

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: P965793

Luminaire Tested: **NAV-SB4A-835-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965793
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-SB4A-835-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 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: 14573.4 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

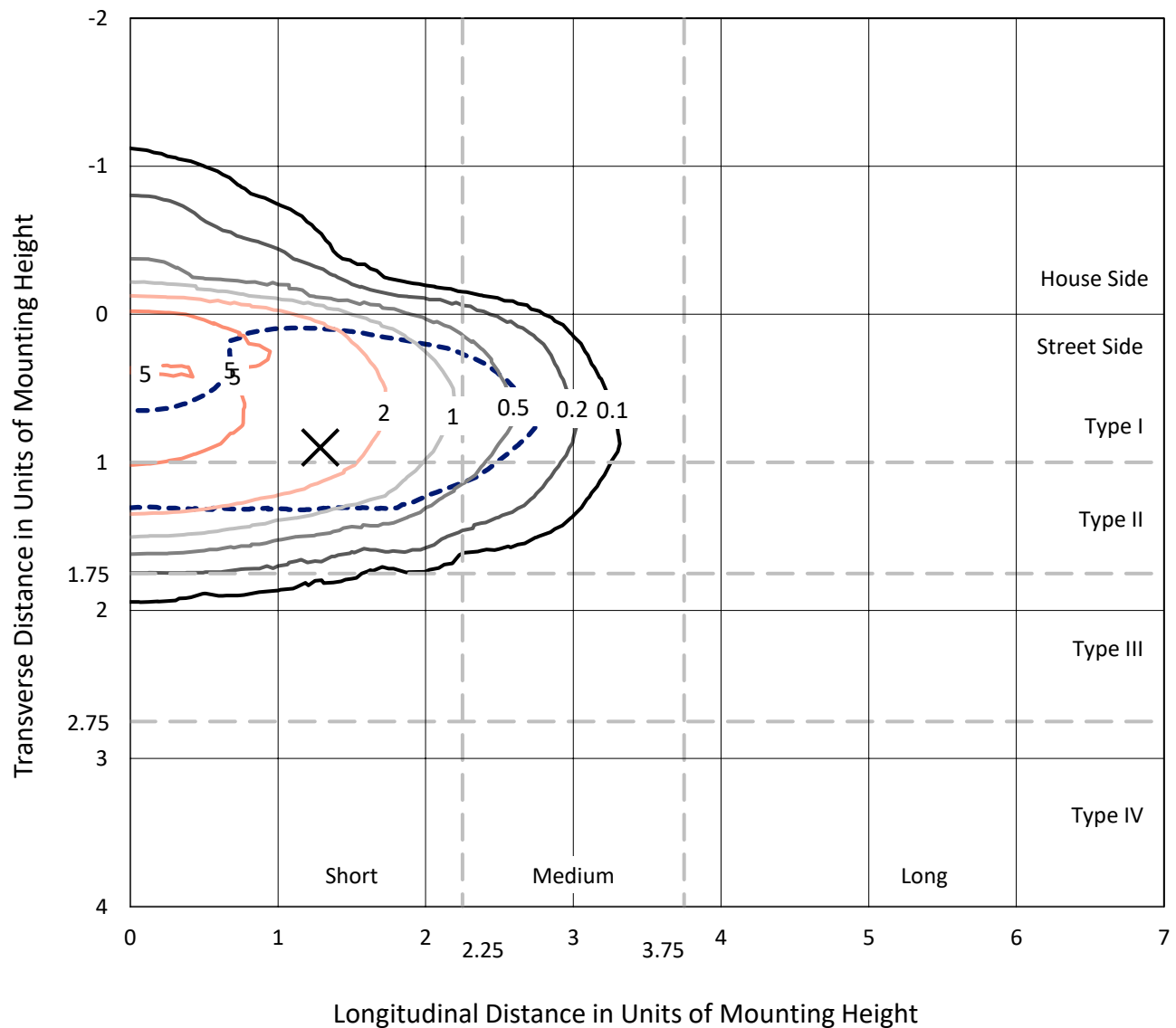
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

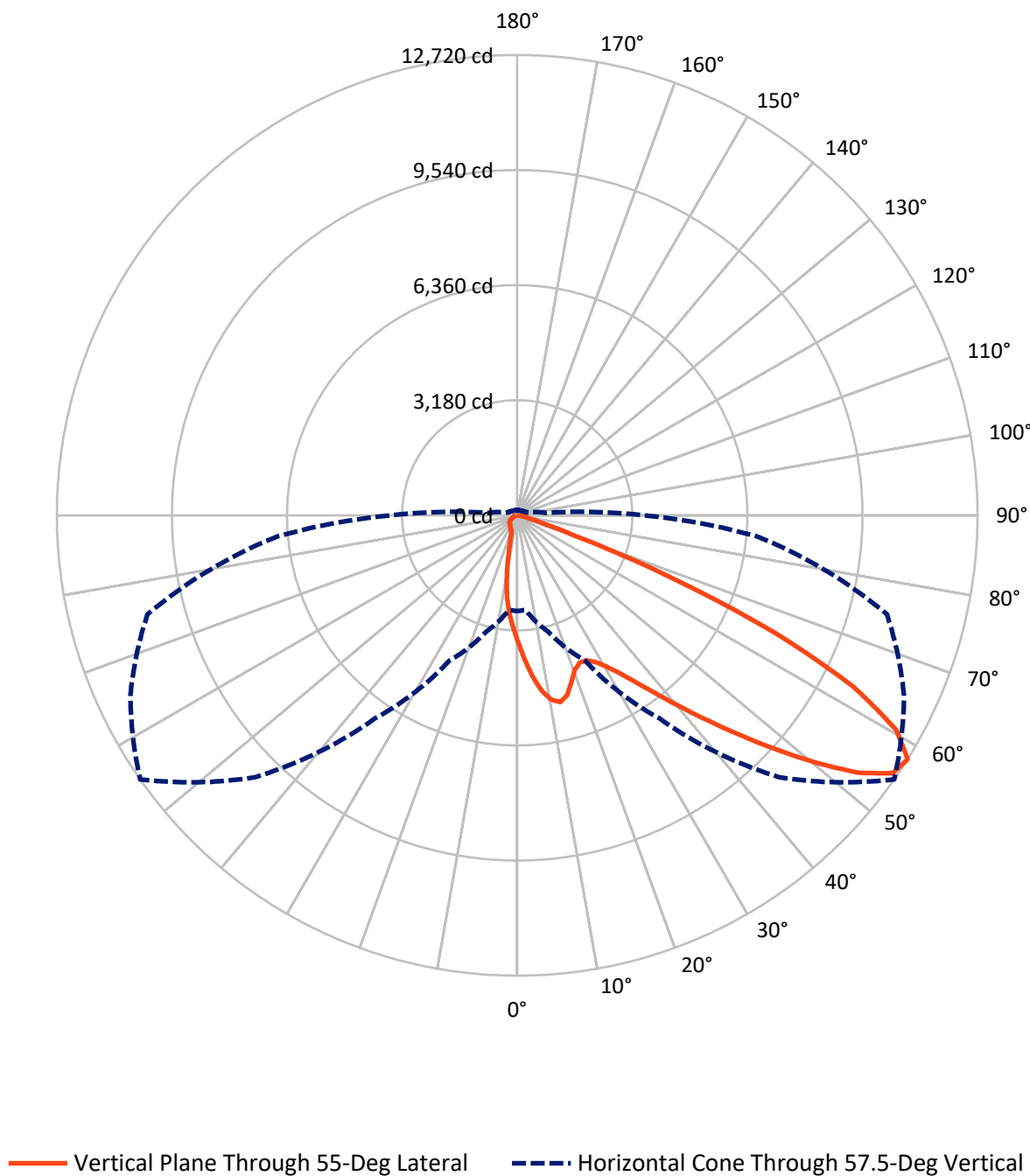
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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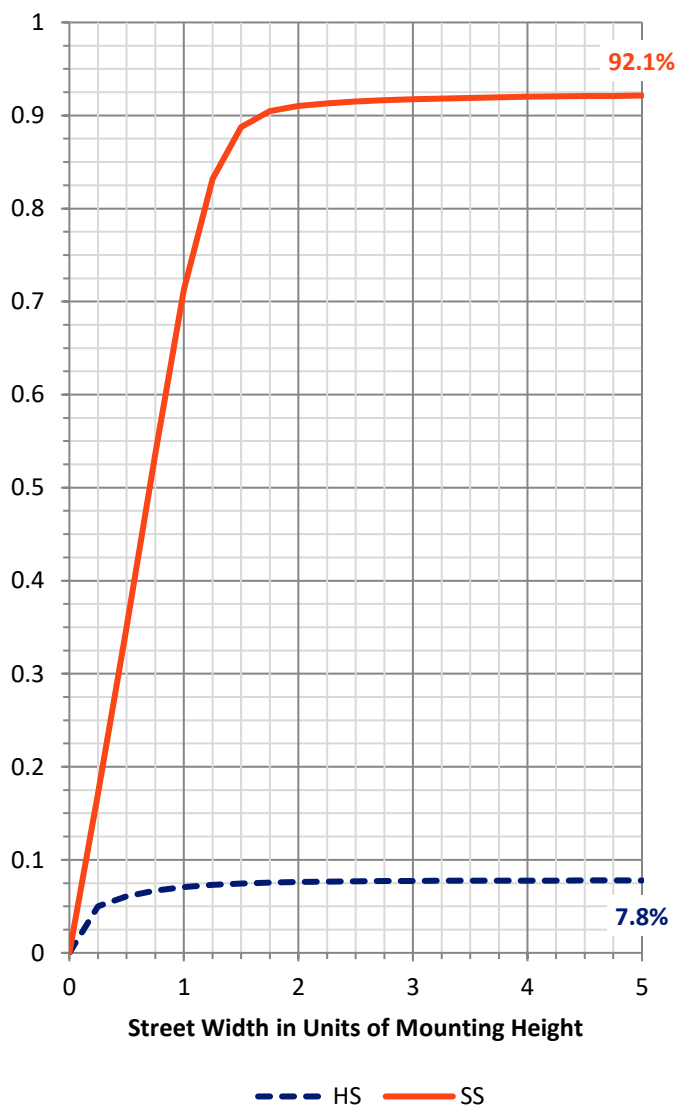
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1138.1	0.0	1138.1
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	13435.3	0.0	13435.3
	% Fixture	92.2	0.0	92.2
Total	Lumens	14573.4	0.0	14573.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.8	2.2
10°-20°	789.3	5.4
20°-30°	1262.8	8.7
30°-40°	2137.4	14.7
40°-50°	3509.2	24.1
50°-60°	3856.9	26.5
60°-70°	2212.3	15.2
70°-80°	452.0	3.1
80°-90°	26.7	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°	14573.4	100.0
0°-180°	14573.4	100.0

Coefficient of Utilization



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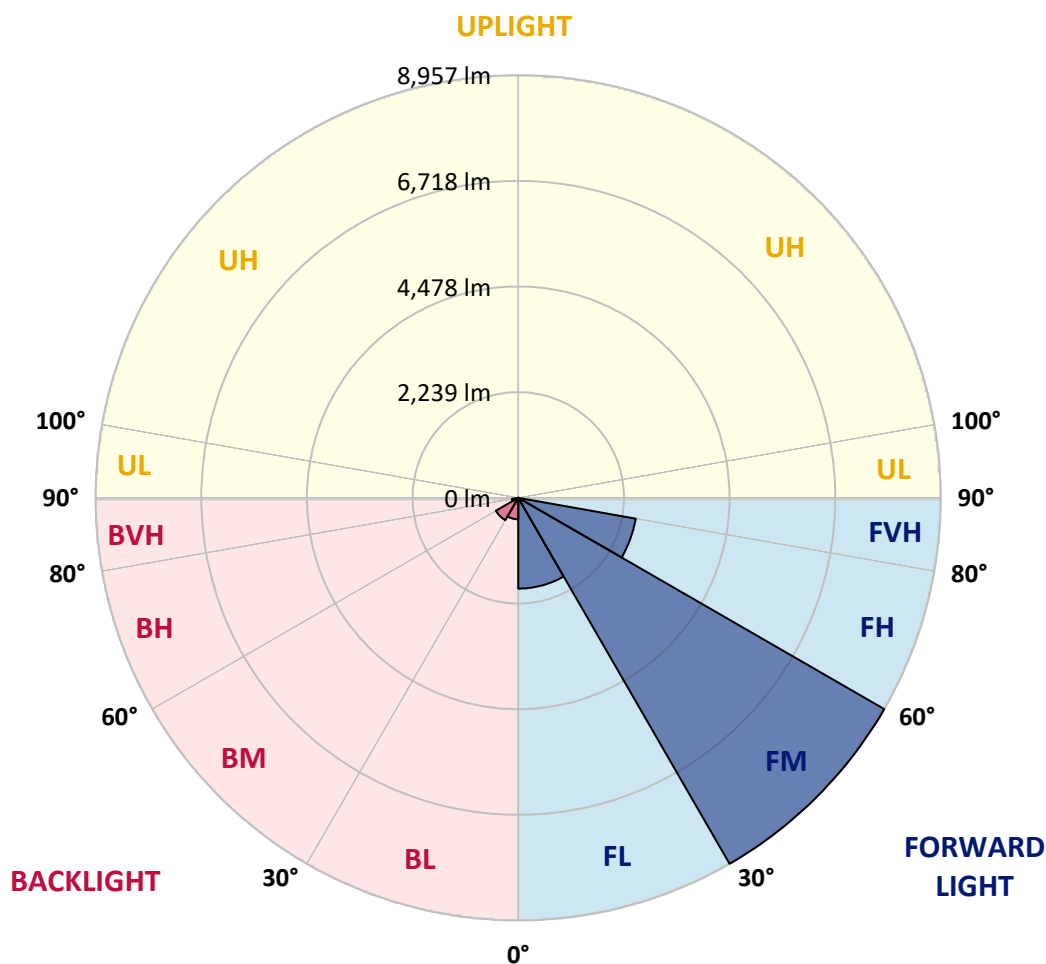
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1924.5	13.2			
FM	(30°-60°)	8956.9	61.5			
FH	(60°-80°)	2529.0	17.4			G2/5000
FVH	(80°-90°)	24.9	0.2			G1/100
BL	(0°-30°)	454.4	3.1	B1/500		
BM	(30°-60°)	546.6	3.8	B1/1000		
BH	(60°-80°)	135.4	0.9	B1/500		G1/500
BVH	(80°-90°)	1.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9
2.5°	4357.5	4302.6	4294.5	4283.8	4179.5	4101.3	3988.1	3864.1	3724.8	3582.8	3520.0
5°	5034.1	4991.0	4982.9	4932.6	4813.9	4681.0	4479.7	4225.4	3965.6	3660.1	3528.9
7.5°	5165.3	5157.2	5194.1	5192.2	5176.1	5071.0	4901.1	4598.3	4208.2	3755.4	3552.2
10°	4580.3	4601.0	4710.6	4806.7	5066.5	5217.5	5180.6	4930.8	4458.1	3864.1	3578.4
12.5°	4047.4	4023.1	4101.3	4210.1	4512.0	4961.3	5296.5	5208.4	4743.9	3987.2	3617.0
15°	3713.2	3703.2	3747.3	3797.6	4027.6	4480.6	5161.7	5434.0	5018.8	4132.8	3675.3
17.5°	3606.2	3598.2	3611.6	3624.2	3773.3	4123.8	4840.9	5572.4	5282.1	4299.1	3740.1
20°	3693.4	3682.6	3680.8	3670.9	3732.9	3972.0	4550.7	5582.3	5518.5	4450.0	3795.8
22.5°	3947.7	3935.1	3891.1	3851.5	3856.9	3992.6	4421.2	5483.4	5696.4	4591.1	3830.8
25°	4408.6	4388.0	4296.4	4163.3	4078.9	4136.4	4441.0	5353.2	5866.3	4701.7	3813.8
27.5°	4985.6	4958.6	4840.9	4643.2	4450.0	4379.9	4583.9	5263.3	6007.3	4786.1	3776.9
30°	5550.8	5515.8	5399.9	5246.2	4964.1	4743.0	4841.8	5302.8	6175.4	4874.2	3728.4
32.5°	6161.0	6127.8	5974.1	5783.6	5550.0	5252.5	5195.0	5496.0	6381.1	4997.3	3694.3
35°	6932.9	6880.8	6662.4	6402.8	6154.7	5853.7	5673.1	5829.4	6655.2	5185.1	3713.2
37.5°	7811.8	7741.7	7506.3	7147.7	6824.1	6487.2	6255.4	6287.7	7056.9	5436.7	3771.6
40°	8640.3	8576.5	8359.1	8021.1	7615.0	7206.1	6959.0	6887.1	7611.3	5743.2	3874.0
42.5°	9137.3	9079.8	8988.1	8845.2	8502.8	8085.8	7774.0	7618.6	8267.3	6109.8	3998.9
45°	9165.1	9114.8	9237.9	9404.2	9336.7	9059.1	8679.0	8394.1	8926.1	6453.9	4128.3
47.5°	8719.4	8685.2	9059.1	9639.6	9929.0	10045.8	9695.3	9104.9	9469.8	6701.0	4181.3
50°	7504.4	7491.8	8261.1	9326.9	10154.5	10910.3	10767.4	9766.3	9891.2	6828.7	4131.0
52.5°	6507.0	6461.2	6909.5	8325.8	9826.5	11365.0	11815.2	10415.1	10185.9	6852.9	4013.3
55°	4935.3	4894.8	5457.4	6650.7	8768.8	11203.2	12581.7	11084.6	10397.1	6790.9	3802.1
57.5°	2647.4	2622.2	3333.0	4426.7	6854.8	10232.7	12720.0	11792.7	10575.0	6626.5	3506.4
60°	1030.7	1026.2	1292.2	2147.7	4166.0	8324.9	12021.8	12217.8	10686.5	6424.3	3259.3
62.5°	623.6	637.1	680.3	964.2	1840.4	5171.6	10412.5	11734.3	10761.1	6239.2	3055.3
65°	515.8	516.7	522.1	662.3	881.6	2163.9	7838.8	10143.7	10576.9	5909.4	2766.0
67.5°	442.1	450.2	470.9	525.7	621.9	948.9	4512.9	7857.6	9456.2	5141.9	2314.9
70°	348.7	359.5	385.5	432.2	479.9	594.0	1667.9	5228.2	7224.1	3875.8	1750.5
72.5°	293.9	292.9	306.5	351.4	381.0	417.9	641.6	2929.6	4198.4	1850.2	866.2
75°	227.3	236.4	253.4	293.9	311.8	302.9	347.8	1070.3	1504.3	560.8	294.8
77.5°	177.9	185.1	200.4	240.0	257.9	214.7	200.4	382.8	483.5	201.3	133.0
80°	79.9	86.3	136.6	177.0	210.3	148.3	108.8	195.9	214.7	91.6	67.4
82.5°	14.3	24.3	79.9	93.5	107.8	96.1	56.6	101.6	105.2	36.8	23.4
85°	0.9	1.8	27.9	34.1	43.2	31.5	17.1	40.5	35.1	12.6	9.0
87.5°	0.0	0.0	0.0	0.9	0.9	4.5	5.4	7.2	5.4	4.5	3.6
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°	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9
2.5°	3455.3	3327.7	3203.6	3102.1	3042.7	2942.2	2875.6	2864.9	2837.0	2861.2
5°	3388.8	3160.5	2929.6	2722.8	2553.0	2333.7	2170.2	2101.0	2040.8	2061.5
7.5°	3357.3	2996.9	2637.4	2284.3	1921.3	1570.8	1310.2	1201.5	1118.8	1130.5
10°	3315.1	2827.1	2263.6	1724.5	1238.3	892.4	712.6	646.2	609.3	610.2
12.5°	3282.7	2624.0	1829.6	1169.1	754.0	569.7	514.0	497.8	487.1	488.0
15°	3266.5	2385.0	1401.0	779.1	539.2	482.6	469.0	461.9	454.7	453.8
17.5°	3239.5	2119.0	1025.3	568.9	471.8	452.0	440.3	432.2	423.2	421.5
20°	3199.1	1817.0	749.5	480.7	442.1	426.8	410.7	399.9	389.1	387.3
22.5°	3124.5	1498.0	576.0	444.8	420.6	403.4	383.8	371.2	360.4	358.5
25°	2986.1	1198.7	485.2	422.4	401.7	381.0	359.5	342.3	332.5	330.7
27.5°	2811.0	941.8	440.3	401.7	377.4	358.5	334.3	318.2	309.1	307.3
30°	2604.2	725.2	414.3	378.3	348.7	332.5	310.9	297.5	292.0	292.0
32.5°	2381.4	579.6	403.4	355.0	323.5	305.6	288.4	283.1	281.3	280.3
35°	2172.0	503.3	398.1	336.1	301.0	283.9	276.8	277.7	281.3	281.3
37.5°	1985.9	479.0	395.4	322.6	281.3	266.0	270.5	278.6	275.0	275.0
40°	1817.9	481.6	393.6	312.7	265.1	256.1	265.1	258.8	249.8	248.9
42.5°	1689.4	504.1	390.0	304.6	255.2	248.9	245.3	235.4	234.5	236.4
45°	1595.9	523.9	389.1	301.0	244.5	232.8	228.3	218.3	236.4	240.9
47.5°	1485.4	523.9	389.1	288.4	226.4	221.9	214.7	204.0	221.9	226.4
50°	1342.5	490.7	373.8	274.1	212.1	209.4	196.8	183.3	179.7	182.4
52.5°	1161.9	430.4	335.2	254.3	197.7	192.3	177.0	167.2	164.4	164.4
55°	956.1	360.4	283.1	225.6	182.4	172.5	161.7	157.2	154.6	152.7
57.5°	777.4	295.6	227.3	200.4	168.0	155.5	151.9	146.5	142.0	139.3
60°	638.1	232.8	187.8	177.9	153.6	142.0	141.0	133.9	122.2	120.4
62.5°	492.4	170.8	158.2	154.6	139.3	129.4	127.6	113.3	95.2	91.6
65°	347.8	133.0	127.6	135.7	124.0	115.0	110.5	89.0	70.1	67.4
67.5°	244.5	111.4	100.7	118.6	107.8	96.1	93.5	75.4	58.4	56.6
70°	174.4	90.7	82.7	101.6	86.3	84.5	79.1	62.9	47.7	45.8
72.5°	123.1	69.2	63.8	88.0	59.3	72.8	64.7	48.5	36.0	34.1
75°	90.7	49.4	44.9	51.2	43.2	54.8	45.8	32.4	22.4	21.5
77.5°	66.5	31.5	27.0	25.1	25.1	34.1	25.1	13.5	9.8	9.0
80°	46.7	14.3	12.6	10.8	9.8	8.1	3.6	1.8	0.9	0.9
82.5°	27.9	6.3	6.3	4.5	2.7	0.0	0.0	0.0	0.0	0.0
85°	6.3	2.7	2.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	0.9	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)