

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: P969431

Luminaire Tested: **NAV-SB5D-827-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969431
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-827-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

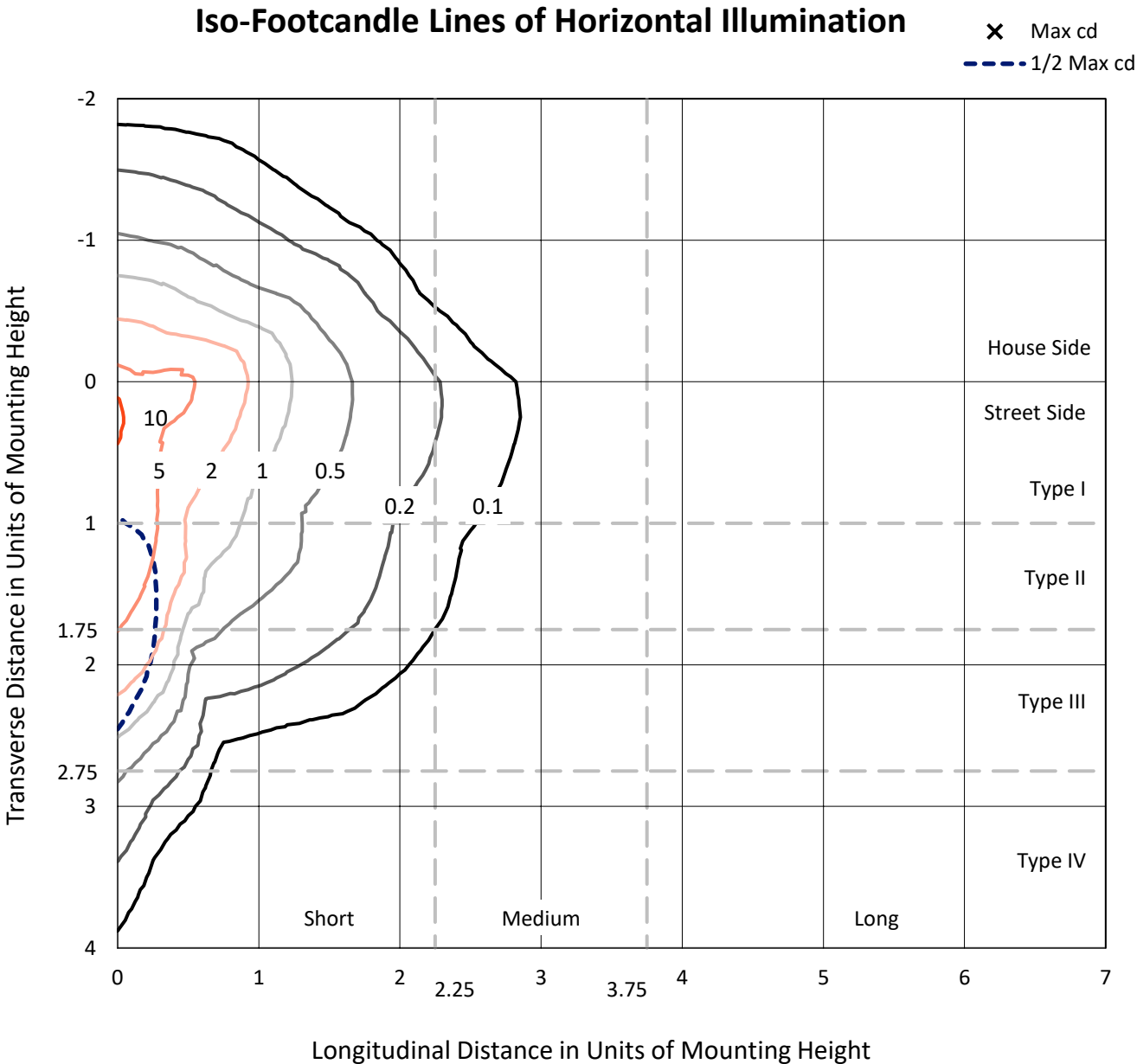
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34966.9 lumens
Efficiency: N/A
Efficacy: 95.8 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



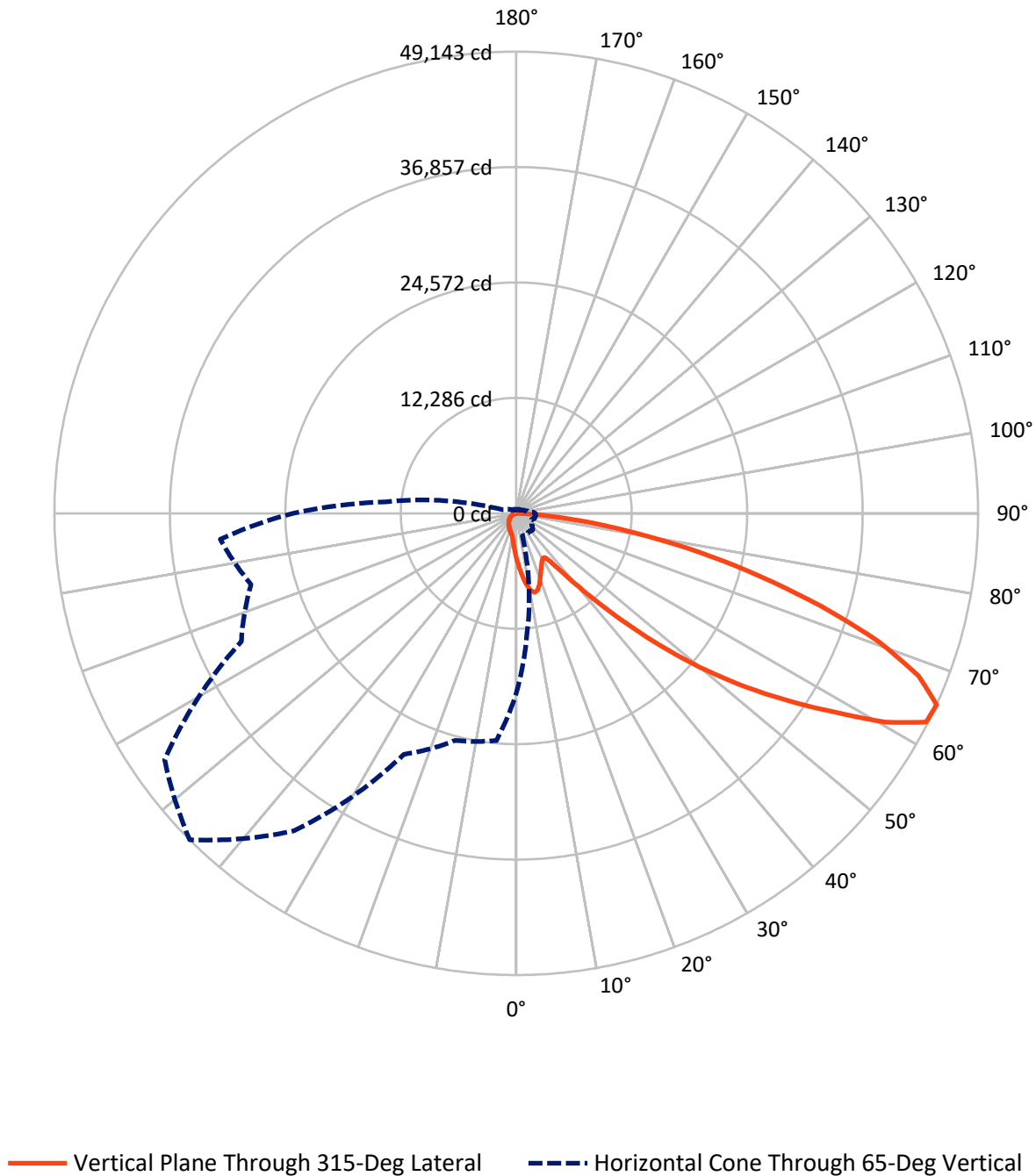
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Based on 25 foot mounting height. Maximum calculated value = 10.8 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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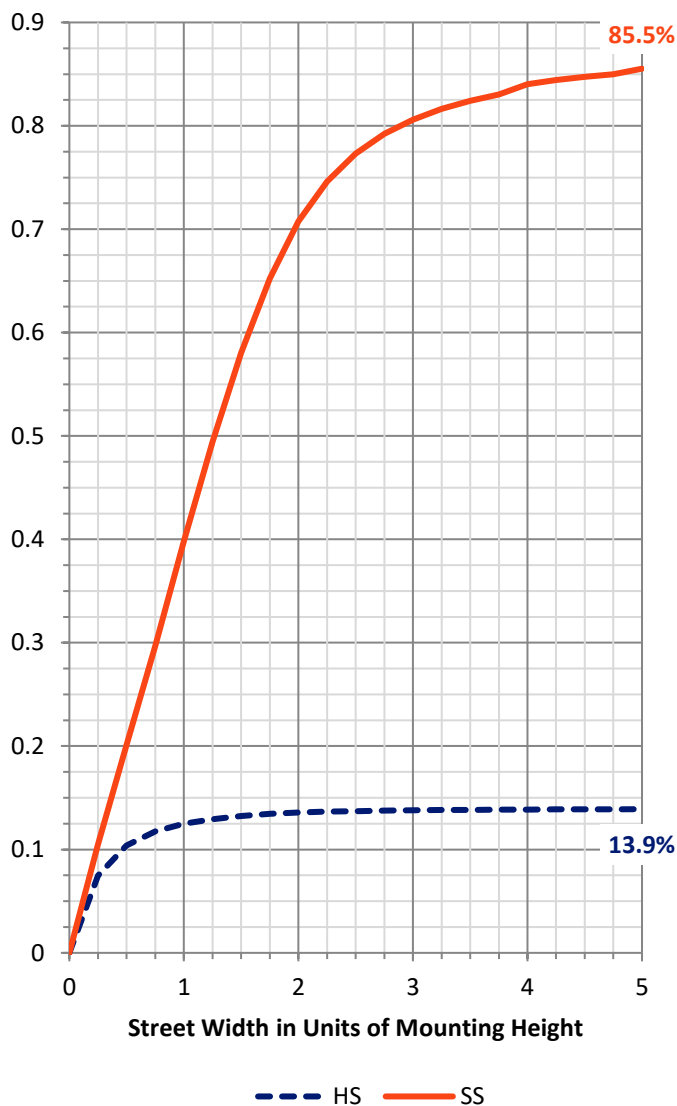
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4896.9	0.0	4896.9
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	30070.0	0.0	30070.0
	% Fixture	86.0	0.0	86.0
Total	Lumens	34966.9	0.0	34966.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	476.7	1.4
10°-20°	1429.0	4.1
20°-30°	2105.2	6.0
30°-40°	2704.6	7.7
40°-50°	4374.1	12.5
50°-60°	7670.4	21.9
60°-70°	9597.8	27.4
70°-80°	5608.5	16.0
80°-90°	1000.7	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°	34966.9	100.0
0°-180°	34966.9	100.0

Coefficient of Utilization



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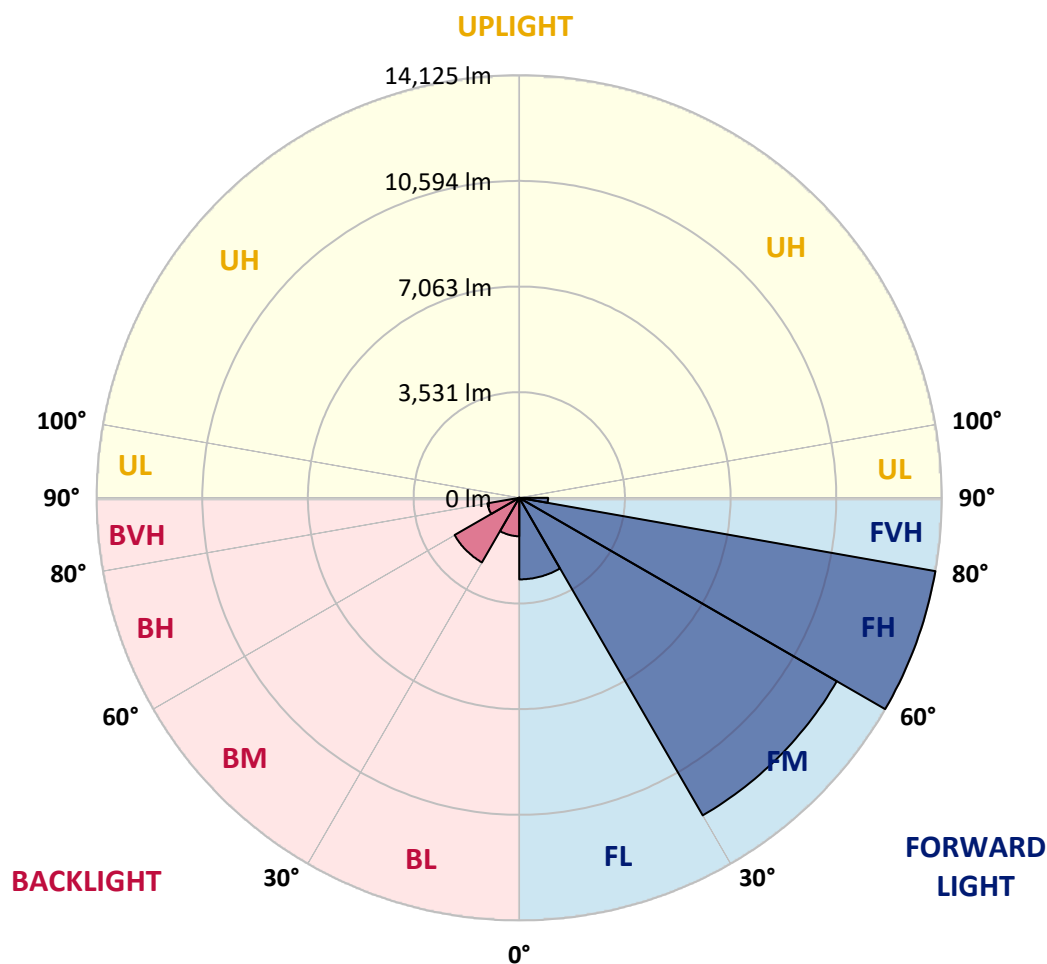
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2727.3	7.8			
FM	(30°-60°)	12255.5	35.0			
FH	(60°-80°)	14125.0	40.4			G5
FVH	(80°-90°)	962.2	2.8			G5
BL	(0°-30°)	1283.5	3.7	B3/2500		
BM	(30°-60°)	2493.6	7.1	B2/2500		
BH	(60°-80°)	1081.3	3.1	B3/2500		G3/2500
BVH	(80°-90°)	38.4	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°	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8
2.5°	5470.5	5376.5	5321.2	5183.8	5046.6	4935.8	4786.3	4687.6	4569.6	4456.4	4355.2
5°	6096.8	5945.0	5761.9	5511.4	5282.6	5048.9	4822.5	4598.5	4362.4	4145.6	4013.2
7.5°	6626.7	6407.6	6084.7	5752.3	5460.9	5179.0	4914.1	4617.7	4331.1	3991.5	3810.8
10°	7031.4	6752.0	6328.0	5892.0	5557.2	5273.0	5015.2	4764.7	4475.7	4066.2	3839.8
12.5°	7277.1	6978.4	6475.0	5964.3	5581.3	5263.4	5063.4	4952.6	4839.3	4432.3	4167.3
15°	7457.8	7135.0	6578.6	6014.9	5525.9	5135.7	4988.8	5099.6	5229.7	4969.5	4663.5
17.5°	7645.7	7306.0	6713.4	6036.5	5376.5	4887.5	4824.9	5111.6	5412.7	5400.6	5097.1
20°	7823.9	7486.7	6831.5	6022.1	5135.7	4586.5	4641.8	5008.0	5357.3	5504.2	5340.5
22.5°	8028.7	7672.2	6944.7	5966.7	4822.5	4304.6	4478.0	4844.2	5150.1	5323.5	5273.0
25°	8279.2	7905.8	7103.7	5884.8	4485.3	4071.0	4311.9	4653.9	4902.0	5022.5	5020.0
27.5°	8549.0	8185.2	7315.6	5841.5	4213.1	3904.7	4124.0	4427.5	4649.1	4733.3	4733.3
30°	8883.9	8510.5	7566.2	5793.3	4034.8	3808.4	3928.8	4164.9	4381.7	4466.0	4466.0
32.5°	9250.0	8871.8	7807.1	5677.7	3926.5	3736.1	3738.6	3887.9	4085.4	4186.6	4201.1
35°	9707.7	9305.4	8064.8	5424.7	3839.8	3651.8	3553.1	3625.3	3789.1	3909.6	3940.9
37.5°	10360.5	9873.9	8380.4	5063.4	3712.0	3521.7	3357.9	3374.8	3500.1	3632.5	3680.8
40°	11261.4	10637.4	8751.3	4687.6	3529.0	3338.6	3143.6	3136.3	3227.8	3357.9	3410.9
42.5°	12480.3	11646.8	9197.0	4328.7	3353.1	3117.0	2917.1	2905.1	2977.3	3090.6	3145.9
45°	14089.3	12938.0	9743.8	4020.4	3215.8	2900.2	2702.7	2697.9	2758.2	2856.9	2914.7
47.5°	16149.0	14732.5	10290.6	3810.8	3143.6	2729.3	2526.9	2536.6	2589.6	2678.6	2719.6
50°	18815.5	17071.5	10456.8	3704.9	3143.6	2637.7	2370.3	2418.5	2461.8	2529.3	2553.4
52.5°	22012.1	19316.5	9907.6	3608.4	3162.8	2649.7	2237.8	2341.4	2372.7	2430.5	2440.1
55°	24974.9	20417.4	8517.6	3476.0	3167.7	2724.4	2124.6	2278.8	2336.6	2358.2	2355.9
57.5°	26694.9	20039.3	6886.9	3251.9	3148.4	2775.0	2052.4	2201.7	2312.5	2327.0	2305.2
60°	26367.3	18712.0	5070.7	3080.9	3006.2	2755.7	2030.6	2083.6	2259.5	2281.1	2252.2
62.5°	23842.8	16486.2	3519.3	2948.4	2693.1	2671.5	2023.5	1898.2	2143.9	2196.9	2155.9
65°	19164.8	12978.9	2485.9	2538.9	2360.7	2488.4	1984.9	1705.5	2004.2	2076.4	2013.8
67.5°	13903.9	8782.7	1794.6	2057.2	2139.1	2192.1	1898.2	1565.8	1845.2	1941.6	1859.7
70°	8922.4	4743.0	1259.8	1358.6	1801.8	1862.0	1748.9	1440.5	1683.8	1794.6	1705.5
72.5°	6342.5	2801.5	905.7	951.5	1447.7	1551.3	1539.2	1300.8	1495.9	1630.8	1524.8
75°	4376.9	1544.1	611.8	679.3	1050.2	1259.8	1187.6	1117.7	1267.1	1404.4	1300.8
77.5°	2743.7	691.4	366.1	472.1	688.9	990.0	814.2	864.8	987.6	1115.3	1006.9
80°	1527.2	267.4	204.8	313.1	375.8	720.3	450.5	556.5	727.4	819.0	732.3
82.5°	332.4	33.7	91.5	134.9	147.0	419.1	238.5	322.8	457.7	450.5	390.2
85°	0.0	0.0	16.9	19.3	9.6	180.7	86.7	106.0	149.3	139.7	106.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	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°	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8
2.5°	4336.0	4217.9	4131.2	4087.8	4051.7	4085.4	4104.7	4104.7	4186.6	4234.8	4254.1
5°	3928.8	3716.9	3555.4	3447.1	3382.0	3403.7	3427.8	3454.2	3557.9	3627.7	3673.5
7.5°	3647.0	3321.8	3076.1	2924.3	2844.9	2856.9	2873.8	2895.4	2996.6	3066.5	3126.7
10°	3594.0	3126.7	2779.8	2579.9	2483.6	2466.7	2457.0	2449.8	2510.0	2563.0	2611.2
12.5°	3810.8	3136.3	2652.2	2408.9	2290.8	2240.2	2182.4	2136.6	2146.2	2180.0	2240.2
15°	4198.6	3259.2	2611.2	2319.7	2172.8	2088.4	2021.0	1965.6	1953.5	1965.6	1975.3
17.5°	4641.8	3425.3	2606.4	2242.6	2059.5	1972.8	1917.5	1866.8	1850.0	1852.4	1864.5
20°	4935.8	3557.9	2591.9	2155.9	1951.2	1874.1	1825.9	1775.3	1758.5	1763.3	1765.7
22.5°	4964.7	3627.7	2570.3	2059.5	1842.7	1777.8	1729.6	1683.8	1681.4	1681.4	1695.9
25°	4808.1	3627.7	2524.5	1972.8	1739.2	1681.4	1638.1	1582.6	1592.2	1597.1	1616.3
27.5°	4564.7	3541.0	2437.8	1903.0	1650.0	1589.9	1546.5	1495.9	1508.0	1515.2	1536.9
30°	4323.9	3430.2	2334.1	1823.5	1565.8	1495.9	1464.6	1421.3	1426.1	1435.7	1459.8
32.5°	4099.9	3312.2	2211.3	1758.5	1481.4	1411.6	1387.5	1339.4	1346.5	1356.2	1382.7
35°	3878.3	3182.1	2066.8	1681.4	1404.4	1334.6	1315.3	1259.8	1264.6	1279.1	1308.0
37.5°	3639.8	3044.8	1948.7	1604.3	1329.7	1257.5	1238.2	1180.3	1185.1	1202.0	1235.7
40°	3389.3	2909.9	1833.1	1522.4	1250.2	1177.9	1161.0	1098.4	1103.2	1122.5	1158.7
42.5°	3136.3	2763.0	1744.0	1416.4	1168.3	1091.2	1074.3	1016.5	1023.8	1045.4	1081.6
45°	2902.7	2587.1	1686.2	1298.4	1091.2	1004.5	987.6	934.6	949.0	973.1	1009.3
47.5°	2702.7	2406.4	1662.1	1199.6	1009.3	915.3	900.9	857.5	881.6	908.2	937.1
50°	2531.8	2233.0	1630.8	1098.4	932.2	838.2	823.8	794.9	826.3	852.7	879.2
52.5°	2408.9	2035.4	1563.3	1006.9	864.8	773.3	768.4	754.0	782.9	807.0	831.1
55°	2302.9	1830.8	1455.0	927.4	804.5	717.8	722.6	715.4	739.5	758.8	780.4
57.5°	2206.5	1652.5	1317.6	864.8	739.5	669.6	684.1	674.4	686.5	698.5	725.1
60°	2090.9	1471.8	1153.8	794.9	662.5	621.5	638.4	611.8	609.5	614.3	621.5
62.5°	1919.8	1228.6	982.8	708.2	595.0	568.5	575.7	525.1	486.6	486.6	493.8
65°	1681.4	987.6	823.8	611.8	517.9	496.2	491.4	419.1	366.1	361.3	383.0
67.5°	1404.4	811.8	684.1	515.5	431.2	416.8	421.6	368.6	315.6	310.8	334.9
70°	1144.2	672.1	551.7	411.9	332.4	346.9	368.6	315.6	265.0	257.8	279.4
72.5°	929.8	534.7	431.2	315.6	245.7	286.7	313.1	257.8	209.6	204.8	224.1
75°	717.8	392.7	308.3	214.4	178.2	221.6	245.7	187.9	149.3	142.2	159.0
77.5°	479.4	243.3	173.4	134.9	106.0	151.8	163.8	98.8	86.7	84.4	96.4
80°	291.5	113.3	74.7	65.1	36.2	55.5	65.1	41.0	45.8	48.2	57.8
82.5°	147.0	31.4	12.1	2.5	0.0	0.0	19.3	9.6	19.3	24.1	36.2
85°	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	12.1	21.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8
2.5°	4388.9	4490.1	4586.5	4740.6	4899.6	5056.2	5215.2	5369.4	5424.7	5465.7	5557.2
5°	3883.1	4073.3	4295.0	4600.9	4928.5	5265.7	5607.8	5920.9	6063.1	6159.4	6376.2
7.5°	3360.4	3608.4	3926.5	4386.5	4899.6	5436.8	5973.9	6467.7	6696.6	6882.1	7212.1
10°	2842.4	3112.2	3514.5	4039.6	4733.3	5504.2	6246.1	6925.4	7221.7	7455.4	7903.5
12.5°	2387.1	2640.1	3061.7	3642.1	4473.2	5451.3	6402.8	7219.3	7568.6	7831.2	8322.6
15°	2066.8	2245.1	2618.5	3244.7	4164.9	5280.2	6412.4	7359.1	7742.0	8016.6	8443.0
17.5°	1888.6	1948.7	2192.1	2840.1	3822.8	5056.2	6323.2	7407.3	7816.8	8072.1	8368.3
20°	1792.2	1801.8	1869.3	2314.9	3384.4	4846.6	6239.0	7455.4	7886.6	8101.0	8190.1
22.5°	1715.1	1715.1	1731.9	1893.4	2818.3	4596.1	6212.4	7539.7	7982.9	8115.4	7932.4
25°	1645.2	1645.2	1650.0	1693.4	2233.0	4213.1	6195.6	7669.8	8115.4	8151.5	7648.1
27.5°	1573.0	1575.4	1575.4	1599.5	1799.4	3692.8	6123.2	7838.4	8274.4	8199.7	7375.9
30°	1500.7	1505.5	1505.5	1522.4	1592.2	3083.3	5981.2	8040.7	8481.6	8262.3	7106.1
32.5°	1428.4	1433.3	1433.3	1447.7	1498.3	2461.8	5802.9	8226.2	8691.2	8288.9	6855.6
35°	1353.8	1361.0	1356.2	1375.4	1428.4	1958.4	5576.5	8411.7	8917.6	8373.1	6732.7
37.5°	1279.1	1283.9	1281.6	1300.8	1361.0	1691.0	5313.9	8551.4	9225.9	8561.0	6879.7
40°	1204.4	1202.0	1202.0	1223.6	1288.7	1614.0	4984.0	8773.1	9669.1	8891.1	7520.4
42.5°	1127.3	1127.3	1122.5	1146.6	1226.1	1556.2	4668.4	9170.5	10314.7	9416.2	8657.5
45°	1057.5	1055.0	1045.4	1067.1	1165.8	1455.0	4557.6	9912.5	11268.6	10266.5	10032.9
47.5°	990.0	987.6	963.5	982.8	1093.6	1363.5	4971.9	11126.5	12591.1	11516.7	11321.6
50°	929.8	932.2	886.4	903.3	1021.3	1293.6	5870.4	12701.9	14347.1	13200.5	12542.9
52.5°	874.4	874.4	814.2	823.8	932.2	1230.9	6725.5	14409.8	16664.4	15549.1	13966.5
55°	819.0	814.2	746.7	751.5	843.1	1141.7	6853.2	16076.7	19824.8	19082.9	15912.8
57.5°	756.3	746.7	684.1	684.1	761.2	1076.8	5940.2	17358.2	23746.5	24276.4	18719.2
60°	679.3	672.1	631.1	619.1	696.2	1134.6	4191.4	17507.5	26275.8	31182.5	24093.3
62.5°	580.6	590.2	568.5	551.7	633.6	1177.9	2483.6	16305.5	25663.8	33379.4	30529.7
65°	457.7	496.2	491.4	479.4	696.2	992.4	1467.0	13997.8	23787.4	31606.5	29216.9
67.5°	390.2	416.8	409.5	409.5	729.9	754.0	922.6	10936.1	21205.1	29503.6	26097.5
70°	332.4	359.0	332.4	332.4	551.7	457.7	638.4	7636.0	18418.1	27176.6	24050.0
72.5°	274.6	301.1	272.2	253.0	440.9	342.0	467.3	4771.9	15773.1	24753.3	22648.0
75°	209.6	240.9	219.2	195.2	291.5	255.3	354.1	2772.6	13068.0	21178.7	20651.1
77.5°	132.5	173.4	163.8	137.4	214.4	185.5	255.3	1650.0	10083.4	16548.8	17762.8
80°	81.9	89.2	91.5	86.7	122.9	125.3	173.4	939.4	6901.3	11533.6	13877.4
82.5°	53.0	53.0	41.0	45.8	60.3	72.3	98.8	354.1	4056.5	7021.8	9659.5
85°	38.5	33.7	21.7	21.7	28.9	36.2	38.5	108.4	1645.2	2772.6	3777.1
87.5°	19.3	16.9	7.3	9.6	14.5	12.1	9.6	4.8	414.3	886.4	621.5
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°	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8	4841.8
2.5°	5605.4	5680.0	5684.9	5684.9	5619.9	5617.4	5485.0	5470.5
5°	6600.3	6648.5	6660.4	6636.4	6506.3	6409.9	6152.3	6096.8
7.5°	7510.8	7607.1	7607.1	7549.3	7337.4	7139.8	6766.4	6626.7
10°	8238.2	8349.0	8324.9	8207.0	7939.5	7667.4	7214.5	7031.4
12.5°	8592.4	8705.6	8643.0	8508.0	8247.9	7961.3	7484.3	7277.1
15°	8585.2	8553.8	8488.7	8471.9	8346.7	8129.9	7684.2	7457.8
17.5°	8279.2	8014.3	7963.6	8132.2	8291.2	8238.2	7857.6	7645.7
20°	7795.0	7332.5	7286.7	7609.6	8062.4	8293.7	8019.1	7823.9
22.5°	7284.4	6785.7	6679.7	7036.2	7717.9	8310.5	8223.8	8028.7
25°	6800.2	6299.1	6193.2	6525.6	7334.9	8281.6	8445.4	8279.2
27.5°	6395.5	5911.3	5812.6	6145.0	6966.4	8199.7	8667.1	8549.0
30°	6082.3	5634.3	5562.1	5882.4	6648.5	8098.5	8948.9	8883.9
32.5°	5899.3	5571.7	5598.1	5860.7	6477.4	7987.7	9218.6	9250.0
35°	6079.9	6094.3	6325.7	6434.0	6636.4	7970.9	9584.8	9707.7
37.5°	6978.4	7479.5	7958.8	7869.7	7414.4	8166.0	10131.6	10360.5
40°	8508.0	9536.6	10314.7	9975.1	8828.4	8763.4	10919.3	11261.4
42.5°	10377.3	12121.3	13402.8	12492.3	10651.9	9808.8	12044.3	12480.3
45°	12350.2	15308.3	17326.9	15433.5	12595.9	11273.5	13747.3	14089.3
47.5°	14429.0	19181.6	21792.8	18695.1	14397.7	12940.3	16069.4	16149.0
50°	16703.0	23428.5	26345.6	21954.3	16136.9	14850.6	18907.0	18815.5
52.5°	18868.5	27795.7	30802.0	25227.9	17664.1	17220.9	22200.0	22012.1
55°	20935.3	32160.6	35284.8	28373.8	19104.6	20352.4	26112.0	24974.9
57.5°	23332.2	36084.6	39905.0	31534.2	21118.4	24418.5	30486.4	26694.9
60°	26875.5	40543.4	45129.8	35865.4	24948.5	28691.8	32054.6	26367.3
62.5°	31399.3	44643.3	48928.6	40109.8	28795.4	29496.4	29744.5	23842.8
65°	32278.6	45681.5	49143.0	41244.4	28299.2	25020.8	24283.6	19164.8
67.5°	29946.8	43804.9	46146.3	39131.7	25032.8	19335.8	18223.0	13903.9
70°	27330.8	40227.8	40923.9	35540.1	22016.9	14221.9	12306.9	8922.4
72.5°	24649.8	35455.9	34015.3	30864.6	19350.3	10355.7	8876.6	6342.5
75°	21465.2	29180.8	26793.6	25644.6	16021.3	8127.4	6422.0	4376.9
77.5°	17189.6	20540.3	19901.9	19877.8	12039.4	5937.8	4285.3	2743.7
80°	12126.2	13330.5	13005.4	14971.0	8076.9	4307.0	2579.9	1527.2
82.5°	5870.4	7371.1	7566.2	8915.1	3928.8	2534.1	595.0	332.4
85°	2298.0	3555.4	2999.0	3384.4	1103.2	705.8	14.5	0.0
87.5°	257.8	411.9	378.2	298.7	134.9	28.9	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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