

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: P964678

Luminaire Tested: **NAV-SB3C-827-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964678
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-SB3C-827-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 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: 20368.8 lumens
Efficiency: N/A
Efficacy: 136.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

Input Watts (W): 149.1
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

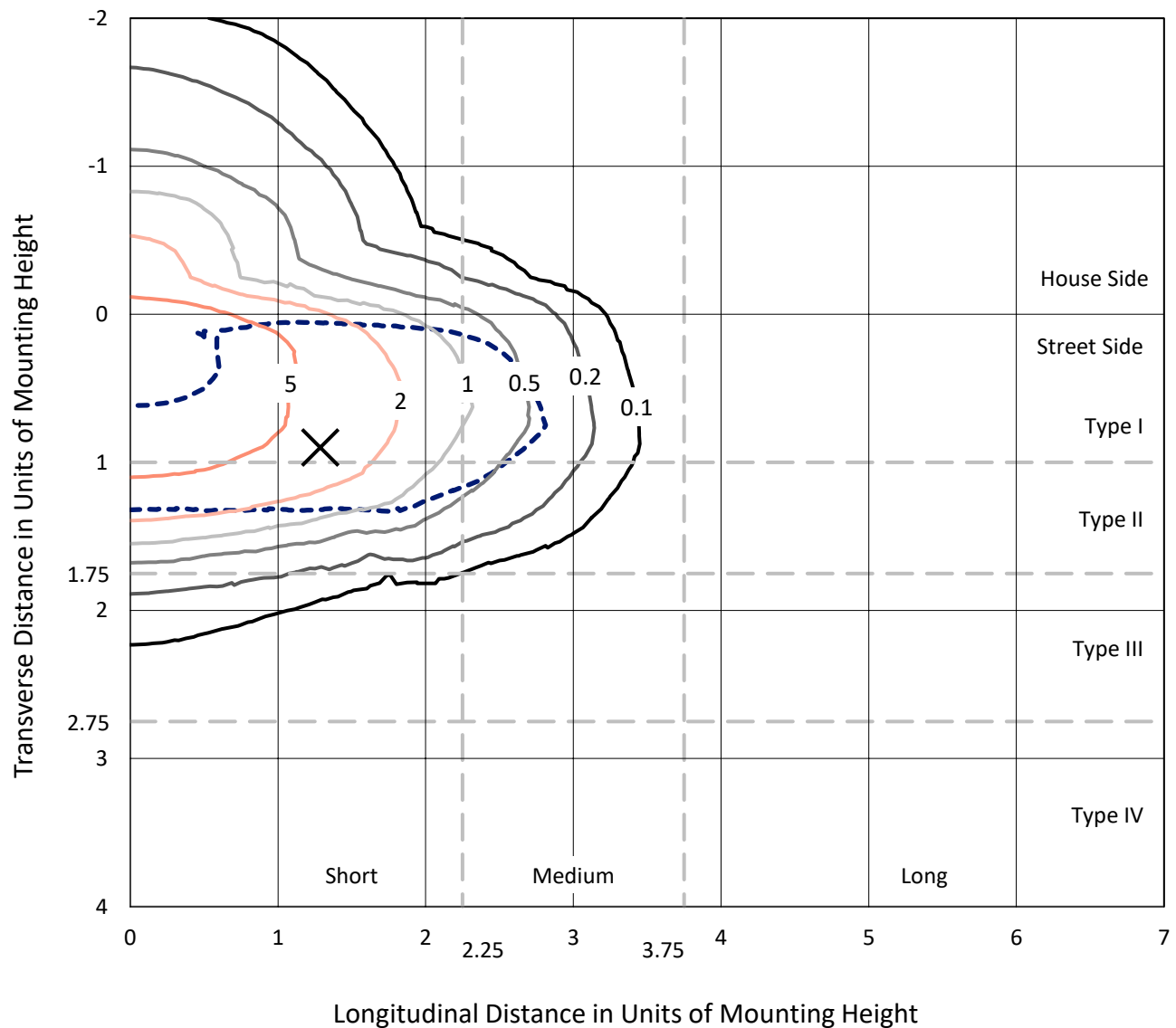


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Iso-Footcandle Lines of Horizontal Illumination

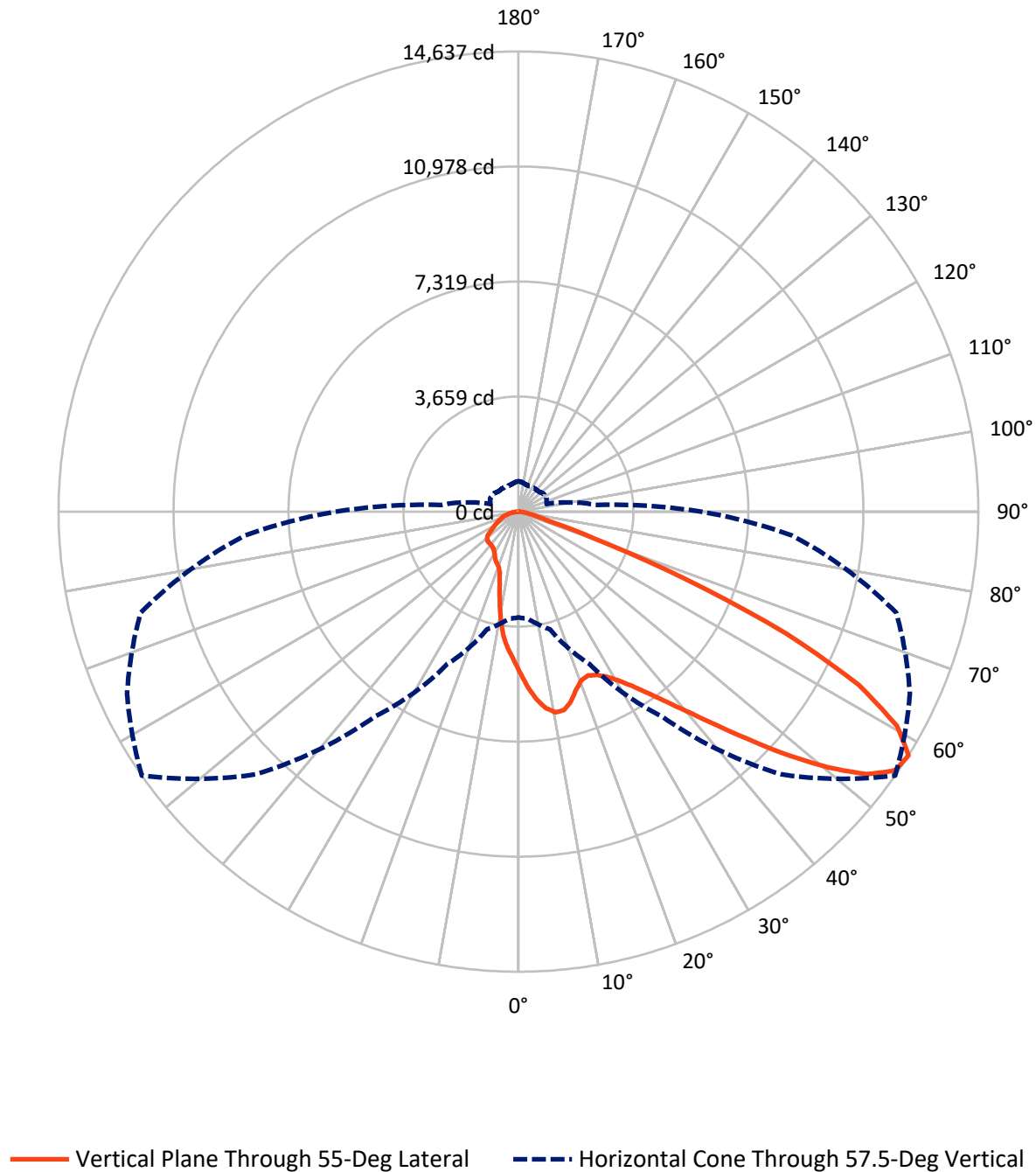
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.9 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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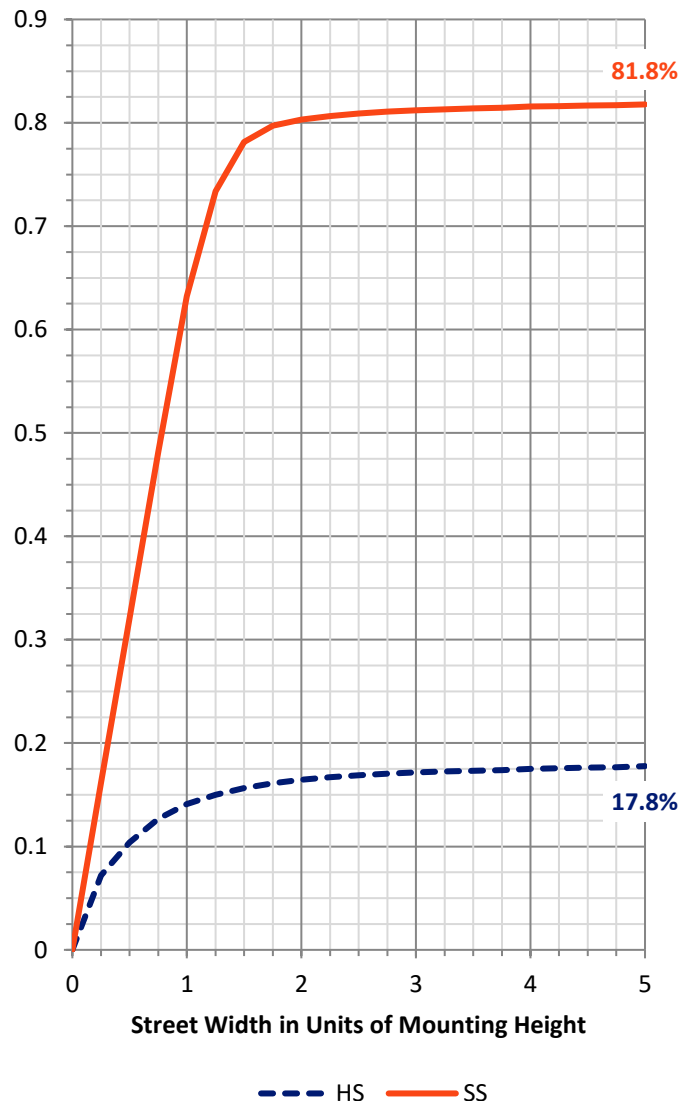
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3685.6	0.0	3685.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	16683.2	0.0	16683.2
	% Fixture	81.9	0.0	81.9
Total	Lumens	20368.8	0.0	20368.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.6	2.3
10°-20°	1195.4	5.9
20°-30°	1907.5	9.4
30°-40°	3020.0	14.8
40°-50°	4622.5	22.7
50°-60°	4951.1	24.3
60°-70°	3114.8	15.3
70°-80°	921.1	4.5
80°-90°	162.9	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°	20368.8	100.0
0°-180°	20368.8	100.0

Coefficient of Utilization



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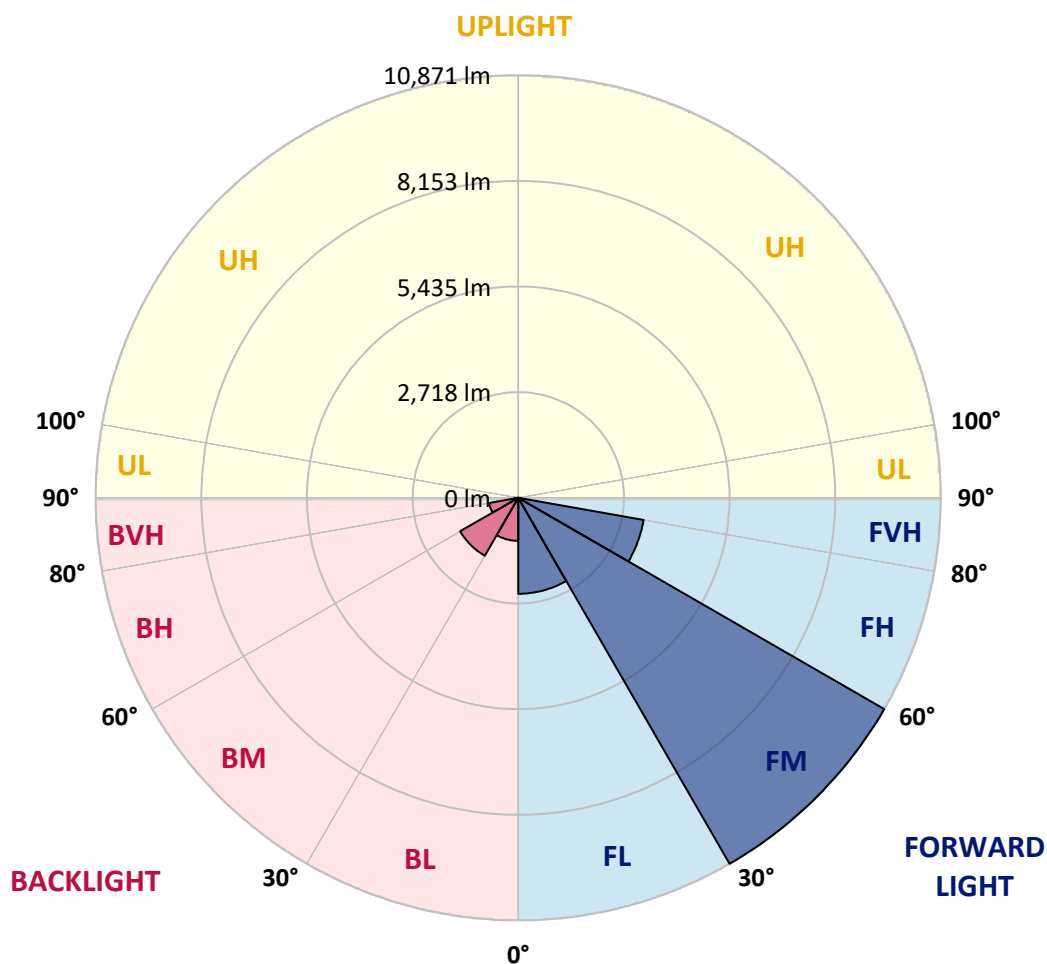
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2468.7	12.1			
FM	(30°-60°)	10871.0	53.4			
FH	(60°-80°)	3274.7	16.1			G2/5000
FVH	(80°-90°)	68.8	0.3			G1/100
BL	(0°-30°)	1107.8	5.4	B3/2500		
BM	(30°-60°)	1722.6	8.5	B2/2500		
BH	(60°-80°)	761.2	3.7	B2/1000		G2/1000
BVH	(80°-90°)	94.0	0.5			G1/100
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°	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8
2.5°	5855.6	5851.4	5874.6	5795.6	5741.8	5669.2	5573.3	5451.3	5319.6	5180.7	5120.6
5°	6383.1	6346.3	6370.5	6311.5	6252.6	6143.0	6000.9	5801.9	5558.7	5281.7	5134.3
7.5°	6300.0	6274.6	6336.8	6389.4	6433.6	6420.0	6315.7	6107.3	5793.5	5391.2	5177.5
10°	5629.2	5600.8	5688.1	5870.3	6137.8	6370.5	6496.9	6367.3	6033.6	5511.2	5219.6
12.5°	5037.5	5023.7	5081.6	5229.0	5526.0	5972.5	6473.7	6594.7	6283.0	5653.4	5276.5
15°	4784.7	4767.9	4804.7	4879.5	5069.0	5485.0	6263.1	6750.6	6528.4	5817.7	5367.0
17.5°	4728.9	4710.0	4725.8	4764.7	4886.9	5203.8	5945.1	6827.5	6784.3	6000.9	5442.9
20°	4832.1	4816.3	4818.4	4816.3	4901.5	5153.3	5724.0	6798.0	7007.5	6169.4	5516.5
22.5°	5081.6	5055.3	5056.4	5000.6	5046.9	5241.7	5666.1	6719.0	7206.6	6316.8	5572.3
25°	5488.1	5440.7	5450.2	5308.1	5295.4	5439.7	5756.6	6658.0	7404.5	6434.7	5582.9
27.5°	6044.0	5990.4	5961.9	5750.2	5649.2	5720.8	5940.9	6679.0	7592.0	6536.8	5556.5
30°	6739.1	6673.8	6615.9	6315.7	6132.5	6106.2	6227.3	6818.0	7813.1	6644.3	5511.2
32.5°	7590.8	7515.1	7409.7	7011.7	6753.7	6615.9	6597.9	7065.4	8072.1	6781.2	5488.1
35°	8604.9	8506.0	8356.4	7841.5	7515.1	7232.9	7086.5	7422.4	8426.9	6987.5	5514.4
37.5°	9649.5	9537.8	9401.0	8788.1	8387.0	7971.0	7682.5	7906.7	8899.8	7267.7	5583.9
40°	10613.0	10487.6	10360.2	9814.8	9384.1	8882.9	8412.2	8519.6	9477.8	7602.4	5701.9
42.5°	11181.5	11088.9	11040.4	10745.6	10412.9	9904.3	9319.9	9246.1	10127.5	7987.8	5836.7
45°	11156.2	11118.4	11267.8	11390.0	11311.1	11028.8	10383.4	10049.6	10779.3	8321.7	5960.9
47.5°	10560.3	10585.6	10919.3	11605.9	11908.0	12055.5	11594.3	10838.2	11345.8	8571.2	6016.6
50°	8938.7	8959.7	9732.6	11213.1	12061.8	12892.6	12795.7	11608.0	11784.8	8723.9	6004.0
52.5°	7655.1	7668.8	8000.5	10048.5	11554.3	13313.8	13878.2	12333.5	12106.1	8766.0	5933.5
55°	5766.0	5813.5	6185.2	7883.6	10233.8	12980.0	14537.4	13081.0	12309.2	8770.2	5859.8
57.5°	3368.5	3420.0	3879.1	5351.2	7954.2	11816.5	14637.4	13744.4	12447.2	8736.5	5815.5
60°	1650.0	1672.1	1872.2	2812.5	4904.7	9574.7	13832.9	14065.6	12524.1	8718.6	5813.5
62.5°	1111.9	1108.7	1117.2	1387.8	2416.5	6151.4	12156.6	13503.4	12483.0	8650.2	5792.4
65°	956.1	944.5	913.0	974.0	1251.9	2813.5	9392.5	11824.9	12170.2	8478.5	5648.2
67.5°	826.6	827.7	828.7	809.7	894.0	1298.3	5739.8	9314.6	11047.8	7665.7	5092.2
70°	684.4	693.9	698.1	698.1	728.7	851.9	2450.3	6384.2	8714.4	6010.4	4101.3
72.5°	623.4	603.3	605.5	594.9	594.9	648.6	986.7	3619.1	5490.2	3381.1	2502.9
75°	508.6	521.2	523.4	516.0	491.7	494.9	585.5	1518.4	2349.2	1402.6	1237.3
77.5°	439.1	439.1	443.3	438.1	419.1	370.6	390.6	588.7	799.2	574.9	618.1
80°	352.7	351.7	369.6	380.2	350.7	273.8	249.6	325.3	354.9	252.7	321.1
82.5°	171.6	182.1	253.8	289.6	266.4	197.9	152.7	202.1	189.5	111.6	144.2
85°	100.0	94.8	113.7	161.1	152.7	109.5	73.7	105.3	99.0	56.9	57.9
87.5°	31.6	29.5	23.2	54.7	44.2	30.5	20.0	30.5	27.4	12.6	12.6
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°	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8	5103.8
2.5°	5045.9	4921.6	4798.4	4685.7	4617.3	4573.0	4528.9	4479.4	4460.4	4432.0
5°	4995.3	4755.2	4541.5	4357.2	4189.8	4058.2	3925.4	3818.1	3769.6	3802.2
7.5°	4965.8	4618.3	4288.8	3950.8	3625.4	3365.3	3139.0	2979.9	2908.3	2926.2
10°	4939.5	4463.6	3961.3	3427.4	2959.9	2637.7	2406.1	2284.9	2239.6	2249.2
12.5°	4915.3	4289.8	3566.4	2864.1	2367.0	2154.3	2088.0	2089.1	2097.6	2103.8
15°	4911.1	4080.3	3125.2	2371.3	2047.0	2033.3	2104.9	2150.1	2174.4	2181.7
17.5°	4904.7	3829.7	2675.6	2035.4	1969.0	2061.7	2128.1	2157.5	2176.5	2177.5
20°	4879.5	3511.6	2260.7	1875.3	1952.2	2032.3	2073.3	2096.4	2112.2	2117.5
22.5°	4801.5	3157.8	1937.5	1803.7	1884.9	1949.0	1997.5	2023.9	2033.3	2039.6
25°	4661.5	2762.0	1714.2	1735.3	1791.1	1872.2	1911.1	1916.4	1913.3	1922.7
27.5°	4478.3	2337.6	1575.2	1642.7	1714.2	1783.7	1804.8	1801.6	1795.3	1805.8
30°	4257.1	1956.4	1486.8	1538.4	1636.3	1699.4	1718.4	1711.0	1698.4	1710.0
32.5°	4023.4	1644.7	1414.2	1465.7	1572.0	1634.3	1653.1	1645.8	1636.3	1645.8
35°	3805.4	1426.8	1346.7	1417.3	1521.5	1582.6	1606.8	1607.9	1607.9	1619.5
37.5°	3605.3	1299.4	1291.0	1386.7	1486.8	1541.6	1576.3	1578.4	1533.1	1536.3
40°	3420.0	1245.7	1265.7	1366.7	1453.1	1505.7	1507.9	1389.9	1306.8	1304.6
42.5°	3268.4	1235.1	1273.0	1364.7	1428.8	1431.0	1282.5	1190.9	1167.8	1168.8
45°	3126.2	1231.9	1289.9	1364.7	1393.1	1236.1	1136.1	1111.9	1114.1	1122.5
47.5°	2967.3	1219.3	1293.0	1345.7	1289.9	1099.3	1069.8	1059.3	1055.0	1057.2
50°	2793.5	1174.0	1253.1	1307.8	1112.9	1040.4	1003.5	1000.3	1005.6	1008.7
52.5°	2610.4	1100.3	1184.6	1239.3	1031.9	988.7	947.7	955.1	978.3	985.5
55°	2490.2	1014.0	1094.1	1102.5	975.1	940.3	905.6	922.4	965.6	979.3
57.5°	2458.7	922.4	990.9	981.3	902.4	898.2	877.1	891.9	946.6	966.7
60°	2449.2	840.3	889.8	882.4	831.9	851.9	846.5	853.9	872.9	879.2
62.5°	2375.5	775.0	799.2	788.6	768.6	803.4	816.1	800.2	815.0	822.4
65°	2188.1	722.3	710.7	703.4	711.8	743.4	768.6	737.1	750.8	771.8
67.5°	1878.5	650.8	619.1	627.6	653.8	670.8	703.4	667.6	679.2	714.9
70°	1519.5	560.2	531.8	556.0	581.3	616.0	621.3	597.1	624.4	664.4
72.5°	1075.1	468.5	448.5	498.0	506.5	551.8	540.2	528.6	566.5	580.2
75°	745.5	378.0	366.4	404.4	434.9	473.9	465.5	479.1	559.1	565.5
77.5°	471.7	293.8	286.4	310.7	352.7	396.0	409.6	565.5	955.1	992.9
80°	273.8	219.0	210.6	229.5	266.4	306.4	394.8	693.9	629.7	622.3
82.5°	152.7	150.6	140.0	145.3	177.9	221.1	558.1	488.6	397.0	409.6
85°	71.6	88.5	75.8	72.7	100.0	259.0	372.8	279.0	185.3	181.1
87.5°	19.0	16.8	16.8	19.0	42.1	223.2	148.4	119.0	70.5	68.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)