Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P966728

Luminaire Tested: **NAV-SB4C-750-U-SL3-HSS**

Issue Date: 1/21/2025

Report Generated By 670246001

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Test Information

Test Method:	LM-79-08
Report Number:	P966728
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-13)
Test Lab:	INNOVATION CENTER
Issue Date:	1/21/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	NAV-SB4C-750-U-SL3-HSS
Description:	NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE (4) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	26211.3 lumens
Efficiency:	N/A
Efficacy:	130.6 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Medium
BUG Rating:	B2 - U0 - G4
Input Watts (W):	200.7
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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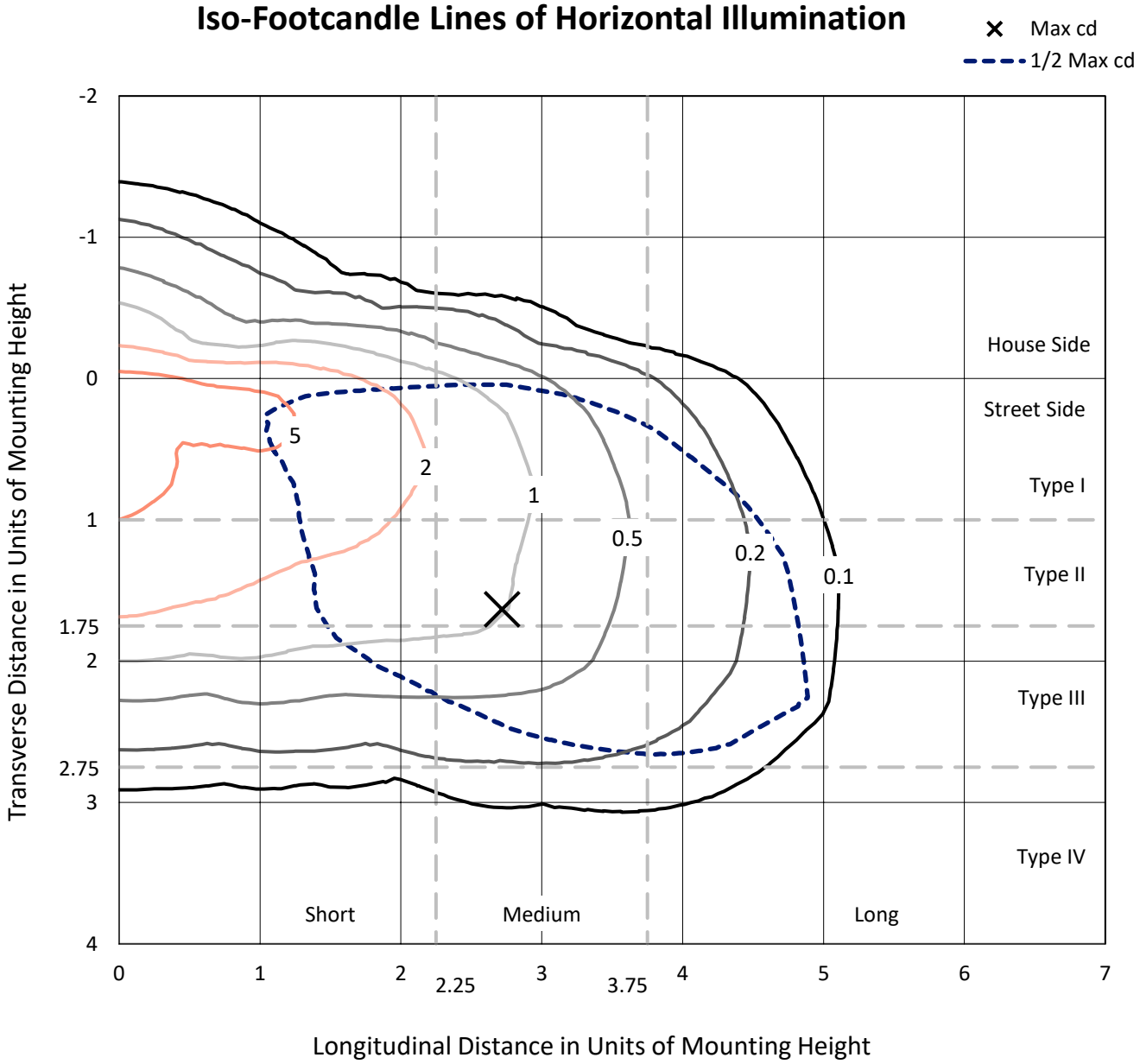
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 7.7 fc
Type III - Medium - N/A

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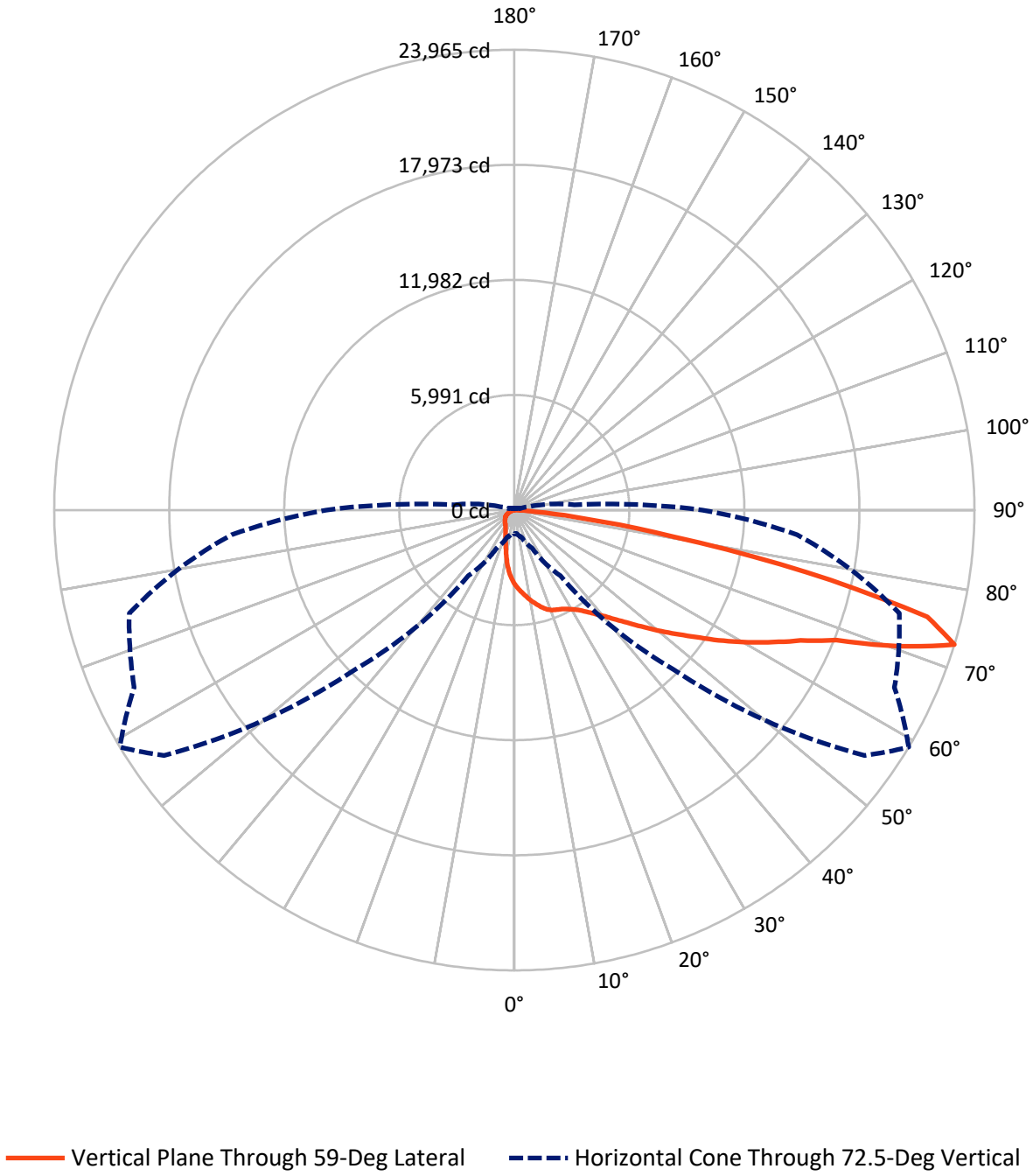
Luminous Intensity Polar Plot



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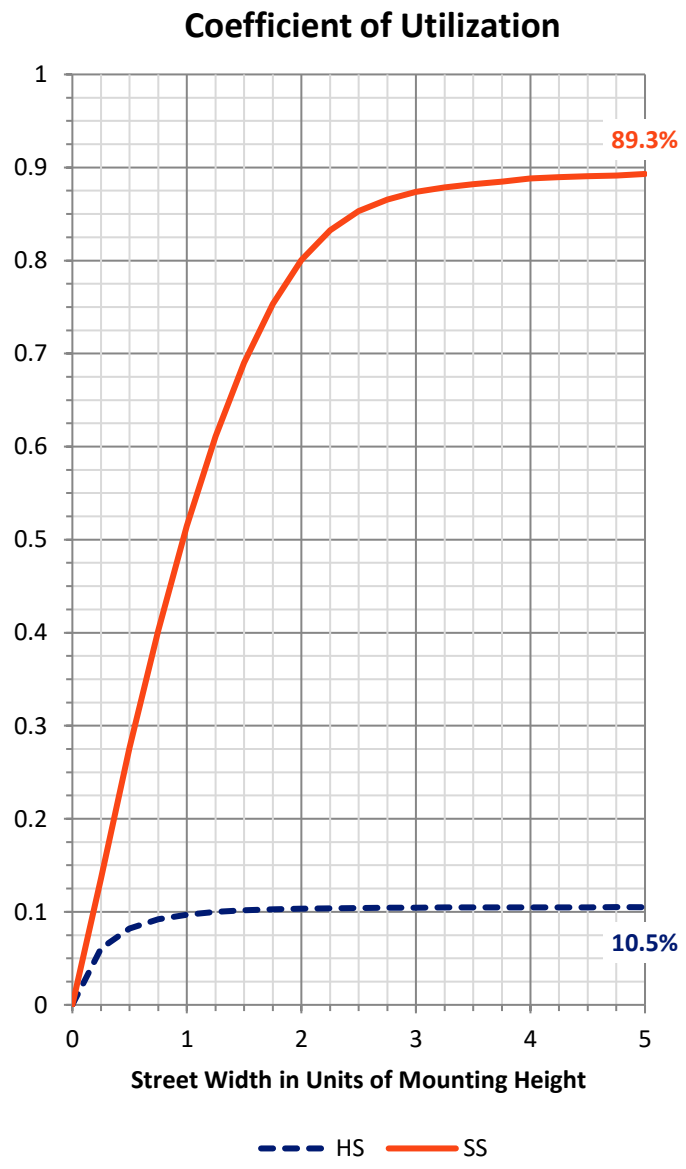
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2768.5	0.0	2768.5
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	23442.8	0.0	23442.8
	% Fixture	89.4	0.0	89.4
Total	Lumens	26211.3	0.0	26211.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	350.7	1.3
10°-20°	931.5	3.6
20°-30°	1476.2	5.6
30°-40°	2369.1	9.0
40°-50°	3783.8	14.4
50°-60°	5478.5	20.9
60°-70°	6501.6	24.8
70°-80°	4826.5	18.4
80°-90°	493.5	1.9
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°	26211.3	100.0
0°-180°	26211.3	100.0



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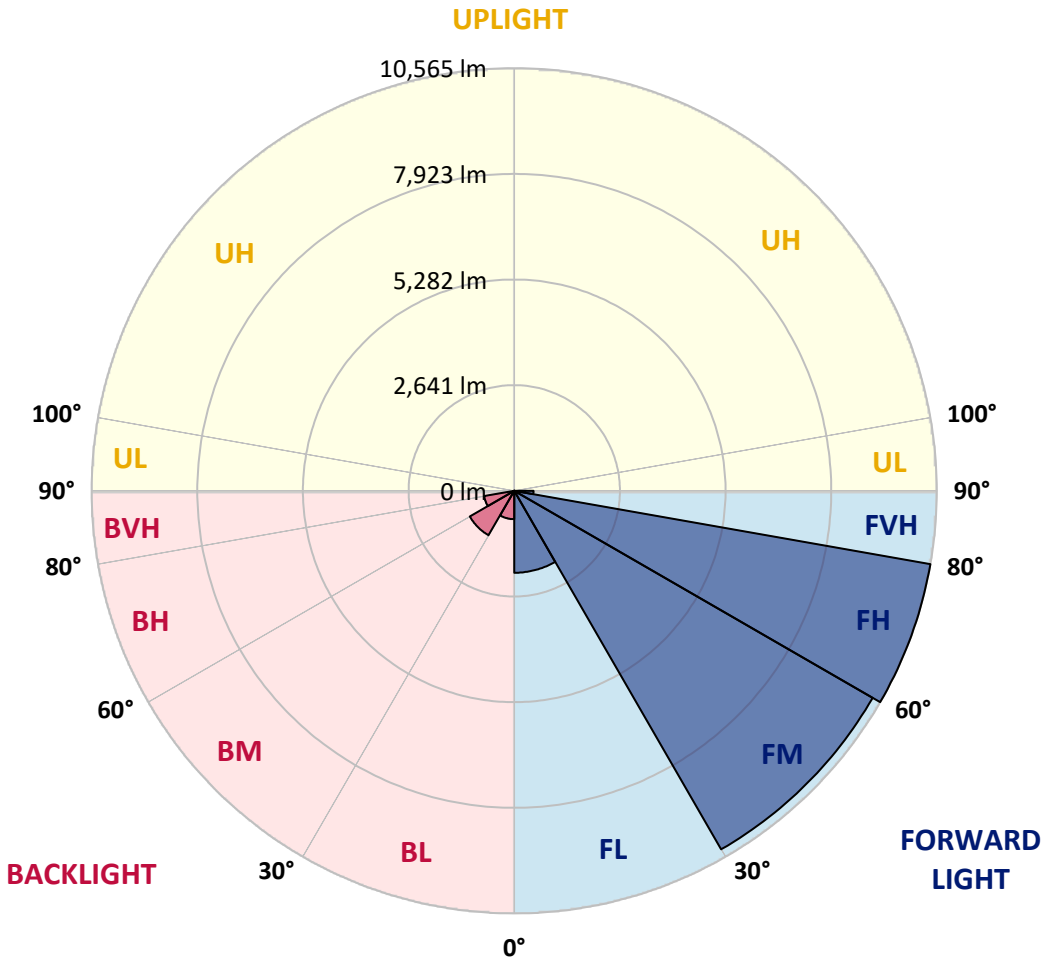
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2049.1	7.8			
FM	(30°-60°)	10347.8	39.5			
FH	(60°-80°)	10564.7	40.3			G4/12000
FVH	(80°-90°)	481.2	1.8			G3/500
BL	(0°-30°)	709.2	2.7	B2/1000		
BM	(30°-60°)	1283.5	4.9	B2/2500		
BH	(60°-80°)	763.5	2.9	B2/1000		G2/1000
BVH	(80°-90°)	12.3	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4
Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3876.0	3876.0	3876.0	3876.0	3876.0	3876.0	3876.0	*3876.0*	3876.0	3876.0	3876.0
2.5°	4300.4	4276.5	4279.9	4238.8	4209.7	4178.9	4119.1	*4110.5*	4067.7	3992.4	3915.4
5°	4675.2	4659.8	4646.1	4599.9	4540.0	4464.7	4363.7	*4327.8*	4249.0	4119.1	3968.4
7.5°	4949.0	4930.1	4937.0	4890.8	4842.9	4759.1	4620.4	*4553.7*	4449.3	4250.8	4023.2
10°	5002.0	4991.8	5036.2	5053.4	5053.4	5000.4	4865.2	*4798.4*	4646.1	4392.8	4079.7
12.5°	4704.2	4706.0	4817.2	4950.8	5125.2	5174.9	5084.2	*5012.4*	4861.7	4543.4	4151.6
15°	4356.9	4358.6	4466.4	4637.5	4923.3	5209.2	5281.0	*5234.8*	5079.1	4706.0	4235.4
17.5°	4148.1	4139.6	4211.4	4351.7	4651.2	5053.4	5400.7	*5431.6*	5304.9	4885.7	4327.8
20°	4119.1	4103.6	4141.3	4211.4	4425.3	4858.3	5414.5	*5559.9*	5537.7	5089.3	4433.9
22.5°	4297.0	4273.0	4252.5	4255.9	4346.6	4695.7	5380.2	*5631.8*	5777.2	5334.0	4579.4
25°	4649.5	4611.9	4545.2	4459.6	4440.7	4661.5	5356.2	*5710.5*	5999.7	5647.2	4771.1
27.5°	5080.7	5027.7	4899.4	4771.1	4661.5	4757.3	5406.0	*5835.4*	6251.3	6011.7	4993.5
30°	5554.8	5489.8	5361.4	5118.4	4943.9	4971.2	5523.9	*5999.7*	6573.0	6424.1	5272.4
32.5°	6251.3	6100.7	5876.5	5505.2	5274.1	5202.3	5702.0	*6208.5*	6971.7	6973.4	5676.2
35°	6848.5	6764.7	6538.8	6076.7	5602.6	5508.6	5936.4	*6502.8*	7524.4	7700.7	6241.0
37.5°	7240.4	7125.7	6927.3	6579.9	6112.7	5823.4	6249.5	*6863.9*	8109.7	8528.9	6937.5
40°	7678.5	7565.5	7302.0	6975.1	6704.7	6364.2	6644.9	*7279.8*	8751.4	9379.5	7733.2
42.5°	8207.3	8060.1	7748.6	7396.1	7113.7	7076.1	7161.7	*7798.3*	9410.3	10303.6	8561.5
45°	8828.4	8689.8	8332.2	7887.3	7639.1	7572.4	7811.9	*8402.3*	10144.4	11316.6	9398.3
47.5°	9410.3	9249.4	8864.4	8458.8	8183.3	7972.8	8503.3	*9115.9*	10976.1	12376.0	10188.9
50°	9904.9	9740.6	9388.1	8955.1	8768.6	8493.0	9182.7	*9911.6*	11800.9	13452.3	10911.0
52.5°	10243.6	10098.2	9684.1	9389.7	9263.1	9124.4	9978.4	*10755.3*	12622.4	14437.9	11624.6
55°	10166.7	10036.6	9672.1	9651.6	9643.0	9788.4	10929.9	*11712.0*	13459.2	15370.6	12334.8
57.5°	9921.9	9774.8	9319.6	9632.7	9935.6	10380.6	11960.1	*12843.0*	14376.3	16250.2	13019.3
60°	9201.5	9150.2	8872.9	9596.8	10058.8	10960.7	13137.4	*13979.4*	15369.0	17023.7	13626.9
62.5°	7676.7	7721.2	7719.6	9672.1	10281.3	11621.2	14207.0	*15129.3*	16339.2	17768.1	14167.7
65°	5748.2	5902.2	6099.0	8994.5	10579.0	12800.3	15485.3	*16376.8*	17324.9	18634.0	14717.0
67.5°	3862.3	3985.5	4119.1	7379.0	9692.6	14039.2	17609.0	*18086.4*	18505.7	19594.0	15334.7
70°	2210.9	2250.3	2436.8	4608.4	7471.4	13697.0	21067.4	*21240.3*	20266.6	20776.5	15784.8
72.5°	*1238.9*	*1225.3*	*1471.7*	*2187.0*	*4175.5*	*11729.1*	*22279.0*	*23964.6*	*21842.6*	*20757.7*	*14780.2*
75°	828.3	829.9	1013.1	1379.2	1627.4	8210.7	19198.8	*22220.9*	20898.0	18406.4	12076.4
77.5°	564.7	583.5	744.4	1066.1	753.0	4006.1	12701.1	*15565.8*	16919.4	14213.8	8337.3
80°	244.7	246.4	491.2	765.0	508.3	1274.9	6585.0	*8339.0*	10611.6	7981.4	3302.8
82.5°	126.6	143.7	313.1	494.6	320.0	446.6	3111.1	*3643.3*	4452.7	2342.7	677.6
85°	44.5	53.1	193.4	243.0	160.8	159.2	1083.2	*1103.7*	942.9	352.5	186.5
87.5°	0.0	8.5	75.3	59.9	20.5	18.9	128.3	*107.8*	85.6	49.6	61.6
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°	3876.0	3876.0	3876.0	3876.0	3876.0	3876.0	3876.0	3876.0	3876.0	3876.0	3876.0
2.5°	3879.4	3833.3	3758.0	3665.5	3557.8	3499.6	3415.7	3364.4	3318.1	3319.9	3357.5
5°	3884.5	3807.6	3615.9	3412.2	3186.4	3020.4	2835.6	2705.5	2606.3	2582.3	2618.3
7.5°	3900.0	3770.0	3456.8	3117.9	2741.5	2462.6	2207.5	2046.7	1956.0	1932.0	1956.0
10°	3920.5	3728.8	3277.1	2758.6	2291.4	1956.0	1743.8	1641.1	1600.0	1569.3	1588.0
12.5°	3937.6	3686.1	3051.2	2387.2	1890.9	1629.1	1468.3	1382.7	1346.7	1324.5	1336.5
15°	3966.7	3629.6	2806.4	2041.6	1620.5	1406.7	1254.4	1191.0	1180.8	1184.2	1189.3
17.5°	3995.9	3574.9	2532.7	1771.2	1422.1	1211.6	1119.2	1108.9	1122.6	1136.3	1141.4
20°	4028.4	3496.2	2255.4	1567.5	1238.9	1076.4	1052.5	1059.2	1066.1	1090.1	1097.0
22.5°	4076.2	3396.8	2012.5	1394.7	1086.7	1011.4	999.4	1004.5	1009.6	1033.6	1040.5
25°	4144.7	3290.8	1815.7	1235.5	990.9	958.3	946.4	946.4	953.1	975.4	984.0
27.5°	4216.5	3140.2	1656.5	1088.3	934.4	900.2	879.6	879.6	888.2	913.8	924.0
30°	4297.0	3003.2	1531.6	978.9	886.4	841.9	814.6	807.7	817.9	850.5	859.1
32.5°	4442.5	2914.3	1442.6	927.5	843.7	788.9	751.2	732.5	742.7	780.3	790.6
35°	4663.2	2893.8	1381.0	901.8	802.6	741.0	688.0	658.9	667.4	706.7	718.7
37.5°	4921.6	2936.5	1321.1	867.7	763.2	694.7	624.6	586.9	600.6	636.6	646.9
40°	5293.0	3114.5	1274.9	841.9	723.9	640.0	561.3	523.7	545.9	576.7	581.8
42.5°	5741.3	3431.1	1262.9	817.9	676.0	581.8	503.1	475.7	492.8	521.9	527.1
45°	6297.5	3834.9	1317.6	787.2	622.9	525.3	456.9	441.5	446.6	475.7	489.4
47.5°	6894.7	4249.0	1468.3	759.8	576.7	479.2	421.0	407.2	403.8	431.2	448.3
50°	7498.8	4617.0	1646.3	739.2	544.2	441.5	393.6	376.5	367.9	385.0	391.9
52.5°	8096.1	4909.6	1762.6	705.0	511.7	403.8	369.6	344.0	328.6	337.1	344.0
55°	8701.8	5166.3	1769.5	653.7	480.8	379.9	345.6	316.6	297.8	297.8	301.1
57.5°	9268.3	5392.2	1668.5	585.3	438.1	357.6	313.1	289.3	268.7	261.8	263.5
60°	9769.7	5559.9	1500.8	508.3	400.5	328.6	280.6	261.8	236.2	222.4	219.0
62.5°	10216.3	5642.0	1271.5	429.6	354.2	294.4	249.9	229.3	195.1	177.9	176.3
65°	10594.5	5558.2	1031.9	356.0	314.9	256.7	213.9	193.4	155.7	135.2	135.2
67.5°	10969.2	5174.9	780.3	299.5	273.8	215.7	176.3	157.4	130.1	113.0	113.0
70°	11017.1	4368.9	545.9	251.5	227.6	165.9	142.1	130.1	106.1	90.7	89.0
72.5°	*9807.3*	*3143.6*	*332.0*	*205.3*	*177.9*	*118.1*	*113.0*	*102.7*	*78.7*	*68.5*	*66.7*
75°	7839.3	1926.9	195.1	154.1	118.1	83.8	83.8	73.6	53.1	44.5	44.5
77.5°	5417.8	1008.0	114.7	99.2	70.2	49.6	54.7	44.5	25.6	20.5	20.5
80°	2169.9	383.3	61.6	46.2	32.5	22.2	18.9	10.2	5.1	3.4	5.1
82.5°	433.0	101.0	20.5	12.0	12.0	5.1	0.0	0.0	0.0	0.0	0.0
85°	111.2	22.2	5.1	3.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	34.2	0.0	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)