

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: P967397

Luminaire Tested: **NAV-SB4D-835-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967397
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-835-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38800.4 lumens
Efficiency: N/A
Efficacy: 132.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

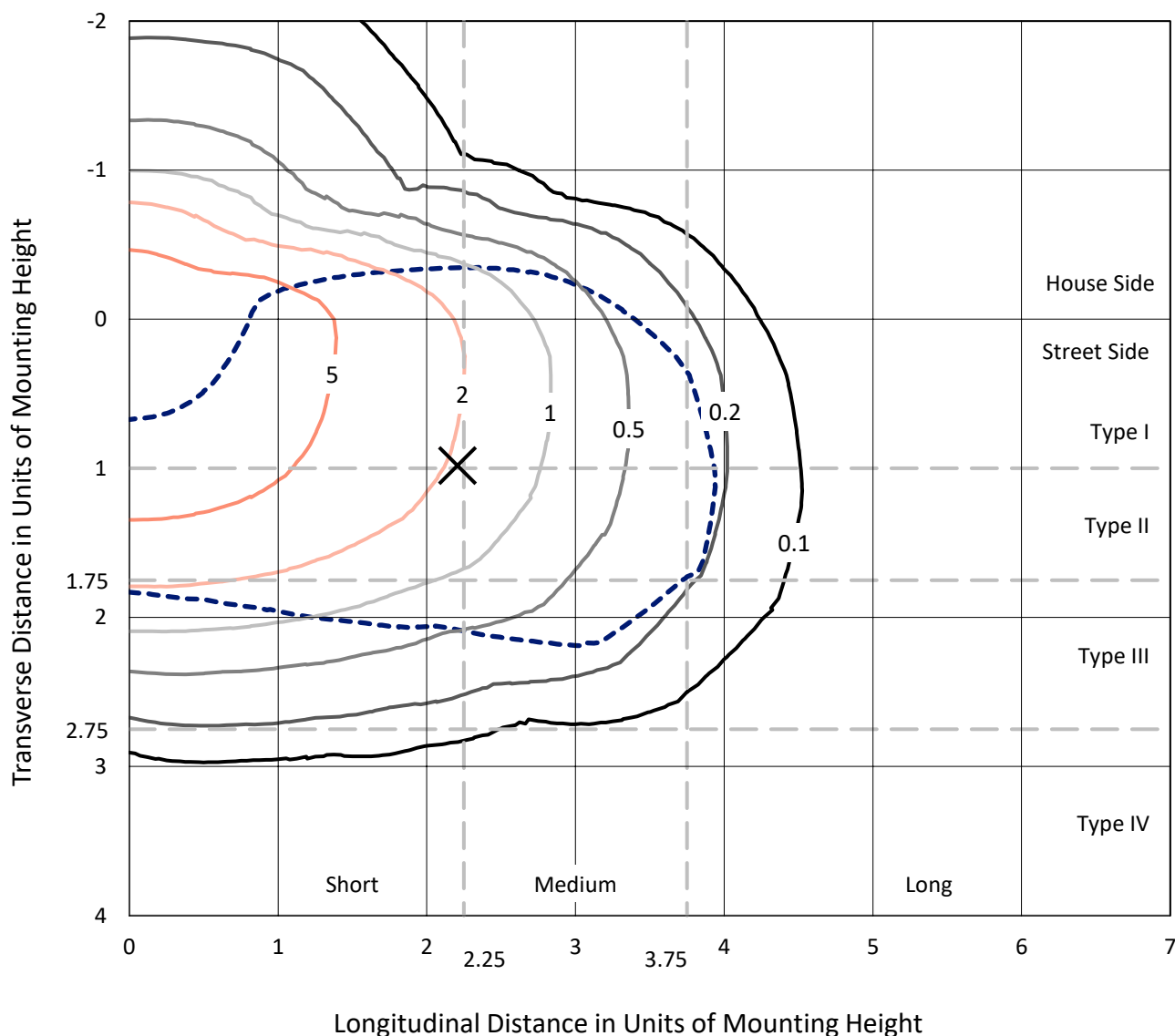
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

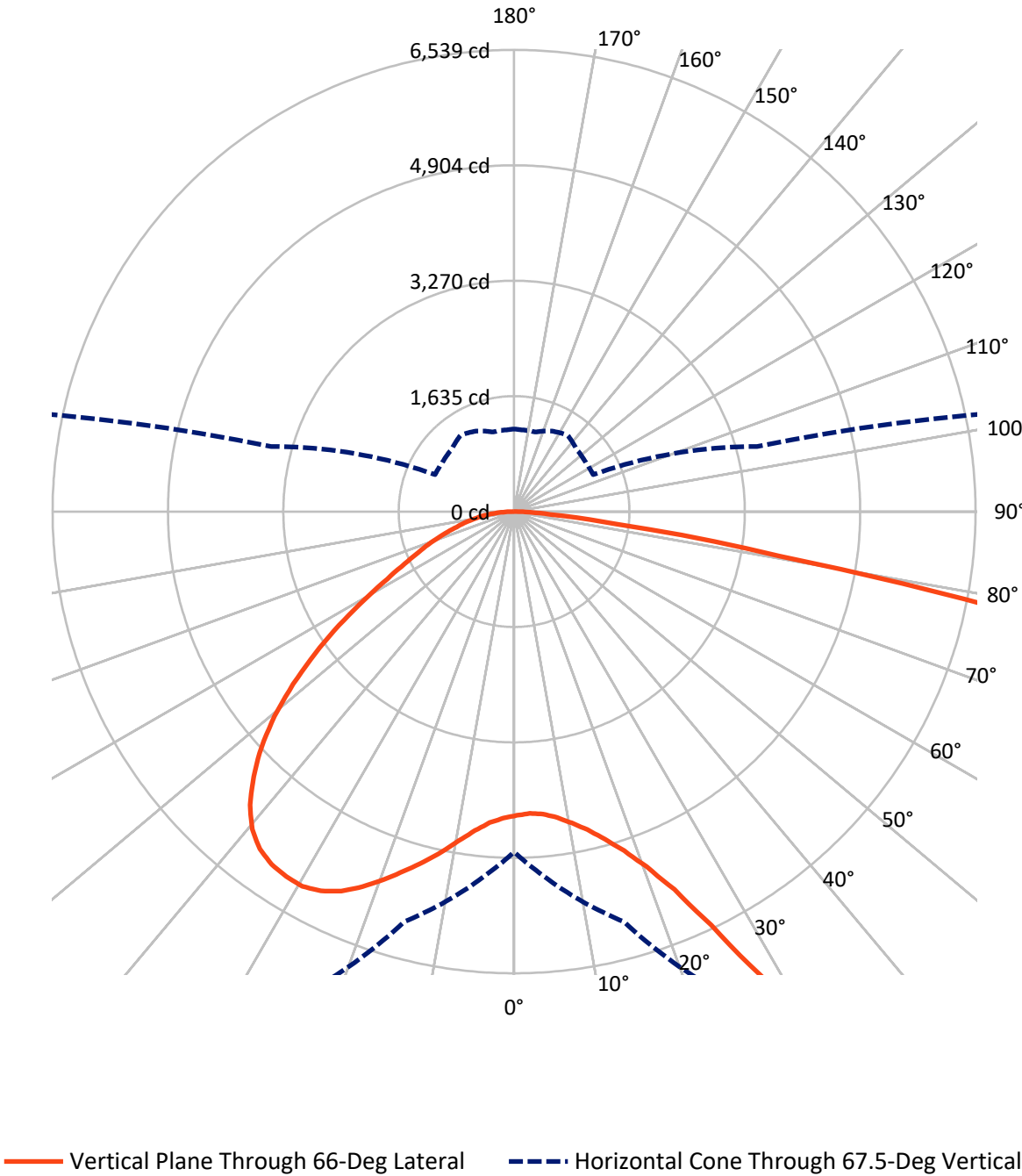
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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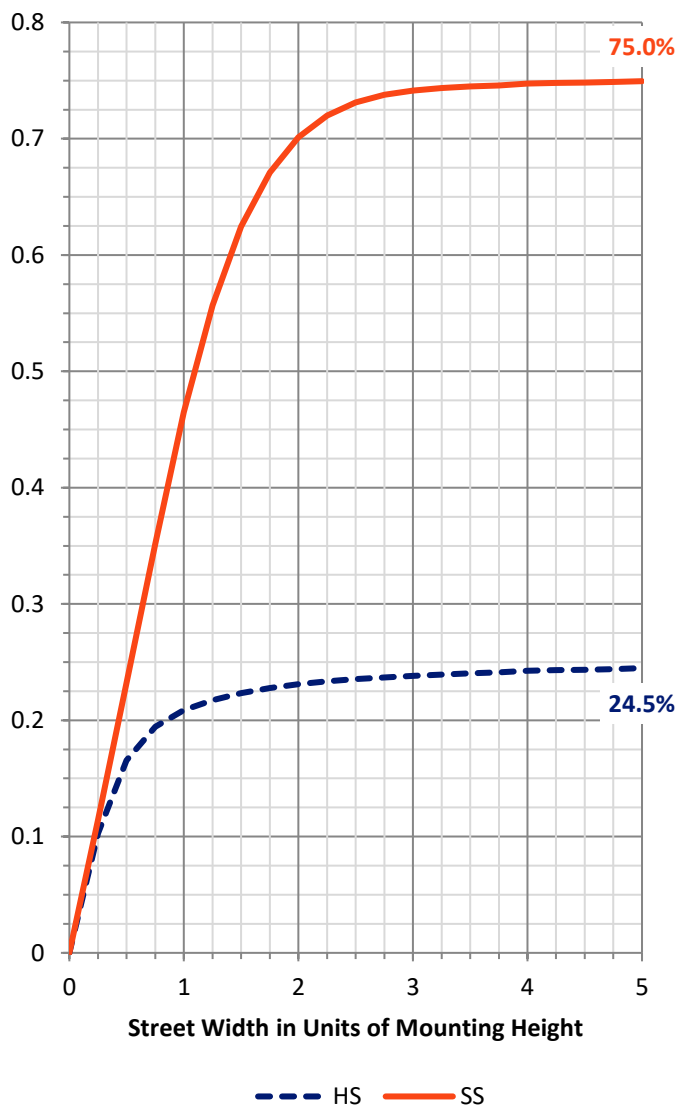
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9647.6	0.0	9647.6
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	29152.8	0.0	29152.8
	% Fixture	75.1	0.0	75.1
Total	Lumens	38800.4	0.0	38800.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.7	1.1
10°-20°	1409.7	3.6
20°-30°	2717.1	7.0
30°-40°	4764.0	12.3
40°-50°	7082.5	18.3
50°-60°	8977.8	23.1
60°-70°	8784.5	22.6
70°-80°	4190.3	10.8
80°-90°	447.8	1.2
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°	38800.4	100.0
0°-180°	38800.4	100.0

Coefficient of Utilization



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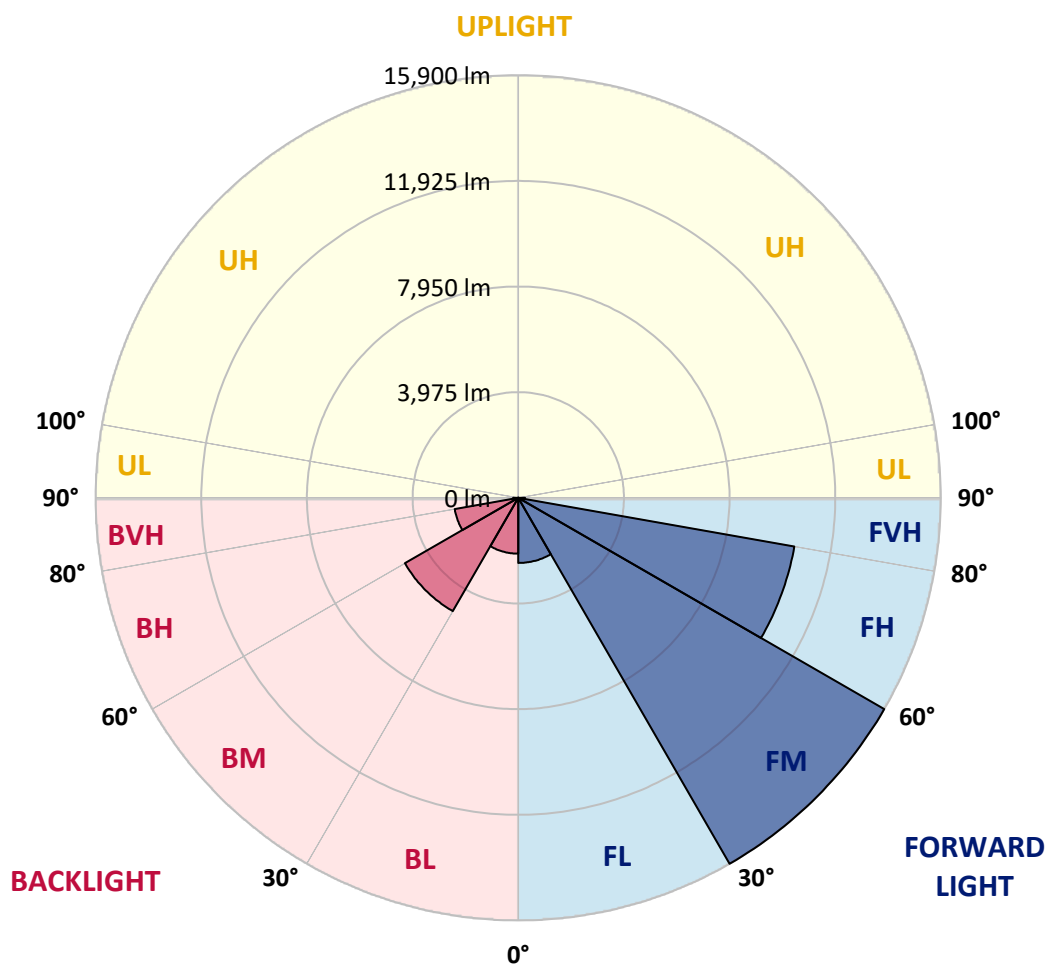
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2451.8	6.3			
FM	(30°-60°)	15900.1	41.0			
FH	(60°-80°)	10547.0	27.2			G4/12000
FVH	(80°-90°)	253.9	0.7			G3/500
BL	(0°-30°)	2101.6	5.4	B3/2500		
BM	(30°-60°)	4924.2	12.7	B3/5000		
BH	(60°-80°)	2427.8	6.3	B3/2500		G3/2500
BVH	(80°-90°)	193.9	0.5			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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5
2.5°	4258.7	4283.1	4277.0	4266.8	4264.7	4268.8	4275.0	4281.0	4279.0	4289.2	4305.5
5°	4246.4	4270.9	4268.8	4268.8	4277.0	4293.3	4303.5	4313.7	4303.5	4315.7	4338.1
7.5°	4254.6	4272.9	4281.0	4289.2	4309.6	4340.2	4364.7	4387.1	4374.8	4389.0	4417.6
10°	4358.5	4372.8	4381.0	4381.0	4395.2	4429.8	4454.3	4495.1	4484.9	4507.3	4544.0
12.5°	4548.1	4562.4	4562.4	4554.2	4564.4	4586.9	4595.0	4639.9	4621.5	4658.2	4694.9
15°	4780.5	4809.0	4786.6	4772.3	4776.4	4798.8	4796.8	4831.4	4813.1	4843.7	4876.3
17.5°	5037.4	5074.1	5037.4	5035.3	5027.2	5051.6	5053.7	5084.2	5051.6	5074.1	5096.5
20°	5341.1	5392.1	5361.5	5371.7	5353.4	5363.5	5373.8	5418.6	5367.6	5383.9	5377.8
22.5°	5769.2	5830.4	5797.8	5836.5	5824.3	5816.2	5814.1	5893.5	5814.1	5820.2	5761.1
25°	6393.0	6466.4	6409.3	6462.3	6462.3	6488.9	6519.4	6621.4	6488.9	6450.1	6297.2
27.5°	7314.5	7387.9	7275.8	7308.4	7298.2	7363.4	7330.8	7583.6	7440.9	7377.6	7069.8
30°	8423.4	8553.9	8342.0	8333.8	8323.6	8427.6	8474.4	8641.6	8496.8	8433.7	8062.6
32.5°	9622.2	9758.7	9506.0	9432.6	9393.8	9457.1	9418.3	9552.9	9453.0	9355.1	8896.4
35°	10890.2	11024.7	10784.1	10641.4	10486.6	10354.0	10215.4	10250.0	10156.3	10007.5	9532.5
37.5°	12088.8	12335.6	12080.8	11927.8	11642.4	11383.5	10996.2	10835.2	10747.4	10610.9	10131.8
40°	13309.9	13450.7	13256.9	13126.5	12816.6	12411.0	11791.2	11450.8	11332.5	11200.1	10794.4
42.5°	14209.0	14343.5	14239.6	14149.9	13907.3	13436.4	12635.2	12209.2	12037.9	11889.1	11544.6
45°	14922.5	15022.4	14957.2	14989.8	14885.8	14429.1	13509.8	13022.5	12845.2	12663.8	12392.7
47.5°	15210.0	15316.0	15419.9	15613.6	15790.9	15454.5	14449.5	13903.2	13715.6	13530.1	13263.1
50°	15177.4	15285.4	15587.1	15998.9	16549.3	16437.2	15440.3	14841.0	14667.6	14455.7	14209.0
52.5°	14916.4	15038.7	15426.0	16111.1	16987.6	17173.2	16449.4	15809.3	15646.2	15393.4	15146.7
55°	14231.4	14304.8	14885.8	15856.1	17091.6	17686.9	17438.1	16840.9	16677.8	16325.1	16056.0
57.5°	12961.3	13067.4	13913.5	15169.2	16830.6	18035.5	18306.6	17925.4	17768.4	17260.8	16979.4
60°	11304.0	11473.2	12441.6	14015.3	16166.1	18033.4	19095.5	18991.5	18861.0	18182.2	17888.7
62.5°	9428.5	9624.2	10555.9	12384.5	15004.1	17521.8	19588.9	19884.5	19817.1	19032.3	18657.3
65°	7241.1	7375.6	8303.2	10274.5	13195.8	16423.0	19646.0	20494.0	20506.3	19678.6	19058.8
67.5°	4821.3	5208.6	6013.9	7709.9	10774.0	14627.0	19144.4	20593.9	20712.1	19900.8	18857.0
70°	2352.6	2862.2	3651.2	5010.8	7709.9	11872.8	17833.7	19774.4	20037.3	19252.5	17654.2
72.5°	976.5	1141.6	1571.7	2472.8	4425.7	8011.7	15199.7	17552.3	18039.5	17059.0	14843.0
75°	658.5	713.5	899.0	1268.0	2016.2	3950.8	10961.6	13087.8	13872.7	12883.9	10531.4
77.5°	507.6	542.2	654.4	886.8	1198.7	1494.2	5867.1	7887.3	8293.0	7677.4	5479.8
80°	399.5	426.1	489.2	646.3	850.1	799.1	1999.9	3573.7	3808.1	3194.5	1761.4
82.5°	346.6	356.8	350.7	438.3	564.7	466.9	656.4	1319.0	1455.6	1056.0	574.9
85°	250.7	279.3	291.5	271.1	299.7	236.5	269.1	466.9	513.7	458.7	324.1
87.5°	101.9	150.9	185.5	175.3	110.1	67.2	83.5	136.6	156.9	171.3	106.0
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°	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5	4303.5
2.5°	4307.6	4321.8	4332.1	4344.3	4352.4	4364.7	4389.0	4403.4	4405.4	4415.6	4413.5
5°	4346.3	4366.7	4389.0	4421.7	4458.4	4489.0	4535.8	4568.5	4580.7	4590.9	4588.9
7.5°	4429.8	4458.4	4499.1	4556.2	4609.2	4650.0	4707.1	4745.9	4784.6	4798.8	4800.9
10°	4554.2	4595.0	4654.1	4731.6	4788.7	4841.7	4900.7	4933.4	4972.2	4988.5	4996.6
12.5°	4709.2	4752.0	4829.4	4937.4	4990.5	5027.2	5047.5	5039.4	5047.5	5061.9	5065.9
15°	4886.5	4933.4	5021.1	5137.3	5174.0	5141.3	5096.5	5055.7	5049.6	5053.7	5067.9
17.5°	5096.5	5131.2	5233.0	5330.9	5304.4	5169.9	5072.0	5006.8	4974.1	4964.0	4978.2
20°	5390.1	5390.1	5473.6	5534.8	5357.5	5129.1	4976.2	4870.2	4802.9	4774.3	4768.3
22.5°	5746.8	5714.2	5767.2	5724.4	5347.2	5014.9	4802.9	4619.5	4517.5	4476.8	4470.6
25°	6199.4	6160.7	6146.3	5881.3	5273.8	4833.5	4489.0	4266.8	4177.1	4154.6	4158.7
27.5°	6882.3	6784.5	6599.0	5966.9	5139.2	4548.1	4122.0	3916.1	3865.2	3867.2	3873.4
30°	7791.5	7595.8	7141.2	5981.3	4919.1	4144.5	3746.9	3600.1	3575.7	3585.9	3620.5
32.5°	8633.5	8447.9	7695.7	5916.0	4580.7	3748.9	3410.6	3312.7	3276.0	3288.3	3304.6
35°	9294.0	9242.9	8209.4	5824.3	4164.9	3378.0	3108.8	3025.3	2953.9	2937.6	2949.8
37.5°	9917.8	9897.4	8594.7	5695.8	3753.0	3115.0	2866.3	2756.2	2652.2	2595.1	2597.1
40°	10602.7	10582.3	8847.5	5498.1	3388.1	2886.6	2648.1	2503.4	2374.9	2271.0	2281.1
42.5°	11373.3	11253.1	8967.7	5214.7	3078.3	2693.0	2470.8	2275.1	2105.9	2010.0	2016.2
45°	12215.2	11944.1	8965.8	4853.9	2817.3	2515.7	2281.1	2004.0	1846.9	1757.3	1753.2
47.5°	13108.1	12604.6	8855.7	4454.3	2564.5	2319.9	1987.7	1775.6	1671.7	1616.6	1604.3
50°	14029.6	13222.3	8668.1	3995.7	2305.6	2097.7	1804.2	1659.4	1579.9	1529.0	1510.6
52.5°	14896.0	13783.0	8441.8	3475.8	2042.6	1881.6	1722.6	1610.5	1526.9	1469.8	1445.4
55°	15701.3	14266.1	8121.8	2943.7	1828.6	1736.9	1683.9	1590.1	1494.2	1427.0	1400.6
57.5°	16416.8	14580.0	7569.3	2444.3	1675.8	1637.0	1643.1	1555.4	1445.4	1388.3	1351.6
60°	17012.0	14810.4	6751.8	1981.5	1551.3	1539.1	1579.9	1490.2	1361.8	1296.5	1268.0
62.5°	17368.8	14806.3	5748.8	1622.7	1445.4	1449.5	1496.3	1408.7	1278.2	1217.1	1198.7
65°	17338.3	14443.5	4648.0	1388.3	1343.5	1347.5	1408.7	1319.0	1208.9	1172.2	1170.1
67.5°	16724.6	13558.7	3565.5	1235.4	1231.3	1249.7	1321.0	1257.8	1166.0	1162.0	1168.1
70°	15063.2	11721.9	2568.6	1113.0	1115.1	1141.6	1235.4	1219.0	1143.7	1151.8	1149.7
72.5°	12078.7	8937.2	1724.7	984.6	986.7	1029.5	1153.8	1188.5	1121.2	1229.3	1245.6
75°	8044.3	5573.5	1108.9	848.1	850.1	905.2	1082.5	1129.3	1060.1	1225.2	1235.4
77.5°	3865.2	2505.4	803.2	713.5	713.5	764.4	935.7	1011.2	903.1	952.0	872.5
80°	1335.3	941.9	632.0	574.9	562.6	597.3	788.9	876.6	778.7	717.6	672.7
82.5°	525.9	489.2	507.6	446.5	405.7	428.1	613.7	723.6	572.9	517.8	515.8
85°	301.8	318.1	358.7	295.6	234.4	263.0	450.5	519.9	432.1	381.2	389.4
87.5°	81.6	112.1	165.1	152.9	106.0	112.1	214.0	287.4	248.7	191.7	197.7
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)