

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: P968422

Luminaire Tested: **NAV-SB5B-830-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968422
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-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25893.5 lumens
Efficiency: N/A
Efficacy: 141.7 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



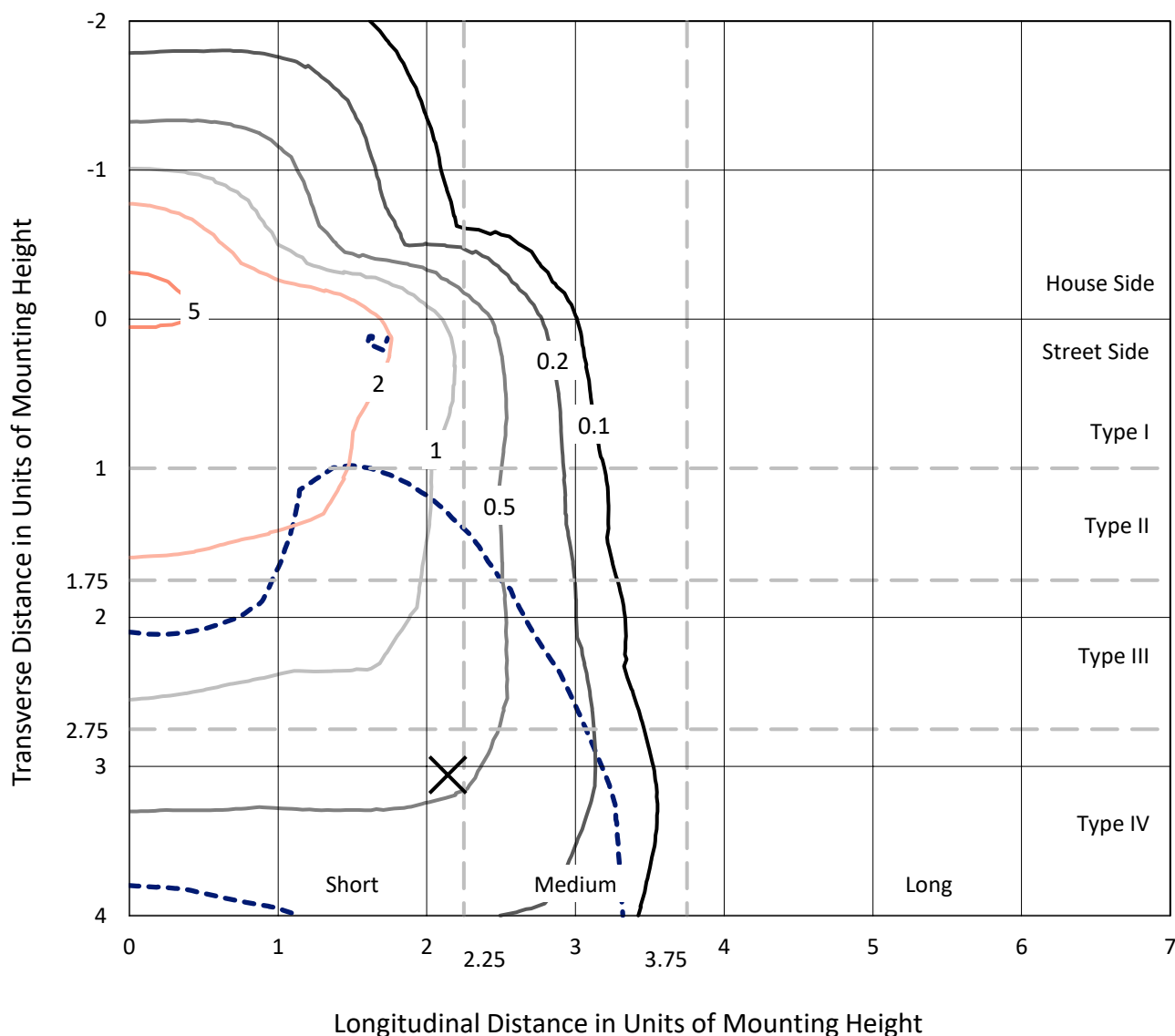
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

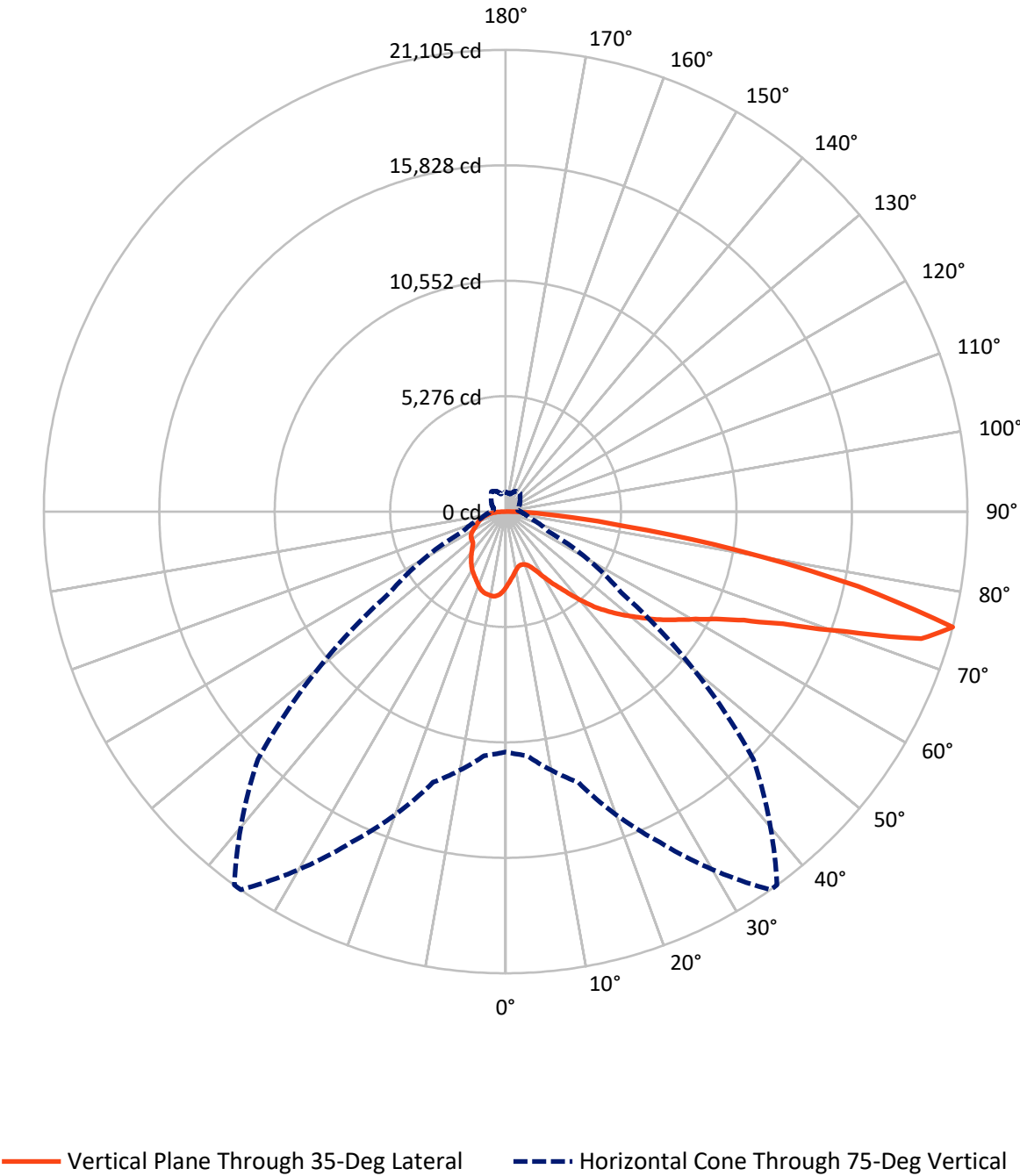


Based on 25 foot mounting height. Maximum calculated value = 6.1 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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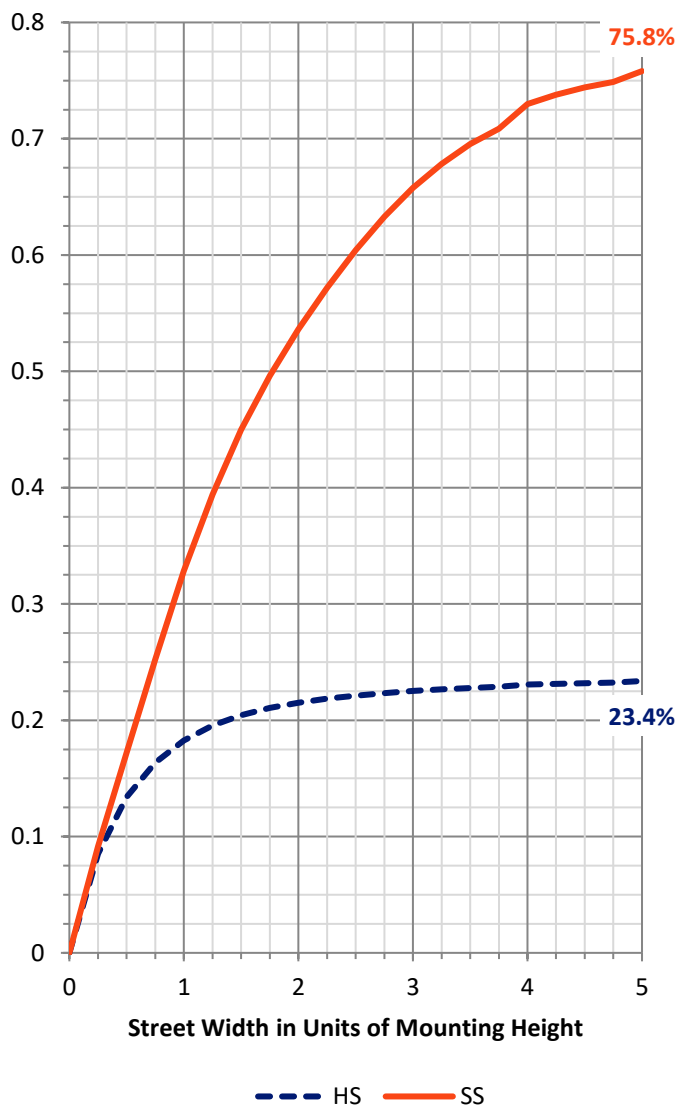
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6162.0	0.0	6162.0
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	19731.5	0.0	19731.5
	% Fixture	76.2	0.0	76.2
Total	Lumens	25893.5	0.0	25893.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.7	1.3
10°-20°	942.3	3.6
20°-30°	1582.4	6.1
30°-40°	2459.3	9.5
40°-50°	3650.2	14.1
50°-60°	5039.3	19.5
60°-70°	6113.9	23.6
70°-80°	5052.7	19.5
80°-90°	726.7	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°	25893.5	100.0
0°-180°	25893.5	100.0

Coefficient of Utilization



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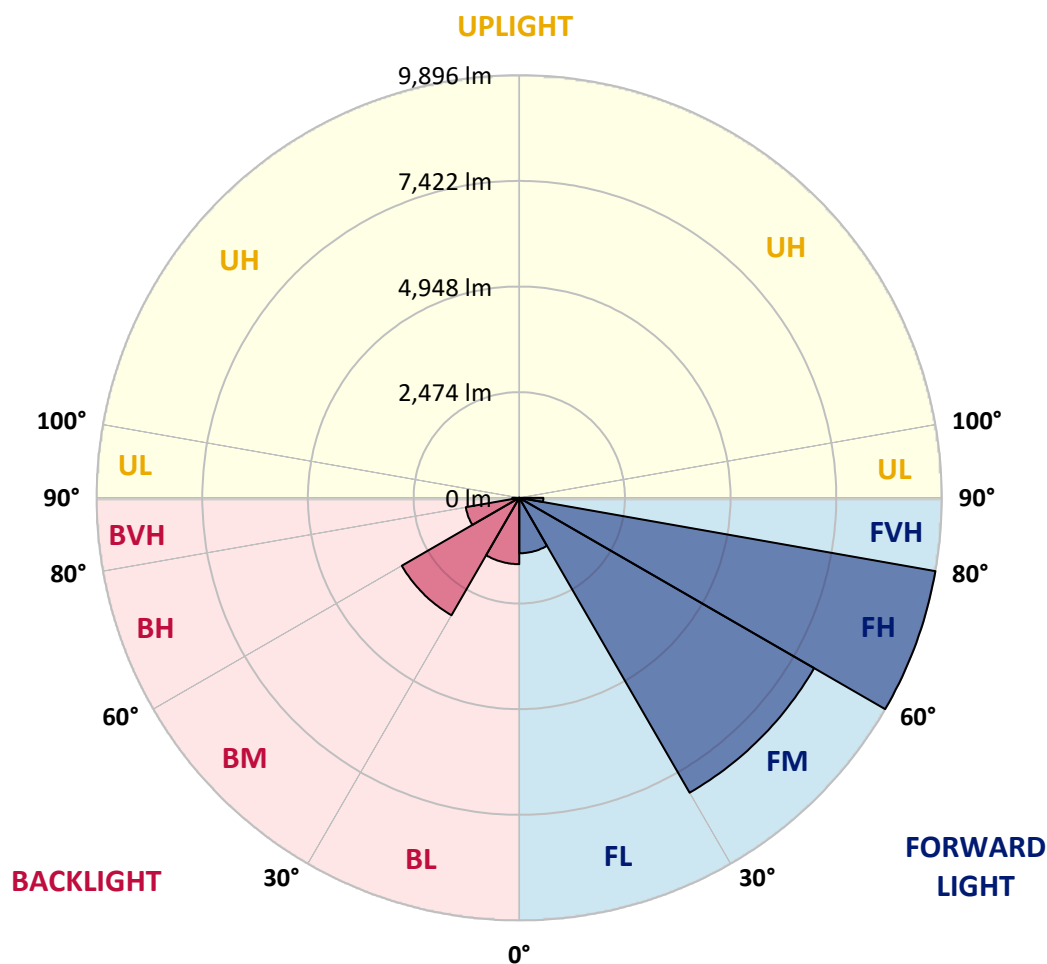
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1298.5	5.0			
FM	(30°-60°)	7973.8	30.8			
FH	(60°-80°)	9896.1	38.2			G4/12000
FVH	(80°-90°)	563.1	2.2			G4/750
BL	(0°-30°)	1552.9	6.0	B3/2500		
BM	(30°-60°)	3175.0	12.3	B3/5000		
BH	(60°-80°)	1270.4	4.9	B3/2500		G3/2500
BVH	(80°-90°)	163.6	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°	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5
2.5°	3181.7	3201.3	3209.7	3205.5	3226.5	3223.7	3253.1	3289.5	3339.9	3388.9	3460.3
5°	2936.7	2957.7	2976.0	2992.8	3033.4	3046.0	3092.1	3162.1	3254.5	3348.3	3465.9
7.5°	2708.6	2726.8	2754.8	2785.5	2854.2	2866.8	2943.8	3053.0	3181.7	3319.0	3481.3
10°	2522.4	2540.7	2570.0	2605.0	2690.4	2705.8	2803.8	2949.3	3117.3	3290.9	3498.1
12.5°	2442.7	2448.2	2465.0	2500.1	2574.2	2584.0	2691.8	2858.4	3054.4	3270.0	3523.2
15°	2438.5	2449.6	2451.1	2469.2	2530.8	2535.0	2634.5	2799.6	3015.1	3265.8	3561.1
17.5°	2480.4	2488.8	2476.2	2487.5	2539.2	2546.2	2624.6	2771.6	3002.5	3283.9	3625.4
20°	2592.4	2599.4	2561.6	2546.2	2584.0	2589.7	2666.6	2789.7	3015.1	3321.7	3713.7
22.5°	2830.3	2834.5	2742.2	2679.2	2682.0	2684.8	2752.0	2864.0	3064.1	3390.3	3825.6
25°	3201.3	3198.5	3051.5	2929.8	2859.7	2844.4	2889.2	2984.4	3146.7	3481.3	3969.8
27.5°	3635.3	3614.3	3467.3	3285.3	3132.7	3110.4	3100.5	3141.1	3264.3	3601.6	4146.2
30°	4125.2	4105.6	3947.4	3709.5	3498.1	3461.7	3369.3	3348.3	3439.3	3765.4	4391.2
32.5°	4662.7	4650.1	4461.1	4172.8	3890.0	3848.1	3692.7	3636.7	3708.0	4013.2	4732.7
35°	5113.4	5102.2	4945.4	4648.7	4303.0	4251.2	4093.0	4030.0	4066.4	4330.9	5179.2
37.5°	5520.8	5515.2	5380.8	5147.0	4790.1	4727.1	4549.4	4528.3	4521.4	4749.5	5720.9
40°	5898.8	5884.7	5744.7	5621.6	5357.1	5299.7	5142.8	5124.7	5071.5	5264.6	6334.1
42.5°	6317.3	6280.9	6077.9	6020.5	5949.1	5901.5	5807.8	5810.5	5693.0	5845.6	6983.5
45°	6658.8	6637.8	6429.2	6395.7	6472.7	6453.1	6534.3	6555.2	6327.0	6454.4	7658.3
47.5°	7025.6	7006.0	6829.6	6805.8	7014.4	7019.9	7306.9	7313.9	6945.8	7087.2	8334.4
50°	7477.7	7449.7	7274.7	7304.2	7537.8	7558.9	8083.8	8036.2	7515.5	7729.6	9004.8
52.5°	7775.9	7792.7	7754.8	7802.4	8121.6	8141.2	8848.1	8726.3	8079.6	8363.8	9662.8
55°	7995.6	8029.2	8146.8	8256.0	8737.5	8757.1	9569.0	9382.8	8547.2	8951.6	10281.5
57.5°	8278.4	8230.8	8450.5	8663.3	9322.6	9374.4	10270.3	10015.5	8961.5	9458.4	10705.6
60°	8684.3	8650.7	8821.5	9136.4	9977.8	10060.3	11012.2	10585.3	9265.3	9860.2	10788.2
62.5°	9507.4	9423.4	9450.0	9728.6	10803.6	10912.8	11849.2	11082.2	9416.4	10016.9	10345.8
65°	10737.8	10593.7	10459.3	10652.4	11966.9	12074.6	12794.2	11472.7	9360.4	9713.2	9171.5
67.5°	12287.4	12144.6	11979.5	12161.4	13680.2	13765.5	13960.1	11692.5	8919.4	8543.0	7095.6
70°	13565.4	13512.2	13709.6	14458.4	16416.8	16419.6	15455.2	11510.5	7711.5	6056.9	4105.6
72.5°	13396.0	13363.8	14403.9	16719.1	19865.8	19791.7	16870.3	10133.2	5194.6	2732.4	1538.4
75°	10989.7	11198.3	12809.5	16678.5	21104.6	21094.9	16003.8	6441.8	2148.7	1132.4	795.1
77.5°	5893.1	6223.5	8316.1	12313.9	16475.5	16723.3	11251.5	2253.7	922.5	725.1	550.1
80°	1921.9	2210.3	3314.7	6269.7	10705.6	10659.4	4822.3	884.7	631.3	513.7	380.8
82.5°	816.1	849.7	1481.0	2960.6	5494.2	5408.8	1535.6	508.1	443.7	351.4	235.1
85°	319.2	356.9	653.7	1369.0	2379.6	2327.9	554.3	251.9	284.1	229.6	140.0
87.5°	105.0	127.4	233.8	468.9	740.5	713.9	135.8	86.8	123.2	105.0	50.4
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°	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5	3450.5
2.5°	3479.9	3502.3	3528.9	3568.0	3601.6	3629.6	3659.0	3677.3	3684.3	3705.3	3703.8
5°	3505.1	3554.1	3619.9	3684.3	3747.3	3785.0	3818.6	3835.4	3850.8	3862.0	3864.9
7.5°	3547.1	3610.0	3713.7	3797.6	3850.8	3881.7	3904.0	3898.4	3904.0	3906.8	3911.0
10°	3583.5	3671.7	3794.9	3874.6	3915.2	3916.6	3911.0	3891.4	3881.7	3883.0	3885.9
12.5°	3626.9	3724.8	3857.8	3925.0	3936.2	3905.5	3881.7	3848.1	3835.4	3829.8	3827.0
15°	3685.7	3797.6	3926.5	3951.6	3923.6	3884.4	3843.9	3789.2	3761.2	3738.9	3745.9
17.5°	3757.0	3880.2	3979.6	3961.4	3901.3	3836.9	3771.1	3688.5	3631.1	3607.3	3608.7
20°	3856.5	3967.1	4020.3	3940.4	3849.4	3751.4	3639.5	3538.7	3485.5	3461.7	3458.9
22.5°	3976.8	4083.2	4059.4	3904.0	3775.3	3618.5	3478.4	3404.3	3377.7	3360.9	3363.7
25°	4121.0	4211.9	4087.4	3850.8	3653.5	3442.1	3334.3	3310.5	3297.9	3285.3	3285.3
27.5°	4308.6	4357.6	4108.4	3772.4	3463.1	3254.5	3215.3	3219.5	3215.3	3194.3	3198.5
30°	4556.3	4546.5	4128.0	3645.1	3244.7	3085.1	3087.9	3106.2	3108.9	3095.0	3102.0
32.5°	4882.5	4783.1	4137.8	3479.9	3036.2	2936.7	2939.6	2959.2	2973.1	2949.3	2960.6
35°	5277.2	5058.9	4122.3	3272.7	2875.1	2795.4	2774.4	2780.0	2784.2	2761.8	2777.2
37.5°	5737.7	5368.2	4053.8	3043.1	2742.2	2656.8	2612.0	2574.2	2551.8	2530.8	2544.9
40°	6243.1	5705.6	3927.8	2819.2	2593.9	2509.8	2442.7	2371.2	2295.7	2267.7	2280.2
42.5°	6772.2	6052.7	3775.3	2605.0	2423.0	2354.4	2283.1	2179.5	2066.1	2008.7	2015.7
45°	7321.0	6408.3	3625.4	2393.7	2248.0	2218.7	2136.1	2011.5	1888.4	1815.6	1809.9
47.5°	7858.5	6744.2	3405.7	2180.9	2084.3	2116.5	2052.0	1937.4	1800.1	1685.3	1672.8
50°	8372.2	7059.2	3046.0	1965.3	1951.3	2085.7	2024.1	1858.9	1702.1	1555.1	1542.5
52.5°	8881.7	7313.9	2585.5	1769.4	1880.0	2077.3	1987.7	1805.7	1614.0	1460.0	1443.2
55°	9314.2	7445.5	2141.6	1601.4	1776.3	2005.9	1944.3	1742.7	1489.4	1325.6	1311.6
57.5°	9560.6	7339.1	1772.1	1436.2	1633.5	1888.4	1870.1	1608.3	1341.0	1215.0	1198.2
60°	9454.2	6908.0	1469.7	1292.0	1497.7	1761.0	1741.4	1475.4	1227.6	1108.6	1091.8
62.5°	8867.7	6086.3	1230.4	1166.0	1374.6	1630.8	1612.5	1373.2	1140.8	1026.0	1007.9
65°	7686.3	4951.1	1044.3	1061.1	1250.0	1473.9	1500.6	1287.8	1072.3	960.2	942.1
67.5°	5862.4	3586.3	898.6	970.1	1128.2	1320.0	1397.0	1226.2	1014.9	908.5	891.6
70°	3341.3	2036.7	775.5	881.9	1020.5	1177.2	1317.2	1177.2	953.2	865.1	853.8
72.5°	1266.8	935.1	670.5	793.7	916.9	1056.9	1229.0	1100.2	881.9	816.1	804.8
75°	676.1	569.7	564.2	690.1	797.9	939.3	1118.5	1024.7	828.7	862.2	890.3
77.5°	460.5	403.1	471.7	590.7	667.7	809.0	1000.8	909.9	718.1	715.2	659.3
80°	319.2	285.6	383.6	475.9	516.5	680.3	873.5	781.0	585.1	545.9	522.1
82.5°	191.8	186.1	287.0	355.6	365.3	524.9	723.6	655.1	478.8	417.2	419.9
85°	105.0	110.6	183.4	208.6	212.8	366.7	566.9	506.8	368.2	309.3	312.1
87.5°	29.4	37.8	67.2	82.6	102.2	190.3	337.3	300.9	184.8	128.7	128.7
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)