

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: P967886

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967886
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-SB5A-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21256.5 lumens
Efficiency: N/A
Efficacy: 150.0 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): 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

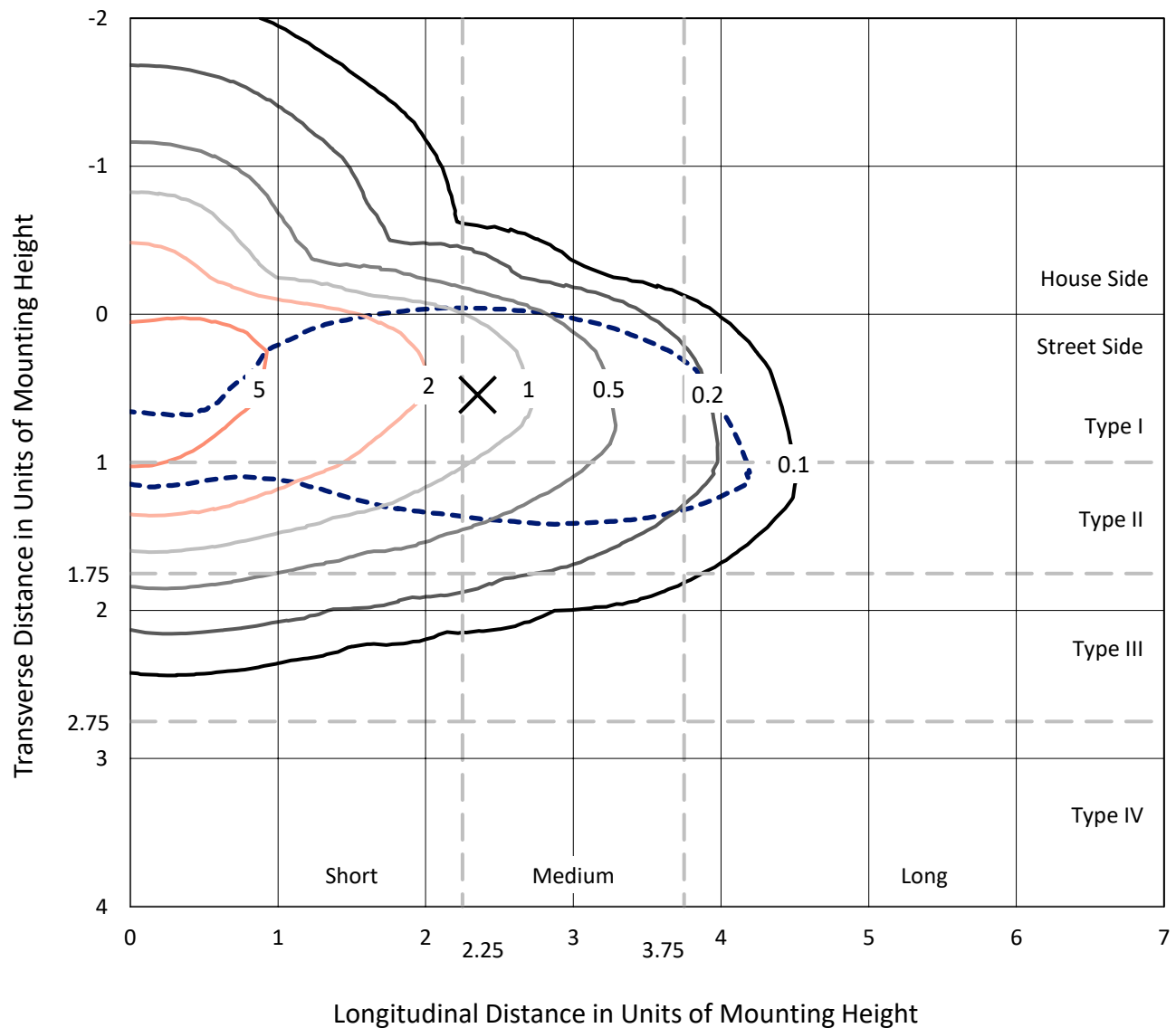


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Iso-Footcandle Lines of Horizontal Illumination

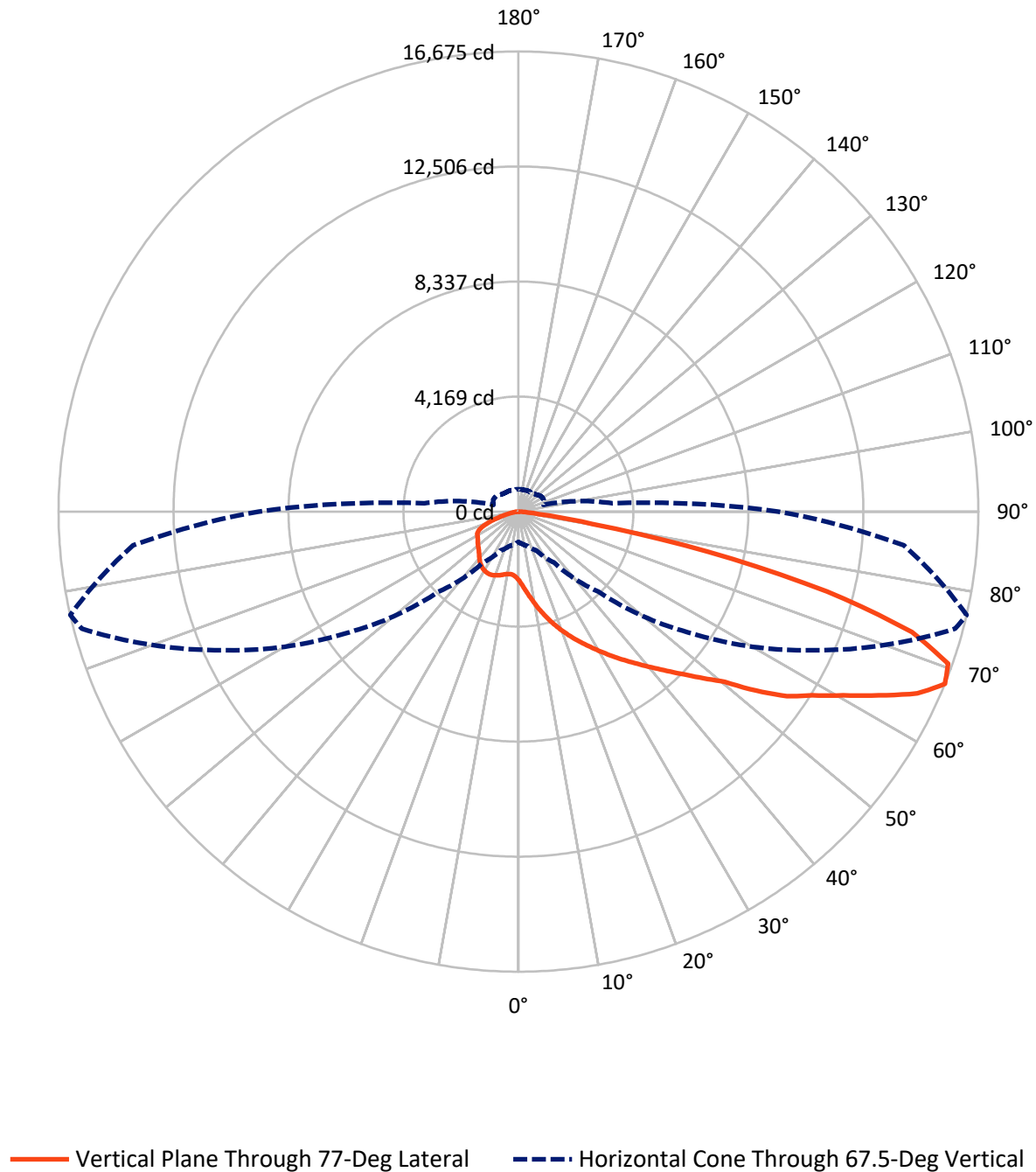
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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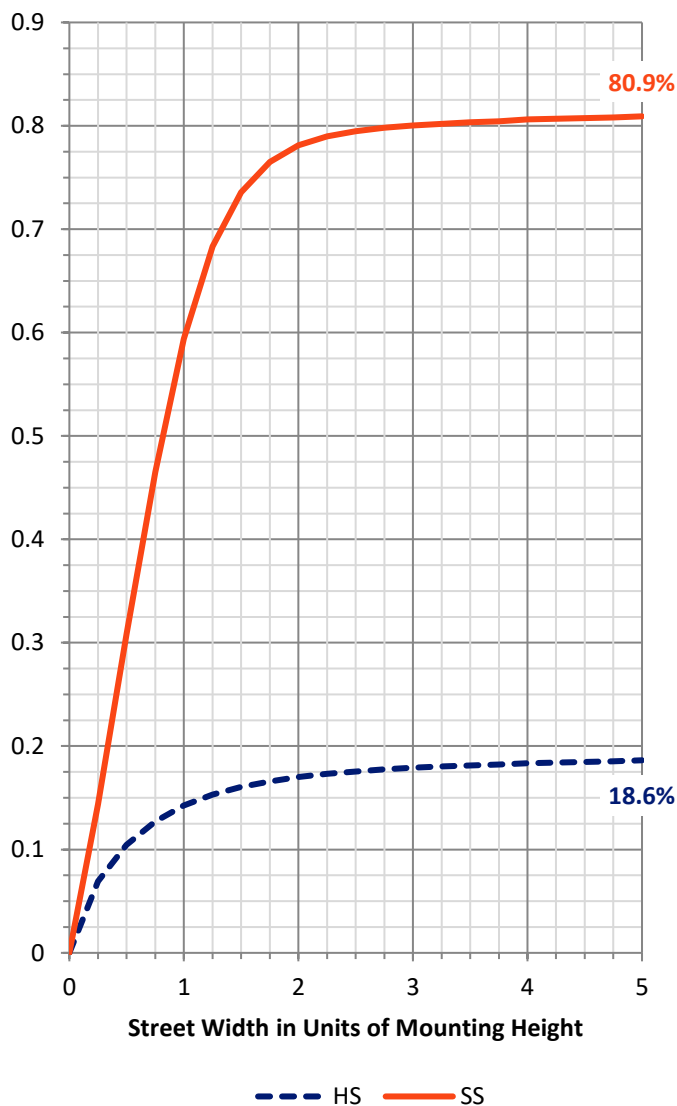
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4020.9	0.0	4020.9
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	17235.6	0.0	17235.6
	% Fixture	81.1	0.0	81.1
Total	Lumens	21256.5	0.0	21256.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.3	1.3
10°-20°	960.4	4.5
20°-30°	1813.3	8.5
30°-40°	2921.2	13.7
40°-50°	3995.7	18.8
50°-60°	4507.2	21.2
60°-70°	4206.9	19.8
70°-80°	2306.1	10.8
80°-90°	278.2	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°	21256.5	100.0
0°-180°	21256.5	100.0

Coefficient of Utilization



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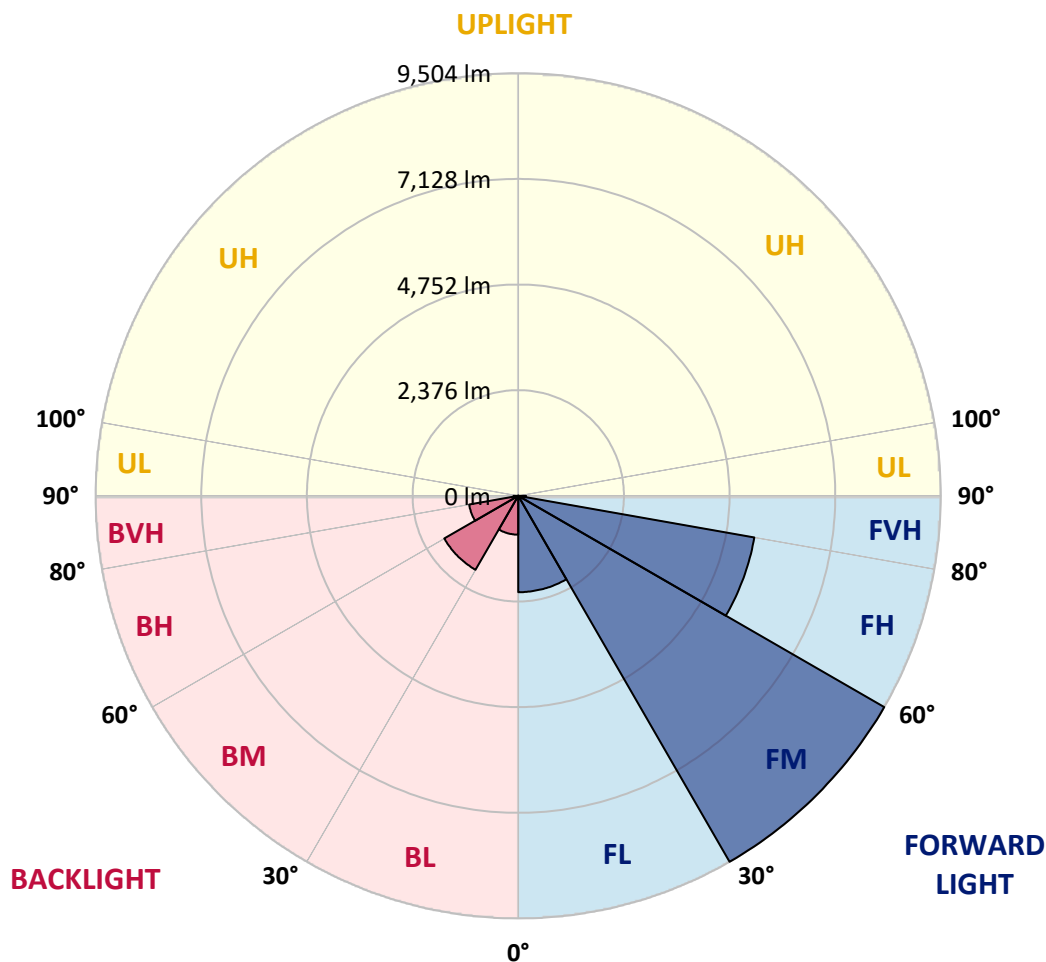
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2166.8	10.2			
FM	(30°-60°)	9503.5	44.7			
FH	(60°-80°)	5391.3	25.4			G3/7500
FVH	(80°-90°)	174.0	0.8			G2/225
BL	(0°-30°)	874.2	4.1	B2/1000		
BM	(30°-60°)	1920.7	9.0	B2/2500		
BH	(60°-80°)	1121.8	5.3	B3/2500		G3/2500
BVH	(80°-90°)	104.2	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°	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0
2.5°	3122.8	3144.7	3117.2	3117.2	3025.1	2976.8	2884.7	2814.4	2688.3	2666.3	2582.9
5°	3691.1	3718.6	3680.2	3663.7	3555.1	3455.3	3300.5	3148.0	2923.1	2900.0	2703.6
7.5°	4131.2	4166.2	4132.2	4114.7	4018.1	3906.2	3725.2	3512.3	3195.2	3150.2	2866.0
10°	4489.9	4495.4	4484.5	4491.0	4415.3	4323.1	4137.7	3889.8	3493.6	3432.2	3062.4
12.5°	4693.0	4718.2	4740.1	4779.6	4766.5	4709.4	4542.6	4246.4	3809.6	3730.6	3276.4
15°	4788.4	4832.3	4881.7	4972.7	5046.3	5060.5	4933.2	4629.3	4131.2	4035.6	3492.6
17.5°	4822.4	4864.1	4942.0	5073.6	5231.7	5338.1	5281.0	5001.3	4449.3	4339.6	3719.6
20°	4994.6	5006.7	5054.0	5179.0	5350.2	5526.8	5569.6	5358.9	4764.2	4640.3	3954.4
22.5°	5363.3	5339.2	5352.3	5409.4	5532.3	5703.5	5801.2	5674.9	5087.9	4945.3	4191.5
25°	5972.3	5902.1	5831.8	5766.0	5828.6	5925.1	6035.9	5990.9	5427.0	5246.0	4430.7
27.5°	6741.5	6655.9	6501.2	6285.0	6209.3	6243.4	6292.7	6284.0	5740.8	5557.5	4677.6
30°	7498.6	7398.8	7214.4	6901.6	6702.0	6612.0	6574.7	6549.4	6082.0	5886.8	4926.7
32.5°	8103.1	8024.2	7843.1	7493.1	7203.4	7049.8	6925.8	6835.8	6438.6	6243.4	5190.0
35°	8632.0	8558.5	8351.2	7969.3	7654.4	7490.9	7328.5	7136.5	6809.5	6612.0	5473.1
37.5°	9114.8	9041.3	8757.1	8359.9	8042.9	7929.8	7785.0	7459.1	7181.5	6994.9	5772.6
40°	9419.9	9403.5	9137.9	8688.0	8358.9	8302.9	8254.6	7833.3	7594.0	7420.7	6101.8
42.5°	9497.8	9533.9	9323.3	8953.6	8639.7	8594.7	8707.8	8256.8	8057.1	7891.4	6474.8
45°	9310.2	9414.4	9276.1	9024.8	8839.4	8815.3	9109.4	8719.8	8569.5	8418.1	6924.7
47.5°	8835.0	9011.7	8954.6	8919.6	8893.2	8997.4	9462.7	9211.4	9150.0	9018.3	7438.2
50°	7876.0	8210.7	8310.6	8532.2	8786.7	9139.0	9784.1	9748.0	9828.0	9695.3	8063.7
52.5°	6218.1	6678.9	7258.3	7813.5	8459.7	9091.8	10137.5	10518.2	10856.2	10783.7	9057.8
55°	5132.9	5340.2	5785.8	6804.1	7825.6	8893.2	10296.5	11140.3	11876.6	11811.9	9811.6
57.5°	4299.1	4484.5	4758.8	5609.1	6866.6	8442.2	10395.3	11520.0	12575.5	12569.0	10555.6
60°	3404.7	3601.1	3882.1	4484.5	5746.3	7663.2	10373.4	11952.3	13467.6	13522.5	11463.0
62.5°	2395.3	2611.5	2923.1	3484.9	4601.8	6653.7	9925.7	12265.0	14517.7	14666.9	12554.7
65°	1574.5	1717.2	1952.0	2436.9	3428.9	5355.6	9070.9	12305.6	15641.3	15893.6	13579.5
67.5°	1103.8	1158.7	1296.9	1560.3	2260.3	4107.0	7709.2	11885.4	16390.7	16674.9	14023.9
70°	861.3	888.8	959.0	1064.4	1419.8	2761.8	5907.6	10792.5	16230.5	16526.7	13559.7
72.5°	743.9	770.3	796.6	809.7	952.4	1705.1	4001.7	9023.8	14721.8	14922.6	11790.0
75°	674.8	681.4	703.4	698.9	726.4	1106.0	2309.7	6574.7	11615.5	11546.3	8703.4
77.5°	567.2	576.0	612.2	606.8	645.1	756.0	1199.2	4243.1	7530.4	7060.8	4844.4
80°	480.6	485.0	524.5	517.9	560.7	547.6	612.2	2162.6	3194.1	2705.8	1396.8
82.5°	166.8	206.3	400.5	412.6	427.9	331.4	353.3	882.2	975.5	747.2	292.9
85°	81.2	86.7	204.1	289.7	288.5	166.8	172.3	314.9	307.2	241.4	97.7
87.5°	13.1	16.5	24.2	113.1	90.0	43.9	59.2	61.4	63.7	54.8	21.9
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°	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0	2494.0
2.5°	2521.5	2466.6	2351.4	2245.0	2161.6	2081.5	2036.5	1998.1	1976.1	1971.8	1971.8
5°	2589.5	2476.5	2266.9	2090.3	1975.1	1889.5	1844.5	1816.0	1801.6	1792.9	1791.8
7.5°	2687.1	2521.5	2223.0	2022.2	1901.5	1840.1	1817.0	1812.6	1811.6	1812.6	1816.0
10°	2822.1	2595.0	2218.6	2005.7	1904.9	1870.8	1869.7	1870.8	1875.2	1876.3	1877.4
12.5°	2968.1	2670.7	2236.1	2020.1	1946.5	1927.8	1924.5	1923.5	1926.8	1928.9	1930.1
15°	3127.2	2770.6	2265.9	2050.7	1992.6	1972.8	1969.5	1963.0	1961.8	1960.8	1959.7
17.5°	3290.7	2869.3	2298.8	2083.7	2022.2	1994.8	1982.8	1967.4	1955.3	1952.0	1955.3
20°	3456.3	2967.0	2321.7	2100.1	2024.4	1986.0	1961.8	1935.5	1914.7	1902.6	1907.0
22.5°	3633.0	3069.0	2336.1	2095.7	2004.7	1952.0	1908.1	1877.4	1845.6	1824.7	1825.8
25°	3805.2	3157.9	2335.0	2072.7	1966.3	1899.3	1843.4	1803.9	1760.0	1738.0	1738.0
27.5°	3971.0	3238.0	2307.5	2032.1	1911.4	1836.8	1769.9	1722.7	1679.9	1659.1	1657.9
30°	4142.1	3304.9	2264.7	1972.8	1846.6	1764.3	1690.8	1650.2	1611.8	1592.1	1591.0
32.5°	4312.2	3366.3	2204.4	1899.3	1772.0	1693.1	1620.6	1583.3	1560.3	1560.3	1561.4
35°	4492.2	3409.2	2124.3	1813.7	1693.1	1617.3	1560.3	1538.3	1536.2	1522.9	1519.7
37.5°	4682.0	3436.6	2026.6	1726.0	1615.2	1543.9	1526.2	1500.0	1477.9	1449.5	1445.0
40°	4881.7	3464.0	1909.2	1634.9	1532.9	1493.3	1485.6	1450.6	1388.1	1317.8	1307.9
42.5°	5124.2	3482.6	1787.4	1543.9	1446.2	1433.1	1444.0	1383.6	1283.8	1231.1	1232.3
45°	5405.0	3513.4	1675.5	1453.9	1357.3	1357.3	1403.3	1324.4	1242.1	1209.2	1214.6
47.5°	5769.3	3584.7	1571.2	1355.0	1275.0	1296.9	1313.4	1253.1	1206.9	1166.3	1165.3
50°	6296.0	3755.9	1463.7	1255.2	1212.5	1256.3	1233.3	1198.2	1144.4	1111.5	1108.2
52.5°	6949.9	3856.9	1368.3	1165.3	1158.7	1202.6	1169.6	1136.7	1096.1	1052.3	1043.4
55°	7395.5	3875.5	1288.1	1099.4	1122.5	1118.1	1106.0	1076.4	1054.4	996.3	997.4
57.5°	7893.6	3912.7	1222.3	1060.0	1099.4	1051.1	1046.7	1021.5	993.0	953.6	940.3
60°	8489.4	3971.0	1165.3	1044.6	1079.7	1007.3	985.3	975.5	946.9	927.2	932.6
62.5°	9139.0	4023.6	1107.1	1046.7	1056.7	964.5	931.5	928.2	910.7	904.2	904.2
65°	9582.2	3879.8	1034.7	1044.6	1020.5	920.6	878.9	877.8	863.6	861.3	860.3
67.5°	9427.5	3424.5	937.1	1013.8	983.2	876.7	830.7	826.3	807.6	808.6	808.6
70°	8652.8	2775.0	802.1	938.2	937.1	837.2	780.1	765.9	740.7	745.1	749.4
72.5°	7200.1	2056.3	621.0	812.0	863.6	801.0	722.0	698.9	667.2	671.5	670.5
75°	5199.8	1397.9	452.0	617.8	751.6	758.2	664.9	625.5	587.0	593.6	595.8
77.5°	2660.8	792.2	332.5	425.7	590.3	689.1	613.4	560.7	552.0	613.4	604.5
80°	868.0	397.2	230.4	298.5	387.3	564.0	537.6	477.3	475.1	489.3	420.2
82.5°	258.9	167.9	148.1	196.4	213.9	432.3	464.1	361.0	310.5	327.0	337.9
85°	88.9	81.2	84.5	97.7	102.1	253.5	324.8	239.2	226.0	249.1	245.8
87.5°	20.8	28.5	24.2	21.9	21.9	61.4	126.2	99.8	138.3	92.1	88.9
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)