

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: P962611

Luminaire Tested: **NAV-SB2C-830-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962611
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-SB2C-830-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

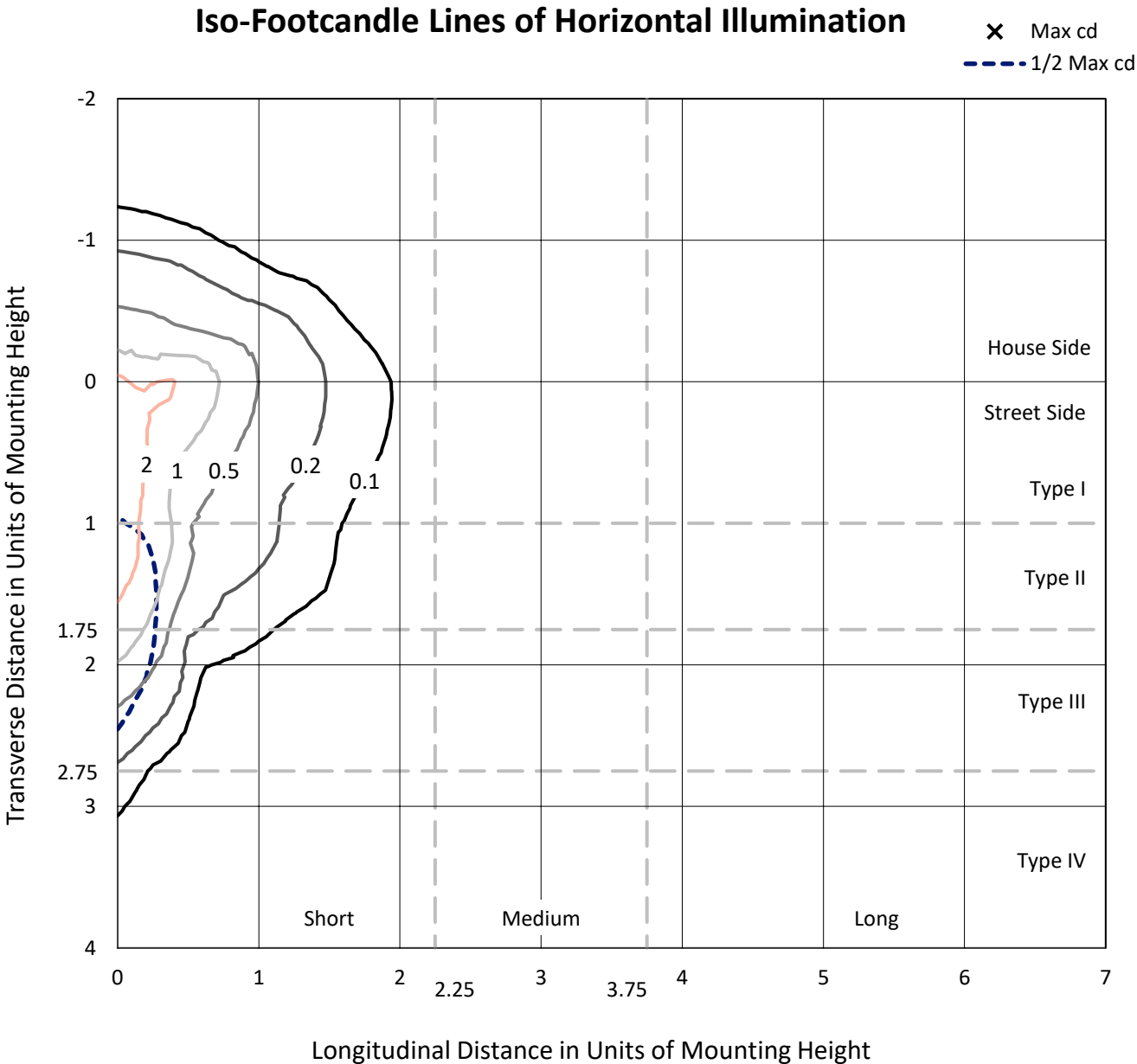
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10527.8 lumens
Efficiency: N/A
Efficacy: 104.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

Input Watts (W): 100.9
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



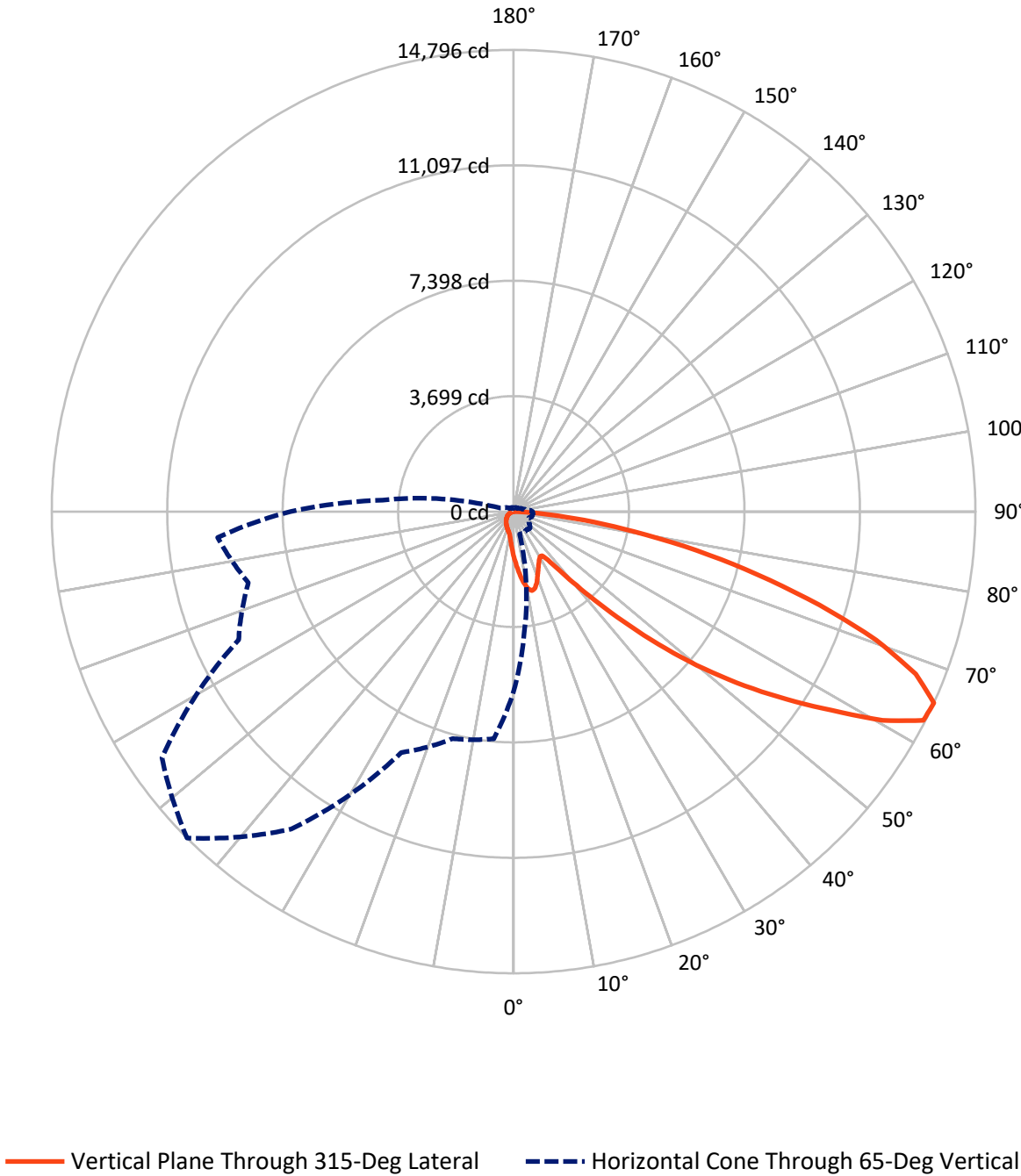
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Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1474.3	0.0	1474.3
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	9053.4	0.0	9053.4
	% Fixture	86.0	0.0	86.0
Total	Lumens	10527.8	0.0	10527.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.5	1.4
10°-20°	430.2	4.1
20°-30°	633.8	6.0
30°-40°	814.3	7.7
40°-50°	1317.0	12.5
50°-60°	2309.4	21.9
60°-70°	2889.7	27.4
70°-80°	1688.6	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°	10527.8	100.0
0°-180°	10527.8	100.0

Coefficient of Utilization



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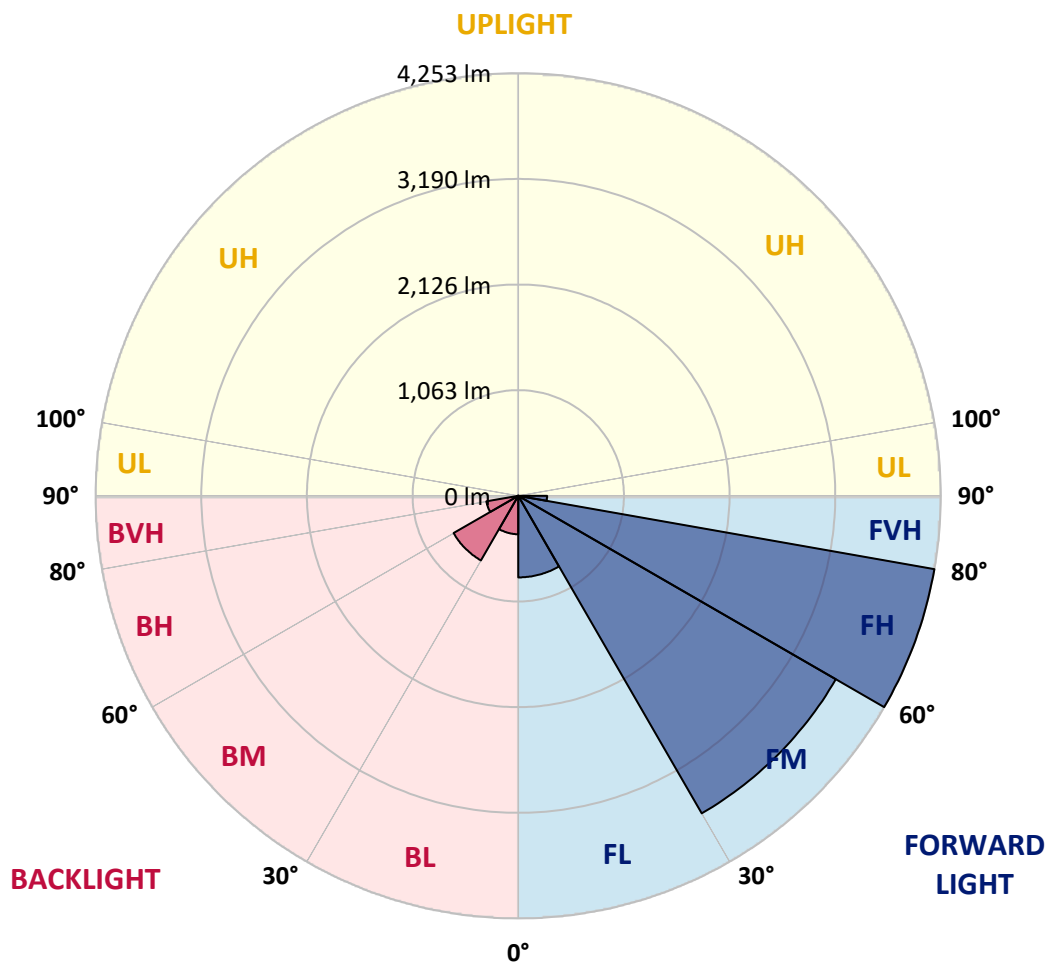
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	821.1	7.8			
FM	(30°-60°)	3689.9	35.0			
FH	(60°-80°)	4252.7	40.4			G2/5000
FVH	(80°-90°)	289.7	2.8			G3/500
BL	(0°-30°)	386.4	3.7	B1/500		
BM	(30°-60°)	750.8	7.1	B1/1000		
BH	(60°-80°)	325.5	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°	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8
2.5°	1647.1	1618.8	1602.1	1560.8	1519.4	1486.0	1441.0	1411.3	1375.9	1341.7	1311.3
5°	1835.6	1790.0	1734.8	1659.4	1590.5	1520.2	1451.9	1384.5	1313.4	1248.1	1208.3
7.5°	1995.2	1929.2	1832.0	1731.9	1644.1	1559.3	1479.5	1390.3	1304.0	1201.7	1147.4
10°	2117.0	2032.9	1905.3	1774.0	1673.2	1587.6	1509.9	1434.6	1347.6	1224.3	1156.1
12.5°	2191.0	2101.0	1949.4	1795.7	1680.4	1584.6	1524.5	1491.2	1457.0	1334.4	1254.7
15°	2245.4	2148.2	1980.7	1811.0	1663.8	1546.2	1502.0	1535.3	1574.5	1496.2	1404.0
17.5°	2301.9	2199.6	2021.3	1817.5	1618.8	1471.5	1452.7	1539.0	1629.6	1626.1	1534.6
20°	2355.7	2254.1	2056.9	1813.1	1546.2	1380.9	1397.6	1507.8	1612.9	1657.2	1607.9
22.5°	2417.3	2309.9	2090.9	1796.4	1451.9	1296.0	1348.3	1458.5	1550.6	1602.8	1587.6
25°	2492.7	2380.3	2138.8	1771.8	1350.4	1225.7	1298.2	1401.2	1475.9	1512.2	1511.5
27.5°	2573.9	2464.4	2202.6	1758.7	1268.4	1175.7	1241.7	1333.0	1399.7	1425.2	1425.2
30°	2674.7	2562.3	2278.1	1744.2	1214.8	1146.7	1182.8	1254.0	1319.3	1344.6	1344.6
32.5°	2784.9	2671.1	2350.5	1709.4	1182.1	1124.8	1125.6	1170.6	1230.0	1260.4	1264.8
35°	2922.8	2801.6	2428.1	1633.2	1156.1	1099.5	1069.8	1091.5	1140.8	1177.1	1186.5
37.5°	3119.3	2972.8	2523.1	1524.5	1117.7	1060.4	1011.0	1016.1	1053.8	1093.7	1108.2
40°	3390.6	3202.7	2634.9	1411.3	1062.5	1005.2	946.5	944.2	971.8	1011.0	1026.9
42.5°	3757.5	3506.6	2769.0	1303.3	1009.5	938.5	878.3	874.6	896.4	930.5	947.2
45°	4242.0	3895.3	2933.7	1210.4	968.2	873.2	813.7	812.3	830.5	860.2	877.6
47.5°	4862.1	4435.7	3098.3	1147.4	946.5	821.7	760.8	763.7	779.6	806.5	818.8
50°	5665.0	5139.9	3148.3	1115.4	946.5	794.2	713.6	728.2	741.2	761.5	768.7
52.5°	6627.3	5815.8	2983.0	1086.4	952.2	797.8	673.7	705.0	714.4	731.7	734.7
55°	7519.4	6147.2	2564.4	1046.5	953.7	820.3	639.7	686.1	703.5	710.0	709.3
57.5°	8037.2	6033.4	2073.5	979.1	947.9	835.5	617.9	662.9	696.3	700.6	694.0
60°	7938.6	5633.8	1526.6	927.6	905.1	829.7	611.4	627.3	680.3	686.9	678.1
62.5°	7178.6	4963.7	1059.6	887.8	810.9	804.3	609.3	571.5	645.4	661.4	649.1
65°	5770.1	3907.7	748.5	764.4	710.7	749.2	597.6	513.5	603.4	625.1	606.3
67.5°	4186.2	2644.3	540.3	619.4	644.0	660.0	571.5	471.4	555.6	584.6	559.9
70°	2686.3	1428.0	379.4	409.1	542.5	560.6	526.5	433.7	507.0	540.3	513.5
72.5°	1909.6	843.5	272.6	286.5	435.8	467.1	463.4	391.7	450.4	491.0	459.1
75°	1317.7	464.8	184.2	204.5	316.2	379.4	357.5	336.5	381.5	422.8	391.7
77.5°	826.0	208.2	110.2	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	167.5	219.0	246.6	220.5
82.5°	100.0	10.1	27.6	40.6	44.3	126.2	71.8	97.2	137.8	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°	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8
2.5°	1305.4	1269.9	1243.8	1230.7	1219.9	1230.0	1235.8	1235.8	1260.4	1275.0	1280.8
5°	1182.8	1119.1	1070.5	1037.8	1018.2	1024.8	1032.1	1040.0	1071.2	1092.2	1106.0
7.5°	1098.1	1000.1	926.2	880.5	856.5	860.2	865.2	871.8	902.2	923.2	941.4
10°	1082.1	941.4	836.9	776.7	747.7	742.6	739.7	737.6	755.7	771.6	786.2
12.5°	1147.4	944.2	798.5	725.3	689.7	674.4	657.1	643.3	646.2	656.3	674.4
15°	1264.1	981.2	786.2	698.4	654.2	628.8	608.4	591.8	588.1	591.8	594.7
17.5°	1397.6	1031.4	784.7	675.2	620.1	594.0	577.3	562.1	557.0	557.7	561.4
20°	1486.0	1071.2	780.3	649.1	587.4	564.3	549.7	534.5	529.4	530.8	531.6
22.5°	1494.8	1092.2	773.9	620.1	554.8	535.3	520.7	507.0	506.2	506.2	510.6
25°	1447.6	1092.2	760.0	594.0	523.7	506.2	493.1	476.5	479.4	480.8	486.7
27.5°	1374.3	1066.1	734.0	573.0	496.8	478.7	465.7	450.4	454.0	456.2	462.7
30°	1301.9	1032.8	702.7	549.0	471.4	450.4	441.0	427.9	429.4	432.2	439.5
32.5°	1234.4	997.2	665.7	529.4	446.1	425.0	417.8	403.2	405.4	408.4	416.3
35°	1167.7	958.1	622.3	506.2	422.8	401.8	396.0	379.4	380.8	385.1	393.8
37.5°	1095.8	916.8	586.7	483.0	400.4	378.5	372.8	355.4	356.8	361.9	372.1
40°	1020.4	876.1	552.0	458.4	376.4	354.6	349.5	330.7	332.2	337.9	348.8
42.5°	944.2	831.9	525.1	426.4	351.8	328.5	323.5	306.1	308.2	314.8	325.6
45°	873.9	778.9	507.7	390.9	328.5	302.5	297.4	281.4	285.8	293.0	303.9
47.5°	813.7	724.6	500.4	361.2	303.9	275.6	271.2	258.2	265.5	273.5	282.1
50°	762.3	672.3	491.0	330.7	280.6	252.4	248.0	239.3	248.8	256.8	264.8
52.5°	725.3	612.8	470.7	303.2	260.3	232.8	231.3	227.0	235.7	242.9	250.2
55°	693.3	551.1	438.1	279.2	242.2	216.2	217.6	215.4	222.6	228.5	235.0
57.5°	664.3	497.5	396.7	260.3	222.6	201.6	205.9	203.1	206.7	210.3	218.3
60°	629.6	443.1	347.4	239.3	199.5	187.2	192.2	184.2	183.5	184.9	187.2
62.5°	578.0	369.9	295.9	213.2	179.2	171.2	173.3	158.1	146.5	146.5	148.7
65°	506.2	297.4	248.0	184.2	155.9	149.4	147.9	126.2	110.2	108.8	115.3
67.5°	422.8	244.4	205.9	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	100.0	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	42.7	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°	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8
2.5°	1321.4	1351.9	1380.9	1427.3	1475.2	1522.3	1570.2	1616.6	1633.2	1645.6	1673.2
5°	1169.1	1226.4	1293.1	1385.2	1483.9	1585.4	1688.4	1782.7	1825.4	1854.4	1919.7
7.5°	1011.8	1086.4	1182.1	1320.7	1475.2	1636.9	1798.7	1947.3	2016.2	2072.0	2171.4
10°	855.8	937.1	1058.1	1216.3	1425.2	1657.2	1880.6	2085.1	2174.3	2244.6	2379.5
12.5°	718.7	794.9	921.8	1096.5	1346.7	1641.2	1927.7	2173.6	2278.8	2357.8	2505.7
15°	622.3	676.0	788.3	976.9	1254.0	1589.8	1930.6	2215.6	2331.0	2413.7	2542.0
17.5°	568.6	586.7	660.0	855.1	1151.0	1522.3	1903.8	2230.2	2353.4	2430.3	2519.6
20°	539.6	542.5	562.8	697.0	1019.0	1459.2	1878.4	2244.6	2374.5	2439.0	2465.8
22.5°	516.4	516.4	521.4	570.0	848.6	1383.7	1870.4	2270.1	2403.5	2443.4	2388.2
25°	495.4	495.4	496.8	509.8	672.3	1268.4	1865.4	2309.2	2443.4	2454.3	2302.7
27.5°	473.6	474.3	474.3	481.5	541.8	1111.8	1843.6	2360.0	2491.3	2468.7	2220.8
30°	451.8	453.3	453.3	458.4	479.4	928.3	1800.8	2420.9	2553.6	2487.6	2139.5
32.5°	430.1	431.5	431.5	435.8	451.1	741.2	1747.1	2476.7	2616.7	2495.6	2064.0
35°	407.6	409.8	408.4	414.1	430.1	589.7	1679.0	2532.6	2684.9	2521.0	2027.0
37.5°	385.1	386.5	385.8	391.7	409.8	509.1	1599.9	2574.7	2777.7	2577.6	2071.3
40°	362.6	361.9	361.9	368.4	388.0	486.0	1500.6	2641.4	2911.2	2676.9	2264.2
42.5°	339.4	339.4	337.9	345.2	369.2	468.5	1405.6	2761.0	3105.5	2835.0	2606.6
45°	318.4	317.6	314.8	321.3	351.1	438.1	1372.2	2984.4	3392.7	3091.0	3020.7
47.5°	298.1	297.4	290.1	295.9	329.2	410.5	1496.9	3349.9	3790.9	3467.5	3408.7
50°	279.9	280.6	266.9	271.9	307.5	389.5	1767.4	3824.3	4319.7	3974.4	3776.4
52.5°	263.2	263.2	245.2	248.0	280.6	370.6	2024.9	4338.5	5017.3	4681.5	4205.1
55°	246.6	245.2	224.8	226.3	253.8	343.8	2063.3	4840.4	5968.9	5745.4	4791.1
57.5°	227.8	224.8	205.9	205.9	229.2	324.2	1788.5	5226.2	7149.6	7309.1	5636.0
60°	204.5	202.3	190.0	186.3	209.6	341.6	1262.0	5271.2	7911.1	9388.4	7254.0
62.5°	174.8	177.7	171.2	166.0	190.8	354.6	747.7	4909.2	7726.9	10049.8	9191.9
65°	137.8	149.4	147.9	144.3	209.6	298.8	441.7	4214.5	7161.9	9516.1	8796.7
67.5°	117.5	125.5	123.3	123.3	219.8	227.0	277.8	3292.6	6384.4	8883.0	7857.4
70°	100.0	108.0	100.0	100.0	166.0	137.8	192.2	2299.1	5545.2	8182.3	7240.9
72.5°	82.7	90.6	82.0	76.2	132.7	103.0	140.7	1436.7	4748.9	7452.7	6818.8
75°	63.1	72.6	66.0	58.7	87.7	76.9	106.6	834.8	3934.5	6376.4	6217.6
77.5°	39.9	52.2	49.3	41.3	64.6	55.9	76.9	496.8	3035.9	4982.5	5348.0
80°	24.7	26.9	27.6	26.1	37.0	37.7	52.2	282.9	2077.9	3472.5	4178.2
82.5°	16.0	16.0	12.3	13.7	18.1	21.7	29.7	106.6	1221.3	2114.2	2908.2
85°	11.6	10.1	6.6	6.6	8.7	10.9	11.6	32.6	495.4	834.8	1137.2
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°	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8
2.5°	1687.7	1710.1	1711.6	1711.6	1692.0	1691.2	1651.4	1647.1
5°	1987.2	2001.7	2005.3	1998.0	1958.9	1929.9	1852.3	1835.6
7.5°	2261.4	2290.4	2290.4	2272.9	2209.1	2149.6	2037.2	1995.2
10°	2480.4	2513.7	2506.4	2471.0	2390.4	2308.5	2172.2	2117.0
12.5°	2587.0	2621.0	2602.2	2561.6	2483.3	2397.0	2253.4	2191.0
15°	2584.8	2575.4	2555.8	2550.7	2513.0	2447.7	2313.5	2245.4
17.5°	2492.7	2413.0	2397.7	2448.4	2496.3	2480.4	2365.8	2301.9
20°	2346.9	2207.6	2193.9	2291.1	2427.4	2497.0	2414.4	2355.7
22.5°	2193.2	2043.0	2011.2	2118.5	2323.7	2502.1	2476.0	2417.3
25°	2047.4	1896.6	1864.6	1964.7	2208.4	2493.4	2542.7	2492.7
27.5°	1925.6	1779.8	1750.1	1850.1	2097.5	2468.7	2609.4	2573.9
30°	1831.3	1696.4	1674.6	1771.1	2001.7	2438.3	2694.3	2674.7
32.5°	1776.1	1677.5	1685.5	1764.5	1950.2	2405.0	2775.5	2784.9
35°	1830.5	1834.9	1904.6	1937.1	1998.0	2399.8	2885.8	2922.8
37.5°	2101.0	2251.9	2396.2	2369.4	2232.3	2458.6	3050.4	3119.3
40°	2561.6	2871.2	3105.5	3003.2	2658.0	2638.5	3287.6	3390.6
42.5°	3124.4	3649.5	4035.3	3761.1	3207.1	2953.2	3626.2	3757.5
45°	3718.4	4609.0	5216.7	4646.7	3792.4	3394.2	4139.1	4242.0
47.5°	4344.3	5775.2	6561.3	5628.7	4334.8	3896.0	4838.2	4862.1
50°	5029.0	7053.8	7932.1	6609.9	4858.5	4471.2	5692.5	5665.0
52.5°	5681.0	8368.7	9273.8	7595.6	5318.3	5184.9	6683.9	6627.3
55°	6303.1	9682.9	10623.5	8542.8	5752.0	6127.7	7861.7	7519.4
57.5°	7024.8	10864.3	12014.5	9494.3	6358.3	7351.9	9178.8	8037.2
60°	8091.7	12206.7	13587.6	10798.3	7511.4	8638.5	9651.0	7938.6
62.5°	9453.7	13441.1	14731.4	12076.2	8669.7	8880.7	8955.4	7178.6
65°	9718.4	13753.8	14795.9	12417.8	8520.3	7533.2	7311.3	5770.1
67.5°	9016.3	13188.8	13893.7	11781.8	7536.8	5821.6	5486.5	4186.2
70°	8228.7	12111.7	12321.3	10700.4	6628.8	4281.9	3705.3	2686.3
72.5°	7421.5	10675.0	10241.3	9292.6	5826.0	3117.8	2672.6	1909.6
75°	6462.7	8785.7	8067.0	7721.0	4823.6	2447.0	1933.6	1317.7
77.5°	5175.4	6184.2	5992.0	5984.8	3624.8	1787.7	1290.3	826.0
80°	3650.9	4013.6	3915.6	4507.4	2431.8	1296.7	776.7	459.8
82.5°	1767.4	2219.2	2278.1	2684.2	1182.8	763.0	179.2	100.0
85°	691.9	1070.5	902.9	1019.0	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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