

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: P966241

Luminaire Tested: **NAV-SB4B-760-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966241
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-760-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17870.9 lumens
Efficiency: N/A
Efficacy: 121.6 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): 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

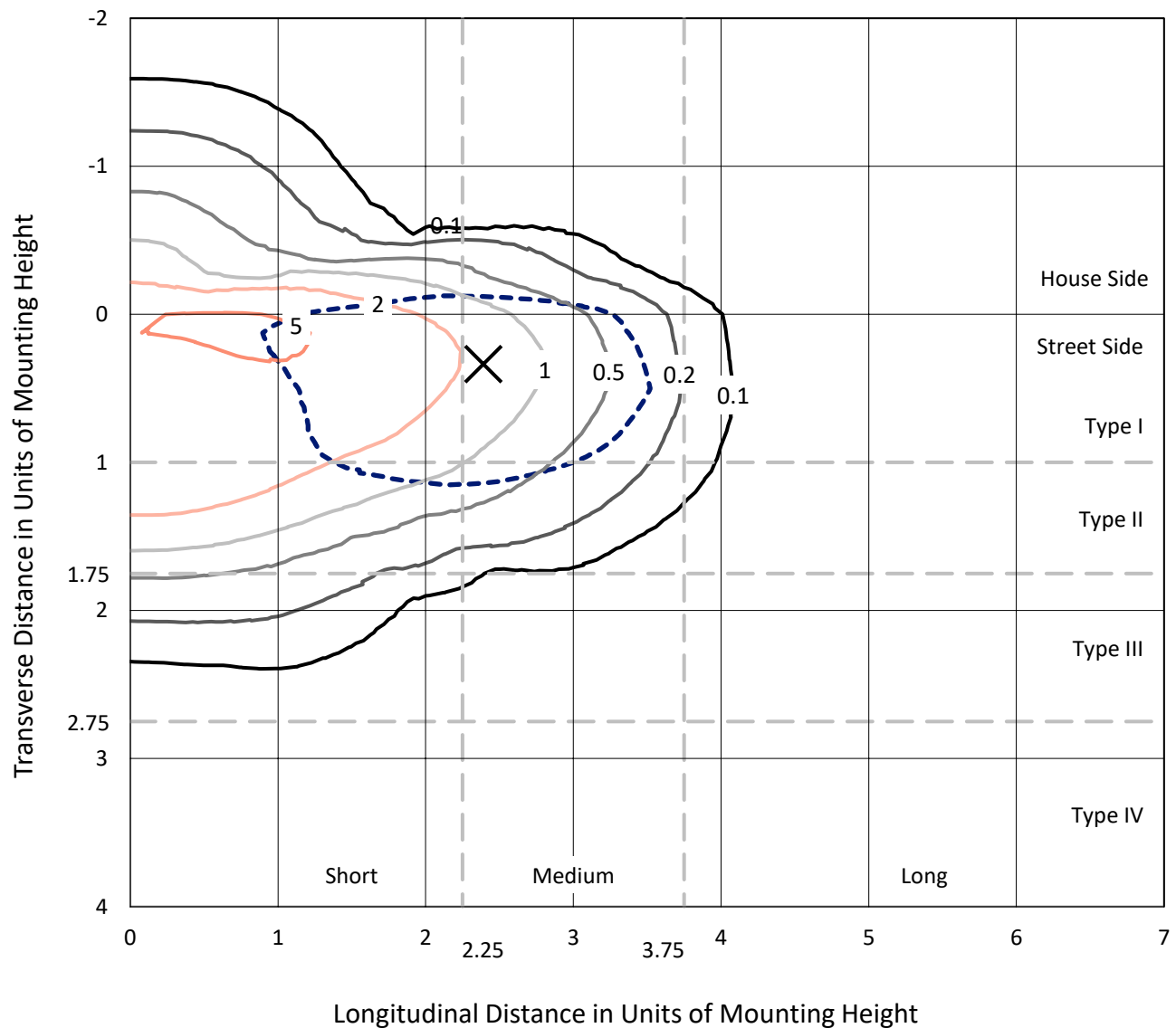


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Iso-Footcandle Lines of Horizontal Illumination

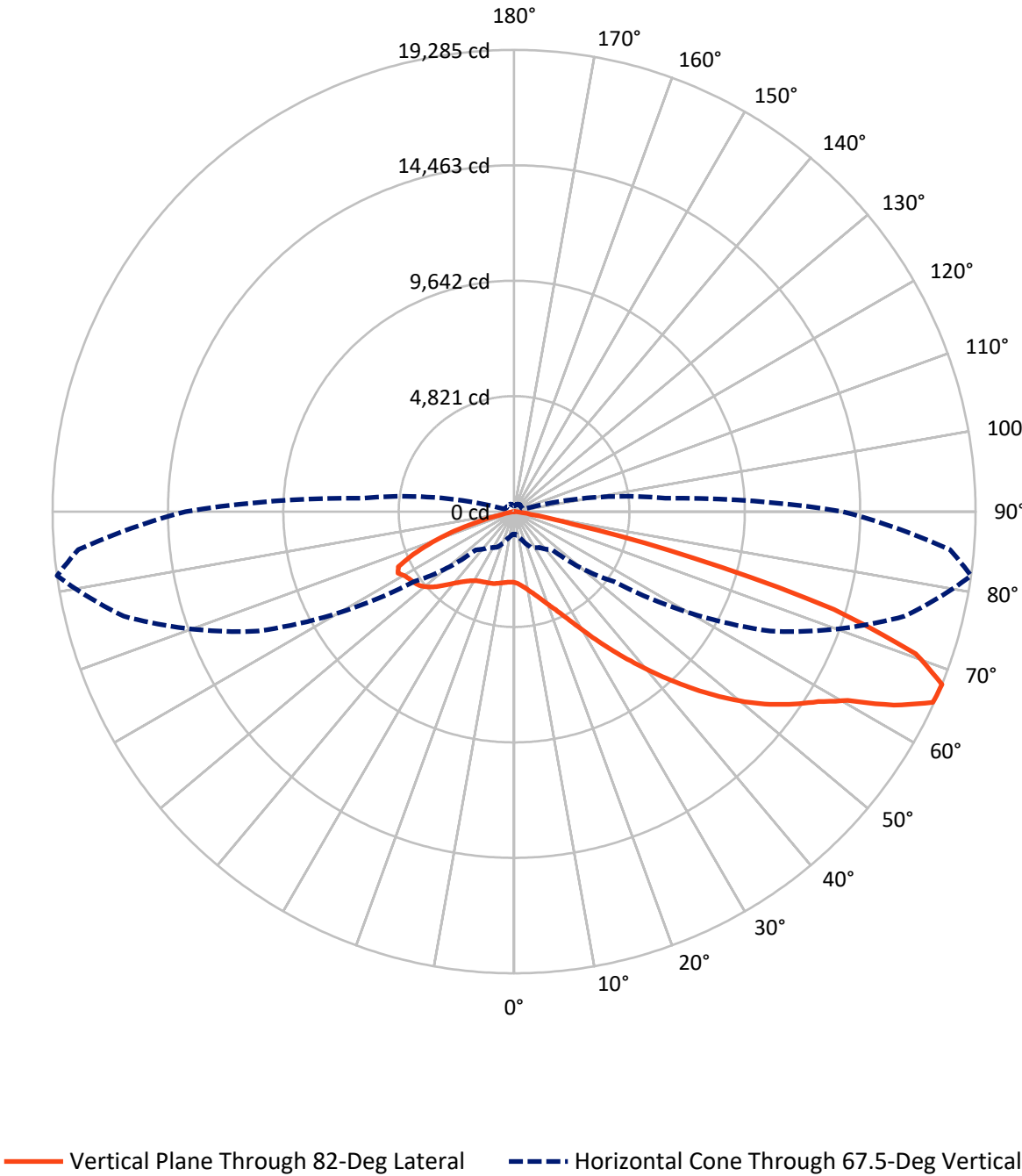
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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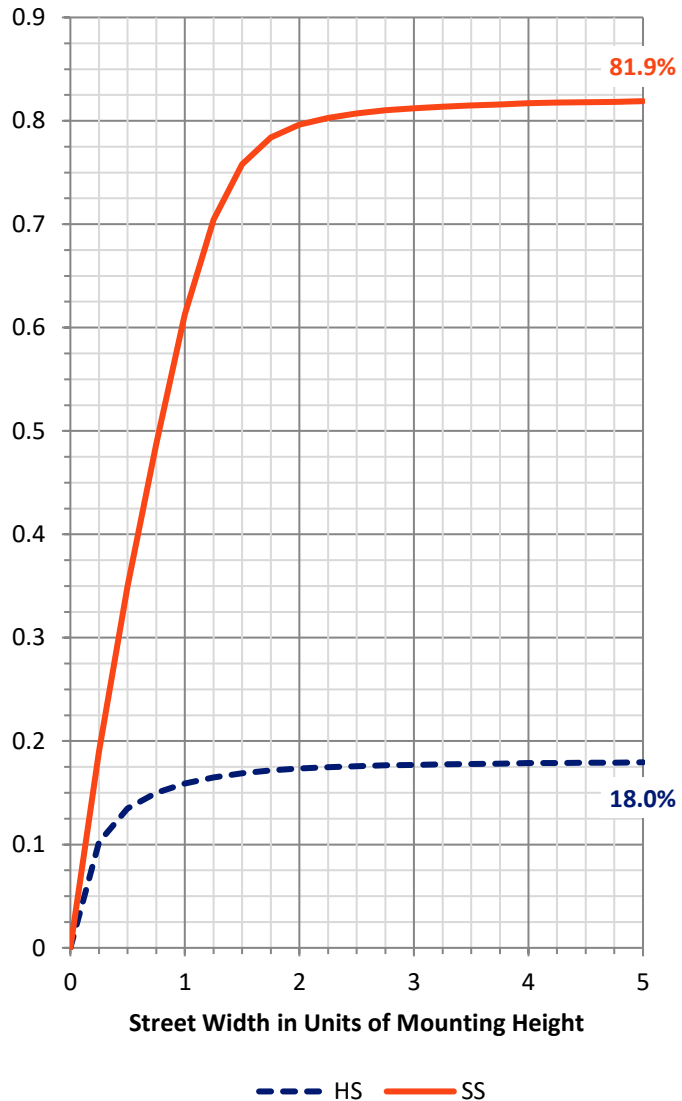
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3237.2	0.0	3237.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	14633.7	0.0	14633.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	17870.9	0.0	17870.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.8	1.5
10°-20°	685.4	3.8
20°-30°	1097.8	6.1
30°-40°	1941.3	10.9
40°-50°	3401.4	19.0
50°-60°	4536.5	25.4
60°-70°	4223.2	23.6
70°-80°	1620.9	9.1
80°-90°	100.7	0.6
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°	17870.9	100.0
0°-180°	17870.9	100.0

Coefficient of Utilization



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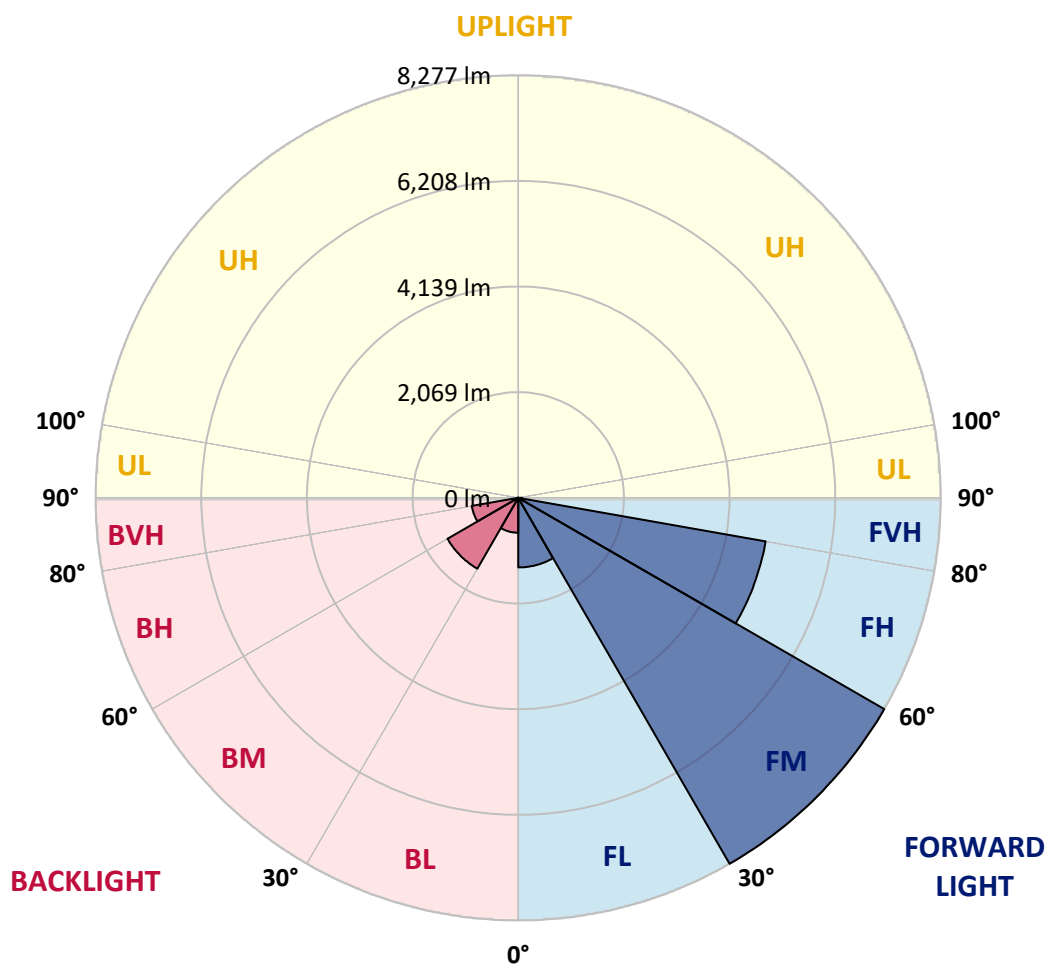
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1363.4	7.6			
FM	(30°-60°)	8277.1	46.3			
FH	(60°-80°)	4920.1	27.5			G2/5000
FVH	(80°-90°)	73.2	0.4			G1/100
BL	(0°-30°)	683.7	3.8	B2/1000		
BM	(30°-60°)	1602.1	9.0	B2/2500		
BH	(60°-80°)	923.9	5.2	B2/1000		G2/1000
BVH	(80°-90°)	27.5	0.2			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°	82°	85°
0°	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6
2.5°	3129.1	3147.2	3136.9	3131.7	3122.8	3109.8	3099.6	3067.4	3033.9	3012.1	3004.4
5°	3192.2	3210.2	3209.0	3214.1	3220.5	3224.3	3221.8	3185.8	3138.1	3100.8	3079.0
7.5°	3138.1	3158.7	3175.4	3201.2	3246.3	3293.8	3317.0	3309.3	3260.4	3209.0	3181.9
10°	2985.0	3006.9	3046.8	3107.3	3202.5	3305.4	3391.6	3431.5	3400.6	3344.1	3306.8
12.5°	2704.6	2726.4	2804.9	2936.1	3095.7	3274.6	3439.3	3546.0	3553.8	3497.1	3453.4
15°	2389.3	2411.2	2494.8	2659.6	2902.7	3189.6	3465.0	3666.9	3735.2	3686.3	3633.5
17.5°	2193.7	2213.1	2276.1	2408.6	2662.1	3019.8	3456.0	3795.7	3951.4	3912.7	3849.7
20°	2134.6	2151.3	2180.9	2273.6	2484.5	2843.6	3396.7	3916.6	4184.3	4162.3	4091.6
22.5°	2197.6	2213.1	2222.1	2263.2	2395.7	2727.7	3322.1	4040.1	4454.4	4457.0	4370.8
25°	2343.0	2358.4	2348.2	2373.9	2431.8	2691.6	3293.8	4185.5	4794.1	4822.4	4724.6
27.5°	2582.3	2583.6	2559.1	2557.9	2566.9	2745.8	3323.5	4341.2	5222.6	5275.3	5154.3
30°	3062.3	3042.9	2949.0	2847.3	2801.0	2907.8	3405.8	4525.2	5728.2	5822.1	5670.3
32.5°	3802.0	3773.7	3601.3	3358.2	3113.7	3169.0	3553.8	4734.9	6278.8	6448.7	6263.5
35°	4604.9	4597.2	4417.1	4055.5	3628.4	3540.9	3794.3	5010.2	6879.8	7150.0	6929.9
37.5°	5351.2	5347.3	5244.4	4818.5	4298.7	4059.4	4180.4	5370.5	7523.1	7914.2	7654.3
40°	6033.2	6044.7	5941.8	5560.9	5037.3	4724.6	4705.3	5815.6	8238.4	8746.7	8437.9
42.5°	6622.4	6635.3	6531.1	6249.3	5766.8	5460.6	5349.9	6361.3	8937.1	9640.9	9275.5
45°	7022.6	7102.3	7087.0	6861.8	6515.6	6197.9	6124.5	7045.7	9733.6	10589.2	10160.7
47.5°	7135.8	7209.1	7325.0	7355.8	7144.8	6832.1	6919.7	7870.5	10539.0	11538.7	11051.1
50°	6856.6	6924.8	7165.4	7485.8	7632.5	7536.0	7692.9	8754.4	11363.8	12485.7	11924.7
52.5°	6305.9	6375.4	6679.0	7186.0	7784.3	8088.0	8468.8	9625.5	12162.8	13382.5	12752.0
55°	5509.5	5582.8	5972.7	6546.5	7494.8	8315.6	9115.9	10495.3	12894.9	14189.3	13498.3
57.5°	4426.1	4480.2	4885.5	5688.3	6766.5	8089.2	9593.3	11444.8	13584.5	14981.8	14238.2
60°	2884.7	2932.3	3403.2	4298.7	5559.6	7332.6	9688.5	12503.8	14500.7	16012.4	15235.3
62.5°	1918.4	1950.6	2229.8	2887.2	3915.3	5880.0	9131.4	13349.1	15843.9	17806.1	16945.3
65°	1316.2	1348.4	1627.6	2085.7	2529.6	3889.6	7529.5	13237.2	17061.1	19230.4	18212.6
67.5°	939.3	966.3	1203.0	1635.4	1831.0	2259.4	5104.2	11806.4	16886.1	19284.5	18280.9
70°	672.9	688.4	884.0	1273.8	1455.2	1357.4	2838.3	9029.7	14785.0	17807.3	16888.6
72.5°	470.9	476.1	613.8	970.2	1172.2	990.8	1350.9	6020.2	11182.3	13977.0	13093.0
75°	319.1	325.5	413.0	711.6	940.5	756.6	715.3	3228.2	6564.5	7736.7	6935.0
77.5°	195.6	198.1	266.3	486.4	703.8	576.5	460.6	1367.8	2539.8	2493.5	2125.5
80°	110.7	110.7	169.8	302.4	479.9	371.9	323.0	581.6	804.1	706.3	622.8
82.5°	61.8	63.0	123.5	187.9	317.9	220.1	177.5	269.0	347.4	307.5	267.6
85°	25.7	28.3	76.0	88.8	151.8	109.4	72.1	113.3	128.6	114.5	83.6
87.5°	2.6	3.9	23.2	16.7	18.0	21.8	10.2	21.8	18.0	18.0	12.9
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°	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6	2960.6
2.5°	2979.9	2960.6	2911.7	2855.1	2780.5	2744.4	2695.5	2662.1	2633.7	2636.4	2610.7
5°	3037.8	2988.9	2879.5	2743.1	2573.4	2452.4	2323.7	2234.9	2162.9	2147.5	2112.7
7.5°	3117.5	3040.4	2848.7	2602.9	2316.0	2098.6	1904.2	1779.4	1690.6	1662.3	1634.1
10°	3220.5	3108.5	2808.8	2426.7	2013.6	1737.0	1528.6	1430.8	1370.3	1349.7	1334.2
12.5°	3340.2	3187.0	2756.0	2211.7	1702.2	1435.9	1303.4	1254.5	1235.2	1228.8	1224.9
15°	3490.7	3284.8	2676.3	1957.0	1438.5	1251.9	1195.4	1188.9	1191.5	1188.9	1187.6
17.5°	3669.5	3391.6	2546.3	1694.5	1261.0	1157.9	1137.4	1142.6	1149.0	1147.7	1145.1
20°	3865.1	3497.1	2380.4	1461.6	1140.0	1091.1	1079.5	1084.7	1089.8	1087.2	1086.0
22.5°	4087.7	3610.4	2196.4	1280.2	1058.9	1029.3	1016.5	1017.7	1017.7	1012.6	1010.0
25°	4354.1	3735.2	2003.4	1151.6	997.1	974.0	958.6	953.5	945.7	930.3	927.7
27.5°	4671.8	3867.7	1818.0	1061.5	948.2	926.4	908.4	895.5	876.2	850.4	847.9
30°	5029.6	4028.6	1661.1	1004.9	909.7	887.8	867.3	847.9	819.6	787.4	784.8
32.5°	5450.2	4201.0	1546.5	967.6	874.9	851.8	827.3	804.1	773.3	741.1	742.4
35°	5952.1	4409.3	1479.7	941.9	847.9	817.0	790.0	764.2	741.1	712.8	710.2
37.5°	6496.3	4630.6	1459.1	929.0	829.9	782.3	751.4	733.4	730.8	714.1	712.8
40°	7092.1	4893.1	1474.5	921.3	810.6	748.9	715.3	711.6	717.9	688.4	689.6
42.5°	7722.6	5204.5	1500.3	912.2	783.6	715.3	683.3	683.3	678.0	636.9	636.9
45°	8404.5	5563.5	1526.0	890.4	751.4	681.9	657.4	648.5	626.6	586.7	585.5
47.5°	9091.5	5928.9	1545.3	850.4	712.8	653.6	631.7	611.2	579.0	542.9	541.7
50°	9743.9	6257.0	1524.7	791.3	669.0	626.6	603.4	575.1	540.4	516.0	512.1
52.5°	10326.7	6541.3	1437.2	721.8	622.8	598.3	577.7	548.1	519.8	494.0	491.5
55°	10833.6	6771.7	1282.8	656.2	581.6	573.9	553.3	516.0	477.3	455.5	452.9
57.5°	11320.0	6946.6	1089.8	602.2	544.3	546.8	516.0	482.5	446.5	423.3	420.8
60°	11967.2	7180.8	894.2	552.0	504.4	512.1	478.7	454.2	409.2	379.6	375.7
62.5°	13001.7	7544.9	710.2	490.3	458.1	460.6	446.5	416.9	362.8	328.1	325.5
65°	13822.5	7411.2	559.6	423.3	405.3	409.2	409.2	377.0	319.1	279.2	275.3
67.5°	13729.9	6345.8	446.5	357.7	355.2	357.7	366.7	339.7	283.1	250.9	245.8
70°	12647.9	5047.5	357.7	297.2	308.8	302.4	328.1	310.1	254.7	222.6	218.7
72.5°	10320.3	3636.1	272.8	245.8	236.8	247.0	295.9	279.2	212.3	176.3	172.4
75°	6030.6	1940.3	203.3	194.2	171.2	205.8	262.5	238.0	162.2	130.0	126.1
77.5°	1963.5	676.8	149.2	142.8	127.4	165.9	223.9	200.7	132.5	102.9	99.1
80°	526.2	204.6	101.7	93.9	82.3	123.5	177.5	159.6	95.2	66.9	65.6
82.5°	211.0	86.2	59.1	52.8	45.0	84.9	140.2	128.6	70.7	42.4	42.4
85°	68.2	28.3	21.8	16.7	20.6	52.8	83.6	87.5	50.2	21.8	16.7
87.5°	9.0	3.9	3.9	5.1	3.9	9.0	25.7	24.5	14.1	2.6	0.0
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)