

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: P967394

Luminaire Tested: **NAV-SB4D-835-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967394
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-835-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30408.7 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 293.6
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

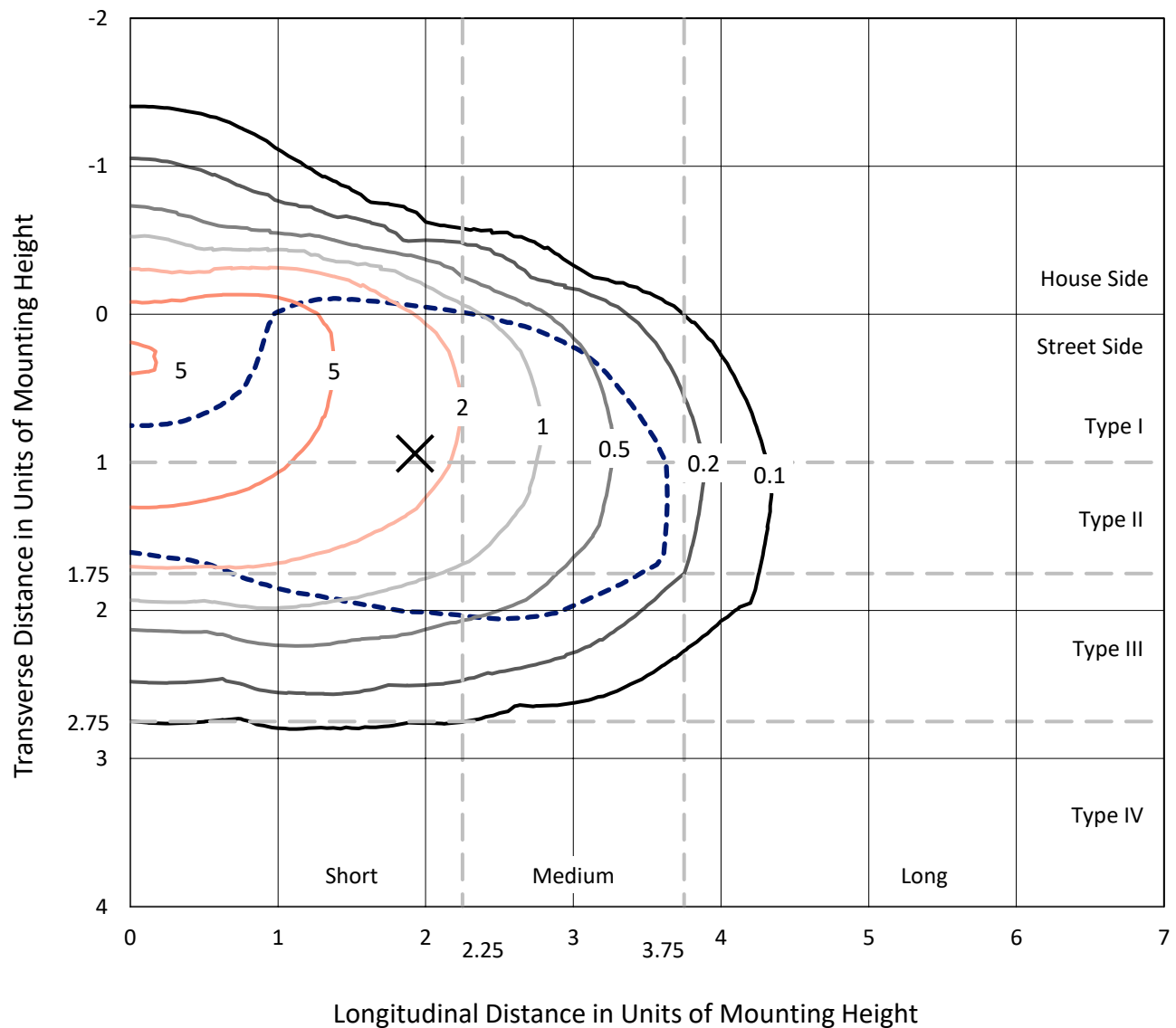


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

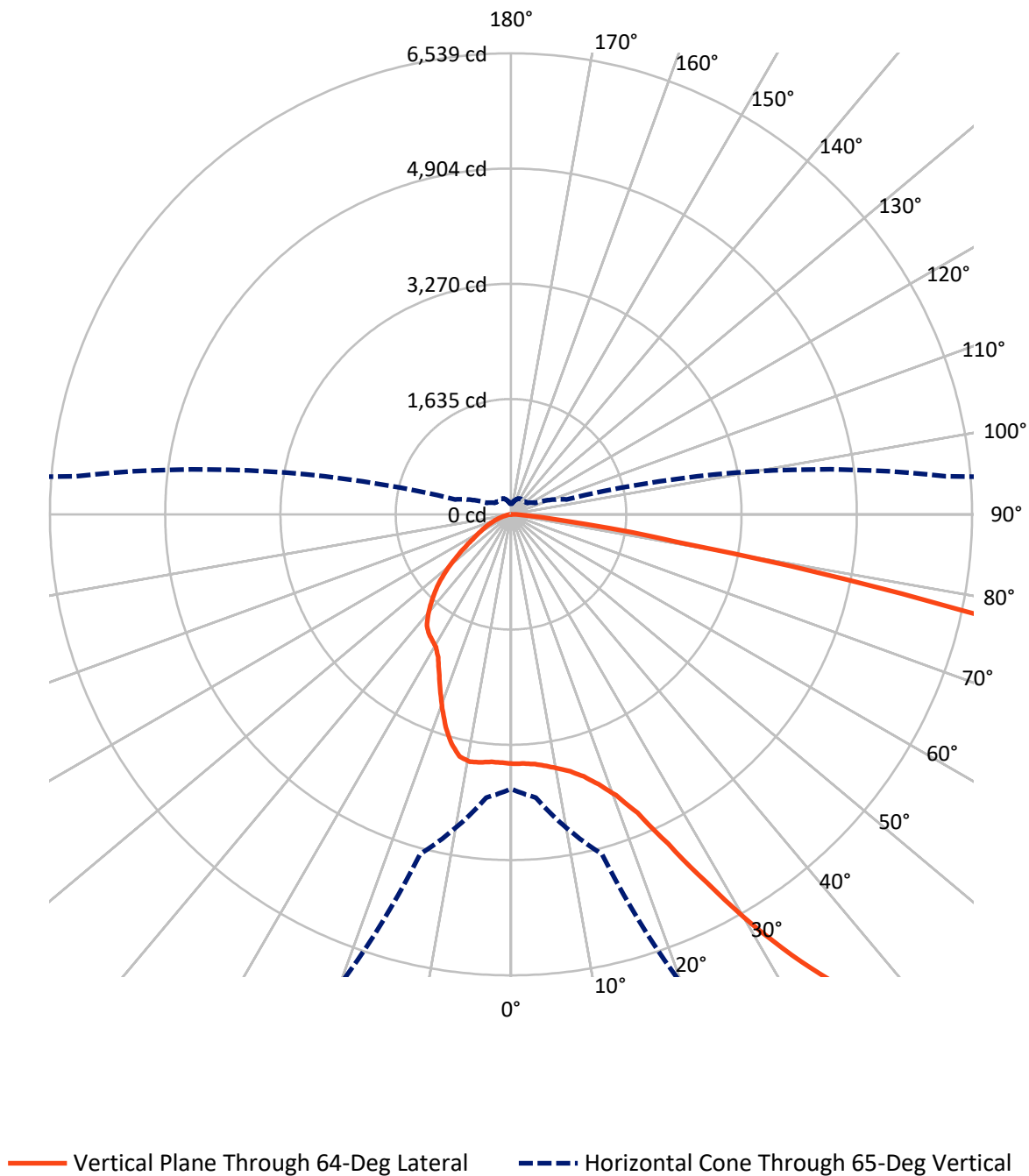


Based on 25 foot mounting height. Maximum calculated value = 8.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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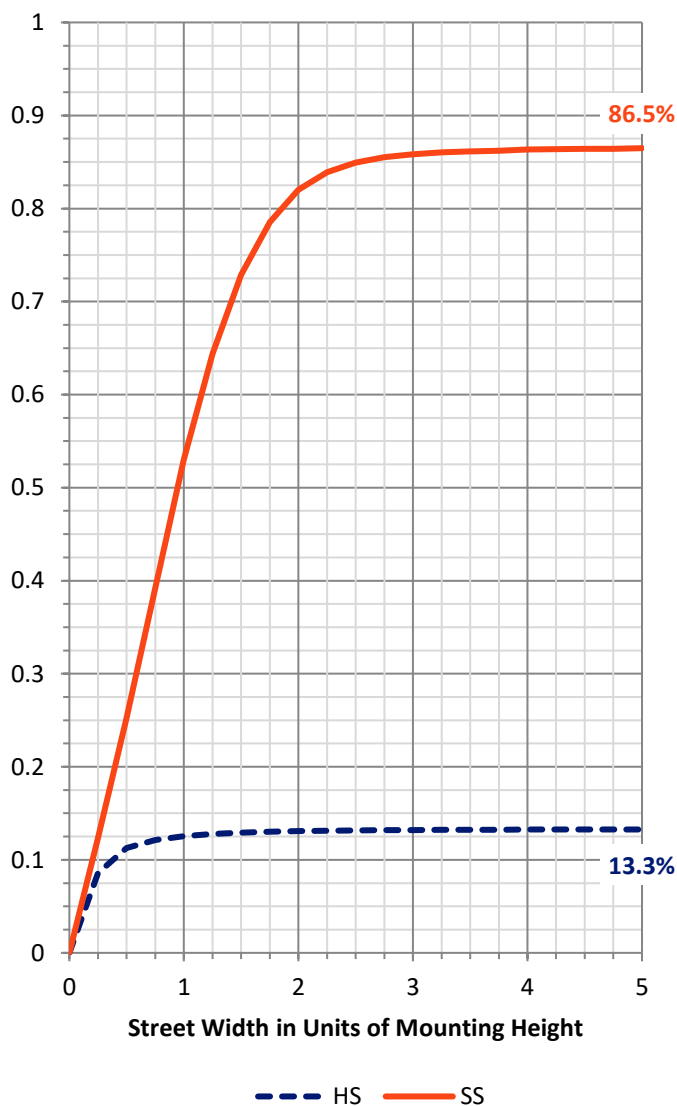
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4066.6	0.0	4066.6
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	26342.1	0.0	26342.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	30408.7	0.0	30408.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.3	1.1
10°-20°	885.0	2.9
20°-30°	1677.1	5.5
30°-40°	3393.6	11.2
40°-50°	5781.1	19.0
50°-60°	7861.8	25.9
60°-70°	7382.6	24.3
70°-80°	2957.8	9.7
80°-90°	143.3	0.5
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°	30408.7	100.0
0°-180°	30408.7	100.0

Coefficient of Utilization



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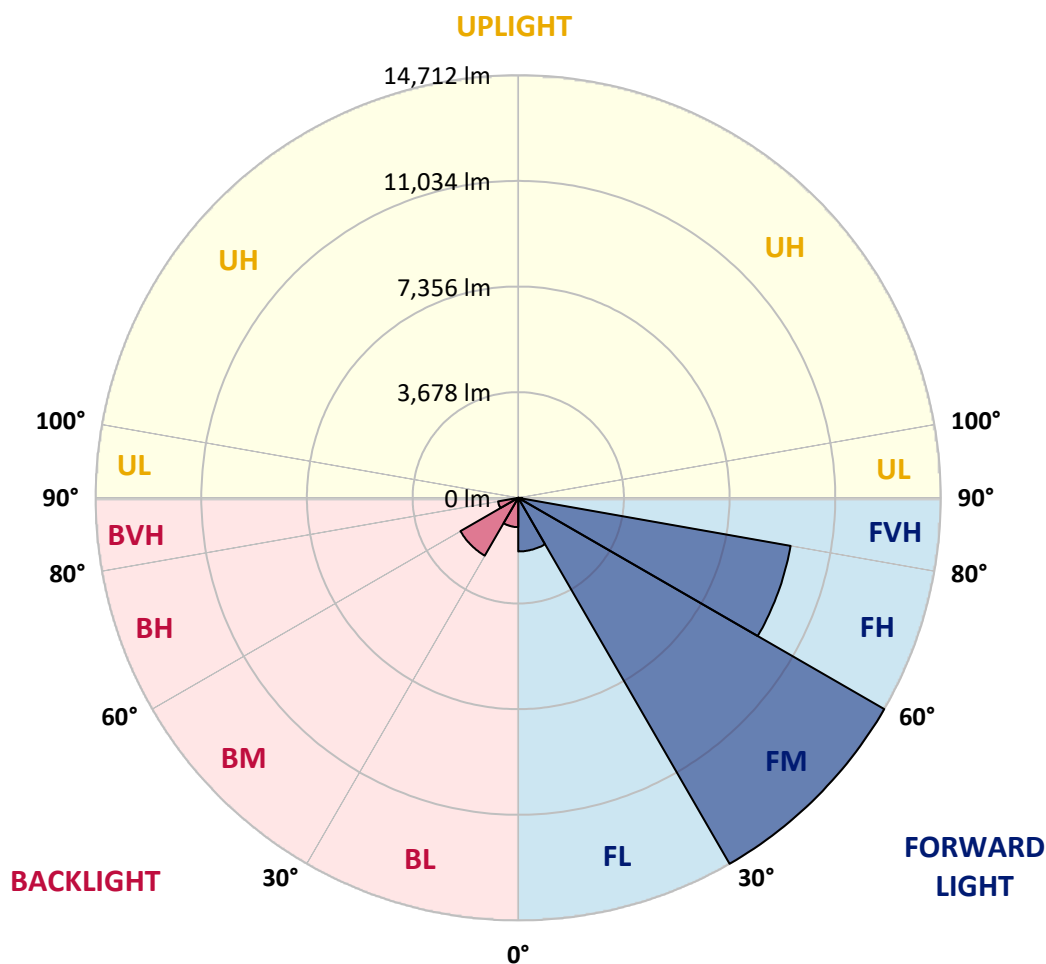
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1867.4	6.1			
FM	(30°-60°)	14711.7	48.4			
FH	(60°-80°)	9626.7	31.7			G4/12000
FVH	(80°-90°)	136.3	0.4			G2/225
BL	(0°-30°)	1021.0	3.4	B3/2500		
BM	(30°-60°)	2324.8	7.6	B2/2500		
BH	(60°-80°)	713.7	2.3	B2/1000		G2/1000
BVH	(80°-90°)	7.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9
2.5°	3524.6	3549.1	3542.9	3536.9	3534.8	3538.9	3541.0	3538.9	3538.9	3538.9	3541.0
5°	3457.3	3477.7	3477.7	3492.0	3512.4	3536.9	3555.2	3559.3	3563.3	3569.5	3567.4
7.5°	3328.9	3345.2	3357.5	3404.3	3455.3	3520.6	3575.6	3604.1	3608.2	3630.7	3638.7
10°	3241.3	3261.7	3282.0	3330.9	3404.3	3502.2	3596.0	3665.3	3675.4	3728.4	3752.9
12.5°	3237.2	3257.6	3284.1	3337.1	3422.7	3526.6	3640.8	3740.7	3759.1	3836.5	3887.5
15°	3280.0	3304.5	3328.9	3394.2	3485.9	3612.3	3734.6	3858.9	3877.3	3987.4	4042.4
17.5°	3367.6	3400.2	3418.6	3483.9	3581.7	3722.4	3883.4	4026.1	4042.4	4170.8	4240.1
20°	3541.0	3579.6	3585.8	3638.7	3734.6	3885.5	4077.0	4254.4	4274.8	4421.5	4499.0
22.5°	3899.7	3954.8	3905.9	3932.3	4017.9	4168.8	4376.8	4600.9	4629.5	4796.7	4866.0
25°	4531.6	4609.1	4482.7	4437.8	4474.5	4631.6	4892.4	5175.8	5208.4	5343.0	5377.7
27.5°	5773.1	5673.2	5481.6	5294.0	5183.9	5273.6	5567.2	5917.8	5958.6	6089.1	6048.3
30°	7136.9	7049.2	6790.3	6374.5	6113.5	6099.3	6370.4	6761.8	6808.7	6933.0	6808.7
32.5°	8502.7	8419.1	8137.8	7626.1	7173.6	6949.3	7136.9	7571.1	7595.6	7675.1	7491.6
35°	9846.0	9760.5	9479.2	8955.2	8398.7	7889.1	7852.4	8341.7	8349.9	8433.4	8160.2
37.5°	11197.6	11126.3	10826.7	10312.9	9764.6	9061.2	8720.8	9071.5	9081.6	9163.2	8879.8
40°	12161.8	12192.5	11986.6	11589.1	11118.2	10349.6	9695.3	9848.1	9787.0	9923.5	9754.3
42.5°	12989.5	13050.6	12871.2	12671.5	12398.3	11721.5	10902.0	10875.6	10777.7	10851.1	10675.8
45°	13705.0	13756.0	13595.0	13548.0	13541.9	13067.0	12221.0	12062.0	11925.4	11911.1	11701.2
47.5°	13968.0	14065.9	14135.2	14292.1	14597.8	14398.1	13584.7	13338.1	13185.2	13073.1	12740.7
50°	14067.9	14171.9	14408.3	14865.0	15588.6	15674.2	14942.4	14665.2	14477.6	14273.7	13784.5
52.5°	13933.3	14118.9	14436.8	15205.4	16255.2	16697.6	16245.0	16002.4	15788.4	15456.1	14730.4
55°	13140.3	13325.8	13976.2	15201.3	16587.5	17415.2	17476.2	17368.2	17127.8	16603.8	15494.8
57.5°	11468.7	11743.9	12773.4	14683.5	16581.4	18032.8	18683.1	18760.6	18491.5	17741.3	16096.2
60°	9152.9	9526.0	10781.8	13535.8	16069.7	18367.2	19741.1	20128.4	19843.0	18862.5	16583.4
62.5°	6386.7	6818.9	8007.3	11737.9	14899.6	18126.6	20513.7	21229.2	21013.1	19865.4	16770.9
65°	3895.6	4034.2	4992.4	9236.6	12910.0	17119.6	20752.3	21824.5	21753.2	20479.1	16493.7
67.5°	2595.1	2711.2	2986.4	6333.7	10021.4	15107.5	20181.4	21720.5	21740.9	20379.2	15478.5
70°	1563.5	1663.5	1842.8	3683.6	6494.7	11958.0	18414.0	20395.4	20513.7	19043.9	13554.2
72.5°	644.2	711.5	874.5	1669.5	3363.5	7589.4	14663.1	17511.0	17786.1	16012.7	10402.6
75°	364.9	399.5	513.7	837.8	1459.6	3536.9	8881.8	12430.9	12836.6	11036.6	6258.2
77.5°	242.6	258.9	332.3	542.2	821.5	1206.8	3795.8	6476.4	7251.1	6027.9	2709.2
80°	163.1	177.3	228.3	362.8	534.1	517.8	1208.9	2399.3	2951.8	2071.1	660.5
82.5°	110.1	112.1	163.1	238.5	338.4	250.7	356.7	746.1	937.8	599.3	250.7
85°	63.2	61.2	120.2	138.6	150.9	103.9	108.0	224.3	293.6	252.8	142.7
87.5°	8.2	12.2	46.8	36.7	20.4	22.4	22.4	38.7	57.1	61.2	30.5
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°	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9	3536.9
2.5°	3541.0	3538.9	3532.8	3526.6	3512.4	3504.3	3508.3	3504.3	3502.2	3504.3	3512.4
5°	3567.4	3561.3	3545.0	3524.6	3496.1	3461.4	3439.0	3406.4	3375.8	3357.5	3361.5
7.5°	3638.7	3632.7	3610.3	3553.2	3461.4	3316.7	3184.2	3068.0	2980.3	2929.3	2931.4
10°	3752.9	3742.7	3708.0	3581.7	3341.2	3025.2	2762.2	2544.0	2401.4	2334.1	2328.0
12.5°	3887.5	3875.2	3814.1	3555.2	3112.8	2619.5	2256.6	2014.0	1881.6	1822.4	1816.3
15°	4046.5	4030.2	3909.9	3428.8	2780.5	2171.1	1838.7	1657.3	1571.7	1518.7	1520.8
17.5°	4244.2	4215.7	3981.2	3239.2	2419.7	1828.6	1581.9	1445.4	1369.9	1319.0	1314.9
20°	4501.1	4454.1	4038.3	3013.0	2087.4	1612.4	1408.7	1294.5	1237.4	1192.6	1184.4
22.5°	4859.8	4792.6	4107.6	2768.3	1853.0	1463.7	1280.2	1196.6	1149.7	1098.8	1090.6
25°	5304.3	5224.7	4193.3	2542.0	1692.0	1335.3	1186.4	1117.1	1062.1	1003.0	996.8
27.5°	5926.0	5783.3	4295.2	2356.6	1553.4	1225.2	1100.8	1023.4	960.1	911.2	901.1
30°	6619.1	6384.6	4384.8	2244.4	1427.0	1123.2	988.7	911.2	852.1	817.4	811.3
32.5°	7275.6	6957.5	4444.0	2195.4	1312.8	1007.1	866.3	782.8	737.9	727.7	733.9
35°	7895.2	7475.3	4437.8	2148.6	1210.9	890.8	746.1	660.5	625.9	631.9	631.9
37.5°	8608.7	8027.7	4395.1	2075.2	1127.3	784.8	642.2	566.7	536.2	538.1	546.3
40°	9438.4	8665.8	4368.5	1936.6	1035.6	687.0	556.5	495.4	472.9	464.7	462.8
42.5°	10323.1	9283.4	4372.6	1779.6	921.4	599.3	497.4	446.4	426.1	419.9	417.9
45°	11211.9	9872.6	4378.8	1616.5	801.1	532.1	454.6	411.7	399.5	391.4	391.4
47.5°	12047.6	10374.0	4264.6	1441.3	683.0	481.1	419.9	391.4	381.2	371.0	371.0
50°	12826.4	10708.4	3989.4	1237.4	589.2	440.3	393.4	373.1	362.8	352.7	352.7
52.5°	13431.8	10761.4	3534.8	1027.5	523.9	409.8	377.1	358.7	346.6	336.4	334.4
55°	13701.0	10429.1	2888.6	831.7	472.9	383.2	360.8	342.5	328.2	318.1	316.0
57.5°	13631.7	9729.9	2252.5	668.6	424.0	356.7	340.4	328.2	311.9	295.6	293.6
60°	13291.2	8794.2	1698.1	556.5	379.1	328.2	318.1	307.8	285.4	261.0	256.9
62.5°	12702.1	7618.0	1210.9	460.7	330.3	295.6	291.5	283.3	250.7	205.9	201.8
65°	11801.0	6189.0	815.4	383.2	283.3	258.9	261.0	246.6	203.9	152.9	148.8
67.5°	10484.1	4525.6	521.8	314.0	236.5	216.1	218.1	209.9	173.2	130.5	124.3
70°	8806.4	2996.6	340.4	238.5	189.6	167.2	179.4	181.4	146.8	106.0	101.9
72.5°	6456.1	1769.5	238.5	177.3	138.6	116.2	146.8	150.9	118.3	79.5	75.4
75°	3679.5	839.9	179.4	128.4	85.6	81.6	114.2	114.2	81.6	53.0	48.9
77.5°	1545.2	350.7	126.4	83.5	48.9	46.8	77.5	71.3	40.8	24.5	24.5
80°	446.4	156.9	67.2	40.8	20.4	18.3	30.5	22.4	10.1	4.1	4.1
82.5°	175.3	69.3	26.5	16.3	8.2	8.2	4.1	0.0	0.0	0.0	0.0
85°	103.9	28.5	12.2	6.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	26.5	6.1	4.1	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)