

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: P969347

Luminaire Tested: **NAV-SB5D-740-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969347
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-740-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 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: 43718.3 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - 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

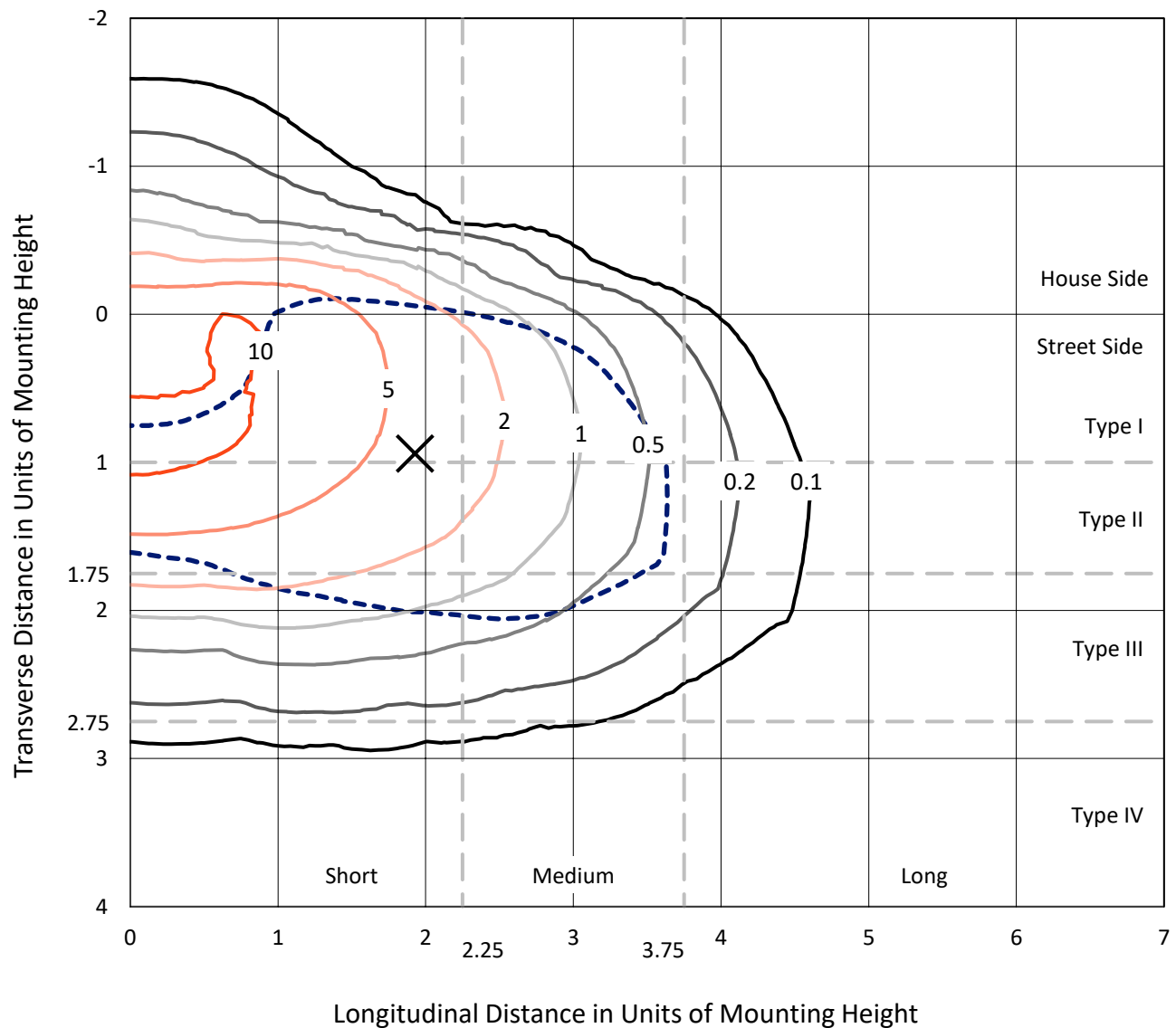


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Iso-Footcandle Lines of Horizontal Illumination

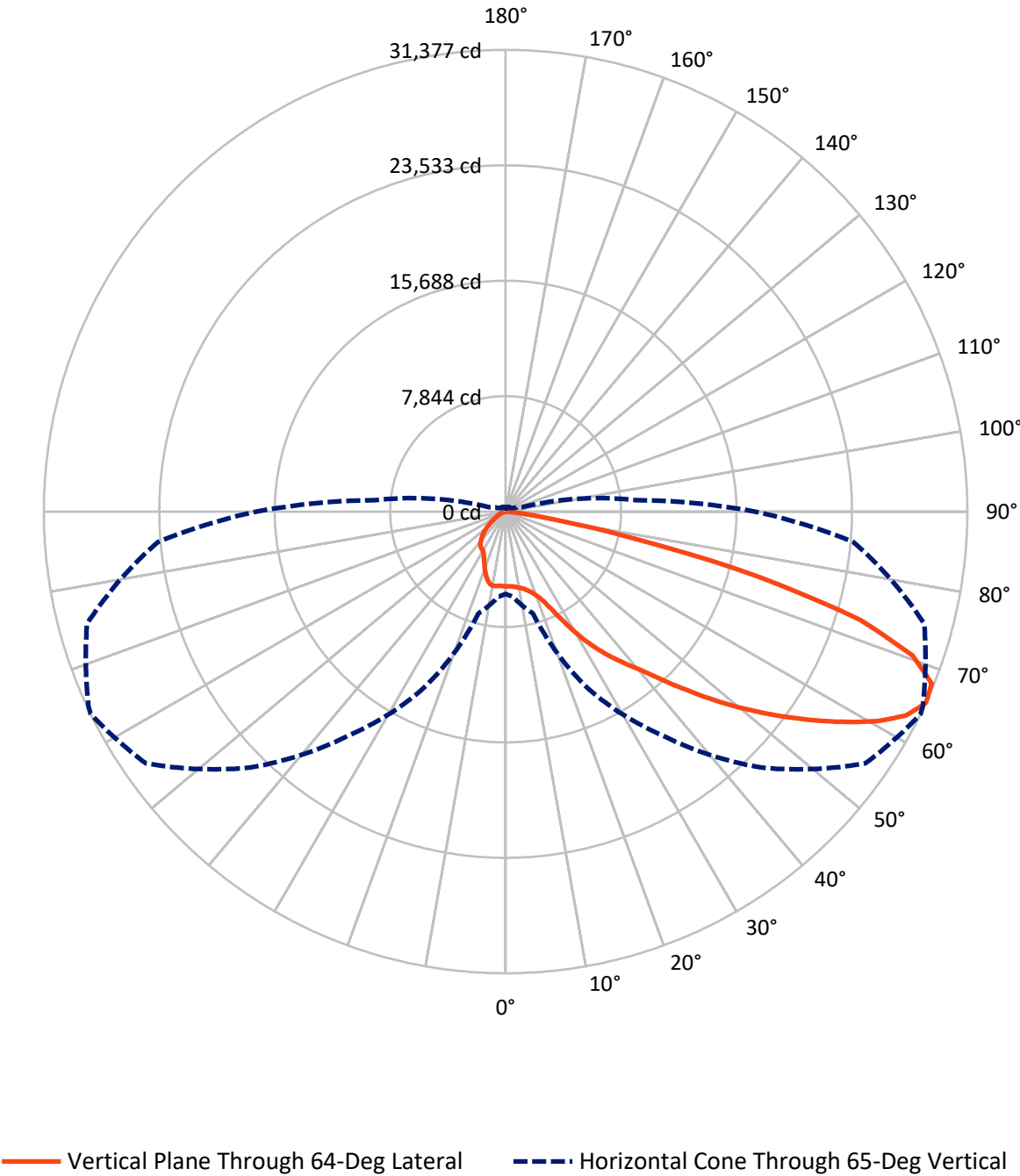
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.8 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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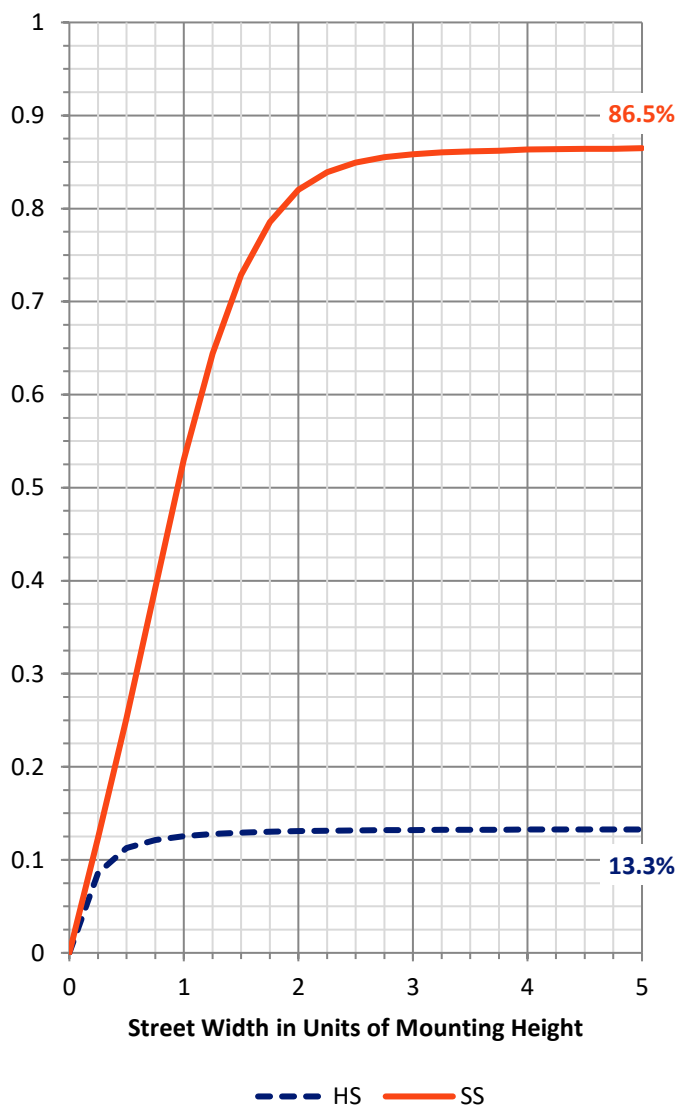
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5846.5	0.0	5846.5
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	37871.8	0.0	37871.8
	% Fixture	86.6	0.0	86.6
Total	Lumens	43718.3	0.0	43718.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	469.1	1.1
10°-20°	1272.4	2.9
20°-30°	2411.1	5.5
30°-40°	4879.0	11.2
40°-50°	8311.4	19.0
50°-60°	11302.9	25.9
60°-70°	10614.0	24.3
70°-80°	4252.4	9.7
80°-90°	206.0	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°	43718.3	100.0
0°-180°	43718.3	100.0

Coefficient of Utilization



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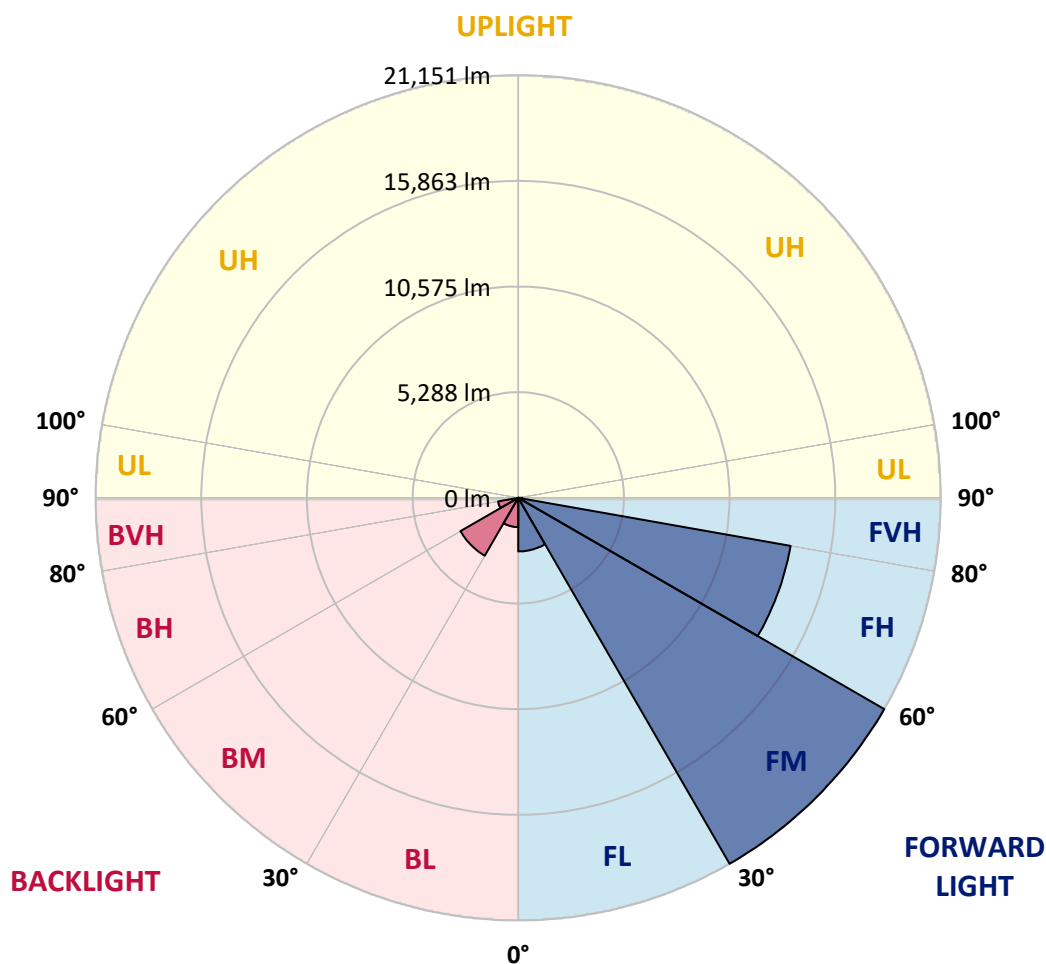
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2684.8	6.1			
FM	(30°-60°)	21150.9	48.4			
FH	(60°-80°)	13840.2	31.7			G5
FVH	(80°-90°)	196.0	0.4			G2/225
BL	(0°-30°)	1467.9	3.4	B3/2500		
BM	(30°-60°)	3342.4	7.6	B3/5000		
BH	(60°-80°)	1026.1	2.3	B3/2500		G3/2500
BVH	(80°-90°)	10.1	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9
2.5°	5067.3	5102.4	5093.6	5084.9	5082.0	5087.8	5090.8	5087.8	5087.8	5087.8	5090.8
5°	4970.6	5000.0	5000.0	5020.4	5049.8	5084.9	5111.3	5117.1	5123.0	5131.8	5128.9
7.5°	4785.9	4809.4	4827.0	4894.4	4967.7	5061.4	5140.6	5181.6	5187.4	5219.7	5231.4
10°	4660.0	4689.3	4718.6	4788.9	4894.4	5035.1	5169.9	5269.5	5284.2	5360.3	5395.6
12.5°	4654.1	4683.3	4721.5	4797.7	4920.8	5070.3	5234.4	5378.0	5404.3	5515.7	5589.0
15°	4715.6	4750.8	4785.9	4879.7	5011.6	5193.4	5369.2	5547.9	5574.4	5732.6	5811.7
17.5°	4841.6	4888.5	4914.9	5008.7	5149.4	5351.6	5583.2	5788.3	5811.7	5996.4	6096.0
20°	5090.8	5146.4	5155.2	5231.4	5369.2	5586.0	5861.6	6116.5	6145.8	6356.8	6468.3
22.5°	5606.5	5685.7	5615.4	5653.5	5776.6	5993.5	6292.4	6614.7	6655.8	6896.1	6995.7
25°	6515.1	6626.5	6444.8	6380.3	6433.0	6658.7	7033.9	7441.2	7488.1	7681.6	7731.4
27.5°	8299.9	8156.3	7880.8	7611.2	7453.0	7581.9	8003.9	8508.0	8566.6	8754.2	8695.6
30°	10260.7	10134.6	9762.4	9164.5	8789.4	8768.9	9158.7	9721.4	9788.8	9967.5	9788.8
32.5°	12224.3	12104.1	11699.7	10964.0	10313.3	9991.0	10260.7	10884.9	10920.0	11034.3	10770.6
35°	14155.7	14032.6	13628.1	12874.9	12074.8	11342.1	11289.3	11992.7	12004.5	12124.6	11731.8
37.5°	16098.8	15996.1	15565.3	14826.8	14038.4	13027.3	12537.8	13041.9	13056.6	13173.8	12766.5
40°	17485.0	17528.9	17232.9	16661.5	15984.5	14879.5	13938.8	14158.5	14070.7	14267.0	14023.7
42.5°	18674.9	18762.8	18504.9	18217.7	17825.0	16851.9	15673.8	15635.7	15495.0	15600.5	15348.5
45°	19703.6	19776.9	19545.3	19478.0	19469.2	18786.3	17570.0	17341.4	17145.1	17124.5	16822.6
47.5°	20081.7	20222.3	20322.0	20547.7	20987.3	20700.1	19530.7	19176.0	18956.2	18795.0	18317.4
50°	20225.3	20374.7	20714.7	21371.2	22411.6	22534.7	21482.6	21083.9	20814.4	20521.3	19817.9
52.5°	20031.9	20298.6	20755.7	21860.7	23370.0	24006.0	23355.3	23006.5	22698.8	22221.1	21177.7
55°	18891.8	19158.5	20093.4	21854.7	23847.8	25037.6	25125.5	24970.2	24624.4	23871.1	22276.8
57.5°	16488.6	16884.2	18364.2	21110.4	23838.9	25925.6	26860.5	26972.0	26585.0	25506.5	23141.4
60°	13159.2	13695.5	15500.9	19460.3	23103.3	26406.3	28381.6	28938.4	28528.1	27118.4	23841.8
62.5°	9182.2	9803.4	11512.1	16875.4	21421.1	26060.4	29492.3	30521.1	30210.4	28560.4	24111.5
65°	5600.7	5800.0	7177.5	13279.3	18560.6	24612.6	29835.3	31376.9	31274.3	29442.5	23712.9
67.5°	3730.9	3898.0	4293.6	9105.9	14407.7	21720.0	29014.7	31227.3	31256.7	29298.9	22253.4
70°	2247.9	2391.5	2649.4	5295.9	9337.4	17191.9	26473.7	29322.4	29492.3	27379.3	19486.7
72.5°	926.1	1022.8	1257.3	2400.3	4835.7	10911.2	21081.1	25175.3	25571.0	23021.2	14955.8
75°	524.6	574.4	738.5	1204.6	2098.5	5084.9	12769.3	17871.9	18455.1	15867.2	8997.4
77.5°	348.8	372.2	477.8	779.6	1181.1	1735.0	5457.1	9311.1	10424.8	8666.3	3895.0
80°	234.4	255.0	328.2	521.7	767.8	744.5	1738.0	3449.5	4243.8	2977.6	949.6
82.5°	158.3	161.2	234.4	342.9	486.5	360.5	512.9	1072.7	1348.2	861.6	360.5
85°	90.8	87.9	172.9	199.3	216.9	149.4	155.3	322.4	422.0	363.5	205.2
87.5°	11.7	17.6	67.4	52.8	29.3	32.3	32.3	55.7	82.1	87.9	44.0
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°	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9	5084.9
2.5°	5090.8	5087.8	5079.1	5070.3	5049.8	5038.0	5043.8	5038.0	5035.1	5038.0	5049.8
5°	5128.9	5120.1	5096.6	5067.3	5026.3	4976.5	4944.2	4897.3	4853.4	4827.0	4832.9
7.5°	5231.4	5222.7	5190.4	5108.3	4976.5	4768.4	4577.9	4410.8	4284.8	4211.5	4214.5
10°	5395.6	5380.9	5331.1	5149.4	4803.6	4349.3	3971.2	3657.6	3452.4	3355.7	3346.9
12.5°	5589.0	5571.4	5483.4	5111.3	4475.3	3766.1	3244.3	2895.6	2705.1	2620.1	2611.3
15°	5817.6	5794.1	5621.2	4929.5	3997.6	3121.2	2643.6	2382.7	2259.6	2183.5	2186.3
17.5°	6101.8	6060.8	5723.8	4657.0	3478.8	2628.9	2274.3	2077.9	1969.4	1896.2	1890.3
20°	6471.1	6403.8	5805.9	4331.6	3001.1	2318.2	2025.2	1861.1	1779.0	1714.5	1702.7
22.5°	6987.0	6890.3	5905.5	3980.0	2664.1	2104.3	1840.5	1720.4	1652.9	1579.7	1567.9
25°	7625.9	7511.6	6028.6	3654.6	2432.5	1919.6	1705.7	1606.1	1526.9	1442.0	1433.2
27.5°	8519.8	8314.6	6175.1	3387.9	2233.3	1761.4	1582.6	1471.3	1380.4	1310.1	1295.4
30°	9516.2	9179.2	6304.1	3226.8	2051.5	1614.9	1421.5	1310.1	1225.1	1175.3	1166.4
32.5°	10459.9	10002.8	6389.1	3156.5	1887.4	1447.8	1245.6	1125.4	1061.0	1046.3	1055.0
35°	11350.8	10747.1	6380.3	3089.0	1740.9	1280.7	1072.7	949.6	899.7	908.6	908.6
37.5°	12376.7	11541.4	6318.7	2983.6	1620.7	1128.3	923.2	814.8	770.8	773.8	785.5
40°	13569.5	12458.7	6280.7	2784.2	1488.8	987.7	800.1	712.2	680.0	668.2	665.3
42.5°	14841.5	13346.7	6286.5	2558.6	1324.7	861.6	715.1	641.9	612.5	603.7	600.9
45°	16119.3	14193.7	6295.3	2324.1	1151.8	765.0	653.5	592.0	574.4	562.7	562.7
47.5°	17320.9	14914.7	6131.1	2072.0	981.8	691.7	603.7	562.7	548.1	533.4	533.4
50°	18440.5	15395.4	5735.5	1779.0	847.0	633.0	565.6	536.4	521.7	507.1	507.1
52.5°	19310.9	15471.6	5082.0	1477.1	753.2	589.1	542.2	515.8	498.3	483.6	480.6
55°	19697.7	14993.8	4152.9	1195.8	680.0	550.9	518.8	492.4	471.8	457.2	454.3
57.5°	19598.1	13988.6	3238.5	961.2	609.6	512.9	489.4	471.8	448.4	425.0	422.0
60°	19108.7	12643.4	2441.3	800.1	545.1	471.8	457.2	442.6	410.3	375.2	369.3
62.5°	18261.6	10952.3	1740.9	662.4	474.8	425.0	419.1	407.3	360.5	296.0	290.2
65°	16966.2	8897.8	1172.3	550.9	407.3	372.2	375.2	354.6	293.0	219.8	213.9
67.5°	15072.9	6506.3	750.3	451.3	340.0	310.7	313.5	301.9	249.1	187.6	178.8
70°	12660.9	4308.3	489.4	342.9	272.5	240.4	257.9	260.9	211.0	152.4	146.6
72.5°	9281.8	2543.9	342.9	255.0	199.3	167.1	211.0	216.9	169.9	114.3	108.4
75°	5290.0	1207.4	257.9	184.6	123.1	117.3	164.1	164.1	117.3	76.2	70.3
77.5°	2221.5	504.1	181.7	120.1	70.3	67.4	111.4	102.6	58.6	35.2	35.2
80°	641.9	225.7	96.8	58.6	29.3	26.3	44.0	32.3	14.7	5.8	5.8
82.5°	252.0	99.6	38.1	23.5	11.7	11.7	5.8	0.0	0.0	0.0	0.0
85°	149.4	41.0	17.6	8.8	3.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	38.1	8.8	5.8	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)