

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: P965704

Luminaire Tested: **NAV-SB4A-760-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965704
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-SB4A-760-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19377.6 lumens
Efficiency: N/A
Efficacy: 170.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

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



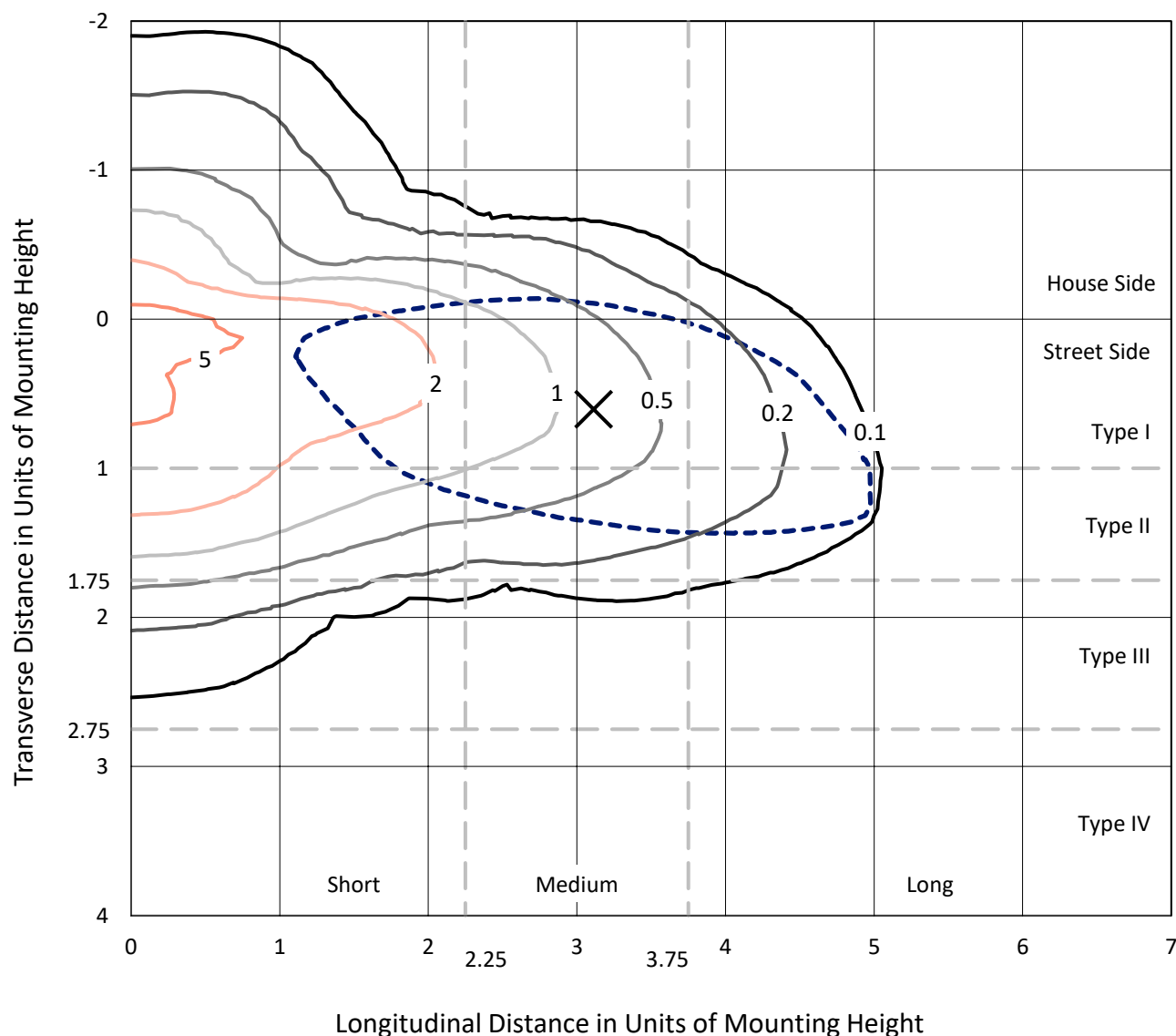
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

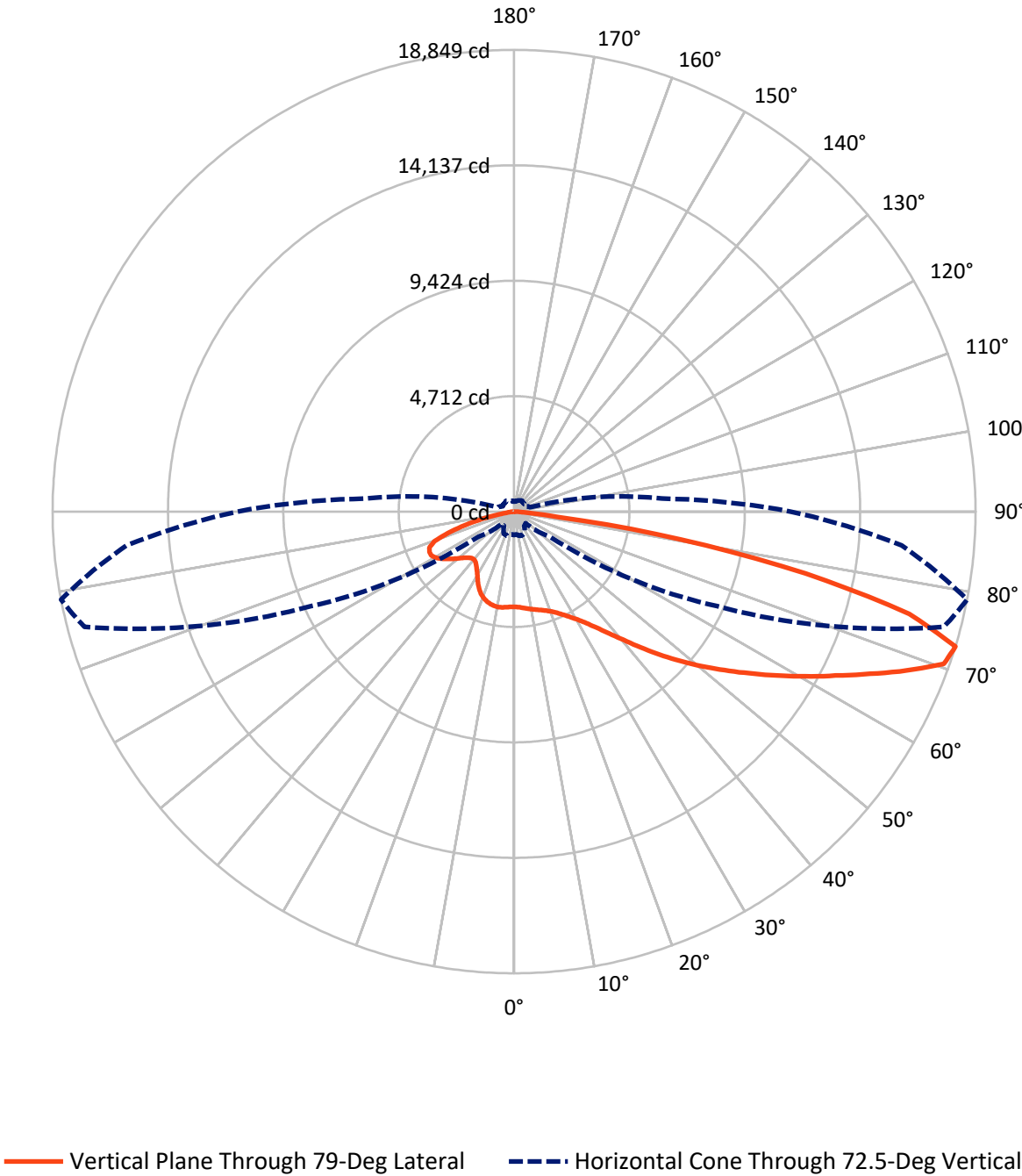
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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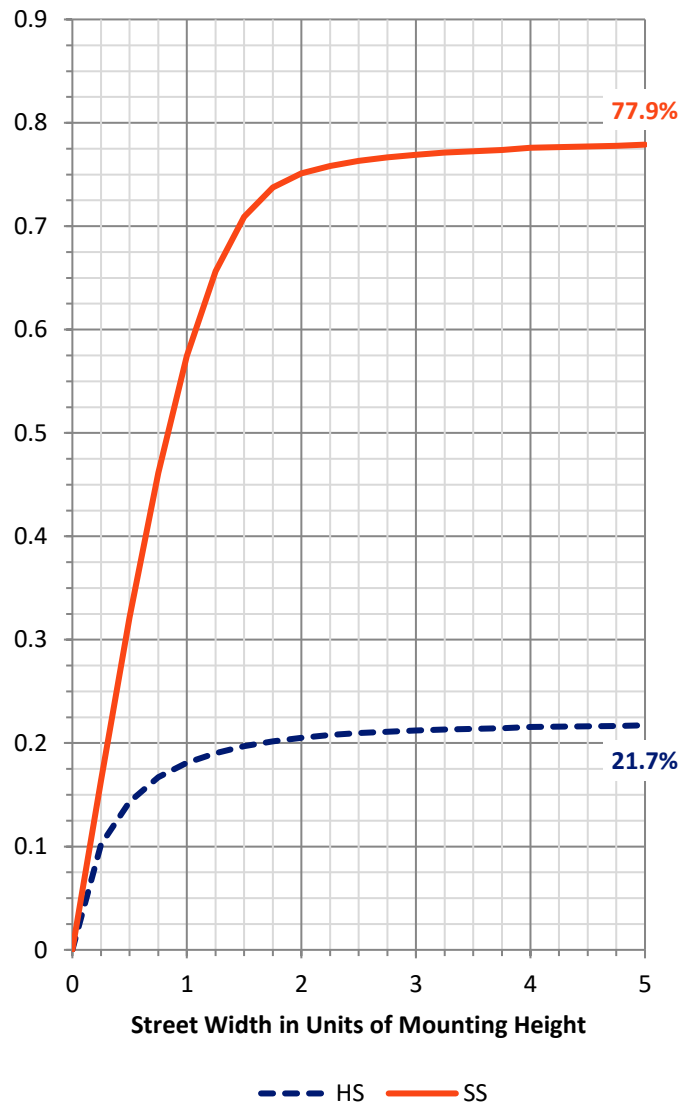
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4264.1	0.0	4264.1
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	15113.5	0.0	15113.5
	% Fixture	78.0	0.0	78.0
Total	Lumens	19377.6	0.0	19377.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.1	1.8
10°-20°	923.2	4.8
20°-30°	1489.6	7.7
30°-40°	2235.7	11.5
40°-50°	3171.4	16.4
50°-60°	4005.1	20.7
60°-70°	4067.7	21.0
70°-80°	2772.3	14.3
80°-90°	359.7	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°	19377.6	100.0
0°-180°	19377.6	100.0

Coefficient of Utilization



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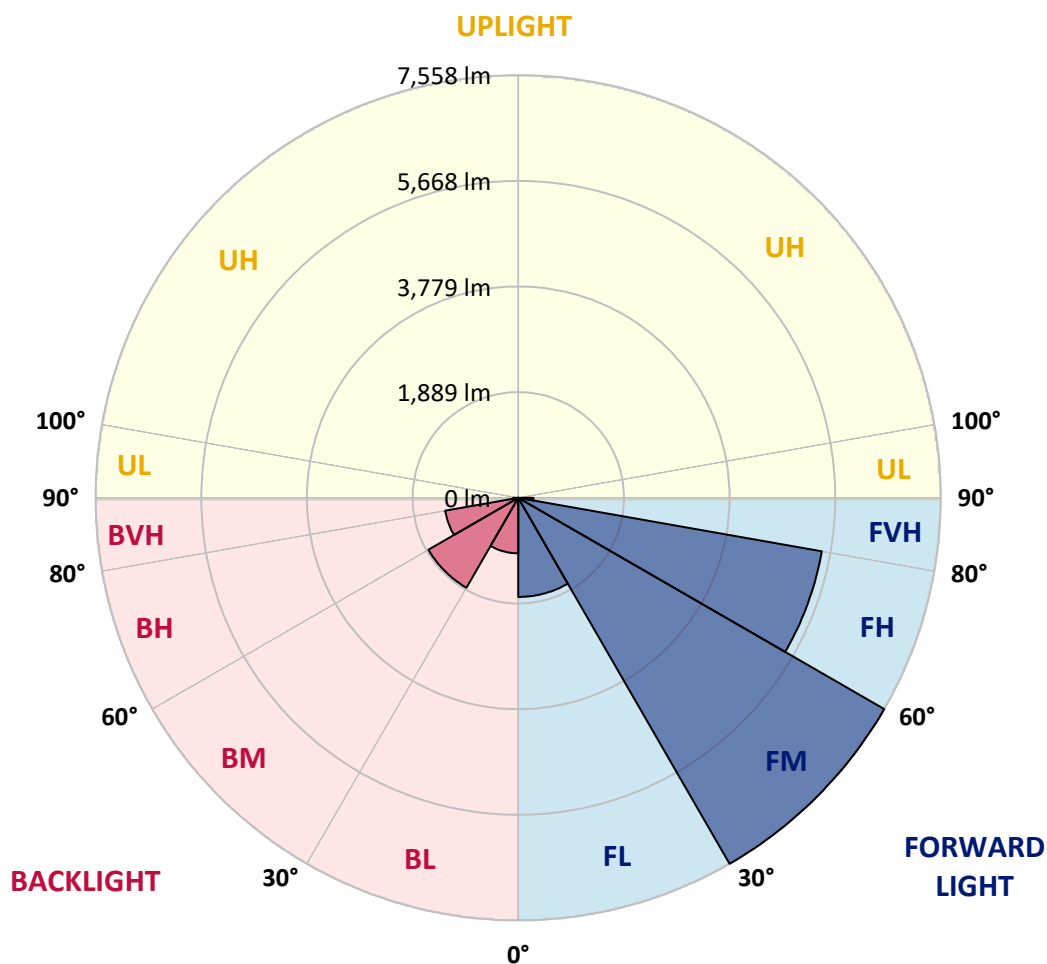
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1772.6	9.1			
FM	(30°-60°)	7557.7	39.0			
FH	(60°-80°)	5512.3	28.4			G3/7500
FVH	(80°-90°)	271.0	1.4			G3/500
BL	(0°-30°)	993.2	5.1	B2/1000		
BM	(30°-60°)	1854.4	9.6	B2/2500		
BH	(60°-80°)	1327.7	6.9	B3/2500		G3/2500
BVH	(80°-90°)	88.7	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°	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9
2.5°	3891.9	3873.5	3884.7	3880.6	3885.8	3891.9	3894.0	3897.0	3907.3	3906.3	3905.2
5°	3883.7	3865.3	3880.6	3875.5	3888.8	3903.2	3915.5	3926.8	3943.2	3950.3	3940.1
7.5°	3866.3	3854.0	3869.4	3884.7	3909.3	3930.9	3948.3	3973.9	3997.5	4001.6	4008.8
10°	3764.8	3755.6	3791.5	3831.4	3899.1	3957.5	3995.4	4025.2	4050.8	4054.9	4065.2
12.5°	3659.2	3648.0	3688.0	3742.3	3852.0	3957.5	4037.5	4076.4	4099.0	4112.3	4127.7
15°	3641.8	3632.6	3655.2	3702.3	3793.5	3929.8	4066.2	4137.9	4157.4	4172.8	4178.9
17.5°	3725.9	3708.4	3717.7	3734.1	3787.4	3904.2	4088.7	4207.6	4237.3	4253.8	4253.8
20°	3920.6	3896.0	3881.7	3848.9	3839.6	3908.3	4086.7	4291.7	4330.6	4351.1	4356.2
22.5°	4180.0	4163.5	4132.8	4049.8	3959.6	3958.6	4125.6	4399.3	4472.1	4491.5	4479.2
25°	4493.6	4469.0	4430.0	4317.3	4144.1	4058.0	4191.2	4536.6	4658.6	4663.8	4627.9
27.5°	4854.4	4817.5	4764.2	4615.6	4381.9	4213.8	4291.7	4694.5	4872.8	4870.8	4797.0
30°	5234.7	5197.8	5141.4	4961.0	4666.8	4423.9	4431.1	4864.6	5127.0	5115.8	4989.7
32.5°	5512.4	5484.8	5473.5	5334.1	4994.8	4672.0	4591.0	5053.2	5440.7	5430.4	5254.2
35°	5725.6	5689.8	5703.1	5632.4	5352.5	4949.7	4786.8	5277.7	5822.0	5821.0	5601.6
37.5°	5936.8	5905.0	5916.3	5869.2	5683.6	5302.3	5025.6	5552.4	6294.5	6317.1	6021.9
40°	6129.5	6095.7	6140.8	6096.7	5940.9	5677.5	5297.2	5863.0	6841.9	6884.9	6530.3
42.5°	6245.3	6218.7	6293.5	6294.5	6164.3	5994.2	5595.5	6205.3	7475.3	7571.7	7155.5
45°	6285.3	6276.1	6388.8	6412.4	6362.2	6177.7	5864.0	6578.4	8158.0	8330.2	7867.9
47.5°	6242.2	6224.8	6380.6	6467.7	6507.7	6263.8	6086.4	6982.3	8855.0	9107.1	8644.8
50°	6025.0	5991.1	6222.8	6406.2	6548.7	6320.2	6310.9	7448.7	9647.3	9923.0	9425.9
52.5°	5634.4	5608.8	5872.2	6191.0	6458.5	6347.8	6563.1	7958.1	10399.6	10756.3	10226.4
55°	5135.2	5101.4	5391.5	5807.6	6234.0	6338.6	6815.2	8528.0	11287.3	11649.1	11053.6
57.5°	4344.0	4276.3	4643.2	5135.2	5868.1	6327.3	7077.6	9094.8	12189.3	12622.9	11936.1
60°	3189.8	3089.4	3539.3	4122.5	5152.7	6217.6	7402.6	9730.3	13271.7	13662.2	12899.6
62.5°	1857.3	1798.9	2093.0	2637.3	3883.7	5571.9	7585.0	10469.3	14335.6	14745.6	13846.7
65°	1442.2	1425.8	1451.4	1493.4	2161.7	4171.8	7022.3	11189.9	15688.6	15975.6	14833.8
67.5°	1319.2	1306.9	1318.1	1239.2	1096.8	2323.7	5555.5	11372.4	17138.0	17312.2	15697.9
70°	1172.6	1158.2	1195.1	1127.5	863.0	1056.8	3589.6	10710.2	18291.1	18618.1	16354.9
72.5°	955.3	938.9	1025.0	994.2	726.7	678.6	1803.0	9136.8	18170.2	18848.7	15884.4
75°	733.9	724.7	827.2	852.8	592.4	534.0	865.1	6791.6	15990.0	16673.7	13689.9
77.5°	569.9	562.7	615.0	708.3	477.6	414.1	532.0	4308.1	12049.9	12169.8	9434.1
80°	427.4	406.9	455.1	548.4	372.1	302.4	360.8	2512.3	7616.8	6904.4	4106.2
82.5°	267.5	257.3	297.2	365.9	262.4	208.1	234.7	1387.8	3052.4	1797.8	792.3
85°	152.7	148.6	162.0	209.1	142.5	119.9	134.3	612.9	557.6	383.3	238.8
87.5°	61.5	59.4	73.8	93.3	52.3	44.1	47.2	147.6	123.0	113.8	78.9
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°	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9
2.5°	3901.2	3901.2	3886.8	3864.2	3838.6	3822.2	3795.6	3788.4	3760.7	3752.5	3765.8
5°	3948.3	3940.1	3896.0	3832.5	3745.3	3665.4	3577.2	3521.9	3444.0	3416.3	3436.8
7.5°	4007.7	3985.2	3909.3	3770.0	3587.5	3408.1	3221.6	3080.1	2944.8	2896.6	2902.8
10°	4062.1	4030.3	3901.2	3657.2	3341.5	3030.9	2733.7	2525.6	2367.8	2303.2	2317.5
12.5°	4116.4	4058.0	3846.8	3469.6	2992.0	2570.7	2254.0	2092.0	1994.6	1916.7	1942.4
15°	4167.6	4085.6	3762.8	3218.5	2608.6	2181.2	1947.5	1818.4	1740.4	1689.2	1698.4
17.5°	4227.1	4109.2	3636.7	2899.7	2243.7	1911.6	1721.0	1643.1	1627.7	1621.6	1625.6
20°	4310.1	4130.8	3470.6	2543.0	1975.2	1696.4	1598.0	1590.8	1589.8	1586.7	1596.9
22.5°	4399.3	4156.4	3251.3	2219.1	1746.6	1562.1	1544.7	1530.3	1521.1	1520.1	1531.4
25°	4504.9	4164.6	2976.6	1953.6	1551.8	1498.6	1478.0	1456.5	1450.4	1450.4	1456.5
27.5°	4607.4	4136.9	2656.8	1723.0	1442.2	1440.1	1413.5	1406.3	1405.3	1408.4	1416.6
30°	4709.9	4084.6	2339.0	1509.8	1378.6	1378.6	1369.4	1374.5	1378.6	1388.9	1396.0
32.5°	4848.2	4029.3	2073.6	1352.0	1323.3	1313.0	1322.2	1332.5	1336.6	1349.9	1361.2
35°	5051.2	3990.3	1862.4	1265.9	1265.9	1252.6	1257.7	1255.6	1246.4	1240.2	1254.6
37.5°	5319.7	3988.3	1688.2	1225.9	1217.7	1215.6	1216.7	1203.4	1167.5	1124.4	1125.4
40°	5642.6	4043.6	1553.9	1198.2	1192.1	1204.4	1198.2	1162.4	1063.9	989.1	987.1
42.5°	6076.2	4201.5	1467.8	1164.4	1182.8	1198.2	1173.6	1049.6	983.0	932.7	930.7
45°	6586.6	4457.7	1423.7	1128.5	1165.4	1183.9	1065.0	1010.6	957.4	896.9	892.8
47.5°	7164.7	4780.6	1413.5	1094.7	1126.5	1137.8	1018.8	994.2	933.8	868.2	863.0
50°	7794.1	5162.9	1441.1	1054.7	1070.1	1031.1	1003.5	980.9	918.4	853.8	846.6
52.5°	8445.0	5584.2	1496.5	1000.4	1013.7	970.7	997.3	977.8	909.2	822.0	815.9
55°	9084.6	6008.5	1549.8	936.8	956.3	916.4	979.9	965.6	867.2	768.7	763.6
57.5°	9734.4	6430.8	1602.1	880.5	901.0	864.1	952.2	932.7	820.0	719.6	717.5
60°	10409.9	6840.8	1626.7	826.2	840.5	815.9	910.2	876.4	766.7	669.3	666.2
62.5°	11042.3	7182.2	1586.7	771.8	781.0	770.8	854.8	809.7	713.4	612.9	611.9
65°	11676.8	7385.1	1463.7	718.5	720.6	715.4	776.9	738.0	650.9	563.8	557.6
67.5°	12251.8	7498.9	1267.9	661.1	656.0	653.9	704.2	660.1	590.4	514.6	508.4
70°	12373.8	7209.8	968.6	593.5	593.5	588.3	624.2	579.1	523.8	462.3	460.2
72.5°	11301.6	6064.9	687.8	516.6	524.8	514.6	544.3	506.4	456.1	415.1	402.8
75°	9113.3	4447.5	500.2	437.7	452.0	434.6	462.3	435.6	392.6	391.5	352.6
77.5°	6261.7	2750.1	362.8	360.8	371.0	348.5	380.3	365.9	327.0	309.5	290.1
80°	2672.2	1096.8	264.4	278.8	278.8	258.3	295.2	299.3	265.5	257.3	257.3
82.5°	532.0	311.6	185.5	191.7	180.4	174.2	209.1	231.6	319.8	355.7	356.7
85°	159.9	114.8	111.7	104.6	92.2	93.3	123.0	232.7	287.0	164.0	141.4
87.5°	44.1	28.7	29.7	23.6	19.5	25.6	42.0	176.3	96.4	41.0	34.8
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)