

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: P967239

Luminaire Tested: **NAV-SB4D-740-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967239
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-SB4D-740-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 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: 34685 lumens
Efficiency: N/A
Efficacy: 118.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
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



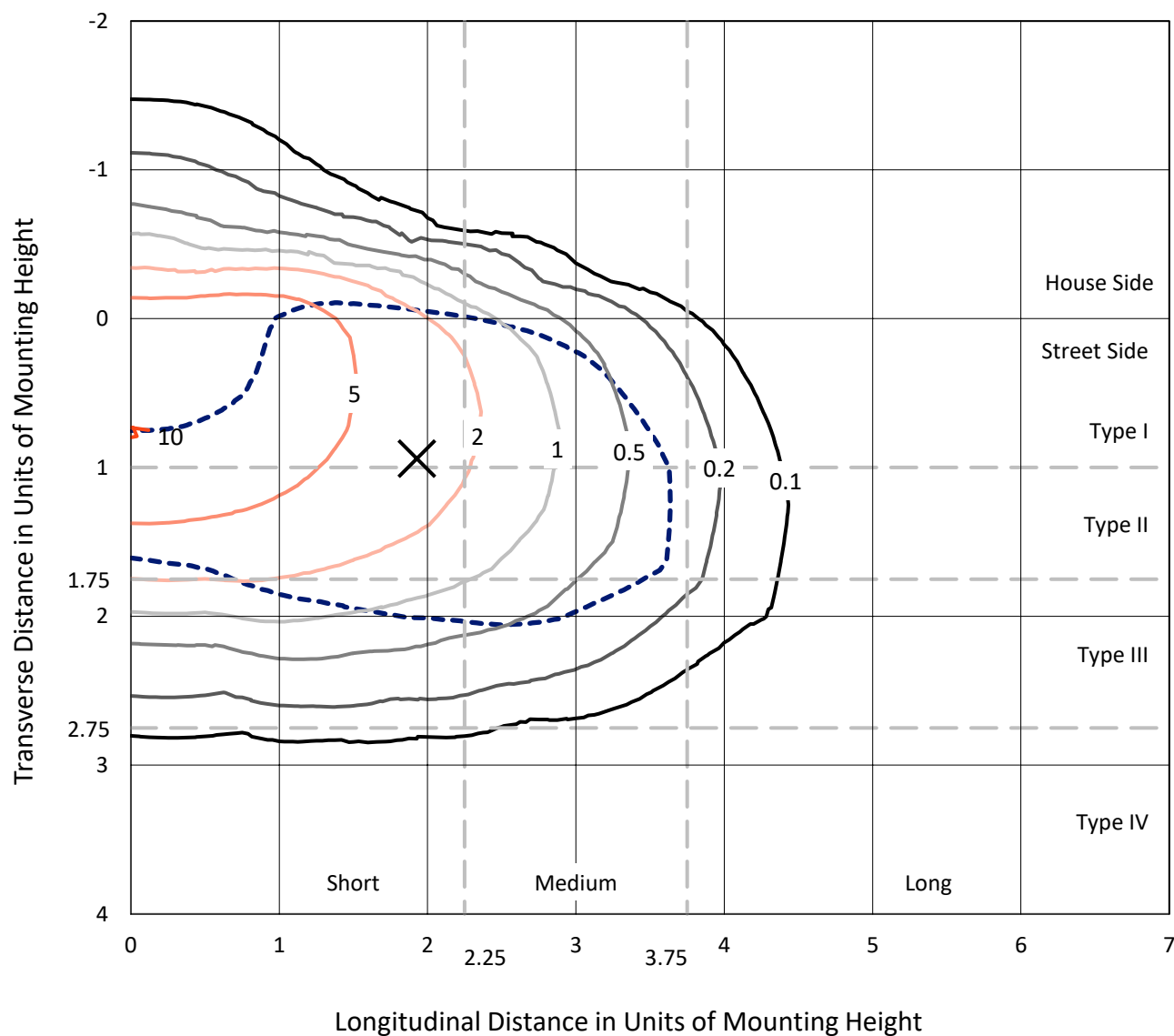
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



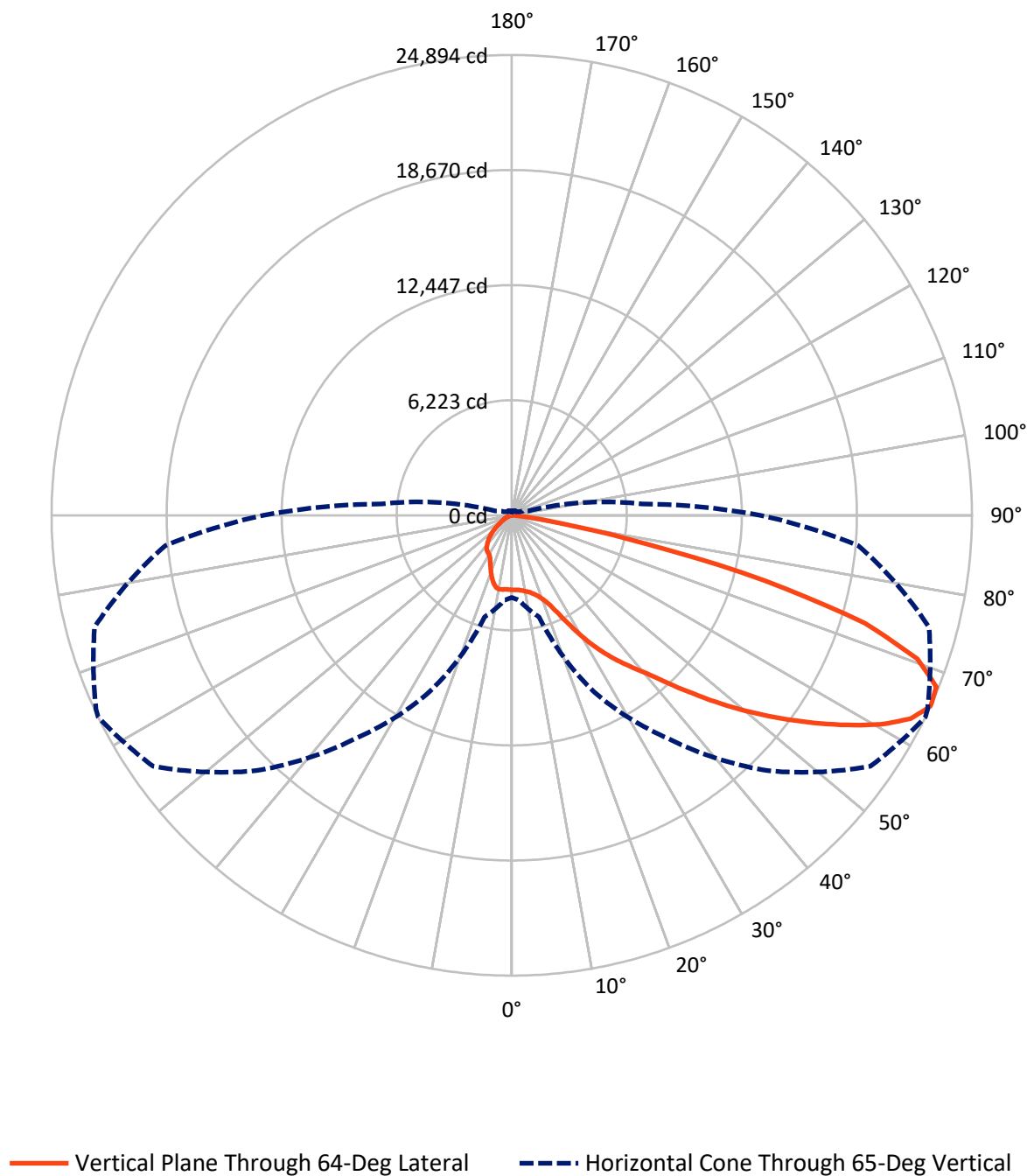
Based on 25 foot mounting height. Maximum calculated value = 10.1 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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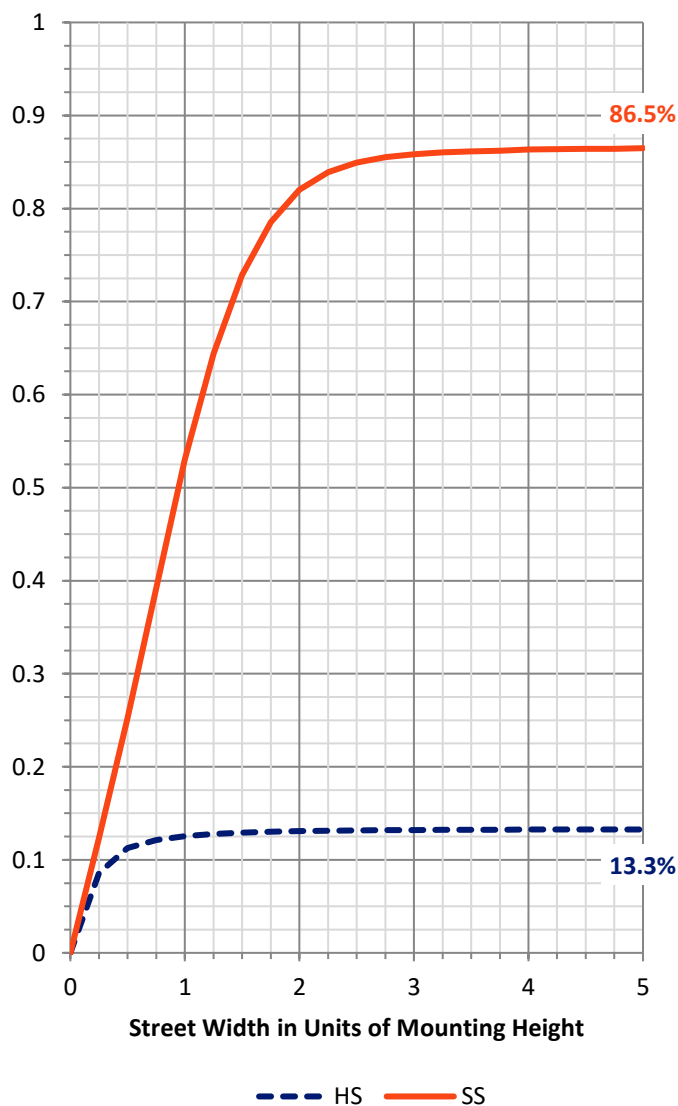
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4638.4	0.0	4638.4
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	30046.5	0.0	30046.5
	% Fixture	86.6	0.0	86.6
Total	Lumens	34685.0	0.0	34685.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	372.2	1.1
10°-20°	1009.5	2.9
20°-30°	1912.9	5.5
30°-40°	3870.9	11.2
40°-50°	6594.0	19.0
50°-60°	8967.4	25.9
60°-70°	8420.8	24.3
70°-80°	3373.8	9.7
80°-90°	163.4	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°	34685.0	100.0
0°-180°	34685.0	100.0

Coefficient of Utilization



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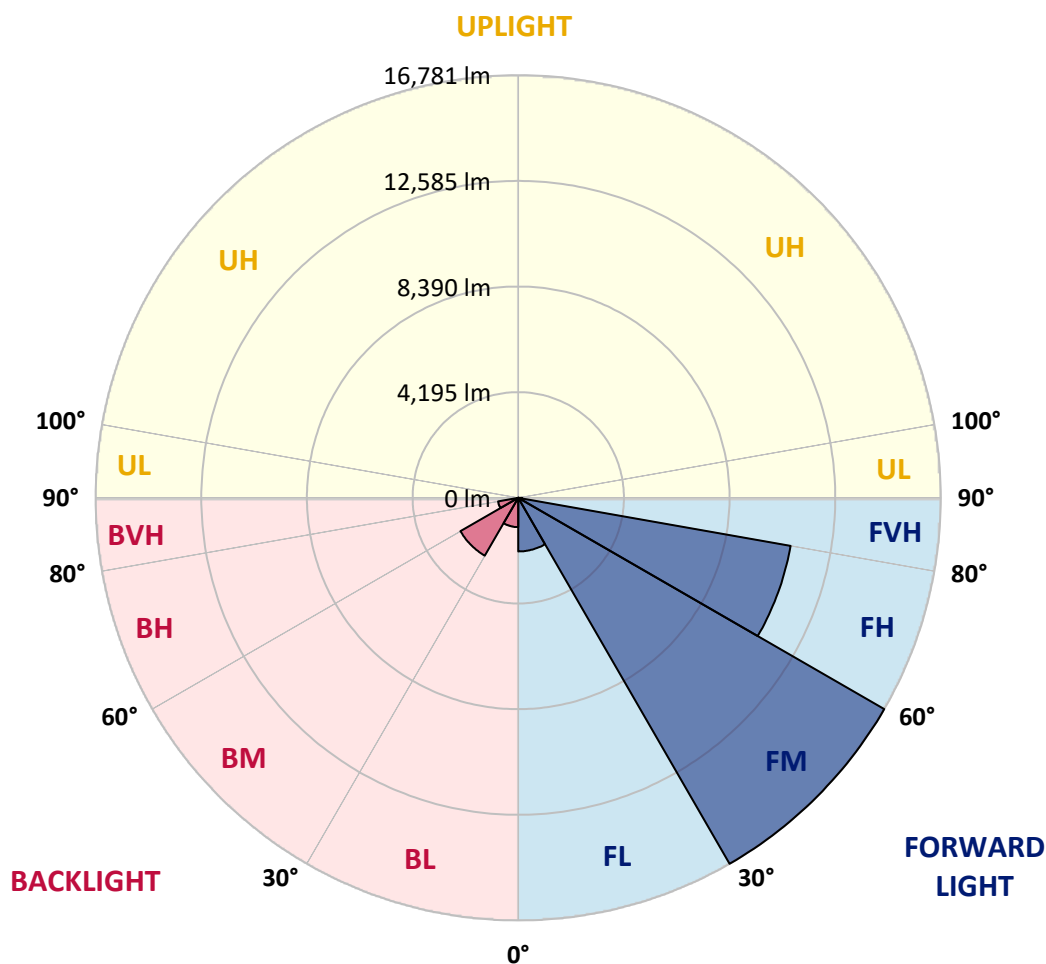
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2130.1	6.1			
FM	(30°-60°)	16780.6	48.4			
FH	(60°-80°)	10980.5	31.7			G4/12000
FVH	(80°-90°)	155.5	0.4			G2/225
BL	(0°-30°)	1164.6	3.4	B3/2500		
BM	(30°-60°)	2651.8	7.6	B3/5000		
BH	(60°-80°)	814.1	2.3	B2/1000		G2/1000
BVH	(80°-90°)	8.0	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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2
2.5°	4020.3	4048.1	4041.2	4034.2	4031.9	4036.6	4038.9	4036.6	4036.6	4036.6	4038.9
5°	3943.6	3966.7	3966.7	3983.0	4006.3	4034.2	4055.1	4059.8	4064.4	4071.4	4069.1
7.5°	3797.0	3815.7	3829.6	3883.1	3941.2	4015.6	4078.4	4111.0	4115.6	4141.2	4150.5
10°	3697.1	3720.3	3743.6	3799.4	3883.1	3994.7	4101.6	4180.7	4192.4	4252.8	4280.7
12.5°	3692.5	3715.6	3745.9	3806.3	3904.0	4022.6	4152.8	4266.8	4287.7	4376.0	4434.2
15°	3741.2	3769.1	3797.0	3871.4	3976.1	4120.3	4259.8	4401.6	4422.6	4548.1	4610.9
17.5°	3841.2	3878.4	3899.4	3973.7	4085.3	4245.9	4429.5	4592.3	4610.9	4757.3	4836.5
20°	4038.9	4083.1	4090.1	4150.5	4259.8	4431.8	4650.4	4852.7	4875.9	5043.4	5131.8
22.5°	4448.1	4510.9	4455.1	4485.3	4583.0	4755.1	4992.2	5248.0	5280.5	5471.2	5550.3
25°	5168.9	5257.3	5113.1	5062.0	5103.8	5282.8	5580.5	5903.7	5940.9	6094.3	6133.9
27.5°	6585.0	6471.0	6252.5	6038.6	5913.0	6015.3	6350.1	6750.0	6796.6	6945.4	6898.9
30°	8140.6	8040.5	7745.2	7270.9	6973.3	6957.0	7266.2	7712.7	7766.2	7908.0	7766.2
32.5°	9698.4	9603.1	9282.2	8698.6	8182.4	7926.6	8140.6	8635.8	8663.7	8754.4	8545.1
35°	11230.7	11133.0	10812.2	10214.6	9579.9	8998.5	8956.7	9514.8	9524.0	9619.3	9307.8
37.5°	12772.3	12690.9	12349.1	11763.2	11137.8	10335.5	9947.2	10347.2	10358.8	10451.8	10128.5
40°	13872.1	13907.0	13672.2	13218.8	12681.6	11805.0	11058.6	11233.1	11163.3	11319.1	11126.1
42.5°	14816.2	14886.0	14681.3	14453.4	14141.8	13369.9	12435.2	12405.0	12293.3	12377.1	12177.1
45°	15632.3	15690.5	15506.7	15453.3	15446.3	14904.5	13939.6	13758.2	13602.5	13586.2	13346.6
47.5°	15932.3	16043.9	16122.9	16302.0	16650.7	16422.9	15495.1	15213.8	15039.4	14911.5	14532.6
50°	16046.2	16164.8	16434.5	16955.3	17780.8	17878.5	17043.7	16727.5	16513.6	16281.1	15723.0
52.5°	15892.7	16104.3	16467.0	17343.7	18541.1	19045.7	18529.5	18252.8	18008.6	17629.7	16801.9
55°	14988.3	15199.8	15941.6	17339.0	18920.2	19864.2	19933.9	19810.7	19536.3	18938.7	17673.9
57.5°	13081.6	13395.5	14569.7	16748.4	18913.2	20568.7	21310.5	21398.8	21091.9	20236.3	18359.8
60°	10440.1	10865.6	12297.9	15439.4	18329.6	20950.1	22517.2	22959.1	22633.5	21515.1	18915.6
62.5°	7284.9	7777.8	9133.4	13388.6	16994.9	20675.7	23398.5	24214.6	23968.2	22659.1	19129.5
65°	4443.5	4601.5	5694.4	10535.5	14725.5	19527.1	23670.5	24893.6	24812.2	23358.9	18813.2
67.5°	2960.0	3092.5	3406.4	7224.4	11430.7	17232.1	23019.4	24775.0	24798.2	23245.1	17655.2
70°	1783.4	1897.4	2102.0	4201.7	7408.1	13639.7	21003.6	23263.6	23398.5	21722.0	15460.3
72.5°	734.7	811.5	997.5	1904.3	3836.6	8656.7	16725.1	19973.5	20287.4	18264.5	11865.5
75°	416.3	455.7	586.0	955.6	1664.8	4034.2	10130.9	14179.0	14641.8	12588.6	7138.4
77.5°	276.8	295.3	379.0	618.5	937.1	1376.5	4329.5	7387.2	8270.7	6875.6	3090.2
80°	186.0	202.3	260.5	413.9	609.2	590.6	1378.8	2736.7	3366.9	2362.4	753.4
82.5°	125.6	127.9	186.0	272.0	386.0	286.0	406.9	851.1	1069.6	683.6	286.0
85°	72.1	69.8	137.1	158.2	172.1	118.6	123.2	255.7	334.9	288.3	162.8
87.5°	9.3	13.9	53.5	41.8	23.3	25.6	25.6	44.2	65.1	69.8	34.8
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°	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2	4034.2
2.5°	4038.9	4036.6	4029.6	4022.6	4006.3	3997.0	4001.7	3997.0	3994.7	3997.0	4006.3
5°	4069.1	4062.1	4043.5	4020.3	3987.8	3948.2	3922.6	3885.4	3850.5	3829.6	3834.2
7.5°	4150.5	4143.5	4117.9	4052.8	3948.2	3783.1	3632.0	3499.5	3399.4	3341.3	3343.7
10°	4280.7	4269.0	4229.6	4085.3	3811.1	3450.6	3150.6	2901.9	2739.1	2662.3	2655.4
12.5°	4434.2	4420.2	4350.4	4055.1	3550.6	2987.9	2574.0	2297.3	2146.1	2078.7	2071.7
15°	4615.5	4596.9	4459.8	3911.0	3171.6	2476.3	2097.4	1890.4	1792.7	1732.2	1734.6
17.5°	4841.1	4808.5	4541.2	3694.7	2760.0	2085.7	1804.3	1648.6	1562.5	1504.4	1499.8
20°	5134.0	5080.5	4606.2	3436.6	2381.0	1839.3	1606.7	1476.5	1411.4	1360.3	1350.9
22.5°	5543.3	5466.5	4685.3	3157.6	2113.7	1669.5	1460.2	1364.9	1311.4	1253.3	1243.9
25°	6050.2	5959.5	4783.0	2899.5	1929.9	1523.0	1353.3	1274.2	1211.4	1144.0	1137.0
27.5°	6759.4	6596.6	4899.2	2688.0	1771.8	1397.5	1255.6	1167.3	1095.2	1039.4	1027.8
30°	7549.9	7282.5	5001.5	2560.0	1627.6	1281.1	1127.7	1039.4	971.9	932.4	925.5
32.5°	8298.6	7936.0	5068.9	2504.3	1497.4	1148.6	988.2	892.9	841.7	830.1	837.1
35°	9005.5	8526.5	5062.0	2450.8	1381.2	1016.1	851.1	753.4	713.8	720.8	720.8
37.5°	9819.3	9156.6	5013.2	2367.0	1285.9	895.2	732.5	646.4	611.5	613.9	623.2
40°	10765.7	9884.4	4982.9	2209.0	1181.2	783.6	634.8	565.0	539.5	530.1	527.8
42.5°	11774.8	10589.0	4987.5	2029.9	1051.0	683.6	567.3	509.2	486.0	479.0	476.6
45°	12788.6	11261.0	4994.5	1843.9	913.8	606.9	518.5	469.7	455.7	446.4	446.4
47.5°	13742.0	11832.9	4864.3	1643.9	778.9	548.8	479.0	446.4	434.8	423.2	423.2
50°	14630.1	12214.3	4550.4	1411.4	672.0	502.2	448.7	425.5	413.9	402.2	402.2
52.5°	15320.8	12274.7	4031.9	1171.9	597.6	467.4	430.2	409.3	395.2	383.7	381.3
55°	15627.7	11895.7	3294.8	948.6	539.5	437.2	411.5	390.6	374.3	362.7	360.4
57.5°	15548.6	11098.2	2569.4	762.7	483.6	406.9	388.3	374.3	355.8	337.1	334.9
60°	15160.3	10031.0	1936.9	634.8	432.4	374.3	362.7	351.1	325.5	297.7	292.9
62.5°	14488.4	8689.2	1381.2	525.5	376.7	337.1	332.5	323.2	286.0	234.8	230.2
65°	13460.6	7059.3	930.1	437.2	323.2	295.3	297.7	281.4	232.5	174.4	169.7
67.5°	11958.5	5161.9	595.2	358.0	269.7	246.5	248.8	239.5	197.6	148.8	141.9
70°	10044.9	3418.1	388.3	272.0	216.3	190.6	204.6	206.9	167.4	121.0	116.2
72.5°	7363.9	2018.2	272.0	202.3	158.2	132.5	167.4	172.1	134.9	90.7	86.0
75°	4197.0	958.0	204.6	146.5	97.7	93.0	130.2	130.2	93.0	60.5	55.8
77.5°	1762.5	400.0	144.1	95.3	55.8	53.5	88.4	81.4	46.5	27.9	27.9
80°	509.2	179.1	76.8	46.5	23.3	20.9	34.8	25.6	11.6	4.6	4.6
82.5°	200.0	79.0	30.2	18.6	9.3	9.3	4.6	0.0	0.0	0.0	0.0
85°	118.6	32.6	13.9	7.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	30.2	7.0	4.6	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)