

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: P963650

Luminaire Tested: **NAV-SB3A-827-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963650
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-827-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11973 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - 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



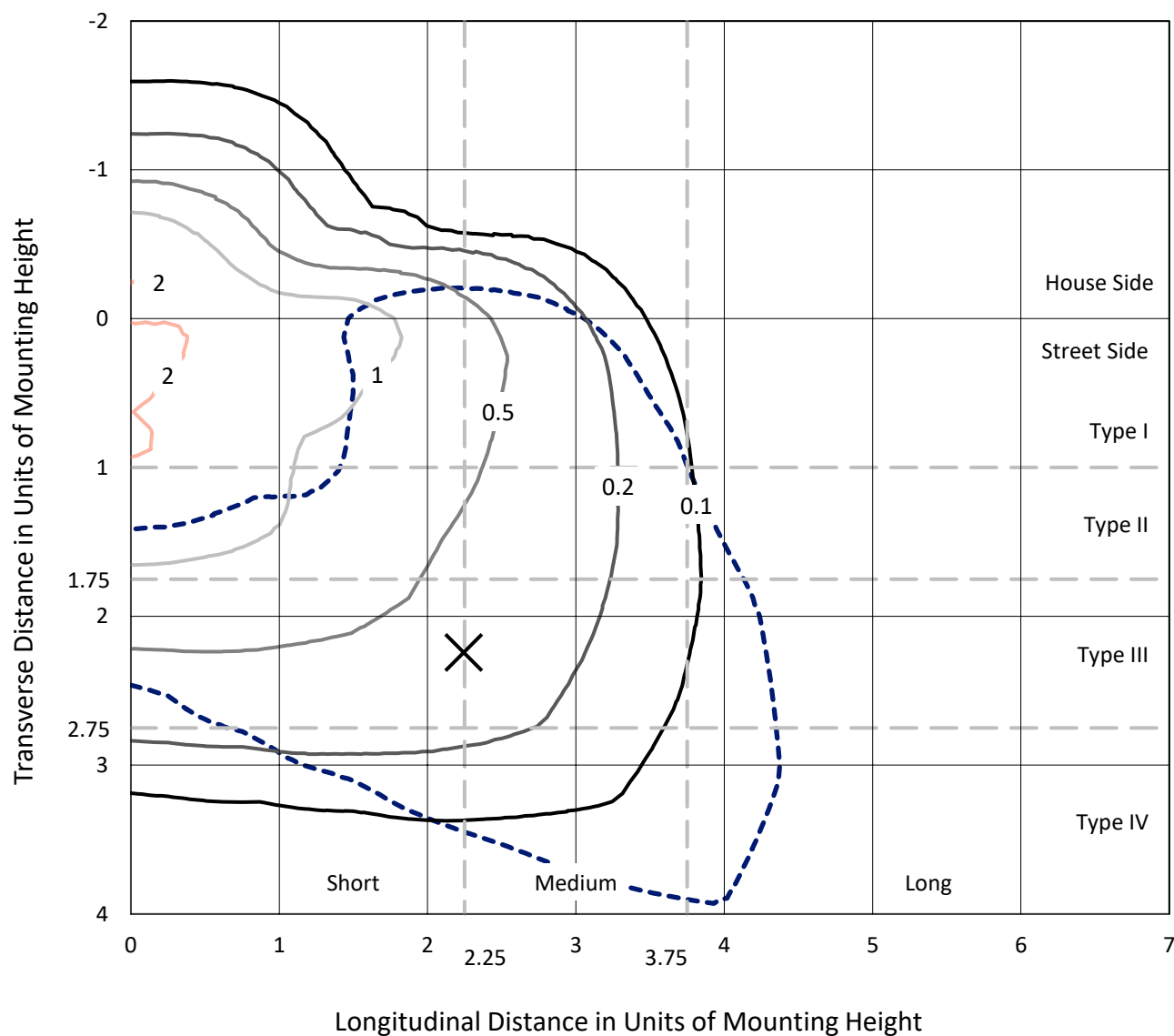
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

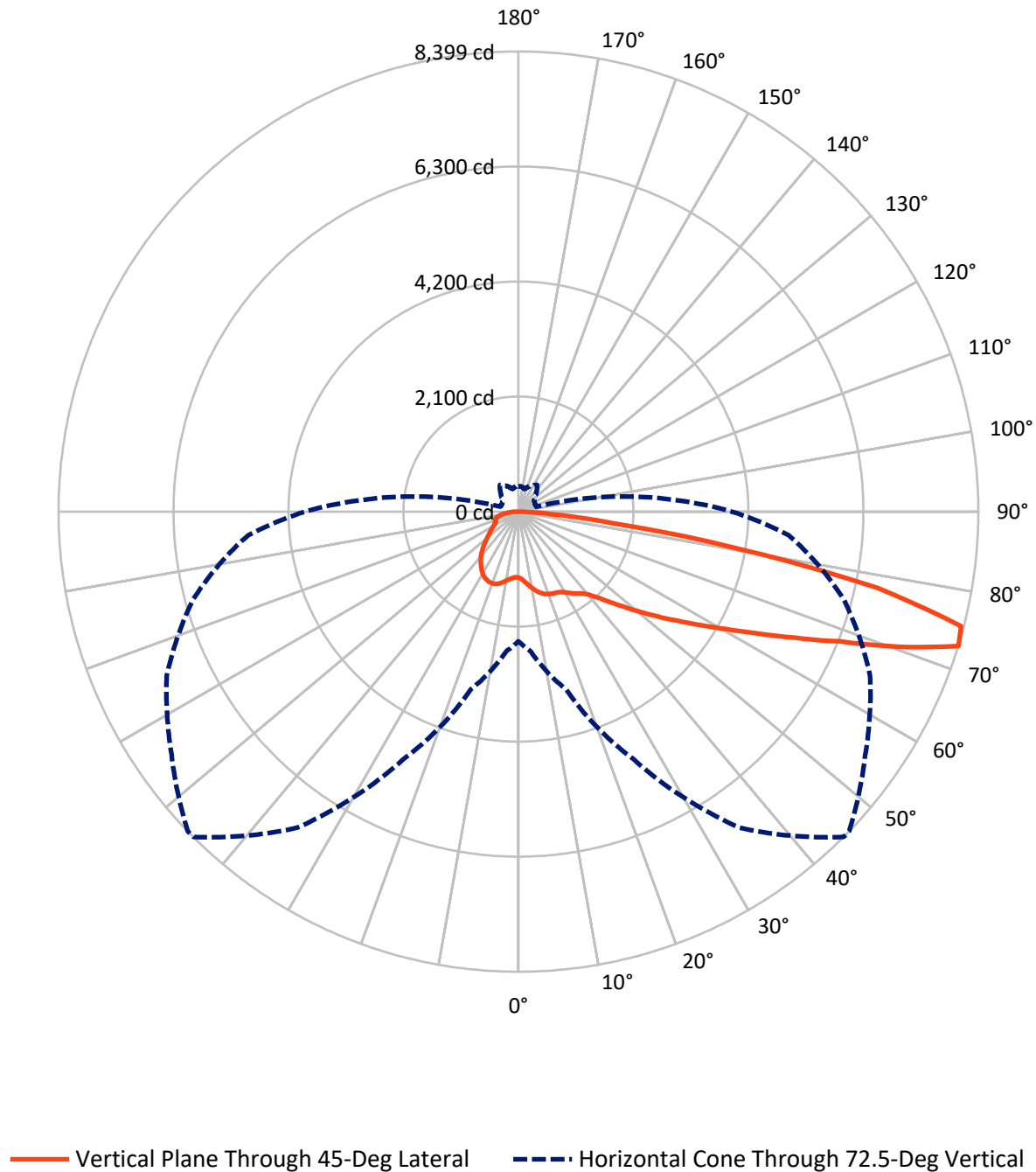


Based on 25 foot mounting height. Maximum calculated value = 2.4 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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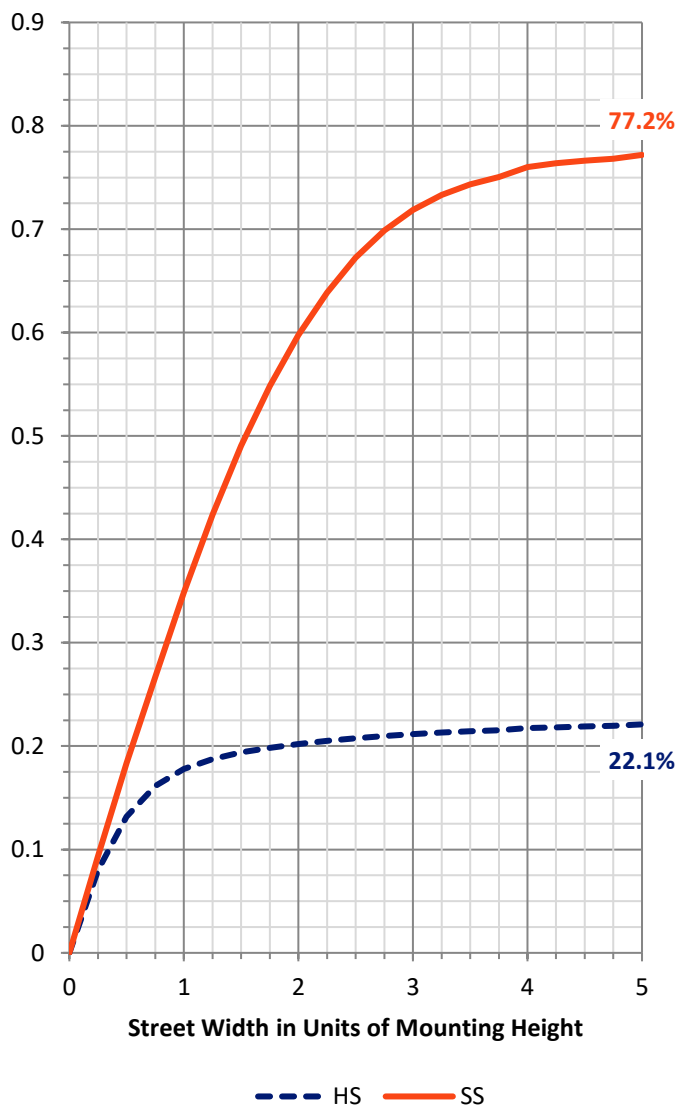
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2706.7	0.0	2706.7
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	9266.3	0.0	9266.3
	% Fixture	77.4	0.0	77.4
Total	Lumens	11973.0	0.0	11973.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.9	1.0
10°-20°	409.9	3.4
20°-30°	713.0	6.0
30°-40°	1022.1	8.5
40°-50°	1439.2	12.0
50°-60°	2204.5	18.4
60°-70°	3193.5	26.7
70°-80°	2550.2	21.3
80°-90°	317.6	2.7
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°	11973.0	100.0
0°-180°	11973.0	100.0

Coefficient of Utilization



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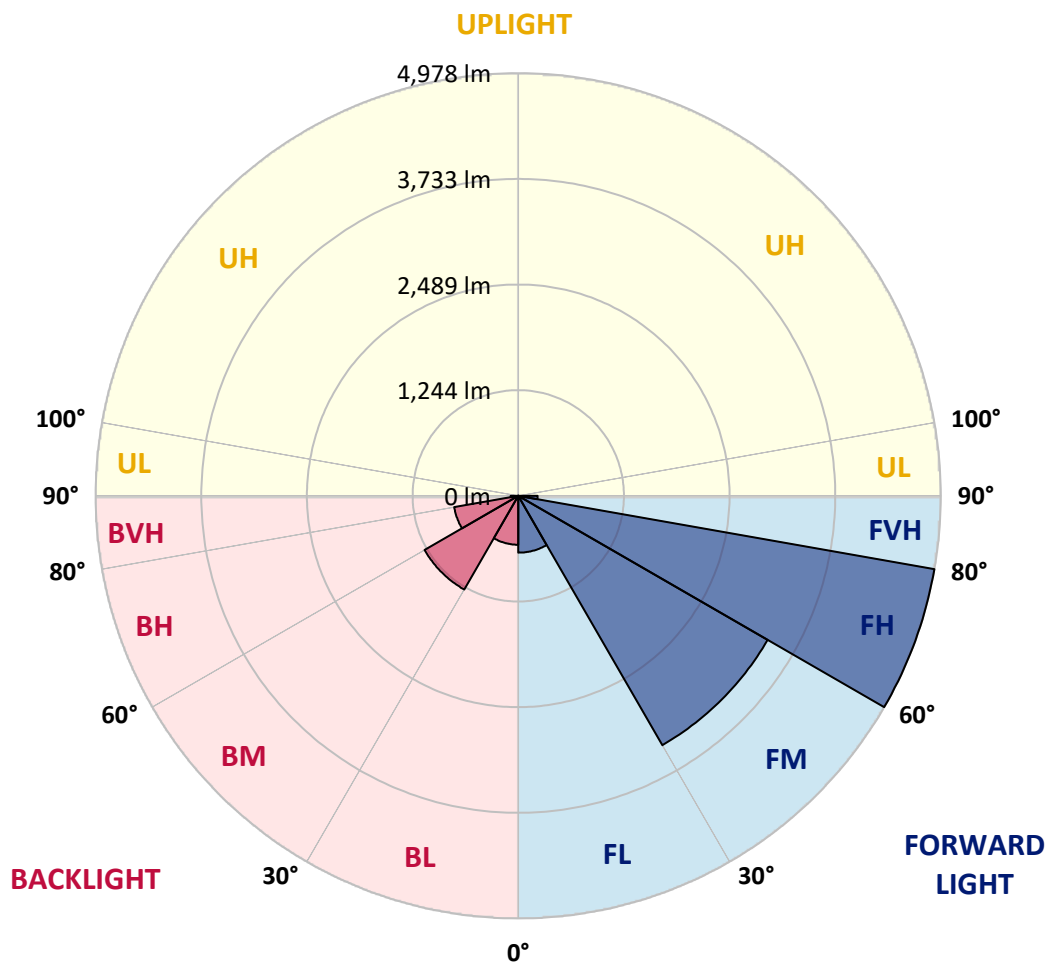
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	669.6	5.6			
FM	(30°-60°)	3391.4	28.3			
FH	(60°-80°)	4977.5	41.6			G2/5000
FVH	(80°-90°)	227.9	1.9			G3/500
BL	(0°-30°)	576.3	4.8	B2/1000		
BM	(30°-60°)	1274.5	10.6	B2/2500		
BH	(60°-80°)	766.2	6.4	B2/1000		G2/1000
BVH	(80°-90°)	89.8	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9
2.5°	1255.1	1263.3	1255.8	1248.9	1245.7	1237.5	1236.9	1231.8	1228.7	1219.9	1217.3
5°	1342.9	1353.5	1340.9	1327.1	1314.5	1294.3	1291.7	1277.3	1260.9	1241.9	1231.2
7.5°	1441.9	1451.3	1436.8	1415.9	1393.9	1360.5	1359.9	1333.3	1307.5	1275.3	1257.1
10°	1528.3	1540.9	1521.3	1492.9	1465.1	1427.3	1422.9	1392.7	1359.9	1318.3	1290.5
12.5°	1604.5	1613.5	1594.5	1559.7	1527.7	1489.7	1484.1	1450.7	1414.1	1366.8	1331.5
15°	1665.1	1676.5	1651.3	1614.1	1579.9	1542.7	1537.7	1507.5	1470.9	1421.1	1375.7
17.5°	1704.9	1714.3	1688.5	1646.9	1614.1	1583.1	1579.3	1554.1	1521.9	1471.5	1422.9
20°	1720.0	1730.1	1702.9	1660.7	1630.5	1606.5	1604.5	1586.3	1564.3	1518.1	1468.9
22.5°	1735.1	1744.6	1709.3	1665.1	1638.7	1623.5	1622.9	1610.9	1602.1	1564.3	1516.3
25°	1796.3	1798.9	1751.5	1687.9	1649.9	1636.7	1636.1	1635.5	1639.3	1609.7	1567.3
27.5°	1849.3	1848.7	1808.3	1748.3	1689.7	1661.9	1661.3	1667.7	1679.7	1655.1	1620.3
30°	1926.9	1919.9	1872.0	1809.5	1755.9	1713.1	1709.3	1703.6	1713.1	1693.5	1673.3
32.5°	2091.5	2069.4	1991.9	1880.9	1810.9	1778.1	1772.9	1737.7	1741.5	1729.5	1719.3
35°	2327.4	2298.4	2194.9	2015.8	1878.9	1832.3	1829.7	1784.9	1777.4	1766.7	1770.5
37.5°	2608.1	2572.1	2451.6	2211.3	1996.3	1895.3	1891.5	1851.2	1820.3	1808.9	1830.3
40°	2890.0	2844.6	2745.0	2449.8	2169.1	2000.7	1988.7	1927.5	1892.2	1873.3	1918.7
42.5°	3163.8	3125.8	3040.8	2717.2	2382.3	2154.5	2128.1	2023.4	1996.9	1979.3	2061.2
45°	3406.0	3371.8	3309.4	3002.9	2632.0	2364.0	2338.1	2167.2	2159.0	2159.0	2277.5
47.5°	3602.8	3595.2	3529.0	3294.2	2926.6	2602.4	2557.6	2367.1	2389.2	2423.3	2584.7
50°	3821.0	3800.2	3729.5	3581.2	3272.8	2875.5	2838.9	2612.5	2695.1	2788.4	3028.8
52.5°	4021.5	4032.9	3954.0	3880.2	3663.9	3180.2	3115.8	2902.0	3080.4	3235.0	3549.1
55°	4227.8	4228.4	4206.3	4196.2	4073.9	3517.0	3446.3	3250.2	3534.0	3725.7	4155.9
57.5°	4421.4	4422.7	4455.5	4544.4	4549.5	3905.5	3825.4	3677.8	4037.9	4233.5	4781.5
60°	4594.3	4603.1	4692.7	4900.7	4967.7	4350.7	4275.1	4183.0	4558.9	4755.7	5439.4
62.5°	4652.3	4684.5	4883.7	5179.5	5380.7	4896.9	4822.5	4767.7	5106.3	5289.3	5989.4
65°	4553.9	4627.7	5013.1	5409.7	5805.9	5546.0	5472.2	5412.3	5675.3	5847.5	6441.0
67.5°	4312.3	4407.5	5005.5	5651.3	6321.8	6326.8	6258.1	6117.4	6285.2	6351.4	6588.0
70°	3675.9	3818.4	4564.6	5741.5	6914.0	7394.7	7328.4	6966.4	6893.8	6573.4	6174.2
72.5°	2368.4	2560.1	3361.2	4999.1	7045.8	8399.4	8395.7	7732.7	7086.2	6142.0	4951.9
75°	864.1	981.4	1561.7	3137.8	5914.4	8348.3	8372.9	7601.5	6468.8	4744.3	3084.9
77.5°	314.8	344.4	509.6	1205.9	3637.4	6698.4	6749.4	6077.0	4604.3	2381.0	1222.3
80°	165.2	181.6	261.2	468.0	1558.5	3978.0	4058.1	3611.6	2164.0	717.1	366.4
82.5°	91.4	99.0	146.4	254.2	702.0	1701.1	1749.1	1426.7	761.3	304.0	151.4
85°	49.2	52.4	68.8	138.8	343.1	589.7	603.0	426.4	303.4	178.5	73.2
87.5°	14.6	17.6	22.8	44.2	134.4	132.4	135.6	84.6	119.8	90.2	24.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9
2.5°	1213.5	1211.7	1204.7	1201.5	1197.7	1197.1	1200.3	1200.9	1201.5	1202.1	1204.7
5°	1224.9	1218.5	1212.3	1208.5	1209.7	1210.3	1216.7	1221.1	1224.3	1226.7	1228.1
7.5°	1246.9	1241.9	1231.2	1230.5	1232.5	1238.1	1246.3	1256.4	1262.1	1266.5	1267.7
10°	1279.7	1270.3	1257.7	1259.5	1263.3	1271.5	1288.5	1296.7	1306.3	1314.5	1312.5
12.5°	1313.1	1304.9	1290.5	1291.7	1298.1	1312.5	1328.9	1339.1	1345.3	1351.7	1354.1
15°	1356.7	1342.2	1326.5	1326.5	1337.7	1353.5	1361.1	1369.3	1373.1	1380.1	1382.5
17.5°	1401.5	1382.5	1361.7	1360.5	1374.3	1381.9	1386.3	1387.6	1388.9	1396.5	1398.9
20°	1446.3	1425.5	1395.8	1393.3	1396.5	1395.1	1394.5	1393.3	1395.1	1404.7	1408.5
22.5°	1490.5	1466.5	1425.5	1414.1	1405.3	1393.3	1392.7	1392.1	1393.3	1402.7	1409.1
25°	1542.1	1513.1	1458.3	1424.1	1394.5	1378.1	1380.1	1380.7	1381.9	1389.5	1399.6
27.5°	1598.3	1566.1	1488.5	1421.1	1367.5	1356.1	1352.9	1354.8	1359.3	1371.2	1383.2
30°	1654.4	1616.5	1516.3	1408.5	1333.3	1317.6	1307.5	1311.9	1325.8	1337.7	1351.1
32.5°	1705.5	1667.7	1538.3	1380.7	1289.9	1265.3	1252.0	1257.7	1271.5	1275.9	1291.7
35°	1765.5	1722.5	1547.9	1336.5	1242.5	1204.7	1187.1	1178.9	1185.7	1181.3	1195.3
37.5°	1832.3	1787.5	1546.5	1278.5	1187.1	1143.5	1118.9	1088.0	1073.5	1058.3	1067.8
40°	1931.3	1866.9	1531.5	1208.5	1118.3	1078.5	1034.4	982.1	949.3	919.6	921.5
42.5°	2066.3	1977.3	1503.7	1131.5	1040.7	1003.5	943.6	882.4	830.7	781.5	777.1
45°	2267.5	2121.8	1468.9	1049.5	956.8	920.2	855.3	786.5	727.9	664.8	657.2
47.5°	2557.6	2316.0	1436.1	956.2	868.5	835.1	776.4	712.7	643.4	582.2	575.2
50°	2956.2	2594.8	1405.9	865.4	781.5	756.2	709.6	644.6	574.6	525.4	522.2
52.5°	3463.4	2973.9	1393.3	777.7	700.1	690.6	653.4	592.9	526.6	485.0	481.9
55°	4045.5	3427.4	1393.3	693.8	628.8	632.0	606.1	550.0	492.6	455.4	451.6
57.5°	4639.7	3886.6	1368.1	616.2	568.3	581.5	565.1	516.0	464.2	425.8	419.4
60°	5187.1	4271.3	1265.9	545.6	514.7	535.5	524.8	482.5	419.4	387.2	382.2
62.5°	5607.8	4488.3	1069.1	489.4	470.5	494.5	488.8	438.4	411.2	398.0	393.6
65°	5818.5	4452.9	817.4	439.6	433.3	470.5	458.6	456.6	435.2	420.0	415.0
67.5°	5689.2	4148.9	592.9	403.0	411.8	448.4	494.5	502.0	462.3	432.7	427.6
70°	5122.1	3599.0	441.5	368.4	384.8	449.1	563.9	525.4	453.5	418.8	413.2
72.5°	3896.6	2683.8	342.5	331.8	349.4	452.2	594.8	514.7	428.2	463.0	459.2
75°	2228.4	1473.3	275.0	287.0	305.2	422.6	579.0	486.9	408.7	425.1	425.1
77.5°	849.6	566.4	227.0	242.8	245.4	369.0	553.8	485.0	389.2	379.7	346.2
80°	294.6	221.4	188.0	193.0	189.8	328.0	531.1	422.0	318.5	285.1	275.6
82.5°	120.4	110.4	148.8	142.6	135.0	254.8	428.9	345.0	260.5	230.2	227.7
85°	52.4	70.0	98.4	86.4	78.2	176.6	343.8	292.0	220.2	189.8	189.2
87.5°	10.8	26.4	41.6	39.2	40.4	118.0	244.1	207.5	155.8	116.6	91.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)