

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: P959949

Luminaire Tested: **NAV-SB1B-827-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959949
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1B-827-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4250.7 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B0 - U0 - G1

Input Watts (W): 39.8
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

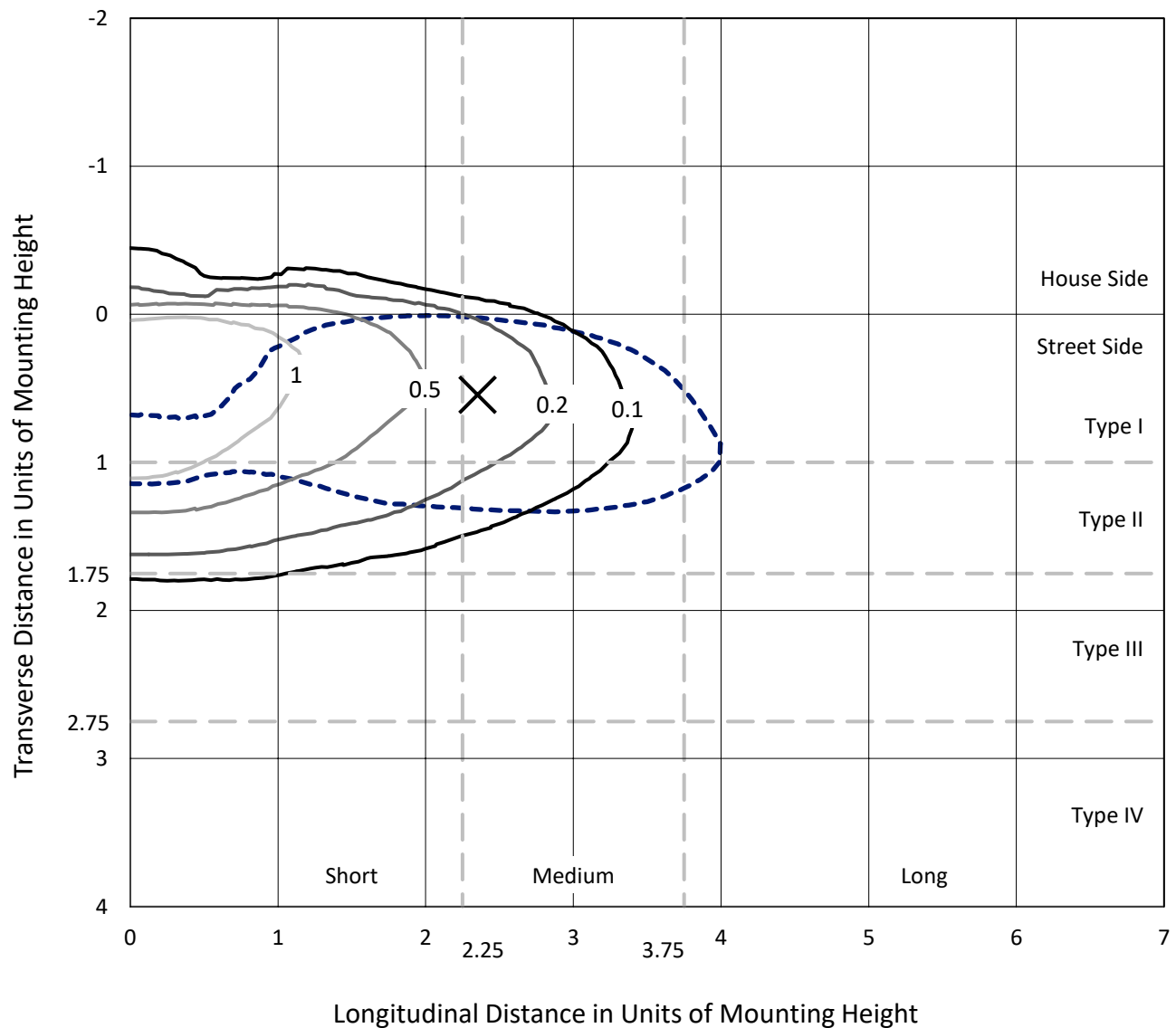


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Iso-Footcandle Lines of Horizontal Illumination

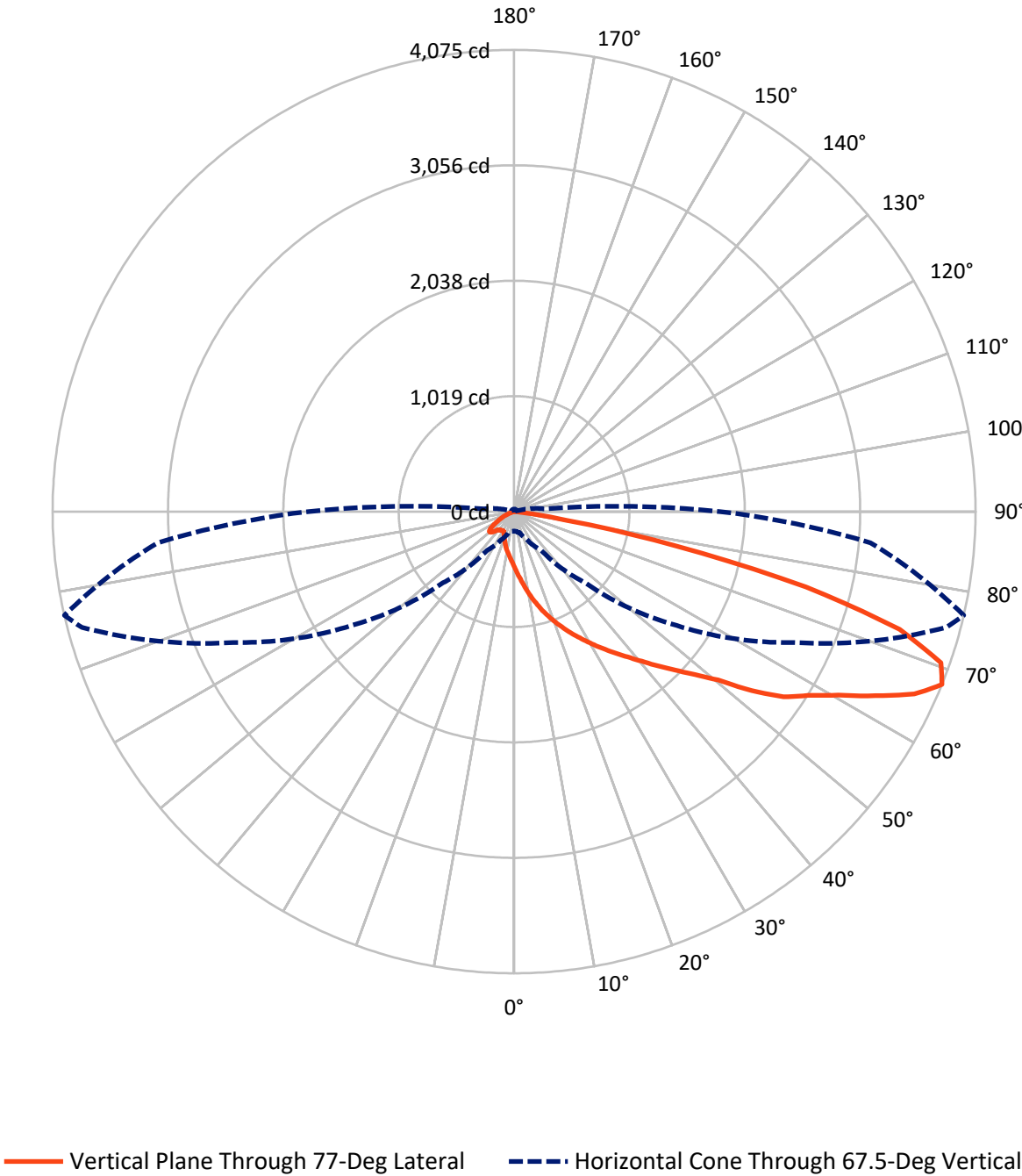
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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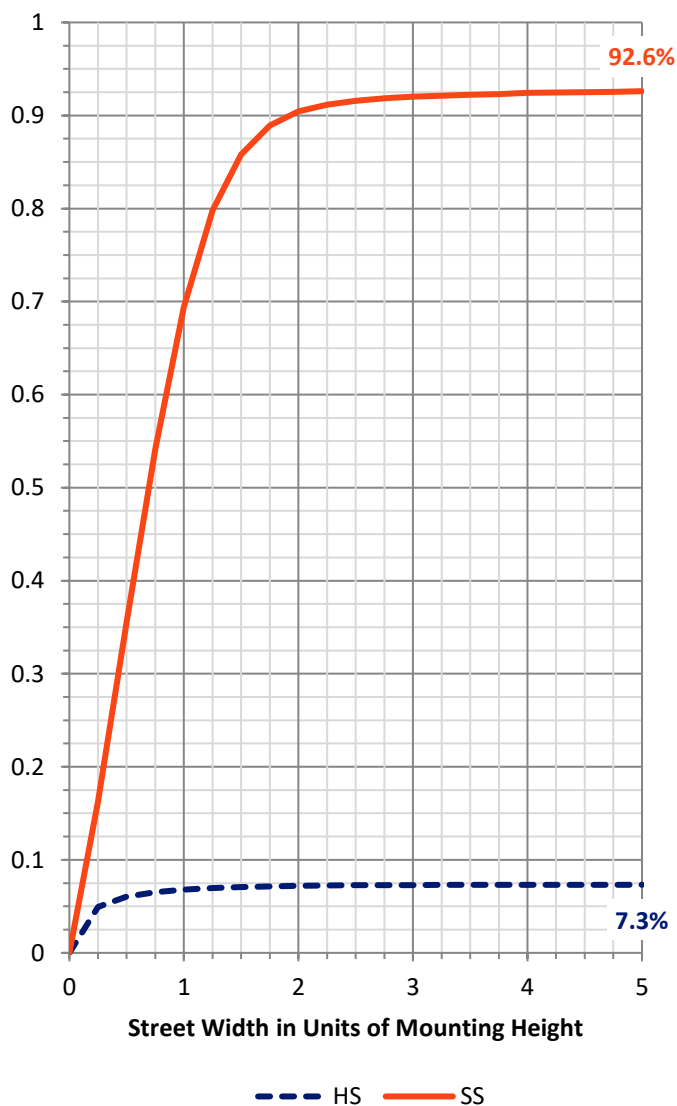
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	312.7	0.0	312.7
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	3937.9	0.0	3937.9
	% Fixture	92.6	0.0	92.6
Total	Lumens	4250.7	0.0	4250.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.0	1.2
10°-20°	175.2	4.1
20°-30°	338.1	8.0
30°-40°	586.9	13.8
40°-50°	852.2	20.0
50°-60°	978.6	23.0
60°-70°	849.6	20.0
70°-80°	400.2	9.4
80°-90°	19.8	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°	4250.7	100.0
0°-180°	4250.7	100.0

Coefficient of Utilization



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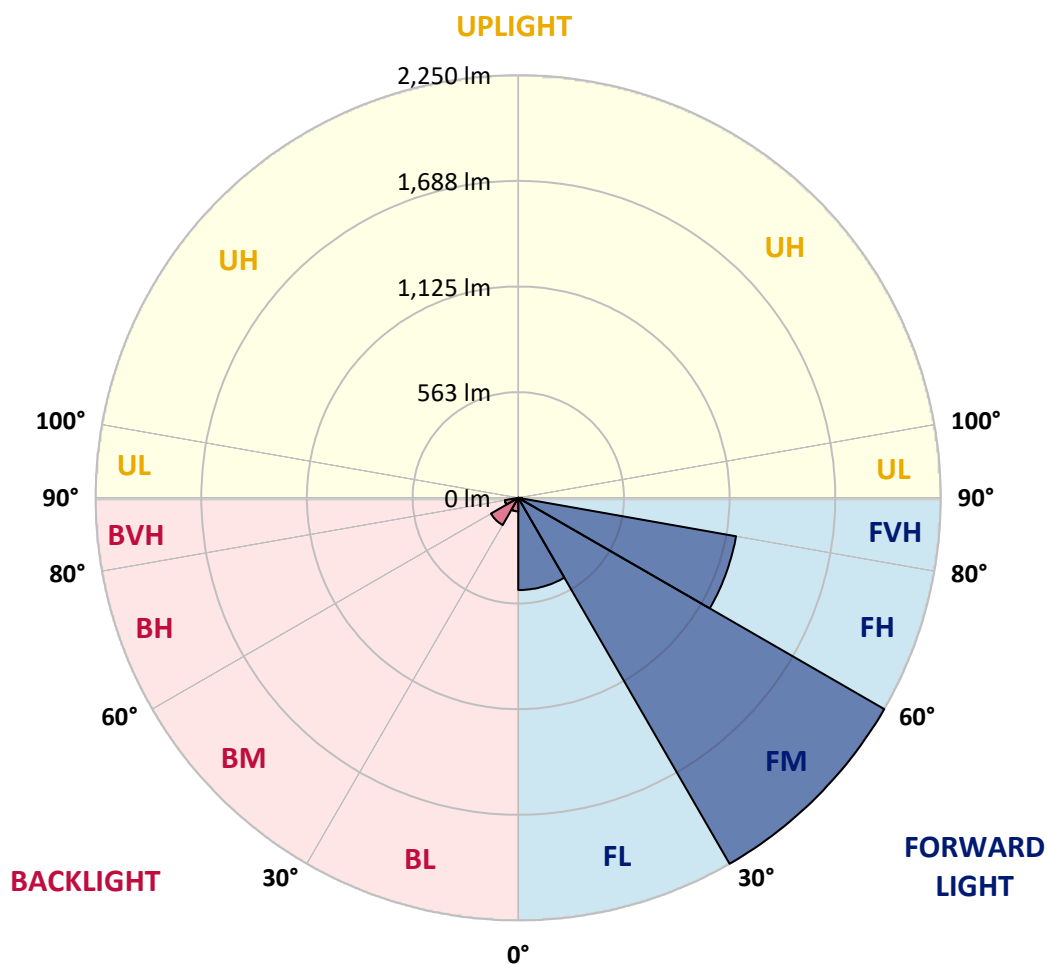
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	490.9	11.5			
FM	(30°-60°)	2250.2	52.9			
FH	(60°-80°)	1177.4	27.7			G1/1800
FVH	(80°-90°)	19.4	0.5			G1/100
BL	(0°-30°)	72.4	1.7	B0/110		
BM	(30°-60°)	167.6	3.9	B0/220		
BH	(60°-80°)	72.4	1.7	B0/110		G0/110
BVH	(80°-90°)	0.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	490.2	490.2	490.2	490.2	490.2	490.2	490.2	490.2	490.2	490.2	490.2
2.5°	678.7	682.9	676.8	665.1	647.7	636.4	608.6	582.5	553.5	544.3	515.3
5°	827.3	831.0	824.1	811.4	788.1	766.0	729.6	675.0	618.2	599.9	548.5
7.5°	937.3	939.4	936.7	925.2	903.0	877.9	837.2	772.6	688.4	668.3	589.4
10°	1016.5	1023.4	1022.5	1018.0	1003.3	983.0	939.7	866.0	767.0	741.2	635.6
12.5°	1069.0	1076.7	1081.2	1091.2	1090.4	1077.5	1039.5	961.6	845.4	815.1	687.6
15°	1084.3	1092.5	1109.7	1132.9	1153.5	1160.1	1133.4	1055.3	931.7	893.0	741.0
17.5°	1075.6	1088.2	1108.8	1145.5	1190.7	1220.6	1217.6	1145.8	1010.1	965.9	793.1
20°	1094.9	1107.0	1123.1	1154.0	1206.5	1260.6	1282.3	1232.4	1088.0	1041.6	848.1
22.5°	1201.5	1199.5	1201.0	1206.0	1237.4	1291.0	1335.6	1311.1	1165.1	1117.6	906.2
25°	1370.4	1361.0	1344.9	1317.6	1309.7	1335.6	1382.1	1380.8	1246.4	1195.5	965.6
27.5°	1564.1	1562.6	1524.9	1459.4	1422.5	1412.4	1434.6	1448.6	1326.9	1272.5	1025.2
30°	1749.8	1754.0	1703.0	1630.2	1562.3	1523.0	1503.0	1513.0	1408.8	1355.7	1086.7
32.5°	1911.3	1915.8	1860.4	1775.1	1691.1	1643.7	1601.5	1576.7	1497.9	1440.1	1154.3
35°	2047.7	2052.3	1988.6	1894.4	1804.9	1761.9	1714.1	1646.3	1587.7	1533.8	1229.5
37.5°	2169.7	2168.4	2083.1	1988.1	1900.2	1866.1	1841.1	1732.0	1680.1	1628.1	1312.9
40°	2241.8	2247.3	2174.4	2069.7	1984.4	1959.6	1958.1	1838.4	1786.7	1736.4	1404.2
42.5°	2262.9	2272.6	2219.8	2133.8	2056.5	2029.6	2071.0	1953.5	1910.8	1861.7	1507.5
45°	2224.9	2234.4	2210.4	2150.8	2105.6	2088.1	2168.1	2072.9	2043.2	1994.8	1623.8
47.5°	2114.1	2125.8	2131.7	2119.1	2118.5	2136.2	2255.2	2198.5	2200.6	2151.0	1758.7
50°	1899.4	1919.5	1972.8	2017.7	2087.1	2174.2	2340.0	2334.6	2378.0	2335.3	1934.5
52.5°	1509.3	1537.8	1721.5	1844.3	2000.3	2167.1	2433.1	2553.3	2689.2	2626.7	2182.4
55°	1212.9	1212.9	1362.2	1591.9	1830.8	2120.1	2473.8	2695.2	2901.2	2886.4	2356.9
57.5°	988.8	1000.6	1095.9	1298.9	1585.6	2008.2	2498.8	2784.5	3071.9	3061.1	2527.3
60°	610.3	635.9	815.9	1016.2	1306.6	1808.9	2483.1	2874.7	3279.1	3287.8	2732.8
62.5°	343.7	353.2	433.4	731.1	1016.0	1541.0	2361.9	2925.1	3544.1	3581.0	2944.4
65°	237.3	242.0	273.0	455.1	704.3	1226.8	2125.1	2893.8	3809.7	3884.3	3123.9
67.5°	172.4	174.8	194.0	278.0	417.9	889.5	1754.0	2735.4	3950.3	4075.2	3158.2
70°	132.5	134.1	148.1	182.7	246.8	549.0	1273.9	2420.4	3848.5	3997.6	2982.4
72.5°	107.7	109.3	120.1	135.1	163.7	324.6	772.0	1965.6	3398.7	3559.7	2539.0
75°	90.8	92.9	102.7	112.4	128.3	208.5	362.1	1368.9	2555.8	2661.4	1765.6
77.5°	50.4	46.4	83.4	93.2	108.2	132.0	169.4	805.5	1431.4	1460.7	783.4
80°	31.4	32.5	66.2	74.9	83.1	66.5	77.6	310.2	496.2	471.4	151.8
82.5°	1.8	4.2	50.9	54.1	57.0	28.5	29.3	105.3	119.6	109.8	27.0
85°	0.0	0.0	23.3	18.8	19.8	8.2	8.4	24.5	16.1	17.4	5.3
87.5°	0.0	0.0	0.0	0.5	0.0	0.8	1.5	2.2	0.8	1.0	1.8
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°	490.2	490.2	490.2	490.2	490.2	490.2	490.2	490.2	490.2	490.2	490.2
2.5°	496.7	478.3	440.9	404.2	374.3	346.6	326.8	308.0	298.6	298.0	297.5
5°	511.8	473.0	398.0	331.8	278.5	235.7	208.0	188.2	178.1	174.8	174.2
7.5°	532.9	474.6	360.6	268.4	205.6	168.9	153.1	146.8	144.6	142.3	141.8
10°	559.5	478.3	327.1	216.2	162.1	143.6	137.2	134.6	133.0	131.4	130.9
12.5°	589.4	481.7	293.8	179.5	142.6	133.0	128.5	125.4	123.3	121.5	120.8
15°	618.5	483.8	259.2	153.9	132.5	124.8	120.1	116.6	113.8	111.6	111.4
17.5°	647.2	486.8	226.7	138.6	124.3	116.6	111.9	107.7	105.3	102.9	102.7
20°	679.2	486.2	196.1	127.7	116.1	108.4	103.4	99.5	97.2	94.5	94.2
22.5°	708.7	483.6	169.2	118.5	107.7	100.3	94.7	90.8	88.5	86.3	86.1
25°	742.8	481.4	146.8	110.1	99.7	92.4	86.3	82.6	79.9	78.1	77.9
27.5°	775.5	478.3	130.4	102.4	92.1	85.0	79.2	74.9	72.6	71.2	71.2
30°	807.7	477.4	124.3	95.0	85.3	78.1	72.4	68.4	66.5	66.0	65.7
32.5°	846.5	479.6	127.0	92.4	78.9	71.8	66.2	63.3	61.5	61.5	61.5
35°	888.0	479.1	130.9	94.7	74.7	65.5	61.2	59.3	57.5	57.5	57.5
37.5°	939.9	479.9	134.1	98.7	73.1	60.2	57.8	55.5	54.3	54.3	54.3
40°	1017.5	506.0	132.5	102.2	72.6	56.5	51.8	50.9	50.1	50.1	50.1
42.5°	1112.5	562.7	134.6	102.4	72.4	53.8	47.6	49.1	47.3	46.9	46.7
45°	1216.6	624.7	148.1	96.9	72.1	52.5	45.4	47.3	44.4	44.4	44.4
47.5°	1319.8	686.2	161.8	89.0	71.2	52.3	43.6	42.5	41.7	41.9	41.9
50°	1462.1	736.5	167.1	78.1	69.4	51.8	40.1	40.4	39.9	40.4	40.4
52.5°	1617.0	747.0	160.7	66.0	64.2	50.1	37.7	38.8	38.5	39.1	39.1
55°	1713.6	735.6	132.7	54.9	56.0	43.8	35.4	37.5	37.5	37.5	37.5
57.5°	1813.3	687.4	94.2	44.6	46.4	35.9	33.2	36.2	35.9	35.7	35.7
60°	1885.2	609.3	62.0	36.7	37.0	29.5	30.9	34.0	33.8	32.5	32.5
62.5°	1938.8	522.9	39.9	31.2	28.3	26.6	28.3	30.9	29.8	27.0	26.4
65°	1932.6	403.3	30.6	26.6	23.3	23.3	24.5	27.0	23.8	19.0	18.4
67.5°	1820.0	273.0	25.3	22.4	19.6	19.3	20.3	22.4	20.3	16.1	15.6
70°	1618.6	178.5	20.3	17.4	15.6	14.2	16.4	19.3	17.1	12.9	12.4
72.5°	1313.7	108.8	15.3	12.7	11.4	9.2	12.9	15.9	13.7	9.5	9.0
75°	849.9	55.5	10.6	8.2	6.0	5.5	9.5	11.9	9.5	5.8	5.0
77.5°	325.2	23.3	5.8	3.7	3.2	2.7	5.3	7.2	4.0	1.3	1.0
80°	62.5	9.7	2.9	1.8	1.5	1.0	0.8	0.5	0.0	0.0	0.0
82.5°	10.9	3.2	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	0.0	0.0	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)