

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: P961014

Luminaire Tested: **NAV-SB1D-827-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961014
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV WIDE OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6988.5 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

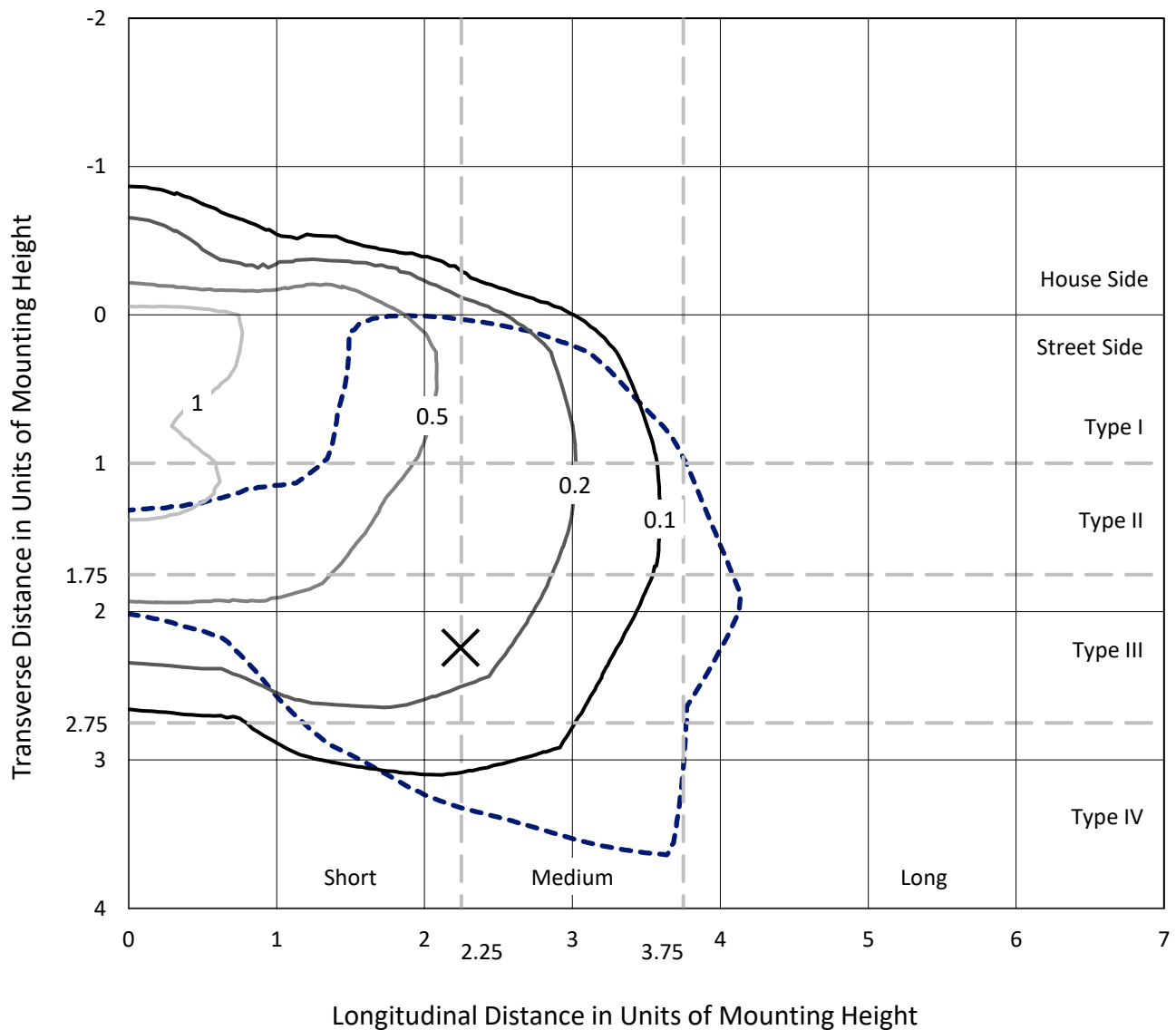
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

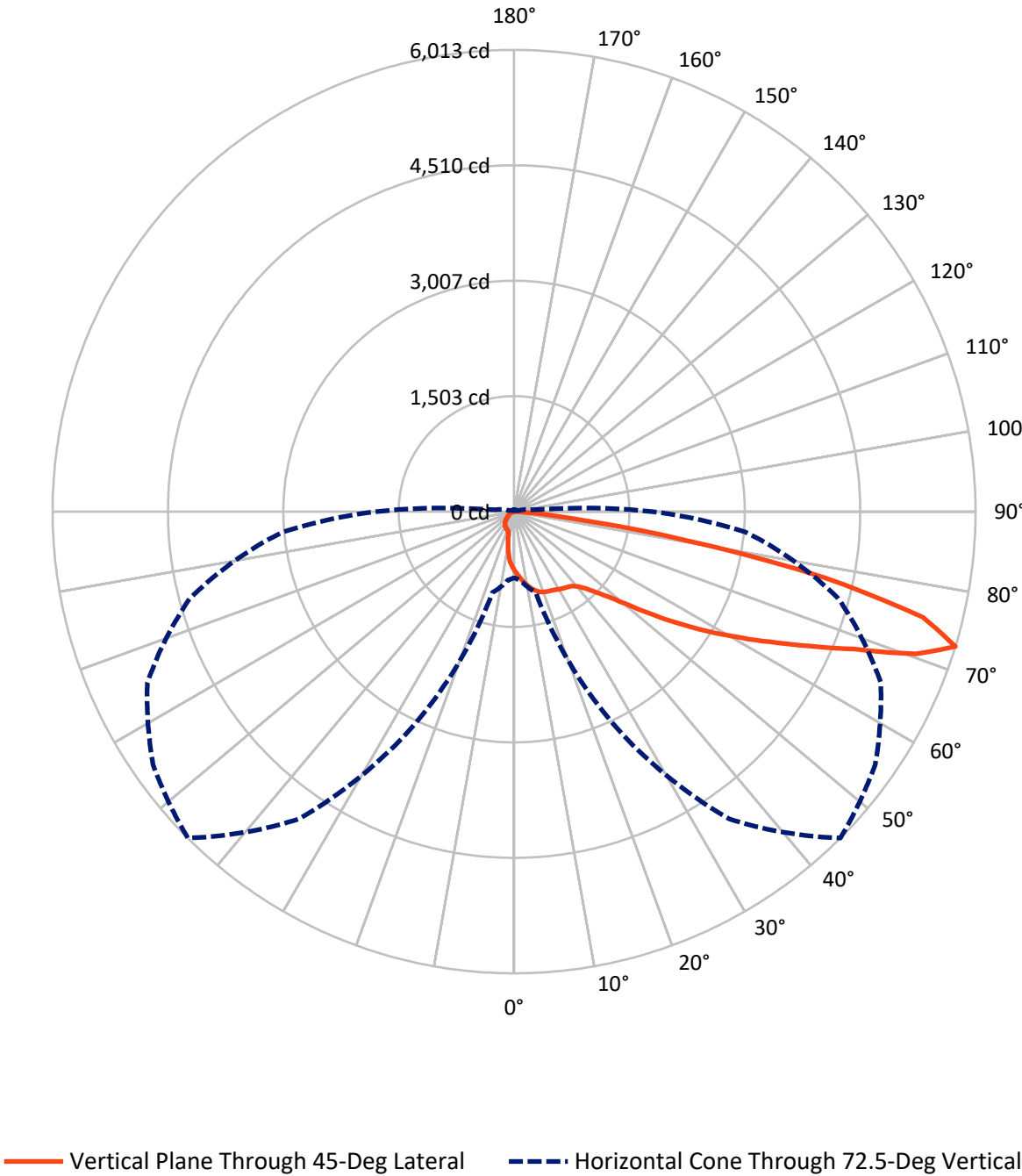
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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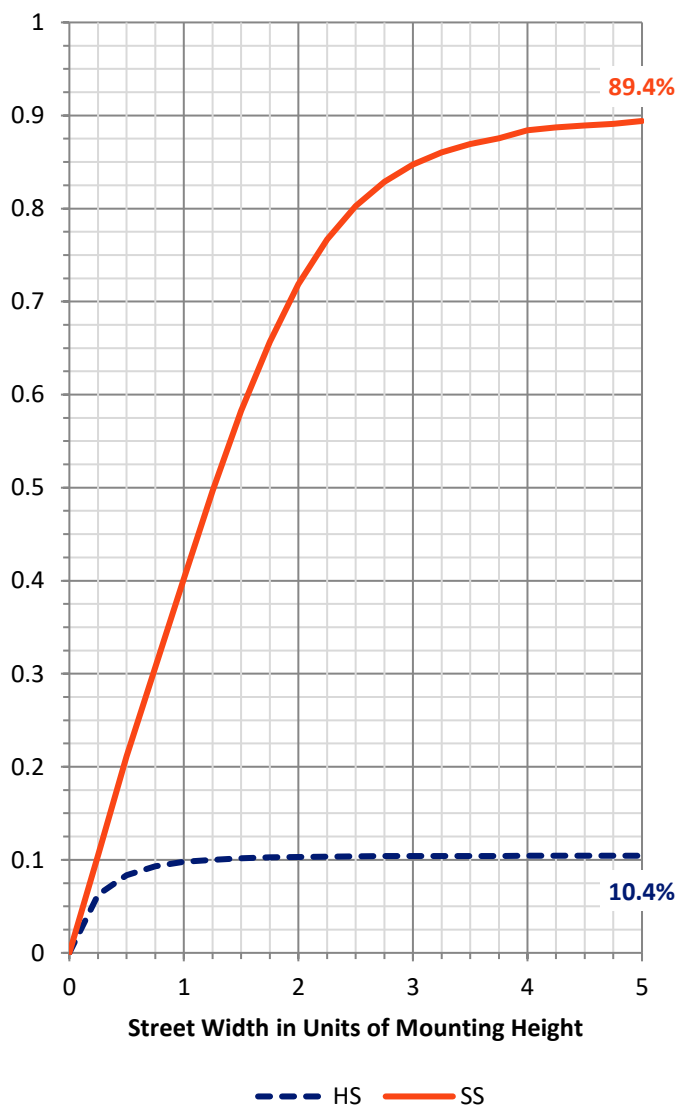
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	734.3	0.0	734.3
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	6254.2	0.0	6254.2
	% Fixture	89.5	0.0	89.5
Total	Lumens	6988.5	0.0	6988.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.1	1.0
10°-20°	210.8	3.0
20°-30°	346.2	5.0
30°-40°	491.0	7.0
40°-50°	811.6	11.6
50°-60°	1457.9	20.9
60°-70°	2024.3	29.0
70°-80°	1468.4	21.0
80°-90°	106.2	1.5
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°	6988.5	100.0
0°-180°	6988.5	100.0

Coefficient of Utilization



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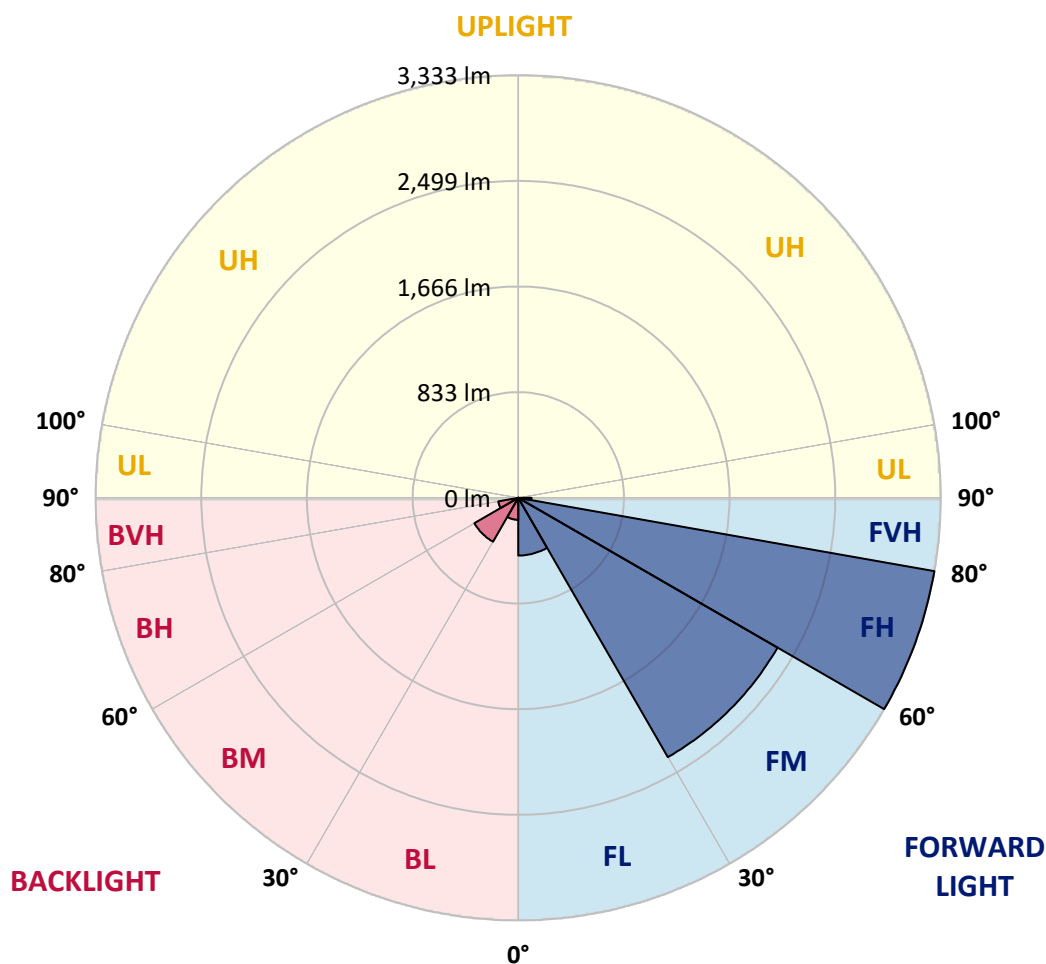
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	455.2	6.5			
FM	(30°-60°)	2361.1	33.8			
FH	(60°-80°)	3332.6	47.7			G2/5000
FVH	(80°-90°)	105.3	1.5			G2/225
BL	(0°-30°)	173.9	2.5	B1/500		
BM	(30°-60°)	399.4	5.7	B1/1000		
BH	(60°-80°)	160.1	2.3	B1/500		G1/500
BVH	(80°-90°)	0.9	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	765.6	765.6	765.6	765.6	765.6	765.6	765.6	765.6	765.6	765.6	765.6
2.5°	836.2	837.6	836.7	831.0	821.4	816.2	813.3	803.8	797.6	786.6	775.1
5°	913.0	918.7	915.4	903.9	885.8	872.9	869.1	849.5	831.9	811.4	787.5
7.5°	994.6	997.4	991.2	976.4	952.1	930.2	926.8	899.6	871.5	840.0	807.6
10°	1065.2	1068.5	1058.9	1037.5	1009.8	982.7	977.8	947.8	914.4	875.8	834.2
12.5°	1124.3	1127.6	1115.2	1089.5	1058.9	1030.8	1026.0	994.6	957.9	914.9	863.4
15°	1169.1	1175.4	1158.7	1131.0	1098.1	1069.9	1067.5	1036.6	1000.8	953.0	898.2
17.5°	1195.4	1201.6	1185.8	1152.4	1124.3	1100.4	1097.6	1071.8	1038.4	992.6	932.0
20°	1199.7	1205.4	1188.7	1159.6	1136.2	1117.1	1115.7	1097.2	1072.8	1028.9	968.8
22.5°	1186.8	1193.9	1178.6	1155.3	1139.1	1129.0	1127.2	1116.6	1102.8	1065.6	1003.2
25°	1173.4	1179.2	1167.7	1147.2	1138.6	1137.6	1139.1	1137.2	1134.4	1102.8	1043.2
27.5°	1172.5	1178.6	1165.8	1146.3	1141.4	1151.5	1152.9	1162.0	1164.4	1136.7	1081.9
30°	1180.6	1184.9	1172.5	1152.0	1149.6	1172.5	1173.0	1189.2	1193.0	1165.3	1120.0
32.5°	1198.2	1203.0	1190.6	1160.6	1157.2	1189.2	1190.6	1212.1	1218.3	1195.9	1160.1
35°	1239.7	1245.5	1231.1	1184.4	1172.5	1204.9	1209.2	1234.5	1246.9	1228.3	1201.6
37.5°	1343.3	1326.6	1307.0	1232.6	1207.3	1229.7	1236.9	1266.5	1288.4	1266.9	1251.2
40°	1600.3	1547.9	1486.9	1314.7	1268.3	1282.7	1288.4	1317.9	1348.0	1327.1	1319.4
42.5°	1986.2	1924.2	1826.0	1503.6	1360.4	1367.6	1371.9	1397.6	1440.1	1423.4	1425.3
45°	2330.2	2307.8	2207.6	1826.0	1532.6	1497.3	1502.5	1516.0	1578.4	1572.2	1584.6
47.5°	2594.5	2581.6	2504.3	2196.2	1823.6	1656.2	1671.0	1677.2	1767.3	1789.2	1822.7
50°	2797.6	2792.9	2723.7	2525.3	2203.8	1890.4	1895.6	1882.3	2017.3	2071.6	2135.1
52.5°	2989.4	3005.6	2954.6	2831.0	2609.8	2197.1	2196.2	2133.2	2315.4	2397.5	2505.7
55°	3162.5	3168.3	3173.5	3143.1	3018.0	2546.3	2537.2	2434.2	2661.2	2746.2	2863.4
57.5°	3325.2	3327.7	3374.4	3436.8	3443.1	2921.2	2904.5	2780.9	3039.0	3099.6	3171.7
60°	3434.5	3445.4	3544.1	3717.8	3793.6	3308.1	3299.0	3173.1	3423.5	3451.7	3438.3
62.5°	3277.0	3343.9	3592.8	3937.2	4124.7	3736.8	3732.6	3614.3	3828.0	3805.1	3690.6
65°	2652.6	2765.7	3203.6	4085.5	4449.5	4215.8	4222.0	4096.1	4243.5	4169.1	3895.7
67.5°	1855.6	1974.9	2492.8	4097.5	4812.6	4778.2	4814.0	4616.5	4684.7	4517.8	3944.4
70°	1283.2	1344.7	1681.9	3840.9	5095.4	5552.8	5551.9	5255.7	5123.6	4676.6	3696.4
72.5°	862.9	894.8	1092.3	3047.1	4887.4	6013.2	5985.5	5744.1	5271.5	4373.7	3020.0
75°	364.0	387.3	505.6	1712.5	3866.6	5501.4	5426.5	5076.3	4683.7	3444.0	1884.2
77.5°	115.4	125.5	199.4	612.9	2129.8	4135.2	4056.0	3170.2	3139.2	1727.7	688.8
80°	54.8	64.0	112.1	246.1	838.1	2249.1	2238.1	1438.2	1350.4	466.5	138.4
82.5°	23.9	28.2	62.0	131.6	374.9	802.4	818.6	489.4	405.0	177.0	42.4
85°	7.6	10.0	28.6	60.6	158.4	199.4	197.0	116.4	163.2	96.4	14.8
87.5°	0.0	0.0	9.5	13.8	16.2	11.5	12.9	10.0	45.3	26.8	5.2
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°	765.6	765.6	765.6	765.6	765.6	765.6	765.6	765.6	765.6	765.6	765.6
2.5°	769.4	761.8	748.5	736.1	725.1	714.1	707.5	697.8	696.9	696.9	699.3
5°	774.7	762.3	738.4	713.1	684.0	656.4	628.7	602.0	593.4	587.2	590.1
7.5°	790.0	770.4	732.7	684.5	629.1	568.6	526.1	480.3	462.7	453.2	454.6
10°	811.9	785.2	728.0	643.5	553.8	471.3	410.7	361.1	342.0	333.9	333.9
12.5°	836.2	803.3	719.3	592.4	471.3	372.6	313.4	290.5	287.6	287.6	287.6
15°	865.3	825.2	704.6	532.4	385.0	294.8	273.8	274.8	277.6	279.5	279.5
17.5°	895.3	848.6	681.2	465.0	308.6	265.2	265.7	267.1	269.5	271.4	271.4
20°	927.8	872.0	650.2	393.5	264.8	256.7	258.1	259.5	261.4	262.4	262.8
22.5°	962.6	893.9	613.5	323.4	250.0	249.5	250.0	251.4	253.8	253.8	254.7
25°	999.8	918.2	571.4	272.3	242.3	242.3	243.2	244.3	246.1	246.1	246.6
27.5°	1038.0	940.6	527.1	245.7	235.6	235.1	235.1	236.6	237.6	238.0	238.5
30°	1079.9	966.9	482.8	240.0	230.4	228.0	226.6	227.6	228.5	229.0	229.9
32.5°	1122.9	992.2	443.1	242.3	225.2	220.9	216.1	215.1	215.1	217.0	218.4
35°	1170.6	1019.9	412.6	250.4	222.3	210.3	202.7	198.4	199.0	201.8	203.2
37.5°	1227.8	1053.2	390.2	257.6	220.4	198.4	186.0	180.8	177.4	180.8	179.8
40°	1302.7	1102.4	374.0	263.3	218.0	184.6	167.9	159.3	153.1	155.0	154.1
42.5°	1412.9	1179.7	367.8	263.8	212.8	168.4	149.3	137.9	128.8	129.3	127.4
45°	1567.4	1301.8	399.7	257.6	201.3	150.8	129.8	114.5	108.8	107.3	105.4
47.5°	1779.2	1479.7	473.7	244.7	184.6	133.6	110.7	97.8	93.5	91.1	89.7
50°	2063.0	1708.2	555.8	230.4	167.9	117.4	94.9	86.8	83.9	81.6	81.1
52.5°	2392.2	1940.0	623.0	216.1	151.2	103.0	84.9	80.2	77.8	75.8	75.3
55°	2694.1	2099.8	619.2	200.8	135.0	91.6	77.8	74.9	72.1	70.1	69.2
57.5°	2882.1	2122.3	510.4	184.1	116.4	82.5	71.0	69.2	65.8	63.4	62.9
60°	2968.4	1994.3	357.7	162.2	97.8	73.9	64.0	62.9	58.6	55.4	54.4
62.5°	2984.2	1756.8	238.5	135.0	81.6	65.8	56.8	55.4	49.6	43.9	41.0
65°	2920.2	1417.2	165.0	105.4	69.6	57.2	48.7	45.8	39.6	33.8	32.0
67.5°	2718.0	995.1	115.0	75.8	59.1	45.3	38.6	37.7	32.9	28.2	26.8
70°	2347.4	567.1	76.8	56.8	46.7	31.0	30.5	31.5	26.8	22.9	21.0
72.5°	1799.8	259.5	47.7	41.5	32.0	21.0	24.3	24.8	20.5	17.2	15.3
75°	1059.4	111.1	30.0	26.8	16.2	13.8	17.6	18.1	13.8	11.0	9.5
77.5°	360.6	42.0	19.1	15.8	8.1	7.6	11.5	11.5	7.6	4.3	3.4
80°	82.0	15.8	9.5	6.1	3.8	3.4	3.8	3.4	1.9	0.5	0.0
82.5°	23.4	6.1	3.8	2.4	1.4	1.4	0.5	0.0	0.0	0.0	0.0
85°	6.7	2.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.9	0.5	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)