

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: P966264

Luminaire Tested: **NAV-SB4B-827-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966264
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-SB4B-827-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19658.5 lumens
Efficiency: N/A
Efficacy: 133.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G4

Input Watts (W): 147
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

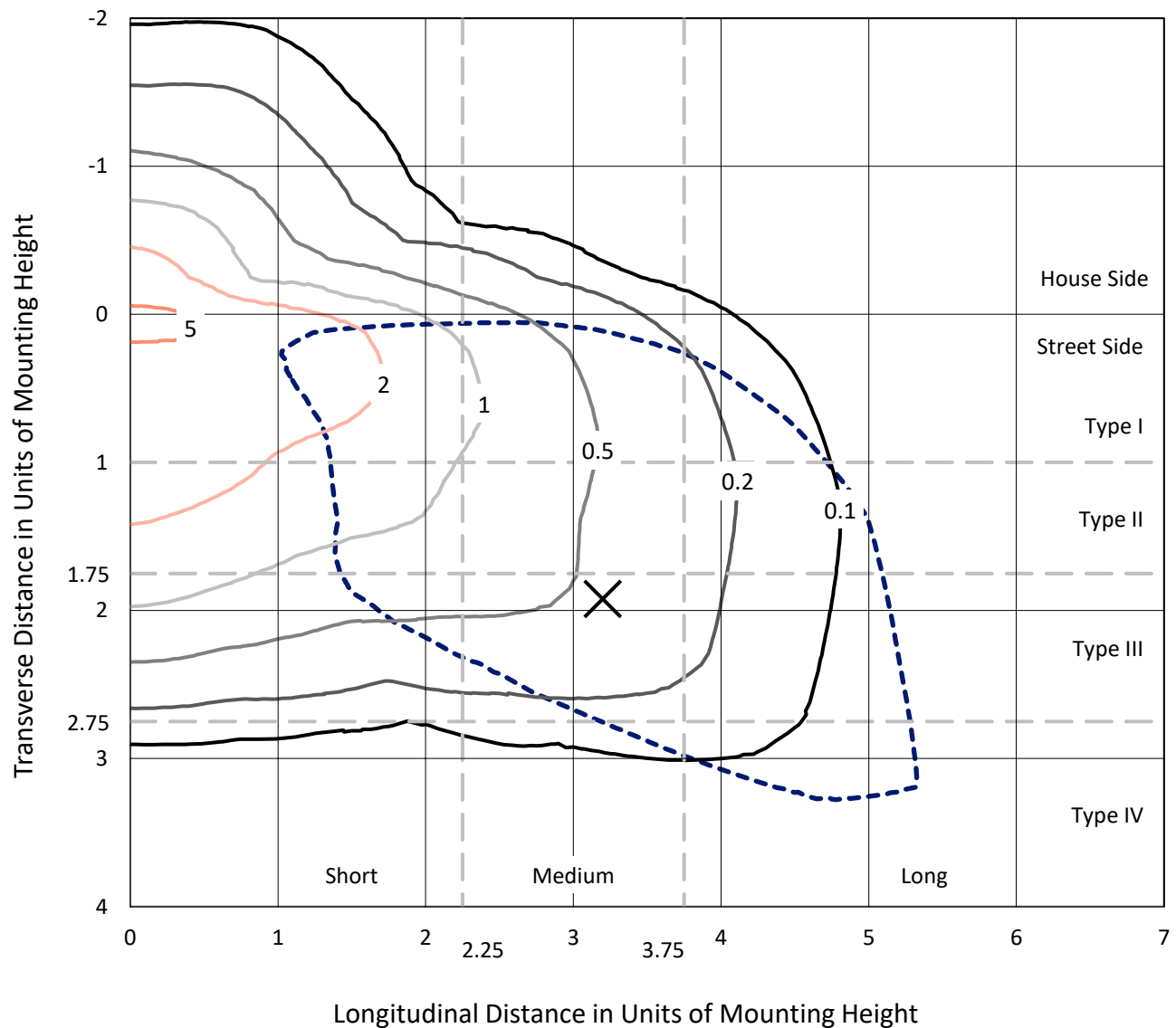


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Iso-Footcandle Lines of Horizontal Illumination

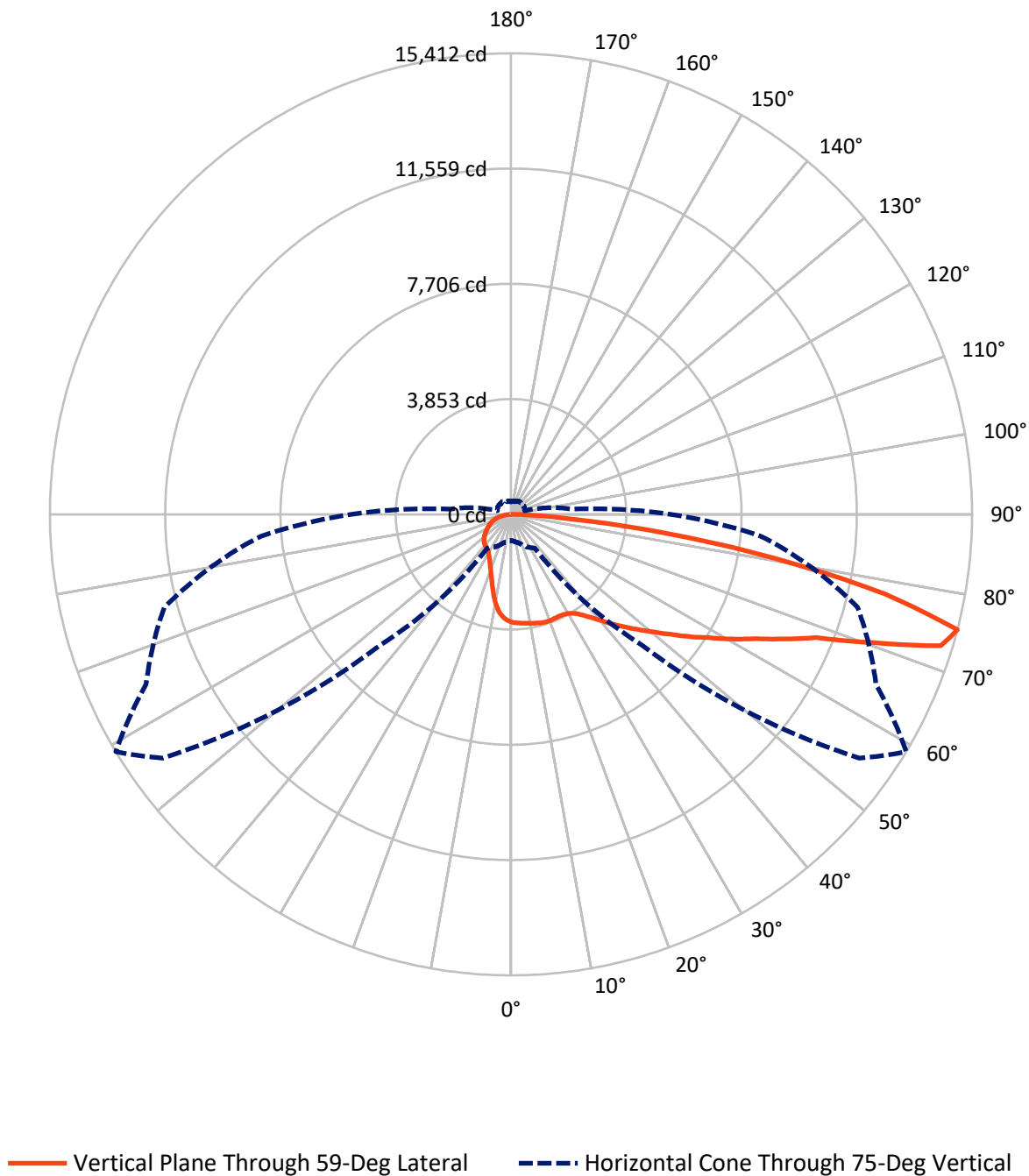
× Max cd
- - - 1/2 Max cd



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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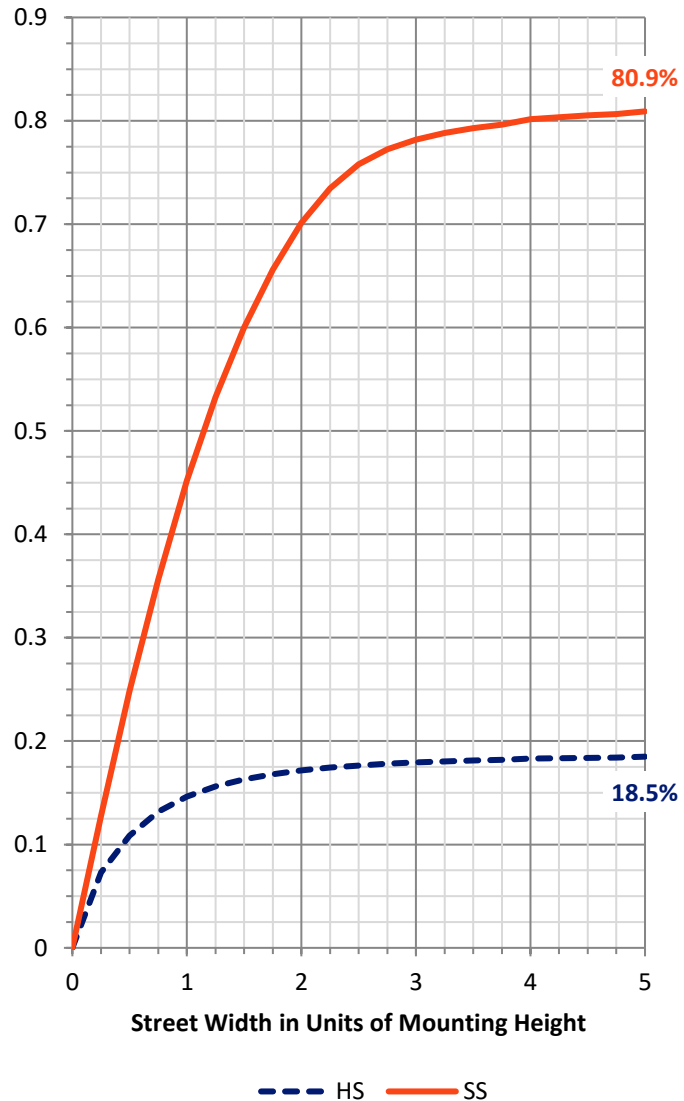
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3687.1	0.0	3687.1
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	15971.4	0.0	15971.4
	% Fixture	81.2	0.0	81.2
Total	Lumens	19658.5	0.0	19658.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	323.5	1.6
10°-20°	827.0	4.2
20°-30°	1256.1	6.4
30°-40°	1867.2	9.5
40°-50°	2776.9	14.1
50°-60°	3769.3	19.2
60°-70°	4601.6	23.4
70°-80°	3611.3	18.4
80°-90°	625.6	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°	19658.5	100.0
0°-180°	19658.5	100.0

Coefficient of Utilization



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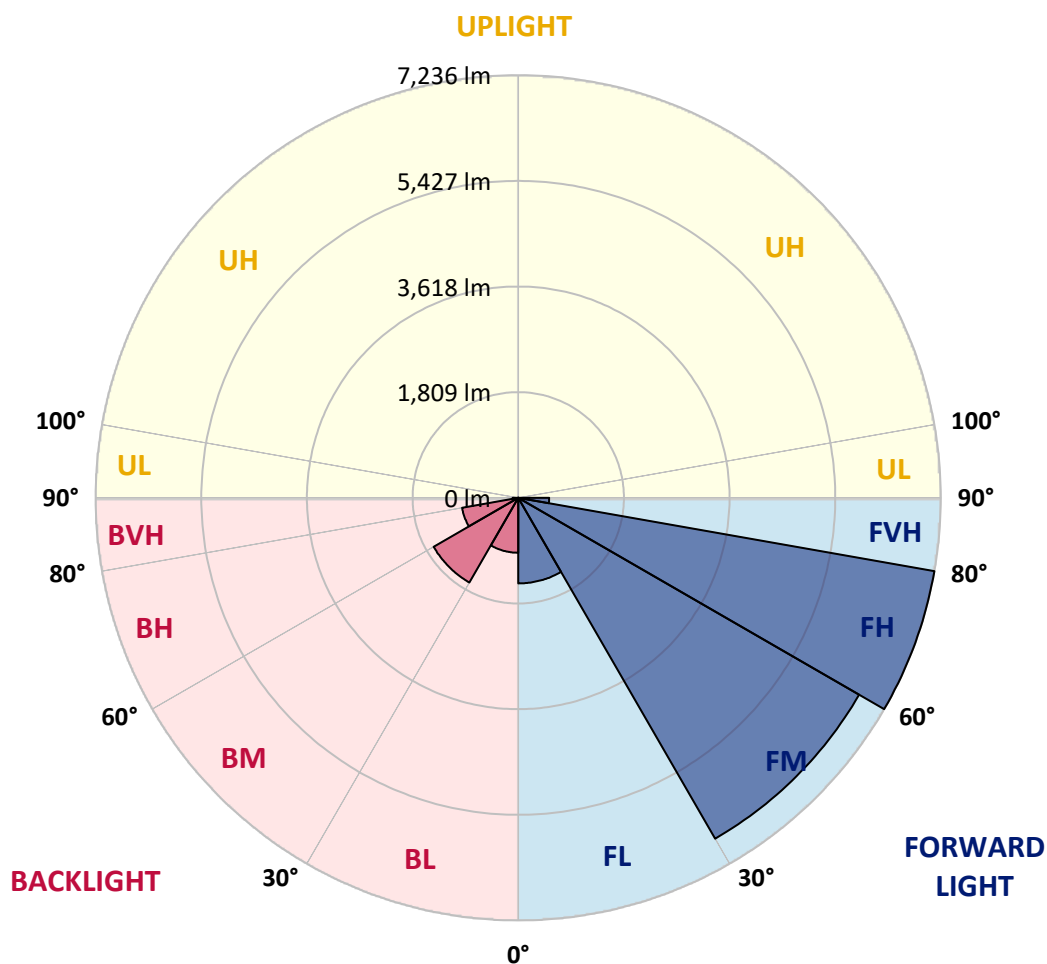
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1465.8	7.5			
FM	(30°-60°)	6739.7	34.3			
FH	(60°-80°)	7236.1	36.8			G3/7500
FVH	(80°-90°)	529.8	2.7			G4/750
BL	(0°-30°)	940.9	4.8	B2/1000		
BM	(30°-60°)	1673.6	8.5	B2/2500		
BH	(60°-80°)	976.9	5.0	B2/1000		G2/1000
BVH	(80°-90°)	95.8	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°	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3
2.5°	3639.0	3626.2	3639.0	3633.6	3631.6	3627.3	3628.4	3635.8	3631.6	3636.8	3618.9
5°	3614.7	3607.2	3619.9	3616.7	3630.4	3632.6	3646.3	3654.8	3660.1	3661.1	3647.4
7.5°	3574.4	3567.0	3585.0	3599.8	3629.4	3637.9	3666.4	3680.2	3687.5	3700.2	3680.2
10°	3427.4	3424.2	3468.7	3524.8	3594.6	3637.9	3681.3	3704.6	3716.1	3750.0	3726.7
12.5°	3167.2	3171.6	3229.7	3337.5	3477.1	3616.7	3698.2	3732.0	3750.0	3792.3	3781.7
15°	2918.8	2917.7	2981.1	3096.4	3292.1	3523.6	3706.6	3764.8	3795.5	3857.9	3849.4
17.5°	2775.0	2770.7	2815.2	2902.9	3084.8	3380.9	3685.5	3782.8	3848.4	3926.6	3919.2
20°	2748.5	2740.0	2763.3	2806.7	2935.7	3224.3	3630.4	3782.8	3890.6	3992.2	3988.0
22.5°	2844.8	2830.9	2821.5	2816.2	2873.3	3095.4	3568.1	3770.1	3953.0	4086.3	4078.9
25°	3038.3	3017.1	2968.5	2920.8	2903.9	3037.2	3513.1	3766.9	4046.1	4213.2	4185.7
27.5°	3351.3	3324.9	3226.5	3112.3	3009.7	3066.8	3488.8	3785.9	4148.7	4347.4	4292.5
30°	3739.4	3710.8	3587.1	3411.6	3227.5	3176.8	3519.4	3842.0	4279.8	4526.2	4418.4
32.5°	4087.3	4055.6	3949.8	3771.1	3522.6	3367.1	3616.7	3948.8	4486.0	4774.8	4607.6
35°	4396.1	4359.1	4263.9	4099.0	3884.2	3634.8	3792.3	4138.1	4779.0	5178.7	4864.6
37.5°	4698.6	4655.2	4551.6	4377.1	4226.9	3991.0	4034.4	4381.4	5168.2	5669.4	5205.2
40°	5037.0	4974.6	4848.8	4676.4	4530.4	4408.8	4352.8	4679.5	5563.6	6217.1	5630.2
42.5°	5364.8	5305.6	5155.4	5008.5	4825.5	4790.5	4721.9	5028.5	5996.1	6818.9	6061.7
45°	5718.1	5647.1	5465.3	5279.2	5163.8	5044.4	5079.3	5377.5	6420.2	7432.3	6514.4
47.5°	6049.0	5969.7	5755.1	5547.8	5484.4	5258.0	5407.1	5761.4	6861.2	8054.1	6962.7
50°	6227.8	6149.5	5970.7	5783.6	5733.8	5521.4	5762.4	6183.3	7323.3	8673.8	7393.1
52.5°	6376.8	6292.3	6058.6	5954.9	5940.1	5808.0	6200.2	6665.6	7785.5	9221.6	7808.8
55°	6535.5	6441.4	6143.1	6050.1	6117.8	6129.4	6719.5	7212.3	8274.1	9755.6	8201.1
57.5°	6718.5	6599.0	6224.6	6130.4	6291.2	6505.9	7315.9	7779.1	8754.2	10250.6	8550.0
60°	6890.9	6770.2	6381.1	6258.4	6478.4	6942.6	8000.1	8465.5	9297.8	10691.6	8880.0
62.5°	6924.7	6825.3	6505.9	6504.9	6732.2	7452.4	8810.2	9158.2	9772.6	11127.3	9176.1
65°	6338.8	6276.4	6087.1	6495.3	7096.0	8186.3	9712.3	10044.4	10376.4	11508.0	9436.3
67.5°	4824.5	4832.9	4819.1	5607.0	6802.0	9240.7	11018.3	10992.9	11122.0	11935.2	9735.6
70°	2206.0	2255.7	2579.3	3870.5	5449.4	9362.2	13177.8	12848.9	12057.9	12488.3	9994.7
72.5°	1191.9	1229.9	1362.1	1875.0	3276.2	8323.7	14791.6	15025.3	13302.6	12860.6	9710.1
75°	874.5	895.7	987.7	1191.9	1375.9	6186.5	14213.2	15412.3	13458.0	11992.3	8385.1
77.5°	654.6	664.1	739.2	944.3	704.3	3261.4	11356.7	12764.3	11520.7	9852.9	6193.9
80°	474.8	485.4	541.4	708.6	493.8	1192.9	7798.2	8959.3	7890.1	6280.6	3086.9
82.5°	327.8	332.1	356.4	482.3	344.7	463.2	4424.7	5253.7	4404.6	2203.9	833.3
85°	197.7	203.1	213.6	281.3	195.7	220.0	1909.9	1975.5	1316.6	526.6	259.1
87.5°	81.4	86.7	95.2	118.5	77.2	61.3	315.2	395.5	246.4	154.4	80.4
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°	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3	3608.3
2.5°	3613.5	3606.2	3586.1	3558.6	3533.2	3501.5	3487.7	3476.1	3465.5	3445.4	3435.9
5°	3635.8	3615.7	3561.8	3492.0	3412.6	3325.9	3241.4	3183.1	3133.4	3096.4	3065.8
7.5°	3669.6	3631.6	3533.2	3390.4	3208.6	3022.4	2854.2	2734.8	2644.9	2612.1	2555.0
10°	3704.6	3659.0	3487.7	3236.0	2922.0	2635.4	2412.2	2289.5	2217.6	2194.3	2158.4
12.5°	3745.8	3679.1	3416.8	3021.4	2601.6	2287.4	2092.8	2020.9	1983.9	1971.2	1974.4
15°	3806.0	3696.0	3310.0	2752.7	2295.9	2033.6	1907.7	1858.0	1839.1	1837.9	1842.2
17.5°	3851.5	3699.2	3144.0	2465.1	2061.1	1880.3	1776.6	1757.6	1770.3	1789.3	1796.7
20°	3902.3	3670.6	2926.2	2202.8	1896.1	1746.0	1702.6	1715.3	1746.0	1773.5	1783.0
22.5°	3938.3	3618.9	2662.8	1998.7	1753.4	1668.8	1666.6	1693.1	1710.0	1723.7	1731.1
25°	3969.9	3531.0	2383.6	1827.4	1636.0	1622.3	1645.5	1637.0	1625.4	1637.0	1644.4
27.5°	3993.2	3392.5	2134.0	1677.2	1553.5	1590.5	1576.8	1557.7	1556.7	1563.0	1573.6
30°	3985.8	3207.4	1928.9	1534.4	1495.4	1531.2	1498.6	1495.4	1492.2	1495.4	1507.0
32.5°	3985.8	2997.0	1771.3	1436.1	1458.4	1444.5	1441.4	1434.0	1421.3	1420.2	1434.0
35°	4008.1	2786.6	1636.0	1383.2	1427.6	1394.9	1397.0	1379.0	1352.6	1339.9	1352.6
37.5°	4053.5	2617.3	1501.7	1357.8	1373.7	1372.7	1364.2	1333.5	1287.0	1246.8	1260.5
40°	4163.4	2567.6	1409.7	1346.2	1348.4	1361.0	1338.9	1279.6	1173.8	1108.3	1116.7
42.5°	4335.9	2651.2	1389.6	1317.6	1331.4	1344.1	1300.7	1163.3	1088.2	1049.1	1049.1
45°	4554.8	2797.1	1432.9	1276.4	1291.2	1313.4	1184.4	1118.9	1085.1	1086.1	1091.3
47.5°	4831.8	2950.5	1513.3	1240.5	1233.1	1245.8	1107.2	1067.0	1020.5	1032.2	1061.8
50°	5152.3	3106.0	1589.5	1191.9	1168.6	1127.3	1057.5	1019.5	960.2	932.7	940.1
52.5°	5499.1	3256.1	1620.1	1132.6	1098.8	1051.1	1023.7	977.1	905.3	859.8	858.7
55°	5828.0	3392.5	1586.3	1061.8	1029.0	992.0	987.7	959.2	882.0	818.6	818.6
57.5°	6138.9	3506.7	1501.7	989.8	958.1	935.9	964.4	950.7	853.4	772.0	767.7
60°	6402.3	3585.0	1379.0	916.9	894.6	883.0	926.4	922.2	813.2	722.3	719.1
62.5°	6611.7	3615.7	1243.6	847.1	841.8	820.6	873.5	873.5	762.5	673.6	670.5
65°	6775.6	3586.1	1106.2	778.4	788.9	757.2	809.0	802.7	708.6	630.3	626.1
67.5°	6920.4	3488.8	953.9	710.6	735.0	694.7	741.3	726.5	649.3	586.9	582.7
70°	6985.0	3262.5	780.4	643.0	672.6	633.4	673.6	646.2	582.7	540.4	532.0
72.5°	6466.7	2711.5	614.4	572.2	597.5	565.8	600.6	569.0	510.8	491.8	475.9
75°	5350.0	2034.6	472.7	494.9	513.9	489.6	512.9	489.6	436.8	450.5	411.3
77.5°	3885.4	1373.7	361.7	413.5	422.0	409.3	429.4	402.9	355.4	352.2	336.3
80°	1932.1	804.7	283.4	326.8	323.6	315.2	338.5	325.7	285.6	302.5	299.3
82.5°	559.4	344.7	206.2	229.5	223.1	225.3	242.2	248.6	372.3	369.1	377.5
85°	175.6	135.4	123.7	127.9	121.6	124.7	142.8	283.4	262.3	153.3	166.0
87.5°	45.5	46.5	30.6	32.8	33.8	40.2	45.5	172.4	82.5	53.9	57.1
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)