

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: P960891

Luminaire Tested: **NAV-SB1D-735-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960891
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-SB1D-735-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10414 lumens
Efficiency: N/A
Efficacy: 130.8 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

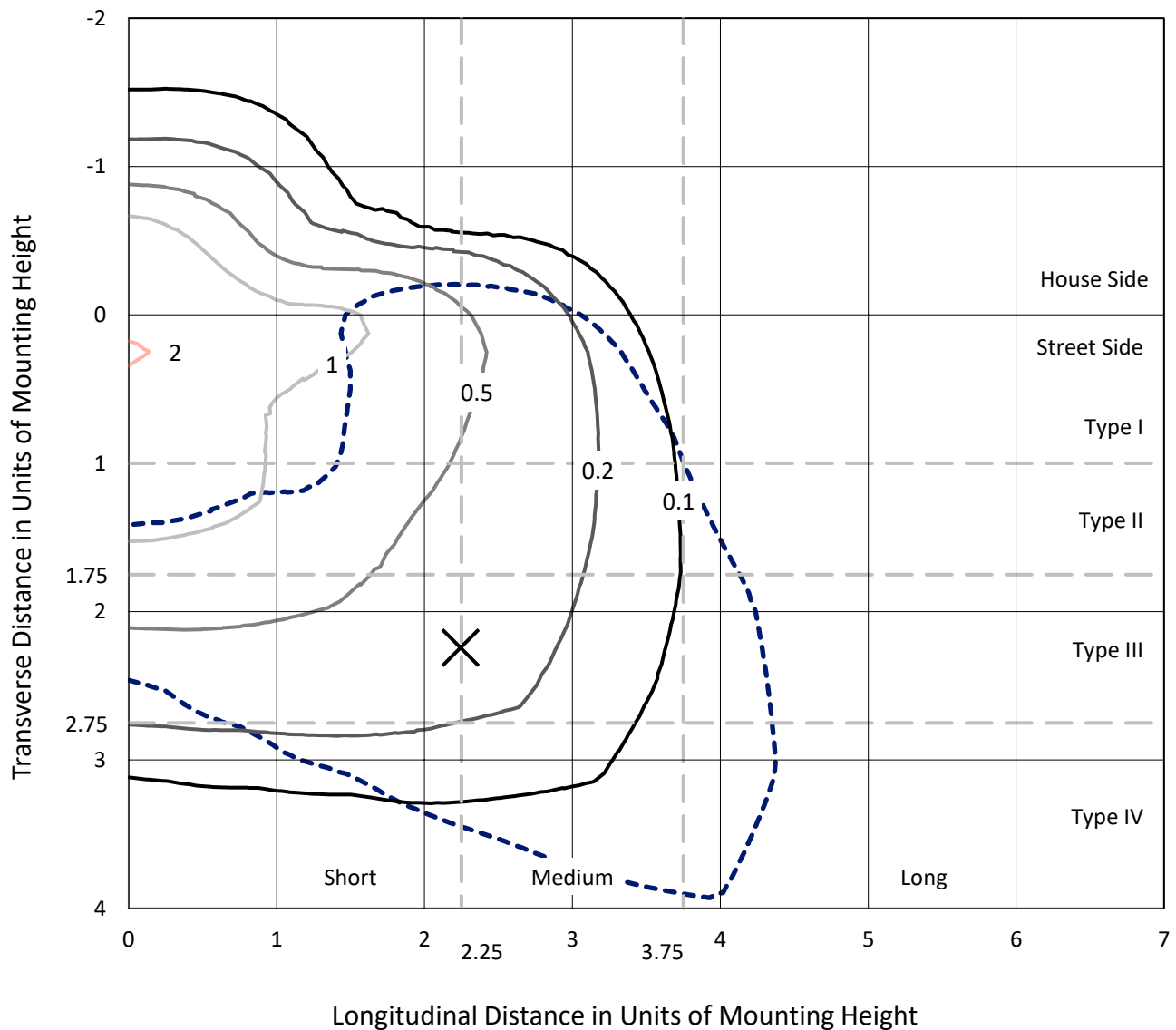
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

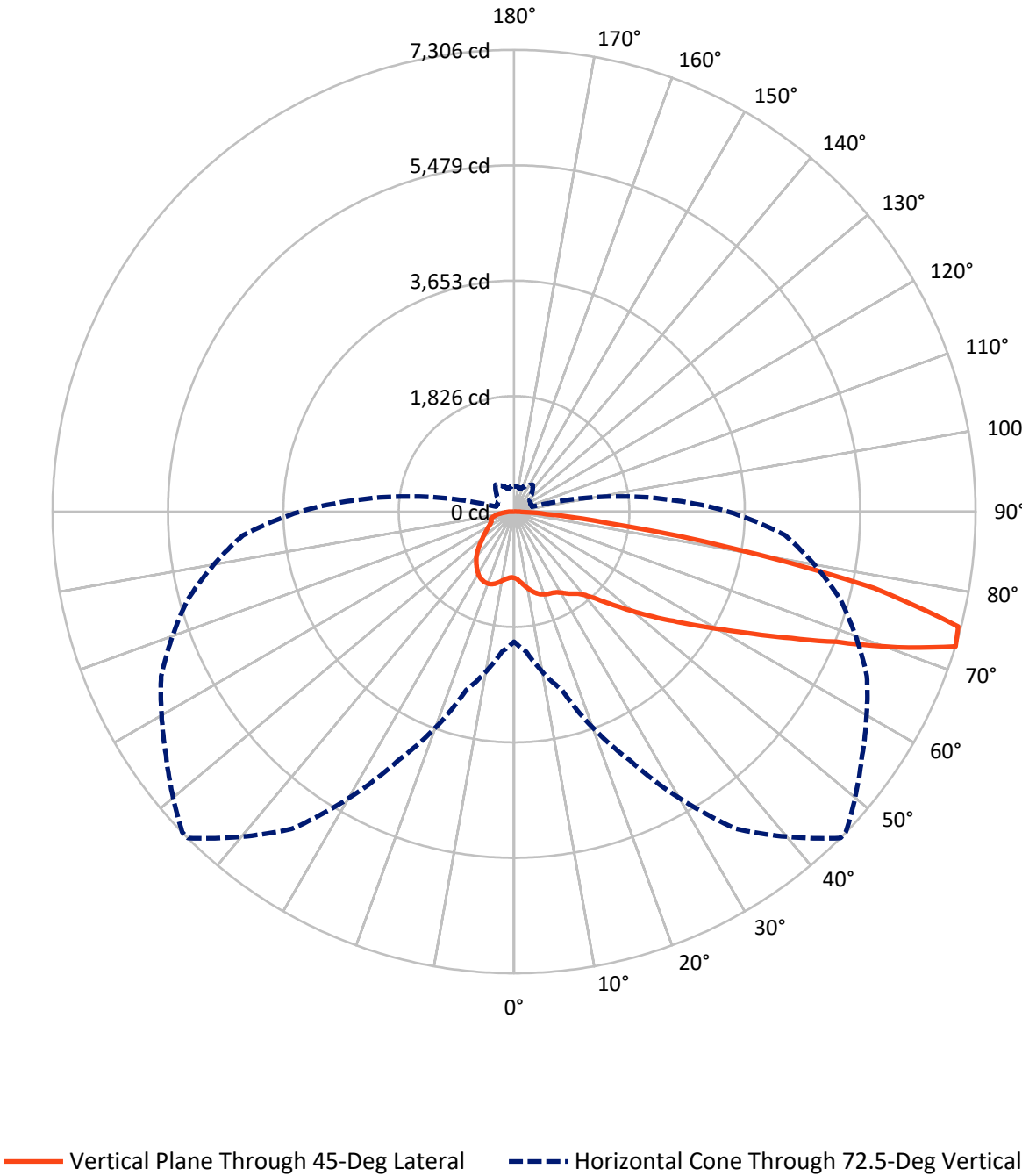
× Max cd
- - - 1/2 Max cd



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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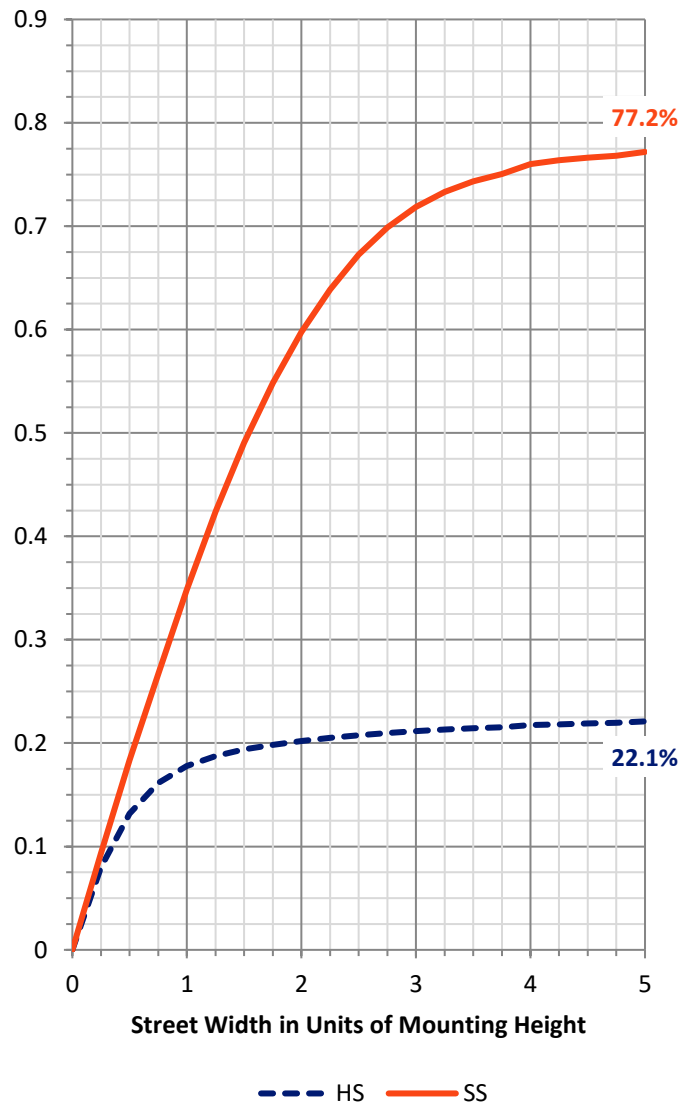
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2354.2	0.0	2354.2
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	8059.8	0.0	8059.8
	% Fixture	77.4	0.0	77.4
Total	Lumens	10414.0	0.0	10414.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.9	1.0
10°-20°	356.5	3.4
20°-30°	620.2	6.0
30°-40°	889.0	8.5
40°-50°	1251.8	12.0
50°-60°	1917.4	18.4
60°-70°	2777.7	26.7
70°-80°	2218.1	21.3
80°-90°	276.3	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°	10414.0	100.0
0°-180°	10414.0	100.0

Coefficient of Utilization



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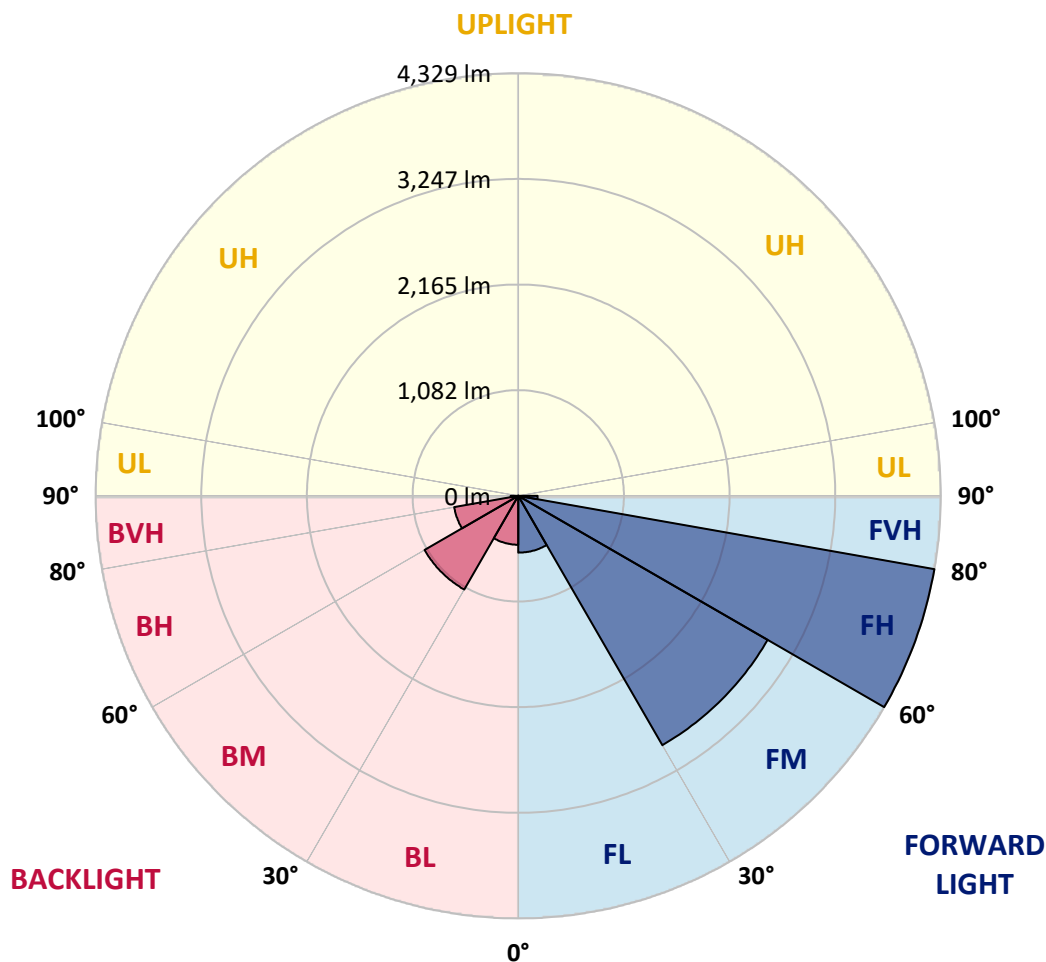
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	582.4	5.6			
FM	(30°-60°)	2949.8	28.3			
FH	(60°-80°)	4329.4	41.6			G2/5000
FVH	(80°-90°)	198.2	1.9			G2/225
BL	(0°-30°)	501.2	4.8	B2/1000		
BM	(30°-60°)	1108.5	10.6	B2/2500		
BH	(60°-80°)	666.4	6.4	B2/1000		G2/1000
BVH	(80°-90°)	78.1	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-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5
2.5°	1091.7	1098.8	1092.2	1086.2	1083.5	1076.4	1075.8	1071.4	1068.7	1061.0	1058.8
5°	1168.0	1177.3	1166.3	1154.3	1143.3	1125.8	1123.5	1110.9	1096.6	1080.1	1070.8
7.5°	1254.1	1262.3	1249.7	1231.6	1212.4	1183.4	1182.7	1159.8	1137.2	1109.3	1093.4
10°	1329.2	1340.2	1323.3	1298.6	1274.4	1241.5	1237.7	1211.3	1182.7	1146.6	1122.5
12.5°	1395.6	1403.3	1386.8	1356.7	1328.7	1295.8	1290.9	1261.8	1230.0	1188.8	1158.0
15°	1448.3	1458.2	1436.2	1403.8	1374.2	1341.8	1337.5	1311.2	1279.3	1236.0	1196.5
17.5°	1482.9	1491.1	1468.6	1432.4	1403.8	1377.0	1373.7	1351.8	1323.8	1279.9	1237.7
20°	1496.0	1504.8	1481.2	1444.4	1418.1	1397.3	1395.6	1379.8	1360.5	1320.5	1277.7
22.5°	1509.2	1517.4	1486.7	1448.3	1425.3	1412.1	1411.5	1401.2	1393.5	1360.5	1318.9
25°	1562.4	1564.6	1523.5	1468.0	1435.1	1423.6	1423.1	1422.5	1425.8	1400.0	1363.2
27.5°	1608.5	1607.9	1572.9	1520.7	1469.7	1445.6	1445.0	1450.5	1460.9	1439.5	1409.4
30°	1676.0	1669.9	1628.2	1573.9	1527.4	1490.0	1486.7	1481.7	1490.0	1473.0	1455.4
32.5°	1819.2	1800.0	1732.5	1635.9	1575.0	1546.5	1542.1	1511.4	1514.6	1504.3	1495.5
35°	2024.4	1999.1	1909.2	1753.4	1634.3	1593.7	1591.5	1552.6	1545.9	1536.7	1540.0
37.5°	2268.4	2237.2	2132.4	1923.4	1736.4	1648.5	1645.2	1610.2	1583.2	1573.4	1592.0
40°	2513.7	2474.1	2387.5	2130.8	1886.6	1740.1	1729.7	1676.5	1645.8	1629.3	1668.8
42.5°	2751.8	2718.9	2644.8	2363.3	2072.0	1874.0	1850.9	1759.9	1736.9	1721.5	1792.8
45°	2962.5	2932.8	2878.5	2611.9	2289.3	2056.1	2033.7	1885.0	1877.9	1877.9	1981.0
47.5°	3133.6	3127.1	3069.5	2865.4	2545.5	2263.5	2224.6	2058.9	2078.1	2107.7	2248.1
50°	3323.5	3305.3	3243.9	3115.0	2846.7	2501.1	2469.2	2272.3	2344.2	2425.4	2634.4
52.5°	3497.9	3507.8	3439.2	3375.0	3186.8	2766.1	2710.1	2524.1	2679.4	2813.7	3087.0
55°	3677.3	3677.8	3658.6	3649.8	3543.4	3059.0	2997.5	2827.0	3073.8	3240.5	3614.8
57.5°	3845.7	3846.8	3875.3	3952.7	3957.0	3397.0	3327.3	3198.9	3512.2	3682.2	4158.9
60°	3996.0	4003.6	4081.6	4262.7	4320.8	3784.2	3718.4	3638.3	3965.3	4136.5	4731.1
62.5°	4046.5	4074.5	4247.8	4505.1	4680.2	4259.3	4194.6	4146.8	4441.4	4600.6	5209.5
65°	3960.9	4025.1	4360.2	4705.4	5049.9	4823.9	4759.7	4707.5	4936.3	5086.0	5602.3
67.5°	3750.8	3833.6	4353.7	4915.5	5498.6	5503.0	5443.3	5320.9	5466.8	5524.4	5730.2
70°	3197.3	3321.2	3970.2	4993.9	6013.8	6431.8	6374.2	6059.3	5996.2	5717.6	5370.3
72.5°	2060.0	2226.8	2923.5	4348.3	6128.4	7305.7	7302.4	6725.8	6163.5	5342.3	4307.0
75°	751.6	853.6	1358.3	2729.3	5144.3	7261.3	7282.6	6611.8	5626.4	4126.5	2683.2
77.5°	273.8	299.5	443.3	1048.9	3163.8	5826.1	5870.6	5285.7	4004.8	2071.0	1063.2
80°	143.7	158.0	227.1	407.0	1355.6	3460.0	3529.7	3141.3	1882.2	623.7	318.8
82.5°	79.5	86.1	127.3	221.1	610.6	1479.6	1521.3	1241.0	662.2	264.4	131.7
85°	42.7	45.5	59.8	120.6	298.5	512.9	524.5	370.8	263.8	155.3	63.7
87.5°	12.6	15.4	19.8	38.4	116.8	115.2	118.0	73.5	104.2	78.4	20.8
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°	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5
2.5°	1055.5	1053.9	1047.9	1045.1	1041.8	1041.2	1044.0	1044.6	1045.1	1045.6	1047.9
5°	1065.4	1059.8	1054.4	1051.1	1052.3	1052.8	1058.2	1062.1	1064.9	1067.0	1068.2
7.5°	1084.6	1080.1	1070.8	1070.3	1071.9	1076.9	1084.0	1092.9	1097.8	1101.6	1102.7
10°	1113.1	1104.8	1093.9	1095.5	1098.8	1106.0	1120.8	1127.9	1136.1	1143.3	1141.6
12.5°	1142.2	1135.1	1122.5	1123.5	1129.0	1141.6	1155.9	1164.7	1170.1	1175.7	1177.8
15°	1180.1	1167.4	1153.7	1153.7	1163.6	1177.3	1183.9	1191.0	1194.3	1200.4	1202.5
17.5°	1219.0	1202.5	1184.4	1183.4	1195.4	1202.0	1205.8	1206.9	1208.1	1214.6	1216.8
20°	1258.0	1239.8	1214.0	1211.9	1214.6	1213.5	1213.0	1211.9	1213.5	1221.7	1225.0
22.5°	1296.3	1275.5	1239.8	1230.0	1222.3	1211.9	1211.3	1210.7	1211.9	1220.1	1225.6
25°	1341.3	1316.1	1268.3	1238.7	1213.0	1198.7	1200.4	1200.9	1202.0	1208.6	1217.4
27.5°	1390.1	1362.2	1294.7	1236.0	1189.4	1179.5	1176.7	1178.4	1182.2	1192.7	1203.0
30°	1439.0	1406.1	1318.9	1225.0	1159.8	1146.1	1137.2	1141.1	1153.1	1163.6	1175.1
32.5°	1483.4	1450.5	1338.0	1200.9	1121.9	1100.5	1089.0	1093.9	1106.0	1109.9	1123.5
35°	1535.6	1498.2	1346.2	1162.5	1080.8	1047.9	1032.5	1025.3	1031.4	1027.6	1039.6
37.5°	1593.7	1554.7	1345.2	1112.0	1032.5	994.7	973.2	946.4	933.7	920.6	928.8
40°	1679.8	1623.9	1332.0	1051.1	972.6	938.1	899.7	854.1	825.6	799.9	801.6
42.5°	1797.2	1719.8	1307.9	984.2	905.2	872.8	820.7	767.5	722.5	679.7	675.9
45°	1972.2	1845.5	1277.7	912.9	832.2	800.4	743.9	684.1	633.0	578.2	571.6
47.5°	2224.6	2014.4	1249.2	831.7	755.4	726.3	675.4	619.9	559.5	506.4	500.3
50°	2571.3	2256.9	1222.8	752.7	679.7	657.7	617.2	560.7	499.8	456.9	454.3
52.5°	3012.4	2586.7	1211.9	676.4	609.0	600.8	568.4	515.7	458.1	421.9	419.1
55°	3518.7	2981.1	1211.9	603.4	546.9	549.7	527.2	478.4	428.4	396.1	392.8
57.5°	4035.5	3380.4	1189.9	536.0	494.3	505.8	491.6	448.7	403.7	370.3	364.8
60°	4511.6	3715.1	1101.1	474.6	447.6	465.8	456.4	419.6	364.8	336.8	332.4
62.5°	4877.6	3903.8	929.9	425.7	409.3	430.1	425.2	381.3	357.7	346.1	342.3
65°	5060.8	3873.2	710.9	382.3	376.9	409.3	398.8	397.2	378.5	365.4	361.0
67.5°	4948.4	3608.7	515.7	350.5	358.2	390.0	430.1	436.6	402.1	376.4	372.0
70°	4455.2	3130.4	384.1	320.4	334.7	390.6	490.5	456.9	394.4	364.3	359.4
72.5°	3389.3	2334.3	297.9	288.5	303.9	393.4	517.3	447.6	372.5	402.7	399.3
75°	1938.2	1281.6	239.2	249.6	265.5	367.6	503.6	423.5	355.5	369.7	369.7
77.5°	738.9	492.6	197.5	211.3	213.4	320.9	481.6	421.9	338.5	330.3	301.1
80°	256.1	192.6	163.5	167.9	165.1	285.3	462.0	367.1	277.1	247.9	239.7
82.5°	104.8	96.0	129.5	124.0	117.4	221.6	373.0	300.1	226.5	200.3	198.0
85°	45.5	60.9	85.6	75.1	68.1	153.6	299.0	254.0	191.5	165.1	164.6
87.5°	9.3	23.1	36.2	34.0	35.2	102.6	212.3	180.5	135.5	101.5	79.5
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)