

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: P966187

Luminaire Tested: **NAV-SB4B-740-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966187
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-SB4B-740-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25123.8 lumens
Efficiency: N/A
Efficacy: 170.9 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): 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



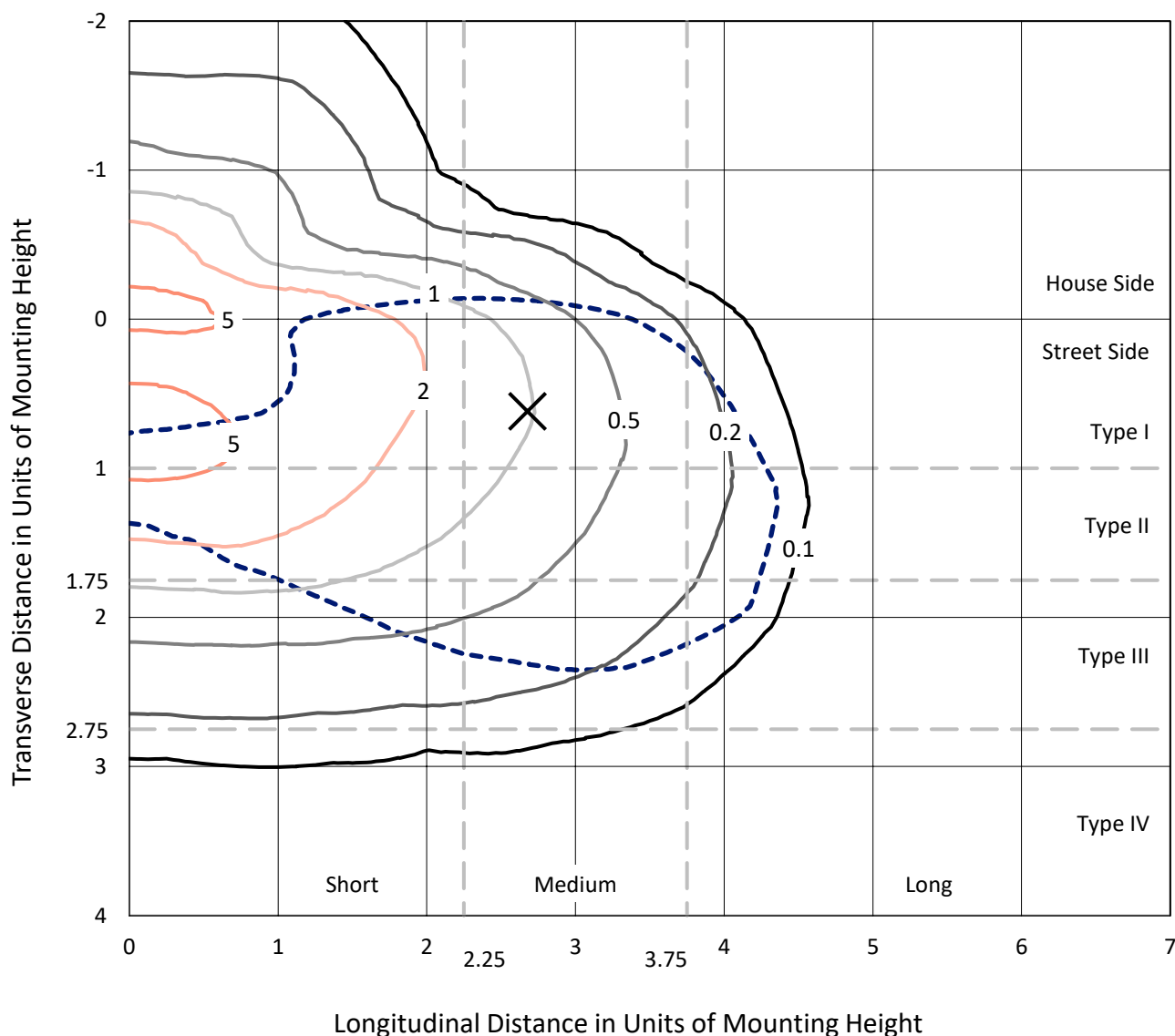
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

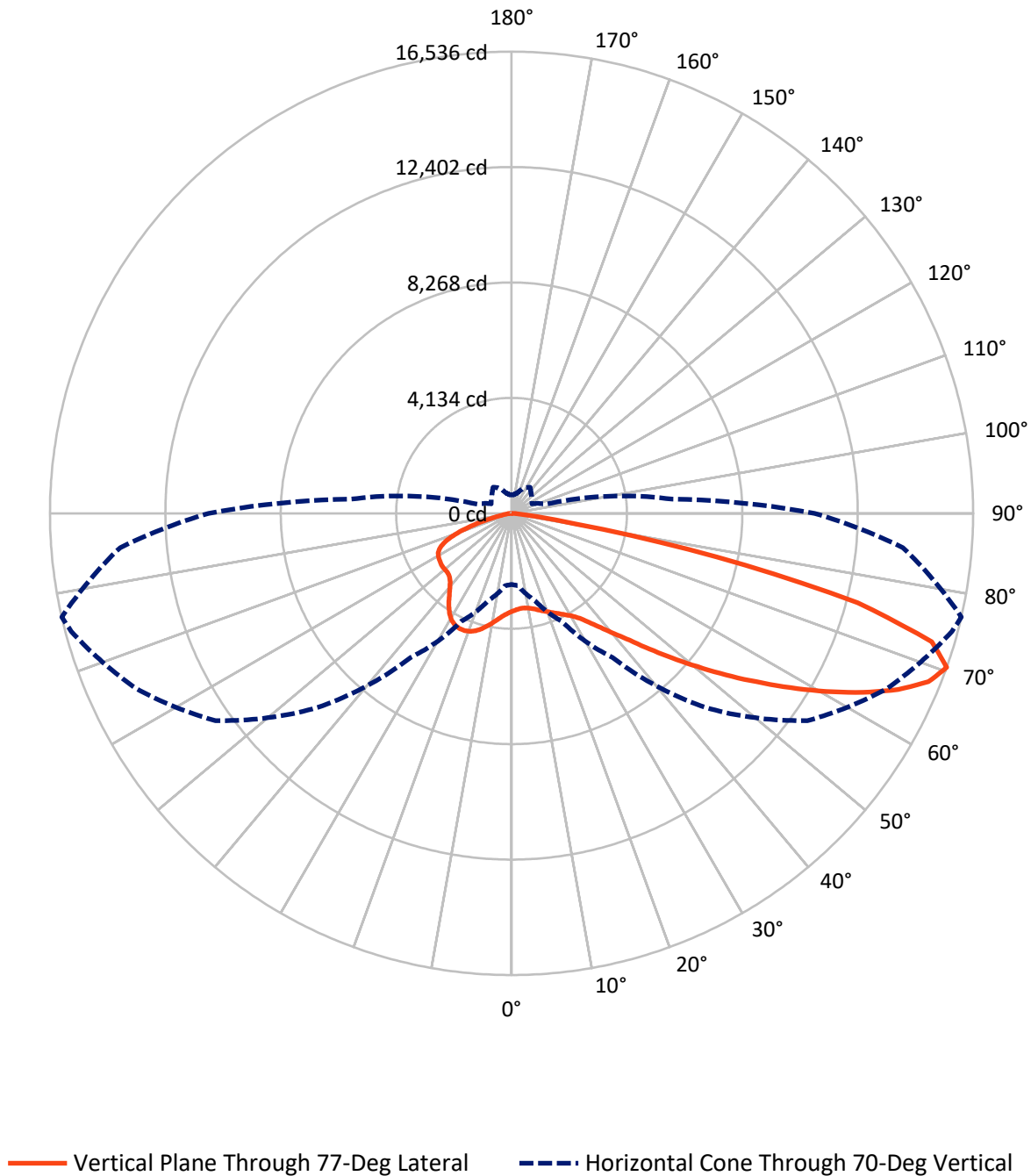


Based on 25 foot mounting height. Maximum calculated value = 6.7 fc

Type III - Medium - N/A

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Luminous Intensity Polar Plot



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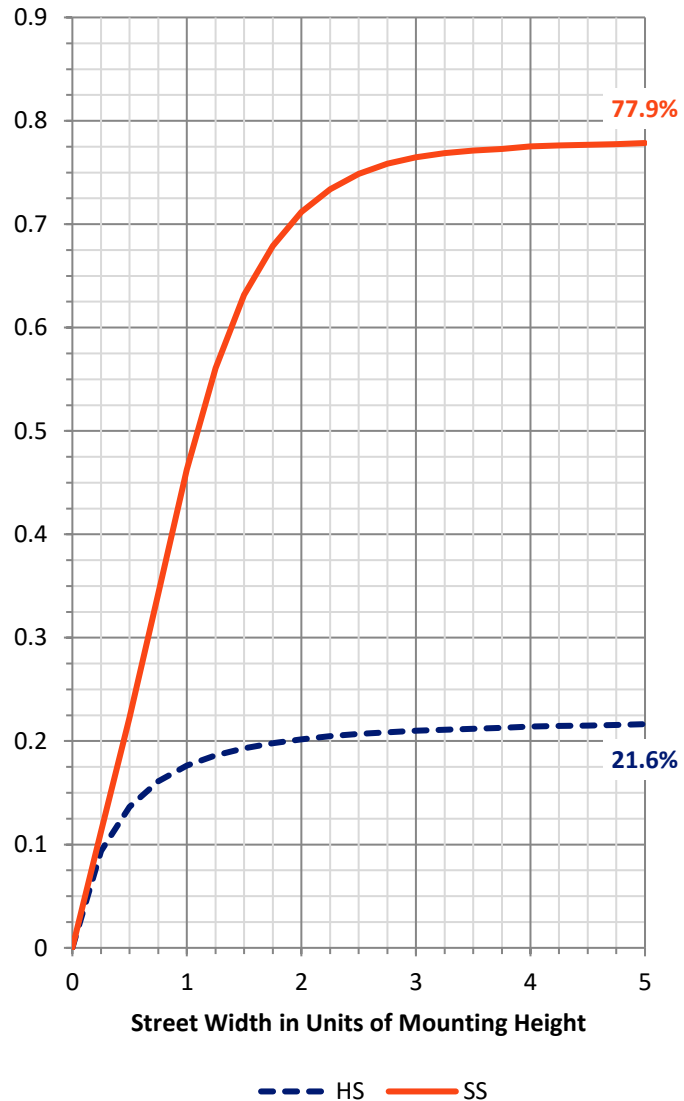
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5501.7	0.0	5501.7
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	19622.1	0.0	19622.1
	% Fixture	78.1	0.0	78.1
Total	Lumens	25123.8	0.0	25123.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.3	1.3
10°-20°	964.8	3.8
20°-30°	1649.9	6.6
30°-40°	2653.2	10.6
40°-50°	4142.3	16.5
50°-60°	5533.2	22.0
60°-70°	5897.5	23.5
70°-80°	3630.5	14.5
80°-90°	318.1	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°	25123.8	100.0
0°-180°	25123.8	100.0

Coefficient of Utilization



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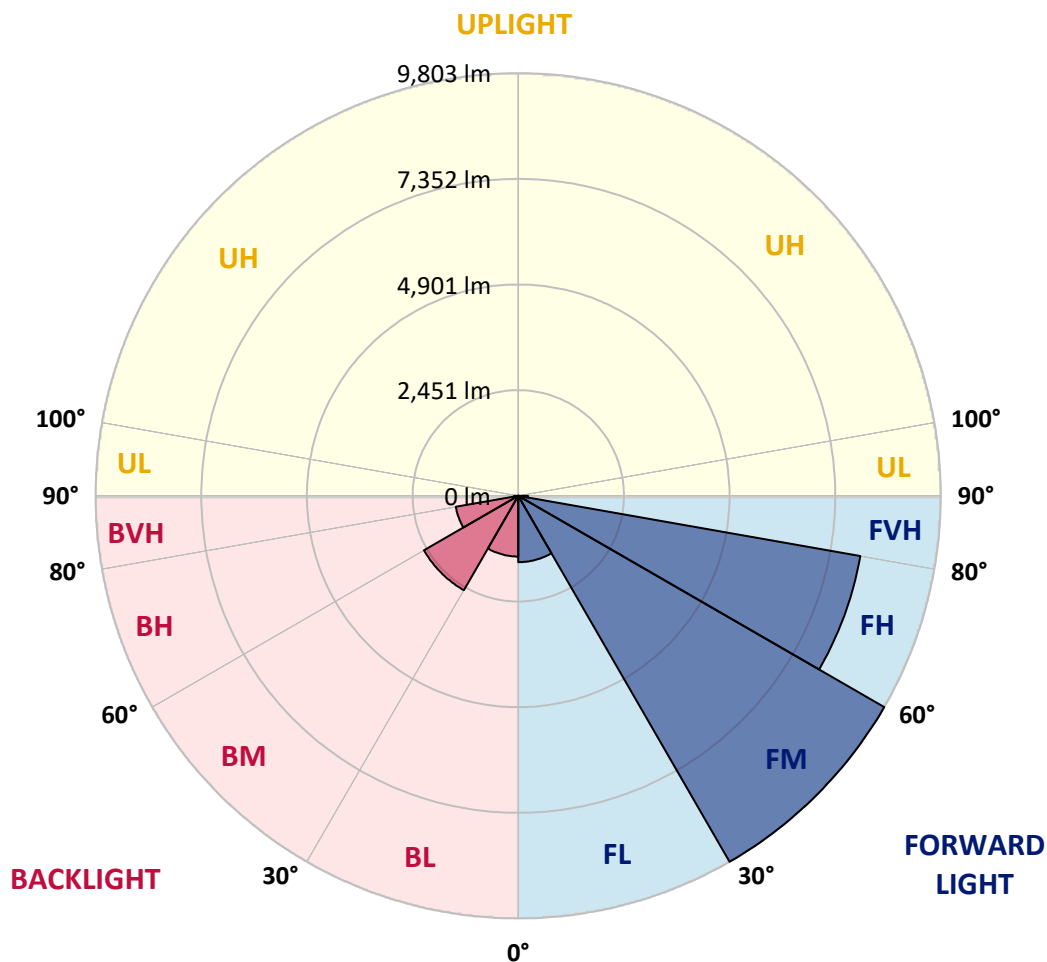
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1539.2	6.1			
FM	(30°-60°)	9802.7	39.0			
FH	(60°-80°)	8057.6	32.1			G4/12000
FVH	(80°-90°)	222.5	0.9			G2/225
BL	(0°-30°)	1409.7	5.6	B3/2500		
BM	(30°-60°)	2526.0	10.1	B3/5000		
BH	(60°-80°)	1470.4	5.9	B3/2500		G3/2500
BVH	(80°-90°)	95.7	0.4			G1/100
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°	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0
2.5°	3230.9	3229.7	3246.4	3251.5	3282.4	3304.3	3345.4	3389.2	3445.8	3452.2	3486.9
5°	3044.4	3044.4	3063.6	3084.2	3124.1	3167.9	3230.9	3306.9	3404.6	3420.1	3506.3
7.5°	2886.1	2896.3	2913.2	2953.0	2999.4	3062.4	3158.8	3267.0	3395.6	3420.1	3559.0
10°	2758.7	2770.3	2790.9	2823.1	2892.5	2980.0	3106.2	3245.0	3417.5	3456.1	3636.3
12.5°	2718.8	2730.4	2742.0	2766.5	2830.7	2933.7	3084.2	3255.4	3470.2	3508.9	3741.8
15°	2811.5	2825.6	2816.6	2810.1	2843.7	2937.5	3094.6	3292.7	3535.8	3591.2	3871.7
17.5°	3025.1	3030.2	3009.6	2949.1	2944.0	2994.1	3143.5	3344.2	3618.2	3678.7	4002.9
20°	3369.9	3360.9	3318.4	3198.7	3130.6	3120.3	3227.1	3421.3	3703.1	3767.5	4144.5
22.5°	3838.2	3828.0	3743.0	3553.9	3402.1	3301.7	3348.1	3521.7	3798.3	3870.4	4282.1
25°	4422.5	4408.2	4283.5	4026.1	3790.7	3542.3	3512.7	3654.2	3915.5	3982.3	4426.3
27.5°	5104.4	5092.8	4957.7	4618.0	4278.3	3871.7	3717.3	3809.9	4037.7	4113.6	4588.4
30°	5837.8	5871.3	5632.0	5266.4	4836.8	4301.5	3992.7	4001.7	4195.9	4264.2	4785.3
32.5°	6699.9	6757.8	6469.6	6006.4	5419.6	4768.5	4340.1	4269.3	4426.3	4482.9	5033.6
35°	7554.2	7619.8	7380.6	6868.4	6192.9	5319.2	4702.9	4576.8	4732.5	4794.2	5363.0
37.5°	8292.9	8380.3	8256.8	7811.6	7020.3	5983.2	5176.5	4938.3	5109.5	5186.7	5805.6
40°	8875.7	9009.5	9000.5	8722.6	7995.6	6788.7	5777.3	5384.8	5577.8	5661.5	6342.2
42.5°	9349.2	9465.1	9565.4	9551.3	9013.4	7703.5	6483.7	5965.2	6111.9	6208.3	6945.6
45°	9676.1	9799.6	10015.8	10248.7	9992.6	8682.7	7293.1	6653.6	6787.3	6932.8	7664.9
47.5°	9968.1	10108.3	10388.9	10758.2	10823.8	9665.8	8179.6	7455.2	7577.4	7728.0	8386.8
50°	9993.9	10114.8	10549.7	11073.4	11414.4	10610.2	9131.7	8354.6	8469.2	8630.0	9160.1
52.5°	9372.4	9562.8	10322.0	11064.4	11685.9	11400.3	10077.5	9290.1	9418.7	9611.7	9960.4
55°	7275.0	7554.2	9654.2	10719.6	11589.4	11911.1	10976.9	10284.6	10449.4	10651.4	10765.9
57.5°	6266.2	6388.5	7663.6	10091.6	11149.3	12043.6	11736.0	11289.6	11554.6	11775.9	11617.7
60°	5632.0	5733.5	6487.6	9115.0	10570.3	11833.8	12322.9	12226.3	12684.4	12948.1	12488.8
62.5°	4952.5	5049.0	5734.9	7610.9	9829.1	11485.1	12693.4	13091.0	13842.4	14130.6	13309.7
65°	4278.3	4360.7	5018.2	6395.0	8887.3	11136.4	12885.1	13838.5	14914.3	15212.7	13991.7
67.5°	3526.8	3595.1	4216.5	5395.2	7742.1	10659.1	12980.3	14426.6	15847.1	16103.2	14328.8
70°	2545.1	2597.9	3239.9	4266.8	6304.9	9838.2	12941.8	14843.4	16330.9	16535.5	14074.1
72.5°	1203.0	1250.7	2004.7	2770.3	4453.3	8240.1	12160.7	14512.8	15839.4	15737.7	12514.5
75°	642.1	683.3	1151.6	1519.6	2352.1	5648.7	9951.4	12501.6	13300.7	12806.7	9248.9
77.5°	434.9	467.1	712.9	912.2	1074.4	2681.5	6396.2	8655.7	8327.6	7511.8	4632.2
80°	344.8	378.3	584.1	617.7	519.9	968.9	2642.9	4006.8	2878.4	2301.9	1317.6
82.5°	265.1	302.4	491.5	447.8	283.1	397.6	769.5	1267.4	737.3	561.0	319.1
85°	162.2	202.0	386.0	285.7	159.6	181.4	261.2	352.6	225.2	187.9	114.5
87.5°	82.3	115.8	195.6	104.2	72.1	42.4	69.5	69.5	59.1	51.5	29.6
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°	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0	3505.0
2.5°	3517.9	3543.6	3587.3	3628.5	3660.7	3691.5	3722.5	3739.2	3744.3	3764.9	3776.5
5°	3559.0	3606.7	3691.5	3771.4	3821.5	3852.4	3874.3	3887.1	3889.8	3896.1	3906.5
7.5°	3635.0	3710.9	3829.3	3909.0	3946.4	3943.8	3934.8	3902.6	3889.8	3878.2	3880.8
10°	3741.8	3842.1	3987.6	4042.8	4019.6	3957.9	3878.2	3784.2	3740.4	3698.0	3685.2
12.5°	3874.3	4001.7	4144.5	4141.9	4027.4	3869.2	3683.8	3539.7	3448.4	3382.8	3367.3
15°	4035.1	4181.8	4291.2	4203.7	3952.8	3668.4	3397.0	3209.1	3126.7	3054.6	3046.9
17.5°	4201.1	4358.1	4408.2	4184.4	3764.9	3371.2	3063.6	2915.7	2834.6	2796.0	2807.6
20°	4363.2	4518.9	4477.7	4073.8	3479.3	3034.1	2760.0	2678.9	2662.2	2671.3	2667.4
22.5°	4534.4	4673.3	4491.9	3860.2	3115.1	2689.2	2538.7	2541.3	2578.6	2605.5	2612.0
25°	4709.4	4803.3	4454.5	3551.3	2723.9	2435.7	2398.4	2439.6	2513.0	2565.7	2579.8
27.5°	4877.9	4919.1	4373.6	3169.2	2388.1	2254.3	2260.7	2345.7	2456.3	2529.7	2547.6
30°	5068.3	5022.0	4217.9	2739.4	2155.3	2098.6	2152.7	2251.7	2362.4	2428.0	2443.5
32.5°	5283.3	5110.9	3970.7	2341.8	1990.5	1973.8	2062.6	2127.0	2175.9	2195.1	2205.4
35°	5550.9	5235.6	3654.2	2062.6	1842.5	1882.4	1967.4	1935.2	1915.9	1905.6	1915.9
37.5°	5898.3	5404.2	3283.7	1881.2	1722.9	1816.8	1851.6	1751.2	1675.3	1637.9	1647.0
40°	6316.5	5651.2	2927.3	1741.0	1647.0	1760.2	1699.8	1578.8	1482.3	1429.6	1433.4
42.5°	6781.0	5909.8	2627.5	1635.4	1604.5	1713.9	1587.8	1443.7	1288.0	1271.3	1288.0
45°	7268.6	6176.2	2422.9	1554.3	1583.9	1674.0	1523.5	1290.6	1179.9	1248.1	1284.1
47.5°	7756.3	6420.7	2299.4	1493.8	1573.7	1628.9	1466.9	1205.6	1127.2	1226.2	1272.5
50°	8299.3	6639.4	2244.0	1450.2	1562.1	1611.0	1381.9	1183.8	1071.8	1137.4	1186.3
52.5°	8838.4	6809.3	2202.8	1406.4	1545.3	1596.8	1340.7	1158.0	1004.9	1008.8	1035.8
55°	9376.3	6919.9	2157.8	1348.5	1508.0	1565.9	1336.9	1129.8	954.8	936.7	949.6
57.5°	9950.1	6983.0	2102.5	1284.1	1443.7	1487.5	1333.0	1107.8	939.3	909.7	913.6
60°	10534.3	7075.6	2030.4	1205.6	1357.5	1393.5	1324.0	1100.1	930.3	880.1	884.0
62.5°	11058.0	7107.8	1944.2	1131.0	1246.8	1300.8	1304.7	1093.7	905.8	819.6	819.6
65°	11401.5	6968.8	1793.6	1046.1	1127.2	1205.6	1267.4	1071.8	862.1	775.9	775.9
67.5°	11387.3	6572.5	1558.2	936.7	1011.4	1100.1	1213.4	1034.5	809.3	721.8	725.7
70°	10857.2	5790.2	1259.7	809.3	884.0	986.9	1143.9	979.2	746.3	662.7	670.3
72.5°	9311.9	4531.8	914.8	660.1	735.9	869.8	1053.8	912.2	681.9	609.9	606.1
75°	6652.2	2868.1	620.2	507.0	572.6	737.3	941.9	833.8	622.8	612.4	577.7
77.5°	3398.2	1370.3	410.4	370.5	398.9	581.6	791.3	745.0	631.8	505.6	450.4
80°	1105.3	505.6	258.6	252.2	265.1	387.3	612.4	611.2	478.7	343.6	303.7
82.5°	352.6	217.5	168.5	162.2	155.7	243.2	427.2	483.8	323.0	217.5	216.2
85°	140.2	130.0	99.1	91.3	65.6	114.5	223.9	321.6	240.6	156.9	160.8
87.5°	51.5	51.5	27.1	19.3	14.1	38.6	60.5	96.5	137.7	81.1	79.7
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)