

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: P961439

Luminaire Tested: **NAV-SB2A-740-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961439
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-740-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7434.3 lumens
Efficiency: N/A
Efficacy: 129.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - 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

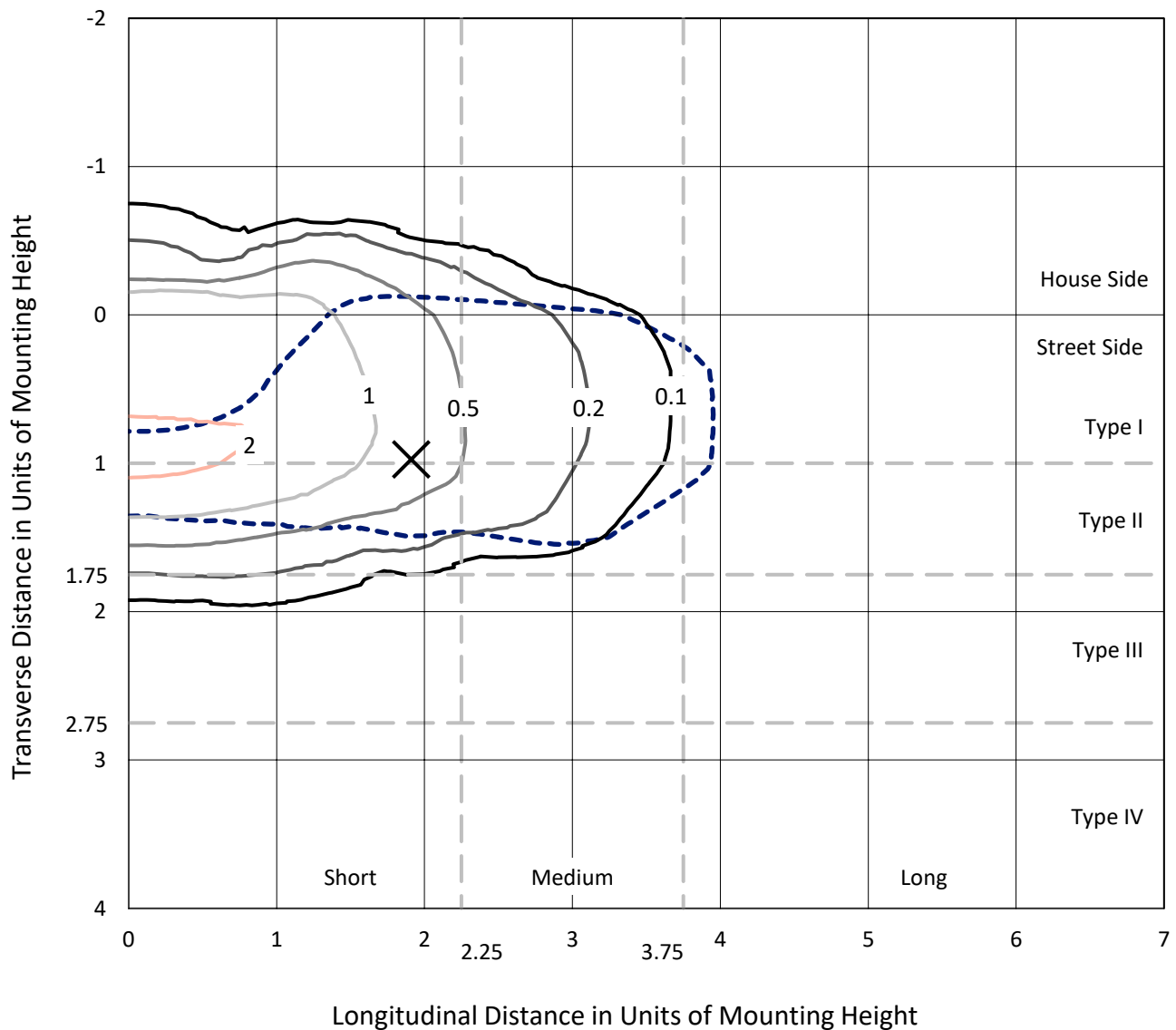


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Iso-Footcandle Lines of Horizontal Illumination

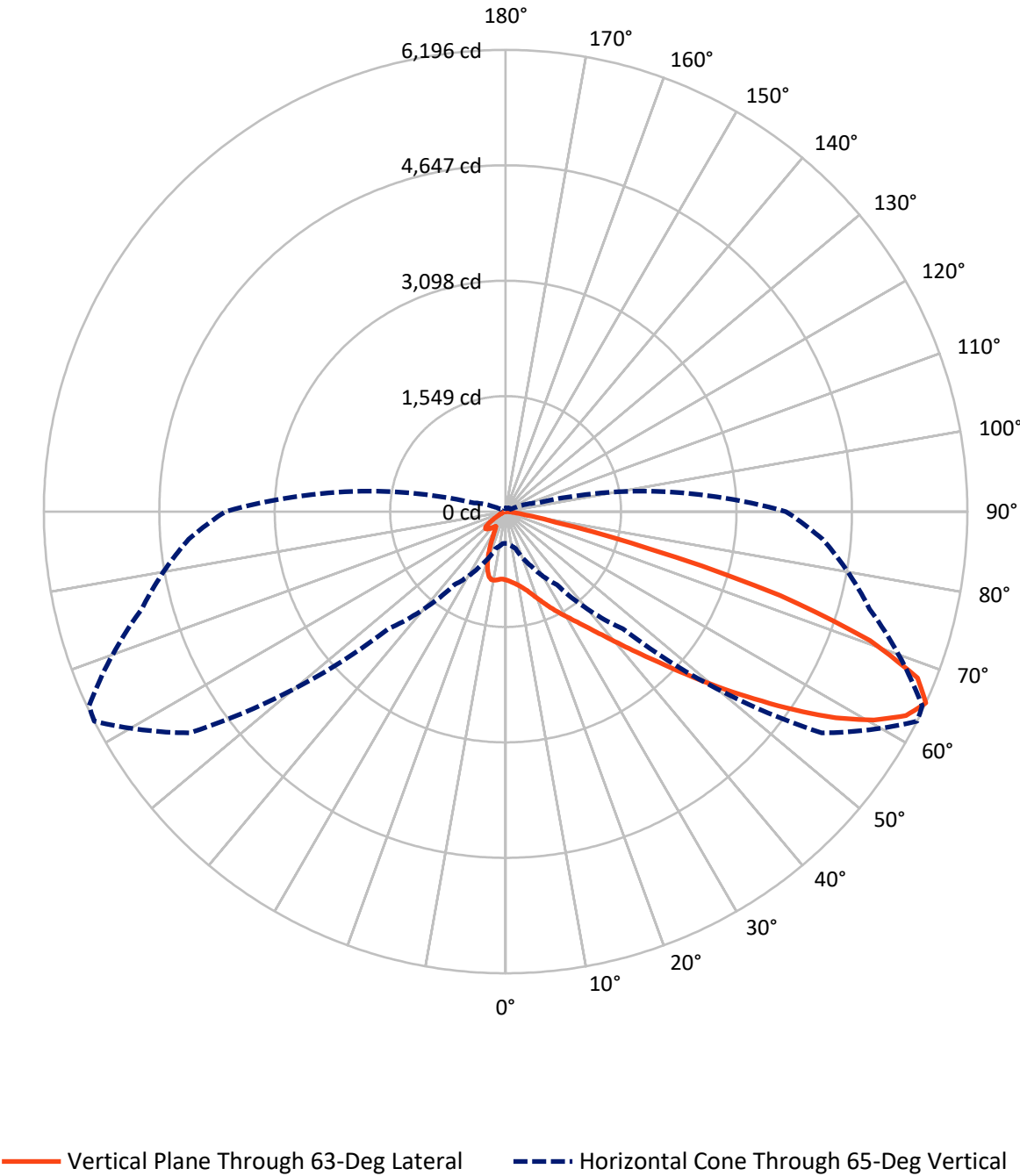
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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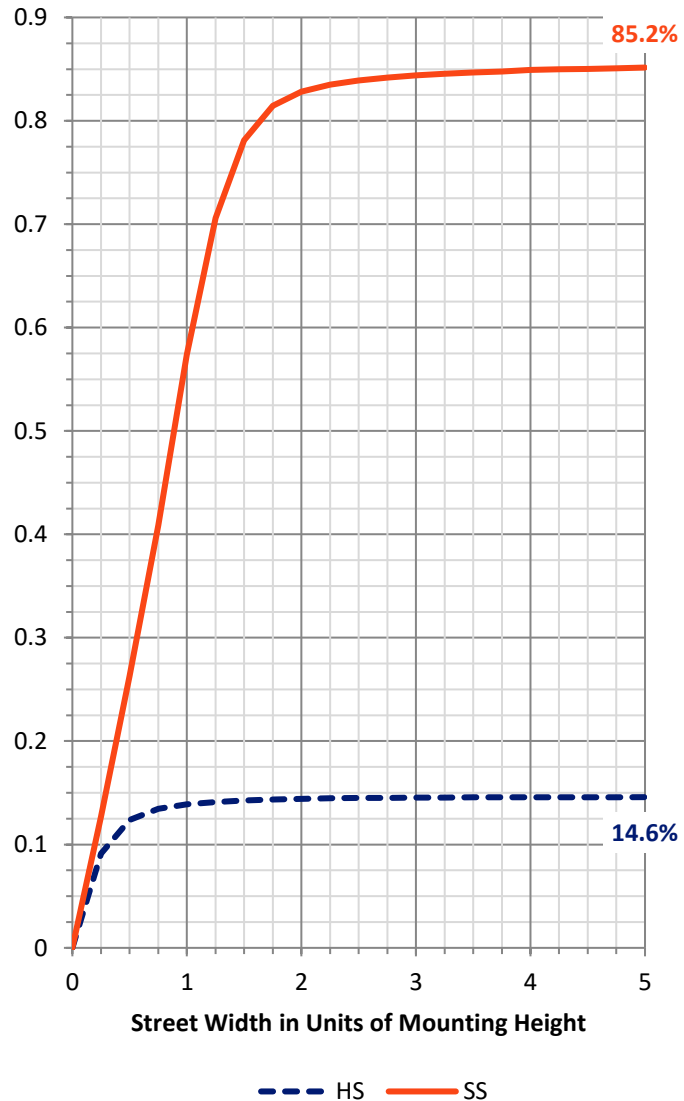
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1092.8	0.0	1092.8
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	6341.5	0.0	6341.5
	% Fixture	85.3	0.0	85.3
Total	Lumens	7434.3	0.0	7434.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.4	1.2
10°-20°	239.9	3.2
20°-30°	417.7	5.6
30°-40°	752.8	10.1
40°-50°	1493.0	20.1
50°-60°	2033.8	27.4
60°-70°	1623.3	21.8
70°-80°	734.6	9.9
80°-90°	52.8	0.7
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°	7434.3	100.0
0°-180°	7434.3	100.0

Coefficient of Utilization



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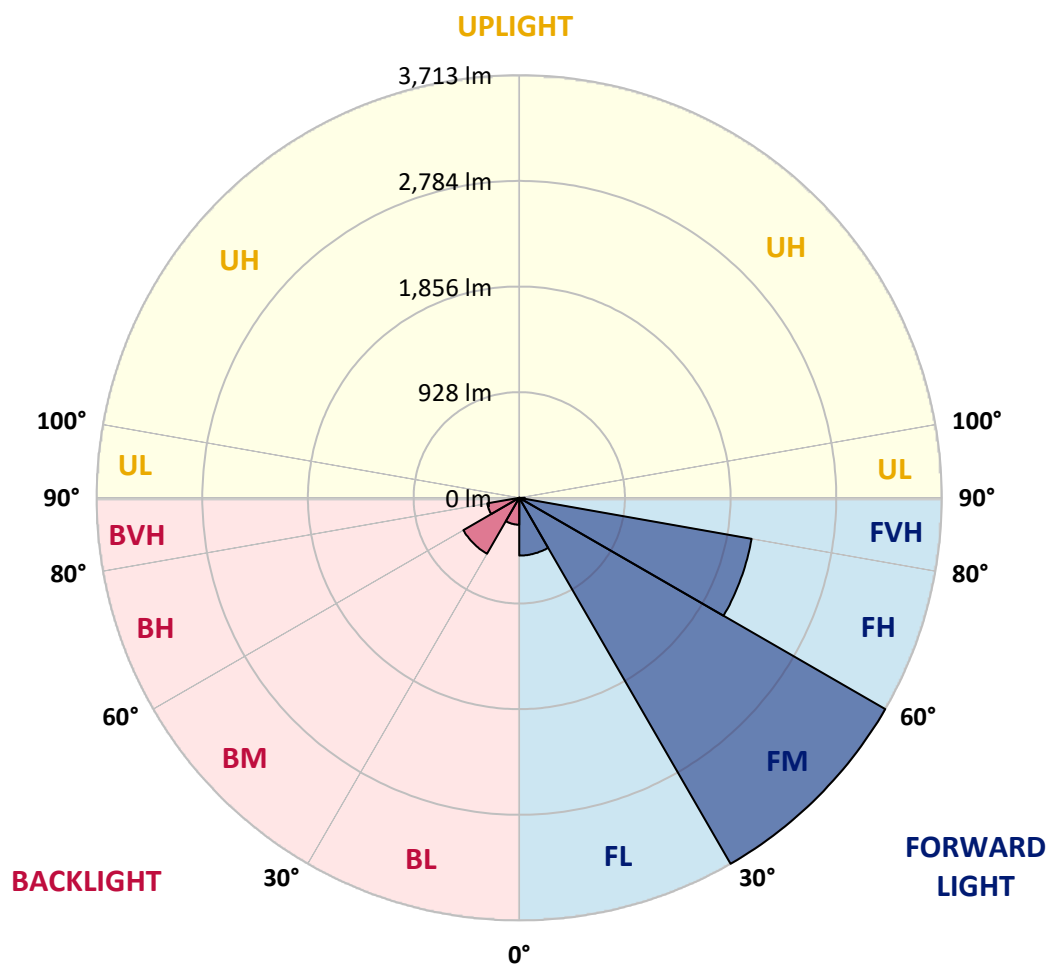
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	507.5	6.8			
FM	(30°-60°)	3712.5	49.9			
FH	(60°-80°)	2072.7	27.9			G2/5000
FVH	(80°-90°)	48.9	0.7			G1/100
BL	(0°-30°)	236.5	3.2	B1/500		
BM	(30°-60°)	567.1	7.6	B1/1000		
BH	(60°-80°)	285.3	3.8	B1/500		G1/500
BVH	(80°-90°)	3.9	0.1			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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6
2.5°	939.0	936.4	940.0	938.5	937.5	935.4	934.4	933.4	931.3	929.8	923.6
5°	941.6	940.0	943.6	946.7	949.8	952.8	954.4	956.4	954.4	950.3	944.1
7.5°	920.1	919.1	926.7	935.9	949.8	961.6	974.3	981.4	982.0	980.4	973.7
10°	918.6	916.0	923.6	934.9	952.8	973.7	996.3	1011.7	1013.7	1020.4	1013.2
12.5°	942.6	940.0	950.8	963.1	981.4	1003.5	1031.0	1052.6	1055.6	1064.9	1059.7
15°	983.0	979.4	991.7	1007.6	1031.0	1056.2	1085.3	1104.7	1107.3	1118.6	1109.4
17.5°	1030.0	1026.4	1040.8	1057.7	1083.2	1117.6	1151.3	1172.7	1175.8	1183.0	1166.1
20°	1090.4	1085.8	1097.1	1112.4	1139.5	1180.4	1220.8	1251.5	1251.0	1251.0	1223.3
22.5°	1160.5	1153.3	1163.1	1175.3	1200.9	1250.5	1304.2	1340.5	1340.5	1326.1	1280.6
25°	1235.6	1228.5	1239.2	1250.5	1272.9	1329.2	1392.2	1437.2	1439.2	1414.7	1342.0
27.5°	1329.7	1320.5	1328.7	1342.0	1355.4	1412.7	1487.3	1539.4	1540.5	1502.6	1400.4
30°	1510.8	1484.7	1459.2	1444.8	1451.0	1507.8	1587.5	1645.3	1650.5	1598.3	1463.8
32.5°	1842.2	1837.1	1747.1	1629.4	1568.1	1610.1	1699.6	1769.0	1772.1	1705.2	1546.1
35°	2357.3	2351.1	2206.4	1982.4	1782.4	1747.1	1835.6	1917.9	1915.9	1840.2	1653.0
37.5°	2972.0	2966.4	2775.6	2475.9	2152.2	1954.3	2011.0	2097.5	2110.3	2011.0	1791.1
40°	3497.3	3476.3	3355.6	3066.6	2643.2	2297.9	2260.6	2317.8	2331.2	2213.6	1966.6
42.5°	3895.2	3877.3	3815.9	3635.4	3237.5	2806.3	2554.7	2576.6	2591.5	2450.4	2168.0
45°	4101.3	4097.2	4121.7	4104.9	3843.0	3430.3	2975.1	2883.5	2889.2	2712.8	2396.7
47.5°	4130.4	4128.4	4240.4	4399.0	4363.6	4134.0	3514.6	3266.1	3246.2	3008.9	2645.2
50°	3958.6	3954.6	4169.3	4466.4	4711.4	4725.2	4127.4	3697.3	3653.3	3315.2	2904.5
52.5°	3409.9	3408.8	3761.6	4256.3	4833.7	5242.9	4732.9	4170.8	4097.2	3639.5	3178.6
55°	2623.7	2642.7	3047.2	3631.8	4610.7	5492.0	5276.6	4696.7	4583.6	3965.7	3431.3
57.5°	1858.6	1886.2	2286.2	2806.9	3919.2	5344.7	5644.4	5223.4	5101.7	4291.1	3687.5
60°	998.4	1022.8	1423.3	2044.8	2915.7	4795.4	5838.2	5680.7	5565.5	4600.0	3918.7
62.5°	594.8	603.0	768.7	1320.0	1972.1	3663.5	5755.8	6028.9	5934.3	4859.2	4119.7
65°	427.0	428.6	512.0	806.1	1197.3	2225.8	5178.4	6195.7	6166.5	5054.6	4268.5
67.5°	359.6	358.5	393.3	535.5	815.8	1115.0	3968.8	5959.9	6083.7	5178.4	4353.0
70°	308.4	310.0	350.9	392.3	613.3	631.1	1973.1	5189.2	5453.0	5211.1	4347.8
72.5°	229.6	234.7	272.6	357.5	462.9	434.2	681.2	3847.6	4324.8	4909.9	4122.2
75°	162.2	164.7	191.8	300.7	345.2	316.1	347.8	1989.0	2600.7	3764.2	3374.0
77.5°	124.7	129.4	145.2	210.2	340.1	222.0	212.8	688.4	1057.7	2273.9	2313.3
80°	67.5	75.6	104.9	151.9	238.8	157.0	105.4	274.1	358.5	1063.3	892.0
82.5°	34.7	38.8	73.2	109.5	136.0	137.0	52.2	114.1	147.8	328.3	122.3
85°	13.8	16.9	49.1	60.4	70.1	67.5	23.6	46.0	53.2	91.0	37.3
87.5°	3.1	5.1	17.9	13.8	13.3	14.3	5.6	10.8	10.2	10.8	6.7
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°	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6
2.5°	923.1	921.2	915.5	909.4	902.2	898.1	895.5	895.0	891.4	888.9	891.4
5°	938.5	936.4	925.7	913.0	899.1	888.4	878.1	869.0	855.7	853.1	852.1
7.5°	969.2	963.6	946.2	928.8	902.7	871.5	833.6	790.2	751.3	739.5	733.9
10°	1007.1	999.4	977.3	946.7	888.9	804.0	712.5	627.5	560.1	541.1	533.9
12.5°	1050.0	1043.3	1014.2	957.5	831.1	677.1	537.0	431.6	366.2	349.8	345.2
15°	1101.2	1091.4	1051.0	941.1	727.7	514.6	368.8	306.4	282.8	279.7	276.6
17.5°	1155.4	1139.5	1083.7	882.2	588.7	365.7	284.8	267.0	256.8	253.7	252.2
20°	1205.0	1184.5	1103.2	793.2	439.8	284.8	255.2	243.4	234.2	230.6	228.6
22.5°	1254.6	1225.4	1103.2	672.1	329.8	252.7	234.2	223.6	212.8	208.2	205.6
25°	1306.3	1267.4	1083.7	537.0	265.5	231.6	214.3	202.5	193.3	187.7	185.6
27.5°	1356.4	1302.7	1039.2	409.2	236.3	213.3	195.9	184.6	175.9	171.9	171.9
30°	1403.9	1337.4	976.8	310.5	217.4	195.4	179.0	169.3	160.6	156.5	157.0
32.5°	1468.4	1381.4	910.4	254.7	201.0	178.5	163.7	154.5	146.8	143.7	143.7
35°	1557.9	1446.4	853.1	250.1	187.2	164.7	149.9	141.1	133.5	130.9	130.9
37.5°	1684.7	1551.2	822.9	280.7	175.9	152.4	138.6	129.4	122.3	120.2	119.7
40°	1841.2	1693.4	839.3	311.5	168.3	141.7	128.3	119.2	113.1	110.5	110.0
42.5°	2026.8	1868.8	929.8	335.0	163.2	132.4	118.7	108.4	104.3	103.3	103.3
45°	2240.1	2061.7	1068.5	360.1	155.0	123.8	109.0	101.3	98.2	97.7	97.2
47.5°	2482.5	2273.3	1229.0	391.2	146.8	115.6	101.3	96.1	93.6	92.6	92.6
50°	2722.9	2486.6	1394.2	408.7	140.1	107.9	95.1	91.0	89.0	88.5	88.5
52.5°	2974.5	2706.1	1527.7	392.3	134.5	101.8	90.0	86.9	84.9	84.4	84.4
55°	3214.4	2883.5	1550.7	332.9	123.3	95.6	84.4	82.8	80.3	80.3	79.7
57.5°	3421.0	2972.5	1388.1	244.5	112.0	86.4	78.7	77.2	75.1	74.7	74.2
60°	3610.8	2947.0	1071.4	164.7	99.7	77.2	71.6	70.6	68.6	66.0	65.5
62.5°	3717.7	2834.4	732.9	107.4	87.4	67.5	63.4	62.9	58.3	53.2	52.2
65°	3758.2	2603.3	457.3	78.2	73.2	57.8	54.7	53.7	47.0	41.4	40.9
67.5°	3722.8	2222.7	230.6	61.9	57.8	48.1	45.0	45.0	40.4	35.3	34.7
70°	3581.7	1666.3	97.2	49.6	44.5	36.8	36.8	38.8	34.2	28.6	28.1
72.5°	3275.3	1121.0	51.7	37.8	33.2	26.0	30.1	31.7	27.1	21.5	21.5
75°	2603.8	683.8	35.8	28.1	21.0	18.4	23.1	24.1	18.4	14.3	13.8
77.5°	1780.8	392.8	24.1	17.9	13.3	10.8	15.9	14.9	9.7	6.7	7.2
80°	782.0	163.7	13.8	8.2	5.1	4.1	5.6	4.1	3.1	2.0	2.0
82.5°	91.5	38.3	5.1	3.1	2.0	1.0	0.5	0.0	0.0	0.0	0.0
85°	19.0	4.6	2.6	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.6	1.0	0.5	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)