

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: P962051

Luminaire Tested: **NAV-SB2B-827-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962051
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-827-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 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: 7659.8 lumens
Efficiency: N/A
Efficacy: 103.7 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



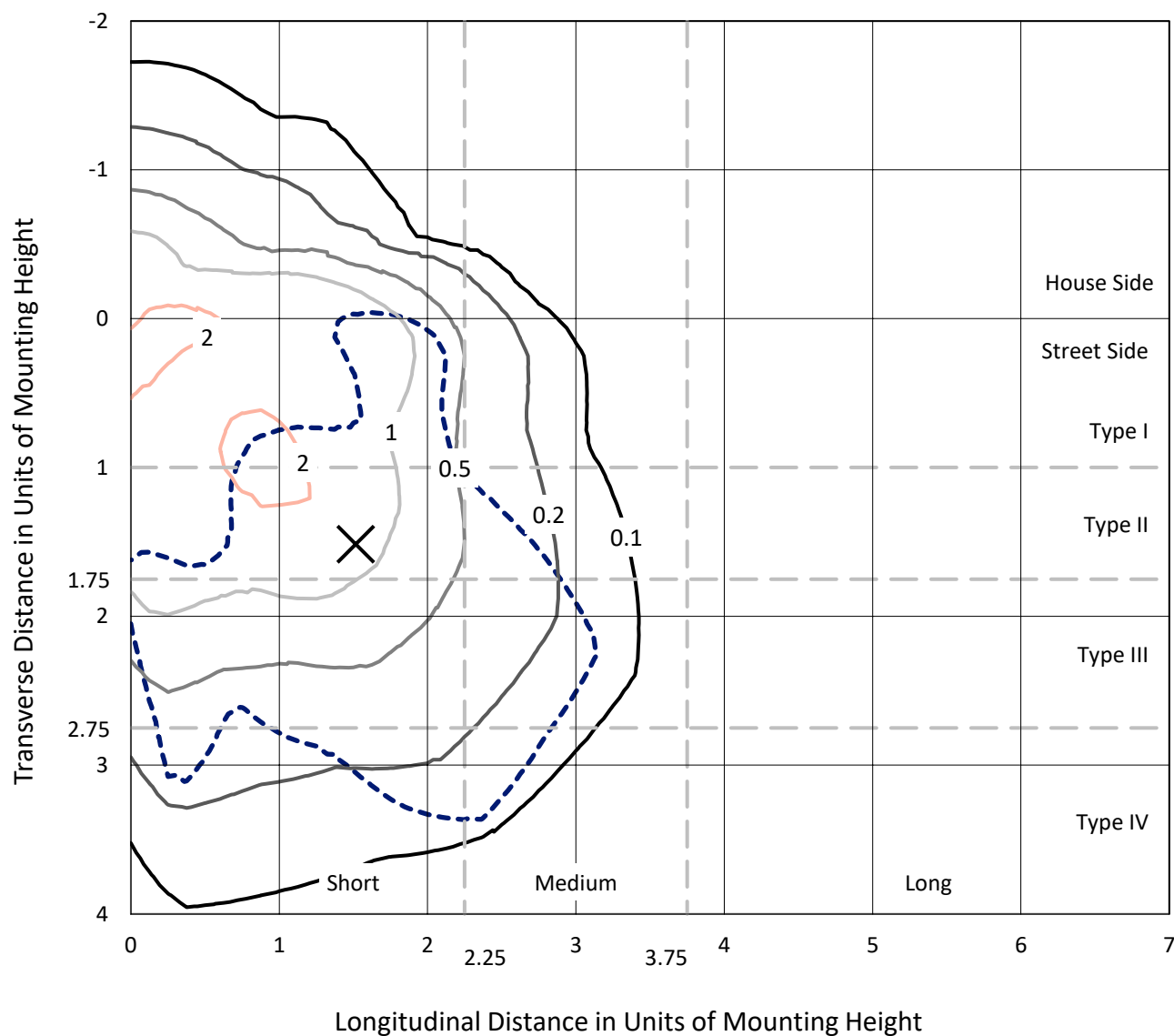
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

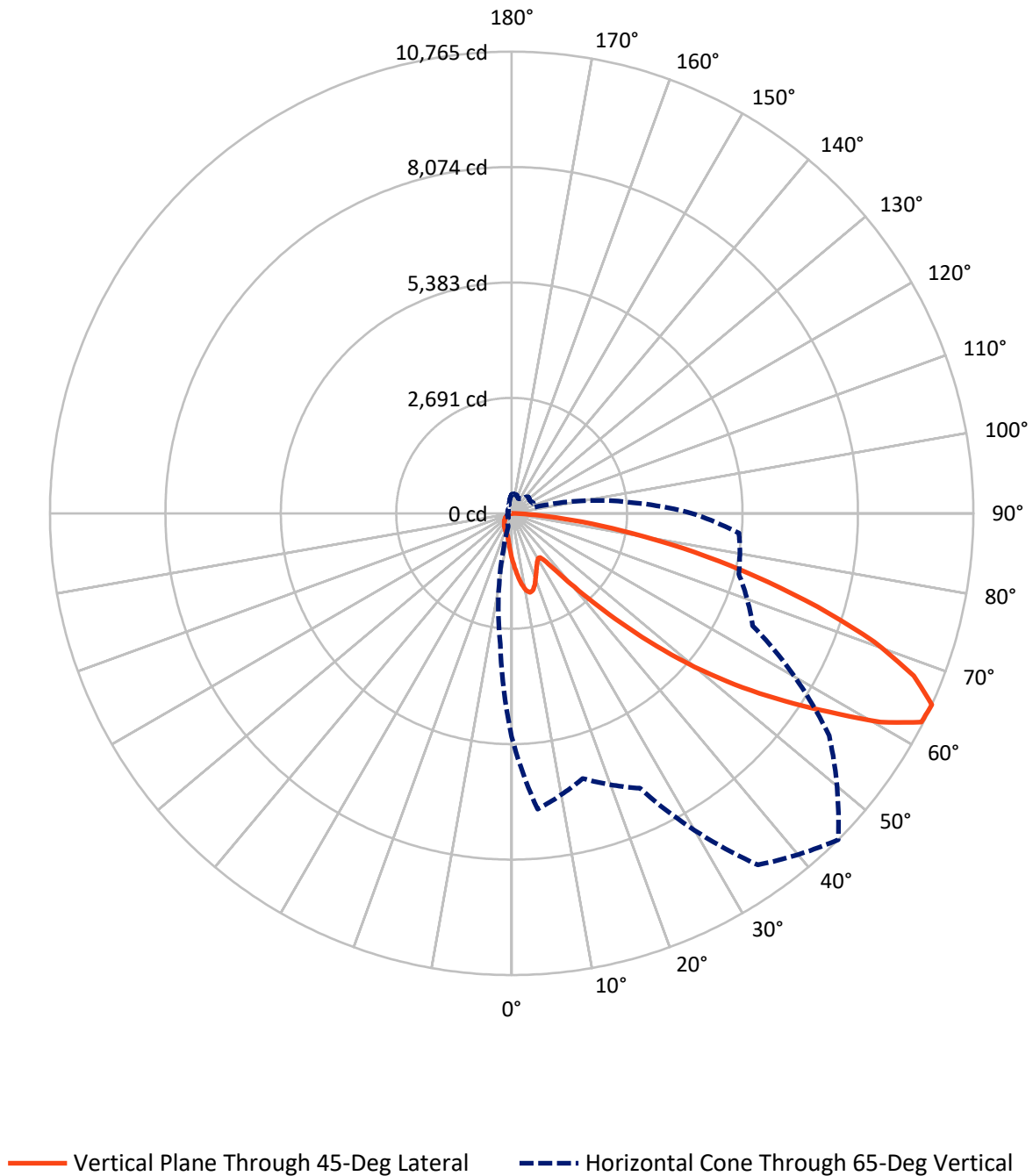


Based on 25 foot mounting height. Maximum calculated value = 2.8 fc

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	1522.5	0.0	1522.5
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	6137.3	0.0	6137.3
	% Fixture	80.1	0.0	80.1
Total	Lumens	7659.8	0.0	7659.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	1.4
10°-20°	313.0	4.1
20°-30°	461.2	6.0
30°-40°	592.5	7.7
40°-50°	958.2	12.5
50°-60°	1680.3	21.9
60°-70°	2102.5	27.4
70°-80°	1228.6	16.0
80°-90°	219.2	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°	7659.8	100.0
0°-180°	7659.8	100.0

Coefficient of Utilization



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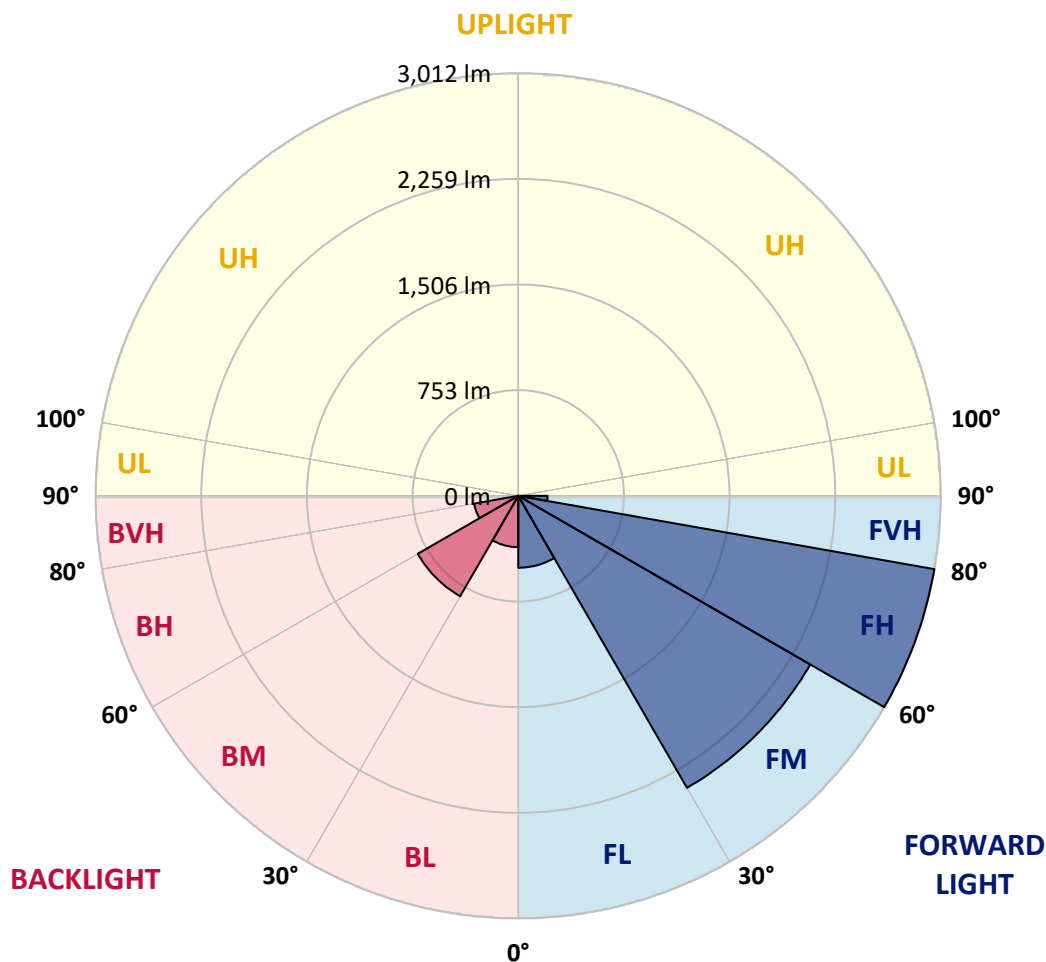
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	512.5	6.7			
FM	(30°-60°)	2403.7	31.4			
FH	(60°-80°)	3012.1	39.3			G2/5000
FVH	(80°-90°)	208.9	2.7			G2/225
BL	(0°-30°)	366.1	4.8	B1/500		
BM	(30°-60°)	827.2	10.8	B1/1000		
BH	(60°-80°)	319.0	4.2	B1/500		G1/500
BVH	(80°-90°)	10.3	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°	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7
2.5°	1188.4	1197.3	1217.4	1227.9	1244.2	1245.4	1245.4	1231.1	1230.5	1201.5	1198.3
5°	1328.2	1349.3	1396.8	1445.9	1456.4	1459.1	1453.8	1425.3	1404.1	1347.7	1335.6
7.5°	1467.0	1507.6	1579.8	1645.3	1666.4	1666.4	1653.7	1607.3	1564.0	1482.3	1451.6
10°	1582.0	1633.1	1731.3	1804.7	1828.9	1823.7	1797.8	1739.2	1679.6	1580.4	1540.3
12.5°	1657.9	1715.5	1823.2	1882.2	1907.0	1893.3	1863.8	1806.8	1744.0	1639.5	1594.1
15°	1696.0	1756.1	1849.5	1880.7	1873.8	1859.6	1855.9	1828.4	1780.9	1683.3	1633.7
17.5°	1712.4	1768.2	1833.2	1813.6	1755.6	1744.6	1781.4	1816.3	1804.7	1721.3	1674.8
20°	1727.6	1774.6	1794.2	1707.5	1606.3	1596.2	1667.0	1766.2	1816.8	1756.6	1713.9
22.5°	1748.8	1777.8	1737.7	1595.7	1486.5	1463.3	1541.4	1690.7	1820.5	1801.5	1758.8
25°	1777.8	1785.7	1675.4	1489.6	1379.9	1356.7	1429.5	1606.8	1814.1	1850.0	1813.6
27.5°	1812.6	1796.2	1615.8	1401.0	1294.9	1273.3	1346.1	1526.0	1796.2	1898.6	1872.8
30°	1858.0	1809.9	1556.7	1332.4	1234.2	1218.4	1288.6	1456.4	1774.1	1960.3	1946.1
32.5°	1903.8	1815.8	1501.8	1292.3	1220.6	1226.3	1283.8	1418.9	1749.8	2019.5	2026.3
35°	1953.4	1834.2	1474.9	1331.9	1335.1	1385.7	1409.5	1453.8	1746.1	2099.6	2126.6
37.5°	2021.0	1875.3	1507.1	1528.7	1638.5	1743.4	1723.9	1624.2	1788.8	2219.4	2269.6
40°	2118.2	1947.7	1647.4	1863.8	2089.1	2259.5	2185.1	1934.0	1919.7	2391.9	2466.9
42.5°	2259.5	2062.7	1896.5	2273.2	2655.3	2936.0	2736.5	2333.4	2148.7	2638.5	2733.9
45°	2468.5	2249.0	2197.8	2705.4	3353.4	3795.6	3380.9	2759.3	2469.5	3011.4	3086.4
47.5°	2758.2	2522.8	2480.1	3160.8	4201.9	4773.9	4095.4	3153.9	2834.7	3520.2	3537.6
50°	3142.9	2891.7	2747.6	3658.9	5132.3	5771.3	4809.3	3534.9	3253.1	4141.8	4121.7
52.5°	3650.5	3406.2	3059.5	4133.3	6088.9	6747.5	5526.4	3869.5	3772.4	4863.1	4821.9
55°	4342.8	4180.3	3485.8	4586.1	7045.1	7729.5	6215.6	4185.1	4458.3	5720.1	5471.0
57.5°	5201.9	5318.0	4100.6	5111.2	7904.7	8741.6	6907.9	4626.2	5349.1	6678.4	5847.7
60°	5756.0	6830.8	5277.8	5887.4	8881.4	9886.1	7856.6	5465.2	6285.2	7021.9	5776.0
62.5°	5621.9	7312.0	6687.8	6878.4	9779.5	10718.3	8786.4	6308.0	6461.5	6515.8	5223.0
65°	5210.9	6923.7	6400.3	7071.0	10007.0	10765.3	9035.0	6199.2	5481.0	5319.5	4198.2
67.5°	4645.2	6463.0	5716.9	6560.1	9595.8	10108.8	8572.2	5483.6	4235.7	3992.0	3045.8
70°	4034.6	5953.3	5268.4	5987.1	8812.3	8964.8	7785.4	4823.0	3115.4	2696.0	1954.6
72.5°	3455.3	5422.5	4961.3	5399.8	7766.9	7451.4	6761.2	4238.9	2268.5	1944.5	1389.4
75°	2862.7	4639.4	4523.8	4702.2	6392.3	5869.4	5617.7	3509.6	1780.4	1406.8	958.8
77.5°	2208.9	3625.2	3891.1	3765.5	4499.5	4359.7	4354.4	2637.3	1300.7	938.7	601.1
80°	1511.8	2526.5	3039.9	2656.4	2920.2	2849.0	3279.6	1769.4	943.5	565.2	334.6
82.5°	888.6	1538.2	2116.0	1286.0	1614.7	1657.4	1952.9	860.7	555.1	130.4	72.8
85°	360.4	607.3	827.4	503.4	778.9	656.9	741.4	241.7	154.6	3.2	0.0
87.5°	90.7	194.2	136.1	56.5	90.2	82.8	65.4	29.5	6.4	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°	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7
2.5°	1177.8	1165.6	1135.6	1105.5	1081.2	1048.5	1026.8	1001.0	976.2	954.1	949.9
5°	1302.4	1262.2	1207.3	1157.2	1106.0	1056.5	1007.4	955.6	908.2	879.1	860.7
7.5°	1403.6	1332.9	1260.1	1196.3	1134.5	1076.5	1011.6	948.7	874.3	834.8	798.9
10°	1479.1	1386.2	1290.7	1217.4	1155.1	1098.6	1043.8	980.4	890.7	841.1	787.3
12.5°	1528.7	1418.4	1306.6	1222.6	1153.0	1109.2	1085.0	1060.2	971.0	912.9	834.8
15°	1563.0	1441.1	1317.6	1210.5	1125.0	1092.9	1117.1	1145.6	1088.7	1021.6	919.7
17.5°	1600.4	1470.7	1322.4	1177.8	1070.7	1057.0	1119.7	1185.7	1183.1	1116.5	1016.8
20°	1640.0	1496.5	1319.2	1125.0	1004.7	1016.8	1097.1	1173.5	1205.7	1169.8	1081.2
22.5°	1680.7	1521.3	1307.1	1056.5	943.0	980.9	1061.2	1128.2	1166.1	1155.1	1087.5
25°	1731.8	1556.2	1289.1	982.6	891.7	944.5	1019.5	1073.8	1100.2	1099.7	1053.3
27.5°	1793.0	1602.6	1279.6	922.9	855.4	903.4	969.9	1018.4	1036.9	1036.9	1000.0
30°	1864.3	1657.4	1269.1	883.9	834.2	860.7	912.4	959.8	978.4	978.4	947.2
32.5°	1943.5	1710.2	1243.7	860.1	818.5	819.0	851.7	894.9	917.1	920.2	898.1
35°	2038.4	1766.7	1188.4	841.1	800.0	778.3	794.2	830.0	856.4	863.3	849.5
37.5°	2163.0	1835.8	1109.2	813.1	771.5	735.5	739.3	766.7	795.7	806.3	797.3
40°	2330.2	1917.1	1026.8	773.1	731.3	688.6	687.1	707.0	735.5	747.2	742.4
42.5°	2551.3	2014.7	948.2	734.5	682.9	639.0	636.4	652.2	677.0	689.1	687.1
45°	2834.2	2134.5	880.7	704.5	635.3	592.0	591.0	604.2	625.9	638.5	635.8
47.5°	3227.3	2254.3	834.8	688.6	597.9	553.5	555.7	567.2	586.8	595.7	592.0
50°	3739.7	2290.7	811.6	688.6	577.8	519.3	529.8	539.3	554.1	559.3	554.6
52.5°	4231.5	2170.3	790.5	692.8	580.5	490.3	512.9	519.8	532.4	534.5	527.7
55°	4472.6	1865.9	761.5	693.9	596.9	465.5	499.2	511.9	516.6	516.1	504.5
57.5°	4389.8	1508.6	712.4	689.7	607.9	449.6	482.3	506.6	509.7	505.0	483.4
60°	4099.1	1110.8	674.9	658.6	603.6	444.8	456.4	495.0	499.7	493.3	458.1
62.5°	3611.5	770.9	645.9	590.0	585.2	443.2	415.8	469.7	481.2	472.3	420.6
65°	2843.1	544.6	556.2	517.1	545.1	434.8	373.6	439.0	454.9	441.2	368.3
67.5°	1923.9	393.1	450.6	468.6	480.2	415.8	343.0	404.2	425.3	407.3	307.6
70°	1039.0	275.9	297.7	394.7	407.8	383.1	315.6	368.9	393.1	373.6	250.6
72.5°	613.7	198.4	208.5	317.1	339.8	337.2	285.0	327.7	357.2	334.0	203.7
75°	338.2	134.1	148.8	230.1	275.9	260.1	244.9	277.6	307.6	285.0	157.2
77.5°	151.5	80.3	103.4	150.9	216.9	178.4	189.4	216.4	244.4	220.6	105.0
80°	58.5	44.9	68.6	82.3	157.7	98.7	121.9	159.4	179.4	160.4	63.9
82.5°	7.4	20.1	29.5	32.2	91.8	52.3	70.7	100.2	98.7	85.5	32.2
85°	0.0	3.7	4.2	2.2	39.6	19.0	23.3	32.7	30.6	23.3	2.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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°	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7
2.5°	923.9	905.0	895.4	887.5	894.9	899.1	899.1	917.1	927.6	931.9	961.4
5°	814.3	778.9	755.1	740.9	745.6	750.9	756.7	779.4	794.7	804.7	850.6
7.5°	727.6	673.8	640.6	623.2	625.9	629.6	634.3	656.4	671.8	684.9	736.2
10°	684.9	609.0	565.2	544.1	540.4	538.2	536.7	549.8	561.5	572.1	622.7
12.5°	687.1	581.0	527.7	501.8	490.8	478.1	468.0	470.2	477.5	490.8	523.0
15°	713.9	572.1	508.2	476.0	457.5	442.7	430.6	427.9	430.6	432.7	452.7
17.5°	750.4	570.9	491.3	451.2	432.1	420.0	409.0	405.3	405.8	408.5	413.7
20°	779.4	567.7	472.3	427.4	410.5	400.0	388.9	385.2	386.2	386.8	392.6
22.5°	794.7	563.0	451.2	403.6	389.4	378.8	368.9	368.3	368.3	371.5	375.7
25°	794.7	553.0	432.1	381.0	368.3	358.9	346.7	348.8	349.8	354.0	360.4
27.5°	775.7	534.0	416.9	361.4	348.3	338.8	327.7	330.4	331.9	336.6	344.6
30°	751.4	511.4	399.4	343.0	327.7	320.8	311.3	312.4	314.5	319.8	328.7
32.5°	725.6	484.4	385.2	324.5	309.2	303.9	293.4	295.0	297.0	302.9	312.9
35°	697.1	452.7	368.3	307.6	292.3	288.1	275.9	277.1	280.2	286.5	296.5
37.5°	667.0	426.9	351.5	291.3	275.4	271.2	258.6	259.6	263.3	270.7	280.2
40°	637.4	401.6	333.5	273.9	258.0	254.3	240.7	241.7	245.9	253.8	263.8
42.5°	605.3	382.0	310.3	255.9	239.0	235.3	222.7	224.3	229.0	237.0	246.9
45°	566.7	369.4	284.4	239.0	220.1	216.4	204.7	207.9	213.2	221.1	231.6
47.5°	527.2	364.1	262.8	221.1	200.5	197.3	187.9	193.1	199.0	205.3	216.9
50°	489.1	357.2	240.7	204.2	183.7	180.5	174.1	181.0	186.8	192.6	203.7
52.5°	445.9	342.5	220.6	189.4	169.4	168.3	165.1	171.5	176.8	182.0	191.6
55°	401.1	318.7	203.2	176.2	157.2	158.3	156.7	162.0	166.3	171.0	179.4
57.5°	362.0	288.6	189.4	162.0	146.7	149.9	147.7	150.4	153.0	158.9	165.7
60°	322.4	252.8	174.1	145.1	136.1	139.8	134.1	133.5	134.6	136.1	148.8
62.5°	269.2	215.2	155.2	130.4	124.5	126.1	115.0	106.6	106.6	108.1	127.2
65°	216.4	180.5	134.1	113.5	108.8	107.6	91.8	80.3	79.1	83.9	100.2
67.5°	177.8	149.9	113.0	94.5	91.3	92.4	80.8	69.1	68.1	73.4	85.5
70°	147.2	120.8	90.2	72.8	76.0	80.8	69.1	58.0	56.5	61.2	72.8
72.5°	117.2	94.5	69.1	53.8	62.8	68.6	56.5	45.9	44.9	49.1	60.2
75°	86.0	67.5	46.9	39.1	48.6	53.8	41.2	32.7	31.2	34.8	45.9
77.5°	53.3	38.0	29.5	23.3	33.2	35.9	21.6	19.0	18.4	21.1	29.0
80°	24.8	16.4	14.2	7.9	12.1	14.2	9.0	10.0	10.6	12.7	17.9
82.5°	6.9	2.7	0.5	0.0	0.0	4.2	2.2	4.2	5.2	7.9	11.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.7	4.7	8.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.2
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°	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7	1060.7
2.5°	983.6	1004.7	1038.4	1073.3	1107.6	1142.5	1176.2	1188.4
5°	892.3	940.8	1007.9	1079.6	1153.5	1228.5	1297.0	1328.2
7.5°	790.5	860.1	960.9	1073.3	1190.9	1308.6	1416.9	1467.0
10°	681.7	769.9	884.9	1036.9	1205.7	1368.3	1517.1	1582.0
12.5°	578.3	670.7	797.9	979.9	1194.1	1402.6	1581.5	1657.9
15°	491.8	573.6	710.8	912.4	1156.7	1404.7	1612.0	1696.0
17.5°	426.9	480.2	622.2	837.4	1107.6	1385.2	1622.6	1712.4
20°	394.7	409.5	507.1	741.4	1061.7	1366.7	1633.1	1727.6
22.5°	375.7	379.4	414.7	617.4	1006.9	1360.9	1651.7	1748.8
25°	360.4	361.4	370.9	489.1	922.9	1357.2	1680.2	1777.8
27.5°	345.1	345.1	350.3	394.2	808.9	1341.4	1717.1	1812.6
30°	329.8	329.8	333.5	348.8	675.5	1310.3	1761.4	1858.0
32.5°	314.0	314.0	317.1	328.2	539.3	1271.2	1802.1	1903.8
35°	298.2	297.0	301.3	312.9	429.0	1221.6	1842.6	1953.4
37.5°	281.3	280.7	285.0	298.2	370.4	1164.1	1873.3	2021.0
40°	263.3	263.3	268.0	282.3	353.5	1091.7	1921.8	2118.2
42.5°	246.9	245.9	251.2	268.5	340.9	1022.6	2008.9	2259.5
45°	231.1	229.0	233.8	255.4	318.7	998.4	2171.4	2468.5
47.5°	216.4	211.0	215.2	239.5	298.7	1089.2	2437.3	2758.2
50°	204.2	194.2	197.9	223.8	283.4	1286.0	2782.5	3142.9
52.5°	191.6	178.4	180.5	204.2	269.7	1473.3	3156.6	3650.5
55°	178.4	163.6	164.6	184.7	250.1	1501.2	3521.8	4342.8
57.5°	163.6	149.9	149.9	166.8	235.9	1301.2	3802.4	5201.9
60°	147.2	138.3	135.6	152.5	248.6	918.2	3835.2	5756.0
62.5°	129.3	124.5	120.8	138.8	258.0	544.1	3571.9	5621.9
65°	108.8	107.6	105.0	152.5	217.4	321.3	3066.4	5210.9
67.5°	91.3	89.7	89.7	159.9	165.1	202.1	2395.6	4645.2
70°	78.6	72.8	72.8	120.8	100.2	139.8	1672.8	4034.6
72.5°	66.0	59.7	55.5	96.6	74.9	102.4	1045.3	3455.3
75°	52.8	48.0	42.7	63.9	56.0	77.6	607.3	2862.7
77.5°	38.0	35.9	30.0	46.9	40.6	56.0	361.4	2208.9
80°	19.5	20.1	19.0	27.0	27.5	38.0	205.8	1511.8
82.5°	11.6	9.0	10.0	13.2	15.8	21.6	77.6	888.6
85°	7.4	4.7	4.7	6.4	7.9	8.4	23.8	360.4
87.5°	3.7	1.5	2.2	3.2	2.7	2.2	1.0	90.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)