

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: P967902

Luminaire Tested: **NAV-SB5A-835-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967902
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-SB5A-835-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21909.4 lumens
Efficiency: N/A
Efficacy: 154.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

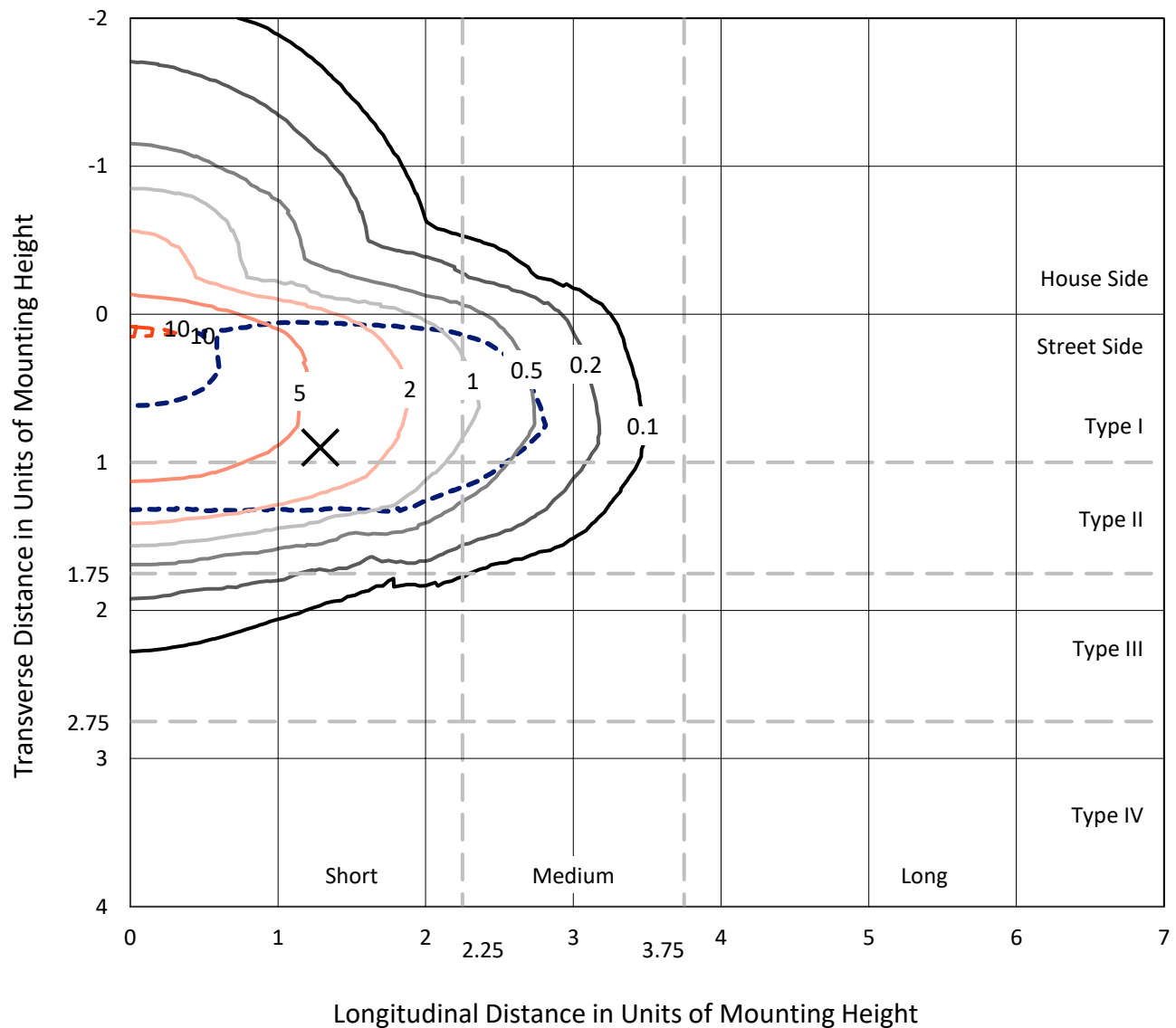
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

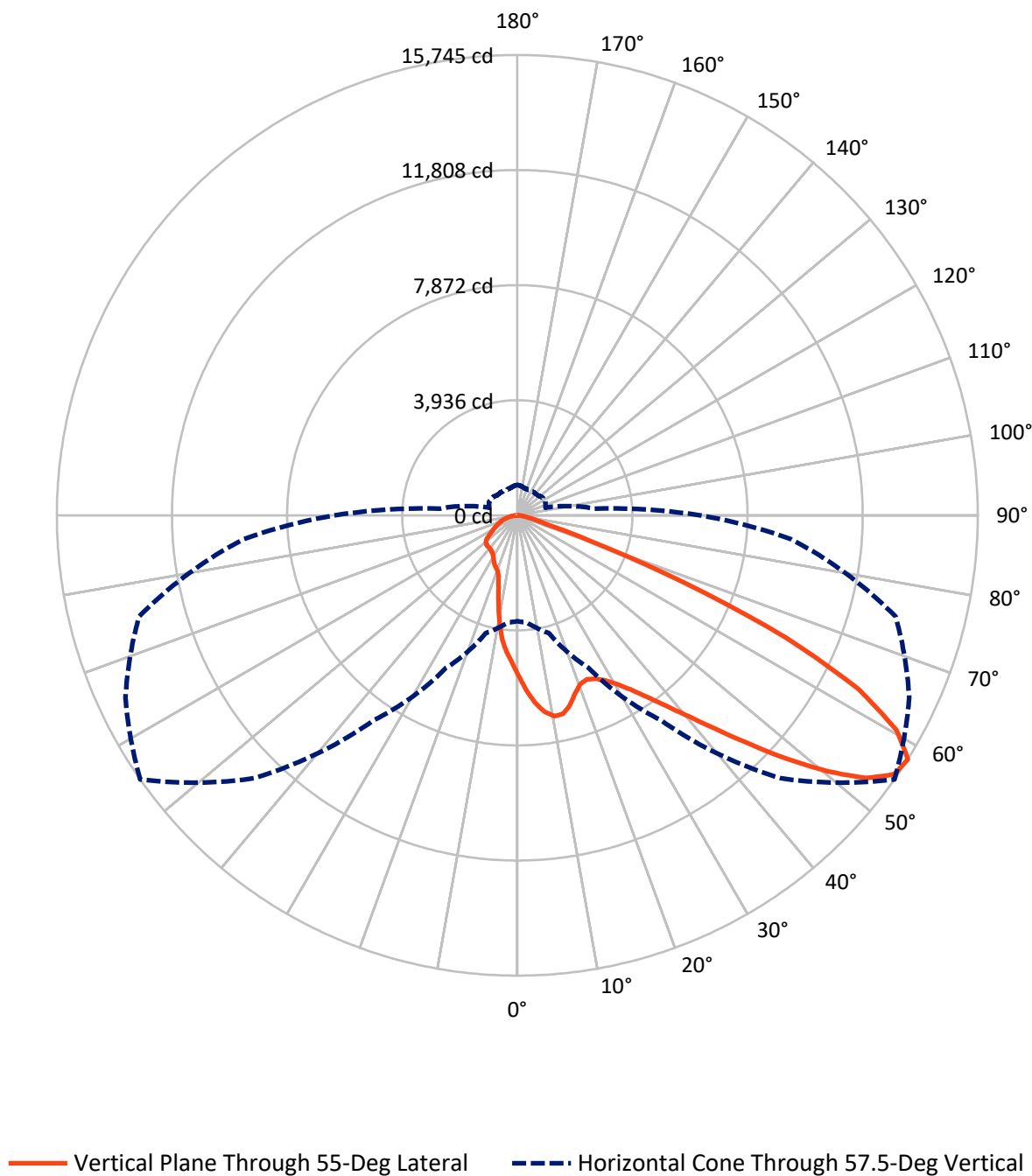
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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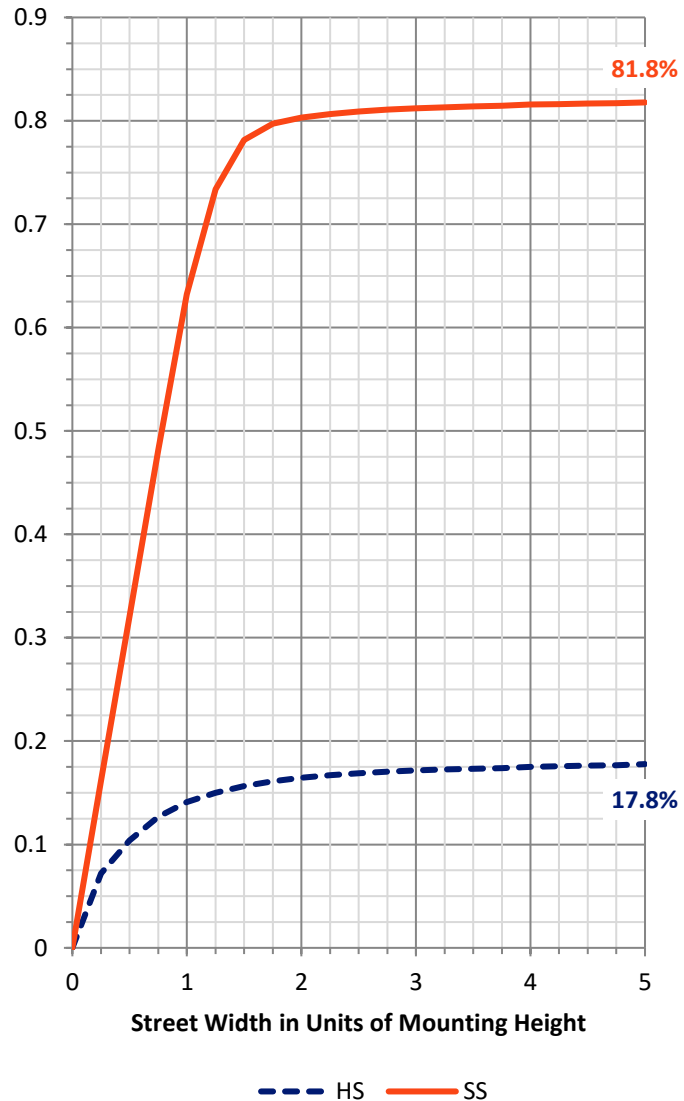
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3964.4	0.0	3964.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	17945.0	0.0	17945.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	21909.4	0.0	21909.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	509.4	2.3
10°-20°	1285.8	5.9
20°-30°	2051.8	9.4
30°-40°	3248.5	14.8
40°-50°	4972.1	22.7
50°-60°	5325.6	24.3
60°-70°	3350.3	15.3
70°-80°	990.8	4.5
80°-90°	175.2	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°	21909.4	100.0
0°-180°	21909.4	100.0

Coefficient of Utilization



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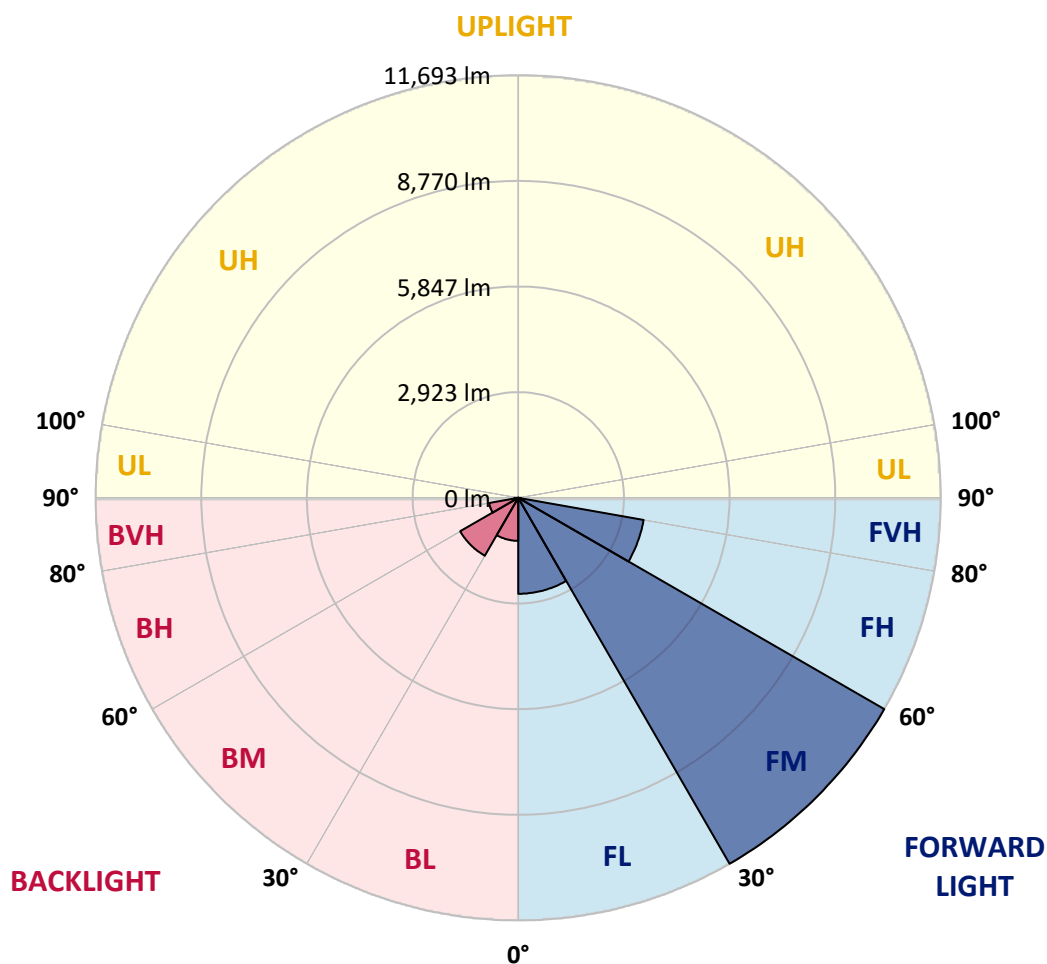
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2655.4	12.1			
FM	(30°-60°)	11693.2	53.4			
FH	(60°-80°)	3522.4	16.1			G2/5000
FVH	(80°-90°)	74.0	0.3			G1/100
BL	(0°-30°)	1191.6	5.4	B3/2500		
BM	(30°-60°)	1852.9	8.5	B2/2500		
BH	(60°-80°)	818.7	3.7	B2/1000		G2/1000
BVH	(80°-90°)	101.2	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-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8
2.5°	6298.4	6293.9	6318.8	6233.9	6176.1	6098.0	5994.9	5863.5	5722.0	5572.4	5507.9
5°	6865.9	6826.3	6852.3	6788.9	6725.4	6607.7	6454.7	6240.7	5979.0	5681.2	5522.6
7.5°	6776.4	6749.2	6816.0	6872.7	6920.3	6905.5	6793.4	6569.1	6231.6	5798.9	5569.0
10°	6055.0	6024.3	6118.4	6314.3	6602.0	6852.3	6988.2	6848.9	6489.9	5928.1	5614.3
12.5°	5418.5	5403.7	5466.0	5624.6	5944.0	6424.2	6963.3	7093.5	6758.3	6081.0	5675.5
15°	5146.6	5128.5	5168.2	5248.5	5452.4	5899.8	6736.8	7261.2	7022.2	6257.7	5772.9
17.5°	5086.6	5066.2	5083.2	5125.1	5256.5	5597.4	6394.8	7343.8	7297.4	6454.7	5854.5
20°	5197.6	5180.6	5182.8	5180.6	5272.3	5543.0	6156.9	7312.1	7537.5	6636.0	5933.7
22.5°	5466.0	5437.7	5438.9	5378.8	5428.6	5638.1	6094.5	7227.2	7751.6	6794.5	5993.8
25°	5903.2	5852.2	5862.4	5709.5	5695.9	5851.1	6192.0	7161.5	7964.6	6921.4	6005.2
27.5°	6501.2	6443.5	6412.8	6185.2	6076.5	6153.5	6390.2	7184.1	8166.2	7031.3	5976.8
30°	7248.7	7178.5	7116.2	6793.4	6596.4	6568.0	6698.3	7333.7	8404.0	7146.8	5928.1
32.5°	8165.0	8083.5	7970.2	7542.1	7264.6	7116.2	7097.0	7599.9	8682.6	7294.0	5903.2
35°	9255.8	9149.3	8988.4	8434.6	8083.5	7780.0	7622.5	7983.8	9064.3	7516.0	5931.5
37.5°	10379.3	10259.2	10111.9	9452.8	9021.2	8573.9	8263.6	8504.8	9572.9	7817.3	6006.3
40°	11415.6	11280.8	11143.8	10557.1	10093.9	9554.7	9048.5	9164.0	10194.6	8177.4	6133.1
42.5°	12027.2	11927.5	11875.4	11558.3	11200.4	10653.3	10024.8	9945.5	10893.5	8592.0	6278.1
45°	12000.1	11959.3	12120.1	12251.5	12166.5	11863.0	11168.7	10809.6	11594.6	8951.0	6411.7
47.5°	11358.9	11386.2	11745.2	12483.7	12808.7	12967.3	12471.2	11658.0	12204.0	9219.5	6471.7
50°	9614.8	9637.5	10468.7	12061.2	12974.0	13867.7	13763.5	12485.9	12676.2	9383.7	6458.1
52.5°	8234.1	8248.8	8605.6	10808.5	12428.1	14320.8	14927.9	13266.3	13021.7	9429.0	6382.3
55°	6202.2	6253.1	6653.0	8479.9	11007.9	13961.7	15636.9	14070.5	13240.2	9433.6	6303.0
57.5°	3623.3	3678.7	4172.6	5756.0	8555.8	12710.2	15744.5	14784.0	13388.7	9397.3	6255.5
60°	1774.8	1798.6	2013.8	3025.2	5275.7	10298.9	14879.1	15129.4	13471.3	9378.0	6253.1
62.5°	1196.1	1192.7	1201.7	1492.8	2599.3	6616.7	13076.0	14524.7	13427.1	9304.4	6230.5
65°	1028.4	1016.0	982.0	1047.7	1346.6	3026.3	10102.9	12719.2	13090.8	9119.8	6075.4
67.5°	889.1	890.2	891.3	870.9	961.6	1396.6	6173.9	10019.1	11883.3	8245.4	5477.3
70°	736.2	746.4	750.9	750.9	783.8	916.2	2635.6	6867.0	9373.5	6465.0	4411.5
72.5°	670.6	649.0	651.3	639.9	639.9	697.7	1061.3	3892.7	5905.4	3636.8	2692.3
75°	547.0	560.7	562.9	554.9	528.9	532.3	629.8	1633.2	2526.8	1508.6	1330.9
77.5°	472.3	472.3	476.8	471.2	450.8	398.7	420.2	633.1	859.7	618.4	664.8
80°	379.5	378.3	397.6	408.9	377.2	294.5	268.4	349.9	381.7	271.8	345.4
82.5°	184.6	196.0	273.0	311.5	286.6	212.9	164.2	217.5	203.9	120.0	155.2
85°	107.6	101.9	122.3	173.3	164.2	117.8	79.2	113.3	106.5	61.2	62.3
87.5°	33.9	31.7	24.9	58.9	47.6	32.8	21.5	32.8	29.4	13.6	13.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8	5489.8
2.5°	5427.5	5293.8	5161.3	5040.1	4966.5	4919.0	4871.4	4818.1	4797.7	4767.2
5°	5373.2	5114.9	4884.9	4686.7	4506.7	4365.1	4222.4	4106.9	4054.8	4089.9
7.5°	5341.4	4967.7	4613.1	4249.5	3899.6	3619.8	3376.4	3205.3	3128.3	3147.6
10°	5313.1	4801.1	4260.9	3686.6	3183.8	2837.2	2588.0	2457.7	2409.1	2419.3
12.5°	5287.1	4614.2	3836.2	3080.7	2546.1	2317.3	2246.0	2247.1	2256.1	2263.0
15°	5282.5	4388.8	3361.6	2550.6	2201.8	2187.0	2264.1	2312.8	2338.8	2346.7
17.5°	5275.7	4119.3	2878.0	2189.3	2118.0	2217.7	2289.0	2320.7	2341.1	2342.2
20°	5248.5	3777.2	2431.7	2017.2	2099.8	2185.9	2230.1	2255.0	2272.0	2277.7
22.5°	5164.7	3396.7	2084.0	1940.1	2027.3	2096.4	2148.6	2176.9	2187.0	2193.9
25°	5014.1	2970.9	1843.9	1866.5	1926.6	2013.8	2055.7	2061.4	2058.0	2068.1
27.5°	4817.0	2514.4	1694.4	1766.9	1843.9	1918.7	1941.4	1937.9	1931.1	1942.5
30°	4579.2	2104.4	1599.2	1654.8	1760.1	1828.1	1848.4	1840.5	1826.9	1839.4
32.5°	4327.8	1769.2	1521.1	1576.6	1690.9	1757.8	1778.2	1770.3	1760.1	1770.3
35°	4093.2	1534.7	1448.6	1524.5	1636.6	1702.3	1728.4	1729.5	1729.5	1742.0
37.5°	3878.1	1397.7	1388.6	1491.7	1599.2	1658.1	1695.6	1697.8	1649.1	1652.5
40°	3678.7	1339.9	1361.4	1470.2	1563.0	1619.6	1621.9	1495.1	1405.6	1403.3
42.5°	3515.6	1328.6	1369.3	1467.9	1537.0	1539.2	1379.5	1280.9	1256.0	1257.2
45°	3362.7	1325.1	1387.4	1467.9	1498.4	1329.7	1222.1	1196.1	1198.3	1207.3
47.5°	3191.7	1311.6	1390.8	1447.5	1387.4	1182.4	1150.8	1139.4	1134.9	1137.1
50°	3004.8	1262.9	1347.8	1406.7	1197.2	1119.0	1079.4	1075.9	1081.7	1085.1
52.5°	2807.8	1183.6	1274.2	1333.1	1110.0	1063.5	1019.4	1027.3	1052.2	1060.2
55°	2678.6	1090.7	1176.8	1185.8	1048.8	1011.5	974.1	992.2	1038.6	1053.3
57.5°	2644.6	992.2	1065.8	1055.5	970.7	966.2	943.5	959.3	1018.2	1039.8
60°	2634.5	903.8	957.0	949.1	894.7	916.2	910.6	918.5	938.9	945.8
62.5°	2555.2	833.6	859.7	848.3	826.8	864.2	877.8	860.8	876.7	884.6
65°	2353.6	776.9	764.5	756.6	765.7	799.6	826.8	792.8	807.6	830.2
67.5°	2020.6	700.0	665.9	675.1	703.4	721.5	756.6	718.1	730.5	769.1
70°	1634.4	602.6	571.9	598.0	625.2	662.6	668.2	642.2	671.7	714.6
72.5°	1156.4	504.0	482.5	535.8	544.8	593.5	581.1	568.6	609.4	624.0
75°	801.9	406.6	394.1	434.9	467.8	509.6	500.6	515.4	601.4	608.2
77.5°	507.4	316.0	308.1	334.2	379.5	425.9	440.5	608.2	1027.3	1068.0
80°	294.5	235.5	226.5	246.9	286.6	329.6	424.8	746.4	677.3	669.3
82.5°	164.2	162.0	150.7	156.3	191.4	237.8	600.2	525.5	427.0	440.5
85°	77.0	95.1	81.6	78.1	107.6	278.6	401.0	300.1	199.4	194.9
87.5°	20.4	18.1	18.1	20.4	45.3	240.2	159.7	128.0	75.8	73.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)