

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: P963530

Luminaire Tested: **NAV-SB3A-740-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963530
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-SB3A-740-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 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: 12444.5 lumens
Efficiency: N/A
Efficacy: 146.9 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): 84.7
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

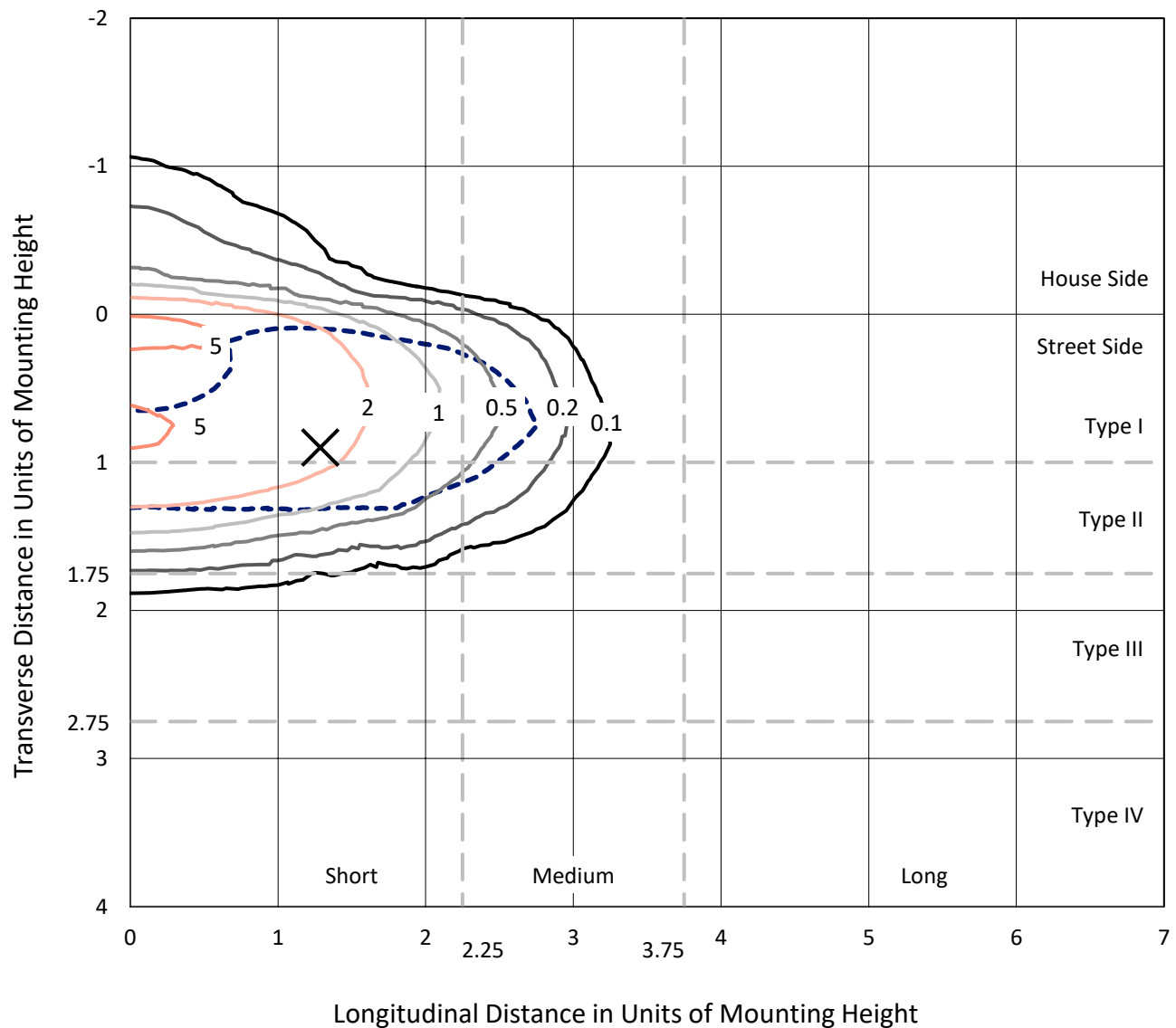


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Iso-Footcandle Lines of Horizontal Illumination

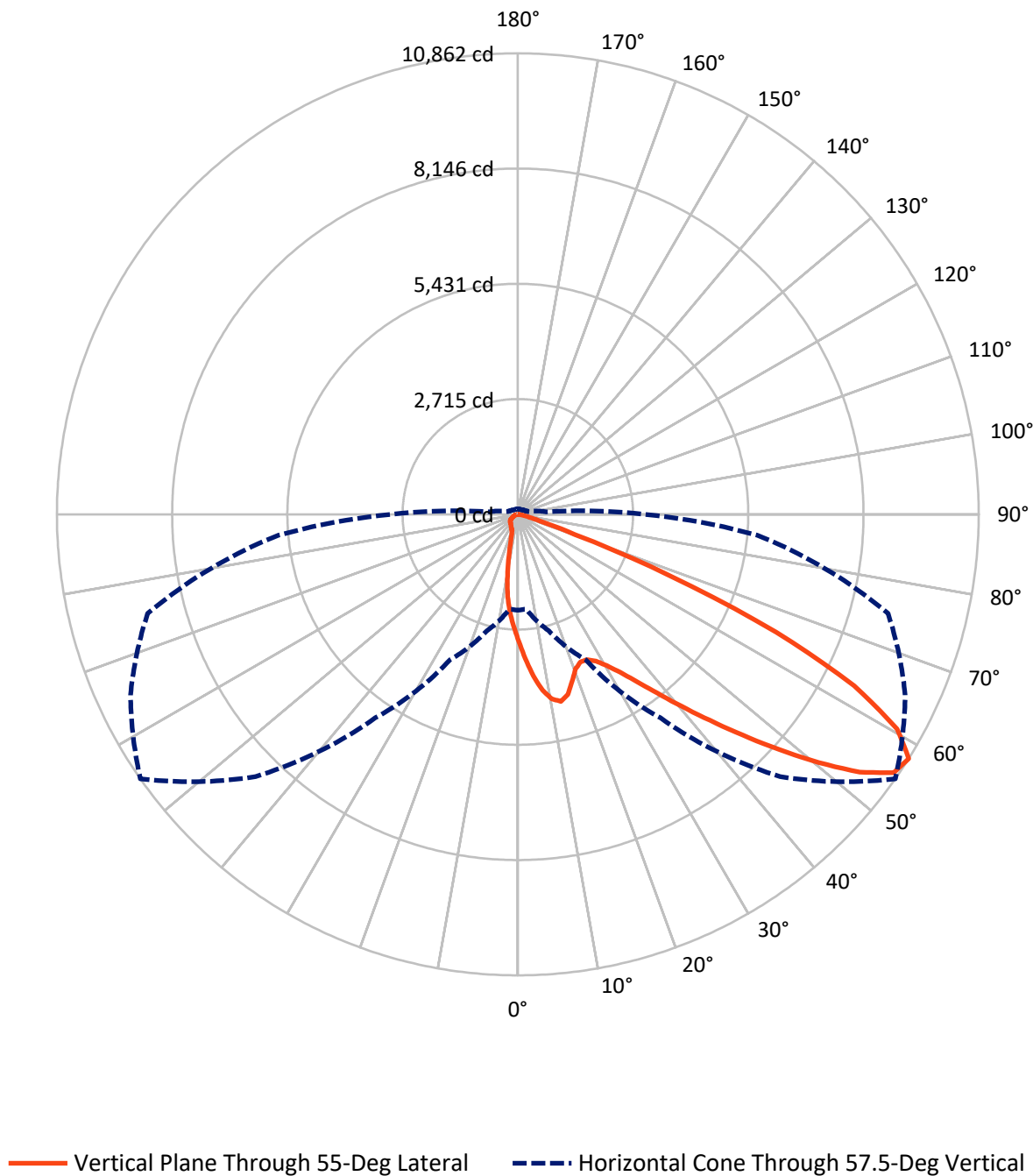
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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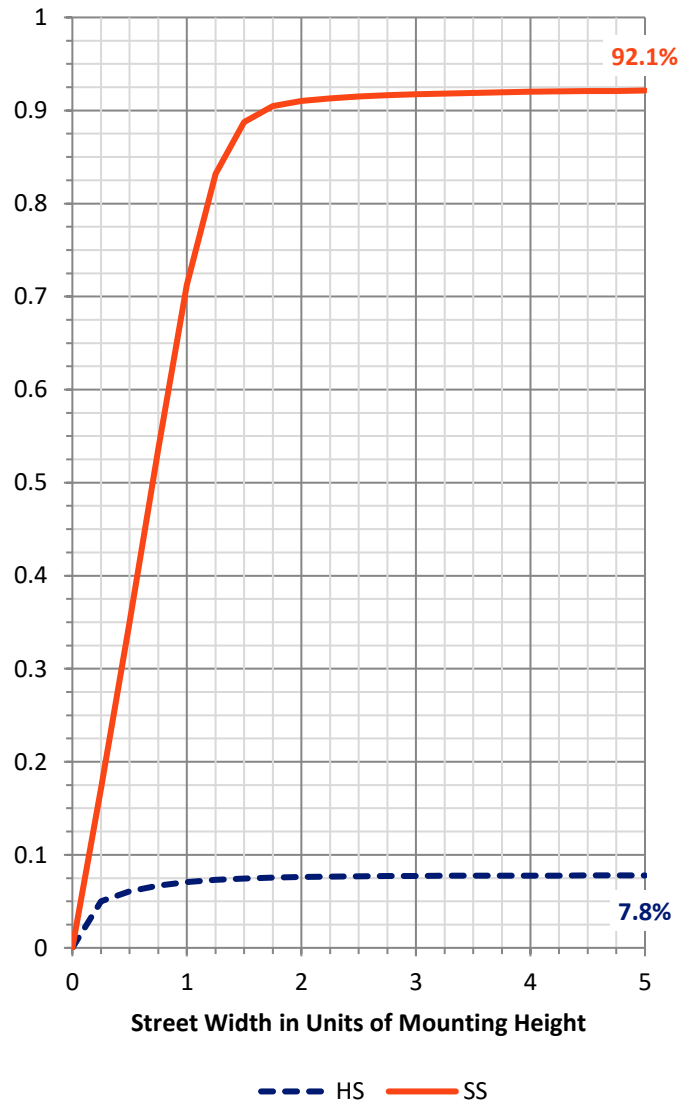
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	971.9	0.0	971.9
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	11472.7	0.0	11472.7
	% Fixture	92.2	0.0	92.2
Total	Lumens	12444.5	0.0	12444.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.0	2.2
10°-20°	674.0	5.4
20°-30°	1078.4	8.7
30°-40°	1825.2	14.7
40°-50°	2996.6	24.1
50°-60°	3293.5	26.5
60°-70°	1889.1	15.2
70°-80°	386.0	3.1
80°-90°	22.8	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°	12444.5	100.0
0°-180°	12444.5	100.0

Coefficient of Utilization



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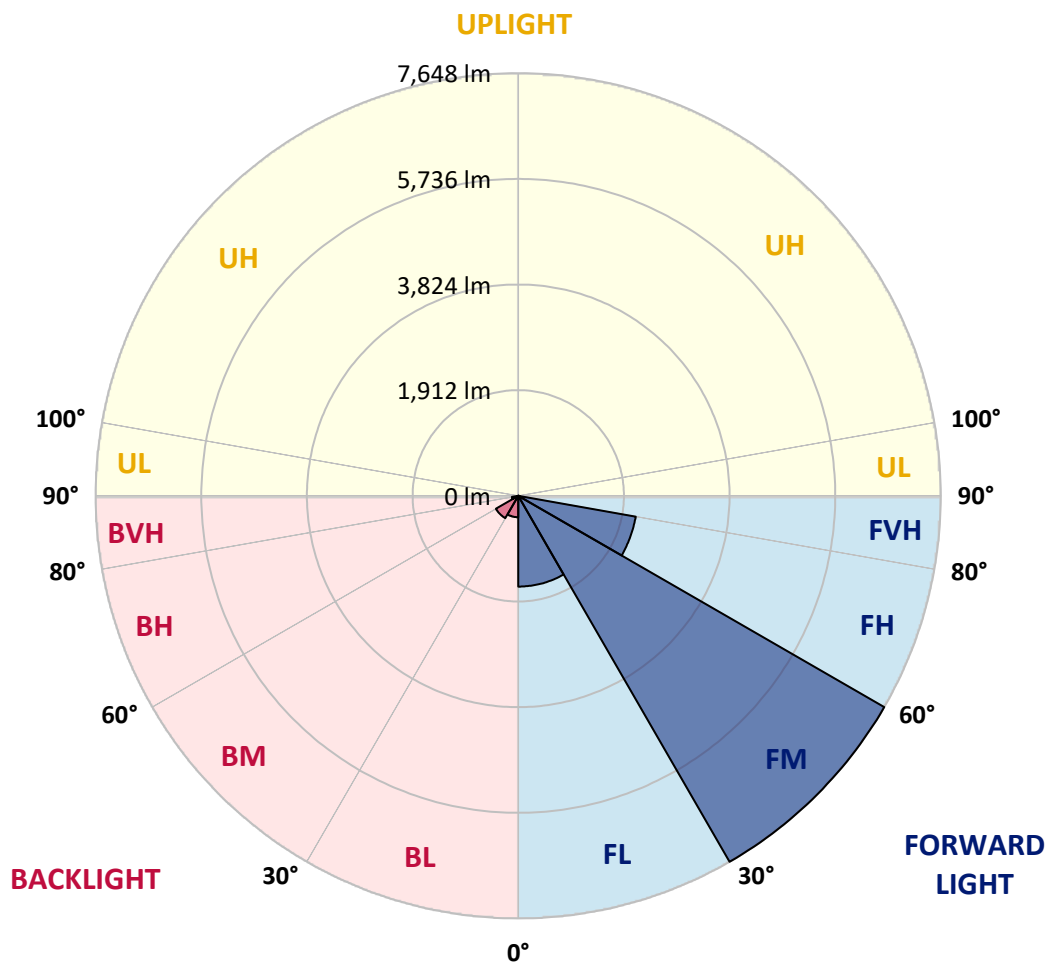
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1643.4	13.2			
FM	(30°-60°)	7648.5	61.5			
FH	(60°-80°)	2159.6	17.4			G2/5000
FVH	(80°-90°)	21.2	0.2			G1/100
BL	(0°-30°)	388.0	3.1	B1/500		
BM	(30°-60°)	466.7	3.8	B1/1000		
BH	(60°-80°)	115.6	0.9	B1/500		G1/500
BVH	(80°-90°)	1.5	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°	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8
2.5°	3721.0	3674.1	3667.1	3658.0	3568.9	3502.2	3405.6	3299.6	3180.7	3059.4	3005.7
5°	4298.7	4261.8	4255.0	4212.0	4110.8	3997.2	3825.3	3608.1	3386.3	3125.4	3013.4
7.5°	4410.8	4403.8	4435.3	4433.7	4420.0	4330.2	4185.2	3926.6	3593.5	3206.8	3033.4
10°	3911.2	3928.8	4022.5	4104.6	4326.3	4455.3	4423.8	4210.5	3806.8	3299.6	3055.6
12.5°	3456.2	3435.5	3502.2	3595.1	3852.9	4236.5	4522.8	4447.6	4050.9	3404.7	3088.6
15°	3170.7	3162.2	3199.8	3242.8	3439.3	3826.0	4407.7	4640.2	4285.6	3529.1	3138.4
17.5°	3079.4	3072.5	3084.0	3094.8	3222.1	3521.4	4133.7	4758.4	4510.5	3671.0	3193.7
20°	3153.8	3144.6	3143.1	3134.7	3187.5	3391.7	3885.9	4766.8	4712.3	3800.0	3241.4
22.5°	3371.0	3360.3	3322.6	3288.9	3293.5	3409.4	3775.4	4682.4	4864.2	3920.4	3271.2
25°	3764.6	3747.0	3668.7	3555.1	3483.1	3532.2	3792.3	4571.1	5009.3	4014.8	3256.6
27.5°	4257.2	4234.3	4133.7	3964.9	3800.0	3740.1	3914.3	4494.4	5129.8	4087.0	3225.2
30°	4739.9	4710.0	4611.1	4479.9	4238.9	4050.1	4134.5	4528.1	5273.2	4162.1	3183.8
32.5°	5261.0	5232.6	5101.4	4938.7	4739.2	4485.2	4436.1	4693.2	5449.0	4267.3	3154.6
35°	5920.2	5875.6	5689.2	5467.5	5255.6	4998.5	4844.4	4977.8	5683.0	4427.6	3170.7
37.5°	6670.6	6610.7	6409.7	6103.6	5827.3	5539.5	5341.6	5369.2	6026.1	4642.5	3220.5
40°	7378.2	7323.6	7137.9	6849.5	6502.6	6153.4	5942.4	5881.0	6499.5	4904.2	3308.1
42.5°	7802.5	7753.3	7675.1	7553.1	7260.7	6904.7	6638.4	6505.7	7059.7	5217.2	3414.7
45°	7826.3	7783.2	7888.4	8030.4	7972.9	7735.7	7411.2	7167.8	7622.1	5511.1	3525.2
47.5°	7445.6	7416.5	7735.7	8231.5	8478.5	8578.2	8279.0	7774.8	8086.4	5722.2	3570.5
50°	6408.2	6397.4	7054.3	7964.4	8671.1	9316.4	9194.5	8339.6	8446.3	5831.1	3527.5
52.5°	5556.4	5517.3	5900.2	7109.5	8391.1	9704.7	10089.2	8893.6	8697.9	5851.8	3427.0
55°	4214.3	4179.7	4660.2	5679.2	7487.8	9566.6	10743.7	9465.4	8878.3	5798.9	3246.7
57.5°	2260.6	2239.1	2846.1	3780.0	5853.4	8737.9	10861.9	10070.0	9030.2	5658.5	2994.2
60°	880.2	876.3	1103.4	1833.9	3557.5	7108.8	10265.7	10433.0	9125.4	5485.8	2783.2
62.5°	532.6	544.1	580.9	823.4	1571.5	4416.1	8891.4	10020.1	9189.1	5327.7	2609.0
65°	440.4	441.3	445.9	565.5	752.8	1847.8	6693.7	8661.9	9031.8	5046.2	2361.9
67.5°	377.5	384.5	402.1	449.0	531.1	810.4	3853.7	6709.8	8074.8	4390.8	1976.7
70°	297.8	307.0	329.2	369.1	409.8	507.3	1424.2	4464.5	6168.8	3309.6	1494.8
72.5°	250.9	250.2	261.7	300.0	325.3	356.8	547.9	2501.6	3585.0	1579.9	739.7
75°	194.1	201.8	216.4	250.9	266.3	258.6	296.9	913.9	1284.5	478.9	251.7
77.5°	151.9	158.1	171.1	204.9	220.3	183.4	171.1	326.9	412.9	171.9	113.6
80°	68.3	73.7	116.6	151.2	179.6	126.6	92.9	167.3	183.4	78.3	57.5
82.5°	12.3	20.7	68.3	79.8	92.0	82.1	48.4	86.7	89.8	31.5	20.0
85°	0.7	1.5	23.8	29.1	36.8	26.9	14.6	34.5	29.9	10.8	7.7
87.5°	0.0	0.0	0.0	0.7	0.7	3.8	4.6	6.1	4.6	3.8	3.1
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°	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8	2998.8
2.5°	2950.5	2841.5	2735.6	2648.9	2598.3	2512.3	2455.5	2446.4	2422.6	2443.3
5°	2893.7	2698.8	2501.6	2325.1	2180.1	1992.8	1853.2	1794.1	1742.7	1760.3
7.5°	2866.8	2559.1	2252.2	1950.6	1640.6	1341.3	1118.8	1025.9	955.4	965.3
10°	2830.7	2414.1	1932.9	1472.5	1057.4	762.0	608.5	551.8	520.3	521.0
12.5°	2803.2	2240.6	1562.3	998.4	643.8	486.5	438.9	425.1	415.9	416.7
15°	2789.3	2036.6	1196.3	665.3	460.4	412.0	400.6	394.4	388.3	387.6
17.5°	2766.3	1809.4	875.6	485.7	402.8	386.0	376.0	369.1	361.4	359.9
20°	2731.8	1551.5	640.0	410.5	377.5	364.5	350.7	341.4	332.3	330.8
22.5°	2668.1	1279.2	491.9	379.9	359.2	344.5	327.7	316.9	307.7	306.2
25°	2549.9	1023.7	414.4	360.7	343.0	325.3	307.0	292.3	283.9	282.4
27.5°	2400.2	804.2	376.0	343.0	322.3	306.2	285.5	271.6	263.9	262.4
30°	2223.8	619.3	353.7	323.1	297.8	283.9	265.5	254.0	249.4	249.4
32.5°	2033.5	495.0	344.5	303.1	276.2	260.9	246.3	241.7	240.2	239.4
35°	1854.7	429.7	339.9	287.0	257.1	242.5	236.4	237.1	240.2	240.2
37.5°	1695.9	409.0	337.6	275.5	240.2	227.1	230.9	237.9	234.8	234.8
40°	1552.4	411.3	336.1	267.0	226.3	218.7	226.3	221.0	213.3	212.6
42.5°	1442.6	430.5	333.0	260.1	217.9	212.6	209.5	201.0	200.3	201.8
45°	1362.8	447.4	332.3	257.1	208.7	198.7	195.0	186.4	201.8	205.6
47.5°	1268.4	447.4	332.3	246.3	193.4	189.5	183.4	174.1	189.5	193.4
50°	1146.5	419.0	319.2	234.0	181.1	178.8	168.1	156.5	153.4	155.8
52.5°	992.2	367.6	286.2	217.2	168.8	164.2	151.2	142.7	140.4	140.4
55°	816.5	307.7	241.7	192.6	155.8	147.3	138.2	134.3	132.0	130.5
57.5°	663.8	252.5	194.1	171.1	143.5	132.7	129.7	125.0	121.3	118.9
60°	544.8	198.7	160.4	151.9	131.2	121.3	120.4	114.3	104.3	102.8
62.5°	420.6	145.8	135.1	132.0	118.9	110.5	109.0	96.7	81.4	78.3
65°	296.9	113.6	109.0	115.8	105.9	98.2	94.4	76.0	59.9	57.5
67.5°	208.7	95.1	85.9	101.3	92.0	82.1	79.8	64.5	49.9	48.4
70°	148.8	77.5	70.6	86.7	73.7	72.2	67.5	53.7	40.7	39.2
72.5°	105.2	59.0	54.5	75.2	50.6	62.1	55.2	41.4	30.6	29.1
75°	77.5	42.2	38.3	43.8	36.8	46.8	39.2	27.7	19.2	18.4
77.5°	56.8	26.9	23.1	21.5	21.5	29.1	21.5	11.5	8.4	7.7
80°	39.9	12.3	10.8	9.2	8.4	6.9	3.1	1.5	0.7	0.7
82.5°	23.8	5.3	5.3	3.8	2.3	0.0	0.0	0.0	0.0	0.0
85°	5.3	2.3	2.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.7	0.7	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)