

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: P969471

Luminaire Tested: **NAV-SB5D-830-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969471
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37130.6 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

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



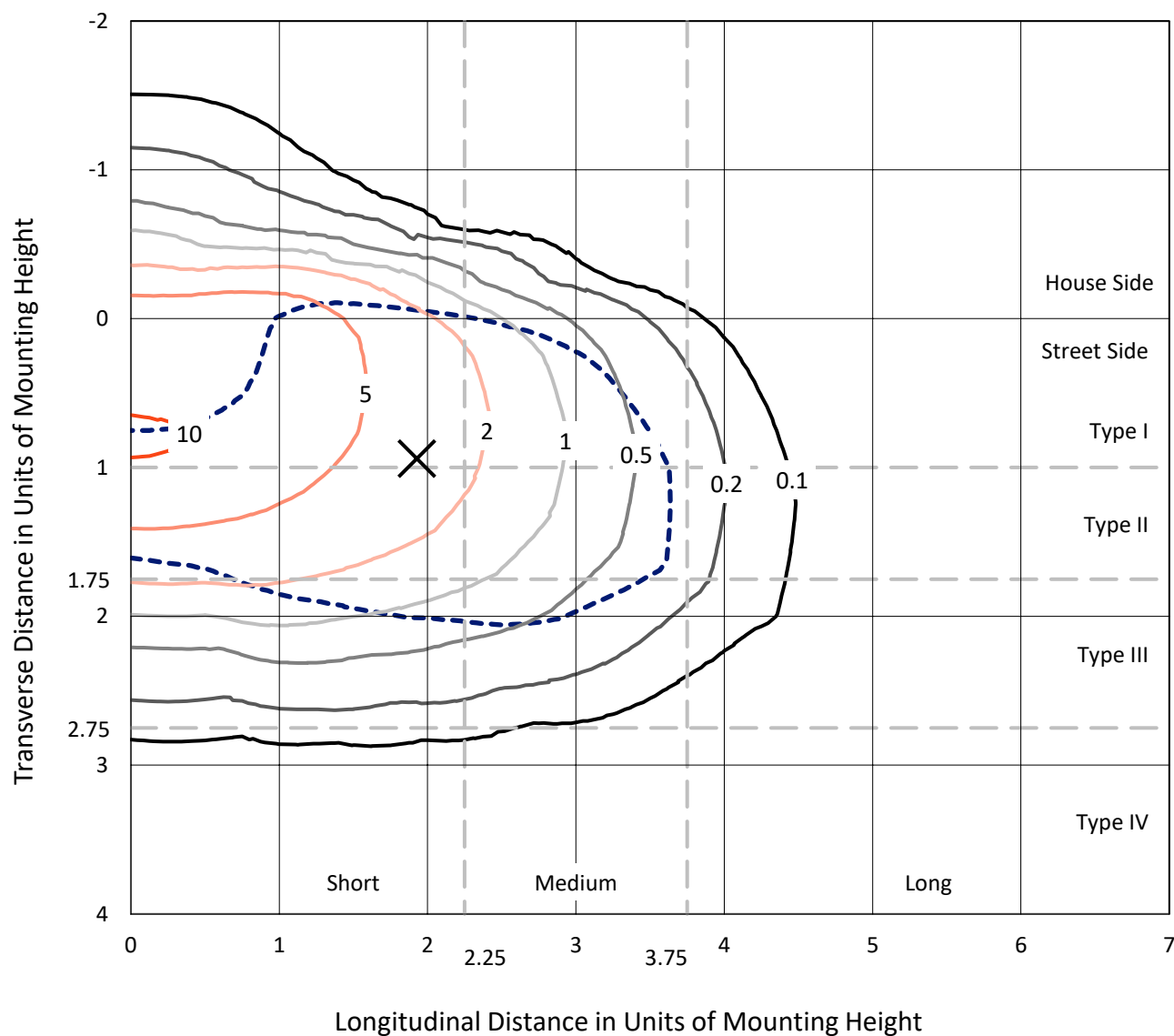
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

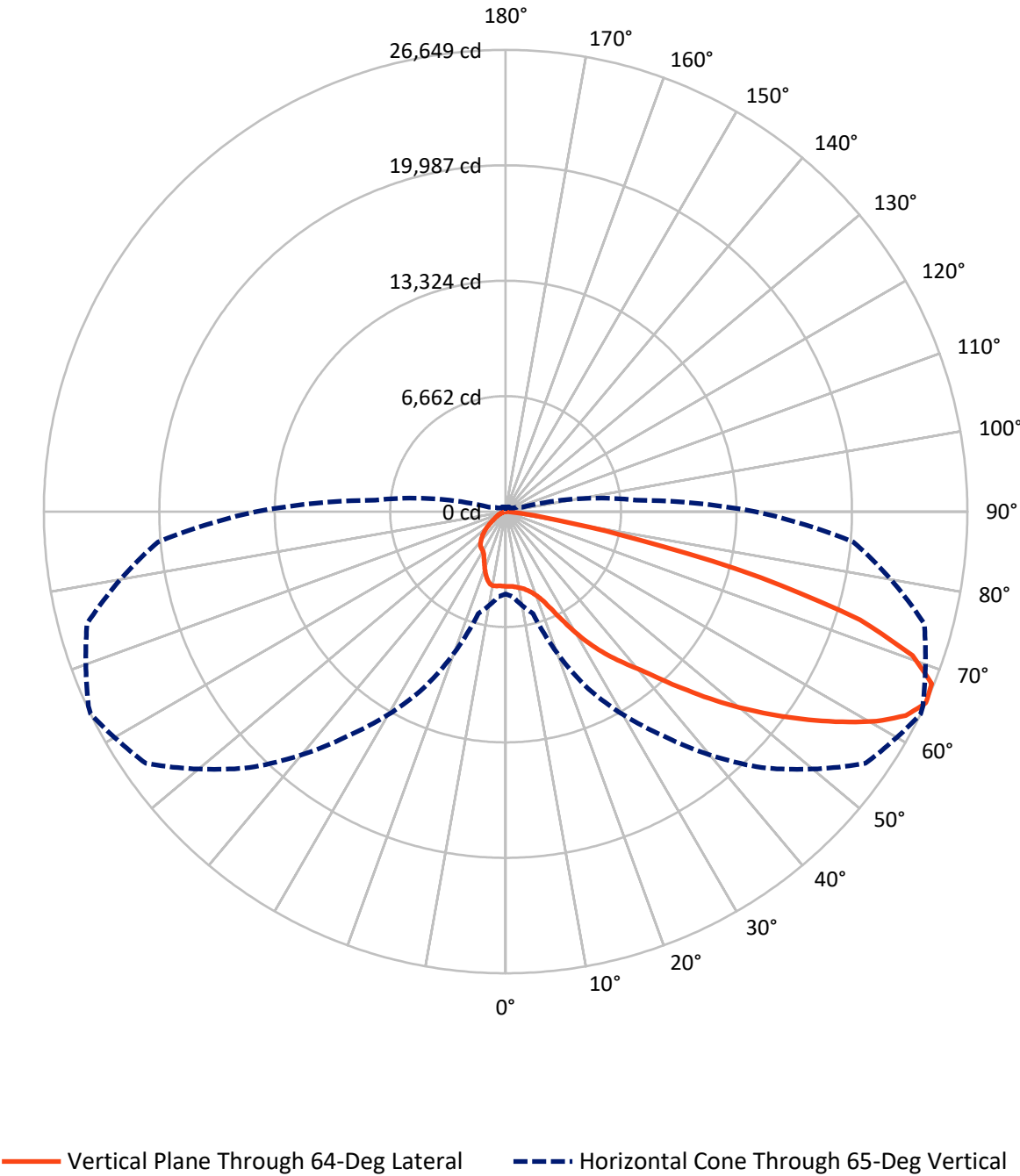


Based on 25 foot mounting height. Maximum calculated value = 10.9 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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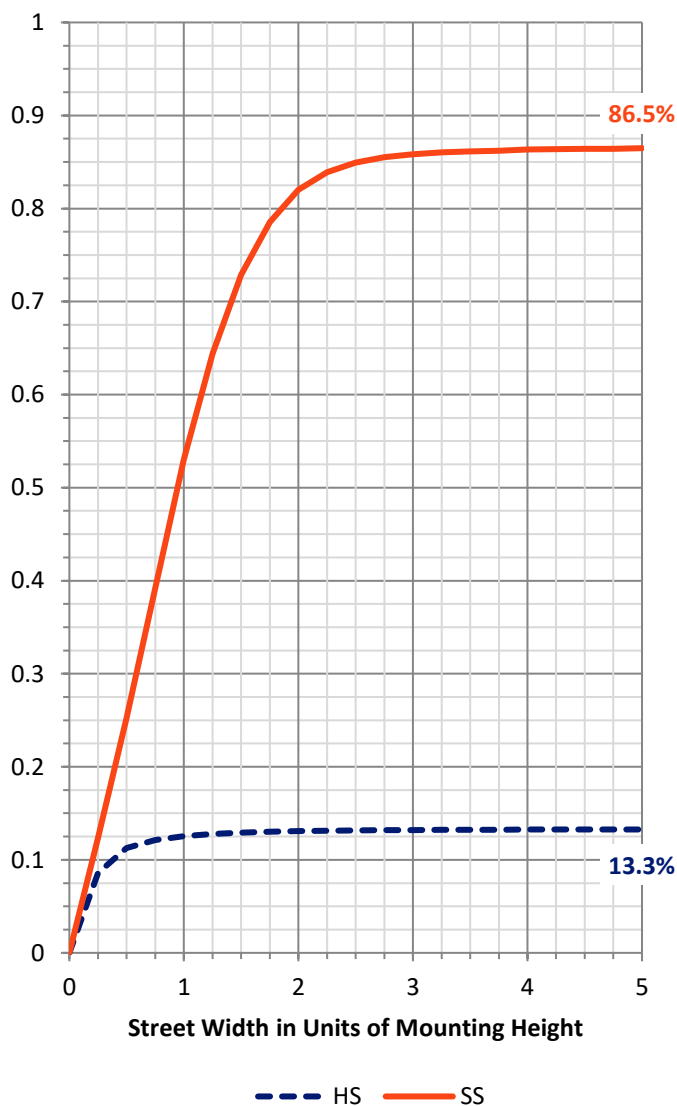
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4965.5	0.0	4965.5
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	32165.1	0.0	32165.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	37130.6	0.0	37130.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	398.4	1.1
10°-20°	1080.7	2.9
20°-30°	2047.8	5.5
30°-40°	4143.8	11.2
40°-50°	7059.0	19.0
50°-60°	9599.7	25.9
60°-70°	9014.6	24.3
70°-80°	3611.6	9.7
80°-90°	175.0	0.5
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°	37130.6	100.0
0°-180°	37130.6	100.0

Coefficient of Utilization



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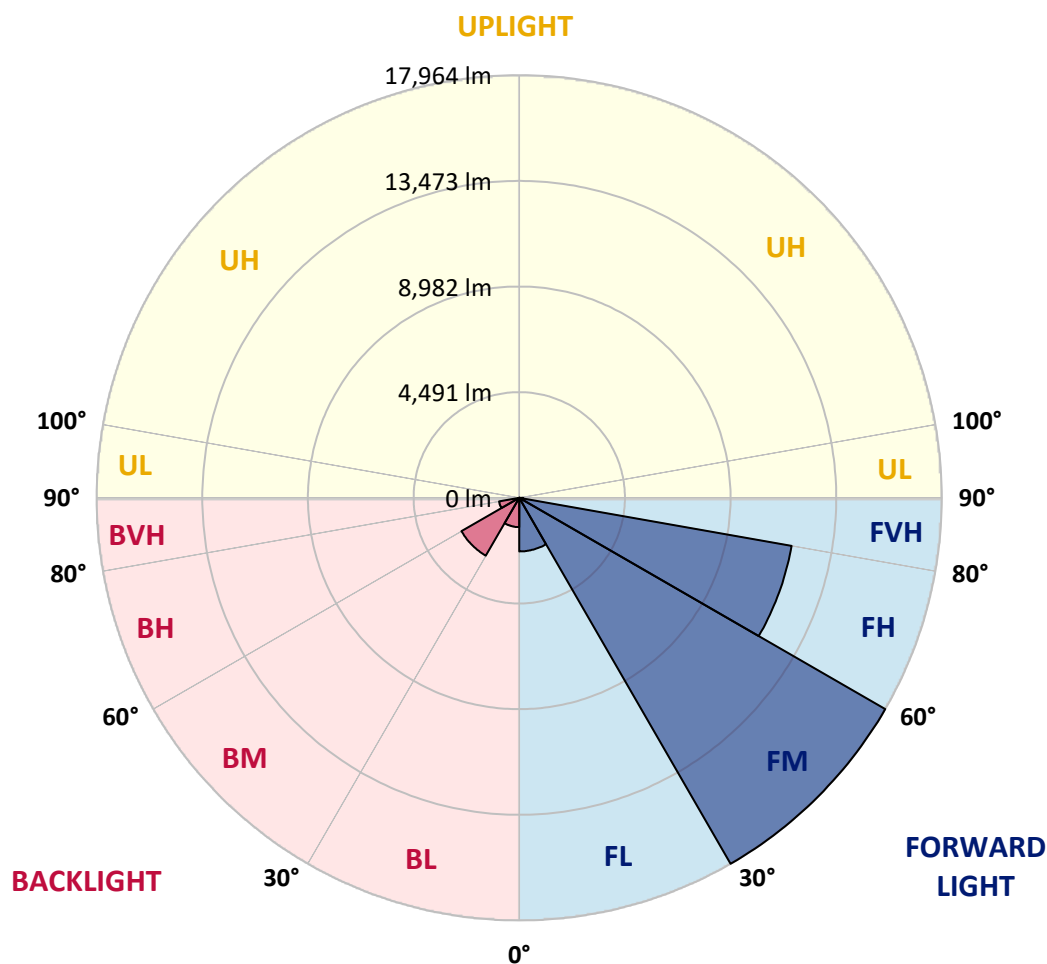
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2280.3	6.1			
FM	(30°-60°)	17963.8	48.4			
FH	(60°-80°)	11754.7	31.7			G4/12000
FVH	(80°-90°)	166.4	0.4			G2/225
BL	(0°-30°)	1246.7	3.4	B3/2500		
BM	(30°-60°)	2838.7	7.6	B3/5000		
BH	(60°-80°)	871.5	2.3	B2/1000		G2/1000
BVH	(80°-90°)	8.5	0.0			G0/10
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°	64°	65°	75°	85°
0°	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6
2.5°	4303.8	4333.6	4326.1	4318.6	4316.2	4321.2	4323.7	4321.2	4321.2	4321.2	4323.7
5°	4221.6	4246.5	4246.5	4263.9	4288.8	4318.6	4341.1	4346.1	4351.0	4358.5	4356.0
7.5°	4064.7	4084.7	4099.6	4156.9	4219.1	4298.7	4366.0	4400.8	4405.8	4433.2	4443.2
10°	3957.7	3982.6	4007.5	4067.3	4156.9	4276.4	4390.9	4475.5	4488.0	4552.6	4582.6
12.5°	3952.8	3977.6	4010.0	4074.8	4179.3	4306.2	4445.6	4567.6	4590.0	4684.6	4746.8
15°	4005.1	4034.9	4064.7	4144.5	4256.4	4410.8	4560.1	4711.9	4734.4	4868.8	4936.0
17.5°	4112.1	4151.9	4174.3	4254.0	4373.5	4545.2	4741.9	4916.1	4936.0	5092.8	5177.5
20°	4323.7	4370.9	4378.4	4443.2	4560.1	4744.3	4978.3	5194.9	5219.7	5399.0	5493.6
22.5°	4761.7	4829.0	4769.2	4801.6	4906.2	5090.4	5344.2	5618.0	5652.9	5857.0	5941.6
25°	5533.4	5628.0	5473.6	5418.9	5463.7	5655.3	5974.0	6319.9	6359.8	6524.0	6566.4
27.5°	7049.2	6927.3	6693.4	6464.4	6329.9	6439.5	6797.9	7226.0	7275.8	7435.1	7385.3
30°	8714.6	8607.4	8291.3	7783.5	7465.0	7447.5	7778.6	8256.5	8313.8	8465.6	8313.8
32.5°	10382.2	10280.2	9936.7	9311.9	8759.3	8485.6	8714.6	9244.7	9274.6	9371.7	9147.6
35°	12022.6	11918.1	11574.5	10934.8	10255.3	9633.1	9588.3	10185.6	10195.6	10297.7	9964.0
37.5°	13672.9	13585.8	13219.8	12592.6	11923.0	11064.3	10648.6	11076.8	11089.2	11188.7	10842.8
40°	14850.3	14887.6	14636.2	14150.8	13575.8	12637.4	11838.4	12025.1	11950.4	12117.1	11910.6
42.5°	15860.8	15935.6	15716.5	15472.6	15139.0	14312.6	13312.0	13279.6	13160.2	13249.8	13035.6
45°	16734.6	16796.8	16600.2	16542.9	16535.4	15955.5	14922.5	14728.3	14561.6	14544.1	14287.7
47.5°	17055.7	17175.1	17259.8	17451.4	17824.9	17580.9	16587.7	16286.5	16099.9	15962.9	15557.2
50°	17177.7	17304.6	17593.3	18150.9	19034.6	19139.1	18245.5	17907.0	17678.0	17429.0	16831.6
52.5°	17013.4	17239.9	17628.2	18566.5	19848.5	20388.7	19836.0	19539.9	19278.5	18872.7	17986.6
55°	16045.0	16271.6	17065.6	18561.6	20254.2	21264.9	21339.5	21207.6	20913.9	20274.1	18920.1
57.5°	14004.0	14340.0	15597.0	17929.4	20246.7	22019.0	22813.1	22907.6	22579.1	21663.1	19654.4
60°	11176.3	11631.8	13165.1	16527.9	19622.0	22427.2	24104.9	24577.9	24229.4	23032.2	20249.3
62.5°	7798.5	8326.2	9777.4	14332.6	18193.2	22133.5	25048.3	25922.0	25658.2	24256.7	20478.3
65°	4756.7	4926.0	6095.9	11278.4	15763.8	20903.8	25339.5	26648.9	26561.7	25006.0	20139.7
67.5°	3168.7	3310.5	3646.6	7733.8	12236.7	18447.1	24642.6	26521.9	26546.8	24884.0	18900.1
70°	1909.2	2031.1	2250.2	4497.9	7930.4	14601.3	22484.5	24903.9	25048.3	23253.7	16550.4
72.5°	786.6	868.7	1067.8	2038.6	4107.1	9267.1	17904.5	21381.8	21717.8	19552.3	12702.1
75°	445.6	487.9	627.3	1023.1	1782.3	4318.6	10845.2	15178.8	15674.2	13476.3	7641.7
77.5°	296.2	316.1	405.7	662.2	1003.2	1473.5	4634.8	7908.1	8853.9	7360.4	3308.1
80°	199.2	216.6	278.8	443.1	652.2	632.2	1476.1	2929.8	3604.3	2529.0	806.5
82.5°	134.4	136.9	199.2	291.2	413.2	306.2	435.6	911.0	1145.0	731.8	306.2
85°	77.2	74.7	146.9	169.2	184.2	127.0	131.9	273.8	358.4	308.6	174.2
87.5°	9.9	15.0	57.3	44.8	24.9	27.4	27.4	47.3	69.7	74.7	37.3
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°	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6	4318.6
2.5°	4323.7	4321.2	4313.7	4306.2	4288.8	4278.9	4283.8	4278.9	4276.4	4278.9	4288.8
5°	4356.0	4348.6	4328.7	4303.8	4268.9	4226.6	4199.2	4159.3	4122.0	4099.6	4104.6
7.5°	4443.2	4435.7	4408.3	4338.6	4226.6	4049.9	3888.0	3746.2	3639.2	3576.9	3579.4
10°	4582.6	4570.1	4527.7	4373.5	4079.7	3693.9	3372.8	3106.5	2932.2	2850.1	2842.6
12.5°	4746.8	4731.9	4657.2	4341.1	3800.9	3198.5	2755.5	2459.3	2297.5	2225.3	2217.8
15°	4941.0	4921.0	4774.1	4186.7	3395.2	2651.0	2245.3	2023.7	1919.1	1854.4	1856.9
17.5°	5182.4	5147.5	4861.3	3955.3	2954.7	2232.8	1931.6	1764.8	1672.7	1610.5	1605.5
20°	5496.0	5438.8	4931.0	3678.9	2548.9	1968.9	1720.1	1580.7	1511.0	1456.1	1446.2
22.5°	5934.1	5852.0	5015.6	3380.2	2262.7	1787.2	1563.2	1461.1	1403.8	1341.6	1331.7
25°	6476.8	6379.7	5120.2	3104.0	2066.0	1630.4	1448.7	1364.1	1296.8	1224.7	1217.2
27.5°	7236.0	7061.7	5244.6	2877.5	1896.8	1496.0	1344.2	1249.6	1172.4	1112.6	1100.2
30°	8082.2	7796.0	5354.2	2740.5	1742.4	1371.6	1207.2	1112.6	1040.5	998.1	990.7
32.5°	8883.8	8495.5	5426.3	2680.8	1603.0	1229.6	1057.9	955.8	901.1	888.7	896.1
35°	9640.4	9127.7	5418.9	2623.6	1478.6	1087.7	911.0	806.5	764.1	771.6	771.6
37.5°	10511.7	9802.3	5366.6	2534.0	1376.5	958.3	784.1	692.0	654.7	657.1	667.1
40°	11524.8	10581.4	5334.2	2364.7	1264.4	838.9	679.6	604.9	577.5	567.5	565.1
42.5°	12605.0	11335.6	5339.2	2173.0	1125.1	731.8	607.3	545.1	520.2	512.8	510.2
45°	13690.3	12054.9	5346.7	1973.9	978.3	649.6	555.0	502.8	487.9	478.0	478.0
47.5°	14710.9	12667.3	5207.3	1759.8	833.8	587.4	512.8	478.0	465.5	453.0	453.0
50°	15661.7	13075.5	4871.3	1511.0	719.3	537.6	480.4	455.5	443.1	430.6	430.6
52.5°	16401.0	13140.2	4316.2	1254.5	639.7	500.3	460.5	438.1	423.1	410.7	408.3
55°	16729.5	12734.5	3527.1	1015.6	577.5	467.9	440.5	418.2	400.8	388.3	385.8
57.5°	16645.0	11880.7	2750.5	816.4	517.7	435.6	415.6	400.8	380.9	360.9	358.4
60°	16229.2	10738.2	2073.5	679.6	463.0	400.8	388.3	375.9	348.5	318.6	313.6
62.5°	15509.9	9302.0	1478.6	562.5	403.2	360.9	356.0	346.0	306.2	251.4	246.4
65°	14409.7	7557.0	995.7	467.9	346.0	316.1	318.6	301.1	248.9	186.7	181.7
67.5°	12801.7	5525.9	637.2	383.3	288.7	263.8	266.3	256.4	211.6	159.3	151.8
70°	10753.2	3659.0	415.6	291.2	231.4	204.1	219.0	221.5	179.2	129.5	124.4
72.5°	7883.2	2160.6	291.2	216.6	169.2	141.9	179.2	184.2	144.3	97.1	92.1
75°	4492.9	1025.5	219.0	156.8	104.6	99.5	139.4	139.4	99.5	64.7	59.8
77.5°	1886.8	428.1	154.4	102.1	59.8	57.3	94.6	87.1	49.8	29.8	29.8
80°	545.1	191.7	82.1	49.8	24.9	22.4	37.3	27.4	12.4	5.0	5.0
82.5°	214.0	84.7	32.4	19.9	9.9	9.9	5.0	0.0	0.0	0.0	0.0
85°	127.0	34.8	15.0	7.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	32.4	7.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)