

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: P964166

Luminaire Tested: **NAV-SB3B-827-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964166
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-SB3B-827-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15338.1 lumens
Efficiency: N/A
Efficacy: 140.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 109.2
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

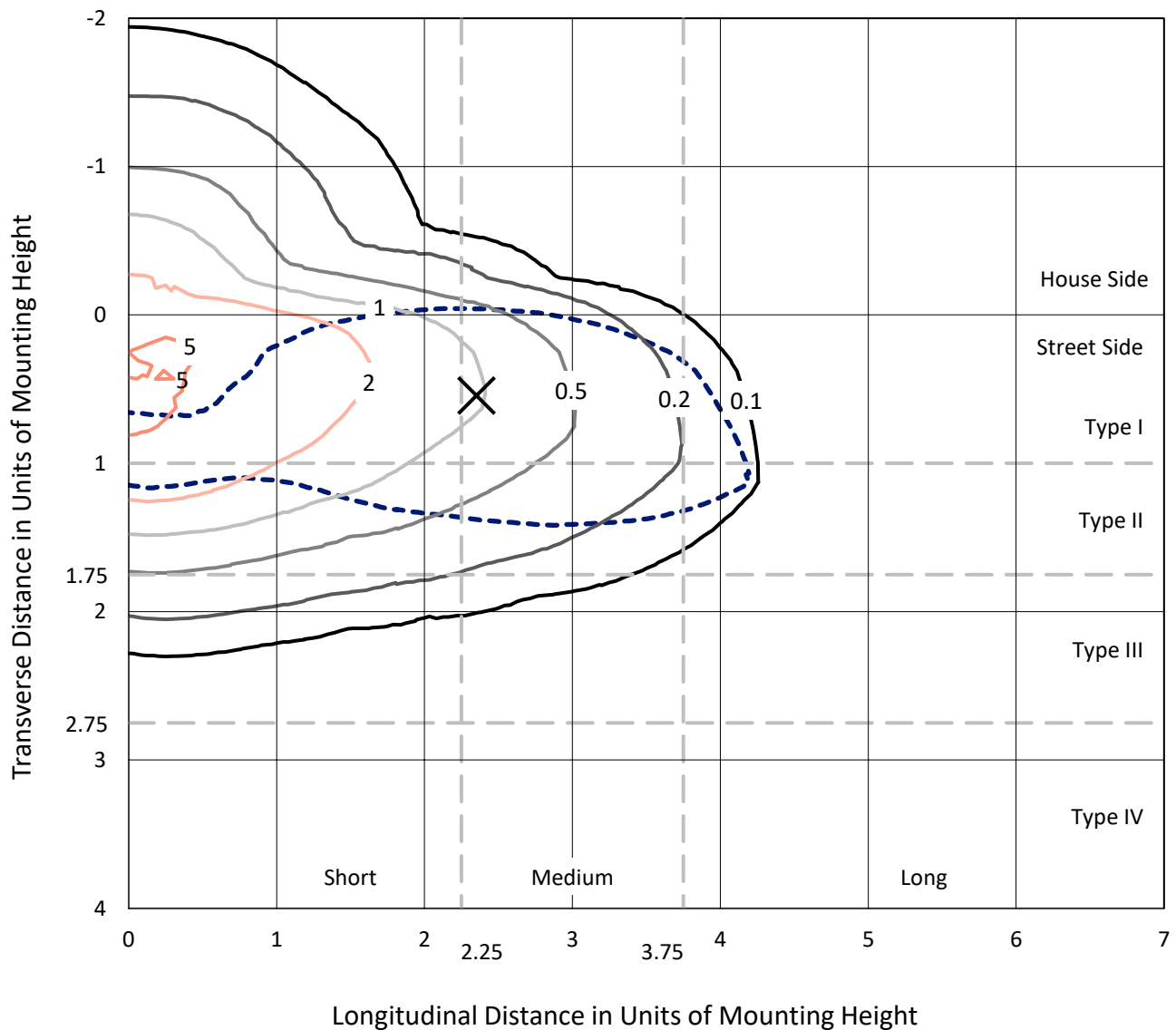


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Iso-Footcandle Lines of Horizontal Illumination

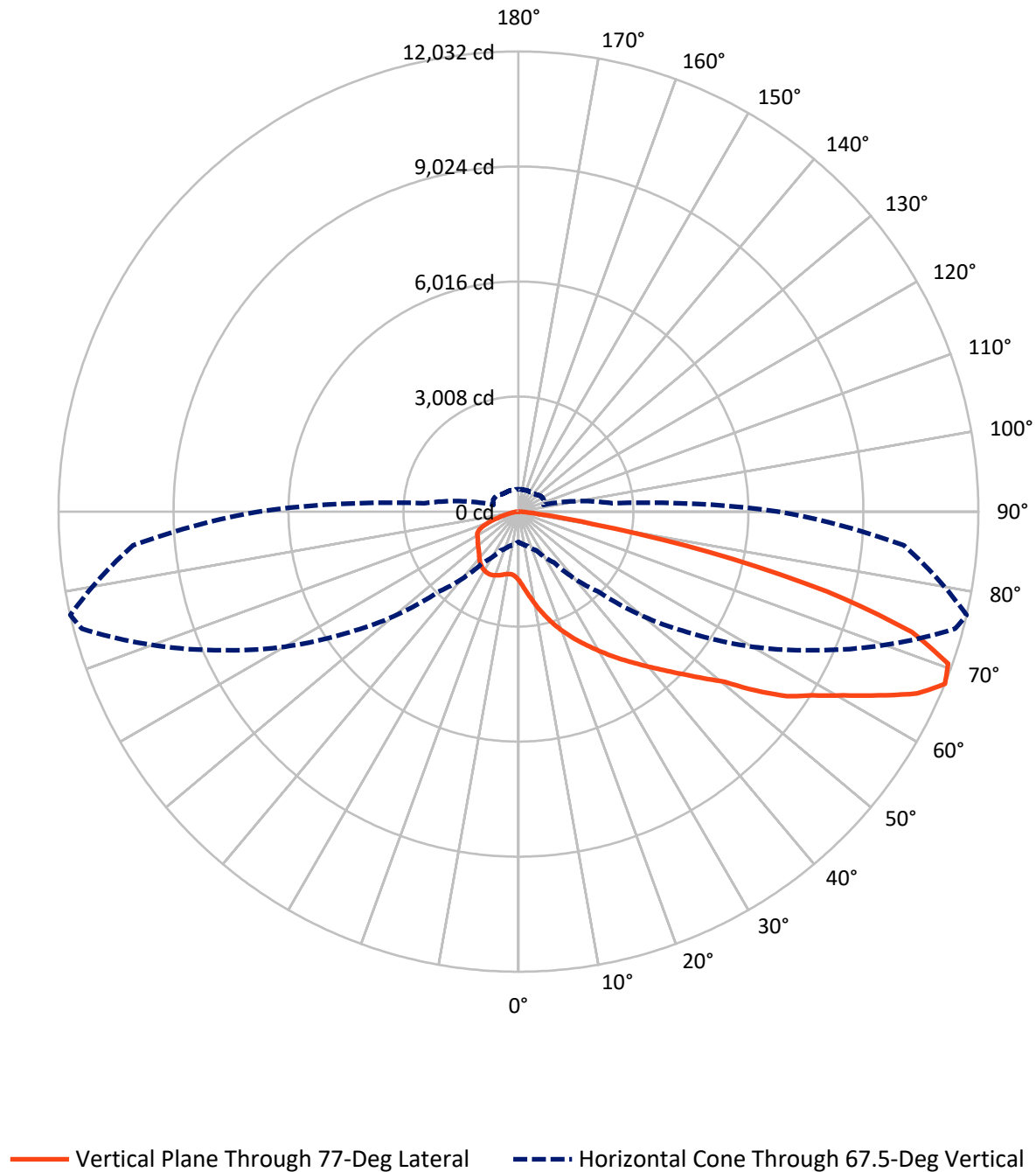
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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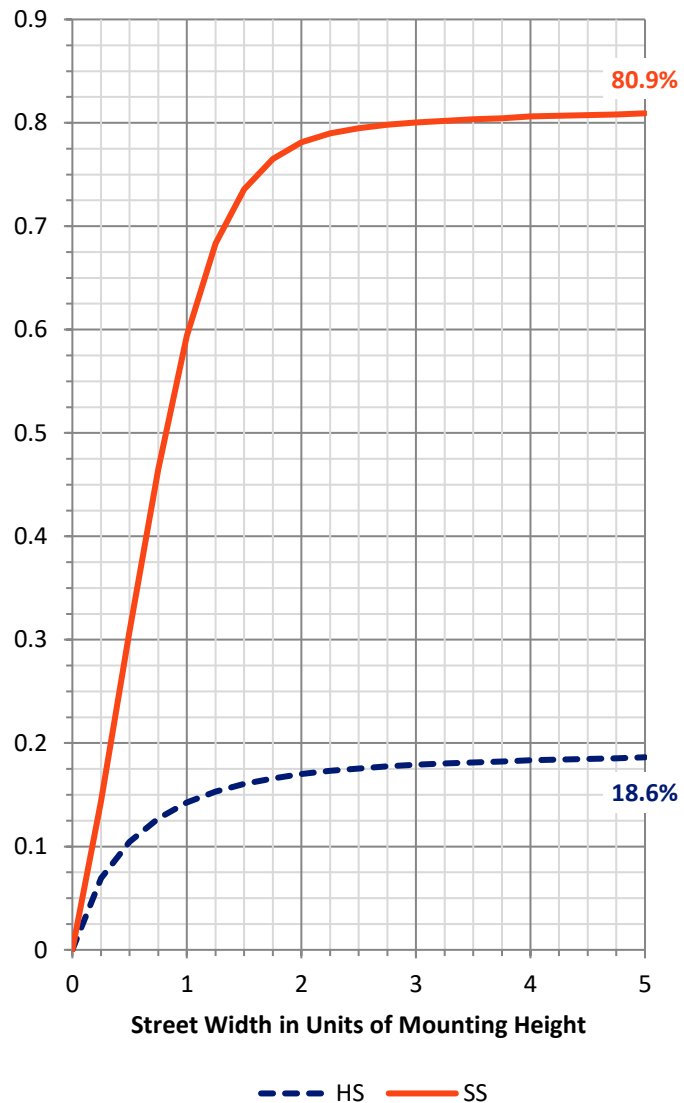
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2901.4	0.0	2901.4
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	12436.7	0.0	12436.7
	% Fixture	81.1	0.0	81.1
Total	Lumens	15338.1	0.0	15338.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.9	1.3
10°-20°	693.0	4.5
20°-30°	1308.4	8.5
30°-40°	2107.9	13.7
40°-50°	2883.2	18.8
50°-60°	3252.3	21.2
60°-70°	3035.6	19.8
70°-80°	1664.0	10.8
80°-90°	200.7	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°	15338.1	100.0
0°-180°	15338.1	100.0

Coefficient of Utilization



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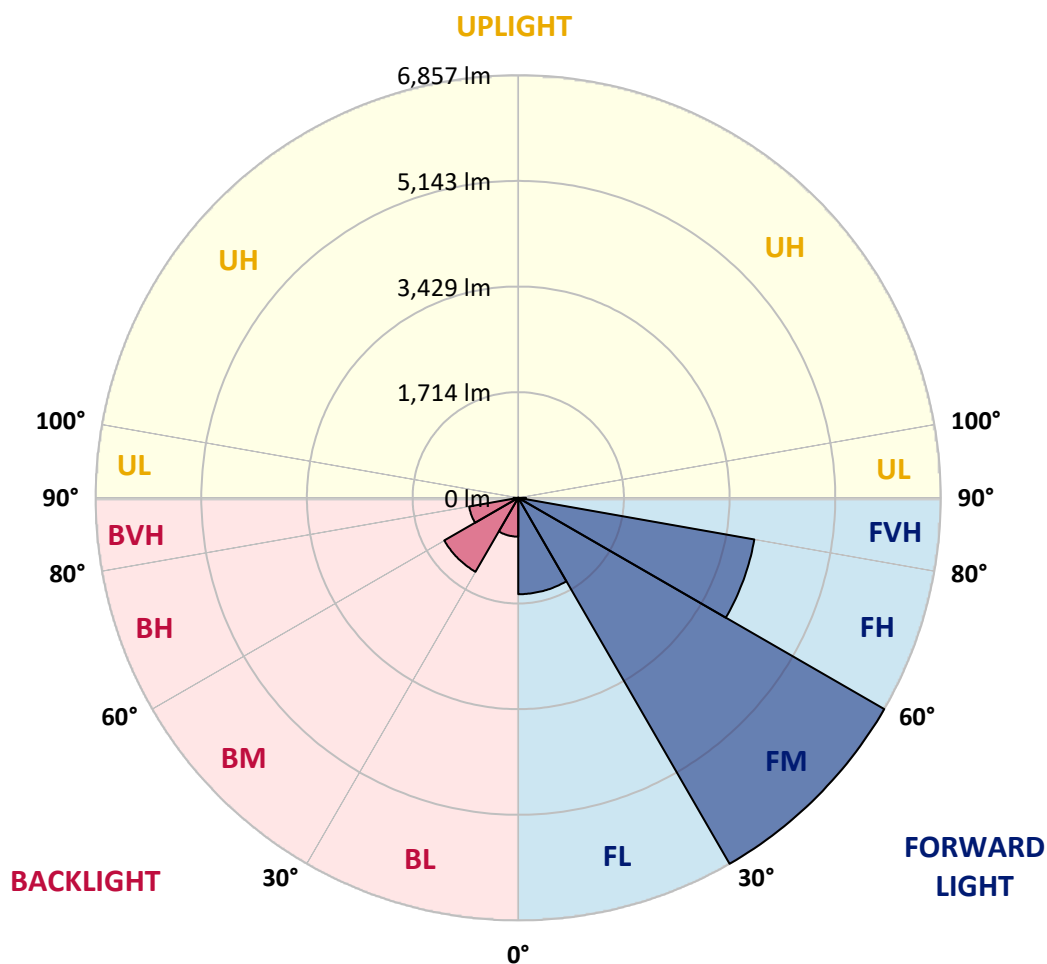
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1563.5	10.2			
FM	(30°-60°)	6857.5	44.7			
FH	(60°-80°)	3890.2	25.4			G2/5000
FVH	(80°-90°)	125.5	0.8			G2/225
BL	(0°-30°)	630.8	4.1	B2/1000		
BM	(30°-60°)	1385.9	9.0	B2/2500		
BH	(60°-80°)	809.4	5.3	B2/1000		G2/1000
BVH	(80°-90°)	75.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6
2.5°	2253.3	2269.1	2249.4	2249.4	2182.8	2148.0	2081.5	2030.8	1939.8	1923.9	1863.8
5°	2663.5	2683.2	2655.5	2643.7	2565.3	2493.2	2381.6	2271.5	2109.2	2092.5	1950.9
7.5°	2980.9	3006.2	2981.7	2969.0	2899.4	2818.6	2688.0	2534.4	2305.5	2273.1	2068.0
10°	3239.8	3243.8	3235.8	3240.6	3186.0	3119.5	2985.6	2806.8	2520.9	2476.6	2209.8
12.5°	3386.3	3404.5	3420.3	3448.8	3439.4	3398.2	3277.8	3064.0	2748.9	2692.0	2364.2
15°	3455.2	3486.8	3522.5	3588.2	3641.2	3651.6	3559.7	3340.4	2980.9	2912.0	2520.2
17.5°	3479.7	3509.8	3566.0	3661.0	3775.1	3851.8	3810.6	3608.8	3210.5	3131.4	2684.1
20°	3604.0	3612.7	3646.7	3737.0	3860.6	3988.0	4018.9	3866.9	3437.7	3348.3	2853.5
22.5°	3870.1	3852.7	3862.1	3903.3	3992.0	4115.5	4186.0	4094.9	3671.3	3568.4	3024.5
25°	4309.5	4258.8	4208.1	4160.6	4205.8	4275.4	4355.4	4322.9	3916.0	3785.3	3197.1
27.5°	4864.4	4802.7	4691.1	4535.1	4480.5	4505.0	4540.6	4534.3	4142.4	4010.2	3375.2
30°	5410.8	5338.7	5205.8	4980.1	4836.0	4771.1	4744.1	4726.0	4388.6	4247.7	3554.9
32.5°	5847.0	5790.0	5659.4	5406.9	5197.8	5087.0	4997.5	4932.6	4645.9	4505.0	3744.9
35°	6228.6	6175.6	6026.0	5750.5	5523.2	5405.2	5288.1	5149.5	4913.5	4771.1	3949.2
37.5°	6577.0	6524.0	6318.9	6032.3	5803.4	5722.0	5617.4	5382.3	5182.0	5047.4	4165.4
40°	6797.1	6785.3	6593.6	6269.0	6031.5	5991.1	5956.3	5652.3	5479.6	5354.6	4402.9
42.5°	6853.4	6879.5	6727.5	6460.7	6234.2	6201.8	6283.2	5957.9	5813.8	5694.2	4672.1
45°	6718.0	6793.2	6693.5	6512.1	6378.3	6360.8	6573.0	6292.0	6183.5	6074.3	4996.7
47.5°	6375.1	6502.6	6461.4	6436.1	6417.1	6492.3	6828.0	6646.7	6602.3	6507.3	5367.2
50°	5683.1	5924.6	5996.7	6156.6	6340.3	6594.4	7060.0	7033.9	7091.7	6995.8	5818.5
52.5°	4486.8	4819.3	5237.3	5638.0	6104.4	6560.4	7314.9	7589.7	7833.6	7781.3	6535.8
55°	3703.7	3853.4	4174.8	4909.6	5646.7	6417.1	7429.7	8038.6	8569.8	8523.2	7079.8
57.5°	3102.1	3235.8	3433.7	4047.4	4954.7	6091.7	7500.9	8312.5	9074.2	9069.4	7616.6
60°	2456.8	2598.5	2801.2	3235.8	4146.3	5529.6	7485.2	8624.5	9717.9	9757.5	8271.3
62.5°	1728.4	1884.4	2109.2	2514.5	3320.6	4801.1	7162.1	8850.2	10475.6	10583.2	9059.2
65°	1136.1	1239.1	1408.6	1758.5	2474.2	3864.5	6545.3	8879.4	11286.3	11468.4	9798.6
67.5°	796.5	836.1	935.8	1125.9	1631.0	2963.5	5562.8	8576.2	11827.1	12032.2	10119.3
70°	621.6	641.3	692.0	768.0	1024.5	1992.8	4262.8	7787.6	11711.4	11925.3	9784.3
72.5°	536.8	555.8	574.8	584.4	687.3	1230.4	2887.5	6511.3	10622.8	10767.7	8507.3
75°	486.9	491.7	507.5	504.3	524.2	798.1	1666.6	4744.1	8381.4	8331.5	6280.1
77.5°	409.3	415.6	441.8	437.9	465.6	545.5	865.4	3061.7	5433.7	5094.9	3495.6
80°	346.8	349.9	378.4	373.7	404.6	395.0	441.8	1560.6	2304.8	1952.4	1007.9
82.5°	120.3	148.8	288.9	297.7	308.7	239.1	254.9	636.5	703.9	539.2	211.4
85°	58.6	62.5	147.3	209.0	208.3	120.3	124.3	227.2	221.7	174.1	70.4
87.5°	9.5	11.9	17.4	81.6	64.9	31.7	42.7	44.4	45.9	39.6	15.8
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°	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6	1799.6
2.5°	1819.5	1779.8	1696.7	1619.9	1559.7	1501.9	1469.4	1441.8	1426.0	1422.8	1422.8
5°	1868.5	1787.0	1635.7	1508.3	1425.2	1363.4	1331.0	1310.4	1300.0	1293.8	1292.9
7.5°	1939.0	1819.5	1604.1	1459.2	1372.1	1327.8	1311.2	1308.0	1307.2	1308.0	1310.4
10°	2036.4	1872.5	1600.9	1447.3	1374.4	1349.9	1349.1	1349.9	1353.1	1353.9	1354.6
12.5°	2141.6	1927.1	1613.6	1457.7	1404.6	1391.1	1388.7	1388.0	1390.3	1391.8	1392.7
15°	2256.4	1999.2	1635.0	1479.8	1437.8	1423.5	1421.2	1416.4	1415.6	1414.8	1414.1
17.5°	2374.4	2070.4	1658.7	1503.6	1459.2	1439.4	1430.7	1419.6	1410.9	1408.6	1410.9
20°	2494.0	2140.9	1675.4	1515.4	1460.7	1433.1	1415.6	1396.7	1381.6	1372.9	1376.1
22.5°	2621.4	2214.5	1685.6	1512.2	1446.5	1408.6	1376.9	1354.6	1331.7	1316.7	1317.4
25°	2745.8	2278.7	1684.8	1495.6	1418.8	1370.5	1330.1	1301.6	1270.0	1254.1	1254.1
27.5°	2865.3	2336.5	1665.0	1466.3	1379.2	1325.4	1277.0	1243.0	1212.2	1197.1	1196.3
30°	2988.8	2384.8	1634.2	1423.5	1332.5	1273.2	1220.1	1190.7	1163.1	1148.8	1148.0
32.5°	3111.6	2429.0	1590.6	1370.5	1278.7	1221.7	1169.4	1142.5	1125.9	1125.9	1126.7
35°	3241.4	2460.0	1532.8	1308.7	1221.7	1167.1	1125.9	1110.1	1108.4	1098.9	1096.5
37.5°	3378.4	2479.8	1462.4	1245.4	1165.4	1114.0	1101.4	1082.3	1066.5	1045.9	1042.7
40°	3522.5	2499.6	1377.6	1179.7	1106.1	1077.6	1072.0	1046.7	1001.5	950.9	943.7
42.5°	3697.5	2513.0	1289.8	1114.0	1043.6	1034.0	1041.9	998.4	926.3	888.4	889.1
45°	3900.1	2535.1	1209.0	1049.1	979.4	979.4	1012.6	955.6	896.3	872.5	876.5
47.5°	4163.0	2586.6	1133.8	977.8	920.0	935.8	947.7	904.2	870.9	841.6	840.8
50°	4543.0	2710.1	1056.2	905.8	874.8	906.5	889.9	864.6	825.7	802.1	799.7
52.5°	5014.9	2783.0	987.3	840.8	836.1	867.8	844.0	820.2	791.0	759.3	753.0
55°	5336.4	2796.4	929.5	793.3	810.0	806.8	798.1	776.7	760.9	718.9	719.7
57.5°	5695.8	2823.4	882.0	764.9	793.3	758.5	755.3	737.1	716.6	688.0	678.6
60°	6125.7	2865.3	840.8	753.8	779.1	726.8	710.9	703.9	683.3	669.0	673.0
62.5°	6594.4	2903.3	798.9	755.3	762.5	696.0	672.2	669.8	657.1	652.4	652.4
65°	6914.3	2799.6	746.6	753.8	736.4	664.3	634.2	633.3	623.1	621.6	620.7
67.5°	6802.7	2471.1	676.2	731.5	709.4	632.6	599.3	596.1	582.7	583.5	583.5
70°	6243.7	2002.3	578.7	676.9	676.2	604.1	562.9	552.7	534.4	537.6	540.8
72.5°	5195.4	1483.7	448.1	585.9	623.1	578.0	521.0	504.3	481.3	484.5	483.8
75°	3752.1	1008.7	326.2	445.8	542.3	547.1	479.8	451.3	423.6	428.3	429.9
77.5°	1920.0	571.6	239.8	307.2	426.0	497.2	442.6	404.6	398.2	442.6	436.2
80°	626.3	286.6	166.3	215.4	279.5	406.9	388.0	344.4	342.9	353.1	303.2
82.5°	186.9	121.2	106.9	141.8	154.4	311.9	334.9	260.5	224.1	236.0	243.8
85°	64.2	58.6	61.0	70.4	73.6	182.9	234.3	172.6	163.1	179.7	177.3
87.5°	15.1	20.6	17.4	15.8	15.8	44.4	91.0	72.1	99.7	66.5	64.2
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)