

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: P967876

Luminaire Tested: **NAV-SB5A-830-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967876
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-830-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20396.5 lumens
Efficiency: N/A
Efficacy: 143.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

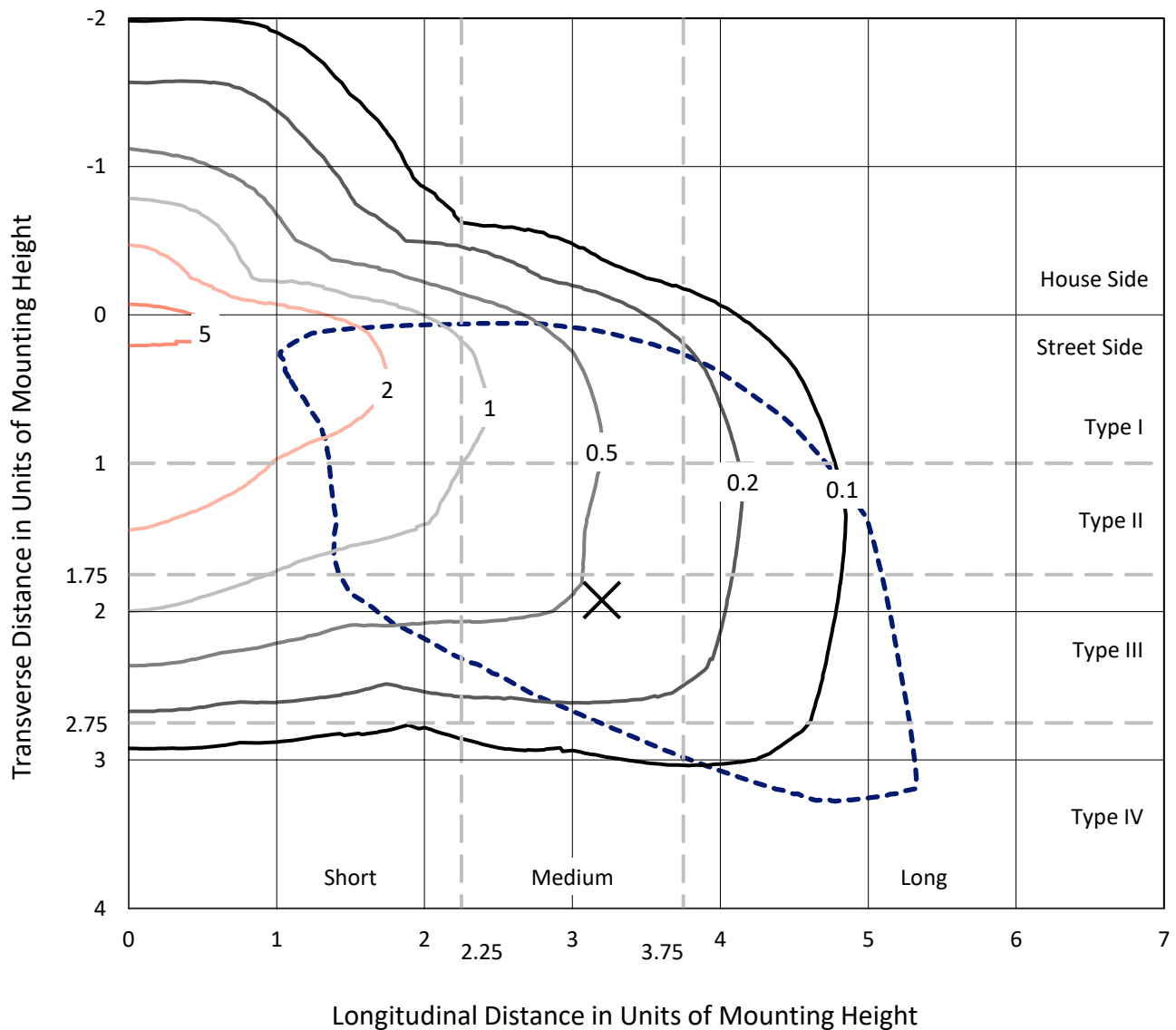
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

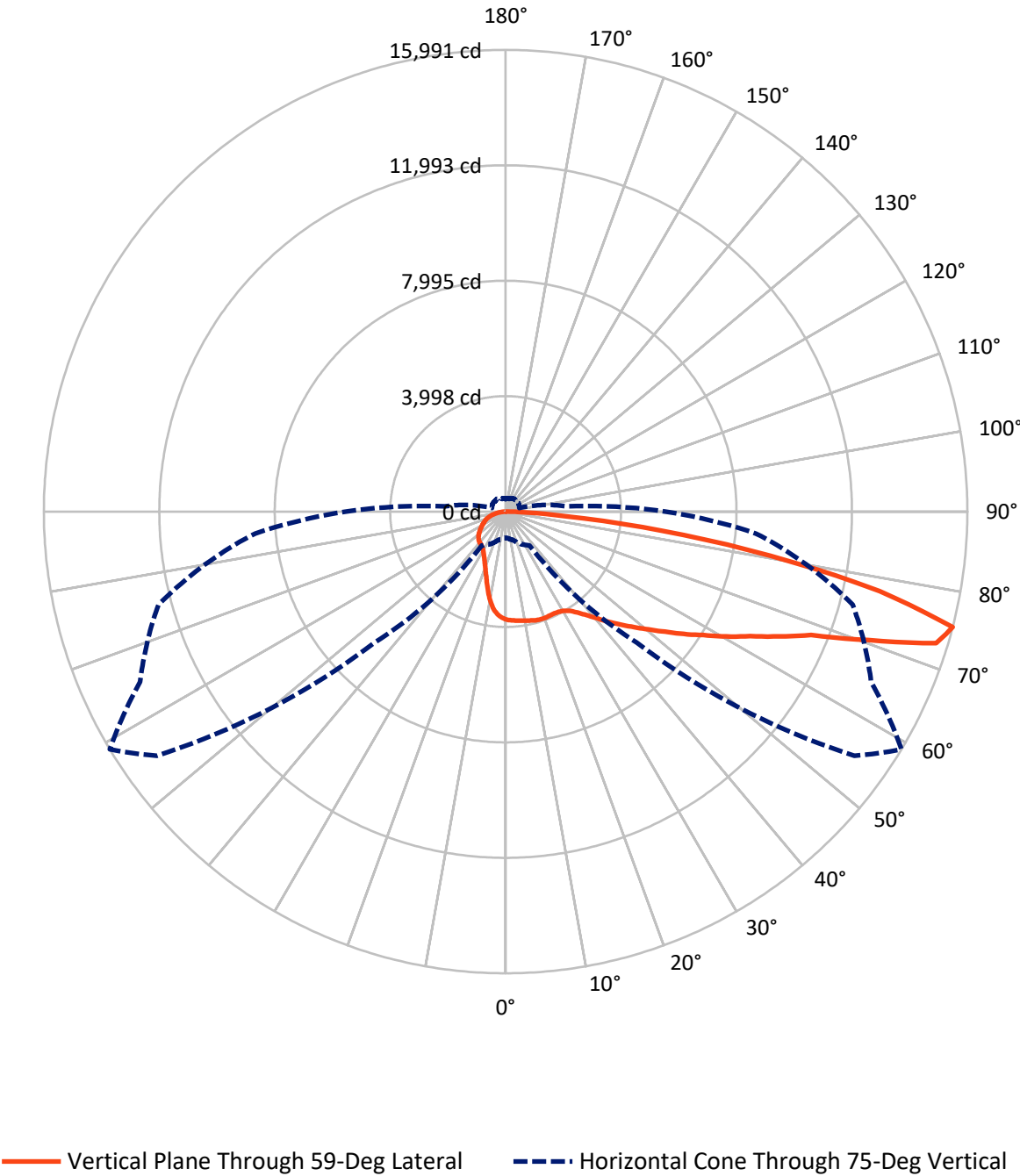
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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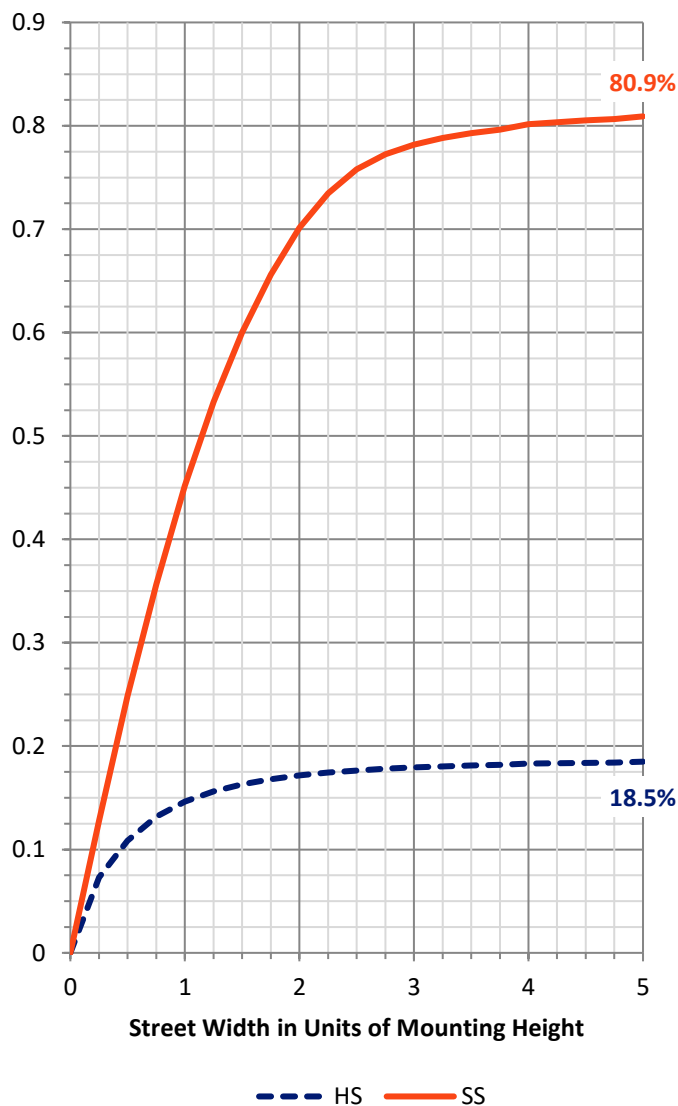
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3825.5	0.0	3825.5
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	16571.0	0.0	16571.0
	% Fixture	81.2	0.0	81.2
Total	Lumens	20396.5	0.0	20396.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.7	1.6
10°-20°	858.0	4.2
20°-30°	1303.3	6.4
30°-40°	1937.3	9.5
40°-50°	2881.1	14.1
50°-60°	3910.8	19.2
60°-70°	4774.4	23.4
70°-80°	3746.9	18.4
80°-90°	649.1	3.2
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°	20396.5	100.0
0°-180°	20396.5	100.0

Coefficient of Utilization



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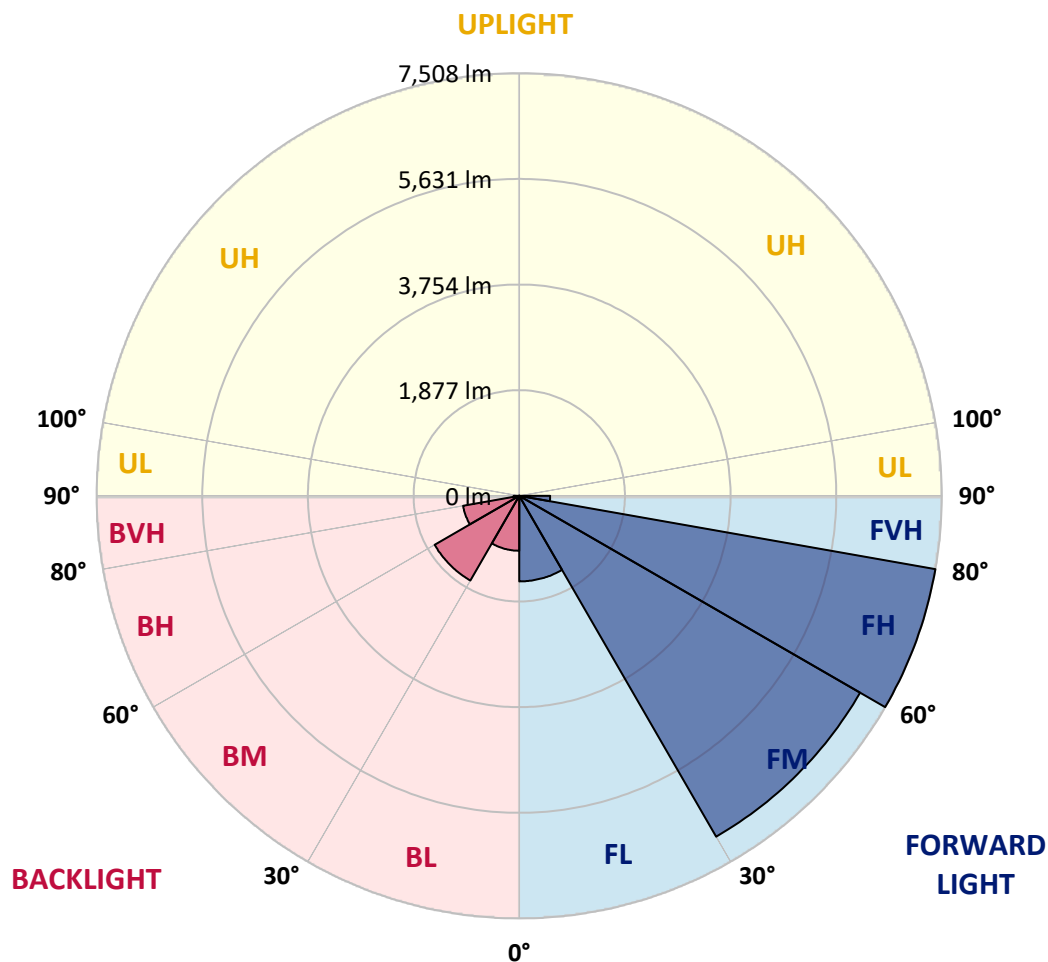
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1520.8	7.5			
FM	(30°-60°)	6992.8	34.3			
FH	(60°-80°)	7507.7	36.8			G4/12000
FVH	(80°-90°)	549.7	2.7			G4/750
BL	(0°-30°)	976.2	4.8	B2/1000		
BM	(30°-60°)	1736.4	8.5	B2/2500		
BH	(60°-80°)	1013.5	5.0	B3/2500		G3/2500
BVH	(80°-90°)	99.4	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-G4

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7
2.5°	3775.6	3762.4	3775.6	3770.1	3767.9	3763.5	3764.6	3772.2	3767.9	3773.3	3754.7
5°	3750.3	3742.6	3755.8	3752.5	3766.8	3768.9	3783.3	3792.0	3797.5	3798.5	3784.3
7.5°	3708.7	3701.0	3719.6	3735.0	3765.6	3774.5	3804.1	3818.3	3826.0	3839.1	3818.3
10°	3556.1	3552.9	3598.9	3657.1	3729.5	3774.5	3819.5	3843.5	3855.6	3890.8	3866.6
12.5°	3286.2	3290.6	3350.9	3462.9	3607.7	3752.5	3837.0	3872.1	3890.8	3934.7	3923.7
15°	3028.4	3027.2	3093.0	3212.7	3415.6	3656.0	3845.8	3906.1	3937.9	4002.6	3993.9
17.5°	2879.1	2874.7	2920.8	3011.9	3200.6	3507.9	3823.9	3924.7	3992.8	4074.0	4066.3
20°	2851.7	2842.9	2867.0	2912.0	3045.9	3345.4	3766.8	3924.7	4036.7	4142.0	4137.6
22.5°	2951.5	2937.2	2927.4	2921.9	2981.1	3211.5	3702.0	3911.6	4101.4	4239.7	4232.0
25°	3152.3	3130.4	3079.9	3030.5	3013.0	3151.3	3645.0	3908.3	4198.0	4371.3	4342.8
27.5°	3477.1	3449.6	3347.6	3229.2	3122.7	3181.9	3619.8	3928.1	4304.4	4510.7	4453.6
30°	3879.8	3850.2	3721.8	3539.6	3348.8	3296.1	3651.6	3986.2	4440.5	4696.1	4584.2
32.5°	4240.7	4207.8	4098.2	3912.7	3654.8	3493.6	3752.5	4097.0	4654.4	4953.9	4780.6
35°	4561.1	4522.7	4424.0	4252.8	4030.1	3771.2	3934.7	4293.4	4958.3	5373.2	5047.2
37.5°	4875.0	4830.0	4722.5	4541.4	4385.6	4140.9	4185.9	4545.8	5362.1	5882.2	5400.5
40°	5226.1	5161.4	5030.8	4851.9	4700.5	4574.4	4516.2	4855.2	5772.5	6450.5	5841.6
42.5°	5566.3	5504.8	5349.0	5196.4	5006.6	4970.4	4899.1	5217.2	6221.2	7074.9	6289.3
45°	5932.7	5859.2	5670.4	5477.3	5357.8	5233.8	5269.9	5579.4	6661.3	7711.3	6758.8
47.5°	6276.1	6193.9	5971.1	5756.0	5690.2	5455.4	5610.1	5977.7	7118.8	8356.4	7224.1
50°	6461.6	6380.3	6194.9	6000.8	5949.1	5728.6	5978.7	6415.5	7598.3	8999.4	7670.7
52.5°	6616.3	6528.5	6286.0	6178.5	6163.1	6026.0	6433.0	6915.8	8077.7	9567.8	8101.9
55°	6780.9	6683.2	6373.8	6277.2	6347.4	6359.5	6971.7	7483.1	8584.7	10121.9	8508.9
57.5°	6970.6	6846.7	6458.2	6360.6	6527.4	6750.1	7590.6	8071.2	9082.8	10635.4	8871.1
60°	7149.5	7024.4	6620.7	6493.4	6721.6	7203.3	8300.4	8783.3	9646.8	11093.0	9213.4
62.5°	7184.6	7081.5	6750.1	6749.0	6985.0	7732.1	9140.9	9502.0	10139.4	11545.0	9520.6
65°	6576.8	6512.0	6315.6	6739.2	7362.4	8493.6	10076.9	10421.5	10766.0	11940.0	9790.5
67.5°	5005.5	5014.3	5000.1	5817.5	7057.3	9587.5	11431.9	11405.7	11539.6	12383.2	10101.1
70°	2288.8	2340.4	2676.2	4015.8	5654.0	9713.7	13672.5	13331.3	12510.5	12957.1	10369.8
72.5°	1236.6	1276.0	1413.3	1945.3	3399.2	8636.2	15346.9	15589.3	13801.9	13343.3	10074.7
75°	907.4	929.4	1024.8	1236.6	1427.5	6418.8	14746.7	15990.9	13963.3	12442.5	8699.9
77.5°	679.2	689.1	767.0	979.8	730.7	3383.8	11783.1	13243.5	11953.1	10222.8	6426.4
80°	492.6	503.6	561.8	735.1	512.4	1237.7	8090.9	9295.7	8186.4	6516.4	3202.8
82.5°	340.1	344.5	369.7	500.3	357.7	480.6	4590.8	5451.1	4570.0	2286.6	864.6
85°	205.2	210.6	221.6	291.8	203.0	228.3	1981.6	2049.6	1366.0	546.4	268.9
87.5°	84.5	90.0	98.7	122.9	80.1	63.7	327.0	410.4	255.6	160.2	83.4
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°	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7	3743.7
2.5°	3749.2	3741.6	3720.6	3692.2	3665.8	3632.9	3618.7	3606.6	3595.6	3574.8	3564.8
5°	3772.2	3751.4	3695.4	3623.1	3540.8	3450.8	3363.0	3302.7	3251.1	3212.7	3180.9
7.5°	3807.4	3767.9	3665.8	3517.7	3329.0	3135.9	2961.4	2837.4	2744.1	2710.1	2650.9
10°	3843.5	3796.4	3618.7	3357.5	3031.6	2734.3	2502.7	2375.5	2300.9	2276.7	2239.4
12.5°	3886.4	3817.2	3545.2	3134.8	2699.1	2373.3	2171.4	2096.8	2058.4	2045.2	2048.6
15°	3948.9	3834.8	3434.3	2856.1	2382.1	2110.0	1979.4	1927.8	1908.0	1907.0	1911.3
17.5°	3996.1	3838.1	3262.1	2557.6	2138.5	1950.9	1843.4	1823.6	1836.8	1856.5	1864.2
20°	4048.7	3808.5	3036.0	2285.5	1967.3	1811.5	1766.5	1779.7	1811.5	1840.1	1849.9
22.5°	4086.1	3754.7	2762.8	2073.8	1819.2	1731.4	1729.2	1756.6	1774.2	1788.5	1796.1
25°	4119.0	3663.7	2473.1	1896.0	1697.4	1683.2	1707.2	1698.5	1686.4	1698.5	1706.2
27.5°	4143.2	3519.8	2214.2	1740.2	1611.8	1650.2	1636.0	1616.2	1615.1	1621.7	1632.6
30°	4135.5	3327.9	2001.3	1592.0	1551.4	1588.7	1554.7	1551.4	1548.2	1551.4	1563.5
32.5°	4135.5	3109.5	1837.8	1490.0	1513.1	1498.9	1495.5	1487.8	1474.7	1473.5	1487.8
35°	4158.5	2891.2	1697.4	1435.2	1481.2	1447.2	1449.5	1430.8	1403.3	1390.2	1403.3
37.5°	4205.7	2715.6	1558.1	1408.9	1425.3	1424.2	1415.4	1383.6	1335.4	1293.7	1307.9
40°	4319.8	2664.1	1462.6	1396.8	1398.9	1412.1	1389.1	1327.7	1217.9	1149.8	1158.7
42.5°	4498.6	2750.7	1441.8	1367.1	1381.4	1394.6	1349.6	1206.9	1129.0	1088.4	1088.4
45°	4725.8	2902.2	1486.8	1324.3	1339.7	1362.7	1228.9	1160.8	1125.8	1126.9	1132.3
47.5°	5013.2	3061.3	1570.1	1287.1	1279.4	1292.5	1148.8	1107.1	1058.8	1070.9	1101.6
50°	5345.7	3222.5	1649.1	1236.6	1212.5	1169.6	1097.3	1057.7	996.3	967.7	975.4
52.5°	5705.6	3378.4	1680.9	1175.2	1140.0	1090.6	1062.1	1013.8	939.2	892.1	890.9
55°	6046.8	3519.8	1645.8	1101.6	1067.6	1029.2	1024.8	995.2	915.1	849.2	849.2
57.5°	6369.3	3638.4	1558.1	1027.0	994.0	971.1	1000.7	986.4	885.5	800.9	796.6
60°	6642.6	3719.6	1430.8	951.3	928.2	916.1	961.1	956.7	843.8	749.4	746.1
62.5°	6859.8	3751.4	1290.4	878.8	873.4	851.5	906.3	906.3	791.1	698.9	695.7
65°	7030.0	3720.6	1147.7	807.6	818.6	785.7	839.4	832.8	735.1	653.9	649.5
67.5°	7180.2	3619.8	989.7	737.4	762.6	720.9	769.2	753.8	673.7	609.0	604.5
70°	7247.2	3385.0	809.7	667.1	697.8	657.2	698.9	670.5	604.5	560.7	551.9
72.5°	6709.5	2813.3	637.4	593.6	619.9	587.0	623.2	590.3	529.9	510.2	493.7
75°	5550.9	2111.1	490.5	513.5	533.2	508.0	532.2	508.0	453.2	467.4	426.8
77.5°	4031.2	1425.3	375.3	429.1	437.8	424.7	445.5	418.0	368.7	365.4	348.9
80°	2004.6	835.0	294.1	339.1	335.8	327.0	351.1	337.9	296.2	313.9	310.5
82.5°	580.5	357.7	213.9	238.1	231.5	233.7	251.2	257.9	386.2	382.9	391.8
85°	182.1	140.4	128.3	132.7	126.2	129.5	148.1	294.1	272.1	159.1	172.3
87.5°	47.2	48.3	31.8	34.0	35.2	41.7	47.2	178.9	85.6	56.0	59.2
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)