

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: P965652

Luminaire Tested: **NAV-SB4A-740-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965652
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-SB4A-740-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 350mA 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: 14236.2 lumens
Efficiency: N/A
Efficacy: 124.9 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): 114
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



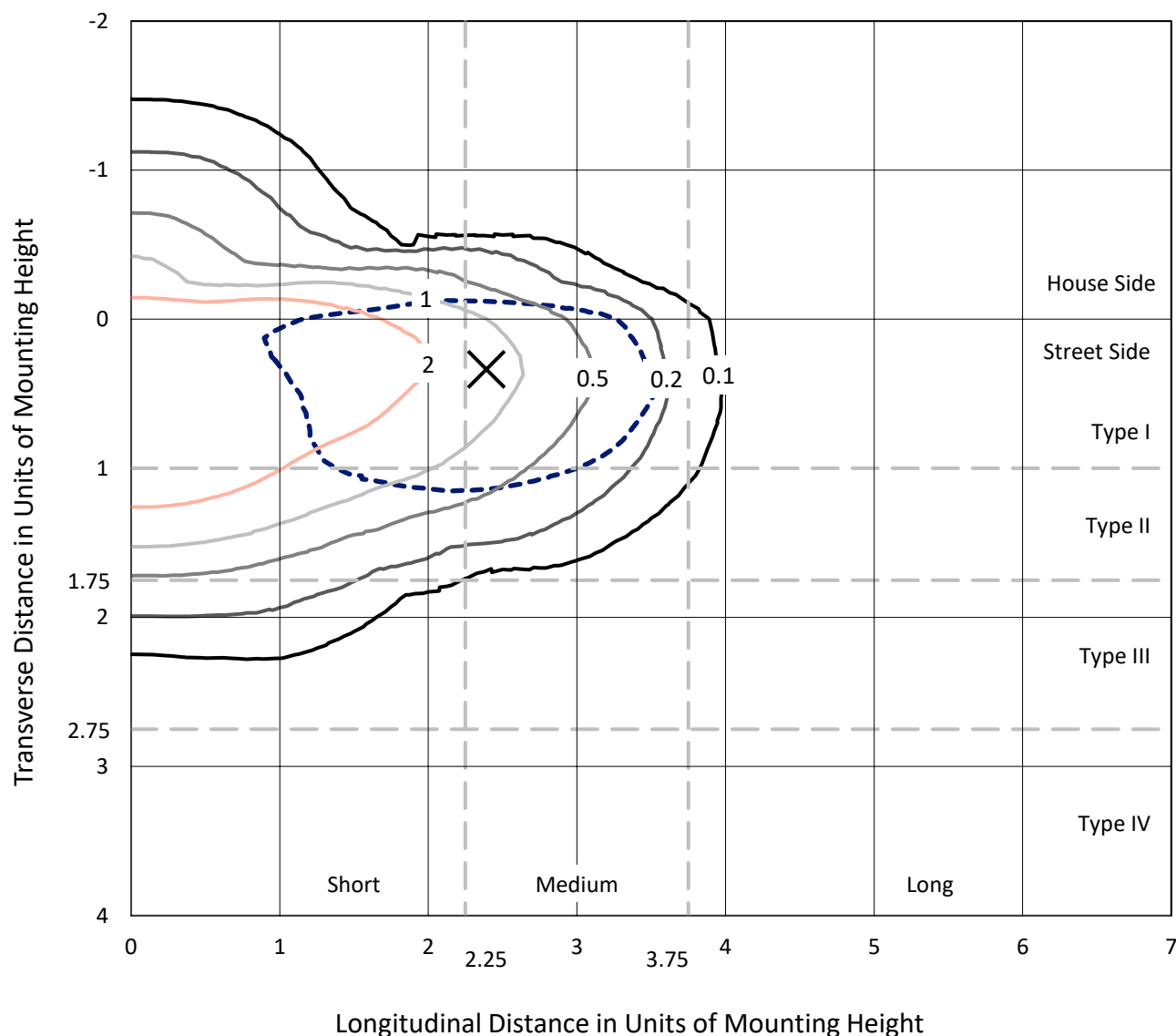
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

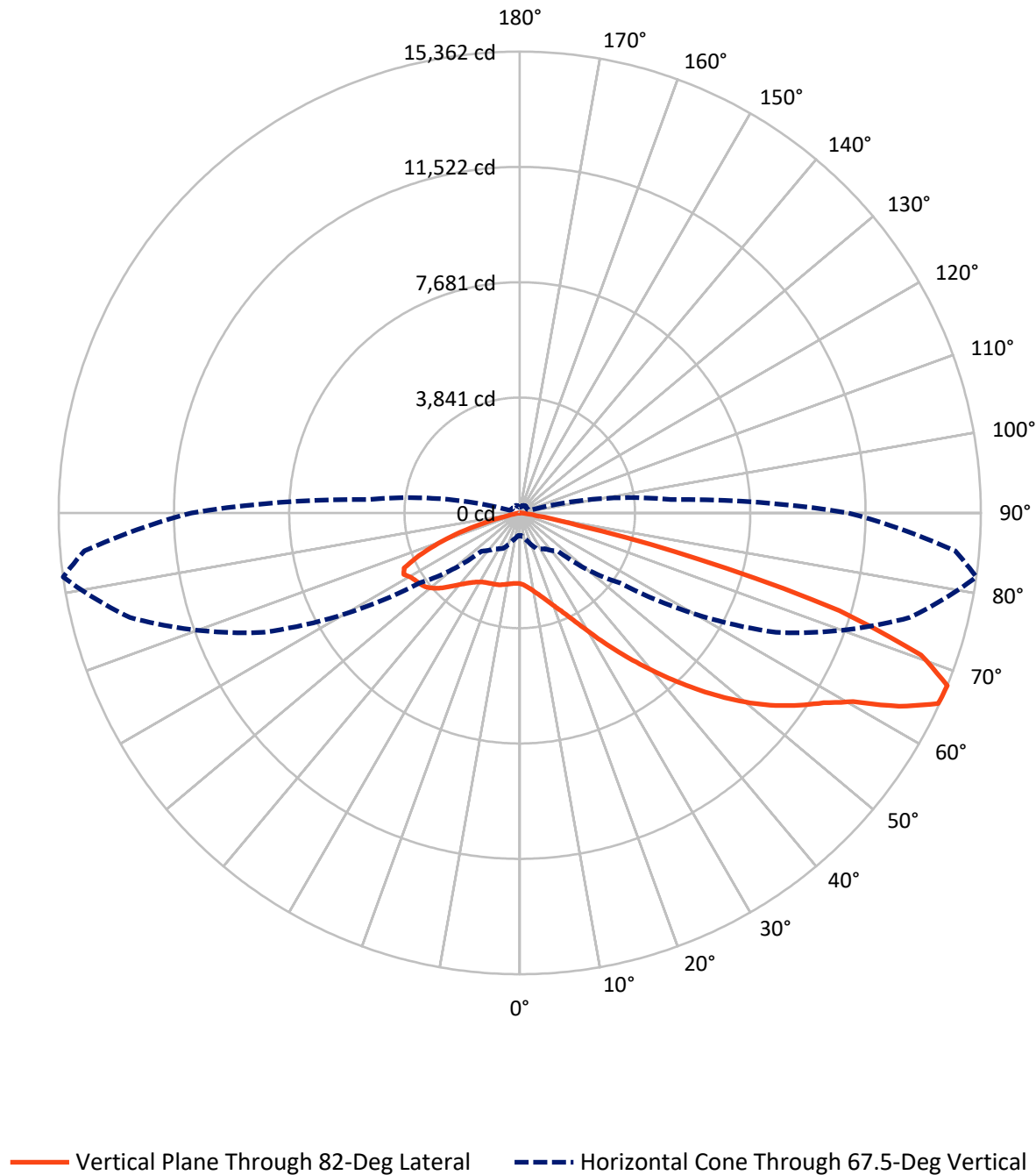
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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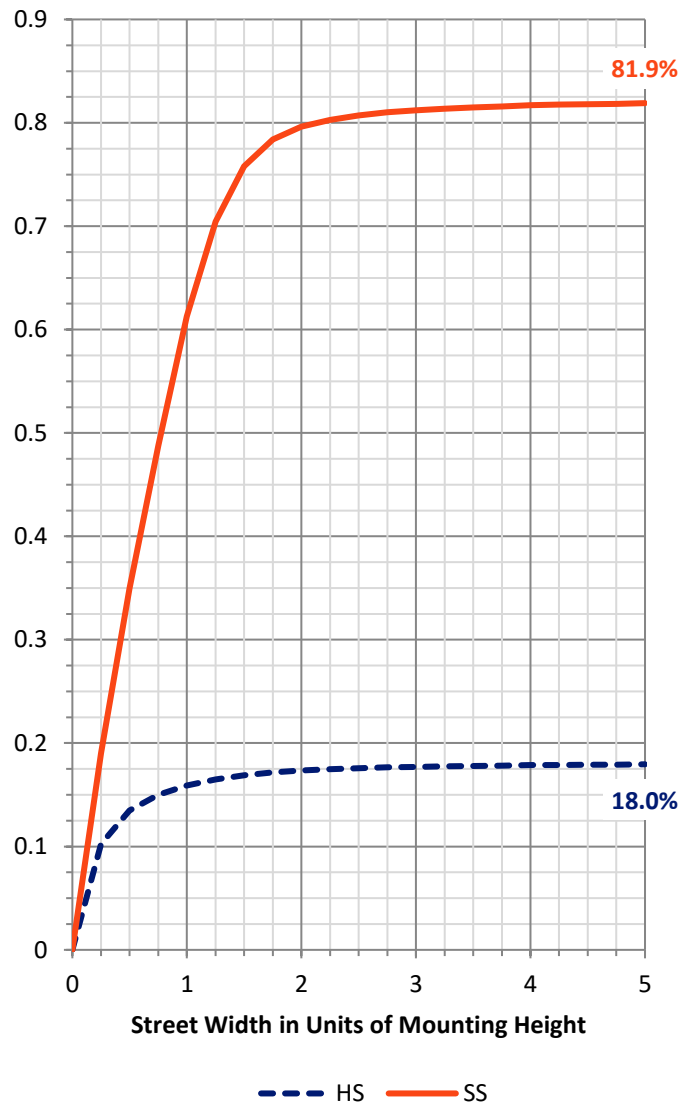
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2578.8	0.0	2578.8
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	11657.4	0.0	11657.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	14236.2	0.0	14236.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.1	1.5
10°-20°	546.0	3.8
20°-30°	874.5	6.1
30°-40°	1546.5	10.9
40°-50°	2709.6	19.0
50°-60°	3613.8	25.4
60°-70°	3364.3	23.6
70°-80°	1291.2	9.1
80°-90°	80.2	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°	14236.2	100.0
0°-180°	14236.2	100.0

Coefficient of Utilization



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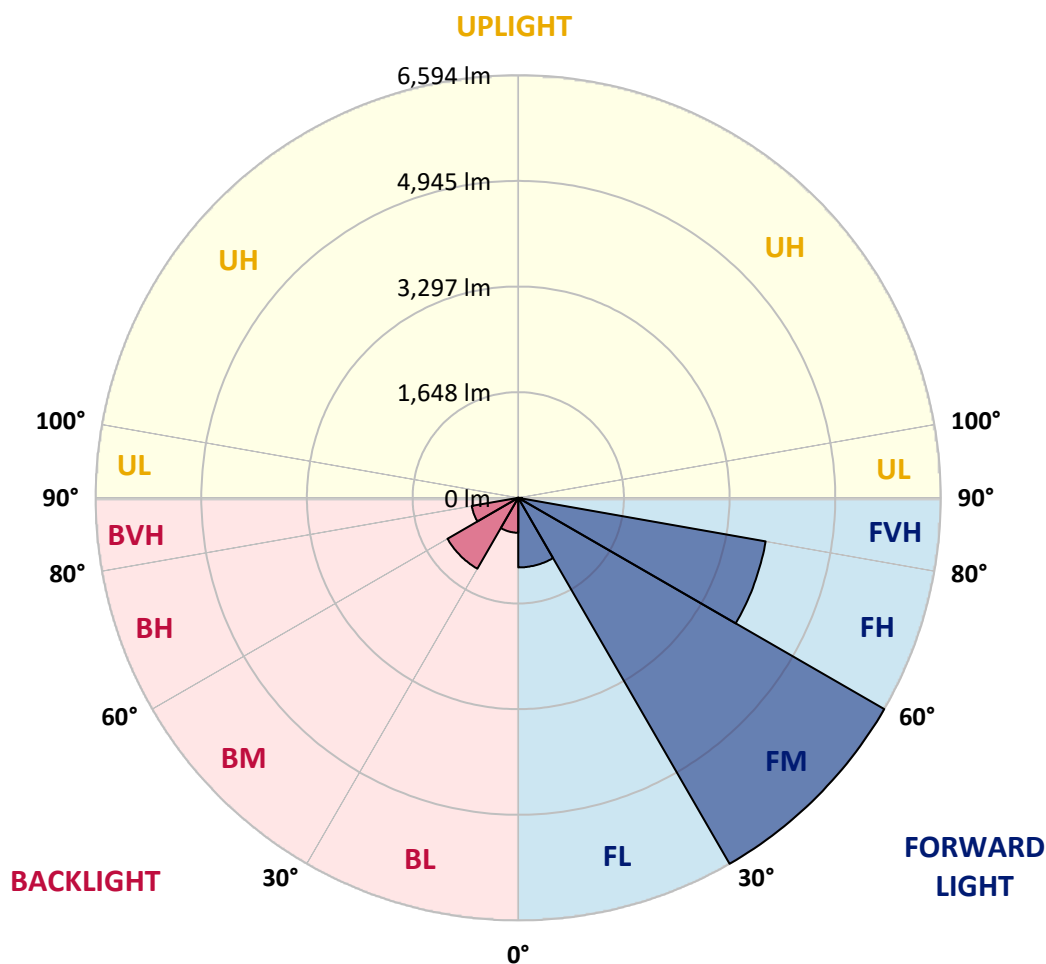
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1086.1	7.6			
FM	(30°-60°)	6593.6	46.3			
FH	(60°-80°)	3919.4	27.5			G2/5000
FVH	(80°-90°)	58.3	0.4			G1/100
BL	(0°-30°)	544.6	3.8	B2/1000		
BM	(30°-60°)	1276.2	9.0	B2/2500		
BH	(60°-80°)	736.0	5.2	B2/1000		G2/1000
BVH	(80°-90°)	21.9	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°	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4
2.5°	2492.7	2507.0	2498.8	2494.7	2487.6	2477.3	2469.1	2443.5	2416.8	2399.4	2393.3
5°	2542.9	2557.3	2556.2	2560.3	2565.5	2568.5	2566.5	2537.8	2499.9	2470.1	2452.7
7.5°	2499.9	2516.3	2529.6	2550.1	2586.0	2623.9	2642.3	2636.2	2597.2	2556.2	2534.7
10°	2377.9	2395.3	2427.1	2475.3	2551.1	2633.1	2701.8	2733.6	2709.0	2663.9	2634.1
12.5°	2154.4	2171.9	2234.4	2338.9	2466.0	2608.5	2739.7	2824.8	2830.9	2785.8	2751.0
15°	1903.3	1920.7	1987.4	2118.6	2312.3	2540.9	2760.2	2921.1	2975.5	2936.5	2894.5
17.5°	1747.6	1763.0	1813.2	1918.7	2120.6	2405.6	2753.0	3023.6	3147.7	3116.9	3066.7
20°	1700.5	1713.8	1737.4	1811.2	1979.2	2265.1	2705.9	3120.0	3333.2	3315.8	3259.4
22.5°	1750.7	1763.0	1770.2	1803.0	1908.4	2172.9	2646.4	3218.4	3548.4	3550.5	3481.8
25°	1866.5	1878.8	1870.6	1891.0	1937.1	2144.2	2623.9	3334.2	3819.0	3841.6	3763.7
27.5°	2057.1	2058.1	2038.6	2037.6	2044.8	2187.2	2647.5	3458.2	4160.4	4202.4	4106.0
30°	2439.4	2424.0	2349.2	2268.2	2231.3	2316.4	2713.1	3604.8	4563.2	4638.0	4517.1
32.5°	3028.8	3006.2	2868.9	2675.1	2480.4	2524.5	2830.9	3771.9	5001.9	5137.2	4989.6
35°	3668.4	3662.2	3518.7	3230.7	2890.4	2820.7	3022.6	3991.2	5480.6	5695.7	5520.5
37.5°	4262.9	4259.8	4177.8	3838.5	3424.4	3233.8	3330.1	4278.2	5993.0	6304.6	6097.5
40°	4806.1	4815.3	4733.3	4429.9	4012.8	3763.7	3748.3	4632.9	6562.9	6967.7	6721.7
42.5°	5275.6	5285.8	5202.8	4978.3	4593.9	4350.0	4261.8	5067.5	7119.4	7680.1	7389.0
45°	5594.3	5657.8	5645.5	5466.2	5190.5	4937.3	4878.9	5612.8	7753.9	8435.5	8094.2
47.5°	5684.4	5742.9	5835.1	5859.7	5691.6	5442.6	5512.3	6269.7	8395.6	9192.0	8803.5
50°	5462.1	5516.4	5708.0	5963.2	6080.1	6003.2	6128.3	6973.9	9052.6	9946.3	9499.4
52.5°	5023.4	5078.8	5320.7	5724.4	6201.0	6442.9	6746.3	7667.8	9689.0	10660.7	10158.5
55°	4388.9	4447.4	4757.9	5215.1	5970.4	6624.4	7261.9	8360.7	10272.2	11303.4	10753.0
57.5°	3525.9	3568.9	3891.8	4531.4	5390.4	6444.0	7642.2	9117.2	10821.6	11934.8	11342.3
60°	2297.9	2335.9	2711.0	3424.4	4428.9	5841.3	7718.0	9960.6	11551.4	12755.8	12136.7
62.5°	1528.3	1553.9	1776.3	2300.0	3119.0	4684.1	7274.2	10634.1	12621.5	14184.6	13498.8
65°	1048.6	1074.2	1296.6	1661.5	2015.0	3098.5	5998.1	10544.9	13591.1	15319.2	14508.5
67.5°	748.2	769.8	958.4	1302.8	1458.6	1799.9	4066.1	9405.1	13451.7	15362.3	14562.8
70°	536.1	548.4	704.2	1014.7	1159.3	1081.4	2261.0	7193.2	11778.0	14185.6	13453.7
72.5°	375.2	379.2	488.9	772.8	933.8	789.2	1076.2	4795.9	8908.1	11134.3	10430.1
75°	254.2	259.3	329.0	566.8	749.3	602.7	569.9	2571.6	5229.4	6163.1	5524.6
77.5°	155.8	157.8	212.2	387.4	560.7	459.2	367.0	1089.6	2023.2	1986.3	1693.3
80°	88.1	88.1	135.3	240.9	382.3	296.2	257.3	463.3	640.6	562.7	496.1
82.5°	49.2	50.2	98.4	149.6	253.2	175.3	141.4	214.2	276.8	245.0	213.2
85°	20.5	22.5	60.5	70.7	121.0	87.1	57.4	90.2	102.5	91.2	66.6
87.5°	2.0	3.1	18.4	13.3	14.3	17.4	8.2	17.4	14.3	14.3	10.2
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°	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4	2358.4
2.5°	2373.8	2358.4	2319.5	2274.4	2214.9	2186.2	2147.3	2120.6	2098.1	2100.1	2079.6
5°	2419.9	2381.0	2293.8	2185.2	2049.9	1953.5	1851.2	1780.4	1723.0	1710.7	1683.0
7.5°	2483.5	2422.0	2269.2	2073.5	1845.0	1671.8	1517.0	1417.6	1346.8	1324.3	1301.8
10°	2565.5	2476.3	2237.5	1933.0	1604.1	1383.7	1217.7	1139.8	1091.6	1075.2	1062.9
12.5°	2660.8	2538.8	2195.4	1762.0	1356.1	1143.9	1038.3	999.4	984.0	978.9	975.8
15°	2780.7	2616.7	2131.9	1559.0	1145.9	997.3	952.2	947.1	949.1	947.1	946.1
17.5°	2923.2	2701.8	2028.4	1349.9	1004.5	922.5	906.1	910.2	915.3	914.3	912.2
20°	3079.0	2785.8	1896.1	1164.4	908.2	869.2	860.0	864.1	868.2	866.1	865.1
22.5°	3256.3	2876.0	1749.7	1019.9	843.6	820.0	809.7	810.8	810.8	806.7	804.6
25°	3468.5	2975.5	1595.9	917.4	794.4	775.9	763.6	759.5	753.4	741.1	739.0
27.5°	3721.7	3081.0	1448.3	845.6	755.4	738.0	723.6	713.4	698.0	677.5	675.5
30°	4006.6	3209.2	1323.3	800.5	724.7	707.2	690.8	675.5	652.9	627.3	625.2
32.5°	4341.8	3346.5	1232.0	770.8	697.0	678.6	659.1	640.6	616.0	590.4	591.4
35°	4741.5	3512.6	1178.8	750.3	675.5	650.9	629.3	608.8	590.4	567.8	565.8
37.5°	5175.1	3688.9	1162.4	740.0	661.1	623.2	598.6	584.2	582.2	568.9	567.8
40°	5649.6	3898.0	1174.6	733.9	645.8	596.6	569.9	566.8	571.9	548.4	549.4
42.5°	6151.8	4146.0	1195.1	726.7	624.2	569.9	544.3	544.3	540.2	507.4	507.4
45°	6695.1	4432.0	1215.6	709.3	598.6	543.2	523.8	516.6	499.2	467.4	466.4
47.5°	7242.4	4723.1	1231.0	677.5	567.8	520.7	503.3	486.9	461.2	432.6	431.5
50°	7762.1	4984.5	1214.6	630.4	533.0	499.2	480.7	458.2	430.5	411.0	408.0
52.5°	8226.4	5211.0	1144.9	575.0	496.1	476.6	460.2	436.6	414.1	393.6	391.5
55°	8630.3	5394.5	1021.9	522.8	463.3	457.2	440.7	411.0	380.3	362.8	360.8
57.5°	9017.7	5533.9	868.2	479.7	433.6	435.6	411.0	384.4	355.7	337.2	335.2
60°	9533.2	5720.3	712.4	439.7	401.8	408.0	381.3	361.8	326.0	302.4	299.3
62.5°	10357.3	6010.4	565.8	390.5	364.9	367.0	355.7	332.1	289.0	261.4	259.3
65°	11011.3	5903.8	445.9	337.2	322.9	326.0	326.0	300.3	254.2	222.4	219.4
67.5°	10937.5	5055.2	355.7	285.0	282.9	285.0	292.1	270.6	225.5	199.9	195.8
70°	10075.4	4021.0	285.0	236.8	246.0	240.9	261.4	247.0	203.0	177.3	174.2
72.5°	8221.3	2896.5	217.3	195.8	188.6	196.8	235.7	222.4	169.1	140.4	137.4
75°	4804.1	1545.7	162.0	154.8	136.3	164.0	209.1	189.6	129.1	103.5	100.4
77.5°	1564.1	539.2	118.9	113.8	101.5	132.2	178.4	159.9	105.6	82.0	78.9
80°	419.2	163.0	81.0	74.8	65.6	98.4	141.4	127.1	75.8	53.3	52.3
82.5°	168.1	68.7	47.2	42.0	35.9	67.6	111.7	102.5	56.4	33.8	33.8
85°	54.3	22.5	17.4	13.3	16.4	42.0	66.6	69.7	40.0	17.4	13.3
87.5°	7.2	3.1	3.1	4.1	3.1	7.2	20.5	19.5	11.3	2.0	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)