

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: P961603

Luminaire Tested: **NAV-SB2A-835-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-835-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6569.2 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

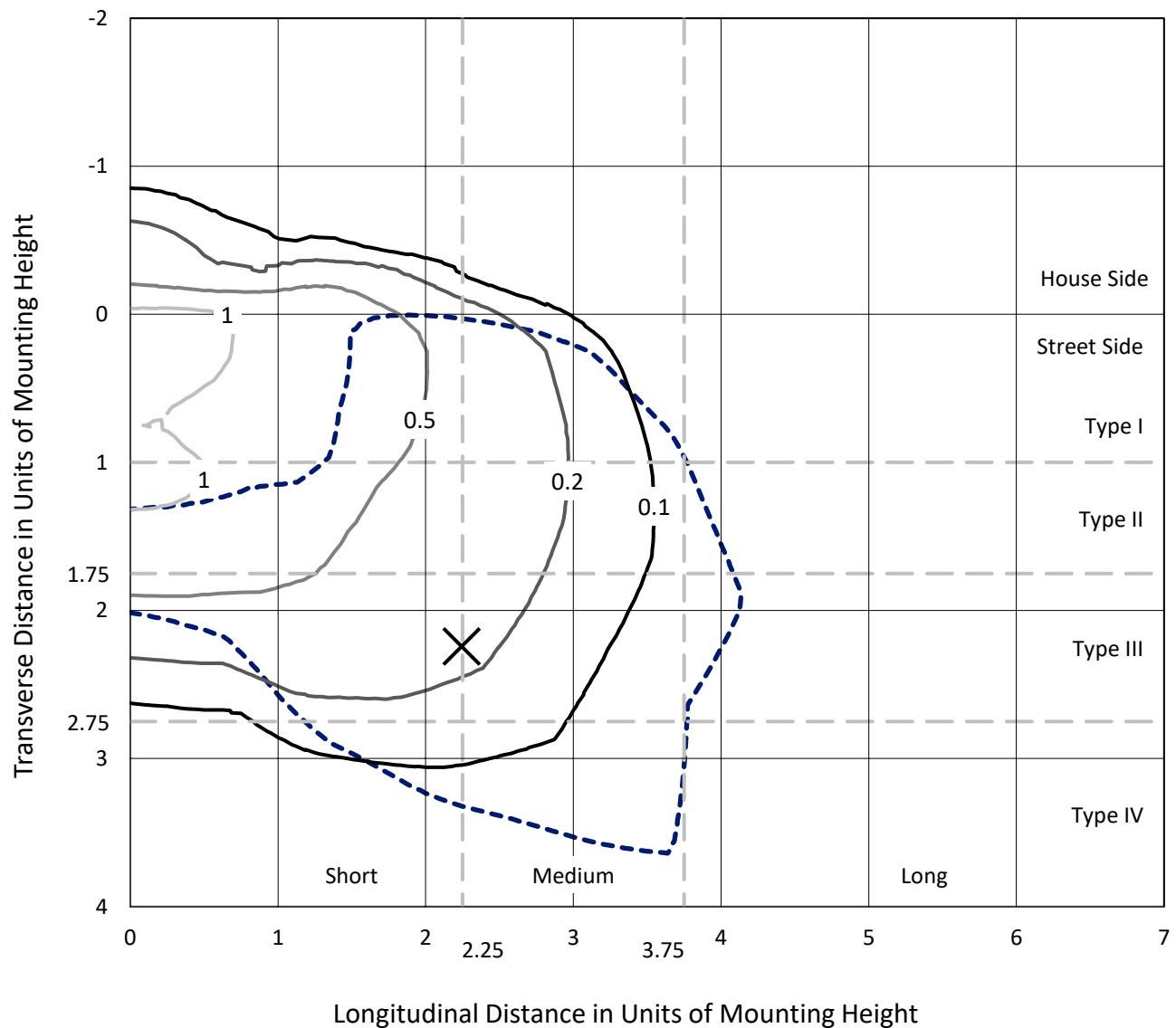
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

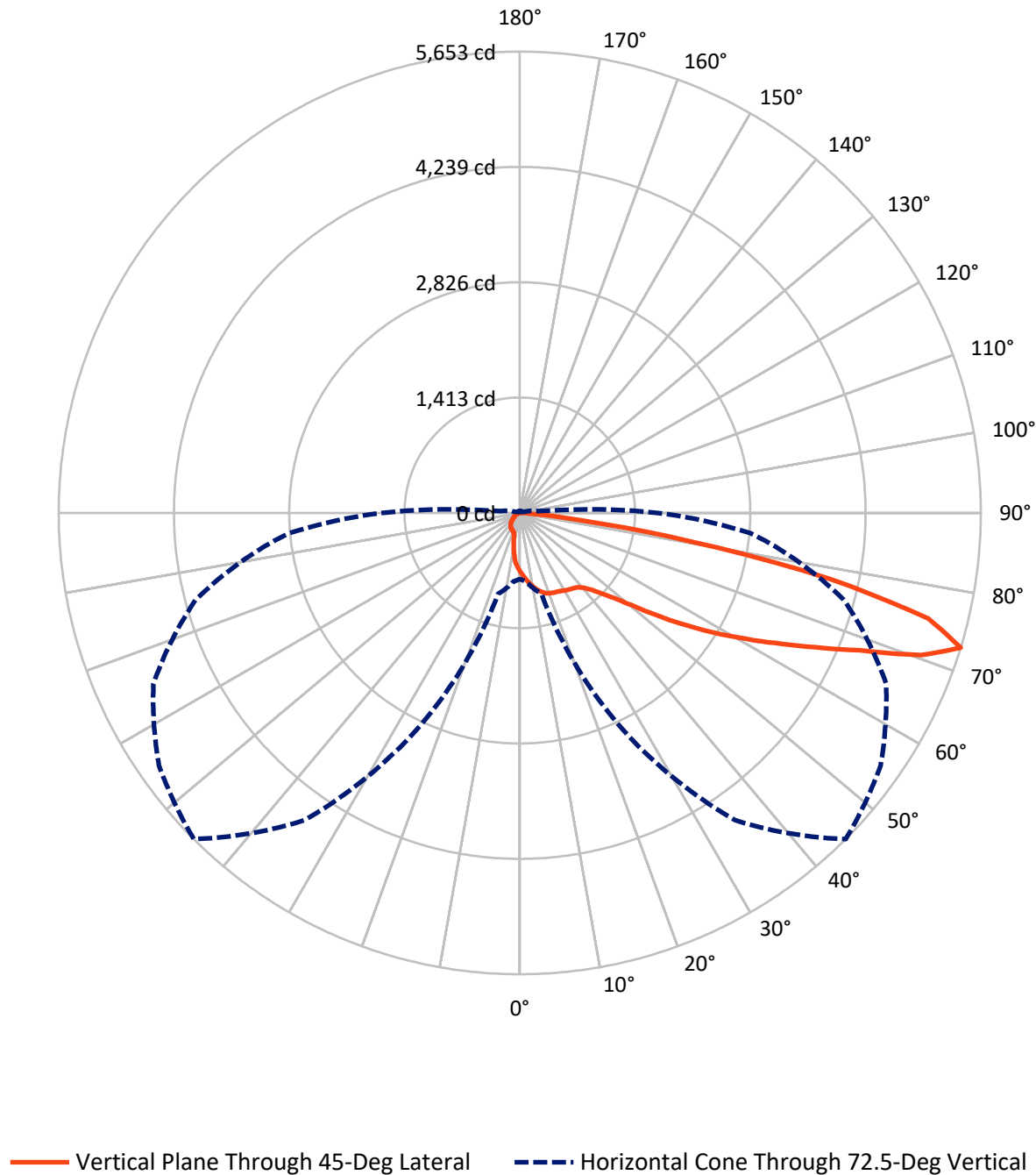
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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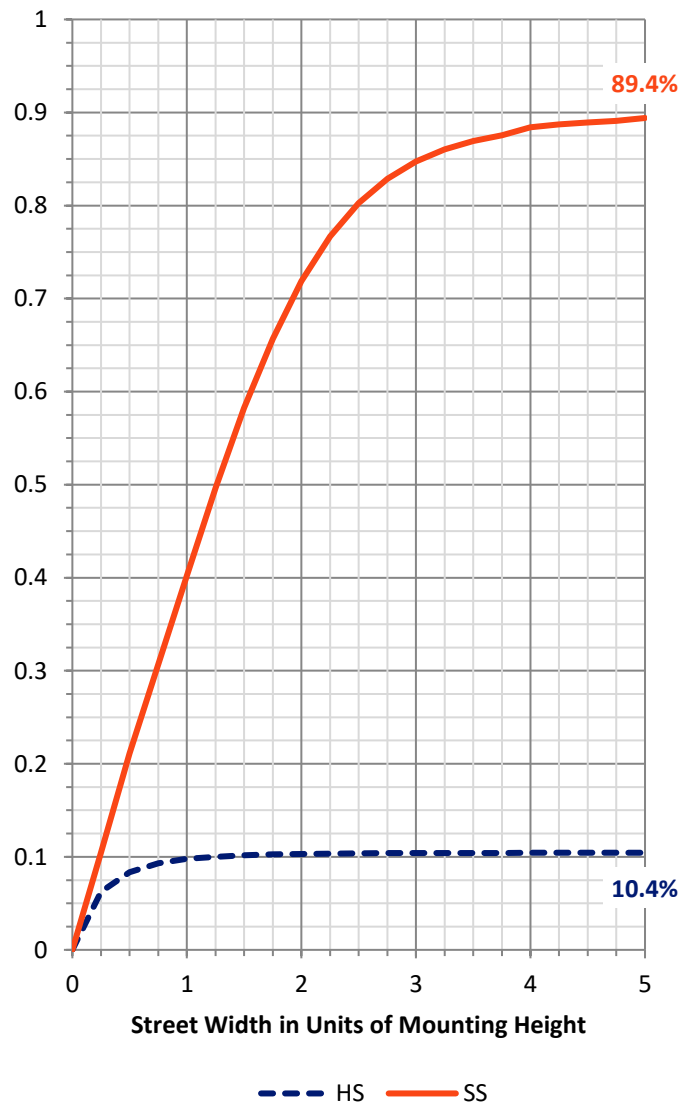
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	690.2	0.0	690.2
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	5879.0	0.0	5879.0
	% Fixture	89.5	0.0	89.5
Total	Lumens	6569.2	0.0	6569.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	1.0
10°-20°	198.2	3.0
20°-30°	325.4	5.0
30°-40°	461.5	7.0
40°-50°	762.9	11.6
50°-60°	1370.4	20.9
60°-70°	1902.9	29.0
70°-80°	1380.3	21.0
80°-90°	99.8	1.5
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°	6569.2	100.0
0°-180°	6569.2	100.0

Coefficient of Utilization



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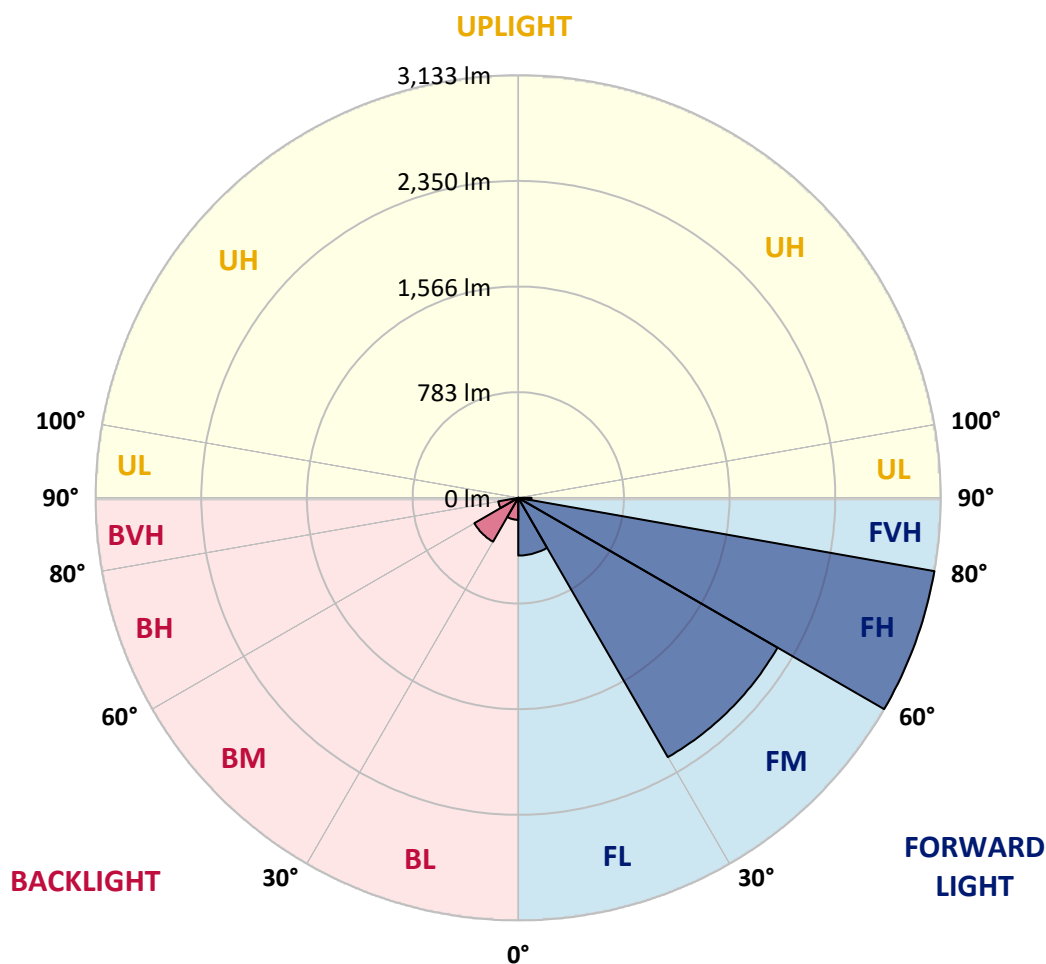
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	427.9	6.5			
FM	(30°-60°)	2219.4	33.8			
FH	(60°-80°)	3132.7	47.7			G2/5000
FVH	(80°-90°)	98.9	1.5			G1/100
BL	(0°-30°)	163.5	2.5	B1/500		
BM	(30°-60°)	375.4	5.7	B1/1000		
BH	(60°-80°)	150.5	2.3	B1/500		G1/500
BVH	(80°-90°)	0.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7
2.5°	786.1	787.4	786.5	781.2	772.1	767.2	764.5	755.5	749.7	739.4	728.7
5°	858.2	863.6	860.5	849.7	832.7	820.5	816.9	798.6	782.0	762.7	740.3
7.5°	934.9	937.6	931.7	917.9	895.0	874.3	871.2	845.6	819.2	789.7	759.1
10°	1001.2	1004.4	995.5	975.3	949.3	923.7	919.2	890.9	859.6	823.3	784.2
12.5°	1056.9	1060.0	1048.4	1024.2	995.5	968.9	964.5	934.9	900.4	860.0	811.6
15°	1099.0	1104.8	1089.2	1063.1	1032.2	1005.7	1003.5	974.4	940.7	895.8	844.3
17.5°	1123.7	1129.6	1114.7	1083.3	1056.9	1034.4	1031.8	1007.6	976.1	933.1	876.2
20°	1127.7	1133.1	1117.4	1090.1	1068.0	1050.1	1048.8	1031.4	1008.4	967.2	910.7
22.5°	1115.6	1122.4	1108.0	1086.0	1070.7	1061.4	1059.5	1049.7	1036.7	1001.7	943.0
25°	1103.0	1108.4	1097.7	1078.4	1070.3	1069.4	1070.7	1069.0	1066.3	1036.7	980.6
27.5°	1102.2	1108.0	1095.8	1077.5	1073.0	1082.4	1083.7	1092.2	1094.5	1068.6	1017.0
30°	1109.8	1113.8	1102.2	1082.9	1080.7	1102.2	1102.6	1117.9	1121.5	1095.4	1052.9
32.5°	1126.4	1130.9	1119.2	1090.9	1087.8	1117.9	1119.2	1139.4	1145.2	1124.1	1090.5
35°	1165.4	1170.8	1157.3	1113.4	1102.2	1132.6	1136.7	1160.4	1172.1	1154.7	1129.6
37.5°	1262.7	1247.0	1228.6	1158.7	1134.9	1156.0	1162.7	1190.5	1211.1	1190.9	1176.2
40°	1504.4	1455.1	1397.7	1235.7	1192.3	1205.7	1211.1	1238.9	1267.2	1247.4	1240.2
42.5°	1867.1	1808.8	1716.5	1413.4	1278.8	1285.6	1289.6	1313.8	1353.7	1338.0	1339.8
45°	2190.4	2169.3	2075.2	1716.5	1440.7	1407.5	1412.4	1425.0	1483.7	1477.9	1489.5
47.5°	2438.8	2426.7	2354.1	2064.5	1714.2	1556.9	1570.7	1576.6	1661.3	1681.9	1713.3
50°	2629.8	2625.3	2560.3	2373.8	2071.6	1776.9	1782.0	1769.4	1896.2	1947.4	2007.1
52.5°	2810.0	2825.3	2777.3	2661.2	2453.1	2065.3	2064.5	2005.2	2176.5	2253.7	2355.4
55°	2972.8	2978.2	2983.2	2954.5	2837.0	2393.5	2385.0	2288.1	2501.6	2581.4	2691.8
57.5°	3125.7	3128.0	3172.0	3230.7	3236.5	2746.0	2730.3	2614.2	2856.7	2913.7	2981.4
60°	3228.4	3238.8	3331.6	3494.7	3566.1	3109.6	3101.1	2982.7	3218.1	3244.5	3232.0
62.5°	3080.4	3143.3	3377.3	3701.1	3877.3	3512.7	3508.7	3397.5	3598.4	3576.8	3469.2
65°	2493.5	2599.8	3011.4	3840.5	4182.6	3963.0	3968.7	3850.3	3988.9	3919.0	3662.0
67.5°	1744.2	1856.4	2343.4	3851.7	4523.8	4491.5	4525.2	4339.5	4403.7	4246.8	3707.7
70°	1206.2	1264.0	1581.1	3610.5	4789.7	5219.7	5218.9	4940.4	4816.2	4396.0	3474.6
72.5°	811.2	841.2	1026.8	2864.4	4594.3	5652.5	5626.4	5399.6	4955.2	4111.3	2838.7
75°	342.1	364.1	475.3	1609.8	3634.6	5171.3	5100.9	4771.8	4402.8	3237.4	1771.2
77.5°	108.5	118.0	187.5	576.2	2002.0	3887.1	3812.7	2980.0	2950.9	1624.1	647.5
80°	51.6	60.1	105.4	231.3	787.8	2114.2	2103.9	1351.9	1269.4	438.5	130.1
82.5°	22.4	26.4	58.3	123.7	352.4	754.2	769.5	460.0	380.7	166.4	39.9
85°	7.2	9.4	26.9	57.0	148.8	187.5	185.2	109.4	153.3	90.6	13.9
87.5°	0.0	0.0	8.9	13.0	15.3	10.8	12.1	9.4	42.6	25.1	4.9
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°	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7	719.7
2.5°	723.2	716.1	703.6	691.9	681.5	671.3	664.9	656.0	655.1	655.1	657.3
5°	728.2	716.6	694.1	670.3	643.0	616.9	591.0	565.9	557.8	552.0	554.6
7.5°	742.5	724.2	688.7	643.5	591.4	534.4	494.6	451.5	434.9	426.0	427.3
10°	763.2	738.1	684.3	604.9	520.6	443.0	386.1	339.5	321.5	313.9	313.9
12.5°	786.1	755.1	676.2	556.9	443.0	350.2	294.6	273.1	270.4	270.4	270.4
15°	813.3	775.7	662.3	500.4	361.8	277.1	257.4	258.3	261.0	262.8	262.8
17.5°	841.6	797.7	640.3	437.2	290.1	249.3	249.8	251.1	253.4	255.1	255.1
20°	872.2	819.7	611.2	369.9	248.9	241.3	242.6	244.0	245.7	246.6	247.0
22.5°	904.9	840.3	576.7	304.0	234.9	234.5	234.9	236.3	238.5	238.5	239.4
25°	939.8	863.2	537.2	256.0	227.8	227.8	228.7	229.6	231.3	231.3	231.9
27.5°	975.7	884.3	495.5	230.9	221.5	221.1	221.1	222.4	223.3	223.8	224.2
30°	1015.2	908.9	453.8	225.5	216.6	214.3	213.0	213.9	214.7	215.2	216.2
32.5°	1055.5	932.6	416.6	227.8	211.7	207.6	203.2	202.2	202.2	204.0	205.4
35°	1100.3	958.7	387.9	235.4	209.0	197.7	190.5	186.5	187.0	189.6	191.1
37.5°	1154.1	990.0	366.7	242.1	207.2	186.5	174.9	169.9	166.8	169.9	169.0
40°	1224.6	1036.3	351.6	247.5	204.9	173.5	157.8	149.8	143.9	145.8	144.8
42.5°	1328.1	1108.8	345.7	247.9	200.0	158.3	140.3	129.6	121.1	121.6	119.7
45°	1473.4	1223.6	375.8	242.1	189.2	141.7	122.0	107.6	102.2	100.9	99.1
47.5°	1672.5	1390.9	445.3	230.0	173.5	125.6	104.0	91.9	87.8	85.7	84.3
50°	1939.3	1605.7	522.3	216.6	157.8	110.3	89.3	81.6	78.9	76.7	76.3
52.5°	2248.7	1823.6	585.6	203.2	142.2	96.9	79.8	75.3	73.1	71.3	70.8
55°	2532.6	1973.8	582.0	188.8	126.9	86.1	73.1	70.4	67.8	65.9	65.0
57.5°	2709.2	1994.9	479.8	173.1	109.4	77.6	66.8	65.0	61.9	59.7	59.1
60°	2790.4	1874.7	336.3	152.4	91.9	69.5	60.1	59.1	55.1	52.0	51.1
62.5°	2805.1	1651.5	224.2	126.9	76.7	61.9	53.4	52.0	46.6	41.2	38.5
65°	2745.1	1332.2	155.2	99.1	65.5	53.8	45.7	43.0	37.2	31.9	30.0
67.5°	2554.9	935.3	108.0	71.3	55.6	42.6	36.3	35.5	31.0	26.4	25.1
70°	2206.5	533.1	72.2	53.4	44.0	29.1	28.7	29.6	25.1	21.5	19.7
72.5°	1691.8	244.0	44.8	39.1	30.0	19.7	22.9	23.3	19.3	16.1	14.3
75°	995.9	104.4	28.3	25.1	15.3	13.0	16.6	17.0	13.0	10.4	8.9
77.5°	339.0	39.5	17.9	14.8	7.6	7.2	10.8	10.8	7.2	4.0	3.2
80°	77.1	14.8	8.9	5.8	3.6	3.2	3.6	3.2	1.7	0.4	0.0
82.5°	21.9	5.8	3.6	2.3	1.3	1.3	0.4	0.0	0.0	0.0	0.0
85°	6.3	2.7	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)