

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: P965221

Luminaire Tested: **NAV-SB3D-827-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965221
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-827-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20797.3 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

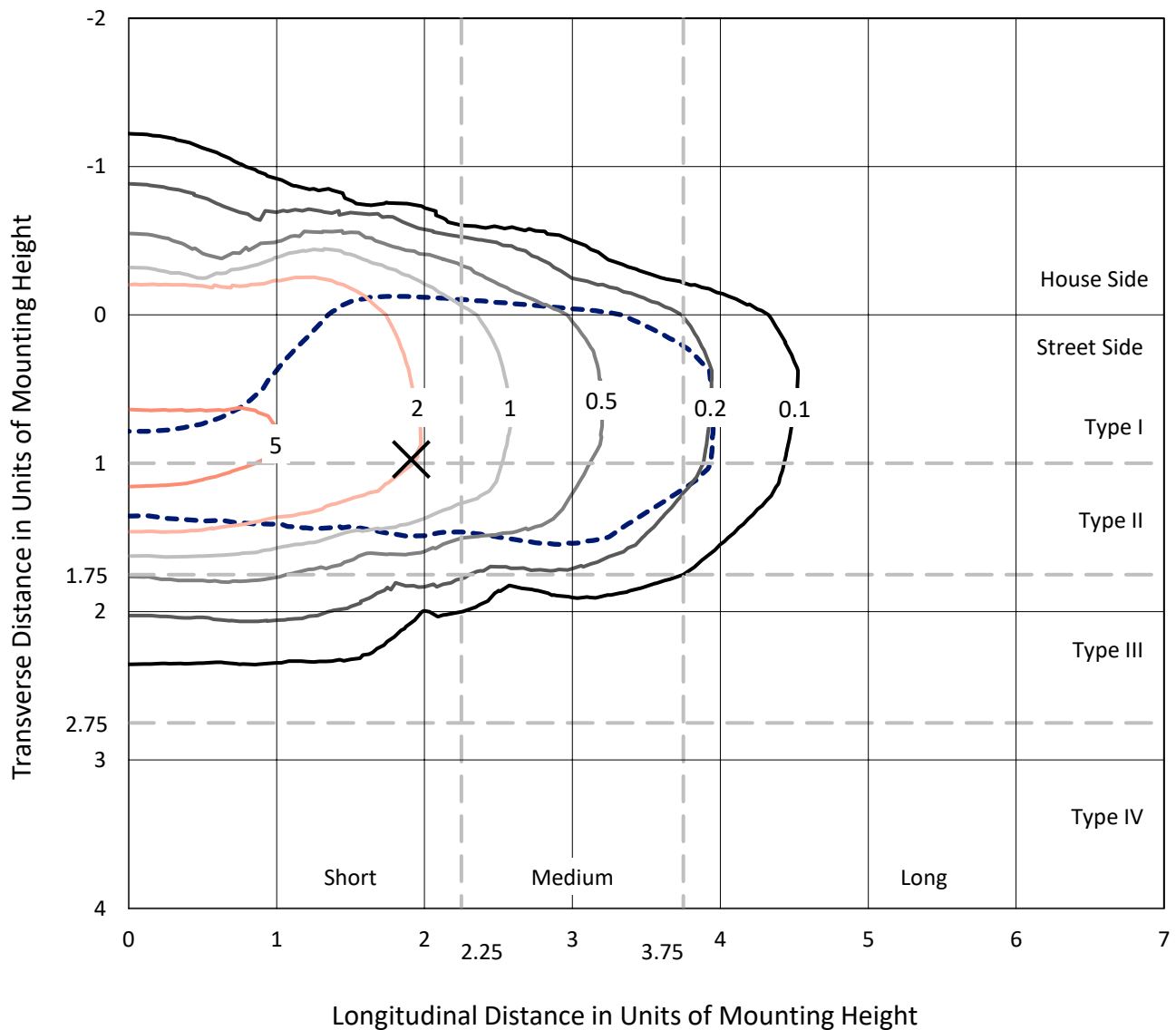
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

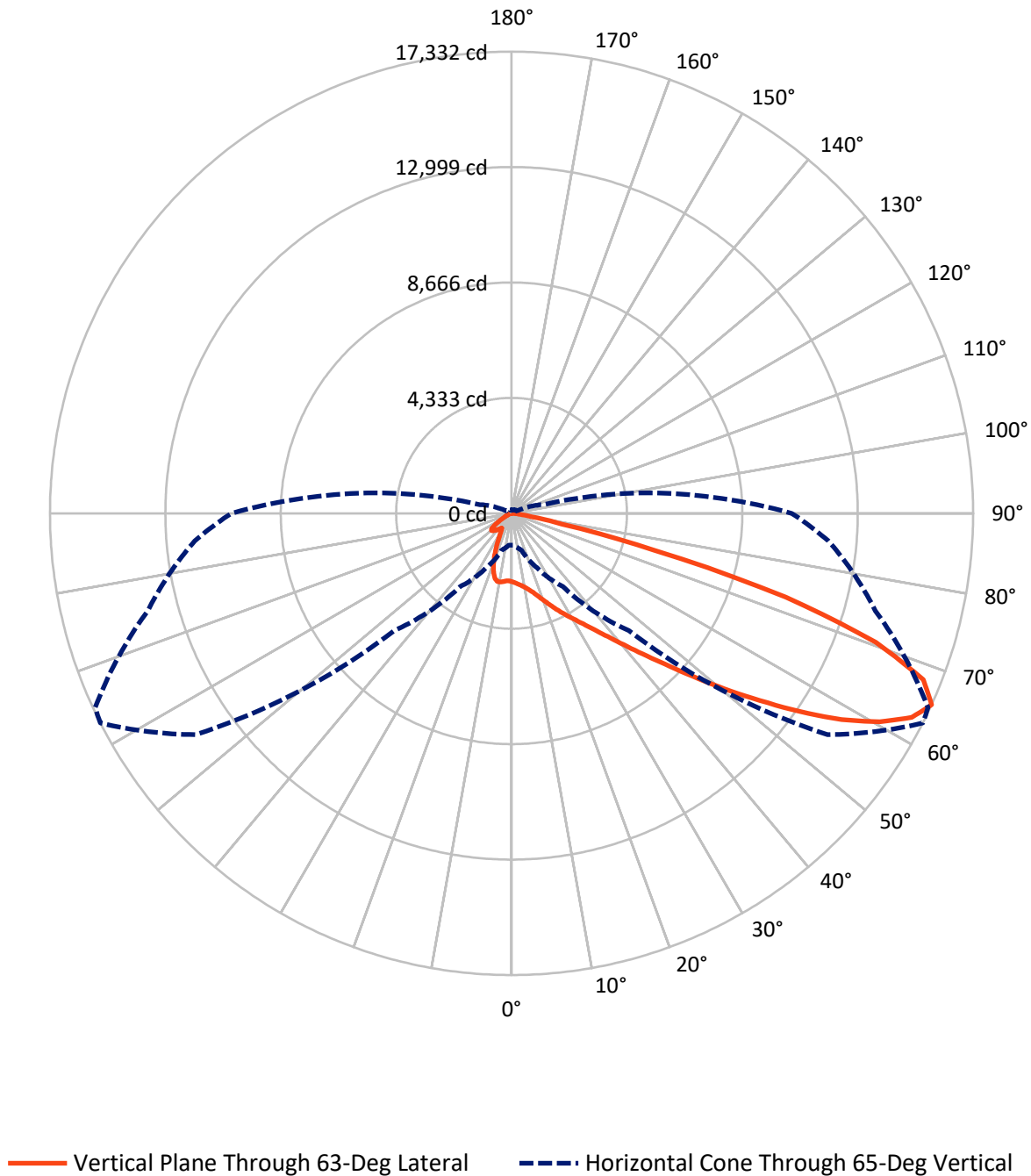
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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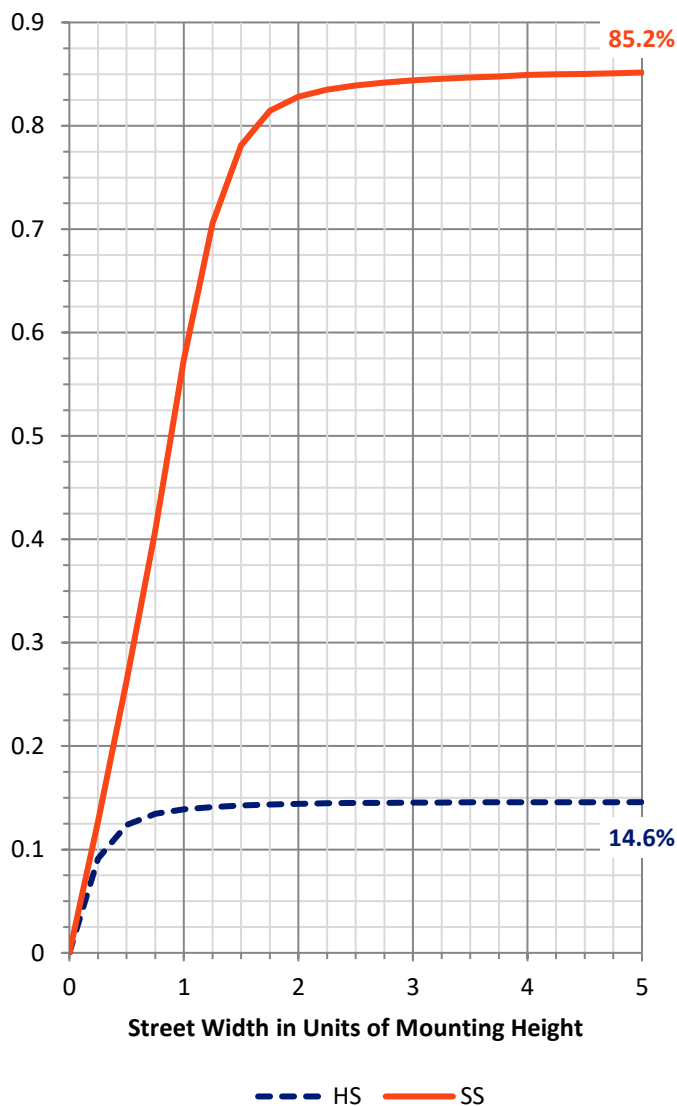
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3057.0	0.0	3057.0
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	17740.2	0.0	17740.2
	% Fixture	85.3	0.0	85.3
Total	Lumens	20797.3	0.0	20797.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.8	1.2
10°-20°	671.0	3.2
20°-30°	1168.4	5.6
30°-40°	2105.9	10.1
40°-50°	4176.7	20.1
50°-60°	5689.4	27.4
60°-70°	4541.2	21.8
70°-80°	2055.0	9.9
80°-90°	147.7	0.7
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°	20797.3	100.0
0°-180°	20797.3	100.0

Coefficient of Utilization



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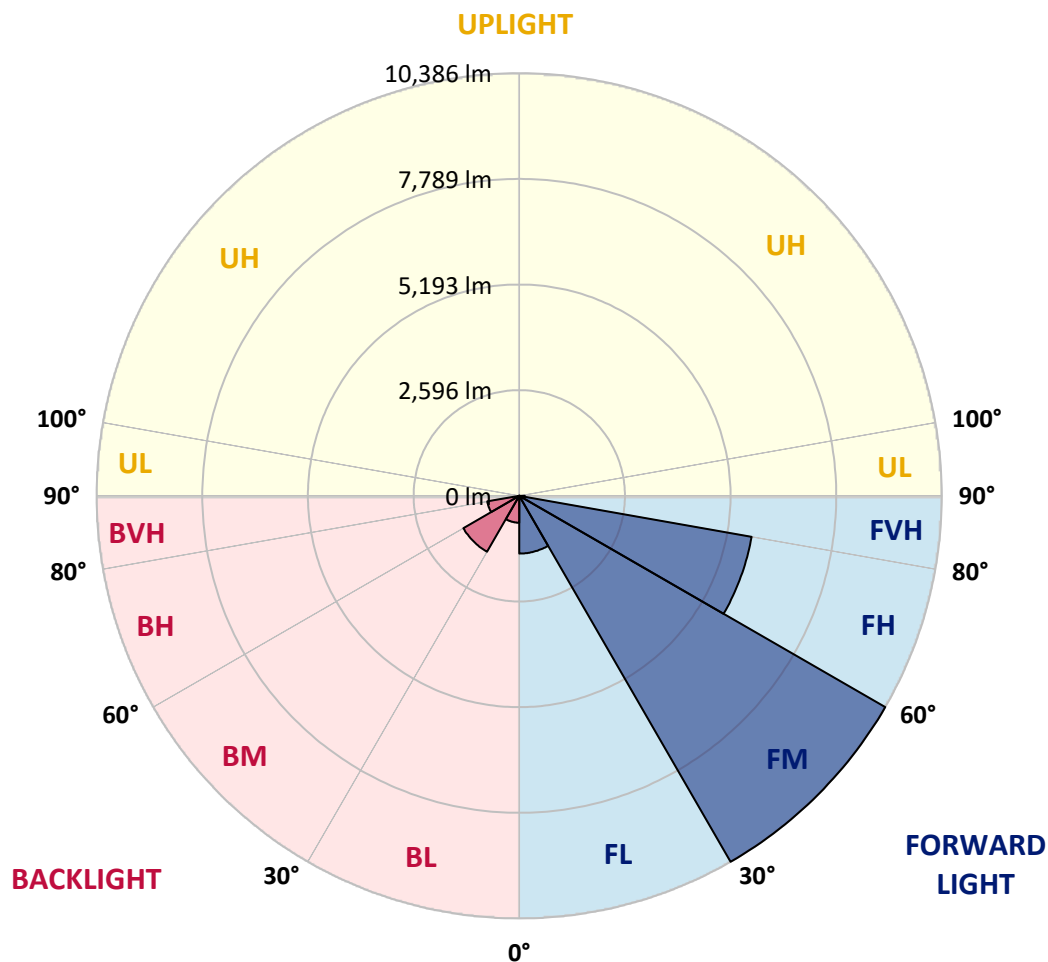
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1419.7	6.8			
FM	(30°-60°)	10385.6	49.9			
FH	(60°-80°)	5798.2	27.9			G3/7500
FVH	(80°-90°)	136.8	0.7			G2/225
BL	(0°-30°)	661.6	3.2	B2/1000		
BM	(30°-60°)	1586.4	7.6	B2/2500		
BH	(60°-80°)	798.1	3.8	B2/1000		G2/1000
BVH	(80°-90°)	11.0	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8
2.5°	2626.9	2619.7	2629.7	2625.4	2622.6	2616.8	2614.0	2611.1	2605.4	2601.1	2583.9
5°	2634.0	2629.7	2639.8	2648.3	2656.9	2665.5	2669.8	2675.6	2669.8	2658.3	2641.2
7.5°	2573.9	2571.1	2592.5	2618.3	2656.9	2689.8	2725.6	2745.7	2747.0	2742.8	2724.1
10°	2569.7	2562.5	2583.9	2615.4	2665.5	2724.1	2787.1	2830.0	2835.8	2854.3	2834.3
12.5°	2636.9	2629.7	2659.8	2694.1	2745.7	2807.2	2884.4	2944.5	2953.1	2978.9	2964.5
15°	2749.9	2739.9	2774.3	2818.5	2884.4	2954.5	3036.0	3090.5	3097.5	3129.0	3103.3
17.5°	2881.6	2871.5	2911.6	2958.8	3030.3	3126.1	3220.7	3280.7	3289.3	3309.3	3262.2
20°	3050.4	3037.5	3069.0	3111.9	3187.7	3302.1	3415.2	3501.1	3499.7	3499.7	3422.4
22.5°	3246.4	3226.4	3253.6	3287.9	3359.4	3498.2	3648.4	3750.0	3750.0	3710.0	3582.6
25°	3456.7	3436.7	3466.8	3498.2	3561.2	3718.5	3894.5	4020.5	4026.1	3957.4	3754.3
27.5°	3719.9	3694.2	3717.1	3754.3	3791.5	3951.8	4160.7	4306.5	4309.4	4203.5	3917.4
30°	4226.5	4153.5	4082.0	4041.9	4059.0	4217.9	4441.0	4602.8	4617.0	4471.2	4094.8
32.5°	5153.6	5139.2	4887.5	4558.4	4386.7	4504.1	4754.4	4949.0	4957.5	4770.1	4325.2
35°	6594.3	6577.2	6172.2	5545.6	4986.2	4887.5	5134.9	5365.4	5359.6	5147.9	4624.2
37.5°	8314.1	8298.4	7764.7	6926.2	6020.6	5466.9	5625.7	5867.5	5903.3	5625.7	5010.5
40°	9783.5	9724.8	9387.2	8578.8	7394.1	6428.4	6323.9	6484.2	6521.4	6192.3	5501.3
42.5°	10896.7	10846.6	10674.9	10169.8	9056.7	7850.6	7146.6	7208.1	7249.6	6854.8	6064.9
45°	11473.2	11461.8	11530.4	11483.3	10750.7	9596.0	8322.7	8066.5	8082.3	7588.7	6704.5
47.5°	11554.7	11549.1	11862.4	12305.9	12207.2	11564.8	9832.1	9136.7	9081.0	8417.1	7399.9
50°	11074.0	11062.6	11663.5	12494.7	13180.1	13218.7	11546.2	10343.0	10219.9	9274.2	8125.3
52.5°	9538.9	9536.0	10523.2	11906.7	13522.1	14666.6	13240.2	11667.8	11461.8	10181.2	8892.2
55°	7339.8	7392.7	8524.4	10159.8	12898.3	15363.4	14761.1	13138.7	12822.4	11094.1	9598.9
57.5°	5199.3	5276.6	6395.5	7852.0	10963.9	14951.4	15789.8	14612.3	14271.8	12004.0	10315.7
60°	2792.8	2861.5	3981.8	5720.1	8156.7	13414.8	16332.0	15891.4	15569.4	12868.2	10962.5
62.5°	1664.0	1686.8	2150.4	3692.8	5517.0	10248.5	16101.7	16865.8	16601.0	13593.6	11524.7
65°	1194.6	1198.9	1432.2	2254.9	3349.4	6226.7	14486.4	17332.1	17250.6	14140.2	11941.0
67.5°	1005.8	1003.0	1100.2	1498.0	2282.1	3119.1	11102.7	16672.5	17018.8	14486.4	12177.1
70°	862.7	867.0	981.5	1097.4	1715.4	1765.6	5519.8	14516.5	15254.7	14578.0	12162.9
72.5°	642.4	656.7	762.6	1000.1	1294.9	1214.7	1905.8	10763.5	12098.5	13735.2	11531.9
75°	453.6	460.7	536.5	841.3	965.8	884.2	972.9	5564.2	7275.3	10530.3	9438.7
77.5°	349.1	362.0	406.3	588.0	951.4	620.9	595.2	1925.8	2958.8	6361.2	6471.3
80°	188.9	211.8	293.4	425.0	668.2	439.2	294.7	766.9	1003.0	2974.5	2495.3
82.5°	97.3	108.8	204.6	306.2	380.6	383.5	146.0	319.1	413.5	918.5	341.9
85°	38.6	47.3	137.4	168.8	196.0	188.9	65.8	128.7	148.8	254.7	104.4
87.5°	8.6	14.3	50.1	38.6	37.2	40.1	15.8	30.0	28.6	30.0	18.6
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°	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8	2566.8
2.5°	2582.5	2576.7	2561.1	2543.8	2523.9	2512.4	2505.2	2503.9	2493.8	2486.6	2493.8
5°	2625.4	2619.7	2589.7	2553.9	2515.2	2485.2	2456.6	2430.9	2393.7	2386.5	2383.6
7.5°	2711.3	2695.5	2646.9	2598.3	2525.3	2438.0	2332.1	2210.5	2101.8	2068.9	2053.2
10°	2817.1	2795.7	2734.2	2648.3	2486.6	2249.2	1993.0	1755.5	1566.7	1513.7	1493.7
12.5°	2937.3	2918.8	2837.2	2678.3	2325.0	1894.3	1502.3	1207.6	1024.4	978.7	965.8
15°	3080.4	3053.3	2940.2	2632.6	2036.0	1439.3	1031.6	857.0	791.2	782.6	774.1
17.5°	3232.0	3187.7	3031.7	2468.1	1646.8	1023.0	796.9	746.8	718.2	709.6	705.4
20°	3370.8	3313.6	3086.2	2219.1	1230.4	796.9	713.9	681.0	655.3	645.2	639.5
22.5°	3509.6	3428.1	3086.2	1880.1	922.8	706.8	655.3	625.2	595.2	582.3	575.1
25°	3654.1	3545.4	3031.7	1502.3	742.6	648.1	599.5	566.6	540.8	525.1	519.4
27.5°	3794.3	3644.2	2907.3	1144.6	661.0	596.7	548.0	516.5	492.2	480.7	480.7
30°	3927.4	3741.5	2732.8	868.5	608.0	546.5	500.8	473.6	449.3	437.8	439.2
32.5°	4107.7	3864.5	2546.7	712.5	562.3	499.4	457.9	432.0	410.6	402.0	402.0
35°	4358.1	4046.2	2386.5	699.7	523.7	460.7	419.2	394.9	373.4	366.2	366.2
37.5°	4713.0	4339.4	2302.0	785.5	492.2	426.4	387.8	362.0	341.9	336.2	334.8
40°	5150.7	4737.2	2347.9	871.4	470.7	396.4	359.2	333.3	316.2	309.0	307.6
42.5°	5670.1	5228.0	2601.1	937.2	456.4	370.5	331.9	303.3	291.9	289.0	289.0
45°	6266.7	5767.4	2988.8	1007.3	433.5	346.2	304.7	283.3	274.7	273.3	271.8
47.5°	6944.9	6359.7	3438.1	1094.5	410.6	323.4	283.3	269.0	261.8	259.0	259.0
50°	7617.3	6956.4	3900.2	1143.2	392.1	301.9	266.1	254.7	249.0	247.5	247.5
52.5°	8321.3	7570.1	4273.6	1097.4	376.3	284.7	251.8	243.2	237.5	236.1	236.1
55°	8992.3	8066.5	4338.0	931.4	344.8	267.5	236.1	231.8	224.6	224.6	223.2
57.5°	9570.3	8315.5	3883.1	683.9	313.3	241.8	220.4	216.1	210.3	208.9	207.5
60°	10101.2	8244.0	2997.4	460.7	279.0	216.1	200.3	197.4	191.7	184.6	183.2
62.5°	10400.2	7929.2	2050.3	300.4	244.7	188.9	177.4	176.0	163.1	148.8	146.0
65°	10513.2	7282.5	1279.1	218.9	204.6	161.6	153.1	150.3	131.6	115.9	114.5
67.5°	10414.5	6218.1	645.2	173.1	161.6	134.5	125.9	125.9	113.1	98.7	97.3
70°	10019.6	4661.4	271.8	138.8	124.4	103.0	103.0	108.8	95.8	80.2	78.7
72.5°	9162.6	3136.2	144.5	105.9	93.0	73.0	84.5	88.7	75.8	60.1	60.1
75°	7284.0	1913.0	100.1	78.7	58.6	51.6	64.4	67.2	51.6	40.1	38.6
77.5°	4981.9	1098.8	67.2	50.1	37.2	30.0	44.4	41.5	27.2	18.6	20.0
80°	2187.7	457.9	38.6	22.9	14.3	11.5	15.8	11.5	8.6	5.7	5.7
82.5°	256.1	107.3	14.3	8.6	5.7	2.9	1.4	0.0	0.0	0.0	0.0
85°	52.9	12.9	7.2	2.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.0	2.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)