

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: P967746

Luminaire Tested: **NAV-SB5A-740-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967746
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-740-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 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: 20951 lumens
Efficiency: N/A
Efficacy: 147.9 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

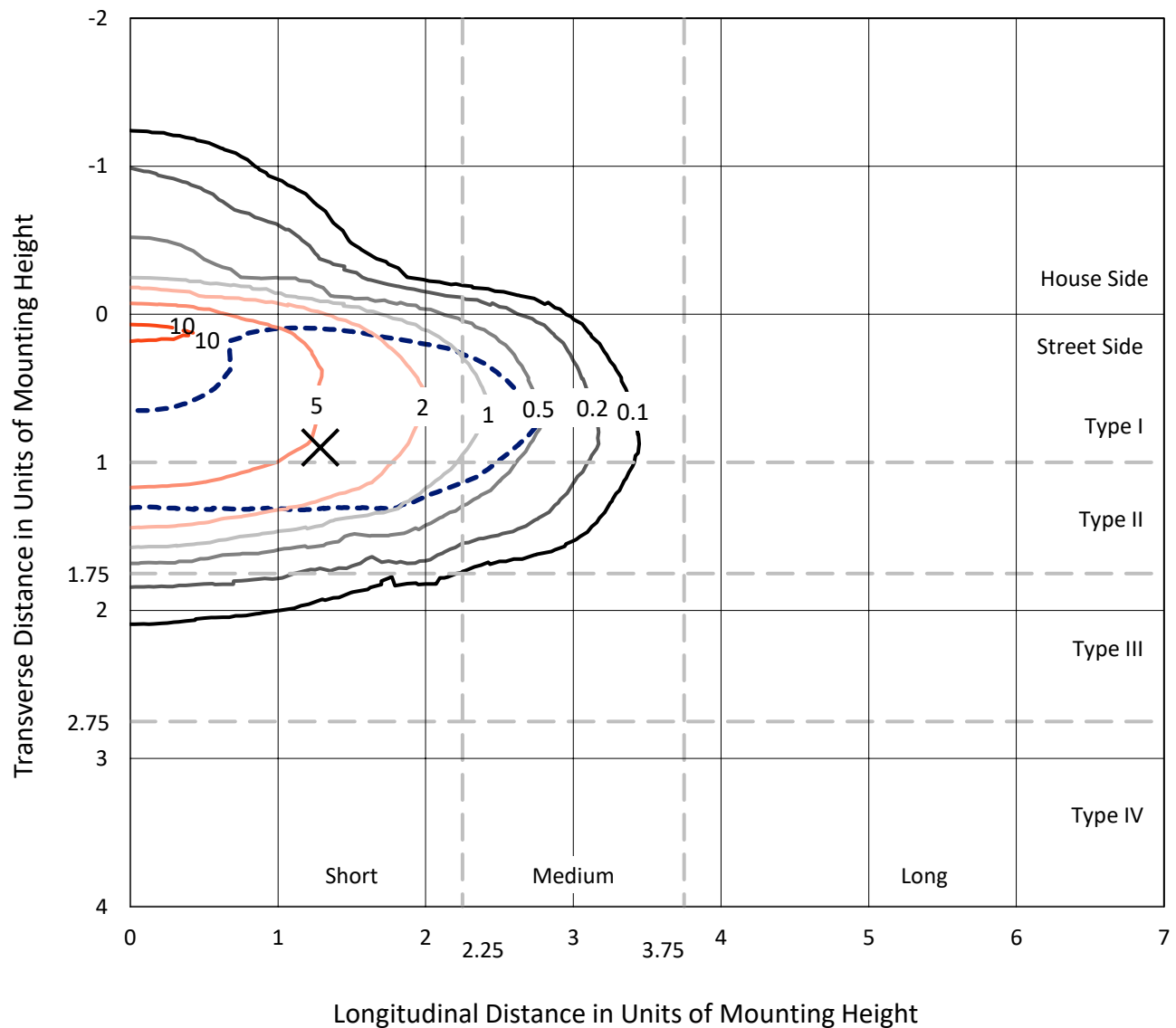


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Iso-Footcandle Lines of Horizontal Illumination

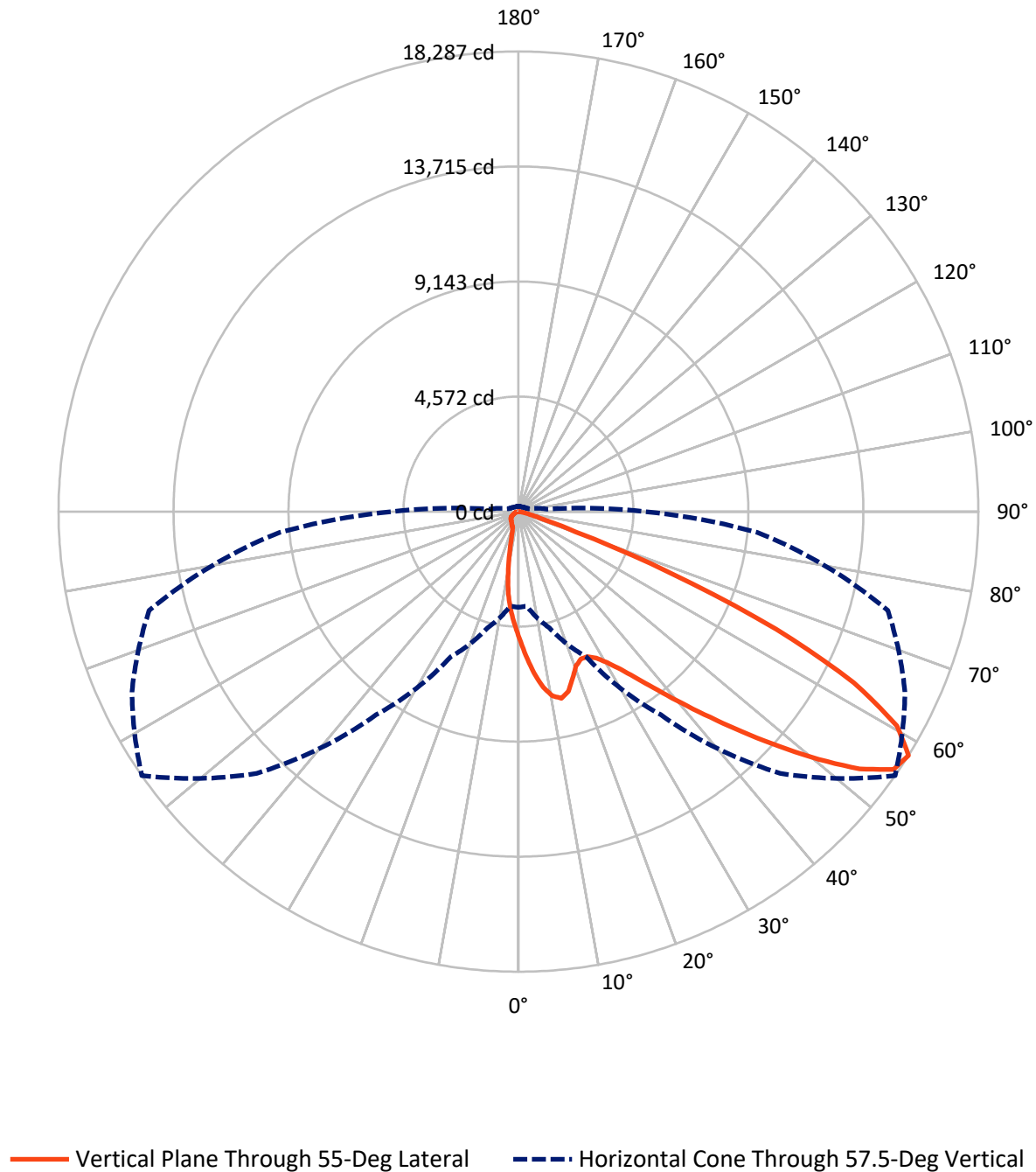
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.6 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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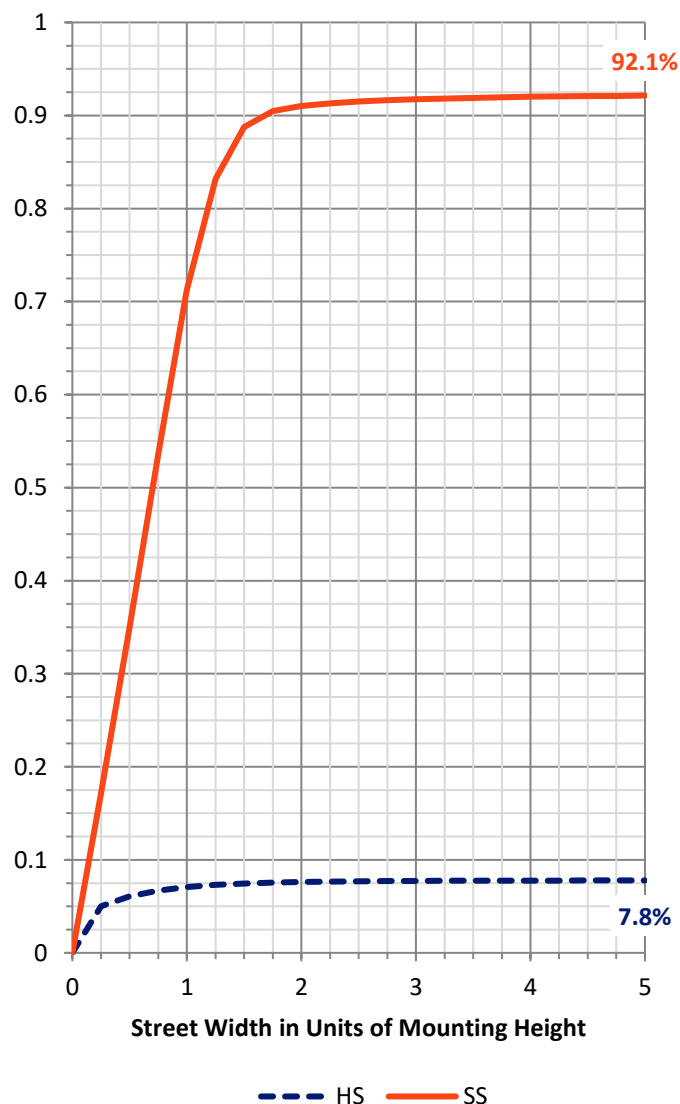
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1636.2	0.0	1636.2
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	19314.8	0.0	19314.8
	% Fixture	92.2	0.0	92.2
Total	Lumens	20951.0	0.0	20951.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	469.7	2.2
10°-20°	1134.7	5.4
20°-30°	1815.5	8.7
30°-40°	3072.8	14.7
40°-50°	5044.9	24.1
50°-60°	5544.7	26.5
60°-70°	3180.5	15.2
70°-80°	649.9	3.1
80°-90°	38.3	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°	20951.0	100.0
0°-180°	20951.0	100.0

Coefficient of Utilization



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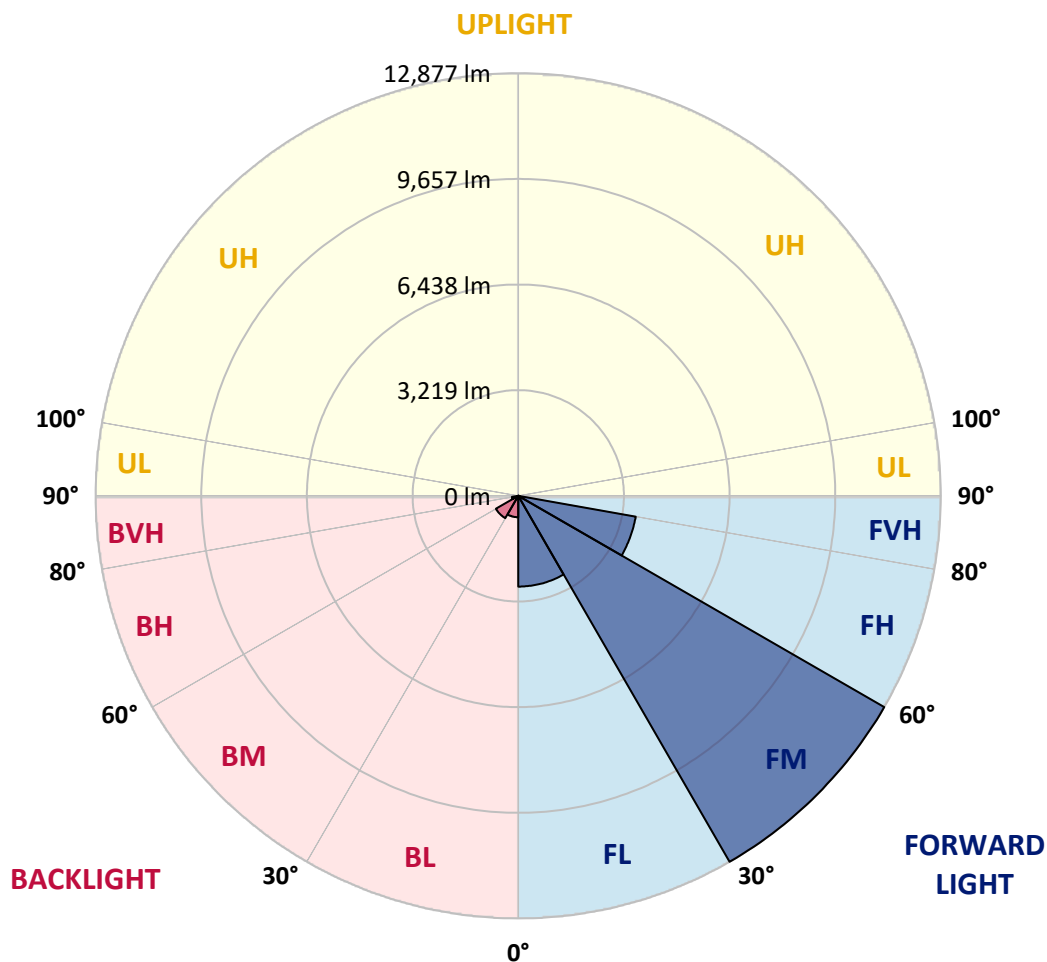
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2766.7	13.2			
FM	(30°-60°)	12876.6	61.5			
FH	(60°-80°)	3635.7	17.4			G2/5000
FVH	(80°-90°)	35.8	0.2			G1/100
BL	(0°-30°)	653.2	3.1	B2/1000		
BM	(30°-60°)	785.8	3.8	B1/1000		
BH	(60°-80°)	194.6	0.9	B1/500		G1/500
BVH	(80°-90°)	2.6	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°	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6
2.5°	6264.3	6185.6	6173.9	6158.4	6008.5	5896.1	5733.3	5555.1	5354.8	5150.7	5060.3
5°	7237.1	7175.1	7163.5	7091.2	6920.6	6729.4	6440.1	6074.5	5701.0	5261.8	5073.2
7.5°	7425.7	7414.1	7467.1	7464.5	7441.2	7290.1	7046.0	6610.5	6049.9	5398.8	5106.9
10°	6584.7	6614.4	6772.1	6910.2	7283.6	7500.6	7447.6	7088.6	6409.0	5555.1	5144.3
12.5°	5818.6	5783.8	5896.1	6052.4	6486.5	7132.5	7614.3	7487.7	6819.8	5732.1	5199.8
15°	5338.1	5323.8	5387.2	5459.5	5790.2	6441.3	7420.6	7812.0	7215.2	5941.4	5283.8
17.5°	5184.3	5172.7	5192.0	5210.2	5424.6	5928.5	6959.3	8011.0	7593.7	6180.3	5376.8
20°	5309.6	5294.1	5291.6	5277.3	5366.5	5710.1	6542.1	8025.1	7933.4	6397.4	5456.9
22.5°	5675.2	5657.2	5593.8	5537.0	5544.7	5739.8	6356.0	7883.1	8189.2	6600.2	5507.3
25°	6338.0	6308.3	6176.4	5985.3	5863.8	5946.5	6384.5	7695.7	8433.4	6759.2	5482.7
27.5°	7167.3	7128.6	6959.3	6675.1	6397.4	6296.7	6589.9	7566.6	8636.2	6880.5	5429.7
30°	7979.9	7929.6	7762.9	7542.1	7136.4	6818.5	6960.7	7623.4	8877.8	7007.2	5360.0
32.5°	8857.1	8809.4	8588.5	8314.6	7978.7	7551.1	7468.4	7901.1	9173.6	7184.1	5310.9
35°	9966.9	9892.0	9578.0	9204.7	8848.1	8415.4	8155.6	8380.4	9567.7	7454.2	5338.1
37.5°	11230.3	11129.6	10791.1	10275.6	9810.6	9326.1	8992.8	9039.3	10145.1	7815.9	5422.0
40°	12421.5	12329.7	12017.1	11531.4	10947.4	10359.6	10004.3	9901.0	10942.3	8256.4	5569.3
42.5°	13135.9	13053.2	12921.4	12715.9	12223.7	11624.3	11176.1	10952.5	11885.3	8783.5	5748.9
45°	13175.9	13103.6	13280.5	13519.5	13422.7	13023.4	12477.0	12067.4	12832.3	9278.3	5935.0
47.5°	12535.1	12486.0	13023.4	13858.0	14274.0	14441.9	13938.2	13089.4	13613.8	9633.6	6011.1
50°	10788.5	10770.4	11876.3	13408.4	14598.3	15684.8	15479.3	14040.1	14219.7	9817.0	5938.7
52.5°	9354.6	9288.7	9933.3	11969.3	14126.8	16338.4	16985.7	14972.9	14643.5	9851.9	5769.5
55°	7095.0	7036.8	7845.6	9561.2	12606.2	16105.9	18087.7	15935.4	14947.1	9762.7	5465.9
57.5°	3805.9	3769.7	4791.6	6363.8	9854.5	14710.7	18286.6	16953.4	15202.9	9526.3	5041.0
60°	1481.7	1475.3	1857.7	3087.6	5989.2	11968.0	17282.8	17564.4	15363.1	9235.7	4685.7
62.5°	896.6	915.9	978.0	1386.2	2645.7	7434.7	14969.0	16869.3	15470.3	8969.6	4392.4
65°	741.6	742.8	750.6	952.1	1267.3	3110.9	11269.1	14582.8	15205.5	8495.4	3976.4
67.5°	635.6	647.2	676.9	755.7	894.0	1364.3	6487.8	11296.2	13594.5	7392.2	3327.9
70°	501.2	516.7	554.2	621.4	689.8	853.9	2397.8	7516.1	10385.4	5571.9	2516.6
72.5°	422.4	421.2	440.5	505.1	547.8	600.8	922.4	4211.5	6035.7	2660.0	1245.4
75°	326.9	339.8	364.3	422.4	448.2	435.3	500.0	1538.6	2162.6	806.2	423.7
77.5°	255.8	266.1	288.1	344.9	370.7	308.7	288.1	550.3	695.1	289.4	191.2
80°	115.0	124.0	196.4	254.5	302.3	213.2	156.3	281.7	308.7	131.8	96.9
82.5°	20.7	34.8	115.0	134.4	155.0	138.3	81.4	146.0	151.2	53.0	33.6
85°	1.3	2.6	40.1	49.1	62.0	45.2	24.5	58.1	50.4	18.0	12.9
87.5°	0.0	0.0	0.0	1.3	1.3	6.5	7.8	10.4	7.8	6.5	5.1
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°	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6	5048.6
2.5°	4967.3	4783.9	4605.5	4459.6	4374.3	4229.7	4134.0	4118.6	4078.5	4113.3
5°	4871.7	4543.5	4211.5	3914.4	3670.2	3355.0	3119.9	3020.5	2933.9	2963.6
7.5°	4826.5	4308.4	3791.7	3284.0	2762.1	2258.2	1883.5	1727.2	1608.4	1625.1
10°	4765.7	4064.2	3254.3	2479.2	1780.2	1282.9	1024.5	928.9	875.9	877.2
12.5°	4719.2	3772.3	2630.3	1680.7	1083.9	819.1	738.9	715.7	700.2	701.5
15°	4696.0	3428.6	2014.0	1120.0	775.1	693.7	674.3	664.0	653.6	652.4
17.5°	4657.2	3046.3	1474.1	817.7	678.2	649.8	633.0	621.4	608.4	605.9
20°	4599.1	2612.2	1077.5	691.2	635.6	613.7	590.4	574.9	559.3	556.8
22.5°	4491.9	2153.5	828.1	639.5	604.6	580.0	551.7	533.5	518.0	515.5
25°	4292.9	1723.3	697.6	607.2	577.5	547.8	516.7	492.2	478.0	475.4
27.5°	4041.0	1353.9	633.0	577.5	542.6	515.5	480.6	457.4	444.4	441.8
30°	3743.9	1042.5	595.5	543.9	501.2	478.0	447.0	427.6	419.8	419.8
32.5°	3423.5	833.2	580.0	510.2	465.0	439.2	414.7	406.9	404.4	403.0
35°	3122.5	723.4	572.3	483.2	432.8	408.3	397.9	399.2	404.4	404.4
37.5°	2855.0	688.6	568.5	463.8	404.4	382.4	388.9	400.5	395.3	395.3
40°	2613.4	692.5	565.8	449.6	381.1	368.2	381.1	372.1	359.2	357.8
42.5°	2428.7	724.8	560.7	438.0	366.8	357.8	352.7	338.5	337.2	339.8
45°	2294.4	753.2	559.3	432.8	351.4	334.6	328.1	314.0	339.8	346.2
47.5°	2135.5	753.2	559.3	414.7	325.5	319.1	308.7	293.3	319.1	325.5
50°	1930.1	705.4	537.4	394.0	304.8	301.0	282.9	263.5	258.4	262.3
52.5°	1670.4	618.8	481.9	365.6	284.2	276.4	254.5	240.3	236.4	236.4
55°	1374.5	518.0	406.9	324.3	262.3	248.0	232.6	226.1	222.2	219.7
57.5°	1117.5	425.1	326.9	288.1	241.6	223.4	218.3	210.5	204.1	200.3
60°	917.3	334.6	270.0	255.8	220.9	204.1	202.8	192.5	175.7	173.1
62.5°	708.0	245.5	227.3	222.2	200.3	186.0	183.5	162.8	136.9	131.8
65°	500.0	191.2	183.5	195.1	178.2	165.3	158.9	127.9	100.8	96.9
67.5°	351.4	160.2	144.7	170.6	155.0	138.3	134.4	108.5	83.9	81.4
70°	250.6	130.5	118.9	146.0	124.0	121.5	113.7	90.4	68.5	65.9
72.5°	177.0	99.4	91.7	126.6	85.3	104.7	93.0	69.8	51.7	49.1
75°	130.5	71.0	64.6	73.6	62.0	78.8	65.9	46.5	32.3	31.0
77.5°	95.6	45.2	38.7	36.2	36.2	49.1	36.2	19.4	14.2	12.9
80°	67.1	20.7	18.0	15.5	14.2	11.6	5.1	2.6	1.3	1.3
82.5°	40.1	9.0	9.0	6.5	3.9	0.0	0.0	0.0	0.0	0.0
85°	9.0	3.9	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	1.3	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)