

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: P968915

Luminaire Tested: **NAV-SB5C-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968915
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5C-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34615.3 lumens
Efficiency: N/A
Efficacy: 138.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

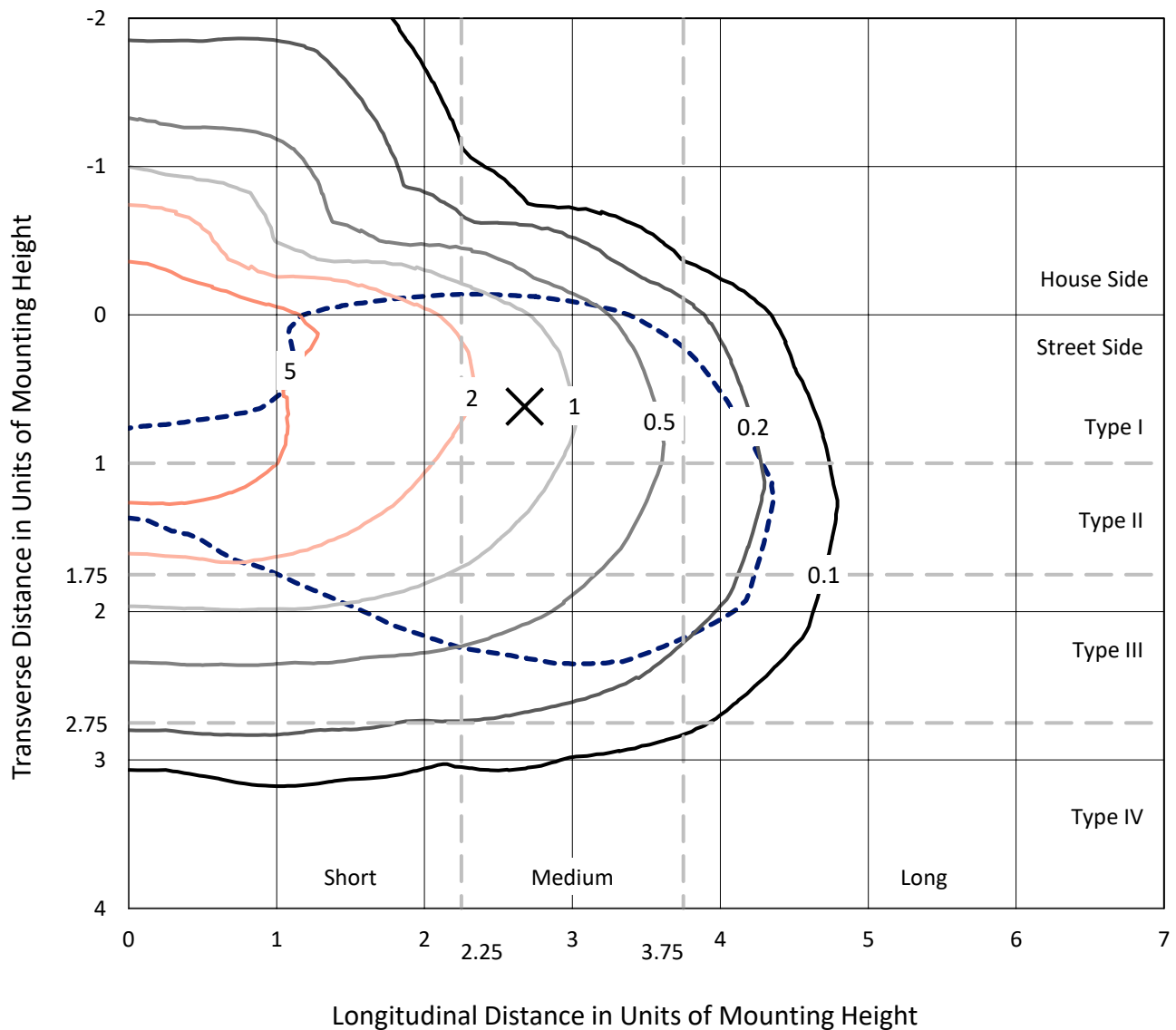
Input Watts (W): 249.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

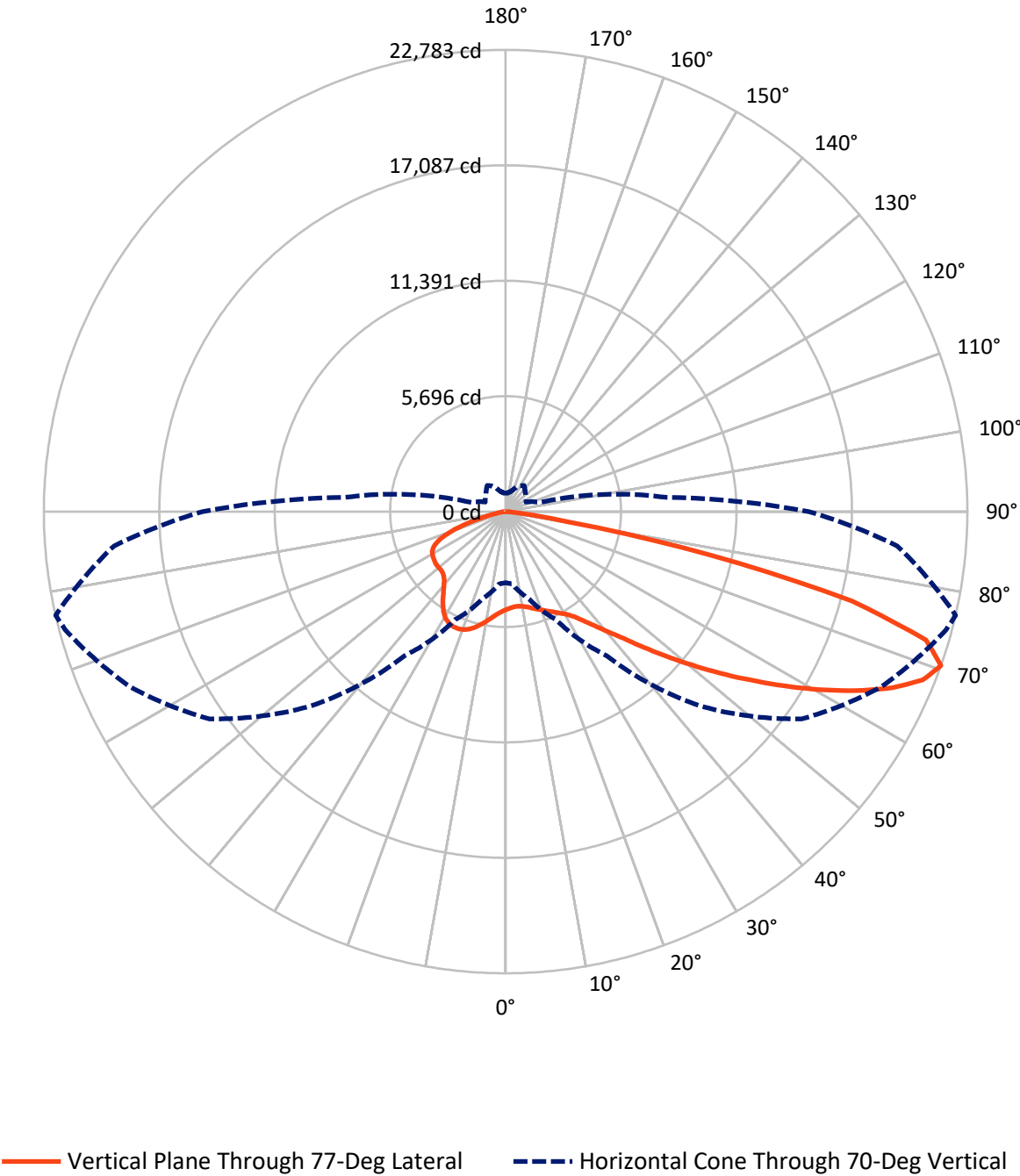
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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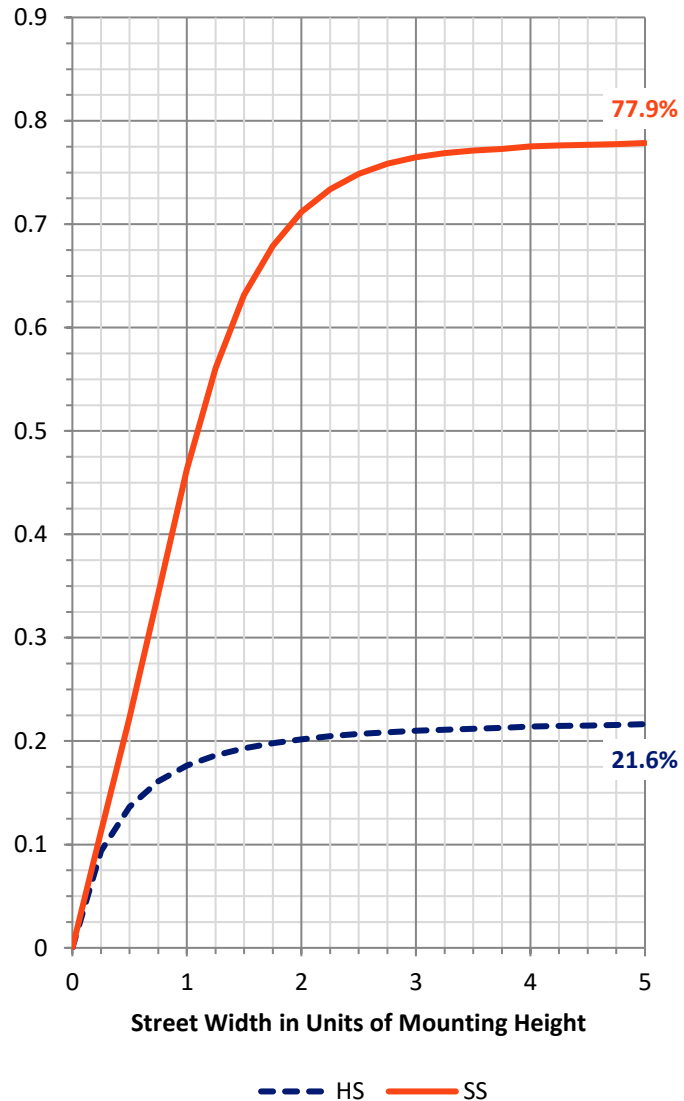
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7580.2	0.0	7580.2
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	27035.1	0.0	27035.1
	% Fixture	78.1	0.0	78.1
Total	Lumens	34615.3	0.0	34615.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.6	1.3
10°-20°	1329.3	3.8
20°-30°	2273.2	6.6
30°-40°	3655.5	10.6
40°-50°	5707.3	16.5
50°-60°	7623.6	22.0
60°-70°	8125.5	23.5
70°-80°	5002.0	14.5
80°-90°	438.3	1.3
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°	34615.3	100.0
0°-180°	34615.3	100.0

Coefficient of Utilization



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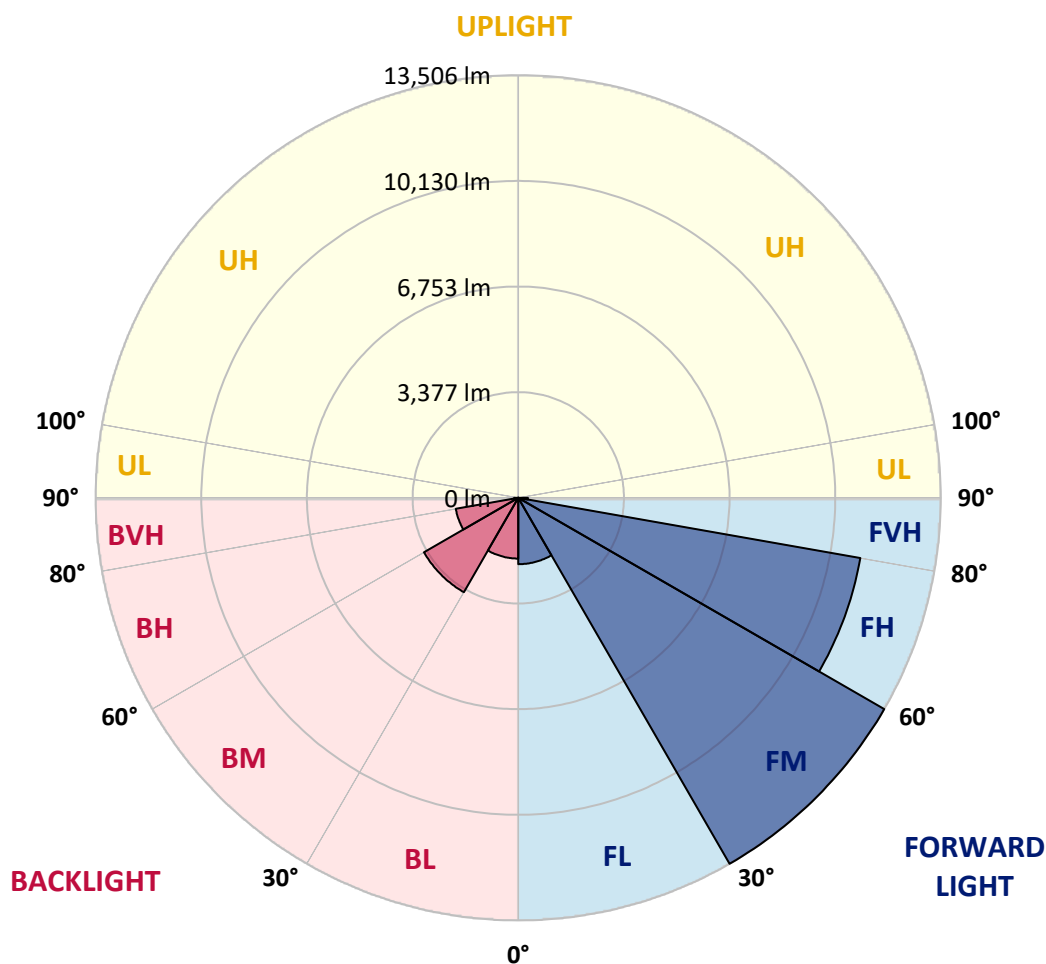
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2120.7	6.1			
FM	(30°-60°)	13506.1	39.0			
FH	(60°-80°)	11101.7	32.1			G4/12000
FVH	(80°-90°)	306.5	0.9			G3/500
BL	(0°-30°)	1942.3	5.6	B3/2500		
BM	(30°-60°)	3480.2	10.1	B3/5000		
BH	(60°-80°)	2025.9	5.9	B3/2500		G3/2500
BVH	(80°-90°)	131.8	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2
2.5°	4451.6	4449.7	4472.8	4479.9	4522.4	4552.5	4609.3	4669.6	4747.6	4756.5	4804.3
5°	4194.5	4194.5	4221.1	4249.4	4304.4	4364.7	4451.6	4556.1	4690.9	4712.1	4830.9
7.5°	3976.4	3990.6	4013.7	4068.6	4132.4	4219.3	4352.3	4501.2	4678.4	4712.1	4903.6
10°	3800.9	3816.9	3845.2	3889.6	3985.3	4105.8	4279.6	4471.0	4708.6	4761.7	5010.0
12.5°	3746.0	3762.0	3777.8	3811.6	3900.2	4042.0	4249.4	4485.2	4781.3	4834.5	5155.3
15°	3873.6	3893.1	3880.6	3871.8	3918.0	4047.3	4263.6	4536.6	4871.7	4947.9	5334.4
17.5°	4167.9	4174.9	4146.6	4063.3	4056.2	4125.3	4331.0	4607.6	4985.2	5068.5	5515.2
20°	4643.0	4630.6	4572.1	4407.2	4313.3	4299.1	4446.2	4713.9	5102.1	5190.8	5710.3
22.5°	5288.3	5274.1	5157.1	4896.5	4687.3	4549.1	4612.9	4852.1	5233.3	5332.7	5899.9
25°	6093.1	6073.6	5901.7	5547.1	5222.7	4880.5	4839.7	5034.8	5394.7	5486.8	6098.4
27.5°	7032.7	7016.8	6830.7	6362.6	5894.6	5334.4	5121.6	5249.3	5563.1	5667.7	6321.9
30°	8043.3	8089.4	7759.7	7256.2	6664.0	5926.5	5501.1	5513.5	5781.1	5875.1	6593.1
32.5°	9231.0	9310.8	8913.7	8275.5	7467.1	6570.0	5979.7	5882.2	6098.4	6176.4	6935.3
35°	10408.2	10498.6	10168.8	9463.3	8532.5	7328.9	6479.6	6305.9	6520.4	6605.5	7389.1
37.5°	11425.8	11546.3	11376.2	10762.8	9672.5	8243.6	7132.1	6804.1	7039.8	7146.2	7998.9
40°	12228.9	12413.3	12400.9	12017.9	11016.3	9353.3	7959.9	7419.3	7685.1	7800.4	8738.2
42.5°	12881.3	13040.9	13179.1	13159.6	12418.6	10613.9	8933.2	8218.8	8420.9	8553.8	9569.6
45°	13331.6	13501.7	13799.6	14120.5	13767.7	11963.0	10048.3	9167.2	9351.6	9552.0	10560.7
47.5°	13734.0	13927.2	14313.7	14822.5	14912.9	13317.4	11269.8	10271.7	10440.1	10647.5	11555.2
50°	13769.4	13936.1	14535.3	15256.8	15726.7	14618.7	12581.7	11510.9	11668.7	11890.3	12620.6
52.5°	12913.2	13175.6	14221.6	15244.4	16100.7	15707.1	13884.6	12799.7	12977.0	13242.9	13723.3
55°	10023.5	10408.2	13301.4	14769.3	15967.8	16411.0	15123.9	14170.1	14397.0	14675.3	14833.2
57.5°	8633.6	8802.0	10558.8	13904.2	15361.5	16593.5	16169.9	15554.7	15919.9	16224.8	16006.7
60°	7759.7	7899.7	8938.5	12558.6	14563.7	16304.6	16978.2	16845.3	17476.5	17839.8	17207.0
62.5°	6823.5	6956.6	7901.4	10486.2	13542.5	15824.2	17488.9	18036.6	19072.0	19469.1	18338.0
65°	5894.6	6008.0	6913.9	8810.9	12244.9	15343.7	17753.0	19066.6	20548.7	20960.0	19277.6
67.5°	4859.3	4953.2	5809.5	7433.4	10667.1	14686.0	17884.2	19876.8	21833.9	22186.7	19742.0
70°	3506.6	3579.3	4464.0	5878.7	8686.8	13554.9	17831.0	20451.2	22500.6	22782.5	19391.1
72.5°	1657.6	1723.1	2762.1	3816.9	6135.8	11353.1	16754.9	19995.6	21823.4	21683.3	17242.3
75°	884.7	941.4	1586.7	2093.7	3240.7	7782.6	13710.9	17224.7	18325.6	17644.9	12743.0
77.5°	599.2	643.5	982.2	1257.0	1480.3	3694.5	8812.6	11925.8	11473.6	10349.7	6382.2
80°	475.1	521.2	804.8	851.0	716.2	1335.0	3641.3	5520.5	3965.8	3171.6	1815.4
82.5°	365.2	416.7	677.2	616.9	390.0	547.8	1060.2	1746.2	1015.8	773.0	439.6
85°	223.3	278.3	531.9	393.6	219.9	250.0	359.9	485.7	310.3	258.8	157.7
87.5°	113.5	159.6	269.5	143.6	99.3	58.5	95.7	95.7	81.6	70.9	40.8
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°	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2	4829.2
2.5°	4846.9	4882.3	4942.7	4999.3	5043.6	5086.3	5128.8	5151.8	5158.9	5187.2	5203.2
5°	4903.6	4969.2	5086.3	5196.1	5265.2	5307.8	5338.0	5355.6	5359.2	5368.1	5382.3
7.5°	5008.2	5112.8	5275.9	5385.8	5437.2	5433.6	5421.2	5376.9	5359.2	5343.2	5346.8
10°	5155.3	5293.6	5494.0	5570.2	5538.3	5453.2	5343.2	5213.9	5153.6	5095.1	5077.3
12.5°	5338.0	5513.5	5710.3	5706.7	5548.9	5330.8	5075.6	4877.1	4751.2	4660.8	4639.5
15°	5559.5	5761.6	5912.3	5791.8	5446.1	5054.3	4680.3	4421.4	4308.0	4208.6	4198.0
17.5°	5788.3	6004.6	6073.6	5765.2	5187.2	4644.8	4221.1	4017.2	3905.6	3852.4	3868.2
20°	6011.6	6226.2	6169.4	5612.7	4793.7	4180.3	3802.6	3691.0	3668.0	3680.4	3675.0
22.5°	6247.4	6438.8	6188.8	5318.4	4292.0	3705.2	3497.8	3501.3	3552.8	3590.0	3598.8
25°	6488.5	6617.9	6137.5	4892.9	3753.0	3356.0	3304.5	3361.3	3462.3	3535.0	3554.5
27.5°	6720.7	6777.5	6025.8	4366.4	3290.4	3106.0	3114.9	3231.8	3384.3	3485.3	3510.2
30°	6983.1	6919.3	5811.2	3774.4	2969.4	2891.4	2965.9	3102.5	3254.9	3345.3	3366.6
32.5°	7279.1	7041.6	5470.9	3226.5	2742.6	2719.5	2841.8	2930.5	2997.8	3024.5	3038.6
35°	7647.9	7213.5	5034.8	2841.8	2538.7	2593.7	2710.6	2666.3	2639.7	2625.5	2639.7
37.5°	8126.6	7445.8	4524.2	2591.8	2373.8	2503.3	2551.1	2412.8	2308.2	2256.7	2269.2
40°	8702.8	7786.2	4033.2	2398.6	2269.2	2425.3	2341.9	2175.3	2042.3	1969.6	1974.9
42.5°	9342.8	8142.5	3620.1	2253.3	2210.7	2361.4	2187.7	1989.1	1774.6	1751.5	1774.6
45°	10014.7	8509.6	3338.2	2141.5	2182.3	2306.5	2099.0	1778.2	1625.6	1719.6	1769.3
47.5°	10686.5	8846.4	3168.1	2058.2	2168.2	2244.3	2021.0	1661.1	1553.0	1689.5	1753.3
50°	11434.7	9147.7	3091.8	1997.9	2152.2	2219.5	1904.0	1631.0	1476.7	1567.1	1634.6
52.5°	12177.5	9381.7	3035.0	1937.7	2129.1	2200.1	1847.3	1595.5	1384.6	1389.9	1427.1
55°	12918.5	9534.2	2973.0	1857.9	2077.8	2157.5	1841.9	1556.6	1315.4	1290.6	1308.3
57.5°	13709.2	9621.1	2896.8	1769.3	1989.1	2049.4	1836.6	1526.4	1294.2	1253.4	1258.7
60°	14514.0	9748.7	2797.5	1661.1	1870.3	1919.9	1824.2	1515.8	1281.8	1212.6	1217.9
62.5°	15235.6	9793.1	2678.7	1558.3	1717.9	1792.3	1797.6	1506.9	1248.0	1129.2	1129.2
65°	15708.9	9601.6	2471.3	1441.3	1553.0	1661.1	1746.2	1476.7	1187.8	1069.0	1069.0
67.5°	15689.4	9055.6	2146.9	1290.6	1393.4	1515.8	1671.8	1425.4	1115.1	994.6	999.9
70°	14959.1	7977.7	1735.6	1115.1	1217.9	1359.8	1576.0	1349.1	1028.3	913.0	923.6
72.5°	12829.8	6243.9	1260.4	909.5	1014.0	1198.4	1451.9	1257.0	939.6	840.3	835.0
75°	9165.4	3951.6	854.5	698.5	788.9	1015.8	1297.6	1148.8	858.0	843.9	796.0
77.5°	4682.0	1888.0	565.5	510.6	549.6	801.3	1090.3	1026.4	870.4	696.7	620.5
80°	1522.8	696.7	356.3	347.5	365.2	533.6	843.9	842.0	659.5	473.3	418.4
82.5°	485.7	299.6	232.3	223.3	214.5	335.1	588.6	666.6	445.0	299.6	297.9
85°	193.2	179.1	136.5	125.9	90.4	157.7	308.4	443.2	331.5	216.3	221.6
87.5°	70.9	70.9	37.2	26.5	19.5	53.2	83.3	132.9	189.7	111.7	109.9
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)