

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: P884470

Luminaire Tested: **NAV-SB5B-750-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884470
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-750-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 5000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23325 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

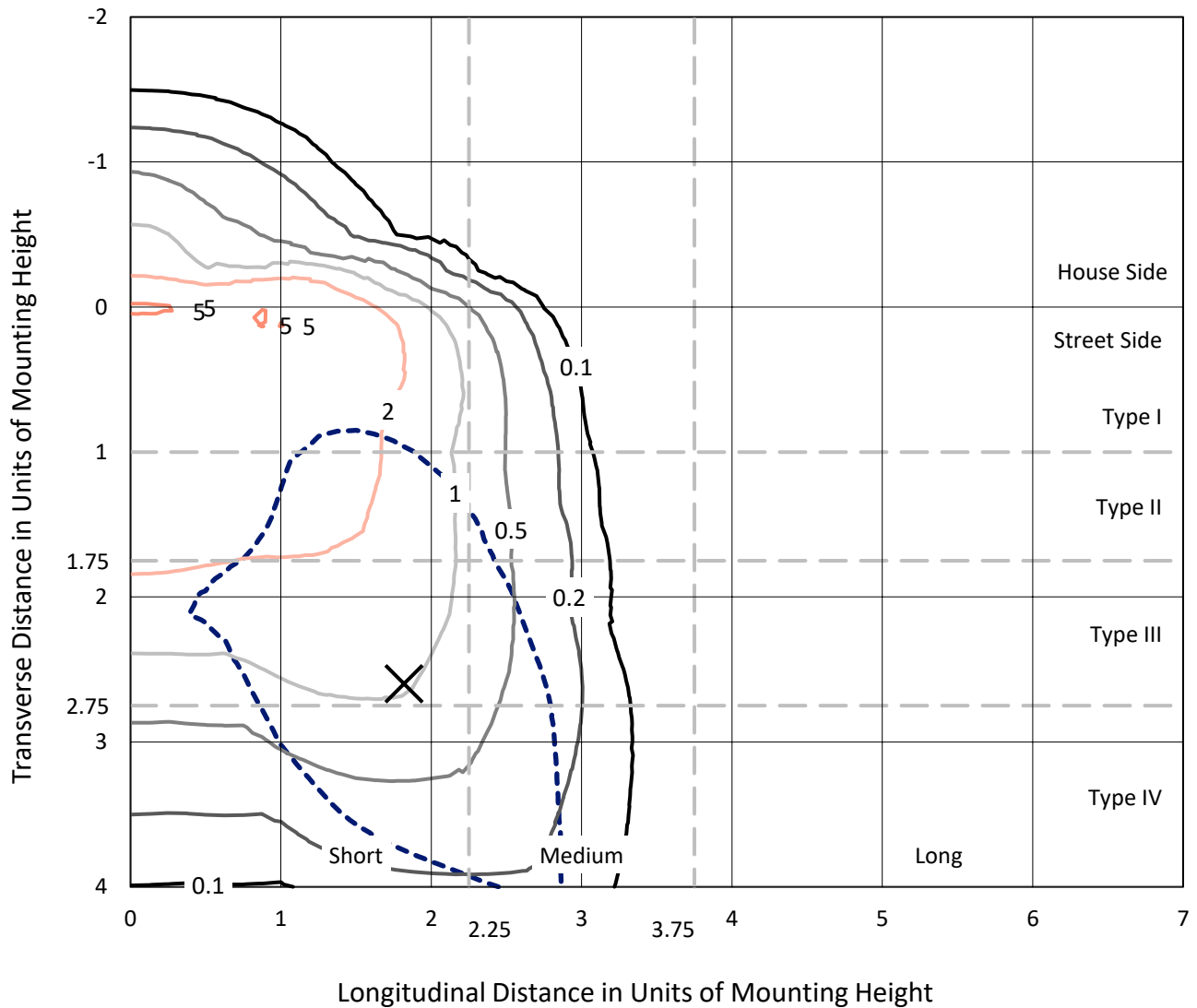
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

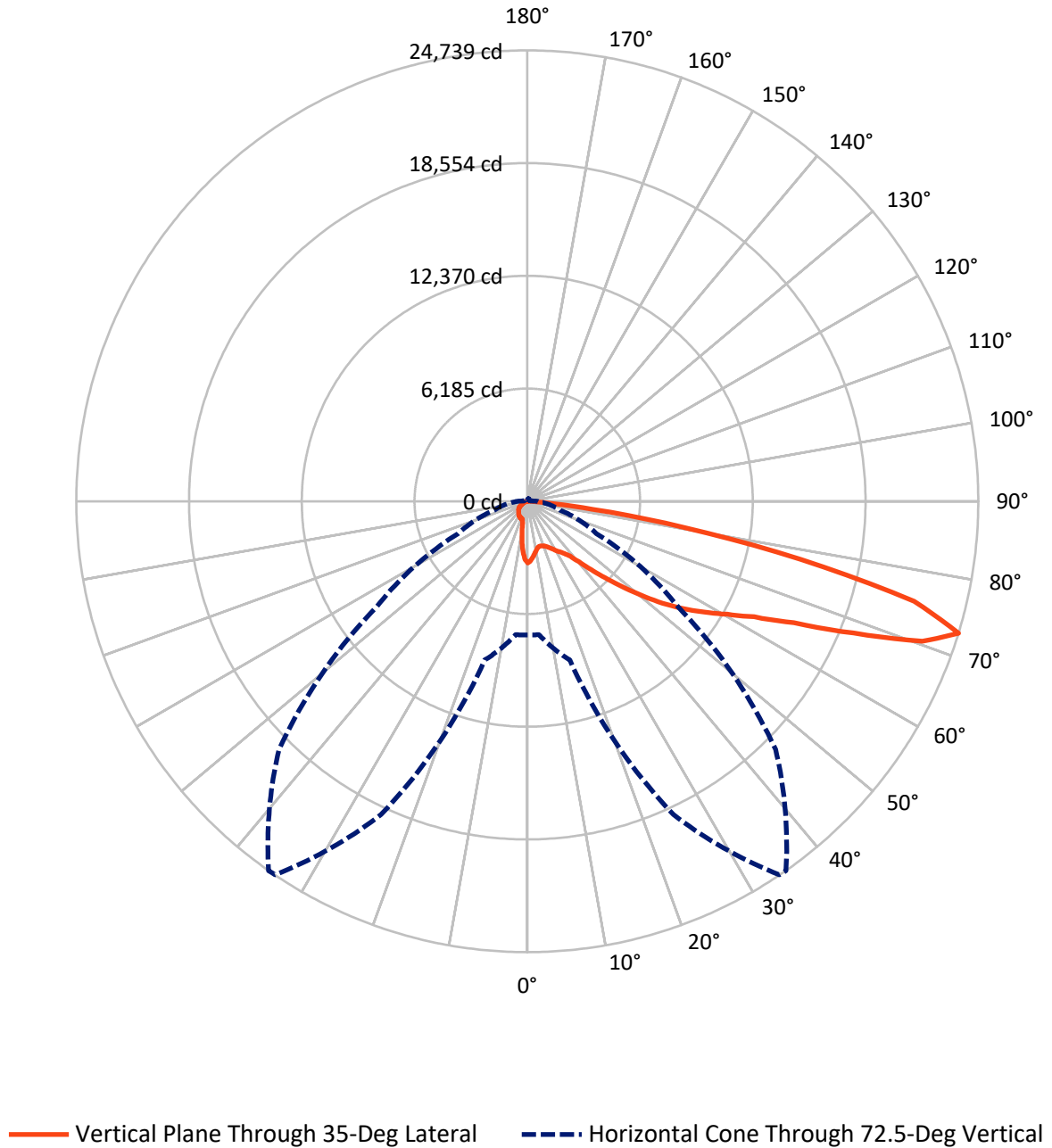
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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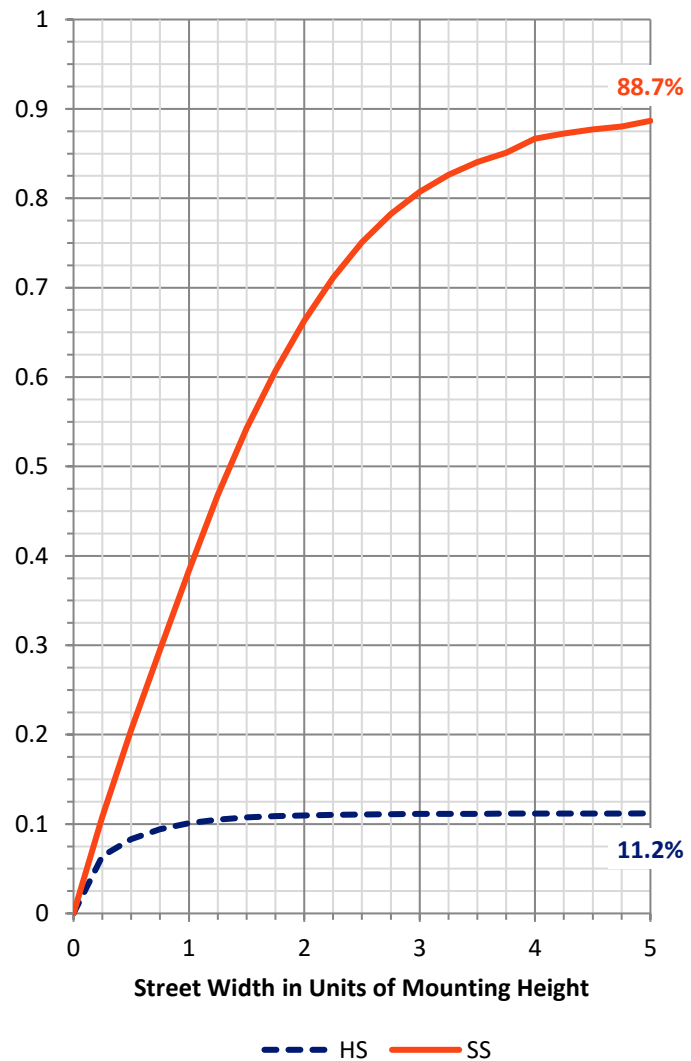
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2625.1	0.0	2625.1
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	20699.9	0.0	20699.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	23325.0	0.0	23325.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.8	1.2
10°-20°	649.9	2.8
20°-30°	1055.7	4.5
30°-40°	1761.4	7.6
40°-50°	3332.6	14.3
50°-60°	5295.5	22.7
60°-70°	6550.9	28.1
70°-80°	4072.1	17.5
80°-90°	329.1	1.4
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°	23325.0	100.0
0°-180°	23325.0	100.0

Coefficient of Utilization



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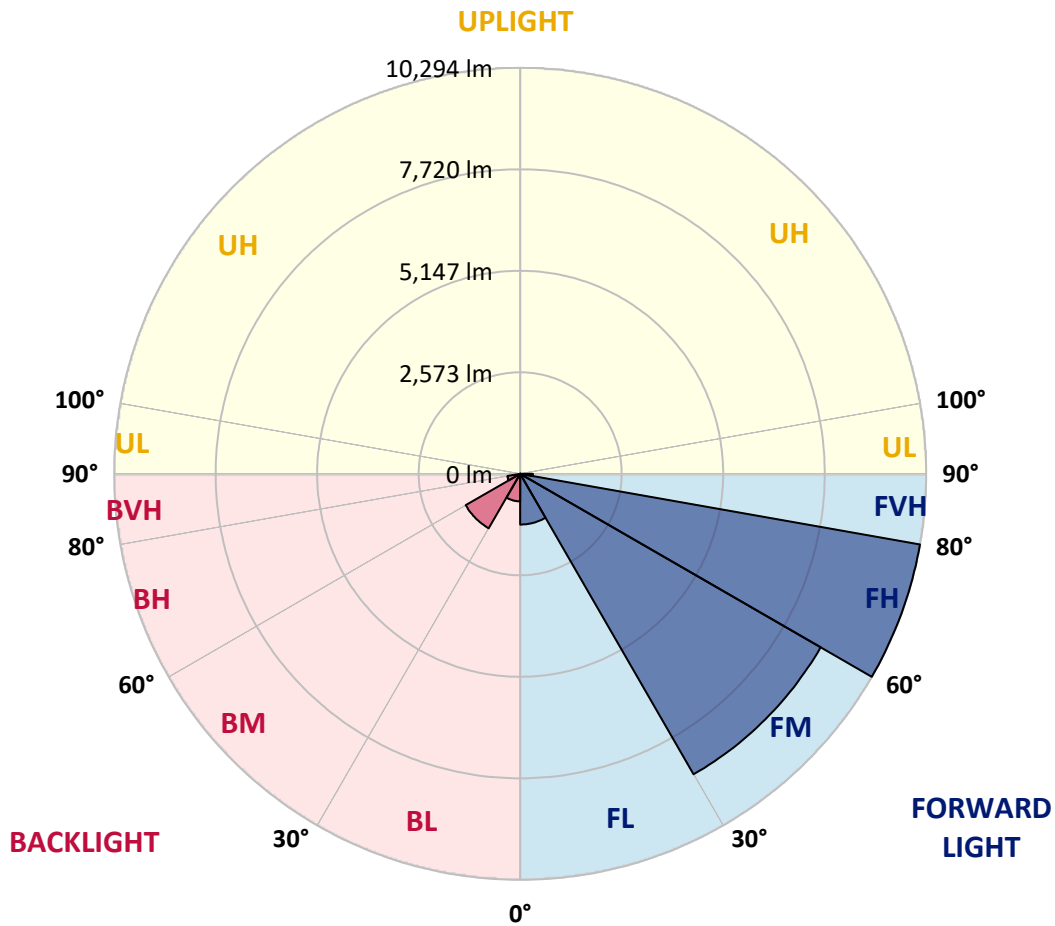
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1285.8	5.5			
FM (30°-60°)	8795.9	37.7			
FH (60°-80°)	10293.6	44.1			G4/12000
FVH (80°-90°)	324.6	1.4			G3/500
BL (0°-30°)	697.5	3.0	B2/1000		
BM (30°-60°)	1593.7	6.8	B2/2500		
BH (60°-80°)	329.4	1.4	B1/500		G1/500
BVH (80°-90°)	4.5	0.0			G0/10
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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6
2.5°	3230.2	3257.5	3262.6	3271.2	3271.2	3281.4	3298.5	3322.5	3361.8	3382.3	3396.0
5°	2977.2	2997.7	3023.4	3043.9	3083.2	3088.3	3155.0	3219.9	3310.5	3378.9	3426.7
7.5°	2722.6	2746.5	2780.7	2830.2	2881.5	2896.9	2997.7	3107.1	3250.7	3378.9	3459.2
10°	2543.1	2544.8	2575.6	2625.2	2707.2	2726.0	2849.0	3004.6	3184.0	3358.4	3490.0
12.5°	2442.3	2454.2	2467.9	2505.5	2584.1	2596.1	2727.7	2910.6	3117.4	3346.4	3525.8
15°	2442.3	2450.8	2459.4	2478.2	2541.4	2551.7	2667.9	2850.8	3083.2	3351.5	3584.0
17.5°	2467.9	2481.6	2474.8	2497.0	2563.6	2570.5	2673.0	2833.7	3081.5	3384.0	3672.8
20°	2529.4	2539.7	2526.0	2539.7	2606.4	2620.0	2726.0	2866.1	3110.5	3440.4	3783.9
22.5°	2626.9	2632.0	2599.5	2609.8	2678.1	2695.2	2818.3	2958.4	3180.6	3531.0	3932.6
25°	2749.9	2760.2	2710.6	2722.6	2787.5	2808.0	2949.9	3096.9	3291.7	3655.7	4122.3
27.5°	2891.8	2896.9	2854.2	2852.5	2936.2	2965.3	3108.8	3267.8	3440.4	3813.0	4361.6
30°	3054.1	3069.5	3028.5	3021.7	3127.6	3151.6	3293.4	3478.0	3659.2	4048.8	4701.7
32.5°	3182.3	3194.3	3170.4	3187.4	3295.1	3313.9	3517.3	3775.4	4002.7	4383.8	5164.9
35°	3366.9	3373.7	3319.0	3349.8	3472.9	3520.7	3823.2	4192.4	4435.1	4804.2	5769.9
37.5°	4035.2	4035.2	3802.7	3650.6	3768.5	3811.3	4242.0	4717.1	4968.3	5368.2	6532.1
40°	4959.8	4944.4	4604.3	4293.2	4277.8	4361.6	4838.4	5378.5	5657.1	6045.0	7390.1
42.5°	5945.9	5922.0	5458.8	5151.2	5099.9	5129.0	5527.2	6193.7	6477.4	6870.5	8313.0
45°	6821.0	6814.1	6390.3	5976.7	5884.4	5976.7	6386.9	7147.4	7350.8	7764.4	9234.2
47.5°	7554.2	7554.2	7244.8	6974.8	6926.9	6981.6	7550.7	8205.3	8186.5	8716.3	10131.5
50°	8398.5	8391.6	8097.7	7981.4	8031.0	8107.9	8890.7	9319.7	9051.3	9651.2	10933.0
52.5°	8989.8	9030.8	8930.0	8911.2	9164.1	9297.4	10251.1	10410.1	9825.5	10538.2	11532.9
55°	9458.1	9505.9	9622.2	9753.8	10240.9	10415.2	11568.8	11444.0	10473.3	11307.3	11878.2
57.5°	10121.2	10052.9	10232.3	10492.1	11280.0	11490.2	12845.5	12419.9	10994.6	11931.1	11915.8
60°	10926.2	10936.4	10967.2	11295.4	12317.4	12587.4	14103.4	13342.8	11329.5	12314.0	11498.7
62.5°	11893.5	11908.9	11972.2	12476.3	13710.3	13965.0	15443.3	14098.3	11483.4	12206.3	10422.0
65°	11826.9	11891.8	12597.7	14322.2	15827.9	16079.1	17007.1	14628.1	11250.9	11221.9	8485.6
67.5°	10774.1	10880.0	12061.0	16526.9	19020.4	19300.7	18897.4	14732.3	10247.7	8726.6	5535.7
70°	9393.1	9430.7	10851.0	18509.4	22717.2	23000.9	20589.4	13585.5	7776.3	4867.5	2479.9
72.5°	7335.4	7343.9	9010.3	18969.2	24723.7	24739.0	19261.4	10085.3	4182.1	1869.7	861.4
75°	5240.1	5188.8	6034.8	15383.5	21751.6	21925.9	14440.1	4730.8	1598.0	883.6	429.0
77.5°	2809.7	2866.1	3414.8	9123.1	15026.3	15323.7	7878.9	1363.9	813.5	601.6	283.7
80°	868.2	916.1	1399.7	4177.0	8511.3	8690.7	2920.8	606.7	567.4	429.0	186.3
82.5°	273.5	283.7	652.9	1755.2	3532.7	3614.7	846.0	343.5	388.0	283.7	109.4
85°	78.6	80.3	290.5	654.6	873.3	890.4	237.6	133.3	222.2	176.0	56.4
87.5°	8.5	27.3	109.4	109.4	76.9	75.2	25.6	29.1	63.2	22.2	10.3
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°	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6	3380.6
2.5°	3387.4	3389.1	3366.9	3329.3	3288.3	3254.1	3211.4	3177.2	3153.3	3146.4	3158.4
5°	3411.3	3399.4	3336.1	3221.6	3084.9	2967.0	2835.4	2731.1	2662.8	2633.7	2644.0
7.5°	3447.2	3413.0	3274.6	3049.0	2787.5	2555.1	2319.2	2136.4	2020.1	1962.0	1970.6
10°	3478.0	3409.6	3172.1	2799.5	2399.6	2047.5	1729.6	1509.1	1386.1	1328.0	1329.7
12.5°	3507.0	3407.9	3038.8	2503.8	1962.0	1531.3	1235.7	1126.3	1092.1	1080.1	1076.7
15°	3561.7	3413.0	2871.3	2165.4	1526.2	1157.1	1049.4	1047.7	1054.5	1051.1	1049.4
17.5°	3636.9	3418.2	2681.6	1806.5	1177.6	1020.3	1015.2	1030.6	1040.8	1035.7	1034.0
20°	3734.4	3438.7	2479.9	1451.0	1011.8	986.1	998.1	1011.8	1020.3	1011.8	1010.1
22.5°	3871.1	3474.6	2259.4	1165.6	958.8	965.6	975.9	991.3	999.8	987.9	986.1
25°	4038.6	3531.0	2042.4	1013.5	933.2	941.7	957.1	974.2	984.4	972.5	970.8
27.5°	4255.6	3621.6	1842.4	979.3	907.5	912.7	934.9	960.5	974.2	958.8	958.8
30°	4570.1	3770.2	1669.8	994.7	892.1	880.2	910.9	946.8	962.2	948.5	946.8
32.5°	4987.1	3980.5	1563.8	1018.6	885.3	842.6	871.6	917.8	943.4	934.9	934.9
35°	5534.0	4300.1	1522.8	1046.0	880.2	803.3	823.8	873.3	917.8	926.3	926.3
37.5°	6197.2	4744.4	1534.8	1057.9	864.8	770.8	781.1	823.8	881.9	909.2	916.1
40°	6950.9	5262.3	1603.1	1046.0	847.7	743.5	745.2	777.6	828.9	869.9	883.6
42.5°	7728.5	5867.3	1729.6	1001.5	832.3	719.5	714.4	736.6	770.8	799.9	811.8
45°	8468.5	6489.4	1854.4	940.0	813.5	695.6	683.6	692.2	699.0	711.0	717.8
47.5°	9114.6	6926.9	1818.5	883.6	787.9	668.3	647.7	644.3	623.8	622.1	620.4
50°	9560.6	7022.6	1615.1	827.2	750.3	637.5	605.0	584.5	548.6	531.5	533.2
52.5°	9702.5	6644.9	1319.4	770.8	688.8	596.5	550.3	517.9	473.4	458.0	456.3
55°	9514.5	5904.9	1054.5	702.4	603.3	541.8	490.5	447.8	411.9	393.1	393.1
57.5°	9054.7	4963.2	834.0	622.1	512.7	480.3	429.0	386.3	355.5	336.7	333.3
60°	8292.5	3941.2	659.7	526.4	437.5	413.6	360.6	333.3	305.9	283.7	278.6
62.5°	7135.4	2813.2	517.9	417.0	365.7	338.4	307.6	287.1	254.7	223.9	218.8
65°	5568.2	1721.1	399.9	305.9	294.0	280.3	261.5	242.7	203.4	172.6	167.5
67.5°	3512.2	815.2	285.4	230.7	232.4	225.6	217.1	201.7	172.6	145.3	141.9
70°	1546.7	394.8	188.0	176.0	172.6	172.6	179.5	174.3	147.0	121.3	116.2
72.5°	526.4	211.9	140.1	133.3	124.8	123.1	150.4	145.3	117.9	94.0	88.9
75°	275.2	141.9	102.5	95.7	75.2	90.6	119.6	112.8	83.7	61.5	56.4
77.5°	179.5	100.8	70.1	61.5	42.7	59.8	88.9	78.6	49.6	30.8	27.3
80°	112.8	66.7	41.0	29.1	20.5	32.5	47.9	34.2	18.8	6.8	5.1
82.5°	59.8	34.2	15.4	10.3	8.5	10.3	12.0	8.5	3.4	0.0	0.0
85°	23.9	12.0	5.1	3.4	1.7	0.0	3.4	1.7	0.0	0.0	0.0
87.5°	8.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)