

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: P967331

Luminaire Tested: **NAV-SB4D-827-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967331
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36017.5 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G4

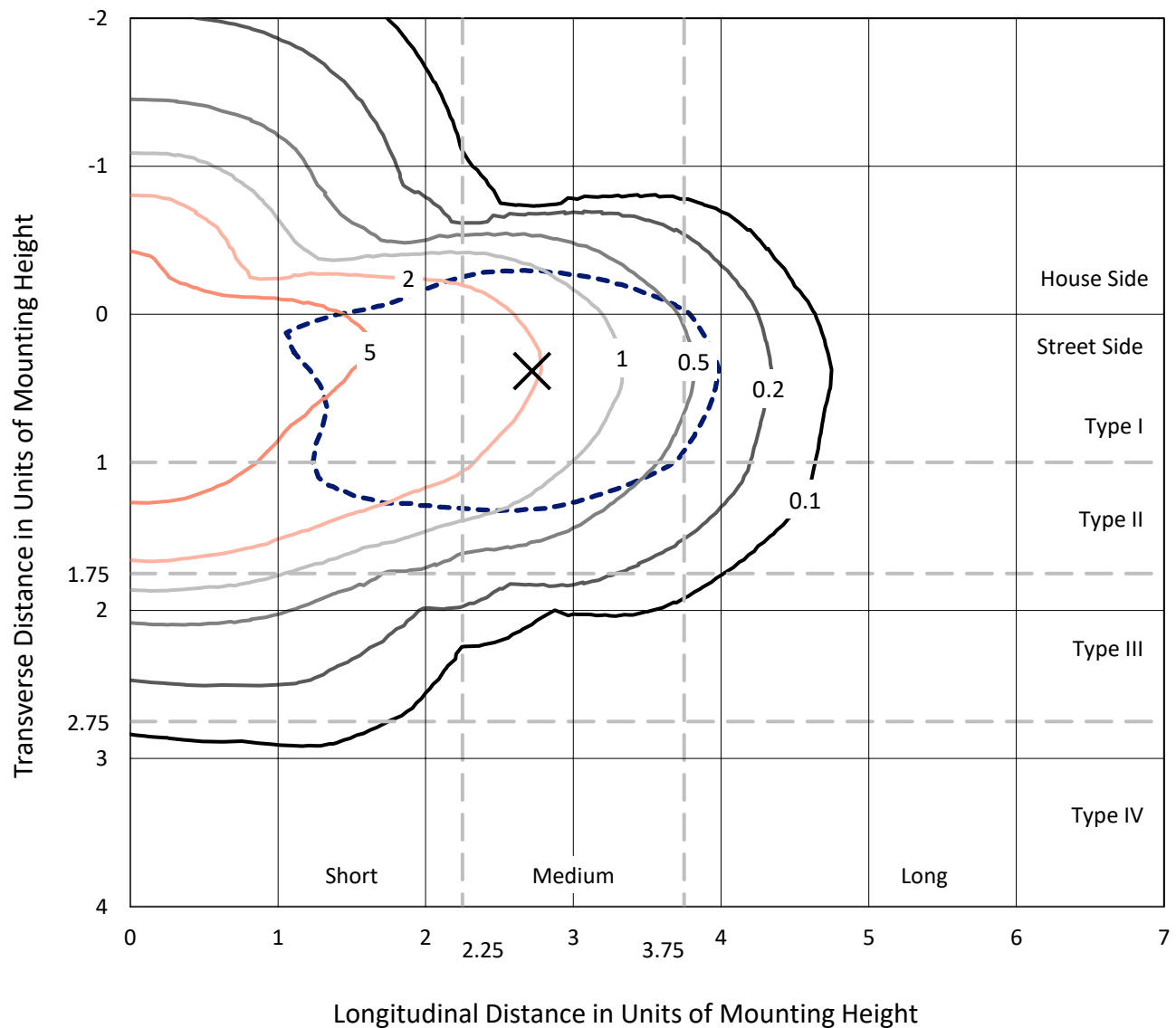
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

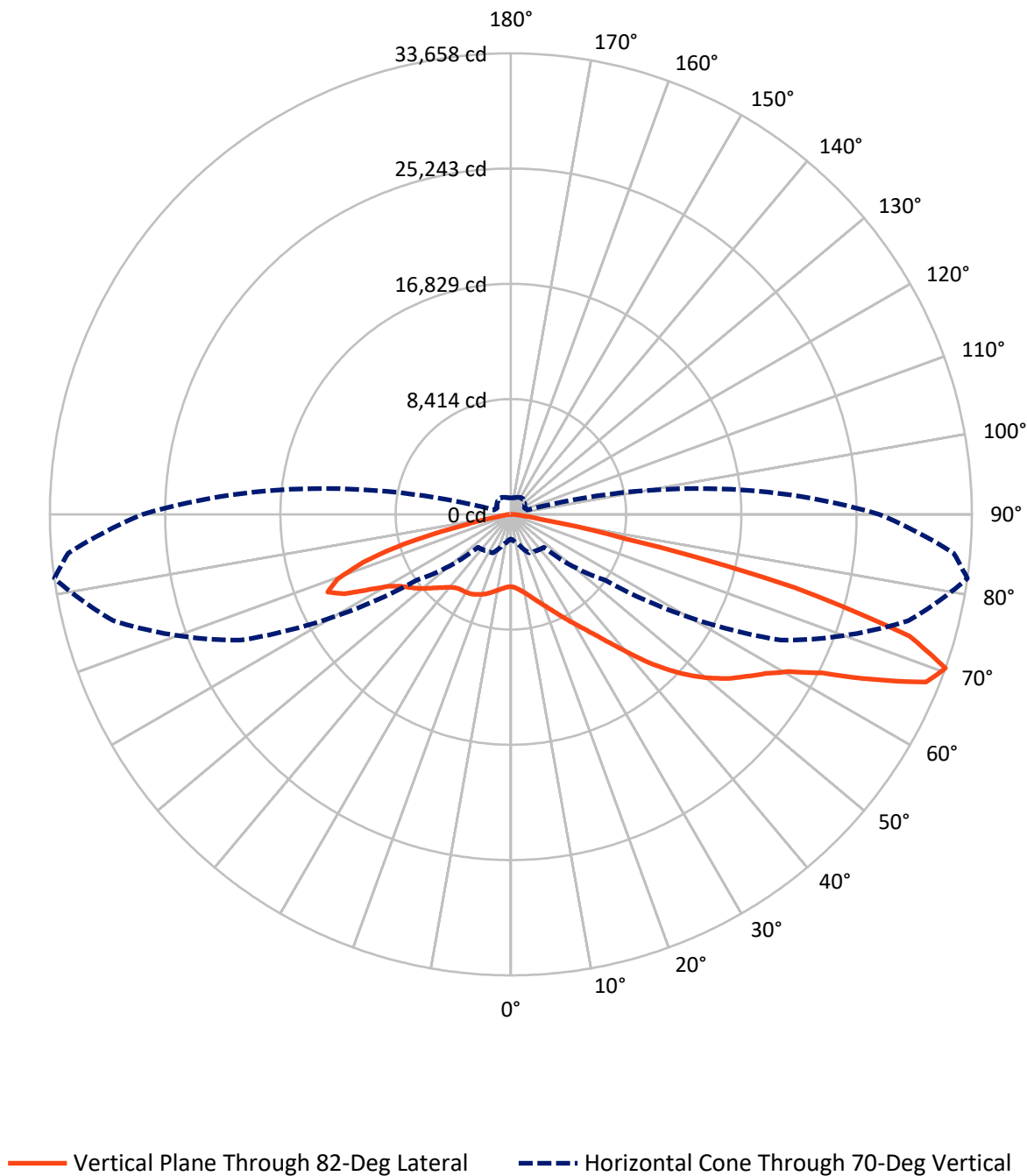
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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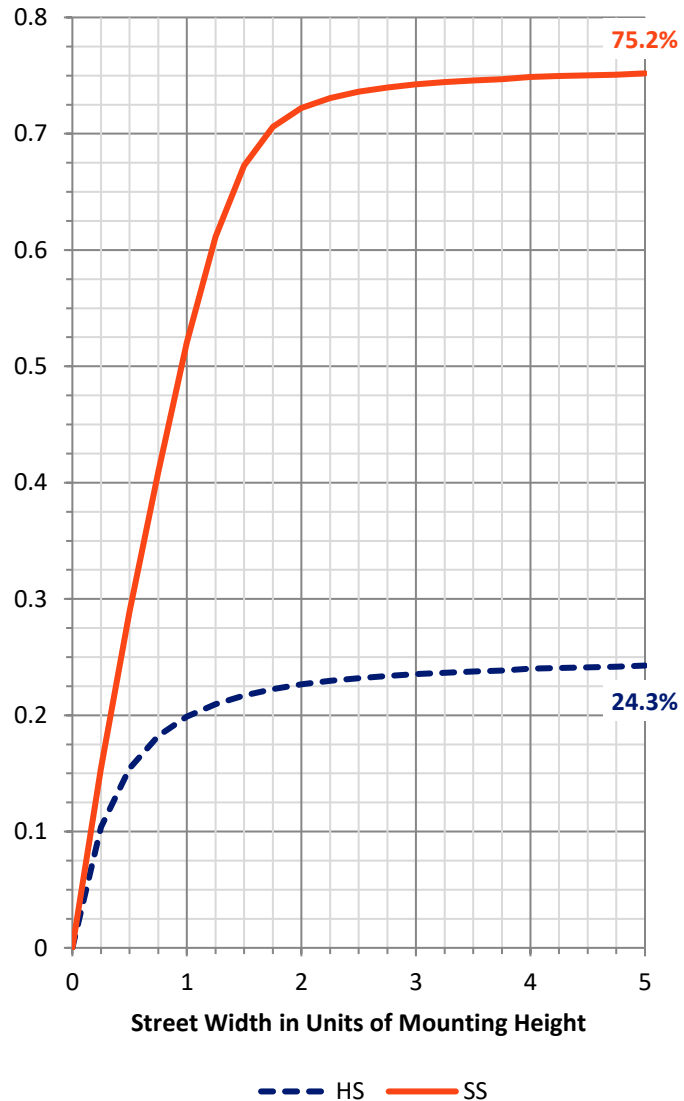
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8879.2	0.0	8879.2
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	27138.3	0.0	27138.3
	% Fixture	75.3	0.0	75.3
Total	Lumens	36017.5	0.0	36017.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	498.6	1.4
10°-20°	1432.5	4.0
20°-30°	2396.4	6.7
30°-40°	3743.7	10.4
40°-50°	5962.3	16.6
50°-60°	8297.3	23.0
60°-70°	8679.4	24.1
70°-80°	4536.3	12.6
80°-90°	471.0	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°	36017.5	100.0
0°-180°	36017.5	100.0

Coefficient of Utilization



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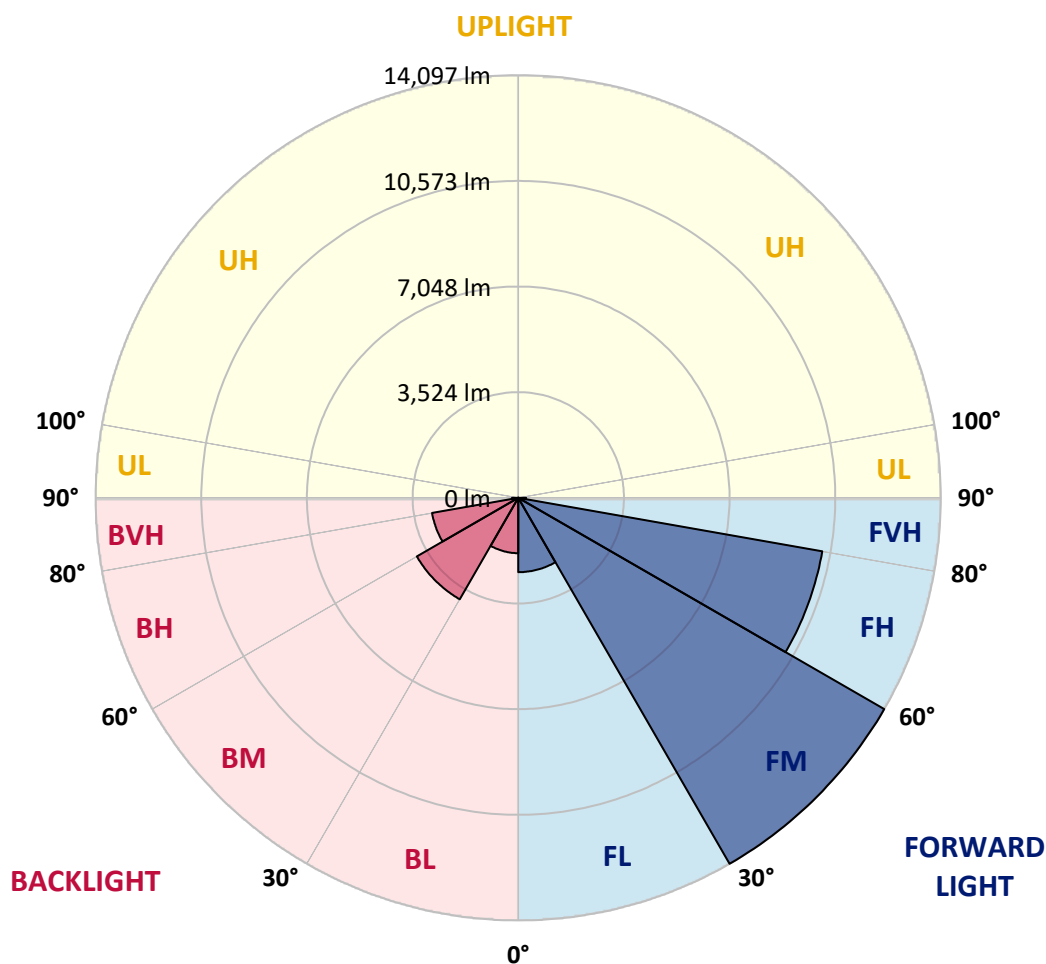
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2480.2	6.9			
FM	(30°-60°)	14096.9	39.1			
FH	(60°-80°)	10297.5	28.6			G4/12000
FVH	(80°-90°)	263.7	0.7			G3/500
BL	(0°-30°)	1847.2	5.1	B3/2500		
BM	(30°-60°)	3906.5	10.8	B3/5000		
BH	(60°-80°)	2918.1	8.1	B4/5000		G4/5000
BVH	(80°-90°)	207.4	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6
2.5°	5406.8	5437.3	5427.8	5418.3	5418.3	5404.8	5402.9	5383.8	5368.5	5343.6	5338.0
5°	5475.5	5508.0	5504.2	5511.8	5536.7	5542.5	5548.2	5536.7	5506.1	5475.5	5462.2
7.5°	5414.4	5450.7	5462.2	5508.0	5584.5	5653.3	5704.9	5726.0	5697.3	5653.3	5632.3
10°	5208.0	5248.1	5288.3	5397.2	5532.8	5695.3	5833.0	5915.2	5909.4	5867.3	5831.0
12.5°	4789.4	4831.4	4917.4	5129.6	5378.1	5664.8	5920.8	6092.9	6152.2	6121.5	6058.5
15°	4455.0	4491.2	4556.2	4774.1	5097.1	5532.8	5953.3	6287.8	6438.7	6421.6	6345.2
17.5°	4445.4	4460.7	4500.9	4604.1	4852.6	5326.5	5919.0	6478.9	6767.6	6765.6	6670.1
20°	4613.6	4619.4	4642.2	4663.3	4804.7	5169.8	5831.0	6637.6	7136.4	7136.4	7033.1
22.5°	4846.8	4842.9	4865.9	4846.8	4915.6	5156.4	5775.6	6777.1	7547.3	7577.8	7447.9
25°	5196.5	5177.4	5171.6	5127.8	5141.1	5280.6	5836.8	6935.7	8034.7	8097.7	7935.2
27.5°	5662.8	5632.3	5611.3	5510.0	5475.5	5536.7	6024.0	7126.8	8577.4	8686.4	8479.9
30°	6270.6	6215.2	6184.6	6008.8	5884.5	5894.1	6306.9	7381.0	9145.0	9320.8	9059.1
32.5°	7100.1	7014.1	6931.9	6643.3	6415.9	6341.4	6671.9	7732.7	9760.5	10041.4	9705.0
35°	8028.9	7960.0	7872.2	7426.8	7077.1	6905.1	7165.1	8223.9	10480.9	10926.3	10488.6
37.5°	8923.3	8864.1	8906.1	8306.0	7855.0	7604.6	7811.0	8883.2	11369.6	12027.1	11471.0
40°	9848.3	9802.5	9808.2	9234.8	8709.3	8428.4	8594.6	9710.7	12388.4	13336.3	12652.1
42.5°	10853.6	10819.3	10704.6	10196.2	9605.6	9343.8	9496.7	10666.4	13481.5	14827.0	13947.9
45°	11979.3	11958.3	11851.3	11268.3	10591.8	10297.5	10503.9	11721.3	14580.4	16229.8	15249.3
47.5°	12952.1	12969.3	12955.9	12464.7	11763.4	11331.5	11578.0	12822.1	15603.0	17548.5	16497.4
50°	13420.3	13510.2	13642.0	13489.2	13053.4	12613.9	12661.6	13884.8	16577.6	18785.1	17693.8
52.5°	13175.8	13345.8	13705.2	13949.7	14117.9	14026.2	13898.2	14939.8	17495.0	19901.2	18825.1
55°	12264.1	12502.9	13099.3	13689.8	14547.9	15215.0	15383.2	16109.4	18389.4	20883.6	19895.5
57.5°	10603.3	10991.3	11526.3	12720.9	14165.7	15790.2	17114.7	17732.0	19337.4	21932.7	21015.5
60°	7755.6	8275.4	8940.6	10717.9	12827.9	15482.5	18588.2	20224.2	20684.8	23291.7	22473.6
62.5°	4963.4	5284.4	5896.0	7570.2	9995.5	13905.8	19039.3	23339.5	22968.6	25520.1	24660.1
65°	3398.1	3604.5	4164.5	5104.8	6461.7	10351.0	17831.4	25674.9	26596.1	29052.0	28398.3
67.5°	2469.2	2625.9	3103.8	3927.5	4210.4	6125.4	13837.0	25567.9	30122.2	32690.8	31674.1
70°	1800.3	1911.2	2312.5	3103.8	3239.5	3407.6	8382.4	21734.0	30045.8	33657.9	32440.5
72.5°	1334.0	1410.5	1680.0	2408.1	2622.2	2301.0	4149.2	15796.0	25818.2	30443.3	29466.7
75°	965.1	1022.4	1221.3	1842.3	2098.5	1752.5	2069.8	9231.0	18009.1	21414.8	21586.9
77.5°	737.7	781.7	911.6	1349.3	1680.0	1314.9	1284.3	4246.7	8539.2	8581.2	9062.8
80°	592.4	621.2	691.9	949.9	1288.1	984.3	837.1	1714.3	2698.6	2283.9	2396.7
82.5°	435.7	483.5	584.9	667.0	921.2	678.4	510.2	865.8	1026.3	882.9	890.6
85°	248.5	281.0	353.5	477.8	588.7	414.7	292.4	384.2	477.8	391.8	349.7
87.5°	87.9	114.7	124.2	187.3	256.1	172.0	112.7	110.8	156.7	116.5	97.5
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°	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6	5280.6
2.5°	5318.8	5309.3	5271.1	5219.5	5165.9	5114.3	5097.1	5060.8	5036.0	5022.6	5037.9
5°	5425.8	5395.3	5305.5	5190.8	5070.4	4940.4	4848.7	4764.6	4703.4	4646.1	4669.1
7.5°	5578.8	5525.3	5370.5	5169.8	4955.7	4739.7	4579.2	4456.9	4374.7	4321.2	4332.7
10°	5756.5	5674.3	5437.3	5137.3	4806.6	4497.0	4307.8	4202.7	4151.1	4122.4	4130.0
12.5°	5961.0	5844.4	5506.1	5062.8	4579.2	4225.7	4095.7	4065.0	4067.0	4068.9	4072.7
15°	6213.2	6050.8	5561.5	4900.3	4283.0	4017.3	3994.4	4044.0	4095.7	4120.5	4118.7
17.5°	6498.1	6268.7	5571.1	4632.7	3992.5	3883.5	3956.2	4063.2	4141.5	4176.0	4183.6
20°	6803.8	6490.4	5502.3	4254.3	3753.6	3774.6	3904.5	4042.2	4128.2	4172.2	4183.6
22.5°	7153.6	6727.4	5338.0	3856.8	3558.6	3656.1	3809.0	3942.8	4032.7	4076.5	4088.0
25°	7553.0	6993.1	5079.9	3522.3	3390.5	3522.3	3675.2	3786.0	3858.7	3898.8	3910.3
27.5°	7996.4	7270.1	4735.9	3256.6	3243.3	3384.8	3510.8	3596.8	3635.1	3665.7	3677.1
30°	8441.7	7522.5	4319.2	3056.0	3115.3	3249.0	3338.8	3377.1	3388.5	3394.3	3407.6
32.5°	8923.3	7740.3	3881.6	2889.7	2992.9	3117.1	3170.6	3187.9	3134.3	3098.1	3109.5
35°	9506.3	7973.5	3453.5	2757.9	2872.6	2979.6	2996.8	2981.4	2918.4	2843.9	2847.7
37.5°	10226.7	8264.0	3111.4	2664.2	2759.7	2830.4	2809.4	2805.6	2811.4	2723.4	2729.2
40°	11109.8	8642.4	2861.1	2591.6	2668.0	2683.3	2624.1	2656.6	2685.2	2551.4	2555.2
42.5°	12090.2	9099.1	2702.4	2541.9	2591.6	2555.2	2463.5	2499.9	2496.0	2320.2	2318.2
45°	13089.8	9596.0	2647.0	2505.6	2520.9	2448.2	2346.9	2356.5	2276.2	2117.5	2123.3
47.5°	14083.5	10129.3	2681.4	2475.0	2432.9	2350.7	2272.4	2230.4	2111.9	1993.4	1993.4
50°	15058.3	10689.3	2807.6	2413.9	2312.5	2264.7	2207.4	2132.9	2006.7	1905.5	1897.8
52.5°	15962.2	11253.1	2948.9	2312.5	2161.5	2190.2	2153.9	2067.9	1943.7	1840.5	1842.3
55°	16818.4	11816.9	3004.4	2173.0	2020.2	2125.2	2104.2	1945.6	1796.5	1712.5	1704.8
57.5°	17751.2	12495.4	2943.2	1995.3	1905.5	2050.7	1970.5	1794.6	1708.6	1645.5	1639.8
60°	19043.1	13559.8	2811.4	1775.5	1796.5	1939.8	1802.3	1729.6	1636.0	1565.3	1561.5
62.5°	21189.3	15545.6	2599.2	1557.6	1668.5	1775.5	1722.0	1649.3	1553.8	1485.0	1485.0
65°	24361.9	18305.4	2199.8	1387.5	1525.1	1615.0	1636.0	1563.3	1464.0	1391.3	1395.1
67.5°	27037.6	20036.9	1664.6	1246.1	1378.0	1485.0	1544.3	1473.5	1368.4	1297.6	1299.6
70°	26890.5	18779.3	1270.9	1106.6	1248.0	1356.9	1433.4	1378.0	1265.2	1198.3	1204.1
72.5°	23884.1	15710.0	1028.2	965.1	1116.1	1223.1	1314.9	1272.8	1158.1	1093.2	1093.2
75°	17546.7	11151.8	821.8	821.8	951.8	1083.6	1184.9	1158.1	1053.1	1007.2	993.8
77.5°	7396.3	4678.6	644.1	682.3	791.2	930.7	1056.9	1066.4	974.7	1032.1	936.4
80°	1966.6	1290.1	491.2	537.0	621.2	768.3	919.3	915.4	816.1	762.6	709.1
82.5°	749.2	508.4	349.7	378.4	449.2	588.7	728.2	751.1	651.7	563.8	563.8
85°	288.6	217.9	216.0	227.4	261.8	389.9	550.4	569.5	491.2	416.7	430.0
87.5°	74.5	65.0	80.3	76.5	120.4	208.3	315.4	326.8	300.0	173.9	248.5
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)