

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: P969476

Luminaire Tested: **NAV-SB5D-830-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969476
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46793.3 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
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

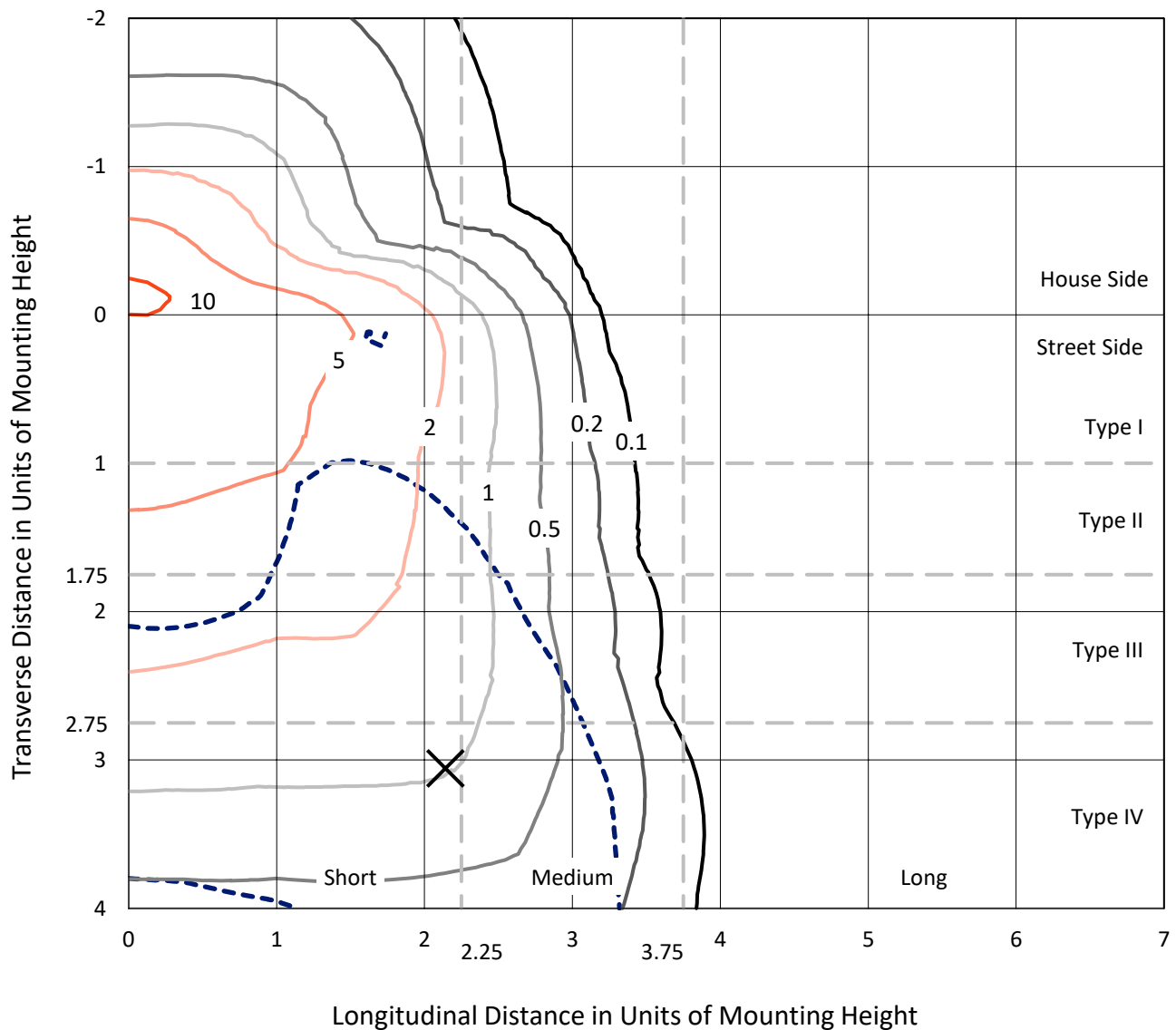


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Iso-Footcandle Lines of Horizontal Illumination

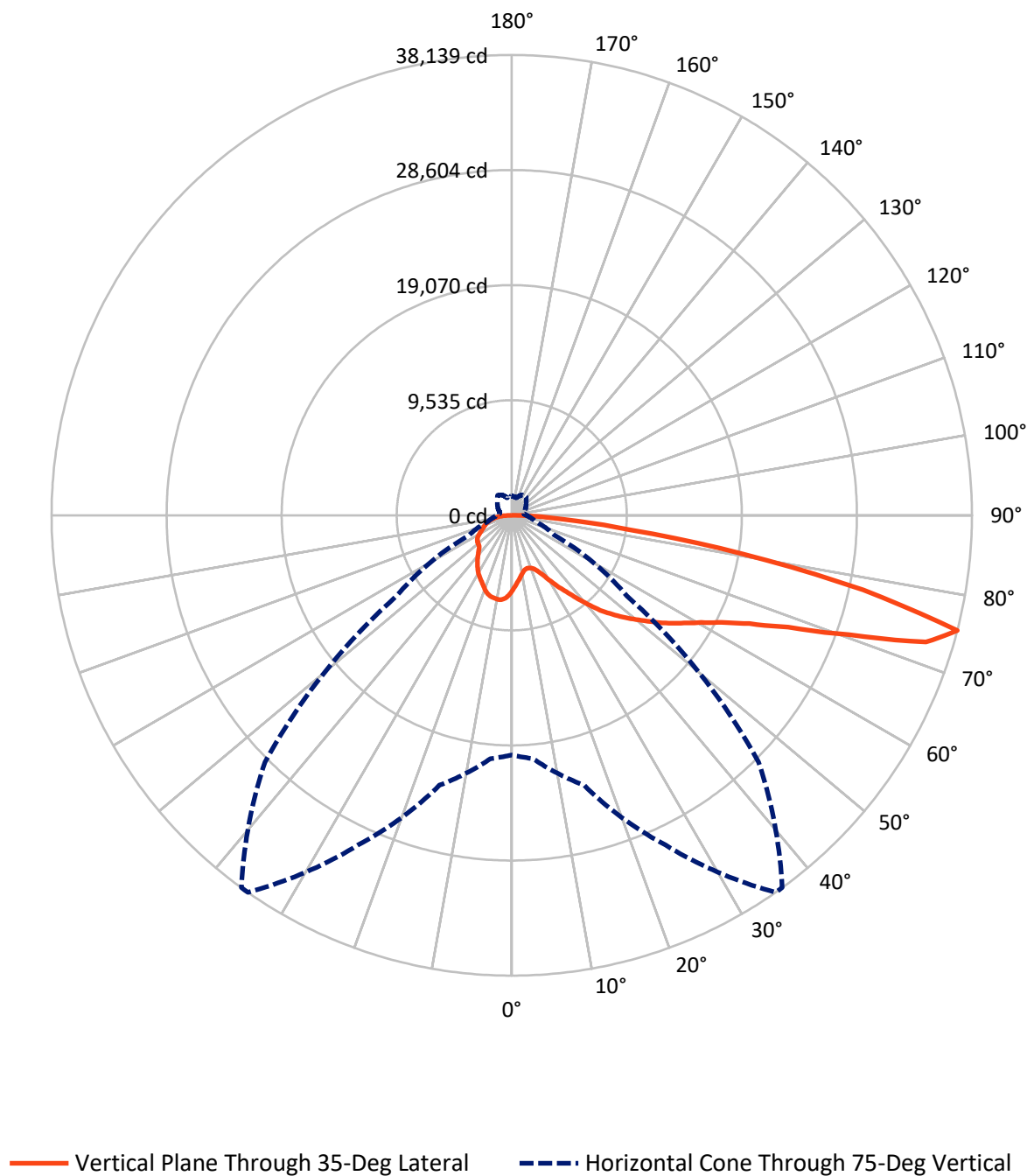
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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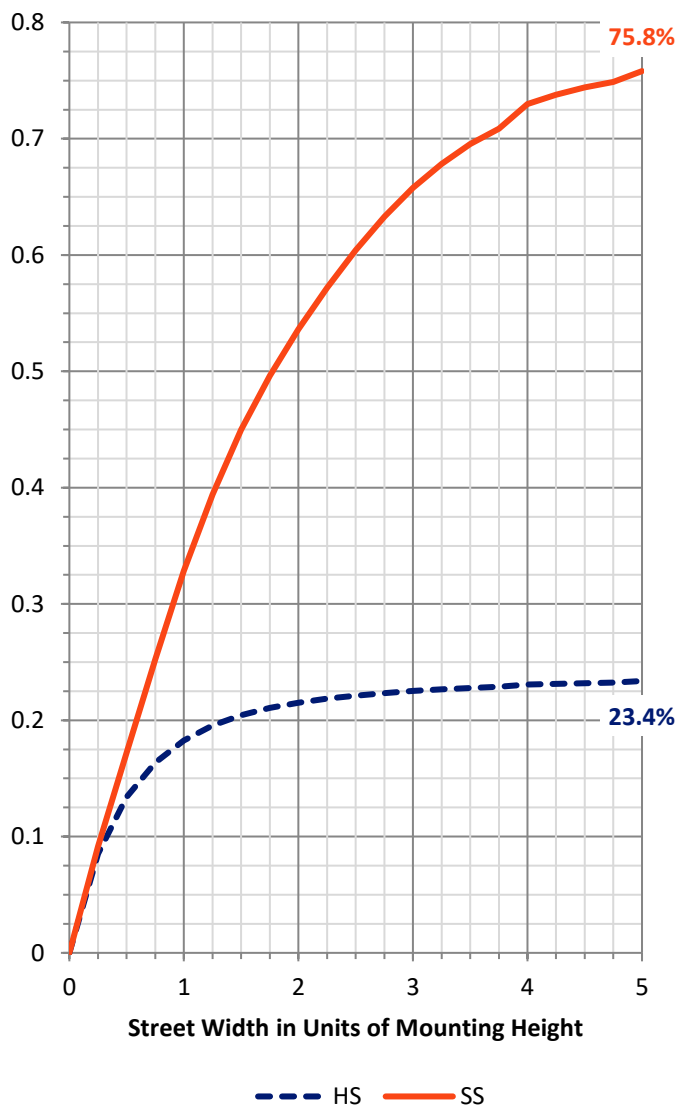
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11135.6	0.0	11135.6
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	35657.7	0.0	35657.7
	% Fixture	76.2	0.0	76.2
Total	Lumens	46793.3	0.0	46793.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	590.4	1.3
10°-20°	1702.9	3.6
20°-30°	2859.6	6.1
30°-40°	4444.3	9.5
40°-50°	6596.5	14.1
50°-60°	9106.8	19.5
60°-70°	11048.7	23.6
70°-80°	9130.9	19.5
80°-90°	1313.3	2.8
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°	46793.3	100.0
0°-180°	46793.3	100.0

Coefficient of Utilization



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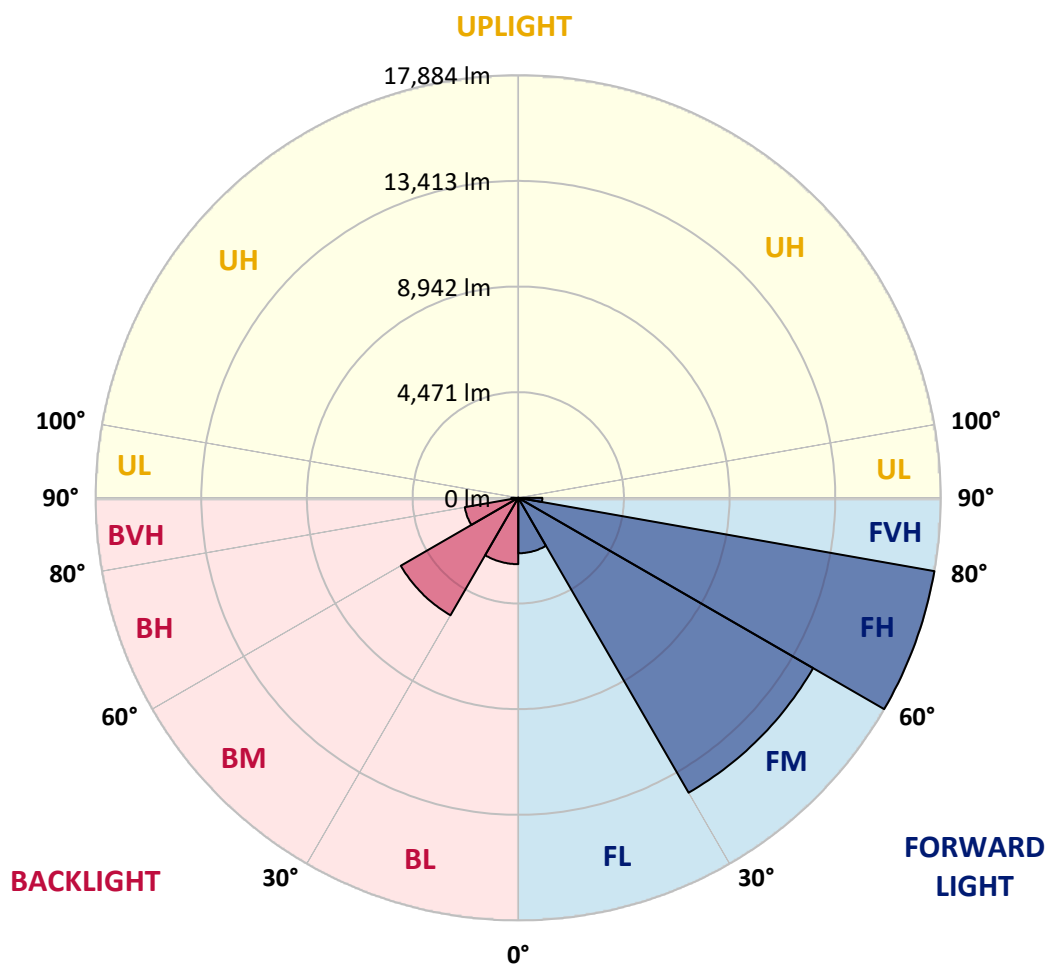
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2346.6	5.0			
FM	(30°-60°)	14409.8	30.8			
FH	(60°-80°)	17883.7	38.2			G5
FVH	(80°-90°)	1017.6	2.2			G5
BL	(0°-30°)	2806.3	6.0	B4/5000		
BM	(30°-60°)	5737.8	12.3	B4/8500		
BH	(60°-80°)	2295.8	4.9	B3/2500		G3/2500
BVH	(80°-90°)	295.7	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5
2.5°	5749.8	5785.2	5800.5	5792.9	5830.8	5825.7	5878.9	5944.6	6035.7	6124.2	6253.2
5°	5307.1	5345.1	5378.0	5408.3	5481.7	5504.5	5587.9	5714.4	5881.3	6050.9	6263.4
7.5°	4894.8	4927.7	4978.3	5034.0	5157.9	5180.7	5319.7	5517.1	5749.8	5997.8	6291.1
10°	4558.4	4591.3	4644.4	4707.6	4862.0	4889.8	5066.9	5329.9	5633.5	5947.2	6321.5
12.5°	4414.2	4424.3	4454.6	4517.9	4652.0	4669.7	4864.4	5165.5	5519.6	5909.2	6367.1
15°	4406.6	4426.9	4429.3	4462.2	4573.5	4581.1	4760.7	5059.3	5448.8	5901.6	6435.4
17.5°	4482.5	4497.7	4474.9	4495.1	4588.7	4601.4	4743.1	5008.7	5426.0	5934.5	6551.7
20°	4684.9	4697.5	4629.2	4601.4	4669.7	4679.8	4818.9	5041.6	5448.8	6002.8	6711.1
22.5°	5114.9	5122.5	4955.6	4841.7	4846.7	4851.8	4973.2	5175.6	5537.4	6126.7	6913.4
25°	5785.2	5780.2	5514.6	5294.5	5168.0	5140.2	5221.1	5393.1	5686.6	6291.1	7174.0
27.5°	6569.4	6531.5	6265.9	5937.0	5661.3	5620.8	5603.2	5676.4	5899.1	6508.7	7492.7
30°	7454.8	7419.4	7133.6	6703.5	6321.5	6255.8	6088.8	6050.9	6215.3	6804.7	7935.4
32.5°	8426.2	8403.5	8061.9	7540.8	7029.9	6953.9	6673.2	6572.0	6700.9	7252.4	8552.7
35°	9240.7	9220.5	8937.2	8400.9	7776.1	7682.5	7396.6	7282.8	7348.5	7826.7	9359.6
37.5°	9976.8	9966.7	9723.9	9301.5	8656.3	8542.6	8221.3	8183.3	8170.7	8583.0	10338.6
40°	10659.8	10634.6	10381.6	10159.0	9680.9	9577.2	9293.9	9261.0	9164.8	9513.9	11446.6
42.5°	11416.2	11350.4	10983.6	10880.0	10750.9	10664.9	10495.4	10500.5	10288.0	10563.8	12620.3
45°	12033.4	11995.5	11618.6	11557.9	11697.0	11661.5	11808.3	11846.2	11433.9	11664.1	13839.6
47.5°	12696.2	12660.8	12342.0	12299.1	12676.0	12686.0	13204.7	13217.3	12551.9	12807.5	15061.4
50°	13513.3	13462.7	13146.4	13199.5	13622.0	13660.0	14608.6	14522.6	13581.6	13968.6	16273.1
52.5°	14052.0	14082.4	14014.1	14100.1	14676.9	14712.3	15989.8	15769.7	14601.0	15114.5	17462.0
55°	14449.2	14509.9	14722.4	14919.7	15789.9	15825.3	17292.5	16956.1	15445.9	16177.0	18580.1
57.5°	14960.2	14874.2	15271.4	15655.8	16847.3	16940.9	18559.9	18099.4	16194.7	17092.7	19346.6
60°	15693.8	15633.1	15941.7	16510.9	18031.2	18180.4	19900.6	19129.1	16743.6	17818.7	19495.8
62.5°	17181.3	17029.5	17077.5	17580.9	19523.7	19721.0	21413.3	20027.1	17016.7	18102.0	18696.4
65°	19404.8	19144.2	18901.3	19250.4	21625.8	21820.5	23120.7	20732.8	16915.6	17553.0	16574.1
67.5°	22205.1	21947.0	21648.5	21977.3	24722.0	24876.3	25227.9	21130.0	16118.7	15438.3	12822.6
70°	24514.6	24418.5	24775.2	26128.5	29667.4	29672.5	27929.6	20801.1	13935.7	10945.7	7419.4
72.5°	24208.6	24150.3	26029.9	30213.8	35900.4	35766.4	30487.0	18311.9	9387.5	4937.8	2780.1
75°	19860.1	20237.0	23148.6	30140.4	38139.1	38121.4	28921.2	11641.3	3883.0	2046.5	1436.8
77.5°	10649.7	11246.7	15028.4	22253.1	29773.7	30221.4	20333.1	4072.7	1667.1	1310.4	994.1
80°	3473.2	3994.3	5990.1	11330.1	19346.6	19263.1	8714.6	1598.7	1140.8	928.3	688.1
82.5°	1474.8	1535.4	2676.4	5350.2	9928.8	9774.5	2775.0	918.3	801.9	634.9	425.0
85°	576.8	645.0	1181.3	2473.9	4300.4	4206.8	1001.7	455.3	513.5	414.8	253.0
87.5°	189.7	230.2	422.4	847.5	1338.1	1290.1	245.4	156.8	222.6	189.7	91.0
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°	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5	6235.5
2.5°	6288.7	6329.2	6377.1	6448.0	6508.7	6559.3	6612.5	6645.3	6658.0	6695.9	6693.4
5°	6334.2	6422.8	6541.7	6658.0	6771.8	6840.1	6900.8	6931.2	6959.0	6979.2	6984.2
7.5°	6410.0	6523.9	6711.1	6862.9	6959.0	7014.7	7055.1	7045.0	7055.1	7060.2	7067.8
10°	6475.8	6635.2	6857.8	7002.0	7075.4	7077.9	7067.8	7032.3	7014.7	7017.2	7022.3
12.5°	6554.3	6731.4	6971.6	7093.1	7113.3	7057.6	7014.7	6953.9	6931.2	6921.0	6916.0
15°	6660.4	6862.9	7095.6	7141.2	7090.5	7019.7	6946.3	6847.7	6797.1	6756.6	6769.3
17.5°	6789.5	7012.1	7191.7	7158.8	7050.1	6933.7	6814.8	6665.6	6561.8	6518.8	6521.4
20°	6969.1	7169.0	7265.1	7120.9	6956.5	6779.4	6577.0	6394.9	6298.7	6255.8	6250.7
22.5°	7186.7	7378.9	7335.9	7055.1	6822.4	6539.1	6286.1	6152.0	6104.0	6073.6	6078.7
25°	7447.2	7611.6	7386.5	6959.0	6602.3	6220.3	6025.6	5982.5	5959.8	5937.0	5937.0
27.5°	7786.2	7874.8	7424.5	6817.4	6258.2	5881.3	5810.5	5818.1	5810.5	5772.6	5780.2
30°	8233.9	8216.2	7459.8	6587.2	5863.7	5575.3	5580.3	5613.2	5618.3	5593.0	5605.6
32.5°	8823.3	8643.7	7477.6	6288.7	5486.7	5307.1	5312.2	5347.6	5372.9	5329.9	5350.2
35°	9536.7	9142.1	7449.7	5914.2	5195.8	5051.6	5013.7	5023.8	5031.4	4990.9	5018.8
37.5°	10368.9	9701.1	7325.8	5499.4	4955.6	4801.2	4720.3	4652.0	4611.5	4573.5	4598.9
40°	11282.2	10310.8	7098.1	5094.7	4687.4	4535.6	4414.2	4285.2	4148.6	4098.0	4120.8
42.5°	12238.3	10938.1	6822.4	4707.6	4378.8	4254.9	4125.8	3938.7	3733.8	3630.0	3642.6
45°	13230.0	11580.7	6551.7	4325.7	4062.6	4009.5	3860.3	3635.1	3412.4	3280.9	3270.8
47.5°	14201.3	12187.8	6154.6	3941.1	3766.6	3824.8	3708.4	3501.0	3253.1	3045.7	3022.9
50°	15129.7	12756.9	5504.5	3551.6	3526.3	3769.1	3657.8	3359.3	3076.0	2810.4	2787.7
52.5°	16050.5	13217.3	4672.3	3197.5	3397.3	3754.0	3592.1	3263.2	2916.6	2638.4	2608.0
55°	16832.1	13455.1	3870.3	2893.9	3210.1	3624.9	3513.6	3149.4	2691.5	2395.5	2370.2
57.5°	17277.3	13262.8	3202.5	2595.4	2952.1	3412.4	3379.5	2906.5	2423.4	2195.8	2165.3
60°	17085.1	12483.7	2656.1	2334.8	2706.7	3182.3	3146.9	2666.2	2218.5	2003.5	1973.1
62.5°	16025.2	10998.8	2223.5	2107.2	2484.1	2947.0	2914.2	2481.5	2061.7	1854.2	1821.3
65°	13890.2	8947.3	1887.1	1917.5	2259.0	2663.7	2711.7	2327.3	1937.7	1735.3	1702.4
67.5°	10594.1	6480.9	1624.0	1753.1	2038.8	2385.5	2524.6	2215.9	1833.9	1641.7	1611.4
70°	6038.2	3680.6	1401.4	1593.7	1844.1	2127.4	2380.4	2127.4	1722.7	1563.3	1543.0
72.5°	2289.3	1689.8	1211.7	1434.3	1656.9	1909.9	2221.0	1988.3	1593.7	1474.8	1454.6
75°	1221.8	1029.5	1019.5	1247.1	1441.9	1697.4	2021.2	1851.7	1497.5	1558.2	1608.8
77.5°	832.2	728.6	852.5	1067.5	1206.6	1462.2	1808.7	1644.3	1297.6	1292.6	1191.5
80°	576.8	516.1	693.1	860.1	933.5	1229.4	1578.5	1411.5	1057.4	986.6	943.5
82.5°	346.6	336.4	518.5	642.6	660.2	948.6	1307.8	1183.9	865.1	753.8	758.9
85°	189.7	199.9	331.4	376.9	384.5	662.8	1024.5	915.7	665.3	559.0	564.1
87.5°	53.1	68.3	121.5	149.2	184.7	344.0	609.7	543.9	333.9	232.7	232.7
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)