

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: P969435

Luminaire Tested: **NAV-SB5D-827-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969435
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-827-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38792.2 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G4

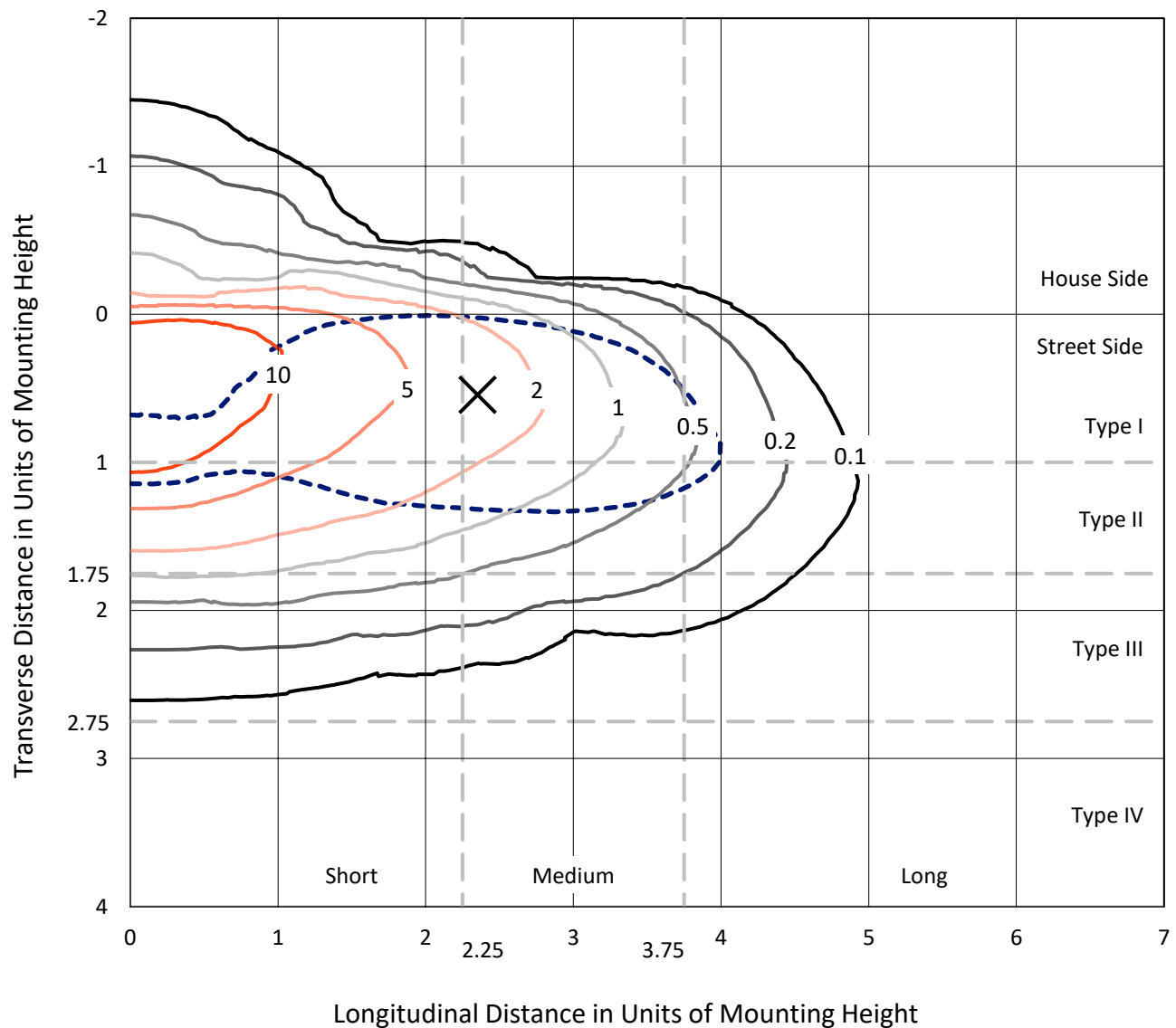
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

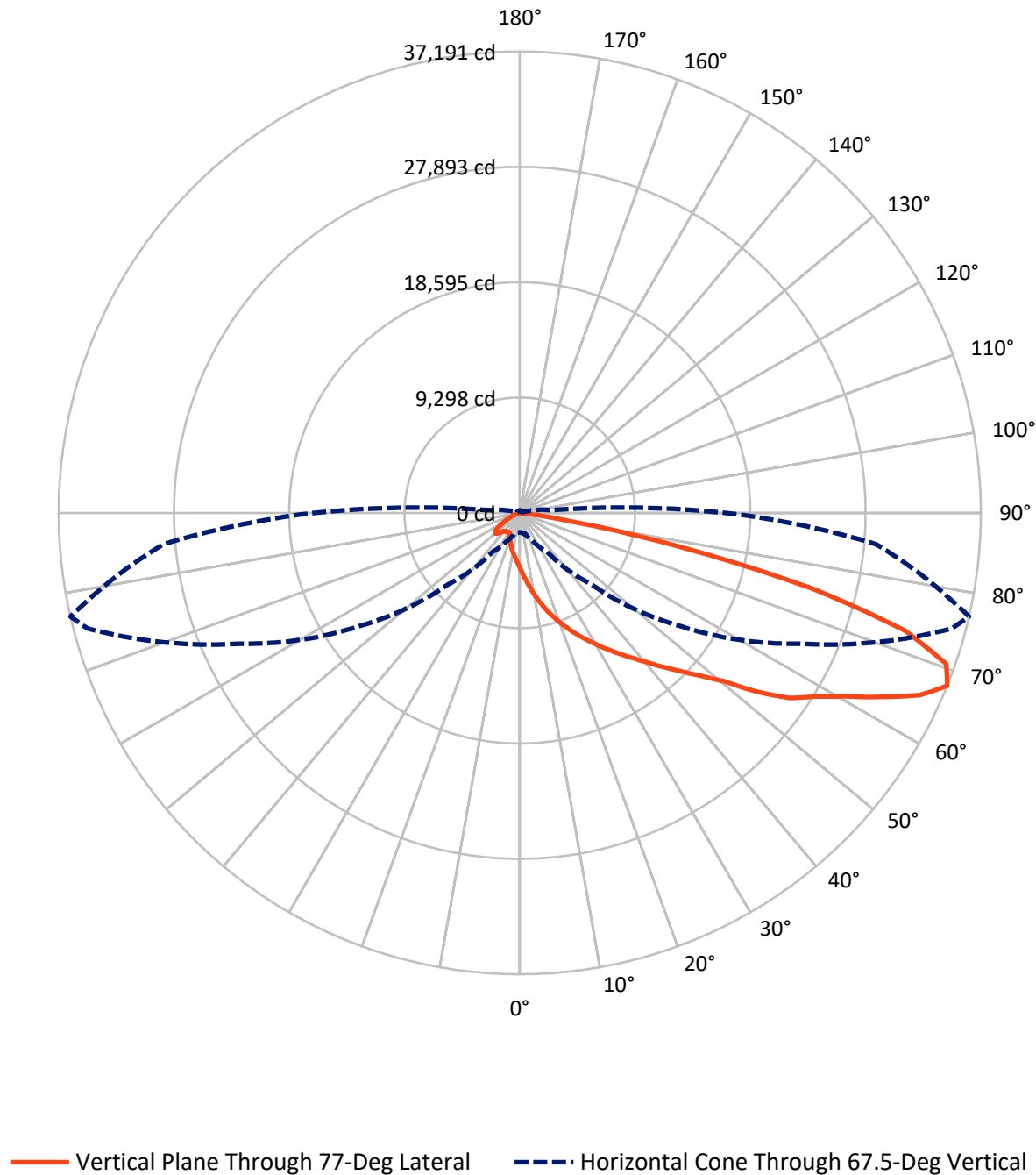
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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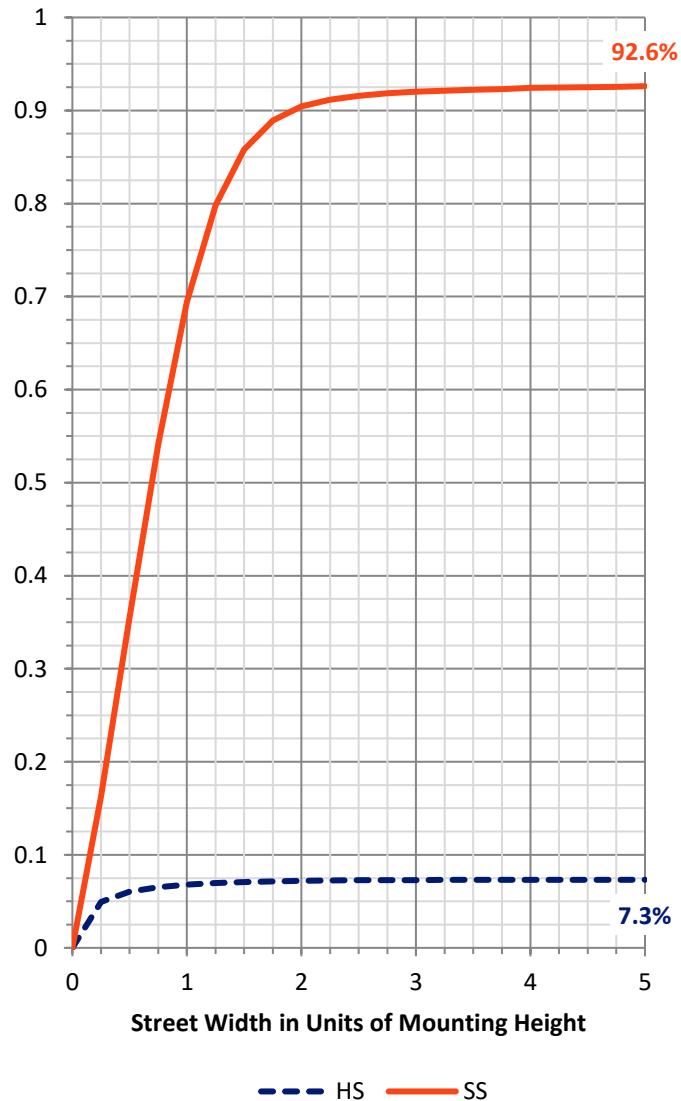
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2854.0	0.0	2854.0
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	35938.2	0.0	35938.2
	% Fixture	92.6	0.0	92.6
Total	Lumens	38792.2	0.0	38792.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	456.6	1.2
10°-20°	1598.9	4.1
20°-30°	3085.4	8.0
30°-40°	5356.4	13.8
40°-50°	7777.2	20.0
50°-60°	8931.1	23.0
60°-70°	7753.9	20.0
70°-80°	3652.2	9.4
80°-90°	180.6	0.5
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°	38792.2	100.0
0°-180°	38792.2	100.0

Coefficient of Utilization



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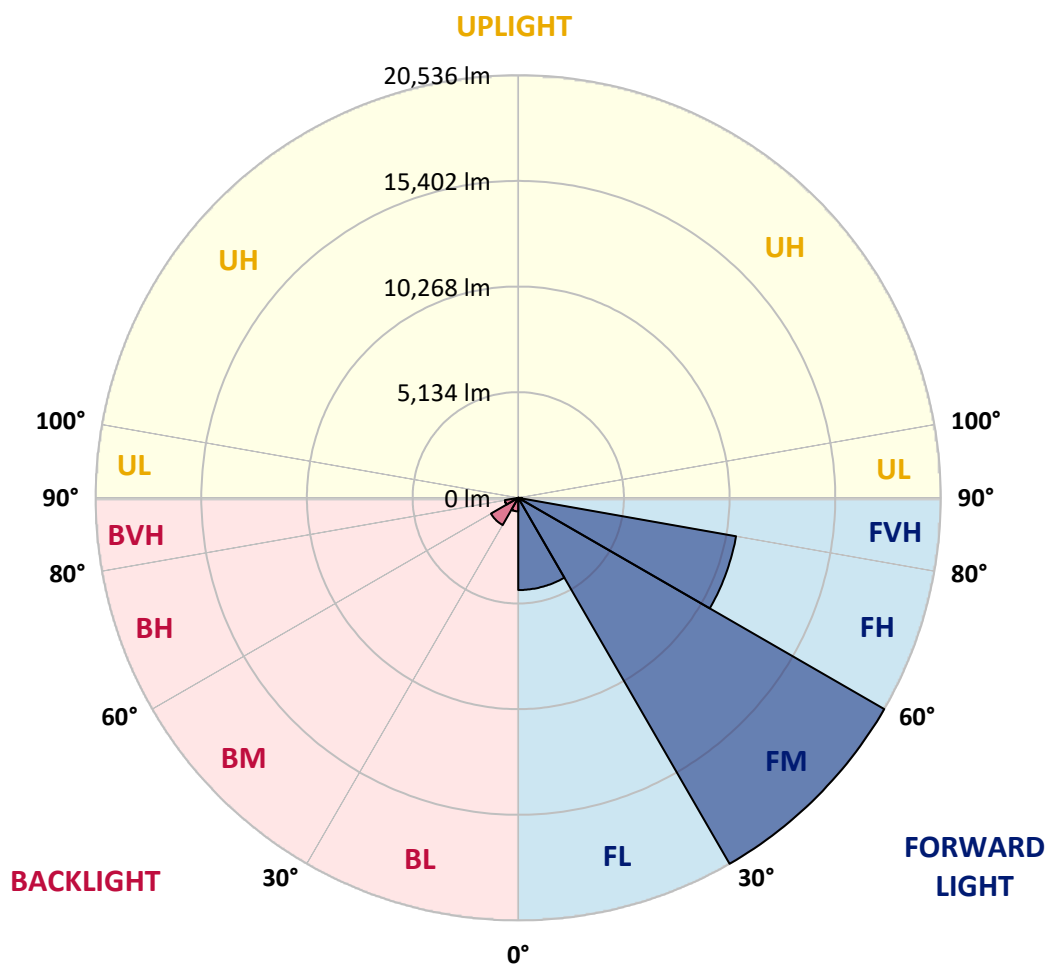
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4480.1	11.5			
FM	(30°-60°)	20535.5	52.9			
FH	(60°-80°)	10745.3	27.7			G4/12000
FVH	(80°-90°)	177.3	0.5			G2/225
BL	(0°-30°)	660.7	1.7	B2/1000		
BM	(30°-60°)	1529.2	3.9	B2/2500		
BH	(60°-80°)	660.7	1.7	B2/1000		G2/1000
BVH	(80°-90°)	3.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3
2.5°	6193.3	6231.8	6176.3	6070.4	5911.4	5807.9	5554.9	5316.4	5051.4	4967.2	4702.2
5°	7549.4	7583.2	7520.5	7404.9	7192.9	6990.6	6658.2	6159.5	5641.6	5475.4	5005.7
7.5°	8553.9	8573.2	8549.1	8443.1	8240.8	8011.9	7641.0	7050.8	6282.4	6099.3	5379.1
10°	9276.7	9339.3	9332.0	9291.1	9156.2	8970.7	8575.7	7903.6	7000.2	6764.2	5800.6
12.5°	9755.9	9825.9	9866.9	9958.4	9951.1	9833.0	9486.2	8775.5	7715.7	7438.6	6275.2
15°	9895.8	9970.4	10127.0	10339.0	10526.9	10587.0	10343.8	9630.7	8503.4	8149.3	6761.7
17.5°	9816.2	9931.8	10119.7	10454.6	10866.5	11138.7	11112.2	10456.9	9218.8	8814.1	7238.8
20°	9992.1	10102.9	10249.8	10531.7	11011.1	11504.8	11702.4	11247.1	9929.5	9505.4	7739.8
22.5°	10965.2	10946.0	10960.4	11006.2	11292.8	11781.9	12189.0	11964.9	10632.8	10199.3	8269.7
25°	12506.9	12420.2	12273.2	12025.2	11952.9	12189.0	12612.9	12600.9	11374.7	10909.9	8811.7
27.5°	14275.1	14260.6	13916.1	13318.7	12981.5	12890.0	13092.3	13219.9	12109.5	11613.2	9356.1
30°	15968.5	16007.0	15542.2	14877.3	14258.2	13899.3	13716.2	13807.8	12856.3	12372.1	9917.4
32.5°	17442.7	17483.7	16977.8	16199.8	15433.7	15000.2	14614.8	14388.3	13670.4	13142.9	10534.0
35°	18688.1	18729.1	18148.5	17288.6	16472.0	16079.3	15643.3	15024.2	14489.5	13998.0	11220.6
37.5°	19801.1	19789.1	19011.0	18143.7	17341.6	17030.9	16802.0	15807.1	15332.6	14858.0	11981.8
40°	20458.7	20509.2	19844.4	18888.1	18110.0	17883.6	17869.1	16777.9	16305.8	15845.7	12815.3
42.5°	20651.4	20740.6	20258.7	19473.5	18767.6	18522.0	18900.2	17828.1	17437.9	16989.9	13757.1
45°	20304.5	20391.2	20172.0	19627.6	19215.7	19056.7	19786.6	18917.0	18647.2	18204.0	14819.4
47.5°	19292.8	19401.2	19454.2	19338.6	19333.8	19495.1	20581.6	20063.7	20082.9	19630.0	16050.4
50°	17334.4	17517.5	18004.0	18413.5	19047.1	19842.1	21354.7	21306.6	21701.7	21311.4	17654.7
52.5°	13774.1	14034.2	15710.8	16830.9	18254.5	19777.0	22205.1	23301.2	24541.8	23970.9	19916.7
55°	11068.9	11068.9	12432.2	14528.0	16708.0	19348.2	22576.1	24597.1	26476.1	26341.2	21509.0
57.5°	9023.7	9132.1	10001.7	11854.1	14470.2	18326.8	22804.9	25411.4	28034.7	27935.9	23065.1
60°	5569.3	5803.0	7445.9	9274.2	11924.0	16508.1	22660.4	26235.2	29925.6	30005.1	24939.2
62.5°	3136.4	3223.1	3955.4	6672.6	9271.8	14063.1	21554.7	26695.3	32344.2	32681.4	26871.2
65°	2165.6	2209.0	2490.8	4152.9	6427.0	11196.5	19393.9	26408.6	34767.5	35449.2	28509.1
67.5°	1573.0	1594.7	1770.5	2536.6	3813.3	8118.0	16007.0	24963.3	36051.4	37190.8	28822.4
70°	1209.3	1223.7	1351.4	1667.0	2252.3	5010.5	11625.3	22089.5	35121.6	36482.6	27218.1
72.5°	982.9	997.3	1096.0	1233.4	1493.5	2963.0	7046.0	17939.0	31016.8	32486.2	23171.0
75°	828.6	847.9	937.1	1026.2	1170.8	1903.0	3305.0	12492.5	23325.3	24288.8	16113.1
77.5°	460.1	423.9	761.2	850.3	987.7	1204.5	1546.5	7351.9	13063.4	13330.7	7149.6
80°	286.7	296.3	604.6	684.1	758.8	607.0	708.2	2830.4	4528.8	4302.2	1385.1
82.5°	16.9	38.5	464.9	493.8	520.3	260.1	267.4	961.1	1091.2	1002.1	245.7
85°	0.0	0.0	212.0	171.1	180.7	74.7	77.1	224.1	147.0	159.0	48.2
87.5°	0.0	0.0	0.0	4.8	0.0	7.3	14.5	19.3	7.3	9.6	16.9
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°	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3	4473.3
2.5°	4533.6	4364.9	4022.8	3688.1	3415.8	3162.8	2982.2	2811.2	2724.4	2719.6	2714.8
5°	4670.8	4316.7	3632.6	3028.0	2541.4	2151.2	1898.2	1717.5	1626.0	1594.7	1589.9
7.5°	4863.5	4331.1	3290.6	2449.9	1876.6	1541.7	1397.2	1339.4	1320.1	1298.4	1293.6
10°	5106.9	4364.9	2984.6	1972.9	1479.1	1310.5	1252.7	1228.6	1214.1	1199.7	1194.8
12.5°	5379.1	4396.2	2681.1	1638.1	1300.8	1214.1	1173.1	1144.2	1124.9	1108.1	1103.3
15°	5644.1	4415.5	2365.5	1404.4	1209.3	1139.4	1096.0	1064.8	1038.2	1019.0	1016.6
17.5°	5906.6	4441.9	2069.3	1264.6	1134.6	1064.8	1021.4	982.9	961.1	939.5	937.1
20°	6198.1	4437.1	1789.9	1165.9	1060.0	990.0	944.3	908.2	886.4	862.3	860.0
22.5°	6467.9	4413.0	1544.1	1081.6	982.9	915.4	864.8	828.6	807.0	787.7	785.3
25°	6778.6	4393.8	1339.4	1004.5	910.6	843.1	787.7	754.0	729.9	713.0	710.6
27.5°	7077.3	4364.9	1190.0	934.7	840.7	775.6	722.6	684.1	662.5	650.4	650.4
30°	7371.2	4357.7	1134.6	867.2	778.1	713.0	660.0	623.9	607.0	602.2	599.8
32.5°	7725.3	4377.0	1158.7	843.1	720.3	655.2	604.6	578.1	561.3	561.3	561.3
35°	8103.5	4372.1	1194.8	864.8	681.7	597.4	558.8	542.0	525.1	525.1	525.1
37.5°	8578.0	4379.3	1223.7	901.0	667.3	549.2	527.6	505.8	496.2	496.2	496.2
40°	9286.3	4617.8	1209.3	932.2	662.5	515.5	472.1	464.9	457.7	457.7	457.7
42.5°	10153.4	5135.8	1228.6	934.7	660.0	491.4	433.6	448.0	431.2	428.8	426.4
45°	11102.6	5701.9	1351.4	884.1	657.6	479.4	414.3	431.2	404.7	404.7	404.7
47.5°	12044.5	6263.2	1476.6	811.8	650.4	476.9	397.5	387.9	380.6	383.0	383.0
50°	13342.8	6720.8	1524.8	713.0	633.6	472.1	366.1	368.6	363.8	368.6	368.6
52.5°	14756.8	6817.2	1467.0	602.2	585.4	457.7	344.5	354.1	351.7	356.5	356.5
55°	15638.5	6713.5	1211.7	501.0	510.7	399.9	322.8	342.0	342.0	342.0	342.0
57.5°	16549.0	6272.8	860.0	407.1	423.9	327.6	303.5	330.0	327.6	325.2	325.2
60°	17204.3	5559.7	566.1	334.9	337.2	269.8	281.9	310.8	308.3	296.3	296.3
62.5°	17693.2	4772.0	363.8	284.2	257.8	243.3	257.8	281.9	272.2	245.7	240.9
65°	17637.9	3680.8	279.4	243.3	212.0	212.0	224.1	245.7	216.8	173.4	168.6
67.5°	16609.3	2490.8	231.2	204.8	178.2	175.9	185.5	204.8	185.5	147.0	142.2
70°	14771.3	1628.4	185.5	159.0	142.2	130.1	149.3	175.9	156.6	118.1	113.3
72.5°	11989.0	992.5	139.7	115.6	103.6	84.4	118.1	144.5	125.3	86.7	81.9
75°	7756.6	505.8	96.4	74.7	55.5	50.6	86.7	108.4	86.7	53.0	45.8
77.5°	2967.8	212.0	53.0	33.7	28.9	24.1	48.2	65.1	36.2	12.1	9.6
80°	570.9	89.2	26.5	16.9	14.5	9.6	7.3	4.8	0.0	0.0	0.0
82.5°	98.8	28.9	9.6	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	33.7	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.1	0.0	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)