

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: P961037

Luminaire Tested: **NAV-SB1D-830-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961037
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-830-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9500.7 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - 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

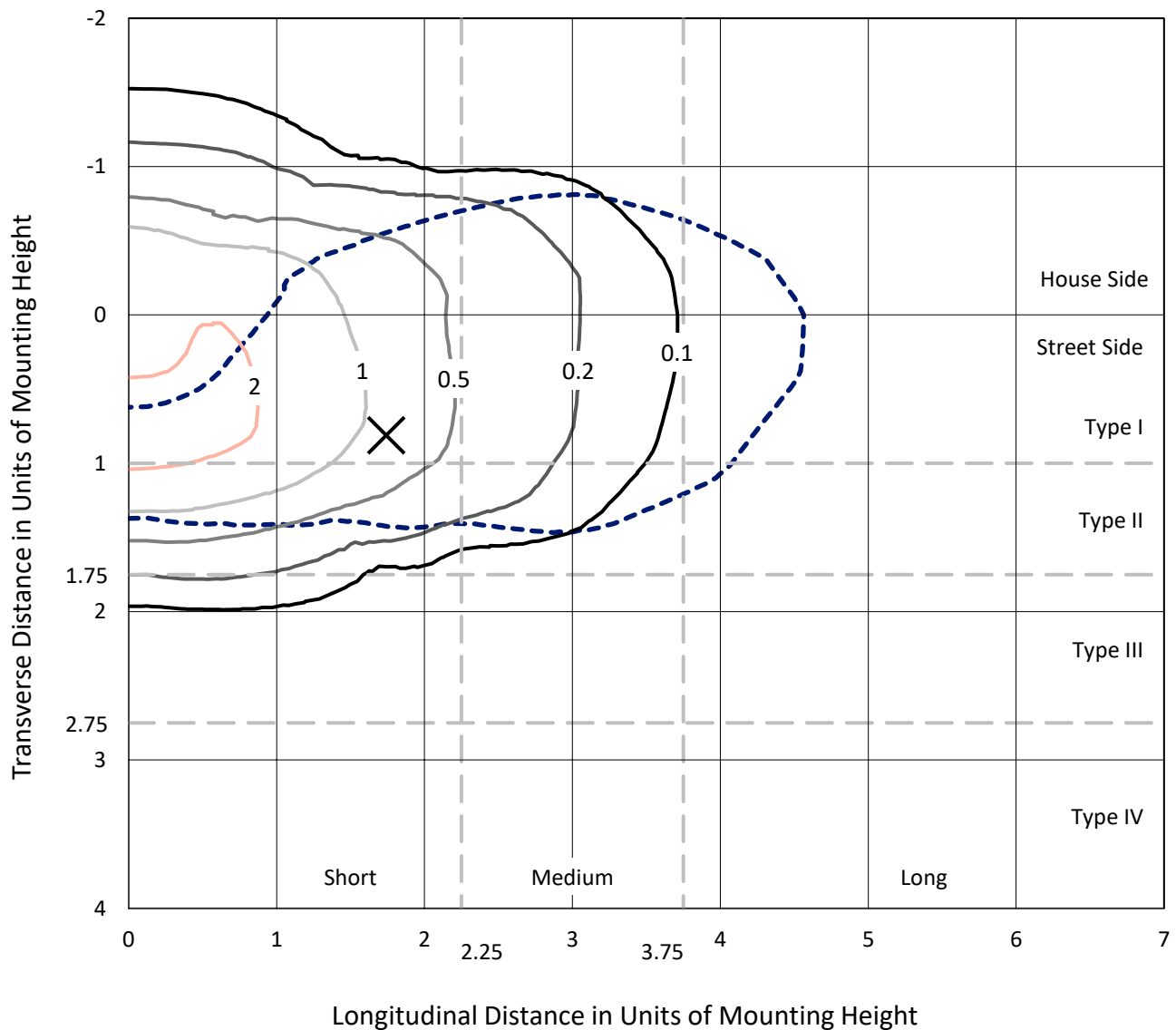


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Iso-Footcandle Lines of Horizontal Illumination

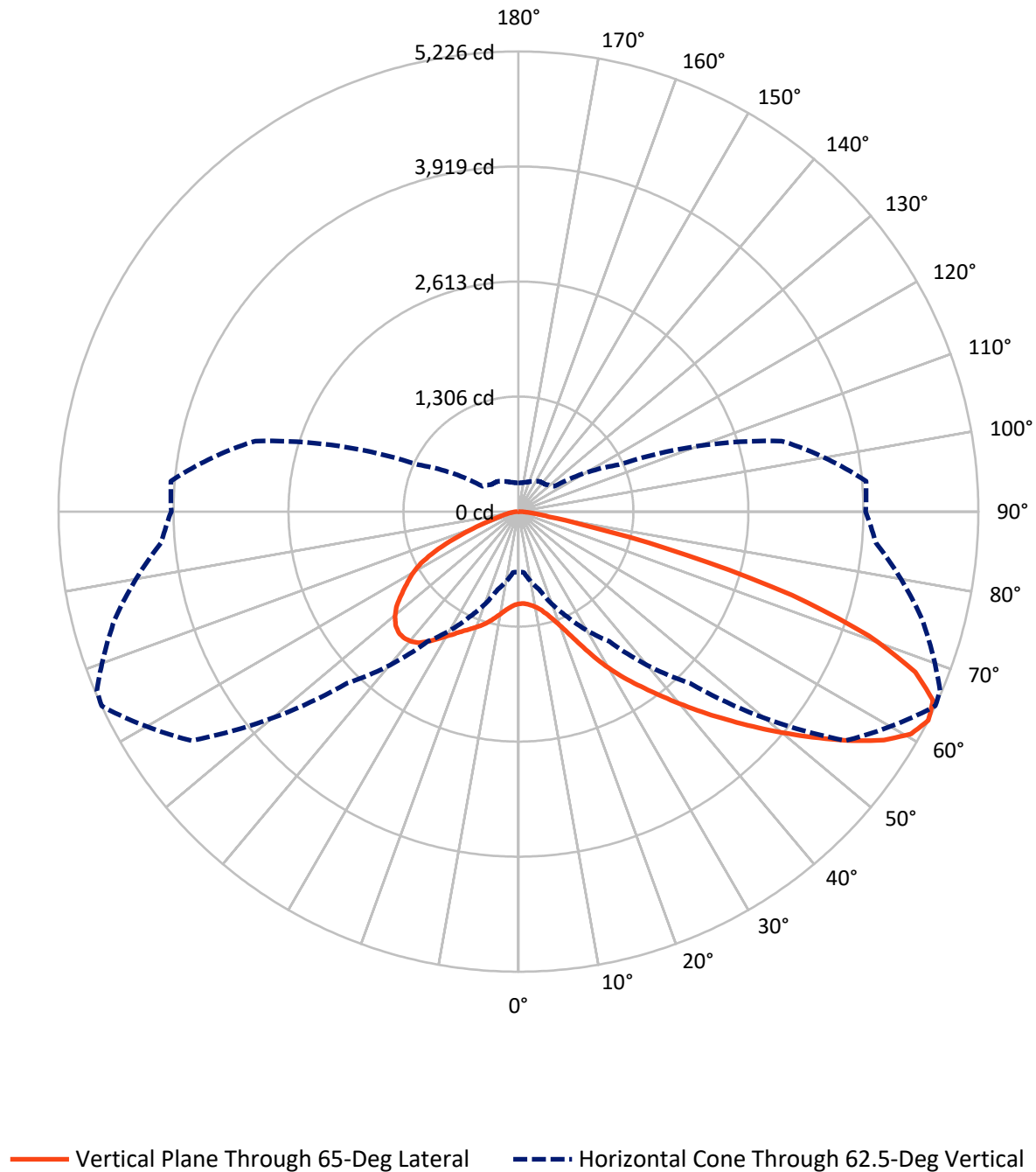
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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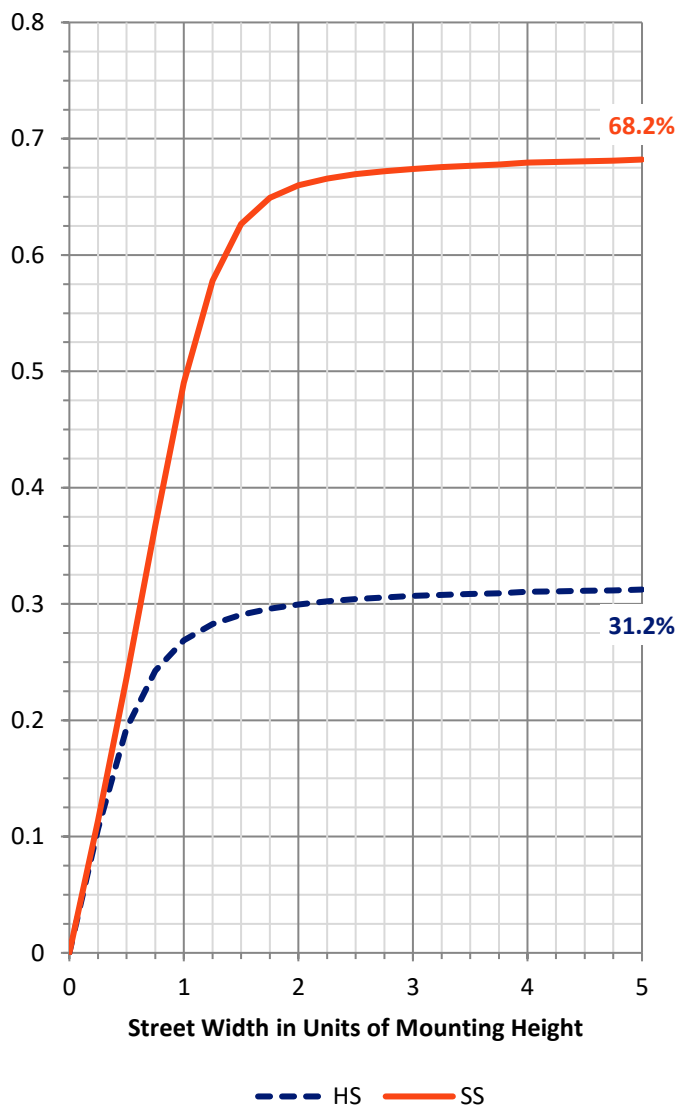
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2998.0	0.0	2998.0
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	6502.7	0.0	6502.7
	% Fixture	68.4	0.0	68.4
Total	Lumens	9500.7	0.0	9500.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	1.1
10°-20°	354.0	3.7
20°-30°	717.7	7.6
30°-40°	1241.9	13.1
40°-50°	1879.4	19.8
50°-60°	2203.5	23.2
60°-70°	1847.4	19.4
70°-80°	1019.9	10.7
80°-90°	132.5	1.4
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°	9500.7	100.0
0°-180°	9500.7	100.0

Coefficient of Utilization



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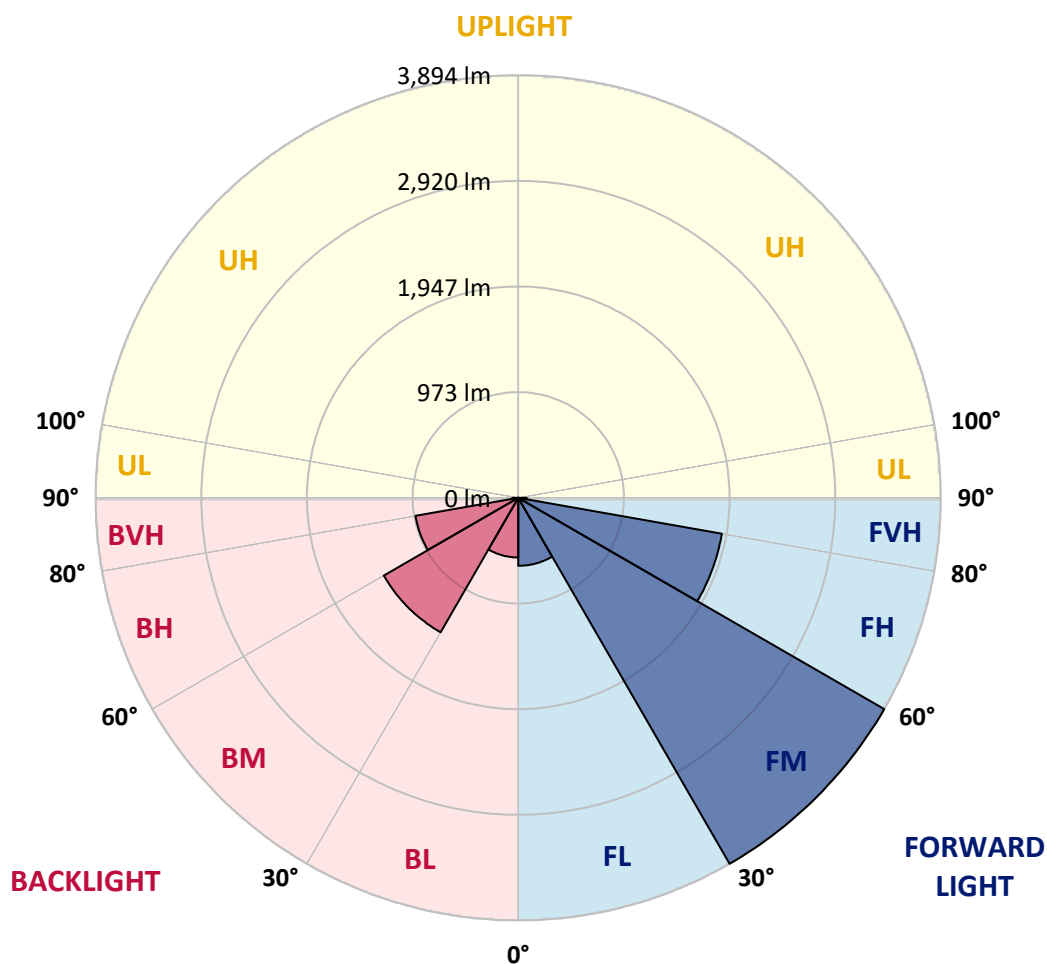
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	626.2	6.6			
FM	(30°-60°)	3893.7	41.0			
FH	(60°-80°)	1905.6	20.1			G2/5000
FVH	(80°-90°)	77.2	0.8			G1/100
BL	(0°-30°)	549.8	5.8	B2/1000		
BM	(30°-60°)	1431.2	15.1	B2/2500		
BH	(60°-80°)	961.7	10.1	B2/1000		G2/1000
BVH	(80°-90°)	55.3	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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9
2.5°	1040.1	1037.1	1039.6	1039.6	1040.6	1040.1	1043.4	1044.5	1045.9	1048.9	1048.9
5°	1029.7	1029.2	1033.6	1037.6	1041.5	1045.0	1049.4	1055.9	1056.8	1060.3	1064.7
7.5°	1026.2	1023.3	1030.2	1035.1	1044.5	1052.9	1064.7	1075.5	1079.9	1081.5	1089.8
10°	1052.9	1048.0	1054.3	1057.3	1065.2	1073.6	1087.3	1104.6	1109.6	1115.4	1124.8
12.5°	1098.2	1092.8	1102.2	1106.6	1114.0	1121.4	1130.8	1147.5	1149.9	1160.8	1169.6
15°	1160.3	1153.9	1159.8	1165.2	1177.5	1184.5	1193.8	1210.1	1210.1	1218.5	1224.9
17.5°	1244.6	1236.3	1240.7	1242.6	1250.5	1260.9	1276.6	1290.9	1298.4	1295.4	1286.5
20°	1370.3	1360.0	1360.0	1350.0	1347.2	1355.5	1376.2	1395.9	1403.8	1388.6	1366.8
22.5°	1559.0	1544.3	1535.9	1502.3	1489.1	1490.0	1510.7	1534.9	1541.3	1514.2	1465.4
25°	1799.1	1775.9	1764.6	1715.3	1685.3	1659.2	1675.4	1706.4	1715.3	1681.8	1602.9
27.5°	2039.1	2040.7	2029.8	1970.7	1920.8	1873.1	1864.7	1897.2	1906.6	1868.6	1771.0
30°	2375.8	2340.8	2320.1	2249.2	2178.1	2111.1	2076.6	2090.0	2092.4	2047.0	1933.7
32.5°	2666.1	2657.3	2612.9	2550.8	2459.6	2354.6	2296.9	2275.8	2271.8	2207.2	2072.7
35°	2996.9	2992.0	2945.1	2871.2	2772.6	2626.7	2522.7	2462.0	2457.1	2366.4	2210.2
37.5°	3333.1	3333.1	3287.2	3206.4	3104.3	2922.0	2763.7	2667.7	2651.9	2533.6	2350.2
40°	3601.2	3584.9	3593.3	3559.3	3442.5	3248.7	3031.4	2891.9	2870.7	2728.8	2499.1
42.5°	3753.6	3748.1	3798.3	3836.3	3788.5	3633.7	3326.1	3134.9	3105.3	2943.7	2670.5
45°	3787.5	3781.6	3871.3	4010.3	4077.3	4013.8	3646.5	3390.7	3354.7	3168.4	2854.4
47.5°	3709.2	3697.3	3828.9	4048.2	4263.2	4375.1	3993.5	3668.3	3616.0	3387.3	3043.2
50°	3473.5	3462.1	3661.3	3952.6	4325.8	4620.5	4370.1	3962.4	3882.6	3621.9	3234.0
52.5°	2961.4	2966.9	3278.9	3679.0	4243.5	4773.3	4694.5	4272.5	4176.5	3861.9	3412.9
55°	2306.9	2318.7	2702.1	3142.8	3914.2	4750.2	4915.8	4591.9	4496.3	4087.7	3597.7
57.5°	1651.8	1704.0	2063.3	2499.6	3281.7	4382.9	4964.1	4895.6	4802.9	4334.1	3778.7
60°	1070.6	1079.9	1449.7	1889.3	2499.1	3730.4	4866.0	5125.7	5053.4	4585.5	3930.0
62.5°	686.1	692.5	917.8	1321.5	1798.7	2759.8	4535.7	5225.9	5203.6	4751.6	4075.4
65°	504.2	499.3	616.6	873.4	1211.6	1702.0	3894.5	5177.5	5221.3	4855.6	4195.6
67.5°	421.0	414.0	471.7	604.8	892.7	966.6	2881.6	4863.5	5024.2	4843.8	4283.9
70°	383.5	377.6	412.6	449.1	696.5	647.2	1452.6	4228.1	4475.7	4709.3	4269.5
72.5°	324.8	314.5	362.3	398.7	541.7	496.4	600.3	3247.8	3549.5	4277.9	4068.4
75°	251.8	245.0	285.9	351.0	407.1	387.4	379.6	1972.1	2301.4	3308.4	3559.3
77.5°	199.7	190.2	227.8	273.6	366.2	292.3	276.5	849.3	1175.6	2112.1	2663.2
80°	150.4	142.0	173.0	216.4	281.5	220.4	179.0	346.6	443.1	1070.1	1339.3
82.5°	107.0	99.5	120.7	158.7	189.3	197.6	109.9	194.2	218.3	412.6	299.2
85°	68.5	64.1	80.9	99.5	120.2	127.2	67.0	101.6	111.4	170.0	124.7
87.5°	37.4	30.5	43.4	46.3	55.7	50.7	32.1	37.0	40.0	61.6	52.8
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°	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9	1046.9
2.5°	1050.9	1052.4	1057.3	1058.7	1062.2	1066.6	1069.6	1072.6	1072.6	1075.5	1075.5
5°	1065.2	1068.7	1079.0	1084.4	1093.3	1102.2	1107.6	1114.0	1118.0	1119.9	1120.8
7.5°	1092.8	1098.2	1112.9	1122.4	1137.6	1149.9	1158.4	1167.2	1169.2	1174.6	1172.6
10°	1130.3	1136.6	1153.4	1171.2	1189.4	1204.7	1212.6	1218.9	1221.4	1222.4	1220.0
12.5°	1173.1	1182.4	1204.2	1225.9	1245.1	1258.4	1260.3	1258.9	1252.0	1246.1	1246.1
15°	1225.9	1234.2	1258.4	1282.1	1300.8	1303.3	1290.9	1283.0	1274.7	1273.2	1273.2
17.5°	1288.9	1293.3	1315.6	1338.8	1340.2	1331.9	1313.6	1306.3	1298.4	1292.9	1293.3
20°	1362.4	1360.9	1376.7	1386.5	1376.2	1350.5	1323.0	1310.7	1302.8	1296.3	1296.8
22.5°	1450.2	1438.8	1436.8	1434.4	1406.8	1353.0	1315.6	1299.8	1287.5	1278.6	1281.6
25°	1577.8	1534.4	1504.4	1487.6	1425.5	1339.8	1291.9	1257.0	1233.8	1218.5	1224.4
27.5°	1737.5	1664.6	1588.6	1547.7	1425.5	1312.6	1234.7	1178.0	1140.1	1124.3	1132.2
30°	1889.8	1813.4	1701.5	1620.2	1422.1	1268.2	1142.6	1063.7	1019.4	1003.6	1012.9
32.5°	2020.0	1936.6	1821.3	1699.6	1413.7	1196.3	1028.2	941.0	898.1	879.3	888.7
35°	2140.7	2051.9	1941.6	1786.8	1391.4	1090.8	902.5	836.0	788.1	758.1	767.9
37.5°	2264.4	2159.0	2055.4	1865.7	1351.6	967.6	805.9	749.2	693.0	652.6	663.5
40°	2399.0	2272.8	2177.2	1912.4	1286.0	850.2	731.0	679.3	619.6	576.7	585.1
42.5°	2556.2	2409.4	2312.7	1936.6	1196.3	767.0	682.1	631.4	575.2	540.3	547.1
45°	2720.4	2559.6	2436.4	1936.1	1096.2	728.1	666.5	616.1	554.0	517.5	523.5
47.5°	2892.3	2716.9	2543.4	1904.6	1009.5	733.5	657.5	583.1	514.6	479.1	484.0
50°	3065.0	2889.0	2647.0	1845.4	972.5	721.6	624.5	536.8	455.9	423.9	425.9
52.5°	3235.9	3071.8	2736.1	1761.2	935.0	677.7	582.1	476.6	431.8	409.6	409.6
55°	3408.0	3252.7	2833.2	1638.5	841.4	626.5	511.2	454.0	412.6	392.4	390.4
57.5°	3580.5	3461.7	2925.5	1515.7	723.5	563.4	472.2	426.4	393.3	376.1	373.1
60°	3759.9	3700.8	3020.6	1402.8	607.3	482.6	443.6	404.2	370.6	351.5	349.9
62.5°	3944.7	3964.0	3095.0	1257.4	500.3	433.3	418.0	377.6	345.0	326.8	326.3
65°	4131.1	4217.8	3143.8	1055.9	405.7	386.4	390.4	348.5	315.5	299.7	299.2
67.5°	4271.6	4400.7	3129.9	799.0	332.7	342.0	355.9	318.0	286.9	274.6	275.0
70°	4287.4	4379.0	2993.9	547.1	278.5	298.7	317.4	287.8	255.8	246.9	247.4
72.5°	4077.3	4083.3	2614.9	357.3	235.6	262.2	277.1	257.3	226.2	217.4	216.9
75°	3526.7	3377.0	1919.9	235.6	197.2	225.3	239.0	225.3	195.2	197.2	190.2
77.5°	2672.1	2391.6	1165.7	167.6	164.6	189.3	208.0	198.1	172.5	193.7	170.6
80°	1376.7	1293.9	520.0	125.2	130.2	151.3	171.1	158.3	136.5	130.2	118.8
82.5°	315.5	366.7	205.0	89.7	94.1	109.0	130.6	118.8	98.1	82.8	81.8
85°	110.4	120.7	90.7	56.2	55.2	68.1	88.8	79.3	66.5	53.2	56.2
87.5°	35.0	45.8	34.0	22.7	23.7	30.5	40.9	37.4	31.1	20.2	21.2
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)