

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: P966707

Luminaire Tested: **NAV-SB4C-740-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966707
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-SB4C-740-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 615mA 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: 27558.1 lumens
Efficiency: N/A
Efficacy: 137.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G4

Input Watts (W): 200.7
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

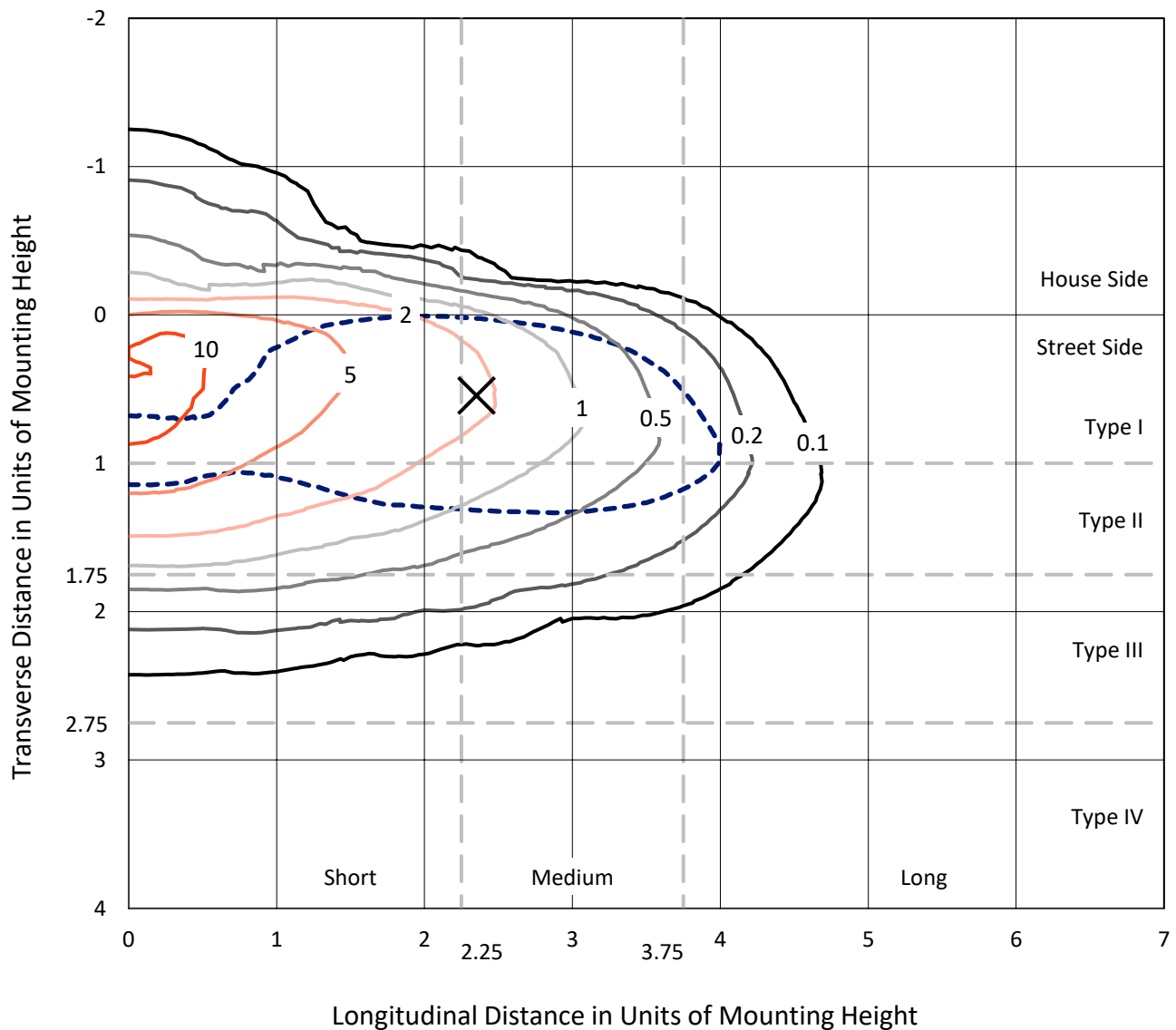


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Iso-Footcandle Lines of Horizontal Illumination

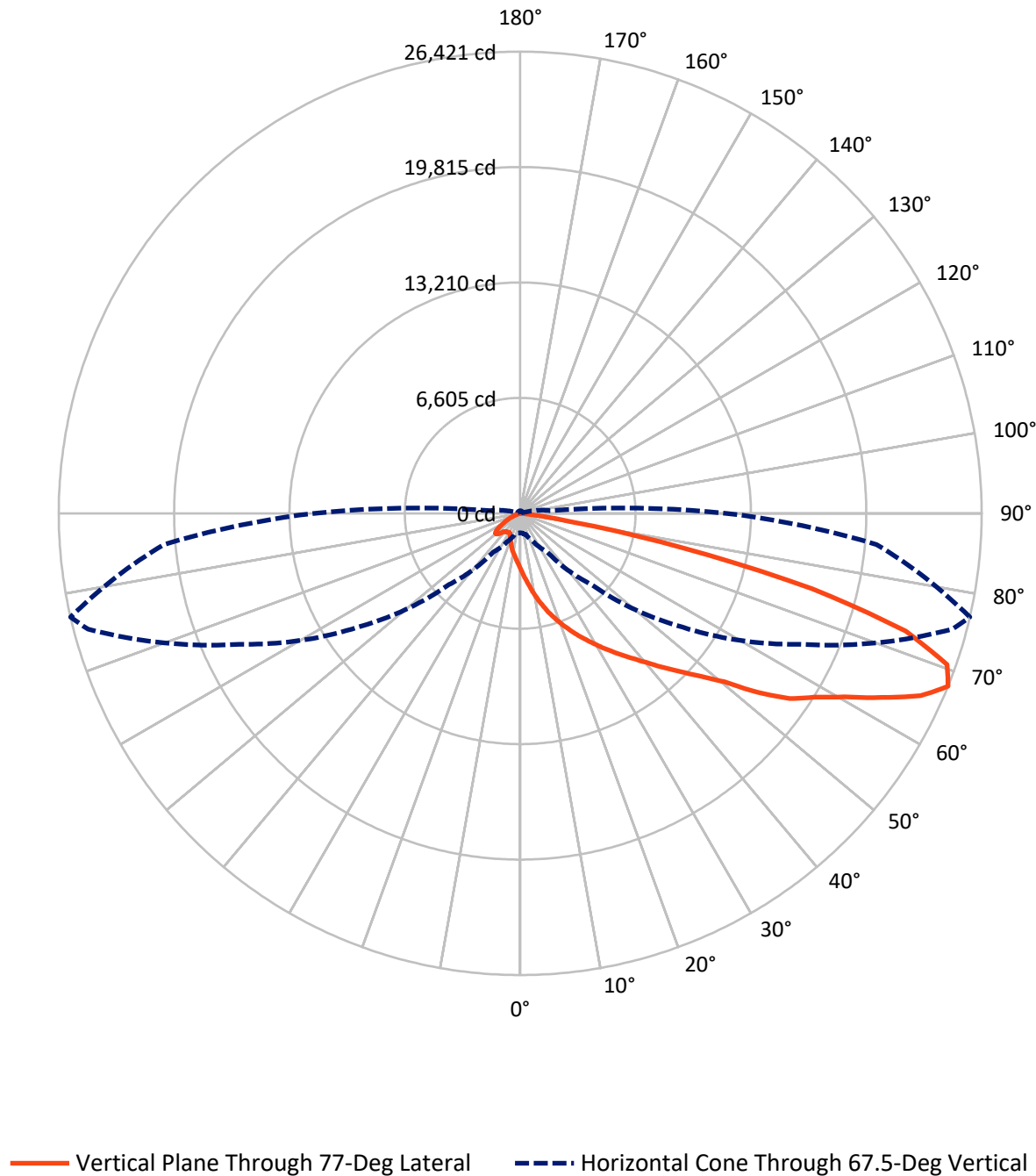
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.9 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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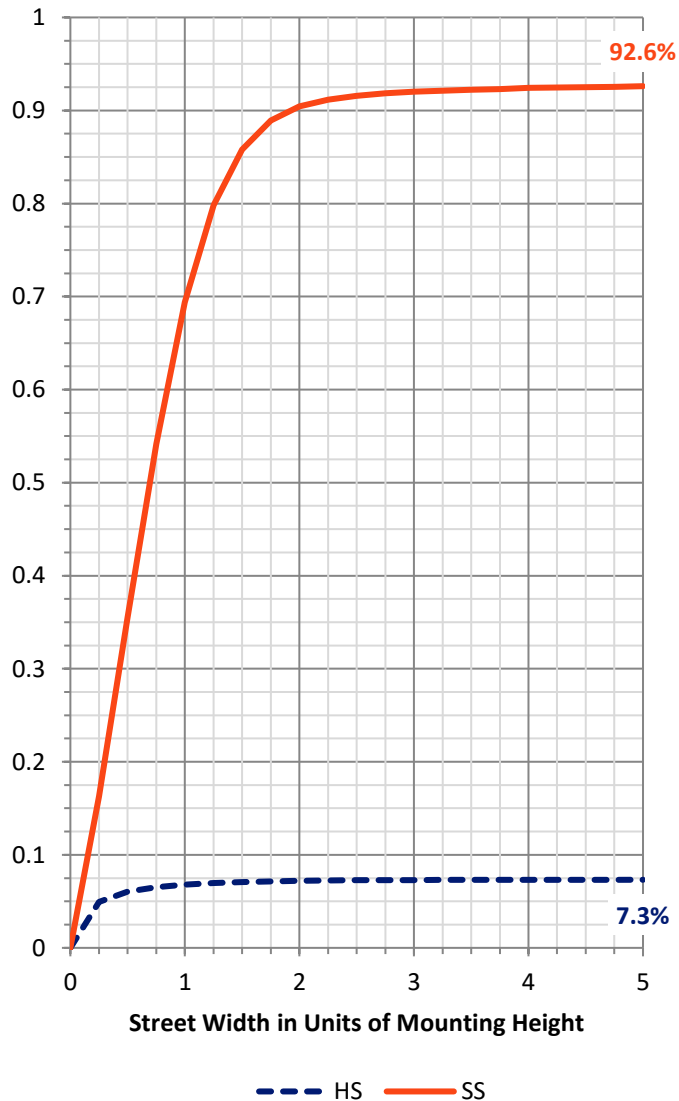
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2027.5	0.0	2027.5
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	25530.7	0.0	25530.7
	% Fixture	92.6	0.0	92.6
Total	Lumens	27558.1	0.0	27558.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	324.3	1.2
10°-20°	1135.8	4.1
20°-30°	2191.9	8.0
30°-40°	3805.2	13.8
40°-50°	5525.0	20.0
50°-60°	6344.7	23.0
60°-70°	5508.4	20.0
70°-80°	2594.5	9.4
80°-90°	128.3	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°	27558.1	100.0
0°-180°	27558.1	100.0

Coefficient of Utilization



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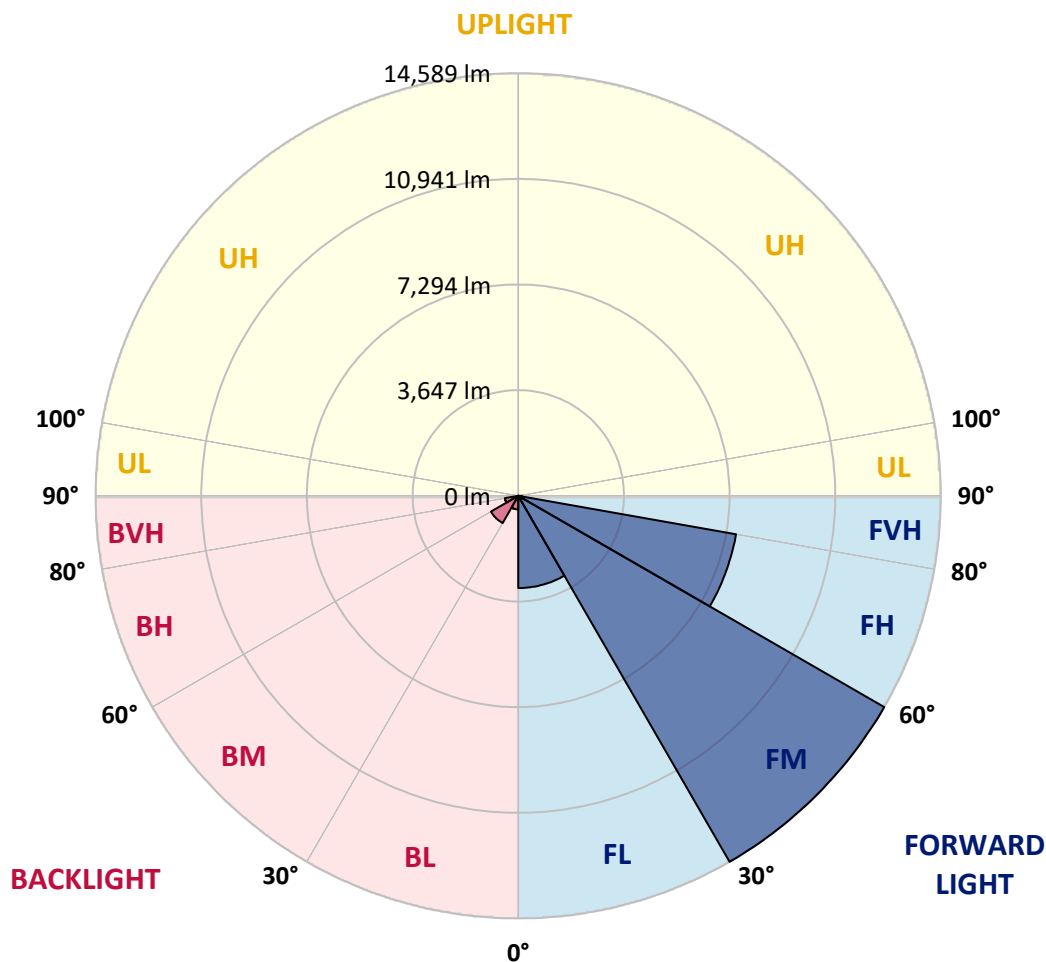
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3182.7	11.5			
FM	(30°-60°)	14588.5	52.9			
FH	(60°-80°)	7633.5	27.7			G4/12000
FVH	(80°-90°)	125.9	0.5			G2/225
BL	(0°-30°)	469.4	1.7	B1/500		
BM	(30°-60°)	1086.3	3.9	B2/2500		
BH	(60°-80°)	469.4	1.7	B1/500		G1/500
BVH	(80°-90°)	2.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9
2.5°	4399.7	4427.1	4387.7	4312.5	4199.5	4125.9	3946.2	3776.8	3588.5	3528.7	3340.5
5°	5363.2	5387.1	5342.6	5260.5	5109.9	4966.1	4730.0	4375.7	4007.9	3889.8	3556.0
7.5°	6076.8	6090.4	6073.3	5998.1	5854.3	5691.7	5428.2	5009.0	4463.1	4333.0	3821.3
10°	6590.1	6634.6	6629.5	6600.4	6504.6	6372.8	6092.2	5614.7	4973.0	4805.3	4120.8
12.5°	6930.7	6980.4	7009.5	7074.4	7069.3	6985.5	6739.1	6234.3	5481.3	5284.5	4457.9
15°	7030.0	7083.1	7194.3	7344.8	7478.3	7521.1	7348.2	6841.8	6040.8	5789.3	4803.6
17.5°	6973.5	7055.6	7189.1	7426.9	7719.6	7913.0	7894.1	7428.7	6549.1	6261.6	5142.4
20°	7098.4	7177.2	7281.5	7481.8	7822.3	8173.1	8313.5	7990.0	7053.9	6752.7	5498.4
22.5°	7789.8	7776.1	7786.3	7818.9	8022.5	8369.9	8659.1	8499.9	7553.6	7245.6	5874.9
25°	8885.0	8823.4	8719.0	8542.8	8491.4	8659.1	8960.3	8951.7	8080.7	7750.4	6259.9
27.5°	10141.0	10130.8	9886.1	9461.7	9222.1	9157.1	9300.8	9391.6	8602.6	8250.1	6646.6
30°	11344.1	11371.5	11041.2	10568.9	10129.2	9874.1	9744.1	9809.1	9133.2	8789.2	7045.3
32.5°	12391.4	12420.5	12061.2	11508.4	10964.2	10656.2	10382.3	10221.5	9711.6	9336.8	7483.4
35°	13276.2	13305.2	12892.9	12281.9	11701.8	11422.8	11113.0	10673.3	10293.4	9944.2	7971.2
37.5°	14066.8	14058.2	13505.5	12889.4	12319.6	12098.8	11936.2	11229.5	10892.4	10555.2	8511.9
40°	14534.0	14569.9	14097.5	13418.2	12865.5	12704.6	12694.3	11919.1	11583.7	11256.9	9104.0
42.5°	14670.8	14734.2	14391.9	13834.0	13332.7	13158.1	13426.8	12665.2	12388.0	12069.7	9773.2
45°	14424.4	14486.0	14330.3	13943.6	13651.0	13538.0	14056.5	13438.8	13247.1	12932.2	10527.9
47.5°	13705.7	13782.7	13820.4	13738.2	13734.8	13849.5	14621.2	14253.3	14267.0	13945.2	11402.3
50°	12314.5	12444.5	12790.2	13081.0	13531.1	14095.9	15170.5	15136.4	15417.0	15139.8	12542.0
52.5°	9785.2	9970.0	11161.0	11956.7	12968.1	14049.7	15774.6	16553.2	17434.6	17029.0	14148.9
55°	7863.4	7863.4	8831.9	10320.7	11869.5	13745.0	16038.2	17474.0	18808.8	18712.9	15280.1
57.5°	6410.5	6487.5	7105.3	8421.2	10279.7	13019.4	16200.7	18052.4	19916.0	19845.8	16385.5
60°	3956.5	4122.4	5289.6	6588.5	8470.9	11727.4	16098.0	18637.6	21259.3	21315.8	17716.9
62.5°	2228.1	2289.7	2809.9	4740.2	6586.8	9990.5	15312.6	18964.4	22977.4	23217.1	19089.4
65°	1538.4	1569.3	1769.5	2950.3	4565.8	7954.1	13777.5	18760.9	24699.0	25183.3	20253.1
67.5°	1117.5	1132.8	1257.8	1802.0	2709.0	5767.1	11371.5	17734.0	25611.2	26420.6	20475.5
70°	859.1	869.3	960.0	1184.2	1600.0	3559.5	8258.6	15692.5	24950.6	25917.4	19335.8
72.5°	698.2	708.5	778.6	876.2	1061.0	2104.8	5005.5	12743.9	22034.5	23078.4	16460.9
75°	588.7	602.4	665.7	729.0	831.7	1351.9	2347.9	8874.8	16570.4	17255.0	11446.8
77.5°	326.9	301.1	540.8	604.1	701.6	855.7	1098.6	5222.9	9280.3	9470.3	5079.1
80°	203.7	210.5	429.6	486.1	539.0	431.2	503.1	2010.7	3217.3	3056.3	984.0
82.5°	12.0	27.4	330.3	350.9	369.6	184.8	189.9	682.8	775.2	711.9	174.6
85°	0.0	0.0	150.6	121.5	128.3	53.1	54.7	159.2	104.3	113.0	34.2
87.5°	0.0	0.0	0.0	3.4	0.0	5.1	10.2	13.7	5.1	6.9	12.0
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°	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9	3177.9
2.5°	3220.7	3100.8	2857.8	2620.0	2426.6	2246.9	2118.6	1997.1	1935.5	1932.0	1928.6
5°	3318.2	3066.6	2580.6	2151.1	1805.4	1528.2	1348.5	1220.2	1155.1	1132.8	1129.4
7.5°	3455.1	3076.8	2337.6	1740.3	1333.1	1095.2	992.5	951.5	937.8	922.4	918.9
10°	3627.9	3100.8	2120.3	1401.6	1050.7	930.9	889.9	872.8	862.5	852.2	848.8
12.5°	3821.3	3123.1	1904.7	1163.7	924.1	862.5	833.4	812.8	799.2	787.2	783.8
15°	4009.6	3136.8	1680.5	997.6	859.1	809.4	778.6	756.3	737.6	723.9	722.1
17.5°	4196.0	3155.6	1470.0	898.4	806.1	756.3	725.6	698.2	682.8	667.4	665.7
20°	4403.1	3152.2	1271.5	828.3	753.0	703.4	670.9	645.1	629.8	612.6	610.9
22.5°	4594.8	3135.1	1097.0	768.3	698.2	650.3	614.4	588.7	573.3	559.5	557.9
25°	4815.6	3121.4	951.5	713.6	646.9	598.9	559.5	535.7	518.5	506.6	504.8
27.5°	5027.7	3100.8	845.4	664.0	597.3	551.0	513.4	486.1	470.6	462.1	462.1
30°	5236.5	3095.7	806.1	616.0	552.8	506.6	468.9	443.2	431.2	427.8	426.1
32.5°	5488.1	3109.4	823.2	598.9	511.7	465.5	429.6	410.7	398.7	398.7	398.7
35°	5756.8	3106.0	848.8	614.4	484.3	424.4	397.0	385.0	373.1	373.1	373.1
37.5°	6093.9	3111.1	869.3	640.0	474.1	390.2	374.7	359.4	352.5	352.5	352.5
40°	6597.0	3280.5	859.1	662.3	470.6	366.2	335.4	330.3	325.1	325.1	325.1
42.5°	7213.0	3648.5	872.8	664.0	468.9	349.1	308.0	318.3	306.3	304.6	302.9
45°	7887.3	4050.6	960.0	628.0	467.2	340.5	294.4	306.3	287.5	287.5	287.5
47.5°	8556.4	4449.3	1049.0	576.7	462.1	338.9	282.4	275.5	270.4	272.1	272.1
50°	9478.8	4774.4	1083.2	506.6	450.1	335.4	260.1	261.8	258.4	261.8	261.8
52.5°	10483.4	4842.9	1042.2	427.8	415.8	325.1	244.7	251.5	249.9	253.3	253.3
55°	11109.7	4769.3	860.8	356.0	362.7	284.0	229.3	243.0	243.0	243.0	243.0
57.5°	11756.5	4456.2	610.9	289.3	301.1	232.8	215.7	234.4	232.8	231.0	231.0
60°	12222.0	3949.6	402.1	237.9	239.5	191.7	200.2	220.8	219.0	210.5	210.5
62.5°	12569.4	3390.1	258.4	201.9	183.1	172.8	183.1	200.2	193.4	174.6	171.2
65°	12530.0	2614.9	198.5	172.8	150.6	150.6	159.2	174.6	154.1	123.2	119.8
67.5°	11799.3	1769.5	164.3	145.4	126.6	124.9	131.8	145.4	131.8	104.3	101.0
70°	10493.6	1156.8	131.8	113.0	101.0	92.5	106.1	124.9	111.2	83.8	80.5
72.5°	8517.0	705.1	99.2	82.1	73.6	59.9	83.8	102.7	89.0	61.6	58.2
75°	5510.3	359.4	68.5	53.1	39.4	36.0	61.6	77.0	61.6	37.6	32.5
77.5°	2108.3	150.6	37.6	24.0	20.5	17.1	34.2	46.2	25.6	8.5	6.9
80°	405.6	63.3	18.9	12.0	10.2	6.9	5.1	3.4	0.0	0.0	0.0
82.5°	70.2	20.5	6.9	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	24.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.5	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)