

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: P963647

Luminaire Tested: **NAV-SB3A-827-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963647
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9082.5 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 84.7
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



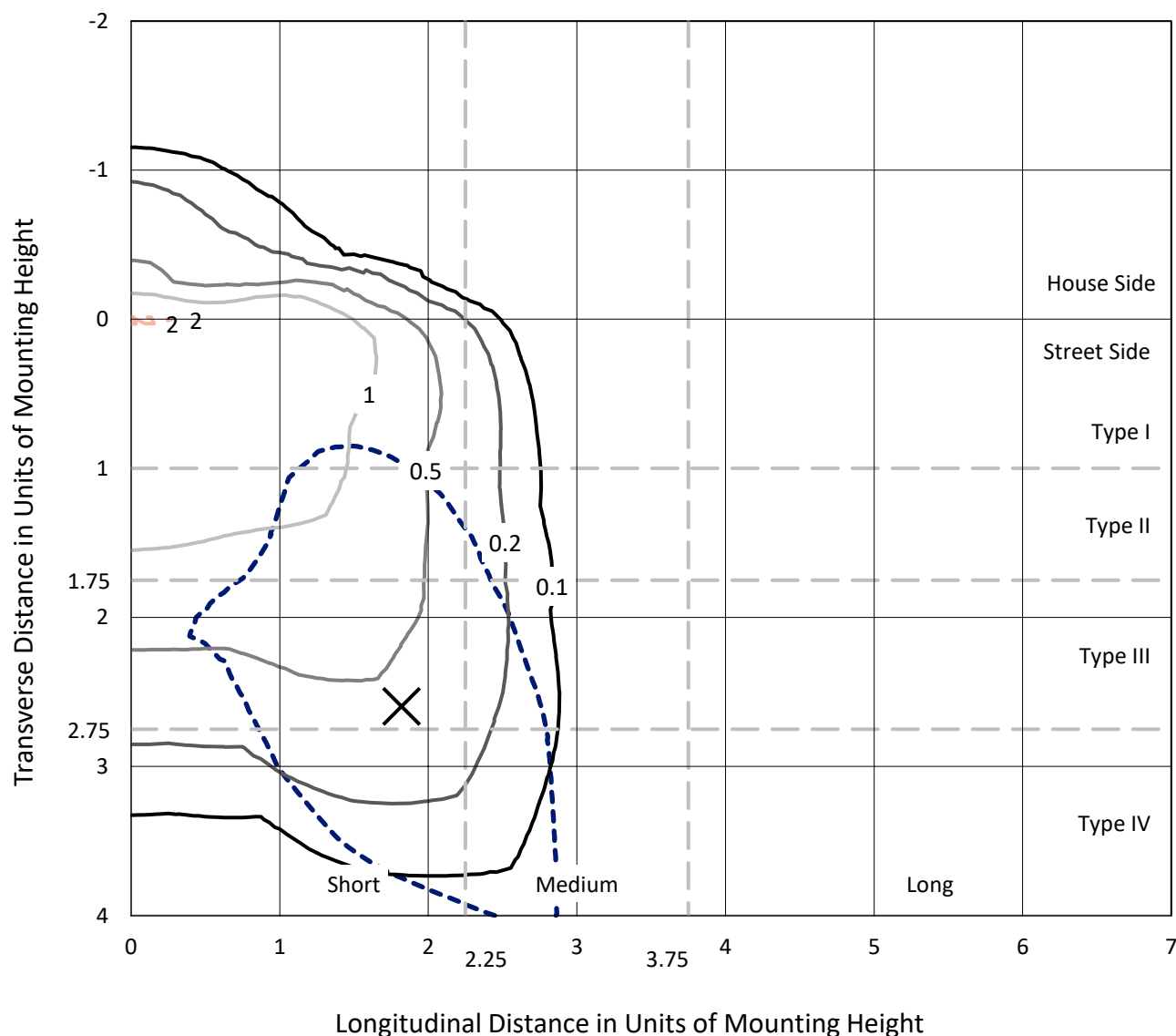
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

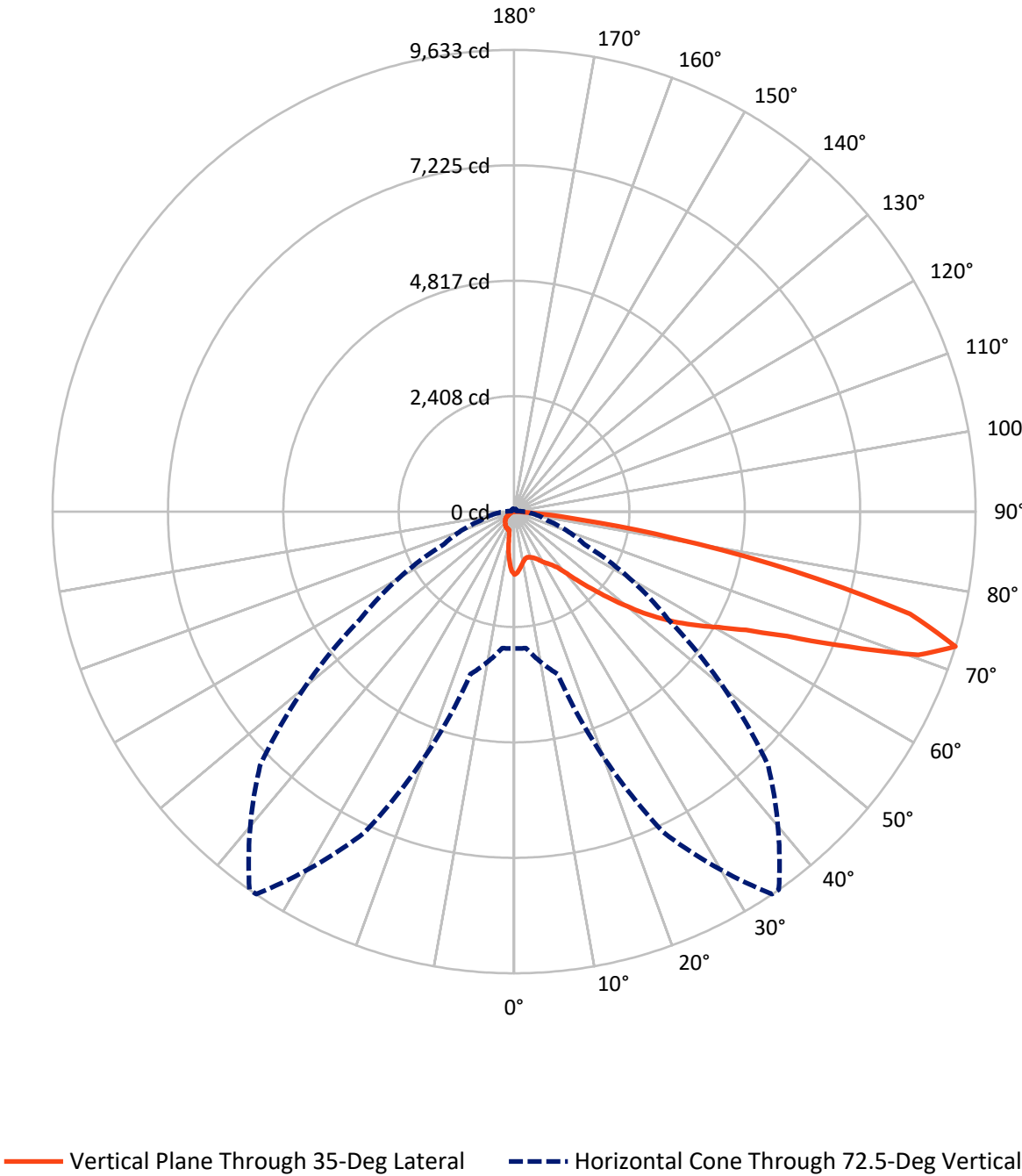


Based on 25 foot mounting height. Maximum calculated value = 2.1 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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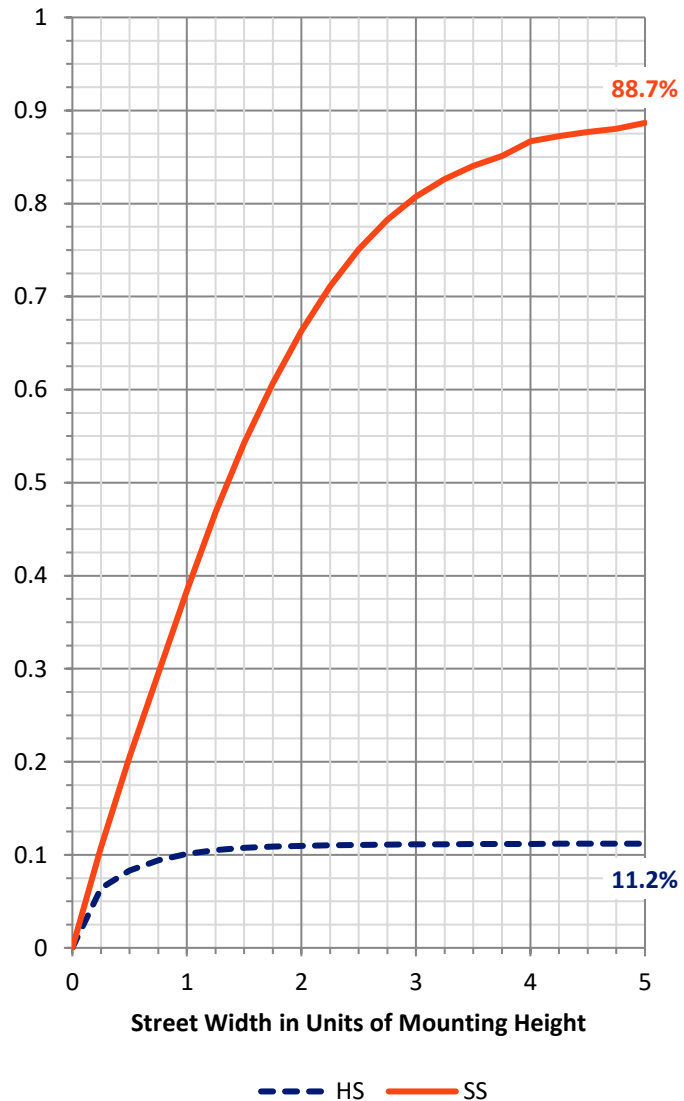
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1022.2	0.0	1022.2
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	8060.3	0.0	8060.3
	% Fixture	88.7	0.0	88.7
Total	Lumens	9082.5	0.0	9082.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.2	1.2
10°-20°	253.1	2.8
20°-30°	411.1	4.5
30°-40°	685.9	7.6
40°-50°	1297.7	14.3
50°-60°	2062.0	22.7
60°-70°	2550.9	28.1
70°-80°	1585.6	17.5
80°-90°	128.1	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°	9082.5	100.0
0°-180°	9082.5	100.0

Coefficient of Utilization



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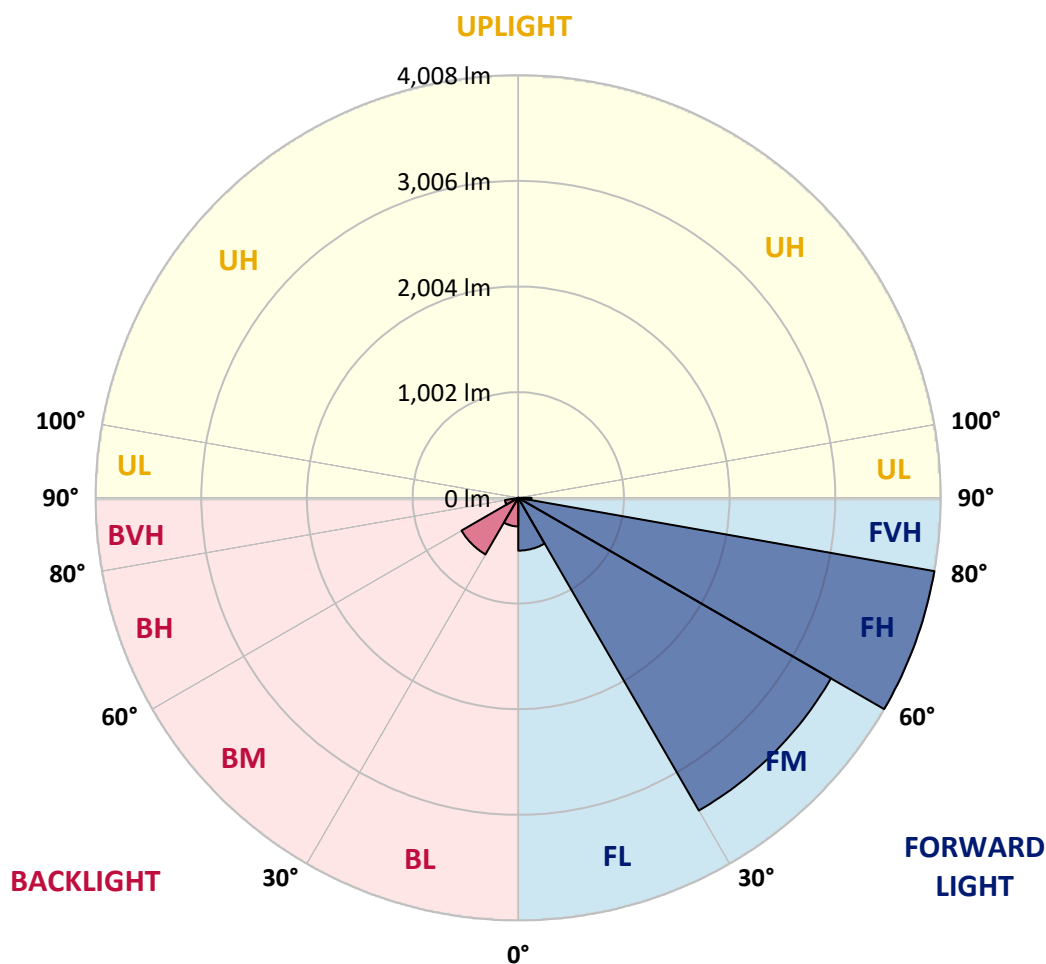
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	500.7	5.5			
FM	(30°-60°)	3425.0	37.7			
FH	(60°-80°)	4008.2	44.1			G2/5000
FVH	(80°-90°)	126.4	1.4			G2/225
BL	(0°-30°)	271.6	3.0	B1/500		
BM	(30°-60°)	620.6	6.8	B1/1000		
BH	(60°-80°)	128.3	1.4	B1/500		G1/500
BVH	(80°-90°)	1.7	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°	34°	35°	45°	55°	65°	75°	85°
0°	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4
2.5°	1257.8	1268.4	1270.5	1273.8	1273.8	1277.8	1284.4	1293.8	1309.0	1317.0	1322.4
5°	1159.3	1167.3	1177.3	1185.2	1200.6	1202.5	1228.6	1253.8	1289.0	1315.7	1334.3
7.5°	1060.2	1069.5	1082.8	1102.1	1122.1	1128.0	1167.3	1209.9	1265.8	1315.7	1347.0
10°	990.3	991.0	1002.9	1022.2	1054.1	1061.5	1109.4	1169.9	1239.8	1307.7	1358.9
12.5°	951.0	955.7	960.9	975.6	1006.2	1010.9	1062.1	1133.3	1213.9	1303.1	1372.9
15°	951.0	954.4	957.7	964.9	989.6	993.6	1038.8	1110.1	1200.6	1305.0	1395.5
17.5°	960.9	966.3	963.6	972.3	998.2	1000.9	1040.9	1103.4	1199.9	1317.7	1430.2
20°	984.9	988.9	983.6	988.9	1014.9	1020.2	1061.5	1116.0	1211.2	1339.7	1473.4
22.5°	1022.8	1024.9	1012.2	1016.2	1042.8	1049.5	1097.4	1152.0	1238.5	1374.9	1531.4
25°	1070.8	1074.8	1055.4	1060.2	1085.5	1093.5	1148.6	1205.9	1281.8	1423.5	1605.1
27.5°	1126.1	1128.0	1111.4	1110.7	1143.3	1154.7	1210.5	1272.4	1339.7	1484.7	1698.3
30°	1189.2	1195.3	1179.3	1176.6	1217.9	1227.2	1282.4	1354.3	1424.9	1576.6	1830.8
32.5°	1239.1	1243.8	1234.5	1241.2	1283.1	1290.4	1369.6	1470.1	1558.6	1707.0	2011.2
35°	1311.1	1313.7	1292.4	1304.4	1352.3	1370.9	1488.7	1632.5	1727.0	1870.7	2246.7
37.5°	1571.2	1571.2	1480.7	1421.5	1467.4	1484.1	1651.8	1836.8	1934.6	2090.4	2543.5
40°	1931.3	1925.3	1792.8	1671.8	1665.7	1698.3	1884.1	2094.4	2202.8	2353.9	2877.6
42.5°	2315.3	2305.9	2125.6	2005.8	1985.8	1997.2	2152.2	2411.8	2522.2	2675.4	3237.0
45°	2656.0	2653.3	2488.3	2327.3	2291.3	2327.3	2487.0	2783.1	2862.3	3023.3	3595.7
47.5°	2941.5	2941.5	2821.1	2715.9	2697.3	2718.6	2940.2	3195.0	3187.7	3394.1	3945.1
50°	3270.3	3267.6	3153.1	3107.9	3127.2	3157.1	3461.9	3629.0	3524.5	3758.1	4257.2
52.5°	3500.6	3516.5	3477.2	3469.9	3568.4	3620.3	3991.7	4053.6	3826.0	4103.5	4490.8
55°	3682.9	3701.5	3746.8	3798.0	3987.7	4055.6	4504.8	4456.2	4078.2	4403.0	4625.2
57.5°	3941.1	3914.5	3984.4	4085.5	4392.3	4474.1	5001.9	4836.2	4281.2	4645.9	4639.9
60°	4254.6	4258.6	4270.6	4398.3	4796.3	4901.4	5491.7	5195.6	4411.6	4795.0	4477.5
62.5°	4631.3	4637.2	4661.8	4858.2	5338.6	5437.8	6013.5	5489.7	4471.5	4753.0	4058.2
65°	4605.2	4630.5	4905.4	5576.9	6163.2	6261.0	6622.4	5696.0	4381.0	4369.7	3304.2
67.5°	4195.3	4236.6	4696.4	6435.4	7406.3	7515.5	7358.5	5736.6	3990.3	3398.1	2155.6
70°	3657.6	3672.3	4225.3	7207.4	8845.9	8956.3	8017.3	5290.0	3028.1	1895.3	965.7
72.5°	2856.4	2859.6	3508.6	7386.4	9627.1	9633.2	7500.2	3927.1	1628.5	728.1	335.4
75°	2040.5	2020.5	2349.9	5990.2	8469.9	8537.7	5622.8	1842.1	622.3	344.1	167.1
77.5°	1094.1	1116.0	1329.6	3552.4	5851.1	5966.9	3067.9	531.1	316.8	234.2	110.5
80°	338.0	356.7	545.1	1626.5	3314.2	3384.0	1137.3	236.3	221.0	167.1	72.6
82.5°	106.5	110.5	254.2	683.5	1375.6	1407.5	329.4	133.8	151.1	110.5	42.6
85°	30.6	31.3	113.2	254.9	340.1	346.8	92.5	51.9	86.5	68.6	21.9
87.5°	3.3	10.7	42.6	42.6	29.9	29.3	9.9	11.3	24.6	8.6	4.0
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°	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4
2.5°	1319.1	1319.7	1311.1	1296.4	1280.4	1267.1	1250.5	1237.2	1227.8	1225.2	1229.9
5°	1328.3	1323.7	1299.1	1254.5	1201.2	1155.3	1104.0	1063.4	1036.9	1025.5	1029.5
7.5°	1342.3	1329.0	1275.1	1187.3	1085.5	995.0	903.1	831.9	786.6	764.0	767.3
10°	1354.3	1327.7	1235.1	1090.1	934.4	797.2	673.5	587.6	539.8	517.1	517.7
12.5°	1365.6	1327.0	1183.3	975.0	764.0	596.2	481.1	438.6	425.3	420.6	419.2
15°	1386.9	1329.0	1118.1	843.2	594.3	450.6	408.7	408.0	410.6	409.3	408.7
17.5°	1416.1	1331.0	1044.2	703.5	458.5	397.3	395.3	401.3	405.3	403.3	402.6
20°	1454.2	1339.0	965.7	565.0	394.0	384.0	388.7	394.0	397.3	394.0	393.3
22.5°	1507.4	1353.0	879.8	453.9	373.3	376.0	380.0	386.0	389.3	384.7	384.0
25°	1572.6	1374.9	795.3	394.6	363.4	366.6	372.7	379.4	383.3	378.6	378.0
27.5°	1657.1	1410.2	717.4	381.3	353.4	355.4	364.1	374.0	379.4	373.3	373.3
30°	1779.5	1468.1	650.2	387.3	347.4	342.8	354.8	368.7	374.6	369.3	368.7
32.5°	1942.0	1549.9	609.0	396.7	344.7	328.1	339.4	357.4	367.4	364.1	364.1
35°	2154.9	1674.4	593.0	407.3	342.8	312.8	320.7	340.1	357.4	360.7	360.7
37.5°	2413.2	1847.5	597.6	411.9	336.7	300.1	304.1	320.7	343.4	354.0	356.7
40°	2706.6	2049.1	624.2	407.3	330.0	289.5	290.2	302.8	322.8	338.8	344.1
42.5°	3009.4	2284.6	673.5	390.0	324.1	280.1	278.2	286.8	300.1	311.5	316.1
45°	3297.5	2526.9	722.1	366.0	316.8	270.9	266.2	269.6	272.2	276.9	279.5
47.5°	3549.2	2697.3	708.1	344.1	306.8	260.2	252.3	250.9	242.9	242.2	241.6
50°	3722.8	2734.6	628.9	322.1	292.1	248.3	235.5	227.7	213.6	206.9	207.7
52.5°	3778.0	2587.5	513.7	300.1	268.2	232.3	214.3	201.6	184.3	178.4	177.7
55°	3704.9	2299.3	410.6	273.5	234.9	210.9	191.0	174.4	160.4	153.0	153.0
57.5°	3525.8	1932.6	324.7	242.2	199.7	187.0	167.1	150.4	138.4	131.1	129.8
60°	3229.1	1534.6	256.9	205.0	170.4	161.0	140.4	129.8	119.1	110.5	108.4
62.5°	2778.5	1095.4	201.6	162.4	142.4	131.8	119.8	111.8	99.1	87.2	85.2
65°	2168.2	670.1	155.7	119.1	114.5	109.2	101.8	94.5	79.2	67.2	65.2
67.5°	1367.6	317.4	111.1	89.9	90.5	87.8	84.6	78.5	67.2	56.6	55.2
70°	602.3	153.8	73.2	68.6	67.2	67.2	69.9	67.9	57.2	47.3	45.3
72.5°	205.0	82.5	54.5	51.9	48.6	47.9	58.5	56.6	45.9	36.6	34.6
75°	107.1	55.2	40.0	37.3	29.3	35.3	46.5	44.0	32.6	24.0	21.9
77.5°	69.9	39.3	27.3	24.0	16.6	23.3	34.6	30.6	19.3	12.0	10.7
80°	44.0	25.9	16.0	11.3	8.0	12.6	18.7	13.3	7.3	2.7	1.9
82.5°	23.3	13.3	5.9	4.0	3.3	4.0	4.6	3.3	1.3	0.0	0.0
85°	9.3	4.6	1.9	1.3	0.6	0.0	1.3	0.6	0.0	0.0	0.0
87.5°	3.3	0.6	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)