

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: P966140

Luminaire Tested: **NAV-SB4B-735-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966140
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-SB4B-735-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22607.4 lumens
Efficiency: N/A
Efficacy: 153.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

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



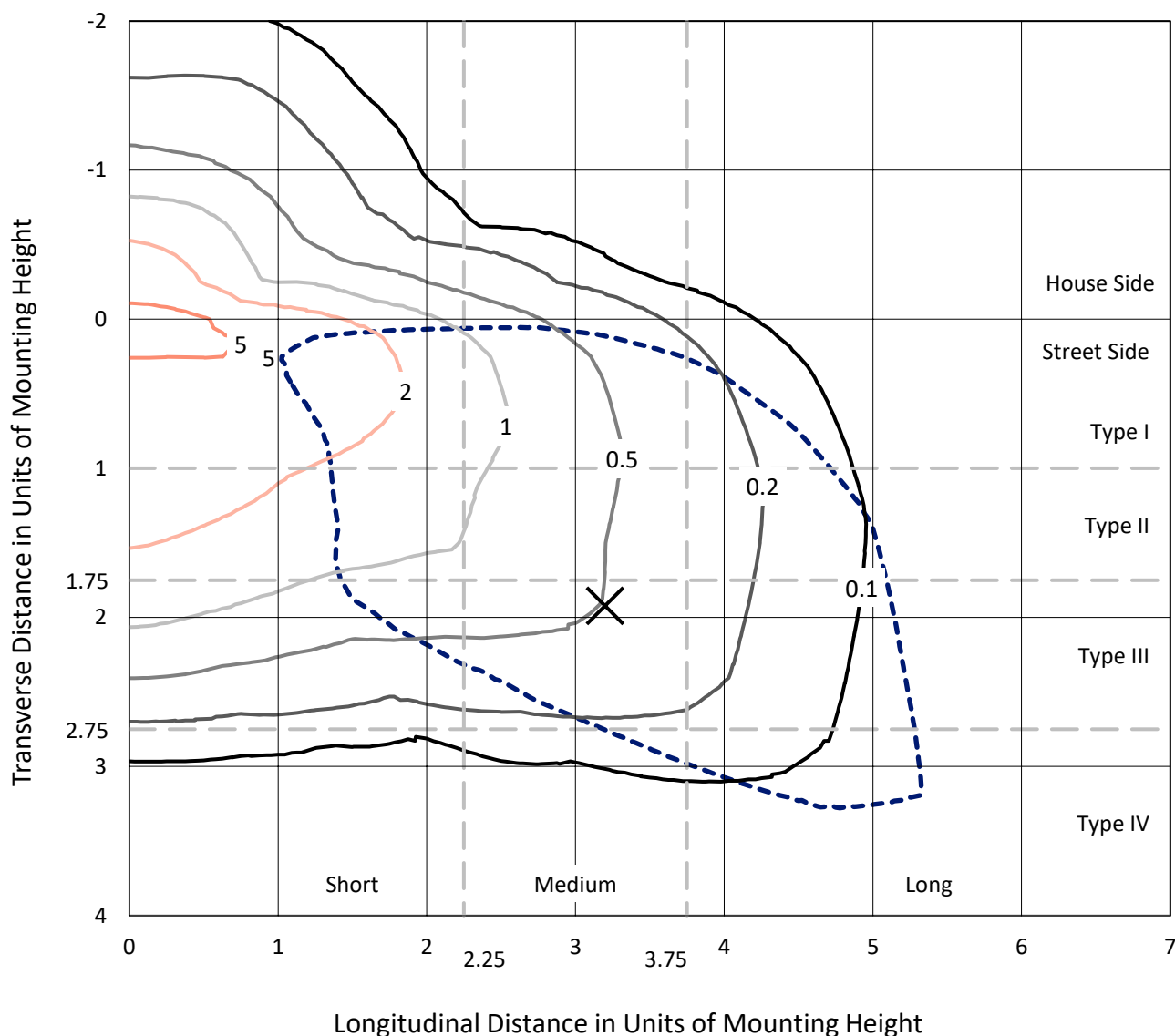
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

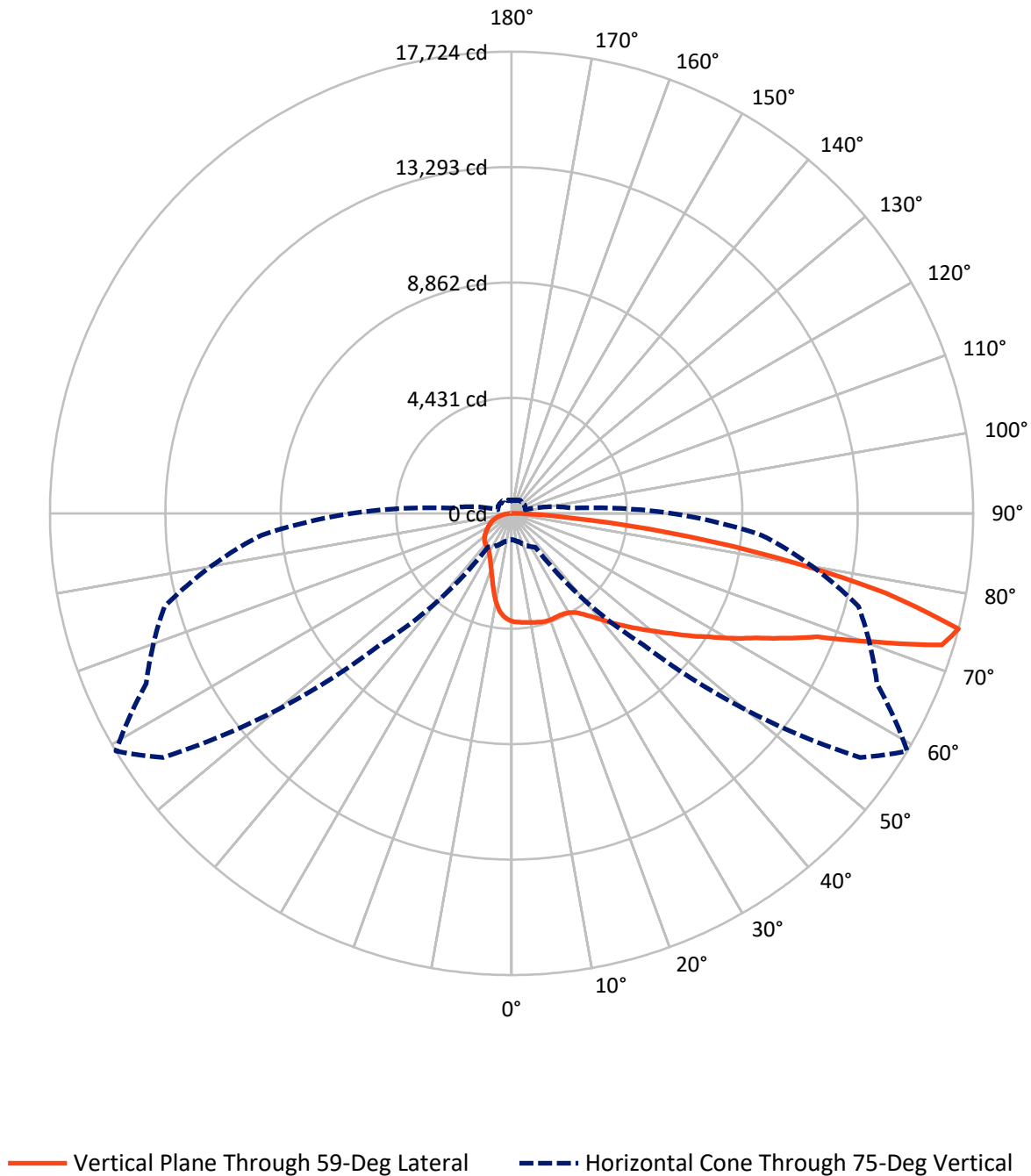
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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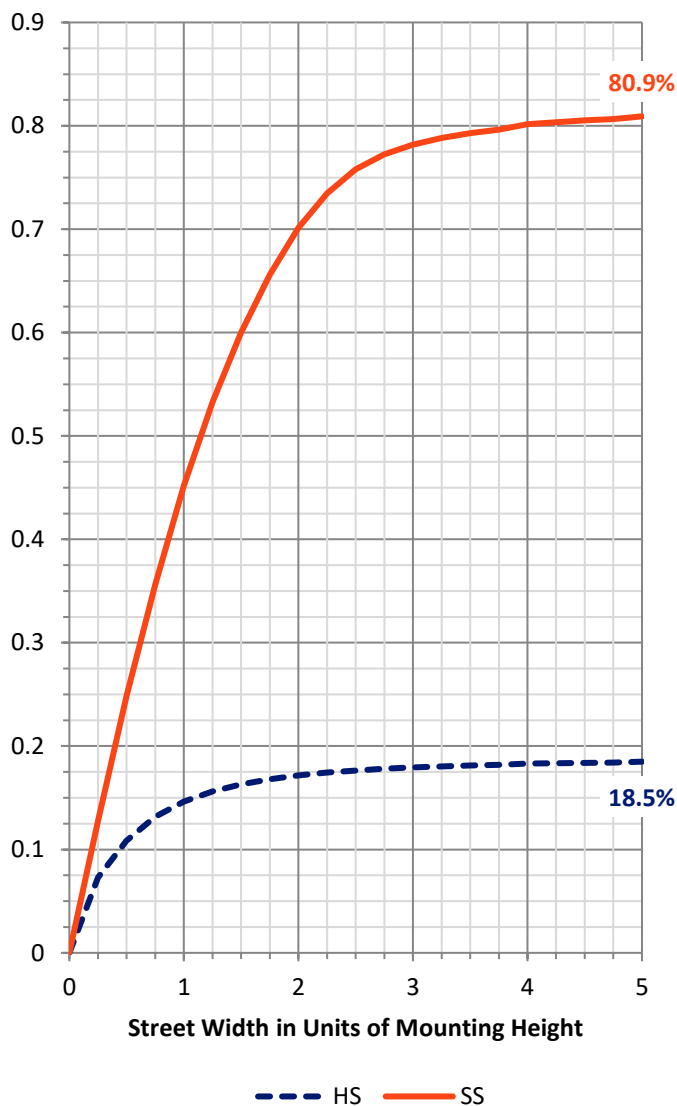
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4240.2	0.0	4240.2
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	18367.2	0.0	18367.2
	% Fixture	81.2	0.0	81.2
Total	Lumens	22607.4	0.0	22607.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	372.1	1.6
10°-20°	951.0	4.2
20°-30°	1444.6	6.4
30°-40°	2147.3	9.5
40°-50°	3193.4	14.1
50°-60°	4334.7	19.2
60°-70°	5291.9	23.4
70°-80°	4153.0	18.4
80°-90°	719.4	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°	22607.4	100.0
0°-180°	22607.4	100.0

Coefficient of Utilization



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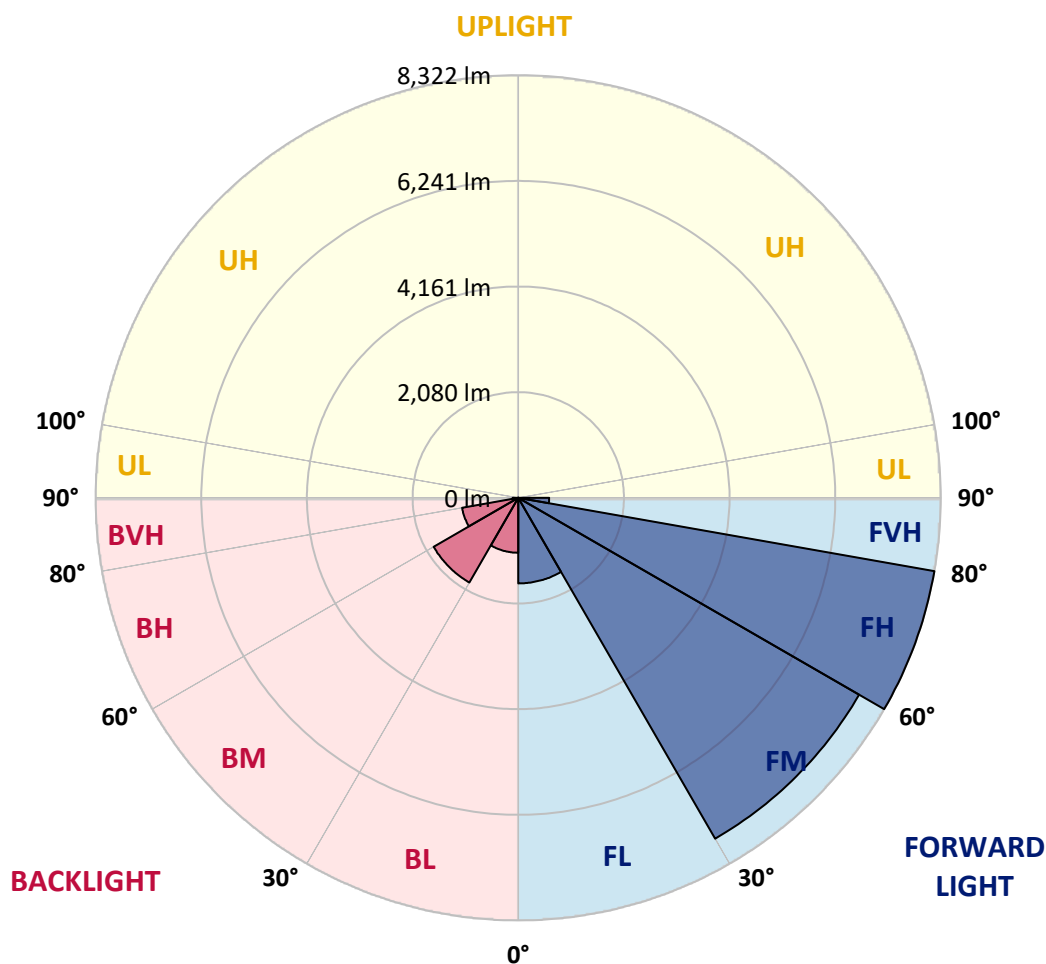
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1685.6	7.5			
FM	(30°-60°)	7750.8	34.3			
FH	(60°-80°)	8321.6	36.8			G4/12000
FVH	(80°-90°)	609.3	2.7			G4/750
BL	(0°-30°)	1082.0	4.8	B3/2500		
BM	(30°-60°)	1924.6	8.5	B2/2500		
BH	(60°-80°)	1123.4	5.0	B3/2500		G3/2500
BVH	(80°-90°)	110.1	0.5			G2/225
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°	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5
2.5°	4184.8	4170.2	4184.8	4178.7	4176.3	4171.4	4172.7	4181.2	4176.3	4182.4	4161.7
5°	4156.8	4148.3	4162.9	4159.2	4175.0	4177.5	4193.3	4203.0	4209.2	4210.4	4194.5
7.5°	4110.7	4102.2	4122.8	4139.8	4173.9	4183.6	4216.4	4232.2	4240.7	4255.4	4232.2
10°	3941.5	3937.9	3989.0	4053.5	4133.7	4183.6	4233.5	4260.2	4273.6	4312.5	4285.7
12.5°	3642.4	3647.3	3714.2	3838.2	3998.7	4159.2	4252.9	4291.8	4312.5	4361.2	4349.0
15°	3356.6	3355.3	3428.3	3561.0	3785.9	4052.2	4262.7	4329.5	4364.8	4436.5	4426.9
17.5°	3191.2	3186.3	3237.5	3338.3	3547.5	3888.0	4238.3	4350.2	4425.6	4515.6	4507.1
20°	3160.8	3151.1	3177.8	3227.7	3376.0	3708.0	4175.0	4350.2	4474.2	4591.0	4586.2
22.5°	3271.5	3255.7	3244.7	3238.6	3304.3	3559.7	4103.3	4335.6	4546.0	4699.2	4690.7
25°	3494.0	3469.7	3413.8	3359.0	3339.6	3492.8	4040.0	4332.0	4653.0	4845.2	4813.6
27.5°	3854.0	3823.6	3710.5	3579.2	3461.2	3526.8	4012.2	4353.9	4771.0	4999.6	4936.4
30°	4300.4	4267.5	4125.2	3923.3	3711.7	3653.3	4047.4	4418.3	4921.8	5205.2	5081.1
32.5°	4700.4	4664.0	4542.4	4336.9	4051.0	3872.2	4159.2	4541.2	5158.9	5490.9	5298.8
35°	5055.6	5013.0	4903.6	4713.9	4467.0	4180.0	4361.2	4758.9	5495.8	5955.6	5594.3
37.5°	5403.4	5353.6	5234.4	5033.7	4861.0	4589.7	4639.7	5038.6	5943.4	6519.8	5985.9
40°	5792.6	5720.8	5576.1	5377.9	5210.1	5070.2	5005.7	5381.6	6398.3	7149.8	6474.8
42.5°	6169.6	6101.5	5928.8	5759.8	5549.3	5509.2	5430.1	5782.8	6895.6	7841.8	6971.0
45°	6575.8	6494.3	6285.1	6071.1	5938.5	5801.1	5841.2	6184.1	7383.3	8547.2	7491.5
47.5°	6956.5	6865.2	6618.3	6380.0	6307.0	6046.8	6218.3	6625.6	7890.4	9262.3	8007.2
50°	7162.0	7072.0	6866.5	6651.2	6594.0	6349.6	6626.8	7110.9	8421.9	9975.0	8502.2
52.5°	7333.5	7236.2	6967.3	6848.2	6831.2	6679.1	7130.3	7665.5	8953.4	10605.0	8980.1
55°	7515.9	7407.7	7064.7	6957.7	7035.5	7048.8	7727.5	8294.2	9515.3	11219.0	9431.3
57.5°	7726.2	7588.8	7158.3	7050.1	7235.0	7481.8	8413.4	8946.1	10067.3	11788.2	9832.6
60°	7924.5	7785.9	7338.3	7197.2	7450.2	7984.1	9200.3	9735.3	10692.5	12295.4	10212.1
62.5°	7963.4	7849.1	7481.8	7480.6	7742.0	8570.2	10131.8	10532.0	11238.5	12796.4	10552.6
65°	7289.7	7217.9	7000.2	7469.7	8160.4	9414.3	11169.2	11551.1	11932.9	13234.3	10851.8
67.5°	5548.1	5557.9	5542.1	6448.1	7822.4	10626.8	12671.2	12641.9	12790.4	13725.6	11196.0
70°	2536.9	2594.1	2966.2	4451.2	6266.8	10766.7	15154.5	14776.3	13866.6	14361.6	11493.9
72.5°	1370.6	1414.4	1566.4	2156.3	3767.7	9572.4	17010.4	17279.2	15298.1	14789.7	11166.8
75°	1005.7	1030.1	1135.9	1370.6	1582.2	7114.5	16345.2	17724.3	15476.9	13791.3	9642.9
77.5°	752.8	763.7	850.1	1086.0	810.0	3750.7	13060.3	14679.0	13248.8	11331.0	7123.0
80°	546.0	558.2	622.7	814.9	568.0	1371.9	8967.9	10303.3	9073.8	7222.8	3550.0
82.5°	377.0	381.9	409.8	554.5	396.5	532.7	5088.4	6041.9	5065.3	2534.5	958.4
85°	227.4	233.5	245.7	323.5	225.0	253.0	2196.4	2271.8	1514.1	605.7	298.0
87.5°	93.7	99.7	109.5	136.2	88.8	70.5	362.4	454.9	283.4	177.5	92.5
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°	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5
2.5°	4155.7	4147.2	4124.0	4092.4	4063.2	4026.7	4010.9	3997.5	3985.4	3962.2	3951.3
5°	4181.2	4158.0	4096.0	4015.7	3924.5	3824.8	3727.5	3660.7	3603.5	3561.0	3525.7
7.5°	4220.0	4176.3	4063.2	3899.0	3689.8	3475.8	3282.5	3145.0	3041.6	3003.9	2938.3
10°	4260.2	4207.9	4010.9	3721.5	3360.3	3030.7	2774.1	2633.0	2550.3	2523.5	2482.1
12.5°	4307.7	4231.0	3929.4	3474.5	2991.8	2630.6	2406.8	2324.1	2281.5	2266.9	2270.6
15°	4377.0	4250.5	3806.5	3165.7	2640.3	2338.6	2193.9	2136.8	2114.9	2113.7	2118.6
17.5°	4429.2	4254.2	3615.7	2834.8	2370.3	2162.3	2043.1	2021.3	2035.9	2057.8	2066.3
20°	4487.7	4221.3	3365.1	2533.3	2180.6	2007.9	1958.1	1972.6	2007.9	2039.5	2050.4
22.5°	4529.0	4161.7	3062.3	2298.6	2016.4	1919.1	1916.6	1947.1	1966.6	1982.4	1990.9
25°	4565.5	4060.7	2741.3	2101.6	1881.4	1865.6	1892.4	1882.6	1869.2	1882.6	1891.1
27.5°	4592.2	3901.5	2454.3	1928.8	1786.6	1829.1	1813.3	1791.4	1790.2	1797.4	1809.6
30°	4583.7	3688.6	2218.3	1764.6	1719.6	1761.0	1723.3	1719.6	1716.0	1719.6	1733.1
32.5°	4583.7	3446.6	2037.1	1651.6	1677.1	1661.3	1657.6	1649.1	1634.6	1633.3	1649.1
35°	4609.2	3204.6	1881.4	1590.7	1641.8	1604.1	1606.6	1585.9	1555.4	1540.9	1555.4
37.5°	4661.5	3010.0	1726.9	1561.6	1579.8	1578.6	1568.9	1533.6	1480.1	1433.9	1449.7
40°	4788.0	2952.8	1621.1	1548.2	1550.6	1565.2	1539.7	1471.6	1349.9	1274.5	1284.2
42.5°	4986.2	3048.9	1598.1	1515.4	1531.1	1545.7	1495.9	1337.7	1251.4	1206.4	1206.4
45°	5238.0	3216.8	1647.9	1467.9	1484.9	1510.4	1362.1	1286.7	1247.7	1249.0	1255.1
47.5°	5556.6	3393.1	1740.3	1426.6	1418.1	1432.6	1273.4	1227.1	1173.6	1186.9	1221.0
50°	5925.1	3571.8	1827.9	1370.6	1343.9	1296.4	1216.2	1172.4	1104.2	1072.7	1081.2
52.5°	6324.0	3744.5	1863.1	1302.5	1263.6	1208.9	1177.2	1123.7	1041.0	988.7	987.5
55°	6702.3	3901.5	1824.2	1221.0	1183.4	1140.7	1135.9	1103.1	1014.2	941.3	941.3
57.5°	7059.8	4032.8	1726.9	1138.4	1101.9	1076.4	1109.2	1093.4	981.4	887.8	882.9
60°	7362.7	4122.8	1585.9	1054.4	1028.9	1015.5	1065.4	1060.5	935.2	830.7	827.0
62.5°	7603.4	4158.0	1430.2	974.2	968.1	943.7	1004.5	1004.5	876.9	774.7	771.0
65°	7791.9	4124.0	1272.1	895.1	907.2	870.7	930.4	923.1	814.9	724.9	720.0
67.5°	7958.5	4012.2	1097.0	817.2	845.2	799.0	852.5	835.5	746.7	675.0	670.1
70°	8032.7	3751.8	897.5	739.4	773.5	728.5	774.7	743.1	670.1	621.5	611.7
72.5°	7436.8	3118.3	706.6	657.9	687.2	650.7	690.7	654.3	587.4	565.5	547.2
75°	6152.6	2339.9	543.7	569.2	591.0	563.0	589.9	563.0	502.2	518.0	473.0
77.5°	4468.2	1579.8	415.9	475.5	485.2	470.7	493.7	463.4	408.7	405.0	386.7
80°	2221.9	925.5	326.0	375.8	372.2	362.4	389.2	374.5	328.4	347.8	344.2
82.5°	643.4	396.5	237.2	263.9	256.7	259.0	278.5	285.8	428.0	424.5	434.2
85°	201.9	155.7	142.3	147.2	139.8	143.5	164.2	326.0	301.7	176.3	191.0
87.5°	52.3	53.5	35.3	37.7	38.9	46.2	52.3	198.2	94.8	62.0	65.7
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)