

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: P968894

Luminaire Tested: **NAV-SB5C-827-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968894
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5C-827-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34292.4 lumens
Efficiency: N/A
Efficacy: 137.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 249.5
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

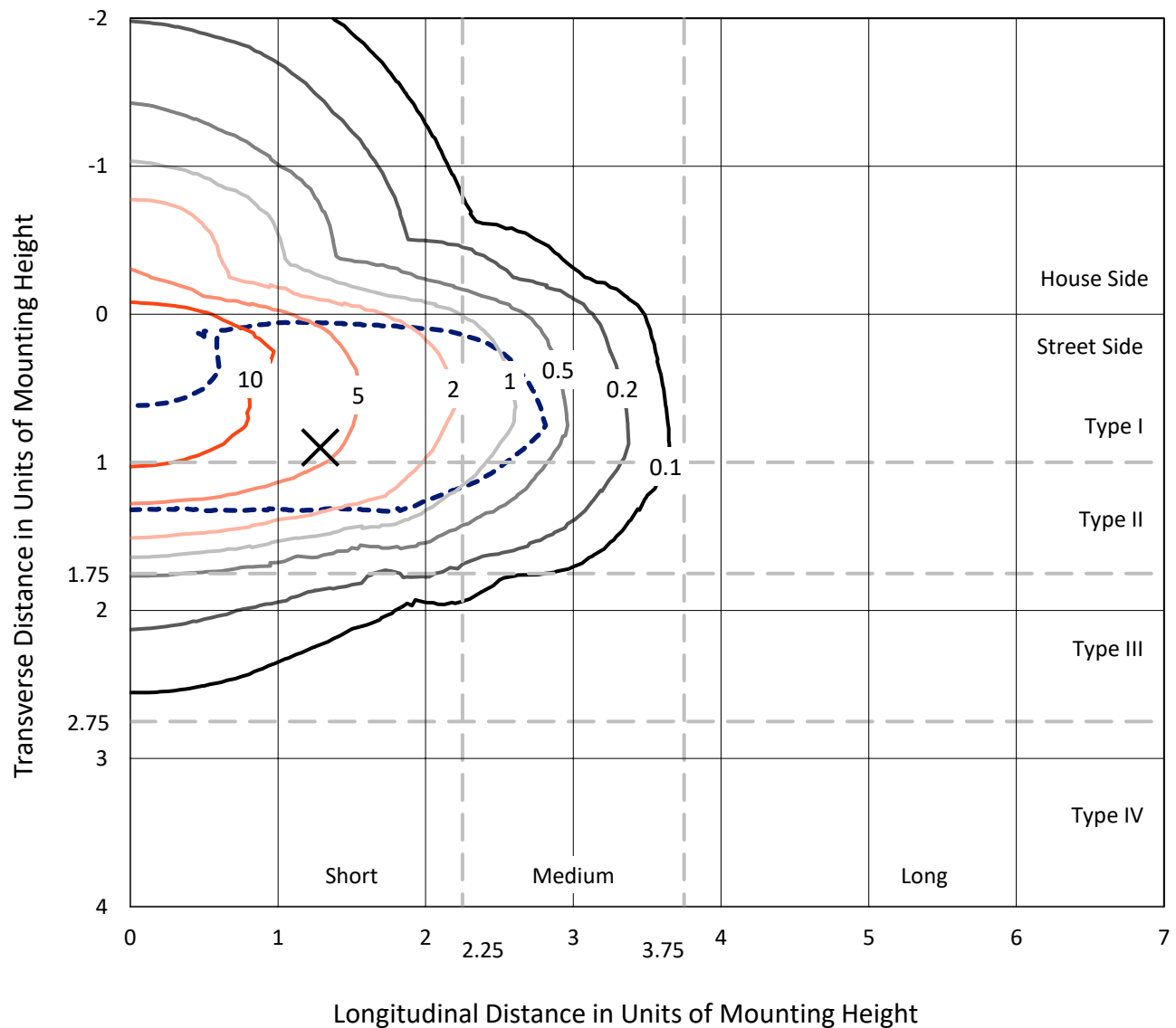


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

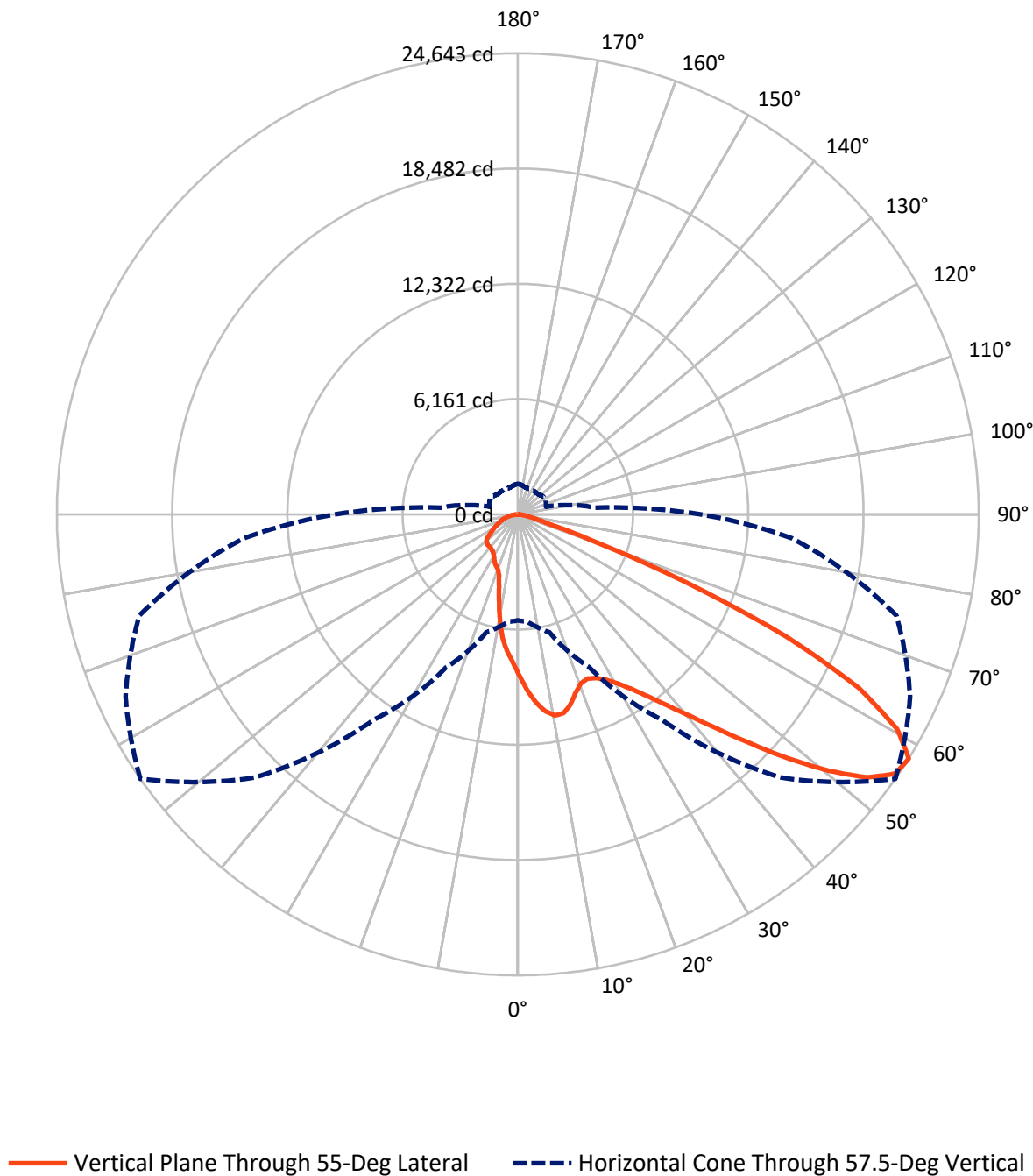


Based on 25 foot mounting height. Maximum calculated value = 16.6 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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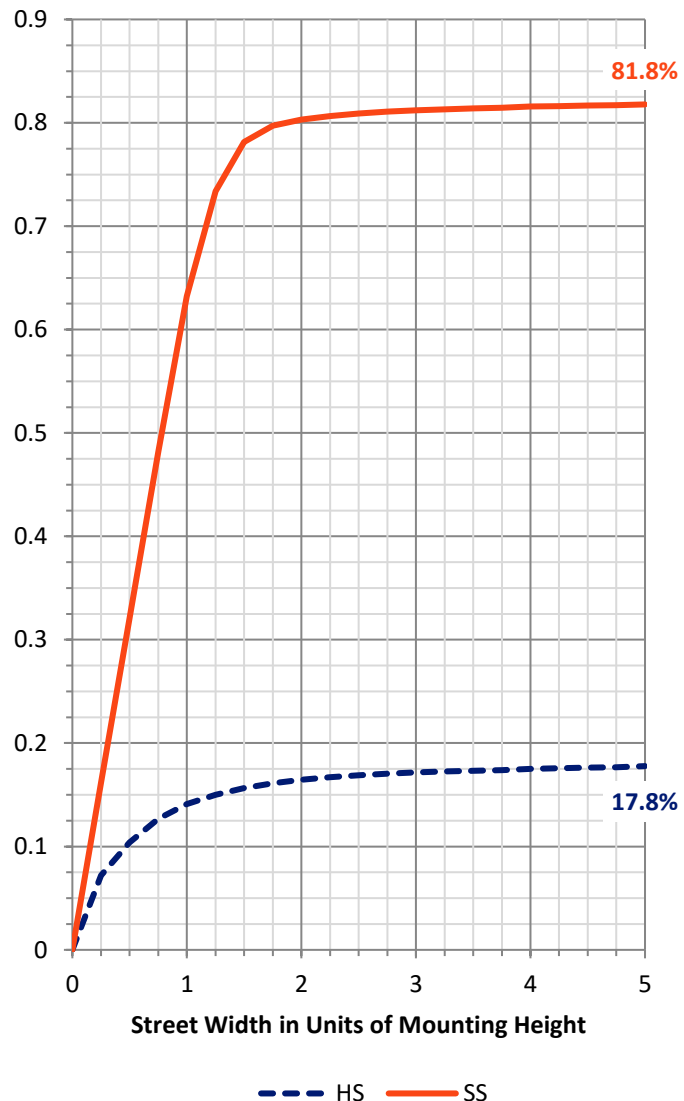
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6205.0	0.0	6205.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	28087.4	0.0	28087.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	34292.4	0.0	34292.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	797.3	2.3
10°-20°	2012.5	5.9
20°-30°	3211.4	9.4
30°-40°	5084.5	14.8
40°-50°	7782.3	22.7
50°-60°	8335.5	24.3
60°-70°	5243.9	15.3
70°-80°	1550.7	4.5
80°-90°	274.2	0.8
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°	34292.4	100.0
0°-180°	34292.4	100.0

Coefficient of Utilization



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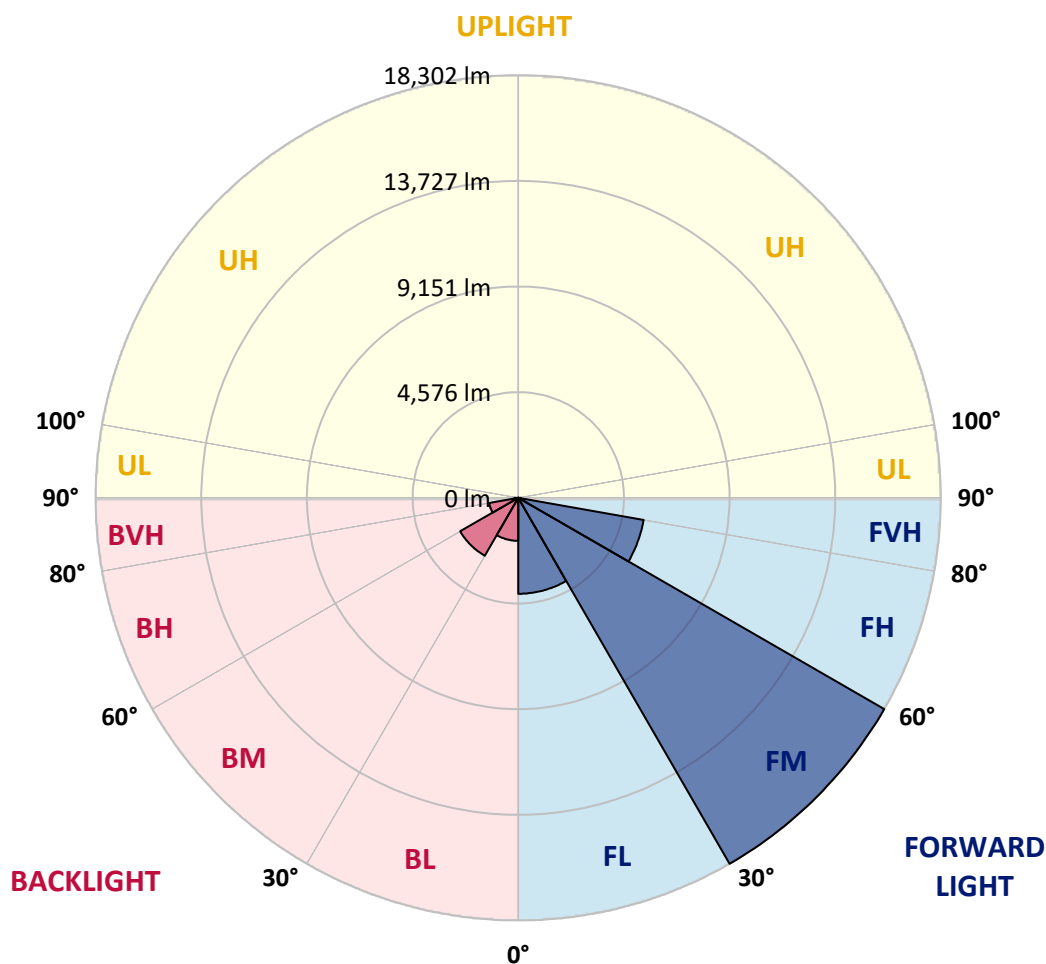
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4156.2	12.1			
FM	(30°-60°)	18302.1	53.4			
FH	(60°-80°)	5513.2	16.1			G3/7500
FVH	(80°-90°)	115.8	0.3			G2/225
BL	(0°-30°)	1865.0	5.4	B3/2500		
BM	(30°-60°)	2900.2	8.5	B3/5000		
BH	(60°-80°)	1281.5	3.7	B3/2500		G3/2500
BVH	(80°-90°)	158.3	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6
2.5°	9858.3	9851.2	9890.2	9757.3	9666.9	9544.5	9383.3	9177.5	8955.9	8721.9	8621.0
5°	10746.5	10684.4	10725.2	10625.9	10526.6	10342.2	10102.9	9767.9	9358.4	8892.2	8643.9
7.5°	10606.4	10563.9	10668.5	10757.1	10831.6	10808.5	10633.0	10282.0	9753.7	9076.5	8716.7
10°	9477.2	9429.3	9576.5	9883.2	10333.4	10725.2	10937.9	10719.9	10158.0	9278.6	8787.5
12.5°	8480.8	8457.8	8555.4	8803.5	9303.4	10055.0	10898.9	11102.8	10578.1	9517.9	8883.3
15°	8055.4	8027.1	8089.1	8215.0	8534.0	9234.3	10544.4	11365.2	10991.1	9794.5	9035.8
17.5°	7961.5	7929.5	7956.2	8021.8	8227.4	8761.0	10009.0	11494.6	11421.9	10102.9	9163.4
20°	8135.2	8108.6	8112.2	8108.6	8252.2	8675.9	9636.7	11444.9	11797.7	10386.6	9287.5
22.5°	8555.4	8511.0	8512.8	8418.8	8496.8	8824.8	9539.3	11312.0	12132.7	10634.8	9381.4
25°	9239.7	9159.8	9175.8	8936.5	8915.2	9158.1	9691.7	11209.2	12466.0	10833.3	9399.1
27.5°	10175.6	10085.2	10037.3	9681.0	9510.9	9631.4	10001.9	11244.7	12781.5	11005.3	9354.9
30°	11345.6	11235.7	11138.3	10633.0	10324.5	10280.2	10484.1	11478.6	13153.8	11186.1	9278.6
32.5°	12779.8	12652.2	12474.9	11804.8	11370.4	11138.3	11108.1	11895.2	13590.0	11416.6	9239.7
35°	14486.9	14320.4	14068.6	13201.7	12652.2	12177.1	11930.7	12496.2	14187.4	11764.0	9283.9
37.5°	16245.5	16057.6	15827.2	14795.5	14120.0	13419.8	12934.1	13311.7	14983.3	12235.6	9400.9
40°	17867.6	17656.6	17442.2	16523.9	15798.8	14955.0	14162.5	14343.4	15956.6	12799.3	9599.5
42.5°	18824.9	18668.9	18587.4	18091.0	17530.8	16674.6	15690.7	15566.6	17050.4	13448.1	9826.4
45°	18782.4	18718.6	18970.3	19175.9	19043.0	18567.9	17481.2	16919.2	18147.7	14010.1	10035.6
47.5°	17779.0	17821.6	18383.5	19539.4	20048.2	20296.3	19519.9	18247.0	19101.5	14430.3	10129.6
50°	15048.9	15084.4	16385.6	18878.1	20307.0	21705.7	21542.5	19542.9	19840.7	14687.3	10108.2
52.5°	12887.9	12911.0	13469.4	16917.4	19452.4	22414.8	23365.0	20764.3	20381.4	14758.3	9989.5
55°	9707.7	9787.4	10413.2	13272.6	17229.4	21852.8	24474.7	22022.9	20723.6	14765.3	9865.4
57.5°	5671.0	5757.9	6530.9	9009.1	13391.4	19893.9	24643.2	23139.8	20955.8	14708.5	9790.9
60°	2778.0	2815.2	3152.0	4735.1	8257.5	16119.7	23288.7	23680.5	21085.2	14678.4	9787.4
62.5°	1872.1	1866.7	1880.9	2336.5	4068.5	10356.5	20466.5	22733.9	21016.1	14563.2	9752.0
65°	1609.7	1590.2	1537.0	1639.8	2107.8	4736.8	15813.0	19908.1	20489.5	14274.3	9509.0
67.5°	1391.6	1393.4	1395.1	1363.2	1505.1	2185.8	9663.3	15681.8	18599.8	12905.7	8573.1
70°	1152.3	1168.3	1175.4	1175.4	1226.7	1434.2	4125.2	10748.3	14671.3	10118.9	6904.9
72.5°	1049.5	1015.8	1019.4	1001.6	1001.6	1092.0	1661.1	6093.0	9243.1	5692.3	4213.9
75°	856.3	877.5	881.1	868.7	827.9	833.2	985.6	2556.4	3955.1	2361.3	2083.0
77.5°	739.2	739.2	746.3	737.5	705.5	624.0	657.7	991.0	1345.5	967.9	1040.6
80°	593.9	592.1	622.3	640.0	590.3	460.9	420.1	547.8	597.4	425.5	540.7
82.5°	288.9	306.7	427.2	487.5	448.5	333.2	257.1	340.4	319.1	187.9	242.8
85°	168.4	159.6	191.5	271.2	257.1	184.4	124.1	177.3	166.7	95.7	97.5
87.5°	53.2	49.6	38.9	92.1	74.4	51.5	33.7	51.5	46.1	21.3	21.3
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°	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6	8592.6
2.5°	8495.1	8285.9	8078.4	7888.8	7773.5	7699.1	7624.7	7541.3	7509.5	7461.6
5°	8409.9	8005.8	7645.9	7335.7	7053.8	6832.2	6608.9	6428.0	6346.5	6401.4
7.5°	8360.3	7775.3	7220.4	6651.4	6103.6	5665.7	5284.6	5016.9	4896.3	4926.5
10°	8316.0	7514.7	6669.2	5770.3	4983.2	4440.7	4050.8	3846.9	3770.7	3786.7
12.5°	8275.2	7222.3	6004.3	4821.9	3985.2	3627.1	3515.3	3517.2	3531.3	3542.0
15°	8268.2	6869.4	5261.5	3992.3	3446.3	3423.2	3543.7	3620.0	3660.8	3673.2
17.5°	8257.5	6447.6	4504.6	3426.8	3315.1	3471.1	3582.8	3632.4	3664.3	3666.0
20°	8215.0	5912.2	3806.1	3157.3	3286.7	3421.4	3490.5	3529.6	3556.1	3565.1
22.5°	8083.8	5316.5	3261.9	3036.8	3173.2	3281.3	3362.9	3407.2	3423.2	3433.9
25°	7848.0	4649.9	2886.1	2921.6	3015.4	3152.0	3217.6	3226.4	3221.1	3237.1
27.5°	7539.6	3935.5	2652.1	2765.6	2886.1	3003.0	3038.5	3033.2	3022.5	3040.3
30°	7167.3	3293.7	2503.2	2590.0	2754.9	2861.2	2893.2	2880.8	2859.4	2878.9
32.5°	6773.7	2769.0	2380.8	2467.7	2646.8	2751.3	2783.2	2770.8	2754.9	2770.8
35°	6406.8	2402.1	2267.4	2386.1	2561.7	2664.5	2705.2	2707.0	2707.0	2726.5
37.5°	6069.9	2187.6	2173.4	2334.7	2503.2	2595.3	2653.8	2657.4	2581.2	2586.5
40°	5757.9	2097.1	2130.9	2301.0	2446.4	2535.0	2538.6	2340.1	2200.0	2196.5
42.5°	5502.6	2079.4	2143.3	2297.5	2405.7	2409.2	2159.3	2005.0	1966.0	1967.8
45°	5263.3	2074.1	2171.7	2297.5	2345.4	2081.3	1912.9	1872.1	1875.5	1889.8
47.5°	4995.6	2052.9	2177.0	2265.6	2171.7	1850.7	1801.1	1783.4	1776.3	1779.8
50°	4703.1	1976.6	2109.6	2201.8	1873.8	1751.5	1689.4	1684.1	1693.0	1698.3
52.5°	4394.7	1852.5	1994.3	2086.5	1737.3	1664.6	1595.5	1607.9	1646.9	1659.3
55°	4192.6	1707.1	1841.9	1856.1	1641.5	1583.1	1524.6	1553.0	1625.6	1648.7
57.5°	4139.4	1553.0	1668.2	1652.2	1519.3	1512.2	1476.7	1501.5	1593.7	1627.4
60°	4123.5	1414.7	1497.9	1485.5	1400.5	1434.2	1425.3	1437.7	1469.6	1480.2
62.5°	3999.3	1304.7	1345.5	1327.8	1294.2	1352.6	1373.9	1347.3	1372.1	1384.6
65°	3683.7	1216.2	1196.6	1184.2	1198.4	1251.5	1294.2	1241.0	1263.9	1299.4
67.5°	3162.6	1095.5	1042.4	1056.6	1100.8	1129.2	1184.2	1123.9	1143.4	1203.7
70°	2558.1	943.1	895.2	936.0	978.6	1037.1	1045.9	1005.1	1051.2	1118.6
72.5°	1809.9	788.8	755.2	838.6	852.7	929.0	909.4	889.9	953.8	976.8
75°	1255.1	636.4	616.9	680.7	732.2	797.8	783.5	806.6	941.4	952.0
77.5°	794.2	494.6	482.2	523.0	593.9	666.6	689.6	952.0	1607.9	1671.7
80°	460.9	368.7	354.5	386.4	448.5	515.9	664.8	1168.3	1060.2	1047.7
82.5°	257.1	253.5	235.7	244.7	299.6	372.3	939.5	822.6	668.3	689.6
85°	120.5	148.9	127.6	122.3	168.4	436.1	627.6	469.8	312.0	304.9
87.5°	31.9	28.4	28.4	31.9	70.9	375.9	250.0	200.3	118.8	115.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)