

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: P967730

Luminaire Tested: **NAV-SB5A-735-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967730
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-735-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19664.6 lumens
Efficiency: N/A
Efficacy: 138.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

Input Watts (W): 141.7
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

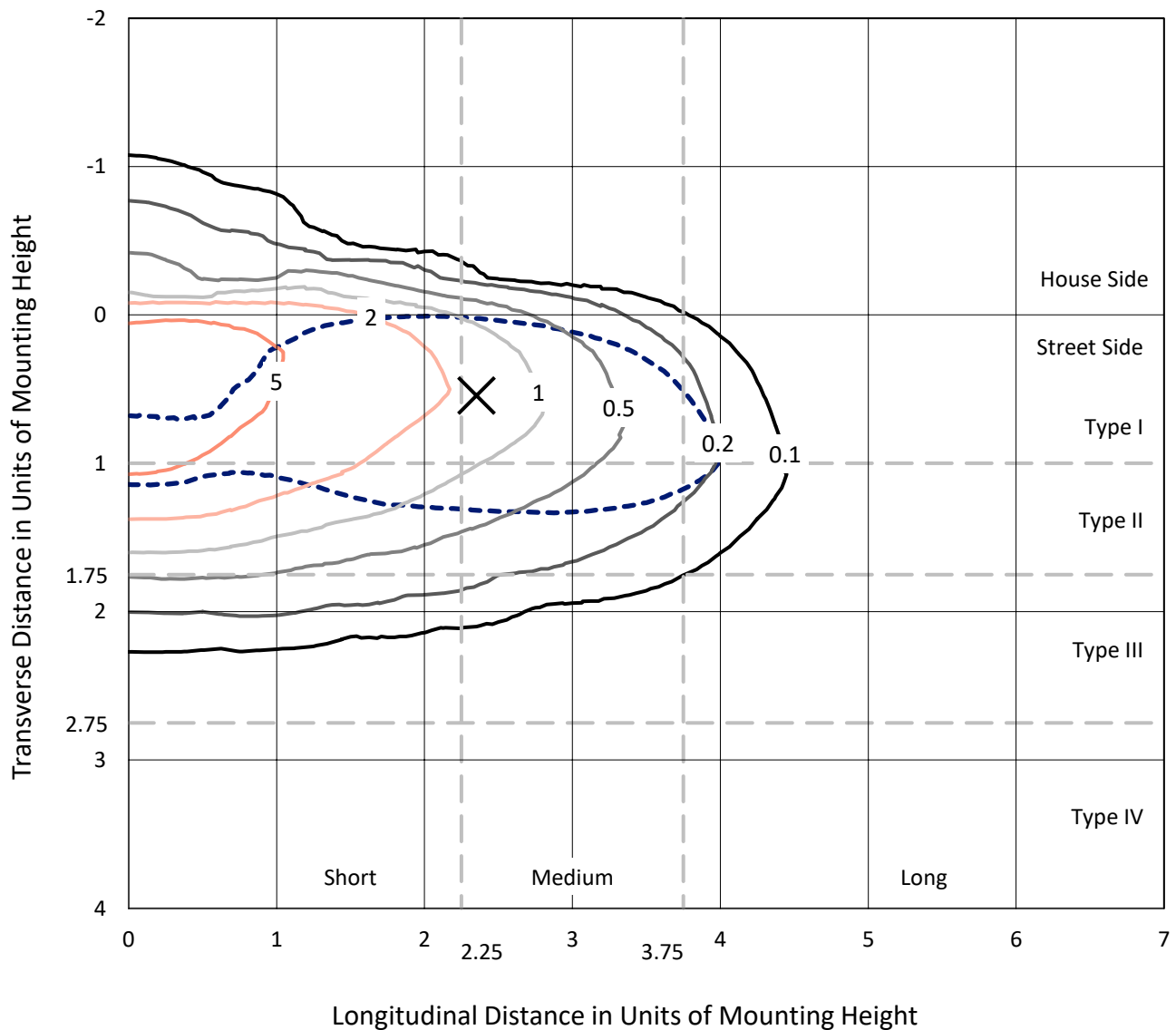


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Iso-Footcandle Lines of Horizontal Illumination

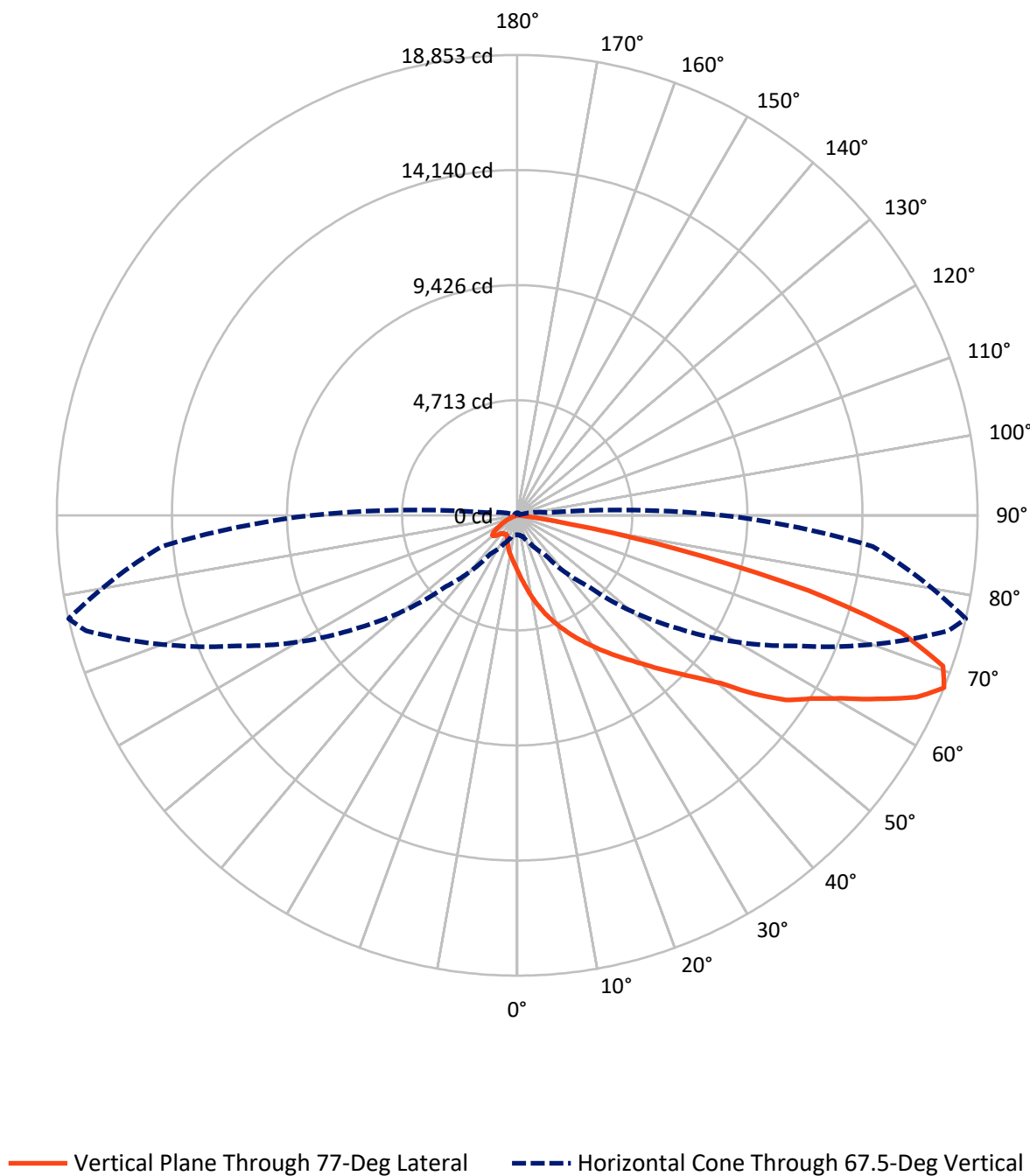
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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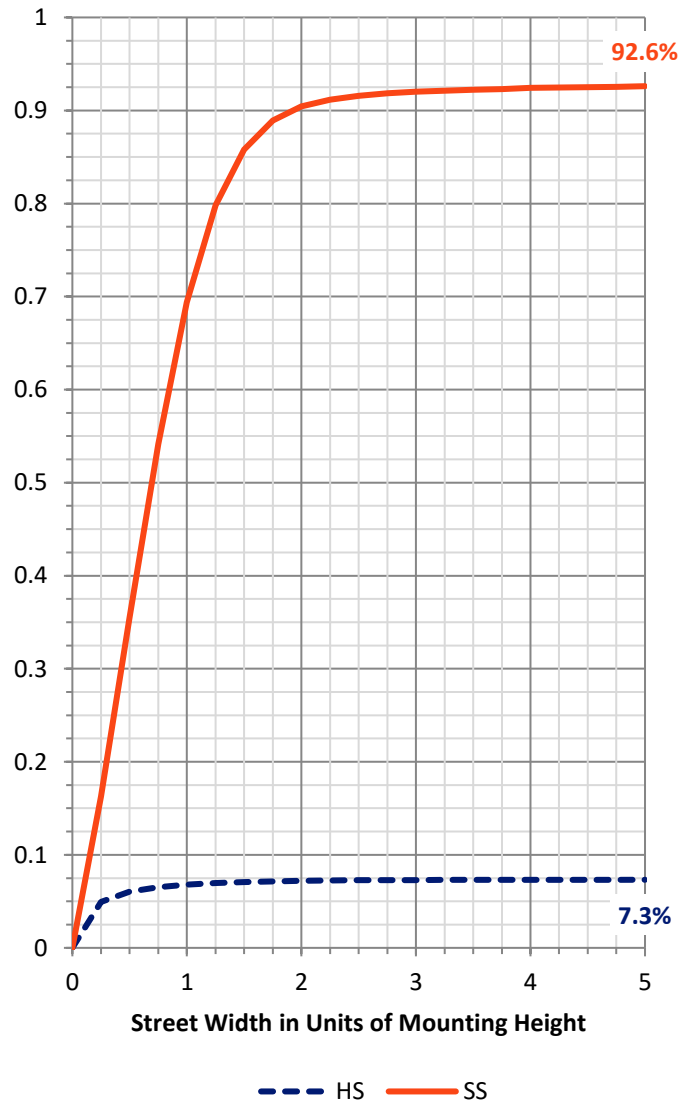
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1446.7	0.0	1446.7
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	18217.9	0.0	18217.9
	% Fixture	92.6	0.0	92.6
Total	Lumens	19664.6	0.0	19664.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.4	1.2
10°-20°	810.5	4.1
20°-30°	1564.0	8.0
30°-40°	2715.3	13.8
40°-50°	3942.4	20.0
50°-60°	4527.4	23.0
60°-70°	3930.6	20.0
70°-80°	1851.4	9.4
80°-90°	91.6	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°	19664.6	100.0
0°-180°	19664.6	100.0

Coefficient of Utilization



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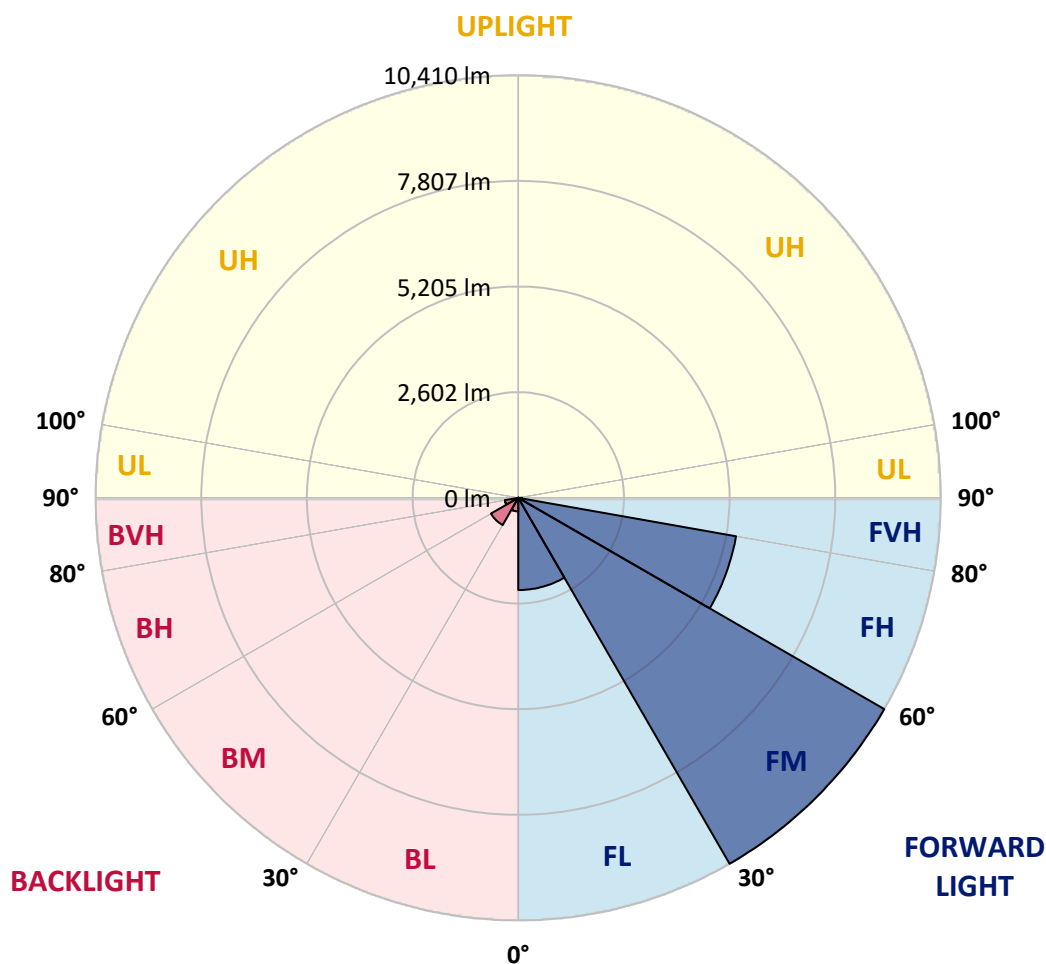
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2271.1	11.5			
FM	(30°-60°)	10409.9	52.9			
FH	(60°-80°)	5447.0	27.7			G3/7500
FVH	(80°-90°)	89.9	0.5			G1/100
BL	(0°-30°)	334.9	1.7	B1/500		
BM	(30°-60°)	775.2	3.9	B1/1000		
BH	(60°-80°)	334.9	1.7	B1/500		G1/500
BVH	(80°-90°)	1.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6
2.5°	3139.5	3159.0	3131.0	3077.3	2996.6	2944.1	2815.9	2695.0	2560.7	2517.9	2383.6
5°	3826.9	3844.1	3812.4	3753.8	3646.2	3543.7	3375.2	3122.4	2859.9	2775.6	2537.5
7.5°	4336.2	4346.0	4333.8	4280.0	4177.5	4061.5	3873.4	3574.2	3184.7	3091.9	2726.8
10°	4702.5	4734.3	4730.6	4709.9	4641.5	4547.4	4347.2	4006.5	3548.6	3428.9	2940.4
12.5°	4945.5	4981.0	5001.7	5048.1	5044.4	4984.6	4808.8	4448.5	3911.3	3770.8	3181.0
15°	5016.3	5054.2	5133.6	5241.0	5336.3	5366.8	5243.5	4882.1	4310.5	4131.1	3427.7
17.5°	4976.1	5034.7	5129.9	5299.7	5508.5	5646.4	5633.0	5300.9	4673.2	4468.1	3669.5
20°	5065.2	5121.4	5195.8	5338.7	5581.7	5832.0	5932.2	5701.5	5033.5	4818.5	3923.5
22.5°	5558.6	5548.7	5556.1	5579.3	5724.6	5972.5	6178.9	6065.3	5390.1	5170.2	4192.1
25°	6340.0	6296.1	6221.6	6095.9	6059.2	6178.9	6393.7	6387.7	5766.1	5530.5	4466.8
27.5°	7236.4	7229.0	7054.5	6751.6	6580.6	6534.2	6636.8	6701.6	6138.6	5887.0	4742.9
30°	8094.8	8114.3	7878.7	7541.6	7227.8	7045.8	6953.1	6999.4	6517.2	6271.7	5027.3
32.5°	8842.2	8862.9	8606.4	8212.0	7823.7	7604.0	7408.5	7293.8	6929.8	6662.4	5339.9
35°	9473.5	9494.2	9199.9	8764.0	8350.1	8151.0	7929.9	7616.2	7345.0	7096.0	5687.9
37.5°	10037.6	10031.5	9637.0	9197.4	8790.8	8633.4	8517.3	8013.0	7772.5	7531.9	6073.8
40°	10370.9	10396.6	10059.6	9574.8	9180.4	9065.6	9058.2	8505.1	8265.8	8032.5	6496.3
42.5°	10468.6	10513.8	10269.6	9871.6	9513.7	9389.2	9580.9	9037.5	8839.7	8612.6	6973.8
45°	10292.8	10336.8	10225.7	9949.7	9740.9	9660.3	10030.2	9589.5	9452.7	9228.0	7512.3
47.5°	9779.9	9834.9	9861.7	9803.2	9800.7	9882.5	10433.3	10170.7	10180.5	9950.9	8136.3
50°	8787.2	8880.0	9126.7	9334.3	9655.4	10058.3	10825.2	10800.8	11001.1	10803.3	8949.6
52.5°	6982.4	7114.2	7964.1	8532.0	9253.7	10025.4	11256.2	11811.9	12440.7	12151.4	10096.2
55°	5611.1	5611.1	6302.2	7364.6	8469.7	9808.0	11444.3	12468.8	13421.4	13353.0	10903.3
57.5°	4574.3	4629.3	5070.1	6009.2	7335.3	9290.3	11560.4	12881.6	14211.4	14161.3	11692.3
60°	2823.3	2941.6	3774.5	4701.3	6044.5	8368.3	11487.1	13299.2	15170.0	15210.3	12642.2
62.5°	1589.9	1633.8	2005.1	3382.5	4700.1	7128.9	10926.6	13532.5	16396.0	16567.0	13621.6
65°	1097.8	1119.8	1262.6	2105.2	3258.0	5675.7	9831.3	13387.1	17624.5	17970.0	14452.0
67.5°	797.3	808.4	897.5	1285.9	1933.0	4115.2	8114.3	12654.4	18275.2	18852.8	14610.7
70°	613.1	620.3	685.0	845.0	1141.7	2540.0	5893.1	11197.7	17803.9	18493.9	13797.4
72.5°	498.3	505.5	555.7	625.2	757.1	1501.9	3571.8	9093.7	15723.2	16468.1	11746.0
75°	420.0	429.9	475.0	520.2	593.5	964.7	1675.4	6332.8	11824.1	12312.5	8168.1
77.5°	233.2	214.9	385.9	431.0	500.6	610.6	783.9	3726.9	6622.1	6757.7	3624.3
80°	145.3	150.2	306.5	346.8	384.7	307.7	359.1	1434.8	2295.7	2180.9	702.1
82.5°	8.5	19.6	235.6	250.3	263.7	131.9	135.5	487.2	553.2	508.0	124.5
85°	0.0	0.0	107.4	86.7	91.6	37.8	39.1	113.6	74.5	80.6	24.4
87.5°	0.0	0.0	0.0	2.5	0.0	3.7	7.3	9.7	3.7	4.9	8.5
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°	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6	2267.6
2.5°	2298.2	2212.7	2039.2	1869.5	1731.5	1603.3	1511.8	1425.1	1381.1	1378.6	1376.2
5°	2367.8	2188.3	1841.4	1534.9	1288.3	1090.5	962.3	870.6	824.3	808.4	806.0
7.5°	2465.4	2195.5	1668.1	1241.9	951.3	781.6	708.3	679.0	669.2	658.2	655.7
10°	2588.7	2212.7	1513.0	1000.1	749.8	664.3	635.0	622.8	615.4	608.1	605.7
12.5°	2726.8	2228.6	1359.1	830.4	659.4	615.4	594.7	580.0	570.3	561.7	559.2
15°	2861.1	2238.3	1199.1	711.9	613.1	577.6	555.7	539.8	526.3	516.5	515.3
17.5°	2994.2	2251.7	1049.0	641.1	575.1	539.8	517.7	498.3	487.2	476.2	475.0
20°	3141.9	2249.3	907.3	591.0	537.3	501.8	478.7	460.3	449.4	437.2	435.9
22.5°	3278.7	2237.1	782.7	548.3	498.3	464.0	438.4	420.0	409.1	399.3	398.1
25°	3436.2	2227.3	679.0	509.2	461.6	427.4	399.3	382.2	370.0	361.4	360.2
27.5°	3587.6	2212.7	603.2	473.8	426.2	393.2	366.3	346.8	335.8	329.7	329.7
30°	3736.6	2209.0	575.1	439.6	394.4	361.4	334.6	316.3	307.7	305.2	304.0
32.5°	3916.1	2218.8	587.3	427.4	365.1	332.1	306.5	293.0	284.5	284.5	284.5
35°	4107.9	2216.4	605.7	438.4	345.5	302.9	283.3	274.8	266.2	266.2	266.2
37.5°	4348.5	2220.0	620.3	456.7	338.2	278.4	267.4	256.5	251.5	251.5	251.5
40°	4707.4	2340.9	613.1	472.5	335.8	261.3	239.3	235.6	232.1	232.1	232.1
42.5°	5147.0	2603.4	622.8	473.8	334.6	249.1	219.8	227.1	218.5	217.4	216.2
45°	5628.2	2890.4	685.0	448.1	333.3	243.0	210.0	218.5	205.1	205.1	205.1
47.5°	6105.6	3174.9	748.6	411.5	329.7	241.8	201.5	196.6	192.9	194.1	194.1
50°	6763.8	3406.9	773.0	361.4	321.1	239.3	185.6	186.9	184.4	186.9	186.9
52.5°	7480.6	3455.8	743.6	305.2	296.7	232.1	174.7	179.5	178.2	180.7	180.7
55°	7927.6	3403.3	614.2	254.0	258.9	202.7	163.6	173.4	173.4	173.4	173.4
57.5°	8389.1	3179.8	435.9	206.3	214.9	166.0	153.9	167.3	166.0	164.8	164.8
60°	8721.2	2818.3	287.0	169.7	171.0	136.7	142.9	157.5	156.3	150.2	150.2
62.5°	8969.2	2419.0	184.4	144.1	130.7	123.3	130.7	142.9	138.0	124.5	122.1
65°	8941.1	1865.9	141.7	123.3	107.4	107.4	113.6	124.5	109.9	87.9	85.5
67.5°	8419.7	1262.6	117.3	103.8	90.4	89.2	94.0	103.8	94.0	74.5	72.1
70°	7487.9	825.4	94.0	80.6	72.1	65.9	75.7	89.2	79.3	59.9	57.4
72.5°	6077.5	503.1	70.8	58.6	52.5	42.7	59.9	73.3	63.4	44.0	41.5
75°	3932.0	256.5	48.9	37.8	28.1	25.6	44.0	54.9	44.0	26.9	23.2
77.5°	1504.4	107.4	26.9	17.1	14.7	12.2	24.4	33.0	18.3	6.1	4.9
80°	289.4	45.2	13.4	8.5	7.3	4.9	3.7	2.5	0.0	0.0	0.0
82.5°	50.0	14.7	4.9	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	17.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.1	0.0	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)