

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: P969343

Luminaire Tested: **NAV-SB5D-740-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969343
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-740-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 56776.8 lumens
Efficiency: N/A
Efficacy: 155.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

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



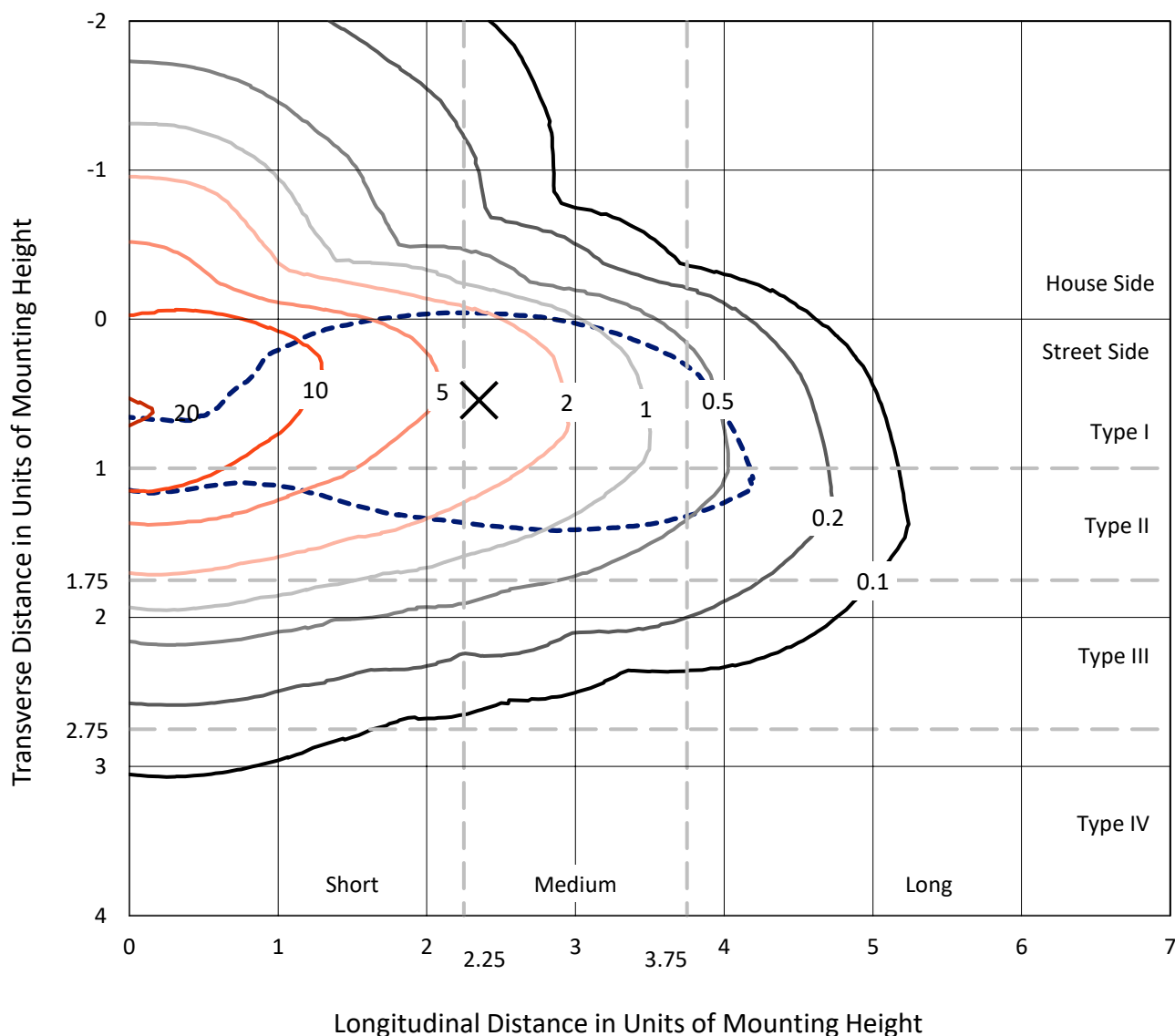
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

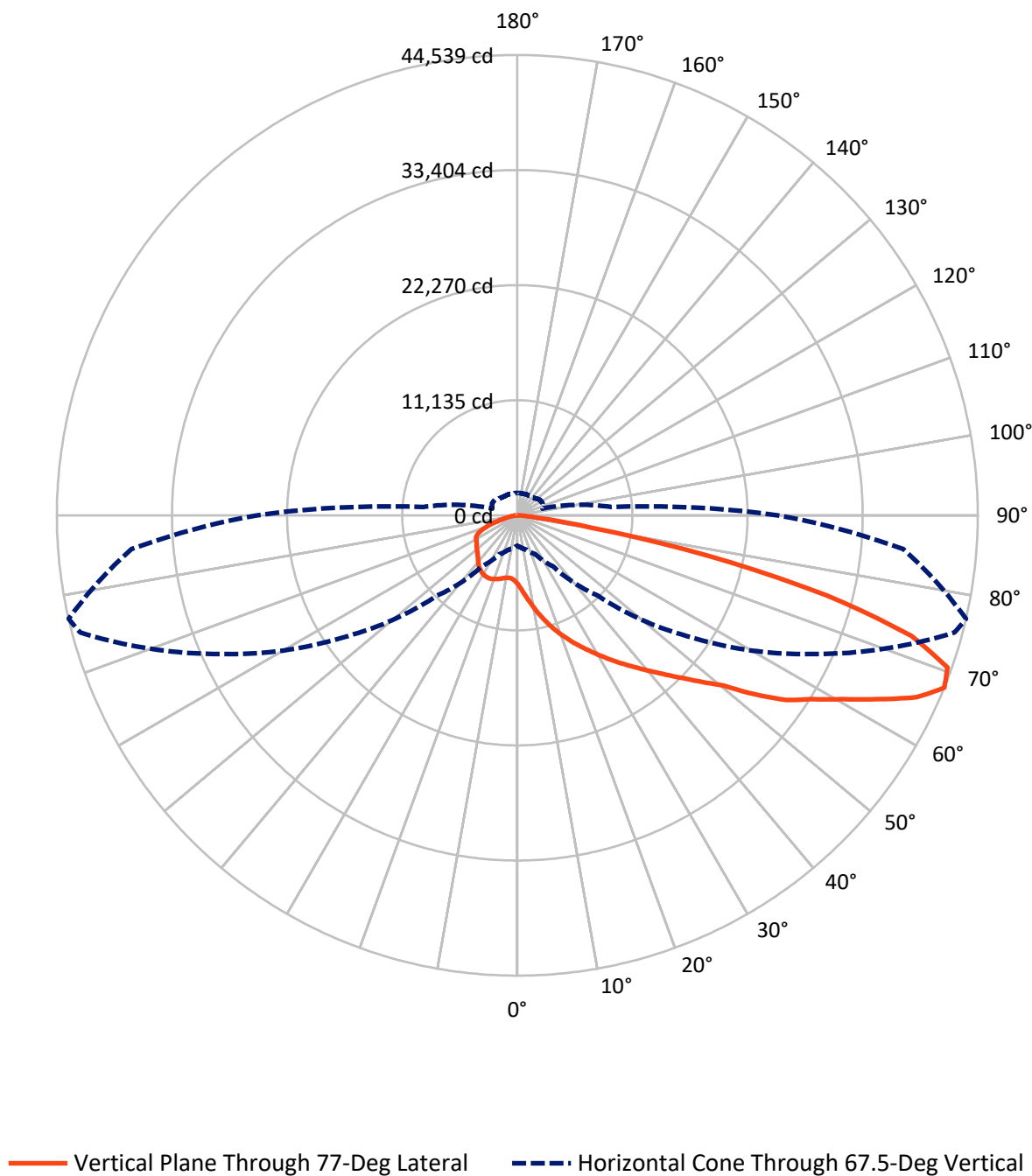
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 20.8 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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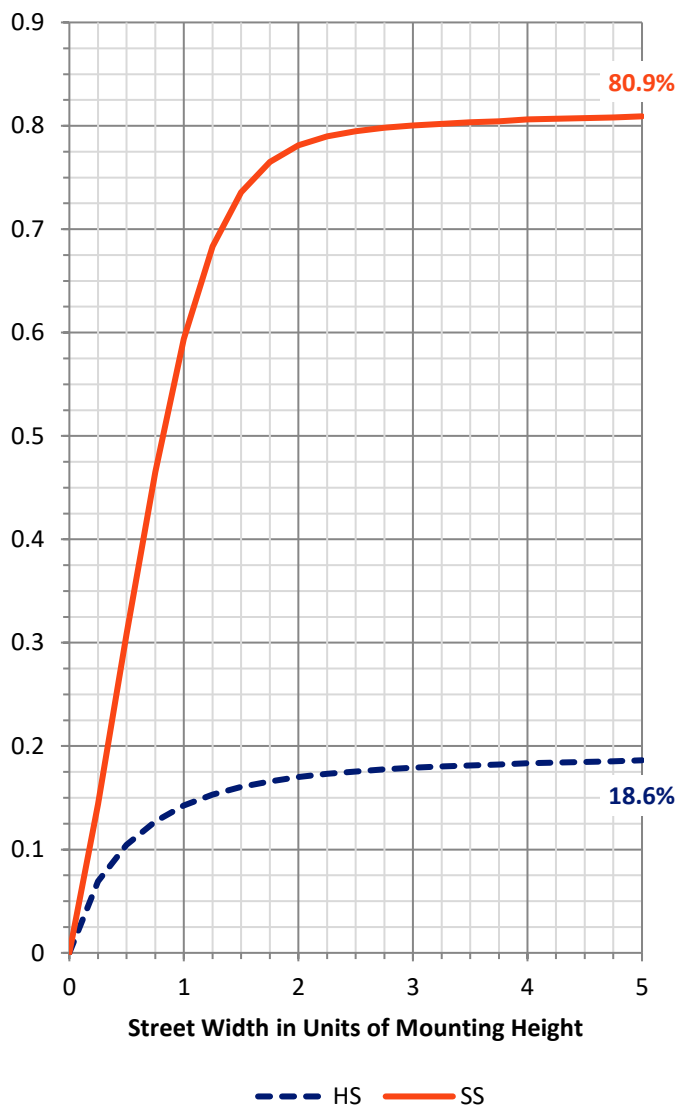
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10739.9	0.0	10739.9
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	46036.9	0.0	46036.9
	% Fixture	81.1	0.0	81.1
Total	Lumens	56776.8	0.0	56776.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	714.0	1.3
10°-20°	2565.3	4.5
20°-30°	4843.5	8.5
30°-40°	7802.8	13.7
40°-50°	10672.8	18.8
50°-60°	12038.9	21.2
60°-70°	11236.9	19.8
70°-80°	6159.7	10.8
80°-90°	743.0	1.3
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°	56776.8	100.0
0°-180°	56776.8	100.0

Coefficient of Utilization



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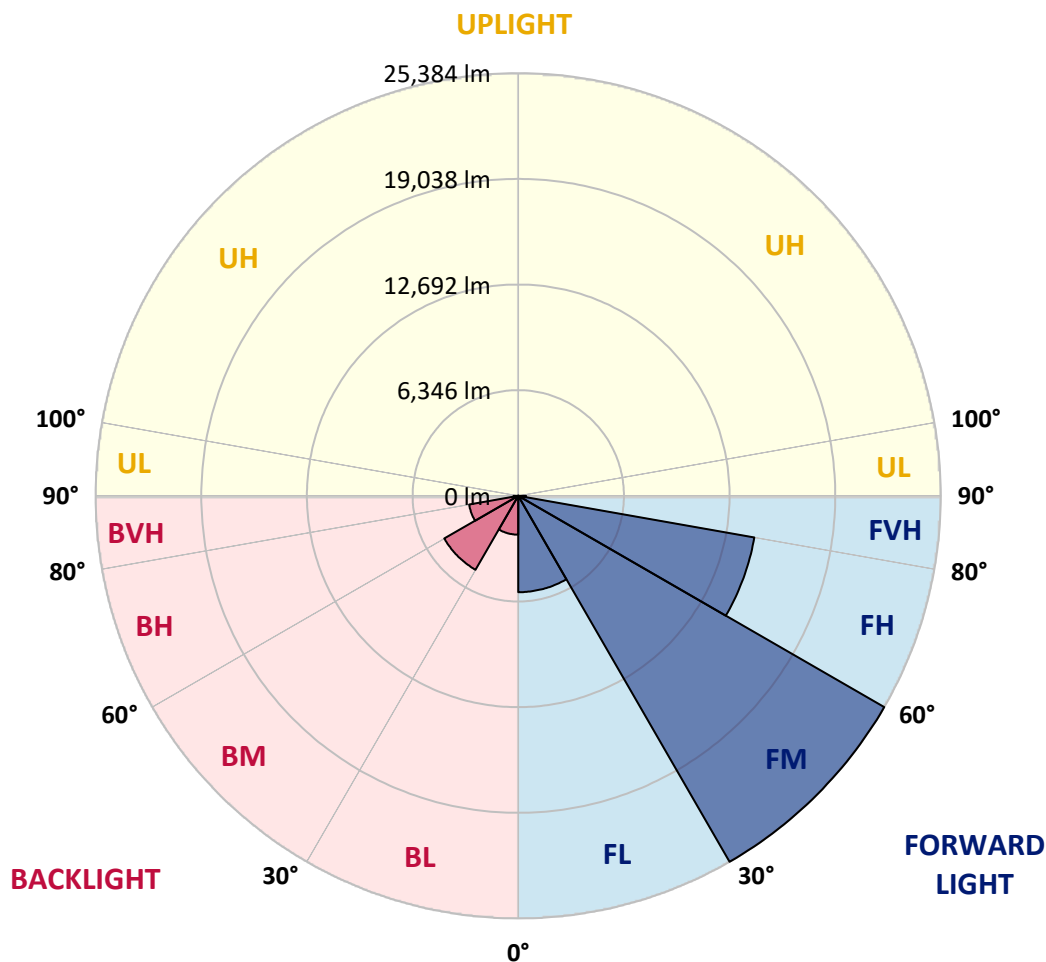
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5787.7	10.2			
FM	(30°-60°)	25384.3	44.7			
FH	(60°-80°)	14400.3	25.4			G5
FVH	(80°-90°)	464.7	0.8			G3/500
BL	(0°-30°)	2335.1	4.1	B3/2500		
BM	(30°-60°)	5130.2	9.0	B4/8500		
BH	(60°-80°)	2996.3	5.3	B4/5000		G4/5000
BVH	(80°-90°)	278.3	0.5			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 II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7
2.5°	8341.0	8399.7	8326.4	8326.4	8080.2	7951.2	7705.0	7517.5	7180.4	7121.8	6899.1
5°	9859.2	9932.5	9829.9	9785.9	9495.8	9229.1	8815.8	8408.4	7807.6	7746.0	7221.4
7.5°	11034.4	11128.2	11037.3	10990.5	10732.6	10433.6	9950.0	9381.4	8534.5	8414.3	7655.2
10°	11992.8	12007.5	11978.2	11995.7	11793.4	11547.3	11052.0	10389.6	9331.6	9167.5	8179.8
12.5°	12535.0	12602.4	12661.0	12766.5	12731.3	12578.9	12133.4	11342.1	10175.7	9964.6	8751.3
15°	12789.9	12907.2	13039.1	13282.4	13478.6	13516.8	13176.8	12365.0	11034.4	10779.4	9328.7
17.5°	12880.8	12992.2	13200.3	13551.9	13974.0	14258.3	14105.8	13358.5	11884.4	11591.3	9935.3
20°	13341.0	13373.2	13499.2	13833.3	14290.6	14762.4	14876.6	14314.0	12725.5	12394.3	10562.5
22.5°	14325.7	14261.2	14296.4	14448.8	14777.0	15234.3	15495.1	15158.0	13590.1	13209.1	11195.6
25°	15952.3	15764.7	15577.1	15401.3	15568.3	15826.3	16122.2	16002.1	14495.7	14012.1	11834.5
27.5°	18006.8	17778.2	17364.9	16787.6	16585.3	16676.2	16808.1	16784.6	15333.9	14844.5	12493.9
30°	20029.0	19762.3	19269.9	18434.6	17901.2	17661.0	17561.3	17493.9	16245.3	15723.7	13159.3
32.5°	21643.9	21432.9	20949.3	20014.4	19240.6	18830.3	18499.1	18258.8	17197.9	16676.2	13862.6
35°	23056.6	22860.2	22306.3	21286.3	20445.2	20008.5	19574.7	19061.8	18188.5	17661.0	14618.8
37.5°	24346.1	24149.7	23390.6	22329.7	21482.7	21180.8	20794.0	19923.5	19182.1	18683.8	15418.9
40°	25160.8	25116.9	24407.6	23206.0	22326.8	22177.3	22048.4	20922.9	20284.0	19820.9	16298.1
42.5°	25369.0	25465.6	24902.9	23915.2	23077.1	22956.8	23258.8	22054.2	21520.8	21078.2	17294.6
45°	24867.7	25146.1	24776.9	24105.7	23610.5	23546.0	24331.4	23291.0	22889.5	22485.0	18496.2
47.5°	23598.7	24070.6	23918.2	23824.4	23754.1	24032.5	25275.2	24604.0	24439.9	24088.1	19867.8
50°	21037.2	21931.1	22197.8	22789.8	23469.7	24410.6	26133.8	26037.2	26251.1	25896.4	21538.3
52.5°	16608.8	17839.7	19387.2	20870.1	22596.3	24284.5	27077.5	28094.5	28997.2	28803.8	24193.7
55°	13710.2	14264.1	15454.0	18173.9	20902.4	23754.1	27502.5	29756.3	31722.8	31549.9	26207.1
57.5°	11482.9	11978.2	12710.8	14982.2	18340.8	22549.5	27766.3	30770.4	33589.8	33572.1	28194.2
60°	9094.2	9618.8	10369.1	11978.2	15348.6	20468.6	27707.7	31925.1	35972.5	36119.1	30618.0
62.5°	6397.9	6975.2	7807.6	9308.2	12291.7	17772.3	26511.9	32760.3	38777.3	39175.8	33534.1
65°	4205.7	4586.7	5213.9	6509.3	9158.7	14305.2	24228.8	32868.8	41778.4	42452.4	36271.5
67.5°	2948.4	3094.9	3464.2	4167.5	6037.5	10970.0	20591.7	31746.3	43780.1	44539.2	37458.4
70°	2300.7	2373.9	2561.5	2842.8	3792.4	7376.8	15779.4	28827.2	43352.3	44143.6	36218.7
72.5°	1987.1	2057.4	2127.8	2163.0	2543.9	4554.5	10688.6	24102.8	39322.4	39858.8	31491.3
75°	1802.5	1820.0	1878.6	1866.9	1940.2	2954.3	6169.3	17561.3	31025.3	30840.7	23247.0
77.5°	1515.3	1538.6	1635.4	1620.7	1723.3	2019.4	3203.3	11333.3	20114.0	18859.6	12939.4
80°	1283.7	1295.4	1400.9	1383.3	1497.6	1462.5	1635.4	5776.6	8531.5	7227.3	3730.9
82.5°	445.5	550.9	1069.7	1102.0	1143.0	885.1	943.7	2356.4	2605.4	1995.9	782.5
85°	216.9	231.5	545.1	773.8	770.8	445.5	460.1	841.1	820.6	644.7	260.9
87.5°	35.2	44.0	64.5	301.9	240.4	117.3	158.3	164.1	169.9	146.6	58.6
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°	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7	6661.7
2.5°	6735.0	6588.4	6280.7	5996.4	5773.6	5559.7	5439.6	5337.0	5278.3	5266.7	5266.7
5°	6916.7	6614.8	6055.0	5583.2	5275.5	5046.8	4926.7	4850.5	4812.4	4788.9	4785.9
7.5°	7177.5	6735.0	5937.8	5401.4	5079.1	4915.0	4853.4	4841.7	4838.7	4841.7	4850.5
10°	7538.0	6931.4	5926.0	5357.5	5087.9	4997.0	4994.1	4997.0	5008.8	5011.6	5014.6
12.5°	7927.8	7133.6	5973.0	5395.6	5199.2	5149.4	5140.6	5137.7	5146.4	5152.4	5155.2
15°	8352.7	7400.2	6052.1	5477.6	5322.3	5269.5	5260.8	5243.2	5240.2	5237.3	5234.4
17.5°	8789.5	7664.0	6140.0	5565.5	5401.4	5328.2	5296.0	5254.9	5222.7	5213.9	5222.7
20°	9232.0	7924.9	6201.6	5609.5	5407.3	5304.7	5240.2	5169.9	5114.2	5082.0	5093.7
22.5°	9703.9	8197.4	6239.7	5597.8	5354.6	5213.9	5096.6	5014.6	4929.6	4873.9	4876.8
25°	10164.0	8434.8	6236.7	5536.2	5252.0	5073.2	4923.7	4818.2	4701.0	4642.3	4642.3
27.5°	10606.5	8648.7	6163.4	5427.8	5105.4	4906.2	4727.4	4601.3	4487.0	4431.4	4428.4
30°	11063.7	8827.5	6049.1	5269.5	4932.5	4712.7	4516.4	4407.9	4305.3	4252.6	4249.6
32.5°	11518.0	8991.7	5887.9	5073.2	4733.2	4522.2	4328.8	4229.2	4167.5	4167.5	4170.5
35°	11998.6	9106.0	5674.0	4844.6	4522.2	4320.0	4167.5	4108.9	4103.1	4067.9	4059.1
37.5°	12505.7	9179.2	5413.1	4610.1	4314.1	4123.6	4076.7	4006.4	3947.8	3871.5	3859.8
40°	13039.1	9252.5	5099.6	4366.9	4094.4	3988.8	3968.3	3874.5	3707.4	3519.8	3493.5
42.5°	13686.8	9302.3	4774.2	4123.6	3862.8	3827.7	3856.9	3695.7	3429.0	3288.3	3291.3
45°	14437.0	9384.4	4475.4	3883.3	3625.4	3625.4	3748.5	3537.5	3317.6	3229.8	3244.4
47.5°	15410.1	9574.9	4196.9	3619.5	3405.6	3464.2	3508.2	3346.9	3223.8	3115.4	3112.5
50°	16816.9	10032.1	3909.7	3352.8	3238.5	3355.7	3294.2	3200.5	3056.9	2968.9	2960.1
52.5°	18563.6	10301.8	3654.7	3112.5	3094.9	3212.1	3124.2	3036.3	2927.8	2810.7	2787.2
55°	19753.5	10351.6	3440.7	2936.6	2998.2	2986.4	2954.3	2875.1	2816.5	2661.1	2664.1
57.5°	21084.0	10451.2	3264.9	2831.2	2936.6	2807.7	2796.0	2728.5	2652.4	2546.8	2511.7
60°	22675.6	10606.5	3112.5	2790.2	2883.9	2690.4	2631.9	2605.4	2529.3	2476.5	2491.2
62.5°	24410.6	10747.2	2957.1	2796.0	2822.3	2576.1	2488.3	2479.5	2432.5	2415.0	2415.0
65°	25594.6	10363.3	2763.7	2790.2	2725.7	2459.0	2347.6	2344.6	2306.6	2300.7	2297.7
67.5°	25181.4	9147.0	2502.8	2708.0	2625.9	2341.7	2218.6	2206.9	2157.0	2160.0	2160.0
70°	23112.2	7412.0	2142.5	2505.8	2502.8	2236.2	2083.8	2045.7	1978.2	1990.0	2001.7
72.5°	19231.9	5492.3	1658.9	2168.8	2306.6	2139.5	1928.4	1866.9	1782.0	1793.6	1790.7
75°	13889.1	3733.9	1207.4	1650.0	2007.6	2025.2	1776.0	1670.5	1567.9	1585.6	1591.4
77.5°	7107.1	2116.0	888.1	1137.1	1576.8	1840.5	1638.4	1497.6	1474.2	1638.4	1614.9
80°	2318.2	1061.0	615.5	797.1	1034.5	1506.4	1436.1	1274.9	1269.1	1307.2	1122.5
82.5°	691.7	448.4	395.6	524.6	571.5	1154.8	1239.7	964.2	829.4	873.4	902.7
85°	237.4	216.9	225.7	260.9	272.5	677.0	867.6	638.9	603.7	665.3	656.5
87.5°	55.7	76.2	64.5	58.6	58.6	164.1	337.0	266.7	369.3	246.2	237.4
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)