

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: P967213

Luminaire Tested: **NAV-SB4D-735-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967213
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-SB4D-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 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: 41316.7 lumens
Efficiency: N/A
Efficacy: 140.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

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



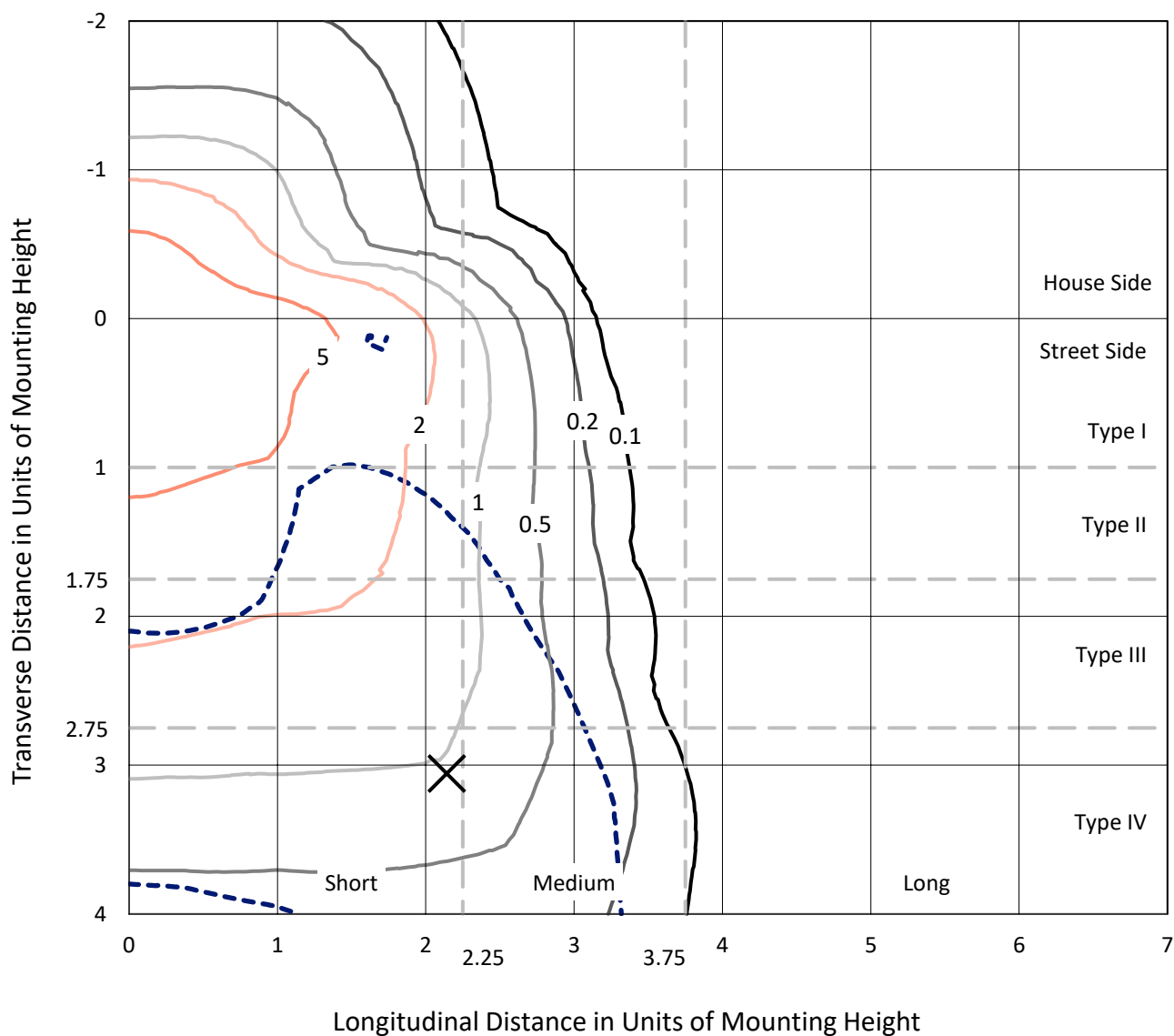
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

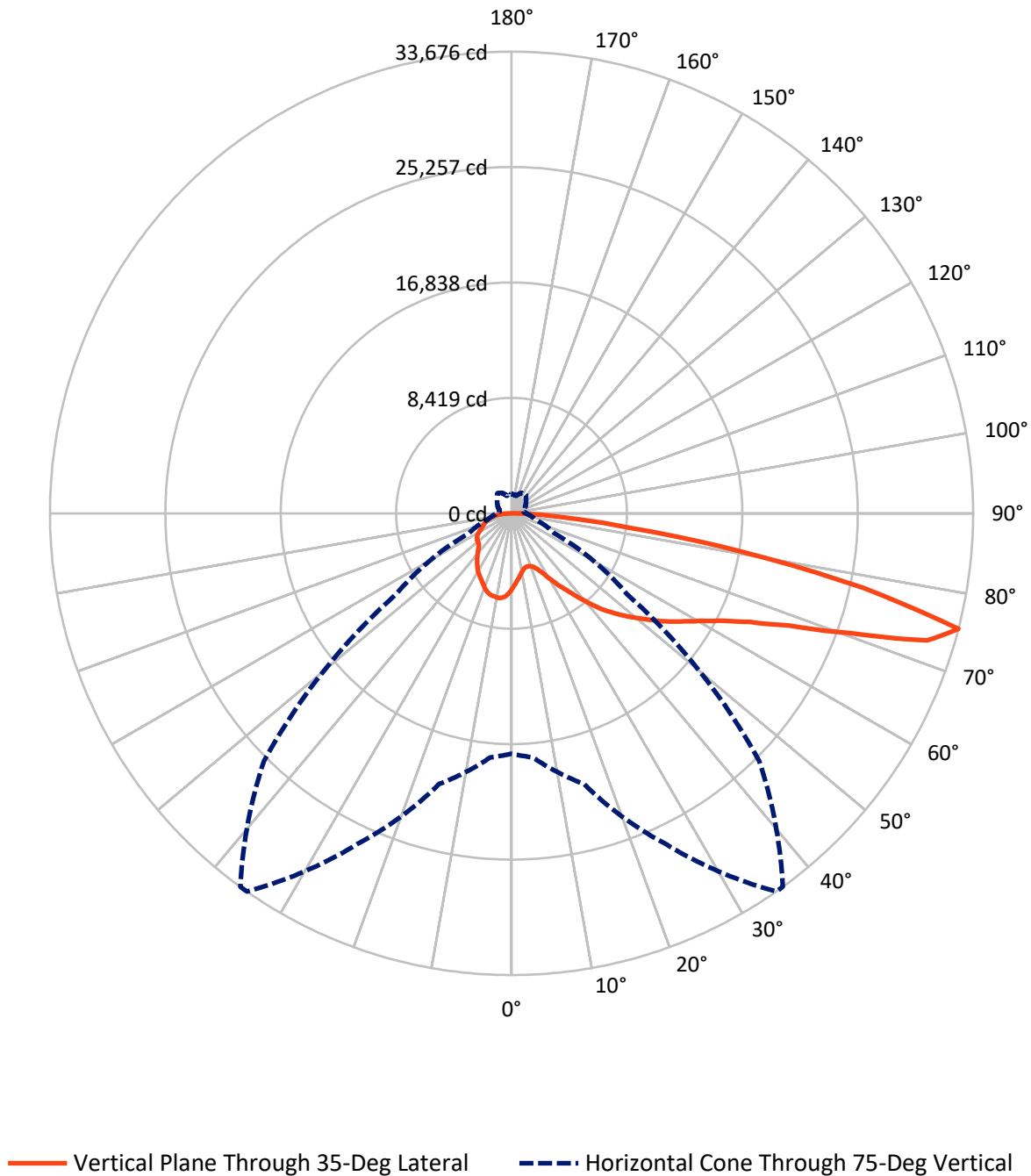


Based on 25 foot mounting height. Maximum calculated value = 9.7 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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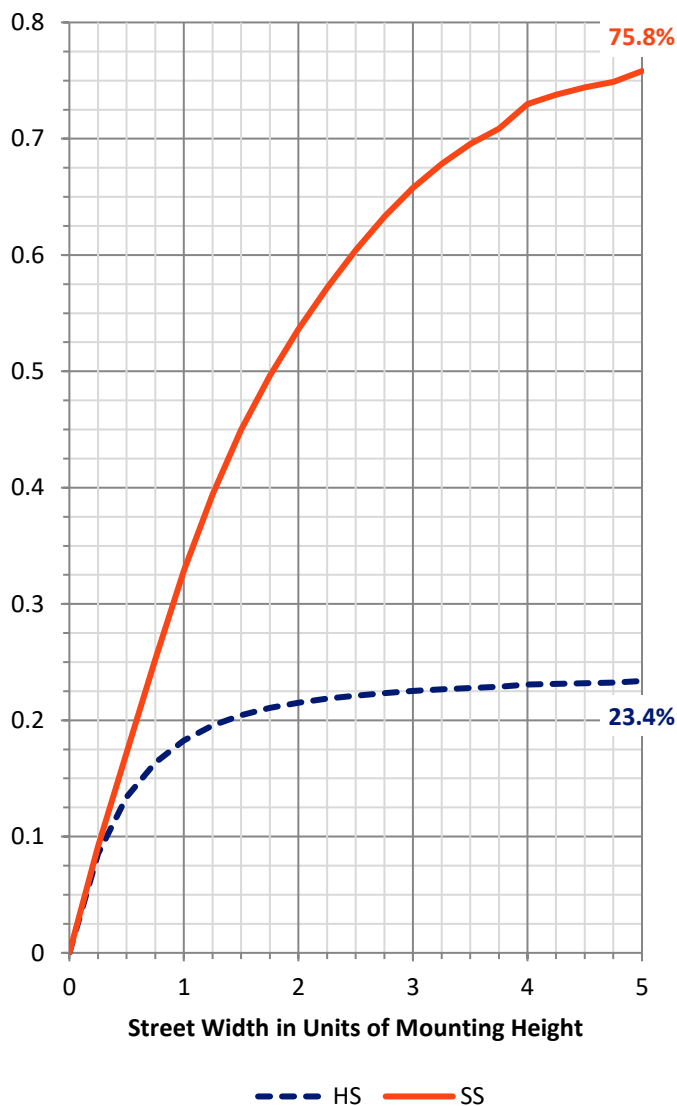
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9832.3	0.0	9832.3
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	31484.4	0.0	31484.4
	% Fixture	76.2	0.0	76.2
Total	Lumens	41316.7	0.0	41316.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	521.3	1.3
10°-20°	1503.6	3.6
20°-30°	2524.9	6.1
30°-40°	3924.1	9.5
40°-50°	5824.4	14.1
50°-60°	8041.0	19.5
60°-70°	9755.5	23.6
70°-80°	8062.2	19.5
80°-90°	1159.6	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°	41316.7	100.0
0°-180°	41316.7	100.0

Coefficient of Utilization



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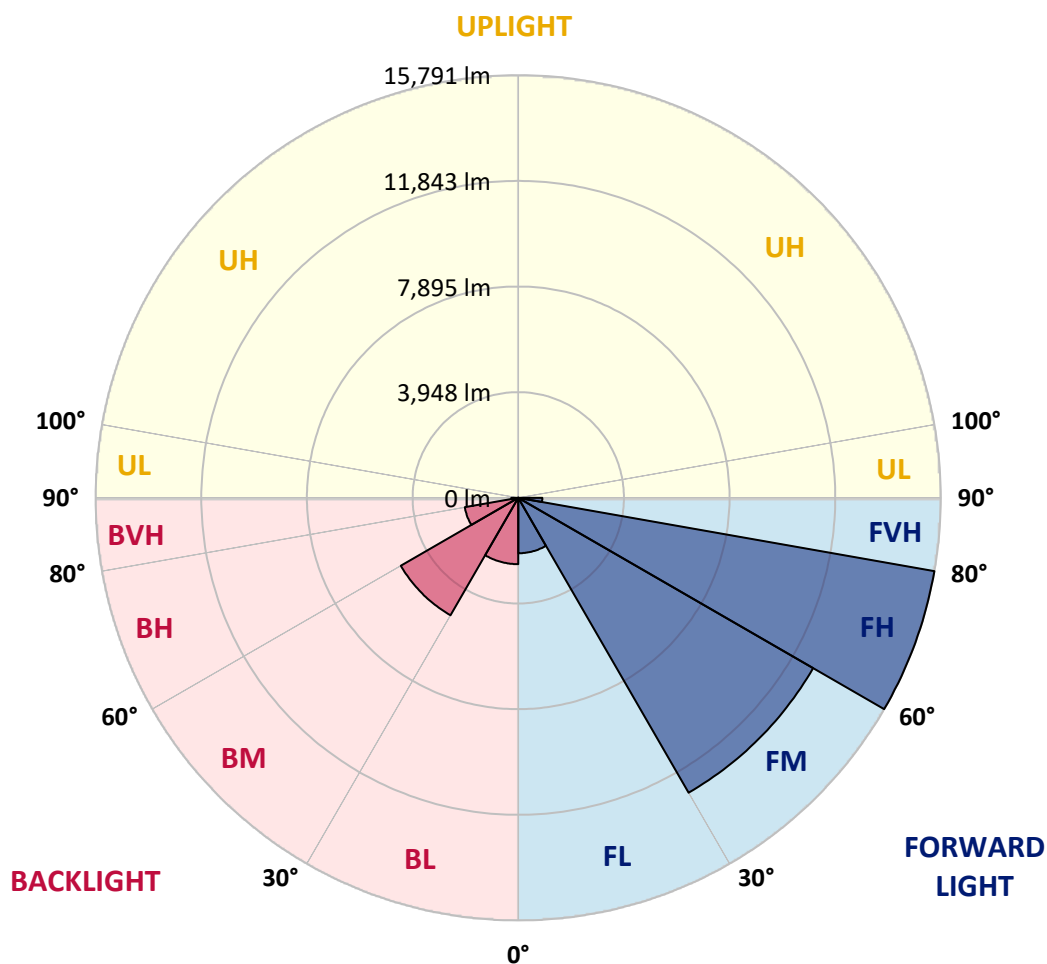
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2072.0	5.0			
FM	(30°-60°)	12723.3	30.8			
FH	(60°-80°)	15790.6	38.2			G5
FVH	(80°-90°)	898.5	2.2			G5
BL	(0°-30°)	2477.9	6.0	B3/2500		
BM	(30°-60°)	5066.2	12.3	B4/8500		
BH	(60°-80°)	2027.1	4.9	B3/2500		G3/2500
BVH	(80°-90°)	261.1	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°	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7
2.5°	5076.9	5108.2	5121.5	5114.9	5148.4	5143.9	5190.8	5248.9	5329.3	5407.5	5521.4
5°	4686.0	4719.5	4748.5	4775.4	4840.2	4860.2	4933.9	5045.7	5193.1	5342.7	5530.3
7.5°	4321.9	4351.0	4395.6	4444.8	4554.3	4574.4	4697.2	4871.4	5076.9	5295.8	5554.9
10°	4024.9	4053.9	4100.8	4156.7	4292.9	4317.5	4473.8	4706.1	4974.1	5251.1	5581.6
12.5°	3897.6	3906.5	3933.3	3989.1	4107.5	4123.2	4295.2	4560.9	4873.7	5217.6	5621.9
15°	3890.9	3908.7	3911.0	3940.0	4038.3	4045.0	4203.5	4467.2	4811.1	5210.9	5682.2
17.5°	3957.8	3971.3	3951.2	3969.0	4051.7	4062.9	4187.9	4422.5	4791.0	5239.9	5784.9
20°	4136.6	4147.8	4087.4	4062.9	4123.2	4132.1	4255.0	4451.5	4811.1	5300.3	5925.6
22.5°	4516.3	4522.9	4375.5	4275.1	4279.5	4284.0	4391.2	4569.9	4889.2	5409.6	6104.3
25°	5108.2	5103.7	4869.2	4674.8	4563.2	4538.6	4610.0	4761.9	5021.1	5554.9	6334.4
27.5°	5800.6	5767.1	5532.5	5242.2	4998.7	4962.9	4947.4	5012.1	5208.6	5747.0	6615.9
30°	6582.3	6551.1	6298.6	5919.0	5581.6	5523.6	5376.2	5342.7	5487.8	6008.2	7006.7
32.5°	7440.0	7419.9	7118.3	6658.3	6207.1	6140.1	5892.1	5802.8	5916.7	6403.6	7551.7
35°	8159.2	8141.4	7891.2	7417.6	6866.0	6783.3	6530.9	6430.4	6488.5	6910.7	8264.2
37.5°	8809.2	8800.2	8585.8	8212.8	7643.2	7542.8	7259.0	7225.5	7214.4	7578.4	9128.5
40°	9412.3	9389.9	9166.6	8970.0	8547.9	8456.2	8206.2	8177.0	8092.2	8400.4	10106.9
42.5°	10080.1	10022.0	9698.1	9606.5	9492.6	9416.7	9267.0	9271.5	9083.9	9327.4	11143.3
45°	10625.0	10591.5	10258.7	10205.1	10328.0	10296.7	10426.3	10459.8	10095.7	10299.0	12219.8
47.5°	11210.2	11179.0	10897.6	10859.6	11192.4	11201.3	11659.2	11670.3	11082.9	11308.5	13298.7
50°	11931.7	11887.0	11607.8	11654.8	12027.8	12061.3	12898.8	12822.9	11992.0	12333.7	14368.6
52.5°	12407.4	12434.3	12373.9	12449.9	12959.2	12990.4	14118.4	13924.0	12892.1	13345.5	15418.3
55°	12758.1	12811.7	12999.4	13173.5	13941.9	13973.2	15268.6	14971.6	13638.1	14283.7	16405.5
57.5°	13209.3	13133.3	13484.0	13823.6	14875.5	14958.1	16387.7	15981.2	14299.3	15092.2	17082.2
60°	13857.0	13803.5	14075.9	14578.5	15920.8	16052.6	17571.5	16890.2	14784.0	15733.2	17214.1
62.5°	15170.4	15036.3	15078.8	15523.2	17238.7	17412.9	18907.1	17683.1	15025.2	15983.3	16508.2
65°	17133.7	16903.6	16689.2	16997.4	19094.7	19266.7	20414.7	18306.3	14935.8	15498.7	14634.3
67.5°	19606.2	19378.3	19114.8	19405.2	21828.6	21964.8	22275.3	18656.9	14232.2	13631.5	11321.9
70°	21645.4	21560.6	21875.6	23070.5	26195.2	26199.7	24660.8	18366.6	12304.7	9664.6	6551.1
72.5°	21375.2	21323.8	22983.4	26677.7	31698.7	31580.4	26918.9	16168.8	8288.8	4359.9	2454.7
75°	17535.7	17868.5	20439.3	26612.9	33675.5	33659.8	25536.3	10278.9	3428.5	1807.0	1268.6
77.5°	9403.3	9930.4	13269.5	19648.6	26289.0	26684.3	17953.4	3596.0	1471.9	1157.0	877.8
80°	3066.7	3526.8	5289.1	10004.1	17082.2	17008.5	7694.7	1411.6	1007.4	819.7	607.5
82.5°	1302.2	1355.8	2363.1	4724.0	8766.7	8630.5	2450.3	810.8	708.1	560.7	375.3
85°	509.2	569.6	1043.0	2184.4	3797.0	3714.4	884.5	402.0	453.5	366.3	223.3
87.5°	167.5	203.3	373.0	748.2	1181.5	1139.1	216.7	138.5	196.6	167.5	80.4
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°	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7	5505.7
2.5°	5552.6	5588.4	5630.8	5693.4	5747.0	5791.7	5838.5	5867.6	5878.8	5912.2	5910.0
5°	5592.8	5671.0	5776.0	5878.8	5979.2	6039.5	6093.1	6120.0	6144.6	6162.4	6166.9
7.5°	5659.8	5760.4	5925.6	6059.7	6144.6	6193.7	6229.4	6220.5	6229.4	6233.8	6240.6
10°	5718.0	5858.6	6055.2	6182.5	6247.3	6249.5	6240.6	6209.3	6193.7	6195.9	6200.3
12.5°	5787.2	5943.5	6155.7	6263.0	6280.8	6231.6	6193.7	6140.1	6120.0	6111.0	6106.5
15°	5880.9	6059.7	6265.1	6305.4	6260.7	6198.2	6133.4	6046.3	6001.6	5965.8	5977.0
17.5°	5994.9	6191.4	6350.0	6321.0	6224.9	6122.2	6017.3	5885.4	5793.8	5755.9	5758.1
20°	6153.5	6329.9	6414.8	6287.5	6142.3	5986.0	5807.2	5646.4	5561.5	5523.6	5519.1
22.5°	6345.6	6515.3	6477.3	6229.4	6023.9	5773.7	5550.4	5432.0	5389.6	5362.8	5367.2
25°	6575.6	6720.8	6522.0	6144.6	5829.6	5492.4	5320.4	5282.3	5262.2	5242.2	5242.2
27.5°	6874.9	6953.1	6555.5	6019.4	5525.9	5193.1	5130.5	5137.2	5130.5	5097.0	5103.7
30°	7270.2	7254.6	6586.8	5816.2	5177.4	4922.8	4927.3	4956.3	4960.7	4938.4	4949.6
32.5°	7790.7	7632.0	6602.4	5552.6	4844.6	4686.0	4690.5	4721.8	4744.1	4706.1	4724.0
35°	8420.6	8072.1	6577.8	5222.1	4587.7	4460.4	4426.9	4435.9	4442.6	4406.8	4431.4
37.5°	9155.4	8565.7	6468.4	4855.7	4375.5	4239.3	4167.9	4107.5	4071.8	4038.3	4060.6
40°	9961.7	9104.0	6267.4	4498.4	4138.7	4004.8	3897.6	3783.7	3663.0	3618.4	3638.4
42.5°	10806.0	9658.0	6023.9	4156.7	3866.3	3756.8	3643.0	3477.6	3296.7	3205.2	3216.3
45°	11681.5	10225.3	5784.9	3819.4	3587.1	3540.2	3408.4	3209.6	3013.1	2897.0	2888.0
47.5°	12539.2	10761.3	5434.2	3479.9	3325.8	3377.2	3274.4	3091.3	2872.4	2689.2	2669.1
50°	13358.9	11263.8	4860.2	3135.9	3113.5	3328.0	3229.8	2966.1	2716.0	2481.5	2461.4
52.5°	14172.0	11670.3	4125.4	2823.3	2999.7	3314.6	3171.7	2881.3	2575.3	2329.6	2302.8
55°	14862.1	11880.4	3417.4	2555.2	2834.4	3200.7	3102.5	2780.8	2376.5	2115.2	2092.8
57.5°	15255.3	11710.5	2827.7	2291.6	2606.6	3013.1	2984.1	2566.4	2139.8	1938.7	1911.9
60°	15085.4	11022.6	2345.2	2061.6	2389.9	2809.8	2778.6	2354.2	1958.9	1768.9	1742.2
62.5°	14149.6	9711.6	1963.3	1860.6	2193.4	2602.1	2573.1	2191.1	1820.4	1637.2	1608.1
65°	12264.5	7900.1	1666.2	1693.0	1994.5	2352.0	2394.4	2054.9	1710.9	1532.3	1503.2
67.5°	9354.2	5722.4	1434.0	1547.9	1800.2	2106.3	2229.1	1956.6	1619.3	1449.6	1422.8
70°	5331.5	3249.9	1237.4	1407.1	1628.3	1878.4	2101.8	1878.4	1521.1	1380.4	1362.4
72.5°	2021.4	1492.0	1069.9	1266.4	1463.0	1686.3	1961.0	1755.6	1407.1	1302.2	1284.3
75°	1078.8	909.1	900.2	1101.2	1273.2	1498.8	1784.6	1635.0	1322.2	1375.9	1420.5
77.5°	734.8	643.3	752.8	942.6	1065.4	1291.0	1596.9	1451.8	1145.8	1141.3	1052.0
80°	509.2	455.6	612.0	759.4	824.2	1085.5	1393.7	1246.3	933.7	871.0	833.1
82.5°	306.0	297.0	457.9	567.3	582.9	837.6	1154.8	1045.3	763.8	665.6	670.0
85°	167.5	176.4	292.6	332.8	339.5	585.2	904.6	808.5	587.4	493.6	498.0
87.5°	46.9	60.3	107.2	131.8	163.1	303.8	538.3	480.2	294.8	205.5	205.5
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)