

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: P968972

Luminaire Tested: **NAV-SB5C-835-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968972
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5C-835-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27487.4 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 249.5
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

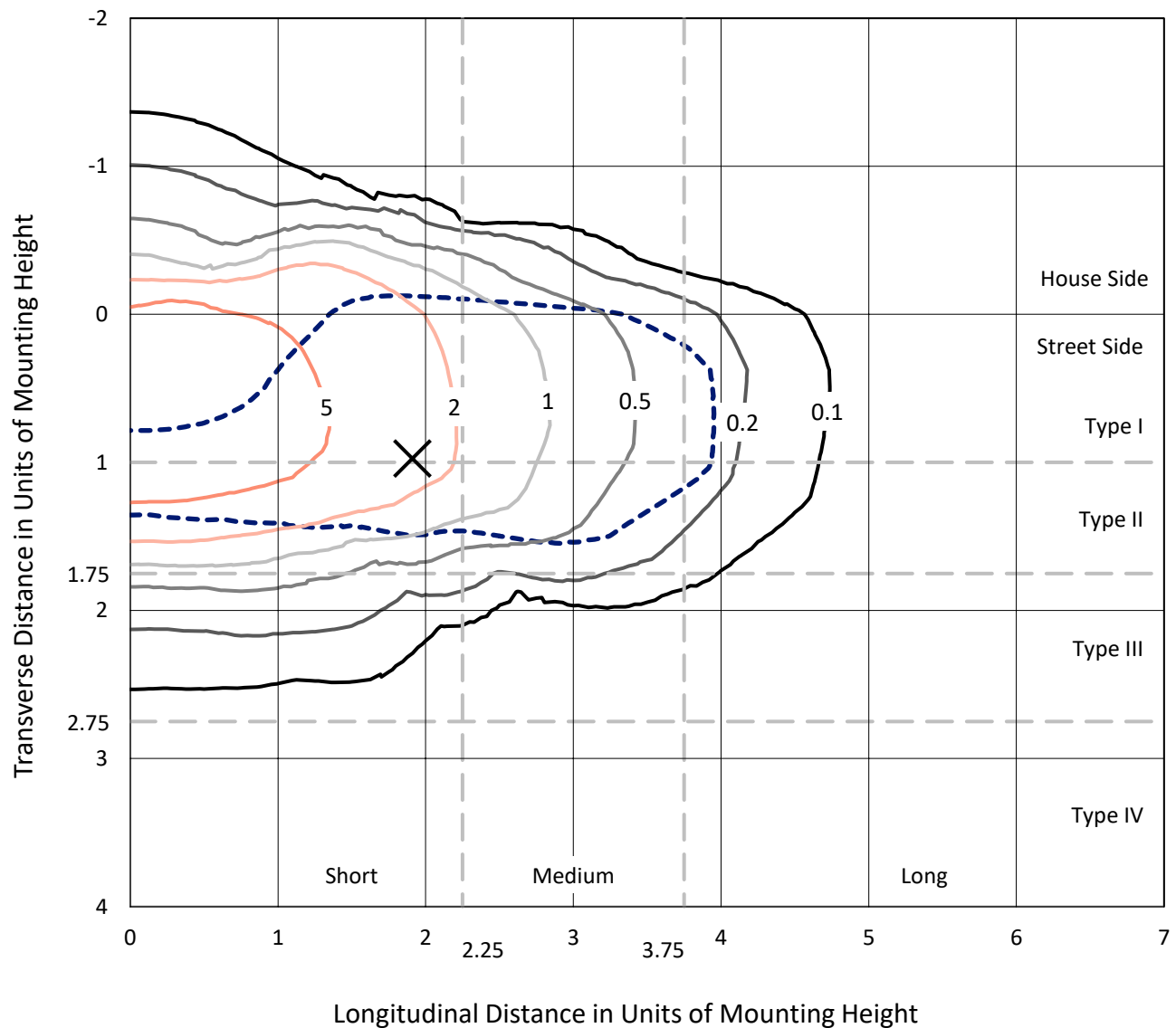


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Iso-Footcandle Lines of Horizontal Illumination

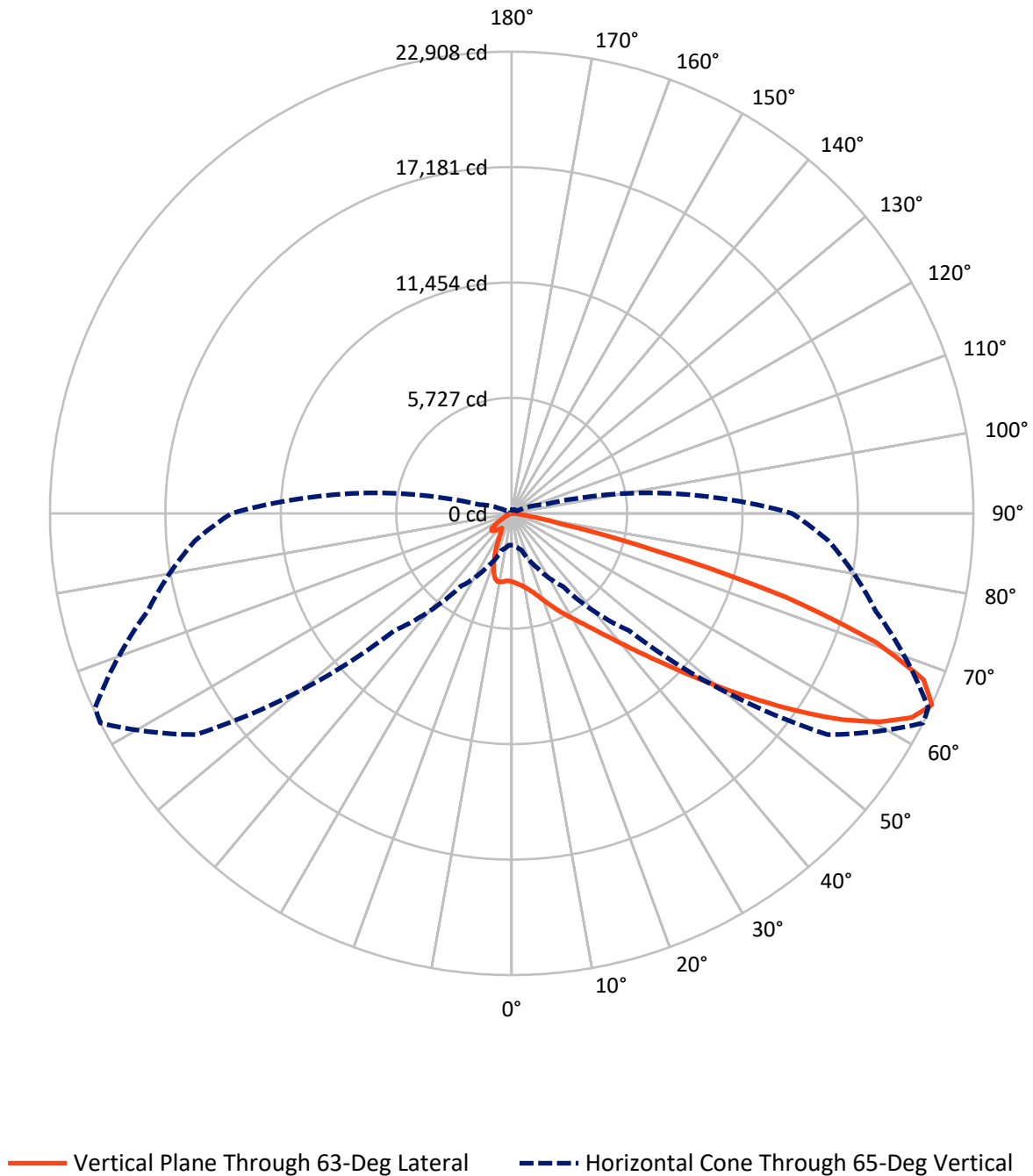
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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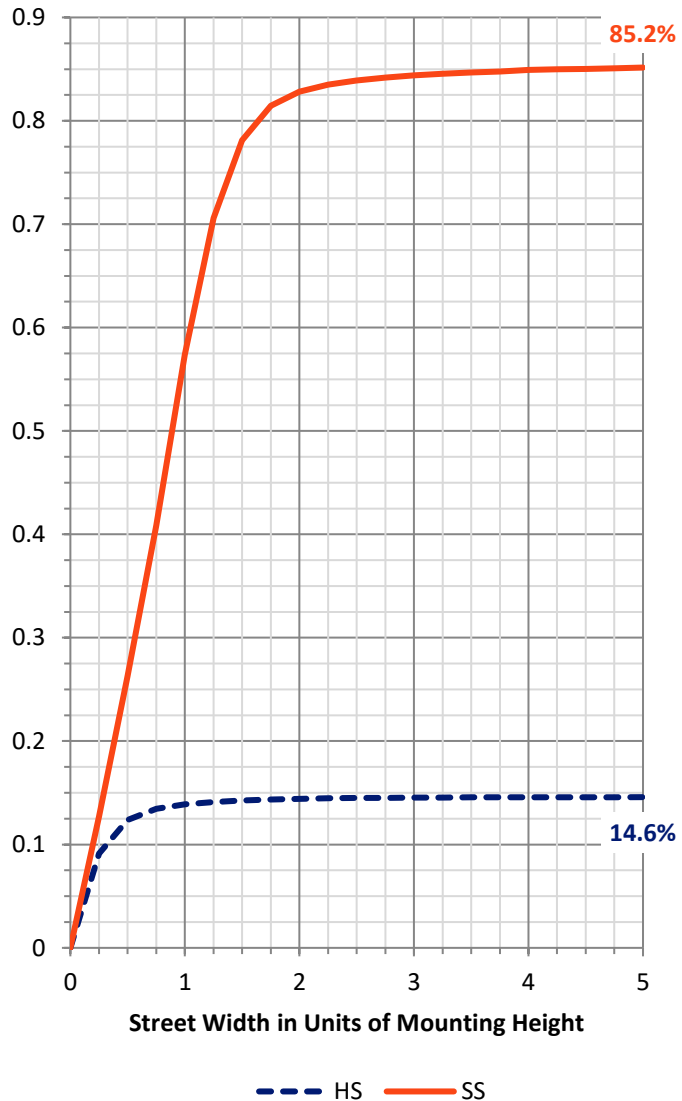
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4040.4	0.0	4040.4
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	23447.0	0.0	23447.0
	% Fixture	85.3	0.0	85.3
Total	Lumens	27487.4	0.0	27487.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.6	1.2
10°-20°	886.9	3.2
20°-30°	1544.3	5.6
30°-40°	2783.4	10.1
40°-50°	5520.3	20.1
50°-60°	7519.6	27.4
60°-70°	6002.1	21.8
70°-80°	2716.1	9.9
80°-90°	195.2	0.7
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°	27487.4	100.0
0°-180°	27487.4	100.0

Coefficient of Utilization



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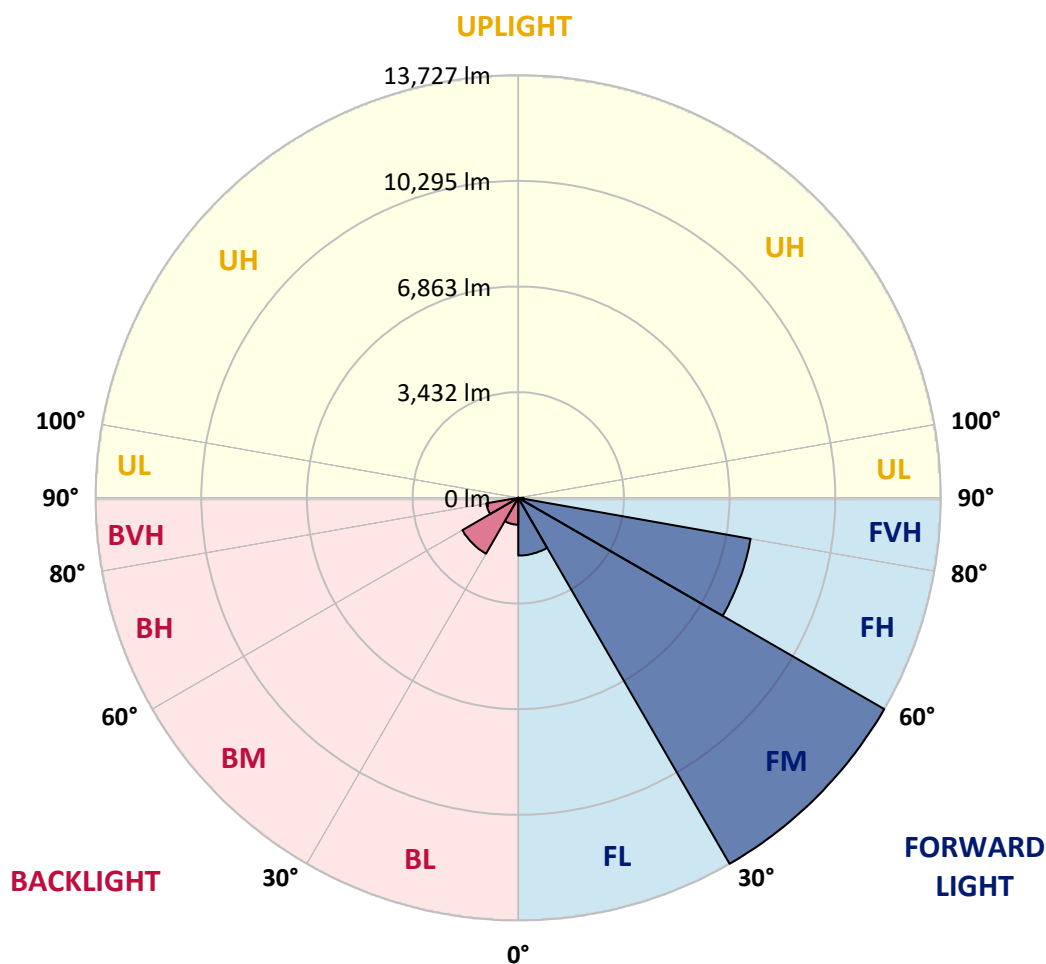
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1876.4	6.8			
FM	(30°-60°)	13726.5	49.9			
FH	(60°-80°)	7663.4	27.9			G4/12000
FVH	(80°-90°)	180.7	0.7			G2/225
BL	(0°-30°)	874.4	3.2	B2/1000		
BM	(30°-60°)	2096.7	7.6	B2/2500		
BH	(60°-80°)	1054.8	3.8	B3/2500		G3/2500
BVH	(80°-90°)	14.5	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4
2.5°	3471.9	3462.4	3475.7	3470.0	3466.2	3458.7	3454.9	3451.1	3443.5	3437.8	3415.2
5°	3481.3	3475.7	3488.9	3500.3	3511.6	3522.9	3528.7	3536.1	3528.7	3513.5	3490.8
7.5°	3401.9	3398.2	3426.5	3460.5	3511.6	3555.1	3602.4	3628.8	3630.8	3625.0	3600.5
10°	3396.2	3386.8	3415.2	3456.8	3522.9	3600.5	3683.6	3740.4	3748.0	3772.5	3746.1
12.5°	3485.1	3475.7	3515.3	3560.7	3628.8	3710.2	3812.3	3891.7	3903.0	3937.1	3918.2
15°	3634.5	3621.3	3666.6	3725.3	3812.3	3904.9	4012.7	4084.6	4094.1	4135.7	4101.6
17.5°	3808.5	3795.3	3848.2	3910.6	4005.2	4131.9	4256.6	4336.1	4347.4	4373.9	4311.5
20°	4031.6	4014.6	4056.2	4112.9	4213.2	4364.4	4513.8	4627.3	4625.4	4625.4	4523.3
22.5°	4290.6	4264.2	4300.2	4345.5	4440.1	4623.5	4822.1	4956.3	4956.3	4903.4	4735.1
25°	4568.6	4542.2	4582.0	4623.5	4706.7	4914.8	5147.3	5313.7	5321.3	5230.6	4962.0
27.5°	4916.6	4882.6	4912.8	4962.0	5011.1	5223.0	5499.0	5691.9	5695.7	5555.8	5177.6
30°	5586.0	5489.6	5395.1	5342.1	5364.7	5574.7	5869.7	6083.4	6102.2	5909.4	5412.1
32.5°	6811.4	6792.5	6459.7	6024.7	5797.8	5952.9	6283.9	6541.0	6552.3	6304.6	5716.5
35°	8715.7	8692.9	8157.8	7329.6	6590.1	6459.7	6786.8	7091.3	7083.7	6803.8	6111.8
37.5°	10988.6	10967.8	10262.5	9154.4	7957.4	7225.5	7435.5	7755.0	7802.3	7435.5	6622.3
40°	12930.7	12853.2	12406.9	11338.4	9772.8	8496.3	8358.3	8570.0	8619.2	8184.3	7270.9
42.5°	14401.9	14335.8	14108.8	13441.2	11970.1	10376.0	9445.6	9526.9	9581.7	9059.8	8016.0
45°	15164.0	15148.9	15239.6	15177.3	14209.1	12682.9	11000.0	10661.5	10682.3	10029.9	8861.2
47.5°	15271.8	15264.2	15678.3	16264.6	16134.1	15285.0	12995.1	12075.9	12002.2	11124.8	9780.2
50°	14636.4	14621.3	15415.5	16514.2	17420.0	17471.0	15260.4	13670.1	13507.4	12257.5	10739.0
52.5°	12607.4	12603.6	13908.3	15736.9	17871.9	19384.7	17499.4	15421.1	15148.9	13456.4	11752.6
55°	9700.9	9770.8	11266.6	13428.0	17047.4	20305.7	19509.5	17365.1	16947.2	14662.8	12686.7
57.5°	6871.9	6974.0	8452.8	10377.8	14490.8	19761.1	20869.2	19312.8	18862.8	15865.6	13634.1
60°	3691.2	3782.0	5262.7	7560.3	10780.6	17730.0	21585.9	21003.4	20577.9	17007.7	14488.9
62.5°	2199.2	2229.5	2842.2	4880.6	7291.7	13545.3	21281.4	22291.2	21941.4	17966.5	15232.1
65°	1579.0	1584.6	1892.9	2980.2	4426.9	8229.6	19146.5	22907.6	22799.9	18688.8	15782.3
67.5°	1329.4	1325.6	1454.2	1979.9	3016.2	4122.4	14674.2	22036.0	22493.5	19146.5	16094.3
70°	1140.3	1145.9	1297.2	1450.4	2267.3	2333.5	7295.5	19186.2	20162.0	19267.4	16075.5
72.5°	849.1	868.0	1007.9	1321.8	1711.3	1605.5	2518.8	14226.1	15990.4	18153.7	15241.5
75°	599.4	609.0	709.1	1111.9	1276.4	1168.6	1285.9	7354.2	9615.7	13917.9	12475.0
77.5°	461.5	478.5	537.0	777.2	1257.5	820.7	786.7	2545.3	3910.6	8407.5	8553.0
80°	249.6	279.8	387.7	561.6	883.1	580.6	389.5	1013.6	1325.6	3931.4	3297.9
82.5°	128.6	143.7	270.4	404.7	503.0	506.8	192.9	421.7	546.5	1214.0	451.9
85°	51.0	62.4	181.5	223.1	259.0	249.6	87.0	170.1	196.7	336.6	138.1
87.5°	11.4	18.9	66.2	51.0	49.2	53.0	20.8	39.7	37.8	39.7	24.6
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°	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4	3392.4
2.5°	3413.2	3405.7	3384.9	3362.2	3335.8	3320.6	3311.2	3309.2	3296.0	3286.6	3296.0
5°	3470.0	3462.4	3422.7	3375.4	3324.4	3284.7	3246.9	3212.9	3163.7	3154.2	3150.4
7.5°	3583.5	3562.7	3498.3	3434.1	3337.6	3222.3	3082.4	2921.6	2777.9	2734.4	2713.6
10°	3723.4	3695.0	3613.7	3500.3	3286.6	2972.7	2634.1	2320.3	2070.6	2000.7	1974.3
12.5°	3882.2	3857.7	3749.9	3539.9	3072.8	2503.7	1985.5	1596.0	1353.9	1293.4	1276.4
15°	4071.3	4035.4	3886.0	3479.5	2690.9	1902.4	1363.5	1132.7	1045.7	1034.4	1023.1
17.5°	4271.8	4213.2	4007.0	3262.0	2176.6	1352.1	1053.3	987.1	949.3	938.0	932.2
20°	4455.3	4379.6	4078.9	2932.9	1626.3	1053.3	943.6	900.2	866.1	852.8	845.3
22.5°	4638.6	4530.8	4078.9	2484.8	1219.8	934.2	866.1	826.4	786.7	769.7	760.1
25°	4829.6	4685.9	4007.0	1985.5	981.4	856.6	792.3	748.9	714.8	694.0	686.4
27.5°	5014.9	4816.4	3842.5	1512.8	873.6	788.5	724.3	682.6	650.5	635.4	635.4
30°	5190.8	4945.0	3611.8	1147.8	803.7	722.3	661.8	626.0	593.8	578.6	580.6
32.5°	5429.1	5107.6	3366.0	941.8	743.1	660.0	605.2	571.1	542.7	531.4	531.4
35°	5760.0	5347.7	3154.2	924.7	692.1	609.0	554.1	521.9	493.5	484.1	484.1
37.5°	6229.0	5735.4	3042.6	1038.1	650.5	563.5	512.5	478.5	451.9	444.3	442.5
40°	6807.6	6261.1	3103.2	1151.6	622.2	523.8	474.7	440.6	417.9	408.5	406.6
42.5°	7494.1	6909.7	3437.8	1238.6	603.2	489.7	438.7	400.9	385.8	382.0	382.0
45°	8282.6	7622.6	3950.3	1331.3	573.0	457.7	402.8	374.4	363.1	361.2	359.3
47.5°	9179.0	8405.5	4544.1	1446.6	542.7	427.3	374.4	355.5	346.0	342.2	342.2
50°	10067.8	9194.0	5154.9	1511.0	518.1	399.0	351.7	336.6	329.0	327.2	327.2
52.5°	10998.1	10005.3	5648.5	1450.4	497.3	376.3	332.8	321.4	314.0	312.0	312.0
55°	11885.0	10661.5	5733.5	1231.0	455.7	353.6	312.0	306.4	296.8	296.8	295.0
57.5°	12648.9	10990.6	5132.2	903.9	414.1	319.6	291.2	285.6	278.0	276.1	274.2
60°	13350.5	10896.0	3961.6	609.0	368.8	285.6	264.8	261.0	253.4	244.0	242.0
62.5°	13745.8	10480.0	2709.8	397.1	323.4	249.6	234.5	232.6	215.6	196.7	192.9
65°	13895.1	9625.3	1690.5	289.4	270.4	213.7	202.3	198.5	173.9	153.1	151.3
67.5°	13764.6	8218.3	852.8	228.8	213.7	177.7	166.4	166.4	149.3	130.5	128.6
70°	13242.7	6160.9	359.3	183.5	164.5	136.1	136.1	143.7	126.7	105.9	104.0
72.5°	12110.0	4145.1	191.0	139.9	122.9	96.5	111.5	117.3	100.2	79.4	79.4
75°	9627.1	2528.3	132.3	104.0	77.5	68.1	85.1	88.9	68.1	53.0	51.0
77.5°	6584.5	1452.3	88.9	66.2	49.2	39.7	58.6	54.8	36.0	24.6	26.4
80°	2891.3	605.2	51.0	30.2	18.9	15.2	20.8	15.2	11.4	7.6	7.6
82.5°	338.5	141.9	18.9	11.4	7.6	3.8	1.8	0.0	0.0	0.0	0.0
85°	70.0	17.0	9.4	3.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.2	3.8	1.8	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)