

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: P960957

Luminaire Tested: **NAV-SB1D-760-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960957
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-SB1D-760-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 5700K, 900mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9411.5 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

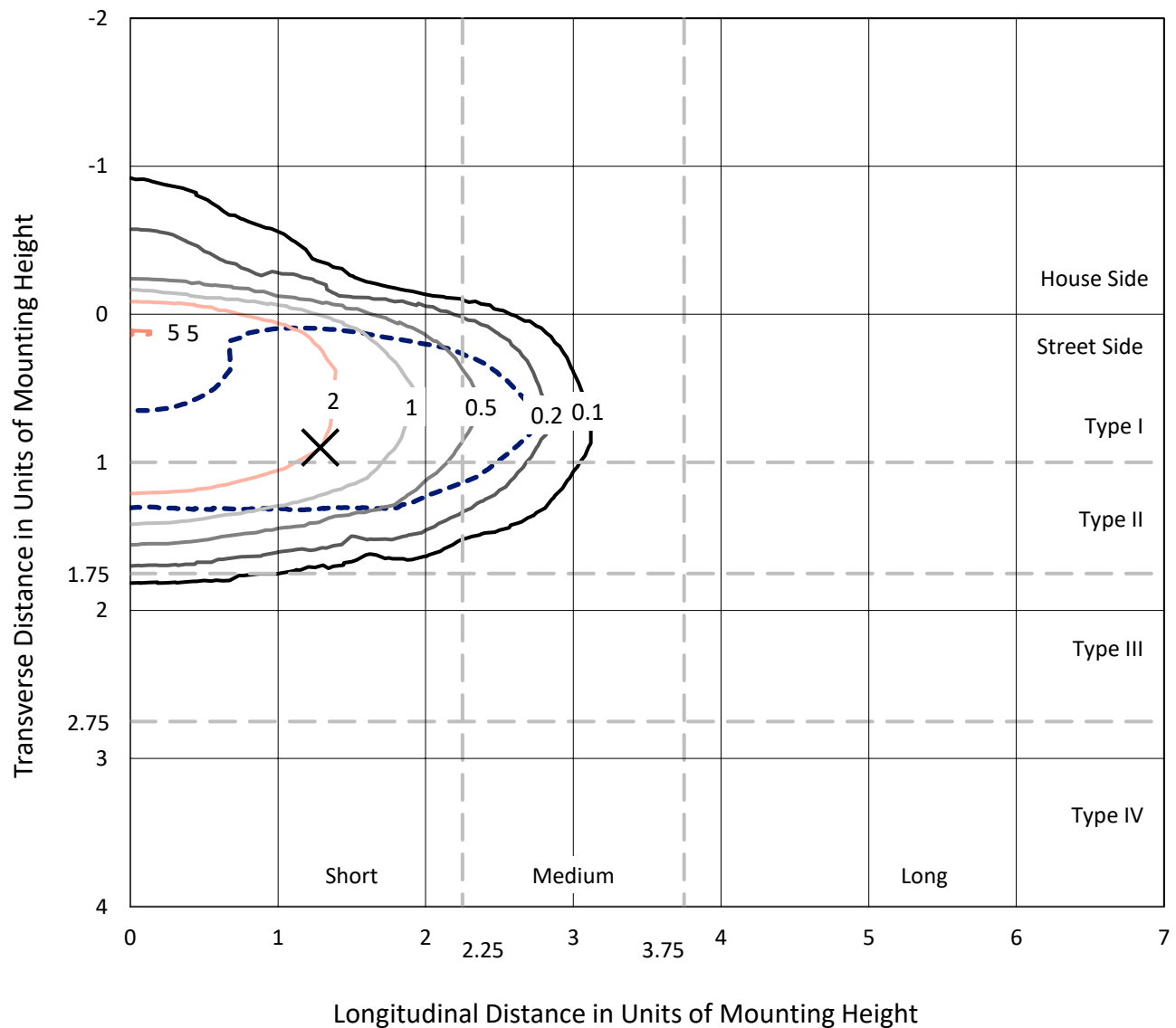
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

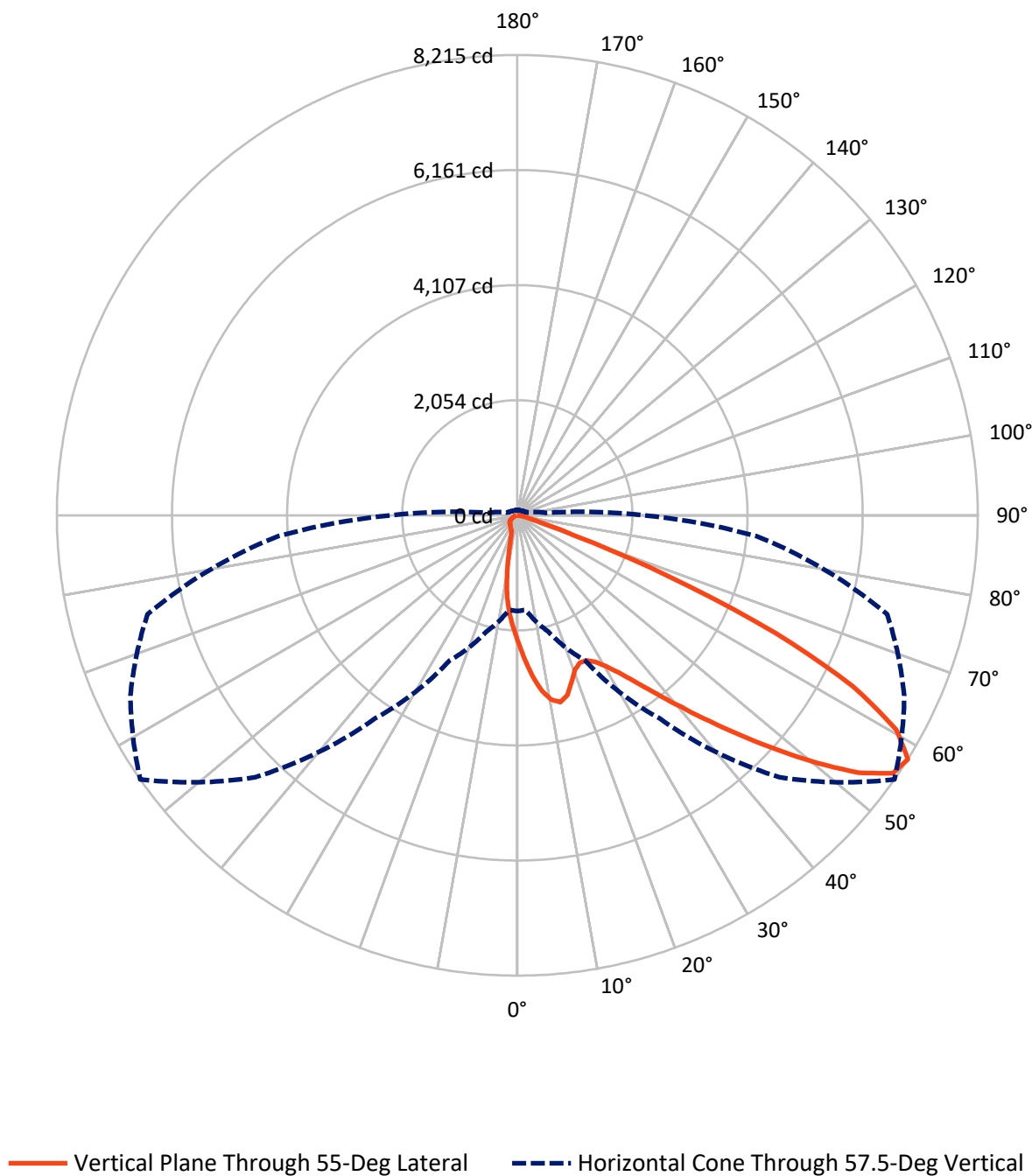
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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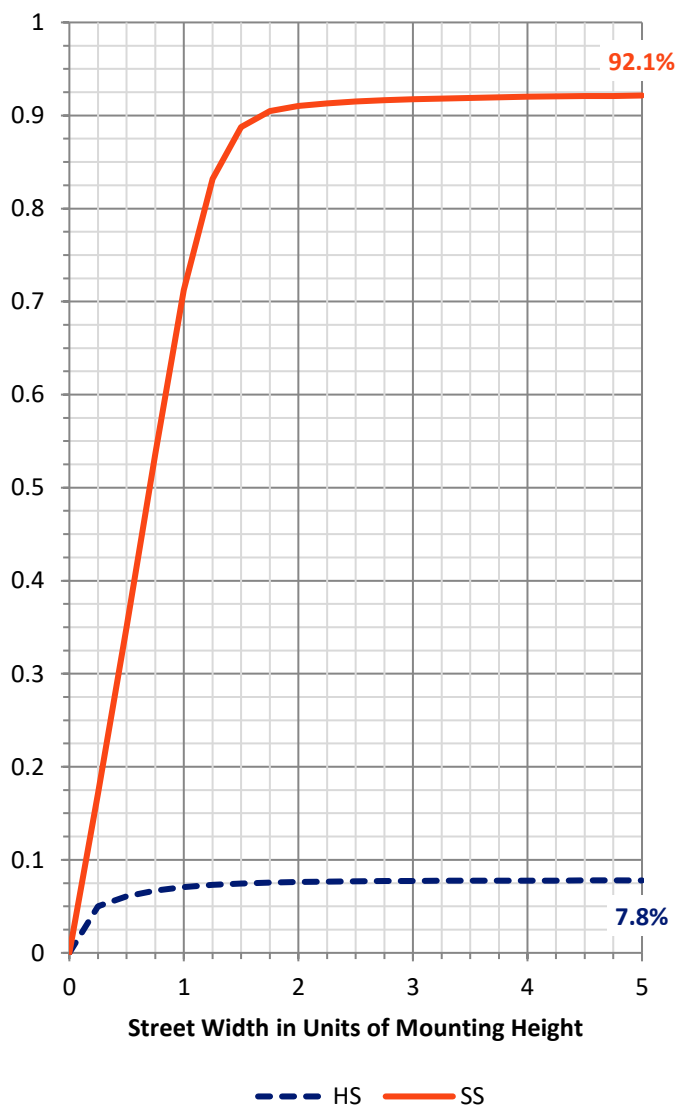
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	735.0	0.0	735.0
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	8676.6	0.0	8676.6
	% Fixture	92.2	0.0	92.2
Total	Lumens	9411.5	0.0	9411.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.0	2.2
10°-20°	509.7	5.4
20°-30°	815.5	8.7
30°-40°	1380.4	14.7
40°-50°	2266.3	24.1
50°-60°	2490.8	26.5
60°-70°	1428.7	15.2
70°-80°	291.9	3.1
80°-90°	17.2	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°	9411.5	100.0
0°-180°	9411.5	100.0

Coefficient of Utilization



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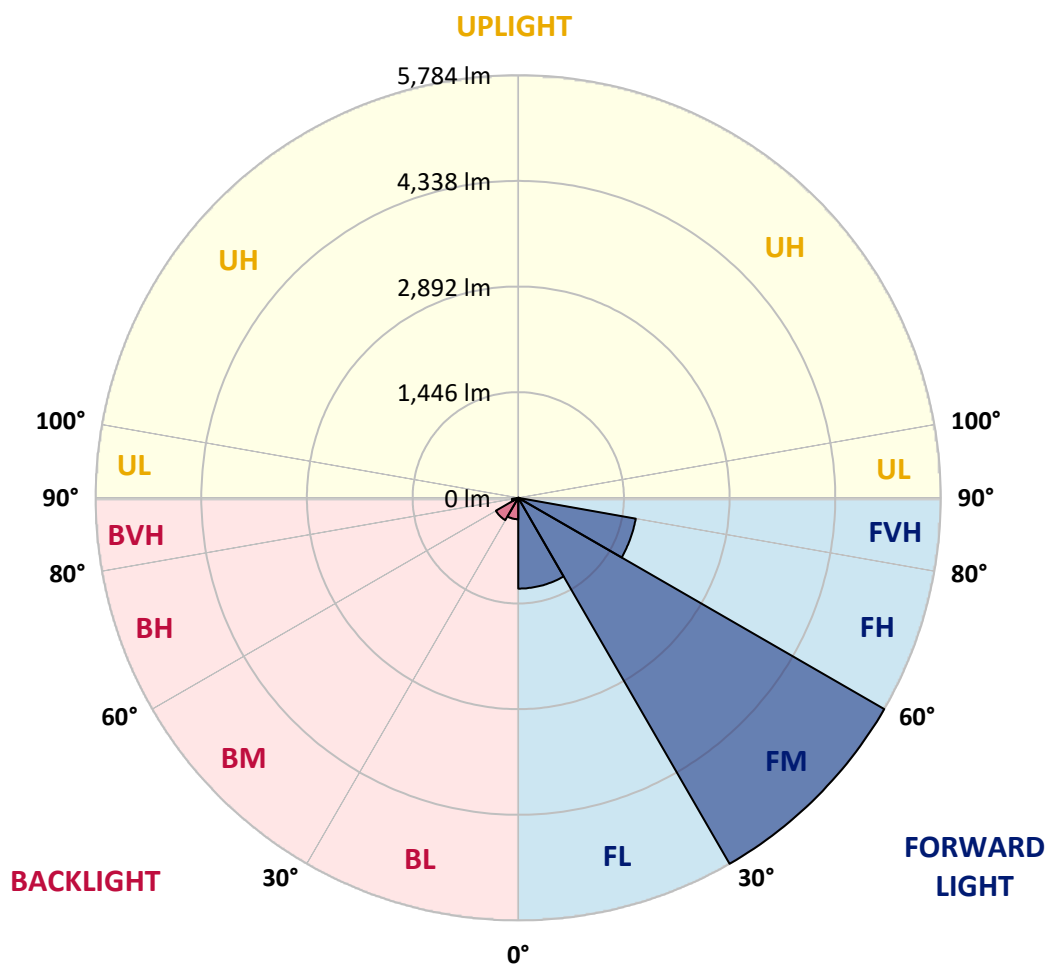
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1242.9	13.2			
FM	(30°-60°)	5784.4	61.5			
FH	(60°-80°)	1633.2	17.4			G1/1800
FVH	(80°-90°)	16.1	0.2			G1/100
BL	(0°-30°)	293.4	3.1	B1/500		
BM	(30°-60°)	353.0	3.8	B1/1000		
BH	(60°-80°)	87.4	0.9	B0/110		G0/110
BVH	(80°-90°)	1.2	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-G1

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9
2.5°	2814.0	2778.7	2773.4	2766.5	2699.1	2648.7	2575.5	2495.5	2405.5	2313.8	2273.1
5°	3251.0	3223.2	3218.0	3185.5	3108.8	3022.9	2893.0	2728.8	2561.1	2363.8	2279.0
7.5°	3335.8	3330.5	3354.3	3353.2	3342.7	3274.9	3165.2	2969.5	2717.7	2425.3	2294.1
10°	2957.9	2971.3	3042.1	3104.2	3271.9	3369.4	3345.6	3184.3	2879.0	2495.5	2310.9
12.5°	2613.9	2598.2	2648.7	2718.9	2913.9	3204.0	3420.5	3363.6	3063.6	2574.9	2335.9
15°	2398.0	2391.5	2420.0	2452.5	2601.0	2893.6	3333.4	3509.3	3241.2	2669.0	2373.6
17.5°	2328.9	2323.7	2332.4	2340.5	2436.8	2663.2	3126.2	3598.7	3411.2	2776.3	2415.3
20°	2385.2	2378.2	2377.1	2370.6	2410.7	2565.1	2938.8	3605.0	3563.8	2873.8	2451.3
22.5°	2549.4	2541.3	2512.9	2487.4	2490.8	2578.4	2855.2	3541.2	3678.7	2964.9	2473.9
25°	2847.1	2833.8	2774.6	2688.7	2634.1	2671.3	2868.1	3457.0	3788.4	3036.4	2463.0
27.5°	3219.7	3202.3	3126.2	2998.6	2873.8	2828.6	2960.3	3399.0	3879.5	3090.9	2439.2
30°	3584.7	3562.1	3487.3	3388.0	3205.8	3063.0	3126.9	3424.5	3988.1	3147.8	2407.8
32.5°	3978.7	3957.3	3858.1	3735.0	3584.1	3392.0	3354.9	3549.4	4121.0	3227.2	2385.8
35°	4477.3	4443.6	4302.6	4134.8	3974.7	3780.3	3663.7	3764.6	4297.9	3348.6	2398.0
37.5°	5044.8	4999.6	4847.5	4616.0	4407.1	4189.5	4039.7	4060.6	4557.4	3511.0	2435.7
40°	5579.9	5538.7	5398.3	5180.0	4917.7	4653.7	4494.1	4447.7	4915.5	3709.0	2501.8
42.5°	5900.8	5863.7	5804.5	5712.2	5491.1	5221.9	5020.4	4920.1	5339.1	3945.7	2582.5
45°	5918.9	5886.4	5965.8	6073.2	6029.7	5850.4	5604.9	5420.9	5764.5	4168.0	2666.0
47.5°	5631.0	5608.9	5850.4	6225.2	6412.1	6487.5	6261.2	5879.9	6115.6	4327.5	2700.3
50°	4846.4	4838.3	5335.0	6023.3	6557.7	7045.8	6953.6	6307.1	6387.8	4410.0	2667.8
52.5°	4202.2	4172.6	4462.2	5376.8	6346.0	7339.5	7630.2	6726.0	6578.1	4425.6	2591.8
55°	3187.2	3161.1	3524.4	4295.1	5662.9	7235.1	8125.3	7158.4	6714.5	4385.6	2455.4
57.5°	1709.7	1693.4	2152.5	2858.7	4426.8	6608.3	8214.7	7615.7	6829.4	4279.4	2264.4
60°	665.6	662.8	834.6	1387.0	2690.4	5376.2	7763.8	7890.2	6901.3	4148.8	2104.8
62.5°	402.7	411.4	439.3	622.7	1188.5	3339.9	6724.3	7578.0	6949.5	4029.3	1973.1
65°	333.1	333.7	337.2	427.7	569.3	1397.5	5062.3	6550.9	6830.6	3816.3	1786.3
67.5°	285.6	290.8	304.1	339.5	401.6	612.8	2914.5	5074.5	6106.8	3320.7	1495.0
70°	225.2	232.2	249.0	279.1	309.9	383.6	1077.1	3376.4	4665.3	2502.9	1130.5
72.5°	189.7	189.2	197.9	226.9	246.1	269.9	414.4	1891.9	2711.3	1194.9	559.4
75°	146.8	152.6	163.7	189.7	201.4	195.6	224.6	691.2	971.5	362.1	190.3
77.5°	114.9	119.5	129.5	155.0	166.6	138.7	129.5	247.2	312.2	130.0	85.9
80°	51.7	55.8	88.3	114.3	135.8	95.7	70.2	126.5	138.7	59.2	43.6
82.5°	9.3	15.7	51.7	60.4	69.6	62.1	36.6	65.6	67.9	23.8	15.1
85°	0.6	1.1	18.0	22.0	27.9	20.3	11.1	26.1	22.7	8.1	5.8
87.5°	0.0	0.0	0.0	0.6	0.6	2.9	3.5	4.6	3.5	2.9	2.4
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°	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9
2.5°	2231.4	2149.0	2068.9	2003.4	1965.0	1900.0	1857.1	1850.1	1832.1	1847.8
5°	2188.5	2041.1	1891.9	1758.4	1648.7	1507.2	1401.5	1356.8	1317.9	1331.3
7.5°	2168.2	1935.4	1703.2	1475.2	1240.8	1014.4	846.1	775.9	722.5	730.1
10°	2140.8	1825.7	1461.9	1113.7	799.7	576.3	460.2	417.3	393.5	394.0
12.5°	2120.0	1694.5	1181.5	755.0	486.9	368.0	332.0	321.5	314.6	315.1
15°	2109.6	1540.2	904.8	503.2	348.2	311.6	302.9	298.3	293.7	293.0
17.5°	2092.1	1368.5	662.2	367.4	304.6	291.9	284.3	279.1	273.4	272.1
20°	2066.0	1173.4	484.0	310.5	285.6	275.6	265.2	258.3	251.3	250.1
22.5°	2017.8	967.4	372.0	287.3	271.6	260.6	247.8	239.6	232.7	231.5
25°	1928.4	774.2	313.3	272.8	259.4	246.1	232.2	221.1	214.7	213.6
27.5°	1815.3	608.2	284.3	259.4	243.7	231.5	215.9	205.4	199.7	198.4
30°	1681.8	468.3	267.5	244.4	225.2	214.7	200.8	192.1	188.6	188.6
32.5°	1537.9	374.3	260.6	229.2	208.9	197.3	186.2	182.8	181.6	181.0
35°	1402.7	325.0	257.1	217.1	194.4	183.4	178.8	179.3	181.6	181.6
37.5°	1282.6	309.3	255.3	208.4	181.6	171.8	174.7	179.9	177.6	177.6
40°	1174.0	311.1	254.2	201.9	171.2	165.4	171.2	167.2	161.3	160.7
42.5°	1091.0	325.5	251.8	196.7	164.8	160.7	158.5	152.0	151.5	152.6
45°	1030.6	338.4	251.3	194.4	157.8	150.3	147.4	141.0	152.6	155.5
47.5°	959.3	338.4	251.3	186.2	146.3	143.3	138.7	131.7	143.3	146.3
50°	867.0	316.8	241.4	177.0	136.9	135.2	127.1	118.4	116.0	117.8
52.5°	750.4	278.0	216.5	164.2	127.7	124.2	114.3	107.9	106.2	106.2
55°	617.5	232.7	182.8	145.7	117.8	111.4	104.4	101.6	99.8	98.7
57.5°	501.9	191.0	146.8	129.5	108.5	100.3	98.1	94.6	91.7	90.0
60°	412.0	150.3	121.3	114.9	99.2	91.7	91.1	86.5	78.9	77.8
62.5°	318.1	110.3	102.1	99.8	90.0	83.5	82.4	73.1	61.5	59.2
65°	224.6	85.9	82.4	87.6	80.1	74.3	71.3	57.5	45.3	43.6
67.5°	157.8	72.0	65.0	76.6	69.6	62.1	60.4	48.8	37.7	36.6
70°	112.5	58.6	53.4	65.6	55.8	54.5	51.0	40.6	30.7	29.6
72.5°	79.5	44.7	41.2	56.9	38.3	47.0	41.8	31.4	23.2	22.0
75°	58.6	31.9	29.0	33.1	27.9	35.4	29.6	20.9	14.6	13.9
77.5°	42.9	20.3	17.4	16.3	16.3	22.0	16.3	8.7	6.4	5.8
80°	30.1	9.3	8.1	7.0	6.4	5.2	2.4	1.1	0.6	0.6
82.5°	18.0	4.1	4.1	2.9	1.7	0.0	0.0	0.0	0.0	0.0
85°	4.1	1.7	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.6	0.6	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)