

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: P967364

Luminaire Tested: **NAV-SB4D-830-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967364
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-830-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31271.7 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
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

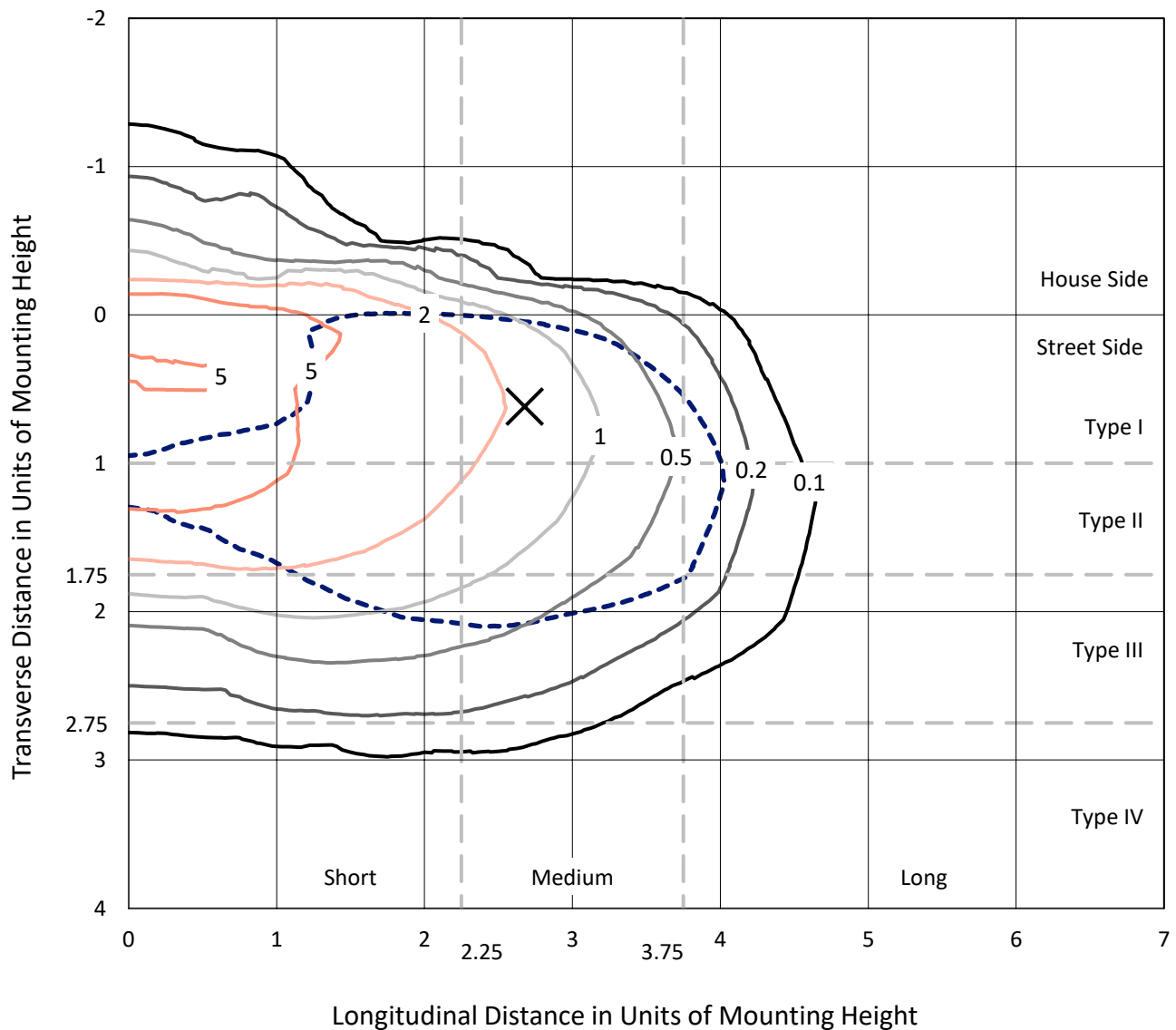


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Iso-Footcandle Lines of Horizontal Illumination

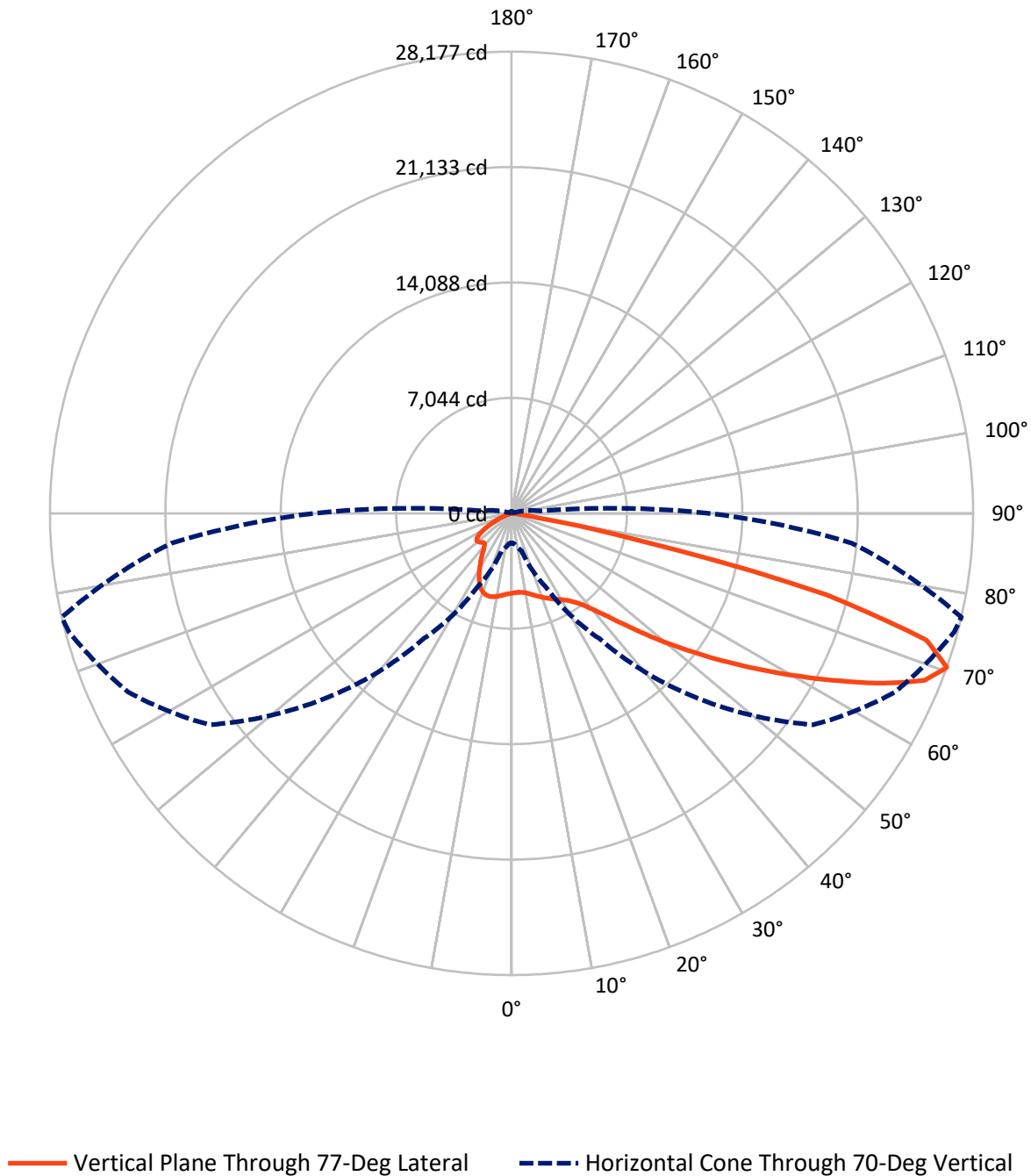
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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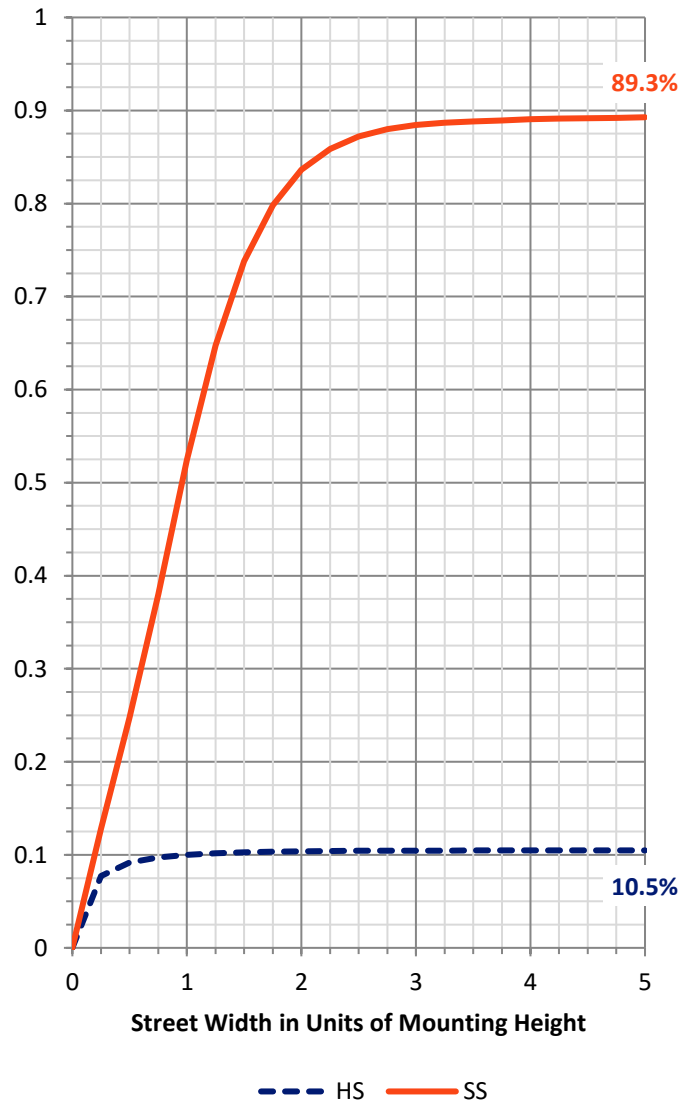
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3296.5	0.0	3296.5
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	27975.2	0.0	27975.2
	% Fixture	89.5	0.0	89.5
Total	Lumens	31271.7	0.0	31271.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.4	1.3
10°-20°	998.0	3.2
20°-30°	1543.6	4.9
30°-40°	2800.9	9.0
40°-50°	5287.0	16.9
50°-60°	7639.3	24.4
60°-70°	8131.8	26.0
70°-80°	4309.3	13.8
80°-90°	141.5	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°	31271.7	100.0
0°-180°	31271.7	100.0

Coefficient of Utilization



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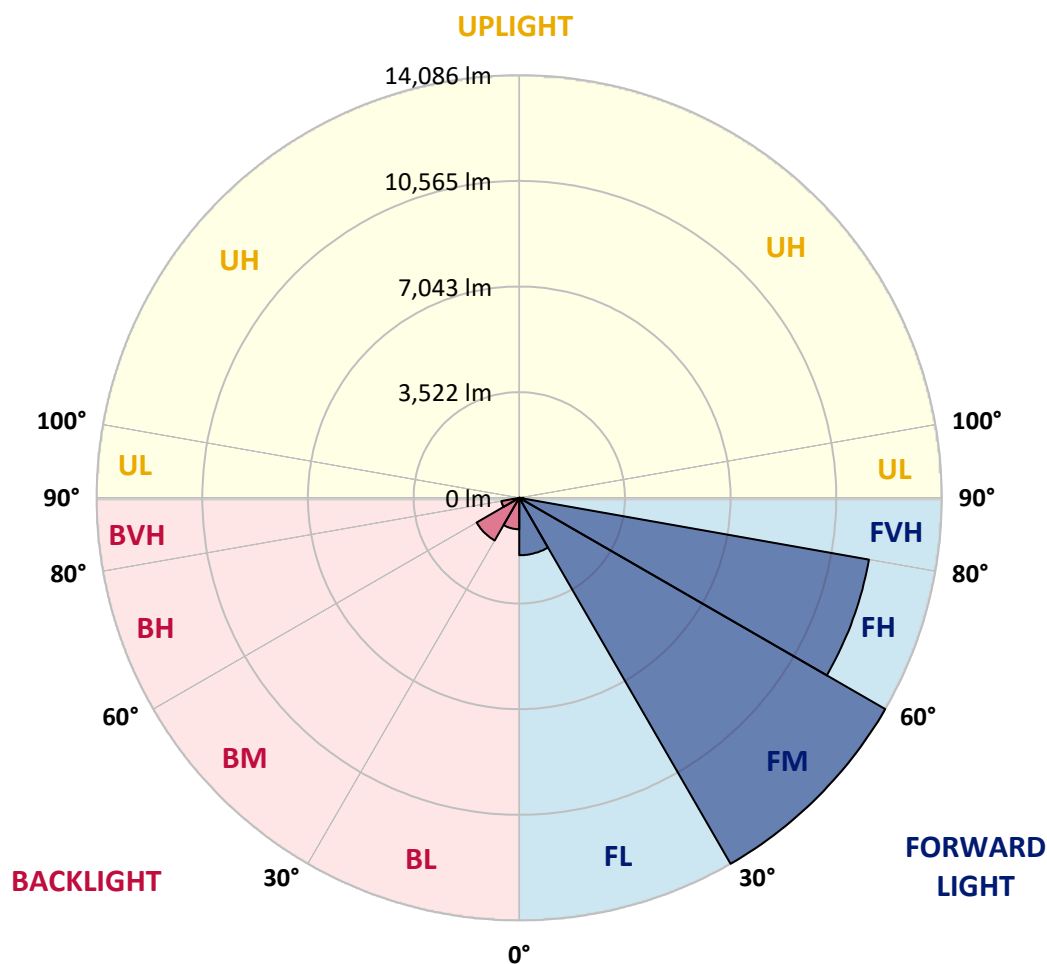
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1914.6	6.1			
FM	(30°-60°)	14086.2	45.0			
FH	(60°-80°)	11836.8	37.9			G4/12000
FVH	(80°-90°)	137.7	0.4			G2/225
BL	(0°-30°)	1047.3	3.3	B3/2500		
BM	(30°-60°)	1641.0	5.2	B2/2500		
BH	(60°-80°)	604.3	1.9	B2/1000		G2/1000
BVH	(80°-90°)	3.8	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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9
2.5°	4579.6	4621.1	4615.2	4642.8	4652.7	4692.1	4731.7	4785.0	4844.3	4842.3	4881.8
5°	4320.9	4362.4	4372.2	4409.8	4457.2	4518.4	4599.4	4706.0	4816.6	4834.4	4913.3
7.5°	4014.8	4058.3	4083.9	4158.9	4245.9	4372.2	4504.6	4660.6	4844.3	4869.9	5022.0
10°	3708.8	3748.2	3781.8	3888.4	4026.7	4214.3	4429.5	4654.6	4901.5	4939.1	5154.3
12.5°	3519.1	3556.6	3594.2	3687.0	3858.8	4087.9	4380.1	4682.3	4996.4	5049.7	5334.0
15°	3452.0	3485.6	3515.2	3598.2	3758.1	4018.8	4370.3	4739.6	5116.8	5187.8	5551.2
17.5°	3461.8	3479.7	3499.4	3562.6	3718.6	3987.1	4388.0	4838.3	5259.0	5322.2	5768.5
20°	3519.1	3529.0	3531.0	3574.5	3712.7	3983.3	4423.6	4933.1	5393.2	5478.2	5983.7
22.5°	3592.2	3596.1	3592.2	3621.8	3750.2	4012.9	4471.0	5047.6	5543.3	5622.3	6200.9
25°	3933.8	3858.8	3764.0	3706.7	3813.4	4070.1	4542.1	5201.7	5707.3	5784.3	6412.3
27.5°	4994.3	4779.1	4439.4	4058.3	3943.7	4153.1	4640.9	5357.7	5873.1	5942.2	6639.3
30°	6716.4	6434.0	5857.4	4998.3	4362.4	4326.8	4769.2	5513.7	6048.9	6124.0	6882.3
32.5°	8442.4	8373.2	7707.8	6518.9	5304.4	4713.9	4982.5	5725.0	6281.9	6341.2	7210.1
35°	10188.1	10048.0	9502.9	8327.8	6755.9	5501.9	5338.0	6001.5	6588.0	6655.1	7688.0
37.5°	11525.1	11440.1	11102.5	10134.8	8478.0	6718.4	5946.2	6430.0	7032.3	7107.5	8300.2
40°	12706.0	12666.5	12552.0	11914.1	10403.4	8310.1	6892.1	7093.6	7648.6	7737.4	9050.6
42.5°	13634.2	13727.0	13792.2	13614.5	12388.0	10126.9	8163.9	8025.7	8507.6	8598.4	10006.5
45°	14584.1	14615.7	14878.4	15135.0	14359.0	12026.7	9597.7	9117.8	9576.0	9688.5	11151.9
47.5°	15194.3	15320.7	15782.8	16235.1	16015.8	13910.7	11138.1	10407.3	10814.2	11025.4	12435.5
50°	15239.7	15478.7	16114.6	16902.6	17222.5	15703.8	12812.7	11876.6	12309.1	12542.1	13806.0
52.5°	14483.4	14854.6	15840.0	16993.4	17874.2	17222.5	14544.6	13345.9	13900.8	14205.0	15227.9
55°	11104.4	11590.3	14807.3	16499.7	17899.9	18373.8	16231.1	14876.3	15674.2	16017.8	16764.3
57.5°	9674.7	9919.5	11641.6	15642.6	17423.9	18837.9	17755.7	16333.8	17603.7	18030.2	18215.8
60°	8049.4	8371.3	9763.5	14240.5	16778.1	18883.3	19102.5	18213.8	19695.0	20174.9	19546.9
62.5°	5470.3	5819.8	7204.2	11831.2	15895.4	18861.5	20206.4	20149.1	22019.4	22534.7	20674.5
65°	3388.9	3608.0	4520.4	9660.8	14661.1	18885.3	21361.7	22499.3	24472.1	24995.3	21547.3
67.5°	2677.9	2778.6	3254.5	7417.4	12534.2	18352.1	22515.0	24709.1	26780.7	27195.4	21813.9
70°	1799.1	1860.3	2367.9	4972.6	9325.1	15891.4	22493.3	25818.9	27969.5	28176.8	20842.4
72.5°	947.9	995.3	1384.4	2302.7	5632.2	11296.0	18960.3	24491.9	26786.5	26474.5	17814.9
75°	474.0	553.0	932.1	1169.1	2405.4	6299.6	11774.0	19309.9	21083.2	19874.6	11430.3
77.5°	359.5	434.5	770.2	770.2	837.3	2120.9	4986.4	10531.8	9714.1	8088.9	3355.2
80°	229.1	296.2	673.4	582.6	349.5	539.2	1299.4	2950.4	2063.7	1570.0	610.2
82.5°	134.3	193.5	560.9	385.1	195.5	199.5	367.4	628.0	535.2	416.7	187.6
85°	53.3	126.4	385.1	152.1	77.0	49.4	110.6	134.3	110.6	82.9	47.4
87.5°	0.0	29.6	67.1	0.0	5.9	4.0	7.9	9.8	9.8	7.9	15.8
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°	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9	4877.9
2.5°	4899.5	4903.5	4915.4	4917.3	4889.7	4854.1	4840.3	4834.4	4810.6	4808.7	4812.7
5°	4958.7	4976.6	4958.7	4907.5	4785.0	4613.2	4482.8	4376.2	4279.5	4249.9	4232.0
7.5°	5077.2	5095.1	5041.8	4840.3	4532.2	4190.6	3882.5	3665.3	3469.7	3396.7	3367.1
10°	5247.1	5270.9	5103.0	4696.1	4151.0	3602.1	3080.7	2713.4	2427.1	2310.6	2261.1
12.5°	5460.4	5470.3	5136.5	4476.9	3655.4	2871.4	2132.8	1739.8	1485.0	1390.3	1360.7
15°	5695.4	5681.6	5140.5	4178.7	2980.0	2030.1	1392.3	1143.4	1040.8	1009.1	1009.1
17.5°	5942.2	5885.0	5061.4	3748.2	2239.4	1388.3	1032.8	973.5	955.8	947.9	946.0
20°	6185.2	6056.8	4917.3	3185.4	1607.5	1036.8	938.1	920.2	910.4	906.4	902.5
22.5°	6406.4	6187.1	4670.5	2531.8	1167.2	916.4	886.7	870.9	853.1	845.2	843.3
25°	6621.6	6262.1	4322.9	1921.5	934.1	857.1	833.4	803.8	780.0	770.2	766.2
27.5°	6830.9	6309.6	3888.4	1421.9	833.4	801.8	758.3	716.9	699.0	695.2	691.2
30°	7054.0	6325.4	3394.7	1060.5	772.1	732.7	669.4	622.1	612.2	614.2	614.2
32.5°	7326.6	6349.1	2897.1	868.9	720.8	649.7	574.7	525.3	517.4	525.3	523.4
35°	7652.4	6396.5	2417.2	799.8	675.4	564.8	483.8	442.4	434.5	440.3	438.4
37.5°	8094.8	6473.5	1968.9	786.0	637.9	493.7	406.8	373.2	373.2	375.3	373.2
40°	8683.3	6678.9	1568.0	776.1	618.1	440.3	343.6	329.8	335.7	339.7	339.7
42.5°	9400.2	7115.3	1297.4	764.2	596.4	416.7	312.0	306.1	316.0	319.9	319.9
45°	10204.0	7668.2	1202.6	744.6	576.7	432.4	298.2	290.3	302.2	304.1	306.1
47.5°	11035.4	8209.3	1190.8	722.8	556.9	456.2	294.3	276.4	290.3	292.2	294.3
50°	11876.6	8562.8	1202.6	689.2	525.3	456.2	296.2	262.6	274.5	280.4	282.4
52.5°	12723.8	8724.8	1194.7	616.1	470.0	428.6	296.2	250.8	262.6	266.6	266.6
55°	13545.4	8693.2	1074.3	507.6	398.9	379.1	288.3	241.0	248.9	250.8	250.8
57.5°	14195.0	8252.8	851.2	394.9	323.9	316.0	262.6	229.1	235.0	233.0	233.0
60°	14534.7	7285.2	608.2	304.1	254.7	248.9	231.0	213.3	217.2	207.4	205.4
62.5°	14538.7	6005.5	406.8	241.0	203.4	197.5	197.5	191.6	187.6	167.9	162.0
65°	14228.6	4585.5	270.6	191.6	163.9	154.1	165.8	163.9	150.1	122.5	118.5
67.5°	13525.6	3005.7	205.4	150.1	126.4	120.4	132.3	138.3	128.3	102.7	100.8
70°	12080.0	1749.7	169.8	116.5	94.8	88.9	106.6	118.5	106.6	82.9	79.0
72.5°	10034.1	943.9	138.3	86.9	65.2	59.2	84.9	96.8	84.9	61.2	59.2
75°	6511.0	505.5	106.6	57.3	33.6	37.5	63.2	71.1	59.2	39.5	35.6
77.5°	2186.1	223.1	67.1	27.7	15.8	15.8	37.5	43.5	27.7	13.8	11.9
80°	487.8	92.9	27.7	11.9	5.9	5.9	7.9	7.9	4.0	0.0	0.0
82.5°	160.0	37.5	11.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	61.2	13.8	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	23.7	1.9	0.0	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)