

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: P961013

Luminaire Tested: **NAV-SB1D-827-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961013
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8967.7 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 79.6
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

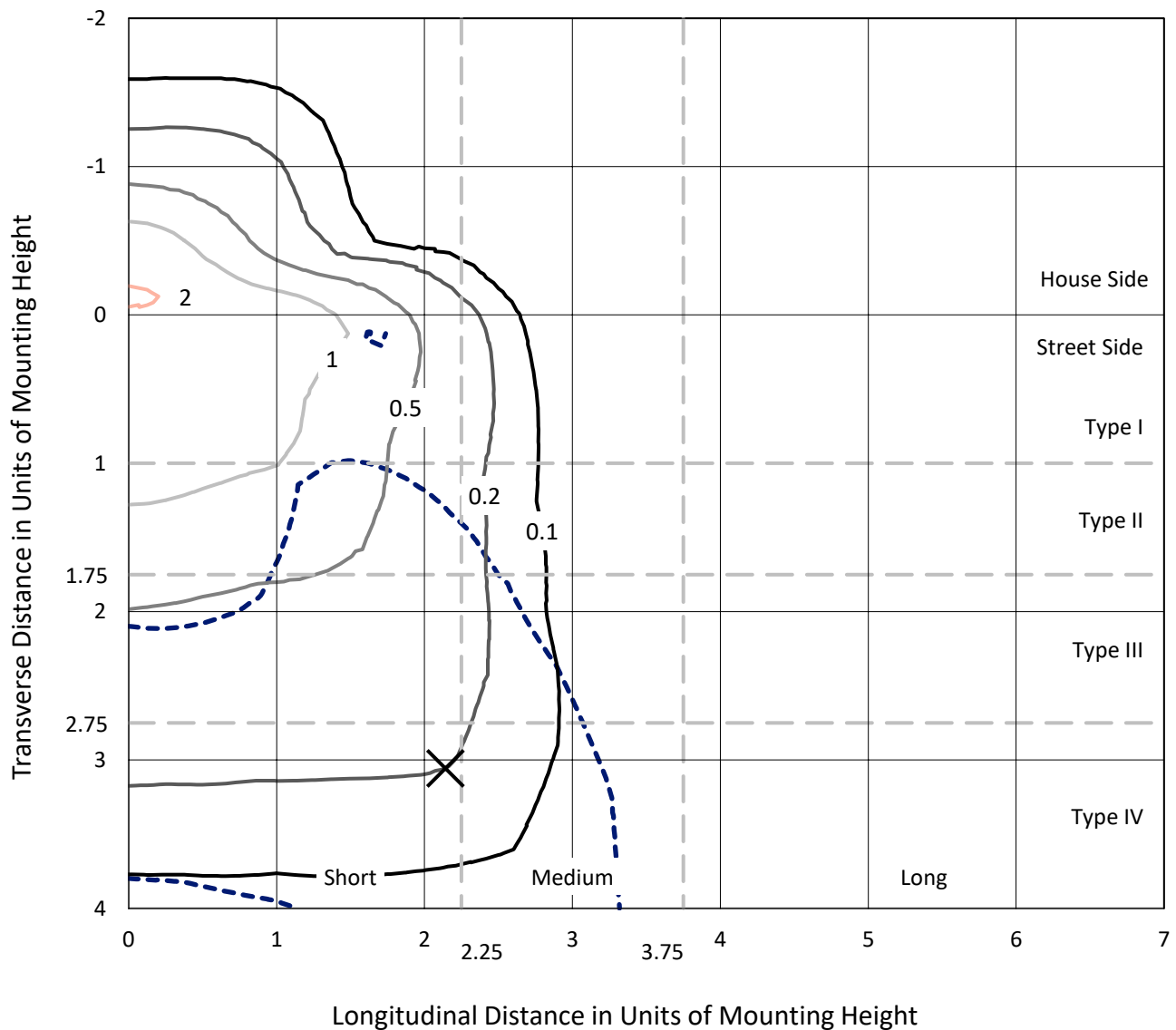


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Iso-Footcandle Lines of Horizontal Illumination

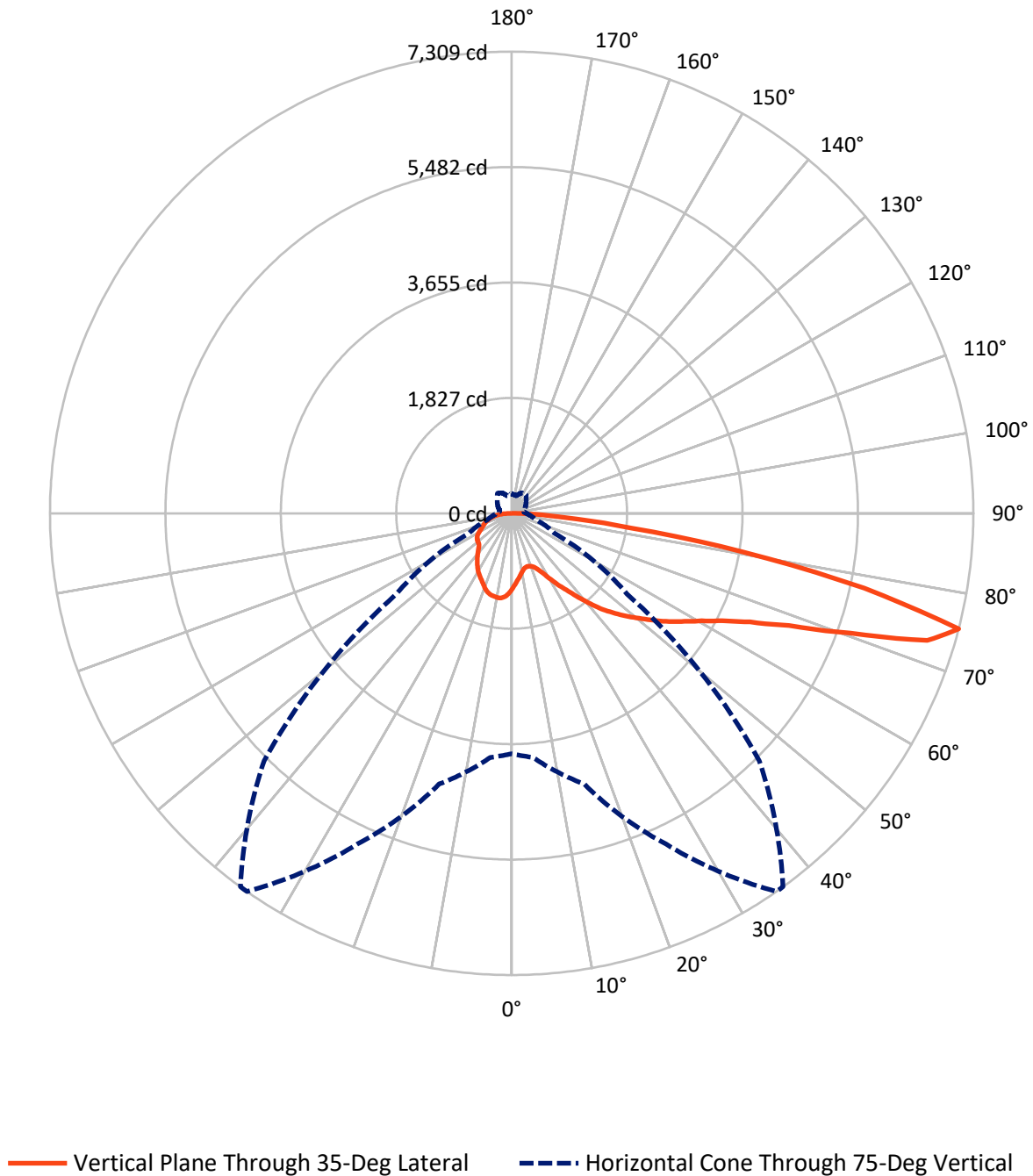
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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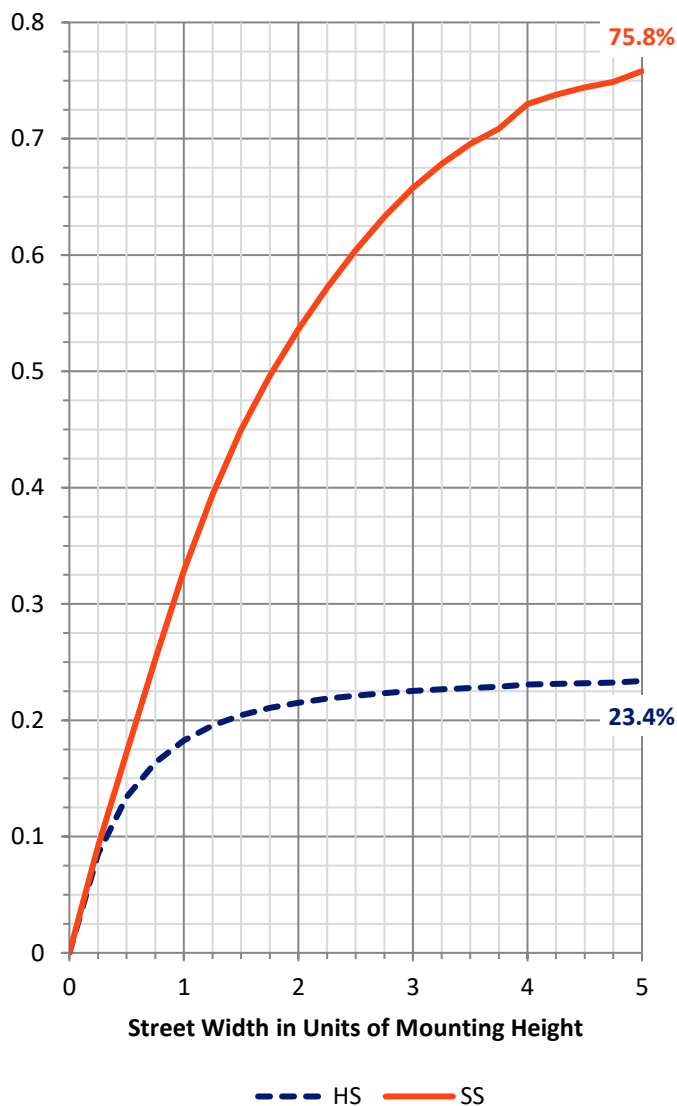
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2134.1	0.0	2134.1
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	6833.6	0.0	6833.6
	% Fixture	76.2	0.0	76.2
Total	Lumens	8967.7	0.0	8967.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.1	1.3
10°-20°	326.4	3.6
20°-30°	548.0	6.1
30°-40°	851.7	9.5
40°-50°	1264.2	14.1
50°-60°	1745.3	19.5
60°-70°	2117.4	23.6
70°-80°	1749.9	19.5
80°-90°	251.7	2.8
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°	8967.7	100.0
0°-180°	8967.7	100.0

Coefficient of Utilization



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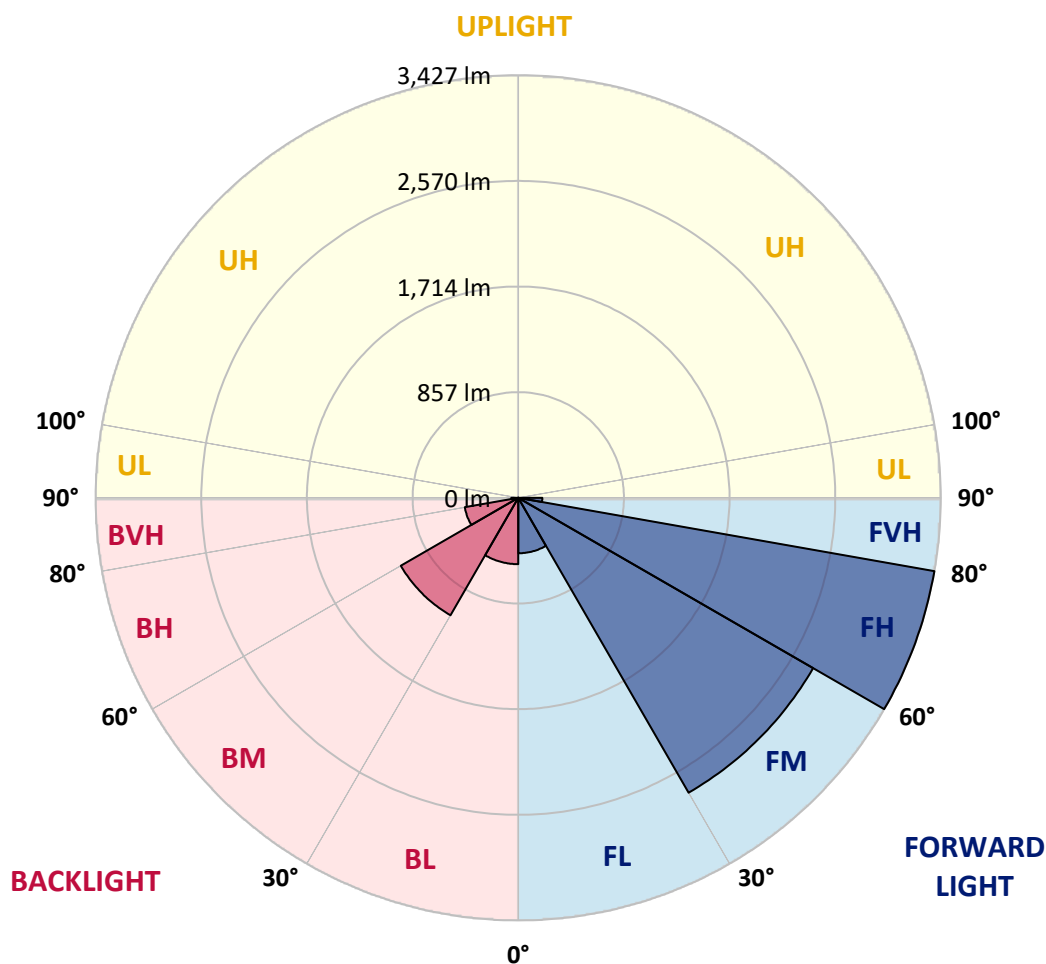
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	449.7	5.0			
FM	(30°-60°)	2761.6	30.8			
FH	(60°-80°)	3427.3	38.2			G2/5000
FVH	(80°-90°)	195.0	2.2			G2/225
BL	(0°-30°)	537.8	6.0	B2/1000		
BM	(30°-60°)	1099.6	12.3	B2/2500		
BH	(60°-80°)	440.0	4.9	B1/500		G1/500
BVH	(80°-90°)	56.7	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0
2.5°	1102.0	1108.7	1111.6	1110.2	1117.5	1116.4	1126.7	1139.3	1156.7	1173.7	1198.4
5°	1017.1	1024.4	1030.6	1036.5	1050.5	1054.9	1070.9	1095.1	1127.1	1159.6	1200.4
7.5°	938.1	944.3	954.1	964.7	988.5	992.8	1019.5	1057.3	1102.0	1149.4	1205.7
10°	873.6	879.9	890.1	902.2	931.7	937.1	971.1	1021.4	1079.6	1139.7	1211.4
12.5°	845.9	847.9	853.7	865.8	891.5	894.9	932.2	989.9	1057.8	1132.5	1220.3
15°	844.5	848.4	848.9	855.2	876.5	877.9	912.4	969.5	1044.3	1131.0	1233.3
17.5°	859.1	861.9	857.6	861.5	879.4	881.8	909.0	959.9	1039.9	1137.3	1255.6
20°	897.8	900.3	887.1	881.8	894.9	896.9	923.5	966.2	1044.3	1150.5	1286.2
22.5°	980.2	981.7	949.7	927.9	928.9	929.9	953.1	991.9	1061.2	1174.1	1324.9
25°	1108.7	1107.7	1056.9	1014.6	990.5	985.1	1000.6	1033.6	1089.8	1205.7	1374.8
27.5°	1259.0	1251.7	1200.8	1137.9	1085.0	1077.2	1073.8	1087.8	1130.6	1247.3	1435.9
30°	1428.6	1421.9	1367.1	1284.7	1211.4	1198.8	1166.9	1159.6	1191.2	1304.1	1520.8
32.5°	1614.9	1610.5	1545.0	1445.1	1347.3	1332.7	1278.9	1259.5	1284.2	1389.9	1639.1
35°	1770.9	1767.1	1712.8	1610.0	1490.2	1472.3	1417.6	1395.7	1408.4	1500.0	1793.7
37.5°	1912.0	1910.1	1863.6	1782.6	1659.0	1637.1	1575.5	1568.2	1565.9	1644.9	1981.3
40°	2042.9	2038.1	1989.6	1946.9	1855.2	1835.5	1781.1	1774.8	1756.4	1823.3	2193.7
42.5°	2187.9	2175.3	2104.9	2085.1	2060.4	2043.8	2011.4	2012.4	1971.7	2024.5	2418.6
45°	2306.1	2298.9	2226.6	2215.0	2241.7	2234.9	2263.0	2270.3	2191.2	2235.4	2652.3
47.5°	2433.1	2426.4	2365.3	2357.1	2429.2	2431.2	2530.6	2533.1	2405.6	2454.5	2886.4
50°	2589.8	2580.0	2519.4	2529.6	2610.6	2617.8	2799.7	2783.2	2602.9	2677.0	3118.7
52.5°	2693.0	2698.8	2685.7	2702.2	2812.8	2819.6	3064.3	3022.2	2798.2	2896.6	3346.5
55°	2769.1	2780.7	2821.5	2859.3	3026.1	3032.9	3314.0	3249.6	2960.1	3100.2	3560.7
57.5°	2867.0	2850.5	2926.7	3000.4	3228.7	3246.7	3557.0	3468.7	3103.6	3275.7	3707.7
60°	3007.7	2996.0	3055.1	3164.3	3455.6	3484.2	3813.8	3666.0	3208.9	3414.9	3736.3
62.5°	3292.7	3263.6	3272.8	3369.3	3741.7	3779.5	4103.8	3838.1	3261.1	3469.2	3583.1
65°	3718.8	3668.9	3622.4	3689.3	4144.5	4181.8	4431.0	3973.3	3241.8	3363.9	3176.4
67.5°	4255.5	4206.1	4148.9	4211.8	4737.9	4767.5	4834.8	4049.5	3089.0	2958.7	2457.4
70°	4698.1	4679.6	4748.0	5007.4	5685.7	5686.6	5352.5	3986.4	2670.7	2097.7	1421.9
72.5°	4639.5	4628.3	4988.5	5790.3	6880.1	6854.5	5842.7	3509.4	1799.1	946.3	532.8
75°	3806.1	3878.3	4436.3	5776.3	7309.2	7305.8	5542.6	2231.0	744.2	392.2	275.3
77.5°	2041.0	2155.4	2880.1	4264.7	5706.0	5791.8	3896.7	780.5	319.5	251.1	190.5
80°	665.6	765.5	1148.0	2171.4	3707.7	3691.6	1670.1	306.4	218.6	177.9	131.8
82.5°	282.6	294.3	512.9	1025.3	1902.8	1873.2	531.8	176.0	153.6	121.7	81.5
85°	110.5	123.6	226.4	474.2	824.1	806.2	192.0	87.2	98.4	79.5	48.5
87.5°	36.4	44.1	81.0	162.4	256.5	247.2	47.0	30.0	42.6	36.4	17.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0
2.5°	1205.2	1213.0	1222.1	1235.7	1247.3	1257.1	1267.2	1273.6	1275.9	1283.2	1282.8
5°	1213.9	1230.9	1253.7	1275.9	1297.8	1310.9	1322.6	1328.3	1333.6	1337.5	1338.5
7.5°	1228.5	1250.3	1286.2	1315.3	1333.6	1344.3	1352.1	1350.1	1352.1	1353.1	1354.5
10°	1241.1	1271.6	1314.3	1341.9	1356.0	1356.5	1354.5	1347.7	1344.3	1344.8	1345.8
12.5°	1256.1	1290.1	1336.1	1359.4	1363.2	1352.6	1344.3	1332.7	1328.3	1326.4	1325.4
15°	1276.4	1315.3	1359.9	1368.6	1358.8	1345.3	1331.3	1312.3	1302.7	1294.9	1297.3
17.5°	1301.1	1343.9	1378.2	1372.0	1351.2	1328.8	1306.1	1277.5	1257.6	1249.3	1249.8
20°	1335.6	1373.9	1392.4	1364.7	1333.2	1299.3	1260.4	1225.6	1207.1	1198.8	1197.9
22.5°	1377.3	1414.1	1405.9	1352.1	1307.5	1253.2	1204.7	1179.1	1169.8	1164.0	1164.9
25°	1427.2	1458.8	1415.6	1333.6	1265.3	1192.1	1154.8	1146.6	1142.2	1137.9	1137.9
27.5°	1492.2	1509.1	1422.9	1306.5	1199.4	1127.1	1113.6	1115.0	1113.6	1106.3	1107.7
30°	1578.0	1574.6	1429.7	1262.4	1123.7	1068.5	1069.5	1075.7	1076.8	1071.8	1074.3
32.5°	1690.9	1656.5	1433.1	1205.2	1051.5	1017.1	1018.0	1024.9	1029.7	1021.4	1025.3
35°	1827.7	1752.0	1427.7	1133.4	995.8	968.1	960.8	962.8	964.2	956.5	961.9
37.5°	1987.2	1859.1	1403.9	1053.9	949.7	920.1	904.7	891.5	883.8	876.5	881.4
40°	2162.1	1976.0	1360.3	976.4	898.3	869.2	845.9	821.2	795.1	785.4	789.8
42.5°	2345.4	2096.2	1307.5	902.2	839.2	815.4	790.7	754.8	715.6	695.7	698.1
45°	2535.4	2219.3	1255.6	829.0	778.6	768.4	739.7	696.7	653.9	628.7	626.8
47.5°	2721.6	2335.8	1179.5	755.3	721.8	733.0	710.7	671.0	623.4	583.7	579.3
50°	2899.5	2444.8	1054.9	680.6	675.8	722.3	701.0	643.8	589.5	538.6	534.2
52.5°	3076.0	2533.1	895.4	612.7	651.1	719.4	688.4	625.4	558.9	505.6	499.8
55°	3225.8	2578.6	741.7	554.6	615.2	694.7	673.4	603.5	515.8	459.1	454.3
57.5°	3311.2	2541.8	613.8	497.4	565.8	653.9	647.7	557.0	464.4	420.8	415.0
60°	3274.3	2392.5	509.0	447.4	518.8	609.9	603.1	511.0	425.2	384.0	378.1
62.5°	3071.1	2107.9	426.1	403.8	476.1	564.8	558.5	475.6	395.1	355.4	349.0
65°	2662.0	1714.7	361.6	367.5	433.0	510.4	519.7	446.0	371.4	332.6	326.3
67.5°	2030.3	1242.0	311.2	336.0	390.7	457.2	483.8	424.7	351.5	314.7	308.8
70°	1157.2	705.4	268.5	305.4	353.4	407.7	456.2	407.7	330.2	299.6	295.7
72.5°	438.7	323.8	232.3	274.9	317.5	366.0	425.7	381.1	305.4	282.6	278.8
75°	234.1	197.3	195.4	239.0	276.3	325.3	387.3	354.9	287.0	298.6	308.3
77.5°	159.5	139.6	163.4	204.6	231.2	280.2	346.7	315.1	248.7	247.7	228.4
80°	110.5	98.9	132.8	164.8	178.9	235.6	302.5	270.5	202.6	189.1	180.8
82.5°	66.4	64.5	99.4	123.1	126.5	181.8	250.6	226.8	165.8	144.4	145.4
85°	36.4	38.3	63.6	72.3	73.7	127.0	196.4	175.5	127.5	107.1	108.1
87.5°	10.1	13.1	23.3	28.6	35.4	65.9	116.8	104.2	64.0	44.6	44.6
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)