

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: P966838

Luminaire Tested: **NAV-SB4C-830-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966838
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-830-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28379.2 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - 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

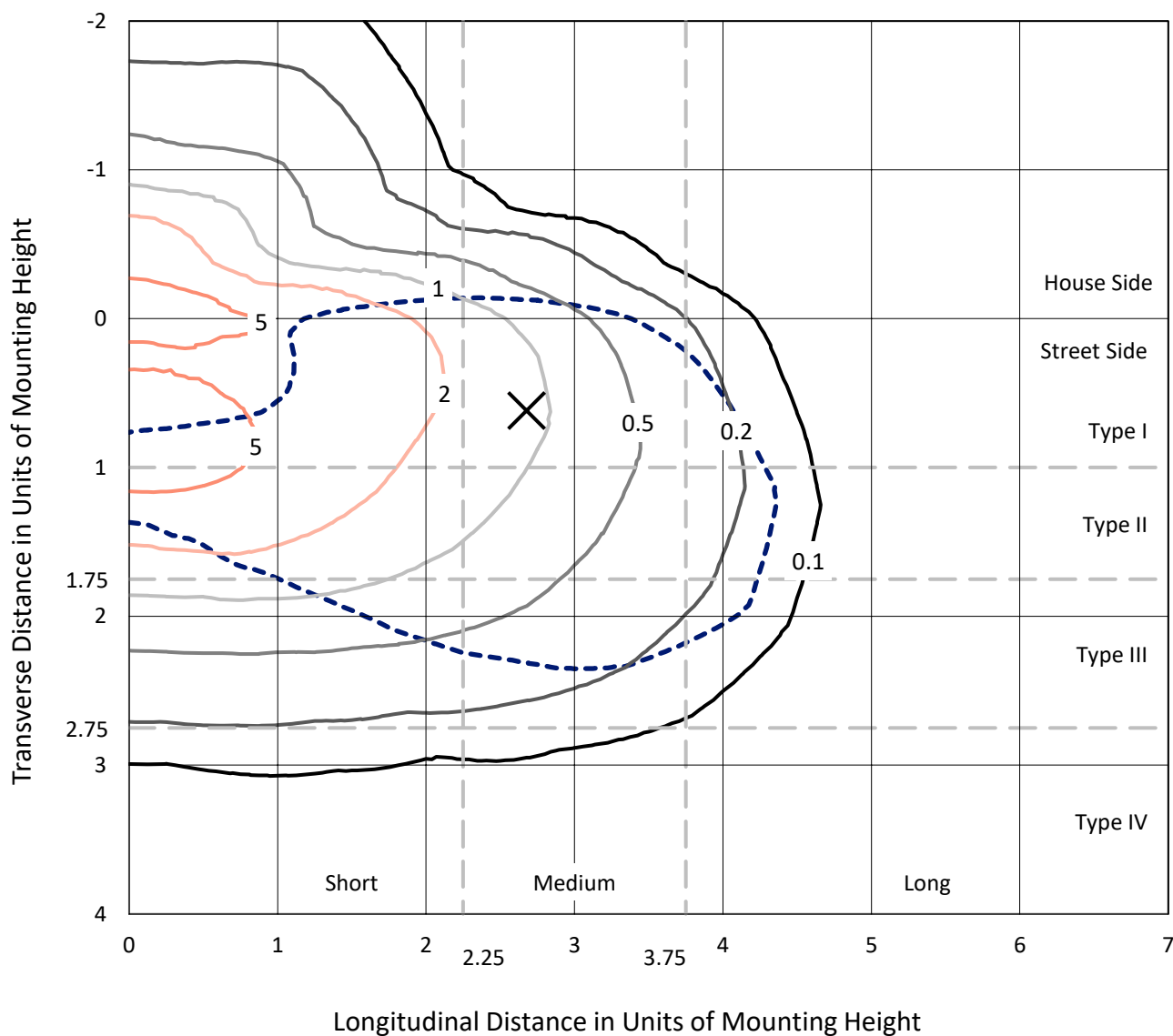


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Iso-Footcandle Lines of Horizontal Illumination

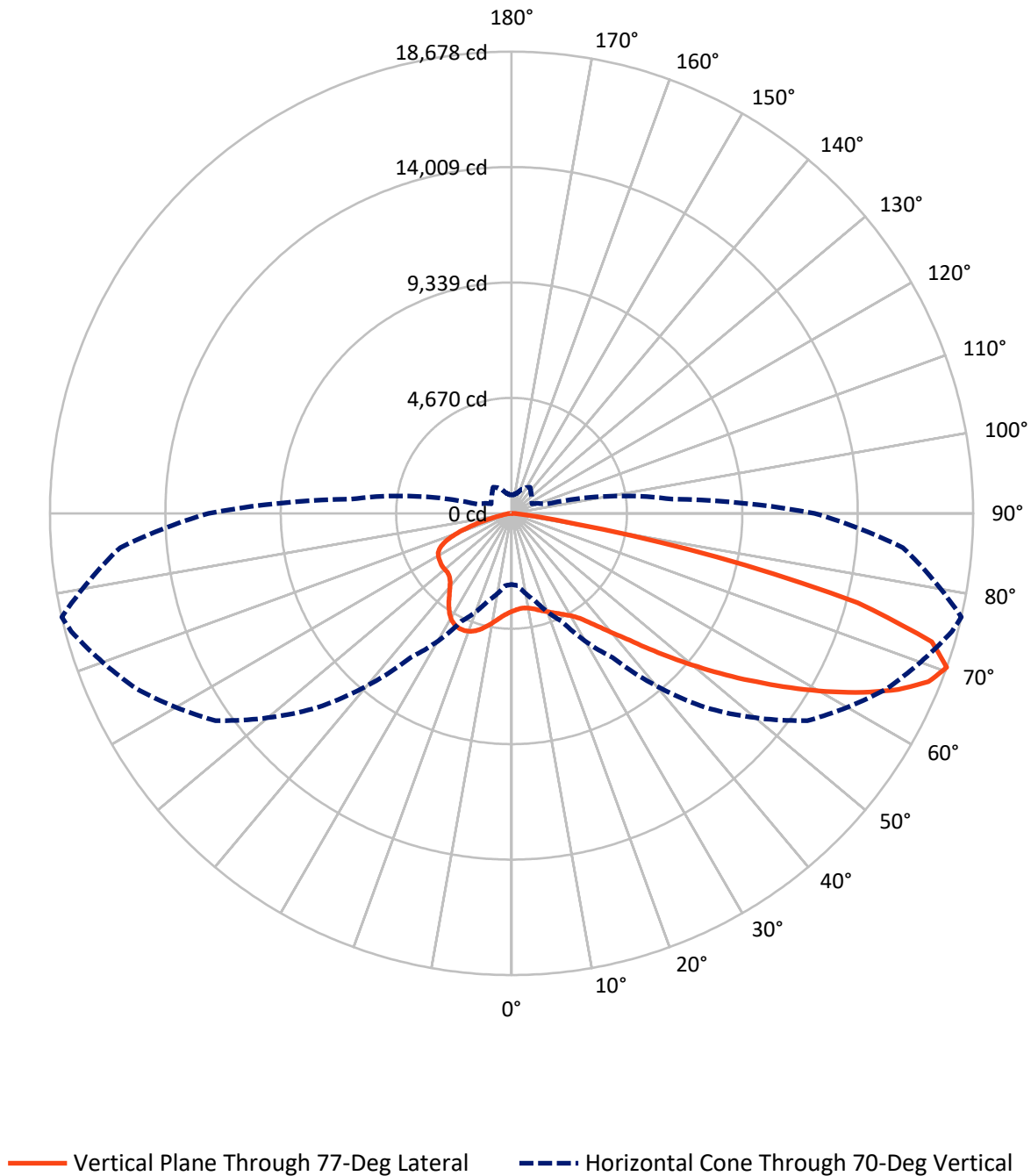
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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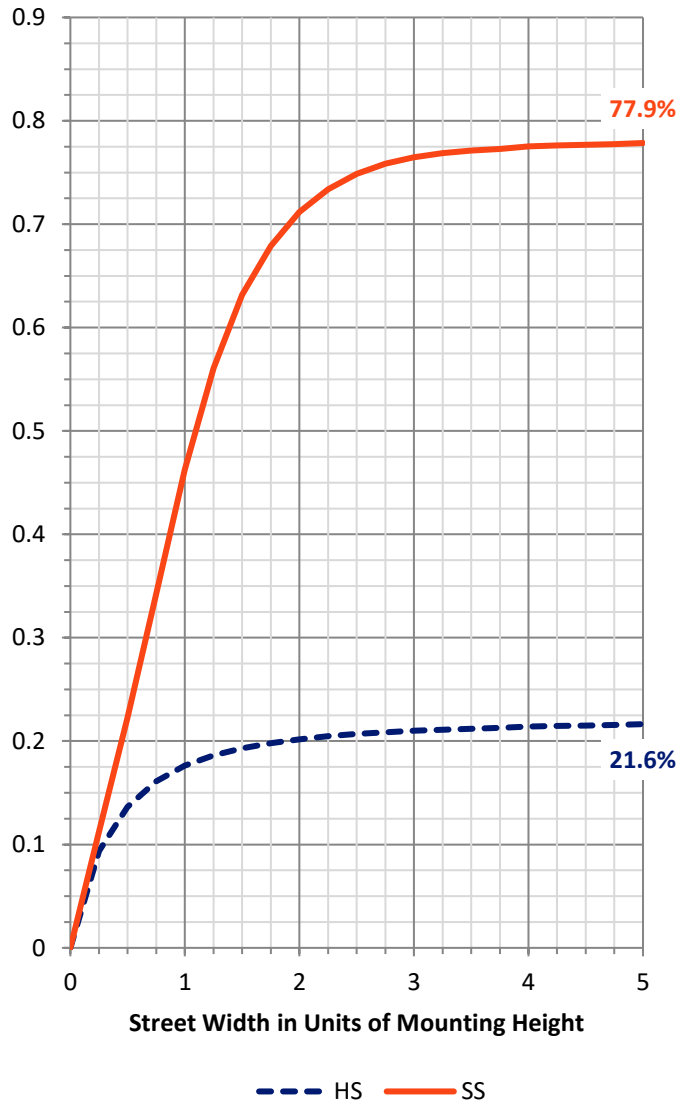
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6214.6	0.0	6214.6
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	22164.6	0.0	22164.6
	% Fixture	78.1	0.0	78.1
Total	Lumens	28379.2	0.0	28379.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	377.6	1.3
10°-20°	1089.8	3.8
20°-30°	1863.7	6.6
30°-40°	2997.0	10.6
40°-50°	4679.1	16.5
50°-60°	6250.1	22.0
60°-70°	6661.7	23.5
70°-80°	4100.9	14.5
80°-90°	359.4	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°	28379.2	100.0
0°-180°	28379.2	100.0

Coefficient of Utilization



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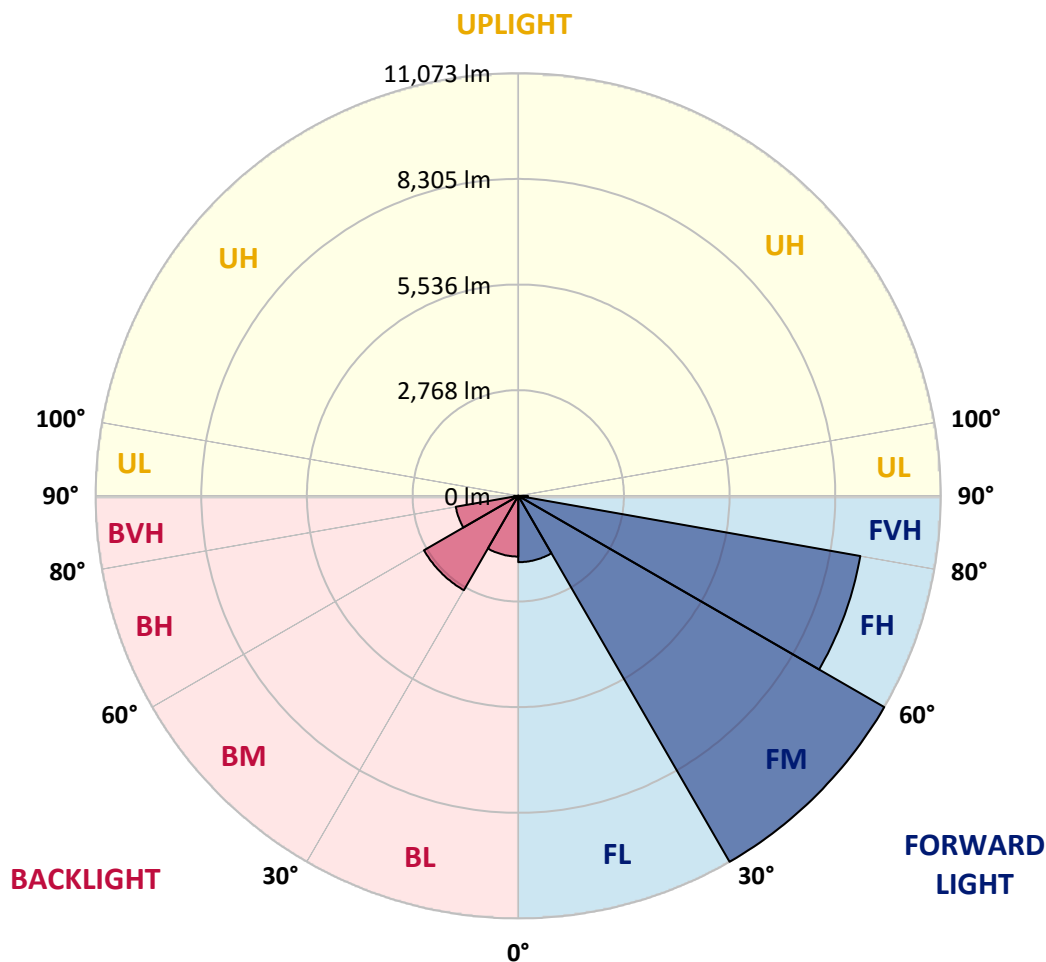
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1738.7	6.1			
FM	(30°-60°)	11072.9	39.0			
FH	(60°-80°)	9101.7	32.1			G4/12000
FVH	(80°-90°)	251.3	0.9			G3/500
BL	(0°-30°)	1592.4	5.6	B3/2500		
BM	(30°-60°)	2853.3	10.1	B3/5000		
BH	(60°-80°)	1660.9	5.9	B3/2500		G3/2500
BVH	(80°-90°)	108.1	0.4			G2/225
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2
2.5°	3649.6	3648.1	3667.0	3672.8	3707.7	3732.4	3779.0	3828.4	3892.3	3899.6	3938.8
5°	3438.9	3438.9	3460.6	3483.9	3529.0	3578.4	3649.6	3735.3	3845.8	3863.2	3960.6
7.5°	3260.0	3271.7	3290.6	3335.7	3387.9	3459.2	3568.2	3690.3	3835.7	3863.2	4020.2
10°	3116.2	3129.2	3152.5	3188.9	3267.3	3366.2	3508.6	3665.6	3860.4	3903.9	4107.4
12.5°	3071.1	3084.2	3097.2	3124.9	3197.6	3313.8	3483.9	3677.2	3919.9	3963.5	4226.6
15°	3175.8	3191.7	3181.6	3174.3	3212.0	3318.2	3495.6	3719.3	3994.0	4056.5	4373.4
17.5°	3417.0	3422.9	3399.6	3331.2	3325.4	3382.1	3550.7	3777.4	4087.1	4155.3	4521.6
20°	3806.5	3796.4	3748.4	3613.2	3536.2	3524.6	3645.2	3864.7	4183.0	4255.7	4681.5
22.5°	4335.5	4324.0	4228.0	4014.4	3842.9	3729.5	3781.8	3978.0	4290.5	4371.9	4837.1
25°	4995.4	4979.4	4838.5	4547.8	4281.8	4001.3	3967.9	4127.8	4422.8	4498.4	4999.8
27.5°	5765.7	5752.7	5600.1	5216.3	4832.7	4373.4	4199.0	4303.7	4560.8	4646.6	5182.9
30°	6594.2	6632.1	6361.7	5948.9	5463.5	4858.8	4510.0	4520.1	4739.6	4816.7	5405.3
32.5°	7568.0	7633.5	7307.8	6784.7	6121.8	5386.4	4902.5	4822.5	4999.8	5063.8	5685.9
35°	8533.1	8607.2	8336.9	7758.4	6995.4	6008.4	5312.3	5169.9	5345.7	5415.5	6058.0
37.5°	9367.4	9466.2	9326.7	8823.8	7929.9	6758.4	5847.2	5578.3	5771.6	5858.8	6557.8
40°	10025.8	10176.9	10166.8	9852.8	9031.7	7668.3	6525.9	6082.7	6300.7	6395.1	7163.9
42.5°	10560.7	10691.5	10804.8	10788.8	10181.3	8701.7	7323.8	6738.1	6903.8	7012.8	7845.7
45°	10929.8	11069.4	11313.5	11576.6	11287.4	9807.8	8238.0	7515.7	7666.9	7831.1	8658.1
47.5°	11259.7	11418.2	11735.0	12152.2	12226.3	10918.2	9239.5	8421.2	8559.3	8729.3	9473.5
50°	11288.8	11425.5	11916.8	12508.3	12893.4	11985.0	10315.0	9437.2	9566.5	9748.2	10347.0
52.5°	10586.8	10802.0	11659.5	12498.0	13200.1	12877.4	11383.3	10493.7	10639.1	10857.1	11251.0
55°	8217.7	8533.1	10905.1	12108.5	13091.1	13454.5	12399.2	11617.2	11803.4	12031.6	12160.9
57.5°	7078.2	7216.3	8656.6	11399.3	12594.0	13604.1	13256.7	12752.4	13051.8	13301.8	13123.1
60°	6361.7	6476.5	7328.2	10296.1	11939.9	13367.2	13919.5	13810.5	14328.0	14625.9	14107.1
62.5°	5594.2	5703.3	6478.0	8597.1	11102.8	12973.3	14338.1	14787.3	15636.1	15961.6	15034.3
65°	4832.7	4925.6	5668.4	7223.6	10038.8	12579.5	14554.7	15631.7	16846.8	17183.9	15804.7
67.5°	3983.9	4060.8	4762.9	6094.2	8745.3	12040.3	14662.2	16295.9	17900.5	18189.8	16185.5
70°	2874.9	2934.5	3659.8	4819.5	7121.8	11112.9	14618.7	16766.8	18447.0	18678.1	15897.6
72.5°	1358.9	1412.8	2264.4	3129.2	5030.3	9307.8	13736.4	16393.2	17891.8	17777.0	14136.1
75°	725.3	771.7	1300.8	1716.5	2656.9	6380.6	11240.9	14121.5	15024.1	14466.0	10447.3
77.5°	491.3	527.6	805.2	1030.5	1213.6	3029.0	7225.0	9777.3	9406.6	8485.2	5232.3
80°	389.5	427.3	659.9	697.6	587.2	1094.4	2985.3	4526.0	3251.3	2600.2	1488.3
82.5°	299.4	341.5	555.2	505.8	319.8	449.2	869.2	1431.6	832.8	633.7	360.5
85°	183.2	228.2	436.0	322.7	180.2	204.9	295.1	398.2	254.3	212.2	129.4
87.5°	93.1	130.8	220.9	117.8	81.4	48.0	78.5	78.5	66.8	58.1	33.4
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°	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2	3959.2
2.5°	3973.7	4002.7	4052.1	4098.7	4135.1	4169.9	4204.8	4223.7	4229.5	4252.7	4265.8
5°	4020.2	4074.0	4169.9	4260.0	4316.7	4351.5	4376.3	4390.8	4393.8	4401.0	4412.6
7.5°	4105.9	4191.7	4325.4	4415.5	4457.7	4454.8	4444.6	4408.2	4393.8	4380.6	4383.5
10°	4226.6	4340.0	4504.2	4566.7	4540.5	4470.7	4380.6	4274.6	4225.2	4177.2	4162.6
12.5°	4376.3	4520.1	4681.5	4678.6	4549.3	4370.5	4161.2	3998.4	3895.2	3821.1	3803.7
15°	4558.0	4723.6	4847.2	4748.4	4464.9	4143.8	3837.1	3624.9	3531.8	3450.5	3441.7
17.5°	4745.4	4922.8	4979.4	4726.6	4252.7	3808.0	3460.6	3293.5	3201.9	3158.3	3171.4
20°	4928.6	5104.5	5058.0	4601.5	3930.1	3427.2	3117.6	3026.0	3007.1	3017.3	3013.0
22.5°	5121.9	5278.9	5074.0	4360.3	3518.7	3037.7	2867.6	2870.5	2912.6	2943.2	2950.5
25°	5319.5	5425.6	5031.8	4011.4	3076.9	2751.3	2709.2	2755.7	2838.5	2898.2	2914.2
27.5°	5510.0	5556.5	4940.2	3579.8	2697.6	2546.4	2553.7	2649.6	2774.6	2857.5	2877.8
30°	5725.0	5672.8	4764.4	3094.4	2434.5	2370.5	2431.6	2543.5	2668.5	2742.6	2760.1
32.5°	5967.8	5773.0	4485.3	2645.2	2248.4	2229.6	2329.8	2402.5	2457.7	2479.6	2491.2
35°	6270.1	5914.0	4127.8	2329.8	2081.4	2126.4	2222.3	2185.9	2164.2	2152.5	2164.2
37.5°	6662.5	6104.4	3709.2	2124.9	1946.2	2052.3	2091.5	1978.1	1892.4	1850.2	1860.4
40°	7134.9	6383.5	3306.5	1966.5	1860.4	1988.3	1920.0	1783.4	1674.3	1614.8	1619.1
42.5°	7659.6	6675.6	2967.9	1847.4	1812.4	1936.0	1793.5	1630.8	1454.9	1436.0	1454.9
45°	8210.5	6976.5	2736.9	1755.7	1789.1	1890.9	1720.9	1457.8	1332.8	1409.8	1450.5
47.5°	8761.3	7252.6	2597.2	1687.5	1777.6	1840.1	1656.9	1361.9	1273.3	1385.1	1437.5
50°	9374.6	7499.7	2534.8	1638.1	1764.4	1819.7	1561.0	1337.1	1210.7	1284.8	1340.1
52.5°	9983.6	7691.6	2488.3	1588.6	1745.6	1803.7	1514.4	1308.1	1135.1	1139.5	1170.0
55°	10591.2	7816.5	2437.4	1523.1	1703.4	1768.8	1510.1	1276.1	1078.4	1058.1	1072.7
57.5°	11239.4	7887.8	2374.9	1450.5	1630.8	1680.2	1505.7	1251.4	1061.0	1027.6	1032.0
60°	11899.2	7992.4	2293.5	1361.9	1533.4	1574.1	1495.6	1242.7	1050.8	994.1	998.6
62.5°	12490.9	8028.7	2196.2	1277.6	1408.4	1469.4	1473.7	1235.4	1023.3	925.9	925.9
65°	12878.9	7871.8	2026.1	1181.6	1273.3	1361.9	1431.6	1210.7	973.7	876.4	876.4
67.5°	12862.9	7424.2	1760.1	1058.1	1142.4	1242.7	1370.6	1168.6	914.2	815.4	819.7
70°	12264.1	6540.4	1422.9	914.2	998.6	1114.8	1292.1	1106.1	843.0	748.6	757.3
72.5°	10518.6	5119.0	1033.4	745.6	831.4	982.6	1190.3	1030.5	770.3	688.9	684.6
75°	7514.3	3239.7	700.6	572.7	646.8	832.8	1063.9	941.9	703.5	691.9	652.6
77.5°	3838.5	1548.0	463.6	418.6	450.6	656.9	893.9	841.5	713.6	571.2	508.7
80°	1248.4	571.2	292.1	284.8	299.4	437.5	691.9	690.3	540.7	388.1	343.0
82.5°	398.2	245.6	190.4	183.2	175.9	274.7	482.6	546.5	364.8	245.6	244.2
85°	158.5	146.8	111.9	103.2	74.1	129.4	252.9	363.4	271.8	177.3	181.6
87.5°	58.1	58.1	30.5	21.8	16.0	43.6	68.3	109.0	155.5	91.5	90.1
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)