

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: P962069

Luminaire Tested: **NAV-SB2B-827-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962069
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-SB2B-827-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

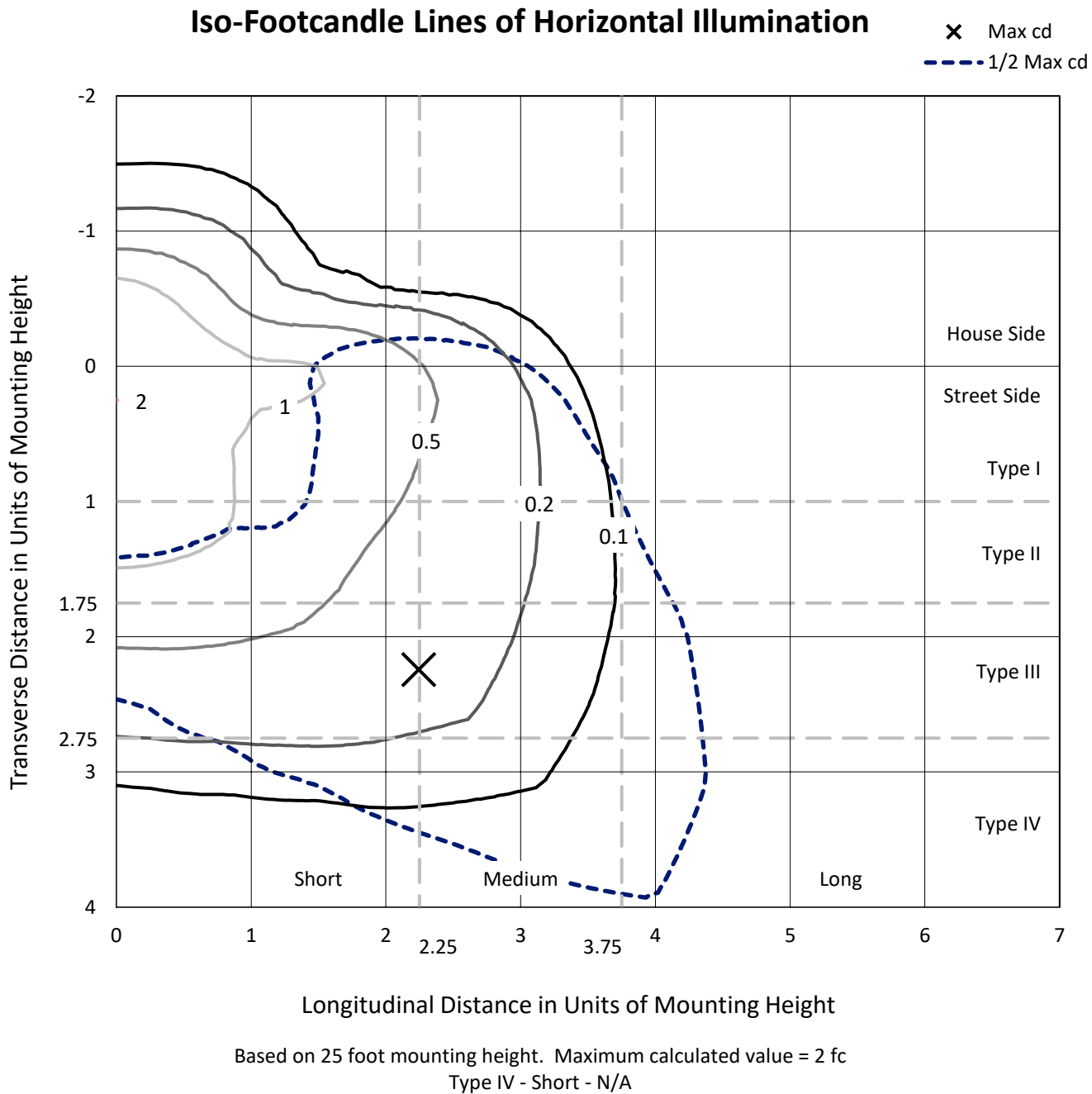
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10017.3 lumens
Efficiency: N/A
Efficacy: 135.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 73.9
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

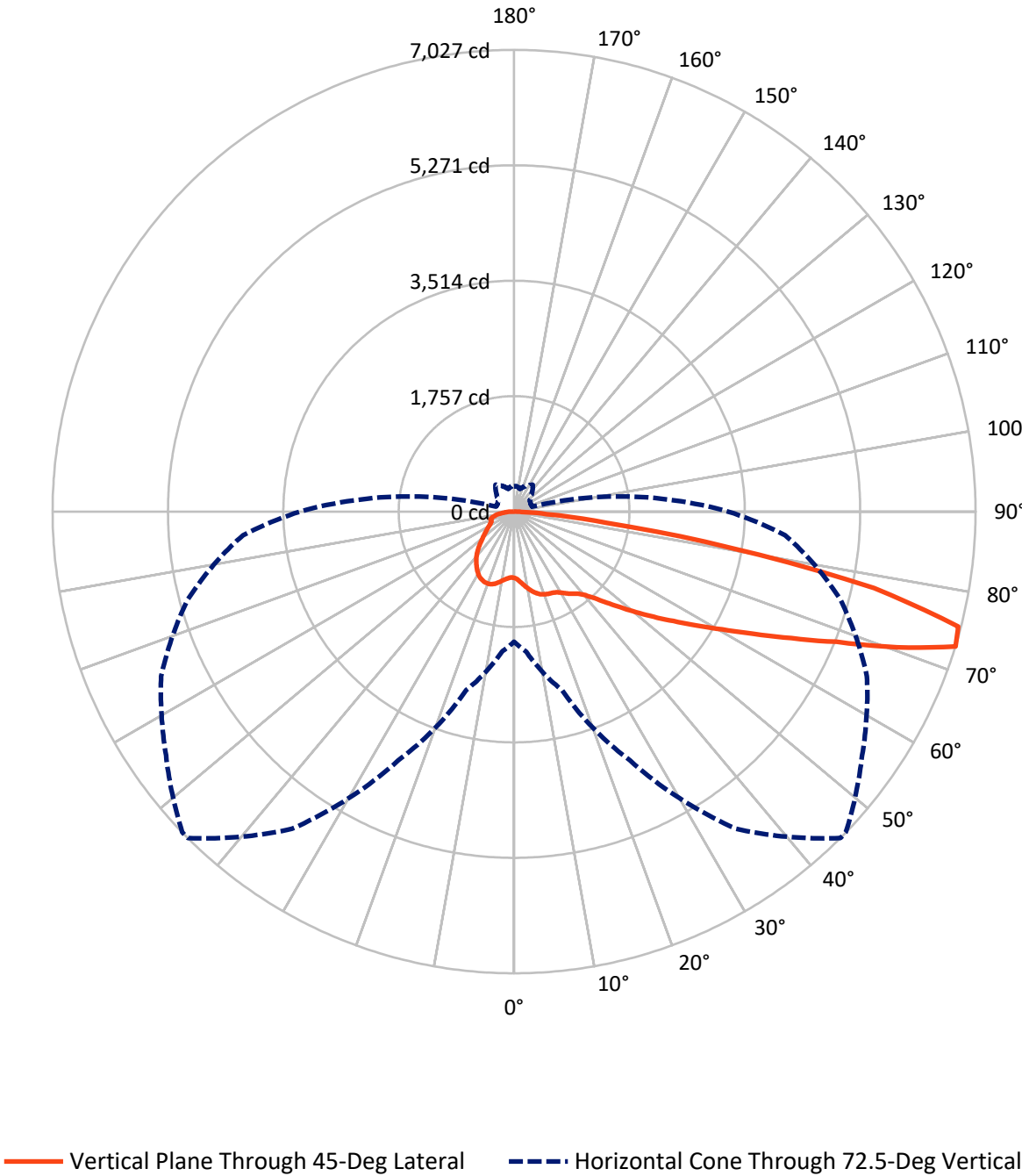


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Luminous Intensity Polar Plot



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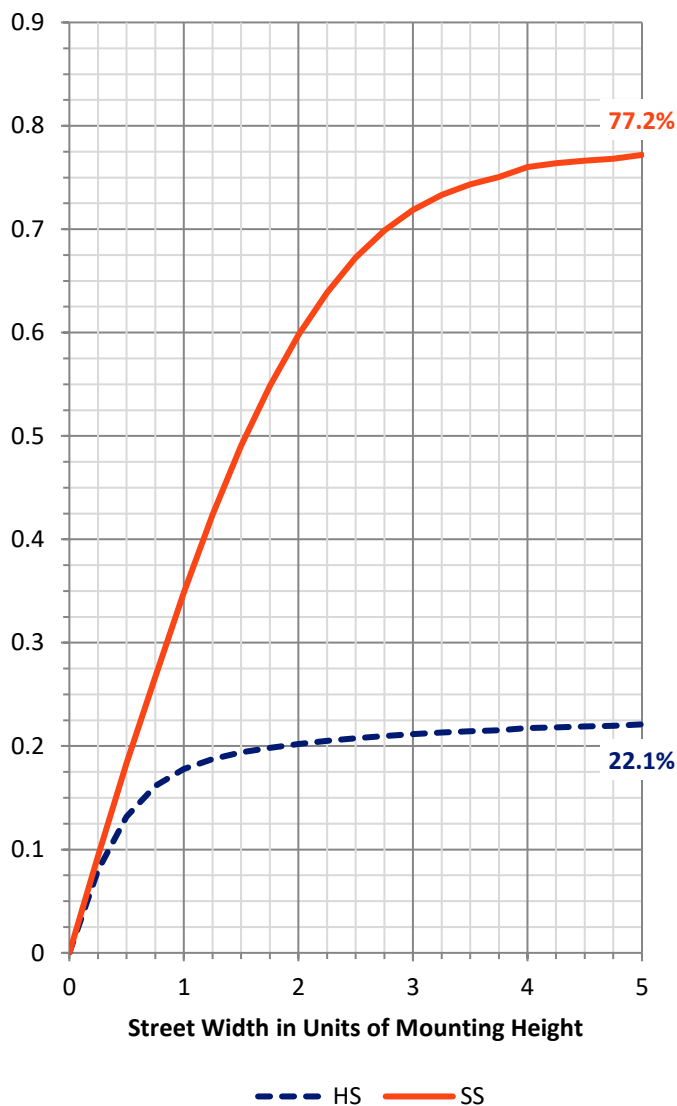
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2264.6	0.0	2264.6
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	7752.7	0.0	7752.7
	% Fixture	77.4	0.0	77.4
Total	Lumens	10017.3	0.0	10017.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.9	1.0
10°-20°	342.9	3.4
20°-30°	596.6	6.0
30°-40°	855.2	8.5
40°-50°	1204.1	12.0
50°-60°	1844.4	18.4
60°-70°	2671.9	26.7
70°-80°	2133.6	21.3
80°-90°	265.7	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°	10017.3	100.0
0°-180°	10017.3	100.0

Coefficient of Utilization



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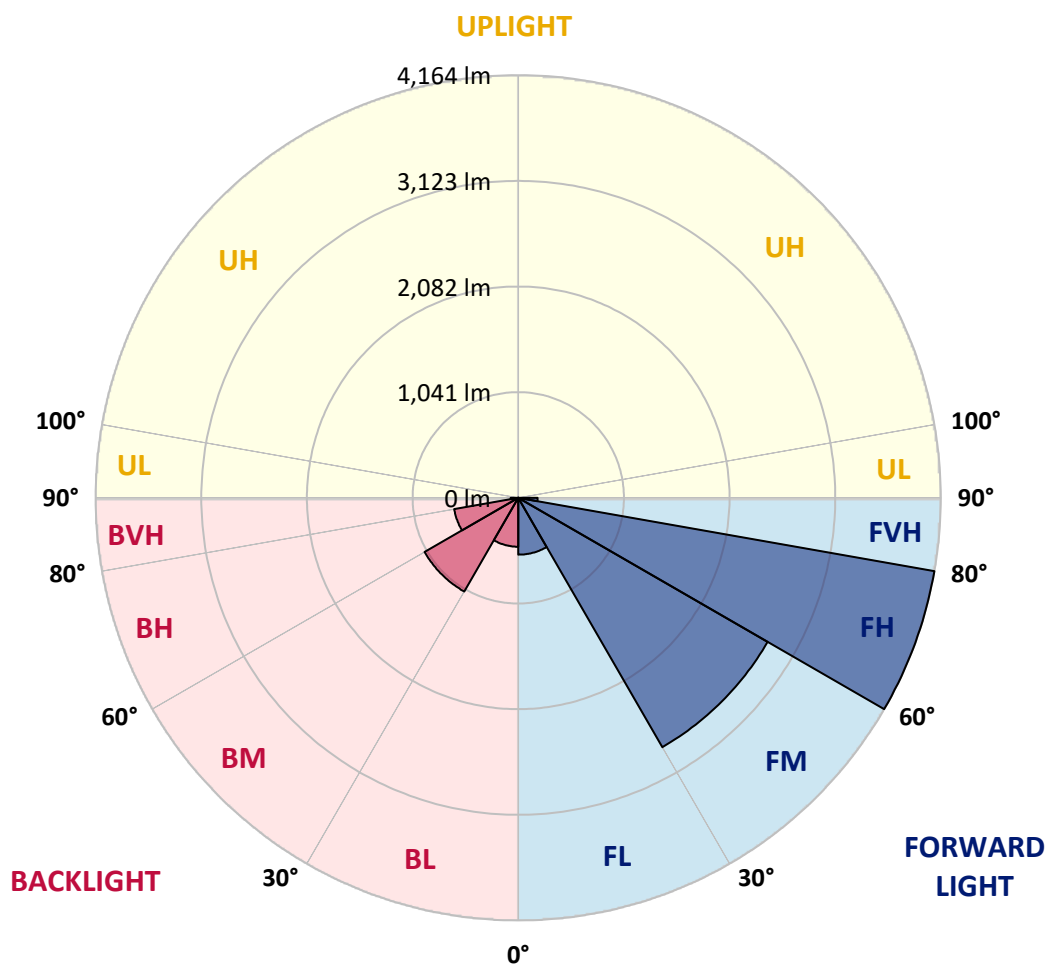
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	560.2	5.6			
FM	(30°-60°)	2837.4	28.3			
FH	(60°-80°)	4164.5	41.6			G2/5000
FVH	(80°-90°)	190.6	1.9			G2/225
BL	(0°-30°)	482.1	4.8	B1/500		
BM	(30°-60°)	1066.3	10.6	B2/2500		
BH	(60°-80°)	641.0	6.4	B2/1000		G2/1000
BVH	(80°-90°)	75.1	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°	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5
2.5°	1050.1	1057.0	1050.6	1044.9	1042.2	1035.4	1034.8	1030.6	1028.0	1020.6	1018.4
5°	1123.5	1132.4	1121.9	1110.3	1099.7	1082.8	1080.8	1068.6	1054.9	1039.0	1030.1
7.5°	1206.3	1214.2	1202.1	1184.7	1166.2	1138.3	1137.8	1115.6	1093.9	1067.0	1051.8
10°	1278.6	1289.1	1272.8	1249.1	1225.9	1194.2	1190.5	1165.2	1137.8	1102.9	1079.6
12.5°	1342.4	1349.8	1334.0	1305.0	1278.1	1246.4	1241.7	1213.7	1183.2	1143.5	1114.0
15°	1393.2	1402.6	1381.5	1350.4	1321.9	1290.8	1286.6	1261.3	1230.6	1188.9	1151.0
17.5°	1426.4	1434.3	1412.7	1377.8	1350.4	1324.5	1321.3	1300.2	1273.4	1231.1	1190.5
20°	1439.1	1447.5	1424.7	1389.5	1364.1	1344.1	1342.4	1327.2	1308.7	1270.2	1229.0
22.5°	1451.7	1459.6	1430.1	1393.2	1370.9	1358.3	1357.8	1347.8	1340.4	1308.7	1268.6
25°	1502.9	1505.0	1465.4	1412.1	1380.5	1369.4	1368.9	1368.4	1371.6	1346.7	1311.4
27.5°	1547.2	1546.7	1512.9	1462.8	1413.7	1390.5	1390.0	1395.2	1405.3	1384.7	1355.7
30°	1612.1	1606.4	1566.2	1514.0	1469.1	1433.3	1430.1	1425.4	1433.3	1416.9	1400.0
32.5°	1749.9	1731.4	1666.4	1573.6	1515.1	1487.6	1483.4	1453.9	1457.0	1447.0	1438.5
35°	1947.2	1923.0	1836.4	1686.5	1572.0	1533.0	1530.8	1493.4	1487.1	1478.0	1481.2
37.5°	2182.0	2152.0	2051.2	1850.1	1670.1	1585.8	1582.6	1548.8	1522.9	1513.4	1531.4
40°	2418.0	2379.9	2296.6	2049.6	1814.8	1673.9	1663.9	1612.6	1583.1	1567.3	1605.3
42.5°	2647.0	2615.3	2544.0	2273.3	1993.1	1802.7	1780.4	1692.9	1670.7	1655.9	1724.6
45°	2849.6	2821.1	2768.8	2512.4	2202.1	1977.8	1956.2	1813.2	1806.4	1806.4	1905.6
47.5°	3014.2	3007.9	2952.5	2756.2	2448.5	2177.3	2139.8	1980.5	1999.0	2027.4	2162.5
50°	3196.9	3179.4	3120.3	2996.3	2738.3	2405.8	2375.2	2185.7	2254.9	2333.0	2534.0
52.5°	3364.7	3374.1	3308.2	3246.5	3065.5	2660.7	2606.9	2427.9	2577.3	2706.6	2969.4
55°	3537.2	3537.7	3519.2	3510.8	3408.4	2942.5	2883.3	2719.2	2956.7	3117.1	3477.0
57.5°	3699.2	3700.2	3727.7	3802.1	3806.3	3267.5	3200.6	3077.0	3378.4	3542.0	4000.6
60°	3843.7	3851.2	3926.2	4100.3	4156.2	3640.1	3576.7	3499.8	3814.2	3978.8	4550.9
62.5°	3892.3	3919.3	4086.1	4333.5	4501.8	4097.1	4034.8	3988.9	4272.3	4425.3	5011.1
65°	3810.0	3871.7	4194.2	4526.1	4857.5	4640.1	4578.4	4528.2	4748.3	4892.3	5388.9
67.5°	3607.9	3687.6	4187.8	4728.2	5289.2	5293.4	5235.9	5118.2	5258.6	5314.0	5511.8
70°	3075.4	3194.7	3818.9	4803.7	5784.7	6186.8	6131.3	5828.5	5767.8	5499.7	5165.7
72.5°	1981.5	2141.9	2812.1	4182.6	5895.0	7027.4	7024.2	6469.7	5928.8	5138.7	4143.0
75°	722.9	821.1	1306.6	2625.3	4948.3	6984.7	7005.3	6359.9	5412.1	3969.4	2581.0
77.5°	263.3	288.1	426.4	1009.0	3043.2	5604.2	5646.9	5084.4	3852.3	1992.1	1022.6
80°	138.3	152.0	218.4	391.5	1304.0	3328.3	3395.2	3021.6	1810.6	600.0	306.6
82.5°	76.6	82.8	122.4	212.7	587.3	1423.2	1463.3	1193.7	636.9	254.3	126.7
85°	41.2	43.8	57.5	116.1	287.1	493.4	504.5	356.7	253.8	149.3	61.2
87.5°	12.1	14.8	19.0	36.9	112.4	110.8	113.5	70.7	100.2	75.4	20.1
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°	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5	1010.5
2.5°	1015.3	1013.7	1007.9	1005.3	1002.1	1001.6	1004.2	1004.7	1005.3	1005.8	1007.9
5°	1024.8	1019.6	1014.2	1011.1	1012.1	1012.7	1017.9	1021.6	1024.3	1026.4	1027.5
7.5°	1043.2	1039.0	1030.1	1029.5	1031.1	1035.9	1042.7	1051.1	1056.0	1059.6	1060.7
10°	1070.7	1062.8	1052.3	1053.8	1057.0	1063.8	1078.1	1085.0	1092.9	1099.7	1098.2
12.5°	1098.7	1091.8	1079.6	1080.8	1086.0	1098.2	1111.9	1120.3	1125.6	1130.9	1132.9
15°	1135.1	1123.0	1109.8	1109.8	1119.3	1132.4	1138.8	1145.6	1148.8	1154.7	1156.7
17.5°	1172.6	1156.7	1139.3	1138.3	1149.8	1156.2	1159.9	1160.9	1162.0	1168.3	1170.4
20°	1210.0	1192.6	1167.8	1165.7	1168.3	1167.3	1166.8	1165.7	1167.3	1175.2	1178.3
22.5°	1247.0	1226.9	1192.6	1183.2	1175.7	1165.7	1165.2	1164.6	1165.7	1173.6	1178.9
25°	1290.3	1266.0	1220.1	1191.6	1166.8	1153.0	1154.7	1155.2	1156.2	1162.6	1171.0
27.5°	1337.2	1310.3	1245.4	1188.9	1144.1	1134.6	1131.9	1133.5	1137.2	1147.2	1157.2
30°	1384.2	1352.5	1268.6	1178.3	1115.6	1102.4	1093.9	1097.7	1109.3	1119.3	1130.4
32.5°	1426.9	1395.2	1287.1	1155.2	1079.1	1058.6	1047.4	1052.3	1063.8	1067.5	1080.8
35°	1477.0	1441.1	1295.0	1118.2	1039.6	1007.9	993.1	986.3	992.1	988.4	1000.0
37.5°	1533.0	1495.5	1294.0	1069.7	993.1	956.7	936.1	910.3	898.1	885.5	893.4
40°	1615.8	1562.0	1281.2	1011.1	935.6	902.4	865.4	821.6	794.2	769.4	771.0
42.5°	1728.8	1654.4	1258.1	946.7	870.7	839.6	789.5	738.3	694.9	653.8	650.2
45°	1897.1	1775.2	1229.0	878.1	800.5	769.9	715.6	658.0	609.0	556.2	549.9
47.5°	2139.8	1937.8	1201.6	800.0	726.6	698.6	649.6	596.3	538.2	487.1	481.2
50°	2473.3	2171.0	1176.3	724.1	653.8	632.7	593.7	539.4	480.7	439.6	437.0
52.5°	2897.6	2488.1	1165.7	650.7	585.8	577.8	546.7	496.0	440.6	405.8	403.1
55°	3384.7	2867.5	1165.7	580.5	526.1	528.8	507.2	460.1	412.2	381.0	377.8
57.5°	3881.8	3251.7	1144.6	515.6	475.5	486.6	472.8	431.6	388.4	356.2	351.0
60°	4339.8	3573.7	1059.1	456.4	430.6	448.0	439.0	403.6	351.0	324.0	319.8
62.5°	4691.8	3755.2	894.4	409.5	393.7	413.7	409.0	366.7	344.1	333.0	329.3
65°	4868.0	3725.6	683.9	367.8	362.5	393.7	383.7	382.0	364.1	351.5	347.3
67.5°	4759.9	3471.3	496.0	337.2	344.6	375.2	413.7	420.0	386.8	362.0	357.8
70°	4285.5	3011.0	369.4	308.2	321.8	375.8	471.8	439.6	379.5	350.3	345.6
72.5°	3260.1	2245.4	286.6	277.6	292.3	378.3	497.6	430.6	358.3	387.3	384.2
75°	1864.4	1232.8	230.1	240.1	255.4	353.5	484.4	407.4	341.9	355.7	355.7
77.5°	710.8	473.9	189.9	203.2	205.3	308.7	463.3	405.8	325.6	317.6	289.7
80°	246.4	185.2	157.2	161.4	158.9	274.4	444.3	353.0	266.5	238.5	230.6
82.5°	100.8	92.4	124.5	119.3	113.0	213.2	358.9	288.6	217.9	192.6	190.5
85°	43.8	58.5	82.3	72.3	65.4	147.8	287.6	244.4	184.2	158.9	158.3
87.5°	9.0	22.1	34.8	32.7	33.7	98.7	204.2	173.6	130.4	97.6	76.6
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)