

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: P967885

Luminaire Tested: **NAV-SB5A-830-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967885
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-830-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17670 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

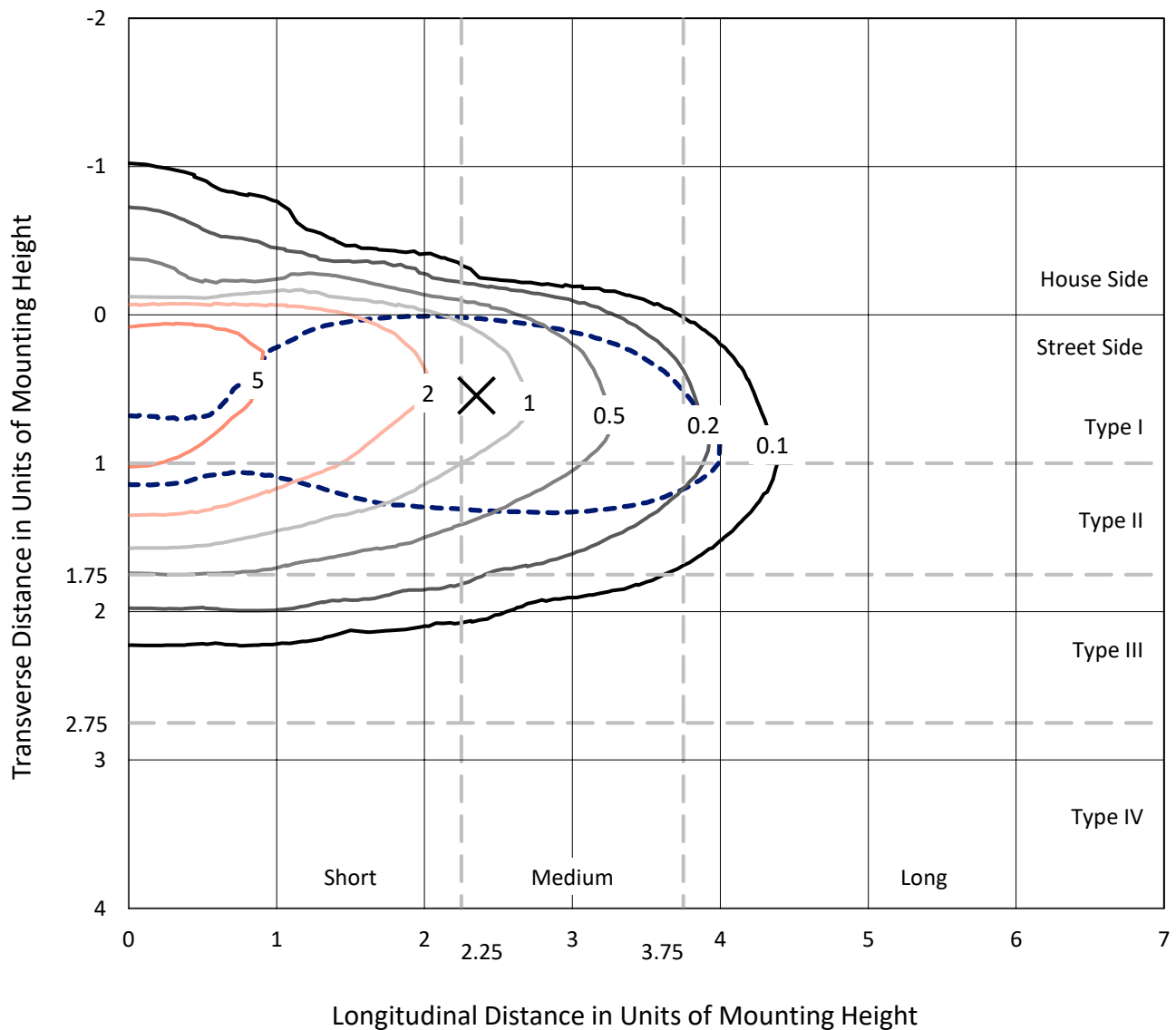
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

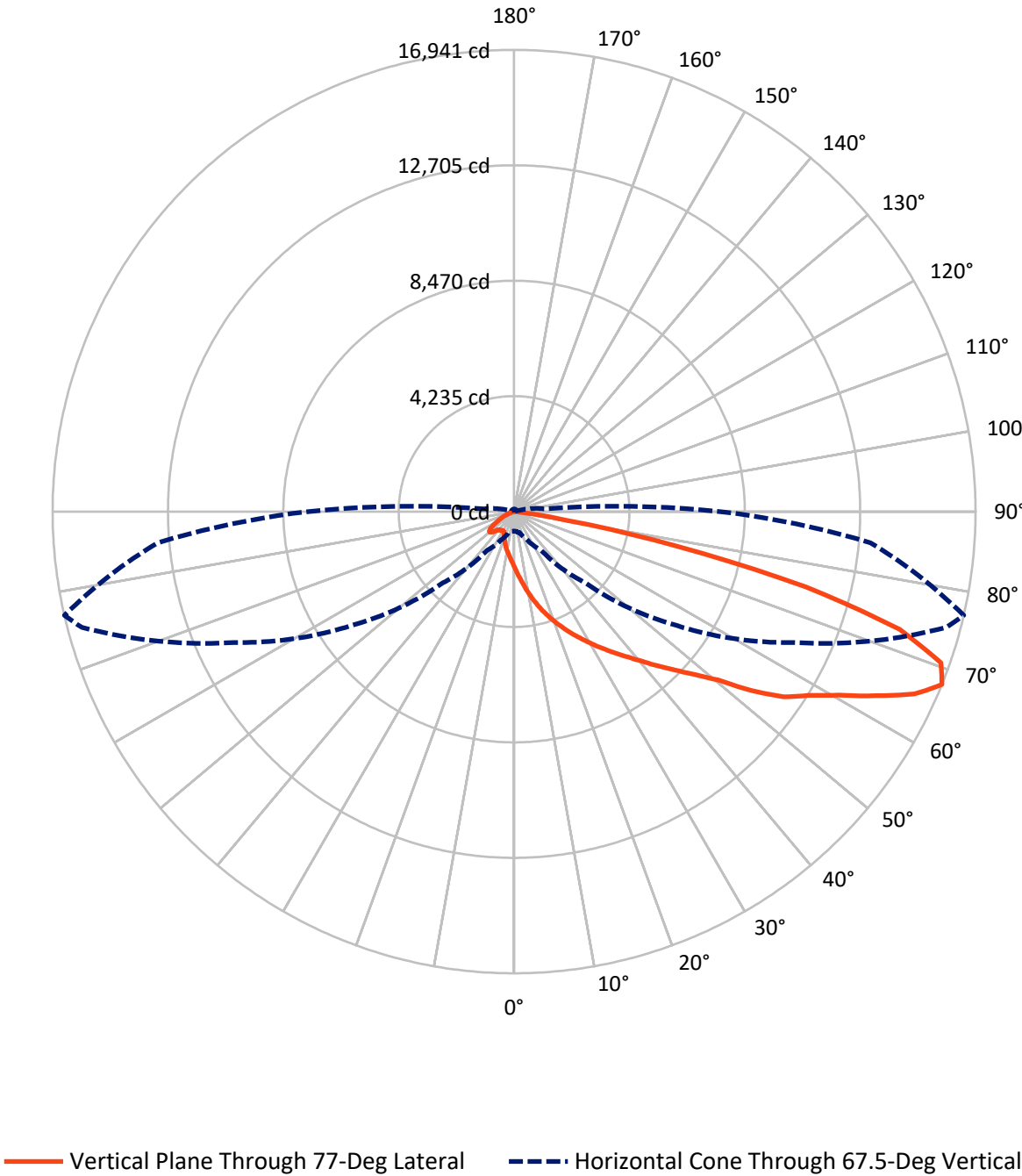
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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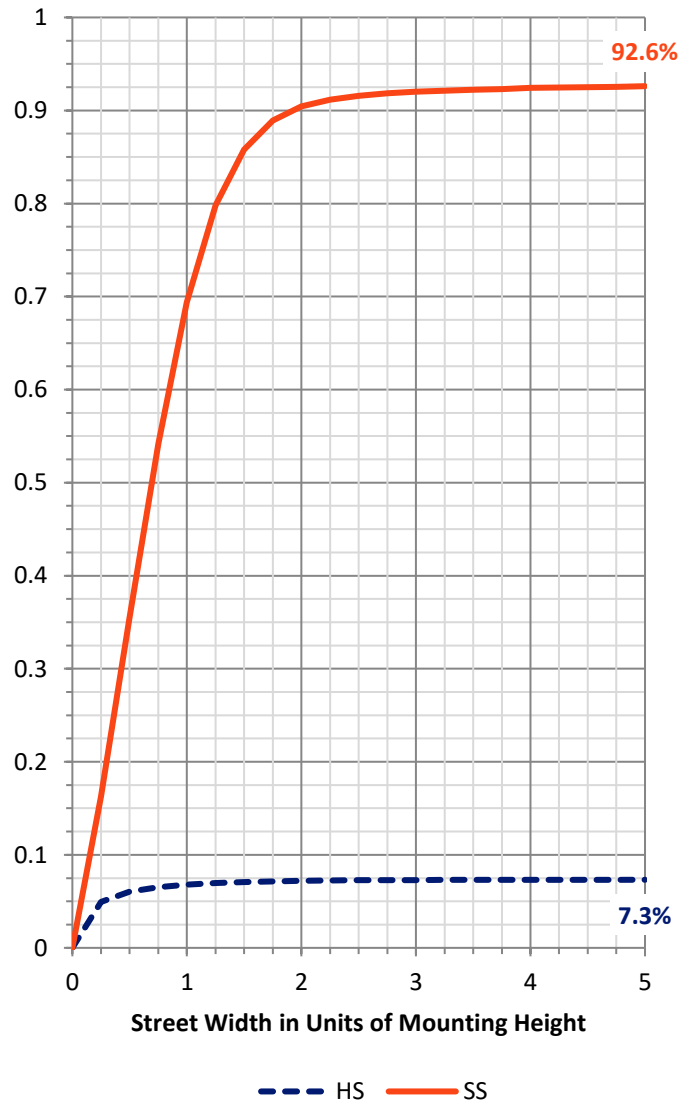
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1300.0	0.0	1300.0
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	16370.0	0.0	16370.0
	% Fixture	92.6	0.0	92.6
Total	Lumens	17670.0	0.0	17670.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.0	1.2
10°-20°	728.3	4.1
20°-30°	1405.4	8.0
30°-40°	2439.9	13.8
40°-50°	3542.5	20.0
50°-60°	4068.2	23.0
60°-70°	3531.9	20.0
70°-80°	1663.6	9.4
80°-90°	82.3	0.5
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°	17670.0	100.0
0°-180°	17670.0	100.0

Coefficient of Utilization



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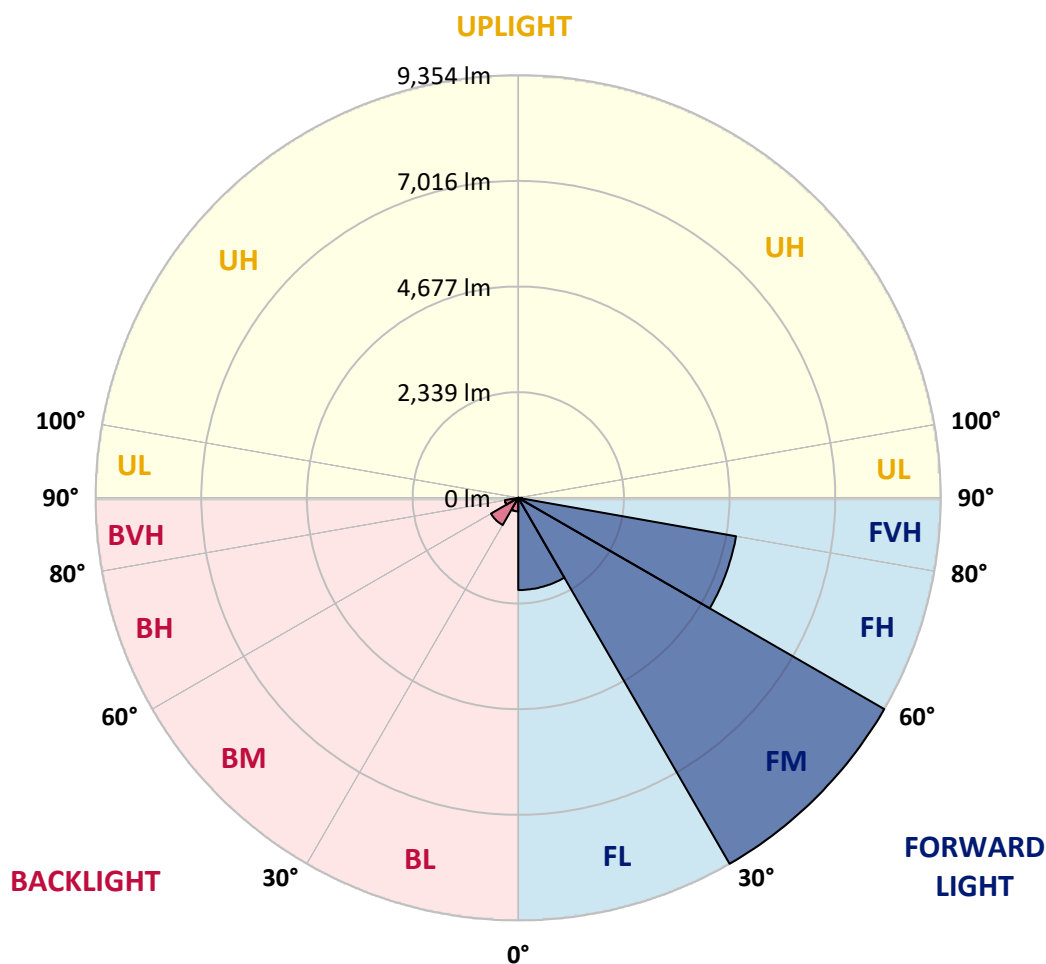
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2040.7	11.5			
FM	(30°-60°)	9354.0	52.9			
FH	(60°-80°)	4894.5	27.7			G2/5000
FVH	(80°-90°)	80.8	0.5			G1/100
BL	(0°-30°)	301.0	1.7	B1/500		
BM	(30°-60°)	696.5	3.9	B1/1000		
BH	(60°-80°)	301.0	1.7	B1/500		G1/500
BVH	(80°-90°)	1.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6
2.5°	2821.0	2838.6	2813.4	2765.0	2692.7	2645.5	2530.3	2421.7	2300.9	2262.6	2141.8
5°	3438.8	3454.1	3425.7	3373.0	3276.4	3184.3	3032.8	2805.7	2569.8	2494.0	2280.1
7.5°	3896.3	3905.1	3894.2	3845.9	3753.8	3649.5	3480.5	3211.6	2861.7	2778.3	2450.2
10°	4225.6	4254.1	4250.8	4232.1	4170.7	4086.2	3906.3	3600.1	3188.7	3081.1	2642.2
12.5°	4443.9	4475.8	4494.3	4536.0	4532.8	4479.0	4321.0	3997.3	3514.5	3388.3	2858.3
15°	4507.5	4541.6	4612.9	4709.5	4795.1	4822.4	4711.6	4386.8	3873.3	3712.0	3080.0
17.5°	4471.4	4524.0	4609.6	4762.2	4949.7	5073.8	5061.7	4763.2	4199.2	4014.8	3297.2
20°	4551.4	4601.9	4668.9	4797.2	5015.5	5240.5	5330.5	5123.1	4522.9	4329.8	3525.5
22.5°	4994.7	4985.9	4992.6	5013.4	5144.0	5366.7	5552.1	5450.1	4843.3	4645.8	3766.9
25°	5697.0	5657.5	5590.6	5477.5	5444.6	5552.1	5745.2	5739.8	5181.3	4969.5	4013.8
27.5°	6502.4	6495.7	6338.9	6066.8	5913.1	5871.4	5963.6	6021.8	5515.9	5289.9	4261.7
30°	7273.7	7291.2	7079.5	6776.7	6494.7	6331.2	6247.8	6289.5	5856.0	5635.6	4517.4
32.5°	7945.3	7963.9	7733.5	7379.1	7030.2	6832.6	6657.1	6554.0	6227.0	5986.6	4798.3
35°	8512.5	8531.2	8266.7	7875.0	7503.0	7324.2	7125.6	6843.6	6600.0	6376.1	5111.1
37.5°	9019.5	9014.0	8659.6	8264.6	7899.2	7757.6	7653.4	7200.2	6984.0	6767.9	5457.7
40°	9319.0	9342.1	9039.2	8603.6	8249.2	8146.1	8139.4	7642.4	7427.4	7217.7	5837.4
42.5°	9406.8	9447.4	9228.0	8870.2	8548.7	8436.8	8609.1	8120.8	7943.0	7739.0	6266.4
45°	9248.8	9288.2	9188.4	8940.5	8752.8	8680.4	9012.8	8616.8	8493.9	8291.9	6750.3
47.5°	8787.9	8837.3	8861.4	8808.7	8806.6	8880.1	9375.0	9139.1	9147.8	8941.6	7311.0
50°	7895.9	7979.2	8200.9	8387.5	8676.0	9038.1	9727.1	9705.2	9885.2	9707.5	8041.8
52.5°	6274.1	6392.6	7156.3	7666.6	8315.0	9008.5	10114.5	10613.8	11178.9	10918.8	9072.2
55°	5041.9	5041.9	5662.9	6617.6	7610.6	8813.2	10283.5	11204.1	12059.9	11998.5	9797.5
57.5°	4110.4	4159.7	4555.8	5399.6	6591.3	8347.9	10387.8	11575.0	12769.9	12724.9	10506.2
60°	2536.9	2643.3	3391.6	4224.4	5431.5	7519.5	10322.0	11950.3	13631.3	13667.5	11359.9
62.5°	1428.6	1468.1	1801.7	3039.4	4223.3	6405.8	9818.3	12159.8	14732.8	14886.5	12239.9
65°	986.5	1006.1	1134.6	1891.6	2927.5	5100.1	8834.1	12029.2	15836.8	16147.2	12986.0
67.5°	716.5	726.4	806.5	1155.4	1737.0	3697.8	7291.2	11370.8	16421.5	16940.6	13128.7
70°	550.8	557.4	615.5	759.3	1025.9	2282.3	5295.4	10061.8	15998.0	16618.0	12397.9
72.5°	447.7	454.3	499.3	561.8	680.3	1349.6	3209.5	8171.3	14128.3	14797.6	10554.5
75°	377.5	386.2	426.8	467.4	533.3	866.8	1505.4	5690.4	10624.7	11063.6	7339.5
77.5°	209.6	193.1	346.8	387.3	449.9	548.6	704.5	3348.9	5950.4	6072.2	3256.6
80°	130.6	135.0	275.4	311.6	345.6	276.5	322.6	1289.2	2062.8	1959.7	630.9
82.5°	7.7	17.5	211.8	225.0	237.0	118.5	121.8	437.8	497.0	456.4	111.9
85°	0.0	0.0	96.6	77.9	82.3	34.0	35.2	102.1	66.9	72.5	21.9
87.5°	0.0	0.0	0.0	2.2	0.0	3.3	6.6	8.8	3.3	4.4	7.7
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°	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6	2037.6
2.5°	2065.1	1988.2	1832.4	1679.9	1555.9	1440.7	1358.4	1280.5	1241.0	1238.8	1236.6
5°	2127.6	1966.3	1654.7	1379.2	1157.6	979.9	864.7	782.4	740.7	726.4	724.2
7.5°	2215.3	1972.9	1498.9	1115.9	854.7	702.2	636.4	610.1	601.3	591.4	589.3
10°	2326.2	1988.2	1359.5	898.6	673.7	596.9	570.6	559.6	553.0	546.4	544.3
12.5°	2450.2	2002.5	1221.3	746.1	592.6	553.0	534.3	521.2	512.4	504.7	502.6
15°	2570.9	2011.3	1077.5	639.7	550.8	519.0	499.3	485.0	472.9	464.1	463.0
17.5°	2690.5	2023.4	942.6	576.0	516.8	485.0	465.2	447.7	437.8	427.9	426.8
20°	2823.3	2021.2	815.3	531.1	482.8	451.0	430.1	413.7	403.7	392.8	391.8
22.5°	2946.2	2010.1	703.4	492.7	447.7	417.0	393.9	377.5	367.6	358.9	357.7
25°	3087.7	2001.4	610.1	457.6	414.7	384.1	358.9	343.5	332.5	324.8	323.7
27.5°	3223.7	1988.2	542.0	425.8	382.9	353.3	329.1	311.6	301.8	296.2	296.2
30°	3357.6	1984.9	516.8	395.0	354.4	324.8	300.6	284.2	276.5	274.3	273.3
32.5°	3518.9	1993.7	527.8	384.1	328.1	298.5	275.4	263.3	255.6	255.6	255.6
35°	3691.1	1991.5	544.3	393.9	310.6	272.1	254.6	246.9	239.2	239.2	239.2
37.5°	3907.3	1994.9	557.4	410.4	303.9	250.2	240.3	230.4	226.0	226.0	226.0
40°	4230.0	2103.4	550.8	424.7	301.8	234.8	215.0	211.8	208.5	208.5	208.5
42.5°	4624.9	2339.4	559.6	425.8	300.6	223.9	197.5	204.1	196.4	195.3	194.2
45°	5057.2	2597.2	615.5	402.7	299.5	218.3	188.7	196.4	184.3	184.3	184.3
47.5°	5486.3	2852.9	672.6	369.8	296.2	217.3	181.0	176.6	173.3	174.5	174.5
50°	6077.7	3061.4	694.5	324.8	288.5	215.0	166.8	167.9	165.6	167.9	167.9
52.5°	6721.8	3105.2	668.2	274.3	266.6	208.5	156.9	161.3	160.2	162.4	162.4
55°	7123.4	3058.1	552.0	228.3	232.6	182.1	147.0	155.8	155.8	155.8	155.8
57.5°	7538.2	2857.3	391.8	185.4	193.1	149.2	138.3	150.4	149.2	148.1	148.1
60°	7836.6	2532.5	257.9	152.5	153.6	122.9	128.3	141.6	140.4	135.0	135.0
62.5°	8059.4	2173.7	165.6	129.5	117.4	110.8	117.4	128.3	124.0	111.9	109.7
65°	8034.2	1676.6	127.3	110.8	96.6	96.6	102.1	111.9	98.7	79.0	76.8
67.5°	7565.6	1134.6	105.4	93.3	81.2	80.1	84.5	93.3	84.5	66.9	64.8
70°	6728.4	741.8	84.5	72.5	64.8	59.2	68.1	80.1	71.3	53.8	51.6
72.5°	5461.1	452.0	63.7	52.7	47.2	38.4	53.8	65.8	57.1	39.5	37.3
75°	3533.2	230.4	43.9	34.0	25.2	23.1	39.5	49.4	39.5	24.2	20.8
77.5°	1351.9	96.6	24.2	15.4	13.1	11.0	21.9	29.6	16.5	5.5	4.4
80°	260.0	40.6	12.1	7.7	6.6	4.4	3.3	2.2	0.0	0.0	0.0
82.5°	45.0	13.1	4.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	15.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.5	0.0	0.0	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)