

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: P963177

Luminaire Tested: **NAV-SB2D-835-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963177
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-835-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19170.6 lumens
Efficiency: N/A
Efficacy: 129.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

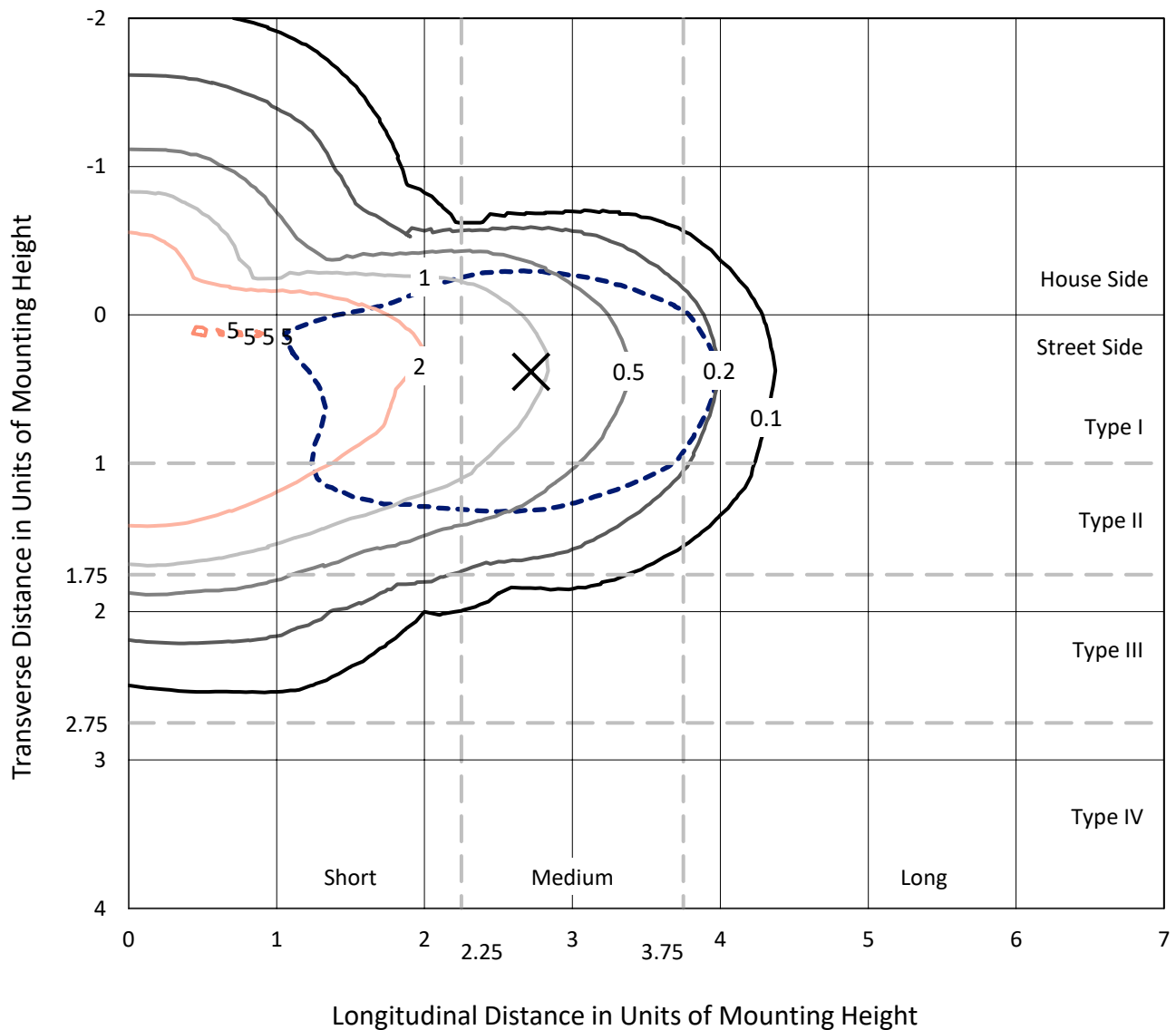
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

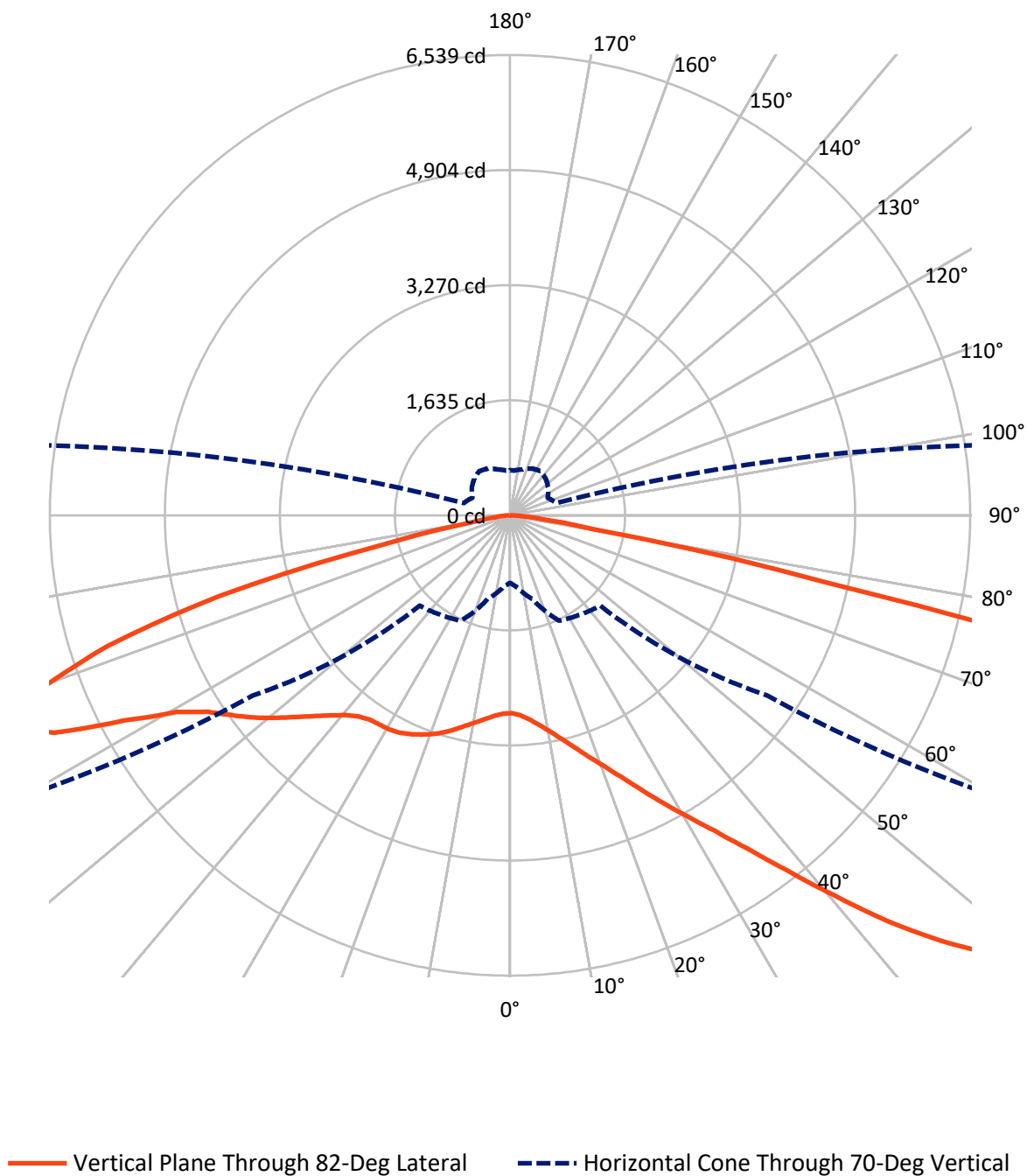


Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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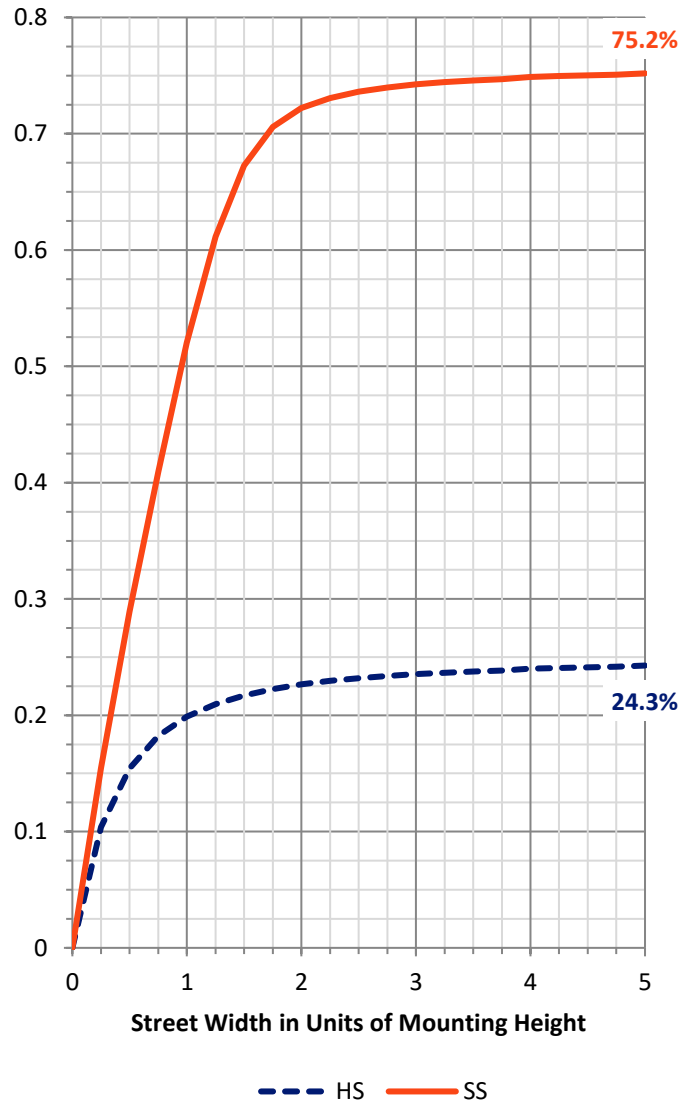
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4726.0	0.0	4726.0
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	14444.6	0.0	14444.6
	% Fixture	75.3	0.0	75.3
Total	Lumens	19170.6	0.0	19170.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.4	1.4
10°-20°	762.4	4.0
20°-30°	1275.5	6.7
30°-40°	1992.6	10.4
40°-50°	3173.5	16.6
50°-60°	4416.3	23.0
60°-70°	4619.7	24.1
70°-80°	2414.5	12.6
80°-90°	250.7	1.3
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°	19170.6	100.0
0°-180°	19170.6	100.0

Coefficient of Utilization



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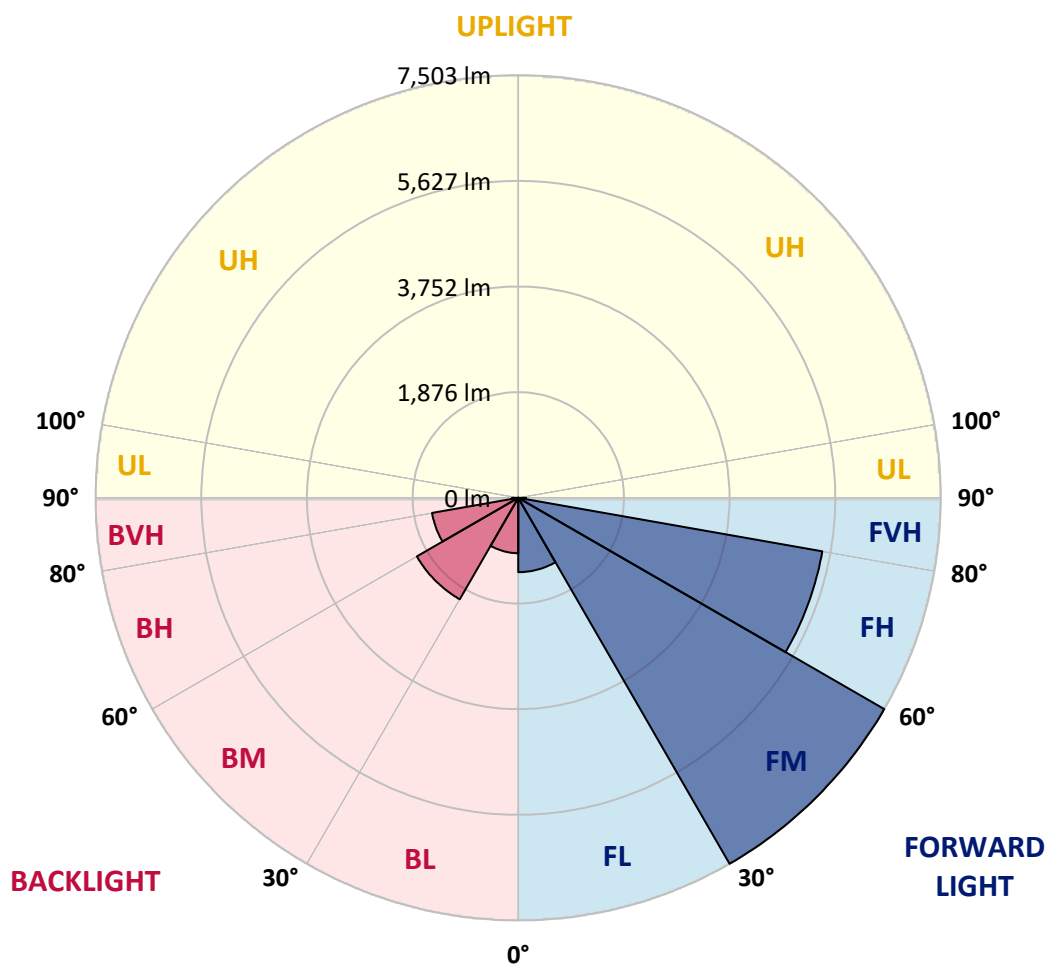
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1320.1	6.9			
FM	(30°-60°)	7503.2	39.1			
FH	(60°-80°)	5480.9	28.6			G3/7500
FVH	(80°-90°)	140.4	0.7			G2/225
BL	(0°-30°)	983.2	5.1	B2/1000		
BM	(30°-60°)	2079.3	10.8	B2/2500		
BH	(60°-80°)	1553.2	8.1	B3/2500		G3/2500
BVH	(80°-90°)	110.4	0.6			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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7
2.5°	2877.8	2894.1	2889.0	2883.8	2883.8	2876.8	2875.7	2865.6	2857.4	2844.2	2841.2
5°	2914.4	2931.7	2929.7	2933.8	2947.0	2950.1	2953.0	2947.0	2930.7	2914.4	2907.3
7.5°	2881.9	2901.2	2907.3	2931.7	2972.4	3009.0	3036.5	3047.6	3032.4	3009.0	2997.8
10°	2772.0	2793.3	2814.8	2872.7	2944.9	3031.4	3104.6	3148.4	3145.3	3123.0	3103.6
12.5°	2549.2	2571.6	2617.3	2730.3	2862.5	3015.1	3151.5	3243.0	3274.5	3258.3	3224.6
15°	2371.2	2390.5	2425.1	2541.1	2713.0	2944.9	3168.7	3346.7	3427.1	3418.0	3377.3
17.5°	2366.1	2374.2	2395.6	2450.6	2582.8	2835.0	3150.4	3448.4	3602.1	3601.0	3550.2
20°	2455.6	2458.7	2470.9	2482.0	2557.4	2751.6	3103.6	3532.9	3798.3	3798.3	3743.5
22.5°	2579.7	2577.7	2589.9	2579.7	2616.3	2744.5	3074.1	3607.2	4017.1	4033.4	3964.2
25°	2765.9	2755.7	2752.6	2729.3	2736.3	2810.7	3106.7	3691.5	4276.5	4310.0	4223.6
27.5°	3014.1	2997.8	2986.6	2932.7	2914.4	2947.0	3206.4	3793.3	4565.3	4623.4	4513.5
30°	3337.6	3308.1	3291.8	3198.2	3132.1	3137.2	3356.9	3928.6	4867.5	4961.1	4821.7
32.5°	3779.1	3733.3	3689.6	3535.9	3414.9	3375.2	3551.2	4115.8	5195.1	5344.6	5165.6
35°	4273.4	4236.8	4190.0	3953.0	3766.9	3675.3	3813.6	4377.2	5578.6	5815.5	5582.7
37.5°	4749.5	4718.0	4740.3	4420.9	4180.9	4047.6	4157.5	4728.1	6051.6	6401.5	6105.5
40°	5241.8	5217.5	5220.5	4915.3	4635.6	4486.0	4574.6	5168.7	6593.8	7098.3	6734.1
42.5°	5776.9	5758.7	5697.6	5427.0	5112.7	4973.3	5054.7	5677.3	7175.6	7891.8	7423.9
45°	6376.1	6364.9	6308.0	5997.7	5637.6	5480.9	5590.8	6238.8	7760.6	8638.4	8116.6
47.5°	6893.8	6903.1	6895.9	6634.5	6261.1	6031.2	6162.5	6824.7	8304.8	9340.3	8780.9
50°	7143.1	7190.9	7261.1	7179.7	6947.8	6713.9	6739.3	7390.2	8823.6	9998.5	9417.6
52.5°	7012.8	7103.5	7294.6	7424.9	7514.4	7465.6	7397.4	7951.8	9311.8	10592.6	10019.9
55°	6527.6	6654.8	6972.2	7286.5	7743.3	8098.3	8187.8	8574.3	9787.9	11115.4	10589.5
57.5°	5643.6	5850.2	6135.0	6770.7	7539.8	8404.5	9109.4	9438.0	10292.4	11673.9	11185.6
60°	4128.0	4404.6	4758.7	5704.7	6827.7	8240.7	9893.7	10764.4	11009.6	12397.2	11961.7
62.5°	2641.7	2812.7	3138.2	4029.3	5320.2	7401.4	10133.8	12422.6	12225.3	13583.3	13125.5
65°	1808.6	1918.5	2216.6	2717.1	3439.3	5509.4	9490.9	13665.7	14156.0	15463.1	15115.3
67.5°	1314.3	1397.7	1652.0	2090.5	2241.0	3260.2	7364.8	13608.7	16032.7	17400.0	16858.8
70°	958.3	1017.2	1230.8	1652.0	1724.3	1813.7	4461.6	11568.2	15992.0	17914.6	17266.7
72.5°	710.0	750.7	894.1	1281.8	1395.6	1224.8	2208.5	8407.6	13742.0	16203.7	15683.8
75°	513.7	544.3	650.1	980.6	1116.9	932.9	1101.7	4913.3	9585.5	11398.2	11489.7
77.5°	392.7	416.0	485.2	718.2	894.1	699.9	683.6	2260.3	4545.1	4567.4	4823.8
80°	315.4	330.6	368.3	505.5	685.6	523.9	445.6	912.5	1436.3	1215.6	1275.6
82.5°	232.0	257.4	311.3	355.1	490.4	361.1	271.6	460.8	546.2	470.0	474.1
85°	132.2	149.5	188.2	254.3	313.3	220.8	155.6	204.5	254.3	208.5	186.1
87.5°	46.8	61.0	66.1	99.7	136.3	91.5	60.1	59.0	83.4	62.0	51.9
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°	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7
2.5°	2830.9	2825.9	2805.5	2778.1	2749.6	2722.2	2713.0	2693.7	2680.5	2673.3	2681.5
5°	2887.9	2871.6	2823.9	2762.8	2698.7	2629.5	2580.7	2536.0	2503.5	2472.9	2485.1
7.5°	2969.3	2940.8	2858.4	2751.6	2637.7	2522.7	2437.3	2372.3	2328.5	2300.0	2306.0
10°	3063.9	3020.2	2894.1	2734.4	2558.4	2393.6	2292.8	2237.0	2209.5	2194.2	2198.2
12.5°	3172.8	3110.8	2930.7	2694.7	2437.3	2249.2	2180.0	2163.7	2164.7	2165.7	2167.8
15°	3307.1	3220.5	2960.2	2608.2	2279.6	2138.3	2126.1	2152.5	2180.0	2193.2	2192.2
17.5°	3458.7	3336.6	2965.2	2465.8	2125.0	2067.0	2105.7	2162.6	2204.4	2222.7	2226.7
20°	3621.4	3454.6	2928.6	2264.4	1997.8	2009.1	2078.2	2151.5	2197.3	2220.7	2226.7
22.5°	3807.6	3580.7	2841.2	2052.8	1894.1	1946.0	2027.3	2098.6	2146.4	2169.8	2175.9
25°	4020.2	3722.1	2703.8	1874.8	1804.6	1874.8	1956.1	2015.2	2053.8	2075.2	2081.3
27.5°	4256.1	3869.6	2520.8	1733.4	1726.3	1801.5	1868.7	1914.5	1934.8	1951.1	1957.1
30°	4493.2	4003.9	2299.0	1626.6	1658.1	1729.3	1777.1	1797.4	1803.6	1806.7	1813.7
32.5°	4749.5	4119.9	2066.0	1538.1	1593.1	1659.2	1687.6	1696.8	1668.3	1648.9	1655.1
35°	5059.8	4243.9	1838.1	1467.9	1528.9	1585.9	1595.0	1586.9	1553.3	1513.6	1515.7
37.5°	5443.3	4398.6	1656.1	1418.1	1468.9	1506.5	1495.4	1493.3	1496.4	1449.6	1452.6
40°	5913.2	4600.0	1522.8	1379.3	1420.0	1428.2	1396.7	1414.0	1429.3	1358.0	1360.1
42.5°	6435.1	4843.1	1438.4	1352.9	1379.3	1360.1	1311.2	1330.6	1328.5	1234.9	1233.9
45°	6967.1	5107.6	1408.9	1333.6	1341.7	1303.1	1249.2	1254.3	1211.6	1127.1	1130.2
47.5°	7496.0	5391.4	1427.2	1317.3	1295.0	1251.2	1209.5	1187.2	1124.0	1061.0	1061.0
50°	8014.9	5689.5	1494.3	1284.7	1230.8	1205.4	1175.0	1135.3	1068.2	1014.2	1010.1
52.5°	8496.0	5989.5	1569.6	1230.8	1150.5	1165.7	1146.5	1100.6	1034.5	979.6	980.6
55°	8951.7	6289.6	1599.1	1156.6	1075.2	1131.2	1120.0	1035.6	956.2	911.4	907.4
57.5°	9448.1	6650.7	1566.5	1062.0	1014.2	1091.5	1048.8	955.2	909.4	875.9	872.8
60°	10135.8	7217.3	1496.4	945.0	956.2	1032.5	959.3	920.7	870.7	833.1	831.1
62.5°	11278.2	8274.3	1383.4	829.0	888.1	945.0	916.6	877.9	827.0	790.4	790.4
65°	12966.8	9743.1	1170.9	738.5	811.8	859.6	870.7	832.1	779.2	740.6	742.6
67.5°	14391.0	10664.8	886.0	663.3	733.4	790.4	821.9	784.3	728.4	690.7	691.8
70°	14312.6	9995.5	676.5	589.0	664.3	722.2	762.9	733.4	673.4	637.9	640.8
72.5°	12712.5	8361.7	547.2	513.7	594.1	651.1	699.9	677.5	616.4	581.9	581.9
75°	9339.3	5935.6	437.4	437.4	506.6	576.8	630.7	616.4	560.5	536.1	529.0
77.5°	3936.7	2490.2	342.9	363.2	421.2	495.4	562.5	567.6	518.8	549.3	498.5
80°	1046.7	686.6	261.5	285.9	330.6	409.0	489.3	487.3	434.4	405.9	377.4
82.5°	398.7	270.6	186.1	201.4	239.0	313.3	387.6	399.7	346.9	300.1	300.1
85°	153.6	115.9	114.9	121.1	139.4	207.6	292.9	303.1	261.5	221.8	228.9
87.5°	39.7	34.5	42.7	40.7	64.1	110.9	167.9	173.9	159.7	92.6	132.2
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)