

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: P965782

Luminaire Tested: **NAV-SB4A-830-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965782
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-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 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: 12985.7 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - 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

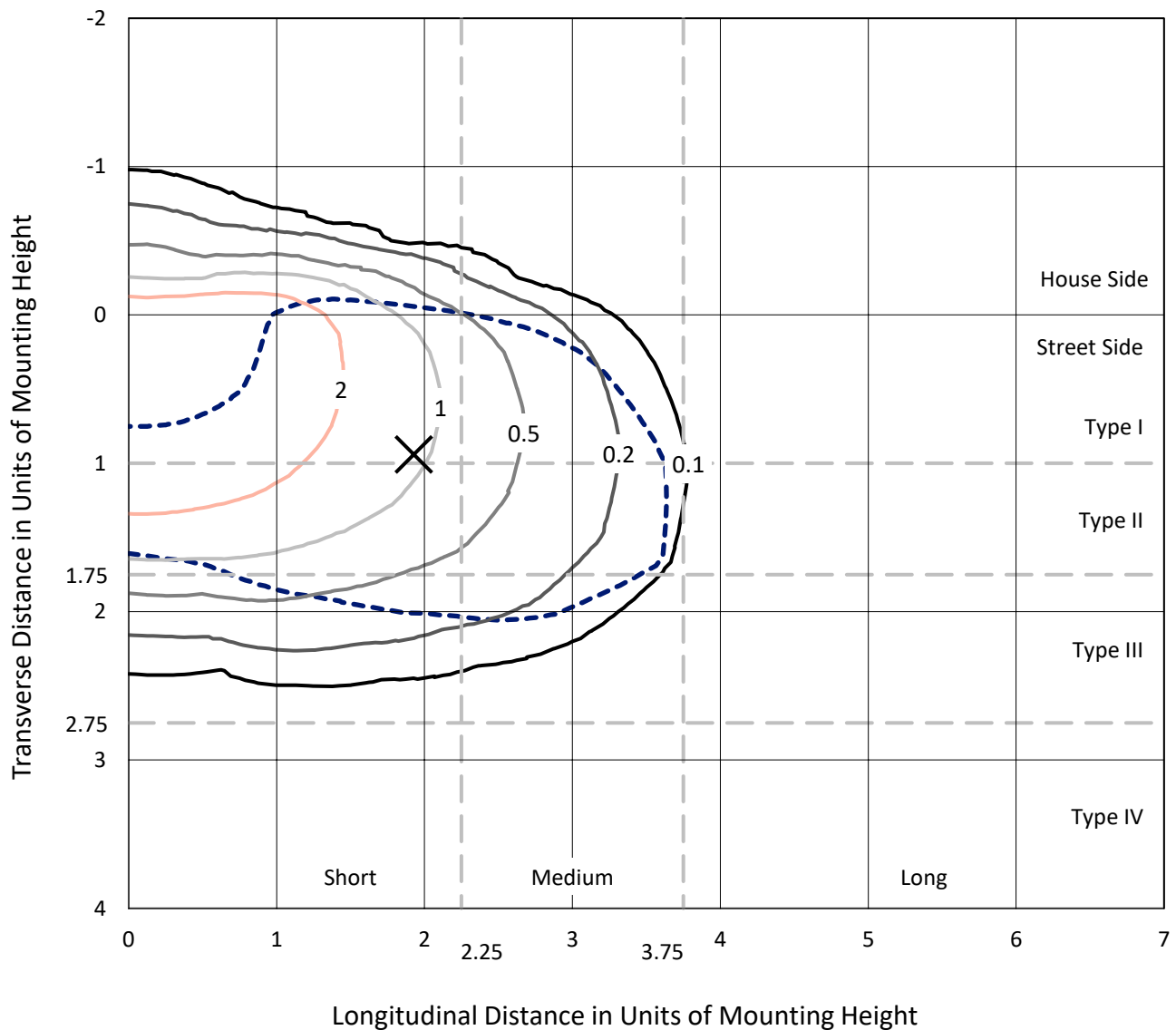


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Iso-Footcandle Lines of Horizontal Illumination

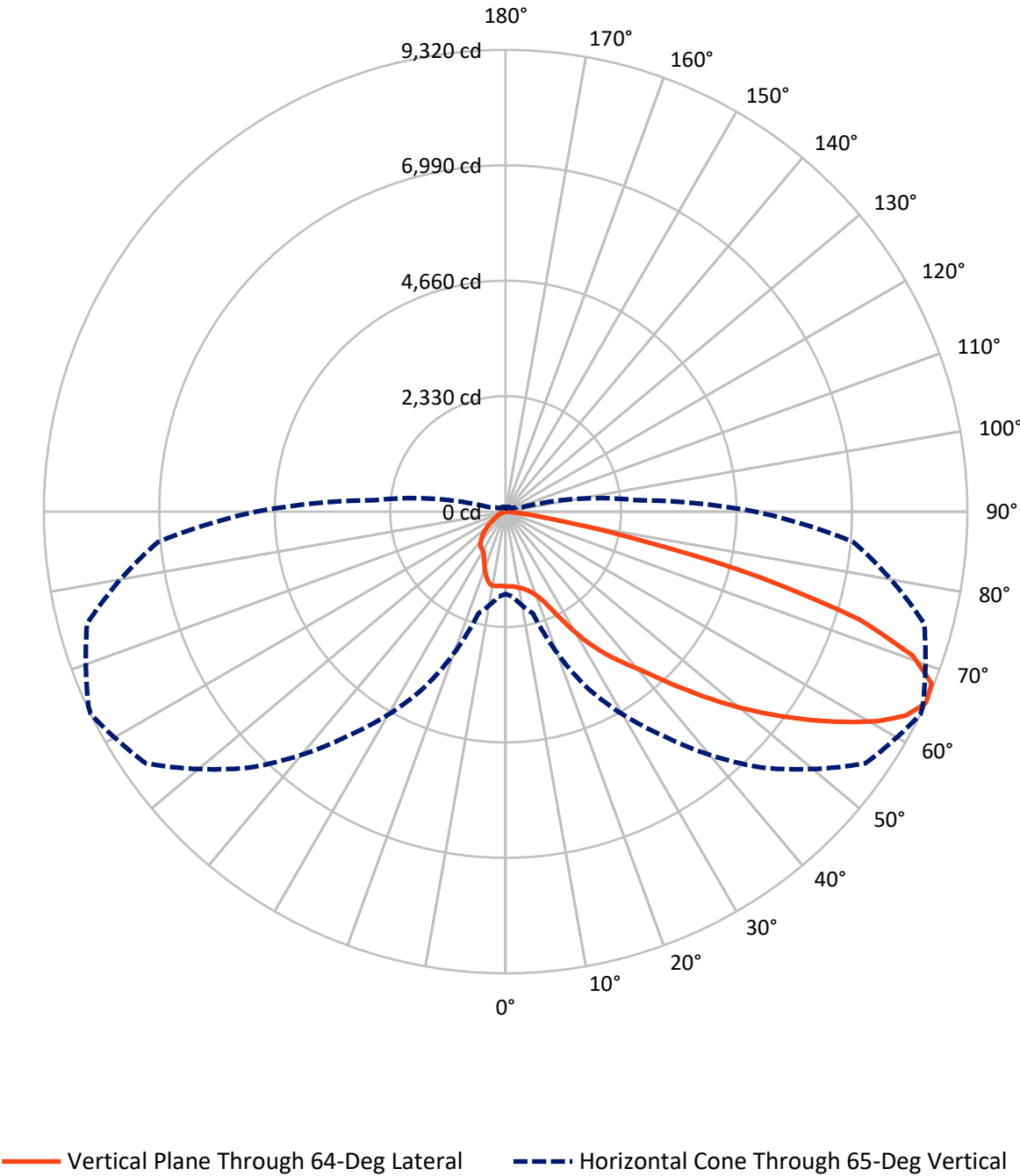
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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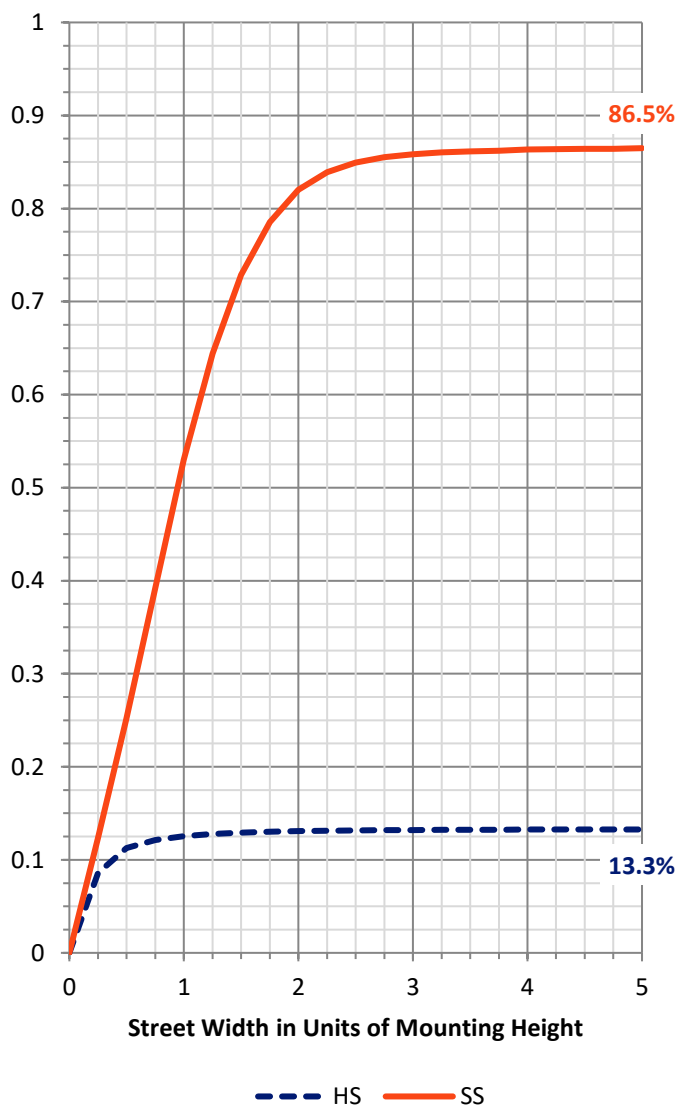
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1736.6	0.0	1736.6
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	11249.1	0.0	11249.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	12985.7	0.0	12985.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.3	1.1
10°-20°	378.0	2.9
20°-30°	716.2	5.5
30°-40°	1449.2	11.2
40°-50°	2468.8	19.0
50°-60°	3357.3	25.9
60°-70°	3152.7	24.3
70°-80°	1263.1	9.7
80°-90°	61.2	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°	12985.7	100.0
0°-180°	12985.7	100.0

Coefficient of Utilization



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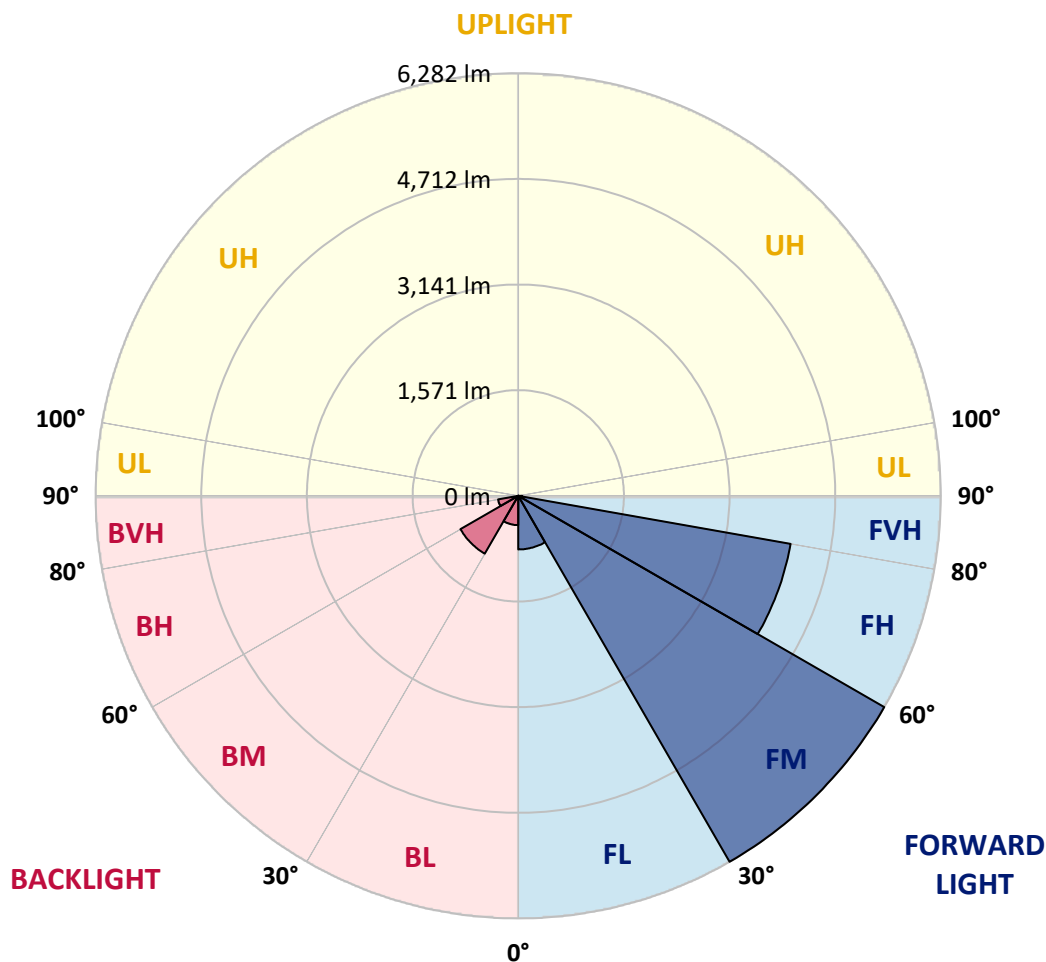
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	797.5	6.1			
FM	(30°-60°)	6282.5	48.4			
FH	(60°-80°)	4111.0	31.7			G2/5000
FVH	(80°-90°)	58.2	0.4			G1/100
BL	(0°-30°)	436.0	3.4	B1/500		
BM	(30°-60°)	992.8	7.6	B1/1000		
BH	(60°-80°)	304.8	2.3	B1/500		G1/500
BVH	(80°-90°)	3.0	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3
2.5°	1505.1	1515.6	1513.0	1510.3	1509.5	1511.3	1512.1	1511.3	1511.3	1511.3	1512.1
5°	1476.4	1485.1	1485.1	1491.3	1499.9	1510.3	1518.2	1520.0	1521.7	1524.3	1523.5
7.5°	1421.6	1428.5	1433.8	1453.8	1475.6	1503.4	1526.9	1539.1	1540.9	1550.4	1553.9
10°	1384.2	1392.9	1401.6	1422.5	1453.8	1495.6	1535.7	1565.2	1569.6	1592.2	1602.7
12.5°	1382.4	1391.1	1402.4	1425.1	1461.6	1506.0	1554.8	1597.5	1605.3	1638.4	1660.1
15°	1400.7	1411.1	1421.6	1449.5	1488.6	1542.6	1594.8	1647.9	1655.8	1702.7	1726.3
17.5°	1438.1	1452.0	1459.9	1487.8	1529.5	1589.6	1658.3	1719.3	1726.3	1781.1	1810.7
20°	1512.1	1528.7	1531.2	1553.9	1594.8	1659.3	1741.1	1816.8	1825.5	1888.2	1921.3
22.5°	1665.3	1688.8	1668.0	1679.3	1715.8	1780.2	1869.0	1964.8	1977.0	2048.4	2078.0
25°	1935.2	1968.3	1914.3	1895.1	1910.8	1977.8	2089.3	2210.3	2224.2	2281.6	2296.5
27.5°	2465.3	2422.7	2340.9	2260.7	2213.8	2252.0	2377.4	2527.1	2544.6	2600.3	2582.9
30°	3047.7	3010.3	2899.7	2722.2	2610.8	2604.6	2720.5	2887.5	2907.6	2960.7	2907.6
32.5°	3631.0	3595.3	3475.2	3256.6	3063.4	2967.7	3047.7	3233.2	3243.6	3277.5	3199.2
35°	4204.7	4168.2	4047.9	3824.3	3586.6	3369.0	3353.3	3562.2	3565.7	3601.4	3484.7
37.5°	4781.8	4751.4	4623.4	4404.0	4169.8	3869.5	3724.1	3873.9	3878.2	3913.0	3792.1
40°	5193.6	5206.7	5118.7	4949.0	4747.9	4419.7	4140.3	4205.6	4179.4	4237.8	4165.5
42.5°	5547.0	5573.1	5496.6	5411.3	5294.5	5005.6	4655.7	4644.3	4602.6	4633.8	4559.0
45°	5852.5	5874.4	5805.6	5785.6	5782.9	5580.1	5218.9	5150.9	5092.6	5086.6	4996.9
47.5°	5964.9	6006.7	6036.2	6103.3	6233.8	6148.6	5801.2	5695.9	5630.6	5582.8	5440.8
50°	6007.5	6051.9	6153.0	6347.9	6657.0	6693.6	6381.0	6262.6	6182.5	6095.5	5886.6
52.5°	5950.1	6029.4	6165.1	6493.3	6941.6	7130.5	6937.3	6833.7	6742.2	6600.4	6290.4
55°	5611.5	5690.7	5968.4	6491.5	7083.6	7437.0	7463.1	7416.9	7314.2	7090.5	6616.9
57.5°	4897.7	5015.1	5454.7	6270.4	7080.9	7700.7	7978.4	8011.5	7896.6	7576.3	6873.8
60°	3908.7	4068.0	4604.2	5780.4	6862.4	7843.5	8430.2	8595.6	8473.8	8055.1	7081.8
62.5°	2727.4	2911.9	3419.5	5012.6	6362.7	7740.8	8760.2	9065.7	8973.5	8483.3	7161.9
65°	1663.6	1722.8	2131.9	3944.4	5513.1	7310.7	8862.0	9319.9	9289.5	8745.4	7043.5
67.5°	1108.2	1157.8	1275.3	2704.8	4279.6	6451.6	8618.3	9275.5	9284.2	8702.8	6609.9
70°	667.7	710.3	787.0	1573.1	2773.5	5106.5	7863.5	8709.7	8760.2	8132.6	5788.2
72.5°	275.1	303.8	373.4	713.0	1436.3	3240.9	6261.7	7477.9	7595.4	6838.1	4442.3
75°	155.8	170.7	219.4	357.8	623.3	1510.3	3792.9	5308.5	5481.7	4713.1	2672.6
77.5°	103.6	110.6	141.9	231.5	350.9	515.4	1620.9	2765.7	3096.5	2574.2	1156.9
80°	69.6	75.7	97.5	155.0	228.1	221.1	516.2	1024.6	1260.5	884.5	282.1
82.5°	47.0	47.9	69.6	101.9	144.5	107.1	152.3	318.6	400.5	255.9	107.1
85°	27.0	26.1	51.4	59.2	64.4	44.4	46.1	95.7	125.4	107.9	61.0
87.5°	3.5	5.2	20.0	15.7	8.7	9.5	9.5	16.5	24.4	26.1	13.0
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°	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3	1510.3
2.5°	1512.1	1511.3	1508.6	1506.0	1499.9	1496.4	1498.1	1496.4	1495.6	1496.4	1499.9
5°	1523.5	1520.8	1513.8	1505.1	1493.0	1478.2	1468.6	1454.7	1441.6	1433.8	1435.5
7.5°	1553.9	1551.3	1541.7	1517.3	1478.2	1416.3	1359.8	1310.2	1272.7	1250.9	1251.8
10°	1602.7	1598.3	1583.5	1529.5	1426.8	1291.9	1179.6	1086.4	1025.5	996.7	994.1
12.5°	1660.1	1654.9	1628.7	1518.2	1329.3	1118.7	963.7	860.1	803.5	778.3	775.6
15°	1728.0	1721.1	1669.7	1464.2	1187.4	927.1	785.3	707.8	671.2	648.5	649.4
17.5°	1812.4	1800.3	1700.2	1383.2	1033.3	780.8	675.6	617.3	585.0	563.2	561.5
20°	1922.2	1902.1	1724.6	1286.7	891.4	688.6	601.6	552.8	528.4	509.2	505.7
22.5°	2075.3	2046.6	1754.1	1182.1	791.3	625.0	546.7	511.0	491.0	469.2	465.8
25°	2265.1	2231.2	1790.7	1085.6	722.5	570.2	506.7	477.0	453.6	428.3	425.7
27.5°	2530.6	2469.7	1834.2	1006.3	663.4	523.2	470.1	437.0	410.0	389.1	384.8
30°	2826.6	2726.5	1872.5	958.5	609.4	479.7	422.2	389.1	363.9	349.1	346.4
32.5°	3107.0	2971.2	1897.8	937.6	560.6	430.1	370.0	334.3	315.1	310.8	313.3
35°	3371.5	3192.3	1895.1	917.6	517.1	380.4	318.6	282.1	267.2	269.9	269.9
37.5°	3676.3	3428.1	1876.9	886.2	481.4	335.2	274.2	242.0	229.0	229.8	233.3
40°	4030.6	3700.7	1865.6	827.0	442.2	293.4	237.7	211.6	201.9	198.4	197.6
42.5°	4408.4	3964.4	1867.2	759.9	393.5	255.9	212.4	190.6	181.9	179.4	178.5
45°	4788.0	4216.0	1869.9	690.3	342.1	227.2	194.1	175.9	170.7	167.2	167.2
47.5°	5144.9	4430.2	1821.1	615.5	291.6	205.4	179.4	167.2	162.8	158.5	158.5
50°	5477.4	4572.9	1703.7	528.4	251.5	188.0	168.0	159.3	155.0	150.6	150.6
52.5°	5735.9	4595.6	1509.5	438.7	223.8	175.0	161.0	153.2	148.0	143.6	142.8
55°	5850.8	4453.6	1233.6	355.2	201.9	163.7	154.1	146.3	140.1	135.8	134.9
57.5°	5821.3	4155.0	962.0	285.6	181.1	152.3	145.3	140.1	133.1	126.2	125.4
60°	5675.8	3755.5	725.2	237.7	162.0	140.1	135.8	131.4	121.9	111.4	109.7
62.5°	5424.3	3253.1	517.1	196.7	141.0	126.2	124.4	121.1	107.1	87.9	86.2
65°	5039.5	2643.0	348.2	163.7	121.1	110.6	111.4	105.4	87.0	65.3	63.6
67.5°	4477.2	1932.5	222.8	134.1	101.0	92.2	93.2	89.7	74.0	55.8	53.1
70°	3760.7	1279.7	145.3	101.9	81.0	71.3	76.6	77.5	62.6	45.3	43.6
72.5°	2756.9	755.6	101.9	75.7	59.2	49.6	62.6	64.4	50.5	33.9	32.2
75°	1571.3	358.6	76.6	54.8	36.6	34.8	48.8	48.8	34.8	22.7	20.9
77.5°	659.9	149.8	54.0	35.7	20.9	20.0	33.1	30.4	17.4	10.5	10.5
80°	190.6	67.0	28.7	17.4	8.7	7.8	13.0	9.5	4.3	1.7	1.7
82.5°	74.8	29.6	11.3	7.0	3.5	3.5	1.7	0.0	0.0	0.0	0.0
85°	44.4	12.2	5.2	2.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.3	2.6	1.7	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	0.0

(END OF REPORT)