

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: P968391

Luminaire Tested: **NAV-SB5B-827-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968391
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25058.2 lumens
Efficiency: N/A
Efficacy: 137.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 182.7
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



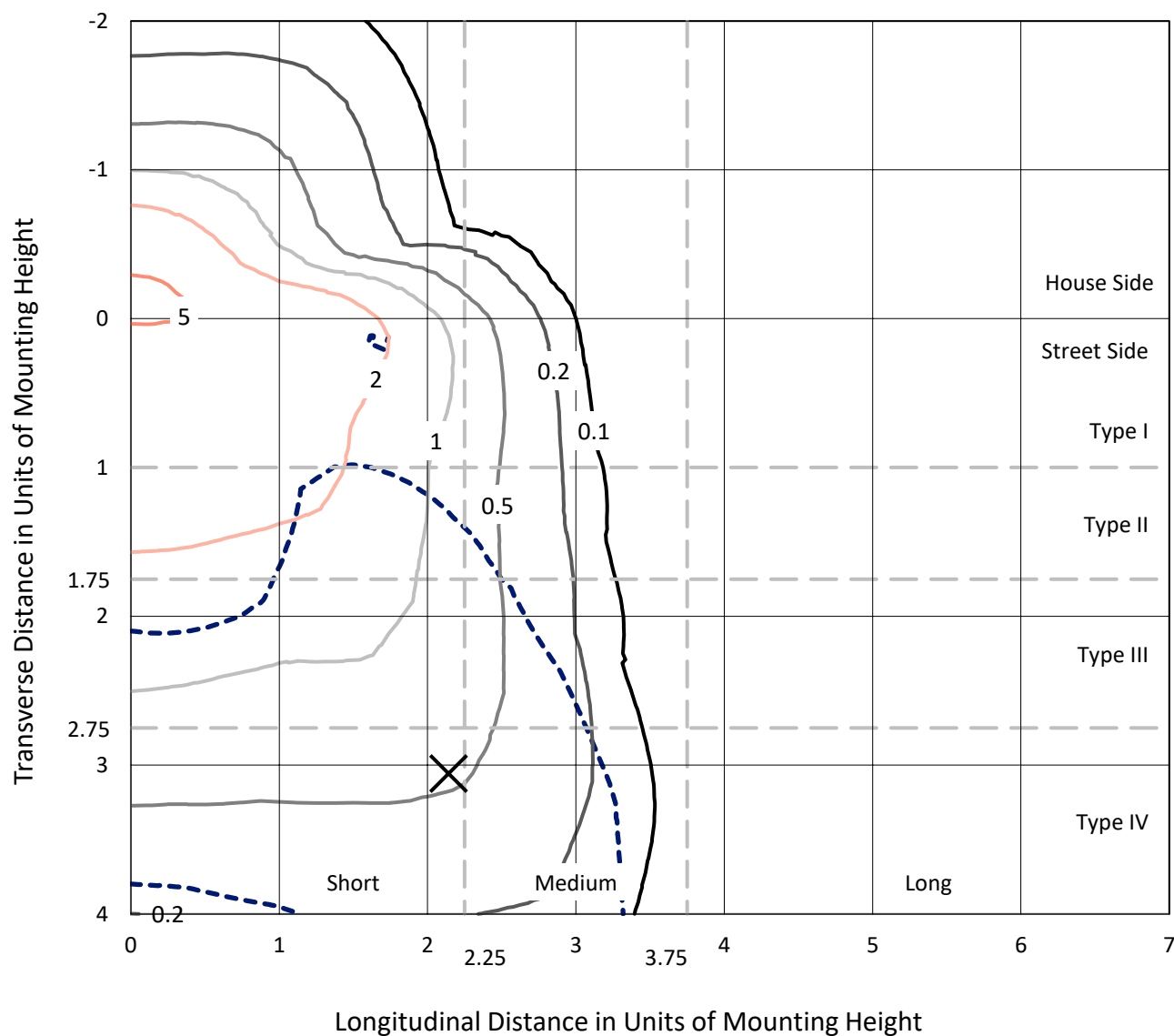
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

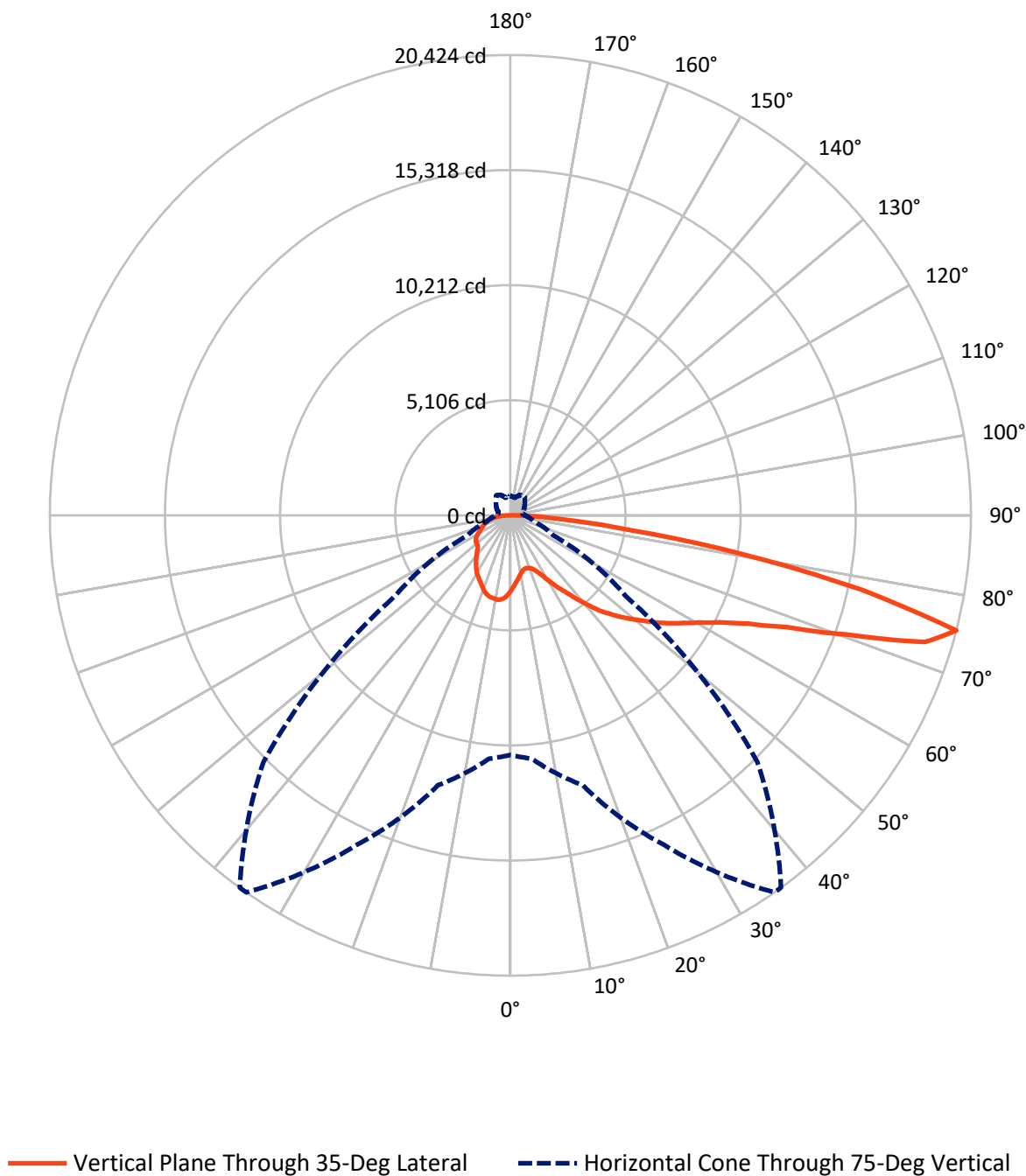


Based on 25 foot mounting height. Maximum calculated value = 5.9 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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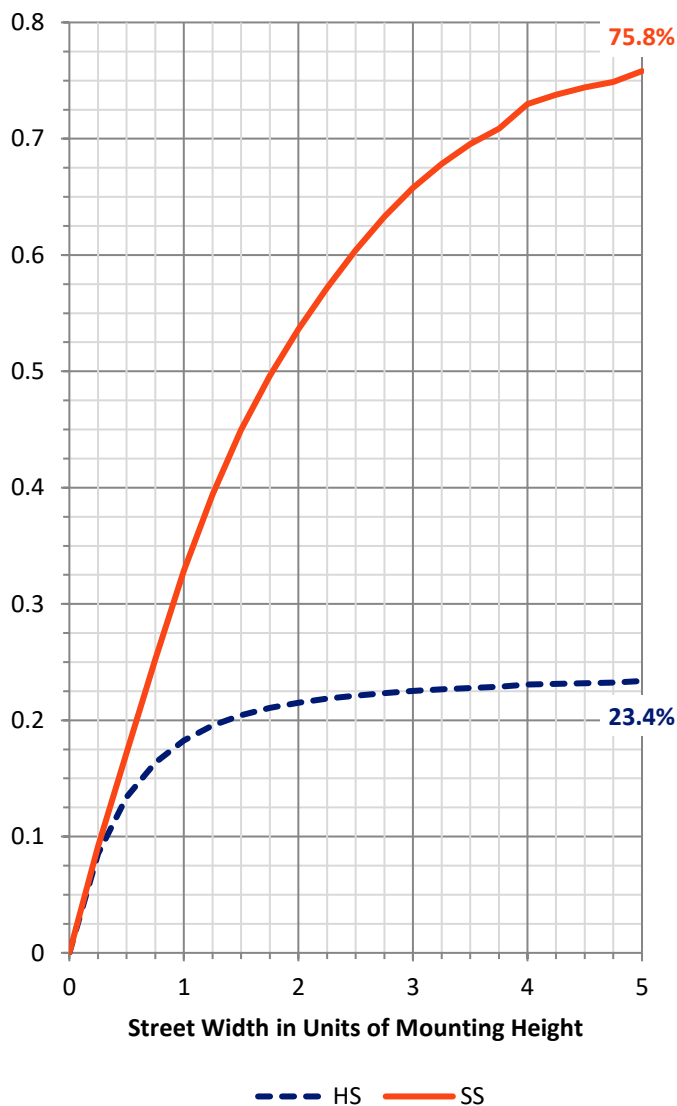
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5963.2	0.0	5963.2
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	19095.0	0.0	19095.0
	% Fixture	76.2	0.0	76.2
Total	Lumens	25058.2	0.0	25058.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.2	1.3
10°-20°	911.9	3.6
20°-30°	1531.4	6.1
30°-40°	2379.9	9.5
40°-50°	3532.5	14.1
50°-60°	4876.8	19.5
60°-70°	5916.6	23.6
70°-80°	4889.6	19.5
80°-90°	703.3	2.8
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°	25058.2	100.0
0°-180°	25058.2	100.0

Coefficient of Utilization



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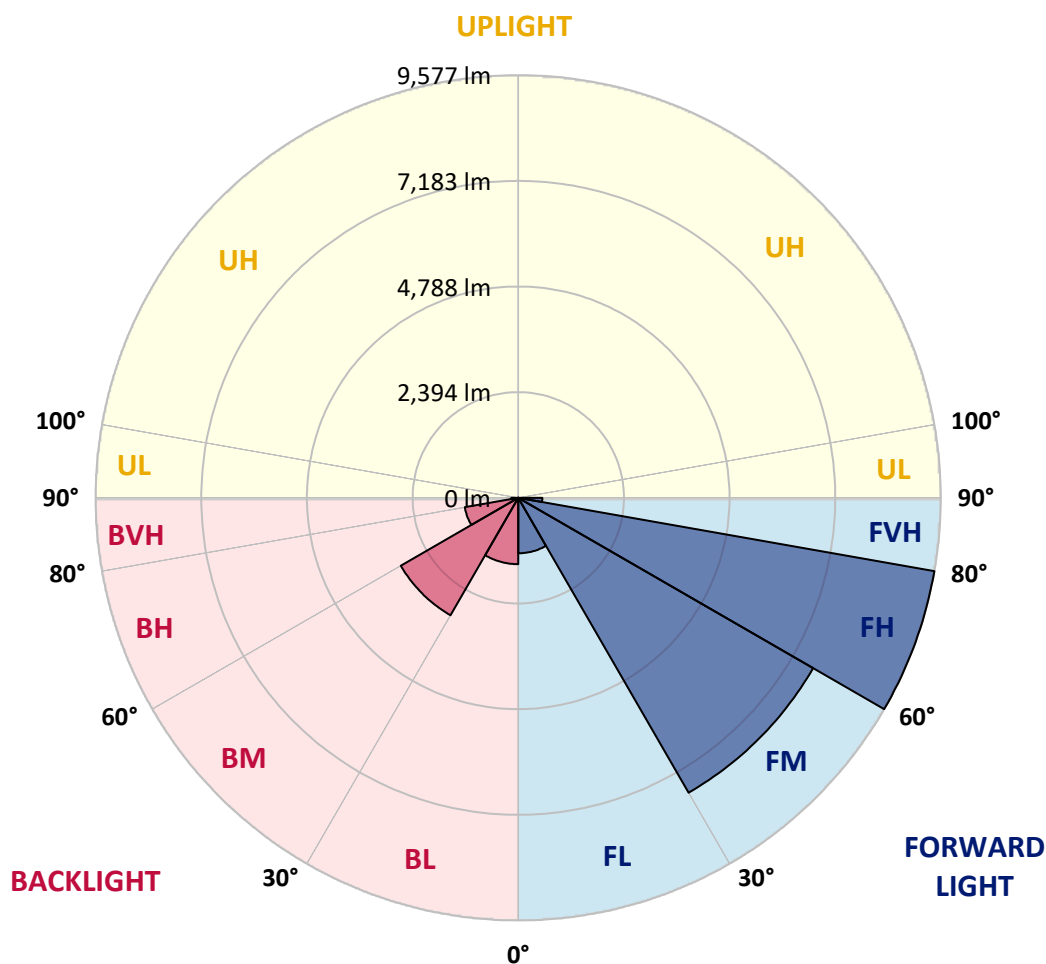
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1256.6	5.0			
FM	(30°-60°)	7716.6	30.8			
FH	(60°-80°)	9576.9	38.2			G4/12000
FVH	(80°-90°)	544.9	2.2			G4/750
BL	(0°-30°)	1502.8	6.0	B3/2500		
BM	(30°-60°)	3072.6	12.3	B3/5000		
BH	(60°-80°)	1229.4	4.9	B3/2500		G3/2500
BVH	(80°-90°)	158.4	0.6			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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1
2.5°	3079.1	3098.1	3106.2	3102.1	3122.5	3119.7	3148.2	3183.3	3232.1	3279.6	3348.7
5°	2842.0	2862.3	2879.9	2896.2	2935.5	2947.7	2992.4	3060.1	3149.5	3240.3	3354.1
7.5°	2621.2	2638.9	2665.9	2695.7	2762.1	2774.3	2848.8	2954.5	3079.1	3211.8	3369.0
10°	2441.0	2458.7	2487.1	2521.0	2603.6	2618.5	2713.4	2854.2	3016.8	3184.8	3385.3
12.5°	2363.9	2369.3	2385.5	2419.4	2491.2	2500.7	2604.9	2766.2	2955.8	3164.4	3409.7
15°	2359.8	2370.6	2372.0	2389.6	2449.1	2453.2	2549.4	2709.3	2917.9	3160.4	3446.2
17.5°	2400.4	2408.5	2396.3	2407.2	2457.3	2464.1	2540.0	2682.2	2905.7	3178.0	3508.5
20°	2508.8	2515.6	2479.0	2464.1	2500.7	2506.0	2580.5	2699.7	2917.9	3214.5	3593.9
22.5°	2739.1	2743.1	2653.7	2592.7	2595.5	2598.2	2663.3	2771.6	2965.3	3280.9	3702.2
25°	3098.1	3095.3	2953.1	2835.3	2767.5	2752.6	2796.0	2888.0	3045.2	3369.0	3841.7
27.5°	3518.0	3497.7	3355.4	3179.3	3031.6	3010.0	3000.5	3039.8	3159.0	3485.5	4012.5
30°	3992.1	3973.1	3820.1	3589.8	3385.3	3350.0	3260.6	3240.3	3328.4	3644.0	4249.4
32.5°	4512.3	4500.1	4317.2	4038.2	3764.5	3723.9	3573.6	3519.3	3588.4	3883.7	4580.0
35°	4948.5	4937.6	4785.9	4498.7	4164.2	4114.0	3960.9	3900.0	3935.2	4191.2	5012.1
37.5°	5342.7	5337.3	5207.2	4981.0	4635.6	4574.6	4402.6	4382.3	4375.4	4596.3	5536.4
40°	5708.4	5694.9	5559.4	5440.2	5184.1	5128.7	4976.9	4959.4	4907.8	5094.8	6129.7
42.5°	6113.5	6078.2	5881.9	5826.3	5757.2	5711.1	5620.4	5623.0	5509.3	5657.0	6758.2
45°	6444.0	6423.7	6221.9	6189.4	6263.8	6244.8	6323.4	6343.7	6122.9	6246.2	7411.2
47.5°	6798.9	6780.0	6609.3	6586.2	6788.1	6793.5	7071.2	7077.9	6721.6	6858.5	8065.5
50°	7236.5	7209.3	7040.0	7068.5	7294.7	7315.0	7823.0	7777.0	7273.0	7480.2	8714.3
52.5°	7525.0	7541.2	7504.6	7550.8	7859.6	7878.6	8562.6	8444.8	7818.9	8093.9	9351.1
55°	7737.6	7770.2	7884.0	7989.7	8455.6	8474.6	9260.3	9080.1	8271.4	8662.9	9949.8
57.5°	8011.3	7965.3	8178.0	8383.8	9021.8	9072.0	9938.9	9692.4	8672.3	9153.2	10360.2
60°	8404.2	8371.6	8536.9	8841.6	9655.8	9735.8	10656.9	10243.7	8966.3	9542.0	10440.1
62.5°	9200.7	9119.4	9145.2	9414.7	10455.1	10560.7	11467.0	10724.7	9112.7	9693.7	10012.1
65°	10391.3	10251.8	10121.8	10308.7	11580.8	11685.1	12381.4	11102.6	9058.4	9399.8	8875.6
67.5°	11890.9	11752.8	11593.0	11769.0	13238.8	13321.5	13509.8	11315.3	8631.7	8267.3	6866.7
70°	13127.8	13076.2	13267.3	13992.0	15887.1	15889.9	14956.5	11139.2	7462.7	5861.5	3973.1
72.5°	12963.9	12932.7	13939.2	16179.7	19225.0	19153.1	16326.0	9806.2	5027.0	2644.3	1488.7
75°	10635.2	10837.0	12396.2	16140.5	20423.8	20414.3	15487.5	6234.0	2079.3	1095.9	769.5
77.5°	5703.0	6022.7	8047.9	11916.8	15944.1	16183.8	10888.6	2181.0	892.7	701.7	532.4
80°	1859.9	2139.0	3207.7	6067.4	10360.2	10315.5	4666.7	856.1	610.9	497.1	368.5
82.5°	789.8	822.3	1433.2	2865.1	5317.0	5234.3	1486.0	491.7	429.4	340.0	227.6
85°	308.8	345.4	632.6	1324.8	2302.9	2252.7	536.5	243.8	275.0	222.1	135.5
87.5°	101.6	123.3	226.2	453.8	716.6	690.8	131.4	83.9	119.2	101.6	48.8
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°	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1	3339.1
2.5°	3367.6	3389.3	3415.0	3452.9	3485.5	3512.6	3541.0	3558.6	3565.4	3585.8	3584.3
5°	3392.0	3439.4	3503.0	3565.4	3626.3	3662.9	3695.4	3711.7	3726.6	3737.5	3740.1
7.5°	3432.6	3493.6	3593.9	3675.1	3726.6	3756.4	3778.0	3772.6	3778.0	3780.8	3784.8
10°	3467.9	3553.2	3672.4	3749.7	3788.9	3790.2	3784.8	3765.8	3756.4	3757.8	3760.4
12.5°	3509.8	3604.7	3733.4	3798.3	3809.2	3779.4	3756.4	3723.9	3711.7	3706.3	3703.5
15°	3566.8	3675.1	3799.8	3824.2	3797.0	3759.1	3719.8	3667.0	3639.9	3618.2	3625.0
17.5°	3635.9	3755.1	3851.2	3833.6	3775.4	3713.1	3649.4	3569.5	3513.9	3490.8	3492.3
20°	3732.0	3839.0	3890.5	3813.3	3725.3	3630.4	3522.0	3424.5	3373.1	3350.0	3347.3
22.5°	3848.5	3951.5	3928.4	3778.0	3653.4	3501.7	3366.3	3294.5	3268.7	3252.4	3255.2
25°	3988.1	4076.1	3955.6	3726.6	3535.6	3331.0	3226.7	3203.7	3191.5	3179.3	3179.3
27.5°	4169.6	4217.0	3975.9	3650.7	3351.3	3149.5	3111.6	3115.7	3111.6	3091.3	3095.3
30°	4409.3	4399.8	3994.8	3527.4	3140.1	2985.6	2988.3	3005.9	3008.7	2995.0	3001.9
32.5°	4724.9	4628.8	4004.3	3367.6	2938.2	2842.0	2844.7	2863.6	2877.3	2854.2	2865.1
35°	5107.0	4895.6	3989.4	3167.1	2782.5	2705.2	2684.9	2690.3	2694.3	2672.7	2687.5
37.5°	5552.6	5195.0	3923.0	2944.9	2653.7	2571.1	2527.8	2491.2	2469.5	2449.1	2462.8
40°	6041.7	5521.5	3801.1	2728.2	2510.1	2428.8	2363.9	2294.8	2221.6	2194.5	2206.7
42.5°	6553.7	5857.5	3653.4	2521.0	2344.9	2278.5	2209.4	2109.1	1999.5	1943.9	1950.7
45°	7084.7	6201.6	3508.5	2316.4	2175.6	2147.1	2067.2	1946.6	1827.4	1757.0	1751.5
47.5°	7604.9	6526.6	3295.8	2110.5	2017.1	2048.2	1985.9	1874.8	1742.1	1631.0	1618.8
50°	8102.1	6831.4	2947.7	1901.9	1888.4	2018.4	1958.8	1799.0	1647.3	1505.0	1492.8
52.5°	8595.1	7077.9	2502.0	1712.3	1819.3	2010.2	1923.6	1747.5	1561.9	1412.9	1396.7
55°	9013.7	7205.3	2072.5	1549.7	1719.0	1941.1	1881.6	1686.5	1441.4	1282.8	1269.3
57.5°	9252.2	7102.3	1714.9	1389.9	1580.9	1827.4	1809.7	1556.5	1297.8	1175.8	1159.6
60°	9149.2	6685.2	1422.4	1250.3	1449.5	1704.2	1685.2	1427.8	1188.0	1072.9	1056.6
62.5°	8581.6	5890.0	1190.7	1128.4	1330.2	1578.2	1560.6	1328.9	1104.0	992.9	975.3
65°	7438.3	4791.4	1010.5	1026.8	1209.7	1426.4	1452.1	1246.3	1037.6	929.3	911.6
67.5°	5673.2	3470.5	869.7	938.8	1091.8	1277.5	1352.0	1186.6	982.2	879.1	862.9
70°	3233.5	1971.0	750.5	853.4	987.5	1139.3	1274.7	1139.3	922.5	837.1	826.4
72.5°	1225.9	904.9	648.8	768.0	887.2	1022.7	1189.4	1064.8	853.4	789.8	778.9
75°	654.3	551.3	545.9	667.8	772.1	909.0	1082.4	991.6	802.0	834.5	861.5
77.5°	445.7	390.1	456.5	571.6	646.2	783.0	968.5	880.5	694.9	692.2	638.1
80°	308.8	276.3	371.2	460.5	499.9	658.4	845.3	755.8	566.2	528.3	505.3
82.5°	185.6	180.2	277.7	344.1	353.5	508.0	700.4	634.0	463.3	403.6	406.4
85°	101.6	107.0	177.4	201.8	205.9	355.0	548.6	490.4	356.3	299.4	302.1
87.5°	28.5	36.6	65.0	79.9	98.9	184.2	326.5	291.2	178.9	124.6	124.6
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)