

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: P966339

Luminaire Tested: **NAV-SB4B-835-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966339
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-835-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21259.5 lumens
Efficiency: N/A
Efficacy: 144.6 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): 147
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



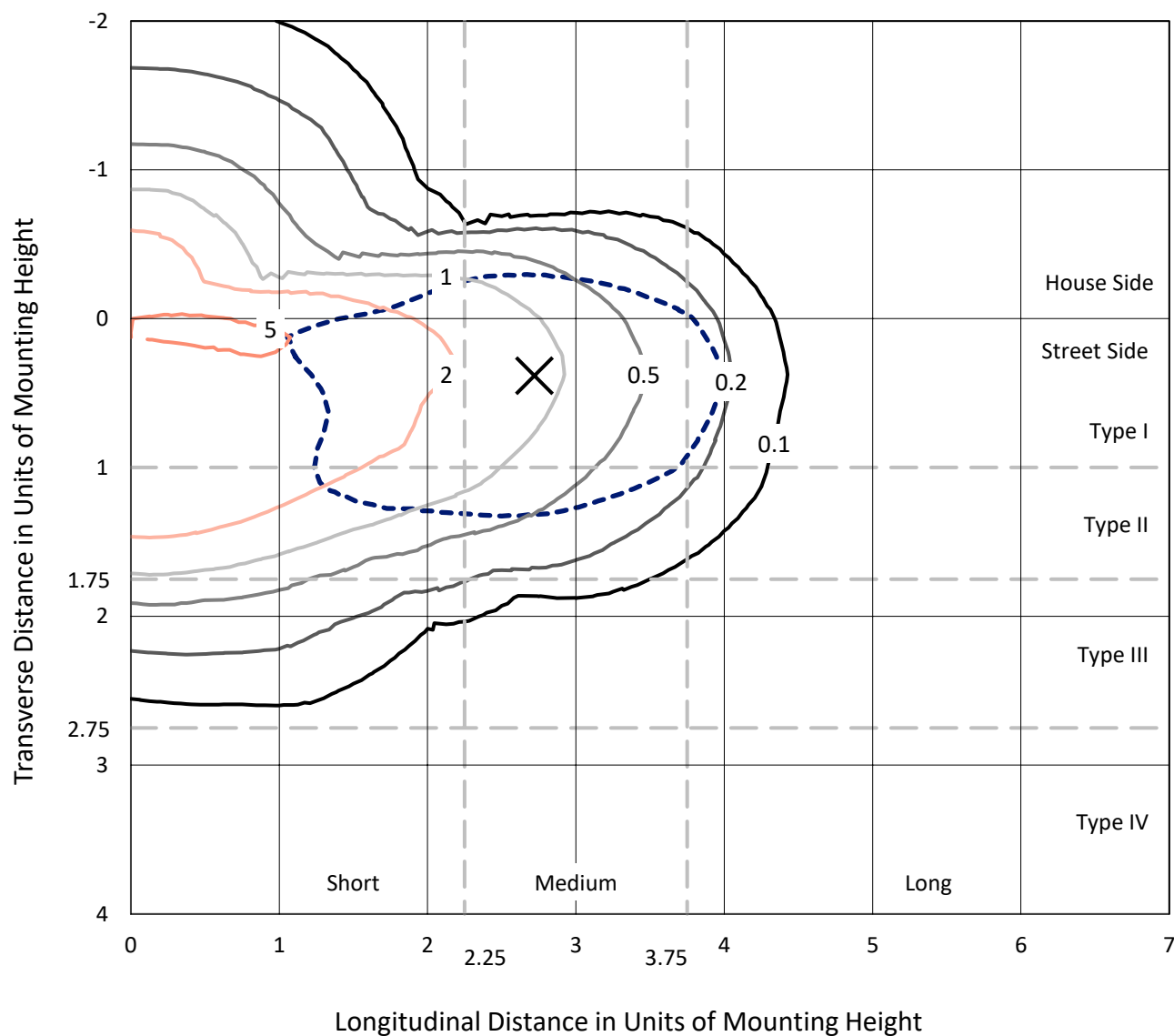
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

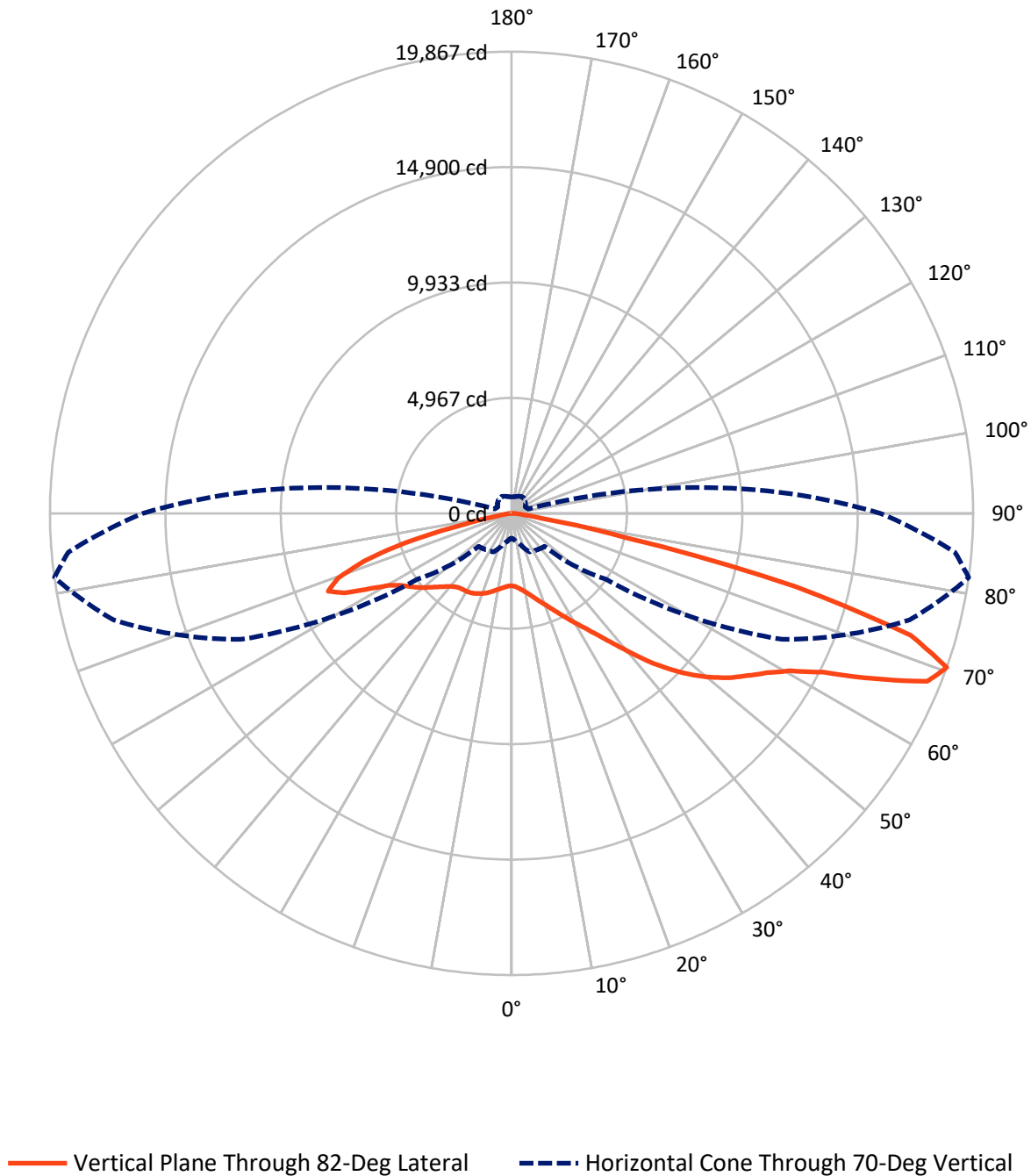
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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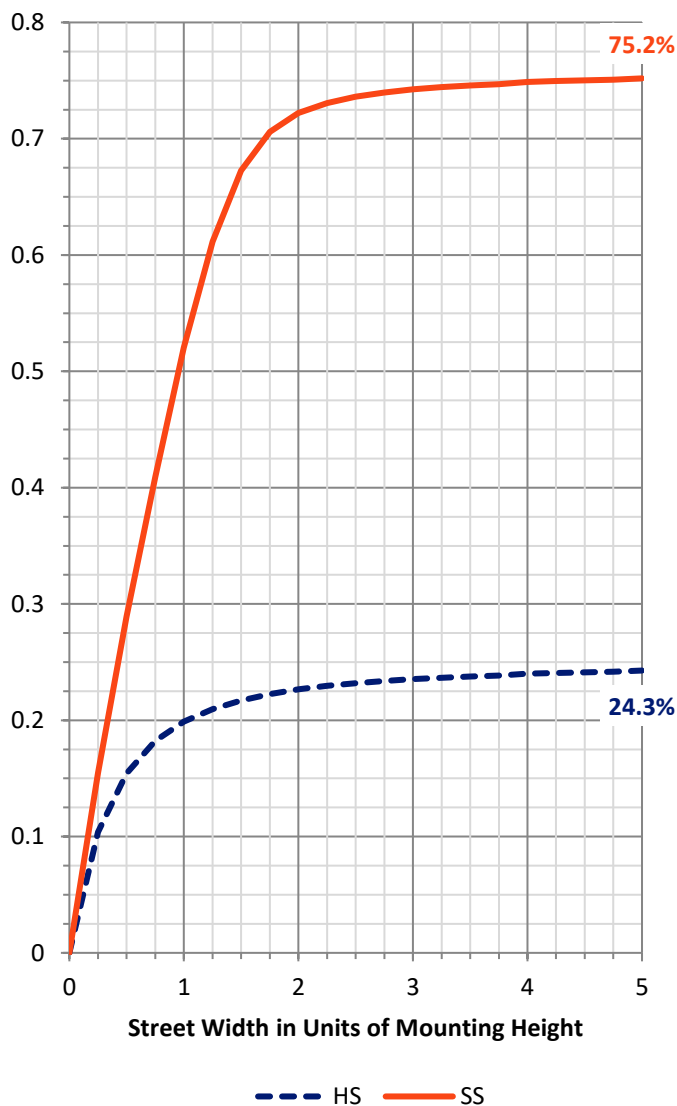
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5241.0	0.0	5241.0
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	16018.5	0.0	16018.5
	% Fixture	75.3	0.0	75.3
Total	Lumens	21259.5	0.0	21259.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.3	1.4
10°-20°	845.5	4.0
20°-30°	1414.5	6.7
30°-40°	2209.8	10.4
40°-50°	3519.3	16.6
50°-60°	4897.5	23.0
60°-70°	5123.0	24.1
70°-80°	2677.6	12.6
80°-90°	278.0	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°	21259.5	100.0
0°-180°	21259.5	100.0

Coefficient of Utilization



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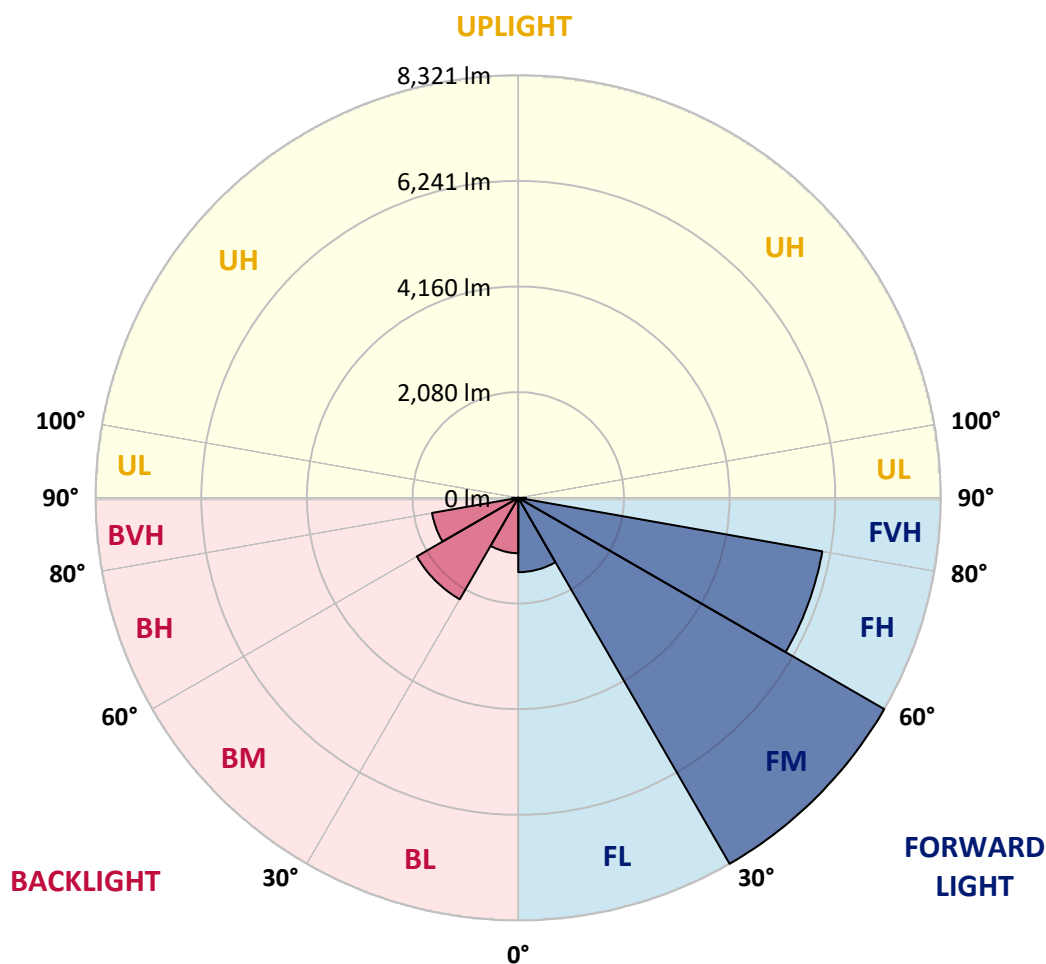
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1464.0	6.9			
FM	(30°-60°)	8320.8	39.1			
FH	(60°-80°)	6078.2	28.6			G3/7500
FVH	(80°-90°)	155.6	0.7			G2/225
BL	(0°-30°)	1090.3	5.1	B3/2500		
BM	(30°-60°)	2305.8	10.8	B2/2500		
BH	(60°-80°)	1722.5	8.1	B3/2500		G3/2500
BVH	(80°-90°)	122.4	0.6			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°	82°	85°
0°	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9
2.5°	3191.3	3209.4	3203.7	3198.1	3198.1	3190.2	3189.1	3177.8	3168.8	3154.1	3150.7
5°	3231.9	3251.2	3248.9	3253.5	3268.1	3271.5	3274.9	3268.1	3250.1	3231.9	3224.0
7.5°	3195.8	3217.3	3224.0	3251.2	3296.3	3336.9	3367.3	3379.7	3362.8	3336.9	3324.5
10°	3074.1	3097.8	3121.4	3185.7	3265.9	3361.7	3443.0	3491.5	3488.1	3463.3	3441.8
12.5°	2827.0	2851.9	2902.6	3027.7	3174.4	3343.7	3494.8	3596.3	3631.4	3613.2	3576.0
15°	2629.5	2651.1	2689.4	2817.9	3008.6	3265.9	3514.0	3711.4	3800.5	3790.3	3745.2
17.5°	2623.9	2632.9	2656.7	2717.6	2864.3	3144.0	3493.7	3824.3	3994.5	3993.4	3937.0
20°	2723.2	2726.6	2740.1	2752.5	2836.0	3051.5	3441.8	3917.9	4212.2	4212.2	4151.4
22.5°	2860.9	2858.6	2872.2	2860.9	2901.5	3043.6	3409.0	4000.2	4454.9	4472.9	4396.1
25°	3067.3	3056.0	3052.7	3026.6	3034.5	3116.9	3445.2	4093.8	4742.5	4779.7	4683.8
27.5°	3342.5	3324.5	3312.1	3252.3	3231.9	3268.1	3555.7	4206.6	5062.9	5127.2	5005.4
30°	3701.3	3668.6	3650.5	3546.7	3473.4	3479.1	3722.7	4356.7	5398.0	5501.7	5347.1
32.5°	4190.8	4140.1	4091.6	3921.2	3787.0	3743.0	3938.2	4564.2	5761.1	5927.0	5728.4
35°	4739.1	4698.5	4646.6	4383.7	4177.3	4075.8	4229.3	4854.2	6186.5	6449.3	6191.0
37.5°	5267.1	5232.1	5256.9	4902.7	4636.5	4488.7	4610.6	5243.4	6711.0	7099.0	6770.8
40°	5813.1	5786.0	5789.4	5451.0	5140.7	4974.8	5073.0	5731.8	7312.2	7871.8	7467.9
42.5°	6406.5	6386.2	6318.4	6018.4	5669.8	5515.2	5605.5	6295.9	7957.6	8751.8	8232.8
45°	7070.9	7058.5	6995.3	6651.2	6251.9	6078.1	6200.0	6918.5	8606.2	9579.8	9001.0
47.5°	7645.1	7655.2	7647.3	7357.4	6943.4	6688.4	6834.0	7568.4	9209.7	10358.1	9737.7
50°	7921.4	7974.5	8052.3	7962.1	7704.8	7445.4	7473.6	8195.6	9785.1	11088.0	10443.8
52.5°	7777.1	7877.4	8089.5	8233.9	8333.2	8279.0	8203.5	8818.3	10326.6	11746.8	11111.7
55°	7239.0	7380.0	7731.9	8080.5	8587.0	8980.7	9080.0	9508.7	10854.4	12326.6	11743.4
57.5°	6258.6	6487.6	6803.5	7508.5	8361.4	9320.3	10102.1	10466.4	11414.0	12946.0	12404.4
60°	4577.8	4884.6	5277.2	6326.3	7571.8	9138.7	10971.8	11937.5	12209.3	13748.0	13265.2
62.5°	2929.7	3119.2	3480.2	4468.4	5899.9	8208.0	11238.0	13776.2	13557.4	15063.4	14555.7
65°	2005.7	2127.6	2458.2	3013.1	3814.0	6109.7	10525.1	15154.7	15698.5	17148.0	16762.3
67.5°	1457.4	1550.0	1832.0	2318.2	2485.2	3615.5	8167.4	15091.6	17779.9	19295.9	18695.8
70°	1062.6	1128.1	1365.0	1832.0	1912.1	2011.4	4947.8	12828.6	17734.7	19866.8	19148.2
72.5°	787.4	832.5	991.6	1421.4	1547.7	1358.2	2449.0	9323.7	15239.4	17969.4	17392.9
75°	569.7	603.5	720.9	1087.5	1238.6	1034.4	1221.7	5448.7	10630.0	12640.2	12741.8
77.5°	435.4	461.4	538.1	796.4	991.6	776.1	758.1	2506.6	5040.3	5065.1	5349.4
80°	349.7	366.6	408.4	560.7	760.3	581.0	494.2	1011.9	1592.8	1348.1	1414.6
82.5°	257.2	285.4	345.2	393.7	543.8	400.5	301.2	511.1	605.8	521.2	525.7
85°	146.7	165.8	208.7	282.0	347.5	244.8	172.6	226.7	282.0	231.2	206.4
87.5°	51.9	67.6	73.3	110.6	151.2	101.6	66.5	65.4	92.5	68.8	57.5
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°	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9	3116.9
2.5°	3139.5	3133.8	3111.3	3080.8	3049.3	3018.7	3008.6	2987.2	2972.5	2964.6	2973.6
5°	3202.6	3184.6	3131.6	3063.9	2992.8	2916.1	2862.0	2812.3	2776.2	2742.4	2755.9
7.5°	3292.9	3261.3	3169.9	3051.5	2925.1	2797.6	2702.9	2630.7	2582.2	2550.6	2557.4
10°	3397.8	3349.3	3209.4	3032.3	2837.1	2654.4	2542.7	2480.7	2450.2	2433.2	2437.8
12.5°	3518.5	3449.7	3250.1	2988.3	2702.9	2494.2	2417.5	2399.4	2400.5	2401.7	2403.9
15°	3667.4	3571.5	3282.8	2892.4	2528.1	2371.2	2357.7	2387.0	2417.5	2432.1	2431.0
17.5°	3835.6	3700.1	3288.4	2734.5	2356.6	2292.3	2335.2	2398.3	2444.5	2464.9	2469.4
20°	4016.0	3831.0	3247.8	2511.1	2215.5	2227.9	2304.7	2385.9	2436.6	2462.7	2469.4
22.5°	4222.5	3970.8	3150.7	2276.5	2100.5	2158.0	2248.2	2327.3	2380.3	2406.2	2413.0
25°	4458.2	4127.7	2998.4	2079.1	2001.2	2079.1	2169.3	2234.7	2277.7	2301.3	2308.1
27.5°	4719.9	4291.3	2795.4	1922.3	1914.4	1997.8	2072.3	2123.1	2145.6	2163.7	2170.4
30°	4982.7	4440.2	2549.5	1803.8	1838.7	1917.8	1970.8	1993.3	2000.1	2003.5	2011.4
32.5°	5267.1	4568.7	2291.2	1705.7	1766.6	1839.9	1871.5	1881.7	1850.0	1828.6	1835.4
35°	5611.2	4706.4	2038.4	1627.8	1695.6	1758.7	1768.8	1759.8	1722.6	1678.6	1680.9
37.5°	6036.4	4877.9	1836.5	1572.6	1628.9	1670.7	1658.2	1656.0	1659.4	1607.5	1610.9
40°	6557.5	5101.2	1688.8	1529.7	1574.8	1583.8	1548.9	1568.0	1585.0	1506.0	1508.3
42.5°	7136.3	5370.8	1595.1	1500.4	1529.7	1508.3	1454.1	1475.6	1473.3	1369.5	1368.4
45°	7726.2	5664.2	1562.4	1479.0	1488.0	1445.0	1385.3	1390.9	1343.6	1249.9	1253.3
47.5°	8312.9	5978.8	1582.7	1460.8	1436.0	1387.5	1341.3	1316.5	1246.5	1176.6	1176.6
50°	8888.2	6309.4	1657.1	1424.7	1365.0	1336.8	1303.0	1258.9	1184.5	1124.7	1120.2
52.5°	9421.8	6642.2	1740.7	1365.0	1275.9	1292.8	1271.3	1220.6	1147.3	1086.4	1087.5
55°	9927.2	6975.0	1773.4	1282.7	1192.4	1254.4	1242.0	1148.4	1060.4	1010.8	1006.2
57.5°	10477.7	7375.5	1737.3	1177.7	1124.7	1210.4	1163.1	1059.2	1008.5	971.3	967.9
60°	11240.3	8003.8	1659.4	1048.0	1060.4	1145.0	1063.7	1020.9	965.7	923.9	921.7
62.5°	12507.2	9175.9	1534.2	919.4	984.8	1048.0	1016.4	973.5	917.2	876.5	876.5
65°	14379.7	10804.8	1298.5	819.0	900.3	953.2	965.7	922.8	864.1	821.2	823.5
67.5°	15959.0	11826.9	982.6	735.5	813.3	876.5	911.5	869.7	807.7	766.0	767.1
70°	15872.2	11084.7	750.2	653.1	736.7	800.9	846.0	813.3	746.8	707.4	710.7
72.5°	14097.7	9272.9	606.9	569.7	658.8	722.0	776.1	751.3	683.6	645.2	645.2
75°	10357.0	6582.4	485.0	485.0	561.8	639.6	699.5	683.6	621.6	594.5	586.6
77.5°	4365.7	2761.6	380.2	402.7	467.0	549.4	623.8	629.5	575.3	609.2	552.8
80°	1160.8	761.5	289.9	317.0	366.6	453.5	542.6	540.4	481.6	450.1	418.5
82.5°	442.2	300.1	206.4	223.3	265.1	347.5	429.8	443.3	384.7	332.8	332.8
85°	170.4	128.6	127.5	134.3	154.6	230.1	324.9	336.2	289.9	245.9	253.8
87.5°	44.0	38.3	47.4	45.1	71.0	123.0	186.1	192.9	177.1	102.7	146.7
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)