

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: P964037

Luminaire Tested: **NAV-SB3B-735-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964037
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-SB3B-735-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 450mA 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: 13216.4 lumens
Efficiency: N/A
Efficacy: 121.0 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): 109.2
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

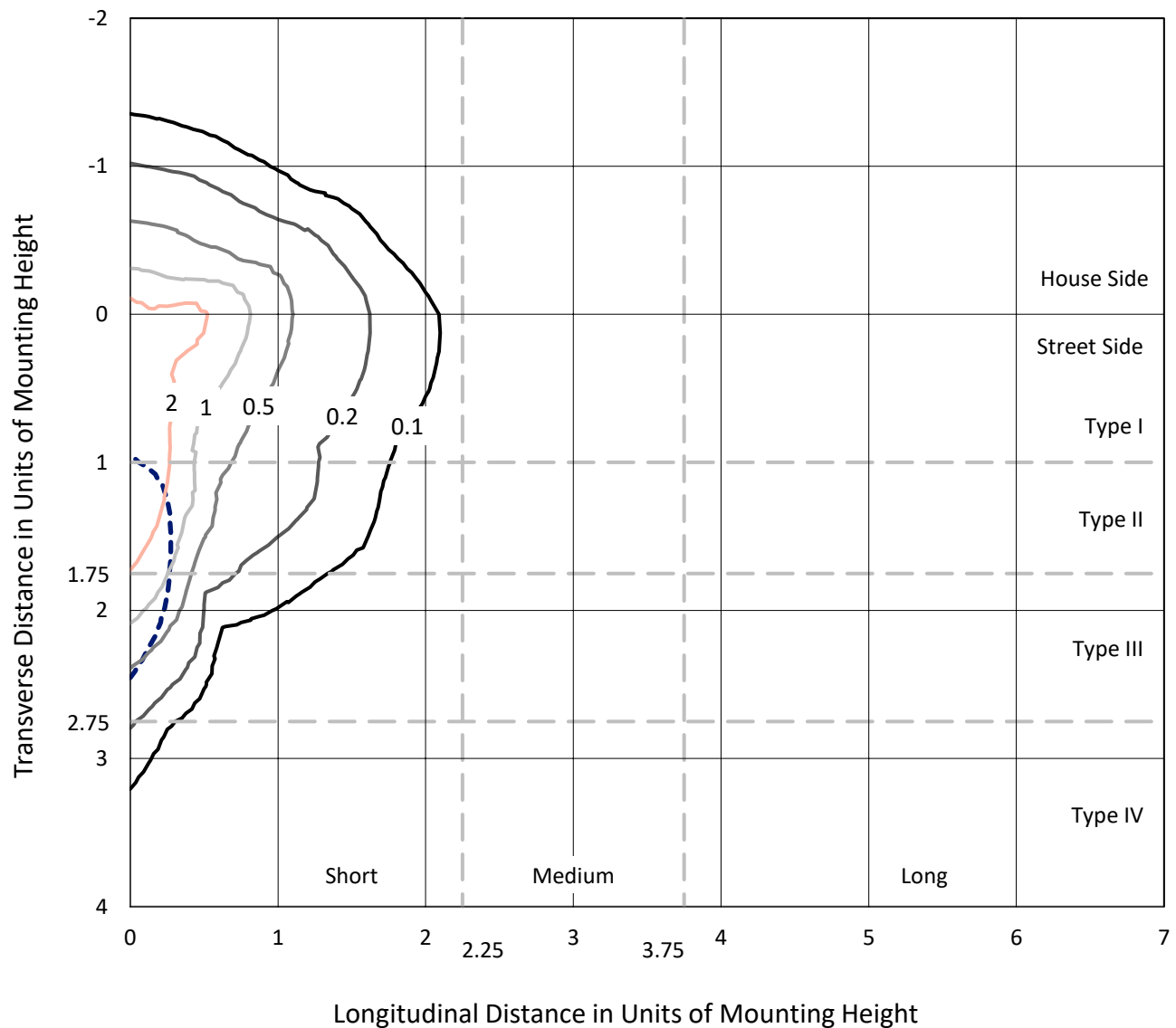


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

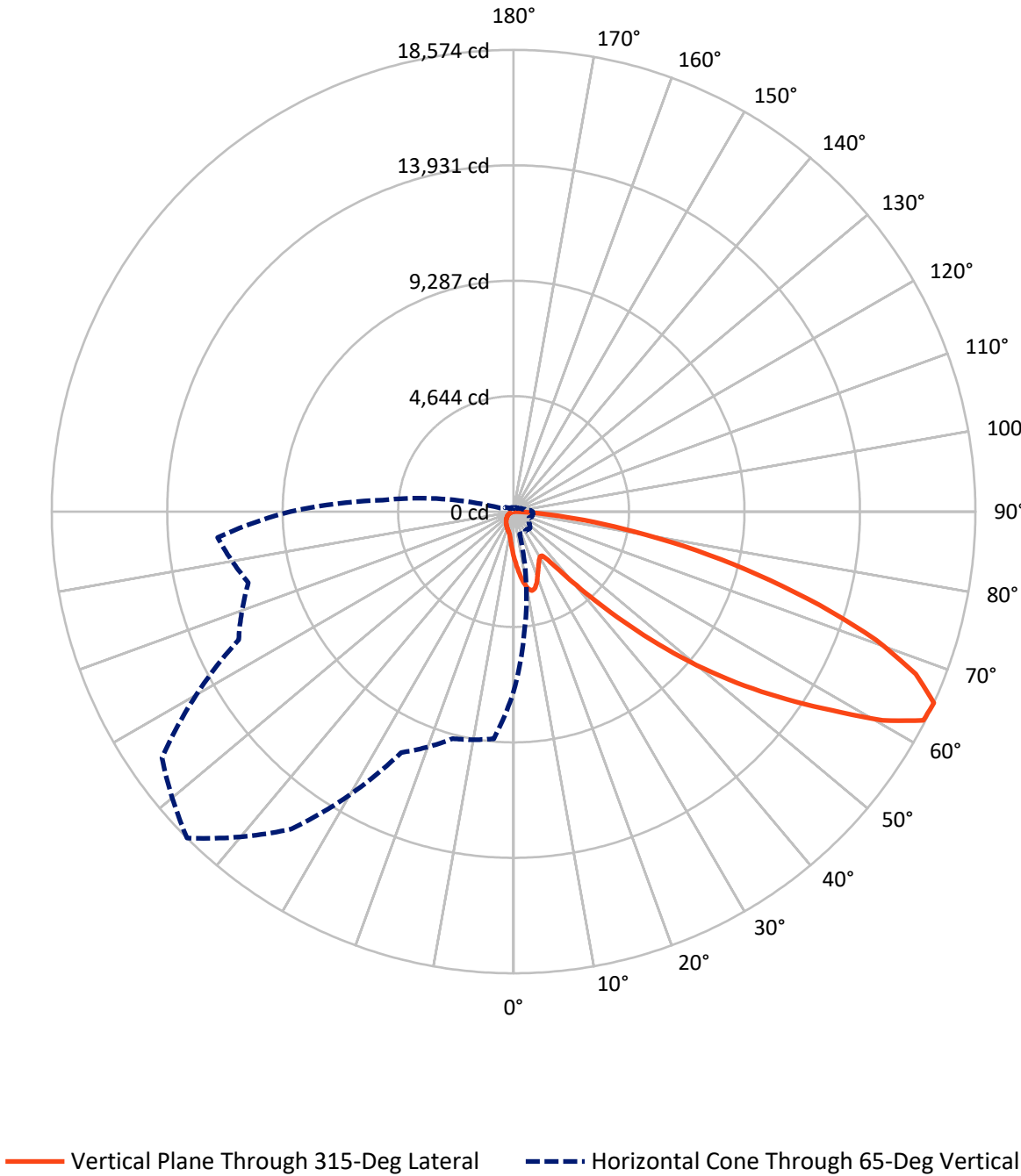


Based on 25 foot mounting height. Maximum calculated value = 4.1 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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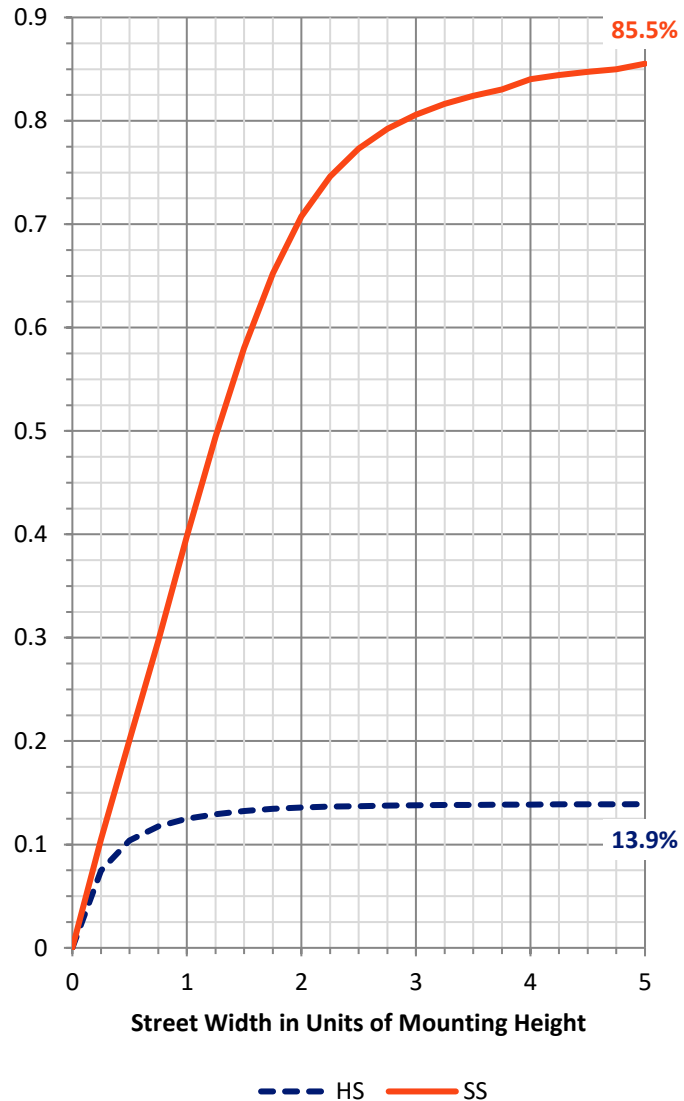
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1850.9	0.0	1850.9
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	11365.5	0.0	11365.5
	% Fixture	86.0	0.0	86.0
Total	Lumens	13216.4	0.0	13216.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.2	1.4
10°-20°	540.1	4.1
20°-30°	795.7	6.0
30°-40°	1022.2	7.7
40°-50°	1653.3	12.5
50°-60°	2899.2	21.9
60°-70°	3627.7	27.4
70°-80°	2119.8	16.0
80°-90°	378.2	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°	13216.4	100.0
0°-180°	13216.4	100.0

Coefficient of Utilization



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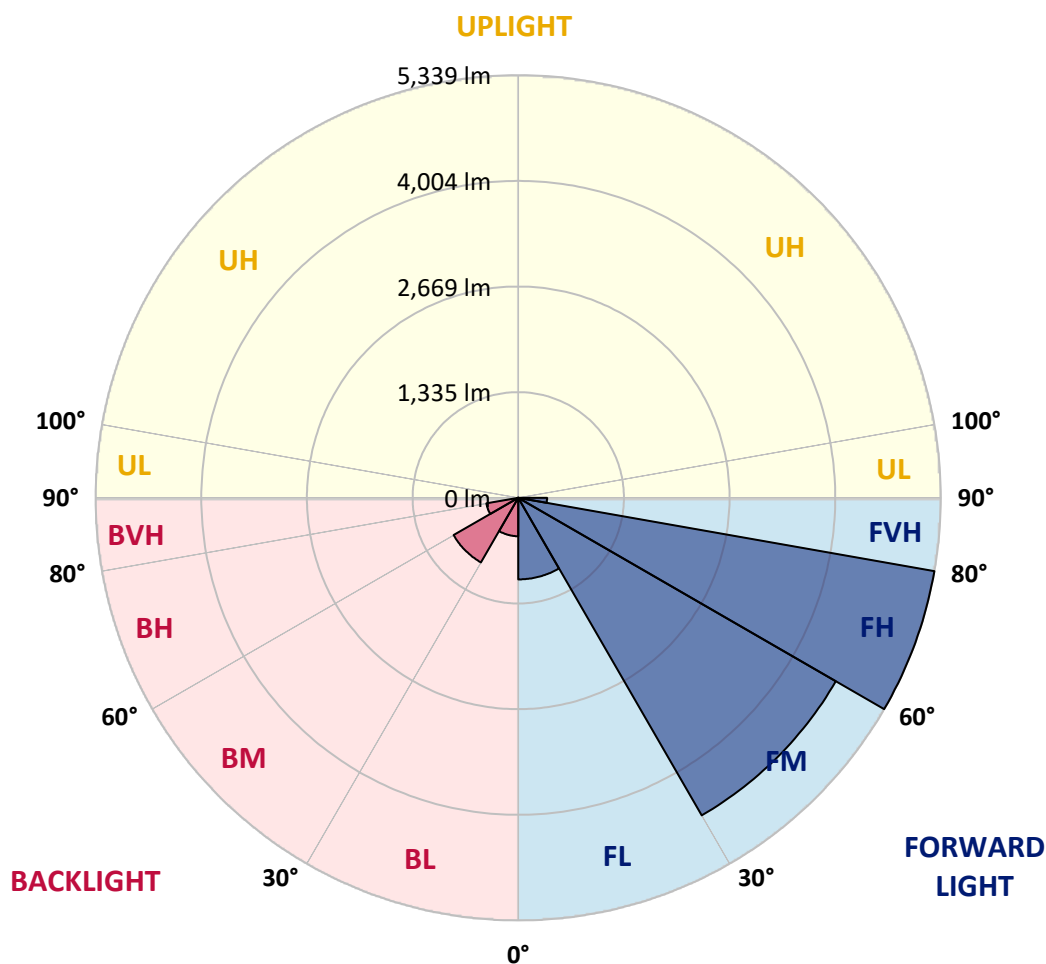
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1030.8	7.8			
FM	(30°-60°)	4632.2	35.0			
FH	(60°-80°)	5338.8	40.4			G3/7500
FVH	(80°-90°)	363.7	2.8			G3/500
BL	(0°-30°)	485.1	3.7	B1/500		
BM	(30°-60°)	942.5	7.1	B1/1000		
BH	(60°-80°)	408.7	3.1	B1/500		G1/500
BVH	(80°-90°)	14.5	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°	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0
2.5°	2067.6	2032.2	2011.3	1959.3	1907.4	1865.5	1809.1	1771.8	1727.1	1684.4	1646.2
5°	2304.4	2247.0	2177.8	2083.1	1996.7	1908.3	1822.8	1738.1	1648.8	1566.9	1516.8
7.5°	2504.7	2421.9	2299.8	2174.2	2064.0	1957.5	1857.4	1745.4	1637.0	1508.6	1440.3
10°	2657.6	2552.0	2391.8	2227.0	2100.4	1993.0	1895.6	1800.9	1691.7	1536.9	1451.3
12.5°	2750.5	2637.6	2447.3	2254.3	2109.6	1989.4	1913.8	1872.0	1829.1	1675.3	1575.1
15°	2818.9	2696.8	2486.4	2273.4	2088.6	1941.1	1885.6	1927.5	1976.6	1878.3	1762.7
17.5°	2889.8	2761.5	2537.5	2281.6	2032.2	1847.4	1823.7	1932.0	2045.8	2041.3	1926.6
20°	2957.2	2829.7	2582.1	2276.2	1941.1	1733.6	1754.5	1892.9	2024.9	2080.4	2018.5
22.5°	3034.6	2899.8	2624.9	2255.2	1822.8	1627.0	1692.6	1831.0	1946.6	2012.2	1993.0
25°	3129.3	2988.2	2685.0	2224.2	1695.2	1538.7	1629.7	1759.0	1852.8	1898.3	1897.4
27.5°	3231.2	3093.8	2765.1	2207.8	1592.4	1475.9	1558.7	1673.4	1757.2	1789.0	1789.0
30°	3357.8	3216.7	2859.7	2189.7	1525.0	1439.4	1485.0	1574.2	1656.1	1688.0	1688.0
32.5°	3496.2	3353.3	2950.9	2145.9	1484.1	1412.1	1413.1	1469.5	1544.2	1582.4	1587.8
35°	3669.2	3517.2	3048.2	2050.4	1451.3	1380.3	1343.0	1370.2	1432.1	1477.6	1489.5
37.5°	3915.9	3732.0	3167.6	1913.8	1403.0	1331.1	1269.2	1275.6	1322.9	1373.0	1391.2
40°	4256.4	4020.7	3307.8	1771.8	1333.8	1261.9	1188.2	1185.4	1220.1	1269.2	1289.2
42.5°	4717.2	4402.1	3476.2	1636.1	1267.4	1178.1	1102.6	1098.0	1125.3	1168.1	1189.1
45°	5325.3	4890.2	3682.8	1519.6	1215.4	1096.2	1021.5	1019.8	1042.5	1079.8	1101.7
47.5°	6103.8	5568.4	3889.6	1440.3	1188.2	1031.6	955.1	958.7	978.8	1012.4	1027.9
50°	7111.7	6452.5	3952.3	1400.3	1188.2	996.9	895.8	914.1	930.5	956.0	965.1
52.5°	8319.8	7301.1	3744.7	1363.9	1195.5	1001.5	845.8	885.0	896.8	918.7	922.3
55°	9439.7	7717.1	3219.4	1313.8	1197.3	1029.7	803.0	861.3	883.1	891.3	890.4
57.5°	10089.8	7574.2	2603.0	1229.2	1190.0	1048.9	775.7	832.2	874.0	879.6	871.4
60°	9966.0	7072.5	1916.5	1164.5	1136.3	1041.6	767.5	787.5	854.0	862.2	851.3
62.5°	9011.8	6231.3	1330.2	1114.4	1017.9	1009.7	764.8	717.5	810.4	830.4	814.9
65°	7243.7	4905.6	939.6	959.6	892.3	940.5	750.2	644.6	757.5	784.8	761.2
67.5°	5255.2	3319.6	678.3	777.6	808.5	828.5	717.5	591.8	697.4	733.8	702.8
70°	3372.4	1792.7	476.2	513.5	681.0	703.8	661.0	544.5	636.4	678.3	644.6
72.5°	2397.3	1058.8	342.3	359.7	547.1	586.3	581.8	491.7	565.4	616.4	576.4
75°	1654.4	583.6	231.2	256.8	397.0	476.2	448.8	422.5	478.9	530.8	491.7
77.5°	1037.0	261.3	138.4	178.5	260.3	374.2	307.7	326.9	373.3	421.6	380.6
80°	577.3	101.1	77.4	118.4	142.1	272.2	170.3	210.3	275.0	309.5	276.8
82.5°	125.7	12.7	34.6	50.9	55.6	158.5	90.1	122.0	173.0	170.3	147.5
85°	0.0	0.0	6.4	7.3	3.7	68.3	32.8	40.1	56.5	52.8	40.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	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°	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0
2.5°	1638.9	1594.2	1561.5	1545.1	1531.5	1544.2	1551.4	1551.4	1582.4	1600.6	1607.9
5°	1485.0	1404.9	1343.9	1302.9	1278.3	1286.5	1295.6	1305.6	1344.8	1371.1	1388.5
7.5°	1378.4	1255.5	1162.7	1105.3	1075.2	1079.8	1086.2	1094.4	1132.6	1159.1	1181.8
10°	1358.4	1181.8	1050.7	975.1	938.7	932.3	928.6	926.0	948.7	968.7	987.0
12.5°	1440.3	1185.4	1002.4	910.5	865.8	846.8	824.9	807.6	811.2	824.0	846.8
15°	1586.9	1231.8	987.0	876.8	821.2	789.4	763.9	742.9	738.4	742.9	746.6
17.5°	1754.5	1294.7	985.1	847.7	778.5	745.7	724.8	705.6	699.3	700.2	704.7
20°	1865.5	1344.8	979.7	814.9	737.5	708.4	690.1	671.0	664.6	666.5	667.4
22.5°	1876.5	1371.1	971.5	778.5	696.5	671.9	653.7	636.4	635.5	635.5	640.9
25°	1817.3	1371.1	954.2	745.7	657.3	635.5	619.1	598.2	601.8	603.6	610.9
27.5°	1725.4	1338.3	921.4	719.2	623.7	601.0	584.6	565.4	570.0	572.7	580.9
30°	1634.3	1296.5	882.2	689.2	591.8	565.4	553.6	537.2	539.0	542.6	551.8
32.5°	1549.6	1251.9	835.8	664.6	560.0	533.5	524.4	506.2	508.9	512.6	522.6
35°	1465.9	1202.7	781.2	635.5	530.8	504.4	497.1	476.2	478.0	483.5	494.4
37.5°	1375.8	1150.9	736.6	606.4	502.6	475.3	468.0	446.1	447.9	454.3	467.1
40°	1281.0	1099.8	692.9	575.4	472.5	445.3	438.8	415.1	417.0	424.2	438.0
42.5°	1185.4	1044.3	659.2	535.4	441.6	412.5	406.1	384.2	386.9	395.1	408.8
45°	1097.2	977.8	637.3	490.8	412.5	379.7	373.3	353.2	358.7	367.9	381.5
47.5°	1021.5	909.6	628.2	453.5	381.5	345.9	340.5	324.1	333.2	343.3	354.1
50°	956.9	844.0	616.4	415.1	352.4	316.8	311.4	300.4	312.3	322.3	332.3
52.5°	910.5	769.4	590.9	380.6	326.9	292.2	290.5	285.0	295.9	305.0	314.2
55°	870.4	692.0	549.9	350.5	304.1	271.3	273.2	270.4	279.5	286.8	295.0
57.5°	833.9	624.5	498.0	326.9	279.5	253.1	258.6	254.9	259.5	264.0	274.1
60°	790.3	556.3	436.1	300.4	250.4	234.9	241.3	231.2	230.3	232.2	234.9
62.5°	725.6	464.3	371.5	267.6	224.9	214.8	217.6	198.4	183.9	183.9	186.7
65°	635.5	373.3	311.4	231.2	195.8	187.6	185.7	158.5	138.4	136.5	144.7
67.5°	530.8	306.8	258.6	194.9	163.0	157.5	159.3	139.3	119.3	117.5	126.6
70°	432.4	254.0	208.5	155.7	125.7	131.1	139.3	119.3	100.1	97.4	105.6
72.5°	351.5	202.1	163.0	119.3	92.9	108.3	118.4	97.4	79.2	77.4	84.7
75°	271.3	148.4	116.5	81.1	67.3	83.7	92.9	71.0	56.5	53.7	60.1
77.5°	181.2	91.9	65.6	50.9	40.1	57.4	61.9	37.3	32.8	31.9	36.4
80°	110.2	42.7	28.2	24.6	13.6	20.9	24.6	15.5	17.3	18.2	21.8
82.5°	55.6	11.8	4.5	0.9	0.0	0.0	7.3	3.7	7.3	9.1	13.6
85°	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	4.5	8.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
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°	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0
2.5°	1658.9	1697.1	1733.6	1791.8	1851.9	1911.1	1971.2	2029.4	2050.4	2065.9	2100.4
5°	1467.7	1539.7	1623.4	1739.0	1862.8	1990.2	2119.6	2237.9	2291.7	2328.1	2410.0
7.5°	1270.1	1363.9	1484.1	1657.9	1851.9	2054.9	2258.0	2444.6	2531.1	2601.2	2726.0
10°	1074.3	1176.3	1328.4	1526.8	1789.0	2080.4	2360.9	2617.6	2729.6	2817.9	2987.3
12.5°	902.3	997.8	1157.2	1376.7	1690.7	2060.4	2420.0	2728.7	2860.7	2959.9	3145.6
15°	781.2	848.6	989.6	1226.4	1574.2	1995.8	2423.7	2781.4	2926.3	3030.0	3191.2
17.5°	713.8	736.6	828.5	1073.5	1444.9	1911.1	2390.0	2799.7	2954.5	3051.0	3162.9
20°	677.4	681.0	706.5	874.9	1279.2	1831.9	2358.1	2817.9	2980.9	3061.9	3095.6
22.5°	648.2	648.2	654.7	715.7	1065.3	1737.2	2348.1	2849.8	3017.3	3067.4	2998.1
25°	621.9	621.9	623.7	640.0	844.0	1592.4	2341.7	2898.9	3067.4	3081.0	2890.7
27.5°	594.5	595.4	595.4	604.5	680.1	1395.7	2314.4	2962.7	3127.5	3099.2	2787.9
30°	567.2	569.1	569.1	575.4	601.8	1165.4	2260.7	3039.1	3205.8	3122.9	2685.9
32.5°	539.9	541.7	541.7	547.1	566.3	930.5	2193.3	3109.2	3284.9	3132.9	2591.2
35°	511.7	514.4	512.6	519.9	539.9	740.3	2107.7	3179.3	3370.5	3164.8	2544.8
37.5°	483.5	485.2	484.4	491.7	514.4	639.2	2008.5	3232.1	3487.0	3235.8	2600.3
40°	455.2	454.3	454.3	462.5	487.1	610.0	1883.7	3315.9	3654.6	3360.6	2842.5
42.5°	426.1	426.1	424.2	433.4	463.4	588.1	1764.5	3466.1	3898.6	3559.0	3272.2
45°	399.6	398.8	395.1	403.3	440.6	549.9	1722.6	3746.6	4259.2	3880.4	3792.1
47.5°	374.2	373.3	364.2	371.5	413.4	515.4	1879.2	4205.5	4759.0	4353.0	4279.2
50°	351.5	352.4	335.1	341.4	386.0	488.9	2218.8	4800.9	5422.8	4989.4	4740.8
52.5°	330.5	330.5	307.7	311.4	352.4	465.2	2542.0	5446.4	6298.6	5877.0	5278.9
55°	309.5	307.7	282.3	284.0	318.7	431.5	2590.3	6076.5	7493.2	7212.7	6014.6
57.5°	285.9	282.3	258.6	258.6	287.7	407.0	2245.3	6560.8	8975.4	9175.7	7075.3
60°	256.8	254.0	238.5	234.0	263.1	428.9	1584.2	6617.3	9931.4	11786.1	9106.5
62.5°	219.5	223.0	214.8	208.5	239.4	445.3	938.7	6162.9	9700.1	12616.3	11539.2
65°	173.0	187.6	185.7	181.2	263.1	375.2	554.5	5290.7	8990.9	11946.3	11043.0
67.5°	147.5	157.5	154.8	154.8	275.8	285.0	348.7	4133.5	8014.9	11151.4	9864.0
70°	125.7	135.7	125.7	125.7	208.5	173.0	241.3	2886.2	6961.5	10271.9	9090.1
72.5°	103.8	113.8	102.9	95.6	166.7	129.3	176.6	1803.6	5961.7	9356.0	8560.2
75°	79.2	91.0	82.8	73.7	110.2	96.6	133.9	1048.0	4939.3	8004.8	7805.5
77.5°	50.1	65.6	61.9	51.9	81.1	70.1	96.6	623.7	3811.3	6255.0	6713.7
80°	31.0	33.7	34.6	32.8	46.4	47.4	65.6	355.1	2608.5	4359.3	5245.2
82.5°	20.0	20.0	15.5	17.3	22.8	27.3	37.3	133.9	1533.2	2654.0	3650.9
85°	14.6	12.7	8.2	8.2	11.0	13.6	14.6	41.0	621.9	1048.0	1427.6
87.5°	7.3	6.4	2.8	3.7	5.4	4.5	3.7	1.8	156.6	335.1	234.9
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°	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0	1830.0
2.5°	2118.7	2146.9	2148.7	2148.7	2124.1	2123.2	2073.2	2067.6
5°	2494.6	2512.9	2517.4	2508.4	2459.2	2422.8	2325.3	2304.4
7.5°	2838.8	2875.2	2875.2	2853.4	2773.2	2698.6	2557.5	2504.7
10°	3113.8	3155.7	3146.5	3102.0	3000.9	2898.0	2726.8	2657.6
12.5°	3247.6	3290.5	3266.8	3215.7	3117.4	3009.1	2828.8	2750.5
15°	3244.9	3233.1	3208.5	3202.1	3154.7	3072.8	2904.4	2818.9
17.5°	3129.3	3029.1	3010.0	3073.8	3133.8	3113.8	2969.9	2889.8
20°	2946.3	2771.5	2754.2	2876.1	3047.3	3134.8	3030.9	2957.2
22.5°	2753.3	2564.8	2524.8	2659.5	2917.1	3141.1	3108.3	3034.6
25°	2570.3	2380.9	2340.8	2466.5	2772.4	3130.1	3192.1	3129.3
27.5°	2417.3	2234.3	2197.0	2322.6	2633.1	3099.2	3275.9	3231.2
30°	2299.0	2129.5	2102.3	2223.3	2512.9	3061.0	3382.4	3357.8
32.5°	2229.8	2105.9	2115.9	2215.1	2448.2	3019.1	3484.4	3496.2
35°	2298.0	2303.5	2390.9	2431.8	2508.4	3012.8	3622.8	3669.2
37.5°	2637.6	2827.1	3008.2	2974.5	2802.5	3086.5	3829.4	3915.9
40°	3215.7	3604.5	3898.6	3770.3	3336.9	3312.3	4127.2	4256.4
42.5°	3922.3	4581.4	5065.9	4721.7	4026.1	3707.4	4552.3	4717.2
45°	4668.0	5786.0	6549.0	5833.4	4760.8	4261.0	5196.0	5325.3
47.5°	5453.7	7250.0	8237.0	7066.1	5441.8	4891.0	6073.7	6103.8
50°	6313.2	8855.2	9957.8	8298.0	6099.3	5613.0	7146.3	7111.7
52.5°	7131.7	10505.9	11642.2	9535.4	6676.4	6509.0	8390.9	8319.8
55°	7912.9	12155.7	13336.6	10724.4	7220.9	7692.5	9869.5	9439.7
57.5°	8818.8	13638.9	15082.8	11918.9	7982.1	9229.4	11522.8	10089.8
60°	10158.1	15324.1	17057.6	13555.9	9429.7	10844.6	12115.6	9966.0
62.5°	11868.0	16873.8	18493.5	15160.2	10883.8	11148.7	11242.5	9011.8
65°	12200.3	17266.1	18574.4	15589.0	10696.2	9457.1	9178.5	7243.7
67.5°	11319.0	16556.8	17441.8	14790.5	9461.6	7308.4	6887.7	5255.2
70°	10330.2	15204.8	15468.0	13433.0	8321.7	5375.4	4651.6	3372.4
72.5°	9316.8	13401.2	12856.7	11665.8	7313.8	3914.1	3355.0	2397.3
75°	8113.2	11029.4	10127.1	9692.8	6055.5	3071.9	2427.3	1654.4
77.5°	6497.1	7763.6	7522.3	7513.1	4550.5	2244.3	1619.7	1037.0
80°	4583.3	5038.5	4915.6	5658.5	3052.8	1627.9	975.1	577.3
82.5°	2218.8	2786.1	2859.7	3369.7	1485.0	957.9	224.9	125.7
85°	868.6	1343.9	1133.5	1279.2	417.0	266.8	5.4	0.0
87.5°	97.4	155.7	143.0	112.9	50.9	11.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)