

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: P965102

Luminaire Tested: **NAV-SB3D-735-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965102
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-SB3D-735-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 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: 32127.6 lumens
Efficiency: N/A
Efficacy: 147.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

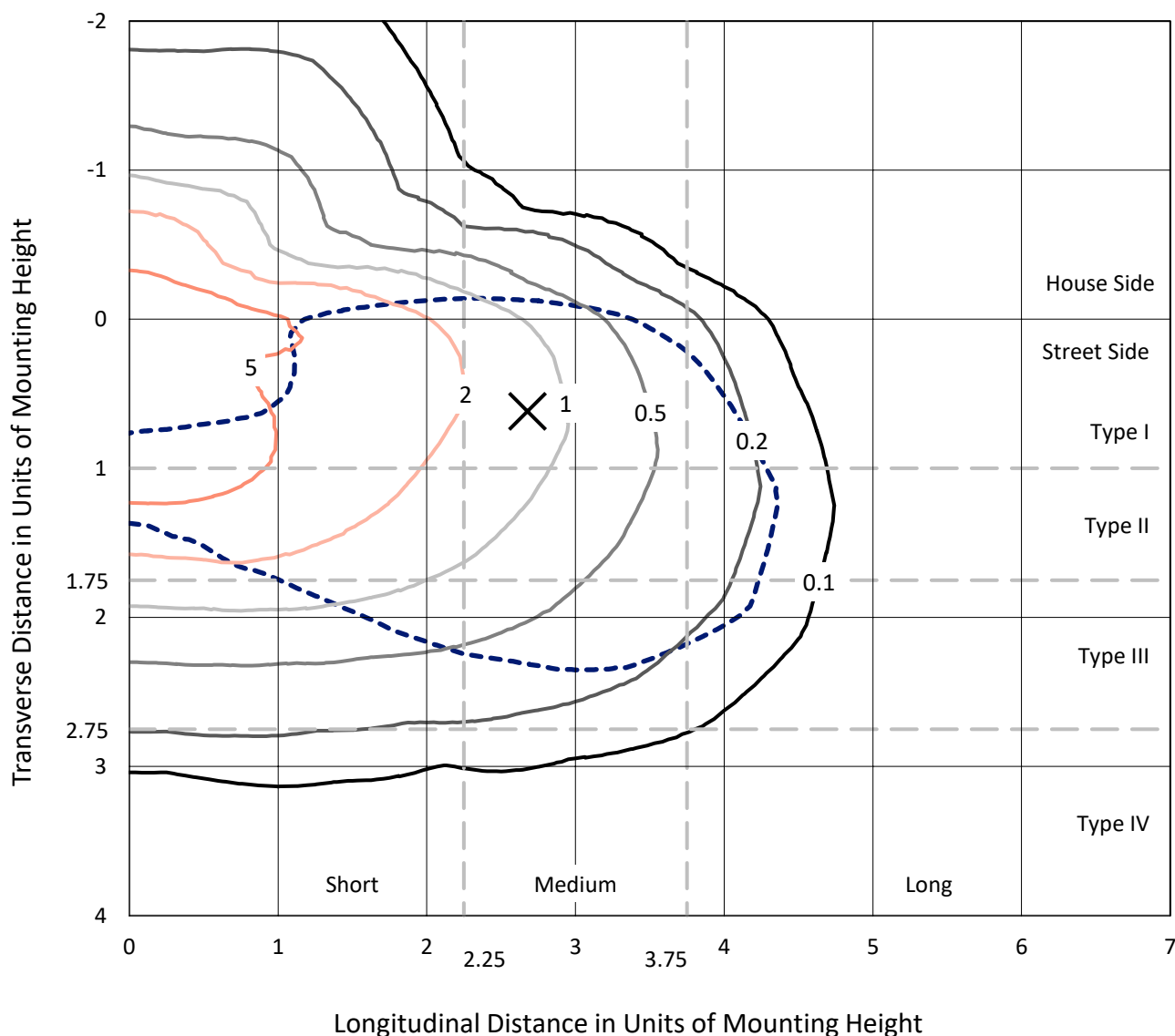
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

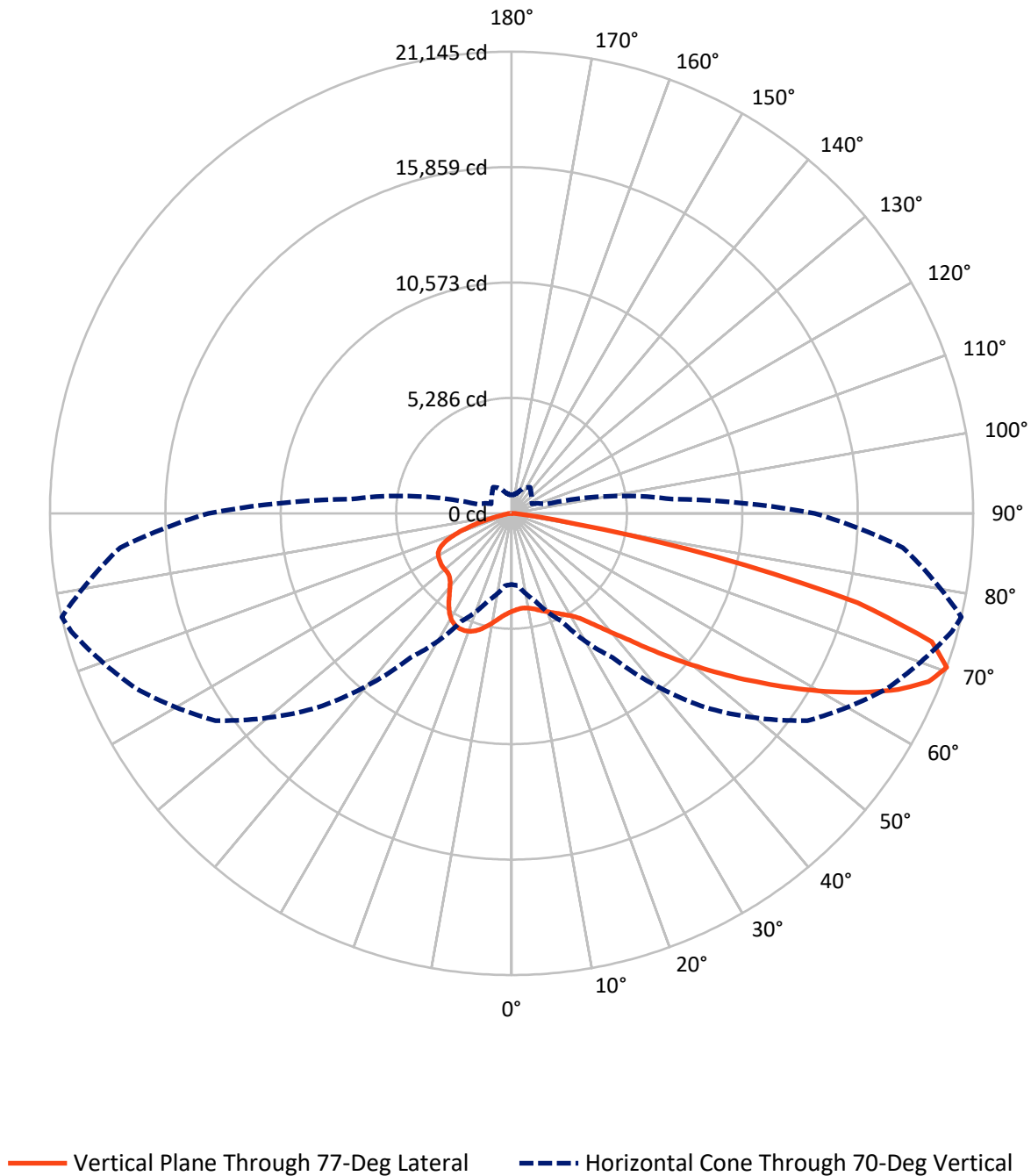
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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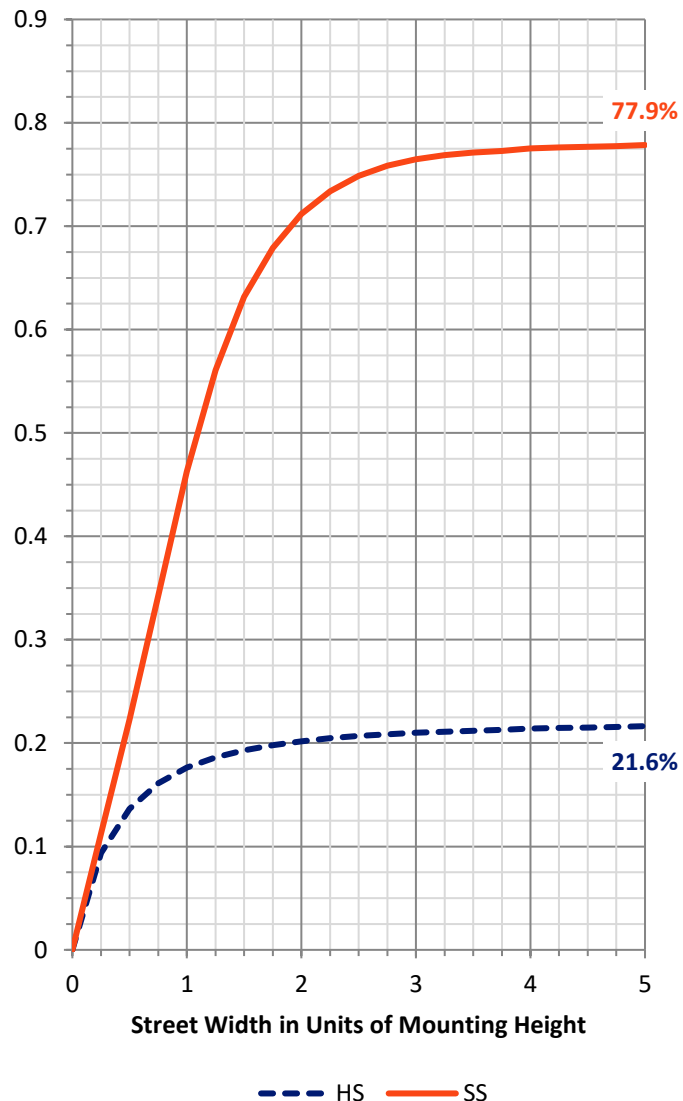
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7035.4	0.0	7035.4
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	25092.1	0.0	25092.1
	% Fixture	78.1	0.0	78.1
Total	Lumens	32127.6	0.0	32127.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	427.5	1.3
10°-20°	1233.7	3.8
20°-30°	2109.8	6.6
30°-40°	3392.8	10.6
40°-50°	5297.1	16.5
50°-60°	7075.7	22.0
60°-70°	7541.6	23.5
70°-80°	4642.5	14.5
80°-90°	406.8	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°	32127.6	100.0
0°-180°	32127.6	100.0

Coefficient of Utilization



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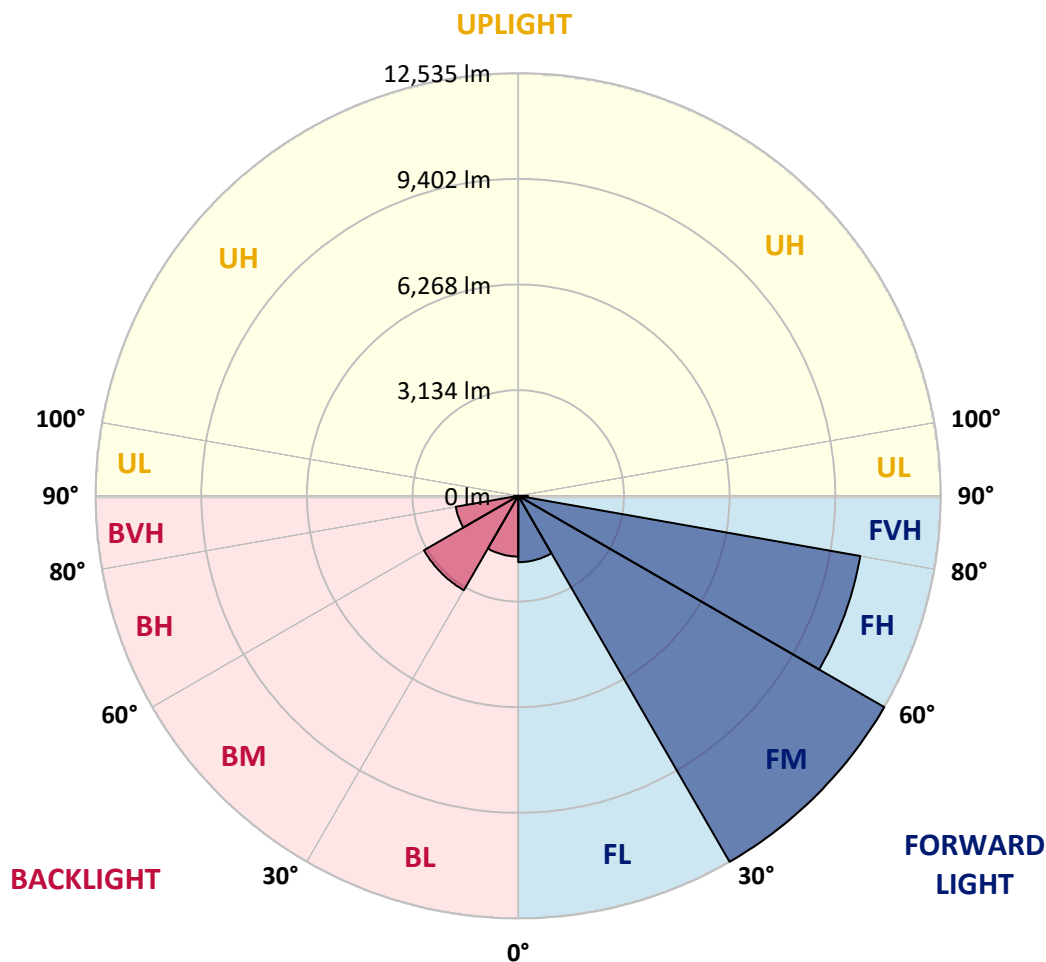
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1968.3	6.1			
FM	(30°-60°)	12535.5	39.0			
FH	(60°-80°)	10303.9	32.1			G4/12000
FVH	(80°-90°)	284.5	0.9			G3/500
BL	(0°-30°)	1802.7	5.6	B3/2500		
BM	(30°-60°)	3230.1	10.1	B3/5000		
BH	(60°-80°)	1880.3	5.9	B3/2500		G3/2500
BVH	(80°-90°)	122.3	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1
2.5°	4131.6	4129.9	4151.4	4157.9	4197.5	4225.5	4278.0	4334.0	4406.4	4414.7	4459.1
5°	3893.1	3893.1	3917.8	3944.0	3995.0	4051.0	4131.6	4228.7	4353.8	4373.5	4483.8
7.5°	3690.6	3703.8	3725.2	3776.2	3835.4	3916.1	4039.5	4177.7	4342.2	4373.5	4551.2
10°	3527.7	3542.6	3568.8	3610.0	3698.9	3810.7	3972.0	4149.7	4370.2	4419.6	4649.9
12.5°	3476.7	3491.6	3506.3	3537.6	3619.9	3751.5	3944.0	4162.9	4437.6	4487.0	4784.8
15°	3595.2	3613.3	3601.8	3593.5	3636.4	3756.4	3957.2	4210.6	4521.6	4592.3	4951.1
17.5°	3868.3	3874.9	3848.6	3771.3	3764.7	3828.9	4019.7	4276.4	4626.8	4704.2	5118.8
20°	4309.3	4297.8	4243.5	4090.5	4003.2	3990.1	4126.6	4375.1	4735.5	4817.8	5299.9
22.5°	4908.2	4895.1	4786.5	4544.6	4350.5	4222.1	4281.3	4503.4	4857.3	4949.4	5476.0
25°	5655.2	5637.2	5477.6	5148.5	4847.3	4529.8	4492.0	4673.0	5007.0	5092.5	5660.3
27.5°	6527.3	6512.5	6339.7	5905.3	5470.9	4951.1	4753.5	4872.0	5163.3	5260.4	5867.5
30°	7465.2	7508.0	7202.0	6734.7	6185.1	5500.6	5105.7	5117.2	5365.7	5452.9	6119.2
32.5°	8567.7	8641.7	8273.1	7680.7	6930.4	6097.9	5550.0	5459.5	5660.3	5732.6	6436.8
35°	9660.2	9744.1	9438.1	8783.2	7919.4	6802.1	6014.0	5852.7	6051.8	6130.8	6858.1
37.5°	10604.6	10716.6	10558.6	9989.2	8977.4	7651.1	6619.4	6315.1	6534.0	6632.7	7424.1
40°	11350.0	11521.1	11509.6	11154.3	10224.6	8681.1	7387.9	6886.1	7132.9	7239.8	8110.2
42.5°	11955.5	12103.6	12231.9	12213.9	11526.1	9851.1	8291.2	7628.2	7815.7	7939.1	8881.9
45°	12373.5	12531.4	12807.9	13105.6	12778.3	11103.2	9326.2	8508.4	8679.5	8865.4	9801.7
47.5°	12747.0	12926.4	13285.0	13757.2	13841.2	12360.3	10459.8	9533.5	9689.8	9882.3	10724.8
50°	12779.9	12934.6	13490.7	14160.4	14596.4	13568.0	11677.4	10683.7	10830.0	11035.8	11713.7
52.5°	11985.1	12228.7	13199.4	14148.9	14943.6	14578.4	12886.8	11879.9	12044.4	12291.2	12737.1
55°	9303.1	9660.2	12345.5	13707.9	14820.2	15231.5	14037.0	13151.8	13362.4	13620.7	13767.2
57.5°	8013.1	8169.5	9800.0	12905.0	14257.4	15401.0	15007.7	14436.8	14775.8	15058.8	14856.4
60°	7202.0	7331.9	8296.1	11656.1	13517.0	15132.8	15758.0	15634.6	16220.4	16557.7	15970.3
62.5°	6333.2	6456.6	7333.6	9732.6	12569.3	14686.9	16232.0	16740.4	17701.3	18069.8	17020.1
65°	5470.9	5576.3	6417.1	8177.7	11364.8	14241.0	16477.1	17696.4	19072.0	19453.7	17892.2
67.5°	4510.1	4597.2	5392.0	6899.2	9900.5	13630.6	16598.8	18448.4	20264.9	20592.2	18323.3
70°	3254.6	3322.1	4143.2	5456.2	8062.5	12580.7	16549.5	18981.5	20883.6	21145.1	17997.5
72.5°	1538.4	1599.3	2563.5	3542.6	5694.8	10537.2	15550.8	18558.5	20255.0	20125.0	16003.2
75°	821.0	873.7	1472.6	1943.2	3007.8	7223.4	12725.6	15986.8	17008.5	16376.7	11827.2
77.5°	556.2	597.3	911.5	1166.6	1373.9	3429.0	8179.3	11068.7	10649.1	9605.9	5923.5
80°	441.0	483.8	747.0	789.8	664.7	1239.0	3379.6	5123.8	3680.8	2943.6	1684.9
82.5°	339.0	386.6	628.5	572.6	362.0	508.4	984.0	1620.7	942.8	717.4	408.1
85°	207.4	258.3	493.6	365.3	204.1	232.0	334.0	450.8	287.9	240.3	146.5
87.5°	105.3	148.1	250.1	133.2	92.1	54.3	88.9	88.9	75.6	65.8	37.8
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°	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1	4482.1
2.5°	4498.5	4531.4	4587.4	4640.1	4681.2	4720.6	4760.2	4781.5	4788.2	4814.4	4829.3
5°	4551.2	4612.1	4720.6	4822.7	4886.9	4926.4	4954.3	4970.7	4974.1	4982.3	4995.4
7.5°	4648.3	4745.3	4896.7	4998.7	5046.5	5043.2	5031.6	4990.5	4974.1	4959.3	4962.5
10°	4784.8	4913.2	5099.2	5169.9	5140.3	5061.2	4959.3	4839.1	4783.2	4728.9	4712.4
12.5°	4954.3	5117.2	5299.9	5296.6	5150.1	4947.8	4710.8	4526.5	4409.7	4325.8	4306.0
15°	5160.0	5347.5	5487.4	5375.5	5054.7	4691.0	4343.8	4103.7	3998.3	3906.2	3896.3
17.5°	5372.2	5573.0	5637.2	5350.9	4814.4	4310.9	3917.8	3728.5	3624.8	3575.5	3590.3
20°	5579.6	5778.6	5726.1	5209.4	4449.2	3879.8	3529.4	3425.8	3404.3	3415.9	3410.9
22.5°	5798.4	5976.2	5744.1	4936.2	3983.6	3438.9	3246.4	3249.7	3297.4	3332.0	3340.2
25°	6022.2	6142.3	5696.4	4541.4	3483.4	3114.8	3067.0	3119.7	3213.5	3280.9	3299.1
27.5°	6237.7	6290.4	5592.7	4052.6	3053.9	2882.7	2891.0	2999.6	3141.1	3234.9	3257.9
30°	6481.3	6422.0	5393.7	3503.0	2756.0	2683.7	2752.7	2879.4	3021.0	3104.9	3124.6
32.5°	6756.1	6535.6	5077.7	2994.6	2545.5	2524.1	2637.6	2719.8	2782.4	2807.1	2820.2
35°	7098.3	6695.2	4673.0	2637.6	2356.3	2407.2	2515.9	2474.7	2450.1	2436.8	2450.1
37.5°	7542.6	6910.8	4199.1	2405.6	2203.2	2323.4	2367.8	2239.4	2142.4	2094.6	2106.2
40°	8077.3	7226.7	3743.3	2226.2	2106.2	2250.9	2173.6	2018.9	1895.5	1828.1	1833.0
42.5°	8671.3	7557.3	3360.0	2091.3	2051.8	2191.7	2030.4	1846.1	1647.1	1625.6	1647.1
45°	9294.9	7897.9	3098.3	1987.7	2025.5	2140.7	1948.1	1650.4	1508.8	1596.0	1642.2
47.5°	9918.5	8210.6	2940.3	1910.3	2012.4	2083.1	1875.7	1541.7	1441.4	1568.0	1627.3
50°	10612.8	8490.3	2869.6	1854.3	1997.5	2060.0	1767.2	1513.8	1370.6	1454.6	1517.1
52.5°	11302.3	8707.5	2816.9	1798.5	1976.1	2041.9	1714.5	1480.8	1285.0	1290.0	1324.5
55°	11990.1	8849.0	2759.3	1724.4	1928.4	2002.4	1709.6	1444.6	1220.9	1197.8	1214.3
57.5°	12723.9	8929.6	2688.6	1642.2	1846.1	1902.1	1704.7	1416.7	1201.2	1163.3	1168.2
60°	13471.0	9048.1	2596.4	1541.7	1735.9	1782.0	1693.1	1406.8	1189.6	1125.4	1130.4
62.5°	14140.6	9089.2	2486.2	1446.3	1594.4	1663.5	1668.5	1398.6	1158.4	1048.2	1048.2
65°	14580.0	8911.6	2293.7	1337.7	1441.4	1541.7	1620.7	1370.6	1102.4	992.2	992.2
67.5°	14561.9	8404.8	1992.6	1197.8	1293.2	1406.8	1551.6	1322.9	1034.9	923.1	928.0
70°	13883.9	7404.3	1610.9	1034.9	1130.4	1262.0	1462.8	1252.1	954.4	847.4	857.2
72.5°	11907.8	5795.1	1169.9	844.1	941.2	1112.3	1347.6	1166.6	872.1	779.9	775.0
75°	8506.8	3667.7	793.0	648.3	732.2	942.8	1204.5	1066.2	796.4	783.2	738.8
77.5°	4345.5	1752.3	524.9	473.9	510.0	743.7	1011.9	952.7	807.9	646.7	575.8
80°	1413.4	646.7	330.8	322.5	339.0	495.3	783.2	781.6	612.1	439.3	388.3
82.5°	450.8	278.1	215.6	207.4	199.1	311.0	546.3	618.7	413.0	278.1	276.4
85°	179.4	166.2	126.7	116.8	83.9	146.5	286.3	411.3	307.7	200.7	205.7
87.5°	65.8	65.8	34.5	24.7	18.1	49.4	77.3	123.4	176.1	103.6	102.0
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)