

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: P965220

Luminaire Tested: **NAV-SB3D-827-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965220
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-SB3D-827-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27718.1 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - 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

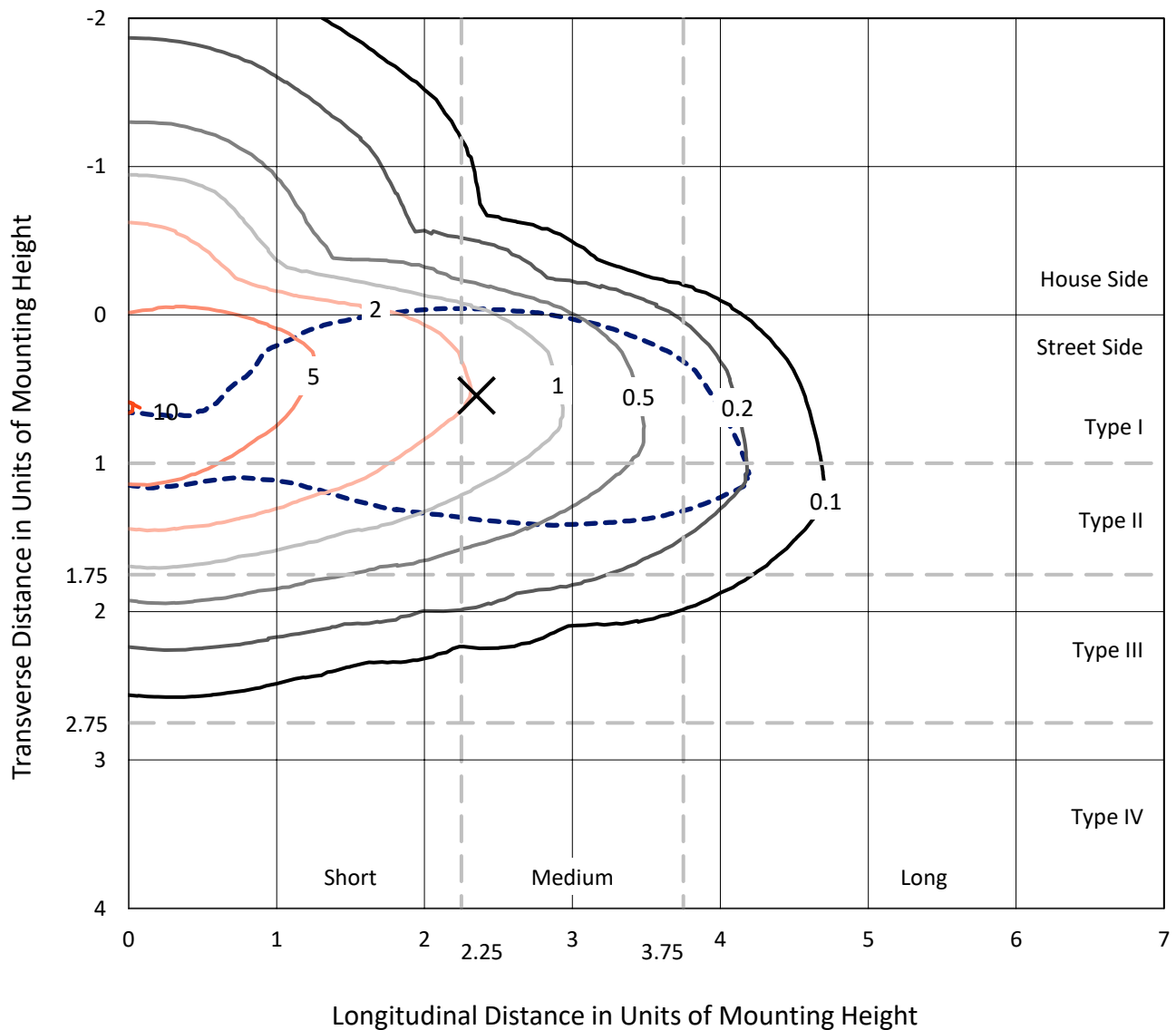


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Iso-Footcandle Lines of Horizontal Illumination

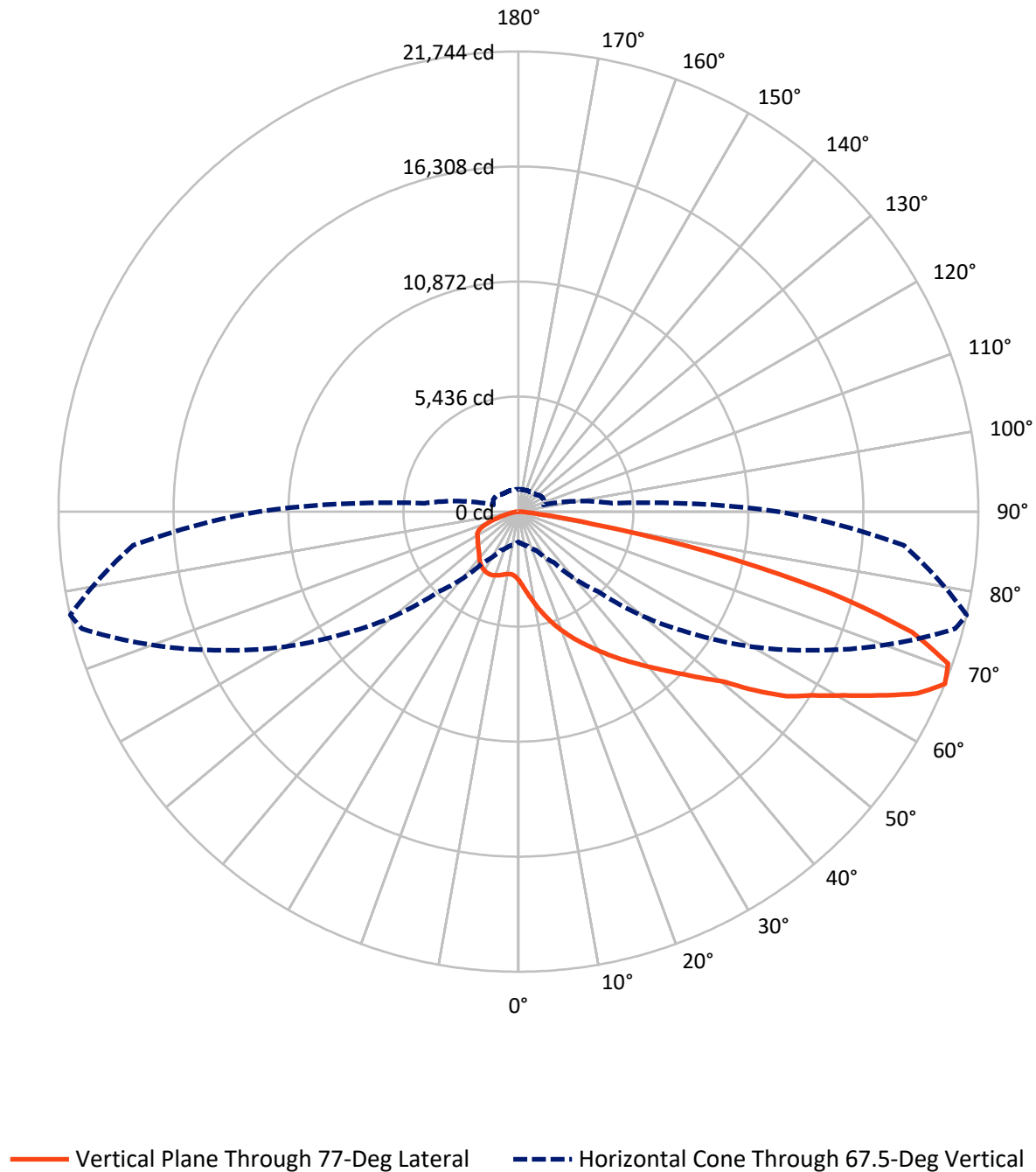
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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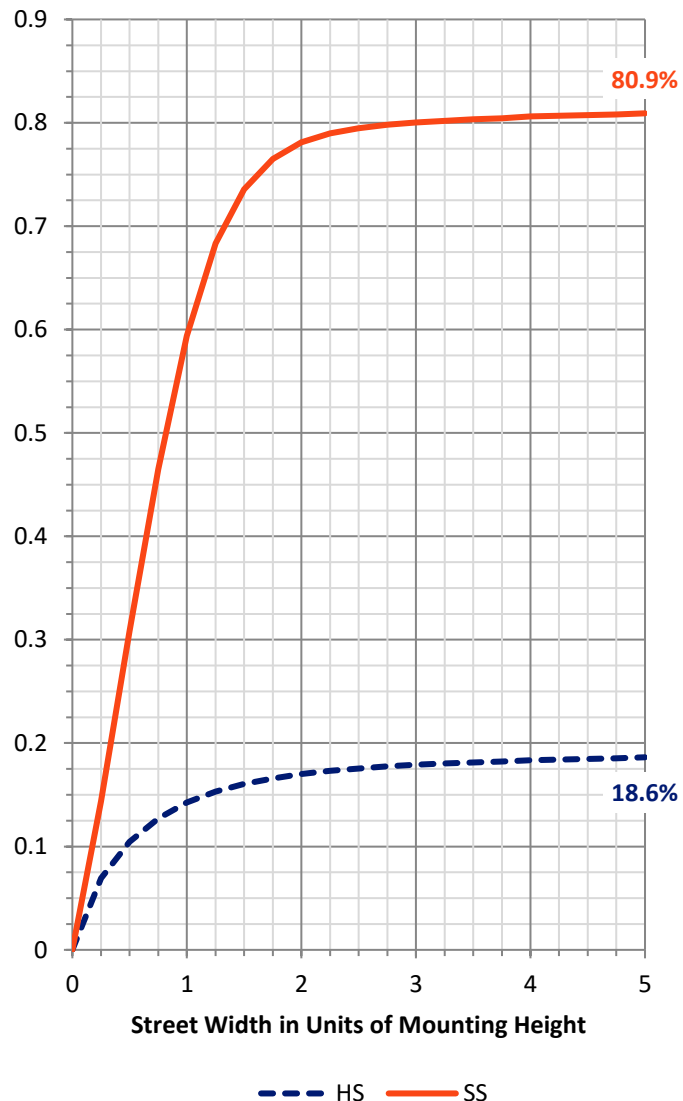
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5243.2	0.0	5243.2
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	22474.9	0.0	22474.9
	% Fixture	81.1	0.0	81.1
Total	Lumens	27718.1	0.0	27718.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.6	1.3
10°-20°	1252.3	4.5
20°-30°	2364.6	8.5
30°-40°	3809.3	13.7
40°-50°	5210.4	18.8
50°-60°	5877.3	21.2
60°-70°	5485.8	19.8
70°-80°	3007.1	10.8
80°-90°	362.7	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°	27718.1	100.0
0°-180°	27718.1	100.0

Coefficient of Utilization



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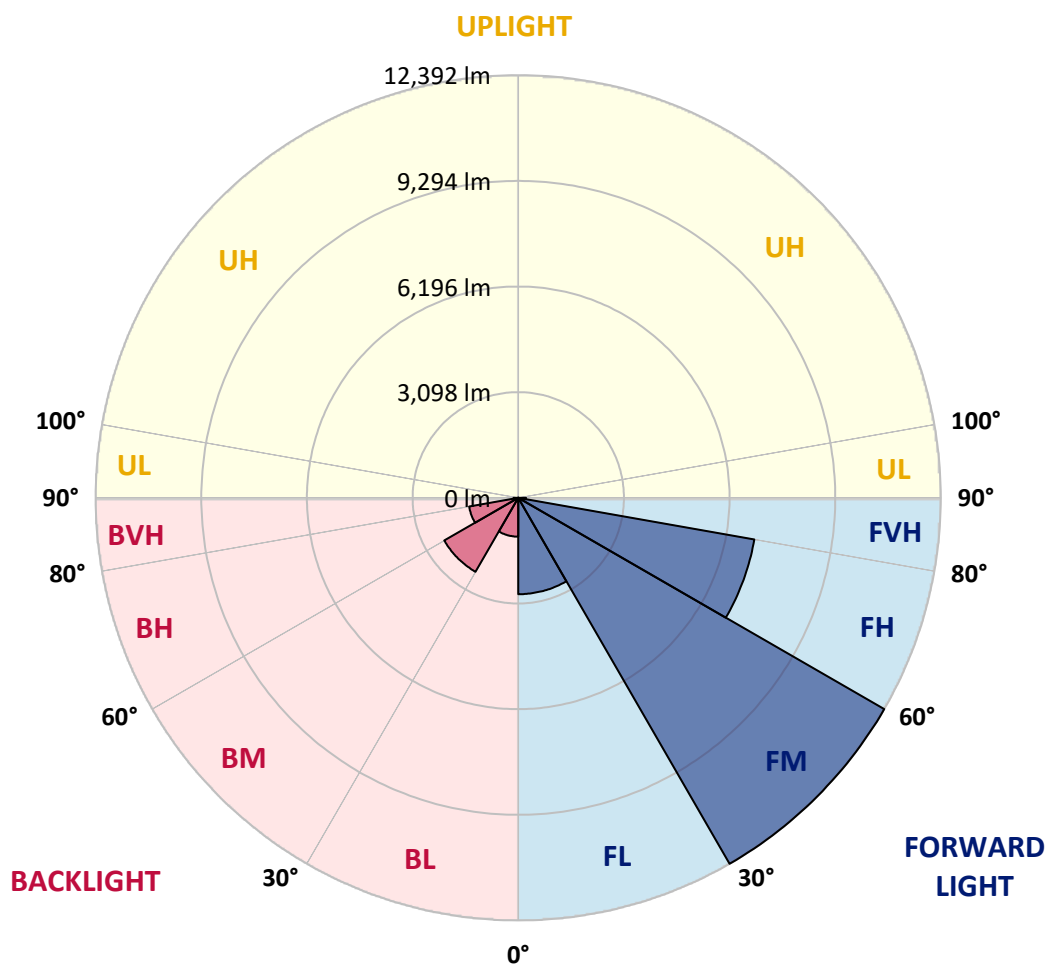
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2825.5	10.2			
FM	(30°-60°)	12392.4	44.7			
FH	(60°-80°)	7030.1	25.4			G3/7500
FVH	(80°-90°)	226.8	0.8			G3/500
BL	(0°-30°)	1140.0	4.1	B3/2500		
BM	(30°-60°)	2504.5	9.0	B3/5000		
BH	(60°-80°)	1462.8	5.3	B3/2500		G3/2500
BVH	(80°-90°)	135.9	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°	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2
2.5°	4072.0	4100.6	4064.8	4064.8	3944.7	3881.8	3761.5	3670.0	3505.4	3476.8	3368.0
5°	4813.2	4849.0	4798.8	4777.4	4635.8	4505.6	4303.8	4104.9	3811.7	3781.5	3525.5
7.5°	5386.9	5432.7	5388.3	5365.5	5239.6	5093.6	4857.6	4580.0	4166.4	4107.8	3737.3
10°	5854.8	5862.0	5847.6	5856.2	5757.5	5637.3	5395.5	5072.1	4555.6	4475.6	3993.3
12.5°	6119.5	6152.4	6181.1	6232.5	6215.4	6141.0	5923.5	5537.2	4967.7	4864.6	4272.3
15°	6244.0	6301.2	6365.6	6484.4	6580.2	6598.8	6432.8	6036.5	5386.9	5262.5	4554.2
17.5°	6288.4	6342.7	6444.3	6616.0	6822.0	6960.8	6886.4	6521.6	5801.8	5658.8	4850.4
20°	6513.0	6528.7	6590.2	6753.3	6976.6	7206.9	7262.7	6987.9	6212.5	6050.8	5156.6
22.5°	6993.7	6962.2	6979.4	7053.8	7214.1	7437.3	7564.6	7400.1	6634.6	6448.6	5465.6
25°	7787.8	7696.2	7604.7	7518.8	7600.4	7726.2	7870.8	7812.1	7076.7	6840.6	5777.5
27.5°	8790.8	8679.2	8477.5	8195.6	8096.9	8141.2	8205.6	8194.2	7485.9	7247.0	6099.5
30°	9778.0	9647.8	9407.4	8999.7	8739.3	8622.0	8573.3	8540.4	7930.8	7676.2	6424.3
32.5°	10566.4	10463.4	10227.2	9770.9	9393.1	9192.8	9031.2	8913.8	8395.9	8141.2	6767.7
35°	11256.0	11160.2	10889.7	10391.9	9981.2	9768.0	9556.3	9305.9	8879.5	8622.0	7136.8
37.5°	11885.6	11789.8	11419.1	10901.2	10487.7	10340.3	10151.5	9726.5	9364.5	9121.3	7527.4
40°	12283.3	12261.9	11915.6	11329.0	10899.7	10826.8	10763.8	10214.4	9902.5	9676.4	7956.7
42.5°	12385.0	12432.1	12157.4	11675.3	11266.1	11207.3	11354.7	10766.7	10506.2	10290.3	8443.1
45°	12140.3	12276.2	12095.9	11768.2	11526.4	11495.0	11878.4	11370.5	11174.4	10977.0	9029.7
47.5°	11520.7	11751.1	11676.7	11630.9	11596.5	11732.5	12339.2	12011.5	11931.4	11759.7	9699.4
50°	10270.2	10706.6	10836.8	11125.9	11457.8	11917.1	12758.4	12711.1	12815.6	12642.5	10514.9
52.5°	8108.3	8709.2	9464.6	10188.7	11031.4	11855.6	13219.1	13715.5	14156.3	14061.8	11811.2
55°	6693.2	6963.6	7544.5	8872.3	10204.4	11596.5	13426.6	14526.8	15486.9	15402.5	12794.2
57.5°	5605.8	5847.6	6205.3	7314.2	8953.9	11008.5	13555.3	15021.9	16398.3	16389.8	13764.2
60°	4439.8	4695.8	5062.2	5847.6	7493.1	9992.6	13526.7	15585.6	17561.5	17633.1	14947.5
62.5°	3123.4	3405.3	3811.7	4544.2	6000.8	8676.3	12943.0	15993.4	18930.8	19125.4	16371.1
65°	2053.2	2239.2	2545.4	3177.8	4471.3	6983.7	11828.4	16046.3	20396.0	20725.0	17707.5
67.5°	1439.4	1511.0	1691.1	2034.6	2947.4	5355.4	10052.8	15498.3	21373.2	21743.7	18286.9
70°	1123.2	1159.0	1250.5	1387.8	1851.5	3601.3	7703.4	14073.2	21164.3	21550.6	17681.8
72.5°	970.1	1004.4	1038.7	1056.0	1241.9	2223.4	5218.1	11766.8	19196.9	19458.8	15373.9
75°	880.0	888.6	917.2	911.4	947.2	1442.3	3011.9	8573.3	15146.3	15056.2	11349.0
77.5°	739.7	751.1	798.4	791.2	841.3	985.8	1563.8	5532.8	9819.5	9207.2	6317.0
80°	626.7	632.4	683.9	675.4	731.1	714.0	798.4	2820.1	4165.0	3528.4	1821.4
82.5°	217.5	269.0	522.2	538.0	558.0	432.1	460.7	1150.4	1271.9	974.4	382.0
85°	105.9	113.1	266.1	377.7	376.3	217.5	224.7	410.6	400.7	314.8	127.3
87.5°	17.2	21.4	31.5	147.4	117.4	57.2	77.3	80.2	83.0	71.5	28.6
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°	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2	3252.2
2.5°	3288.0	3216.4	3066.2	2927.4	2818.6	2714.2	2655.6	2605.4	2576.8	2571.1	2571.1
5°	3376.7	3229.3	2956.0	2725.7	2575.4	2463.8	2405.2	2368.0	2349.4	2337.9	2336.5
7.5°	3504.0	3288.0	2898.8	2636.9	2479.6	2399.4	2369.4	2363.6	2362.2	2363.6	2368.0
10°	3680.0	3383.8	2893.1	2615.5	2483.9	2439.5	2438.1	2439.5	2445.2	2446.7	2448.1
12.5°	3870.3	3482.5	2915.9	2634.0	2538.2	2513.9	2509.6	2508.2	2512.5	2515.4	2516.8
15°	4077.8	3612.7	2954.6	2674.1	2598.3	2572.5	2568.2	2559.7	2558.3	2556.9	2555.4
17.5°	4291.0	3741.6	2997.5	2717.1	2636.9	2601.1	2585.5	2565.4	2549.7	2545.4	2549.7
20°	4507.0	3868.9	3027.5	2738.5	2639.8	2589.8	2558.3	2524.0	2496.7	2481.0	2486.8
22.5°	4737.3	4001.9	3046.2	2732.9	2614.1	2545.4	2488.2	2448.1	2406.6	2379.4	2380.9
25°	4962.0	4117.8	3044.8	2702.7	2563.9	2476.7	2403.7	2352.2	2295.0	2266.4	2266.4
27.5°	5178.0	4222.3	3009.0	2649.8	2492.4	2395.1	2307.9	2246.4	2190.5	2163.4	2161.9
30°	5401.2	4309.5	2953.1	2572.5	2408.0	2300.7	2204.9	2151.9	2101.9	2076.0	2074.6
32.5°	5623.0	4389.7	2874.5	2476.7	2310.8	2207.7	2113.2	2064.7	2034.6	2034.6	2036.1
35°	5857.7	4445.4	2770.1	2365.1	2207.7	2108.9	2034.6	2005.9	2003.2	1985.9	1981.6
37.5°	6105.2	4481.2	2642.7	2250.6	2106.2	2013.1	1990.2	1955.9	1927.3	1890.1	1884.4
40°	6365.6	4517.0	2489.6	2131.9	1998.9	1947.3	1937.2	1891.5	1809.9	1718.4	1705.5
42.5°	6681.8	4541.4	2330.7	2013.1	1885.8	1868.6	1882.9	1804.2	1674.0	1605.4	1606.8
45°	7048.1	4581.4	2184.8	1895.8	1769.9	1769.9	1829.9	1726.9	1619.7	1576.8	1583.9
47.5°	7523.1	4674.4	2048.9	1767.0	1662.6	1691.1	1712.7	1634.0	1573.9	1520.9	1519.5
50°	8209.8	4897.6	1908.7	1636.8	1581.1	1638.3	1608.2	1562.4	1492.3	1449.4	1445.1
52.5°	9062.6	5029.3	1784.2	1519.5	1511.0	1568.1	1525.2	1482.3	1429.4	1372.2	1360.7
55°	9643.5	5053.6	1679.8	1433.7	1463.7	1458.0	1442.3	1403.6	1375.0	1299.2	1300.6
57.5°	10293.2	5102.2	1593.9	1382.1	1433.7	1370.7	1365.0	1332.1	1294.9	1243.3	1226.2
60°	11070.0	5178.0	1519.5	1362.1	1407.9	1313.4	1284.8	1271.9	1234.8	1209.0	1216.2
62.5°	11917.1	5246.7	1443.7	1365.0	1377.8	1257.7	1214.7	1210.4	1187.6	1179.0	1179.0
65°	12495.1	5059.3	1349.2	1362.1	1330.7	1200.5	1146.1	1144.6	1126.1	1123.2	1121.8
67.5°	12293.3	4465.5	1221.9	1322.0	1282.0	1143.2	1083.1	1077.4	1053.1	1054.5	1054.5
70°	11283.2	3618.5	1045.9	1223.3	1221.9	1091.7	1017.3	998.7	965.8	971.5	977.2
72.5°	9388.9	2681.3	809.9	1058.8	1126.1	1044.5	941.5	911.4	869.9	875.7	874.2
75°	6780.5	1822.9	589.5	805.5	980.1	988.7	867.0	815.6	765.5	774.1	776.9
77.5°	3469.6	1033.0	433.6	555.1	769.8	898.5	799.8	731.1	719.7	799.8	788.3
80°	1131.8	517.9	300.4	389.2	505.1	735.4	701.1	622.4	619.5	638.2	548.0
82.5°	337.6	218.9	193.1	256.1	279.0	563.8	605.3	470.7	404.9	426.4	440.6
85°	115.9	105.9	110.2	127.3	133.0	330.6	423.5	311.9	294.8	324.8	320.5
87.5°	27.2	37.2	31.5	28.6	28.6	80.2	164.5	130.2	180.3	120.2	115.9
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)