

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: P969507

Luminaire Tested: **NAV-SB5D-835-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969507
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-835-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48302.1 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

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

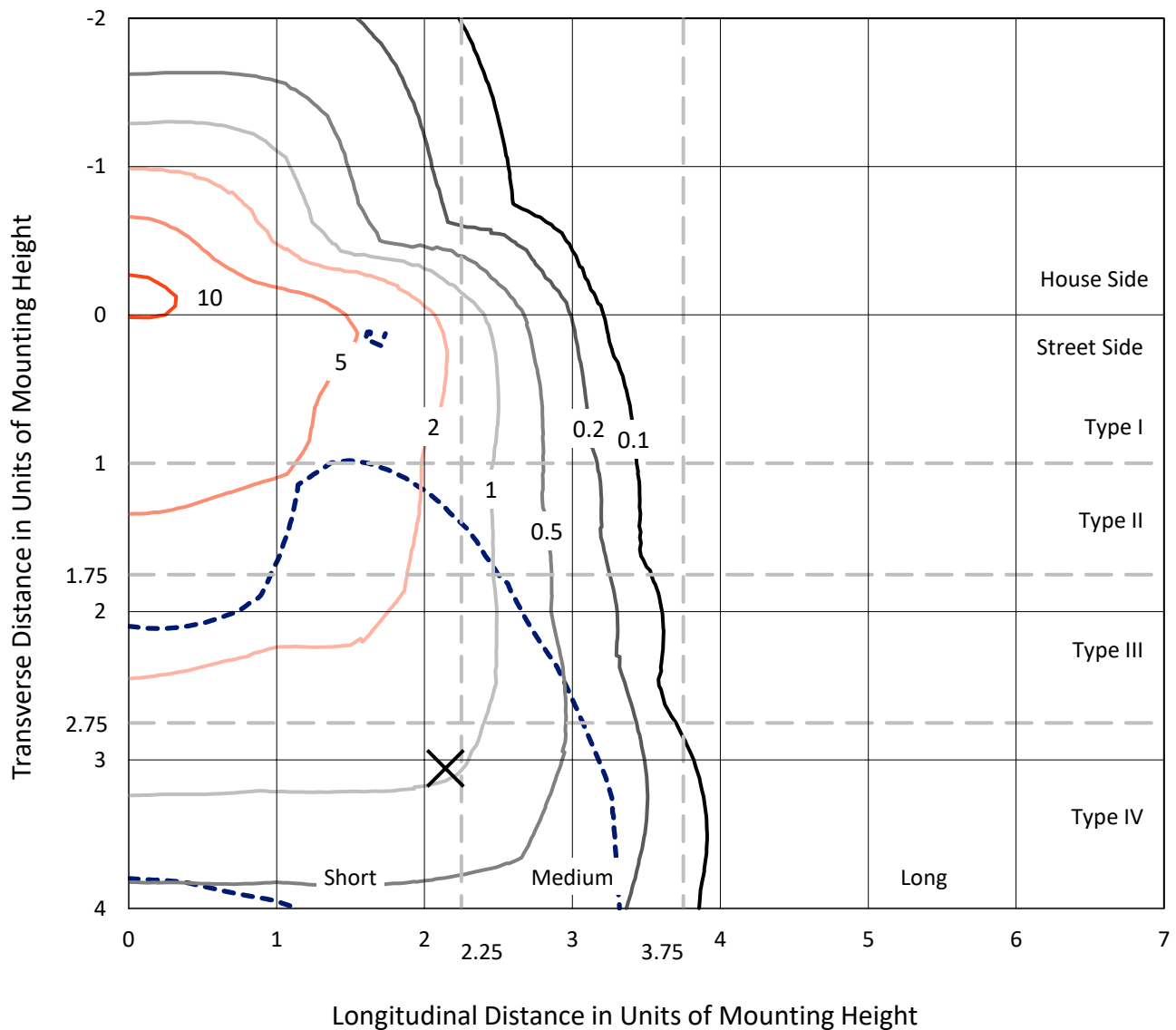


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Iso-Footcandle Lines of Horizontal Illumination

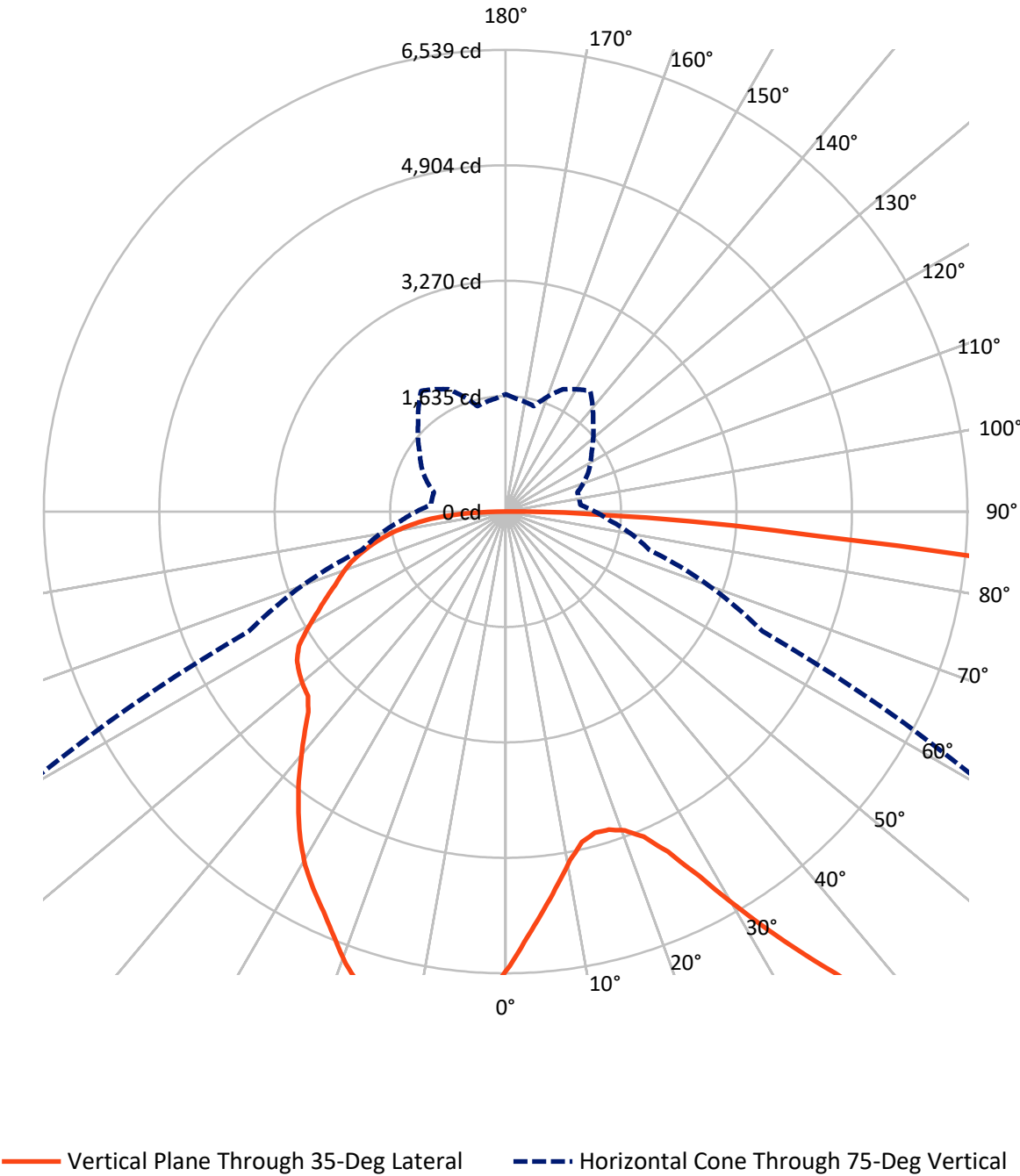
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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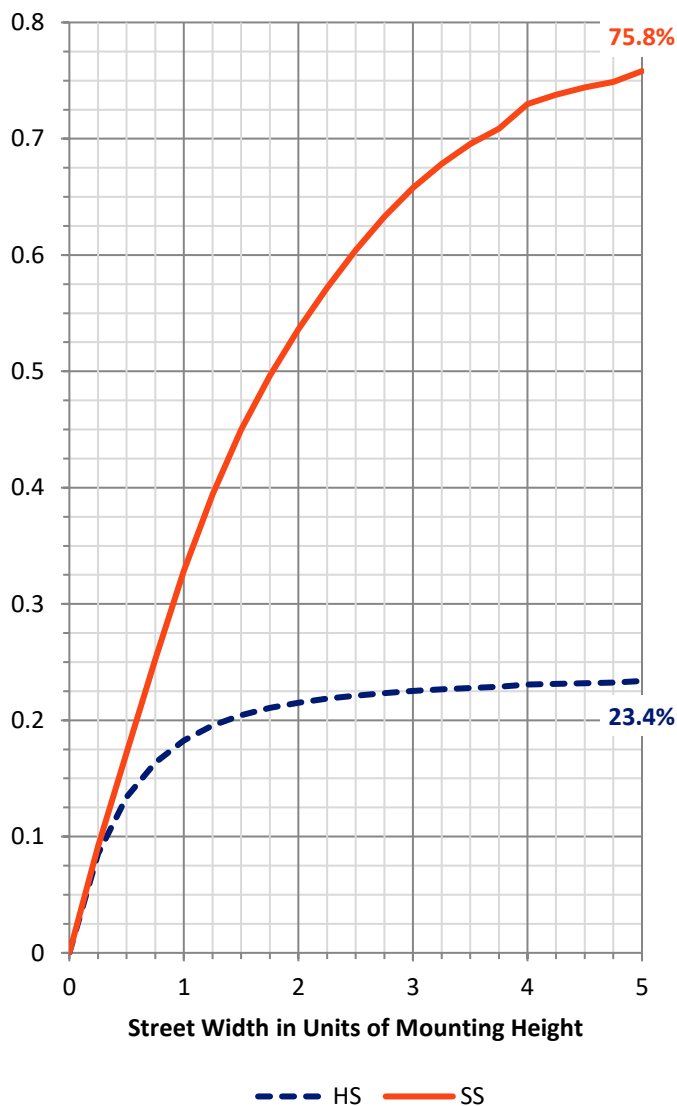
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11494.7	0.0	11494.7
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	36807.4	0.0	36807.4
	% Fixture	76.2	0.0	76.2
Total	Lumens	48302.1	0.0	48302.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	609.4	1.3
10°-20°	1757.8	3.6
20°-30°	2951.8	6.1
30°-40°	4587.6	9.5
40°-50°	6809.2	14.1
50°-60°	9400.5	19.5
60°-70°	11404.9	23.6
70°-80°	9425.3	19.5
80°-90°	1355.6	2.8
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°	48302.1	100.0
0°-180°	48302.1	100.0

Coefficient of Utilization



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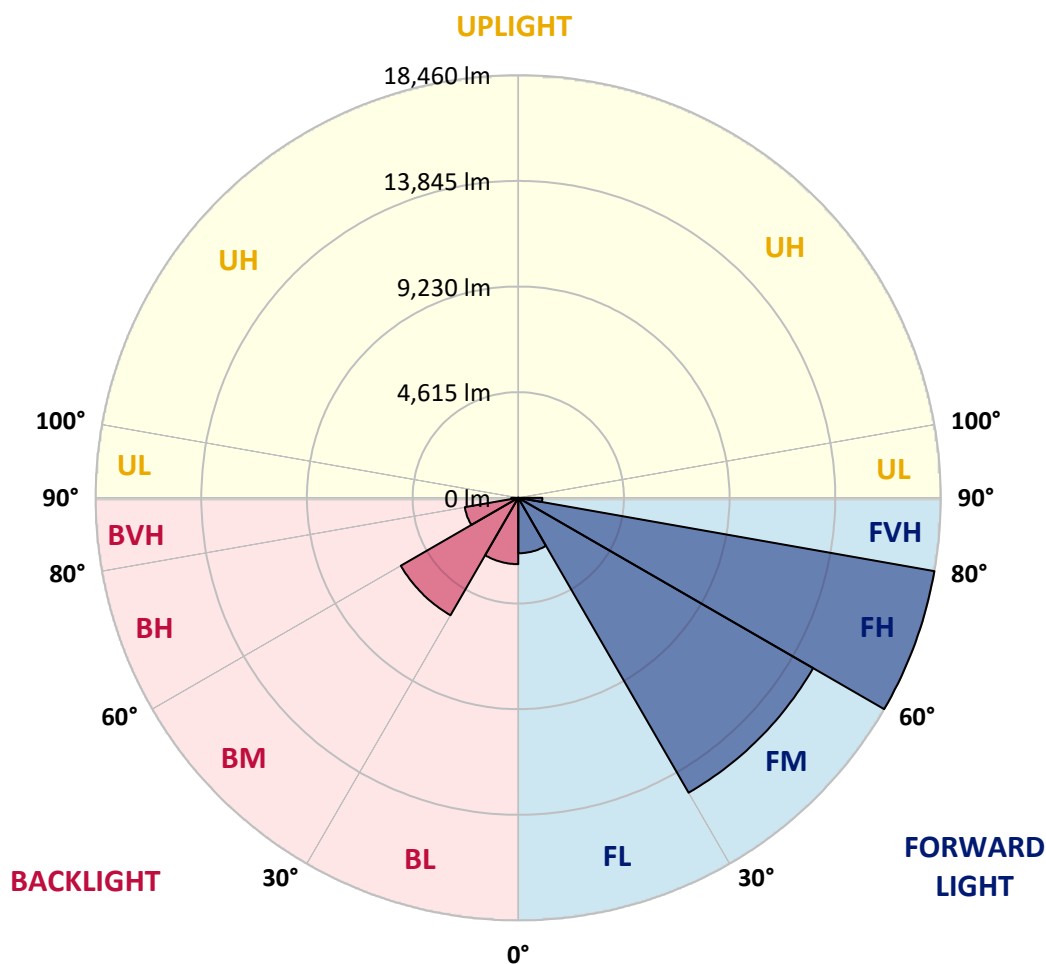
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2422.3	5.0			
FM	(30°-60°)	14874.4	30.8			
FH	(60°-80°)	18460.3	38.2			G5
FVH	(80°-90°)	1050.4	2.2			G5
BL	(0°-30°)	2896.8	6.0	B4/5000		
BM	(30°-60°)	5922.8	12.3	B4/8500		
BH	(60°-80°)	2369.8	4.9	B3/2500		G3/2500
BVH	(80°-90°)	305.3	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6
2.5°	5935.3	5971.8	5987.4	5979.6	6018.8	6013.6	6068.4	6136.3	6230.3	6321.7	6454.8
5°	5478.3	5517.5	5551.4	5582.8	5658.4	5682.0	5768.1	5898.7	6071.0	6245.9	6465.3
7.5°	5052.6	5086.6	5138.8	5196.2	5324.3	5347.7	5491.3	5695.0	5935.3	6191.1	6494.0
10°	4705.4	4739.3	4794.1	4859.4	5018.7	5047.4	5230.2	5501.8	5815.1	6138.9	6525.4
12.5°	4556.5	4567.0	4598.4	4663.5	4802.0	4820.3	5021.3	5332.0	5697.6	6099.8	6572.4
15°	4548.6	4569.6	4572.2	4606.1	4721.0	4728.8	4914.3	5222.4	5624.5	6091.9	6642.8
17.5°	4627.1	4642.7	4619.2	4640.1	4736.7	4749.7	4896.0	5170.2	5601.0	6125.8	6763.0
20°	4836.0	4849.0	4778.4	4749.7	4820.3	4830.7	4974.3	5204.1	5624.5	6196.3	6927.5
22.5°	5279.8	5287.7	5115.4	4997.8	5003.0	5008.3	5133.6	5342.5	5715.9	6324.2	7136.4
25°	5971.8	5966.5	5692.4	5465.2	5334.6	5305.9	5389.4	5567.1	5870.0	6494.0	7405.3
27.5°	6781.3	6742.0	6468.0	6128.5	5843.8	5802.0	5783.8	5859.5	6089.3	6718.6	7734.3
30°	7695.2	7658.6	7363.6	6919.7	6525.4	6457.5	6285.1	6245.9	6415.7	7024.1	8191.3
32.5°	8697.8	8674.4	8321.9	7784.0	7256.5	7178.2	6888.3	6783.9	6917.0	7486.3	8828.4
35°	9538.6	9517.7	9225.3	8671.8	8026.8	7930.2	7635.1	7517.7	7585.5	8079.0	9661.4
37.5°	10298.5	10288.1	10037.4	9601.4	8935.5	8818.0	8486.4	8447.2	8434.1	8859.8	10671.9
40°	11003.6	10977.4	10716.3	10486.6	9993.0	9885.9	9593.5	9559.6	9460.3	9820.7	11815.6
42.5°	11784.3	11716.4	11337.8	11230.7	11097.6	11008.8	10833.8	10839.1	10619.7	10904.4	13027.2
45°	12421.5	12382.3	11993.2	11930.5	12074.1	12037.6	12189.0	12228.2	11802.6	12040.2	14285.8
47.5°	13105.5	13069.0	12740.0	12695.6	13084.6	13095.1	13630.4	13643.5	12956.7	13220.4	15547.0
50°	13949.0	13896.7	13570.4	13625.2	14061.3	14100.4	15079.6	14990.8	14019.4	14419.0	16797.8
52.5°	14505.2	14536.4	14466.0	14554.8	15150.1	15186.7	16505.4	16278.1	15071.8	15601.8	18025.0
55°	14915.1	14977.8	15197.2	15400.8	16299.0	16335.6	17850.1	17502.8	15943.9	16698.6	19179.2
57.5°	15442.5	15353.8	15763.8	16160.7	17390.6	17487.1	19158.3	18683.1	16716.8	17643.8	19970.4
60°	16199.8	16137.2	16455.8	17043.2	18612.6	18766.6	20542.2	19745.8	17283.4	18393.2	20124.4
62.5°	17735.2	17578.5	17628.2	18147.7	20153.1	20356.8	22103.7	20672.8	17565.4	18685.6	19299.3
65°	20030.4	19761.5	19510.8	19871.2	22323.1	22524.1	23866.3	21401.3	17461.0	18119.0	17108.5
67.5°	22921.0	22654.7	22346.5	22686.0	25519.1	25678.4	26041.4	21811.3	16638.5	15936.1	13236.1
70°	25305.0	25205.8	25574.0	26970.9	30624.0	30629.3	28830.2	21471.8	14385.1	11298.6	7658.6
72.5°	24989.1	24929.0	26869.1	31188.1	37058.0	36919.6	31470.1	18902.4	9690.1	5097.0	2869.7
75°	20500.4	20889.5	23895.0	31112.3	39368.9	39350.7	29853.7	12016.7	4008.2	2112.4	1483.2
77.5°	10993.1	11609.4	15513.1	22970.7	30733.7	31195.9	20988.7	4204.0	1720.8	1352.6	1026.2
80°	3585.1	4123.1	6183.3	11695.6	19970.4	19884.2	8995.5	1650.2	1177.6	958.3	710.2
82.5°	1522.3	1585.0	2762.7	5522.7	10248.9	10089.6	2864.5	947.8	827.8	655.4	438.7
85°	595.3	665.8	1219.4	2553.8	4439.1	4342.4	1034.0	470.1	530.0	428.2	261.2
87.5°	195.9	237.6	436.0	874.7	1381.3	1331.7	253.3	161.8	229.8	195.9	94.0
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°	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6	6436.6
2.5°	6491.4	6533.1	6582.9	6655.9	6718.6	6770.8	6825.7	6859.6	6872.6	6911.8	6909.2
5°	6538.4	6629.8	6752.5	6872.6	6990.2	7060.6	7123.3	7154.7	7183.4	7204.3	7209.5
7.5°	6616.8	6734.2	6927.5	7084.2	7183.4	7240.8	7282.6	7272.2	7282.6	7287.9	7295.6
10°	6684.6	6849.2	7079.0	7227.8	7303.5	7306.1	7295.6	7259.2	7240.8	7243.5	7248.7
12.5°	6765.6	6948.4	7196.4	7321.8	7342.7	7285.2	7240.8	7178.2	7154.7	7144.2	7139.0
15°	6875.3	7084.2	7324.3	7371.4	7319.1	7246.0	7170.3	7068.5	7016.2	6974.5	6987.5
17.5°	7008.4	7238.2	7423.6	7389.6	7277.4	7157.3	7034.6	6880.5	6773.4	6729.0	6731.7
20°	7193.9	7400.1	7499.3	7350.5	7180.7	6998.0	6789.1	6601.1	6501.9	6457.5	6452.3
22.5°	7418.4	7616.9	7572.5	7282.6	7042.4	6749.9	6488.8	6350.4	6300.8	6269.5	6274.6
25°	7687.3	7857.0	7624.7	7183.4	6815.2	6420.9	6219.8	6175.4	6151.9	6128.5	6128.5
27.5°	8037.2	8128.7	7663.8	7037.1	6460.1	6071.0	5997.9	6005.8	5997.9	5958.7	5966.5
30°	8499.4	8481.2	7700.4	6799.5	6052.7	5755.1	5760.3	5794.2	5799.4	5773.3	5786.4
32.5°	9107.8	8922.4	7718.7	6491.4	5663.6	5478.3	5483.5	5520.0	5546.2	5501.8	5522.7
35°	9844.2	9436.9	7690.0	6105.0	5363.4	5214.6	5175.3	5185.8	5193.7	5151.9	5180.6
37.5°	10703.3	10013.9	7562.0	5676.8	5115.4	4956.1	4872.4	4802.0	4760.2	4721.0	4747.2
40°	11645.9	10643.2	7327.0	5259.0	4838.5	4681.9	4556.5	4423.4	4282.3	4230.2	4253.6
42.5°	12632.9	11290.8	7042.4	4859.4	4519.9	4392.0	4258.9	4065.7	3854.1	3747.1	3760.1
45°	13656.5	11954.1	6763.0	4465.1	4193.6	4138.7	3984.7	3752.3	3522.5	3386.7	3376.2
47.5°	14659.2	12580.7	6353.1	4068.2	3888.0	3948.1	3828.0	3613.8	3358.0	3143.9	3120.4
50°	15617.5	13168.3	5682.0	3666.1	3640.0	3890.7	3775.8	3467.7	3175.2	2901.1	2877.5
52.5°	16568.0	13643.5	4822.8	3300.5	3506.8	3875.0	3707.9	3368.5	3010.7	2723.4	2692.2
55°	17374.9	13889.0	3995.1	2987.2	3313.6	3741.9	3627.0	3250.9	2778.3	2472.8	2446.7
57.5°	17834.4	13690.5	3305.7	2679.0	3047.2	3522.5	3488.6	3000.3	2501.5	2266.5	2235.2
60°	17635.9	12886.2	2741.8	2410.1	2793.9	3284.9	3248.3	2752.2	2290.1	2068.0	2036.8
62.5°	16541.9	11353.4	2295.3	2175.2	2564.1	3042.0	3008.1	2561.6	2128.1	1914.0	1880.1
65°	14338.0	9235.8	1947.9	1979.3	2331.8	2749.6	2799.2	2402.3	2000.2	1791.3	1757.4
67.5°	10935.6	6689.9	1676.4	1809.5	2104.6	2462.4	2606.0	2287.4	1893.1	1694.6	1663.4
70°	6232.9	3799.3	1446.6	1645.0	1903.5	2196.0	2457.1	2196.0	1778.2	1613.8	1592.8
72.5°	2363.1	1744.2	1250.8	1480.5	1710.3	1971.5	2292.6	2052.4	1645.0	1522.3	1501.4
75°	1261.2	1062.7	1052.3	1287.3	1488.4	1752.1	2086.4	1911.4	1545.8	1608.5	1660.7
77.5°	859.1	752.0	880.0	1101.9	1245.6	1509.3	1867.0	1697.3	1339.6	1334.3	1229.9
80°	595.3	532.7	715.4	887.9	963.5	1269.1	1629.3	1457.0	1091.5	1018.3	974.0
82.5°	357.7	347.3	535.3	663.3	681.5	979.2	1350.0	1222.0	893.0	778.2	783.4
85°	195.9	206.3	342.0	389.1	396.9	684.1	1057.5	945.3	686.7	577.1	582.3
87.5°	54.8	70.5	125.4	154.1	190.6	355.2	629.2	561.4	344.7	240.3	240.3
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)