

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: P961036

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961036
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-SB1D-830-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7164.7 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

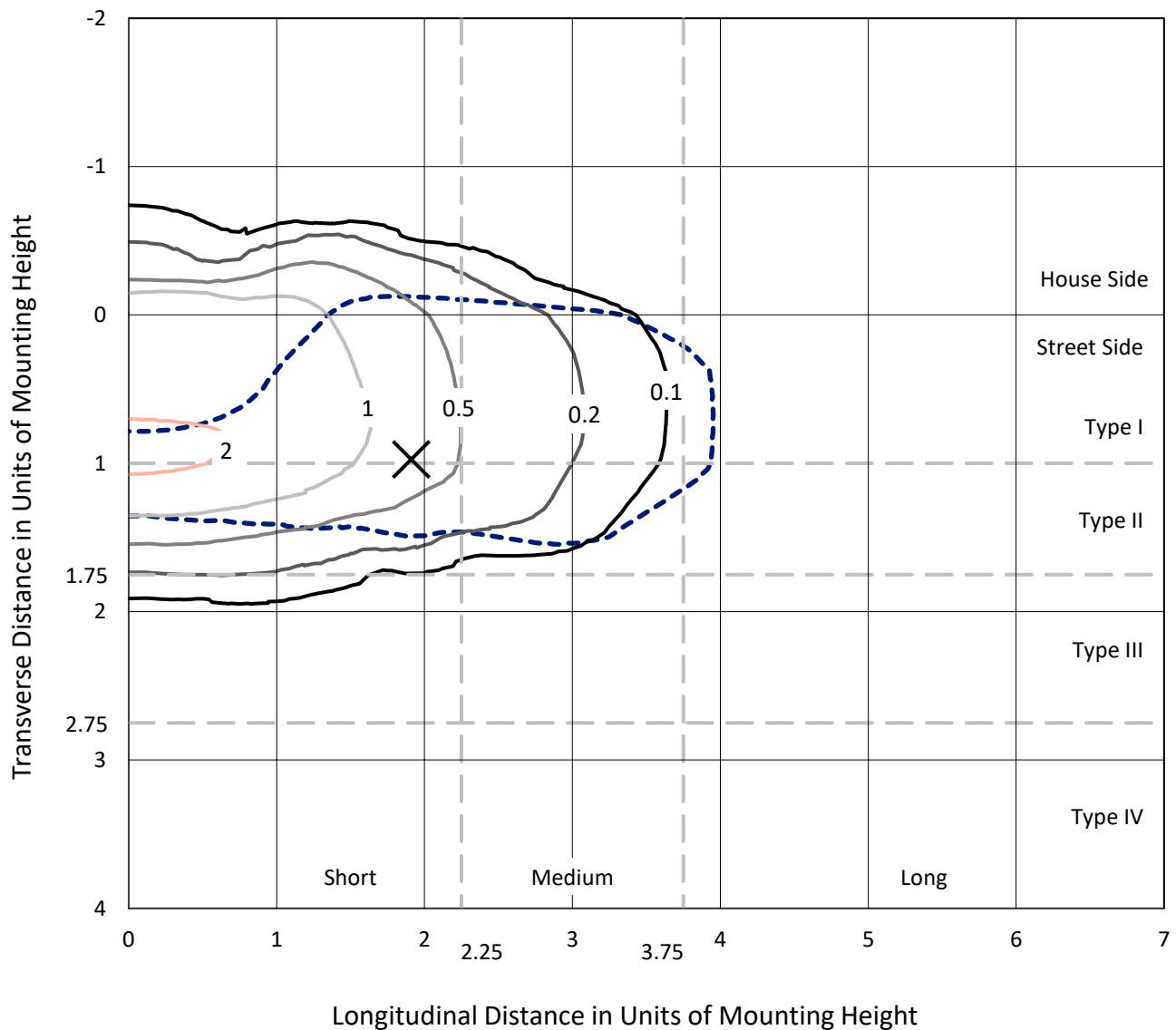
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

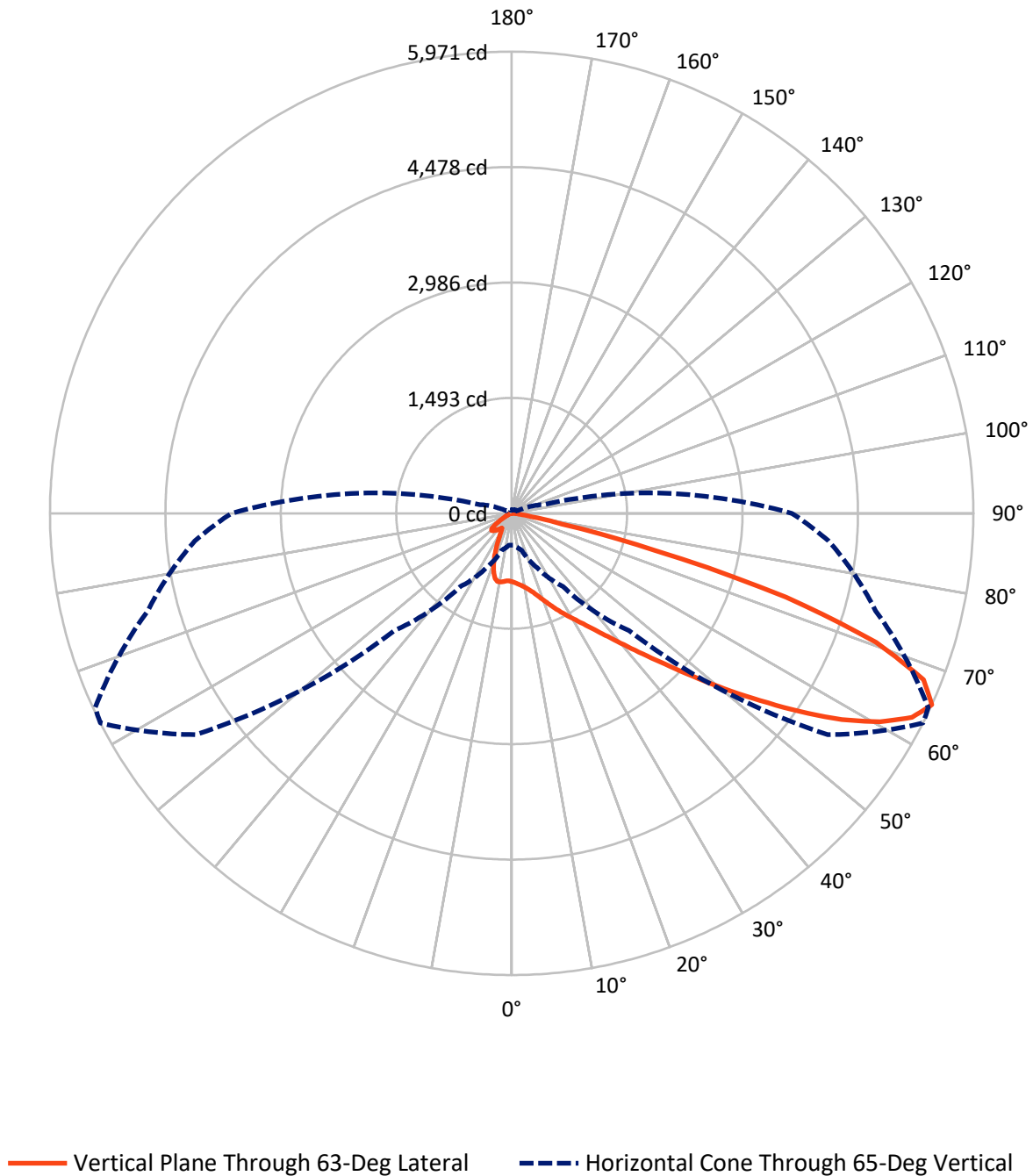
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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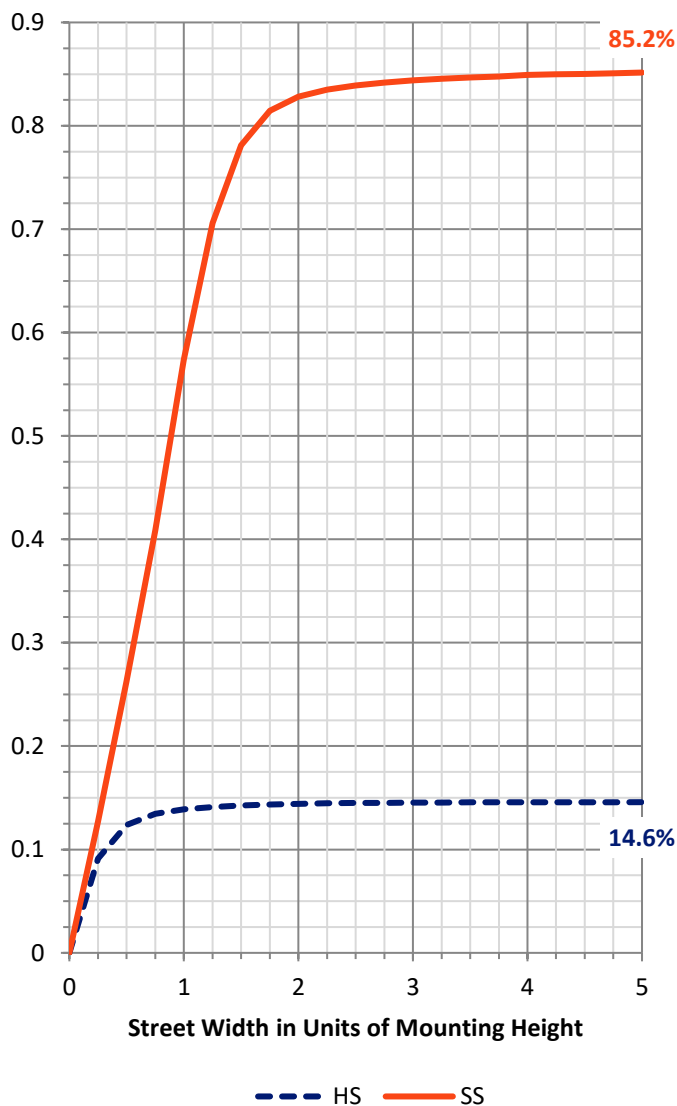
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1053.1	0.0	1053.1
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	6111.6	0.0	6111.6
	% Fixture	85.3	0.0	85.3
Total	Lumens	7164.7	0.0	7164.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	1.2
10°-20°	231.2	3.2
20°-30°	402.5	5.6
30°-40°	725.5	10.1
40°-50°	1438.9	20.1
50°-60°	1960.0	27.4
60°-70°	1564.5	21.8
70°-80°	708.0	9.9
80°-90°	50.9	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°	7164.7	100.0
0°-180°	7164.7	100.0

Coefficient of Utilization



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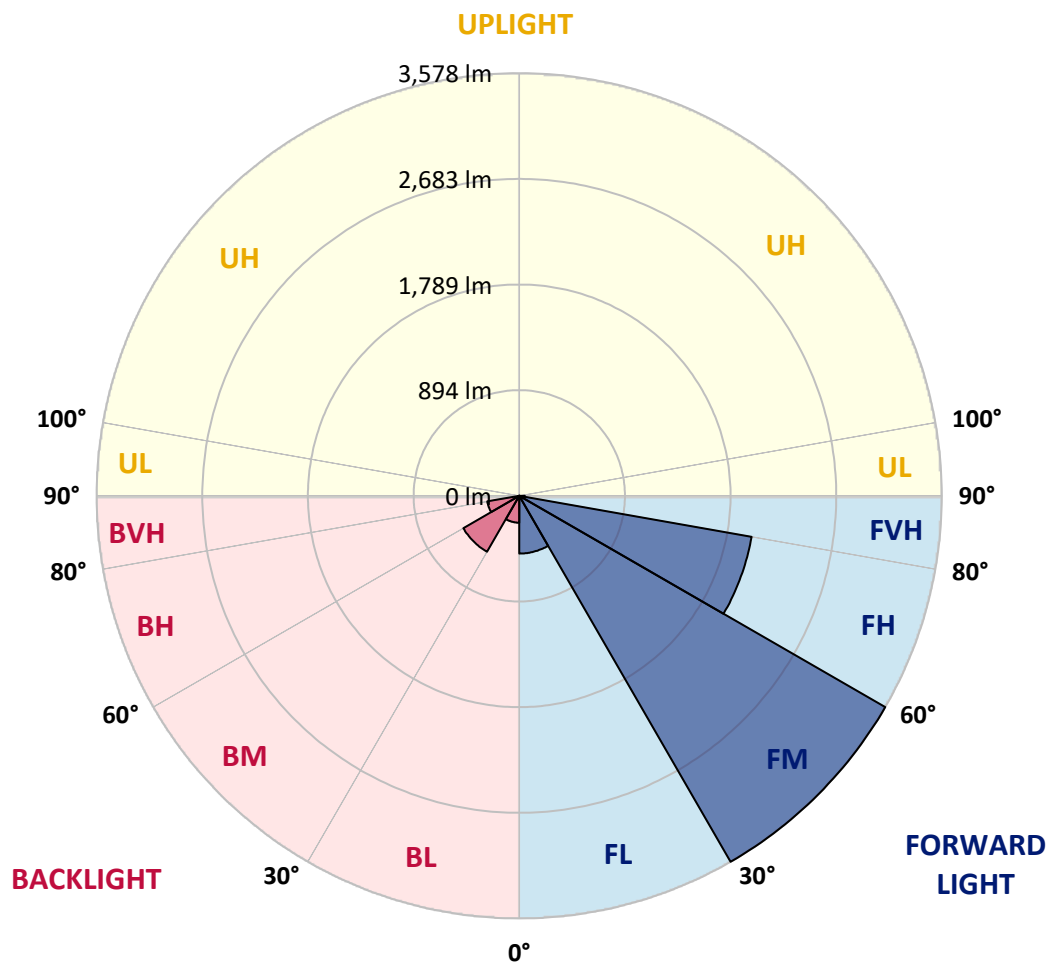
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	489.1	6.8			
FM	(30°-60°)	3577.9	49.9			
FH	(60°-80°)	1997.5	27.9			G2/5000
FVH	(80°-90°)	47.1	0.7			G1/100
BL	(0°-30°)	227.9	3.2	B1/500		
BM	(30°-60°)	546.5	7.6	B1/1000		
BH	(60°-80°)	274.9	3.8	B1/500		G1/500
BVH	(80°-90°)	3.8	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°	884.3	884.3	884.3	884.3	884.3	884.3	884.3	884.3	884.3	884.3	884.3
2.5°	905.0	902.5	906.0	904.5	903.5	901.5	900.6	899.5	897.6	896.1	890.2
5°	907.4	906.0	909.4	912.4	915.3	918.3	919.7	921.7	919.7	915.8	909.9
7.5°	886.7	885.7	893.2	902.0	915.3	926.7	939.0	945.9	946.4	944.8	938.5
10°	885.3	882.8	890.2	901.0	918.3	938.5	960.2	975.0	976.9	983.4	976.4
12.5°	908.5	906.0	916.4	928.1	945.9	967.1	993.7	1014.4	1017.3	1026.2	1021.3
15°	947.4	943.9	955.7	971.0	993.7	1017.8	1045.9	1064.7	1067.1	1078.0	1069.1
17.5°	992.7	989.2	1003.1	1019.4	1044.0	1077.0	1109.6	1130.3	1133.1	1140.1	1123.8
20°	1050.8	1046.4	1057.3	1072.0	1098.2	1137.6	1176.6	1206.1	1205.6	1205.6	1179.1
22.5°	1118.4	1111.5	1120.8	1132.7	1157.3	1205.2	1256.9	1291.9	1291.9	1278.1	1234.2
25°	1190.8	1184.0	1194.3	1205.2	1226.8	1281.0	1341.7	1385.1	1387.0	1363.4	1293.3
27.5°	1281.6	1272.6	1280.5	1293.3	1306.2	1361.4	1433.4	1483.6	1484.6	1448.1	1349.5
30°	1456.0	1430.9	1406.2	1392.5	1398.4	1453.0	1530.0	1585.7	1590.6	1540.3	1410.7
32.5°	1775.4	1770.5	1683.8	1570.4	1511.3	1551.6	1637.9	1705.0	1707.9	1643.4	1490.0
35°	2271.8	2265.9	2126.4	1910.5	1717.8	1683.8	1769.0	1848.4	1846.4	1773.5	1593.1
37.5°	2864.3	2858.8	2674.9	2386.1	2074.1	1883.3	1938.1	2021.4	2033.7	1938.1	1726.1
40°	3370.5	3350.2	3234.0	2955.5	2547.3	2214.6	2178.6	2233.8	2246.6	2133.2	1895.2
42.5°	3754.0	3736.6	3677.5	3503.6	3120.1	2704.6	2462.0	2483.3	2497.5	2361.5	2089.4
45°	3952.6	3948.6	3972.3	3956.0	3703.6	3305.9	2867.2	2779.0	2784.4	2614.4	2309.7
47.5°	3980.7	3978.7	4086.7	4239.4	4205.5	3984.2	3387.2	3147.7	3128.4	2899.7	2549.3
50°	3815.0	3811.2	4018.1	4304.5	4540.6	4553.9	3977.7	3563.2	3520.8	3195.0	2799.2
52.5°	3286.2	3285.2	3625.3	4101.9	4658.4	5052.7	4561.4	4019.6	3948.6	3507.4	3063.4
55°	2528.6	2546.8	2936.7	3500.1	4443.5	5292.8	5085.2	4526.3	4417.3	3821.9	3306.9
57.5°	1791.2	1817.8	2203.2	2705.1	3777.1	5150.8	5439.7	5034.0	4916.7	4135.5	3553.8
60°	962.2	985.8	1371.8	1970.7	2810.0	4621.4	5626.4	5474.6	5363.7	4433.1	3776.6
62.5°	573.3	581.2	740.9	1272.2	1900.7	3530.6	5547.1	5810.3	5719.1	4683.0	3970.3
65°	411.5	413.1	493.4	776.8	1153.8	2145.1	4990.6	5971.0	5943.0	4871.3	4113.7
67.5°	346.6	345.5	379.0	516.1	786.2	1074.5	3824.9	5743.8	5863.1	4990.6	4195.1
70°	297.2	298.7	338.1	378.0	591.0	608.2	1901.6	5001.0	5255.3	5022.2	4190.2
72.5°	221.3	226.2	262.7	344.5	446.1	418.5	656.5	3708.1	4168.0	4731.8	3972.8
75°	156.2	158.7	184.8	289.9	332.7	304.6	335.2	1916.9	2506.4	3627.8	3251.7
77.5°	120.2	124.7	140.0	202.5	327.8	213.9	205.0	663.5	1019.4	2191.4	2229.4
80°	65.1	73.0	101.1	146.4	230.2	151.3	101.6	264.2	345.5	1024.7	859.7
82.5°	33.5	37.4	70.5	105.5	131.1	132.1	50.2	109.9	142.5	316.4	117.8
85°	13.3	16.3	47.4	58.1	67.5	65.1	22.7	44.4	51.2	87.7	36.0
87.5°	3.0	4.9	17.2	13.3	12.8	13.8	5.4	10.4	9.8	10.4	6.5
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°	884.3	884.3	884.3	884.3	884.3	884.3	884.3	884.3	884.3	884.3	884.3
2.5°	889.7	887.8	882.3	876.4	869.5	865.5	863.0	862.5	859.2	856.7	859.2
5°	904.5	902.5	892.2	879.9	866.5	856.2	846.3	837.4	824.6	822.2	821.1
7.5°	934.1	928.6	911.8	895.1	870.0	839.9	803.4	761.6	724.1	712.8	707.4
10°	970.6	963.1	942.0	912.4	856.7	774.8	686.6	604.8	539.8	521.5	514.6
12.5°	1011.9	1005.5	977.4	922.7	800.9	652.6	517.5	416.0	352.9	337.1	332.7
15°	1061.2	1051.9	1012.9	906.9	701.4	495.9	355.4	295.2	272.5	269.6	266.7
17.5°	1113.5	1098.2	1044.5	850.2	567.3	352.4	274.5	257.3	247.4	244.5	243.0
20°	1161.3	1141.5	1063.2	764.4	423.9	274.5	246.0	234.6	225.7	222.3	220.4
22.5°	1209.1	1181.0	1063.2	647.7	318.0	243.5	225.7	215.4	205.0	200.6	198.1
25°	1258.9	1221.4	1044.5	517.5	255.8	223.2	206.5	195.2	186.3	180.9	179.0
27.5°	1307.2	1255.4	1001.5	394.3	227.8	205.5	188.8	177.9	169.5	165.6	165.6
30°	1353.0	1288.9	941.5	299.2	209.5	188.3	172.5	163.2	154.8	150.8	151.3
32.5°	1415.1	1331.4	877.4	245.5	193.7	172.0	157.7	148.8	141.4	138.5	138.5
35°	1501.4	1393.9	822.2	241.1	180.4	158.7	144.4	136.0	128.6	126.2	126.2
37.5°	1623.6	1495.0	793.0	270.6	169.5	146.9	133.6	124.7	117.8	115.8	115.3
40°	1774.5	1632.0	808.8	300.2	162.2	136.5	123.7	114.8	109.0	106.5	106.0
42.5°	1953.3	1801.0	896.1	322.9	157.2	127.6	114.4	104.4	100.6	99.5	99.5
45°	2159.0	1986.9	1029.7	347.0	149.3	119.3	105.0	97.6	94.6	94.1	93.7
47.5°	2392.6	2190.9	1184.5	377.1	141.4	111.4	97.6	92.7	90.2	89.2	89.2
50°	2624.2	2396.4	1343.7	393.8	135.1	104.0	91.6	87.7	85.8	85.3	85.3
52.5°	2866.7	2607.9	1472.3	378.0	129.7	98.1	86.7	83.7	81.8	81.3	81.3
55°	3097.9	2779.0	1494.4	320.9	118.8	92.1	81.3	79.8	77.4	77.4	76.9
57.5°	3297.0	2864.8	1337.7	235.6	107.9	83.3	76.0	74.4	72.5	72.0	71.4
60°	3479.9	2840.1	1032.6	158.7	96.1	74.4	69.0	68.1	66.0	63.6	63.1
62.5°	3582.9	2731.6	706.3	103.5	84.3	65.1	61.1	60.6	56.2	51.2	50.2
65°	3621.8	2508.9	440.6	75.4	70.5	55.7	52.8	51.8	45.3	40.0	39.5
67.5°	3587.8	2142.1	222.3	59.7	55.7	46.3	43.4	43.4	38.9	34.0	33.5
70°	3451.8	1605.9	93.7	47.8	42.8	35.5	35.5	37.4	33.0	27.6	27.1
72.5°	3156.6	1080.5	49.8	36.5	32.1	25.1	29.1	30.5	26.1	20.7	20.7
75°	2509.4	659.0	34.5	27.1	20.2	17.7	22.1	23.2	17.7	13.8	13.3
77.5°	1716.3	378.5	23.2	17.2	12.8	10.4	15.3	14.2	9.3	6.5	6.9
80°	753.7	157.7	13.3	7.9	4.9	3.9	5.4	3.9	3.0	1.9	1.9
82.5°	88.3	37.0	4.9	3.0	1.9	1.0	0.5	0.0	0.0	0.0	0.0
85°	18.2	4.4	2.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.5	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)