

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: P961044

Luminaire Tested: **NAV-SB1D-830-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961044
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-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9266 lumens
Efficiency: N/A
Efficacy: 116.4 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



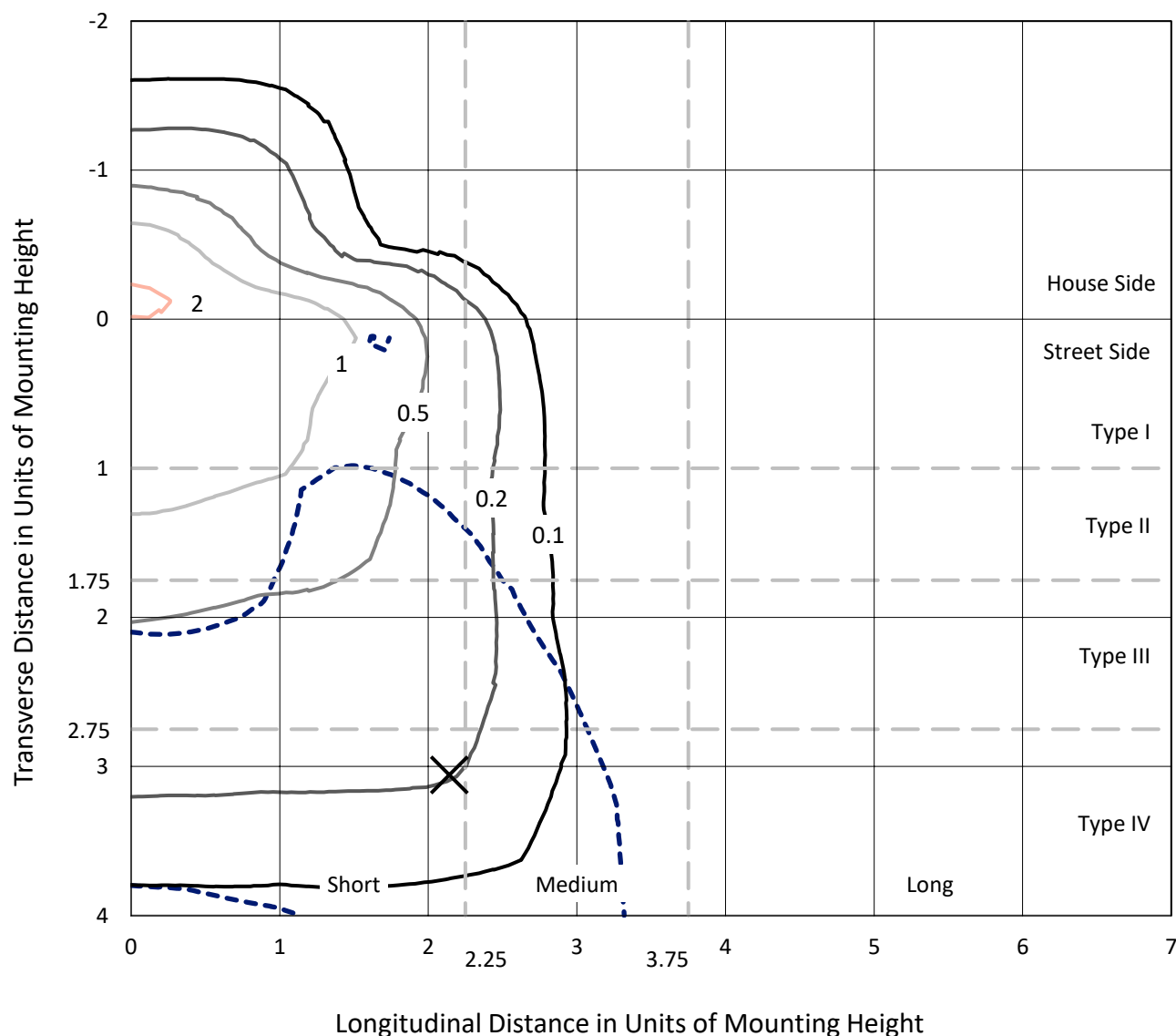
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

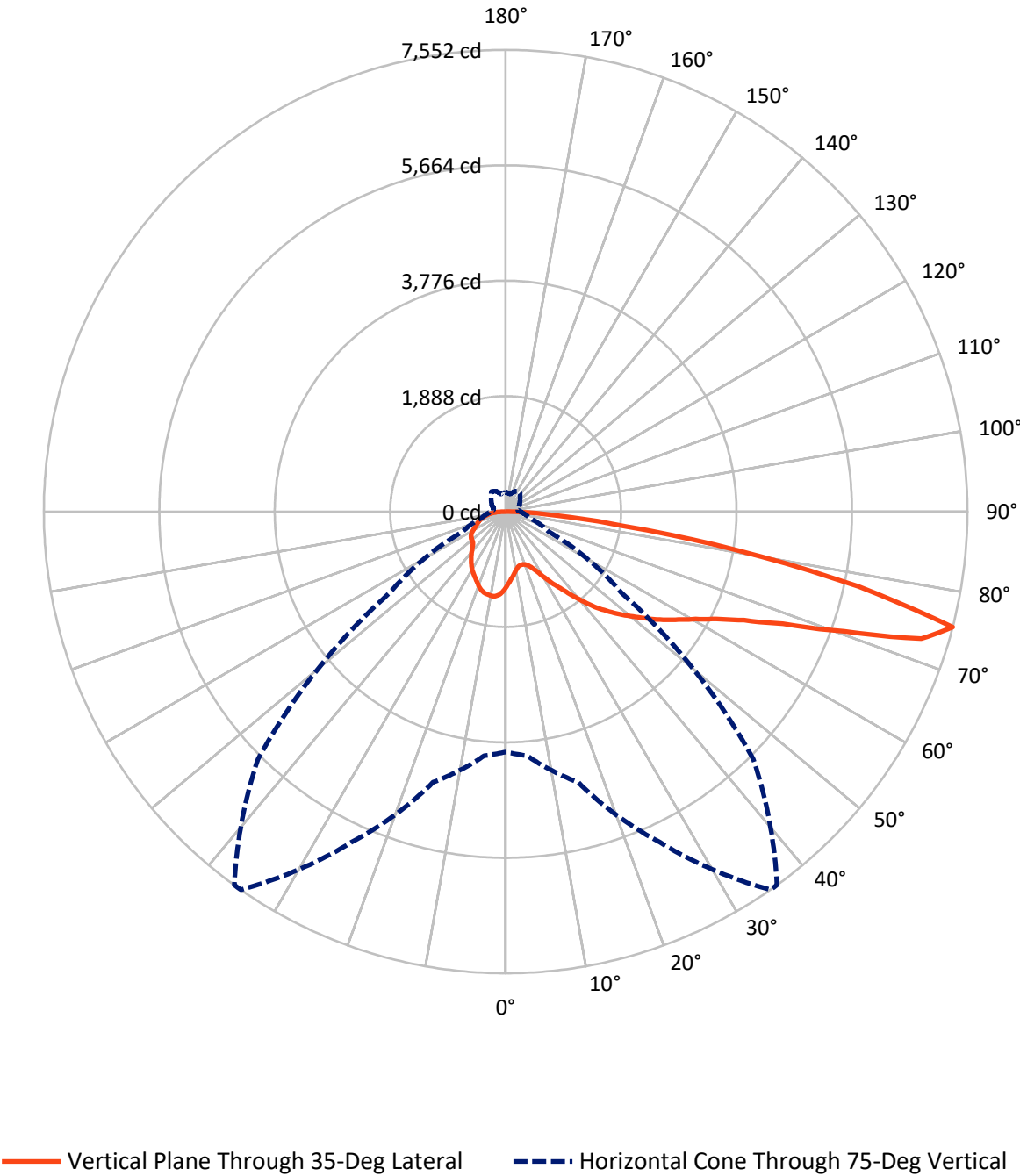


Based on 25 foot mounting height. Maximum calculated value = 2.2 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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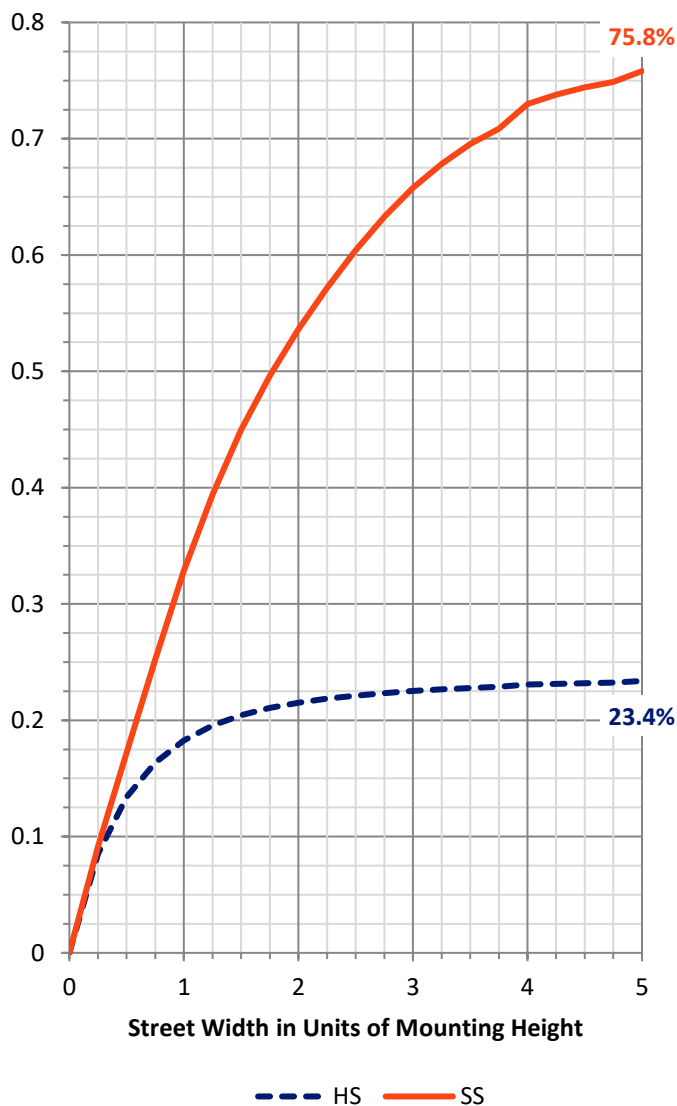
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2205.1	0.0	2205.1
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	7060.9	0.0	7060.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	9266.0	0.0	9266.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.9	1.3
10°-20°	337.2	3.6
20°-30°	566.3	6.1
30°-40°	880.1	9.5
40°-50°	1306.2	14.1
50°-60°	1803.3	19.5
60°-70°	2187.9	23.6
70°-80°	1808.1	19.5
80°-90°	260.1	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°	9266.0	100.0
0°-180°	9266.0	100.0

Coefficient of Utilization



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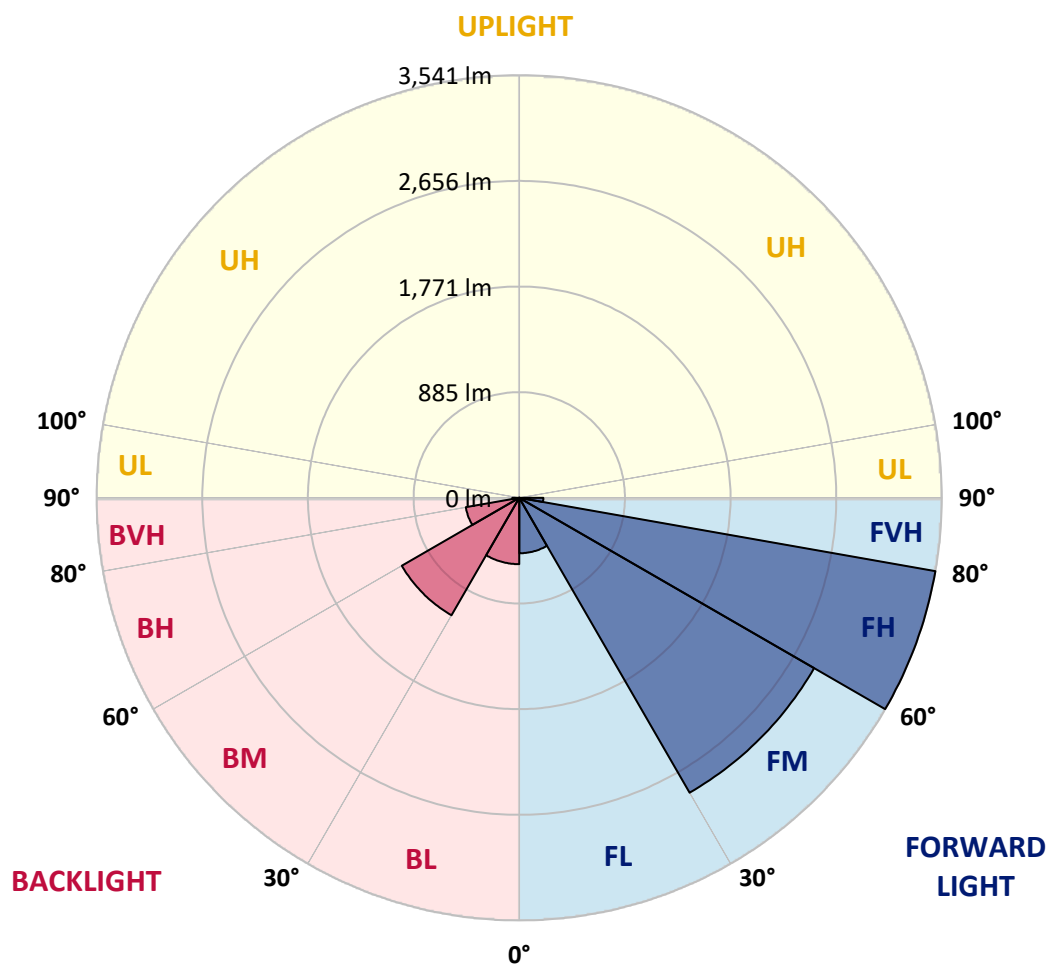
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	464.7	5.0			
FM	(30°-60°)	2853.4	30.8			
FH	(60°-80°)	3541.3	38.2			G2/5000
FVH	(80°-90°)	201.5	2.2			G2/225
BL	(0°-30°)	555.7	6.0	B2/1000		
BM	(30°-60°)	1136.2	12.3	B2/2500		
BH	(60°-80°)	454.6	4.9	B1/500		G1/500
BVH	(80°-90°)	58.6	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°	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7
2.5°	1138.6	1145.6	1148.6	1147.1	1154.6	1153.6	1164.1	1177.1	1195.1	1212.7	1238.3
5°	1050.9	1058.4	1065.0	1070.9	1085.5	1090.0	1106.5	1131.6	1164.6	1198.2	1240.2
7.5°	969.2	975.8	985.8	996.8	1021.4	1025.9	1053.4	1092.5	1138.6	1187.7	1245.8
10°	902.6	909.2	919.6	932.2	962.8	968.3	1003.4	1055.4	1115.5	1177.6	1251.8
12.5°	874.1	876.1	882.1	894.6	921.2	924.7	963.3	1022.8	1093.0	1170.1	1260.9
15°	872.6	876.6	877.1	883.7	905.7	907.1	942.7	1001.8	1079.0	1168.6	1274.3
17.5°	887.6	890.6	886.1	890.1	908.7	911.1	939.2	991.8	1074.5	1175.2	1297.3
20°	927.7	930.2	916.7	911.1	924.7	926.7	954.3	998.4	1079.0	1188.7	1328.9
22.5°	1012.8	1014.3	981.3	958.8	959.7	960.7	984.8	1024.9	1096.5	1213.2	1369.0
25°	1145.6	1144.6	1092.0	1048.4	1023.4	1017.8	1033.9	1067.9	1126.1	1245.8	1420.5
27.5°	1300.8	1293.3	1240.8	1175.7	1121.0	1113.0	1109.6	1124.0	1168.1	1288.8	1483.7
30°	1476.2	1469.2	1412.6	1327.5	1251.8	1238.8	1205.7	1198.2	1230.7	1347.5	1571.3
32.5°	1668.6	1664.1	1596.4	1493.2	1392.1	1377.0	1321.4	1301.3	1327.0	1436.1	1693.6
35°	1829.8	1825.8	1769.8	1663.6	1539.9	1521.3	1464.7	1442.2	1455.2	1549.8	1853.4
37.5°	1975.6	1973.6	1925.6	1841.8	1714.1	1691.6	1628.0	1620.4	1618.0	1699.7	2047.2
40°	2110.9	2105.9	2055.7	2011.7	1917.0	1896.5	1840.4	1833.8	1814.9	1884.0	2266.7
42.5°	2260.6	2247.6	2174.9	2154.4	2128.9	2111.9	2078.3	2079.3	2037.2	2091.8	2499.1
45°	2382.8	2375.3	2300.7	2288.7	2316.2	2309.2	2338.2	2345.8	2264.1	2309.7	2740.5
47.5°	2514.1	2507.0	2444.0	2435.5	2510.1	2512.1	2614.8	2617.2	2485.5	2536.2	2982.4
50°	2675.9	2665.9	2603.3	2613.8	2697.4	2705.0	2892.8	2875.7	2689.4	2766.1	3222.4
52.5°	2782.6	2788.6	2775.1	2792.1	2906.3	2913.4	3166.3	3122.7	2891.3	2993.0	3457.8
55°	2861.2	2873.3	2915.3	2954.4	3126.8	3133.7	3424.2	3357.6	3058.6	3203.3	3679.2
57.5°	2962.5	2945.3	3024.1	3100.2	3336.1	3354.6	3675.2	3584.0	3206.8	3384.7	3831.0
60°	3107.7	3095.7	3156.8	3269.4	3570.5	3600.1	3940.7	3787.9	3315.6	3528.5	3860.6
62.5°	3402.2	3372.1	3381.7	3481.4	3866.1	3905.1	4240.2	3965.7	3369.7	3584.5	3702.3
65°	3842.5	3791.0	3742.9	3812.0	4282.3	4320.9	4578.4	4105.5	3349.6	3475.9	3282.0
67.5°	4397.0	4345.9	4286.9	4351.9	4895.4	4926.0	4995.6	4184.2	3191.8	3057.1	2539.1
70°	4854.4	4835.3	4906.0	5174.0	5874.8	5875.7	5530.6	4119.1	2759.5	2167.5	1469.2
72.5°	4793.7	4782.2	5154.4	5982.9	7109.0	7082.4	6037.0	3626.1	1858.9	977.7	550.5
75°	3932.7	4007.3	4583.9	5968.4	7552.3	7548.8	5727.0	2305.2	769.0	405.3	284.5
77.5°	2108.8	2227.1	2976.0	4406.6	5895.8	5984.5	4026.4	806.5	330.2	259.4	196.9
80°	687.8	791.0	1186.1	2243.6	3831.0	3814.4	1725.7	316.6	225.9	183.9	136.2
82.5°	292.0	304.0	529.9	1059.4	1966.1	1935.5	549.5	181.8	158.8	125.8	84.2
85°	114.2	127.7	233.9	489.8	851.6	833.0	198.3	90.2	101.7	82.1	50.1
87.5°	37.6	45.6	83.6	167.8	265.0	255.4	48.6	31.1	44.1	37.6	18.0
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°	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7
2.5°	1245.3	1253.3	1262.8	1276.8	1288.8	1298.9	1309.4	1315.9	1318.5	1325.9	1325.4
5°	1254.3	1271.8	1295.4	1318.5	1340.9	1354.4	1366.5	1372.5	1378.0	1382.0	1383.0
7.5°	1269.4	1291.9	1328.9	1358.9	1378.0	1389.1	1397.1	1395.0	1397.1	1398.1	1399.5
10°	1282.4	1313.9	1358.0	1386.5	1401.1	1401.6	1399.5	1392.6	1389.1	1389.5	1390.5
12.5°	1297.9	1332.9	1380.6	1404.6	1408.6	1397.6	1389.1	1377.0	1372.5	1370.5	1369.5
15°	1318.9	1358.9	1405.1	1414.1	1404.0	1390.0	1375.6	1356.0	1345.9	1337.9	1340.5
17.5°	1344.5	1388.6	1424.1	1417.6	1396.0	1373.0	1349.5	1319.9	1299.4	1290.9	1291.4
20°	1380.1	1419.6	1438.6	1410.1	1377.5	1342.4	1302.4	1266.3	1247.3	1238.8	1237.8
22.5°	1423.1	1461.1	1452.6	1397.1	1350.9	1294.9	1244.8	1218.2	1208.7	1202.7	1203.7
25°	1474.7	1507.3	1462.7	1378.0	1307.4	1231.7	1193.2	1184.7	1180.2	1175.7	1175.7
27.5°	1541.8	1559.3	1470.2	1349.9	1239.2	1164.6	1150.6	1152.1	1150.6	1143.1	1144.6
30°	1630.5	1627.0	1477.2	1304.4	1161.1	1104.0	1105.1	1111.5	1112.5	1107.5	1110.1
32.5°	1747.2	1711.6	1480.7	1245.3	1086.5	1050.9	1052.0	1058.9	1063.9	1055.4	1059.4
35°	1888.5	1810.4	1475.2	1171.2	1028.9	1000.3	992.8	994.9	996.3	988.3	993.8
37.5°	2053.3	1921.1	1450.7	1089.0	981.3	950.7	934.7	921.2	913.2	905.7	910.7
40°	2234.1	2041.7	1405.6	1008.8	928.2	898.1	874.1	848.6	821.5	811.5	816.0
42.5°	2423.4	2165.9	1350.9	932.2	867.0	842.6	817.0	779.9	739.3	718.8	721.3
45°	2619.8	2293.2	1297.3	856.6	804.4	794.0	764.4	719.9	675.8	649.6	647.7
47.5°	2812.2	2413.4	1218.7	780.4	745.9	757.4	734.3	693.3	644.2	603.1	598.6
50°	2996.0	2526.1	1090.0	703.3	698.2	746.4	724.4	665.2	609.2	556.5	552.0
52.5°	3178.3	2617.2	925.2	633.1	672.7	743.3	711.3	646.2	577.6	522.4	516.4
55°	3333.1	2664.4	766.4	573.1	635.7	717.8	695.8	623.6	533.0	474.4	469.3
57.5°	3421.2	2626.3	634.2	513.9	584.6	675.8	669.2	575.5	479.9	434.8	428.8
60°	3383.2	2472.0	525.9	462.4	536.0	630.2	623.1	528.0	439.3	396.7	390.7
62.5°	3173.3	2178.0	440.3	417.3	491.9	583.5	577.1	491.4	408.3	367.2	360.7
65°	2750.5	1771.7	373.7	379.7	447.3	527.5	537.0	460.8	383.7	343.6	337.1
67.5°	2097.9	1283.3	321.5	347.2	403.7	472.3	499.9	438.8	363.2	325.1	319.1
70°	1195.7	728.9	277.5	315.6	365.2	421.3	471.4	421.3	341.1	309.5	305.6
72.5°	453.4	334.7	240.0	284.0	328.1	378.2	439.8	393.7	315.6	292.0	288.0
75°	241.9	203.9	201.8	246.9	285.6	336.1	400.3	366.6	296.5	308.5	318.6
77.5°	164.8	144.2	168.8	211.4	238.9	289.6	358.1	325.6	257.0	255.9	236.0
80°	114.2	102.2	137.2	170.4	184.8	243.4	312.5	279.5	209.4	195.4	186.9
82.5°	68.7	66.6	102.7	127.2	130.8	187.9	259.0	234.4	171.3	149.2	150.3
85°	37.6	39.6	65.6	74.6	76.2	131.2	202.8	181.3	131.7	110.7	111.7
87.5°	10.6	13.5	24.1	29.5	36.6	68.2	120.7	107.7	66.1	46.1	46.1
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)