

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: P962082

Luminaire Tested: **NAV-SB2B-830-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962082
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-SB2B-830-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7915.1 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 73.9
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



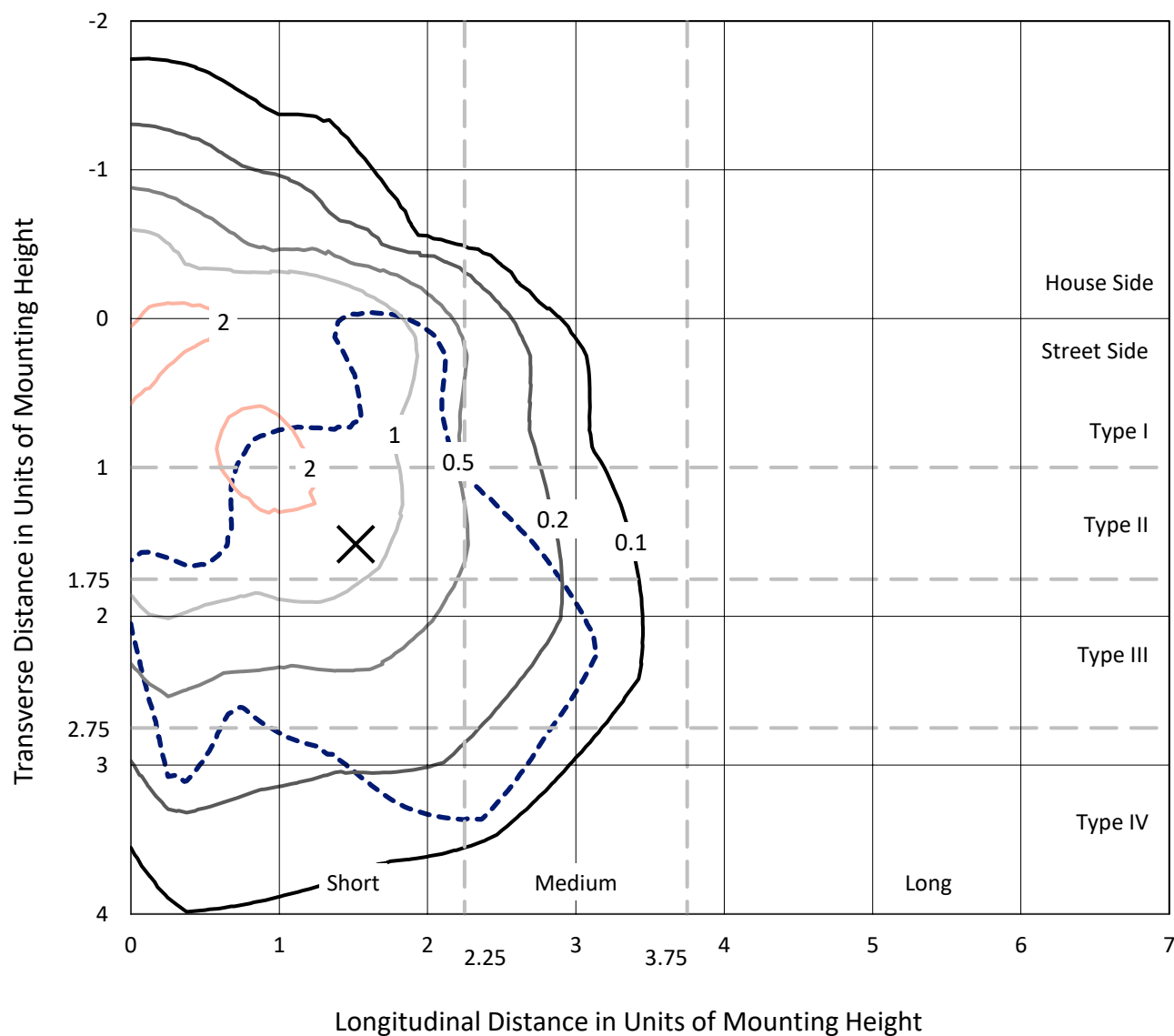
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

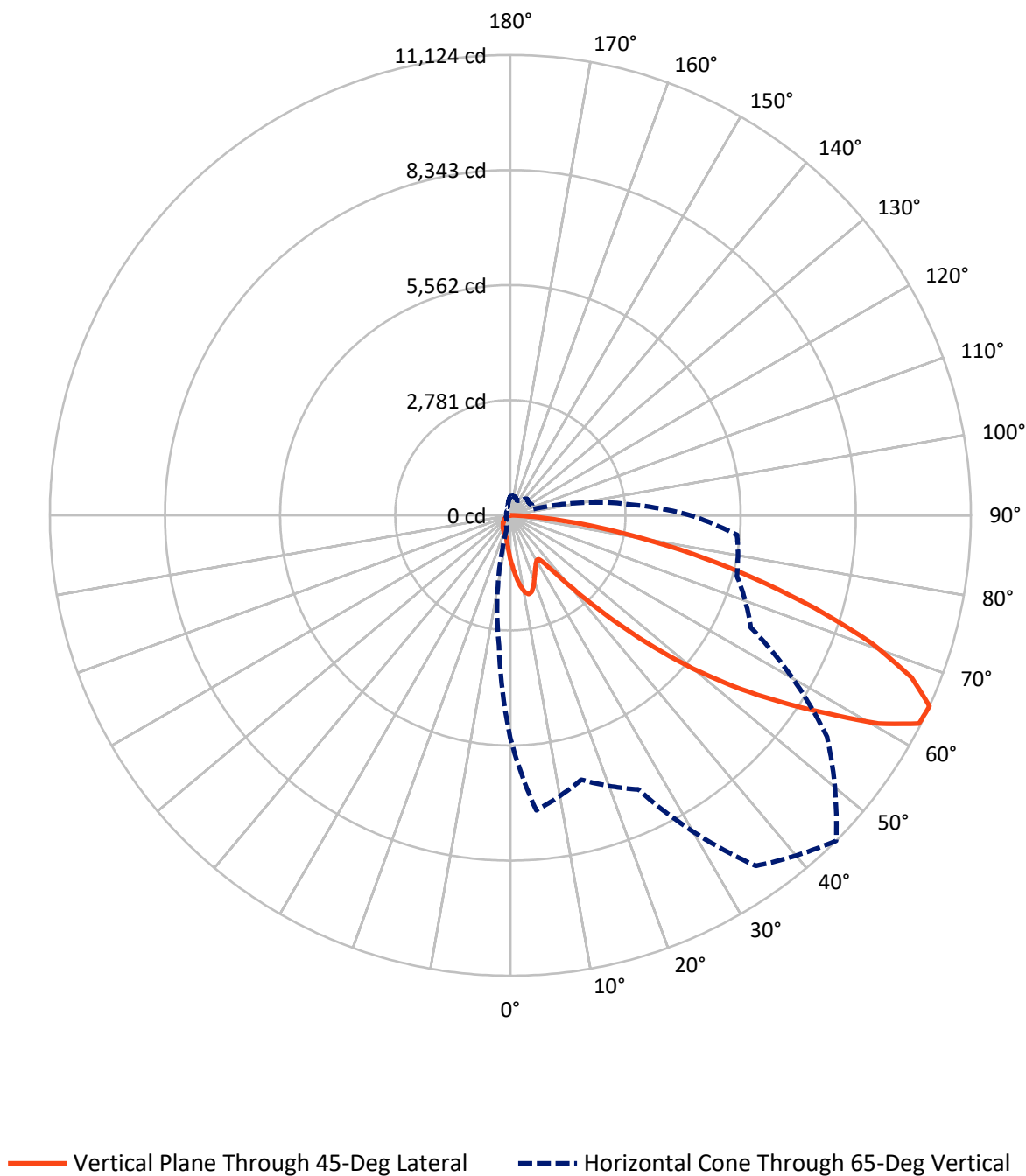


Based on 25 foot mounting height. Maximum calculated value = 2.9 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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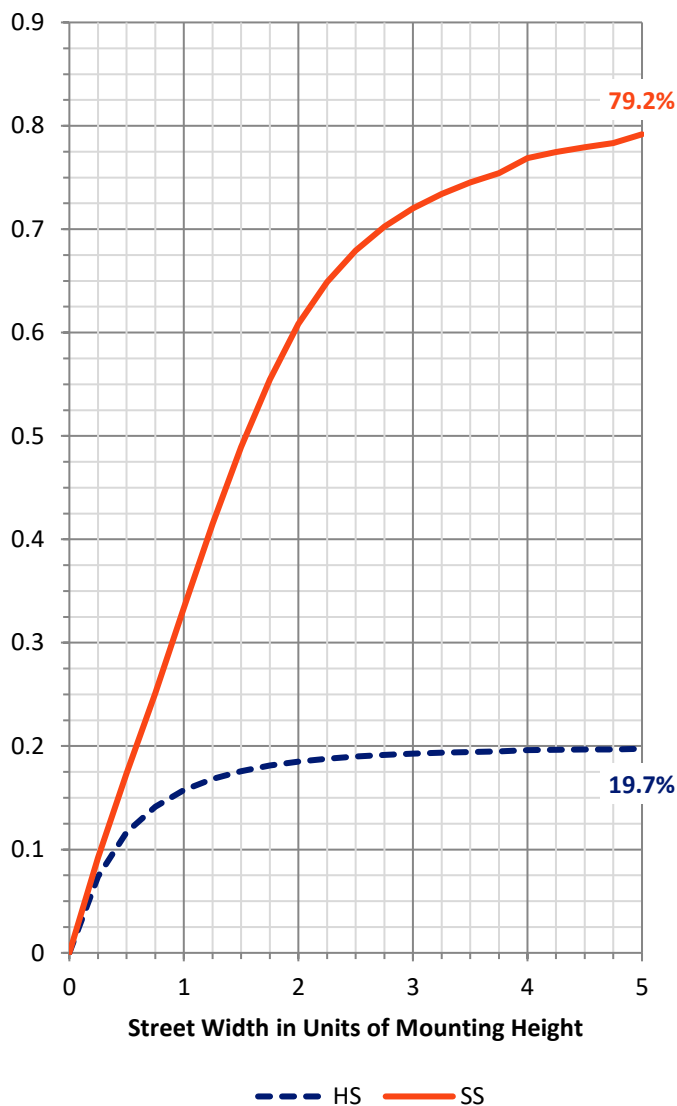
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1573.3	0.0	1573.3
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	6341.8	0.0	6341.8
	% Fixture	80.1	0.0	80.1
Total	Lumens	7915.1	0.0	7915.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.9	1.4
10°-20°	323.5	4.1
20°-30°	476.5	6.0
30°-40°	612.2	7.7
40°-50°	990.1	12.5
50°-60°	1736.3	21.9
60°-70°	2172.5	27.4
70°-80°	1269.5	16.0
80°-90°	226.5	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°	7915.1	100.0
0°-180°	7915.1	100.0

Coefficient of Utilization



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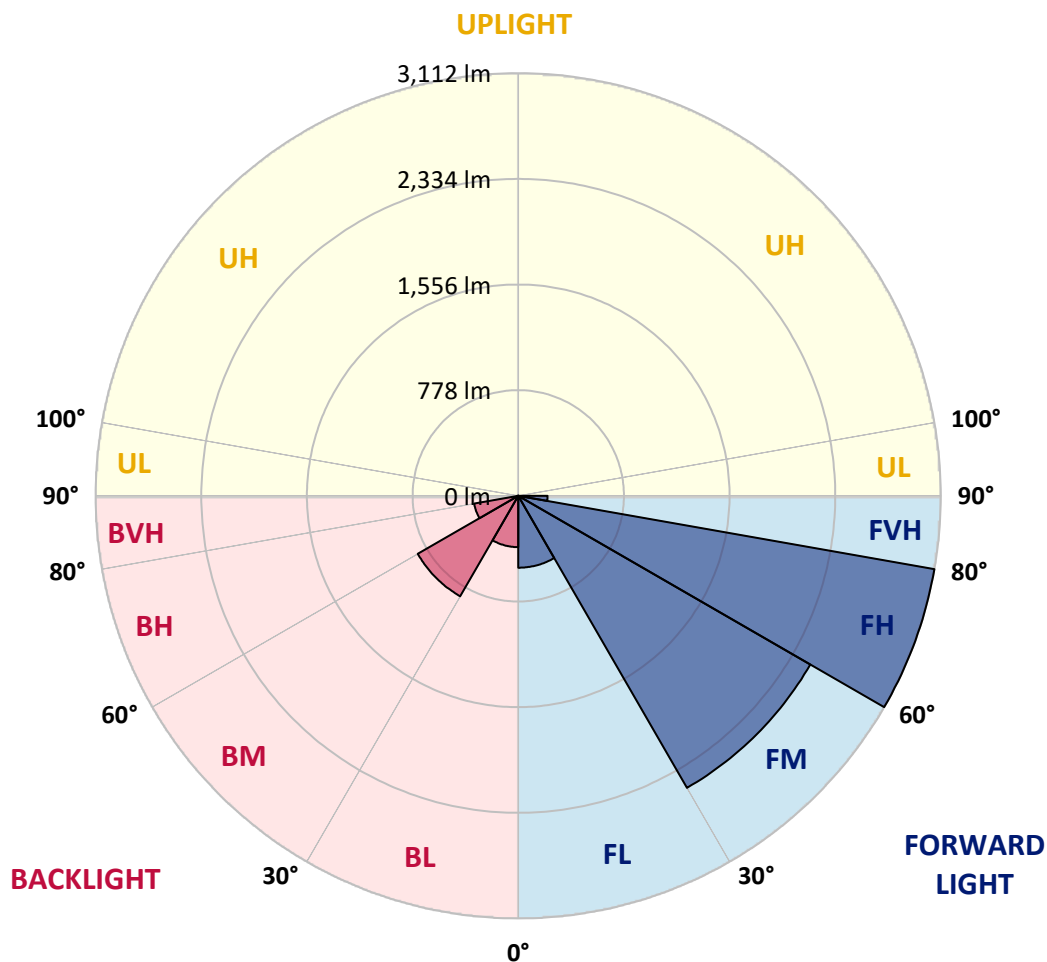
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	529.6	6.7			
FM	(30°-60°)	2483.8	31.4			
FH	(60°-80°)	3112.4	39.3			G2/5000
FVH	(80°-90°)	215.9	2.7			G2/225
BL	(0°-30°)	378.3	4.8	B1/500		
BM	(30°-60°)	854.7	10.8	B1/1000		
BH	(60°-80°)	329.6	4.2	B1/500		G1/500
BVH	(80°-90°)	10.6	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-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9
2.5°	1227.9	1237.2	1257.9	1268.8	1285.8	1286.8	1286.8	1272.1	1271.5	1241.6	1238.3
5°	1372.5	1394.2	1443.3	1494.0	1504.9	1507.7	1502.2	1472.7	1451.0	1392.6	1380.1
7.5°	1515.9	1557.8	1632.5	1700.2	1721.9	1721.9	1708.9	1660.9	1616.1	1531.7	1500.0
10°	1634.7	1687.6	1789.0	1864.8	1889.9	1884.5	1857.7	1797.2	1735.5	1633.0	1591.6
12.5°	1713.2	1772.6	1883.8	1944.9	1970.6	1956.4	1925.9	1866.9	1802.1	1694.1	1647.3
15°	1752.4	1814.7	1911.1	1943.3	1936.2	1921.5	1917.7	1889.4	1840.3	1739.4	1688.2
17.5°	1769.4	1827.2	1894.2	1874.1	1814.0	1802.7	1840.8	1876.8	1864.8	1778.7	1730.7
20°	1785.2	1833.7	1853.9	1764.4	1659.8	1649.4	1722.5	1825.0	1877.4	1815.2	1771.0
22.5°	1807.0	1837.0	1795.6	1648.9	1536.0	1512.0	1592.7	1747.0	1881.2	1861.5	1817.3
25°	1837.0	1845.2	1731.2	1539.2	1425.9	1401.9	1477.1	1660.3	1874.6	1911.7	1874.1
27.5°	1873.0	1856.1	1669.6	1447.7	1338.0	1315.7	1390.9	1576.9	1856.1	1961.8	1935.1
30°	1919.8	1870.2	1608.5	1376.8	1275.4	1259.0	1331.6	1504.9	1833.2	2025.7	2010.9
32.5°	1967.3	1876.3	1551.8	1335.4	1261.2	1267.2	1326.7	1466.3	1808.1	2086.7	2093.8
35°	2018.5	1895.3	1524.0	1376.3	1379.5	1431.8	1456.4	1502.2	1804.3	2169.6	2197.4
37.5°	2088.3	1937.9	1557.3	1579.6	1693.1	1801.5	1781.3	1678.3	1848.5	2293.3	2345.2
40°	2188.7	2012.6	1702.3	1925.9	2158.6	2334.8	2258.0	1998.4	1983.7	2471.7	2549.1
42.5°	2334.8	2131.5	1959.7	2349.0	2743.7	3033.9	2827.8	2411.1	2220.4	2726.3	2825.0
45°	2550.7	2323.9	2271.0	2795.6	3465.1	3922.1	3493.5	2851.1	2551.8	3111.8	3189.3
47.5°	2850.1	2606.9	2562.7	3266.2	4341.9	4933.0	4231.8	3259.1	2929.1	3637.4	3655.5
50°	3247.6	2988.1	2839.1	3780.8	5303.2	5963.6	4969.5	3652.7	3361.6	4279.8	4259.1
52.5°	3772.1	3519.6	3161.4	4271.1	6291.8	6972.3	5710.6	3998.4	3898.1	5025.2	4982.6
55°	4487.6	4319.6	3602.1	4738.9	7279.9	7987.0	6422.6	4324.5	4607.0	5910.7	5653.3
57.5°	5375.2	5495.1	4237.2	5281.4	8168.0	9032.8	7138.1	4780.3	5527.3	6900.9	6042.6
60°	5947.8	7058.5	5453.7	6083.5	9177.3	10215.6	8118.4	5647.3	6494.6	7255.9	5968.5
62.5°	5809.3	7555.7	6910.7	7107.6	10105.4	11075.4	9079.2	6518.1	6676.7	6732.9	5397.0
65°	5384.5	7154.4	6613.5	7306.5	10340.4	11123.9	9336.0	6405.7	5663.6	5496.8	4338.1
67.5°	4800.0	6678.4	5907.4	6778.7	9915.6	10445.7	8857.8	5666.4	4376.9	4124.9	3147.3
70°	4169.1	6151.6	5443.9	6186.6	9105.9	9263.5	8044.8	4983.8	3219.2	2785.7	2019.7
72.5°	3570.4	5603.2	5126.5	5579.7	8025.7	7699.7	6986.5	4380.1	2344.1	2009.3	1435.7
75°	2958.0	4793.9	4674.5	4858.8	6605.3	6064.9	5804.9	3626.6	1839.8	1453.7	990.8
77.5°	2282.5	3746.0	4020.8	3891.0	4649.5	4505.0	4499.5	2725.3	1344.1	970.1	621.0
80°	1562.2	2610.7	3141.3	2744.8	3017.5	2943.9	3388.9	1828.3	975.0	583.9	345.7
82.5°	918.2	1589.5	2186.5	1328.8	1668.5	1712.7	2018.0	889.3	573.6	134.7	75.2
85°	372.4	627.6	855.0	520.2	804.8	678.9	766.1	249.7	159.8	3.3	0.0
87.5°	93.8	200.7	140.6	58.3	93.3	85.6	67.6	30.5	6.6	0.0	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°	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9
2.5°	1217.0	1204.5	1173.4	1142.4	1117.2	1083.4	1061.1	1034.3	1008.7	985.8	981.4
5°	1345.7	1304.3	1247.5	1195.8	1142.9	1091.6	1040.9	987.5	938.4	908.5	889.3
7.5°	1450.4	1377.3	1302.1	1236.1	1172.3	1112.3	1045.3	980.4	903.5	862.6	825.5
10°	1528.4	1432.4	1333.7	1257.9	1193.6	1135.3	1078.5	1013.1	920.4	869.2	813.5
12.5°	1579.6	1465.6	1350.0	1263.4	1191.4	1146.2	1121.0	1095.4	1003.3	943.3	862.6
15°	1615.1	1489.1	1361.5	1250.8	1162.5	1129.2	1154.4	1183.8	1124.8	1055.6	950.4
17.5°	1653.8	1519.7	1366.4	1217.0	1106.4	1092.1	1157.0	1225.2	1222.5	1153.7	1050.7
20°	1694.6	1546.4	1363.1	1162.5	1038.2	1050.7	1133.6	1212.7	1245.9	1208.9	1117.2
22.5°	1736.7	1572.0	1350.6	1091.6	974.4	1013.6	1096.5	1165.7	1205.0	1193.6	1123.8
25°	1789.5	1608.0	1332.1	1015.3	921.5	976.0	1053.5	1109.6	1136.8	1136.3	1088.3
27.5°	1852.8	1656.0	1322.2	953.7	883.9	933.5	1002.2	1052.4	1071.4	1071.4	1033.3
30°	1926.4	1712.7	1311.4	913.3	862.0	889.3	942.8	991.8	1011.0	1011.0	978.8
32.5°	2008.2	1767.2	1285.1	888.8	845.7	846.2	880.1	924.8	947.7	950.9	928.0
35°	2106.4	1825.5	1227.9	869.2	826.7	804.2	820.6	857.7	885.0	892.1	877.9
37.5°	2235.0	1897.0	1146.2	840.3	797.1	760.1	763.9	792.2	822.3	833.1	823.9
40°	2407.9	1980.9	1061.1	798.8	755.7	711.6	709.9	730.6	760.1	772.1	767.2
42.5°	2636.4	2081.8	979.8	759.0	705.6	660.3	657.5	673.9	699.6	712.1	709.9
45°	2928.6	2205.6	910.0	728.0	656.5	611.8	610.7	624.3	646.7	659.8	657.0
47.5°	3334.8	2329.4	862.6	711.6	617.8	571.9	574.2	586.2	606.3	615.6	611.8
50°	3864.2	2367.0	838.7	711.6	597.1	536.6	547.5	557.3	572.6	578.0	573.1
52.5°	4372.4	2242.7	816.8	716.0	599.8	506.6	530.0	537.1	550.2	552.4	545.3
55°	4621.6	1928.0	786.8	717.0	616.7	480.9	515.8	528.9	533.8	533.3	521.3
57.5°	4536.0	1558.9	736.2	712.7	628.1	464.5	498.4	523.5	526.7	521.8	499.5
60°	4235.6	1147.8	697.4	680.5	623.8	459.6	471.6	511.5	516.4	509.8	473.2
62.5°	3731.8	796.6	667.4	609.6	604.6	458.1	429.7	485.2	497.3	488.0	434.6
65°	2937.9	562.7	574.7	534.3	563.2	449.3	386.0	453.7	470.1	455.8	380.6
67.5°	1988.0	406.2	465.7	484.2	496.2	429.7	354.4	417.7	439.5	421.0	317.9
70°	1073.6	285.2	307.5	407.8	421.5	395.9	326.1	381.1	406.2	386.0	259.0
72.5°	634.2	205.0	215.4	327.7	351.2	348.4	294.5	338.7	369.1	345.1	210.4
75°	349.5	138.5	153.8	237.7	285.2	268.9	253.0	286.8	317.9	294.5	162.5
77.5°	156.5	82.9	106.9	155.9	224.1	184.3	195.8	223.6	252.5	228.0	108.5
80°	60.5	46.3	70.9	85.1	163.1	102.0	126.0	164.7	185.4	165.7	66.0
82.5°	7.6	20.7	30.5	33.2	94.9	54.0	73.1	103.6	102.0	88.4	33.2
85°	0.0	3.8	4.4	2.2	40.9	19.7	24.0	33.8	31.7	24.0	2.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9
2.5°	954.8	935.1	925.3	917.2	924.8	929.2	929.2	947.7	958.6	963.0	993.4
5°	841.3	804.8	780.2	765.6	770.5	775.9	781.9	805.3	821.1	831.5	878.9
7.5°	751.9	696.3	661.9	644.0	646.7	650.5	655.4	678.3	694.1	707.8	760.7
10°	707.8	629.2	583.9	562.2	558.3	556.2	554.5	568.2	580.2	591.1	643.4
12.5°	709.9	600.3	545.3	518.5	507.1	494.0	483.7	485.8	493.4	507.1	540.4
15°	737.7	591.1	525.1	491.8	472.7	457.5	445.0	442.2	445.0	447.1	467.8
17.5°	775.4	590.0	507.7	466.2	446.6	434.0	422.6	418.7	419.3	422.0	427.5
20°	805.3	586.7	488.0	441.7	424.2	413.3	401.9	398.0	399.1	399.6	405.7
22.5°	821.1	581.8	466.2	417.2	402.4	391.5	381.1	380.6	380.6	383.9	388.3
25°	821.1	571.4	446.6	393.7	380.6	370.7	358.2	360.4	361.5	365.8	372.4
27.5°	801.6	551.8	430.8	373.5	359.9	350.0	338.7	341.3	343.0	347.9	356.1
30°	776.4	528.4	412.8	354.4	338.7	331.5	321.7	322.8	325.0	330.5	339.7
32.5°	749.8	500.5	398.0	335.4	319.5	314.1	303.2	304.8	307.0	312.9	323.4
35°	720.3	467.8	380.6	317.9	302.1	297.8	285.2	286.3	289.6	296.1	306.5
37.5°	689.2	441.2	363.2	300.9	284.6	280.2	267.2	268.2	272.1	279.7	289.6
40°	658.7	414.9	344.6	283.0	266.6	262.8	248.7	249.7	254.1	262.3	272.6
42.5°	625.5	394.7	320.6	264.4	247.0	243.2	230.1	231.8	236.7	244.9	255.2
45°	585.6	381.7	293.9	247.0	227.3	223.6	211.6	214.8	220.3	228.5	239.3
47.5°	544.7	376.3	271.5	228.5	207.2	204.0	194.1	199.6	205.6	212.1	224.1
50°	505.4	369.1	248.7	211.0	189.7	186.4	179.9	187.1	193.0	199.1	210.4
52.5°	460.7	353.8	228.0	195.8	175.1	173.9	170.7	177.2	182.7	188.1	197.9
55°	414.4	329.3	209.9	182.1	162.5	163.6	162.0	167.4	171.8	176.7	185.4
57.5°	374.0	298.3	195.8	167.4	151.6	154.9	152.7	155.4	158.2	164.1	171.2
60°	333.1	261.2	179.9	150.0	140.6	144.5	138.5	138.0	139.1	140.6	153.8
62.5°	278.1	222.4	160.3	134.7	128.6	130.3	118.9	110.2	110.2	111.8	131.4
65°	223.6	186.4	138.5	117.3	112.3	111.2	94.9	82.9	81.8	86.7	103.6
67.5°	183.8	154.9	116.6	97.6	94.3	95.4	83.4	71.4	70.3	75.7	88.4
70°	152.1	124.8	93.3	75.2	78.5	83.4	71.4	60.0	58.3	63.2	75.2
72.5°	121.1	97.6	71.4	55.7	64.9	70.9	58.3	47.5	46.3	50.7	62.1
75°	88.9	69.8	48.5	40.4	50.1	55.7	42.5	33.8	32.2	36.0	47.5
77.5°	55.0	39.3	30.5	24.0	34.3	37.1	22.3	19.7	19.1	21.8	30.0
80°	25.6	16.9	14.8	8.2	12.5	14.8	9.2	10.4	10.9	13.1	18.6
82.5°	7.1	2.8	0.5	0.0	0.0	4.4	2.2	4.4	5.4	8.2	12.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.8	4.9	8.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.4
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°	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9	1095.9
2.5°	1016.4	1038.2	1073.1	1109.0	1144.5	1180.5	1215.4	1227.9
5°	922.1	972.2	1041.5	1115.6	1192.0	1269.4	1340.3	1372.5
7.5°	816.8	888.8	992.9	1109.0	1230.6	1352.3	1464.0	1515.9
10°	704.5	795.5	914.4	1071.4	1245.9	1413.9	1567.6	1634.7
12.5°	597.6	693.0	824.4	1012.6	1233.9	1449.4	1634.2	1713.2
15°	508.2	592.7	734.5	942.8	1195.3	1451.5	1665.8	1752.4
17.5°	441.2	496.2	642.9	865.3	1144.5	1431.3	1676.7	1769.4
20°	407.8	423.1	524.0	766.1	1097.1	1412.2	1687.6	1785.2
22.5°	388.3	392.1	428.6	638.0	1040.4	1406.2	1706.7	1807.0
25°	372.4	373.5	383.3	505.4	953.7	1402.4	1736.1	1837.0
27.5°	356.6	356.6	362.0	407.3	835.9	1386.1	1774.3	1873.0
30°	340.8	340.8	344.6	360.4	697.9	1353.9	1820.1	1919.8
32.5°	324.4	324.4	327.7	339.2	557.3	1313.5	1862.1	1967.3
35°	308.1	307.0	311.4	323.4	443.3	1262.3	1904.0	2018.5
37.5°	290.6	290.1	294.5	308.1	382.7	1202.8	1935.7	2088.3
40°	272.1	272.1	277.0	291.7	365.3	1128.1	1985.8	2188.7
42.5°	255.2	254.1	259.5	277.6	352.2	1056.7	2075.8	2334.8
45°	238.8	236.7	241.6	263.9	329.3	1031.7	2243.7	2550.7
47.5°	223.6	218.1	222.4	247.5	308.6	1125.4	2518.5	2850.1
50°	211.0	200.7	204.5	231.2	292.8	1328.8	2875.2	3247.6
52.5°	197.9	184.3	186.4	211.0	278.6	1522.3	3261.8	3772.1
55°	184.3	169.0	170.1	190.9	258.5	1551.2	3639.1	4487.6
57.5°	169.0	154.9	154.9	172.3	243.7	1344.6	3929.1	5375.2
60°	152.1	142.9	140.1	157.5	256.9	948.7	3963.0	5947.8
62.5°	133.6	128.6	124.8	143.4	266.6	562.2	3690.9	5809.3
65°	112.3	111.2	108.5	157.5	224.7	332.1	3168.5	5384.5
67.5°	94.3	92.7	92.7	165.2	170.7	208.8	2475.5	4800.0
70°	81.3	75.2	75.2	124.8	103.6	144.5	1728.5	4169.1
72.5°	68.2	61.6	57.3	99.7	77.4	105.8	1080.1	3570.4
75°	54.5	49.6	44.2	66.0	57.8	80.2	627.6	2958.0
77.5°	39.3	37.1	31.1	48.5	42.0	57.8	373.5	2282.5
80°	20.2	20.7	19.7	27.8	28.4	39.3	212.7	1562.2
82.5°	12.0	9.2	10.4	13.6	16.4	22.3	80.2	918.2
85°	7.6	4.9	4.9	6.6	8.2	8.7	24.5	372.4
87.5°	3.8	1.6	2.2	3.3	2.8	2.2	1.1	93.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)