

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: P967901

Luminaire Tested: **NAV-SB5A-835-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967901
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-835-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18368 lumens
Efficiency: N/A
Efficacy: 129.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

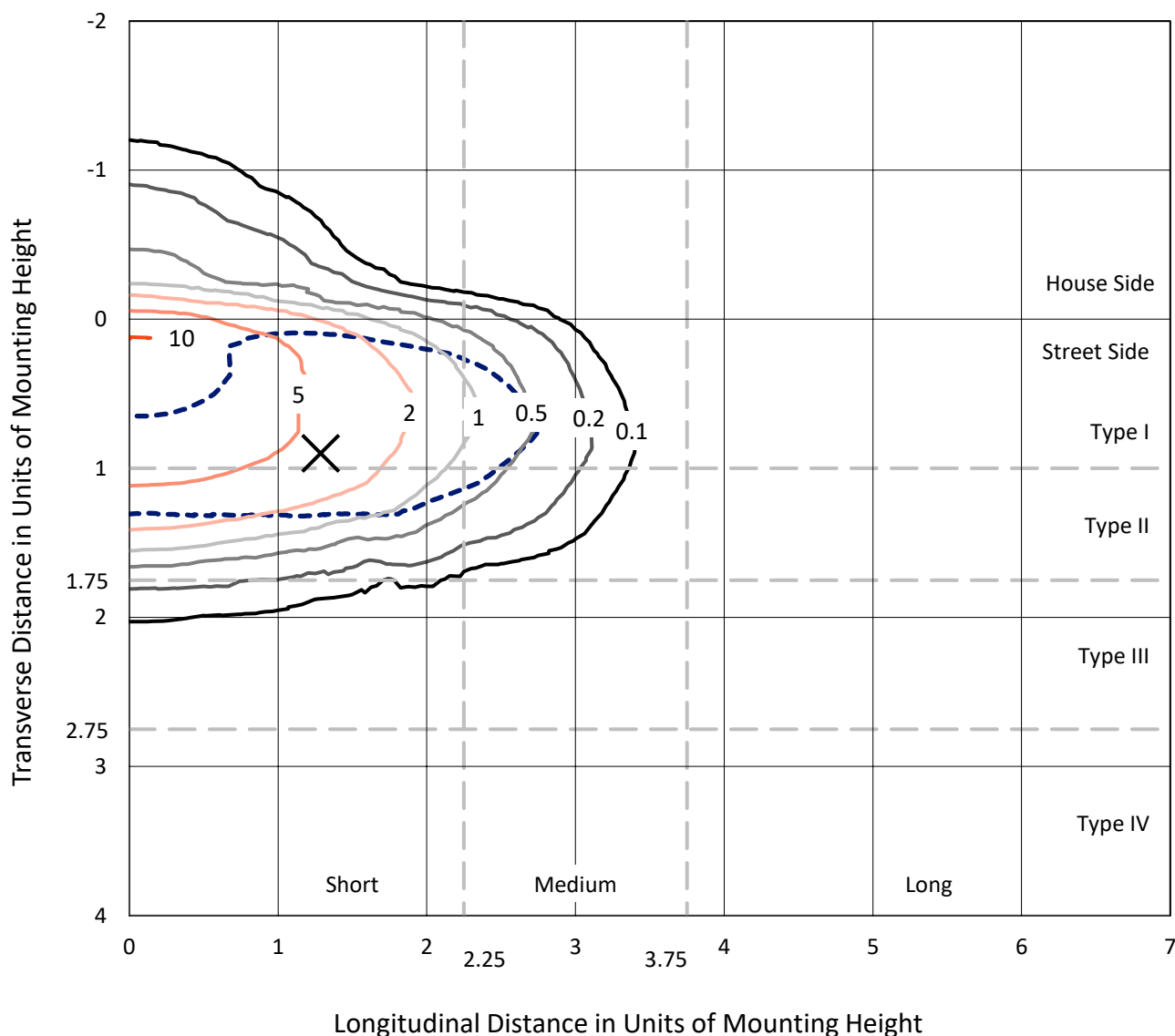
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

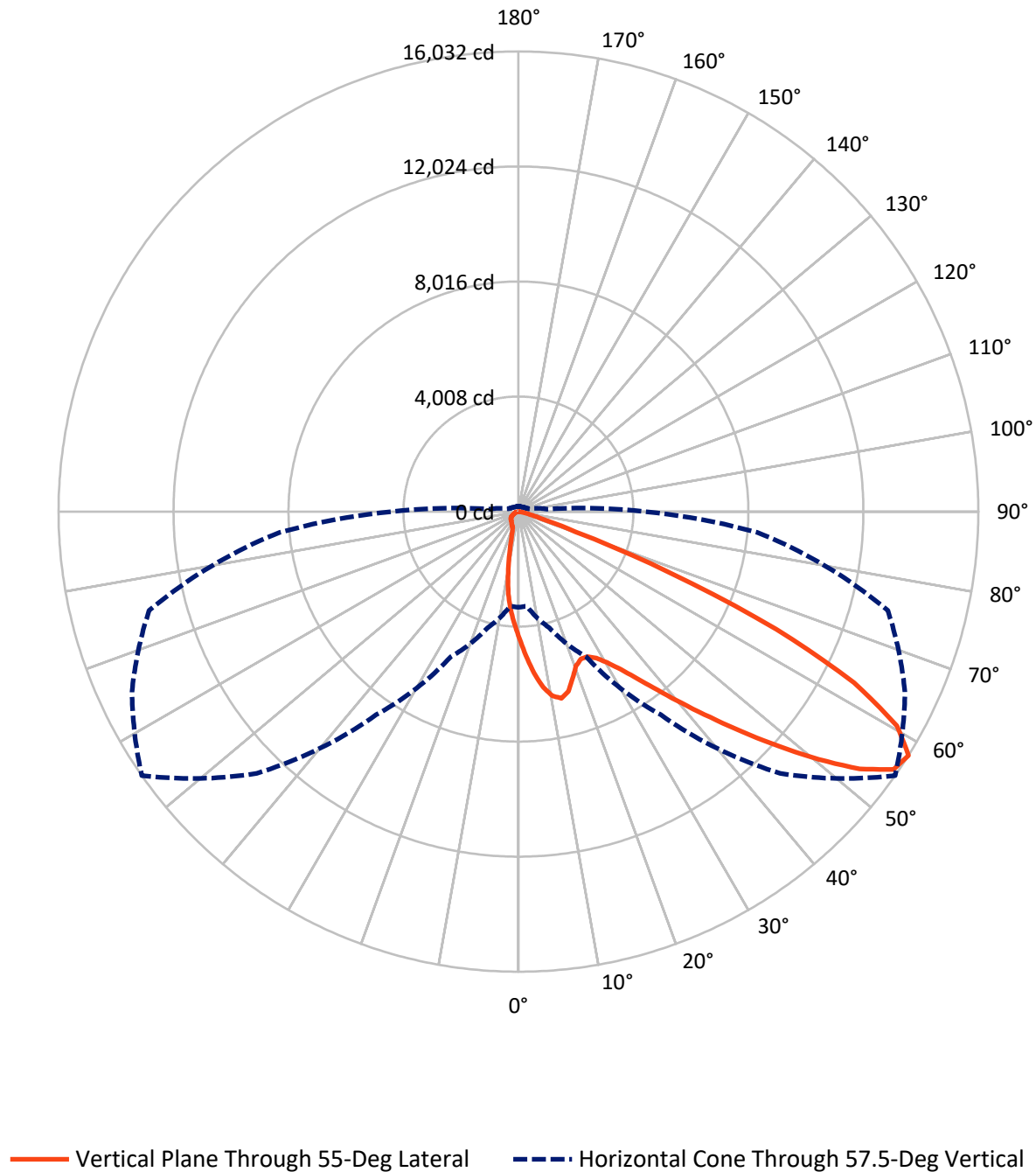
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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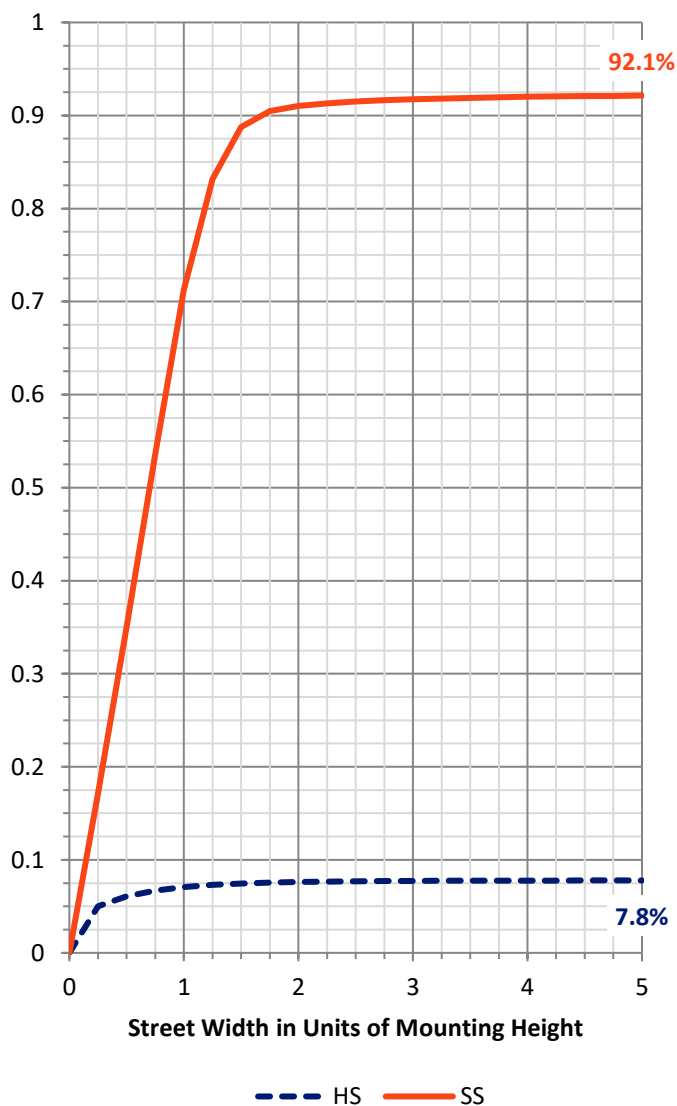
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1434.5	0.0	1434.5
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	16933.5	0.0	16933.5
	% Fixture	92.2	0.0	92.2
Total	Lumens	18368.0	0.0	18368.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	411.8	2.2
10°-20°	994.8	5.4
20°-30°	1591.7	8.7
30°-40°	2694.0	14.7
40°-50°	4422.9	24.1
50°-60°	4861.1	26.5
60°-70°	2788.3	15.2
70°-80°	569.7	3.1
80°-90°	33.6	0.2
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°	18368.0	100.0
0°-180°	18368.0	100.0

Coefficient of Utilization



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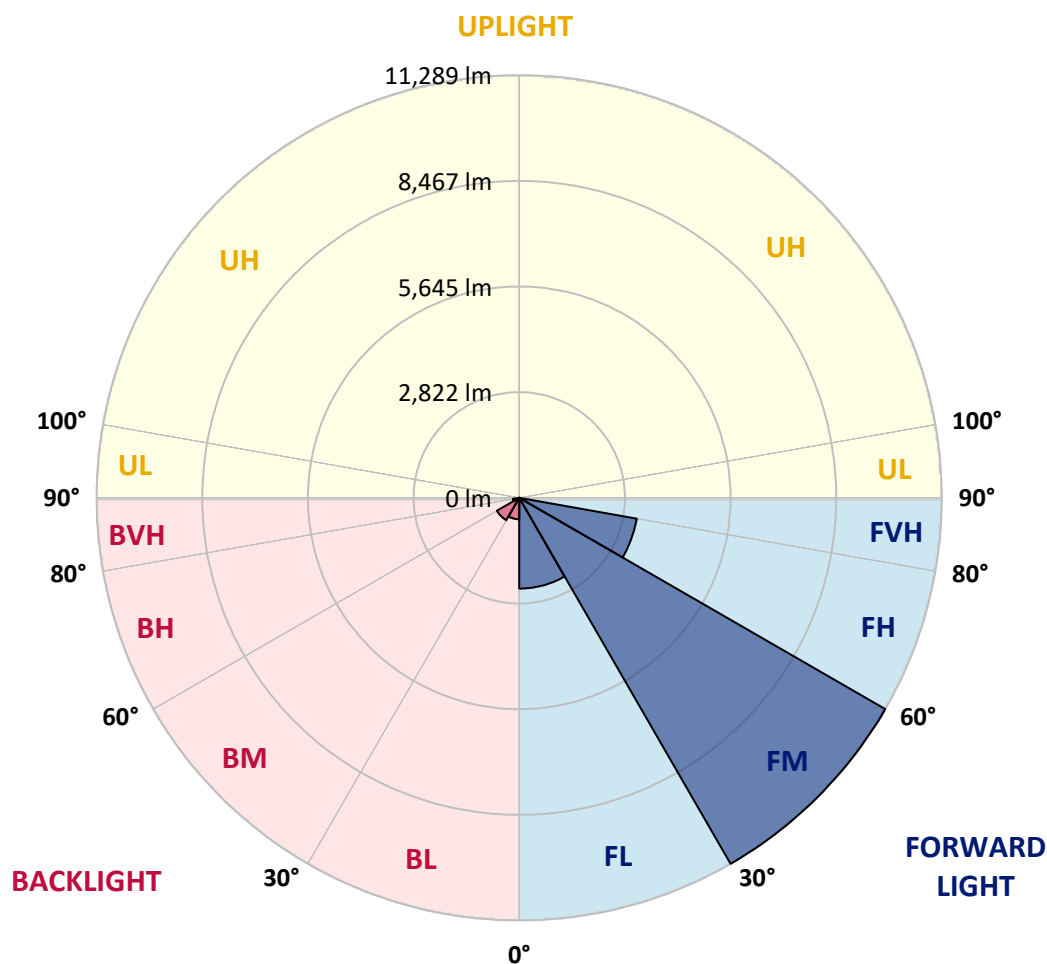
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2425.6	13.2			
FM	(30°-60°)	11289.1	61.5			
FH	(60°-80°)	3187.5	17.4			G2/5000
FVH	(80°-90°)	31.3	0.2			G1/100
BL	(0°-30°)	572.7	3.1	B2/1000		
BM	(30°-60°)	688.9	3.8	B1/1000		
BH	(60°-80°)	170.6	0.9	B1/500		G1/500
BVH	(80°-90°)	2.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3
2.5°	5492.1	5423.0	5412.7	5399.2	5267.8	5169.2	5026.5	4870.2	4694.7	4515.7	4436.4
5°	6344.9	6290.5	6280.3	6216.9	6067.4	5899.8	5646.0	5325.5	4998.2	4613.1	4447.8
7.5°	6510.2	6500.0	6546.5	6544.2	6523.8	6391.3	6177.3	5795.6	5304.0	4733.1	4477.2
10°	5772.9	5798.9	5937.1	6058.4	6385.6	6575.9	6529.5	6214.6	5618.8	4870.2	4510.0
12.5°	5101.2	5070.7	5169.2	5306.3	5686.8	6253.1	6675.6	6564.6	5979.0	5025.4	4558.8
15°	4679.9	4667.4	4723.0	4786.4	5076.3	5647.2	6505.7	6848.8	6325.6	5208.8	4632.4
17.5°	4545.2	4535.0	4551.9	4567.8	4755.8	5197.6	6101.4	7023.3	6657.5	5418.4	4713.9
20°	4655.0	4641.4	4639.2	4626.7	4704.9	5006.1	5735.5	7035.8	6955.3	5608.7	4784.2
22.5°	4975.6	4959.7	4904.2	4854.4	4861.2	5032.1	5572.4	6911.2	7179.6	5786.5	4828.3
25°	5556.6	5530.5	5415.0	5247.4	5140.9	5213.4	5597.3	6747.0	7393.6	5925.8	4806.8
27.5°	6283.8	6249.7	6101.4	5852.2	5608.7	5520.3	5777.4	6633.7	7571.5	6032.2	4760.3
30°	6996.1	6952.0	6805.9	6612.2	6256.5	5977.9	6102.5	6683.5	7783.3	6143.2	4699.2
32.5°	7765.2	7723.3	7529.5	7289.5	6995.0	6620.1	6547.6	6927.1	8042.7	6298.4	4656.2
35°	8738.1	8672.4	8397.2	8069.8	7757.2	7377.8	7150.2	7347.2	8388.1	6535.2	4679.9
37.5°	9845.7	9757.4	9460.6	9008.7	8601.1	8176.3	7884.1	7924.9	8894.3	6852.3	4753.5
40°	10890.0	10809.6	10535.6	10109.7	9597.7	9082.4	8770.9	8680.3	9593.2	7238.6	4882.7
42.5°	11516.4	11443.9	11328.4	11148.3	10716.8	10191.2	9798.2	9602.3	10420.0	7700.6	5040.1
45°	11551.4	11488.1	11643.2	11852.8	11767.8	11417.8	10938.7	10579.7	11250.2	8134.4	5203.2
47.5°	10989.7	10946.7	11417.8	12149.5	12514.2	12661.4	12219.7	11475.6	11935.4	8445.9	5270.0
50°	9458.4	9442.6	10412.1	11755.3	12798.5	13751.0	13570.9	12309.2	12466.7	8606.7	5206.6
52.5°	8201.2	8143.4	8708.6	10493.6	12385.1	14324.1	14891.5	13127.0	12838.1	8637.3	5058.3
55°	6220.3	6169.3	6878.4	8382.4	11052.0	14120.2	15857.7	13970.7	13104.3	8559.2	4792.1
57.5°	3336.7	3304.9	4200.9	5579.3	8639.5	12897.1	16032.1	14863.2	13328.6	8351.9	4419.4
60°	1299.1	1293.4	1628.7	2706.9	5250.8	10492.5	15152.1	15399.0	13469.0	8097.0	4108.0
62.5°	786.1	803.0	857.4	1215.2	2319.6	6518.2	13123.6	14789.6	13563.0	7863.7	3850.8
65°	650.2	651.3	658.0	834.8	1111.1	2727.3	9879.8	12784.9	13330.8	7448.1	3486.1
67.5°	557.3	567.4	593.5	662.6	783.7	1196.1	5687.9	9903.6	11918.4	6480.8	2917.6
70°	439.4	453.0	485.8	544.8	604.9	748.7	2102.2	6589.5	9105.1	4884.9	2206.3
72.5°	370.3	369.2	386.2	442.8	480.2	526.6	808.7	3692.3	5291.6	2332.1	1091.8
75°	286.6	297.9	319.4	370.3	393.0	381.7	438.3	1348.9	1895.9	706.7	371.5
77.5°	224.3	233.3	252.6	302.4	325.0	270.7	252.6	482.5	609.4	253.7	167.6
80°	100.8	108.8	172.2	223.1	265.1	186.9	137.0	246.9	270.7	115.5	85.0
82.5°	18.1	30.5	100.8	117.8	135.9	121.2	71.3	128.0	132.5	46.4	29.4
85°	1.1	2.3	35.2	43.0	54.3	39.7	21.5	50.9	44.2	15.9	11.3
87.5°	0.0	0.0	0.0	1.1	1.1	5.6	6.8	9.0	6.8	5.6	4.5
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3	4426.3
2.5°	4354.9	4194.1	4037.8	3909.8	3835.0	3708.1	3624.3	3610.8	3575.6	3606.3
5°	4271.1	3983.4	3692.3	3431.8	3217.8	2941.3	2735.2	2648.1	2572.1	2598.2
7.5°	4231.4	3777.2	3324.2	2879.1	2421.6	1979.8	1651.4	1514.3	1410.1	1424.9
10°	4178.2	3563.2	2853.1	2173.5	1560.8	1124.6	898.2	814.4	767.9	769.1
12.5°	4137.4	3307.3	2305.9	1473.5	950.3	718.1	647.9	627.5	613.9	615.0
15°	4117.0	3005.9	1765.8	982.0	679.6	608.2	591.2	582.2	573.1	571.9
17.5°	4083.1	2670.7	1292.3	717.0	594.6	569.7	554.9	544.8	533.4	531.2
20°	4032.0	2290.2	944.6	606.0	557.3	538.0	517.6	504.0	490.5	488.1
22.5°	3938.0	1888.0	726.0	560.7	530.0	508.5	483.6	467.8	454.2	451.9
25°	3763.7	1510.8	611.6	532.3	506.2	480.2	453.0	431.5	419.0	416.8
27.5°	3542.8	1186.9	554.9	506.2	475.7	451.9	421.4	401.0	389.6	387.3
30°	3282.3	914.0	522.1	476.8	439.4	419.0	391.9	374.8	368.1	368.1
32.5°	3001.4	730.5	508.5	447.4	407.7	385.1	363.6	356.8	354.5	353.4
35°	2737.5	634.3	501.7	423.6	379.5	357.9	348.8	349.9	354.5	354.5
37.5°	2503.0	603.7	498.4	406.6	354.5	335.3	340.9	351.1	346.6	346.6
40°	2291.3	607.1	496.1	394.1	334.2	322.8	334.2	326.2	314.9	313.8
42.5°	2129.3	635.4	491.6	384.0	321.6	313.8	309.2	296.7	295.6	297.9
45°	2011.6	660.3	490.5	379.5	308.1	293.4	287.7	275.2	297.9	303.5
47.5°	1872.2	660.3	490.5	363.6	285.5	279.7	270.7	257.1	279.7	285.5
50°	1692.1	618.4	471.2	345.4	267.3	263.9	248.0	231.0	226.5	229.9
52.5°	1464.4	542.5	422.5	320.5	249.2	242.4	223.1	210.6	207.3	207.3
55°	1205.1	454.2	356.8	284.3	229.9	217.5	203.9	198.2	194.9	192.5
57.5°	979.7	372.6	286.6	252.6	211.8	196.0	191.4	184.6	179.0	175.6
60°	804.1	293.4	236.7	224.3	193.7	179.0	177.8	168.7	154.1	151.8
62.5°	620.6	215.1	199.4	194.9	175.6	163.1	160.8	142.7	120.0	115.5
65°	438.3	167.6	160.8	171.1	156.3	144.9	139.3	112.1	88.4	85.0
67.5°	308.1	140.4	126.9	149.5	135.9	121.2	117.8	95.1	73.6	71.3
70°	219.8	114.4	104.2	128.0	108.8	106.5	99.6	79.2	60.1	57.8
72.5°	155.2	87.2	80.5	111.0	74.7	91.7	81.6	61.2	45.3	43.0
75°	114.4	62.3	56.6	64.6	54.3	69.1	57.8	40.8	28.3	27.2
77.5°	83.8	39.7	33.9	31.7	31.7	43.0	31.7	17.0	12.5	11.3
80°	58.9	18.1	15.9	13.6	12.5	10.1	4.5	2.3	1.1	1.1
82.5°	35.2	7.9	7.9	5.6	3.4	0.0	0.0	0.0	0.0	0.0
85°	7.9	3.4	3.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)