

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: P963100

Luminaire Tested: **NAV-SB2D-827-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963100
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-827-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18028.7 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
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

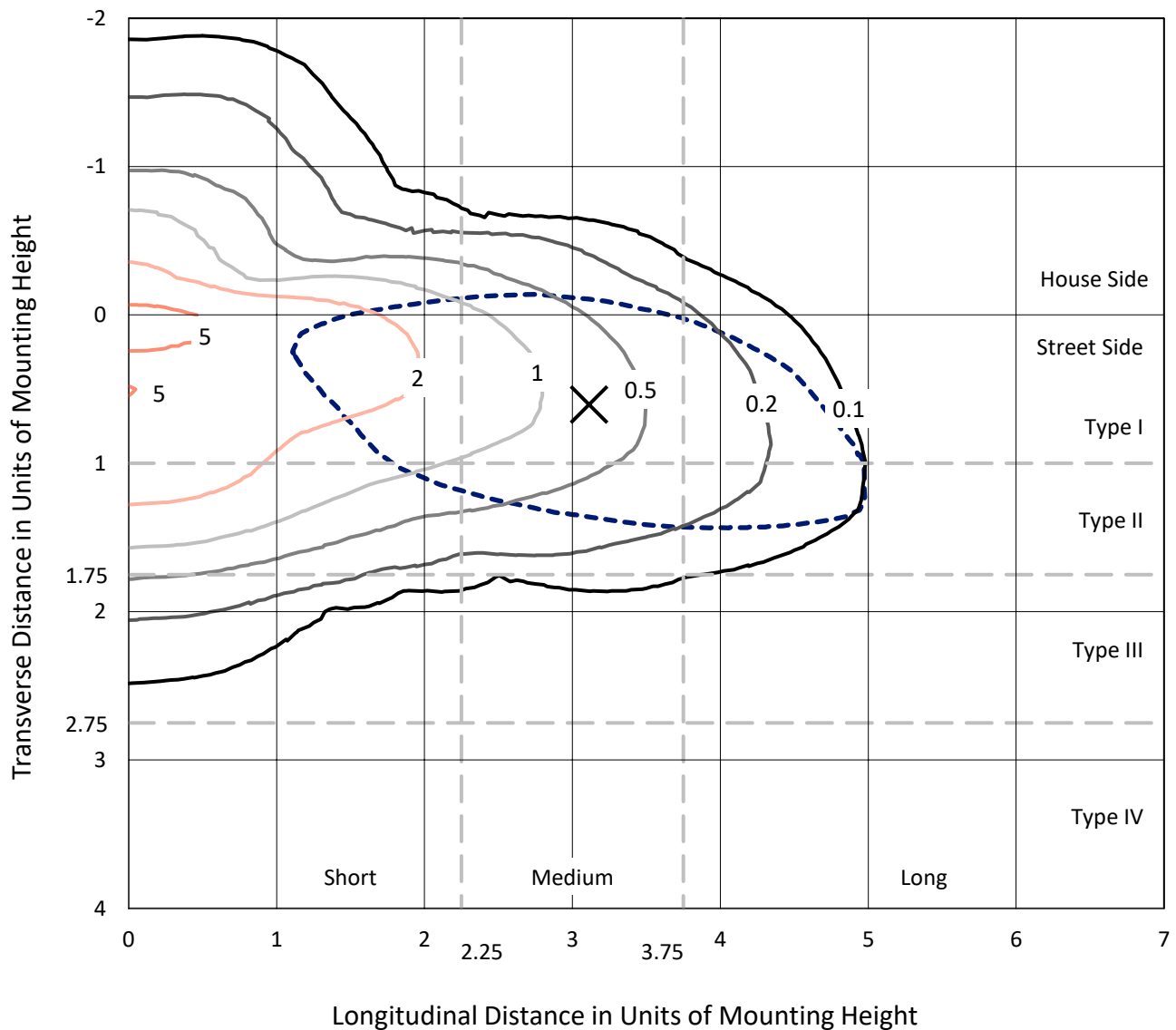


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Iso-Footcandle Lines of Horizontal Illumination

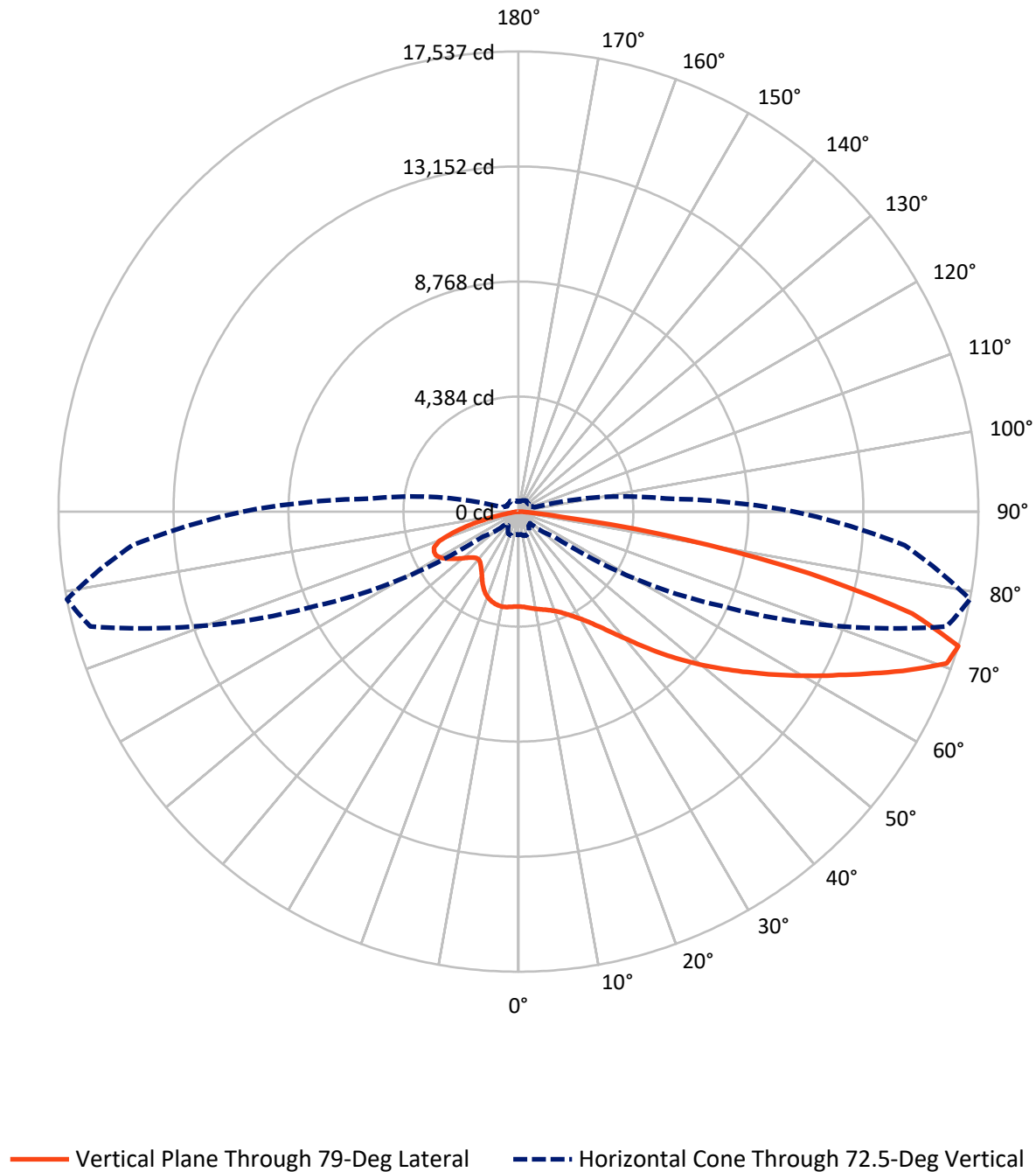
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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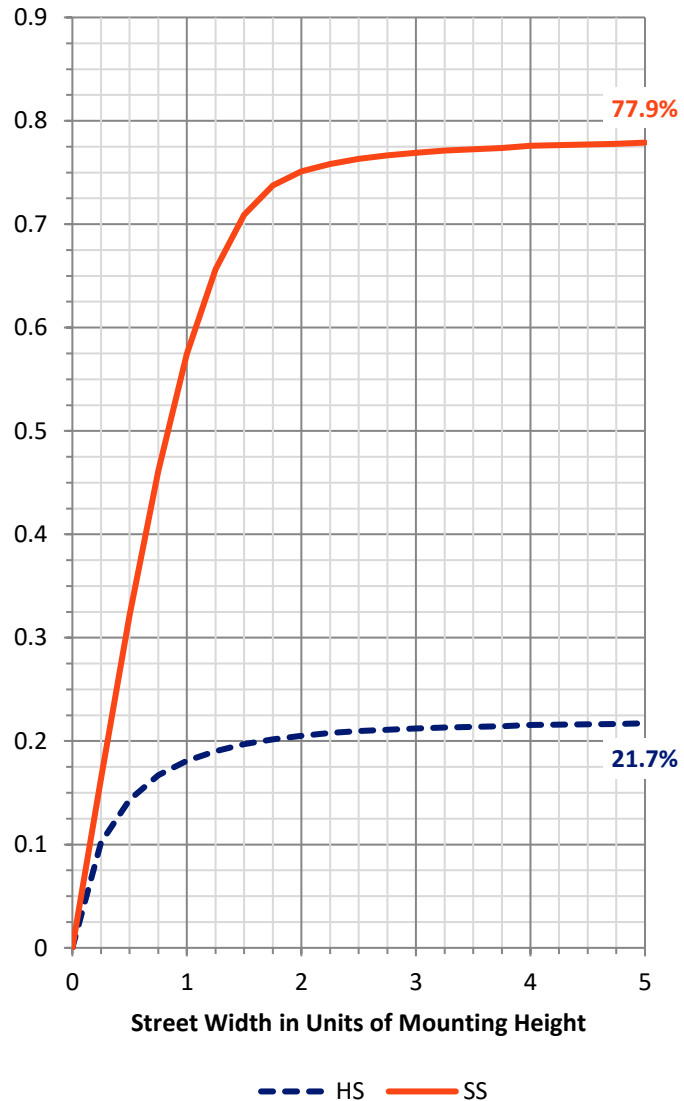
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3967.3	0.0	3967.3
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	14061.4	0.0	14061.4
	% Fixture	78.0	0.0	78.0
Total	Lumens	18028.7	0.0	18028.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.5	1.8
10°-20°	858.9	4.8
20°-30°	1385.9	7.7
30°-40°	2080.0	11.5
40°-50°	2950.6	16.4
50°-60°	3726.3	20.7
60°-70°	3784.5	21.0
70°-80°	2579.3	14.3
80°-90°	334.7	1.9
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°	18028.7	100.0
0°-180°	18028.7	100.0

Coefficient of Utilization



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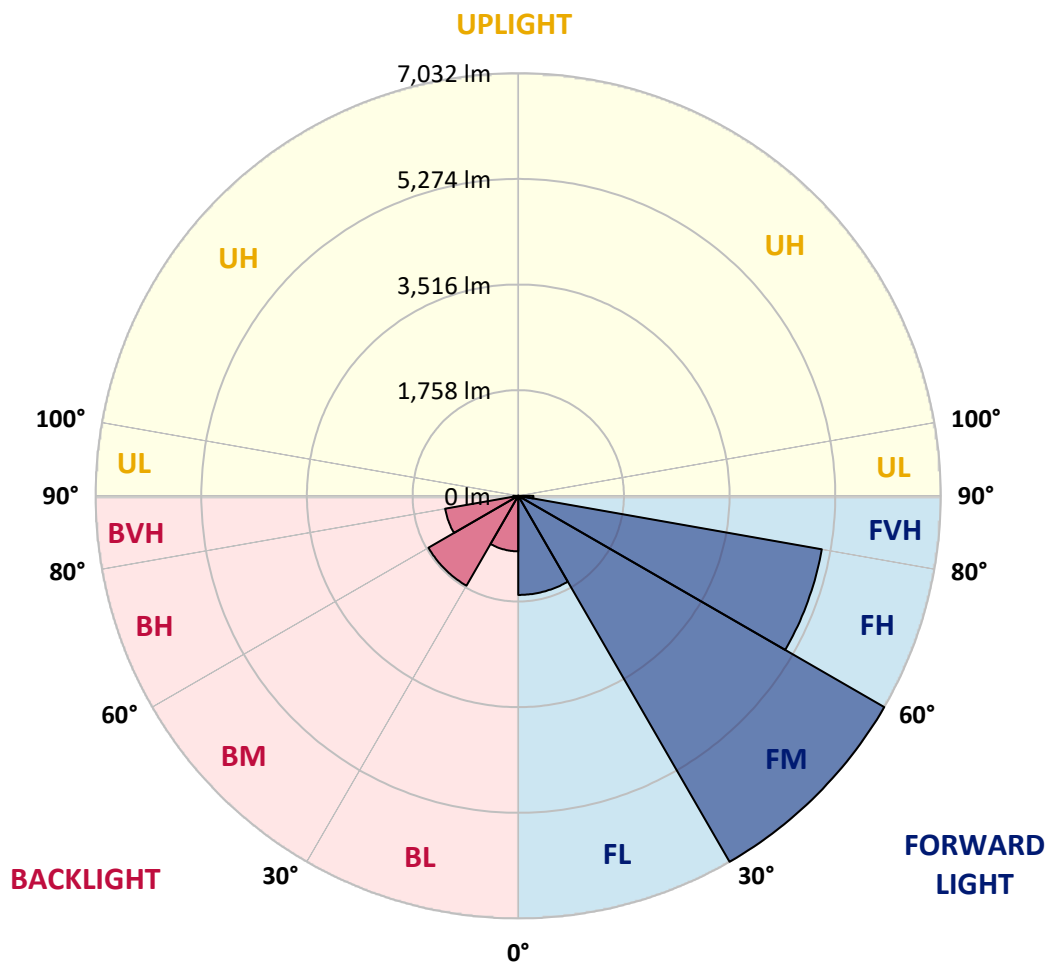
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1649.2	9.1			
FM	(30°-60°)	7031.6	39.0			
FH	(60°-80°)	5128.6	28.4			G3/7500
FVH	(80°-90°)	252.1	1.4			G3/500
BL	(0°-30°)	924.1	5.1	B2/1000		
BM	(30°-60°)	1725.4	9.6	B2/2500		
BH	(60°-80°)	1235.3	6.9	B3/2500		G3/2500
BVH	(80°-90°)	82.6	0.5			G1/100
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°	79°	85°
0°	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1
2.5°	3621.0	3603.8	3614.4	3610.6	3615.3	3621.0	3622.9	3625.7	3635.3	3634.3	3633.4
5°	3613.3	3596.2	3610.6	3605.7	3618.1	3631.5	3643.0	3653.4	3668.7	3675.3	3665.8
7.5°	3597.1	3585.8	3600.0	3614.4	3637.2	3657.2	3673.5	3697.3	3719.2	3723.0	3729.7
10°	3502.7	3494.1	3527.5	3564.7	3627.7	3682.0	3717.4	3744.9	3768.8	3772.6	3782.1
12.5°	3404.5	3394.1	3431.2	3481.7	3583.8	3682.0	3756.4	3792.7	3813.6	3826.0	3840.4
15°	3388.3	3379.7	3400.7	3444.6	3529.5	3656.3	3783.2	3849.9	3868.0	3882.3	3888.0
17.5°	3466.6	3450.3	3458.9	3474.1	3523.7	3632.4	3804.1	3914.7	3942.4	3957.6	3957.6
20°	3647.7	3624.8	3611.5	3580.9	3572.3	3636.3	3802.2	3992.9	4029.2	4048.2	4053.1
22.5°	3889.0	3873.7	3845.1	3767.9	3684.0	3683.0	3838.4	4093.0	4160.8	4178.9	4167.4
25°	4180.8	4157.9	4121.6	4016.8	3855.6	3775.5	3899.5	4220.8	4334.3	4339.1	4305.7
27.5°	4516.5	4482.1	4432.5	4294.2	4076.8	3920.4	3992.9	4367.7	4533.7	4531.7	4463.1
30°	4870.3	4836.0	4783.5	4615.7	4342.0	4116.0	4122.7	4526.0	4770.1	4759.7	4642.3
32.5°	5128.7	5103.0	5092.5	4962.7	4647.1	4346.7	4271.4	4701.5	5062.0	5052.4	4888.4
35°	5327.1	5293.7	5306.1	5240.3	4980.0	4605.1	4453.5	4910.4	5416.7	5415.8	5211.7
37.5°	5523.5	5494.0	5504.5	5460.6	5288.0	4933.2	4675.7	5165.9	5856.3	5877.3	5602.6
40°	5702.8	5671.3	5713.3	5672.3	5527.3	5282.2	4928.4	5454.8	6365.6	6405.6	6075.7
42.5°	5810.6	5785.8	5855.4	5856.3	5735.3	5576.9	5206.0	5773.4	6954.9	7044.6	6657.4
45°	5847.7	5839.2	5944.1	5966.0	5919.3	5747.7	5455.9	6120.5	7590.1	7750.3	7320.2
47.5°	5807.8	5791.5	5936.5	6017.6	6054.7	5827.7	5662.7	6496.2	8238.5	8473.2	8043.1
50°	5605.5	5574.1	5789.6	5960.3	6092.9	5880.2	5871.6	6930.1	8975.7	9232.3	8769.8
52.5°	5242.2	5218.4	5463.5	5760.0	6009.0	5905.9	6106.2	7404.1	9675.7	10007.6	9514.6
55°	4777.7	4746.3	5016.1	5403.4	5800.1	5897.3	6340.9	7934.3	10501.5	10838.2	10284.1
57.5°	4041.6	3978.6	4320.1	4777.7	5459.7	5886.9	6584.9	8461.7	11340.8	11744.1	11105.3
60°	2967.8	2874.3	3292.9	3835.6	4794.0	5784.8	6887.3	9053.0	12347.9	12711.1	12001.6
62.5°	1728.0	1673.6	1947.4	2453.7	3613.3	5184.0	7057.0	9740.6	13337.7	13719.2	12882.8
65°	1341.8	1326.6	1350.3	1389.5	2011.3	3881.4	6533.5	10411.0	14596.5	14863.5	13801.2
67.5°	1227.3	1215.9	1226.4	1152.9	1020.4	2161.9	5168.8	10580.8	15945.0	16107.2	14605.1
70°	1091.0	1077.6	1111.9	1049.0	803.0	983.2	3339.7	9964.6	17017.9	17322.1	15216.4
72.5°	888.8	873.5	953.7	925.1	676.1	631.3	1677.5	8500.8	16905.3	17536.6	14778.7
75°	682.9	674.2	769.6	793.5	551.2	496.8	804.8	6318.9	14877.0	15513.0	12737.0
77.5°	530.2	523.6	572.2	659.0	444.4	385.3	495.0	4008.2	11211.0	11322.7	8777.4
80°	397.7	378.6	423.4	510.2	346.1	281.4	335.7	2337.4	7086.5	6423.8	3820.3
82.5°	248.9	239.3	276.5	340.4	244.2	193.6	218.4	1291.2	2840.0	1672.7	737.2
85°	142.1	138.3	150.7	194.5	132.5	111.6	124.9	570.3	518.8	356.7	222.2
87.5°	57.2	55.4	68.7	86.8	48.6	41.0	43.9	137.4	114.4	105.9	73.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1	3619.1
2.5°	3629.6	3629.6	3616.2	3595.3	3571.4	3556.1	3531.3	3524.7	3498.9	3491.4	3503.7
5°	3673.5	3665.8	3624.8	3565.7	3484.6	3410.3	3328.3	3276.7	3204.3	3178.5	3197.6
7.5°	3728.7	3707.8	3637.2	3507.6	3337.8	3170.8	2997.3	2865.7	2739.8	2695.0	2700.8
10°	3779.3	3749.8	3629.6	3402.6	3108.9	2820.0	2543.3	2349.8	2202.9	2142.9	2156.2
12.5°	3829.8	3775.5	3579.0	3228.1	2783.7	2391.7	2097.0	1946.4	1855.8	1783.3	1807.2
15°	3877.6	3801.2	3500.9	2994.4	2427.0	2029.4	1811.9	1691.8	1619.3	1571.6	1580.2
17.5°	3932.8	3823.1	3383.5	2697.9	2087.5	1778.6	1601.2	1528.7	1514.4	1508.7	1512.5
20°	4010.1	3843.2	3229.1	2366.0	1837.7	1578.3	1486.8	1480.1	1479.1	1476.2	1485.7
22.5°	4093.0	3867.0	3025.0	2064.7	1625.0	1453.3	1437.2	1423.8	1415.2	1414.3	1424.7
25°	4191.3	3874.7	2769.3	1817.6	1443.8	1394.2	1375.1	1355.2	1349.4	1349.4	1355.2
27.5°	4286.7	3848.9	2471.9	1603.1	1341.8	1339.9	1315.1	1308.4	1307.5	1310.4	1317.9
30°	4382.0	3800.3	2176.2	1404.8	1282.7	1282.7	1274.1	1278.9	1282.7	1292.2	1298.9
32.5°	4510.7	3748.8	1929.3	1257.9	1231.1	1221.6	1230.2	1239.7	1243.5	1255.9	1266.5
35°	4699.6	3712.6	1732.8	1177.7	1177.7	1165.3	1170.1	1168.2	1159.7	1153.9	1167.3
37.5°	4949.4	3710.6	1570.6	1140.5	1132.9	1131.0	1132.0	1119.6	1086.2	1046.1	1047.1
40°	5249.8	3762.2	1445.8	1114.8	1109.0	1120.5	1114.8	1081.5	989.8	920.2	918.4
42.5°	5653.2	3909.0	1365.6	1083.3	1100.5	1114.8	1091.9	976.5	914.5	867.9	865.9
45°	6128.2	4147.5	1324.6	1050.0	1084.3	1101.5	990.9	940.3	890.7	834.5	830.7
47.5°	6666.0	4447.8	1315.1	1018.5	1048.1	1058.5	947.9	925.1	868.8	807.7	803.0
50°	7251.6	4803.6	1340.8	981.3	995.6	959.4	933.7	912.7	854.4	794.4	787.7
52.5°	7857.1	5195.5	1392.4	930.8	943.2	903.1	927.9	909.8	845.9	764.9	759.1
55°	8452.2	5590.2	1441.9	871.7	889.8	852.6	911.7	898.3	806.8	715.2	710.4
57.5°	9056.8	5983.2	1490.6	819.2	838.2	803.9	885.9	867.9	762.9	669.4	667.6
60°	9685.2	6364.6	1513.4	768.6	782.0	759.1	846.9	815.4	713.3	622.7	619.9
62.5°	10273.7	6682.2	1476.2	718.1	726.7	717.2	795.3	753.4	663.8	570.3	569.3
65°	10864.0	6871.0	1361.8	668.5	670.5	665.6	722.8	686.6	605.6	524.5	518.8
67.5°	11398.9	6976.9	1179.7	615.1	610.3	608.4	655.2	614.2	549.3	478.8	473.0
70°	11512.5	6708.0	901.2	552.2	552.2	547.3	580.8	538.8	487.3	430.1	428.1
72.5°	10515.0	5642.7	639.9	480.6	488.3	478.8	506.4	471.1	424.4	386.2	374.7
75°	8478.9	4137.9	465.4	407.2	420.6	404.4	430.1	405.3	365.2	364.3	328.1
77.5°	5825.8	2558.6	337.6	335.7	345.2	324.2	353.8	340.4	304.2	288.0	269.9
80°	2486.1	1020.4	246.0	259.4	259.4	240.4	274.7	278.5	247.0	239.3	239.3
82.5°	495.0	289.9	172.6	178.4	167.8	162.2	194.5	215.6	297.6	330.9	331.9
85°	148.7	106.8	103.9	97.3	85.8	86.8	114.4	216.5	267.0	152.6	131.6
87.5°	41.0	26.8	27.7	21.9	18.1	23.9	39.1	164.0	89.7	38.1	32.4
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)