

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: P968718

Luminaire Tested: **NAV-SB5C-727-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968718
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-SB5C-727-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 615mA 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: 27449.5 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

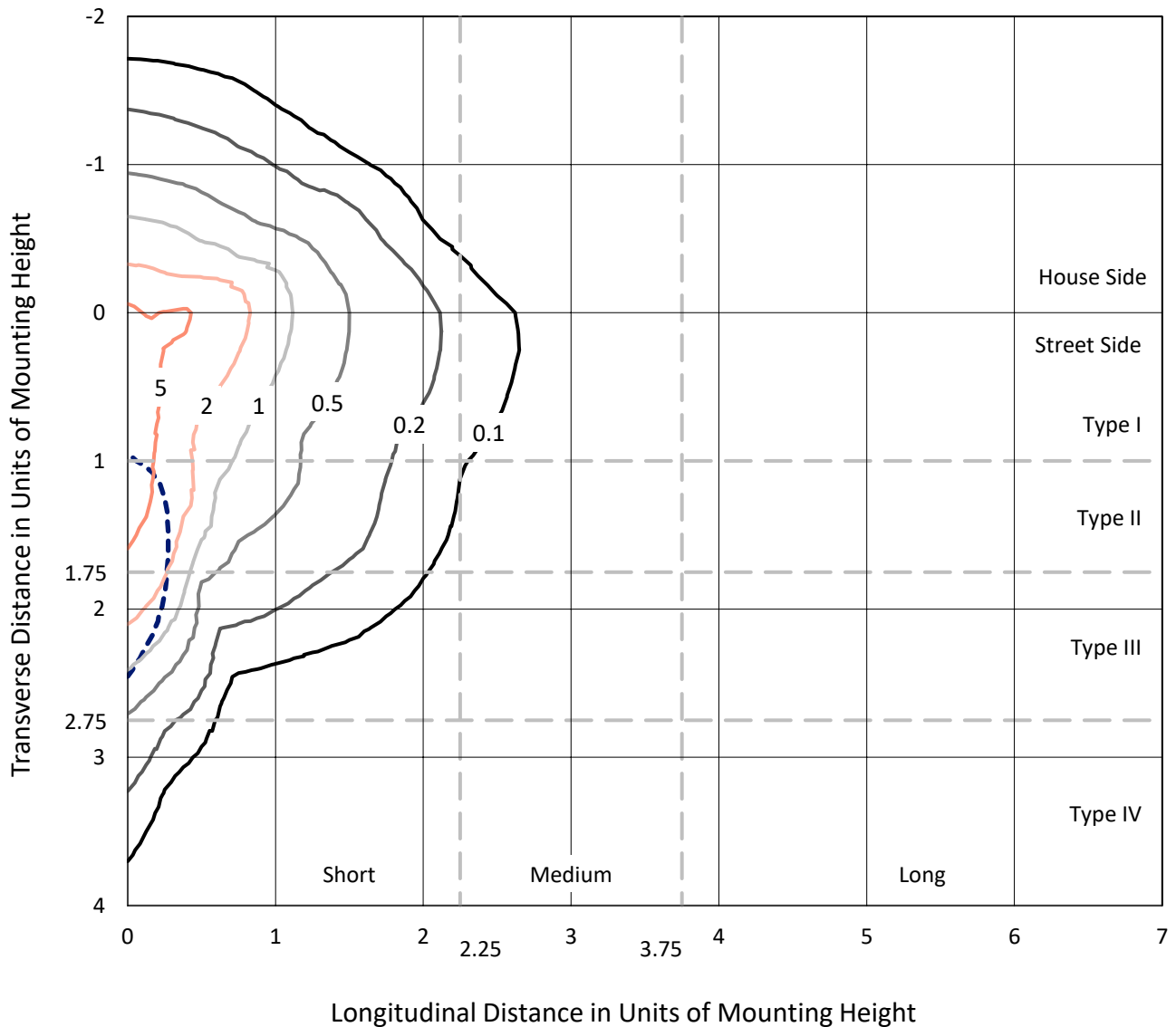
Input Watts (W): 249.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

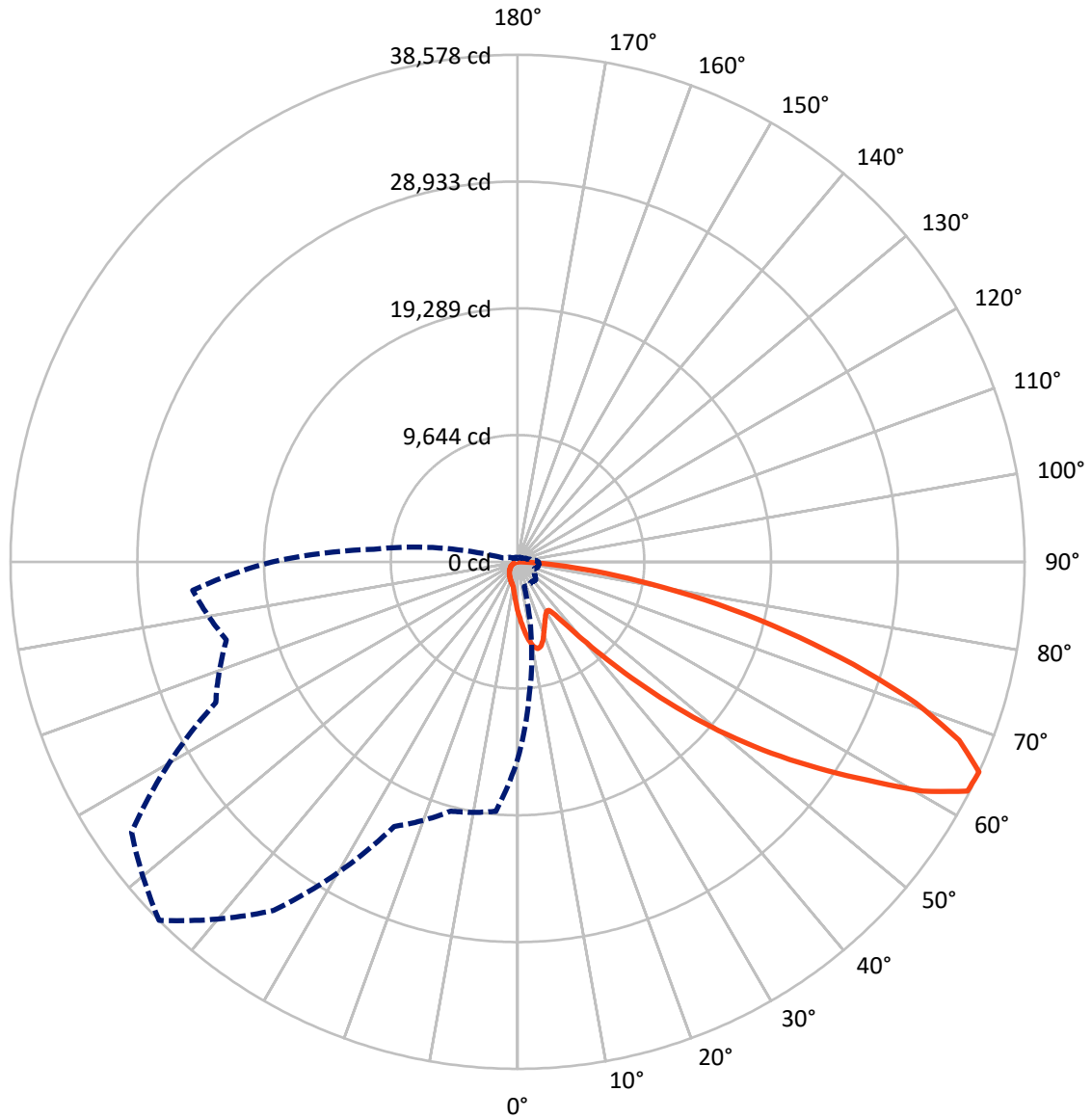
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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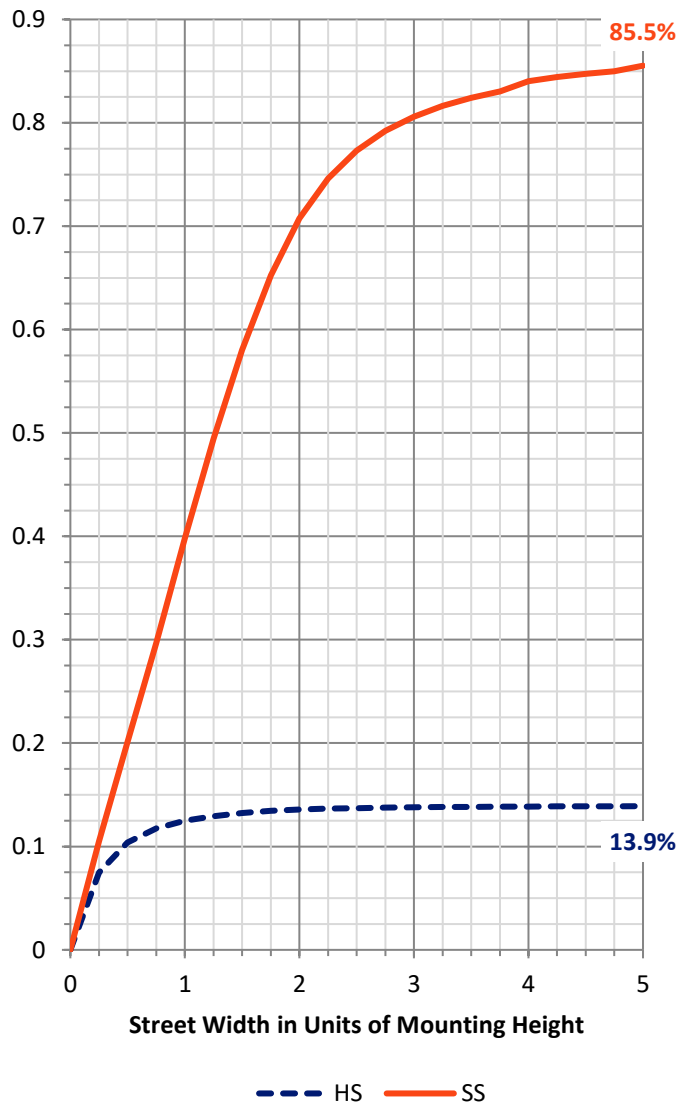
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3844.1	0.0	3844.1
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	23605.4	0.0	23605.4
	% Fixture	86.0	0.0	86.0
Total	Lumens	27449.5	0.0	27449.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.2	1.4
10°-20°	1121.8	4.1
20°-30°	1652.6	6.0
30°-40°	2123.1	7.7
40°-50°	3433.7	12.5
50°-60°	6021.4	21.9
60°-70°	7534.4	27.4
70°-80°	4402.8	16.0
80°-90°	785.5	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°	27449.5	100.0
0°-180°	27449.5	100.0

Coefficient of Utilization



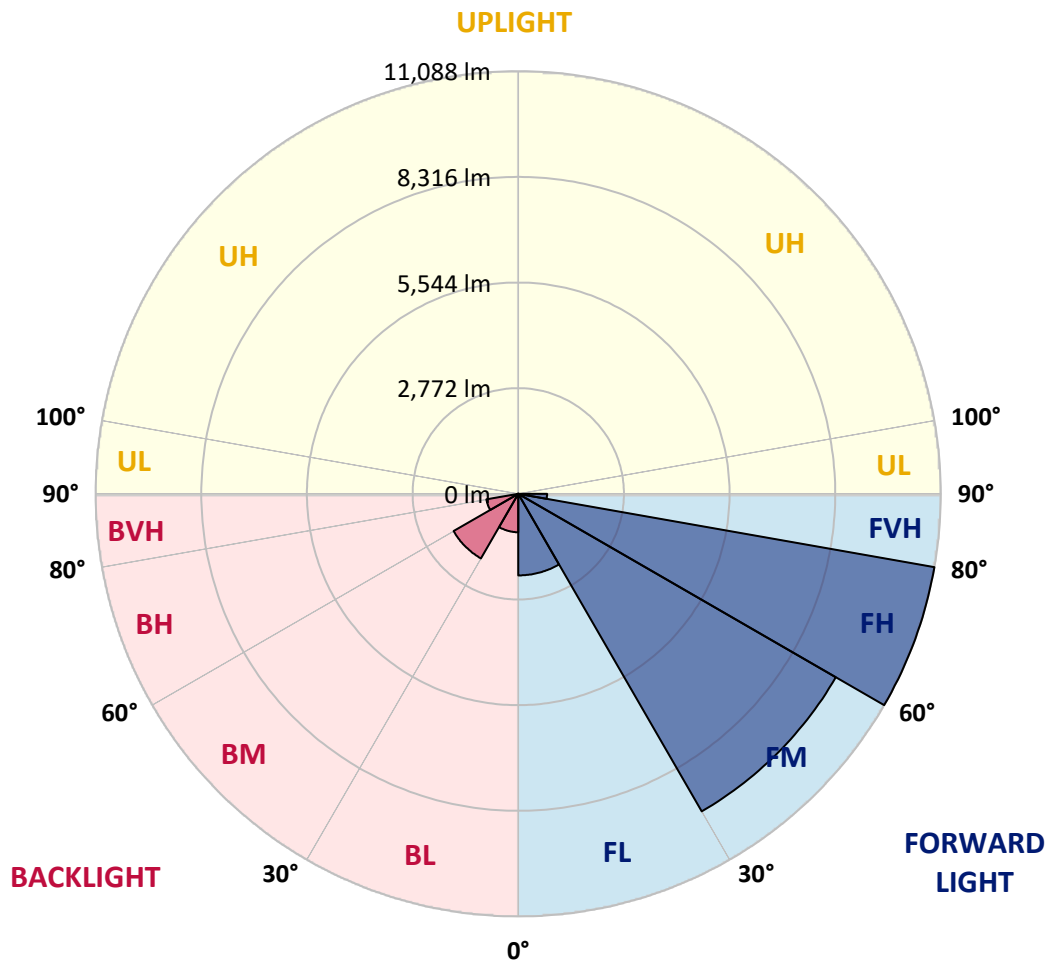
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2141.0	7.8			
FM (30°-60°)	9620.8	35.0			
FH (60°-80°)	11088.4	40.4			G4/12000
FVH (80°-90°)	755.3	2.8			G5
BL (0°-30°)	1007.6	3.7	B3/2500		
BM (30°-60°)	1957.5	7.1	B2/2500		
BH (60°-80°)	848.8	3.1	B2/1000		G2/1000
BVH (80°-90°)	30.2	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°	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9
2.5°	4294.4	4220.6	4177.2	4069.4	3961.6	3874.6	3757.3	3679.9	3587.2	3498.3	3418.9
5°	4786.0	4666.9	4523.2	4326.5	4146.9	3963.5	3785.7	3609.8	3424.5	3254.4	3150.3
7.5°	5202.1	5030.0	4776.6	4515.6	4286.9	4065.7	3857.6	3625.0	3400.0	3133.3	2991.6
10°	5519.8	5300.4	4967.7	4625.3	4362.5	4139.4	3937.0	3740.3	3513.5	3192.0	3014.2
12.5°	5712.6	5478.2	5083.0	4682.1	4381.4	4131.8	3974.8	3887.8	3799.0	3479.4	3271.4
15°	5854.5	5601.1	5164.3	4721.8	4337.9	4031.5	3916.2	4003.2	4105.3	3901.2	3661.0
17.5°	6002.0	5735.4	5270.1	4738.8	4220.6	3836.8	3787.7	4012.7	4249.0	4239.6	4001.3
20°	6141.9	5877.1	5362.8	4727.5	4031.5	3600.4	3643.9	3931.4	4205.6	4320.9	4192.4
22.5°	6302.6	6022.8	5451.7	4683.9	3785.7	3379.2	3515.3	3802.7	4042.9	4179.0	4139.4
25°	6499.3	6206.2	5576.5	4619.7	3521.0	3195.7	3384.9	3653.4	3848.2	3942.7	3940.8
27.5°	6711.1	6425.5	5742.9	4585.6	3307.4	3065.3	3237.4	3475.7	3649.6	3715.8	3715.8
30°	6974.0	6680.8	5939.6	4547.8	3167.4	2989.6	3084.2	3269.5	3439.7	3505.9	3505.9
32.5°	7261.4	6964.5	6128.7	4457.0	3082.3	2932.9	2934.8	3052.0	3207.1	3286.6	3297.8
35°	7620.7	7304.9	6331.0	4258.5	3014.2	2866.7	2789.2	2845.9	2974.5	3069.1	3093.7
37.5°	8133.2	7751.2	6578.8	3974.8	2914.0	2764.6	2636.0	2649.3	2747.6	2851.7	2889.4
40°	8840.3	8350.6	6870.0	3679.9	2770.3	2620.9	2467.7	2462.0	2533.9	2636.0	2677.6
42.5°	9797.2	9142.9	7219.8	3398.1	2632.2	2447.0	2290.0	2280.5	2337.2	2426.2	2469.6
45°	11060.4	10156.5	7649.1	3156.1	2524.5	2276.7	2121.6	2117.9	2165.2	2242.7	2288.1
47.5°	12677.2	11565.3	8078.3	2991.6	2467.7	2142.5	1983.7	1991.2	2032.8	2102.8	2134.9
50°	14770.5	13401.4	8208.7	2908.3	2467.7	2070.6	1860.7	1898.5	1932.5	1985.5	2004.5
52.5°	17279.9	15163.8	7777.6	2832.7	2482.9	2080.0	1756.7	1838.0	1862.6	1908.0	1915.5
55°	19605.7	16028.0	6686.5	2728.7	2486.6	2138.7	1667.9	1788.8	1834.2	1851.3	1849.4
57.5°	20955.9	15731.1	5406.4	2552.9	2471.5	2178.4	1611.1	1728.4	1815.4	1826.7	1809.6
60°	20698.7	14689.2	3980.5	2418.6	2360.0	2163.3	1594.1	1635.7	1773.8	1790.8	1768.0
62.5°	18716.9	12941.9	2762.7	2314.6	2114.2	2097.1	1588.4	1490.1	1682.9	1724.6	1692.5
65°	15044.6	10188.6	1951.5	1993.1	1853.2	1953.3	1558.2	1338.9	1573.3	1630.1	1580.9
67.5°	10914.7	6894.6	1408.8	1614.9	1679.2	1720.8	1490.1	1229.2	1448.5	1524.2	1459.8
70°	7004.2	3723.3	989.0	1066.5	1414.5	1461.8	1372.9	1130.8	1321.8	1408.8	1338.9
72.5°	4978.9	2199.2	711.0	746.9	1136.5	1217.8	1208.4	1021.1	1174.3	1280.2	1197.0
75°	3435.9	1212.2	480.3	533.3	824.5	989.0	932.2	877.4	994.7	1102.5	1021.1
77.5°	2153.8	542.7	287.4	370.6	540.8	777.2	639.2	678.9	775.3	875.6	790.5
80°	1198.8	209.9	160.7	245.8	295.0	565.4	353.6	436.9	571.0	643.0	574.8
82.5°	261.0	26.4	71.9	105.9	115.3	329.0	187.2	253.4	359.3	353.6	306.4
85°	0.0	0.0	13.2	15.2	7.6	141.9	68.1	83.2	117.3	109.7	83.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	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°	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9
2.5°	3403.8	3311.2	3243.0	3209.0	3180.7	3207.1	3222.2	3222.2	3286.6	3324.4	3339.4
5°	3084.2	2917.8	2791.1	2706.0	2655.0	2672.0	2690.8	2711.6	2793.0	2847.9	2883.7
7.5°	2862.9	2607.7	2414.8	2295.7	2233.3	2242.7	2255.9	2272.9	2352.4	2407.2	2454.5
10°	2821.3	2454.5	2182.2	2025.2	1949.7	1936.3	1928.8	1923.1	1970.4	2012.0	2049.8
12.5°	2991.6	2462.0	2082.0	1891.0	1798.4	1758.6	1713.2	1677.3	1684.9	1711.3	1758.6
15°	3296.0	2558.5	2049.8	1821.0	1705.7	1639.5	1586.5	1543.0	1533.6	1543.0	1550.6
17.5°	3643.9	2689.0	2046.0	1760.5	1616.8	1548.7	1505.2	1465.5	1452.3	1454.2	1463.6
20°	3874.6	2793.0	2034.7	1692.5	1531.7	1471.2	1433.4	1393.7	1380.4	1384.2	1386.1
22.5°	3897.4	2847.9	2017.7	1616.8	1446.6	1395.5	1357.7	1321.8	1319.9	1319.9	1331.3
25°	3774.4	2847.9	1981.7	1548.7	1365.3	1319.9	1285.9	1242.4	1250.0	1253.7	1268.8
27.5°	3583.4	2779.7	1913.7	1493.8	1295.3	1248.0	1214.0	1174.3	1183.8	1189.4	1206.4
30°	3394.3	2692.8	1832.4	1431.5	1229.2	1174.3	1149.7	1115.7	1119.5	1127.0	1145.9
32.5°	3218.5	2600.1	1735.9	1380.4	1163.0	1108.1	1089.2	1051.3	1057.1	1064.7	1085.5
35°	3044.5	2498.0	1622.5	1319.9	1102.5	1047.7	1032.5	989.0	992.8	1004.1	1026.8
37.5°	2857.3	2390.2	1529.8	1259.4	1043.9	987.1	972.0	926.6	930.4	943.6	970.1
40°	2660.6	2284.3	1439.0	1195.1	981.4	924.7	911.4	862.3	866.0	881.2	909.6
42.5°	2462.0	2169.0	1369.1	1111.9	917.2	856.6	843.4	798.0	803.7	820.7	849.0
45°	2278.7	2030.9	1323.7	1019.3	856.6	788.5	775.3	733.7	745.1	763.9	792.3
47.5°	2121.6	1889.1	1304.8	941.7	792.3	718.5	707.2	673.2	692.1	712.9	735.6
50°	1987.5	1753.0	1280.2	862.3	731.8	658.0	646.7	624.0	648.6	669.4	690.2
52.5°	1891.0	1597.9	1227.2	790.5	678.9	607.0	603.2	591.8	614.6	633.4	652.4
55°	1807.8	1437.2	1142.2	728.1	631.6	563.5	567.3	561.6	580.6	595.6	612.6
57.5°	1732.1	1297.2	1034.3	678.9	580.6	525.7	537.0	529.5	538.9	548.4	569.2
60°	1641.3	1155.4	905.8	624.0	520.0	487.9	501.1	480.3	478.5	482.2	487.9
62.5°	1507.2	964.4	771.5	556.0	467.1	446.3	451.9	412.3	382.0	382.0	387.7
65°	1319.9	775.3	646.7	480.3	406.5	389.5	385.8	329.0	287.4	283.6	300.6
67.5°	1102.5	637.2	537.0	404.7	338.5	327.2	331.0	289.4	247.7	244.0	262.8
70°	898.2	527.6	433.1	323.4	261.0	272.3	289.4	247.7	208.0	202.3	219.4
72.5°	729.9	419.8	338.5	247.7	192.9	225.0	245.8	202.3	164.5	160.7	175.9
75°	563.5	308.2	242.0	168.3	139.9	173.9	192.9	147.5	117.3	111.5	124.8
77.5°	376.3	191.0	136.1	105.9	83.2	119.1	128.6	77.5	68.1	66.2	75.6
80°	228.8	88.9	58.6	51.0	28.4	43.5	51.0	32.2	36.0	37.8	45.4
82.5°	115.3	24.6	9.4	1.8	0.0	0.0	15.2	7.6	15.2	18.9	28.4
85°	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	9.4	17.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
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°	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9
2.5°	3445.3	3524.8	3600.4	3721.5	3846.2	3969.2	4094.0	4215.0	4258.5	4290.6	4362.5
5°	3048.2	3197.7	3371.6	3611.8	3869.0	4133.7	4402.2	4648.1	4759.6	4835.2	5005.5
7.5°	2637.9	2832.7	3082.3	3443.5	3846.2	4268.0	4689.7	5077.3	5256.9	5402.6	5661.6
10°	2231.3	2443.2	2759.0	3171.1	3715.8	4320.9	4903.3	5436.6	5669.2	5852.5	6204.3
12.5°	1874.0	2072.5	2403.4	2859.1	3511.5	4279.3	5026.2	5667.3	5941.5	6147.5	6533.3
15°	1622.5	1762.4	2055.5	2547.1	3269.5	4145.0	5033.8	5777.0	6077.6	6293.2	6627.9
17.5°	1482.6	1529.8	1720.8	2229.5	3001.0	3969.2	4963.9	5814.8	6136.3	6336.7	6569.3
20°	1406.9	1414.5	1467.4	1817.2	2656.8	3804.7	4897.7	5852.5	6191.1	6359.4	6429.3
22.5°	1346.3	1346.3	1359.7	1486.4	2212.5	3608.0	4876.8	5918.8	6266.7	6370.7	6227.0
25°	1291.5	1291.5	1295.3	1329.3	1753.0	3307.4	4863.6	6020.8	6370.7	6399.1	6003.8
27.5°	1234.8	1236.7	1236.7	1255.6	1412.6	2898.9	4806.8	6153.3	6495.5	6436.9	5790.2
30°	1178.0	1181.8	1181.8	1195.1	1250.0	2420.4	4695.3	6312.2	6658.2	6486.1	5578.4
32.5°	1121.4	1125.1	1125.1	1136.5	1176.2	1932.5	4555.4	6457.7	6822.7	6506.9	5381.8
35°	1062.7	1068.4	1064.7	1079.7	1121.4	1537.4	4377.7	6603.4	7000.4	6573.0	5285.3
37.5°	1004.1	1007.9	1006.0	1021.1	1068.4	1327.5	4171.5	6713.0	7242.4	6720.5	5400.6
40°	945.5	943.6	943.6	960.6	1011.7	1267.0	3912.4	6887.0	7590.4	6979.6	5903.7
42.5°	885.0	885.0	881.2	900.2	962.5	1221.6	3664.7	7199.0	8097.2	7391.9	6796.2
45°	830.1	828.2	820.7	837.7	915.2	1142.2	3577.8	7781.4	8846.1	8059.4	7876.0
47.5°	777.2	775.3	756.3	771.5	858.5	1070.3	3903.0	8734.4	9884.2	9040.8	8887.7
50°	729.9	731.8	695.9	709.1	801.8	1015.5	4608.3	9971.2	11262.7	10362.5	9846.4
52.5°	686.4	686.4	639.2	646.7	731.8	966.3	5279.7	11311.9	13081.9	12206.3	10963.9
55°	643.0	639.2	586.2	590.0	661.8	896.4	5379.8	12620.4	15562.8	14980.4	12491.9
57.5°	593.8	586.2	537.0	537.0	597.6	845.3	4663.1	13626.5	18641.4	19057.3	14694.8
60°	533.3	527.6	495.5	486.0	546.5	890.6	3290.4	13743.7	20626.9	24478.7	18913.6
62.5°	455.7	463.3	446.3	433.1	497.3	924.7	1949.7	12800.1	20146.6	26203.4	23966.3
65°	359.3	389.5	385.8	376.3	546.5	779.1	1151.6	10988.5	18673.4	24811.6	22935.7
67.5°	306.4	327.2	321.4	321.4	573.0	591.8	724.3	8585.1	16646.3	23160.8	20486.9
70°	261.0	281.8	261.0	261.0	433.1	359.3	501.1	5994.4	14458.4	21334.0	18879.6
72.5°	215.6	236.4	213.7	198.5	346.0	268.5	366.8	3746.1	12382.2	19431.7	17779.0
75°	164.5	189.1	172.1	153.1	228.8	200.5	278.0	2176.5	10258.6	16625.5	16211.4
77.5°	104.0	136.1	128.6	107.8	168.3	145.7	200.5	1295.3	7915.7	12991.1	13944.1
80°	64.3	70.0	71.9	68.1	96.5	98.3	136.1	737.5	5417.6	9054.0	10894.0
82.5°	41.6	41.6	32.2	36.0	47.3	56.7	77.5	278.0	3184.4	5512.2	7582.8
85°	30.2	26.4	17.0	17.0	22.7	28.4	30.2	85.1	1291.5	2176.5	2965.0
87.5°	15.2	13.2	5.6	7.6	11.4	9.4	7.6	3.8	325.2	695.9	487.9
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°	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9	3800.9
2.5°	4400.3	4459.0	4462.7	4462.7	4411.7	4409.8	4305.8	4294.4
5°	5181.3	5219.1	5228.5	5209.7	5107.6	5031.9	4829.6	4786.0
7.5°	5896.1	5971.8	5971.8	5926.3	5760.0	5604.9	5311.8	5202.1
10°	6467.1	6554.2	6535.2	6442.5	6232.7	6019.0	5663.5	5519.8
12.5°	6745.1	6834.0	6784.9	6679.0	6474.7	6249.7	5875.3	5712.6
15°	6739.5	6714.9	6663.8	6650.6	6552.2	6382.1	6032.2	5854.5
17.5°	6499.3	6291.3	6251.6	6384.0	6508.7	6467.1	6168.3	6002.0
20°	6119.2	5756.2	5720.2	5973.6	6329.2	6510.7	6295.0	6141.9
22.5°	5718.4	5326.9	5243.7	5523.5	6058.7	6523.9	6455.9	6302.6
25°	5338.2	4944.9	4861.7	5122.6	5758.0	6501.2	6629.8	6499.3
27.5°	5020.6	4640.5	4563.0	4823.9	5468.7	6436.9	6803.7	6711.1
30°	4774.8	4423.0	4366.3	4617.8	5219.1	6357.5	7025.0	6974.0
32.5°	4631.1	4373.9	4394.7	4600.7	5084.8	6270.5	7236.8	7261.4
35°	4772.8	4784.2	4965.7	5050.8	5209.7	6257.2	7524.2	7620.7
37.5°	5478.2	5871.5	6247.8	6177.9	5820.5	6410.5	7953.5	8133.2
40°	6679.0	7486.4	8097.2	7830.6	6930.4	6879.4	8571.9	8840.3
42.5°	8146.4	9515.4	10521.4	9806.7	8361.9	7700.1	9454.9	9797.2
45°	9695.1	12017.2	13601.9	12115.5	9888.0	8849.8	10791.8	11060.4
47.5°	11327.0	15057.9	17107.8	14676.0	11302.4	10158.4	12614.8	12677.2
50°	13112.1	18391.7	20681.7	17234.5	12667.7	11657.9	14842.3	14770.5
52.5°	14812.1	21820.1	24180.1	19804.2	13866.6	13518.6	17427.4	17279.9
55°	16434.5	25246.6	27699.1	22273.9	14997.4	15976.9	20498.3	19605.7
57.5°	18316.0	28326.9	31326.0	24754.9	16578.2	19168.9	23932.3	20955.9
60°	21097.7	31827.2	35427.6	28154.9	19584.9	22523.6	25163.3	20698.7
62.5°	24649.0	35045.6	38409.6	31486.8	22604.8	23155.1	23349.9	18716.9
65°	25339.2	35860.6	38577.9	32377.4	22215.2	19641.7	19063.1	15044.6
67.5°	23508.7	34387.5	36225.5	30719.0	19651.1	15178.9	14305.3	10914.7
70°	21455.1	31579.4	32126.0	27899.6	17283.6	11164.4	9661.0	7004.2
72.5°	19350.5	27833.4	26702.6	24229.2	15190.3	8129.4	6968.3	4978.9
75°	16850.6	22907.4	21033.4	20131.4	12577.0	6380.2	5041.4	3435.9
77.5°	13494.0	16124.4	15623.4	15604.4	9451.1	4661.3	3364.0	2153.8
80°	9519.2	10464.7	10209.4	11752.4	6340.4	3381.1	2025.2	1198.8
82.5°	4608.3	5786.4	5939.6	6998.5	3084.2	1989.3	467.1	261.0
85°	1804.0	2791.1	2354.3	2656.8	866.0	554.0	11.4	0.0
87.5°	202.3	323.4	296.8	234.5	105.9	22.7	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)