

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: P960890

Luminaire Tested: **NAV-SB1D-735-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960890
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-SB1D-735-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV WIDE OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8037 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

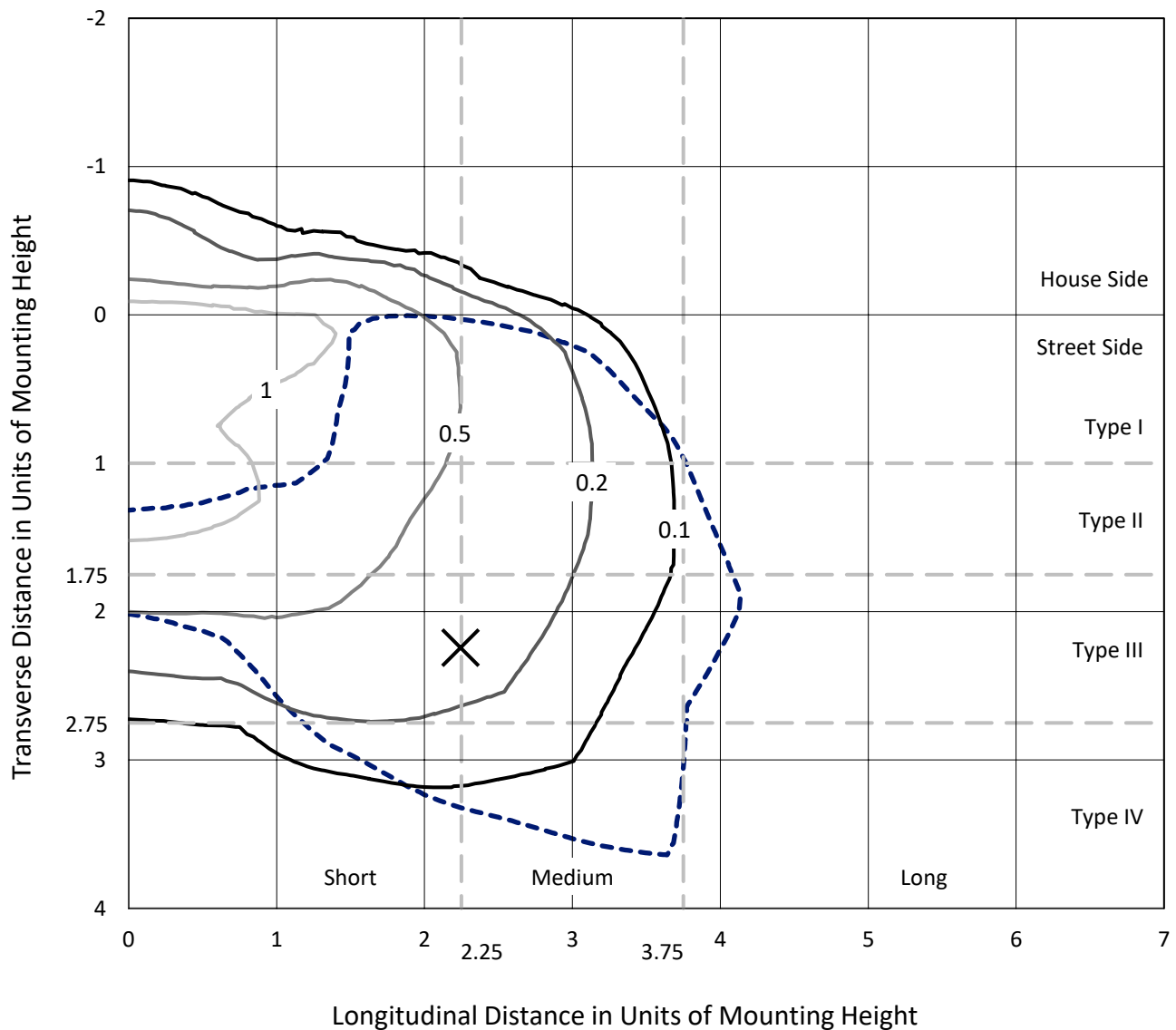
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

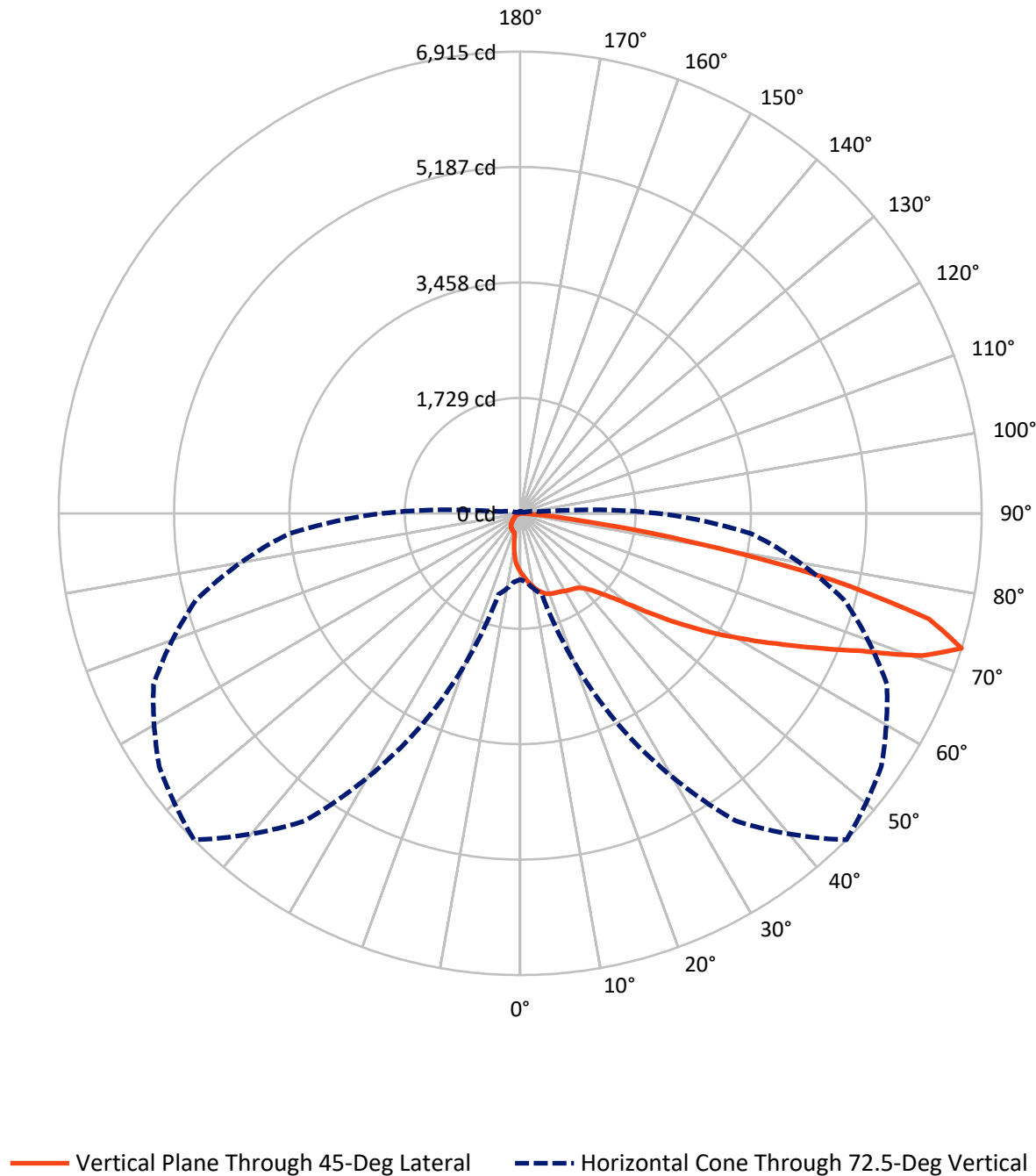
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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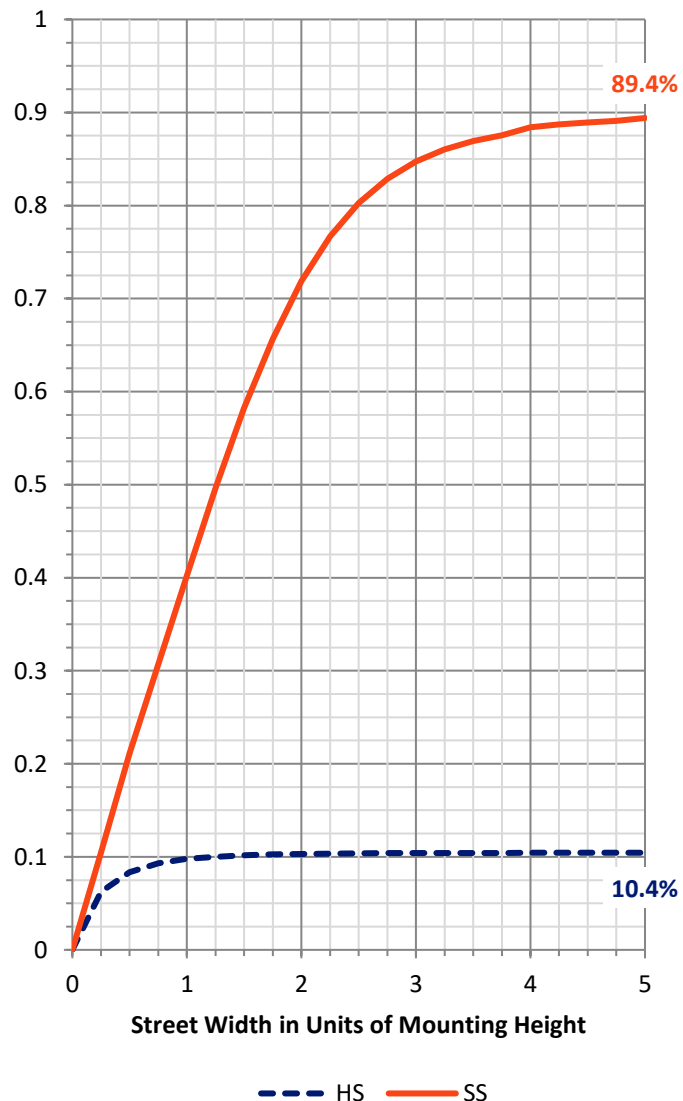
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	844.5	0.0	844.5
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	7192.6	0.0	7192.6
	% Fixture	89.5	0.0	89.5
Total	Lumens	8037.0	0.0	8037.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.0	1.0
10°-20°	242.5	3.0
20°-30°	398.1	5.0
30°-40°	564.7	7.0
40°-50°	933.3	11.6
50°-60°	1676.6	20.9
60°-70°	2328.1	29.0
70°-80°	1688.7	21.0
80°-90°	122.1	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°	8037.0	100.0
0°-180°	8037.0	100.0

Coefficient of Utilization



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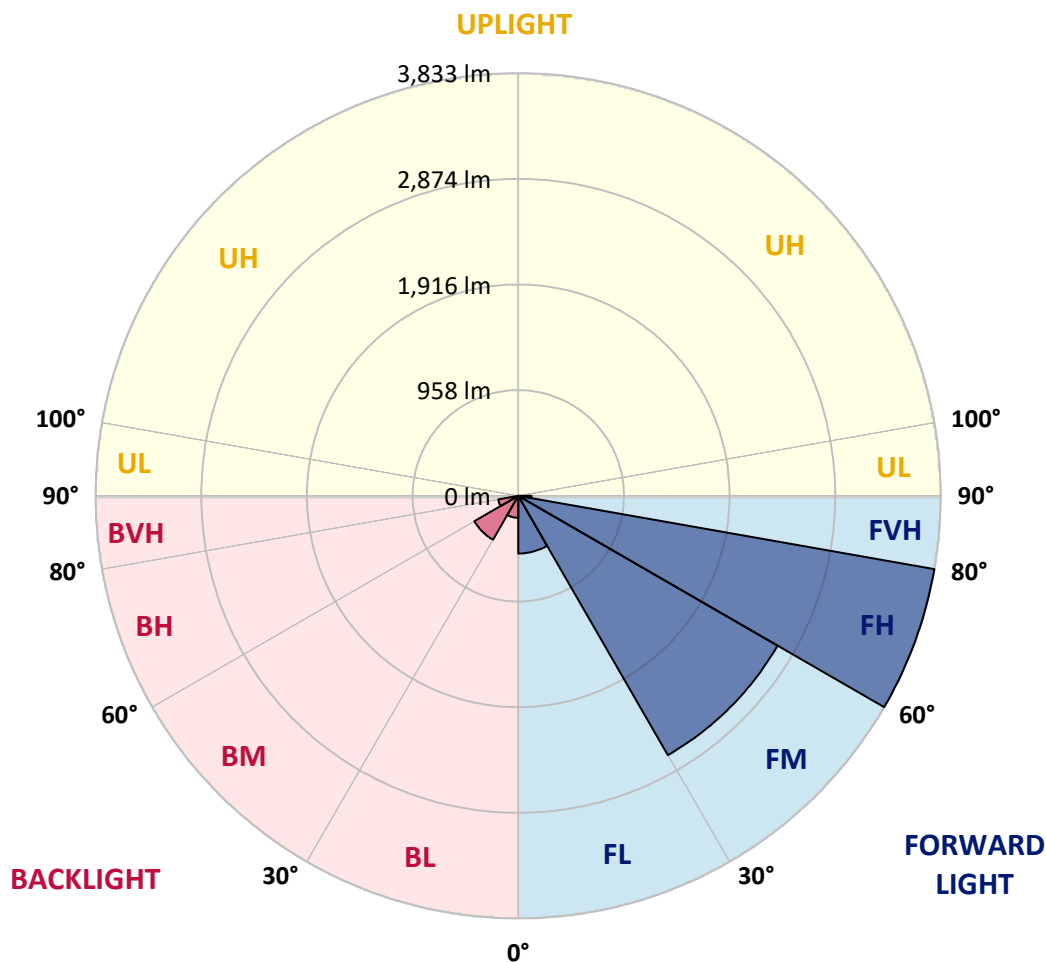
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	523.5	6.5			
FM	(30°-60°)	2715.3	33.8			
FH	(60°-80°)	3832.6	47.7			G2/5000
FVH	(80°-90°)	121.1	1.5			G2/225
BL	(0°-30°)	200.0	2.5	B1/500		
BM	(30°-60°)	459.3	5.7	B1/1000		
BH	(60°-80°)	184.2	2.3	B1/500		G1/500
BVH	(80°-90°)	1.0	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°	880.5	880.5	880.5	880.5	880.5	880.5	880.5	880.5	880.5	880.5	880.5
2.5°	961.7	963.3	962.2	955.6	944.6	938.6	935.3	924.3	917.3	904.6	891.4
5°	1050.0	1056.6	1052.8	1039.6	1018.7	1003.9	999.5	977.0	956.7	933.2	905.7
7.5°	1143.8	1147.1	1139.9	1123.0	1095.0	1069.7	1065.9	1034.6	1002.2	966.1	928.8
10°	1225.0	1228.9	1217.8	1193.2	1161.3	1130.1	1124.6	1090.0	1051.6	1007.2	959.5
12.5°	1293.0	1296.8	1282.6	1253.0	1217.8	1185.5	1180.0	1143.8	1101.6	1052.2	992.9
15°	1344.6	1351.7	1332.5	1300.7	1262.8	1230.5	1227.7	1192.1	1151.0	1096.0	1033.0
17.5°	1374.7	1381.9	1363.8	1325.3	1293.0	1265.6	1262.3	1232.7	1194.2	1141.6	1071.9
20°	1379.6	1386.3	1367.0	1333.6	1306.7	1284.7	1283.1	1261.8	1233.8	1183.3	1114.2
22.5°	1364.9	1373.1	1355.6	1328.7	1310.1	1298.5	1296.3	1284.2	1268.3	1225.5	1153.6
25°	1349.5	1356.1	1343.0	1319.4	1309.4	1308.4	1310.1	1307.8	1304.5	1268.3	1199.8
27.5°	1348.4	1355.6	1340.7	1318.3	1312.7	1324.3	1325.9	1336.4	1339.1	1307.3	1244.1
30°	1357.7	1362.6	1348.4	1324.8	1322.0	1348.4	1349.0	1367.7	1372.0	1340.2	1288.1
32.5°	1378.0	1383.5	1369.3	1334.7	1330.9	1367.7	1369.3	1393.9	1401.1	1375.2	1334.1
35°	1425.8	1432.3	1415.9	1362.1	1348.4	1385.7	1390.6	1419.7	1434.0	1412.6	1381.9
37.5°	1544.8	1525.6	1503.2	1417.6	1388.5	1414.2	1422.5	1456.5	1481.7	1457.0	1438.9
40°	1840.5	1780.1	1709.9	1511.9	1458.7	1475.2	1481.7	1515.8	1550.3	1526.1	1517.4
42.5°	2284.3	2213.0	2100.0	1729.2	1564.6	1572.8	1577.7	1607.3	1656.2	1636.9	1639.2
45°	2679.9	2654.0	2538.8	2100.0	1762.6	1722.0	1728.0	1743.4	1815.3	1808.1	1822.3
47.5°	2983.8	2968.9	2880.0	2525.7	2097.3	1904.7	1921.7	1928.8	2032.5	2057.7	2096.1
50°	3217.5	3211.9	3132.4	2904.2	2534.4	2174.0	2180.1	2164.7	2320.0	2382.5	2455.5
52.5°	3438.0	3456.6	3397.9	3255.8	3001.3	2526.7	2525.7	2453.2	2662.8	2757.1	2881.7
55°	3637.1	3643.7	3649.7	3614.6	3470.9	2928.3	2917.9	2799.4	3060.5	3158.2	3293.1
57.5°	3824.2	3826.9	3880.6	3952.5	3959.7	3359.5	3340.3	3198.2	3495.0	3564.6	3647.6
60°	3949.8	3962.4	4075.9	4275.7	4362.9	3804.4	3794.0	3649.2	3937.1	3969.5	3954.1
62.5°	3768.7	3845.6	4131.9	4528.0	4743.6	4297.6	4292.7	4156.6	4402.4	4376.0	4244.4
65°	3050.7	3180.7	3684.3	4698.6	5117.2	4848.4	4855.5	4710.7	4880.2	4794.6	4480.3
67.5°	2133.9	2271.1	2866.9	4712.3	5534.6	5495.1	5536.3	5309.2	5387.6	5195.6	4536.2
70°	1475.7	1546.4	1934.3	4417.1	5859.9	6386.1	6384.9	6044.2	5892.3	5378.3	4251.0
72.5°	992.4	1029.1	1256.2	3504.4	5620.8	6915.4	6883.6	6606.0	6062.4	5030.0	3473.1
75°	418.6	445.5	581.5	1969.4	4446.8	6326.8	6240.7	5838.0	5386.5	3960.8	2166.8
77.5°	132.7	144.3	229.3	704.9	2449.4	4755.7	4664.6	3645.8	3610.3	1987.0	792.1
80°	63.0	73.5	128.9	283.1	963.8	2586.6	2574.0	1653.9	1553.1	536.5	159.1
82.5°	27.5	32.4	71.3	151.4	431.2	922.7	941.4	562.8	465.8	203.6	48.8
85°	8.8	11.5	32.9	69.7	182.1	229.3	226.5	133.9	187.6	110.8	17.0
87.5°	0.0	0.0	11.0	15.9	18.7	13.1	14.9	11.5	52.1	30.7	6.0
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°	880.5	880.5	880.5	880.5	880.5	880.5	880.5	880.5	880.5	880.5	880.5
2.5°	884.9	876.1	860.7	846.4	833.8	821.2	813.5	802.6	801.4	801.4	804.2
5°	890.9	876.7	849.2	820.1	786.7	754.8	723.0	692.3	682.4	675.3	678.6
7.5°	908.5	886.0	842.7	787.2	723.5	653.9	605.1	552.4	532.1	521.1	522.8
10°	933.7	902.9	837.1	740.0	636.9	542.0	472.3	415.2	393.3	384.0	384.0
12.5°	961.7	923.8	827.3	681.3	542.0	428.4	360.4	334.0	330.8	330.8	330.8
15°	995.2	949.0	810.3	612.2	442.7	339.1	314.9	316.0	319.3	321.4	321.4
17.5°	1029.7	975.9	783.4	534.8	355.0	305.0	305.6	307.2	310.0	312.1	312.1
20°	1067.0	1002.8	747.7	452.5	304.4	295.1	296.7	298.4	300.6	301.8	302.3
22.5°	1107.0	1028.1	705.5	372.0	287.4	286.9	287.4	289.2	291.8	291.8	292.9
25°	1149.8	1056.1	657.2	313.2	278.7	278.7	279.8	280.8	283.1	283.1	283.6
27.5°	1193.7	1081.8	606.2	282.5	271.0	270.5	270.5	272.1	273.2	273.8	274.3
30°	1242.0	1112.0	555.1	275.9	265.0	262.2	260.6	261.7	262.8	263.3	264.4
32.5°	1291.4	1141.0	509.6	278.7	258.9	254.0	248.5	247.4	247.4	249.6	251.2
35°	1346.2	1172.9	474.5	288.0	255.6	241.9	233.2	228.2	228.8	232.1	233.7
37.5°	1412.0	1211.2	448.7	296.2	253.5	228.2	213.9	207.9	204.1	207.9	206.8
40°	1498.1	1267.8	430.1	302.8	250.7	212.3	193.1	183.3	176.1	178.2	177.2
42.5°	1624.9	1356.7	422.9	303.4	244.7	193.6	171.7	158.6	148.1	148.6	146.5
45°	1802.7	1497.1	459.7	296.2	231.5	173.3	149.2	131.6	125.0	123.4	121.3
47.5°	2046.2	1701.7	544.8	281.5	212.3	153.6	127.3	112.4	107.5	104.8	103.1
50°	2372.6	1964.5	639.1	265.0	193.1	135.0	109.2	99.8	96.6	93.8	93.3
52.5°	2751.1	2231.1	716.5	248.5	173.9	118.5	97.7	92.1	89.4	87.2	86.7
55°	3098.4	2414.9	712.1	230.9	155.3	105.4	89.4	86.1	82.8	80.7	79.5
57.5°	3314.5	2440.6	587.0	211.8	133.9	94.9	81.7	79.5	75.7	73.0	72.4
60°	3413.9	2293.6	411.4	186.5	112.4	85.1	73.5	72.4	67.4	63.7	62.5
62.5°	3431.9	2020.4	274.3	155.3	93.8	75.7	65.3	63.7	57.1	50.4	47.2
65°	3358.4	1629.9	189.8	121.3	80.1	65.8	56.0	52.7	45.5	38.9	36.8
67.5°	3125.8	1144.3	132.2	87.2	68.1	52.1	44.5	43.4	37.8	32.4	30.7
70°	2699.5	652.3	88.4	65.3	53.7	35.7	35.2	36.2	30.7	26.3	24.1
72.5°	2069.8	298.4	54.8	47.8	36.8	24.1	28.0	28.5	23.6	19.8	17.5
75°	1218.4	127.8	34.5	30.7	18.7	15.9	20.3	20.8	15.9	12.6	11.0
77.5°	414.7	48.3	21.9	18.1	9.3	8.8	13.1	13.1	8.8	4.9	3.8
80°	94.4	18.1	11.0	7.2	4.4	3.8	4.4	3.8	2.2	0.5	0.0
82.5°	26.9	7.2	4.4	2.8	1.6	1.6	0.5	0.0	0.0	0.0	0.0
85°	7.7	3.3	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.3	0.5	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)