

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: P963510

Luminaire Tested: **NAV-SB3A-735-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963510
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-SB3A-735-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 350mA 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: 10528.8 lumens
Efficiency: N/A
Efficacy: 124.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

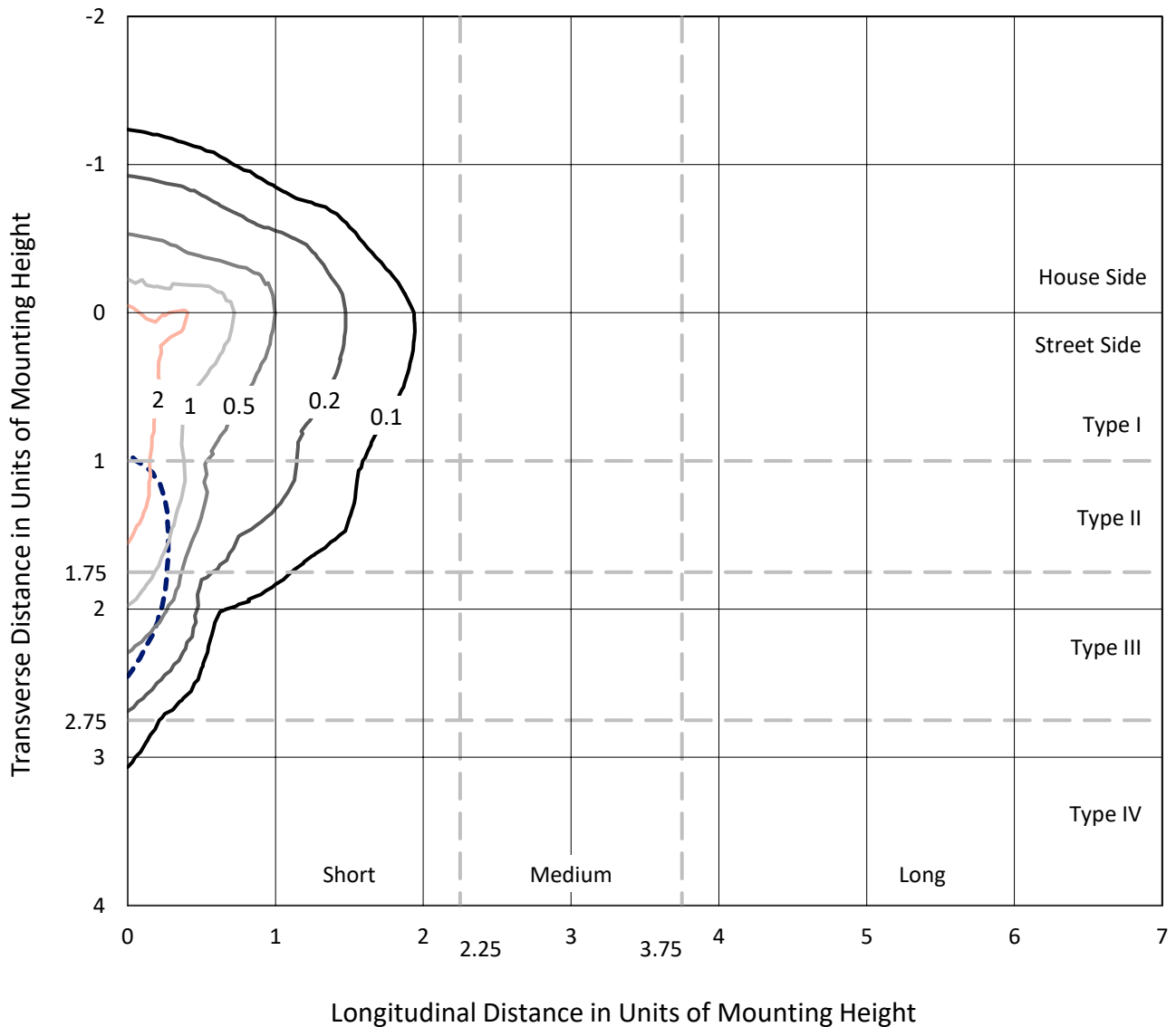
Input Watts (W): 84.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

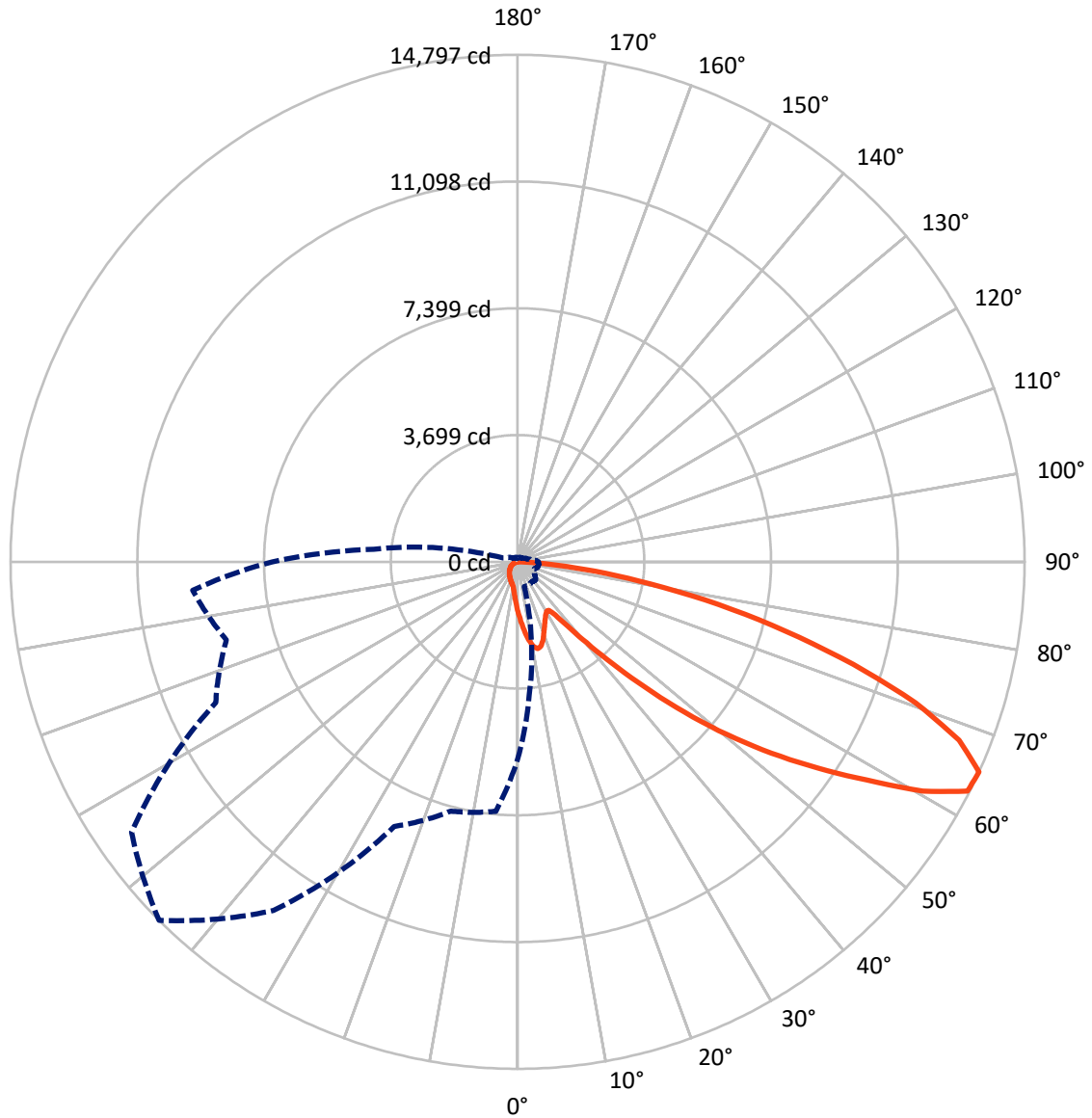
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 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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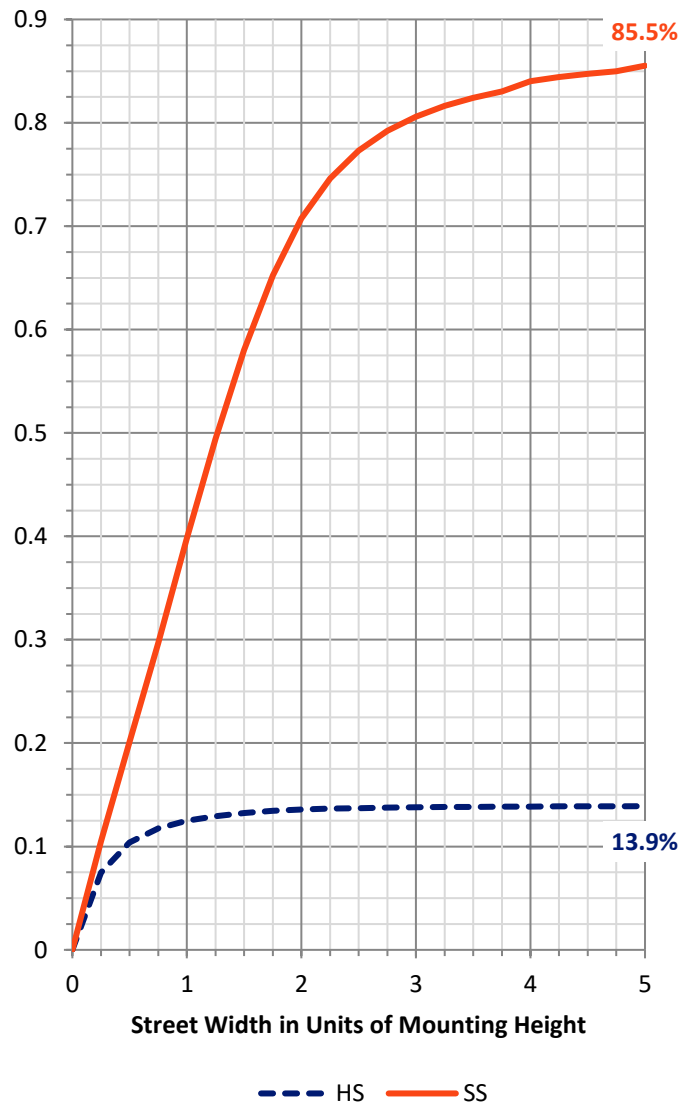
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1474.5	0.0	1474.5
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	9054.3	0.0	9054.3
	% Fixture	86.0	0.0	86.0
Total	Lumens	10528.8	0.0	10528.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.5	1.4
10°-20°	430.3	4.1
20°-30°	633.9	6.0
30°-40°	814.4	7.7
40°-50°	1317.1	12.5
50°-60°	2309.6	21.9
60°-70°	2890.0	27.4
70°-80°	1688.8	16.0
80°-90°	301.3	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°	10528.8	100.0
0°-180°	10528.8	100.0

Coefficient of Utilization



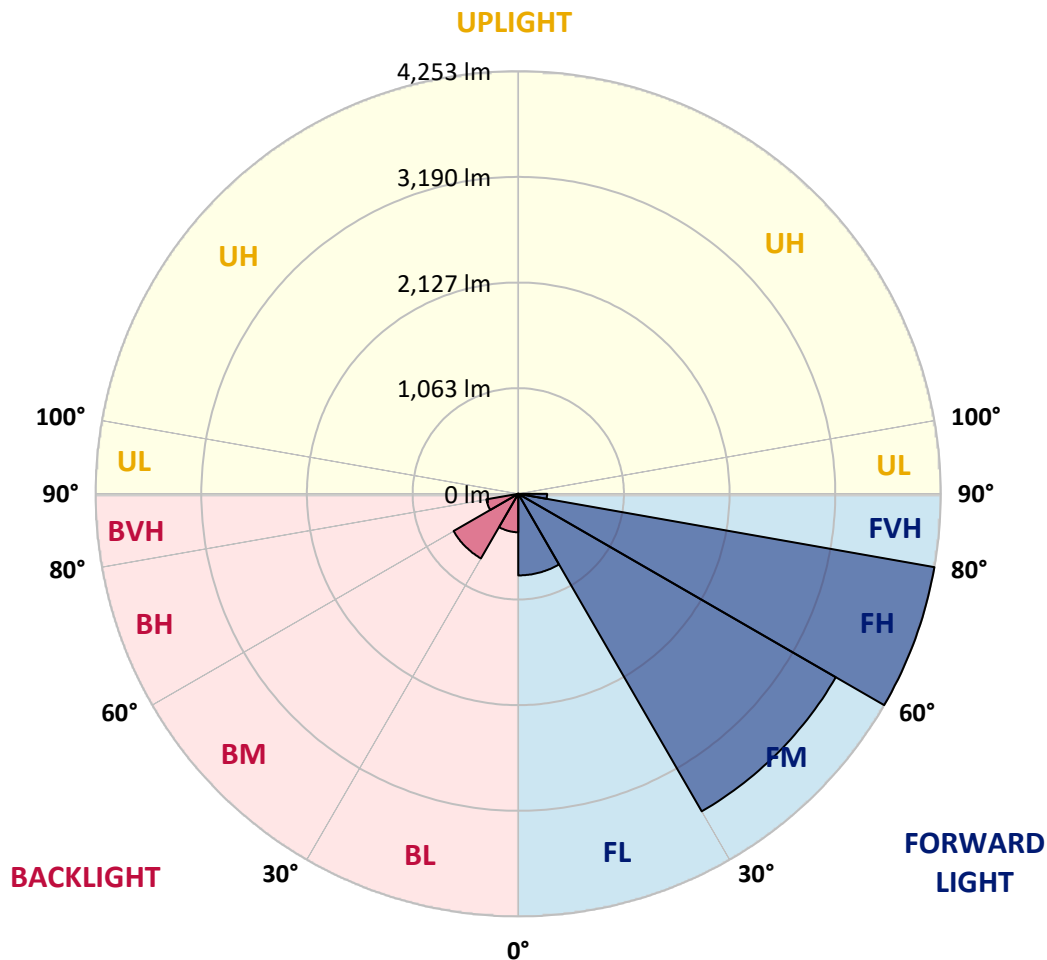
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	821.2	7.8			
FM	(30°-60°)	3690.2	35.0			
FH	(60°-80°)	4253.2	40.4			G2/5000
FVH	(80°-90°)	289.7	2.8			G3/500
BL	(0°-30°)	386.5	3.7	B1/500		
BM	(30°-60°)	750.8	7.1	B1/1000		
BH	(60°-80°)	325.6	3.1	B1/500		G1/500
BVH	(80°-90°)	11.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9
2.5°	1647.2	1618.9	1602.3	1560.9	1519.6	1486.1	1441.3	1411.5	1376.0	1341.8	1311.4
5°	1835.8	1790.1	1735.0	1659.6	1590.6	1520.3	1452.1	1384.7	1313.5	1248.2	1208.4
7.5°	1995.4	1929.4	1832.2	1732.0	1644.3	1559.4	1479.7	1390.4	1304.1	1201.8	1147.5
10°	2117.2	2033.1	1905.5	1774.2	1673.3	1587.7	1510.1	1434.7	1347.7	1224.4	1156.2
12.5°	2191.2	2101.2	1949.7	1795.9	1680.6	1584.9	1524.6	1491.3	1457.1	1334.6	1254.8
15°	2245.6	2148.4	1980.8	1811.2	1663.9	1546.4	1502.1	1535.6	1574.7	1496.3	1404.2
17.5°	2302.1	2200.0	2021.5	1817.6	1618.9	1471.7	1452.8	1539.1	1629.9	1626.2	1534.8
20°	2355.9	2254.3	2057.0	1813.3	1546.4	1381.0	1397.7	1508.0	1613.1	1657.3	1608.0
22.5°	2417.5	2310.1	2091.1	1796.6	1452.1	1296.1	1348.4	1458.7	1550.7	1603.0	1587.7
25°	2492.9	2380.6	2139.0	1771.9	1350.5	1225.8	1298.4	1401.3	1476.0	1512.3	1511.6
27.5°	2574.2	2464.6	2202.8	1758.9	1268.6	1175.8	1241.8	1333.1	1399.8	1425.3	1425.3
30°	2675.0	2562.6	2278.3	1744.4	1214.9	1146.8	1183.1	1254.1	1319.4	1344.8	1344.8
32.5°	2785.2	2671.4	2350.7	1709.6	1182.2	1124.9	1125.7	1170.7	1230.1	1260.6	1265.0
35°	2923.1	2801.9	2428.4	1633.4	1156.2	1099.6	1069.9	1091.6	1140.9	1177.2	1186.6
37.5°	3119.6	2973.1	2523.4	1524.6	1117.8	1060.5	1011.1	1016.2	1053.9	1093.8	1108.3
40°	3390.9	3203.0	2635.1	1411.5	1062.6	1005.3	946.6	944.3	971.9	1011.1	1027.0
42.5°	3757.9	3506.9	2769.2	1303.4	1009.6	938.6	878.3	874.7	896.5	930.6	947.3
45°	4242.4	3895.7	2934.0	1210.5	968.3	873.3	813.8	812.3	830.5	860.3	877.6
47.5°	4862.6	4436.1	3098.6	1147.5	946.6	821.7	760.9	763.7	779.7	806.6	818.9
50°	5665.5	5140.4	3148.6	1115.5	946.6	794.3	713.7	728.3	741.3	761.6	768.9
52.5°	6628.1	5816.4	2983.3	1086.5	952.3	797.9	673.8	705.0	714.4	731.8	734.7
55°	7520.1	6147.8	2564.8	1046.6	953.8	820.3	639.7	686.1	703.6	710.1	709.4
57.5°	8038.0	6034.0	2073.7	979.2	948.0	835.6	618.0	663.0	696.3	700.7	694.1
60°	7939.4	5634.3	1526.8	927.7	905.2	829.7	611.4	627.4	680.4	686.9	678.1
62.5°	7179.3	4964.1	1059.7	887.8	810.9	804.4	609.3	571.5	645.5	661.5	649.1
65°	5770.6	3908.0	748.6	764.4	710.8	749.3	597.7	513.5	603.5	625.2	606.4
67.5°	4186.6	2644.5	540.4	619.4	644.1	660.0	571.5	471.5	555.6	584.7	560.0
70°	2686.6	1428.1	379.4	409.1	542.5	560.7	526.5	433.8	507.0	540.4	513.5
72.5°	1909.8	843.6	272.8	286.5	435.9	467.1	463.5	391.7	450.4	491.1	459.1
75°	1317.9	464.9	184.2	204.6	316.2	379.4	357.6	336.5	381.5	422.9	391.7
77.5°	826.2	208.2	110.3	142.2	207.5	298.1	245.2	260.3	297.4	335.8	303.2
80°	459.8	80.5	61.6	94.3	113.2	216.9	135.6	167.6	219.0	246.6	220.5
82.5°	100.1	10.1	27.6	40.6	44.3	126.2	71.9	97.2	137.9	135.6	117.5
85°	0.0	0.0	5.1	5.8	2.9	54.4	26.1	31.9	45.0	42.0	31.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	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°	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9
2.5°	1305.5	1270.1	1243.9	1230.9	1220.0	1230.1	1235.9	1235.9	1260.6	1275.1	1280.9
5°	1183.1	1119.2	1070.6	1037.9	1018.3	1024.9	1032.2	1040.1	1071.3	1092.3	1106.1
7.5°	1098.2	1000.2	926.2	880.6	856.6	860.3	865.3	871.9	902.3	923.3	941.5
10°	1082.2	941.5	837.0	776.8	747.8	742.7	739.8	737.7	755.8	771.7	786.3
12.5°	1147.5	944.3	798.6	725.3	689.8	674.6	657.1	643.4	646.3	656.4	674.6
15°	1264.2	981.3	786.3	698.5	654.3	628.8	608.5	591.8	588.2	591.8	594.8
17.5°	1397.7	1031.5	784.8	675.3	620.1	594.1	577.4	562.1	557.1	557.8	561.4
20°	1486.1	1071.3	780.4	649.1	587.5	564.3	549.8	534.5	529.5	530.9	531.7
22.5°	1494.9	1092.3	773.9	620.1	554.8	535.3	520.8	507.0	506.2	506.2	510.7
25°	1447.7	1092.3	760.1	594.1	523.7	506.2	493.2	476.5	479.4	480.9	486.7
27.5°	1374.5	1066.2	734.0	573.0	496.8	478.7	465.7	450.4	454.1	456.2	462.8
30°	1302.0	1032.9	702.8	549.1	471.5	450.4	441.0	427.9	429.4	432.2	439.5
32.5°	1234.5	997.3	665.8	529.5	446.1	425.1	417.8	403.2	405.5	408.4	416.4
35°	1167.8	958.2	622.3	506.2	422.9	401.8	396.1	379.4	380.8	385.2	393.8
37.5°	1095.9	916.8	586.8	483.1	400.4	378.6	372.8	355.4	356.9	361.9	372.1
40°	1020.5	876.2	552.0	458.4	376.5	354.6	349.6	330.8	332.2	338.0	348.9
42.5°	944.3	832.0	525.1	426.5	351.8	328.6	323.5	306.1	308.2	314.8	325.6
45°	874.0	779.0	507.7	390.9	328.6	302.5	297.4	281.5	285.8	293.0	303.9
47.5°	813.8	724.6	500.5	361.2	303.9	275.6	271.3	258.2	265.5	273.5	282.2
50°	762.3	672.4	491.1	330.8	280.7	252.5	248.0	239.3	248.8	256.8	264.8
52.5°	725.3	612.9	470.8	303.2	260.3	232.9	231.3	227.0	235.7	243.0	250.2
55°	693.4	551.2	438.1	279.2	242.2	216.2	217.6	215.5	222.6	228.5	235.0
57.5°	664.4	497.5	396.8	260.3	222.6	201.6	206.0	203.1	206.7	210.3	218.3
60°	629.6	443.2	347.5	239.3	199.5	187.2	192.2	184.2	183.5	184.9	187.2
62.5°	578.1	369.9	295.9	213.2	179.2	171.2	173.3	158.2	146.5	146.5	148.7
65°	506.2	297.4	248.0	184.2	155.9	149.4	148.0	126.2	110.3	108.8	115.3
67.5°	422.9	244.5	206.0	155.2	129.9	125.5	126.9	111.0	95.0	93.6	100.9
70°	344.5	202.3	166.0	124.0	100.1	104.4	111.0	95.0	79.7	77.6	84.2
72.5°	279.9	161.0	129.9	95.0	74.0	86.3	94.3	77.6	63.1	61.6	67.4
75°	216.2	118.2	92.9	64.6	53.7	66.7	74.0	56.6	45.0	42.8	47.9
77.5°	144.3	73.3	52.2	40.6	31.9	45.7	49.3	29.7	26.1	25.4	29.0
80°	87.7	34.1	22.4	19.6	10.9	16.7	19.6	12.3	13.7	14.6	17.4
82.5°	44.3	9.4	3.6	0.7	0.0	0.0	5.8	2.9	5.8	7.3	10.9
85°	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.6	6.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9
2.5°	1321.5	1352.0	1381.0	1427.4	1475.3	1522.4	1570.3	1616.7	1633.4	1645.7	1673.3
5°	1169.2	1226.5	1293.2	1385.4	1484.0	1585.6	1688.6	1782.9	1825.6	1854.6	1919.9
7.5°	1011.8	1086.5	1182.2	1320.8	1475.3	1637.0	1798.8	1947.5	2016.4	2072.2	2171.7
10°	855.9	937.2	1058.2	1216.4	1425.3	1657.3	1880.8	2085.3	2174.5	2244.9	2379.7
12.5°	718.8	795.0	921.9	1096.6	1347.0	1641.4	1927.9	2173.8	2279.0	2358.0	2506.0
15°	622.3	676.0	788.4	977.0	1254.1	1589.9	1930.8	2215.8	2331.2	2413.9	2542.3
17.5°	568.7	586.8	660.0	855.2	1151.1	1522.4	1903.9	2230.4	2353.7	2430.6	2519.8
20°	539.7	542.5	562.8	697.0	1019.1	1459.4	1878.6	2244.9	2374.7	2439.3	2466.1
22.5°	516.4	516.4	521.5	570.1	848.6	1384.0	1870.6	2270.3	2403.7	2443.6	2388.5
25°	495.4	495.4	496.8	509.9	672.4	1268.6	1865.5	2309.4	2443.6	2454.5	2302.9
27.5°	473.7	474.4	474.4	481.6	541.8	1111.9	1843.8	2360.2	2491.5	2469.0	2221.0
30°	451.9	453.4	453.4	458.4	479.4	928.4	1801.0	2421.2	2553.9	2487.9	2139.7
32.5°	430.1	431.5	431.5	435.9	451.1	741.3	1747.3	2477.0	2616.9	2495.9	2064.2
35°	407.6	409.8	408.4	414.2	430.1	589.7	1679.2	2532.9	2685.2	2521.2	2027.2
37.5°	385.2	386.6	385.9	391.7	409.8	509.2	1600.0	2574.9	2778.0	2577.8	2071.5
40°	362.6	361.9	361.9	368.5	388.1	486.0	1500.7	2641.6	2911.4	2677.2	2264.4
42.5°	339.5	339.5	338.0	345.2	369.2	468.5	1405.7	2761.4	3105.9	2835.3	2606.8
45°	318.5	317.6	314.8	321.3	351.1	438.1	1372.3	2984.7	3393.1	3091.3	3021.0
47.5°	298.1	297.4	290.2	295.9	329.3	410.5	1497.1	3350.3	3791.3	3467.8	3409.0
50°	279.9	280.7	266.9	272.0	307.5	389.5	1767.6	3824.7	4320.1	3974.7	3776.7
52.5°	263.3	263.3	245.2	248.0	280.7	370.6	2025.1	4338.9	5017.8	4682.0	4205.5
55°	246.6	245.2	224.9	226.3	253.9	343.8	2063.5	4840.8	5969.4	5746.0	4791.5
57.5°	227.8	224.9	206.0	206.0	229.2	324.2	1788.6	5226.7	7150.3	7309.8	5636.5
60°	204.6	202.3	190.0	186.4	209.6	341.6	1262.1	5271.7	7911.9	9389.3	7254.7
62.5°	174.8	177.7	171.2	166.0	190.8	354.6	747.8	4909.8	7727.6	10050.8	9192.7
65°	137.9	149.4	148.0	144.3	209.6	298.8	441.7	4214.9	7162.6	9517.0	8797.5
67.5°	117.5	125.5	123.3	123.3	219.8	227.0	277.8	3293.0	6385.0	8883.8	7858.2
70°	100.1	108.0	100.1	100.1	166.0	137.9	192.2	2299.3	5545.9	8183.1	7241.6
72.5°	82.7	90.7	82.0	76.2	132.7	103.0	140.7	1436.8	4749.4	7453.4	6819.5
75°	63.1	72.6	66.0	58.7	87.7	76.9	106.6	834.9	3934.9	6377.0	6218.2
77.5°	39.9	52.2	49.3	41.3	64.6	55.9	76.9	496.8	3036.3	4982.9	5348.6
80°	24.7	26.9	27.6	26.1	37.0	37.7	52.2	282.9	2078.1	3472.8	4178.6
82.5°	16.0	16.0	12.3	13.7	18.1	21.7	29.7	106.6	1221.5	2114.4	2908.5
85°	11.6	10.1	6.6	6.6	8.7	10.9	11.6	32.6	495.4	834.9	1137.3
87.5°	5.8	5.1	2.2	2.9	4.3	3.6	2.9	1.4	124.7	266.9	187.2
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9	1457.9
2.5°	1687.9	1710.3	1711.7	1711.7	1692.2	1691.5	1651.6	1647.2
5°	1987.4	2001.9	2005.5	1998.2	1959.1	1930.1	1852.5	1835.8
7.5°	2261.6	2290.6	2290.6	2273.1	2209.4	2149.8	2037.4	1995.4
10°	2480.6	2514.0	2506.7	2471.2	2390.7	2308.7	2172.4	2117.2
12.5°	2587.2	2621.3	2602.5	2561.9	2483.5	2397.2	2253.6	2191.2
15°	2585.0	2575.6	2556.0	2550.9	2513.3	2448.0	2313.8	2245.6
17.5°	2492.9	2413.2	2397.9	2448.7	2496.6	2480.6	2366.0	2302.1
20°	2347.1	2207.8	2194.1	2291.3	2427.6	2497.3	2414.6	2355.9
22.5°	2193.4	2043.2	2011.4	2118.7	2324.0	2502.3	2476.3	2417.5
25°	2047.5	1896.8	1864.8	1964.9	2208.6	2493.6	2543.0	2492.9
27.5°	1925.8	1779.9	1750.2	1850.3	2097.7	2469.0	2609.8	2574.2
30°	1831.5	1696.6	1674.7	1771.2	2001.9	2438.6	2694.6	2675.0
32.5°	1776.3	1677.7	1685.6	1764.7	1950.4	2405.2	2775.8	2785.2
35°	1830.8	1835.1	1904.7	1937.4	1998.2	2400.1	2886.1	2923.1
37.5°	2101.2	2252.1	2396.4	2369.6	2232.6	2458.9	3050.7	3119.6
40°	2561.9	2871.5	3105.9	3003.6	2658.3	2638.8	3287.9	3390.9
42.5°	3124.7	3649.8	4035.7	3761.5	3207.4	2953.5	3626.7	3757.9
45°	3718.7	4609.4	5217.2	4647.1	3792.7	3394.5	4139.5	4242.4
47.5°	4344.7	5775.8	6562.0	5629.2	4335.2	3896.4	4838.6	4862.6
50°	5029.4	7054.5	7932.9	6610.6	4858.9	4471.7	5693.1	5665.5
52.5°	5681.5	8369.5	9274.7	7596.3	5318.8	5185.4	6684.6	6628.1
55°	6303.7	9683.8	10624.5	8543.6	5752.5	6128.3	7862.5	7520.1
57.5°	7025.5	10865.3	12015.8	9495.2	6358.9	7352.6	9179.7	8038.0
60°	8092.5	12208.0	13588.9	10799.4	7512.2	8639.3	9651.9	7939.4
62.5°	9454.6	13442.5	14732.8	12077.4	8670.6	8881.6	8956.3	7179.3
65°	9719.4	13755.1	14797.3	12419.0	8521.1	7534.0	7312.0	5770.6
67.5°	9017.2	13190.0	13895.0	11782.9	7537.5	5822.2	5487.0	4186.6
70°	8229.5	12112.9	12322.6	10701.4	6629.5	4282.3	3705.7	2686.6
72.5°	7422.2	10676.1	10242.3	9293.6	5826.5	3118.2	2672.8	1909.8
75°	6463.3	8786.6	8067.8	7721.8	4824.2	2447.3	1933.8	1317.9
77.5°	5175.9	6184.8	5992.7	5985.4	3625.2	1787.9	1290.4	826.2
80°	3651.3	4013.9	3916.0	4507.8	2432.0	1296.8	776.8	459.8
82.5°	1767.6	2219.5	2278.3	2684.5	1183.1	763.0	179.2	100.1
85°	692.0	1070.6	903.0	1019.1	332.2	212.5	4.3	0.0
87.5°	77.6	124.0	113.9	89.9	40.6	8.7	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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