

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: P968413

Luminaire Tested: **NAV-SB5B-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968413
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26683.8 lumens
Efficiency: N/A
Efficacy: 146.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

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

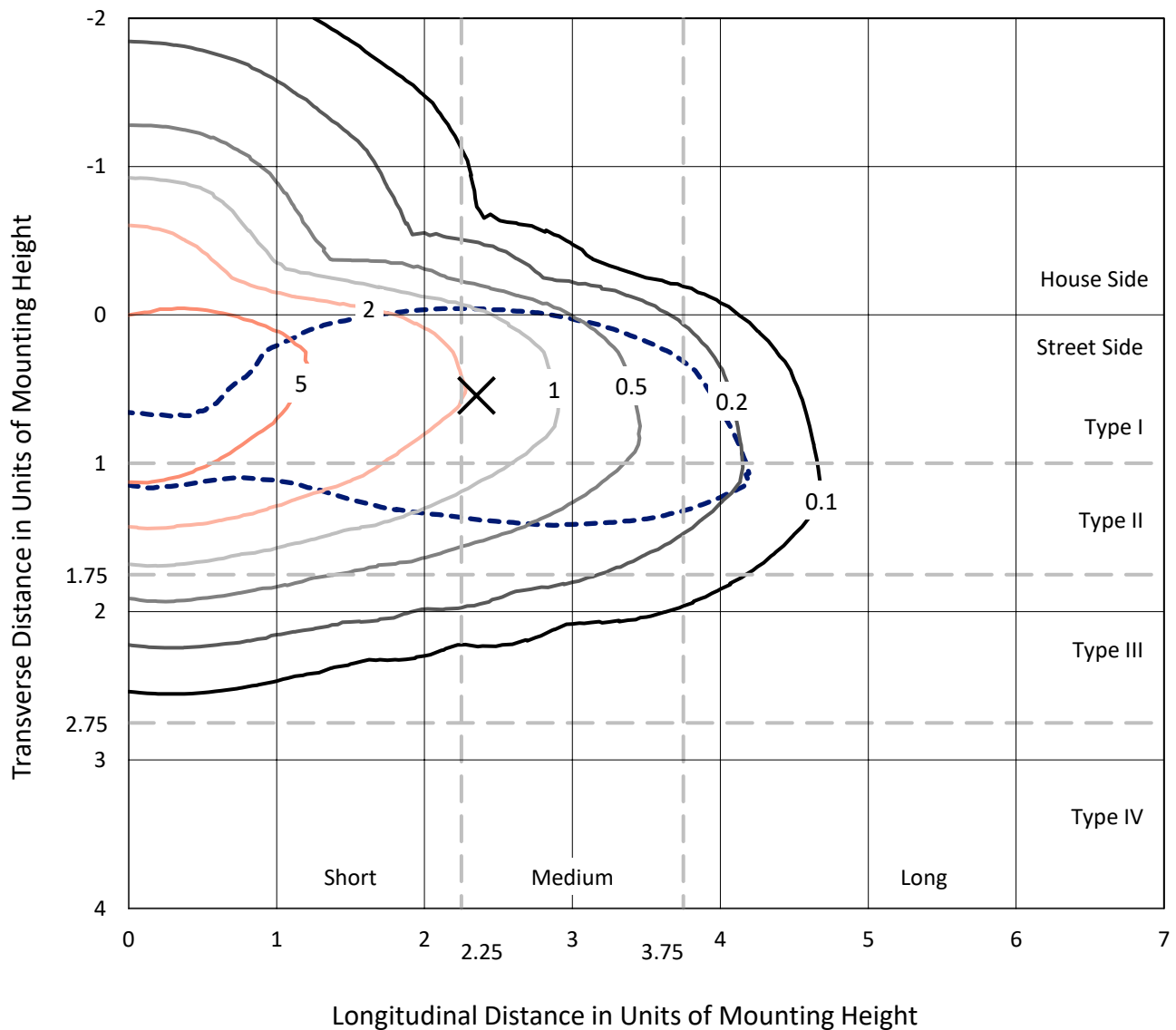


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Iso-Footcandle Lines of Horizontal Illumination

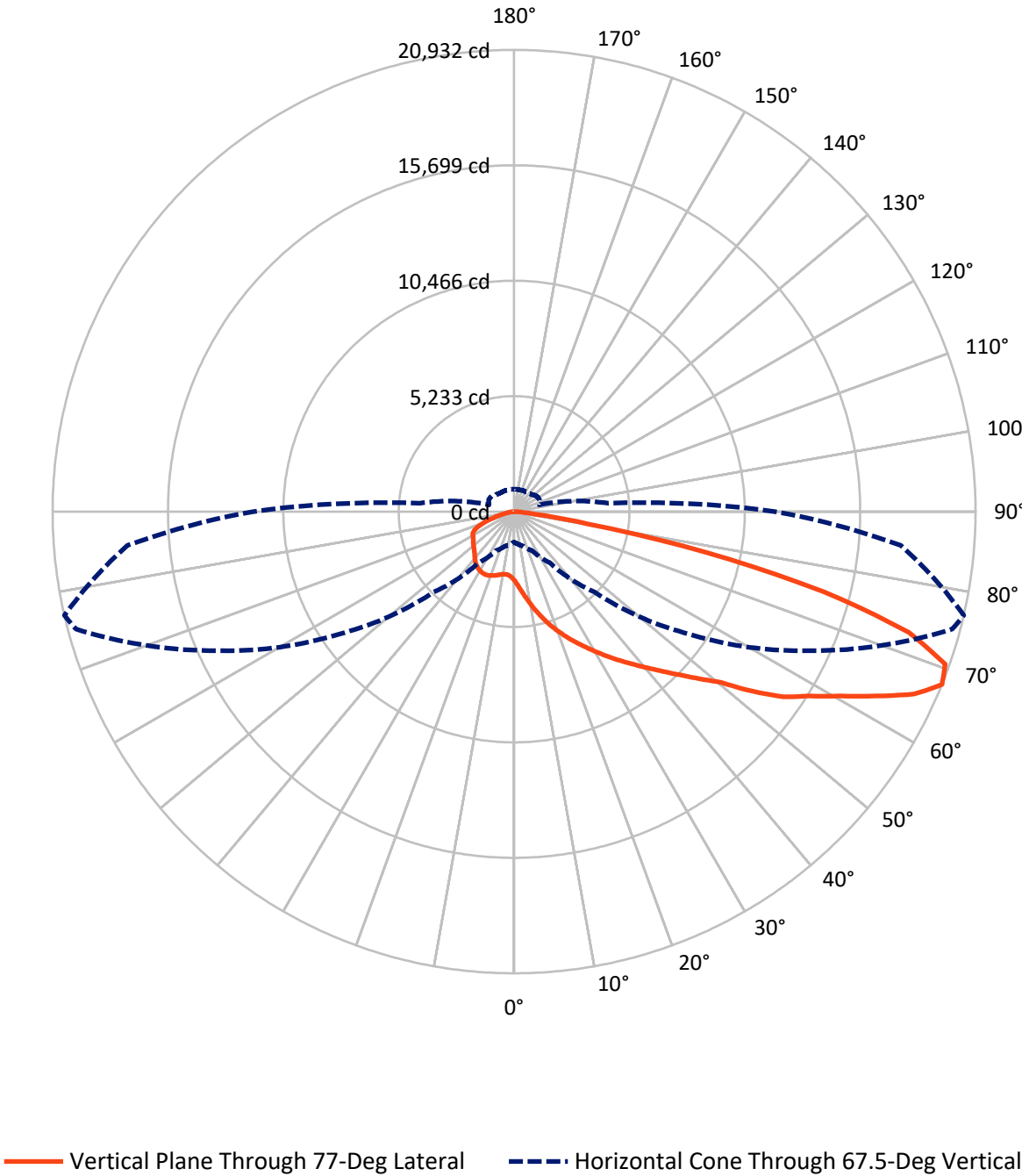
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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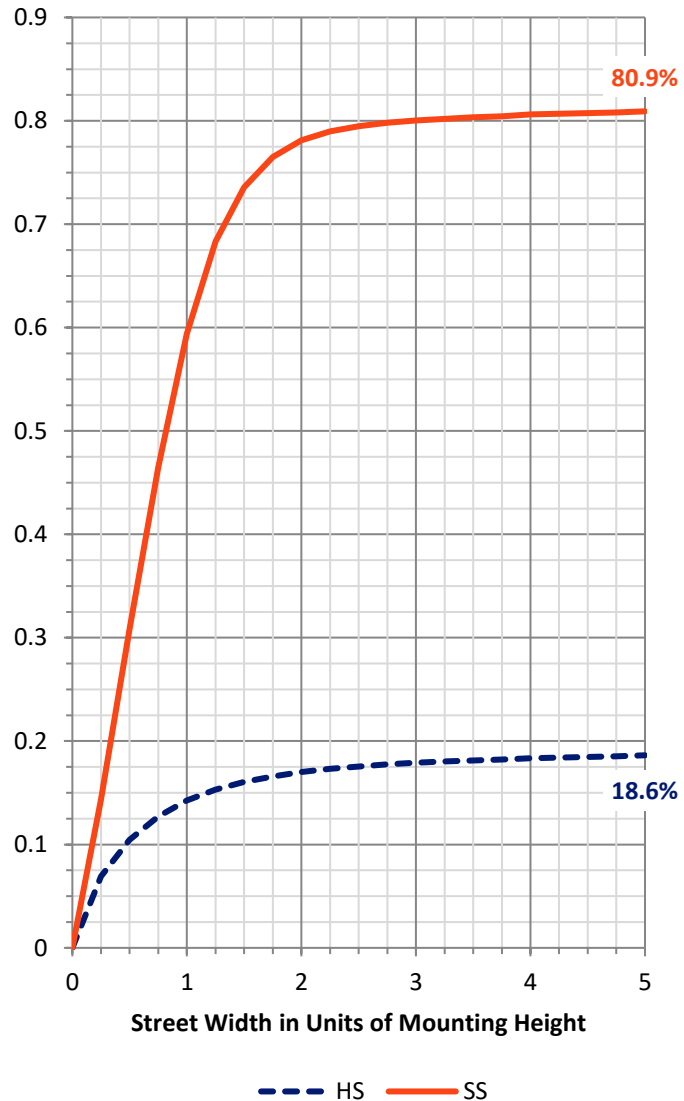
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5047.5	0.0	5047.5
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	21636.3	0.0	21636.3
	% Fixture	81.1	0.0	81.1
Total	Lumens	26683.8	0.0	26683.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.6	1.3
10°-20°	1205.6	4.5
20°-30°	2276.3	8.5
30°-40°	3667.1	13.7
40°-50°	5016.0	18.8
50°-60°	5658.0	21.2
60°-70°	5281.1	19.8
70°-80°	2894.9	10.8
80°-90°	349.2	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°	26683.8	100.0
0°-180°	26683.8	100.0

Coefficient of Utilization



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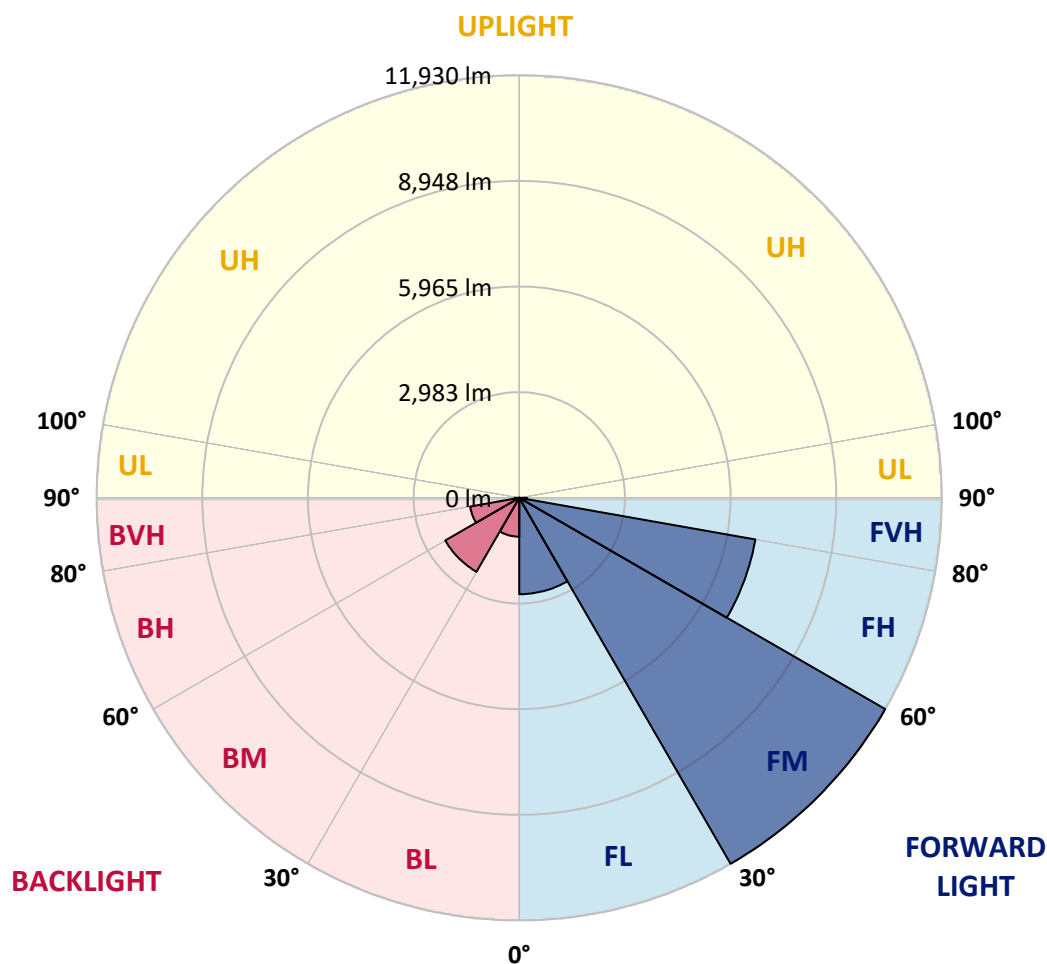
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2720.1	10.2			
FM	(30°-60°)	11930.0	44.7			
FH	(60°-80°)	6767.8	25.4			G3/7500
FVH	(80°-90°)	218.4	0.8			G2/225
BL	(0°-30°)	1097.4	4.1	B3/2500		
BM	(30°-60°)	2411.1	9.0	B2/2500		
BH	(60°-80°)	1408.2	5.3	B3/2500		G3/2500
BVH	(80°-90°)	130.8	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9
2.5°	3920.1	3947.7	3913.2	3913.2	3797.5	3736.9	3621.2	3533.1	3374.6	3347.1	3242.4
5°	4633.6	4668.1	4619.8	4599.2	4462.7	4337.5	4143.3	3951.8	3669.4	3640.5	3393.9
7.5°	5185.9	5230.0	5187.3	5165.3	5044.0	4903.6	4676.3	4409.0	4011.0	3954.6	3597.7
10°	5636.4	5643.2	5629.5	5637.7	5542.7	5427.0	5194.2	4882.9	4385.7	4308.5	3844.4
12.5°	5891.2	5922.9	5950.4	5999.9	5983.4	5911.8	5702.5	5330.5	4782.3	4683.2	4112.9
15°	6011.0	6066.1	6128.1	6242.4	6334.7	6352.6	6192.8	5811.2	5185.9	5066.1	4384.2
17.5°	6053.6	6106.0	6203.8	6369.1	6567.5	6701.0	6629.5	6278.2	5585.3	5447.7	4669.4
20°	6269.9	6285.1	6344.3	6501.4	6716.2	6938.0	6991.7	6727.3	5980.7	5825.1	4964.2
22.5°	6732.7	6702.5	6719.0	6790.6	6944.9	7159.7	7282.3	7124.0	6387.0	6208.0	5261.7
25°	7497.3	7409.1	7320.9	7238.2	7316.8	7438.0	7577.1	7520.6	6812.7	6585.4	5562.0
27.5°	8462.8	8355.4	8161.2	7889.7	7794.7	7837.5	7899.4	7888.4	7206.6	6976.6	5871.9
30°	9413.2	9287.8	9056.4	8663.9	8413.2	8300.2	8253.4	8221.7	7634.9	7389.7	6184.5
32.5°	10172.1	10073.0	9845.7	9406.3	9042.7	8849.8	8694.2	8581.2	8082.6	7837.5	6515.1
35°	10836.1	10743.7	10483.4	10004.1	9608.8	9403.6	9199.7	8958.6	8548.2	8300.2	6870.5
37.5°	11442.1	11349.8	10993.0	10494.5	10096.4	9954.5	9772.7	9363.6	9015.1	8781.0	7246.5
40°	11825.0	11804.3	11471.0	10906.3	10493.0	10422.8	10362.2	9833.3	9533.0	9315.4	7659.7
42.5°	11922.8	11968.3	11703.9	11239.6	10845.7	10789.3	10931.1	10365.0	10114.3	9906.3	8128.0
45°	11687.3	11818.1	11644.6	11329.1	11096.3	11066.1	11435.2	10946.3	10757.6	10567.4	8692.8
47.5°	11090.9	11312.6	11241.0	11196.9	11163.9	11294.7	11878.7	11563.3	11486.2	11320.9	9337.4
50°	9887.0	10307.1	10432.4	10710.7	11030.2	11472.4	12282.4	12236.9	12337.4	12170.7	10122.6
52.5°	7805.8	8384.3	9111.5	9808.5	10619.8	11413.2	12725.9	13203.8	13628.1	13537.2	11370.4
55°	6443.5	6703.8	7263.0	8541.3	9823.7	11163.9	12925.6	13984.8	14909.0	14827.8	12316.7
57.5°	5396.6	5629.5	5973.8	7041.3	8619.8	10597.8	13049.6	14461.4	15786.4	15778.1	13250.7
60°	4274.0	4520.7	4873.3	5629.5	7213.4	9619.8	13022.0	15004.1	16906.2	16975.1	14389.8
62.5°	3006.8	3278.3	3669.4	4374.6	5776.8	8352.6	12460.0	15396.6	18224.4	18411.8	15760.3
65°	1976.6	2155.7	2450.4	3059.2	4304.4	6723.1	11387.0	15447.6	19634.9	19951.7	17046.8
67.5°	1385.7	1454.6	1628.1	1958.7	2837.4	5155.6	9677.6	14920.0	20575.6	20932.4	17604.6
70°	1081.3	1115.7	1203.9	1336.1	1782.4	3467.0	7416.0	13548.1	20374.5	20746.5	17022.0
72.5°	933.9	967.0	1000.0	1016.5	1195.6	2140.5	5023.4	11327.8	18480.6	18732.7	14800.2
75°	847.1	855.4	882.9	877.4	911.8	1388.5	2899.4	8253.4	14581.2	14494.4	10925.6
77.5°	712.1	723.1	768.5	761.7	810.0	949.0	1505.5	5326.4	9453.2	8863.6	6081.2
80°	603.3	608.8	658.4	650.2	703.9	687.4	768.5	2714.8	4009.6	3396.6	1753.5
82.5°	209.4	258.9	502.8	517.9	537.2	415.9	443.5	1107.4	1224.5	938.0	367.8
85°	101.9	108.9	256.1	363.7	362.2	209.4	216.3	395.3	385.7	303.0	122.6
87.5°	16.5	20.7	30.3	141.9	113.0	55.1	74.4	77.2	79.8	68.9	27.6
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°	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9	3130.9
2.5°	3165.3	3096.4	2951.8	2818.1	2713.5	2612.9	2556.5	2508.3	2480.7	2475.2	2475.2
5°	3250.7	3108.8	2845.7	2624.0	2479.4	2371.8	2315.4	2279.6	2261.7	2250.7	2249.3
7.5°	3373.3	3165.3	2790.7	2538.5	2387.0	2309.9	2280.9	2275.5	2274.1	2275.5	2279.6
10°	3542.7	3257.6	2785.1	2517.9	2391.2	2348.5	2347.1	2348.5	2354.0	2355.3	2356.8
12.5°	3725.9	3352.6	2807.2	2535.8	2443.5	2420.1	2415.9	2414.6	2418.7	2421.5	2422.9
15°	3925.6	3477.9	2844.4	2574.4	2501.4	2476.6	2472.4	2464.2	2462.8	2461.4	2460.0
17.5°	4130.9	3602.0	2885.7	2615.7	2538.5	2504.1	2489.0	2469.7	2454.6	2450.4	2454.6
20°	4338.8	3724.5	2914.6	2636.4	2541.3	2493.1	2462.8	2429.8	2403.5	2388.5	2393.9
22.5°	4560.6	3852.6	2932.5	2630.9	2516.5	2450.4	2395.3	2356.8	2316.8	2290.7	2292.0
25°	4776.8	3964.2	2931.1	2602.0	2468.3	2384.3	2314.0	2264.4	2209.4	2181.8	2181.8
27.5°	4984.8	4064.7	2896.6	2550.9	2399.4	2305.7	2221.8	2162.5	2108.8	2082.6	2081.3
30°	5199.7	4148.8	2842.9	2476.6	2318.1	2214.8	2122.6	2071.6	2023.5	1998.6	1997.2
32.5°	5413.2	4225.9	2767.2	2384.3	2224.6	2125.3	2034.4	1987.6	1958.7	1958.7	1960.0
35°	5639.1	4279.6	2666.6	2276.8	2125.3	2030.3	1958.7	1931.1	1928.3	1911.8	1907.7
37.5°	5877.3	4314.0	2544.0	2166.6	2027.6	1938.0	1915.9	1882.9	1855.4	1819.6	1814.0
40°	6128.1	4348.5	2396.7	2052.4	1924.2	1874.6	1865.0	1820.9	1742.4	1654.2	1641.8
42.5°	6432.5	4371.9	2243.8	1938.0	1815.4	1798.9	1812.7	1736.9	1611.6	1545.5	1546.8
45°	6785.1	4410.5	2103.3	1825.0	1703.9	1703.9	1761.7	1662.6	1559.2	1517.9	1524.8
47.5°	7242.4	4500.0	1972.4	1701.1	1600.5	1628.1	1648.7	1573.0	1515.2	1464.2	1462.8
50°	7903.6	4714.9	1837.4	1575.7	1522.0	1577.2	1548.2	1504.1	1436.6	1395.3	1391.1
52.5°	8724.5	4841.6	1717.6	1462.8	1454.6	1509.6	1468.3	1427.0	1376.1	1320.9	1309.9
55°	9283.7	4865.0	1617.0	1380.2	1409.1	1403.5	1388.5	1351.3	1323.7	1250.7	1252.0
57.5°	9909.1	4911.8	1534.4	1330.6	1380.2	1319.6	1314.0	1282.4	1246.5	1197.0	1180.4
60°	10657.0	4984.8	1462.8	1311.3	1355.4	1264.4	1236.9	1224.5	1188.7	1163.9	1170.8
62.5°	11472.4	5051.0	1389.8	1314.0	1326.5	1210.7	1169.4	1165.3	1143.3	1135.0	1135.0
65°	12028.9	4870.5	1298.9	1311.3	1280.9	1155.7	1103.3	1101.9	1084.0	1081.3	1079.8
67.5°	11834.6	4298.8	1176.3	1272.7	1234.2	1100.5	1042.7	1037.2	1013.7	1015.2	1015.2
70°	10862.2	3483.5	1006.9	1177.7	1176.3	1050.9	979.3	961.4	929.8	935.2	940.7
72.5°	9038.6	2581.3	779.6	1019.3	1084.0	1005.5	906.3	877.4	837.4	843.0	841.6
75°	6527.5	1754.8	567.4	775.5	943.5	951.8	834.7	785.2	736.9	745.2	747.9
77.5°	3340.2	994.5	417.4	534.4	741.1	865.0	770.0	703.9	692.8	770.0	758.9
80°	1089.6	498.7	289.3	374.6	486.3	708.0	675.0	599.2	596.4	614.3	527.6
82.5°	325.0	210.7	185.9	246.5	268.5	542.7	582.6	453.2	389.8	410.5	424.2
85°	111.5	101.9	106.1	122.6	128.1	318.2	407.7	300.3	283.7	312.6	308.5
87.5°	26.1	35.8	30.3	27.6	27.6	77.2	158.4	125.4	173.5	115.7	111.5
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)