

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: P966188

Luminaire Tested: **NAV-SB4B-740-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-740-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24489.3 lumens
Efficiency: N/A
Efficacy: 166.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 147
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



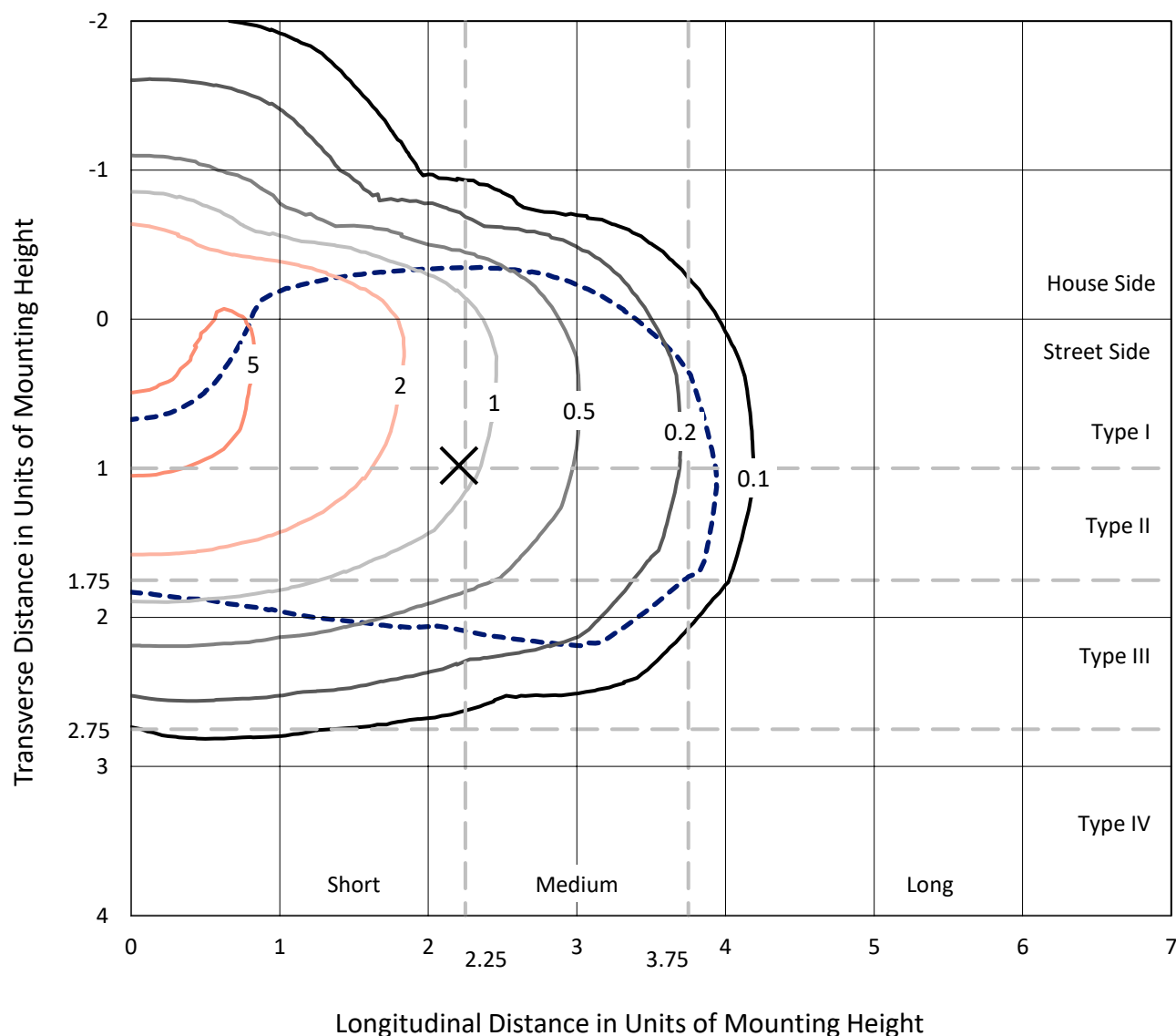
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

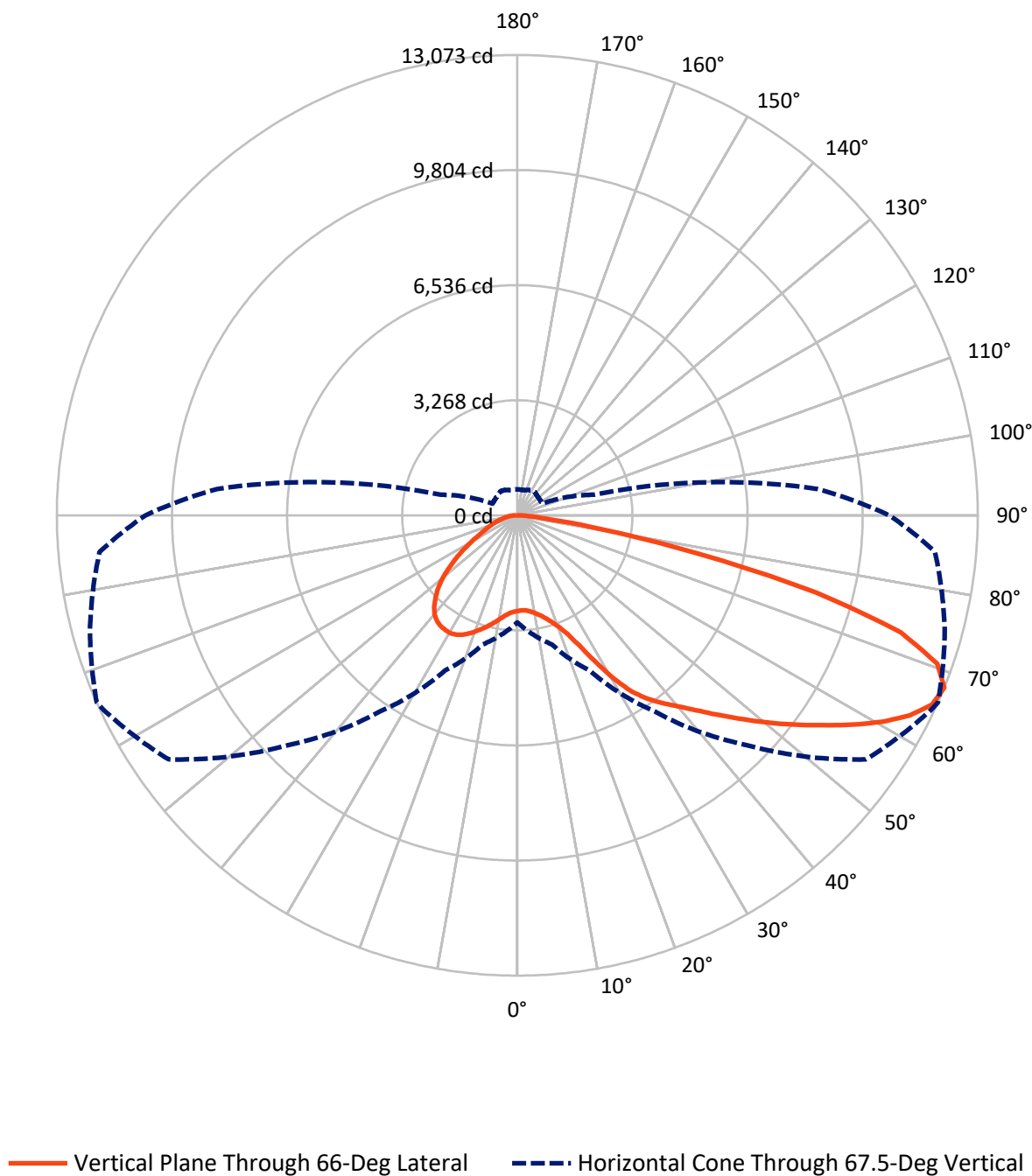


Based on 25 foot mounting height. Maximum calculated value = 6.2 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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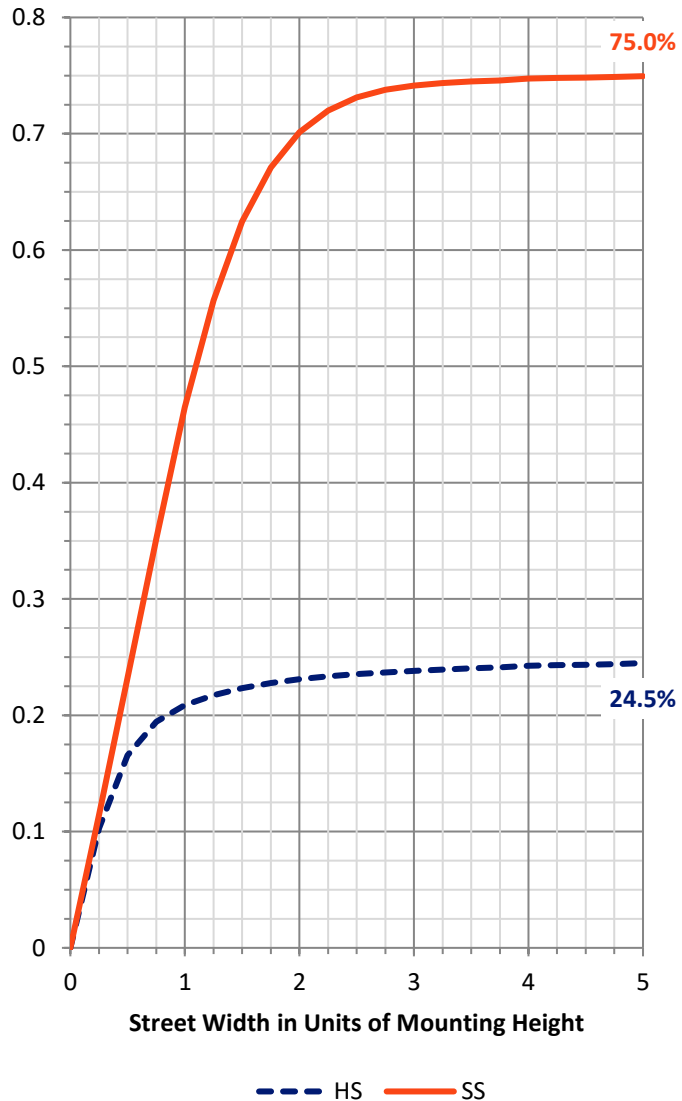
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6089.2	0.0	6089.2
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	18400.1	0.0	18400.1
	% Fixture	75.1	0.0	75.1
Total	Lumens	24489.3	0.0	24489.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.3	1.1
10°-20°	889.7	3.6
20°-30°	1714.9	7.0
30°-40°	3006.9	12.3
40°-50°	4470.2	18.3
50°-60°	5666.4	23.1
60°-70°	5544.5	22.6
70°-80°	2644.8	10.8
80°-90°	282.6	1.2
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°	24489.3	100.0
0°-180°	24489.3	100.0

Coefficient of Utilization



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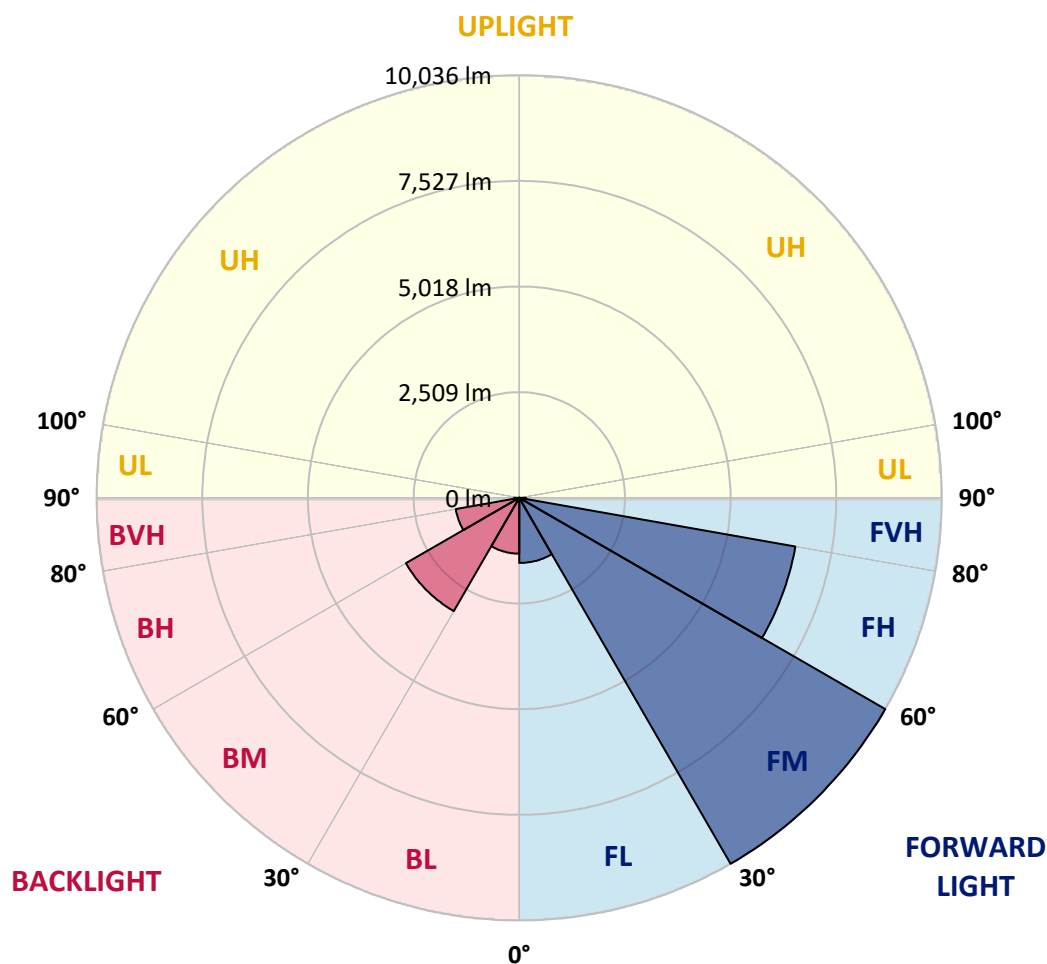
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1547.5	6.3			
FM	(30°-60°)	10035.5	41.0			
FH	(60°-80°)	6656.9	27.2			G3/7500
FVH	(80°-90°)	160.3	0.7			G2/225
BL	(0°-30°)	1326.4	5.4	B3/2500		
BM	(30°-60°)	3108.0	12.7	B3/5000		
BH	(60°-80°)	1532.4	6.3	B3/2500		G3/2500
BVH	(80°-90°)	122.4	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1
2.5°	2687.9	2703.3	2699.4	2693.0	2691.8	2694.3	2698.2	2702.0	2700.8	2707.2	2717.5
5°	2680.2	2695.6	2694.3	2694.3	2699.4	2709.8	2716.1	2722.6	2716.1	2723.9	2738.1
7.5°	2685.3	2696.9	2702.0	2707.2	2720.0	2739.3	2754.8	2768.9	2761.2	2770.3	2788.2
10°	2750.9	2759.9	2765.0	2765.0	2774.1	2796.0	2811.4	2837.1	2830.7	2844.9	2868.1
12.5°	2870.6	2879.6	2879.6	2874.4	2880.9	2895.0	2900.1	2928.5	2916.9	2940.1	2963.3
15°	3017.3	3035.3	3021.1	3012.2	3014.7	3028.9	3027.5	3049.5	3037.9	3057.2	3077.8
17.5°	3179.3	3202.5	3179.3	3178.1	3173.0	3188.4	3189.7	3209.0	3188.4	3202.5	3216.8
20°	3371.1	3403.3	3383.9	3390.4	3378.8	3385.3	3391.7	3420.0	3387.8	3398.1	3394.3
22.5°	3641.3	3680.0	3659.4	3683.7	3676.1	3670.9	3669.6	3719.8	3669.6	3673.5	3636.2
25°	4035.0	4081.3	4045.4	4078.8	4078.8	4095.5	4114.8	4179.1	4095.5	4071.1	3974.5
27.5°	4616.6	4662.9	4592.2	4612.8	4606.3	4647.5	4627.0	4786.4	4696.3	4656.5	4462.2
30°	5316.6	5398.9	5265.1	5260.0	5253.5	5319.1	5348.8	5454.2	5362.9	5323.0	5088.8
32.5°	6073.1	6159.3	5999.8	5953.5	5929.0	5968.9	5944.5	6029.4	5966.3	5904.6	5615.1
35°	6873.4	6958.4	6806.5	6716.5	6618.7	6535.1	6447.6	6469.4	6410.2	6316.4	6016.5
37.5°	7630.0	7785.7	7624.9	7528.4	7348.2	7184.8	6940.4	6838.7	6783.3	6697.1	6394.8
40°	8400.8	8489.6	8367.3	8285.0	8089.4	7833.4	7442.2	7227.3	7152.7	7069.0	6813.0
42.5°	8968.1	9053.1	8987.5	8930.8	8777.8	8480.5	7974.9	7705.9	7597.8	7503.9	7286.5
45°	9418.5	9481.6	9440.4	9461.0	9395.4	9107.1	8526.9	8219.4	8107.3	7992.8	7821.8
47.5°	9599.9	9666.9	9732.5	9854.7	9966.7	9754.3	9120.0	8775.1	8656.8	8539.7	8371.2
50°	9579.3	9647.5	9837.9	10097.9	10445.3	10374.5	9745.3	9367.1	9257.7	9123.8	8968.1
52.5°	9414.6	9491.8	9736.4	10168.6	10721.9	10839.0	10382.2	9978.3	9875.3	9715.8	9560.1
55°	8982.4	9028.6	9395.4	10007.8	10787.5	11163.3	11006.2	10629.2	10526.3	10303.7	10133.9
57.5°	8180.7	8247.7	8781.6	9574.2	10622.9	11383.2	11554.4	11313.8	11214.7	10894.3	10716.8
60°	7134.6	7241.4	7852.6	8846.0	10203.4	11382.0	12052.4	11986.8	11904.3	11475.9	11290.7
62.5°	5950.9	6074.5	6662.4	7816.5	9470.0	11059.0	12363.8	12550.3	12507.9	12012.5	11775.7
65°	4570.3	4655.2	5240.6	6484.9	8328.7	10365.5	12399.7	12935.0	12942.8	12420.3	12029.2
67.5°	3043.0	3287.5	3795.7	4866.2	6800.2	9232.0	12083.2	12998.0	13072.6	12560.6	11901.8
70°	1484.8	1806.5	2304.4	3162.6	4866.2	7493.7	11255.9	12480.8	12646.8	12151.5	11142.7
72.5°	616.3	720.6	992.0	1560.8	2793.4	5056.6	9593.5	11078.3	11385.9	10767.0	9368.3
75°	415.6	450.4	567.4	800.3	1272.5	2493.6	6918.4	8260.5	8755.9	8131.8	6647.0
77.5°	320.4	342.2	413.1	559.8	756.6	943.1	3703.1	4978.2	5234.3	4845.7	3458.6
80°	252.2	269.0	308.8	407.8	536.6	504.4	1262.2	2255.5	2403.5	2016.3	1111.7
82.5°	218.7	225.2	221.3	276.6	356.4	294.7	414.3	832.5	918.7	666.5	362.8
85°	158.3	176.3	184.0	171.2	189.1	149.2	169.8	294.7	324.2	289.5	204.6
87.5°	64.4	95.2	117.1	110.7	69.5	42.4	52.8	86.2	99.1	108.0	66.9
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°	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1	2716.1
2.5°	2718.7	2727.7	2734.2	2741.9	2747.1	2754.8	2770.3	2779.2	2780.5	2787.0	2785.6
5°	2743.2	2756.1	2770.3	2790.8	2813.9	2833.3	2862.8	2883.4	2891.2	2897.6	2896.3
7.5°	2796.0	2813.9	2839.7	2875.7	2909.2	2934.9	2971.0	2995.4	3019.9	3028.9	3030.1
10°	2874.4	2900.1	2937.5	2986.4	3022.4	3055.8	3093.1	3113.7	3138.2	3148.5	3153.6
12.5°	2972.2	2999.3	3048.1	3116.3	3149.8	3173.0	3185.8	3180.7	3185.8	3194.8	3197.4
15°	3084.2	3113.7	3169.1	3242.5	3265.6	3245.0	3216.8	3190.9	3187.1	3189.7	3198.7
17.5°	3216.8	3238.6	3303.0	3364.7	3348.0	3263.0	3201.3	3160.1	3139.5	3133.1	3142.0
20°	3402.0	3402.0	3454.8	3493.3	3381.4	3237.3	3140.8	3073.9	3031.4	3013.4	3009.5
22.5°	3627.2	3606.6	3640.0	3613.0	3375.0	3165.2	3031.4	2915.6	2851.2	2825.5	2821.7
25°	3912.8	3888.3	3879.3	3712.0	3328.7	3050.7	2833.3	2693.0	2636.4	2622.3	2624.8
27.5°	4343.8	4282.0	4165.0	3766.2	3243.7	2870.6	2601.7	2471.7	2439.5	2440.8	2444.7
30°	4917.7	4794.1	4507.2	3775.2	3104.7	2615.8	2364.9	2272.3	2256.8	2263.3	2285.1
32.5°	5449.1	5332.0	4857.3	3734.0	2891.2	2366.2	2152.6	2090.9	2067.7	2075.4	2085.7
35°	5866.0	5833.8	5181.5	3676.1	2628.7	2132.0	1962.2	1909.5	1864.4	1854.1	1861.8
37.5°	6259.7	6246.9	5424.6	3595.0	2368.8	1966.1	1809.1	1739.6	1673.9	1637.9	1639.3
40°	6692.0	6679.2	5584.2	3470.1	2138.5	1821.9	1671.4	1580.0	1499.0	1433.4	1439.8
42.5°	7178.4	7102.5	5660.2	3291.4	1942.9	1699.8	1559.4	1435.9	1329.1	1268.6	1272.5
45°	7709.8	7538.7	5658.8	3063.6	1778.2	1587.7	1439.8	1264.8	1165.7	1109.2	1106.6
47.5°	8273.4	7955.5	5589.3	2811.4	1618.7	1464.2	1254.5	1120.7	1055.0	1020.4	1012.6
50°	8855.0	8345.4	5470.9	2521.9	1455.2	1324.0	1138.7	1047.3	997.2	965.0	953.5
52.5°	9401.8	8699.3	5328.2	2193.8	1289.2	1187.6	1087.2	1016.5	963.7	927.7	912.2
55°	9910.0	9004.2	5126.1	1858.0	1154.1	1096.2	1062.8	1003.6	943.1	900.7	884.0
57.5°	10361.6	9202.3	4777.4	1542.7	1057.7	1033.2	1037.1	981.7	912.2	876.3	853.1
60°	10737.4	9347.8	4261.5	1250.7	979.2	971.5	997.2	940.5	859.5	818.4	800.3
62.5°	10962.6	9345.1	3628.4	1024.2	912.2	914.8	944.4	889.1	806.8	768.1	756.6
65°	10943.2	9116.1	2933.7	876.3	847.9	850.5	889.1	832.5	763.0	739.8	738.5
67.5°	10556.0	8557.7	2250.4	779.7	777.2	788.7	833.7	793.9	735.9	733.4	737.3
70°	9507.3	7398.4	1621.2	702.5	703.8	720.6	779.7	769.5	721.8	726.9	725.7
72.5°	7623.6	5640.8	1088.6	621.5	622.8	649.7	728.3	750.1	707.7	775.8	786.2
75°	5077.2	3517.8	700.0	535.3	536.6	571.3	683.3	712.8	669.1	773.3	779.7
77.5°	2439.5	1581.4	507.0	450.4	450.4	482.5	590.6	638.2	570.0	600.9	550.7
80°	842.8	594.4	398.8	362.8	355.2	377.0	497.9	553.3	491.5	452.9	424.6
82.5°	332.0	308.8	320.4	281.8	256.0	270.2	387.2	456.7	361.5	326.8	325.5
85°	190.4	200.7	226.4	186.5	148.0	165.9	284.3	328.1	272.8	240.6	245.8
87.5°	51.5	70.7	104.2	96.5	66.9	70.7	135.1	181.4	156.9	121.0	124.8
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)