

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: P960879

Luminaire Tested: **NAV-SB1D-735-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960879
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-735-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8834.5 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

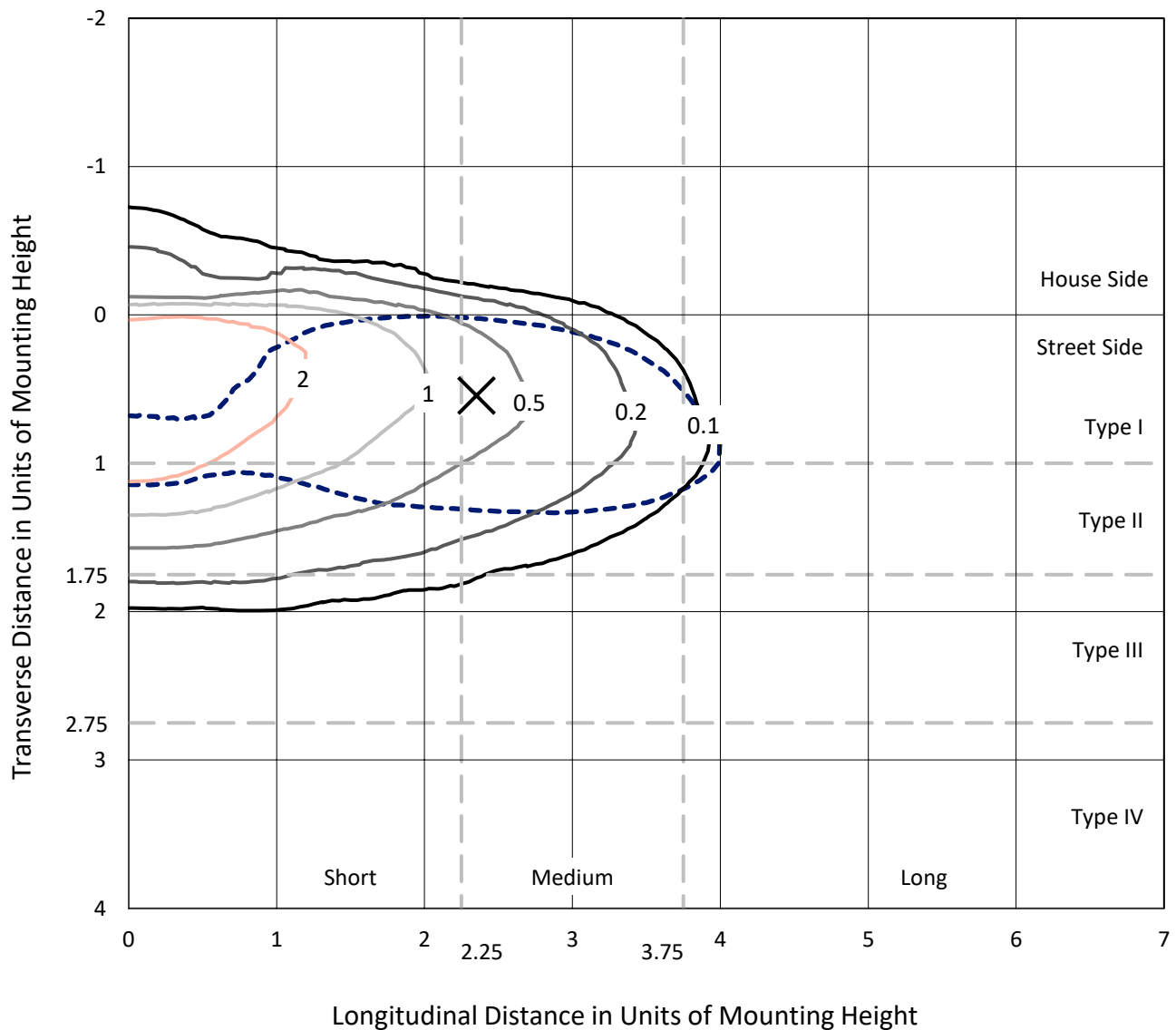
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

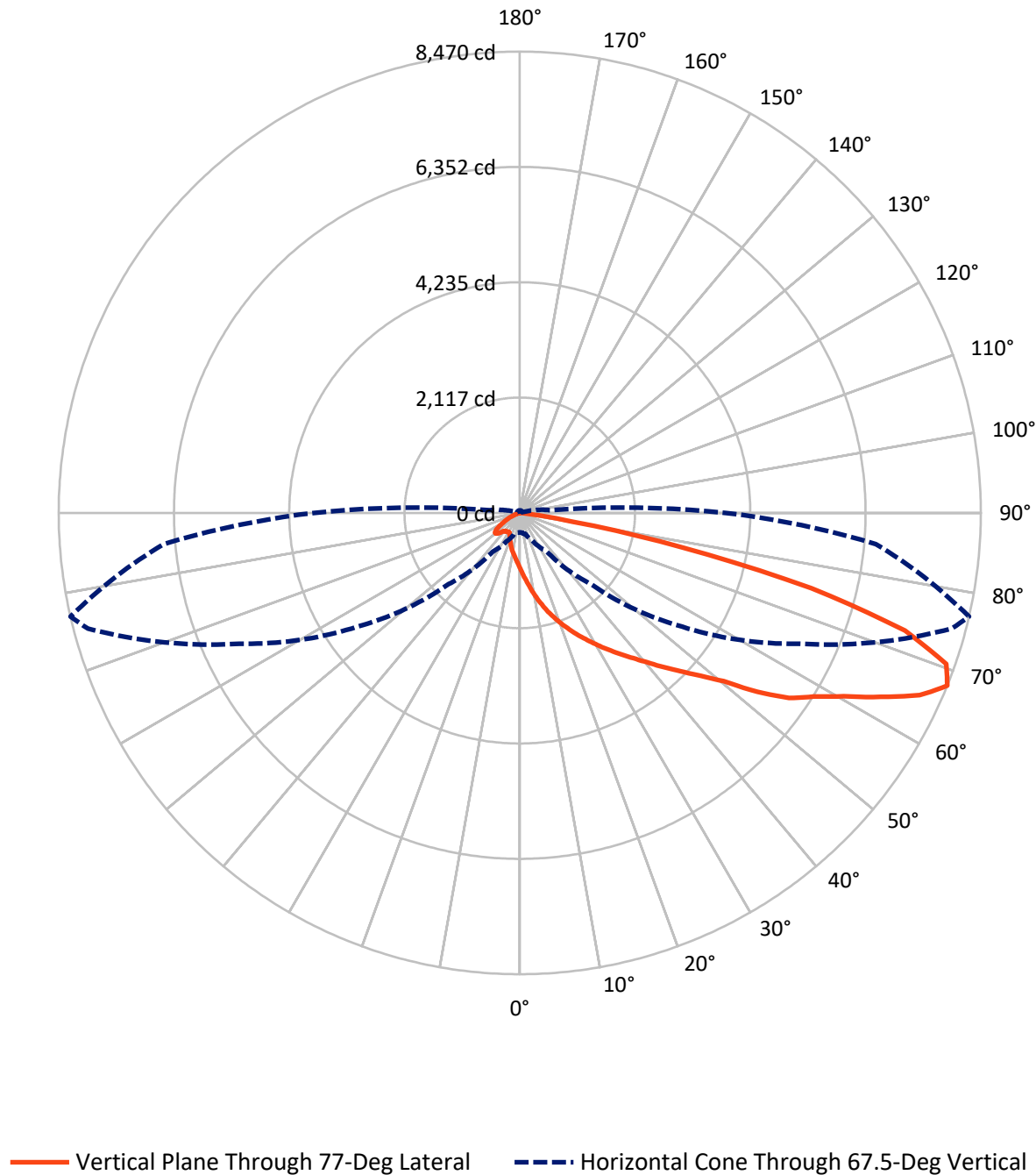
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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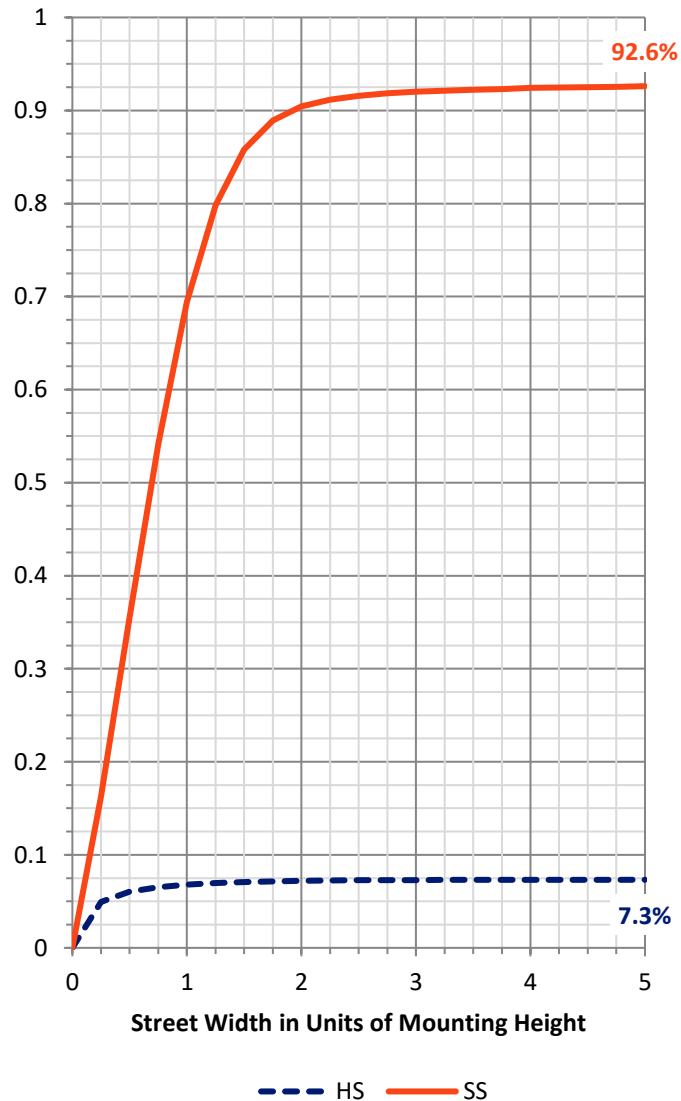
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	650.0	0.0	650.0
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	8184.5	0.0	8184.5
	% Fixture	92.6	0.0	92.6
Total	Lumens	8834.5	0.0	8834.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.0	1.2
10°-20°	364.1	4.1
20°-30°	702.7	8.0
30°-40°	1219.9	13.8
40°-50°	1771.2	20.0
50°-60°	2034.0	23.0
60°-70°	1765.9	20.0
70°-80°	831.7	9.4
80°-90°	41.1	0.5
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°	8834.5	100.0
0°-180°	8834.5	100.0

Coefficient of Utilization



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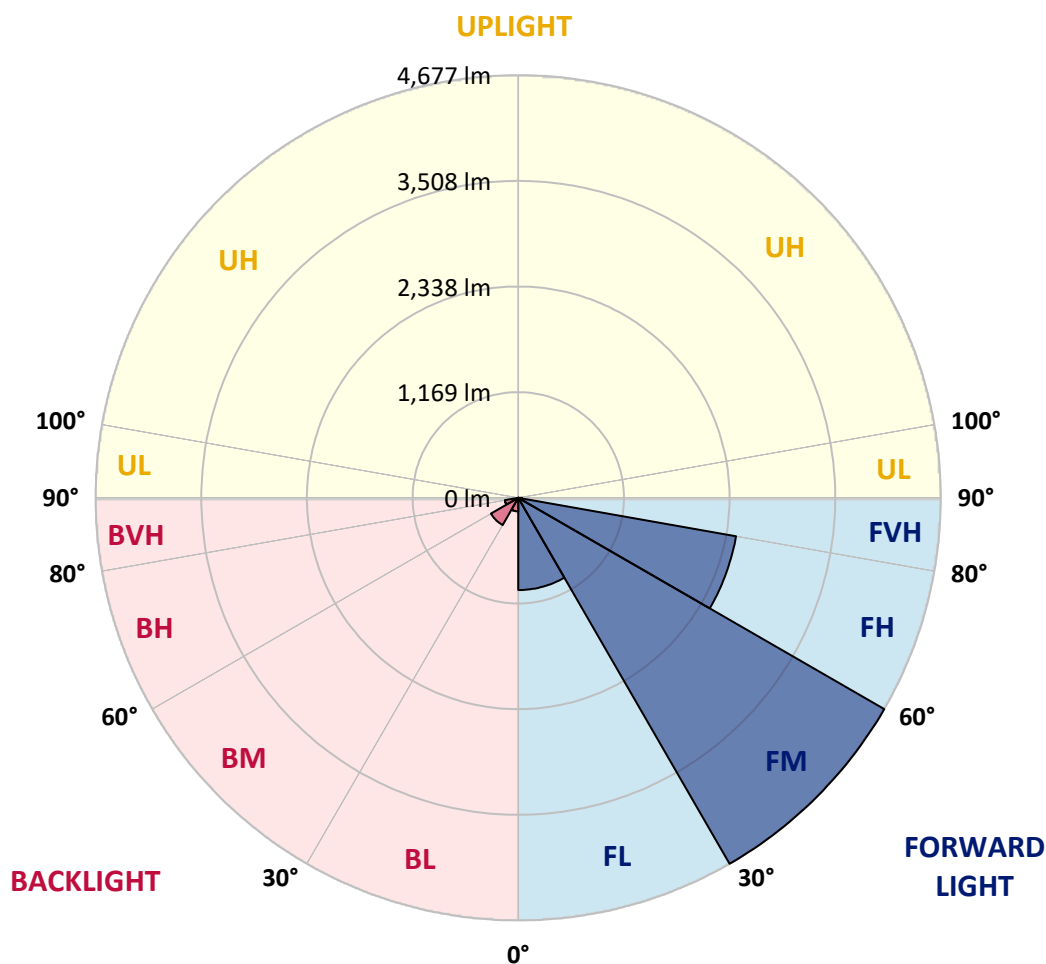
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1020.3	11.5			
FM	(30°-60°)	4676.7	52.9			
FH	(60°-80°)	2447.1	27.7			G2/5000
FVH	(80°-90°)	40.4	0.5			G1/100
BL	(0°-30°)	150.5	1.7	B1/500		
BM	(30°-60°)	348.3	3.9	B1/1000		
BH	(60°-80°)	150.5	1.7	B1/500		G1/500
BVH	(80°-90°)	0.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7
2.5°	1410.4	1419.2	1406.6	1382.4	1346.2	1322.7	1265.1	1210.7	1150.4	1131.2	1070.8
5°	1719.3	1727.0	1712.7	1686.4	1638.2	1592.0	1516.3	1402.7	1284.8	1246.9	1140.0
7.5°	1948.1	1952.4	1947.0	1922.8	1876.8	1824.6	1740.1	1605.8	1430.7	1389.1	1225.0
10°	2112.6	2126.9	2125.2	2115.9	2085.3	2042.9	1953.0	1799.9	1594.2	1540.5	1321.0
12.5°	2221.8	2237.7	2247.0	2267.9	2266.3	2239.4	2160.4	1998.5	1757.2	1694.0	1429.1
15°	2253.7	2270.7	2306.4	2354.6	2397.4	2411.1	2355.7	2193.3	1936.5	1855.9	1540.0
17.5°	2235.5	2261.9	2304.6	2380.9	2474.8	2536.7	2530.7	2381.5	2099.5	2007.4	1648.5
20°	2275.6	2300.8	2334.2	2398.5	2507.7	2620.1	2665.1	2561.4	2261.4	2164.8	1762.7
22.5°	2497.2	2492.8	2496.1	2506.5	2571.8	2683.1	2775.9	2724.9	2421.5	2322.8	1883.3
25°	2848.3	2828.6	2795.1	2738.6	2722.1	2775.9	2872.5	2869.7	2590.5	2484.6	2006.7
27.5°	3251.0	3247.7	3169.2	3033.2	2956.4	2935.5	2981.6	3010.7	2757.8	2644.8	2130.8
30°	3636.7	3645.4	3539.5	3388.1	3247.1	3165.4	3123.7	3144.6	2927.9	2817.6	2258.6
32.5°	3972.4	3981.7	3866.5	3689.3	3514.8	3416.1	3328.4	3276.7	3113.3	2993.1	2399.0
35°	4256.0	4265.3	4133.1	3937.3	3751.3	3661.9	3562.6	3421.6	3299.8	3187.9	2555.3
37.5°	4509.5	4506.7	4329.5	4132.1	3949.3	3878.6	3826.4	3599.9	3491.9	3383.7	2728.8
40°	4659.2	4670.7	4519.3	4301.5	4124.4	4072.7	4069.5	3821.0	3713.5	3608.7	2918.6
42.5°	4703.1	4723.4	4613.7	4434.9	4274.1	4218.2	4304.3	4060.1	3971.3	3869.3	3133.0
45°	4624.1	4643.9	4593.9	4469.9	4376.1	4340.0	4506.2	4308.2	4246.7	4145.7	3375.0
47.5°	4393.8	4418.4	4430.5	4404.1	4403.0	4439.8	4687.2	4569.2	4573.7	4470.5	3655.3
50°	3947.7	3989.4	4100.2	4193.5	4337.8	4518.8	4863.3	4852.3	4942.3	4853.5	4020.7
52.5°	3136.9	3196.2	3578.0	3833.1	4157.3	4504.0	5056.9	5306.6	5589.1	5459.0	4535.8
55°	2520.8	2520.8	2831.4	3308.6	3805.1	4406.4	5141.5	5601.7	6029.7	5998.9	4898.4
57.5°	2055.0	2079.7	2277.8	2699.6	3295.4	4173.7	5193.6	5787.2	6384.6	6362.1	5252.8
60°	1268.3	1321.5	1695.8	2112.1	2715.5	3759.5	5160.7	5974.7	6815.2	6833.4	5679.6
62.5°	714.3	734.0	900.8	1519.7	2111.5	3202.7	4908.8	6079.6	7366.1	7442.8	6119.6
65°	493.2	503.1	567.2	945.8	1463.7	2549.9	4416.7	6014.3	7917.9	8073.1	6492.7
67.5°	358.2	363.2	403.2	577.7	868.4	1848.8	3645.4	5685.2	8210.4	8469.8	6564.0
70°	275.4	278.7	307.8	379.7	512.9	1141.1	2647.6	5030.6	7998.6	8308.5	6198.6
72.5°	223.9	227.1	249.6	280.8	340.1	674.8	1604.6	4085.4	7063.8	7398.3	5276.9
75°	188.7	193.1	213.4	233.7	266.6	433.4	752.7	2845.0	5312.1	5531.5	3669.6
77.5°	104.8	96.6	173.3	193.6	224.9	274.3	352.2	1674.3	2975.1	3035.9	1628.2
80°	65.3	67.4	137.7	155.8	172.8	138.3	161.3	644.6	1031.4	979.8	315.4
82.5°	3.8	8.8	105.9	112.4	118.5	59.2	60.9	218.9	248.6	228.3	56.0
85°	0.0	0.0	48.3	38.9	41.1	17.0	17.5	51.0	33.4	36.2	11.0
87.5°	0.0	0.0	0.0	1.1	0.0	1.6	3.3	4.4	1.6	2.2	3.8
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°	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7
2.5°	1032.5	994.0	916.1	839.9	777.9	720.3	679.2	640.2	620.4	619.4	618.3
5°	1063.7	983.1	827.3	689.6	578.8	489.8	432.3	391.1	370.3	363.2	362.0
7.5°	1107.6	986.4	749.4	557.9	427.3	351.1	318.2	305.0	300.6	295.7	294.6
10°	1163.1	994.0	679.7	449.3	336.8	298.5	285.3	279.8	276.4	273.2	272.1
12.5°	1225.0	1001.2	610.6	373.0	296.2	276.4	267.2	260.6	256.1	252.4	251.2
15°	1285.4	1005.6	538.7	319.8	275.4	259.5	249.6	242.5	236.5	232.1	231.5
17.5°	1345.2	1011.6	471.3	288.0	258.4	242.5	232.6	223.9	218.9	213.9	213.4
20°	1411.5	1010.5	407.6	265.5	241.4	225.5	215.0	206.8	201.9	196.4	195.9
22.5°	1473.0	1005.0	351.7	246.3	223.9	208.5	196.9	188.7	183.8	179.4	178.9
25°	1543.8	1000.6	305.0	228.8	207.4	192.0	179.4	171.7	166.3	162.4	161.8
27.5°	1611.8	994.0	271.0	212.9	191.5	176.6	164.6	155.8	150.9	148.1	148.1
30°	1678.7	992.4	258.4	197.5	177.2	162.4	150.3	142.1	138.3	137.1	136.6
32.5°	1759.3	996.8	263.8	192.0	164.0	149.2	137.7	131.7	127.8	127.8	127.8
35°	1845.5	995.7	272.1	196.9	155.3	136.0	127.3	123.4	119.6	119.6	119.6
37.5°	1953.5	997.3	278.7	205.2	152.0	125.0	120.1	115.2	113.1	113.1	113.1
40°	2114.9	1051.6	275.4	212.3	150.9	117.4	107.5	105.9	104.2	104.2	104.2
42.5°	2312.3	1169.6	279.8	212.9	150.3	111.9	98.7	102.1	98.2	97.7	97.1
45°	2528.5	1298.6	307.8	201.3	149.8	109.2	94.4	98.2	92.1	92.1	92.1
47.5°	2743.0	1426.4	336.3	184.9	148.1	108.6	90.5	88.4	86.7	87.2	87.2
50°	3038.7	1530.6	347.3	162.4	144.3	107.5	83.4	83.9	82.8	83.9	83.9
52.5°	3360.7	1552.6	334.0	137.1	133.4	104.2	78.4	80.7	80.1	81.2	81.2
55°	3561.5	1528.9	275.9	114.1	116.3	91.0	73.5	77.9	77.9	77.9	77.9
57.5°	3768.8	1428.5	195.9	92.8	96.6	74.6	69.1	75.1	74.6	74.1	74.1
60°	3918.1	1266.2	128.9	76.3	76.8	61.4	64.2	70.7	70.2	67.4	67.4
62.5°	4029.5	1086.8	82.8	64.8	58.7	55.5	58.7	64.2	62.0	56.0	54.8
65°	4016.9	838.2	63.7	55.5	48.3	48.3	51.0	56.0	49.4	39.5	38.4
67.5°	3782.6	567.2	52.7	46.6	40.6	40.1	42.2	46.6	42.2	33.4	32.4
70°	3363.9	370.8	42.2	36.2	32.4	29.6	34.0	40.1	35.7	26.9	25.8
72.5°	2730.4	226.0	31.8	26.3	23.6	19.2	26.9	32.9	28.5	19.8	18.7
75°	1766.5	115.2	21.9	17.0	12.6	11.5	19.8	24.7	19.8	12.1	10.5
77.5°	675.9	48.3	12.1	7.7	6.6	5.5	11.0	14.9	8.2	2.8	2.2
80°	130.0	20.3	6.0	3.8	3.3	2.2	1.6	1.1	0.0	0.0	0.0
82.5°	22.4	6.6	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)