

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: P966824

Luminaire Tested: **NAV-SB4C-830-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966824
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27402.3 lumens
Efficiency: N/A
Efficacy: 136.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - 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



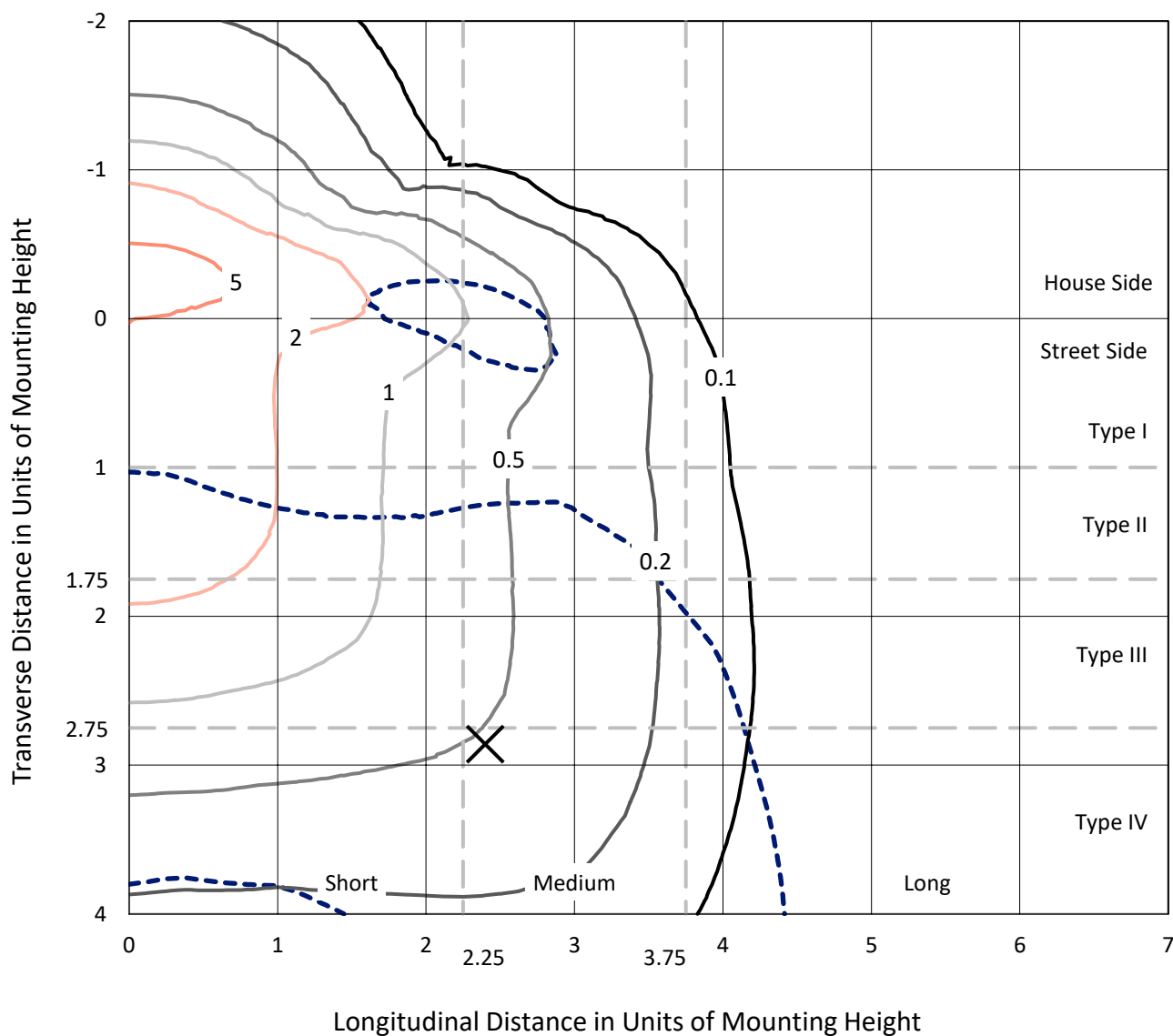
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

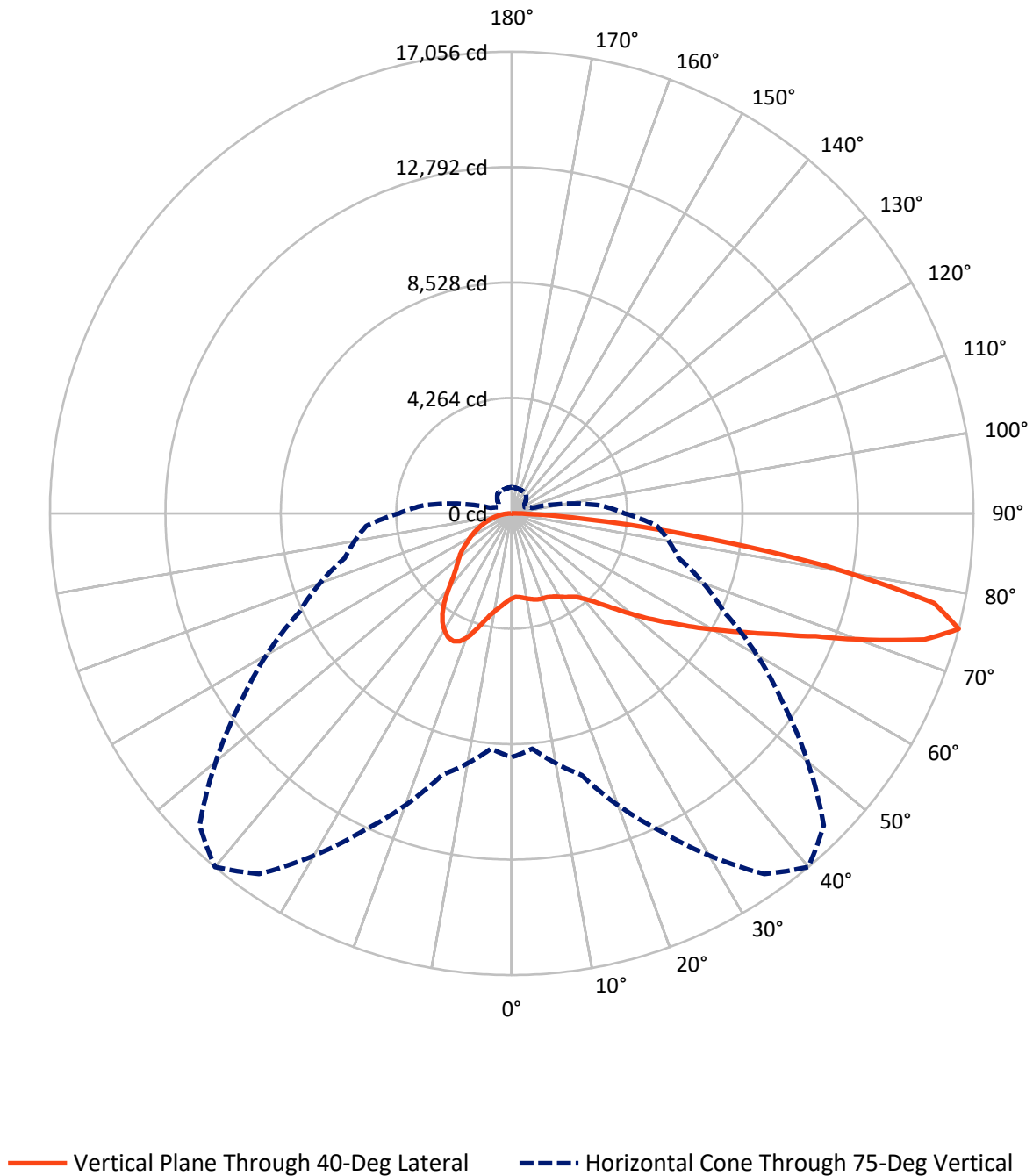
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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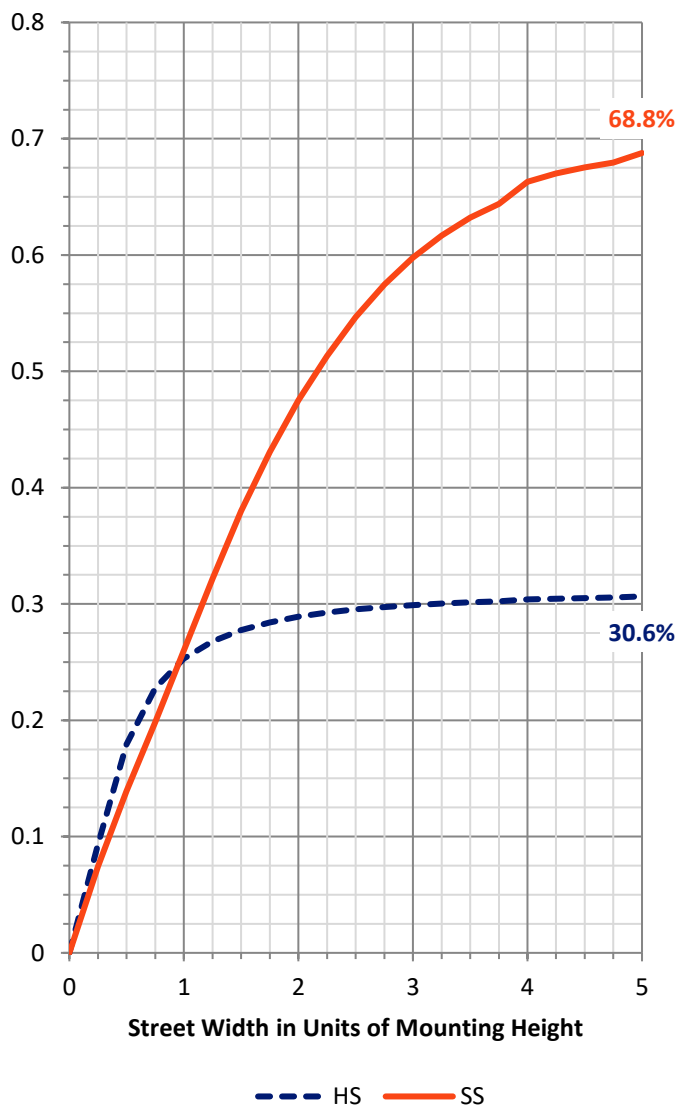
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8490.2	0.0	8490.2
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	18912.2	0.0	18912.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	27402.3	0.0	27402.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	312.8	1.1
10°-20°	1050.2	3.8
20°-30°	1917.5	7.0
30°-40°	2719.5	9.9
40°-50°	3672.2	13.4
50°-60°	4940.1	18.0
60°-70°	6270.1	22.9
70°-80°	5690.5	20.8
80°-90°	829.5	3.0
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°	27402.3	100.0
0°-180°	27402.3	100.0

Coefficient of Utilization



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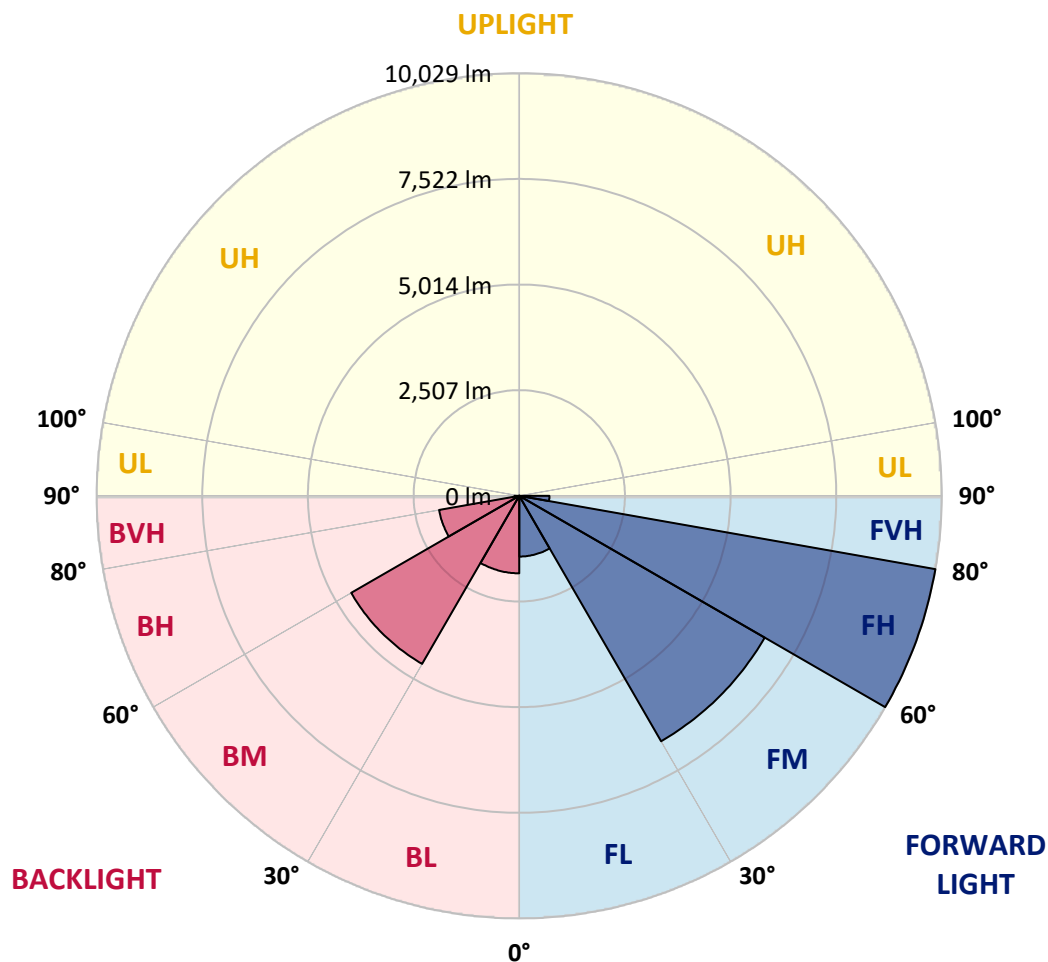
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1441.4	5.3			
FM	(30°-60°)	6726.7	24.5			
FH	(60°-80°)	10028.8	36.6			G4/12000
FVH	(80°-90°)	715.3	2.6			G4/750
BL	(0°-30°)	1839.0	6.7	B3/2500		
BM	(30°-60°)	4605.1	16.8	B3/5000		
BH	(60°-80°)	1931.8	7.0	B3/2500		G3/2500
BVH	(80°-90°)	114.2	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 IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5
2.5°	3085.6	3103.0	3098.6	3092.8	3092.8	3094.3	3092.8	3103.0	3113.1	3123.3	3139.3
5°	3117.5	3135.0	3126.2	3119.0	3113.1	3111.7	3107.3	3105.9	3111.7	3124.8	3146.5
7.5°	3180.0	3197.5	3184.4	3171.2	3159.7	3153.8	3148.0	3139.3	3135.0	3142.2	3172.8
10°	3249.8	3267.2	3251.2	3227.9	3209.1	3201.8	3196.0	3187.2	3181.5	3185.8	3219.2
12.5°	3319.6	3337.0	3315.2	3283.2	3258.5	3254.2	3246.9	3243.9	3242.5	3241.0	3274.5
15°	3385.0	3399.5	3371.8	3334.0	3307.9	3300.6	3293.3	3297.7	3305.0	3313.7	3351.5
17.5°	3435.8	3450.4	3409.7	3360.3	3335.6	3332.6	3328.3	3342.8	3363.1	3385.0	3431.4
20°	3482.3	3496.9	3444.5	3377.7	3348.6	3348.6	3350.0	3380.6	3409.7	3441.6	3505.6
22.5°	3547.7	3559.3	3495.4	3403.8	3361.7	3364.6	3376.2	3406.7	3443.1	3486.6	3575.3
25°	3645.1	3653.8	3575.3	3453.2	3405.3	3414.0	3424.2	3438.7	3473.6	3524.5	3643.7
27.5°	3802.0	3809.3	3706.1	3540.5	3467.8	3482.3	3496.9	3486.6	3502.6	3546.3	3698.8
30°	4022.9	4027.3	3896.5	3677.1	3573.9	3581.1	3584.0	3541.9	3511.3	3546.3	3738.1
32.5°	4284.6	4283.2	4127.6	3842.7	3694.5	3687.2	3662.5	3579.7	3508.5	3539.0	3773.0
35°	4690.1	4674.1	4473.5	4075.3	3831.1	3786.0	3727.9	3621.8	3523.0	3531.7	3803.5
37.5°	5361.6	5312.2	5034.5	4456.1	4034.6	3919.8	3834.0	3690.1	3555.0	3528.8	3839.9
40°	6118.7	6056.2	5751.1	4977.8	4339.8	4155.2	4017.2	3787.5	3607.3	3541.9	3893.6
42.5°	7016.9	6928.3	6599.8	5592.6	4726.4	4459.0	4251.2	3911.1	3684.4	3584.0	3966.2
45°	8120.0	8002.4	7537.2	6285.9	5213.3	4857.2	4579.6	4098.6	3802.0	3665.4	4075.3
47.5°	9234.8	9263.8	8602.6	7079.5	5797.5	5348.4	4990.9	4380.5	3973.5	3796.2	4251.2
50°	10419.3	10439.6	9662.1	7958.7	6460.3	5903.7	5453.1	4695.8	4211.9	3982.2	4514.2
52.5°	11343.7	11346.5	10624.2	8878.8	7150.6	6514.1	5951.6	5056.3	4488.1	4229.4	4864.4
55°	11922.1	11914.8	11298.6	9749.3	7944.2	7155.0	6503.9	5466.2	4825.2	4520.0	5304.9
57.5°	12342.1	12320.3	11763.7	10497.7	8790.1	7912.2	7128.9	5931.3	5223.5	4865.9	5884.7
60°	12502.0	12488.9	12079.1	11144.5	9679.5	8749.4	7849.8	6451.6	5675.4	5274.3	6630.3
62.5°	12563.0	12587.7	12388.7	11771.0	10631.5	9676.6	8641.8	7073.6	6184.1	5736.5	7416.6
65°	12778.2	12823.2	12782.5	12590.7	11707.0	10762.3	9692.6	7813.4	6739.4	6232.1	8237.8
67.5°	13203.9	13249.0	13266.5	13571.7	13020.9	12115.4	11003.6	8734.8	7389.0	6746.7	8855.5
70°	13193.8	13180.8	13488.9	14352.2	14666.1	13988.8	12770.9	9868.5	8163.6	7173.9	8933.9
72.5°	12009.3	11904.7	12632.8	14343.4	16035.2	15945.1	14929.1	11330.6	8832.2	7226.2	7752.4
75°	9009.5	8730.4	10016.7	12926.4	16263.4	17055.5	16301.2	12237.5	8673.8	6384.7	5395.0
77.5°	3852.9	3572.4	5088.3	9569.1	14555.6	15943.7	15042.5	10676.6	6923.9	4222.1	2649.5
80°	1008.6	1007.2	1537.7	4338.3	9899.0	11773.9	10329.2	6894.9	3956.1	1508.6	731.0
82.5°	417.1	406.9	565.4	1687.4	4836.9	6607.0	5392.0	3075.4	1428.6	408.4	242.7
85°	155.5	154.1	274.7	582.8	1706.3	2725.1	1972.2	786.3	356.1	199.2	109.0
87.5°	43.6	42.1	59.6	202.0	415.6	630.8	337.2	129.4	100.2	78.5	32.0
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°	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5	3133.5
2.5°	3143.7	3151.0	3164.0	3174.2	3187.2	3201.8	3222.2	3235.2	3248.3	3257.0	3251.2
5°	3156.8	3172.8	3206.2	3239.6	3278.9	3315.2	3357.3	3387.8	3412.5	3419.8	3422.7
7.5°	3185.8	3211.9	3268.6	3325.3	3387.8	3447.4	3508.5	3560.7	3603.0	3619.0	3620.4
10°	3236.6	3271.6	3351.5	3431.4	3514.3	3605.8	3684.4	3759.9	3819.5	3844.2	3845.7
12.5°	3300.6	3344.3	3448.9	3559.3	3674.1	3800.6	3902.4	3995.3	4069.5	4102.9	4102.9
15°	3383.5	3440.2	3573.9	3722.1	3890.7	4066.6	4195.9	4299.2	4382.0	4422.7	4419.7
17.5°	3473.6	3549.2	3717.8	3941.5	4182.8	4414.0	4565.0	4640.7	4726.4	4765.6	4764.2
20°	3560.7	3653.8	3895.1	4220.6	4541.8	4787.5	4909.5	4929.8	4935.7	4940.1	4951.7
22.5°	3650.9	3775.9	4117.4	4572.3	4916.8	5086.9	5104.3	5017.1	4895.0	4838.3	4854.3
25°	3749.8	3915.4	4408.1	4960.4	5239.5	5259.8	5126.1	4913.8	4682.8	4576.7	4592.7
27.5°	3845.7	4076.7	4756.9	5331.0	5472.0	5293.2	5005.5	4704.6	4425.5	4313.6	4326.7
30°	3941.5	4261.3	5142.1	5655.1	5578.0	5210.4	4815.0	4479.4	4198.8	4081.1	4094.2
32.5°	4038.9	4476.4	5585.3	5889.1	5559.2	5034.5	4578.2	4226.5	3979.4	3855.8	3871.8
35°	4149.4	4740.9	6005.4	6017.1	5432.7	4775.8	4265.6	3924.1	3709.1	3610.3	3632.0
37.5°	4293.3	5076.6	6376.0	6048.9	5211.8	4396.5	3877.7	3566.6	3389.3	3344.3	3376.2
40°	4472.1	5480.7	6659.4	5998.1	4884.8	3935.8	3453.2	3204.7	3104.4	3114.6	3149.5
42.5°	4704.6	5932.7	6858.5	5867.3	4429.9	3460.5	3081.1	2970.8	3018.7	3059.4	3097.1
45°	5006.9	6402.2	6982.1	5645.0	3915.4	3057.9	2861.7	2887.8	2924.2	2928.5	2957.6
47.5°	5393.5	6877.4	7063.5	5309.2	3390.7	2774.5	2722.2	2728.0	2720.8	2690.2	2713.5
50°	5876.0	7339.6	7136.2	4864.4	2944.5	2597.2	2527.4	2507.0	2406.8	2308.0	2321.0
52.5°	6425.4	7764.0	7166.6	4312.2	2597.2	2448.9	2335.6	2207.6	2020.2	1989.7	1999.9
55°	7035.8	8156.4	7088.2	3633.4	2305.0	2258.6	2087.1	1933.0	1912.6	1886.5	1890.8
57.5°	7765.4	8579.4	6928.3	2876.3	2005.7	2036.2	1869.1	1886.5	1850.1	1809.4	1802.2
60°	8563.4	9016.8	6647.7	2185.9	1696.1	1758.6	1812.4	1810.9	1800.7	1767.3	1755.7
62.5°	9281.3	9304.5	6095.5	1674.3	1424.3	1543.4	1690.3	1688.8	1680.1	1661.2	1653.9
65°	9708.6	9261.0	5174.0	1318.3	1200.5	1366.2	1524.6	1536.3	1537.7	1536.3	1536.3
67.5°	9633.1	8750.8	3909.6	1049.3	1015.9	1185.9	1360.4	1376.4	1388.0	1390.9	1393.8
70°	8778.4	7630.3	2549.3	837.1	851.7	1027.6	1204.9	1220.9	1231.0	1242.6	1248.4
72.5°	6842.5	5610.0	1459.2	677.3	707.8	890.9	1050.8	1069.7	1075.5	1097.3	1106.0
75°	4169.8	3299.2	787.7	533.4	581.4	761.6	898.2	920.0	930.2	956.3	959.2
77.5°	1982.5	1428.6	449.1	415.6	468.0	622.1	758.7	783.4	755.7	770.3	758.7
80°	670.0	530.4	283.4	316.8	357.5	485.4	607.5	632.2	574.1	571.1	565.4
82.5°	234.0	215.1	180.2	210.7	231.1	347.4	459.3	491.3	427.3	425.9	405.5
85°	91.5	87.2	100.2	114.8	138.1	213.6	302.3	318.3	263.0	212.2	209.3
87.5°	18.9	20.4	24.7	26.1	42.1	74.1	109.0	133.8	106.1	90.1	82.8
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)