

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: P967845

Luminaire Tested: **NAV-SB5A-827-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-827-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19738.4 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G4

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



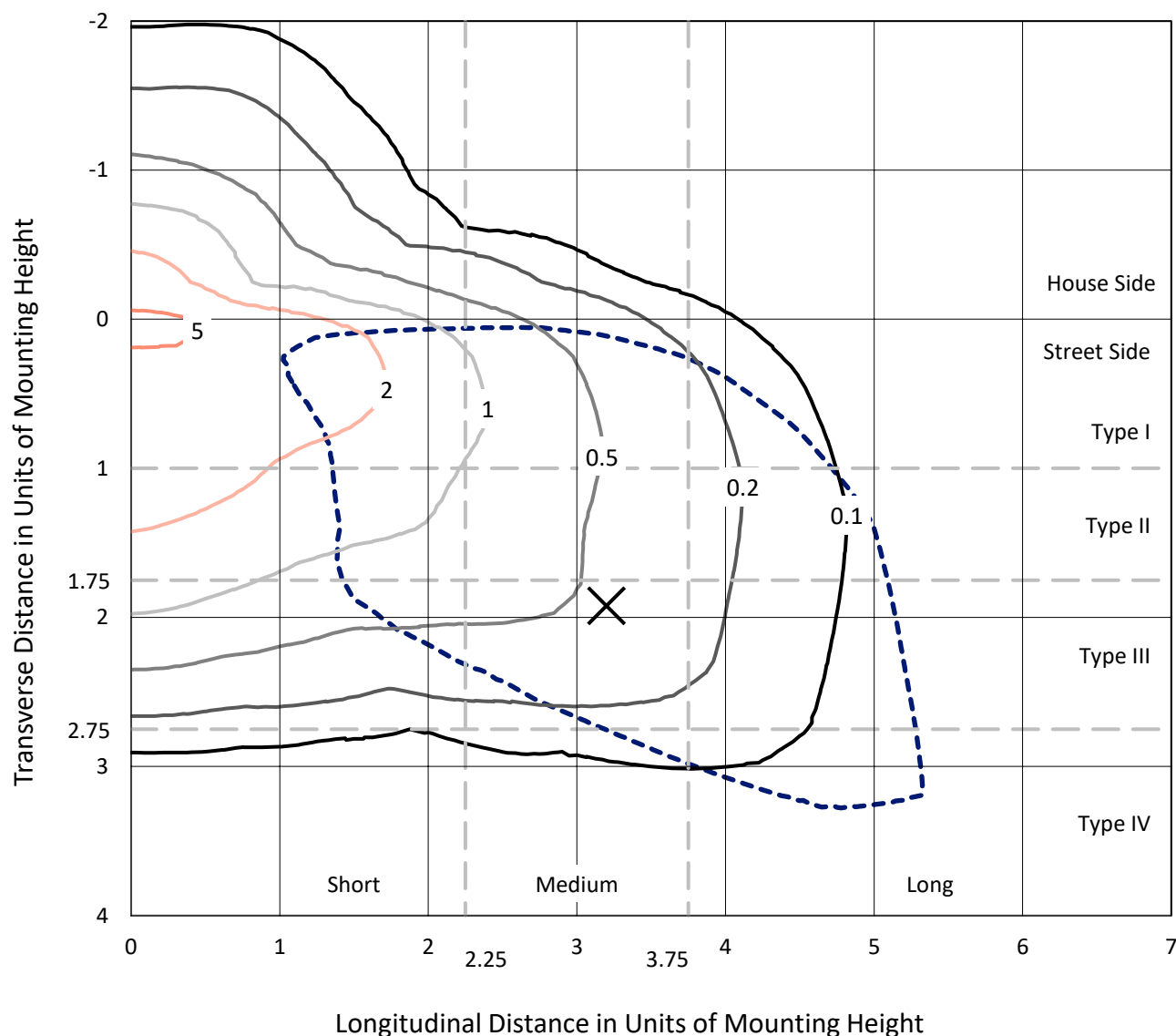
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

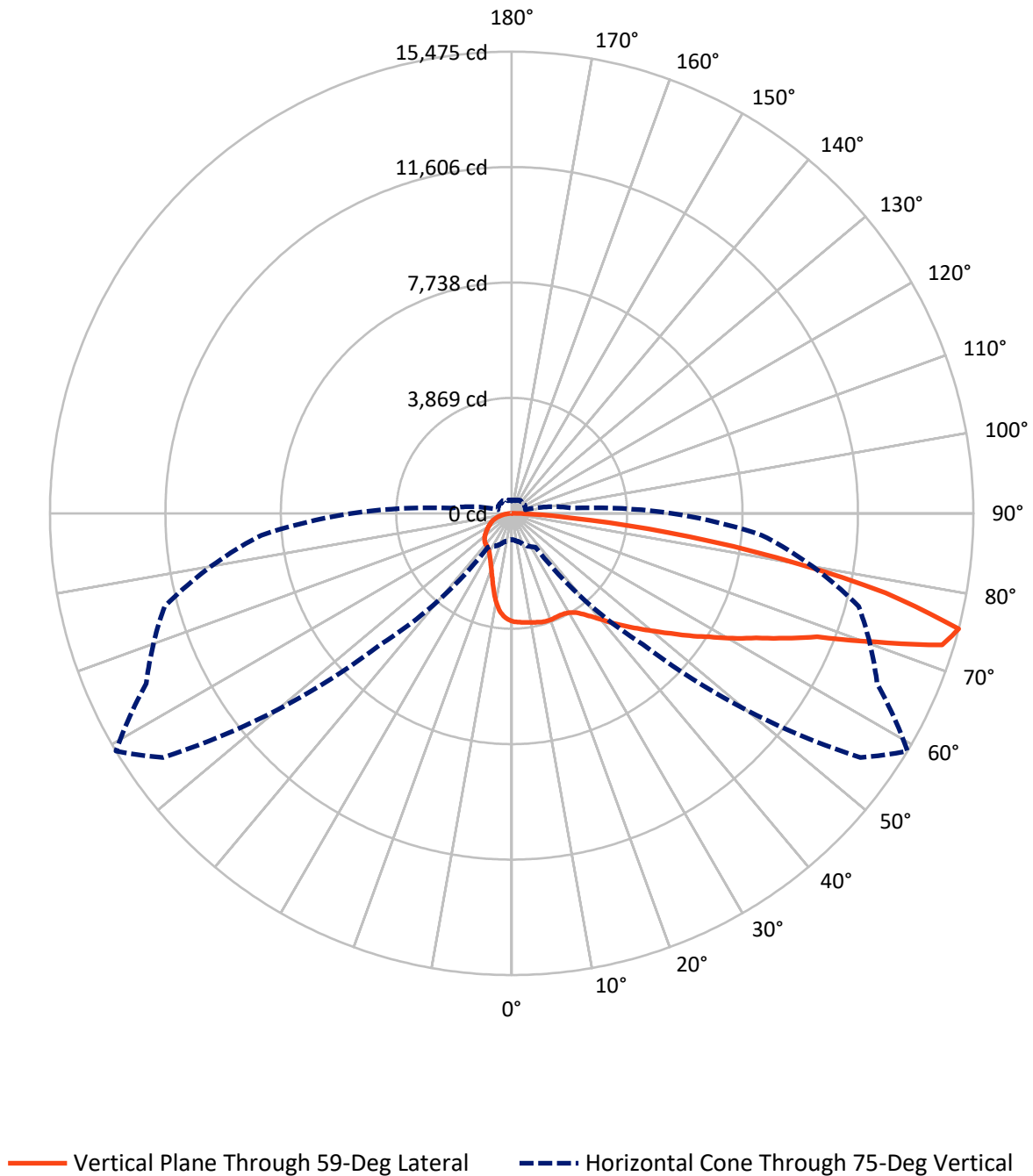
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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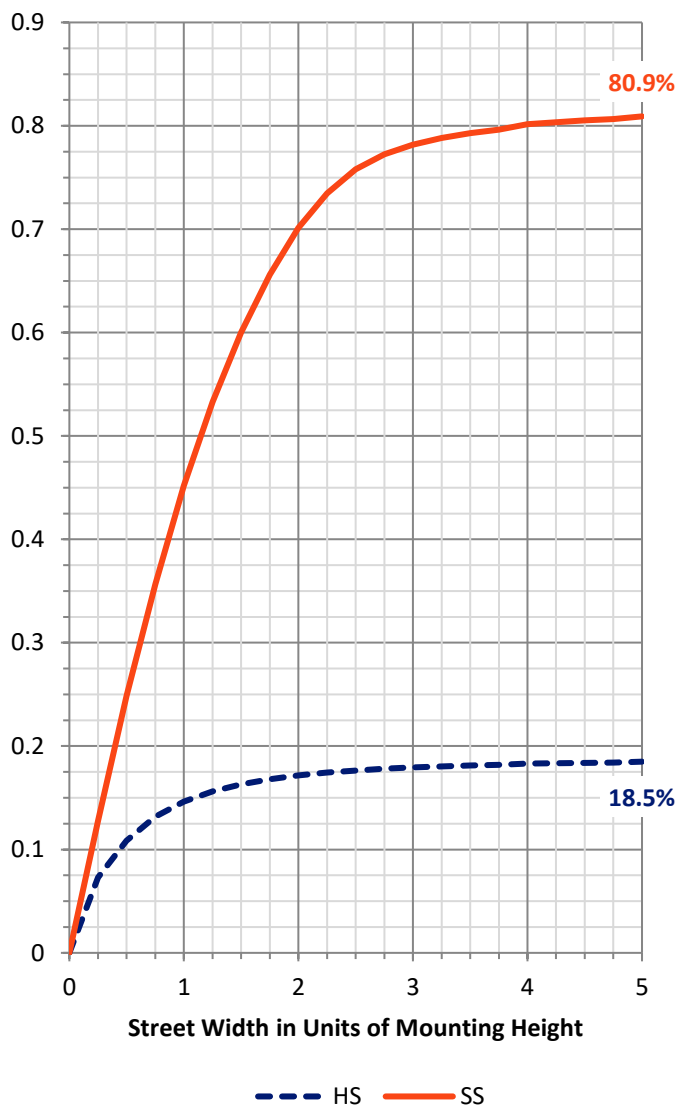
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3702.1	0.0	3702.1
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	16036.3	0.0	16036.3
	% Fixture	81.2	0.0	81.2
Total	Lumens	19738.4	0.0	19738.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	324.9	1.6
10°-20°	830.3	4.2
20°-30°	1261.2	6.4
30°-40°	1874.8	9.5
40°-50°	2788.1	14.1
50°-60°	3784.6	19.2
60°-70°	4620.4	23.4
70°-80°	3626.0	18.4
80°-90°	628.1	3.2
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°	19738.4	100.0
0°-180°	19738.4	100.0

Coefficient of Utilization



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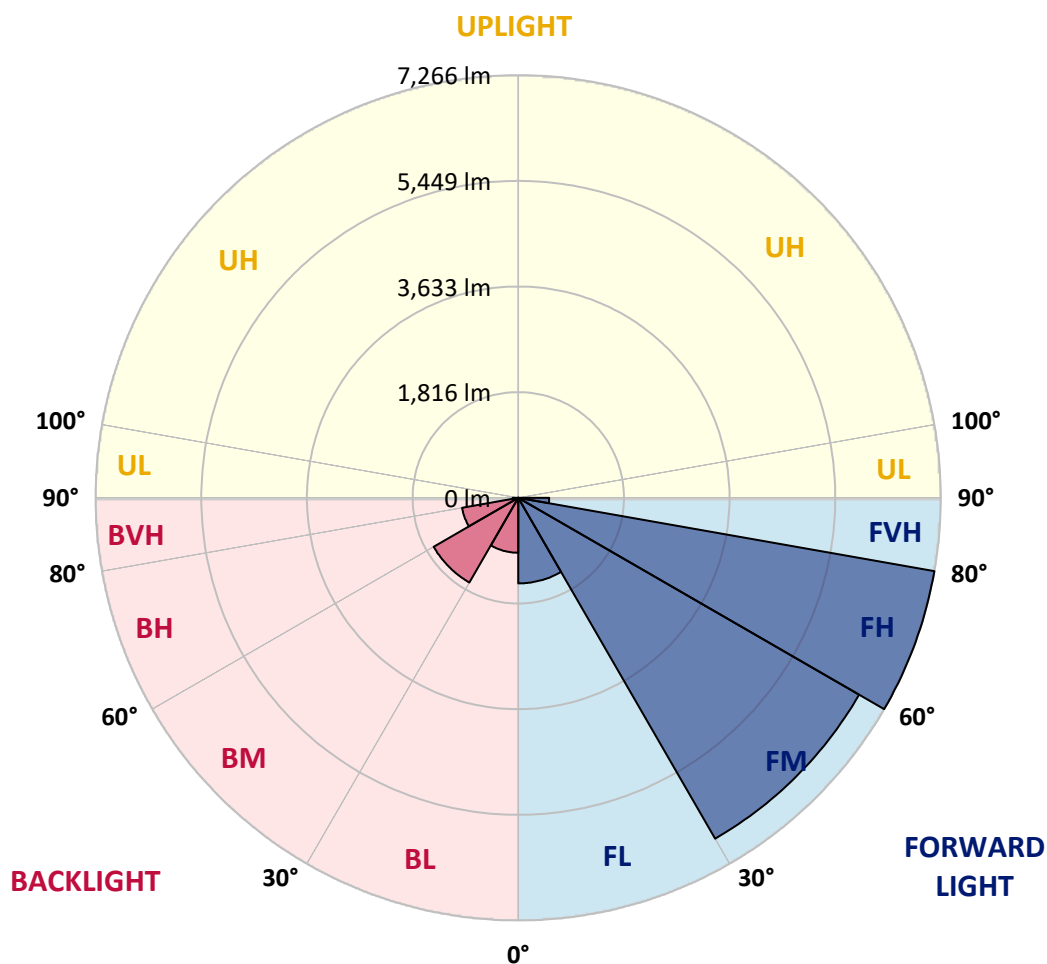
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1471.7	7.5			
FM	(30°-60°)	6767.1	34.3			
FH	(60°-80°)	7265.5	36.8			G3/7500
FVH	(80°-90°)	532.0	2.7			G4/750
BL	(0°-30°)	944.7	4.8	B2/1000		
BM	(30°-60°)	1680.4	8.5	B2/2500		
BH	(60°-80°)	980.8	5.0	B2/1000		G2/1000
BVH	(80°-90°)	96.1	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0
2.5°	3653.7	3641.0	3653.7	3648.4	3646.3	3642.0	3643.2	3650.5	3646.3	3651.6	3633.5
5°	3629.3	3621.8	3634.6	3631.5	3645.2	3647.4	3661.2	3669.7	3674.9	3676.1	3662.2
7.5°	3588.9	3581.6	3599.6	3614.5	3644.2	3652.7	3681.4	3695.1	3702.6	3715.3	3695.1
10°	3441.3	3438.2	3482.7	3539.0	3609.1	3652.7	3696.3	3719.5	3731.2	3765.2	3741.9
12.5°	3180.2	3184.4	3242.8	3351.1	3491.3	3631.5	3713.2	3747.2	3765.2	3807.7	3797.1
15°	2930.7	2929.6	2993.3	3109.0	3305.4	3538.0	3721.7	3780.1	3810.8	3873.6	3865.1
17.5°	2786.3	2782.0	2826.5	2914.7	3097.3	3394.7	3700.5	3798.1	3863.9	3942.6	3935.1
20°	2759.7	2751.2	2774.6	2818.0	2947.6	3237.5	3645.2	3798.1	3906.5	4008.4	4004.2
22.5°	2856.3	2842.5	2833.0	2827.7	2885.0	3108.0	3582.6	3785.4	3969.1	4102.9	4095.5
25°	3050.6	3029.4	2980.5	2932.7	2915.8	3049.6	3527.3	3782.2	4062.6	4230.3	4202.7
27.5°	3364.9	3338.4	3239.6	3124.9	3021.9	3079.3	3502.9	3801.3	4165.5	4365.2	4309.9
30°	3754.6	3726.0	3601.7	3425.4	3240.6	3189.7	3533.8	3857.6	4297.2	4544.6	4436.3
32.5°	4104.0	4072.1	3965.9	3786.5	3537.0	3380.9	3631.5	3964.8	4504.3	4794.1	4626.3
35°	4414.0	4376.9	4281.3	4115.6	3900.1	3649.5	3807.7	4154.9	4798.3	5199.7	4884.4
37.5°	4717.7	4674.1	4570.1	4394.9	4244.1	4007.3	4050.9	4399.1	5189.2	5692.4	5226.3
40°	5057.5	4994.8	4868.4	4695.4	4548.8	4426.8	4370.5	4698.6	5586.2	6242.5	5653.2
42.5°	5386.7	5327.1	5176.4	5028.8	4845.1	4810.0	4741.0	5048.9	6020.5	6846.7	6086.3
45°	5741.3	5670.1	5487.5	5300.6	5184.9	5064.9	5100.0	5399.4	6446.3	7462.5	6540.8
47.5°	6073.6	5994.0	5778.4	5570.4	5506.6	5279.4	5429.1	5784.8	6889.1	8086.8	6991.0
50°	6253.1	6174.5	5995.0	5807.1	5757.2	5543.8	5785.9	6208.5	7353.1	8709.1	7423.3
52.5°	6402.8	6317.9	6083.2	5979.1	5964.3	5831.5	6225.4	6692.6	7817.2	9259.1	7840.5
55°	6562.0	6467.5	6168.1	6074.7	6142.6	6154.3	6746.9	7241.6	8307.7	9795.3	8234.4
57.5°	6745.7	6625.8	6249.9	6155.4	6316.8	6532.3	7345.7	7810.8	8789.8	10292.2	8584.9
60°	6918.9	6797.8	6407.1	6283.9	6504.8	6970.9	8032.7	8499.9	9335.6	10735.0	8916.2
62.5°	6952.8	6853.0	6532.3	6531.3	6759.6	7482.7	8846.1	9195.4	9812.3	11172.5	9213.4
65°	6364.5	6301.9	6111.9	6521.8	7124.9	8219.6	9751.7	10085.2	10418.6	11554.7	9474.7
67.5°	4844.0	4852.6	4838.7	5629.8	6829.7	9278.2	11063.1	11037.7	11167.2	11983.8	9775.1
70°	2214.9	2264.8	2589.8	3886.3	5471.6	9400.4	13231.4	12901.2	12106.9	12539.0	10035.3
72.5°	1196.7	1234.9	1367.7	1882.6	3289.5	8357.6	14851.7	15086.4	13356.7	12912.8	9749.7
75°	878.1	899.3	991.8	1196.7	1381.4	6211.7	14270.9	15475.0	13512.8	12041.1	8419.2
77.5°	657.2	666.9	742.2	948.2	707.1	3274.7	11402.9	12816.2	11567.5	9893.0	6219.1
80°	476.7	487.4	543.7	711.5	495.9	1197.7	7829.9	8995.8	7922.2	6306.2	3099.5
82.5°	329.1	333.4	357.8	484.2	346.1	465.0	4442.7	5275.2	4422.5	2212.9	836.7
85°	198.5	203.9	214.5	282.5	196.4	220.9	1917.7	1983.5	1321.9	528.8	260.1
87.5°	81.8	87.0	95.5	118.9	77.5	61.6	316.4	397.1	247.4	155.0	80.7
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°	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0	3623.0
2.5°	3628.3	3620.8	3600.6	3573.0	3547.5	3515.7	3501.9	3490.2	3479.6	3459.4	3449.8
5°	3650.5	3630.3	3576.2	3506.1	3426.5	3339.4	3254.5	3196.1	3146.1	3109.0	3078.2
7.5°	3684.6	3646.3	3547.5	3404.2	3221.6	3034.7	2865.9	2745.9	2655.7	2622.7	2565.4
10°	3719.5	3673.9	3501.9	3249.1	2933.9	2646.0	2422.0	2298.9	2226.6	2203.2	2167.2
12.5°	3760.9	3694.1	3430.8	3033.6	2612.1	2296.7	2101.4	2029.2	1992.0	1979.3	1982.5
15°	3821.5	3711.1	3323.5	2763.9	2305.2	2041.9	1915.5	1865.6	1846.5	1845.4	1849.7
17.5°	3867.1	3714.3	3156.8	2475.1	2069.5	1887.9	1783.9	1764.7	1777.5	1796.6	1804.0
20°	3918.2	3685.6	2938.1	2211.7	1903.8	1753.1	1709.5	1722.3	1753.1	1780.6	1790.3
22.5°	3954.2	3633.5	2673.7	2006.8	1760.5	1675.6	1673.4	1700.0	1717.0	1730.8	1738.2
25°	3986.1	3545.5	2393.4	1834.9	1642.7	1628.8	1652.2	1643.7	1632.0	1643.7	1651.2
27.5°	4009.5	3406.4	2142.8	1684.1	1559.8	1596.9	1583.2	1564.0	1563.0	1569.4	1580.0
30°	4002.0	3220.5	1936.7	1540.7	1501.4	1537.5	1504.6	1501.4	1498.2	1501.4	1513.1
32.5°	4002.0	3009.2	1778.6	1442.0	1464.2	1450.5	1447.3	1439.8	1427.1	1426.0	1439.8
35°	4024.4	2797.9	1642.7	1388.9	1433.5	1400.6	1402.7	1384.6	1358.0	1345.3	1358.0
37.5°	4070.0	2628.0	1507.8	1363.4	1379.3	1378.2	1369.7	1339.0	1292.2	1251.9	1265.7
40°	4180.4	2578.1	1415.4	1351.7	1353.8	1366.5	1344.3	1284.8	1178.6	1112.8	1121.2
42.5°	4353.5	2662.0	1395.2	1323.1	1336.8	1349.6	1306.1	1168.0	1092.6	1053.3	1053.3
45°	4573.2	2808.5	1438.8	1281.7	1296.5	1318.8	1189.2	1123.4	1089.5	1090.5	1095.8
47.5°	4851.4	2962.5	1519.5	1245.5	1238.1	1250.8	1111.7	1071.3	1024.7	1036.4	1066.1
50°	5173.2	3118.6	1595.9	1196.7	1173.3	1131.9	1061.8	1023.6	964.1	936.5	943.9
52.5°	5521.5	3269.3	1626.7	1137.2	1103.2	1055.4	1027.9	981.1	909.0	863.3	862.2
55°	5851.7	3406.4	1592.7	1066.1	1033.2	996.0	991.8	963.1	885.6	821.8	821.8
57.5°	6163.9	3521.0	1507.8	993.8	962.0	939.7	968.4	954.6	856.9	775.1	770.9
60°	6428.3	3599.6	1384.6	920.6	898.3	886.6	930.2	925.9	816.5	725.2	722.0
62.5°	6638.5	3630.3	1248.7	850.5	845.2	824.0	877.1	877.1	765.6	676.4	673.2
65°	6803.1	3600.6	1110.7	781.5	792.1	760.2	812.3	806.0	711.5	632.8	628.6
67.5°	6948.6	3502.9	957.8	713.5	738.0	697.6	744.4	729.5	652.0	589.3	585.1
70°	7013.4	3275.7	783.6	645.5	675.3	636.0	676.4	648.8	585.1	542.6	534.1
72.5°	6493.1	2722.5	616.9	574.4	599.9	568.1	603.1	571.2	512.9	493.7	477.9
75°	5371.7	2042.9	474.7	496.9	516.1	491.6	515.0	491.6	438.5	452.3	413.1
77.5°	3901.2	1379.3	363.2	415.1	423.6	410.9	431.1	404.6	356.8	353.6	337.6
80°	1939.9	808.0	284.5	328.1	324.9	316.4	339.8	327.1	286.7	303.7	300.5
82.5°	561.7	346.1	207.0	230.4	224.1	226.2	243.1	249.5	373.7	370.5	379.0
85°	176.3	135.9	124.2	128.4	122.1	125.3	143.4	284.5	263.3	154.0	166.7
87.5°	45.6	46.7	30.7	32.9	33.9	40.4	45.6	173.1	82.8	54.1	57.3
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)