

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: P966789

Luminaire Tested: **NAV-SB4C-827-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966789
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-SB4C-827-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26590.5 lumens
Efficiency: N/A
Efficacy: 132.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 200.7
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



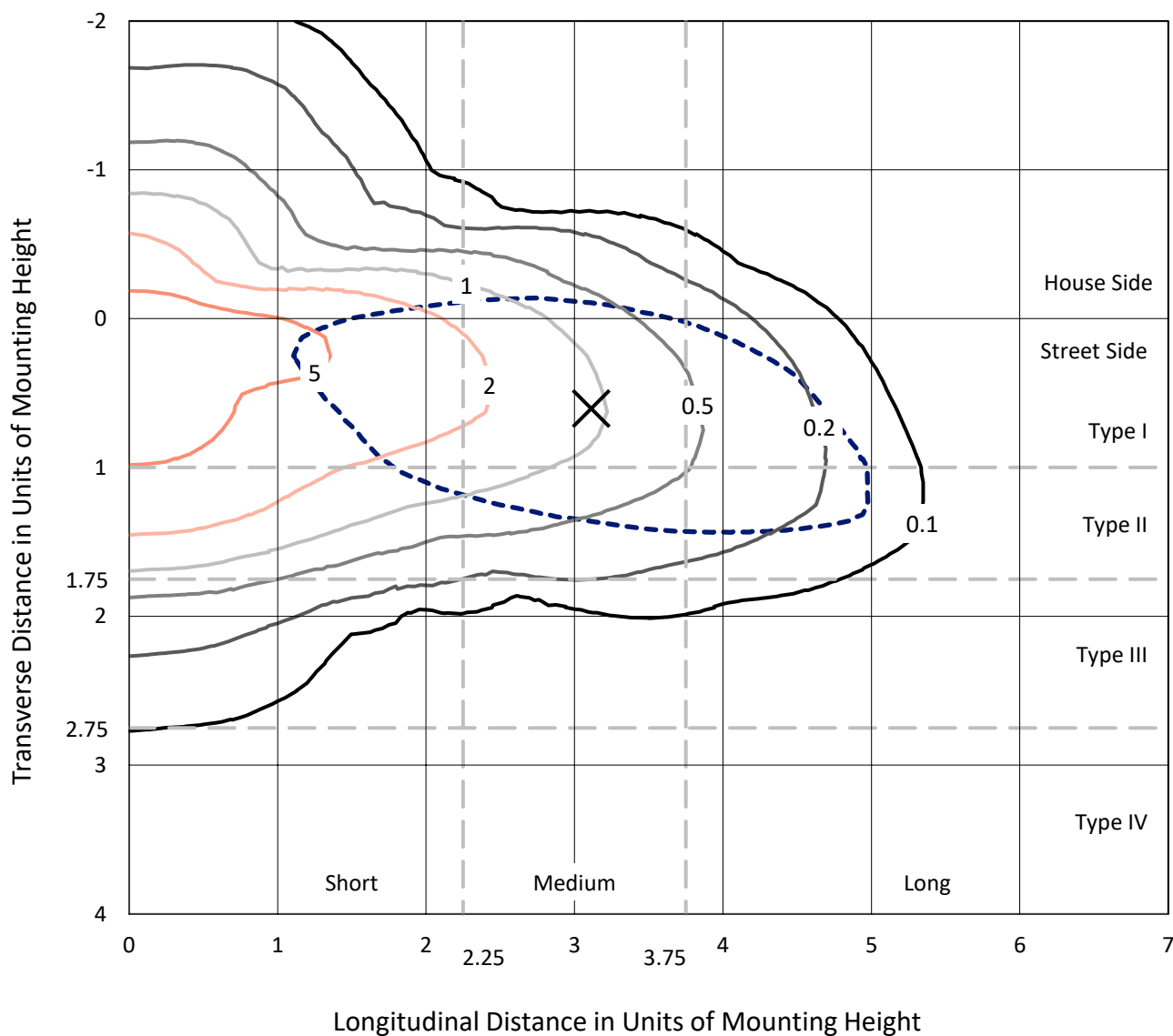
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

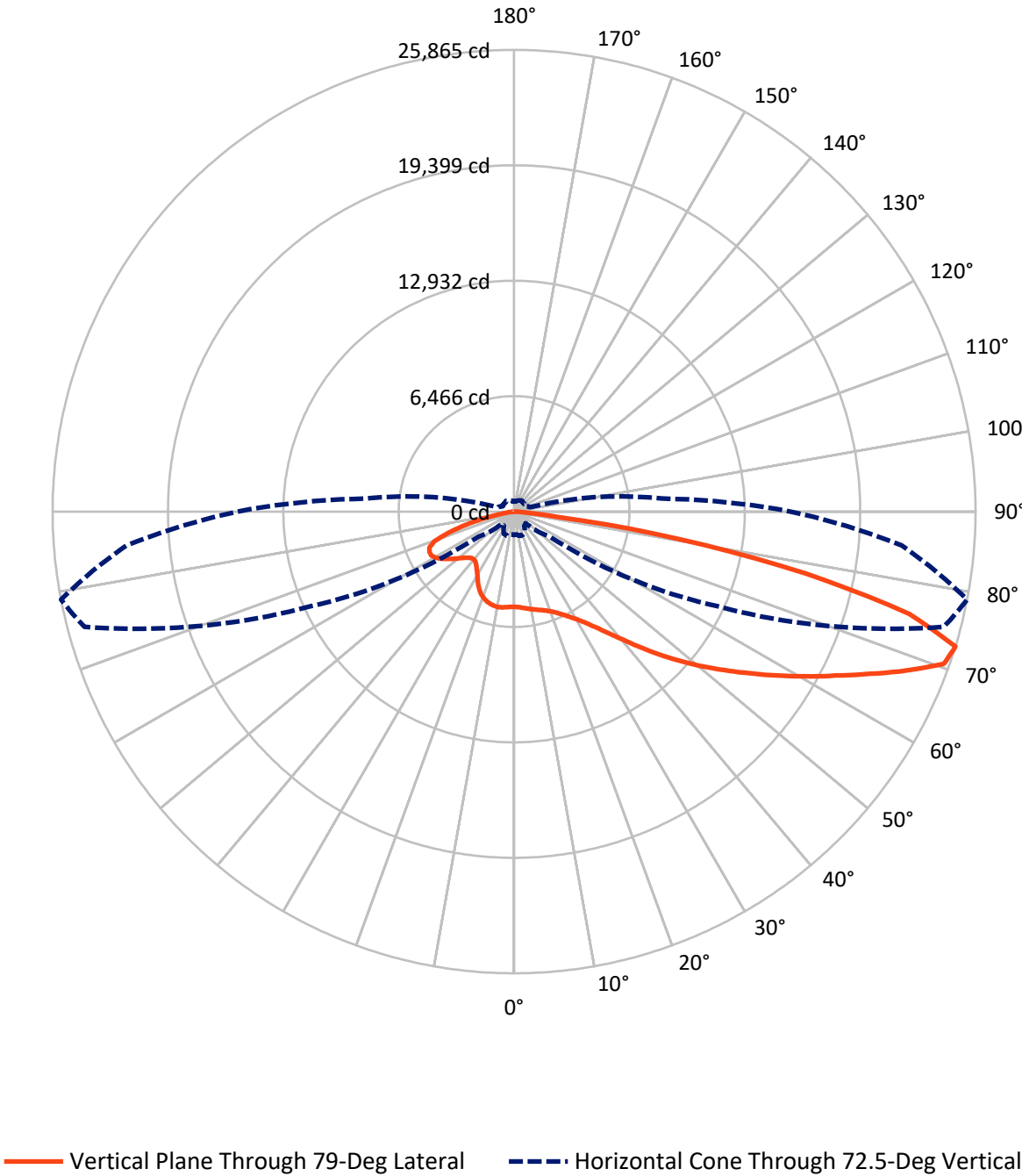
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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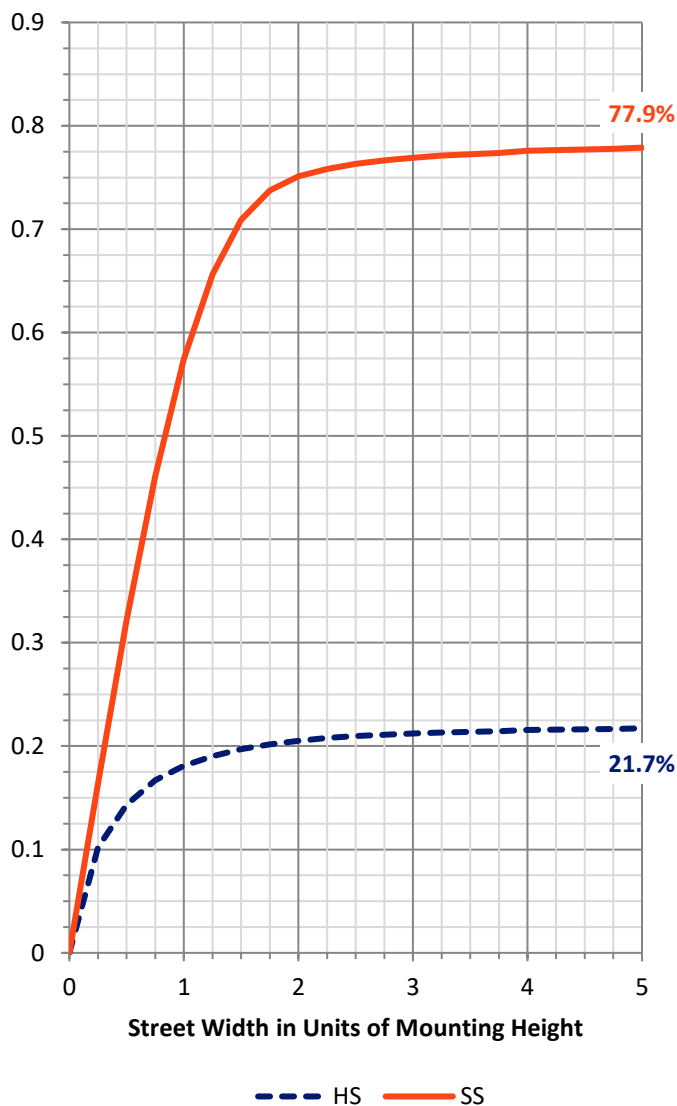
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5851.4	0.0	5851.4
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	20739.2	0.0	20739.2
	% Fixture	78.0	0.0	78.0
Total	Lumens	26590.5	0.0	26590.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	484.5	1.8
10°-20°	1266.8	4.8
20°-30°	2044.0	7.7
30°-40°	3067.8	11.5
40°-50°	4351.9	16.4
50°-60°	5495.9	20.7
60°-70°	5581.8	21.0
70°-80°	3804.2	14.3
80°-90°	493.6	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°	26590.5	100.0
0°-180°	26590.5	100.0

Coefficient of Utilization



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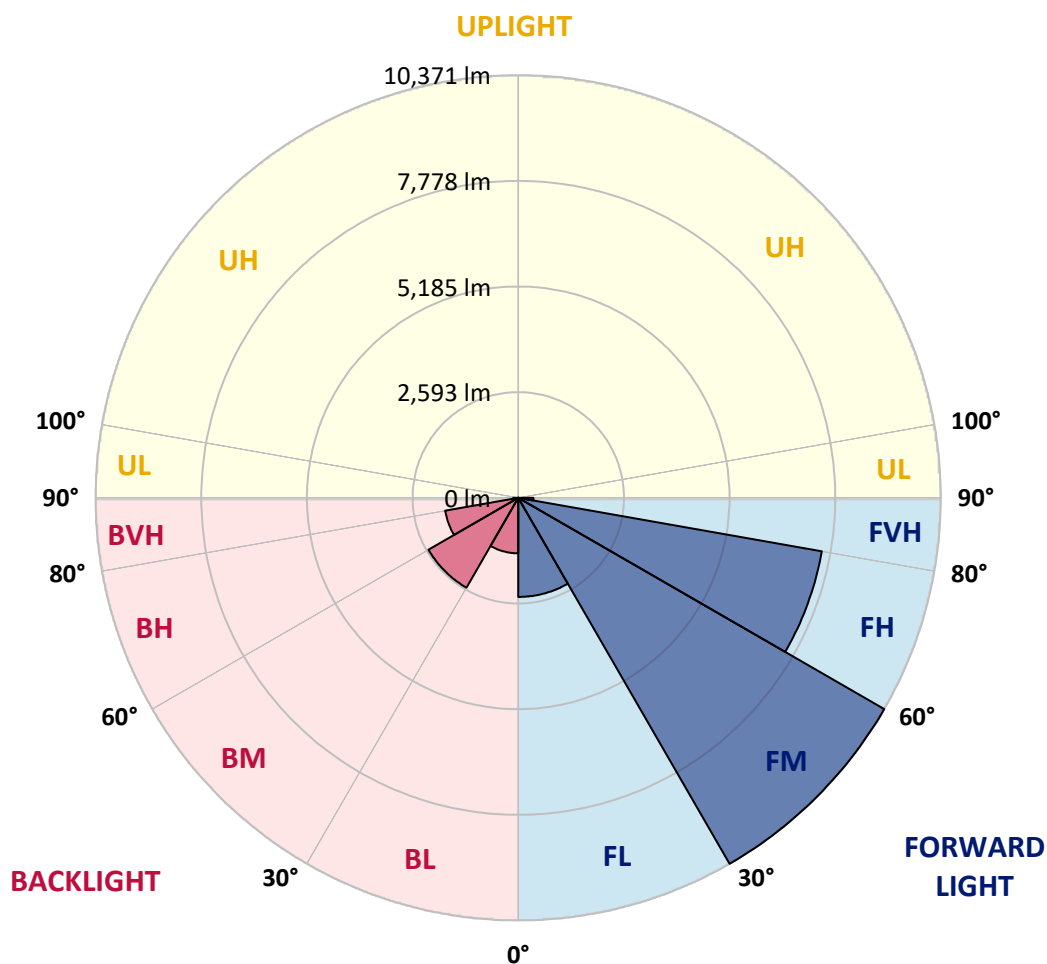
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2432.4	9.1			
FM	(30°-60°)	10370.9	39.0			
FH	(60°-80°)	7564.1	28.4			G4/12000
FVH	(80°-90°)	371.8	1.4			G3/500
BL	(0°-30°)	1363.0	5.1	B3/2500		
BM	(30°-60°)	2544.7	9.6	B3/5000		
BH	(60°-80°)	1821.9	6.9	B3/2500		G3/2500
BVH	(80°-90°)	121.8	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 II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8
2.5°	5340.7	5315.3	5330.7	5325.2	5332.2	5340.7	5343.4	5347.6	5361.7	5360.3	5358.9
5°	5329.4	5304.1	5325.2	5318.1	5336.4	5356.0	5372.9	5388.4	5411.0	5420.8	5406.7
7.5°	5305.4	5288.6	5309.7	5330.7	5364.5	5394.1	5417.9	5453.1	5485.5	5491.1	5501.0
10°	5166.2	5153.5	5202.8	5257.6	5350.5	5430.7	5482.6	5523.4	5558.6	5564.2	5578.4
12.5°	5021.4	5005.9	5060.7	5135.2	5285.7	5430.7	5540.3	5593.8	5624.7	5643.0	5664.2
15°	4997.4	4984.8	5015.7	5080.4	5205.6	5392.6	5579.7	5678.2	5704.9	5726.0	5734.5
17.5°	5112.8	5088.8	5101.5	5124.0	5197.2	5357.5	5610.6	5773.8	5814.6	5837.2	5837.2
20°	5380.0	5346.2	5326.5	5281.5	5268.9	5363.1	5607.9	5889.1	5942.6	5970.7	5977.8
22.5°	5735.9	5713.3	5671.1	5557.2	5433.4	5432.0	5661.3	6036.8	6136.7	6163.4	6146.5
25°	6166.3	6132.5	6079.1	5924.3	5686.6	5568.5	5751.3	6225.3	6392.7	6399.7	6350.5
27.5°	6661.4	6610.7	6537.6	6333.6	6013.0	5782.2	5889.1	6441.9	6686.7	6683.8	6582.6
30°	7183.2	7132.6	7055.2	6807.6	6404.0	6070.6	6080.4	6675.4	7035.5	7020.0	6847.0
32.5°	7564.3	7526.4	7510.9	7319.6	6854.1	6411.0	6299.9	6934.2	7465.9	7451.9	7209.8
35°	7856.9	7807.6	7826.0	7728.9	7344.9	6792.2	6568.5	7242.2	7989.2	7987.7	7686.7
37.5°	8146.7	8103.0	8118.5	8053.8	7799.2	7276.0	6896.2	7619.2	8637.6	8668.4	8263.3
40°	8411.0	8364.6	8426.5	8366.0	8152.2	7790.8	7269.0	8045.4	9388.6	9447.7	8961.1
42.5°	8570.0	8533.4	8636.1	8637.6	8458.9	8225.4	7678.3	8515.2	10257.9	10390.1	9819.0
45°	8624.9	8612.3	8766.9	8799.3	8730.3	8477.2	8046.8	9027.2	11194.6	11430.9	10796.5
47.5°	8565.8	8541.8	8755.7	8875.3	8930.1	8595.3	8352.0	9581.3	12151.1	12497.1	11862.7
50°	8267.6	8221.2	8539.1	8790.8	8986.4	8672.7	8660.0	10221.3	13238.3	13616.7	12934.5
52.5°	7731.7	7696.5	8058.0	8495.5	8862.6	8710.7	9006.1	10920.3	14270.7	14760.2	14033.0
55°	7046.8	7000.3	7398.3	7969.5	8554.5	8698.0	9352.1	11702.3	15488.8	15985.3	15168.1
57.5°	5960.9	5868.0	6371.6	7046.8	8052.4	8682.6	9712.1	12480.2	16726.5	17321.5	16379.1
60°	4377.2	4239.3	4856.8	5657.1	7070.7	8532.0	10158.0	13352.3	18211.8	18747.7	17701.2
62.5°	2548.7	2468.5	2872.2	3619.0	5329.4	7645.9	10408.4	14366.3	19671.8	20234.4	19000.8
65°	1979.0	1956.5	1991.7	2049.3	2966.4	5724.6	9636.1	15355.1	21528.4	21922.3	20355.4
67.5°	1810.3	1793.3	1808.8	1700.5	1505.0	3188.6	7623.4	15605.5	23517.3	23756.4	21541.1
70°	1609.0	1589.4	1640.0	1547.2	1184.3	1450.2	4925.6	14696.9	25099.6	25548.3	22442.7
72.5°	1310.9	1288.4	1406.5	1364.4	997.2	931.1	2474.1	12537.9	24933.6	25864.7	21797.0
75°	1007.1	994.5	1135.1	1170.2	812.9	732.8	1187.2	9319.7	21942.0	22880.2	18785.7
77.5°	782.1	772.2	843.9	971.9	655.5	568.3	730.0	5911.7	16535.2	16699.8	12945.7
80°	586.5	558.4	624.5	752.5	510.6	414.9	495.1	3447.4	10451.9	9474.4	5634.6
82.5°	367.2	353.0	407.8	502.1	360.1	285.6	322.1	1904.4	4188.7	2467.1	1087.2
85°	209.6	204.0	222.2	286.9	195.5	164.6	184.3	841.1	765.2	526.0	327.7
87.5°	84.4	81.6	101.3	128.0	71.8	60.5	64.7	202.5	168.8	156.1	108.3
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°	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8	5337.8
2.5°	5353.3	5353.3	5333.6	5302.6	5267.5	5244.9	5208.4	5198.6	5160.6	5149.3	5167.6
5°	5417.9	5406.7	5346.2	5259.1	5139.5	5029.8	4908.8	4832.9	4726.0	4687.9	4716.1
7.5°	5499.5	5468.6	5364.5	5173.3	4922.9	4676.8	4420.7	4226.6	4041.0	3974.8	3983.4
10°	5574.1	5530.5	5353.3	5018.5	4585.3	4159.1	3751.2	3465.7	3249.0	3160.5	3180.2
12.5°	5648.7	5568.5	5278.7	4761.1	4105.6	3527.6	3092.9	2870.7	2737.2	2630.3	2665.4
15°	5719.0	5606.4	5163.4	4416.5	3579.6	2993.1	2672.4	2495.2	2388.2	2317.9	2330.6
17.5°	5800.6	5638.8	4990.4	3979.0	3078.9	2623.2	2361.6	2254.7	2233.6	2225.2	2230.8
20°	5914.5	5668.4	4762.6	3489.6	2710.4	2327.8	2192.8	2182.9	2181.5	2177.3	2191.3
22.5°	6036.8	5703.5	4461.5	3045.2	2396.8	2143.6	2119.6	2099.9	2087.3	2085.9	2101.4
25°	6181.7	5714.8	4084.6	2680.9	2129.5	2056.4	2028.3	1998.6	1990.2	1990.2	1998.6
27.5°	6322.4	5676.8	3645.7	2364.4	1979.0	1976.2	1939.6	1929.8	1928.3	1932.5	1943.8
30°	6463.0	5605.0	3209.7	2071.8	1891.7	1891.7	1879.1	1886.2	1891.7	1905.9	1915.7
32.5°	6652.9	5529.1	2845.4	1855.2	1815.8	1801.7	1814.5	1828.5	1834.1	1852.4	1867.9
35°	6931.4	5475.7	2555.6	1737.1	1737.1	1718.8	1725.8	1723.0	1710.3	1701.9	1721.6
37.5°	7299.9	5472.8	2316.6	1682.2	1671.0	1668.2	1669.5	1651.3	1602.1	1542.9	1544.4
40°	7743.0	5548.7	2132.3	1644.2	1635.8	1652.7	1644.2	1595.0	1460.0	1357.3	1354.5
42.5°	8338.0	5765.4	2014.1	1597.9	1623.2	1644.2	1610.5	1440.3	1348.9	1279.9	1277.1
45°	9038.3	6117.0	1953.6	1548.6	1599.2	1624.5	1461.3	1386.8	1313.7	1230.7	1225.1
47.5°	9831.7	6560.1	1939.6	1502.1	1545.8	1561.3	1398.1	1364.4	1281.4	1191.4	1184.3
50°	10695.3	7084.7	1977.6	1447.3	1468.4	1415.0	1377.0	1346.0	1260.2	1171.7	1161.8
52.5°	11588.4	7662.8	2053.6	1372.8	1391.0	1332.0	1368.6	1341.8	1247.6	1128.0	1119.6
55°	12466.2	8245.1	2126.7	1285.6	1312.3	1257.5	1344.7	1324.9	1189.9	1054.9	1047.9
57.5°	13357.9	8824.6	2198.4	1208.2	1236.4	1185.7	1306.7	1279.9	1125.2	987.4	984.6
60°	14284.8	9387.3	2232.1	1133.6	1153.3	1119.6	1249.0	1202.6	1052.1	918.5	914.2
62.5°	15152.6	9855.6	2177.3	1059.1	1071.7	1057.7	1173.0	1111.2	979.0	841.1	839.7
65°	16023.2	10134.1	2008.5	985.9	988.8	981.7	1066.1	1012.7	893.2	773.6	765.2
67.5°	16812.4	10290.2	1739.8	907.2	900.2	897.4	966.3	905.8	810.2	706.1	697.6
70°	16979.7	9893.6	1329.2	814.4	814.4	807.4	856.6	794.7	718.7	634.4	631.5
72.5°	15508.5	8322.5	943.8	708.9	720.2	706.1	746.9	694.8	625.9	569.7	552.8
75°	12505.5	6103.0	686.3	600.5	620.3	596.3	634.4	597.8	538.7	537.3	483.8
77.5°	8592.5	3773.7	497.9	495.1	509.1	478.3	521.8	502.1	448.6	424.8	398.0
80°	3666.8	1505.0	362.8	382.5	382.5	354.4	405.1	410.7	364.3	353.0	353.0
82.5°	730.0	427.6	254.6	263.0	247.5	239.1	286.9	317.9	438.8	488.1	489.4
85°	219.5	157.5	153.3	143.5	126.6	128.0	168.8	319.3	393.8	225.1	194.1
87.5°	60.5	39.4	40.8	32.4	26.8	35.2	57.7	241.9	132.2	56.3	47.9
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)