

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: P967399

Luminaire Tested: **NAV-SB4D-835-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967399
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-835-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 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: 38322.7 lumens
Efficiency: N/A
Efficacy: 130.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - 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



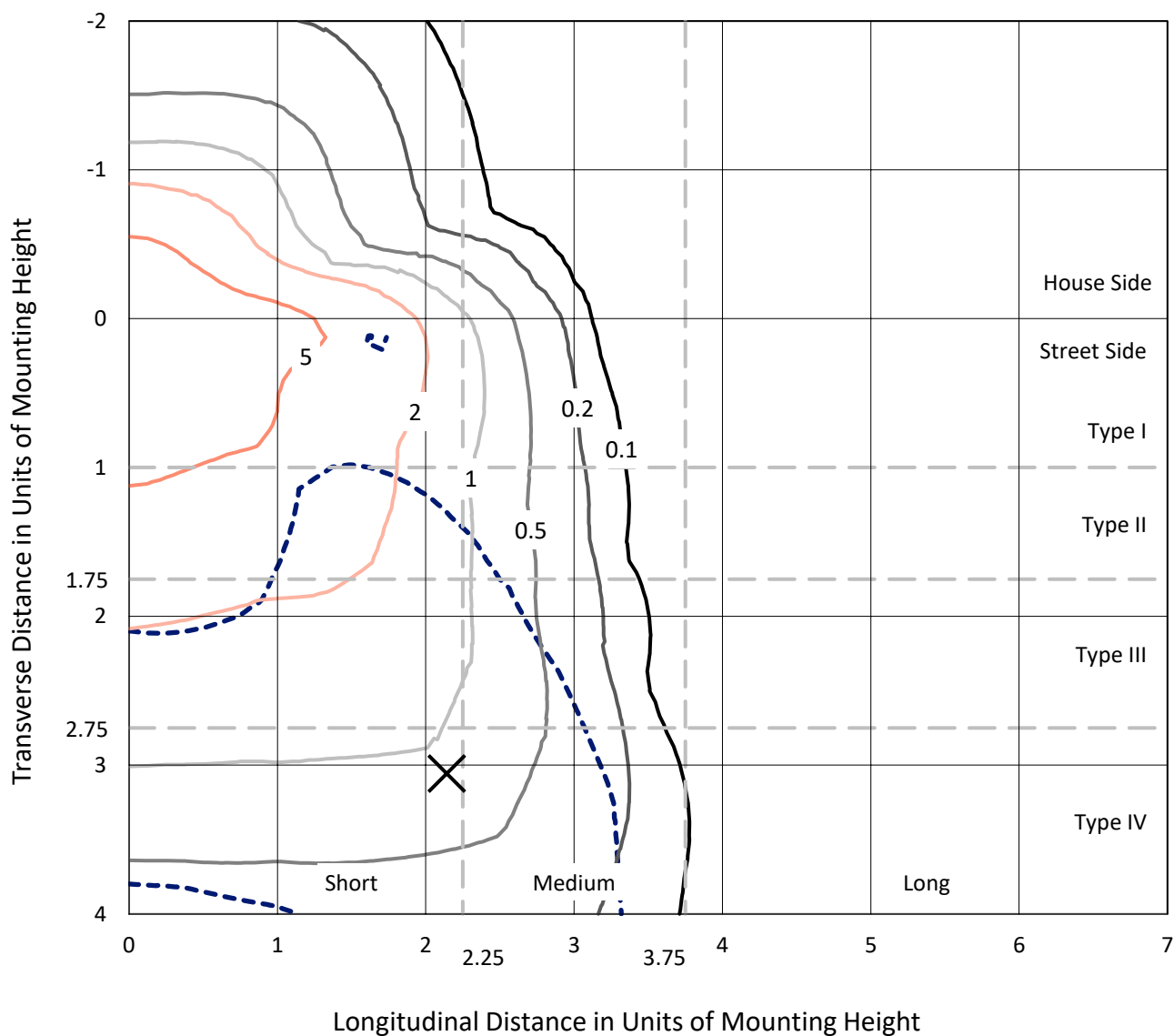
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

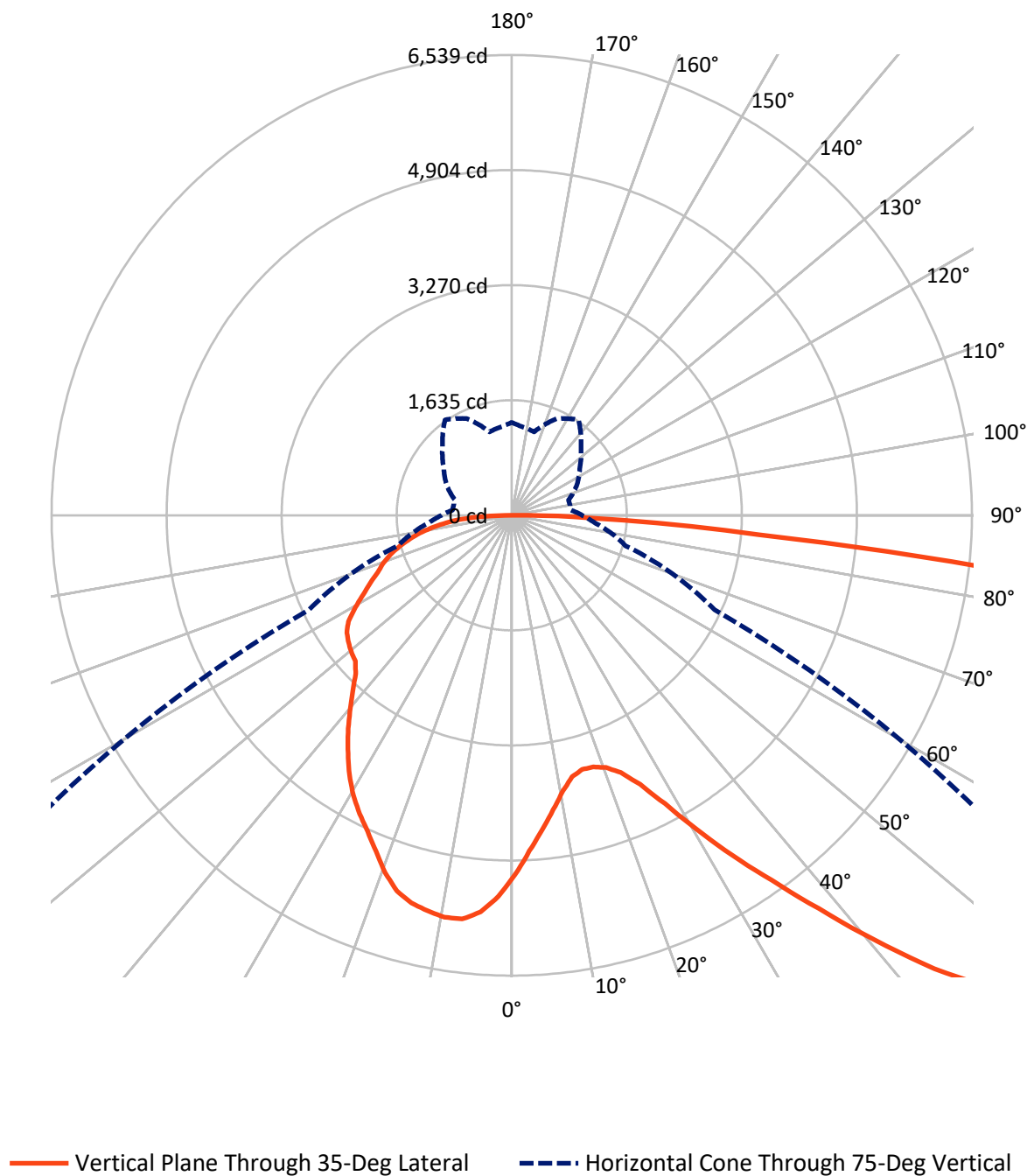


Based on 25 foot mounting height. Maximum calculated value = 9 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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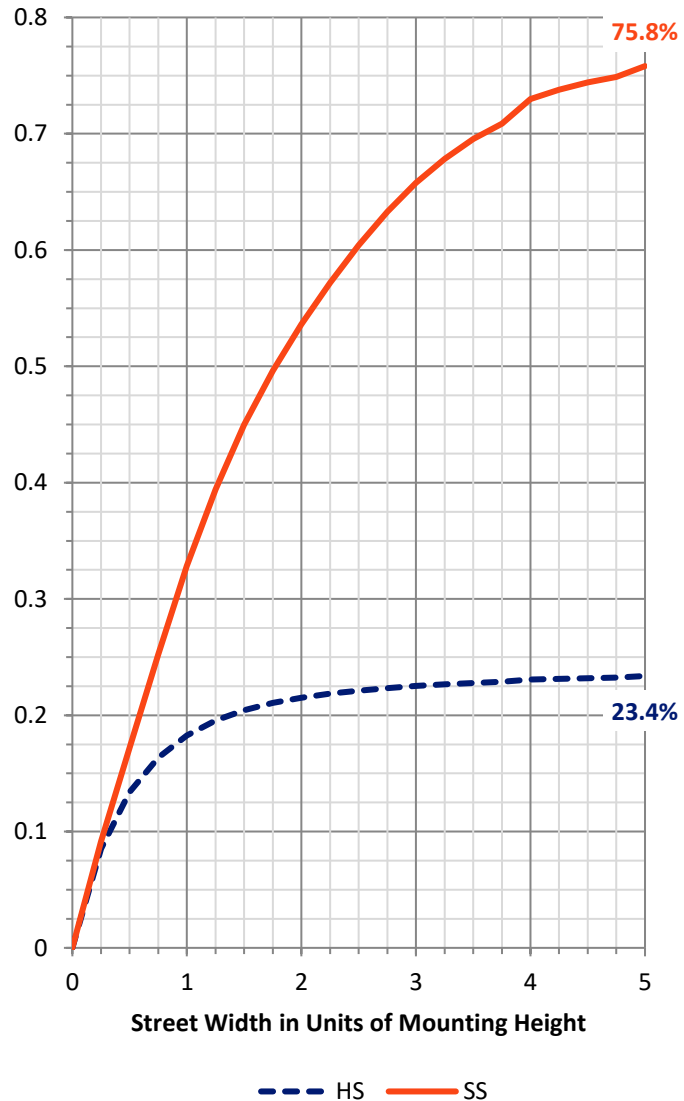
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9119.8	0.0	9119.8
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	29202.9	0.0	29202.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	38322.7	0.0	38322.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	483.5	1.3
10°-20°	1394.7	3.6
20°-30°	2342.0	6.1
30°-40°	3639.8	9.5
40°-50°	5402.4	14.1
50°-60°	7458.3	19.5
60°-70°	9048.6	23.6
70°-80°	7478.0	19.5
80°-90°	1075.6	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°	38322.7	100.0
0°-180°	38322.7	100.0

Coefficient of Utilization



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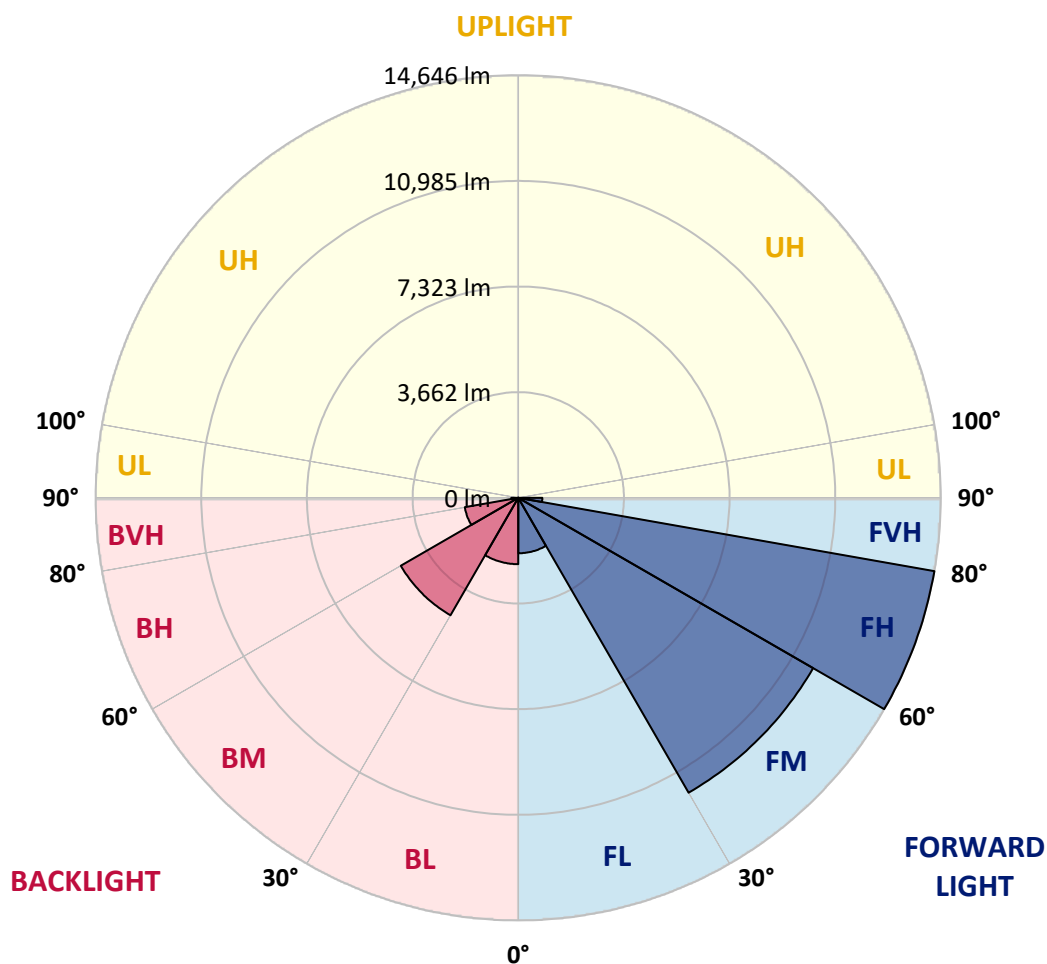
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1921.8	5.0			
FM	(30°-60°)	11801.3	30.8			
FH	(60°-80°)	14646.4	38.2			G5
FVH	(80°-90°)	833.4	2.2			G5
BL	(0°-30°)	2298.3	6.0	B3/2500		
BM	(30°-60°)	4699.1	12.3	B3/5000		
BH	(60°-80°)	1880.2	4.9	B3/2500		G3/2500
BVH	(80°-90°)	242.2	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8
2.5°	4709.0	4738.0	4750.5	4744.2	4775.3	4771.2	4814.6	4868.5	4943.1	5015.6	5121.3
5°	4346.4	4377.5	4404.4	4429.3	4489.4	4508.1	4576.4	4679.9	4816.7	4955.6	5129.5
7.5°	4008.8	4035.7	4077.1	4122.7	4224.2	4242.9	4356.8	4518.4	4709.0	4912.0	5152.4
10°	3733.3	3760.1	3803.7	3855.4	3981.8	4004.6	4149.6	4365.1	4613.7	4870.6	5177.2
12.5°	3615.2	3623.4	3648.3	3700.0	3809.8	3824.4	3983.9	4230.4	4520.5	4839.5	5214.5
15°	3608.9	3625.5	3627.6	3654.5	3745.7	3751.9	3899.0	4143.5	4462.4	4833.3	5270.4
17.5°	3671.0	3683.5	3664.9	3681.4	3758.1	3768.4	3884.4	4101.9	4443.8	4860.2	5365.8
20°	3836.8	3847.1	3791.3	3768.4	3824.4	3832.7	3946.6	4128.9	4462.4	4916.2	5496.3
22.5°	4189.0	4195.2	4058.5	3965.2	3969.4	3973.5	4072.9	4238.7	4535.0	5017.7	5662.0
25°	4738.0	4733.9	4516.4	4336.1	4232.5	4209.7	4276.0	4416.9	4657.2	5152.4	5875.4
27.5°	5380.2	5349.2	5131.7	4862.3	4636.5	4603.4	4588.8	4648.9	4831.2	5330.5	6136.4
30°	6105.3	6076.3	5842.2	5490.0	5177.2	5123.4	4986.6	4955.6	5090.2	5572.9	6498.9
32.5°	6900.8	6882.3	6602.5	6175.7	5757.3	5695.1	5465.2	5382.3	5488.0	5939.6	7004.4
35°	7568.0	7551.4	7319.3	6880.1	6368.4	6291.8	6057.6	5964.5	6018.3	6409.8	7665.4
37.5°	8170.8	8162.5	7963.6	7617.7	7089.4	6996.1	6733.0	6702.0	6691.6	7029.3	8467.1
40°	8730.1	8709.4	8502.3	8320.0	7928.4	7843.5	7611.4	7584.5	7505.8	7791.7	9374.4
42.5°	9349.6	9295.7	8995.4	8910.4	8804.8	8734.3	8595.5	8599.6	8425.6	8651.4	10335.8
45°	9855.1	9824.0	9515.4	9465.7	9579.5	9550.5	9670.8	9701.8	9364.1	9552.7	11334.3
47.5°	10397.9	10368.9	10107.8	10072.7	10381.3	10389.6	10814.3	10824.7	10279.8	10489.0	12335.0
50°	11067.0	11025.6	10766.7	10810.2	11156.1	11187.3	11964.1	11893.7	11123.0	11439.9	13327.3
52.5°	11508.3	11533.2	11477.2	11547.6	12020.1	12049.1	13095.3	12915.0	11957.9	12378.4	14301.0
55°	11833.6	11883.3	12057.4	12218.9	12931.6	12960.6	14162.2	13886.7	12649.8	13248.5	15216.7
57.5°	12252.0	12181.6	12506.9	12821.8	13797.5	13874.2	15200.1	14823.0	13263.1	13998.5	15844.4
60°	12852.9	12803.2	13055.9	13522.0	14767.2	14889.4	16298.1	15666.2	13712.7	14593.1	15966.6
62.5°	14071.0	13946.8	13986.1	14398.4	15989.5	16151.0	17537.0	16401.7	13936.4	14825.2	15312.0
65°	15892.1	15678.7	15479.8	15765.7	17711.1	17870.6	18935.4	16979.7	13853.5	14375.6	13573.9
67.5°	18185.4	17974.1	17729.6	17999.0	20246.8	20373.2	20661.1	17305.0	13200.9	12643.6	10501.5
70°	20076.9	19998.2	20290.3	21398.6	24297.0	24301.1	22873.7	17035.6	11413.1	8964.2	6076.3
72.5°	19826.3	19778.6	21317.8	24744.5	29401.7	29291.8	24968.2	14997.1	7688.1	4043.9	2276.8
75°	16265.0	16573.6	18958.2	24684.4	31235.1	31220.7	23685.8	9534.0	3180.1	1676.0	1176.7
77.5°	8721.9	9210.9	12308.0	18224.8	24384.0	24750.7	16652.4	3335.5	1365.3	1073.2	814.2
80°	2844.5	3271.2	4905.8	9279.2	15844.4	15776.1	7137.1	1309.3	934.4	760.3	563.5
82.5°	1207.8	1257.6	2191.9	4381.7	8131.4	8005.0	2272.6	752.0	656.7	520.0	348.1
85°	472.3	528.3	967.5	2026.1	3521.9	3445.2	820.4	372.9	420.6	339.8	207.2
87.5°	155.4	188.5	345.9	694.0	1095.9	1056.6	201.0	128.4	182.3	155.4	74.6
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°	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8	5106.8
2.5°	5150.2	5183.4	5222.8	5280.8	5330.5	5371.9	5415.5	5442.3	5452.7	5483.9	5481.7
5°	5187.5	5260.1	5357.5	5452.7	5546.0	5601.9	5651.6	5676.4	5699.3	5715.8	5720.0
7.5°	5249.7	5342.9	5496.3	5620.6	5699.3	5744.8	5778.0	5769.7	5778.0	5782.1	5788.4
10°	5303.6	5434.1	5616.4	5734.5	5794.5	5796.7	5788.4	5759.4	5744.8	5746.9	5751.1
12.5°	5367.8	5512.9	5709.7	5809.1	5825.7	5780.1	5744.8	5695.1	5676.4	5668.1	5664.0
15°	5454.8	5620.6	5811.1	5848.4	5807.0	5749.0	5689.0	5608.1	5566.7	5533.6	5543.9
17.5°	5560.4	5742.8	5889.9	5862.9	5773.8	5678.5	5581.2	5458.9	5374.0	5338.8	5340.9
20°	5707.5	5871.2	5949.9	5831.8	5697.2	5552.2	5386.5	5237.2	5158.5	5123.4	5119.2
22.5°	5885.8	6043.2	6007.9	5778.0	5587.4	5355.3	5148.2	5038.4	4999.0	4974.1	4978.3
25°	6099.1	6233.7	6049.3	5699.3	5407.2	5094.4	4934.8	4899.6	4880.9	4862.3	4862.3
27.5°	6376.7	6449.2	6080.5	5583.3	5125.4	4816.7	4758.7	4764.9	4758.7	4727.6	4733.9
30°	6743.4	6728.9	6109.5	5394.7	4802.2	4566.1	4570.2	4597.1	4601.2	4580.5	4590.9
32.5°	7226.1	7079.1	6124.0	5150.2	4493.5	4346.4	4350.6	4379.6	4400.3	4365.1	4381.7
35°	7810.3	7487.1	6101.2	4843.6	4255.3	4137.2	4106.2	4114.5	4120.6	4087.5	4110.2
37.5°	8491.9	7945.0	5999.6	4503.8	4058.5	3932.1	3865.8	3809.8	3776.7	3745.7	3766.4
40°	9239.9	8444.3	5813.2	4172.5	3838.8	3714.6	3615.2	3509.5	3397.6	3356.2	3374.8
42.5°	10023.0	8958.1	5587.4	3855.4	3586.2	3484.6	3378.9	3225.7	3057.9	2972.9	2983.3
45°	10835.1	9484.3	5365.8	3542.6	3327.2	3283.7	3161.4	2977.0	2794.8	2687.0	2678.7
47.5°	11630.6	9981.4	5040.4	3227.7	3084.7	3132.4	3037.1	2867.2	2664.2	2494.3	2475.7
50°	12390.9	10447.6	4508.1	2908.6	2887.9	3086.9	2995.7	2751.2	2519.2	2301.6	2283.0
52.5°	13145.0	10824.7	3826.4	2618.7	2782.3	3074.4	2941.9	2672.5	2388.7	2160.8	2135.9
55°	13785.1	11019.4	3169.7	2370.0	2629.0	2968.7	2877.6	2579.3	2204.3	1962.0	1941.1
57.5°	14149.7	10861.9	2622.8	2125.5	2417.7	2794.8	2767.8	2380.4	1984.7	1798.3	1773.4
60°	13992.3	10223.9	2175.3	1912.1	2216.8	2606.2	2577.2	2183.6	1816.9	1640.8	1615.9
62.5°	13124.3	9007.8	1821.0	1725.7	2034.4	2413.6	2386.6	2032.4	1688.5	1518.5	1491.6
65°	11375.8	7327.6	1545.5	1570.4	1850.0	2181.5	2220.9	1906.0	1586.9	1421.2	1394.3
67.5°	8676.3	5307.8	1330.0	1435.7	1669.8	1953.6	2067.5	1814.9	1502.0	1344.5	1319.7
70°	4945.2	3014.3	1147.7	1305.1	1510.2	1742.3	1949.4	1742.3	1410.8	1280.3	1263.7
72.5°	1874.9	1383.9	992.3	1174.6	1357.0	1564.1	1819.0	1628.3	1305.1	1207.8	1191.3
75°	1000.6	843.2	834.9	1021.3	1180.9	1390.1	1655.3	1516.5	1226.4	1276.1	1317.6
77.5°	681.6	596.7	698.1	874.2	988.2	1197.4	1481.2	1346.6	1062.8	1058.6	975.8
80°	472.3	422.6	567.6	704.4	764.4	1006.9	1292.7	1156.0	866.0	808.0	772.7
82.5°	283.8	275.5	424.7	526.2	540.7	776.8	1071.0	969.5	708.5	617.4	621.6
85°	155.4	163.7	271.4	308.7	314.9	542.7	839.1	750.0	544.9	457.9	462.0
87.5°	43.5	56.0	99.4	122.2	151.2	281.8	499.3	445.5	273.5	190.5	190.5
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)