

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: P966817

Luminaire Tested: **NAV-SB4C-830-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966817
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-830-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28114.7 lumens
Efficiency: N/A
Efficacy: 140.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 200.7
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



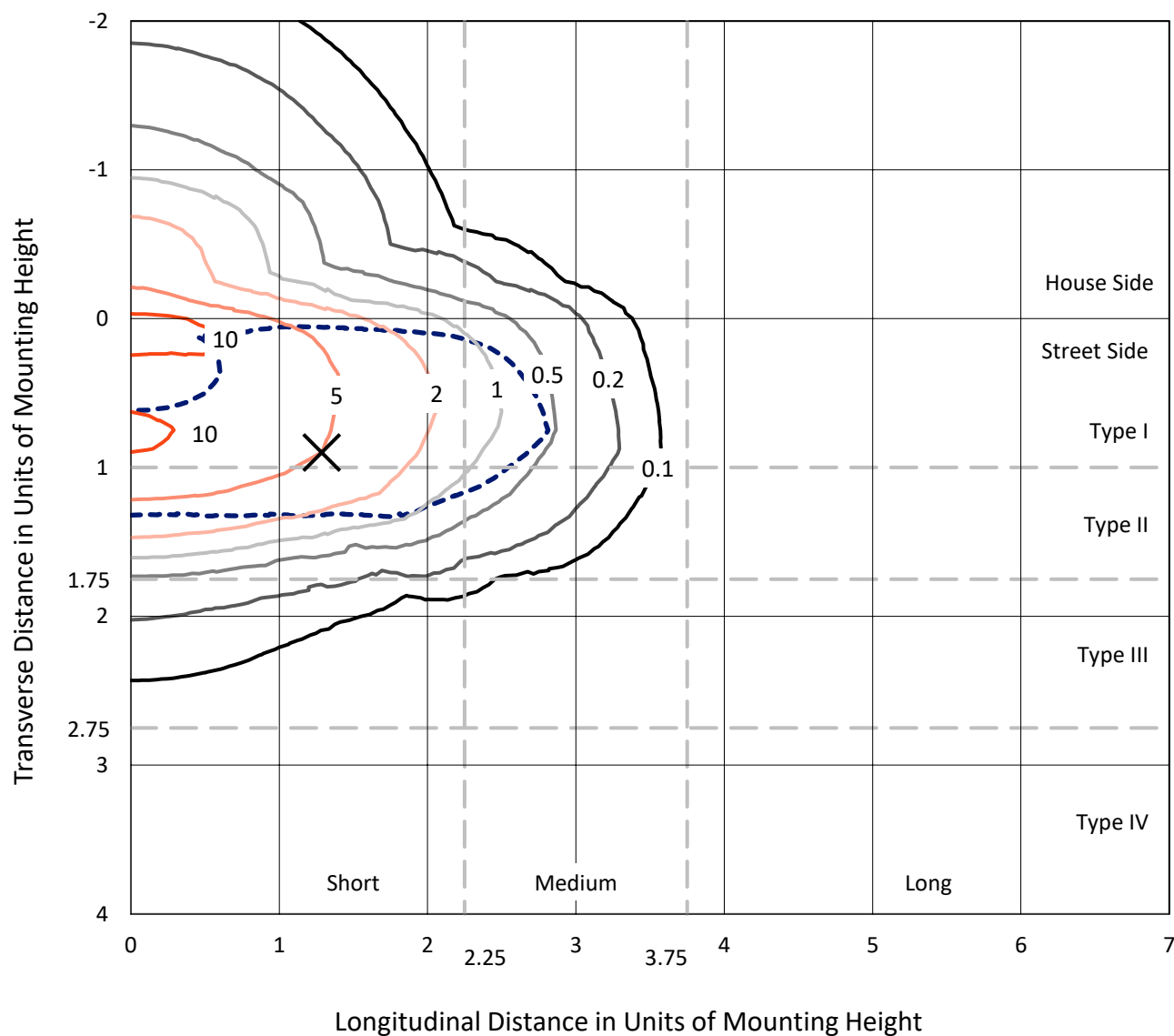
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

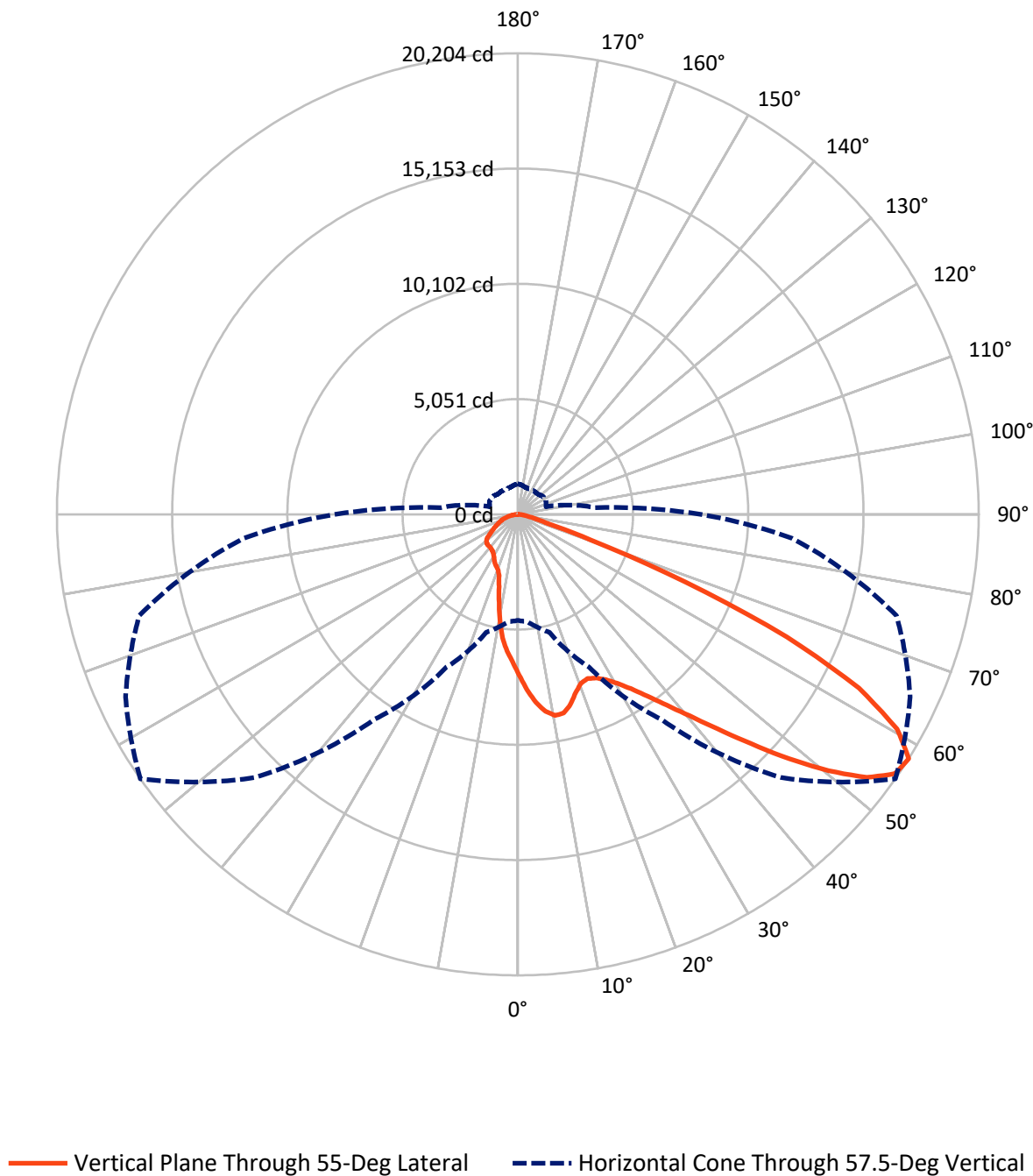


Based on 25 foot mounting height. Maximum calculated value = 13.6 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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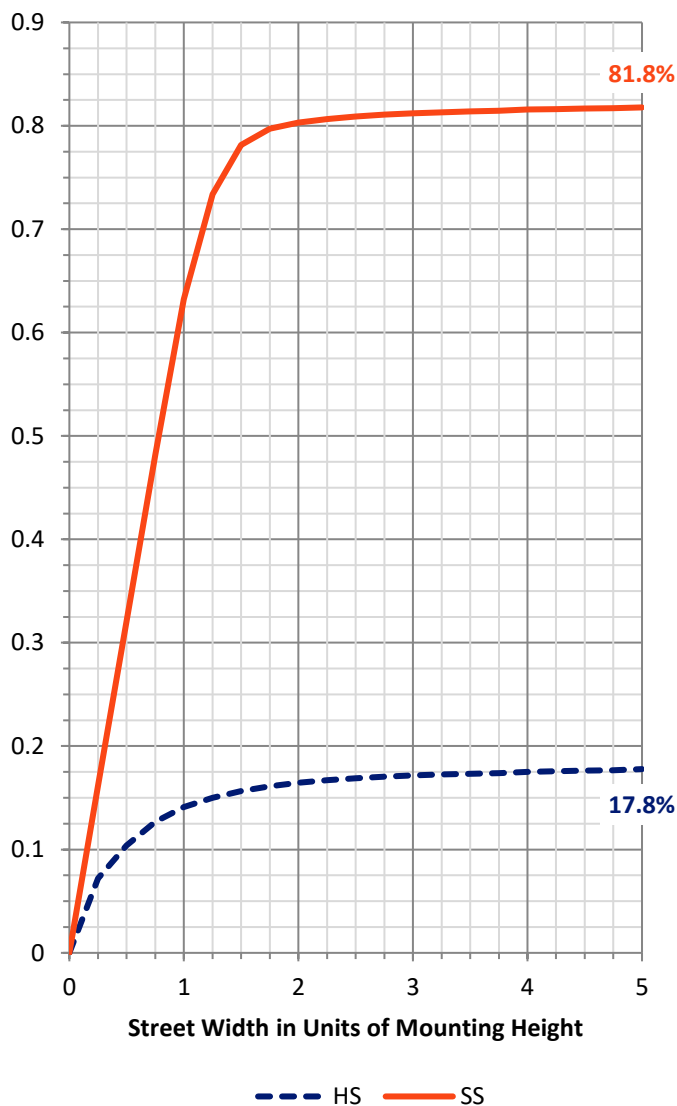
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5087.2	0.0	5087.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	23027.5	0.0	23027.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	28114.7	0.0	28114.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	653.7	2.3
10°-20°	1650.0	5.9
20°-30°	2632.9	9.4
30°-40°	4168.5	14.8
40°-50°	6380.3	22.7
50°-60°	6833.9	24.3
60°-70°	4299.2	15.3
70°-80°	1271.4	4.5
80°-90°	224.8	0.8
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°	28114.7	100.0
0°-180°	28114.7	100.0

Coefficient of Utilization



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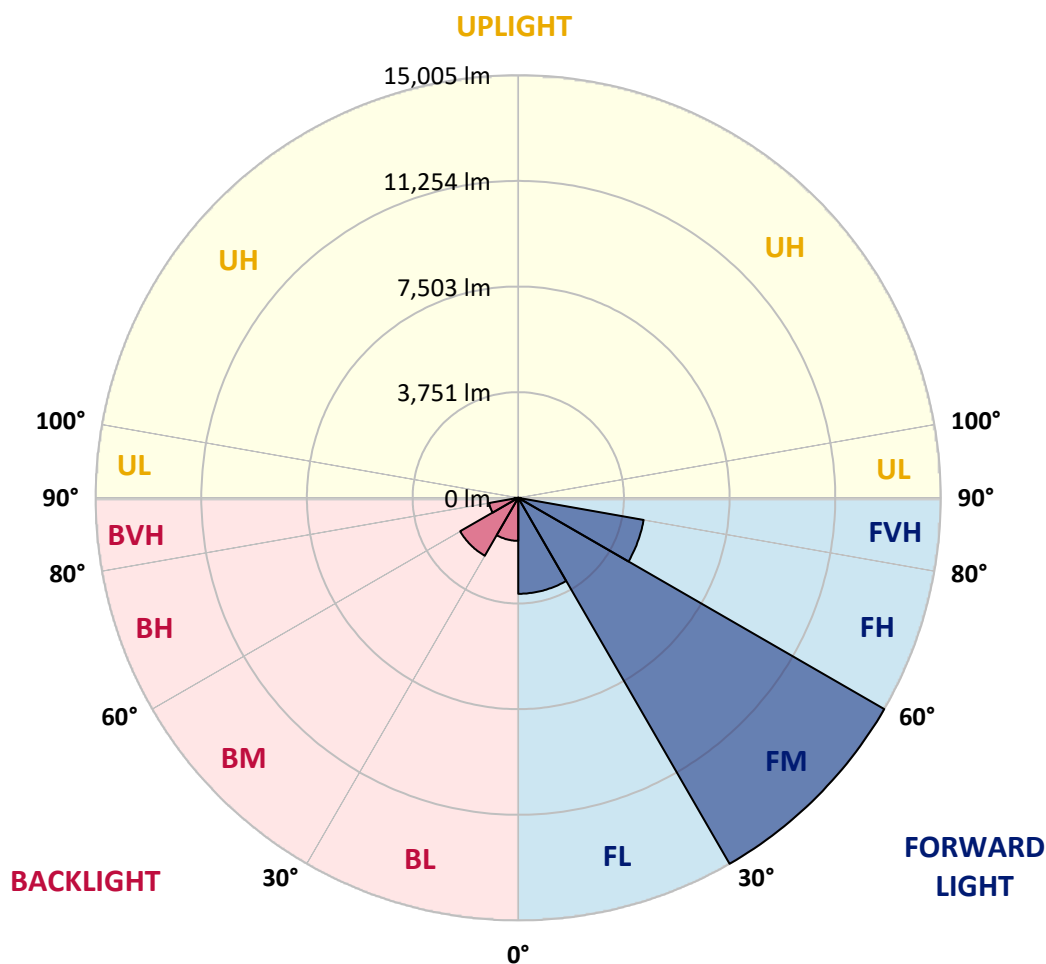
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3407.5	12.1			
FM	(30°-60°)	15005.0	53.4			
FH	(60°-80°)	4520.0	16.1			G2/5000
FVH	(80°-90°)	95.0	0.3			G1/100
BL	(0°-30°)	1529.0	5.4	B3/2500		
BM	(30°-60°)	2377.7	8.5	B2/2500		
BH	(60°-80°)	1050.6	3.7	B3/2500		G3/2500
BVH	(80°-90°)	129.8	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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6
2.5°	8082.3	8076.6	8108.6	7999.5	7925.4	7825.2	7692.8	7524.2	7342.6	7150.7	7067.9
5°	8810.5	8759.6	8793.1	8711.7	8630.3	8479.1	8282.9	8008.2	7672.5	7290.3	7086.7
7.5°	8695.7	8660.8	8746.5	8819.2	8880.3	8861.4	8717.5	8429.7	7996.6	7441.4	7146.4
10°	7769.9	7730.7	7851.3	8102.7	8471.8	8793.1	8967.5	8788.8	8328.0	7607.1	7204.5
12.5°	6953.1	6934.2	7014.1	7217.6	7627.4	8243.7	8935.5	9102.6	8672.4	7803.3	7283.0
15°	6604.3	6581.0	6631.9	6735.1	6996.6	7570.8	8644.8	9317.8	9011.1	8030.1	7408.0
17.5°	6527.2	6501.1	6522.9	6576.6	6745.2	7182.7	8205.9	9423.8	9364.3	8282.9	7512.6
20°	6669.7	6647.8	6650.8	6647.8	6765.6	7113.0	7900.7	9383.2	9672.4	8515.5	7614.4
22.5°	7014.1	6977.8	6979.2	6902.2	6966.1	7235.1	7820.7	9274.2	9947.1	8719.0	7691.4
25°	7575.2	7509.8	7522.8	7326.6	7309.2	7508.2	7945.7	9189.8	10220.3	8881.7	7705.9
27.5°	8342.5	8268.4	8229.1	7937.0	7797.5	7896.3	8200.1	9219.0	10479.0	9022.8	7669.6
30°	9301.8	9211.7	9131.7	8717.5	8464.7	8428.3	8595.4	9410.7	10784.2	9171.0	7607.1
32.5°	10477.6	10372.9	10227.6	9678.2	9322.1	9131.7	9107.0	9752.4	11141.7	9359.9	7575.2
35°	11877.2	11740.6	11534.2	10823.5	10372.9	9983.4	9781.4	10245.0	11631.6	9644.7	7611.4
37.5°	13319.0	13164.9	12976.0	12130.1	11576.3	11002.2	10604.0	10913.6	12284.1	10031.4	7707.4
40°	14648.8	14475.9	14300.0	13547.1	12952.7	12260.8	11611.2	11759.5	13082.1	10493.5	7870.2
42.5°	15433.6	15305.8	15238.9	14832.0	14372.7	13670.7	12864.1	12762.3	13978.8	11025.5	8056.2
45°	15398.8	15346.5	15552.8	15721.4	15612.4	15222.9	14332.0	13871.2	14878.5	11486.3	8227.7
47.5°	14576.1	14611.1	15071.8	16019.4	16436.5	16640.0	16003.4	14959.9	15660.4	11830.7	8304.8
50°	12337.9	12367.0	13433.8	15477.3	16648.7	17795.4	17661.8	16022.3	16266.4	12041.4	8287.3
52.5°	10566.2	10585.2	11042.9	13869.8	15948.2	18376.8	19155.8	17023.7	16709.8	12099.6	8190.0
55°	7958.8	8024.2	8537.3	10881.6	14125.6	17916.1	20065.7	18055.6	16990.3	12105.4	8088.2
57.5°	4649.4	4720.6	5354.3	7386.2	10979.0	16310.1	20203.8	18971.2	17180.6	12058.9	8027.2
60°	2277.4	2308.0	2584.1	3882.1	6769.9	13215.7	19093.3	19414.5	17286.7	12034.1	8024.2
62.5°	1534.8	1530.4	1542.0	1915.6	3335.6	8490.8	16779.6	18638.4	17230.0	11939.7	7995.2
65°	1319.7	1303.7	1260.1	1344.4	1728.0	3883.5	12964.3	16321.7	16798.4	11702.8	7796.0
67.5°	1140.9	1142.4	1143.8	1117.7	1233.9	1792.0	7922.5	12856.8	15249.1	10580.8	7028.6
70°	944.7	957.8	963.6	963.6	1005.7	1175.8	3382.1	8811.9	12028.4	8296.0	5661.0
72.5°	860.4	832.8	835.7	821.1	821.1	895.3	1361.8	4995.3	7578.0	4666.8	3454.8
75°	702.0	719.4	722.3	712.2	678.8	683.1	808.1	2095.8	3242.6	1935.9	1707.8
77.5°	606.1	606.1	611.9	604.6	578.4	511.6	539.3	812.4	1103.1	793.6	853.1
80°	486.9	485.4	510.1	524.7	484.0	377.9	344.5	449.1	489.8	348.8	443.3
82.5°	236.9	251.4	350.2	399.6	367.7	273.3	210.7	279.0	261.6	154.1	199.2
85°	138.1	130.8	156.9	222.3	210.7	151.2	101.8	145.3	136.6	78.5	79.9
87.5°	43.6	40.7	32.0	75.5	61.1	42.1	27.6	42.1	37.8	17.4	17.4
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6	7044.6
2.5°	6964.7	6793.2	6623.1	6467.6	6373.1	6312.2	6251.1	6182.8	6156.6	6117.4
5°	6895.0	6563.6	6268.5	6014.2	5783.0	5601.4	5418.3	5270.0	5203.2	5248.2
7.5°	6854.3	6374.6	5919.7	5453.2	5004.0	4645.1	4332.6	4113.1	4014.3	4039.0
10°	6817.9	6161.0	5467.7	4730.8	4085.5	3640.8	3321.0	3153.9	3091.4	3104.4
12.5°	6784.5	5921.1	4922.7	3953.2	3267.3	2973.6	2882.1	2883.5	2895.2	2903.9
15°	6778.6	5632.0	4313.7	3273.0	2825.4	2806.6	2905.4	2967.9	3001.3	3011.4
17.5°	6769.9	5286.0	3693.1	2809.4	2717.9	2845.8	2937.3	2978.0	3004.2	3005.6
20°	6735.1	4847.1	3120.4	2588.5	2694.6	2805.0	2861.7	2893.7	2915.5	2922.8
22.5°	6627.5	4358.7	2674.2	2489.7	2601.6	2690.2	2757.1	2793.4	2806.6	2815.3
25°	6434.2	3812.3	2366.1	2395.2	2472.2	2584.1	2637.9	2645.2	2640.8	2653.9
27.5°	6181.4	3226.6	2174.3	2267.3	2366.1	2462.0	2491.2	2486.8	2478.0	2492.6
30°	5876.1	2700.5	2052.2	2123.4	2258.6	2345.8	2372.0	2361.8	2344.4	2360.4
32.5°	5553.4	2270.2	1951.9	2023.1	2169.9	2255.7	2281.9	2271.7	2258.6	2271.7
35°	5252.6	1969.3	1858.9	1956.3	2100.1	2184.5	2217.9	2219.3	2219.3	2235.3
37.5°	4976.5	1793.5	1781.9	1914.1	2052.2	2127.8	2175.8	2178.6	2116.1	2120.5
40°	4720.6	1719.3	1747.0	1886.5	2005.7	2078.4	2081.3	1918.5	1803.7	1800.7
42.5°	4511.3	1704.9	1757.2	1883.6	1972.3	1975.2	1770.3	1643.8	1611.8	1613.2
45°	4315.1	1700.5	1780.4	1883.6	1922.9	1706.3	1568.2	1534.8	1537.7	1549.3
47.5°	4095.7	1683.0	1784.7	1857.4	1780.4	1517.3	1476.6	1462.2	1456.3	1459.2
50°	3855.8	1620.5	1729.6	1805.1	1536.3	1435.9	1385.1	1380.8	1388.0	1392.4
52.5°	3603.0	1518.8	1635.1	1710.6	1424.3	1364.8	1308.1	1318.3	1350.2	1360.4
55°	3437.3	1399.6	1510.1	1521.7	1345.8	1297.9	1249.9	1273.2	1332.8	1351.7
57.5°	3393.7	1273.2	1367.7	1354.5	1245.6	1239.7	1210.7	1231.0	1306.6	1334.2
60°	3380.7	1159.8	1228.2	1217.9	1148.2	1175.8	1168.5	1178.8	1204.9	1213.6
62.5°	3278.9	1069.7	1103.1	1088.6	1061.0	1108.9	1126.4	1104.5	1124.9	1135.1
65°	3020.2	997.0	981.0	970.9	982.5	1026.1	1061.0	1017.4	1036.3	1065.4
67.5°	2592.8	898.2	854.6	866.2	902.5	925.8	970.9	921.5	937.5	986.9
70°	2097.3	773.3	734.0	767.4	802.3	850.2	857.5	824.1	861.8	917.1
72.5°	1483.9	646.8	619.1	687.5	699.0	761.6	745.6	729.6	782.0	800.8
75°	1029.0	521.7	505.7	558.1	600.2	654.1	642.4	661.3	771.7	780.4
77.5°	651.1	405.5	395.3	428.8	486.9	546.5	565.4	780.4	1318.3	1370.5
80°	377.9	302.3	290.7	316.8	367.7	422.9	545.0	957.8	869.1	859.0
82.5°	210.7	207.9	193.3	200.6	245.6	305.2	770.3	674.3	548.0	565.4
85°	98.8	122.1	104.7	100.2	138.1	357.5	514.6	385.2	255.8	250.0
87.5°	26.1	23.3	23.3	26.1	58.1	308.1	204.9	164.2	97.4	94.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)