

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: P965799

Luminaire Tested: **NAV-SB4A-835-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965799
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-SB4A-835-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 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: 16704.4 lumens
Efficiency: N/A
Efficacy: 146.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

Input Watts (W): 114
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

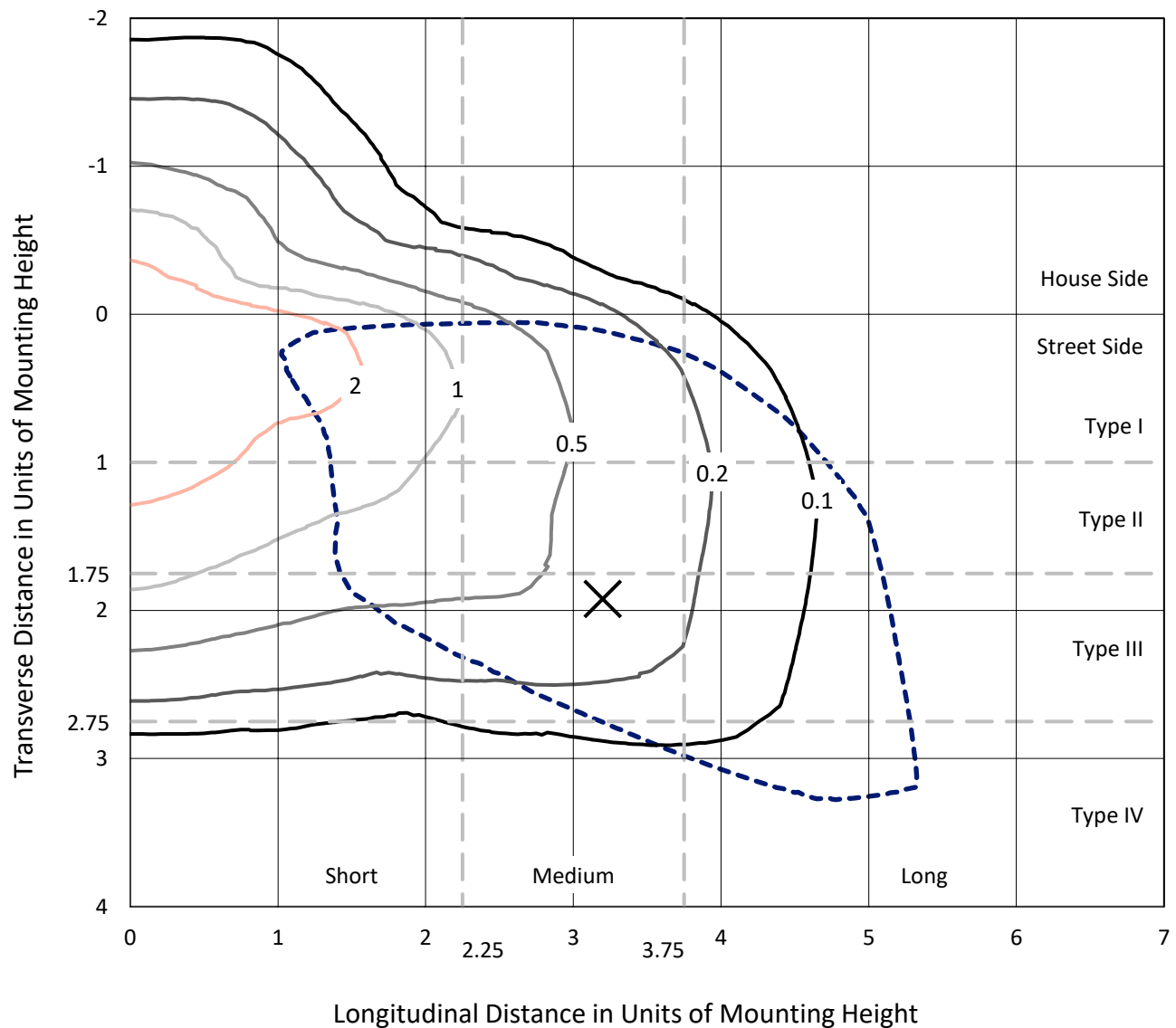


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Iso-Footcandle Lines of Horizontal Illumination

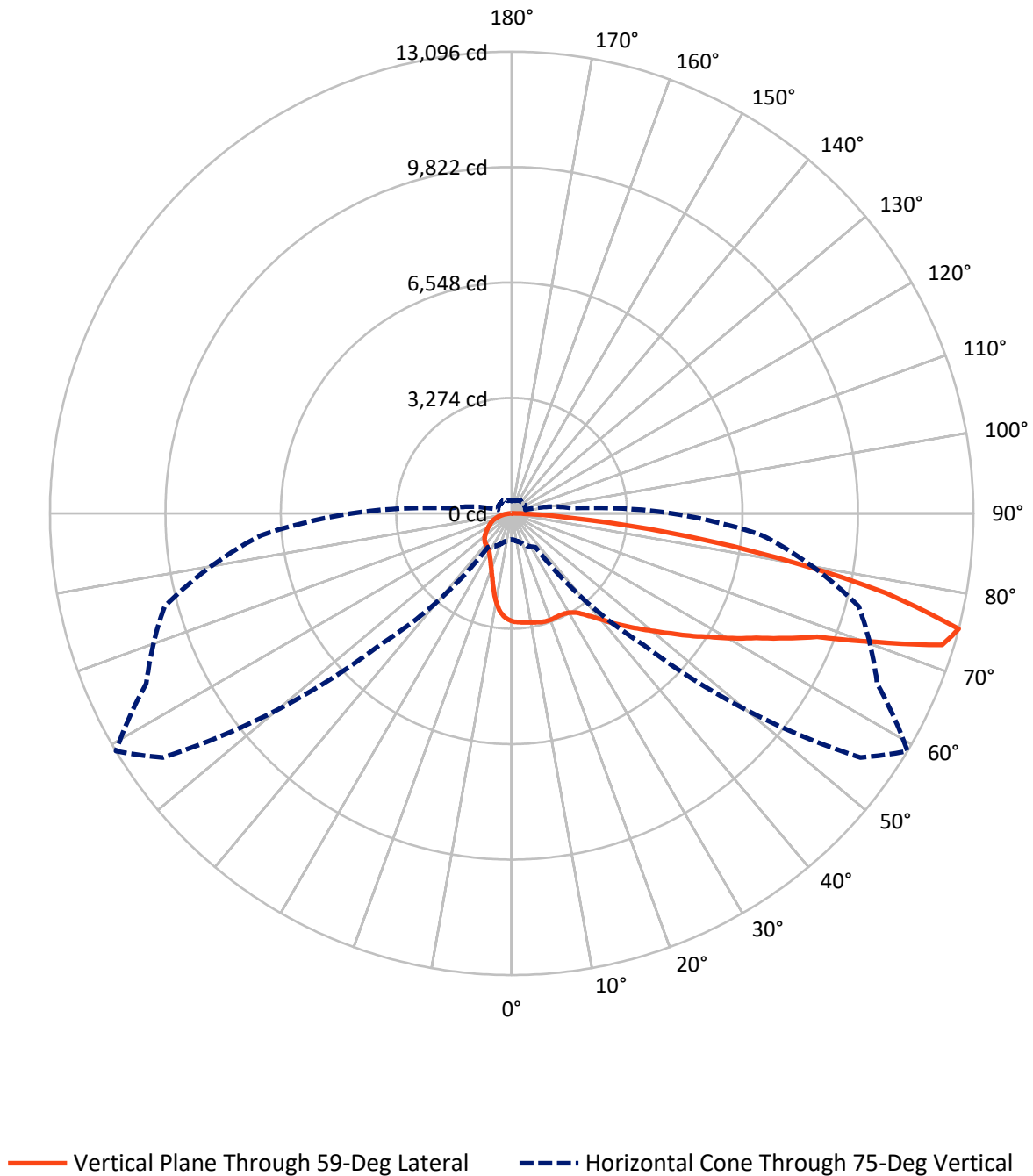
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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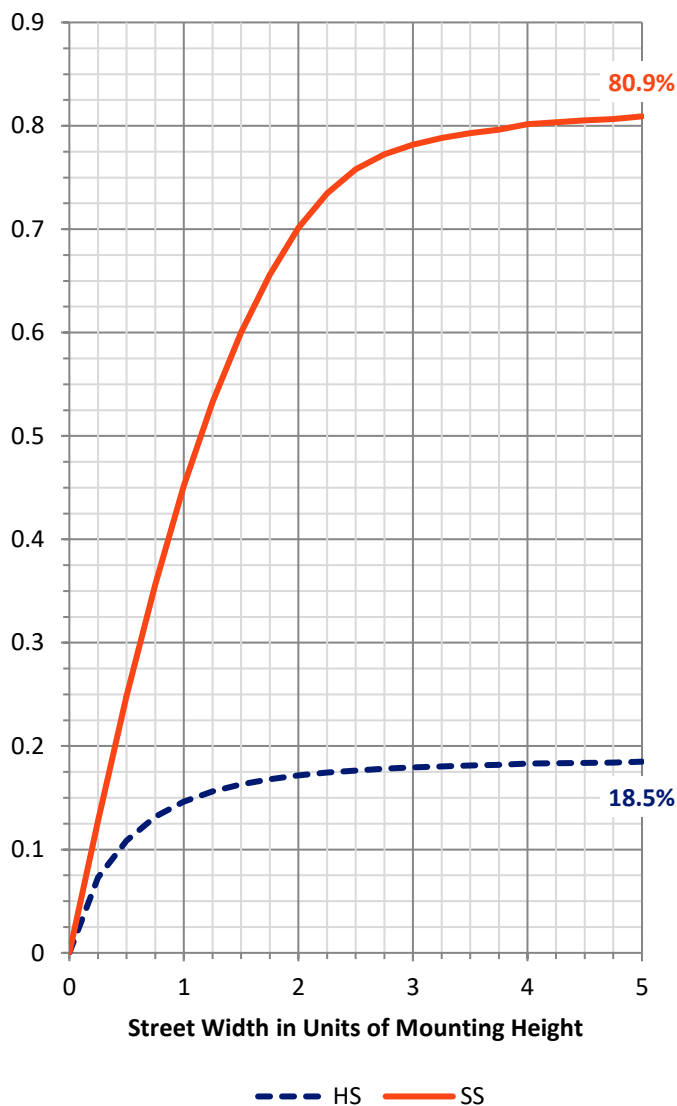
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3133.0	0.0	3133.0
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	13571.4	0.0	13571.4
	% Fixture	81.2	0.0	81.2
Total	Lumens	16704.4	0.0	16704.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.9	1.6
10°-20°	702.7	4.2
20°-30°	1067.4	6.4
30°-40°	1586.6	9.5
40°-50°	2359.6	14.1
50°-60°	3202.9	19.2
60°-70°	3910.2	23.4
70°-80°	3068.6	18.4
80°-90°	531.6	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°	16704.4	100.0
0°-180°	16704.4	100.0

Coefficient of Utilization



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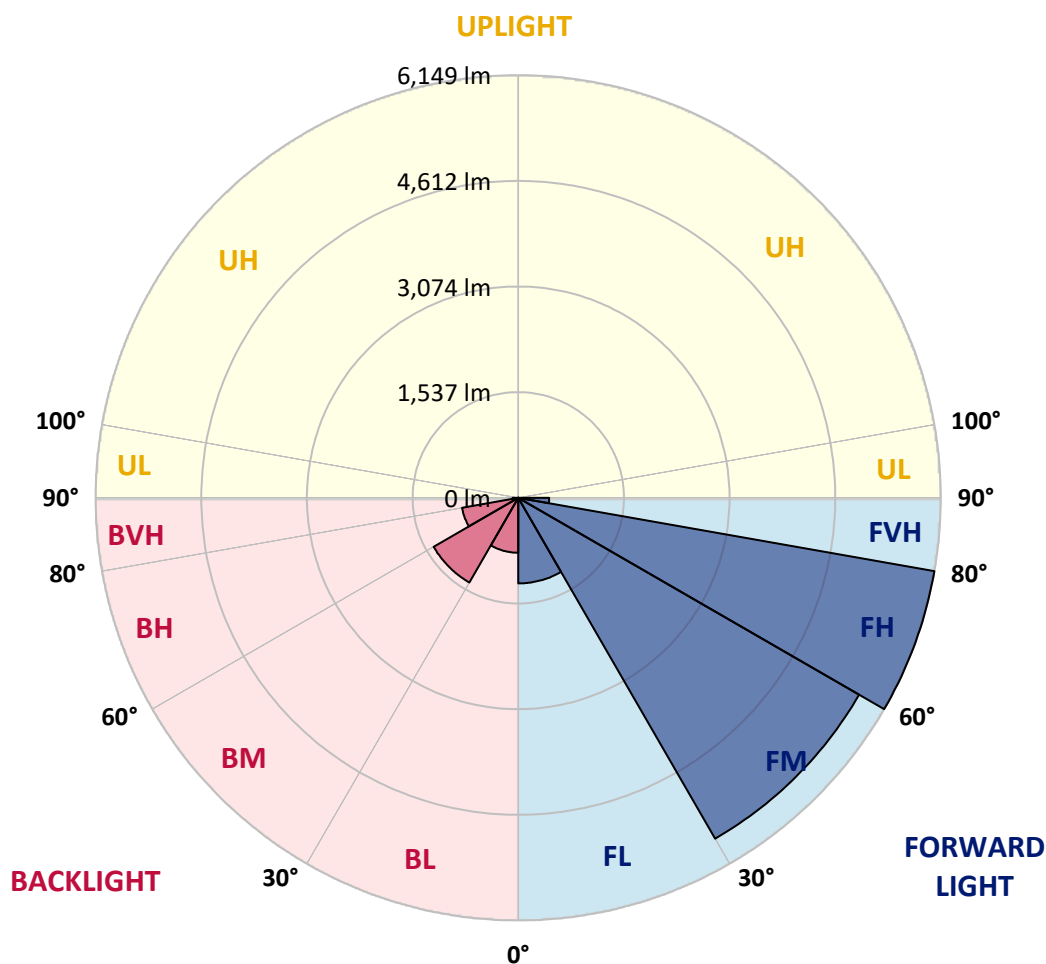
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1245.5	7.5			
FM	(30°-60°)	5727.0	34.3			
FH	(60°-80°)	6148.7	36.8			G3/7500
FVH	(80°-90°)	450.2	2.7			G3/500
BL	(0°-30°)	799.5	4.8	B2/1000		
BM	(30°-60°)	1422.1	8.5	B2/2500		
BH	(60°-80°)	830.1	5.0	B2/1000		G2/1000
BVH	(80°-90°)	81.4	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-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1
2.5°	3092.1	3081.4	3092.1	3087.6	3085.9	3082.3	3083.1	3089.5	3085.9	3090.3	3075.0
5°	3071.4	3065.2	3075.9	3073.3	3084.9	3086.7	3098.4	3105.6	3110.1	3111.0	3099.3
7.5°	3037.3	3031.0	3046.3	3058.9	3084.0	3091.2	3115.5	3127.2	3133.4	3144.3	3127.2
10°	2912.4	2909.7	2947.5	2995.0	3054.4	3091.2	3128.1	3147.9	3157.7	3186.5	3166.7
12.5°	2691.3	2694.9	2744.3	2836.0	2954.7	3073.3	3142.4	3171.2	3186.5	3222.4	3213.5
15°	2480.2	2479.3	2533.2	2631.2	2797.3	2994.1	3149.6	3199.0	3225.2	3278.2	3271.0
17.5°	2357.9	2354.3	2392.1	2466.7	2621.2	2872.9	3131.7	3214.3	3270.1	3336.6	3330.2
20°	2335.5	2328.3	2348.1	2384.9	2494.5	2739.8	3084.9	3214.3	3306.0	3392.2	3388.6
22.5°	2417.3	2405.6	2397.5	2393.0	2441.5	2630.3	3032.0	3203.5	3359.0	3472.2	3465.9
25°	2581.7	2563.7	2522.4	2481.9	2467.6	2580.8	2985.2	3200.9	3438.1	3580.0	3556.7
27.5°	2847.7	2825.2	2741.7	2644.6	2557.5	2606.0	2964.5	3217.1	3525.3	3694.2	3647.5
30°	3177.5	3153.2	3048.0	2898.9	2742.6	2699.4	2990.5	3264.6	3636.7	3846.0	3754.4
32.5°	3473.1	3446.2	3356.4	3204.5	2993.3	2861.2	3073.3	3355.4	3811.9	4057.3	3915.3
35°	3735.5	3704.0	3623.2	3483.1	3300.6	3088.5	3222.4	3516.3	4060.8	4400.5	4133.6
37.5°	3992.5	3955.7	3867.6	3719.3	3591.7	3391.3	3428.2	3722.9	4391.5	4817.5	4423.0
40°	4280.1	4227.1	4120.1	3973.6	3849.7	3746.3	3698.7	3976.4	4727.6	5283.0	4784.2
42.5°	4558.7	4508.4	4380.7	4255.8	4100.4	4070.7	4012.3	4272.9	5095.2	5794.2	5150.8
45°	4858.8	4798.5	4644.1	4485.9	4387.9	4286.3	4316.1	4569.4	5455.5	6315.4	5535.4
47.5°	5140.1	5072.6	4890.3	4714.1	4660.2	4467.9	4594.6	4895.6	5830.2	6843.8	5916.4
50°	5291.9	5225.4	5073.5	4914.5	4872.2	4691.6	4896.5	5254.2	6222.9	7370.4	6282.2
52.5°	5418.7	5346.7	5148.2	5060.1	5047.5	4935.2	5268.6	5663.9	6615.6	7835.9	6635.3
55°	5553.4	5473.4	5220.0	5141.0	5198.5	5208.3	5709.8	6128.5	7030.7	8289.7	6968.8
57.5°	5708.8	5607.4	5289.2	5209.3	5345.8	5528.2	6216.6	6610.2	7438.7	8710.2	7265.3
60°	5855.3	5752.9	5422.2	5318.0	5504.9	5899.4	6798.0	7193.3	7900.6	9085.0	7545.6
62.5°	5884.1	5799.7	5528.2	5527.3	5720.5	6332.6	7486.3	7782.0	8304.0	9455.2	7797.3
65°	5386.3	5333.3	5172.4	5519.3	6029.7	6956.2	8252.9	8535.0	8817.2	9778.7	8018.3
67.5°	4099.5	4106.7	4095.0	4764.4	5779.9	7852.0	9362.7	9341.0	9450.7	10141.8	8272.6
70°	1874.5	1916.7	2191.8	3288.9	4630.5	7955.4	11197.6	10918.1	10246.0	10611.7	8492.7
72.5°	1012.7	1045.1	1157.4	1593.3	2783.9	7073.0	12568.9	12767.5	11303.6	10928.0	8251.0
75°	743.1	761.2	839.3	1012.7	1169.1	5256.9	12077.4	13096.3	11435.7	10190.2	7125.1
77.5°	556.3	564.4	628.1	802.5	598.5	2771.3	9650.2	10846.2	9789.5	8372.4	5263.2
80°	403.4	412.5	460.1	602.1	419.6	1013.6	6626.3	7613.0	6704.5	5336.9	2623.1
82.5°	278.6	282.2	302.8	409.8	292.9	393.6	3759.8	4464.3	3742.7	1872.7	708.1
85°	168.0	172.5	181.5	239.0	166.3	187.0	1622.9	1678.6	1118.8	447.5	220.2
87.5°	69.2	73.7	80.9	100.7	65.6	52.1	267.8	336.1	209.4	131.2	68.3
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°	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1	3066.1
2.5°	3070.6	3064.2	3047.2	3023.9	3002.2	2975.3	2963.6	2953.7	2944.7	2927.7	2919.6
5°	3089.5	3072.3	3026.5	2967.2	2899.8	2826.1	2754.3	2704.8	2662.5	2631.2	2605.0
7.5°	3118.2	3085.9	3002.2	2881.0	2726.4	2568.2	2425.4	2323.8	2247.4	2219.5	2171.1
10°	3147.9	3109.2	2963.6	2749.8	2482.9	2239.3	2049.7	1945.4	1884.4	1864.6	1834.0
12.5°	3182.8	3126.2	2903.4	2567.3	2210.6	1943.7	1778.4	1717.3	1685.8	1675.1	1677.7
15°	3234.1	3140.6	2812.7	2339.0	1950.9	1728.0	1621.1	1578.9	1562.7	1561.8	1565.4
17.5°	3272.7	3143.4	2671.6	2094.7	1751.4	1597.8	1509.6	1493.5	1504.3	1520.5	1526.7
20°	3315.9	3119.1	2486.4	1871.9	1611.2	1483.6	1446.8	1457.6	1483.6	1507.0	1515.1
22.5°	3346.4	3075.0	2262.7	1698.4	1489.9	1418.0	1416.2	1438.7	1453.0	1464.7	1471.0
25°	3373.4	3000.5	2025.5	1552.8	1390.1	1378.4	1398.2	1391.0	1381.2	1391.0	1397.4
27.5°	3393.2	2882.7	1813.4	1425.2	1320.1	1351.5	1339.8	1323.7	1322.8	1328.2	1337.1
30°	3386.9	2725.5	1639.1	1303.9	1270.6	1301.2	1273.4	1270.6	1267.9	1270.6	1280.5
32.5°	3386.9	2546.6	1505.2	1220.3	1239.2	1227.5	1224.8	1218.5	1207.8	1206.8	1218.5
35°	3405.8	2367.9	1390.1	1175.4	1213.1	1185.3	1187.1	1171.8	1149.3	1138.6	1149.3
37.5°	3444.4	2224.0	1276.0	1153.8	1167.3	1166.3	1159.2	1133.1	1093.6	1059.4	1071.1
40°	3537.8	2181.8	1197.8	1143.9	1145.7	1156.5	1137.6	1087.3	997.4	941.8	948.9
42.5°	3684.3	2252.8	1180.8	1119.7	1131.4	1142.2	1105.3	988.5	924.7	891.4	891.4
45°	3870.3	2376.9	1217.6	1084.7	1097.2	1116.1	1006.4	950.7	922.0	922.9	927.3
47.5°	4105.7	2507.1	1285.9	1054.1	1047.8	1058.5	940.8	906.7	867.2	877.1	902.2
50°	4378.1	2639.2	1350.6	1012.7	992.9	958.0	898.6	866.2	815.9	792.5	798.9
52.5°	4672.8	2766.8	1376.7	962.4	933.7	893.2	869.8	830.4	769.2	730.6	729.7
55°	4952.3	2882.7	1347.9	902.2	874.3	842.9	839.3	815.1	749.5	695.6	695.6
57.5°	5216.4	2979.8	1276.0	841.1	814.2	795.3	819.5	807.8	725.2	656.0	652.4
60°	5440.2	3046.3	1171.8	779.1	760.2	750.3	787.2	783.6	691.1	613.8	611.1
62.5°	5618.1	3072.3	1056.8	719.8	715.2	697.3	742.2	742.2	647.9	572.5	569.7
65°	5757.4	3047.2	939.9	661.3	670.3	643.4	687.5	682.0	602.1	535.6	532.0
67.5°	5880.5	2964.5	810.6	603.8	624.5	590.4	630.0	617.4	551.8	498.8	495.2
70°	5935.4	2772.2	663.2	546.3	571.5	538.2	572.5	549.1	495.2	459.2	452.0
72.5°	5495.0	2304.0	522.1	486.2	507.7	480.7	510.4	483.5	434.0	417.9	404.4
75°	4546.1	1729.0	401.7	420.6	436.8	416.0	435.8	416.0	371.2	382.8	349.5
77.5°	3301.5	1167.3	307.3	351.4	358.5	347.8	364.8	342.3	302.0	299.2	285.8
80°	1641.7	683.9	240.9	277.7	275.0	267.8	287.5	276.8	242.6	257.0	254.3
82.5°	475.4	292.9	175.3	195.0	189.6	191.4	205.8	211.2	316.3	313.6	320.8
85°	149.1	115.0	105.2	108.8	103.3	106.0	121.4	240.9	222.8	130.3	141.0
87.5°	38.6	39.6	26.0	27.9	28.8	34.1	38.6	146.5	70.1	45.8	48.5
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)