6235.8	6271.8	6357.7	6457.4	6593.1	6800.9	7033.6	7310.6	7363.3	7662.4
10°	5939.4	5964.3	6008.7	6077.8	6227.5	6415.9	6687.3	6986.5	7357.8	7440.8	7828.6
12.5°	5853.5	5878.4	5903.4	5956.0	6094.4	6316.2	6640.3	7008.6	7471.3	7554.4	8055.8
15°	6052.9	6083.4	6064.0	6050.2	6122.2	6324.5	6662.4	7089.0	7612.6	7731.7	8335.6
17.5°	6512.7	6523.9	6479.5	6349.4	6338.3	6446.3	6767.7	7199.8	7789.9	7920.1	8618.2
20°	7255.3	7235.8	7144.5	6886.8	6740.0	6717.7	6947.8	7366.1	7972.7	8111.2	8922.9
22.5°	8263.6	8241.4	8058.6	7651.3	7324.4	7108.4	7208.1	7582.1	8177.7	8332.8	9219.3
25°	9521.2	9490.8	9222.0	8668.0	8161.0	7626.4	7562.8	7867.4	8429.8	8573.8	9529.5
27.5°	10989.4	10964.5	10673.6	9942.3	9211.0	8335.6	8003.2	8202.7	8692.9	8856.4	9878.6
30°	12568.6	12640.5	12125.2	11338.6	10413.3	9260.9	8596.0	8615.4	9033.7	9180.5	10302.5
32.5°	14424.5	14549.3	13928.7	12931.4	11668.2	10266.4	9344.0	9191.6	9529.5	9651.5	10837.1
35°	16264.0	16405.2	15890.0	14787.5	13333.1	11452.1	10125.2	9853.6	10188.9	10321.9	11546.3
37.5°	17854.1	18042.5	17776.5	16818.0	15114.3	12881.6	11144.6	10632.1	11000.5	11166.8	12499.3
40°	19109.0	19397.1	19377.7	18779.3	17214.2	14615.7	12438.3	11593.4	12008.9	12189.0	13654.4
42.5°	20128.4	20377.7	20593.8	20563.3	19405.4	16585.3	13959.2	12842.7	13158.5	13366.3	14953.6
45°	20832.1	21098.0	21563.4	22064.9	21513.5	18693.4	15701.7	14324.8	14612.9	14925.9	16502.2
47.5°	21460.9	21762.9	22366.7	23161.8	23303.1	20810.0	17610.3	16050.7	16313.8	16638.0	18056.3
50°	21516.3	21776.7	22713.1	23840.6	24574.7	22843.3	19660.3	17987.0	18233.6	18579.9	19721.2
52.5°	20178.3	20588.3	22222.7	23821.1	25159.1	24544.1	21696.4	20001.0	20278.0	20693.5	21444.3
55°	15662.8	16264.0	20784.9	23078.7	24951.4	25644.0	23632.8	22142.4	22497.0	22931.9	23178.4
57.5°	13490.9	13754.2	16499.4	21726.8	24004.0	25929.3	25267.2	24305.9	24876.6	25353.1	25012.4
60°	12125.2	12344.1	13967.5	19624.2	22757.4	25477.7	26530.4	26322.6	27308.9	27876.7	26887.8
62.5°	10662.6	10870.3	12346.8	16385.9	21161.7	24727.0	27328.2	28184.2	29802.1	30422.6	28655.2
65°	9211.0	9388.3	10803.9	13768.0	19133.9	23976.3	27741.0	29793.8	32109.7	32752.3	30123.4
67.5°	7593.2	7740.0	9078.0	11615.5	16668.4	22948.5	27946.0	31059.8	34118.0	34669.3	30849.2
70°	5479.5	5593.1	6975.4	9186.0	13574.1	21181.1	27862.9	31957.2	35159.7	35600.1	30300.7
72.5°	2590.2	2692.7	4316.0	5964.3	9587.7	17740.5	26181.4	31245.4	34101.4	33882.6	26943.2
75°	1382.3	1471.0	2479.4	3271.6	5064.0	12161.3	21424.9	26915.5	28635.8	27572.0	19912.4
77.5°	936.3	1005.6	1534.7	1964.1	2313.1	5773.1	13770.8	18635.3	17928.9	16172.6	9972.8
80°	742.4	814.5	1257.7	1329.7	1119.2	2086.0	5690.1	8626.5	6196.9	4956.0	2836.7
82.5°	570.6	651.0	1058.2	964.0	609.5	856.0	1656.6	2728.7	1587.3	1207.9	687.1
85°	349.0	434.9	831.1	615.0	343.5	390.6	562.3	759.0	484.8	404.5	246.5
87.5°	177.3	249.3	421.1	224.4	155.1	91.4	149.5	149.5	127.4	110.8	63.8
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°	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0	7546.0
2.5°	7573.8	7629.2	7723.4	7812.0	7881.3	7947.7	8014.3	8050.2	8061.3	8105.7	8130.6
5°	7662.4	7764.9	7947.7	8119.5	8227.6	8294.1	8341.1	8368.8	8374.4	8388.2	8410.4
7.5°	7825.9	7989.4	8244.2	8416.0	8496.2	8490.7	8471.3	8402.1	8374.4	8349.4	8355.0
10°	8055.8	8271.9	8584.9	8704.0	8654.2	8521.2	8349.4	8147.2	8053.0	7961.6	7933.9
12.5°	8341.1	8615.4	8922.9	8917.4	8670.8	8330.1	7931.1	7620.9	7424.2	7282.9	7249.7
15°	8687.4	9003.2	9238.7	9050.3	8510.2	7897.9	7313.4	6908.9	6731.7	6576.5	6559.9
17.5°	9044.8	9382.7	9490.8	9008.7	8105.7	7258.0	6595.9	6277.3	6102.8	6019.7	6044.6
20°	9393.8	9729.0	9640.3	8770.5	7490.7	6532.2	5942.1	5767.6	5731.6	5751.0	5742.7
22.5°	9762.3	10061.4	9670.9	8310.7	6706.7	5789.8	5465.6	5471.1	5551.5	5609.7	5623.6
25°	10139.0	10341.2	9590.5	7645.8	5864.5	5244.0	5163.7	5252.3	5410.3	5523.8	5554.3
27.5°	10501.9	10590.6	9416.0	6823.0	5141.5	4853.5	4867.3	5050.1	5288.4	5446.2	5485.1
30°	10911.9	10812.2	9080.8	5897.8	4640.1	4518.2	4634.5	4847.8	5086.2	5227.4	5260.6
32.5°	11374.5	11003.4	8548.9	5041.8	4285.5	4249.5	4440.7	4579.2	4684.5	4726.0	4748.2
35°	11950.8	11272.0	7867.4	4440.7	3967.0	4052.8	4235.7	4166.4	4124.9	4102.7	4124.9
37.5°	12698.7	11635.0	7069.6	4050.1	3709.4	3911.6	3986.3	3770.3	3606.9	3526.5	3545.9
40°	13599.0	12166.9	6302.2	3748.1	3545.9	3789.6	3659.5	3399.1	3191.3	3077.8	3086.1
42.5°	14599.1	12723.6	5656.8	3521.0	3454.5	3689.9	3418.5	3108.2	2773.0	2737.0	2773.0
45°	15649.0	13297.1	5216.3	3346.4	3410.2	3604.1	3279.9	2778.6	2540.3	2687.1	2764.7
47.5°	16698.9	13823.5	4950.3	3216.2	3387.9	3507.1	3158.0	2595.7	2426.7	2640.0	2739.7
50°	17867.9	14294.3	4831.2	3122.0	3363.0	3468.3	2975.3	2548.6	2307.6	2448.8	2554.1
52.5°	19028.6	14660.1	4742.6	3027.8	3327.0	3437.8	2886.6	2493.2	2163.6	2171.9	2230.0
55°	20186.7	14898.3	4645.7	2903.2	3246.7	3371.3	2878.3	2432.2	2055.5	2016.7	2044.5
57.5°	21422.1	15034.0	4526.5	2764.7	3108.2	3202.4	2870.0	2385.2	2022.2	1958.6	1966.9
60°	22679.8	15233.4	4371.4	2595.7	2922.6	3000.2	2850.5	2368.6	2002.8	1894.8	1903.1
62.5°	23807.3	15302.7	4185.8	2435.0	2684.4	2800.7	2809.0	2354.7	1950.3	1764.6	1764.6
65°	24546.9	15003.5	3861.7	2252.2	2426.7	2595.7	2728.7	2307.6	1856.1	1670.4	1670.4
67.5°	24516.5	14150.3	3354.7	2016.7	2177.4	2368.6	2612.3	2227.2	1742.5	1554.1	1562.4
70°	23375.1	12466.0	2712.0	1742.5	1903.1	2124.7	2462.8	2108.1	1606.7	1426.7	1443.3
72.5°	20048.1	9756.8	1969.6	1421.2	1584.5	1872.7	2268.8	1964.1	1468.2	1313.1	1304.8
75°	14322.0	6174.8	1335.3	1091.4	1232.8	1587.3	2027.8	1795.1	1340.8	1318.7	1243.8
77.5°	7316.1	2950.3	883.7	797.9	858.7	1252.1	1703.7	1603.9	1360.2	1088.7	969.5
80°	2379.6	1088.7	556.8	542.9	570.6	833.8	1318.7	1315.9	1030.5	739.6	653.7
82.5°	759.0	468.1	362.8	349.0	335.2	523.6	919.7	1041.6	695.4	468.1	465.4
85°	302.0	279.8	213.3	196.7	141.2	246.5	482.1	692.6	518.0	337.9	346.2
87.5°	110.8	110.8	58.2	41.5	30.4	83.1	130.2	207.8	296.4	174.6	171.8
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)