

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: P965627

Luminaire Tested: **NAV-SB4A-735-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965627
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-735-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14452.5 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - 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



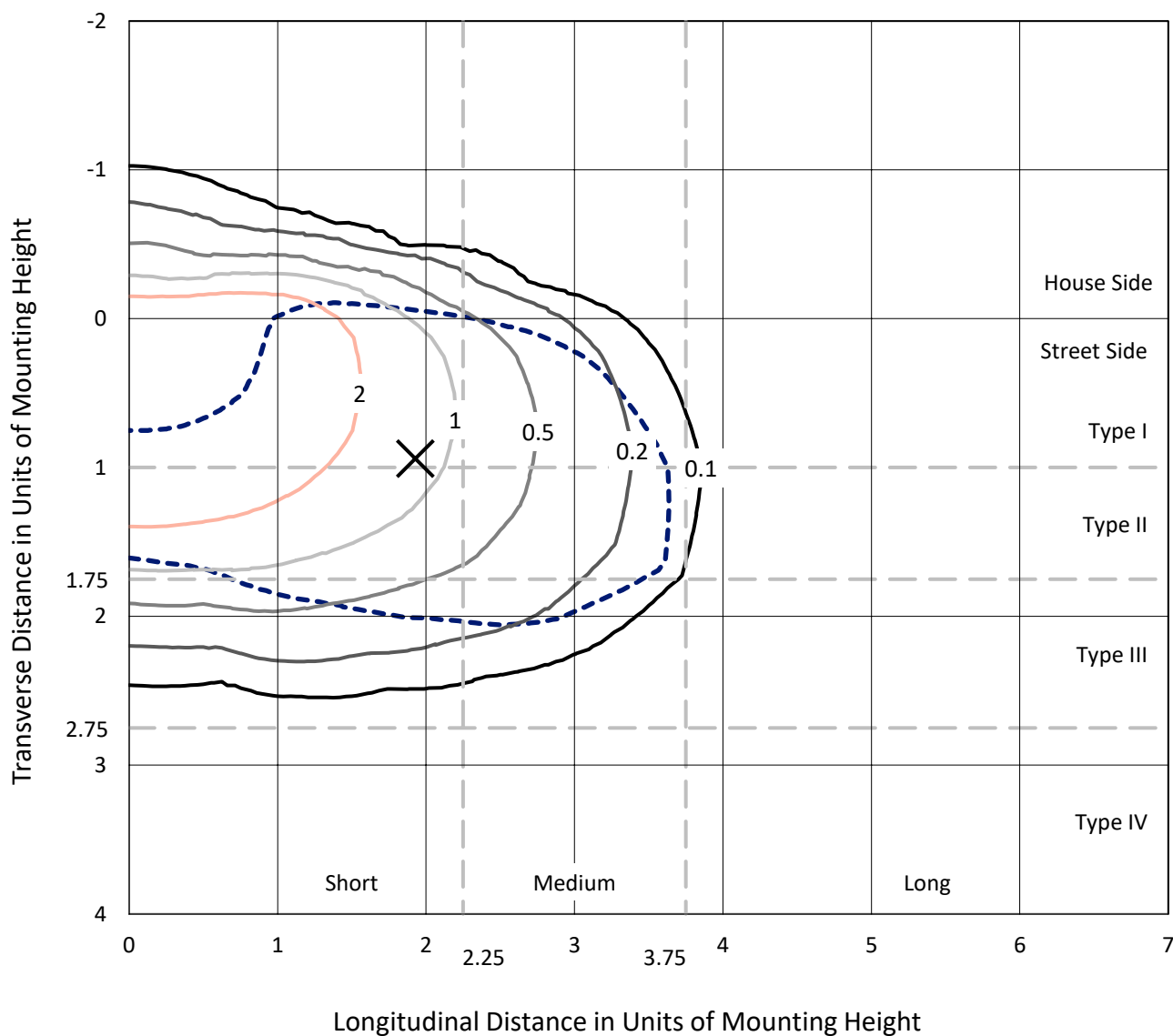
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



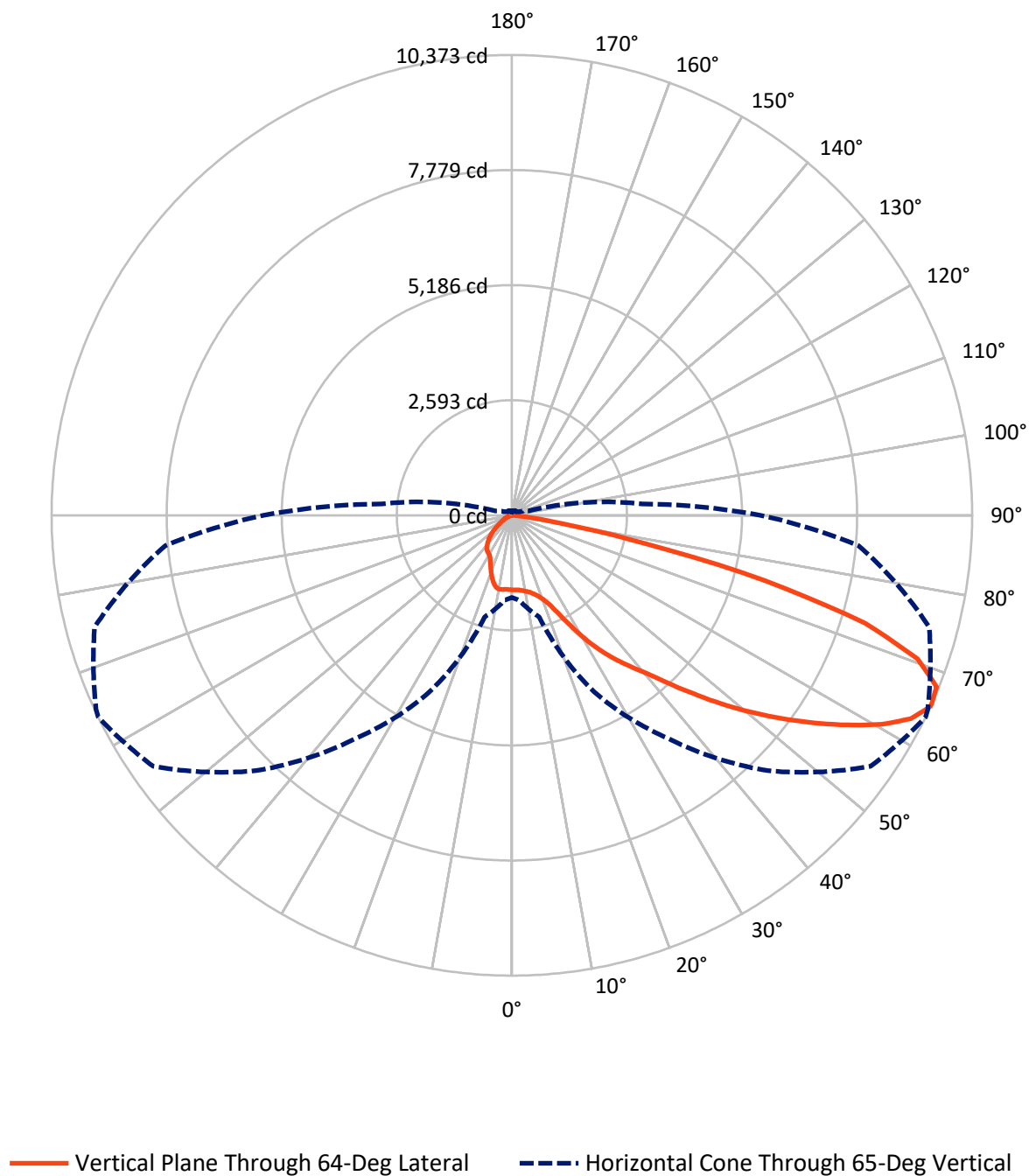
Based on 25 foot mounting height. Maximum calculated value = 4.2 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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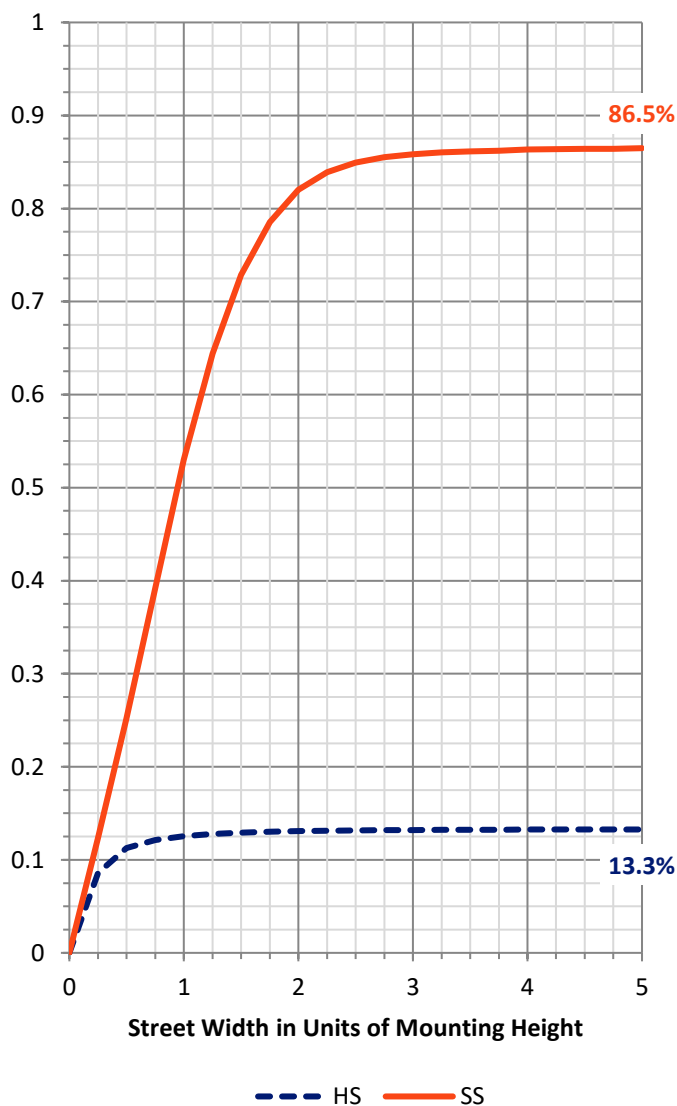
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1932.7	0.0	1932.7
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	12519.8	0.0	12519.8
	% Fixture	86.6	0.0	86.6
Total	Lumens	14452.5	0.0	14452.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.1	1.1
10°-20°	420.6	2.9
20°-30°	797.1	5.5
30°-40°	1612.9	11.2
40°-50°	2747.6	19.0
50°-60°	3736.5	25.9
60°-70°	3508.8	24.3
70°-80°	1405.8	9.7
80°-90°	68.1	0.5
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°	14452.5	100.0
0°-180°	14452.5	100.0

Coefficient of Utilization



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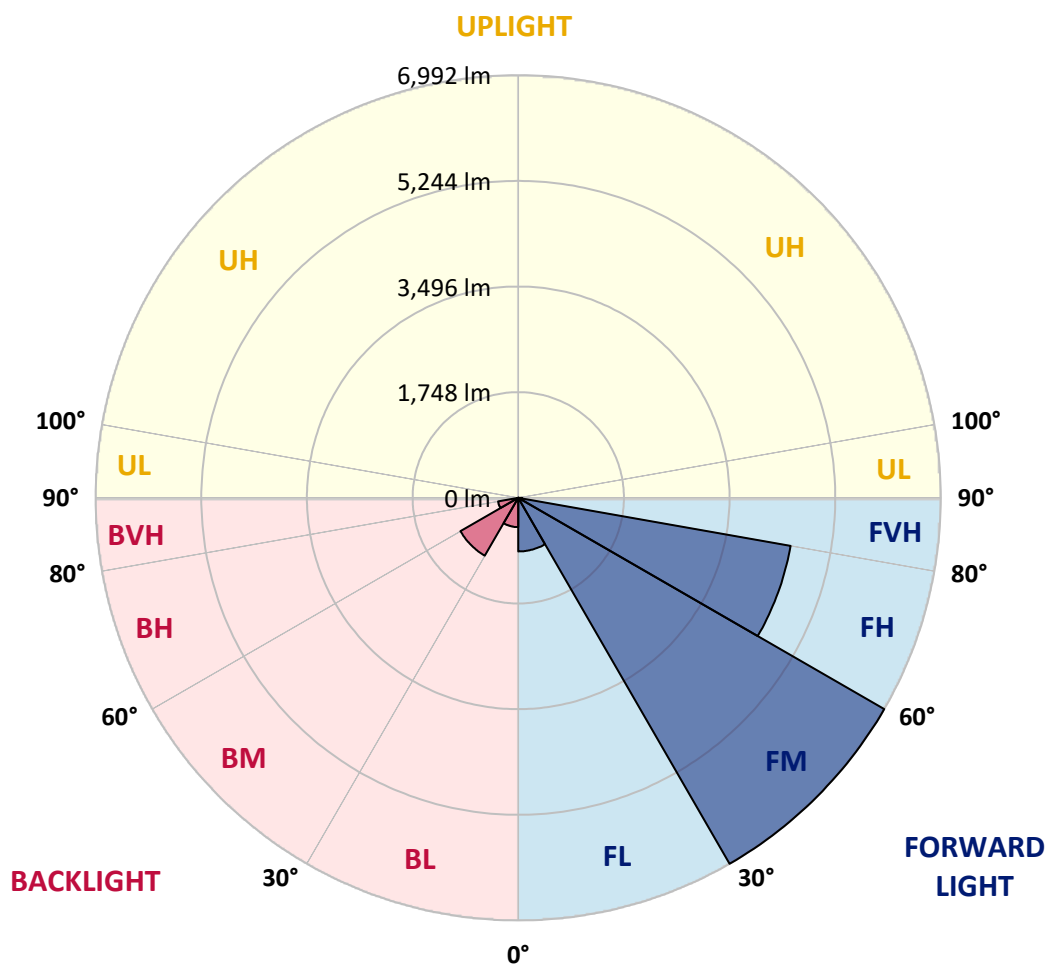
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	887.6	6.1			
FM	(30°-60°)	6992.1	48.4			
FH	(60°-80°)	4575.3	31.7			G2/5000
FVH	(80°-90°)	64.8	0.4			G1/100
BL	(0°-30°)	485.3	3.4	B1/500		
BM	(30°-60°)	1104.9	7.6	B2/2500		
BH	(60°-80°)	339.2	2.3	B1/500		G1/500
BVH	(80°-90°)	3.3	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0
2.5°	1675.2	1686.7	1683.9	1681.0	1680.0	1681.9	1682.9	1681.9	1681.9	1681.9	1682.9
5°	1643.2	1652.9	1652.9	1659.7	1669.3	1681.0	1689.7	1691.7	1693.6	1696.5	1695.6
7.5°	1582.2	1589.9	1595.7	1618.0	1642.3	1673.2	1699.3	1713.0	1714.9	1725.6	1729.4
10°	1540.5	1550.2	1559.8	1583.1	1618.0	1664.5	1709.1	1742.0	1746.9	1772.0	1783.7
12.5°	1538.5	1548.3	1560.9	1586.0	1626.7	1676.2	1730.4	1777.9	1786.6	1823.4	1847.7
15°	1558.9	1570.5	1582.2	1613.1	1656.7	1716.8	1775.0	1834.0	1842.7	1895.1	1921.3
17.5°	1600.5	1616.0	1624.8	1655.8	1702.3	1769.2	1845.7	1913.5	1921.3	1982.2	2015.3
20°	1682.9	1701.3	1704.3	1729.4	1775.0	1846.6	1937.8	2022.0	2031.8	2101.5	2138.3
22.5°	1853.4	1879.5	1856.4	1869.0	1909.7	1981.3	2080.1	2186.7	2200.3	2279.7	2312.7
25°	2153.7	2190.6	2130.6	2109.2	2126.7	2201.3	2325.3	2459.9	2475.5	2539.4	2555.8
27.5°	2743.8	2696.4	2605.2	2516.2	2463.8	2506.4	2645.9	2812.6	2832.0	2894.0	2874.6
30°	3392.0	3350.3	3227.3	3029.6	2905.6	2898.8	3027.6	3213.7	3236.0	3295.1	3236.0
32.5°	4041.2	4001.4	3867.7	3624.5	3409.5	3302.9	3392.0	3598.4	3609.9	3647.8	3560.5
35°	4679.6	4638.9	4505.2	4256.2	3991.8	3749.4	3732.0	3964.6	3968.5	4008.2	3878.4
37.5°	5322.0	5288.1	5145.6	4901.4	4640.9	4306.6	4144.8	4311.5	4316.3	4355.0	4220.3
40°	5780.3	5794.7	5697.0	5507.9	5284.2	4918.9	4607.9	4680.6	4651.6	4716.4	4636.0
42.5°	6173.6	6202.7	6117.4	6022.5	5892.6	5571.0	5181.5	5168.9	5122.3	5157.3	5074.0
45°	6513.7	6537.9	6461.3	6439.0	6436.2	6210.4	5808.4	5732.7	5667.8	5661.1	5561.2
47.5°	6638.6	6685.2	6718.1	6792.7	6938.0	6843.1	6456.5	6339.2	6266.6	6213.3	6055.4
50°	6686.1	6735.5	6847.9	7064.9	7408.9	7449.6	7101.7	6970.0	6880.8	6784.0	6551.5
52.5°	6622.2	6710.4	6861.5	7226.8	7725.7	7936.0	7720.8	7605.6	7503.8	7345.9	7001.0
55°	6245.3	6333.5	6642.5	7224.8	7883.6	8277.0	8306.1	8254.7	8140.3	7891.4	7364.3
57.5°	5450.8	5581.6	6070.9	6978.7	7880.7	8570.5	8879.6	8916.5	8788.6	8432.0	7650.1
60°	4350.2	4527.5	5124.3	6433.2	7637.6	8729.4	9382.4	9566.5	9430.9	8964.9	7881.7
62.5°	3035.4	3240.8	3805.7	5578.7	7081.4	8615.1	9749.7	10089.7	9987.0	9441.6	7970.8
65°	1851.5	1917.4	2372.8	4389.9	6135.9	8136.6	9863.1	10372.6	10338.8	9733.2	7839.1
67.5°	1233.4	1288.6	1419.4	3010.2	4763.0	7180.2	9591.7	10323.2	10332.9	9685.7	7356.5
70°	743.1	790.6	875.9	1750.7	3086.8	5683.3	8751.8	9693.4	9749.7	9051.2	6441.9
72.5°	306.2	338.1	415.6	793.5	1598.6	3607.1	6969.0	8322.5	8453.3	7610.4	4944.1
75°	173.4	189.9	244.2	398.2	693.7	1681.0	4221.4	5908.1	6100.9	5245.4	2974.4
77.5°	115.3	123.0	158.0	257.7	390.4	573.6	1804.0	3078.1	3446.3	2864.9	1287.6
80°	77.5	84.3	108.5	172.5	253.9	246.1	574.5	1140.3	1402.9	984.4	314.0
82.5°	52.3	53.3	77.5	113.4	160.8	119.2	169.5	354.6	445.7	284.8	119.2
85°	30.0	29.1	57.2	65.9	71.6	49.4	51.4	106.6	139.5	120.1	67.9
87.5°	3.9	5.8	22.2	17.4	9.7	10.7	10.7	18.4	27.2	29.1	14.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0	1681.0
2.5°	1682.9	1681.9	1679.1	1676.2	1669.3	1665.5	1667.4	1665.5	1664.5	1665.5	1669.3
5°	1695.6	1692.6	1684.9	1675.2	1661.6	1645.1	1634.5	1619.0	1604.4	1595.7	1597.7
7.5°	1729.4	1726.5	1715.8	1688.7	1645.1	1576.3	1513.4	1458.2	1416.4	1392.3	1393.2
10°	1783.7	1778.8	1762.4	1702.3	1587.9	1437.8	1312.8	1209.1	1141.3	1109.4	1106.5
12.5°	1847.7	1841.8	1812.7	1689.7	1479.5	1245.0	1072.6	957.2	894.2	866.1	863.3
15°	1923.2	1915.4	1858.3	1629.6	1321.5	1031.9	873.9	787.7	747.0	721.8	722.7
17.5°	2017.2	2003.6	1892.2	1539.6	1150.0	869.1	751.8	687.0	651.1	626.9	624.9
20°	2139.3	2116.9	1919.3	1432.0	992.1	766.4	669.5	615.2	588.1	566.8	562.9
22.5°	2309.7	2277.8	1952.2	1315.7	880.7	695.7	608.4	568.8	546.4	522.2	518.3
25°	2521.0	2483.2	1992.9	1208.2	804.1	634.6	563.9	530.9	504.8	476.7	473.8
27.5°	2816.5	2748.6	2041.4	1120.0	738.3	582.3	523.2	486.4	456.3	433.1	428.2
30°	3145.9	3034.5	2084.0	1066.7	678.2	533.8	469.9	433.1	405.0	388.5	385.6
32.5°	3457.8	3306.8	2112.1	1043.4	623.9	478.6	411.7	372.1	350.8	345.8	348.8
35°	3752.4	3552.9	2109.2	1021.2	575.5	423.4	354.6	314.0	297.5	300.3	300.3
37.5°	4091.5	3815.4	2088.8	986.3	535.8	373.0	305.1	269.4	254.8	255.7	259.6
40°	4485.8	4118.7	2076.2	920.4	492.2	326.5	264.4	235.4	224.8	220.9	220.0
42.5°	4906.4	4412.2	2078.2	845.8	437.9	284.8	236.4	212.2	202.5	199.6	198.6
45°	5328.8	4692.2	2081.2	768.3	380.8	252.9	216.1	195.7	189.9	186.0	186.0
47.5°	5726.0	4930.6	2026.8	685.0	324.6	228.7	199.6	186.0	181.2	176.3	176.3
50°	6096.1	5089.4	1896.0	588.1	280.0	209.3	187.0	177.3	172.5	167.6	167.6
52.5°	6383.8	5114.6	1680.0	488.3	249.0	194.7	179.3	170.6	164.7	159.9	158.9
55°	6511.7	4956.7	1372.9	395.3	224.8	182.1	171.5	162.8	156.0	151.2	150.2
57.5°	6478.8	4624.4	1070.6	317.8	201.5	169.5	161.8	156.0	148.2	140.5	139.5
60°	6317.0	4179.6	807.1	264.4	180.2	156.0	151.2	146.3	135.6	124.0	122.1
62.5°	6036.9	3620.6	575.5	218.9	156.9	140.5	138.6	134.7	119.2	97.9	95.9
65°	5608.7	2941.4	387.6	182.1	134.7	123.0	124.0	117.3	96.9	72.7	70.7
67.5°	4982.8	2150.9	248.0	149.2	112.3	102.7	103.6	99.8	82.3	62.0	59.1
70°	4185.5	1424.2	161.8	113.4	90.1	79.4	85.3	86.2	69.8	50.4	48.5
72.5°	3068.3	841.0	113.4	84.3	65.9	55.2	69.8	71.6	56.2	37.8	35.9
75°	1748.8	399.1	85.3	61.0	40.7	38.7	54.2	54.2	38.7	25.2	23.3
77.5°	734.4	166.7	60.1	39.8	23.3	22.2	36.8	33.9	19.4	11.6	11.6
80°	212.2	74.6	32.0	19.4	9.7	8.7	14.6	10.7	4.8	1.9	1.9
82.5°	83.3	32.9	12.6	7.8	3.9	3.9	1.9	0.0	0.0	0.0	0.0
85°	49.4	13.5	5.8	2.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.6	2.9	1.9	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	0.0

(END OF REPORT)