

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: P967858

Luminaire Tested: **NAV-SB5A-827-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967858
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-SB5A-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20012.1 lumens
Efficiency: N/A
Efficacy: 141.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

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



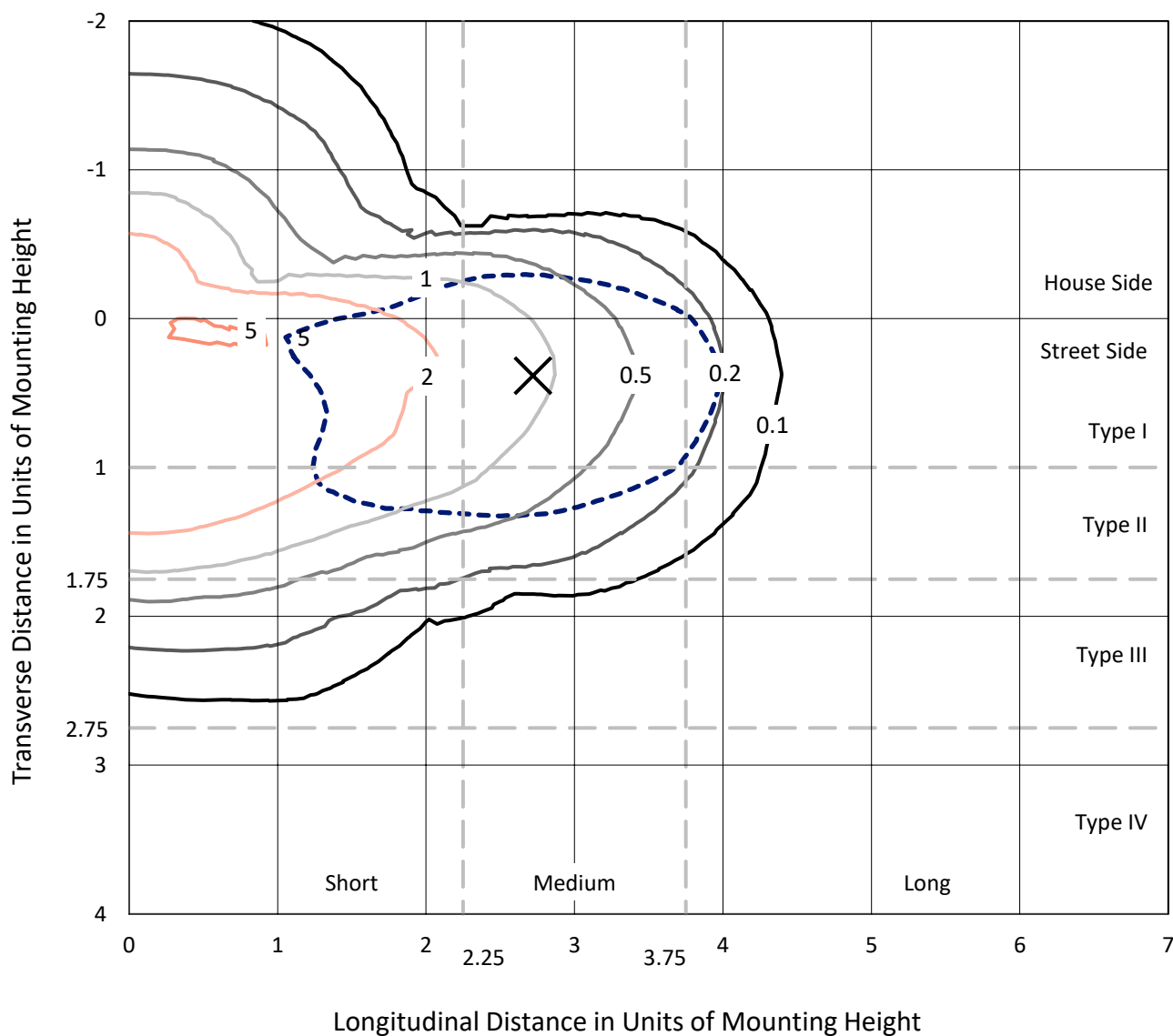
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

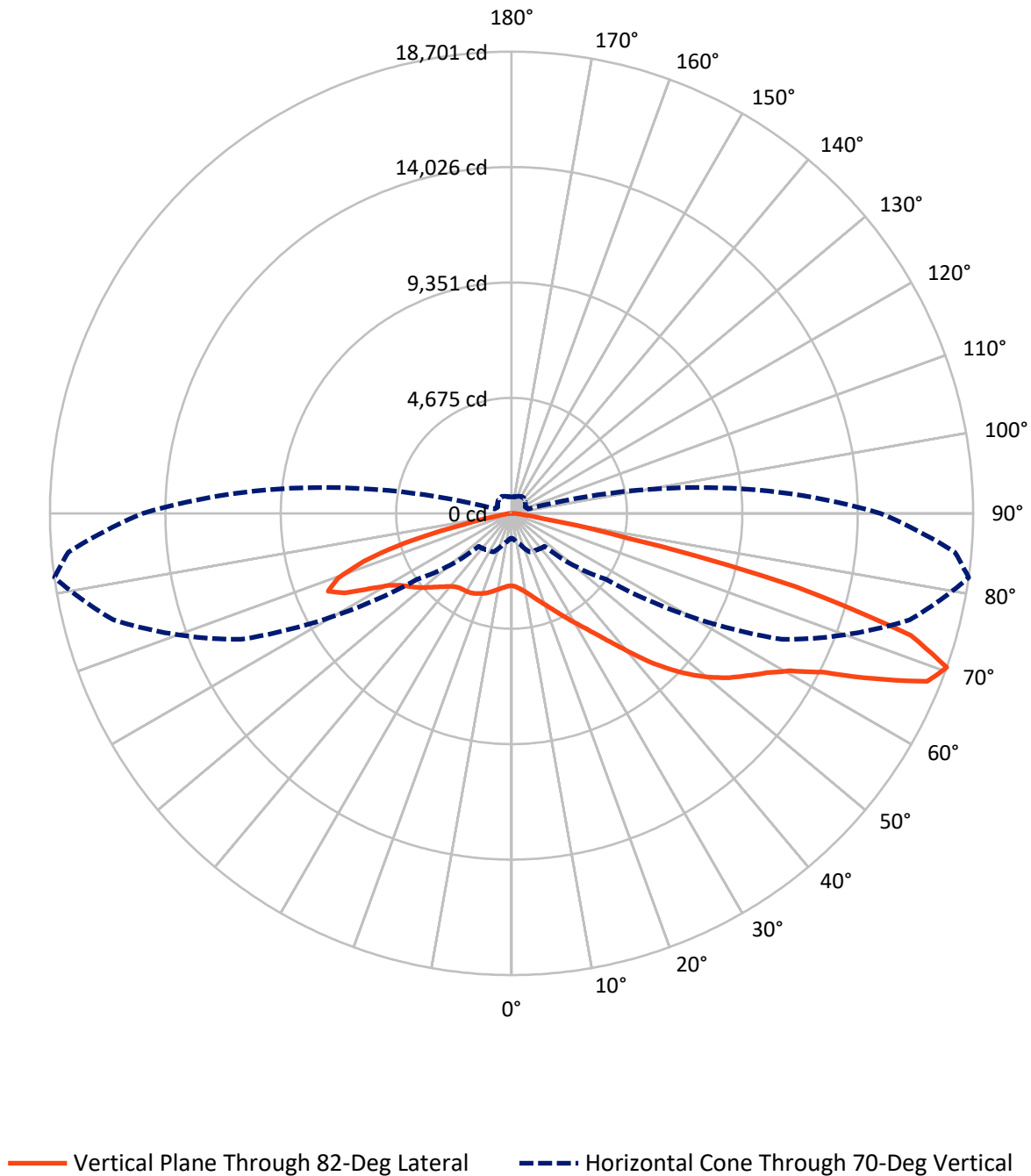
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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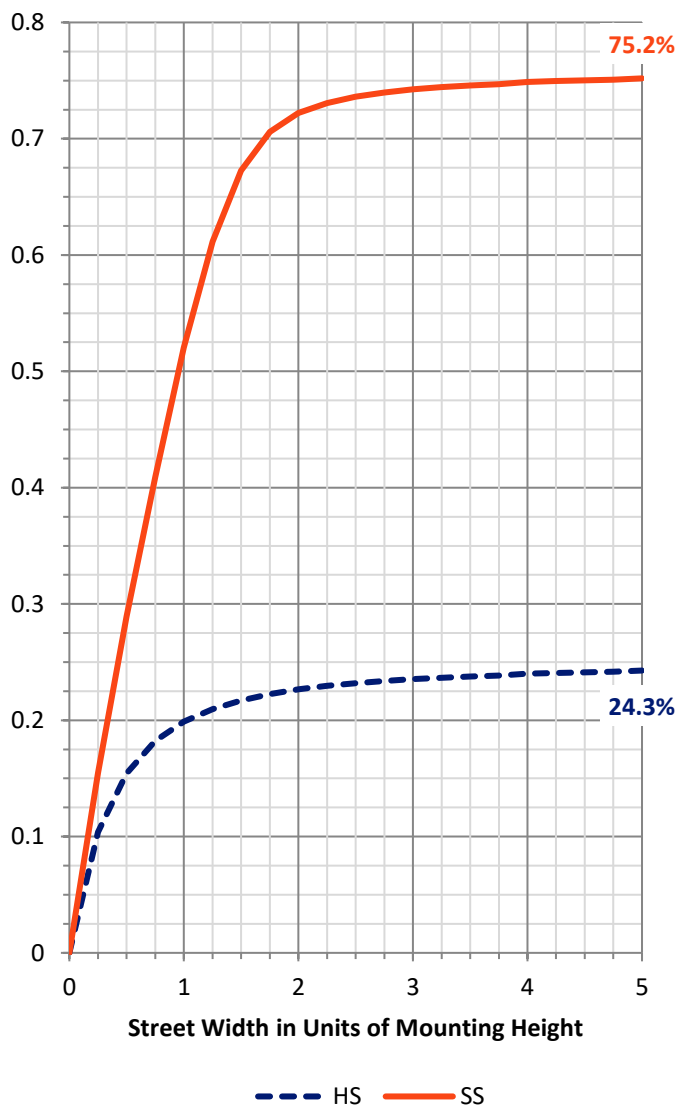
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4933.5	0.0	4933.5
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	15078.6	0.0	15078.6
	% Fixture	75.3	0.0	75.3
Total	Lumens	20012.1	0.0	20012.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.0	1.4
10°-20°	795.9	4.0
20°-30°	1331.5	6.7
30°-40°	2080.1	10.4
40°-50°	3312.8	16.6
50°-60°	4610.2	23.0
60°-70°	4822.4	24.1
70°-80°	2520.5	12.6
80°-90°	261.7	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°	20012.1	100.0
0°-180°	20012.1	100.0

Coefficient of Utilization



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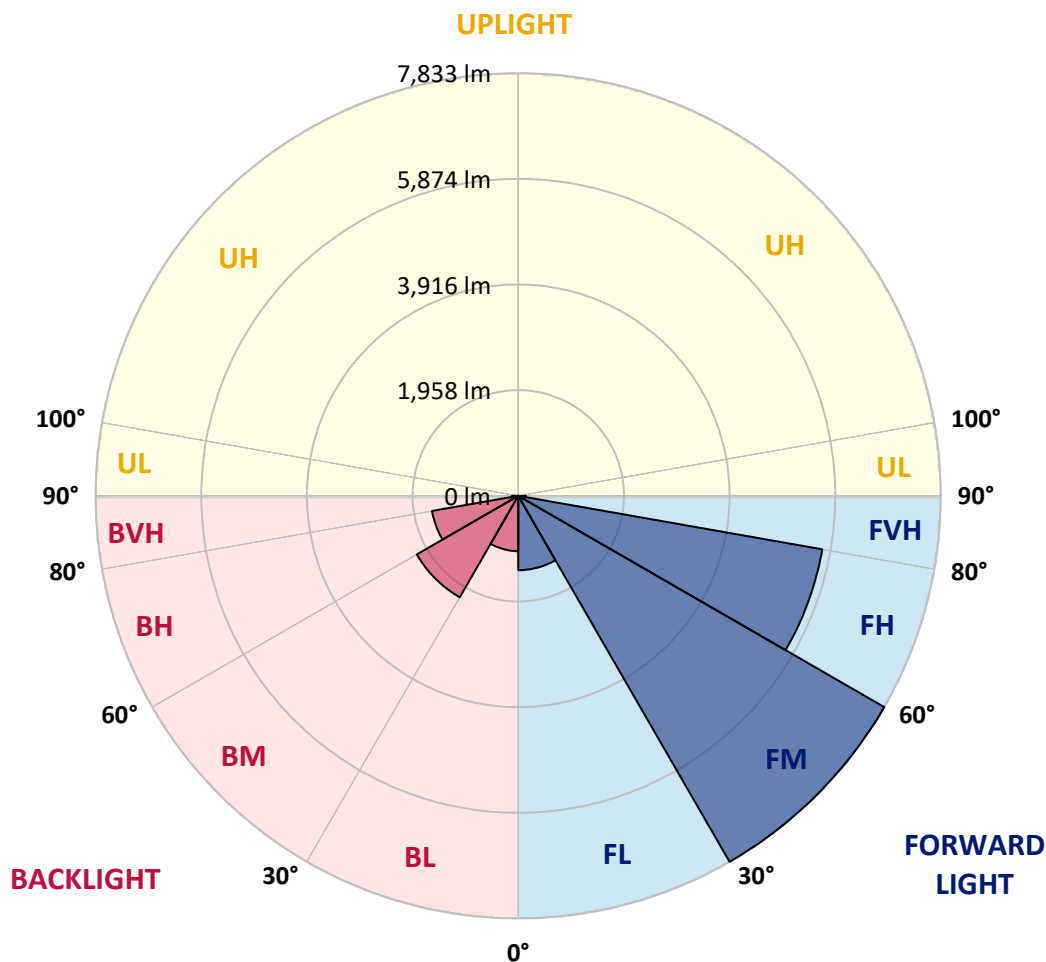
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1378.1	6.9			
FM	(30°-60°)	7832.5	39.1			
FH	(60°-80°)	5721.5	28.6			G3/7500
FVH	(80°-90°)	146.5	0.7			G2/225
BL	(0°-30°)	1026.3	5.1	B3/2500		
BM	(30°-60°)	2170.5	10.8	B2/2500		
BH	(60°-80°)	1621.4	8.1	B3/2500		G3/2500
BVH	(80°-90°)	115.2	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°	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1
2.5°	3004.1	3021.1	3015.8	3010.5	3010.5	3003.0	3002.0	2991.4	2982.9	2969.1	2965.8
5°	3042.3	3060.3	3058.3	3062.5	3076.3	3079.5	3082.7	3076.3	3059.3	3042.3	3034.9
7.5°	3008.4	3028.6	3034.9	3060.3	3102.9	3141.1	3169.8	3181.5	3165.5	3141.1	3129.4
10°	2893.7	2916.0	2938.3	2998.8	3074.2	3164.5	3240.9	3286.6	3283.4	3260.0	3239.8
12.5°	2661.1	2684.5	2732.2	2850.1	2988.2	3147.5	3289.7	3385.4	3418.3	3401.3	3366.2
15°	2475.3	2495.5	2531.5	2652.6	2832.1	3074.2	3307.8	3493.6	3577.6	3568.0	3525.5
17.5°	2469.9	2478.4	2500.8	2558.1	2696.2	2959.5	3288.7	3599.8	3760.2	3759.1	3706.0
20°	2563.4	2566.6	2579.3	2591.0	2669.6	2872.5	3239.8	3688.0	3965.1	3965.1	3907.8
22.5°	2693.0	2690.8	2703.6	2693.0	2731.2	2865.0	3209.1	3765.4	4193.5	4210.4	4138.2
25°	2887.3	2876.7	2873.5	2849.1	2856.5	2934.1	3243.0	3853.6	4464.2	4499.2	4409.0
27.5°	3146.4	3129.4	3117.7	3061.5	3042.3	3076.3	3347.1	3959.8	4765.8	4826.3	4711.6
30°	3484.1	3453.3	3436.3	3338.6	3269.5	3274.9	3504.3	4101.0	5081.2	5178.9	5033.4
32.5°	3944.9	3897.2	3851.5	3691.1	3564.7	3523.3	3707.1	4296.4	5423.1	5579.2	5392.3
35°	4461.0	4422.8	4374.0	4126.5	3932.2	3836.7	3981.1	4569.3	5823.4	6070.9	5827.7
37.5°	4958.0	4925.1	4948.5	4615.0	4364.4	4225.3	4340.0	4935.7	6317.3	6682.5	6373.6
40°	5472.0	5446.4	5449.6	5131.0	4839.0	4683.0	4775.4	5395.5	6883.2	7409.9	7029.8
42.5°	6030.5	6011.4	5947.7	5665.2	5337.1	5191.6	5276.6	5926.4	7490.6	8238.2	7749.7
45°	6655.9	6644.3	6584.8	6260.9	5885.0	5721.5	5836.1	6512.6	8101.2	9017.6	8472.9
47.5°	7196.5	7206.1	7198.6	6925.7	6536.0	6296.0	6433.0	7124.3	8669.3	9750.3	9166.3
50°	7456.7	7506.6	7579.9	7494.9	7252.8	7008.5	7035.1	7714.7	9210.9	10437.4	9831.1
52.5°	7320.8	7415.3	7614.8	7750.7	7844.2	7793.3	7722.1	8300.9	9720.6	11057.5	10459.7
55°	6814.2	6946.9	7278.2	7606.4	8083.2	8453.8	8547.2	8950.7	10217.6	11603.4	11054.3
57.5°	5891.4	6107.0	6404.3	7068.0	7870.8	8773.4	9509.3	9852.3	10744.3	12186.3	11676.6
60°	4309.2	4598.0	4967.6	5955.1	7127.4	8602.4	10328.0	11237.0	11492.9	12941.3	12486.9
62.5°	2757.8	2936.1	3276.0	4206.2	5553.8	7726.3	10578.6	12967.9	12761.9	14179.5	13701.7
65°	1888.0	2002.7	2313.8	2836.4	3590.3	5751.3	9907.5	14265.5	14777.3	16141.9	15778.7
67.5°	1372.0	1459.1	1724.6	2182.2	2339.4	3403.4	7688.1	14206.1	16736.6	18163.7	17598.8
70°	1000.3	1061.9	1284.9	1724.6	1799.9	1893.4	4657.5	12075.9	16694.1	18701.1	18024.6
72.5°	741.2	783.7	933.4	1338.0	1456.9	1278.5	2305.4	8776.6	14345.2	16915.0	16372.3
75°	536.3	568.2	678.6	1023.7	1165.9	973.7	1150.0	5129.0	10006.3	11898.6	11994.1
77.5°	409.9	434.3	506.6	749.7	933.4	730.6	713.6	2359.5	4744.5	4767.9	5035.5
80°	329.2	345.1	384.4	527.8	715.8	546.8	465.1	952.5	1499.4	1268.9	1331.6
82.5°	242.1	268.7	324.9	370.6	511.9	377.0	283.5	481.0	570.2	490.6	494.9
85°	138.1	156.1	196.5	265.5	327.1	230.4	162.5	213.4	265.5	217.7	194.3
87.5°	48.9	63.8	69.0	104.0	142.3	95.5	62.6	61.6	87.1	64.8	54.1
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°	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1	2934.1
2.5°	2955.3	2950.0	2928.7	2900.0	2870.3	2841.6	2832.1	2811.9	2798.1	2790.7	2799.2
5°	3014.7	2997.7	2947.8	2884.1	2817.2	2745.1	2694.0	2647.3	2613.3	2581.5	2594.2
7.5°	3099.7	3070.0	2984.0	2872.5	2753.5	2633.5	2544.4	2476.3	2430.7	2401.0	2407.3
10°	3198.4	3152.8	3021.1	2854.4	2670.6	2498.6	2393.5	2335.2	2306.5	2290.5	2294.8
12.5°	3312.1	3247.3	3059.3	2813.0	2544.4	2347.9	2275.6	2258.7	2259.7	2260.7	2262.9
15°	3452.2	3362.0	3090.2	2722.7	2379.7	2232.1	2219.3	2247.0	2275.6	2289.4	2288.4
17.5°	3610.5	3483.1	3095.4	2574.1	2218.3	2157.7	2198.1	2257.6	2301.1	2320.3	2324.5
20°	3780.4	3606.2	3057.2	2363.8	2085.6	2097.3	2169.4	2245.9	2293.7	2318.1	2324.5
22.5°	3974.6	3737.9	2965.8	2142.9	1977.2	2031.4	2116.3	2190.7	2240.6	2265.0	2271.4
25°	4196.7	3885.5	2822.5	1957.0	1883.8	1957.0	2042.0	2103.6	2144.0	2166.2	2172.7
27.5°	4443.0	4039.4	2631.4	1809.4	1802.1	1880.7	1950.7	1998.4	2019.8	2036.7	2043.1
30°	4690.4	4179.6	2399.9	1698.0	1730.9	1805.2	1855.1	1876.4	1882.7	1885.9	1893.4
32.5°	4958.0	4300.7	2156.7	1605.6	1663.0	1731.9	1761.7	1771.2	1741.5	1721.4	1727.7
35°	5281.9	4430.3	1918.8	1532.3	1596.0	1655.5	1665.0	1656.6	1621.6	1580.1	1582.2
37.5°	5682.2	4591.7	1728.8	1480.3	1533.4	1572.7	1561.0	1558.8	1562.1	1513.2	1516.4
40°	6172.9	4801.9	1589.7	1439.9	1482.5	1490.9	1458.0	1476.0	1492.0	1417.7	1419.7
42.5°	6717.5	5055.7	1501.5	1412.3	1439.9	1419.7	1368.8	1389.0	1386.8	1289.1	1288.1
45°	7273.0	5331.7	1470.8	1392.2	1400.7	1360.3	1304.0	1309.3	1264.7	1176.6	1179.8
47.5°	7825.2	5628.1	1489.8	1375.1	1351.8	1306.2	1262.6	1239.2	1173.4	1107.5	1107.5
50°	8366.7	5939.2	1559.9	1341.2	1284.9	1258.4	1226.5	1185.1	1115.0	1058.7	1054.4
52.5°	8869.0	6252.5	1638.5	1284.9	1201.0	1217.0	1196.8	1148.9	1079.9	1022.6	1023.7
55°	9344.7	6565.7	1669.3	1207.3	1122.4	1180.8	1169.1	1081.0	998.1	951.5	947.2
57.5°	9862.9	6942.7	1635.3	1108.6	1058.7	1139.4	1094.8	997.1	949.4	914.3	911.1
60°	10580.8	7534.2	1562.1	986.5	998.1	1077.8	1001.3	961.0	909.0	869.7	867.6
62.5°	11773.3	8637.5	1444.2	865.4	927.0	986.5	956.7	916.5	863.4	825.1	825.1
65°	13536.0	10170.9	1222.2	770.9	847.4	897.3	909.0	868.6	813.4	773.1	775.2
67.5°	15022.7	11132.9	925.0	692.4	765.7	825.1	858.0	818.8	760.3	721.0	722.1
70°	14940.9	10434.2	706.1	614.8	693.4	754.0	796.4	765.7	702.9	665.8	669.0
72.5°	13270.6	8728.8	571.3	536.3	620.1	679.6	730.6	707.2	643.5	607.4	607.4
75°	9749.3	6196.1	456.6	456.6	528.8	602.1	658.4	643.5	585.1	559.6	552.2
77.5°	4109.5	2599.5	357.8	379.1	439.6	517.1	587.2	592.6	541.6	573.4	520.3
80°	1092.6	716.8	273.0	298.4	345.1	426.9	510.8	508.6	453.5	423.7	394.0
82.5°	416.3	282.5	194.3	210.2	249.6	327.1	404.6	417.3	362.1	313.2	313.2
85°	160.3	121.1	120.0	126.4	145.4	216.6	305.9	316.4	273.0	231.4	238.9
87.5°	41.4	36.1	44.6	42.4	66.9	115.7	175.2	181.6	166.8	96.7	138.1
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)