

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: P967771

Luminaire Tested: **NAV-SB5A-740-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967771
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24286.4 lumens
Efficiency: N/A
Efficacy: 171.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - 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



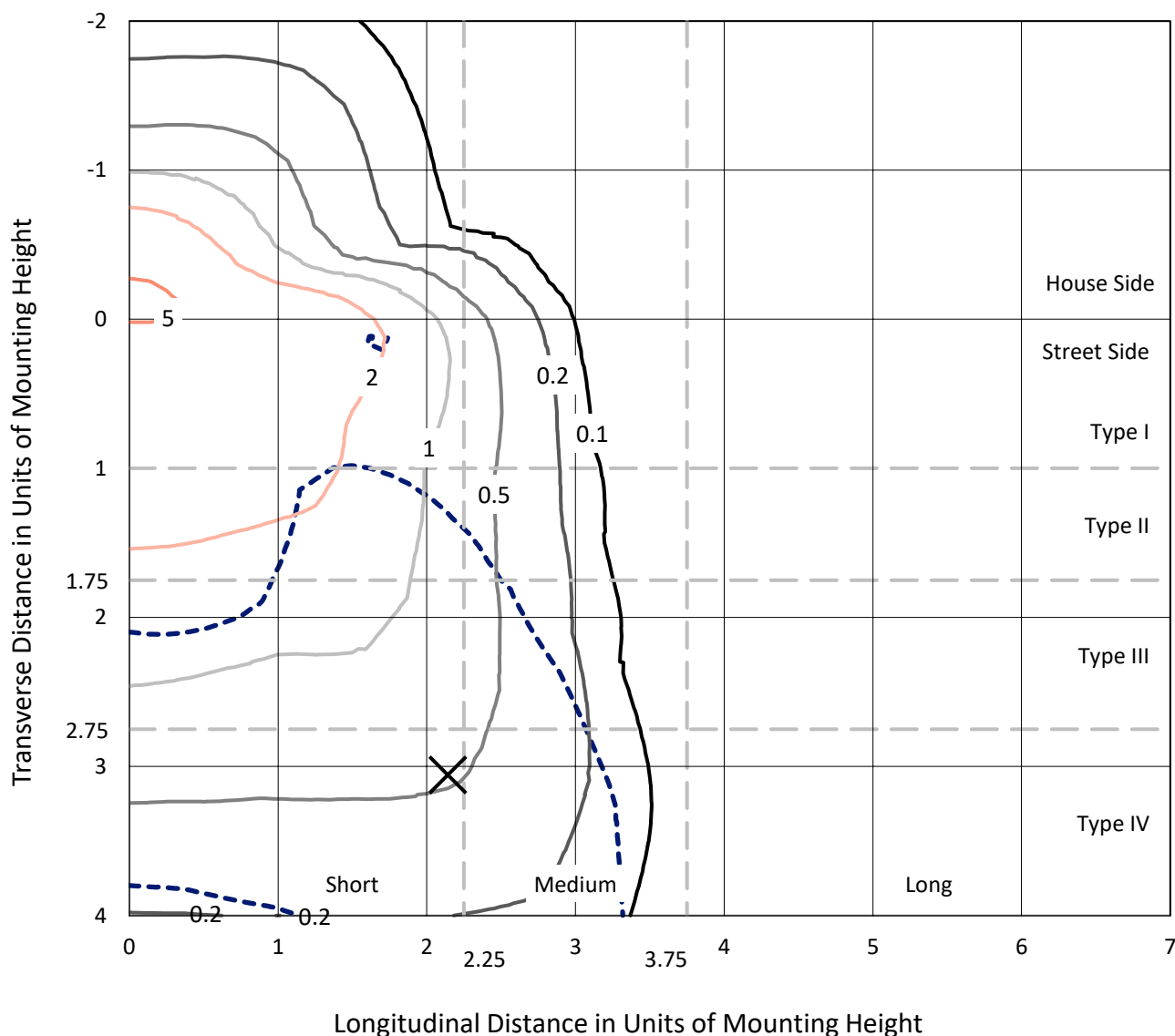
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

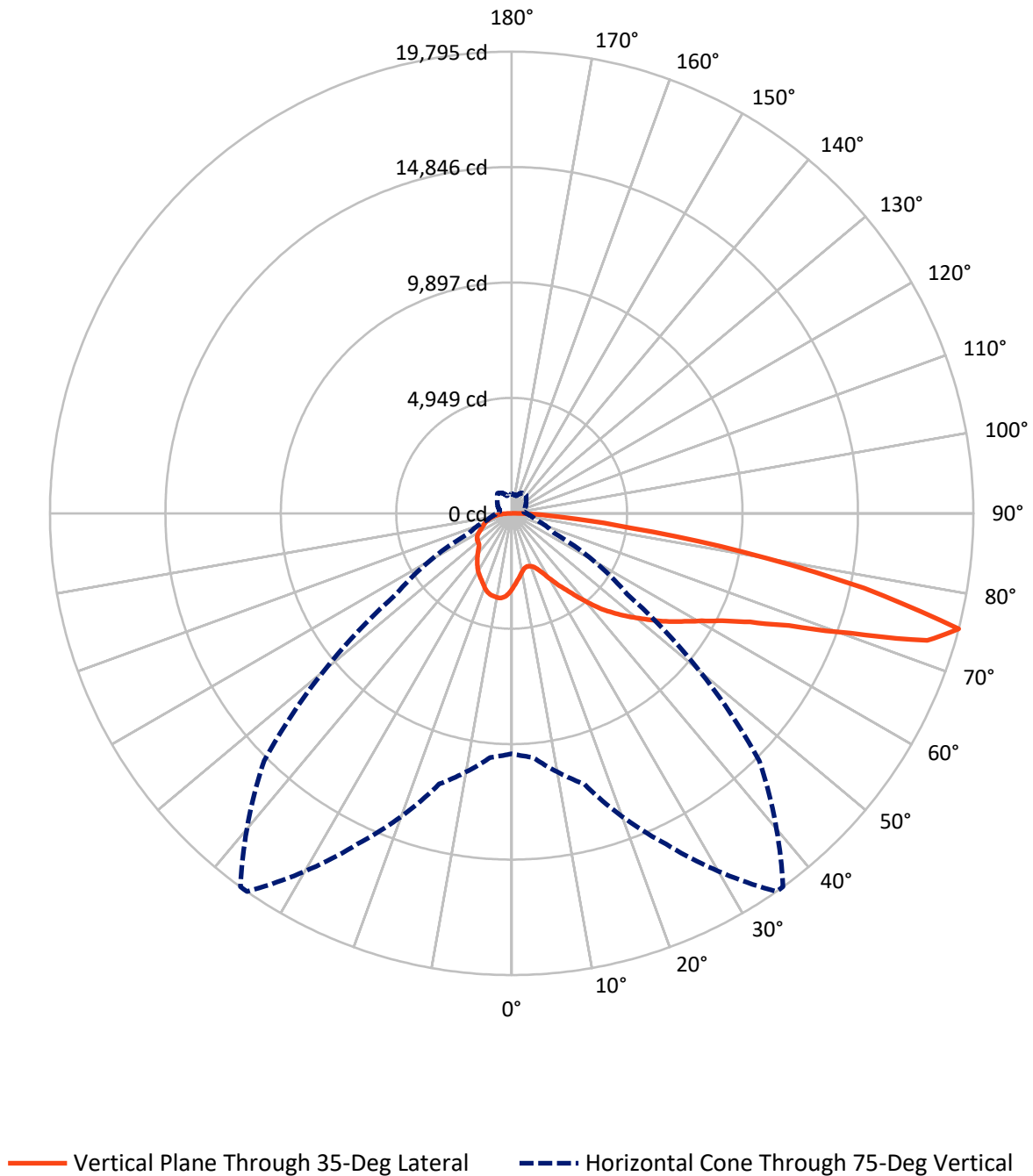


Based on 25 foot mounting height. Maximum calculated value = 5.7 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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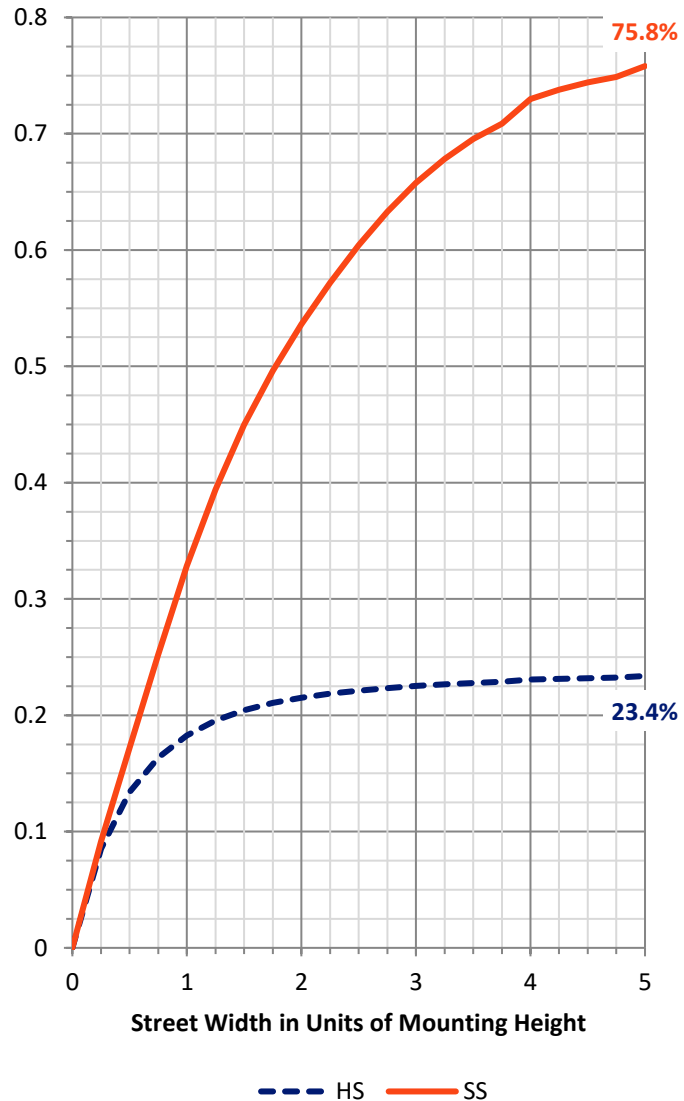
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5779.6	0.0	5779.6
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	18506.8	0.0	18506.8
	% Fixture	76.2	0.0	76.2
Total	Lumens	24286.4	0.0	24286.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.4	1.3
10°-20°	883.8	3.6
20°-30°	1484.2	6.1
30°-40°	2306.6	9.5
40°-50°	3423.7	14.1
50°-60°	4726.6	19.5
60°-70°	5734.4	23.6
70°-80°	4739.0	19.5
80°-90°	681.6	2.8
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°	24286.4	100.0
0°-180°	24286.4	100.0

Coefficient of Utilization



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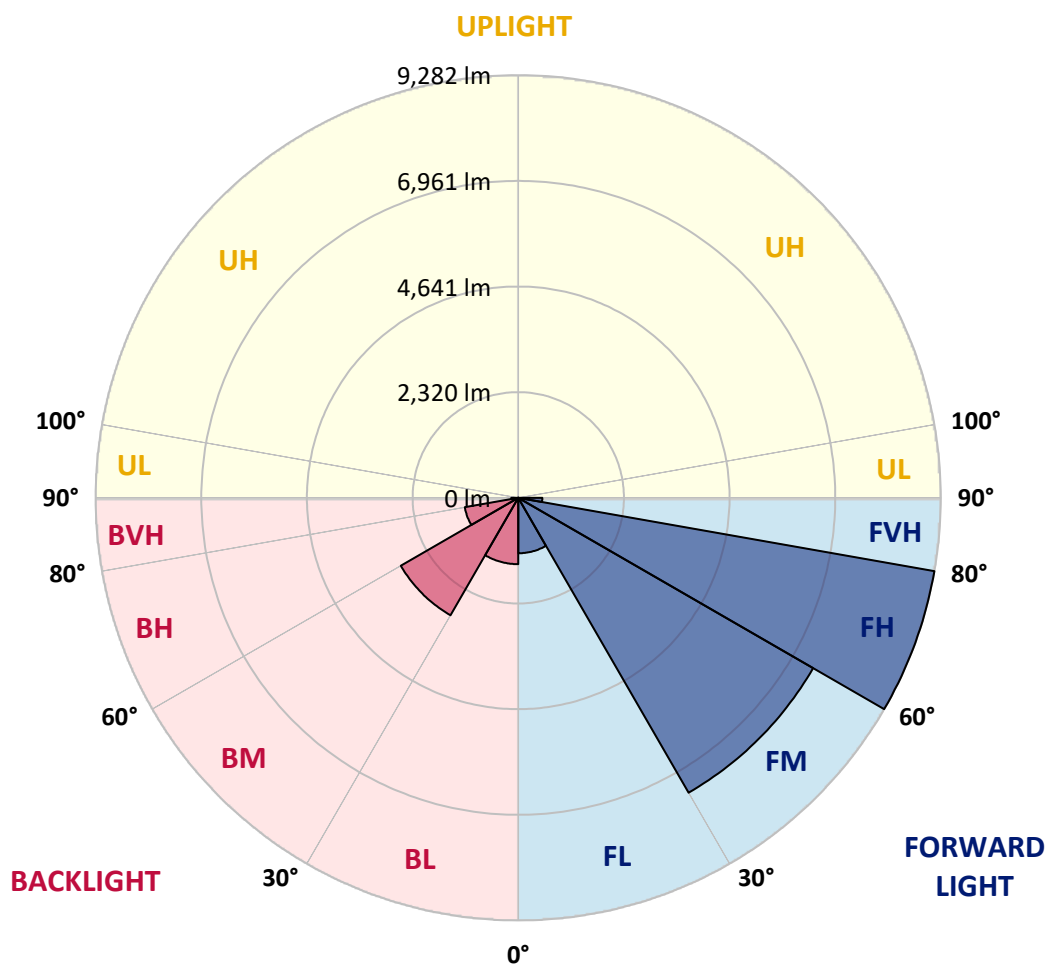
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1217.9	5.0			
FM	(30°-60°)	7478.9	30.8			
FH	(60°-80°)	9281.9	38.2			G4/12000
FVH	(80°-90°)	528.1	2.2			G4/750
BL	(0°-30°)	1456.5	6.0	B3/2500		
BM	(30°-60°)	2978.0	12.3	B3/5000		
BH	(60°-80°)	1191.6	4.9	B3/2500		G3/2500
BVH	(80°-90°)	153.5	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3
2.5°	2984.3	3002.6	3010.5	3006.5	3026.2	3023.6	3051.2	3085.4	3132.6	3178.5	3245.6
5°	2754.5	2774.2	2791.3	2807.0	2845.1	2856.9	2900.2	2965.8	3052.6	3140.5	3250.8
7.5°	2540.5	2557.6	2583.8	2612.7	2677.0	2688.9	2761.0	2863.4	2984.3	3112.9	3265.2
10°	2365.9	2382.9	2410.5	2443.3	2523.4	2537.9	2629.7	2766.3	2923.8	3086.7	3280.9
12.5°	2291.0	2296.3	2312.0	2344.9	2414.5	2423.6	2524.7	2681.0	2864.8	3067.0	3304.6
15°	2287.1	2297.6	2298.9	2316.0	2373.7	2377.7	2470.9	2625.8	2828.0	3063.0	3340.1
17.5°	2326.4	2334.3	2322.5	2333.0	2381.6	2388.1	2461.7	2599.6	2816.2	3080.1	3400.4
20°	2431.5	2438.1	2402.6	2388.1	2423.6	2428.8	2501.1	2616.6	2828.0	3115.5	3483.2
22.5°	2654.7	2658.6	2572.0	2512.9	2515.6	2518.1	2581.2	2686.2	2874.0	3179.9	3588.2
25°	3002.6	3000.0	2862.1	2747.9	2682.3	2667.9	2709.9	2799.2	2951.4	3265.2	3723.4
27.5°	3409.7	3389.9	3252.1	3081.4	2938.3	2917.3	2908.1	2946.2	3061.7	3378.1	3888.8
30°	3869.2	3850.7	3702.4	3479.2	3280.9	3246.8	3160.2	3140.5	3225.8	3531.7	4118.6
32.5°	4373.3	4361.5	4184.3	3913.8	3648.6	3609.2	3463.5	3410.9	3477.9	3764.1	4439.0
35°	4796.1	4785.5	4638.5	4360.1	4035.8	3987.4	3838.9	3779.9	3814.0	4062.2	4857.8
37.5°	5178.1	5172.9	5046.8	4827.5	4492.8	4433.7	4267.0	4247.3	4240.7	4454.6	5365.9
40°	5532.6	5519.4	5388.2	5272.6	5024.5	4970.6	4823.6	4806.5	4756.7	4937.8	5940.9
42.5°	5925.1	5891.0	5700.6	5646.8	5579.9	5535.2	5447.3	5449.9	5339.6	5482.7	6550.1
45°	6245.5	6225.8	6030.2	5998.7	6070.9	6052.5	6128.7	6148.4	5934.3	6053.9	7182.9
47.5°	6589.5	6571.1	6405.6	6383.4	6579.0	6584.2	6853.4	6859.9	6514.7	6647.2	7817.1
50°	7013.6	6987.3	6823.2	6850.8	7070.0	7089.7	7582.0	7537.4	7049.0	7249.9	8445.9
52.5°	7293.2	7309.0	7273.5	7318.2	7617.5	7635.8	8298.9	8184.6	7578.1	7844.6	9063.0
55°	7499.3	7530.9	7641.2	7743.6	8195.2	8213.5	8975.0	8800.4	8016.6	8396.1	9643.3
57.5°	7764.6	7719.9	7926.0	8125.6	8744.0	8792.6	9632.8	9393.8	8405.2	8871.4	10041.1
60°	8145.3	8113.8	8273.9	8569.3	9358.5	9435.8	10328.6	9928.3	8690.2	9248.2	10118.6
62.5°	8917.3	8838.5	8863.5	9124.8	10133.0	10235.4	11113.8	10394.3	8831.9	9395.2	9703.7
65°	10071.3	9936.1	9810.1	9991.2	11224.1	11325.1	12000.0	10760.6	8779.4	9110.3	8602.2
67.5°	11524.7	11390.8	11235.8	11406.5	12831.1	12911.1	13093.7	10966.7	8365.8	8012.7	6655.1
70°	12723.4	12673.5	12858.6	13561.1	15397.8	15400.4	14495.9	10796.0	7232.8	5681.0	3850.7
72.5°	12564.6	12534.3	13509.8	15681.4	18632.8	18563.3	15823.1	9504.1	4872.2	2562.8	1442.9
75°	10307.6	10503.3	12014.4	15643.3	19794.7	19785.6	15010.5	6042.0	2015.4	1062.1	745.7
77.5°	5527.3	5837.2	7799.9	11549.7	15452.9	15685.4	10553.2	2113.8	865.2	680.1	516.0
80°	1802.7	2073.1	3108.9	5880.5	10041.1	9997.8	4523.0	829.7	592.1	481.9	357.1
82.5°	765.5	796.9	1389.1	2776.8	5153.2	5073.0	1440.2	476.6	416.2	329.5	220.6
85°	299.3	334.8	613.2	1284.0	2231.9	2183.4	519.9	236.4	266.5	215.4	131.3
87.5°	98.5	119.5	219.2	439.8	694.5	669.6	127.3	81.4	115.5	98.5	47.3
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°	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3
2.5°	3263.9	3284.9	3309.8	3346.6	3378.1	3404.3	3431.9	3449.0	3455.6	3475.3	3473.9
5°	3287.5	3333.5	3395.2	3455.6	3514.6	3550.1	3581.7	3597.3	3611.8	3622.4	3624.9
7.5°	3326.9	3386.0	3483.2	3561.9	3611.8	3640.7	3661.7	3656.5	3661.7	3664.4	3668.3
10°	3361.1	3443.8	3559.3	3634.1	3672.2	3673.5	3668.3	3649.9	3640.7	3642.0	3644.6
12.5°	3401.8	3493.6	3618.4	3681.4	3691.9	3663.0	3640.7	3609.2	3597.3	3592.1	3589.4
15°	3456.9	3561.9	3682.7	3706.3	3680.1	3643.4	3605.2	3554.1	3527.7	3506.7	3513.4
17.5°	3523.8	3639.4	3732.6	3715.5	3659.0	3598.7	3537.0	3459.5	3405.7	3383.3	3384.7
20°	3617.0	3720.7	3770.7	3695.8	3610.5	3518.6	3413.6	3319.1	3269.1	3246.8	3244.2
22.5°	3730.0	3829.7	3807.5	3661.7	3541.0	3393.9	3262.6	3193.0	3168.1	3152.3	3155.0
25°	3865.2	3950.6	3833.7	3611.8	3426.7	3228.4	3127.4	3105.0	3093.2	3081.4	3081.4
27.5°	4041.2	4087.1	3853.4	3538.3	3248.1	3052.6	3015.8	3019.6	3015.8	2996.1	3000.0
30°	4273.5	4264.3	3871.7	3418.8	3043.3	2893.7	2896.2	2913.4	2915.9	2902.8	2909.4
32.5°	4579.4	4486.2	3881.0	3263.9	2847.7	2754.5	2757.1	2775.5	2788.6	2766.3	2776.8
35°	4949.6	4744.8	3866.5	3069.6	2696.7	2621.8	2602.2	2607.4	2611.4	2590.4	2604.8
37.5°	5381.7	5035.0	3802.1	2854.2	2572.0	2491.9	2449.9	2414.5	2393.5	2373.7	2386.9
40°	5855.6	5351.4	3684.1	2644.2	2432.8	2354.0	2291.0	2224.0	2153.2	2126.9	2138.8
42.5°	6351.8	5677.1	3541.0	2443.3	2272.6	2208.4	2141.3	2044.2	1937.9	1884.1	1890.6
45°	6866.5	6010.5	3400.4	2245.1	2108.5	2081.0	2003.5	1886.6	1771.1	1702.8	1697.6
47.5°	7370.7	6325.6	3194.3	2045.5	1954.9	1985.1	1924.7	1817.0	1688.4	1580.8	1569.0
50°	7852.5	6621.0	2856.9	1843.4	1830.2	1956.2	1898.5	1743.5	1596.5	1458.7	1446.8
52.5°	8330.4	6859.9	2424.9	1659.5	1763.2	1948.3	1864.4	1693.6	1513.8	1369.4	1353.6
55°	8736.1	6983.3	2008.8	1501.9	1666.0	1881.4	1823.7	1634.6	1397.0	1243.3	1230.2
57.5°	8967.2	6883.6	1662.1	1347.1	1532.2	1771.1	1754.1	1508.5	1257.8	1139.6	1123.8
60°	8867.4	6479.2	1378.5	1211.9	1404.8	1651.7	1633.2	1383.9	1151.4	1039.9	1024.1
62.5°	8317.3	5708.5	1154.0	1093.7	1289.2	1529.5	1512.5	1287.9	1070.0	962.4	945.3
65°	7209.1	4643.8	979.4	995.2	1172.4	1382.5	1407.4	1207.9	1005.7	900.7	883.6
67.5°	5498.5	3363.6	842.9	909.9	1058.2	1238.1	1310.3	1150.2	951.8	852.1	836.3
70°	3133.9	1910.3	727.3	827.2	957.1	1104.1	1235.4	1104.1	894.1	811.4	800.8
72.5°	1188.2	877.0	628.8	744.5	860.0	991.3	1152.7	1032.0	827.2	765.5	754.9
75°	634.2	534.3	529.1	647.3	748.4	881.0	1049.0	961.0	777.3	808.7	835.0
77.5°	431.9	378.1	442.5	554.0	626.3	758.9	938.7	853.4	673.5	670.9	618.4
80°	299.3	267.8	359.8	446.4	484.4	638.1	819.3	732.6	548.8	512.0	489.7
82.5°	179.9	174.7	269.2	333.4	342.7	492.3	678.8	614.5	449.1	391.2	393.9
85°	98.5	103.7	172.0	195.7	199.6	344.0	531.8	475.3	345.3	290.2	292.7
87.5°	27.6	35.5	63.0	77.5	95.8	178.6	316.4	282.3	173.3	120.7	120.7
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)