

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: P969307

Luminaire Tested: **NAV-SB5D-735-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969307
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-735-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40211.8 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

Input Watts (W): 364.9
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

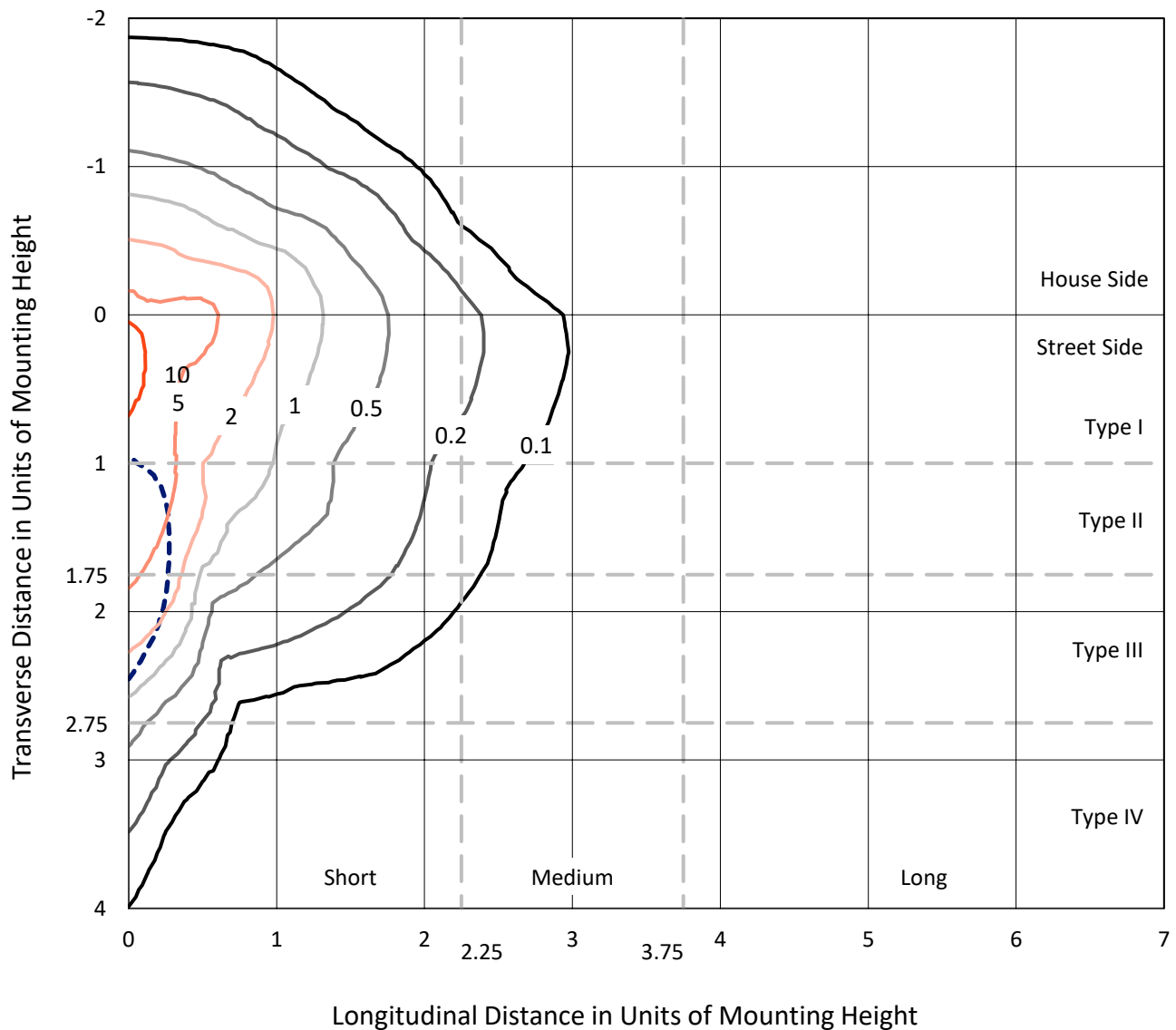


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

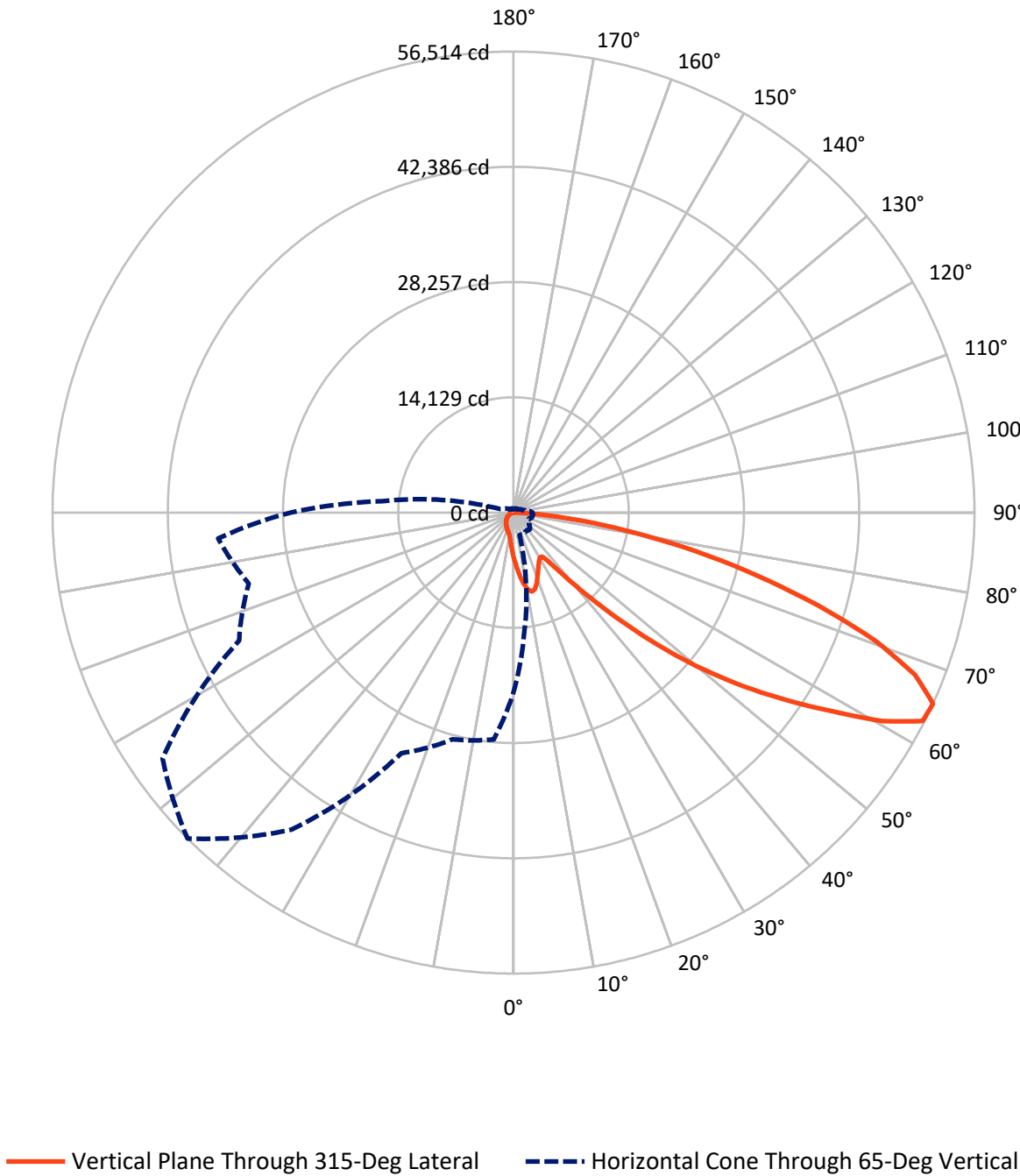


Based on 25 foot mounting height. Maximum calculated value = 12.4 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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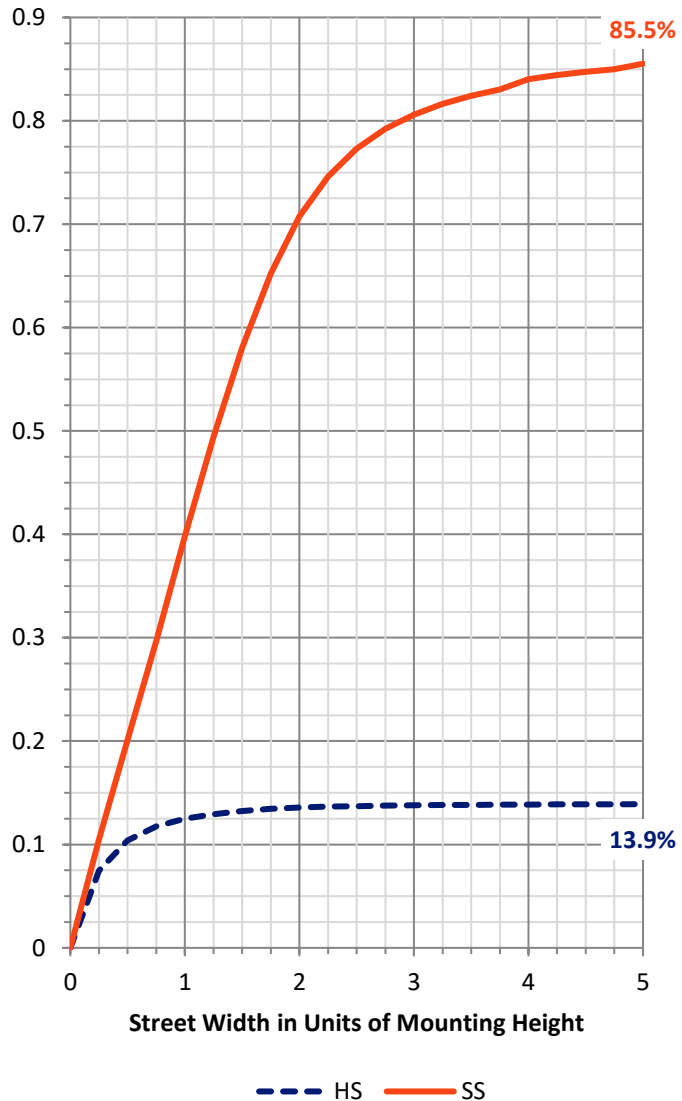
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5631.3	0.0	5631.3
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	34580.4	0.0	34580.4
	% Fixture	86.0	0.0	86.0
Total	Lumens	40211.8	0.0	40211.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	548.2	1.4
10°-20°	1643.3	4.1
20°-30°	2420.9	6.0
30°-40°	3110.3	7.7
40°-50°	5030.2	12.5
50°-60°	8820.9	21.9
60°-70°	11037.4	27.4
70°-80°	6449.8	16.0
80°-90°	1150.7	2.9
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°	40211.8	100.0
0°-180°	40211.8	100.0

Coefficient of Utilization



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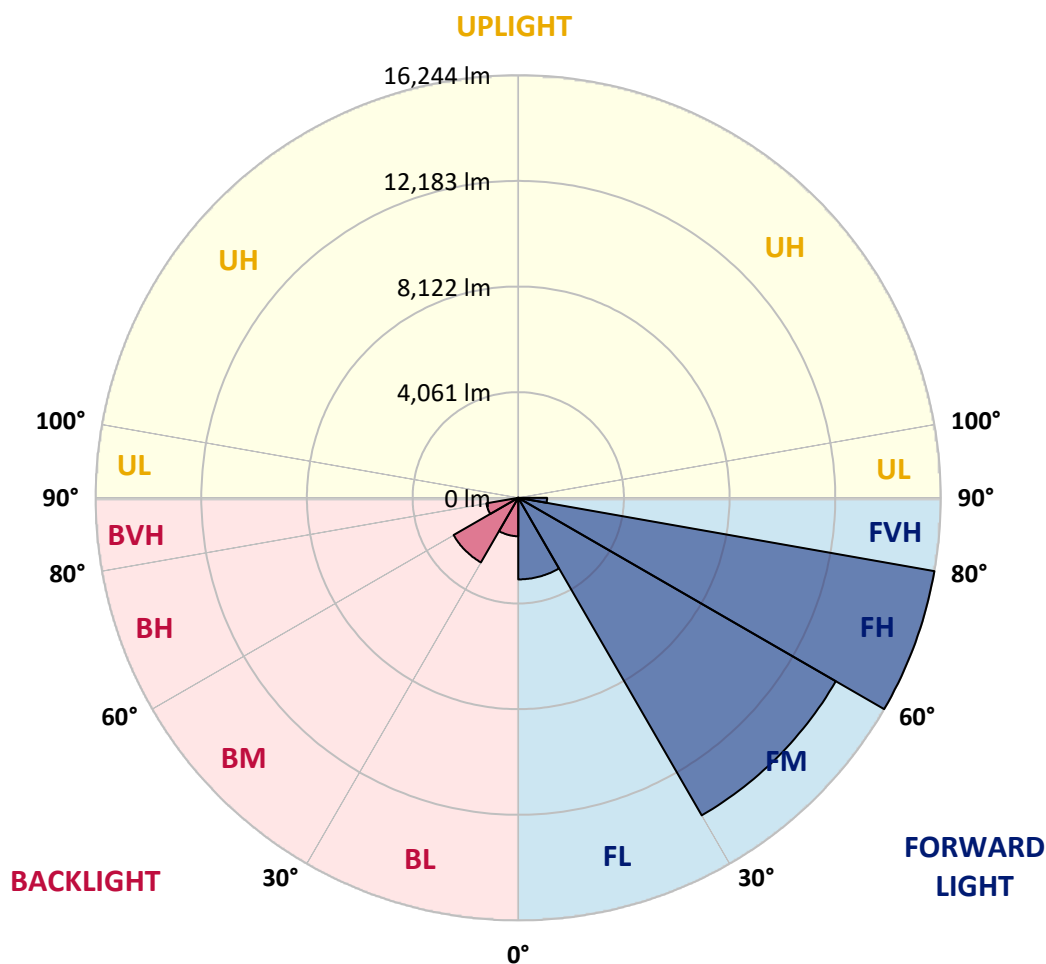
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3136.4	7.8			
FM	(30°-60°)	14093.8	35.0			
FH	(60°-80°)	16243.7	40.4			G5
FVH	(80°-90°)	1106.5	2.8			G5
BL	(0°-30°)	1476.1	3.7	B3/2500		
BM	(30°-60°)	2867.6	7.1	B3/5000		
BH	(60°-80°)	1243.4	3.1	B3/2500		G3/2500
BVH	(80°-90°)	44.2	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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0
2.5°	6291.0	6183.0	6119.4	5961.4	5803.5	5676.0	5504.4	5390.8	5255.0	5124.8	5008.5
5°	7011.3	6836.7	6626.2	6338.2	6075.0	5806.3	5545.9	5288.3	5016.8	4767.5	4615.1
7.5°	7620.8	7368.6	6997.5	6615.1	6280.0	5955.9	5651.1	5310.4	4980.8	4590.2	4382.4
10°	8086.1	7764.8	7277.2	6775.9	6390.8	6063.9	5767.5	5479.4	5146.9	4676.0	4415.7
12.5°	8368.7	8025.1	7446.2	6859.0	6418.4	6052.8	5822.9	5695.5	5565.2	5097.1	4792.4
15°	8576.5	8205.2	7565.3	6917.1	6354.8	5906.0	5737.0	5864.4	6014.1	5714.9	5363.0
17.5°	8792.6	8401.9	7720.5	6942.0	6183.0	5620.7	5548.6	5878.3	6224.6	6210.7	5861.7
20°	8997.6	8609.7	7856.2	6925.4	5906.0	5274.4	5338.1	5759.2	6160.9	6329.9	6141.5
22.5°	9233.0	8823.0	7986.4	6861.8	5545.9	4950.3	5149.7	5570.8	5922.7	6122.1	6063.9
25°	9521.1	9091.8	8169.2	6767.6	5158.1	4681.6	4958.6	5351.9	5637.3	5775.8	5773.0
27.5°	9831.3	9413.1	8413.0	6717.6	4845.1	4490.4	4742.6	5091.6	5346.4	5443.4	5443.4
30°	10216.4	9787.0	8701.1	6662.3	4640.1	4379.6	4518.2	4789.6	5038.9	5135.9	5135.9
32.5°	10637.4	10202.5	8978.1	6529.2	4515.3	4296.5	4299.3	4471.0	4698.2	4814.5	4831.1
35°	11163.8	10701.2	9274.5	6238.5	4415.7	4199.6	4086.0	4169.1	4357.5	4496.0	4532.0
37.5°	11914.5	11354.9	9637.5	5822.9	4268.8	4050.0	3861.6	3881.1	4025.1	4177.4	4232.8
40°	12950.6	12233.1	10064.1	5390.8	4058.3	3839.4	3615.1	3606.8	3712.0	3861.6	3922.6
42.5°	14352.3	13393.8	10576.5	4978.0	3856.0	3584.6	3354.7	3340.8	3423.9	3554.1	3617.8
45°	16202.7	14878.6	11205.3	4623.4	3698.2	3335.2	3108.1	3102.6	3171.9	3285.4	3352.0
47.5°	18571.3	16942.3	11834.1	4382.4	3615.1	3138.7	2905.9	2916.9	2977.9	3080.4	3127.5
50°	21637.9	19632.2	12025.3	4260.5	3615.1	3033.4	2725.9	2781.2	2831.2	2908.6	2936.4
52.5°	25313.8	22214.0	11393.7	4149.7	3637.2	3047.2	2573.5	2692.6	2728.7	2795.1	2806.1
55°	28721.1	23480.0	9795.3	3997.4	3642.7	3133.0	2443.3	2620.6	2687.0	2712.0	2709.2
57.5°	30699.1	23045.1	7920.0	3739.7	3620.6	3191.2	2360.2	2532.0	2659.4	2676.0	2651.1
60°	30322.3	21518.6	5831.2	3543.0	3457.2	3169.1	2335.3	2396.2	2598.4	2623.4	2590.1
62.5°	27419.2	18959.0	4047.2	3390.7	3097.0	3072.1	2327.0	2182.9	2465.4	2526.4	2479.3
65°	22039.4	14925.6	2858.8	2919.7	2714.8	2861.6	2282.6	1961.2	2304.8	2387.8	2315.9
67.5°	15989.4	10100.0	2063.7	2365.7	2459.9	2520.9	2182.9	1800.6	2122.0	2232.8	2138.6
70°	10260.8	5454.4	1448.8	1562.4	2072.0	2141.3	2011.2	1656.6	1936.3	2063.7	1961.2
72.5°	7293.9	3221.7	1041.6	1094.2	1664.9	1784.0	1770.2	1495.9	1720.3	1875.4	1753.5
75°	5033.4	1775.7	703.7	781.2	1207.8	1448.8	1365.7	1285.4	1457.1	1615.0	1495.9
77.5°	3155.3	795.0	421.1	542.9	792.2	1138.6	936.3	994.5	1135.8	1282.6	1157.9
80°	1756.3	307.5	235.4	360.1	432.1	828.3	518.0	639.9	836.6	941.9	842.1
82.5°	382.3	38.7	105.3	155.1	169.0	482.1	274.3	371.2	526.3	518.0	448.7
85°	0.0	0.0	19.4	22.1	11.1	207.8	99.7	121.9	171.8	160.7	121.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	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

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0
2.5°	4986.3	4850.6	4750.9	4701.0	4659.4	4698.2	4720.3	4720.3	4814.5	4870.0	4892.1
5°	4518.2	4274.4	4088.7	3964.1	3889.4	3914.3	3941.9	3972.4	4091.5	4171.9	4224.5
7.5°	4194.0	3820.1	3537.5	3363.0	3271.6	3285.4	3304.8	3329.7	3446.0	3526.4	3595.7
10°	4133.1	3595.7	3196.8	2966.9	2856.1	2836.7	2825.6	2817.3	2886.5	2947.5	3002.8
12.5°	4382.4	3606.8	3050.0	2770.2	2634.5	2576.2	2509.8	2457.1	2468.2	2507.0	2576.2
15°	4828.4	3748.0	3002.8	2667.7	2498.7	2401.8	2324.2	2260.4	2246.6	2260.4	2271.5
17.5°	5338.1	3939.2	2997.3	2579.0	2368.5	2268.7	2205.1	2146.9	2127.5	2130.3	2144.1
20°	5676.0	4091.5	2980.7	2479.3	2243.8	2155.2	2099.8	2041.6	2022.2	2027.8	2030.5
22.5°	5709.4	4171.9	2955.8	2368.5	2119.2	2044.4	1989.0	1936.3	1933.6	1933.6	1950.2
25°	5529.3	4171.9	2903.1	2268.7	2000.1	1933.6	1883.7	1820.0	1831.1	1836.6	1858.7
27.5°	5249.4	4072.1	2803.4	2188.5	1897.6	1828.3	1778.5	1720.3	1734.1	1742.4	1767.4
30°	4972.5	3944.7	2684.3	2097.0	1800.6	1720.3	1684.3	1634.4	1639.9	1651.1	1678.7
32.5°	4714.8	3809.0	2543.0	2022.2	1703.7	1623.3	1595.6	1540.2	1548.6	1559.6	1590.1
35°	4460.0	3659.4	2376.8	1933.6	1615.0	1534.6	1512.5	1448.8	1454.4	1471.0	1504.2
37.5°	4185.7	3501.5	2241.1	1844.9	1529.1	1446.1	1423.8	1357.4	1362.9	1382.3	1421.1
40°	3897.7	3346.3	2108.1	1750.7	1437.8	1354.6	1335.3	1263.2	1268.7	1290.9	1332.5
42.5°	3606.8	3177.4	2005.6	1628.8	1343.6	1254.9	1235.5	1169.0	1177.3	1202.2	1243.8
45°	3338.0	2975.2	1939.1	1493.1	1254.9	1155.2	1135.8	1074.8	1091.4	1119.2	1160.7
47.5°	3108.1	2767.4	1911.4	1379.5	1160.7	1052.7	1036.1	986.2	1013.9	1044.4	1077.6
50°	2911.4	2567.9	1875.4	1263.2	1072.0	964.0	947.4	914.2	950.2	980.6	1011.2
52.5°	2770.2	2340.8	1797.8	1157.9	994.5	889.2	883.7	867.0	900.3	928.0	955.7
55°	2648.3	2105.4	1673.2	1066.5	925.3	825.5	831.1	822.8	850.4	872.6	897.5
57.5°	2537.5	1900.4	1515.3	994.5	850.4	770.1	786.7	775.6	789.5	803.4	833.8
60°	2404.5	1692.6	1326.9	914.2	761.8	714.7	734.1	703.7	700.9	706.4	714.7
62.5°	2207.8	1412.8	1130.3	814.5	684.2	653.7	662.0	603.9	559.5	559.5	567.8
65°	1933.6	1135.8	947.4	703.7	595.6	570.6	565.1	482.1	421.1	415.5	440.4
67.5°	1615.0	933.6	786.7	592.9	495.9	479.3	484.8	423.8	362.8	357.3	385.1
70°	1315.8	772.8	634.4	473.7	382.3	398.9	423.8	362.8	304.7	296.4	321.3
72.5°	1069.3	615.0	495.9	362.8	282.6	329.6	360.1	296.4	241.0	235.4	257.6
75°	825.5	451.5	354.5	246.5	205.0	254.8	282.6	216.1	171.8	163.5	182.9
77.5°	551.2	279.8	199.5	155.1	121.9	174.6	188.4	113.6	99.7	97.0	110.8
80°	335.2	130.2	85.9	74.8	41.5	63.8	74.8	47.0	52.6	55.5	66.5
82.5°	169.0	36.0	13.8	2.8	0.0	0.0	22.1	11.1	22.1	27.7	41.5
85°	13.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	13.8	24.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0
2.5°	5047.2	5163.6	5274.4	5451.7	5634.5	5814.6	5997.4	6174.7	6238.5	6285.5	6390.8
5°	4465.5	4684.4	4939.2	5291.0	5667.7	6055.6	6449.0	6809.1	6972.6	7083.4	7332.6
7.5°	3864.4	4149.7	4515.3	5044.4	5634.5	6252.3	6870.1	7437.9	7701.0	7914.3	8293.9
10°	3268.8	3579.1	4041.7	4645.6	5443.4	6329.9	7183.1	7964.2	8305.0	8573.7	9089.0
12.5°	2745.3	3036.2	3520.9	4188.5	5144.2	6268.9	7363.1	8302.2	8703.9	9005.9	9570.9
15°	2376.8	2581.8	3011.1	3731.4	4789.6	6072.2	7374.2	8462.9	8903.4	9219.2	9709.4
17.5°	2171.8	2241.1	2520.9	3266.1	4396.2	5814.6	7271.7	8518.3	8989.2	9282.8	9623.6
20°	2061.0	2072.0	2149.6	2662.1	3892.1	5573.5	7174.7	8573.7	9069.5	9316.1	9418.6
22.5°	1972.4	1972.4	1991.8	2177.3	3241.0	5285.5	7144.2	8670.7	9180.3	9332.7	9122.2
25°	1892.0	1892.0	1897.6	1947.4	2567.9	4845.1	7124.9	8820.2	9332.7	9374.2	8795.3
27.5°	1808.9	1811.7	1811.7	1839.4	2069.3	4246.7	7041.7	9014.2	9515.6	9429.7	8482.3
30°	1725.8	1731.3	1731.3	1750.7	1831.1	3545.8	6878.4	9246.8	9753.8	9501.6	8172.0
32.5°	1642.7	1648.3	1648.3	1664.9	1723.0	2831.2	6673.4	9460.1	9994.8	9532.2	7883.9
35°	1556.9	1565.2	1559.6	1581.8	1642.7	2252.1	6412.9	9673.4	10255.1	9629.2	7742.6
37.5°	1471.0	1476.5	1473.7	1495.9	1565.2	1944.6	6110.9	9834.2	10609.8	9845.2	7911.6
40°	1385.1	1382.3	1382.3	1407.2	1482.0	1856.0	5731.5	10089.0	11119.5	10224.7	8648.4
42.5°	1296.4	1296.4	1290.9	1318.6	1410.0	1789.5	5368.6	10546.0	11861.9	10828.6	9956.0
45°	1216.1	1213.3	1202.2	1227.2	1340.8	1673.2	5241.1	11399.2	12958.9	11806.5	11537.8
47.5°	1138.6	1135.8	1108.0	1130.3	1257.7	1567.9	5717.7	12795.4	14479.7	13244.2	13019.8
50°	1069.3	1072.0	1019.5	1038.8	1174.5	1487.6	6751.0	14607.1	16499.1	15180.6	14424.3
52.5°	1005.5	1005.5	936.3	947.4	1072.0	1415.5	7734.3	16571.2	19164.0	17881.4	16061.4
55°	941.9	936.3	858.7	864.3	969.5	1313.0	7881.1	18488.1	22798.5	21945.2	18299.7
57.5°	869.8	858.7	786.7	786.7	875.4	1238.3	6831.2	19961.9	27308.4	27917.8	21527.0
60°	781.2	772.8	725.8	712.0	800.6	1304.7	4820.1	20133.6	30217.0	35859.8	27707.3
62.5°	667.6	678.7	653.7	634.4	728.6	1354.6	2856.1	18751.2	29513.4	38386.2	35109.1
65°	526.3	570.6	565.1	551.2	800.6	1141.3	1687.0	16097.4	27355.4	36347.4	33599.4
67.5°	448.7	479.3	470.9	470.9	839.4	867.0	1061.0	12576.5	24385.8	33929.0	30012.0
70°	382.3	412.8	382.3	382.3	634.4	526.3	734.1	8781.5	21180.7	31253.1	27657.4
72.5°	315.8	346.2	313.0	290.9	507.0	393.4	537.4	5487.7	18139.1	28466.3	26045.1
75°	241.0	277.1	252.0	224.4	335.2	293.7	407.2	3188.5	15028.1	24355.3	23748.6
77.5°	152.3	199.5	188.4	157.8	246.5	213.3	293.7	1897.6	11595.9	19031.1	20427.2
80°	94.2	102.5	105.3	99.7	141.2	144.0	199.5	1080.4	7936.6	13263.6	15958.9
82.5°	61.0	61.0	47.0	52.6	69.3	83.1	113.6	407.2	4665.0	8075.1	11108.4
85°	44.3	38.7	24.9	24.9	33.2	41.5	44.3	124.6	1892.0	3188.5	4343.6
87.5°	22.1	19.4	8.3	11.1	16.6	13.8	11.1	5.5	476.4	1019.5	714.7
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0	5568.0
2.5°	6446.2	6532.0	6537.7	6537.7	6462.8	6460.1	6307.6	6291.0
5°	7590.2	7645.7	7659.5	7631.8	7482.2	7371.4	7075.1	7011.3
7.5°	8637.4	8748.2	8748.2	8681.8	8437.9	8210.8	7781.4	7620.8
10°	9474.0	9601.4	9573.7	9438.0	9130.5	8817.5	8296.7	8086.1
12.5°	9881.2	10011.4	9939.4	9784.2	9485.0	9155.4	8606.9	8368.7
15°	9872.9	9836.9	9762.1	9742.7	9598.6	9349.3	8836.8	8576.5
17.5°	9521.1	9216.4	9158.2	9352.1	9535.0	9474.0	9036.3	8792.6
20°	8964.2	8432.4	8379.8	8750.9	9271.7	9537.7	9221.9	8997.6
22.5°	8377.0	7803.5	7681.7	8091.7	8875.6	9557.1	9457.4	9233.0
25°	7820.2	7244.0	7122.1	7504.4	8435.1	9523.9	9712.2	9521.1
27.5°	7354.8	6798.0	6684.4	7066.7	8011.3	9429.7	9967.1	9831.3
30°	6994.7	6479.4	6396.3	6764.8	7645.7	9313.4	10291.2	10216.4
32.5°	6784.2	6407.4	6437.9	6739.8	7449.0	9185.8	10601.5	10637.4
35°	6991.9	7008.5	7274.4	7399.2	7631.8	9166.5	11022.5	11163.8
37.5°	8025.1	8601.4	9152.6	9050.1	8526.6	9390.8	11651.4	11914.5
40°	9784.2	10967.1	11861.9	11471.3	10152.7	10077.9	12557.2	12950.6
42.5°	11933.9	13939.5	15413.2	14366.1	12249.7	11280.1	13850.8	14352.3
45°	14202.7	17604.5	19925.8	17748.5	14485.2	12964.4	15809.4	16202.7
47.5°	16593.3	22058.9	25061.8	21499.3	16557.3	14881.4	18479.8	18571.3
50°	19208.4	26942.6	30297.4	25247.4	18557.4	17078.1	21743.1	21637.9
52.5°	21698.7	31965.0	35422.2	29012.0	20313.7	19803.9	25529.9	25313.8
55°	24075.5	36984.6	40577.5	32629.8	21970.3	23405.2	30028.6	28721.1
57.5°	26831.8	41497.1	45890.7	36264.3	24286.0	28081.2	35059.3	30699.1
60°	30906.8	46624.8	51899.1	41245.1	28690.7	32995.5	36862.7	30322.3
62.5°	36109.2	51339.6	56267.7	46126.1	33114.7	33920.7	34206.1	27419.2
65°	37120.3	52533.5	56514.3	47430.8	32544.0	28773.8	27926.1	22039.4
67.5°	34438.8	50375.6	53068.1	45001.4	28787.6	22236.1	20956.3	15989.4
70°	31430.4	46261.8	47062.5	40871.1	25319.3	16355.1	14152.8	10260.8
72.5°	28347.2	40774.2	39117.6	35494.2	22252.7	11909.0	10208.1	7293.9
75°	24685.0	33557.9	30812.6	29491.2	18424.4	9346.6	7385.2	5033.4
77.5°	19767.9	23621.2	22887.1	22859.4	13845.3	6828.4	4928.1	3155.3
80°	13945.0	15330.1	14956.2	17216.6	9288.3	4953.1	2966.9	1756.3
82.5°	6751.0	8476.8	8701.1	10252.4	4518.2	2914.2	684.2	382.3
85°	2642.8	4088.7	3448.8	3892.1	1268.7	811.7	16.6	0.0
87.5°	296.4	473.7	434.9	343.5	155.1	33.2	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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