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

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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: P964681

Luminaire Tested: **NAV-SB3C-827-U-SL2**

Issue Date: 1/21/2025

Report Generated By 670246001

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Test Information

Test Method:	LM-79-08
Report Number:	P964681
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab:	INNOVATION CENTER
Issue Date:	1/21/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	NAV-SB3C-827-U-SL2
Description:	NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
	(3) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	19906.5 lumens
Efficiency:	N/A
Efficacy:	133.5 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Medium
BUG Rating:	B3 - U0 - G3

Input Watts (W):	149.1
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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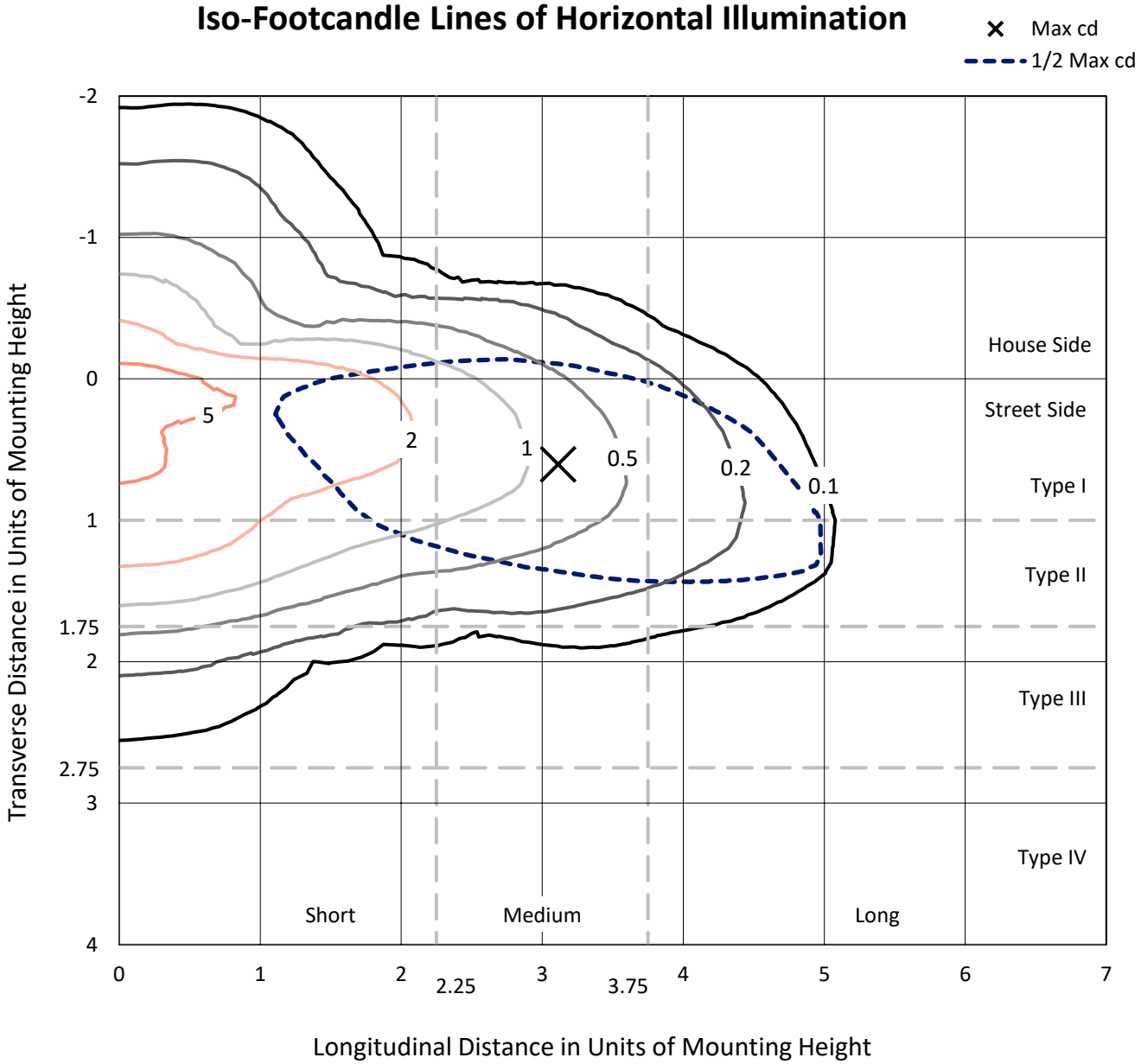
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
Type II - Medium - N/A

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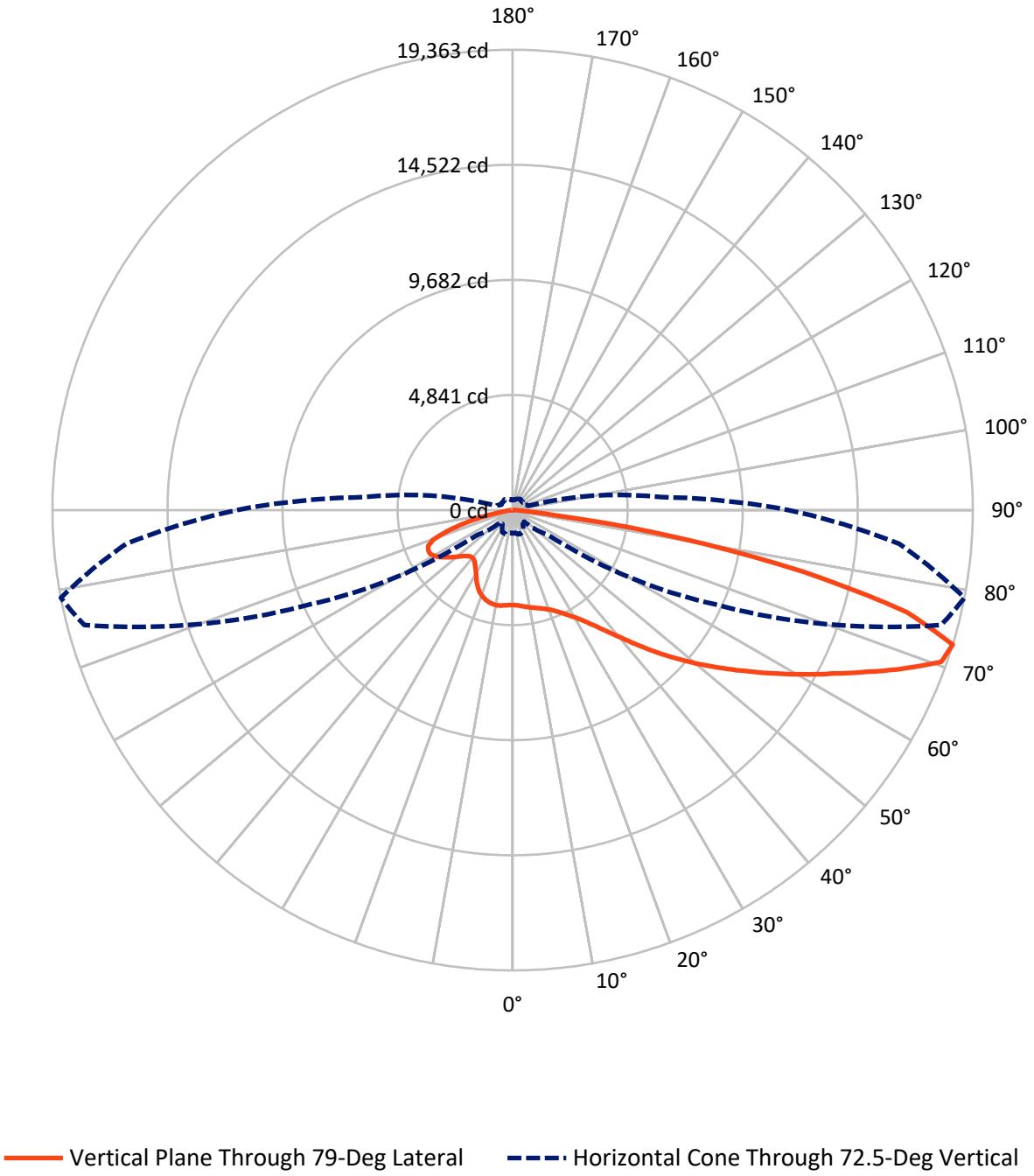
Luminous Intensity Polar Plot



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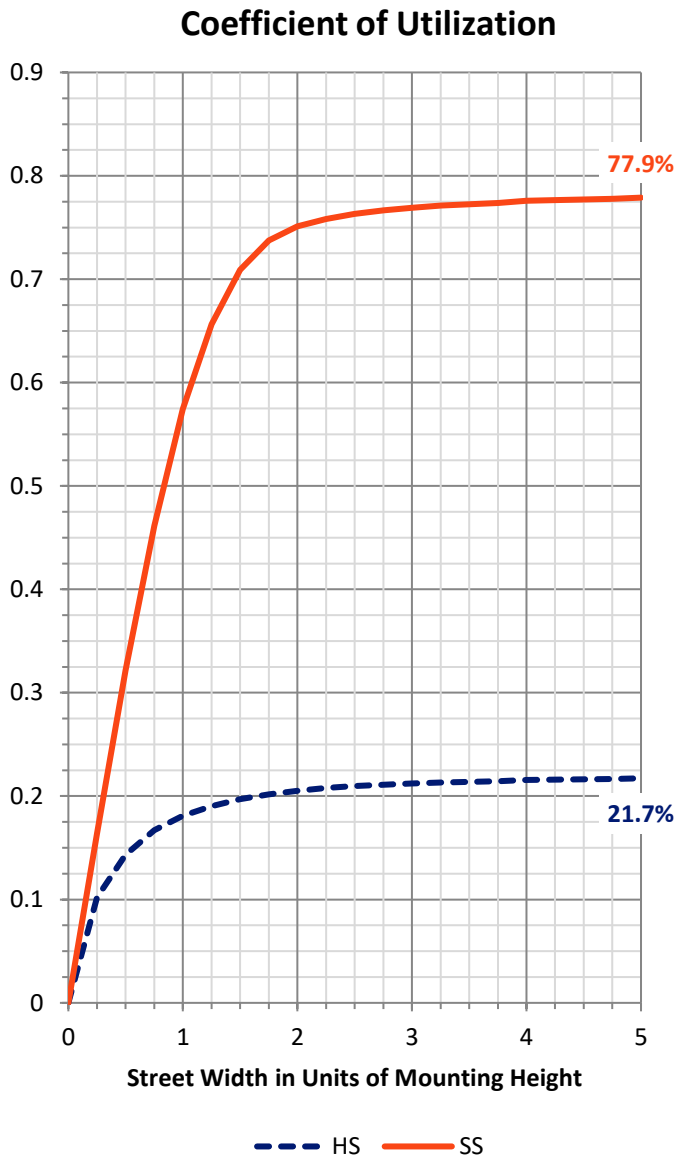
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4380.5	0.0	4380.5
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	15526.0	0.0	15526.0
	% Fixture	78.0	0.0	78.0
Total	Lumens	19906.5	0.0	19906.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.7	1.8
10°-20°	948.3	4.8
20°-30°	1530.2	7.7
30°-40°	2296.7	11.5
40°-50°	3258.0	16.4
50°-60°	4114.4	20.7
60°-70°	4178.7	21.0
70°-80°	2848.0	14.3
80°-90°	369.5	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°	19906.5	100.0
0°-180°	19906.5	100.0



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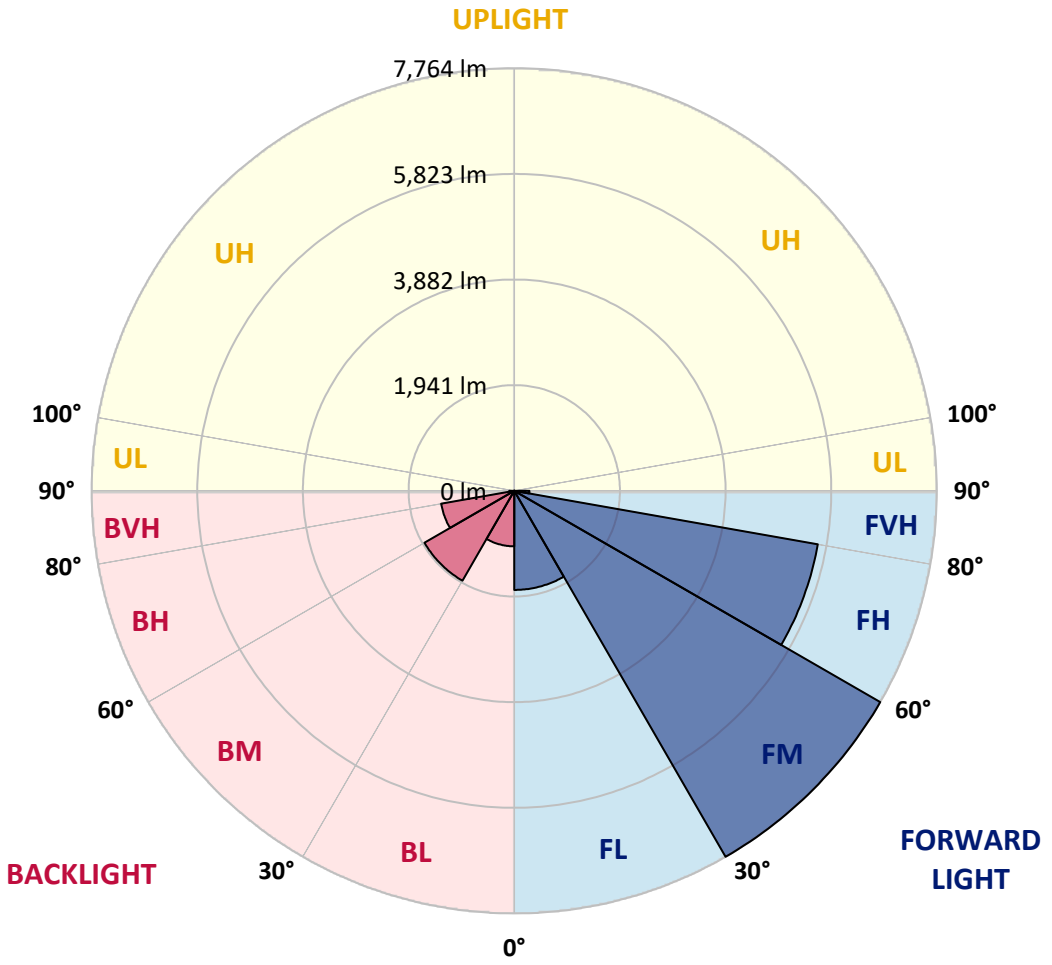
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1821.0	9.1			
FM	(30°-60°)	7763.9	39.0			
FH	(60°-80°)	5662.7	28.4			G3/7500
FVH	(80°-90°)	278.4	1.4			G3/500
BL	(0°-30°)	1020.4	5.1	B3/2500		
BM	(30°-60°)	1905.1	9.6	B2/2500		
BH	(60°-80°)	1364.0	6.9	B3/2500		G3/2500
BVH	(80°-90°)	91.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	3996.1	3996.1	3996.1	3996.1	3996.1	3996.1	3996.1	3996.1	3996.1	*3996.1*	3996.1
2.5°	3998.1	3979.2	3990.7	3986.5	3991.9	3998.1	4000.3	4003.4	4013.9	*4012.9*	4011.8
5°	3989.7	3970.7	3986.5	3981.3	3995.0	4009.7	4022.4	4034.0	4050.8	*4058.2*	4047.6
7.5°	3971.9	3959.2	3975.0	3990.7	4016.1	4038.2	4056.0	4082.4	4106.6	*4110.9*	4118.1
10°	3867.6	3858.1	3895.0	3936.0	4005.5	4065.6	4104.5	4135.1	4161.4	*4165.6*	4176.1
12.5°	3759.1	3747.5	3788.6	3844.5	3957.1	4065.6	4147.7	4187.6	4210.8	*4224.5*	4240.3
15°	3741.2	3731.7	3754.9	3803.4	3897.0	4037.1	4177.2	4250.9	4270.9	*4286.7*	4293.0
17.5°	3827.6	3809.7	3819.2	3836.0	3890.8	4010.8	4200.3	4322.4	4353.0	*4369.9*	4369.9
20°	4027.6	4002.3	3987.7	3953.9	3944.4	4015.0	4198.2	4408.8	4448.8	*4469.9*	4475.2
22.5°	4294.0	4277.2	4245.5	4160.3	4067.6	4066.6	4238.3	4519.3	4594.2	*4614.1*	4601.5
25°	4616.3	4591.0	4551.0	4435.2	4257.2	4168.8	4305.6	4660.5	4785.8	*4791.1*	4754.2
27.5°	4986.9	4949.0	4894.3	4741.5	4501.5	4328.8	4408.8	4822.6	5005.9	*5003.7*	4927.9
30°	5377.6	5339.6	5281.7	5096.4	4794.2	4544.6	4552.0	4997.4	5267.0	*5255.4*	5125.9
32.5°	5662.9	5634.5	5622.9	5479.6	5131.2	4799.5	4716.3	5191.2	5589.2	*5578.7*	5397.5
35°	5882.0	5845.1	5858.8	5786.1	5498.6	5084.8	4917.4	5421.7	5980.9	*5979.8*	5754.6
37.5°	6098.9	6066.2	6077.7	6029.4	5838.7	5447.1	5162.7	5704.0	6466.3	*6489.5*	6186.3
40°	6296.8	6262.0	6308.4	6263.1	6103.1	5832.5	5441.8	6023.0	7028.6	*7072.8*	6708.5
42.5°	6415.8	6388.4	6465.3	6466.3	6332.6	6157.8	5748.2	6374.7	7679.4	*7778.3*	7350.8
45°	6456.9	6447.4	6563.2	6587.5	6535.8	6346.3	6024.0	6758.0	8380.6	*8557.5*	8082.6
47.5°	6412.6	6394.8	6554.8	6644.3	6685.4	6434.7	6252.6	7172.8	9096.7	*9355.7*	8880.8
50°	6189.4	6154.6	6392.6	6581.1	6727.5	6492.7	6483.1	7651.9	9910.6	*10193.8*	9683.2
52.5°	5788.2	5761.9	6032.5	6360.0	6634.8	6521.0	6742.2	8175.3	10683.5	*11049.9*	10505.5
55°	5275.4	5240.6	5538.7	5966.1	6404.2	6511.6	7001.3	8760.8	11595.4	*11967.1*	11355.3
57.5°	4462.5	4393.0	4769.9	5275.4	6028.3	6500.0	7270.8	9343.1	12522.0	*12967.4*	12261.9
60°	3276.8	3173.7	3635.9	4235.1	5293.3	6387.4	7604.6	9995.9	13633.9	*14035.1*	13251.7
62.5°	1908.0	1848.0	2150.1	2709.3	3989.7	5724.0	7792.0	10755.1	14726.9	*15148.2*	14224.6
65°	1481.5	1464.7	1491.0	1534.2	2220.8	4285.6	7214.0	11495.4	16116.9	*16411.7*	15238.7
67.5°	1355.2	1342.5	1354.1	1273.0	1126.7	2387.1	5707.1	11682.7	17605.8	*17784.8*	16126.3
70°	1204.6	1189.8	1227.7	1158.2	886.6	1085.6	3687.5	11002.6	18790.4	*19126.3*	16801.3
72.5°	*981.3*	*964.5*	*1053.0*	*1021.4*	*746.6*	*697.1*	*1852.2*	*9386.2*	*18666.1*	*19363.2*	*16318.0*
75°	753.9	744.5	849.7	876.1	608.6	548.6	888.7	6977.1	16426.4	*17128.8*	14063.5
77.5°	585.5	578.1	631.8	727.6	490.7	425.4	546.5	4425.6	12378.8	*12502.0*	9691.6
80°	439.1	418.0	467.5	563.3	382.2	310.7	370.6	2580.8	7824.6	*7092.9*	4218.2
82.5°	274.8	264.3	305.3	375.9	269.6	213.7	241.2	1425.8	3135.8	*1846.9*	814.0
85°	156.9	152.7	166.4	214.8	146.4	123.2	138.0	629.7	572.8	*393.8*	245.4
87.5°	63.1	61.1	75.8	95.8	53.7	45.3	48.5	151.6	126.4	*116.8*	81.1
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°	3996.1	3996.1	3996.1	3996.1	3996.1	3996.1	3996.1	3996.1	3996.1	3996.1	3996.1
2.5°	4007.6	4007.6	3992.9	3969.7	3943.4	3926.6	3899.2	3891.8	3863.3	3854.9	3868.7
5°	4056.0	4047.6	4002.3	3937.1	3847.5	3765.4	3674.9	3618.0	3538.0	3509.6	3530.6
7.5°	4117.1	4094.0	4016.1	3872.9	3685.4	3501.2	3309.5	3164.2	3025.2	2975.7	2982.0
10°	4173.0	4140.3	4007.6	3757.0	3432.7	3113.6	2808.3	2594.6	2432.3	2366.0	2380.8
12.5°	4228.7	4168.8	3951.8	3564.3	3073.7	2640.9	2315.5	2149.1	2049.1	1969.0	1995.4
15°	4281.4	4197.2	3865.5	3306.3	2679.9	2240.8	2000.7	1868.0	1787.9	1735.3	1744.8
17.5°	4342.5	4221.4	3735.9	2978.9	2304.9	1963.8	1767.9	1688.0	1672.1	1665.8	1670.0
20°	4427.8	4243.5	3565.4	2612.4	2029.1	1742.7	1641.6	1634.3	1633.1	1630.1	1640.5
22.5°	4519.3	4269.8	3340.1	2279.7	1794.3	1604.7	1586.8	1572.1	1562.6	1561.6	1573.2
25°	4627.9	4278.2	3057.9	2007.0	1594.2	1539.4	1518.4	1496.3	1489.9	1489.9	1496.3
27.5°	4733.1	4249.9	2729.3	1770.1	1481.5	1479.4	1452.0	1444.6	1443.6	1446.8	1455.2
30°	4838.4	4196.1	2402.9	1551.0	1416.2	1416.2	1406.8	1412.0	1416.2	1426.8	1434.2
32.5°	4980.6	4139.3	2130.2	1388.9	1359.4	1348.9	1358.3	1368.9	1373.1	1386.7	1398.3
35°	5189.1	4099.3	1913.3	1300.4	1300.4	1286.8	1292.0	1289.9	1280.4	1274.1	1288.8
37.5°	5465.0	4097.1	1734.3	1259.3	1250.9	1248.9	1249.9	1236.1	1199.4	1155.1	1156.2
40°	5796.7	4154.0	1596.3	1230.9	1224.6	1237.3	1230.9	1194.1	1093.0	1016.1	1014.0
42.5°	6242.0	4316.2	1507.9	1196.2	1215.1	1230.9	1205.7	1078.2	1009.8	958.2	956.1
45°	6766.4	4579.4	1462.6	1159.4	1197.2	1216.2	1094.1	1038.2	983.5	921.4	917.2
47.5°	7360.3	4911.1	1452.0	1124.6	1157.2	1168.8	1046.6	1021.4	959.3	891.9	886.6
50°	8006.8	5303.9	1480.5	1083.5	1099.3	1059.3	1030.8	1007.7	943.5	877.1	869.7
52.5°	8675.5	5736.6	1537.3	1027.7	1041.4	997.1	1024.6	1004.5	934.0	844.5	838.1
55°	9332.5	6172.5	1592.1	962.4	982.5	941.4	1006.7	991.9	890.8	789.8	784.4
57.5°	10000.1	6606.3	1645.8	904.5	925.6	887.6	978.3	958.2	842.3	739.2	737.1
60°	10694.0	7027.6	1671.1	848.7	863.5	838.1	935.0	900.3	787.6	687.6	684.4
62.5°	11343.7	7378.2	1630.1	792.9	802.4	791.8	878.2	831.9	732.9	629.7	628.6
65°	11995.5	7586.7	1503.7	738.1	740.3	735.0	798.2	758.2	668.6	579.1	572.8
67.5°	12586.2	7703.6	1302.6	679.2	673.9	671.8	723.4	678.1	606.5	528.6	522.2
70°	12711.5	7406.6	995.1	609.7	609.7	604.4	641.2	594.9	538.0	474.9	472.8
72.5°	*11610.1*	*6230.5*	*706.5*	*530.7*	*539.2*	*528.6*	*559.1*	*520.2*	*468.5*	*426.5*	*413.8*
75°	9362.0	4568.8	513.8	449.7	464.3	446.5	474.9	447.5	403.3	402.2	362.2
77.5°	6432.6	2825.1	372.8	370.6	381.2	358.0	390.6	375.9	335.9	318.0	298.0
80°	2745.2	1126.7	271.6	286.4	286.4	265.4	303.3	307.5	272.8	264.3	264.3
82.5°	546.5	320.1	190.5	196.9	185.3	179.0	214.8	238.0	328.5	365.4	366.4
85°	164.3	118.0	114.8	107.4	94.8	95.8	126.4	239.0	294.8	168.5	145.3
87.5°	45.3	29.5	30.5	24.2	20.0	26.3	43.2	181.1	99.0	42.1	35.8
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)