

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: P965654

Luminaire Tested: **NAV-SB4A-740-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965654
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-740-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19857.3 lumens
Efficiency: N/A
Efficacy: 174.2 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

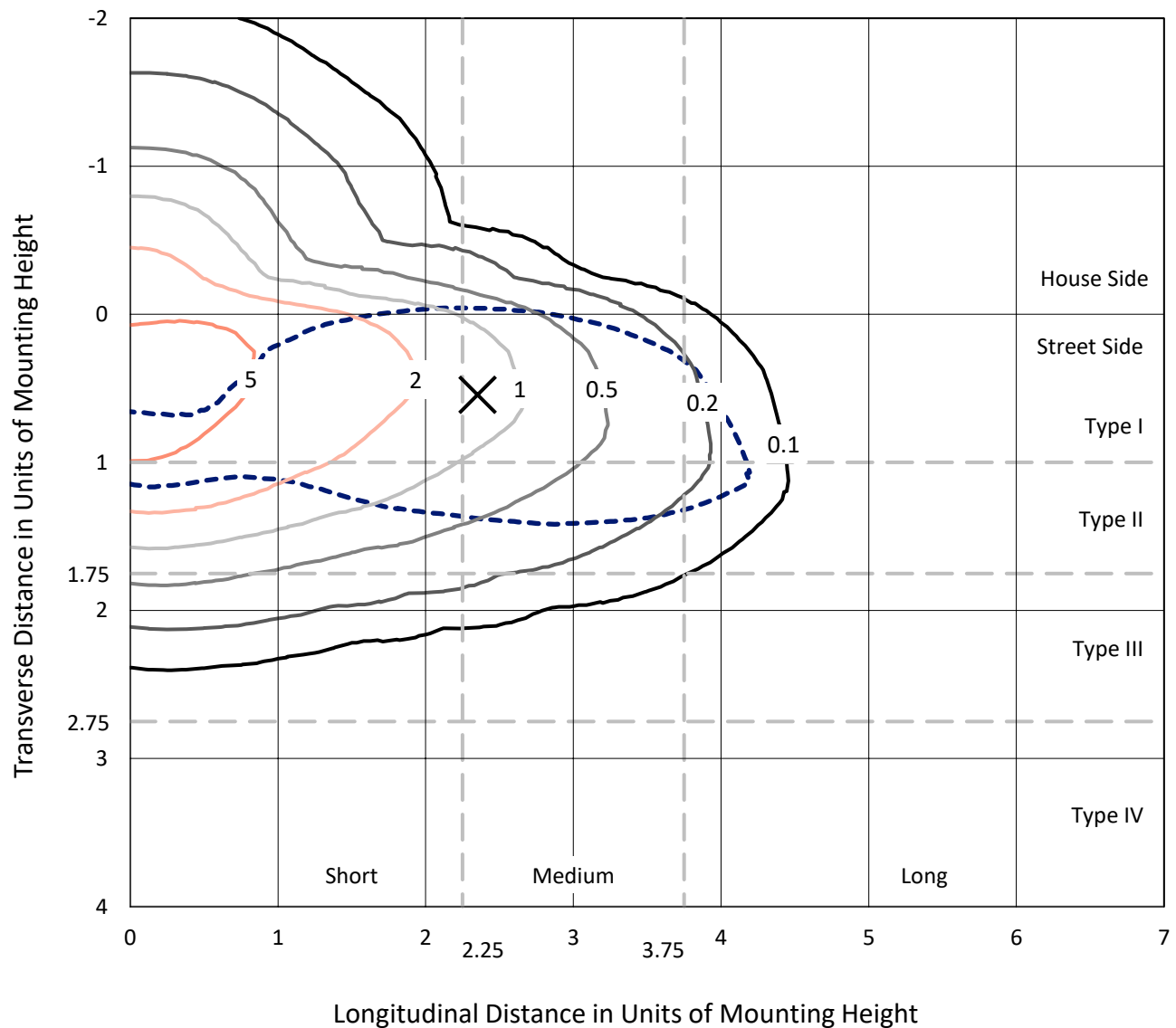


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Iso-Footcandle Lines of Horizontal Illumination

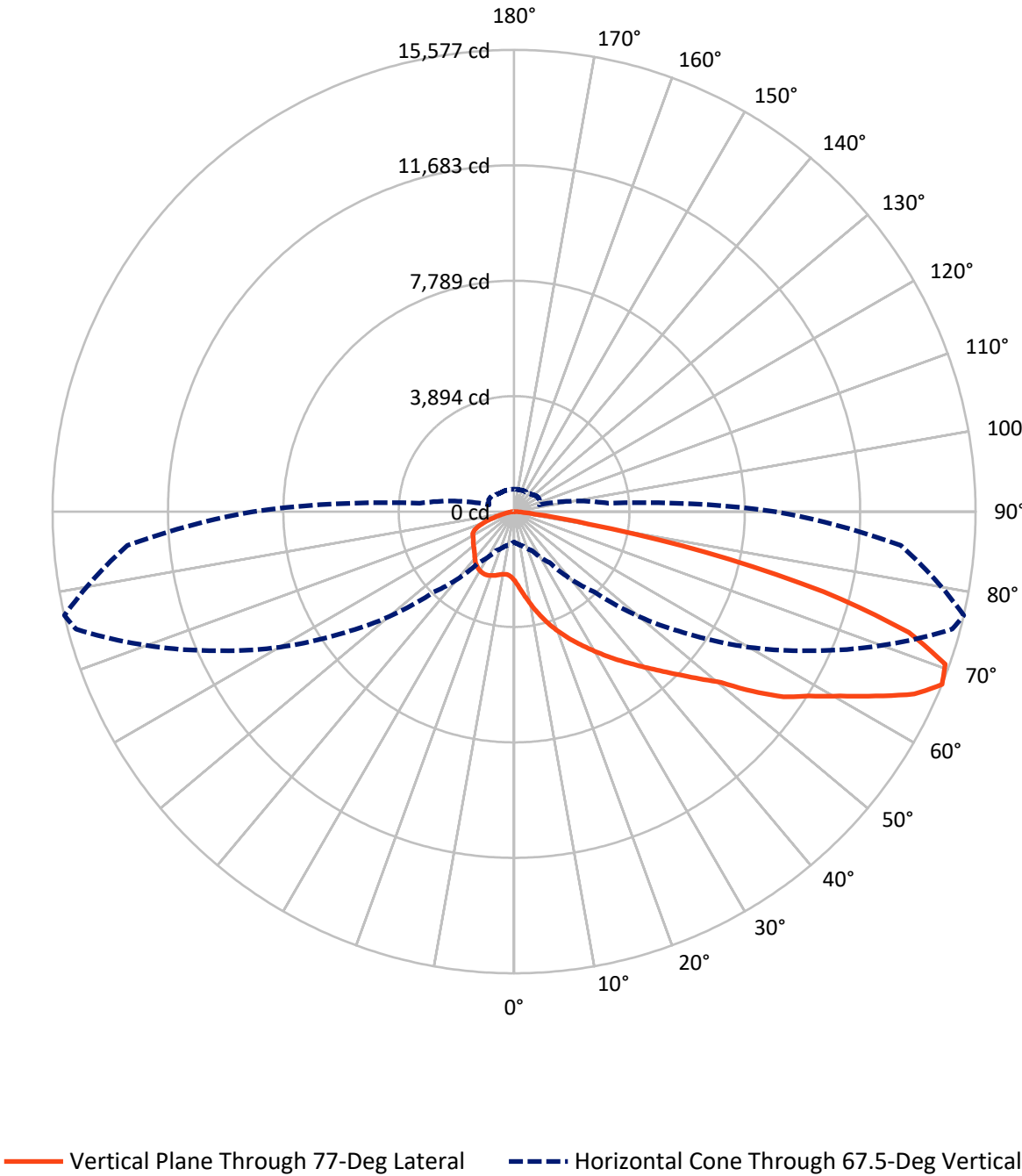
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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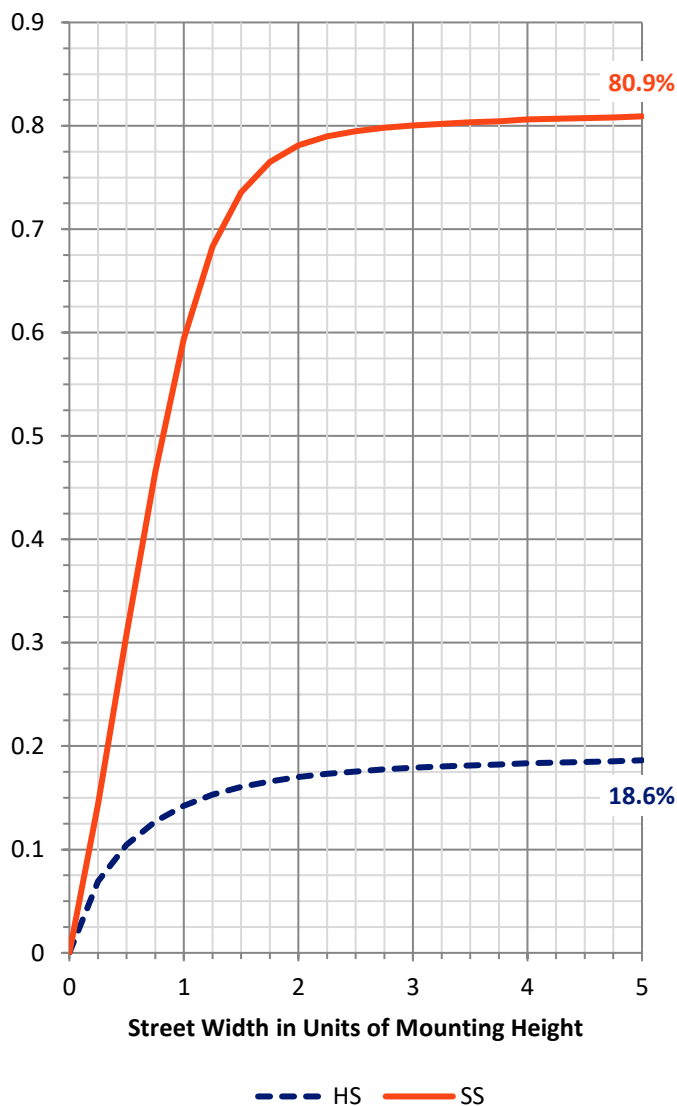
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3756.1	0.0	3756.1
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	16101.1	0.0	16101.1
	% Fixture	81.1	0.0	81.1
Total	Lumens	19857.3	0.0	19857.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.7	1.3
10°-20°	897.2	4.5
20°-30°	1694.0	8.5
30°-40°	2729.0	13.7
40°-50°	3732.7	18.8
50°-60°	4210.5	21.2
60°-70°	3930.0	19.8
70°-80°	2154.3	10.8
80°-90°	259.8	1.3
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°	19857.3	100.0
0°-180°	19857.3	100.0

Coefficient of Utilization



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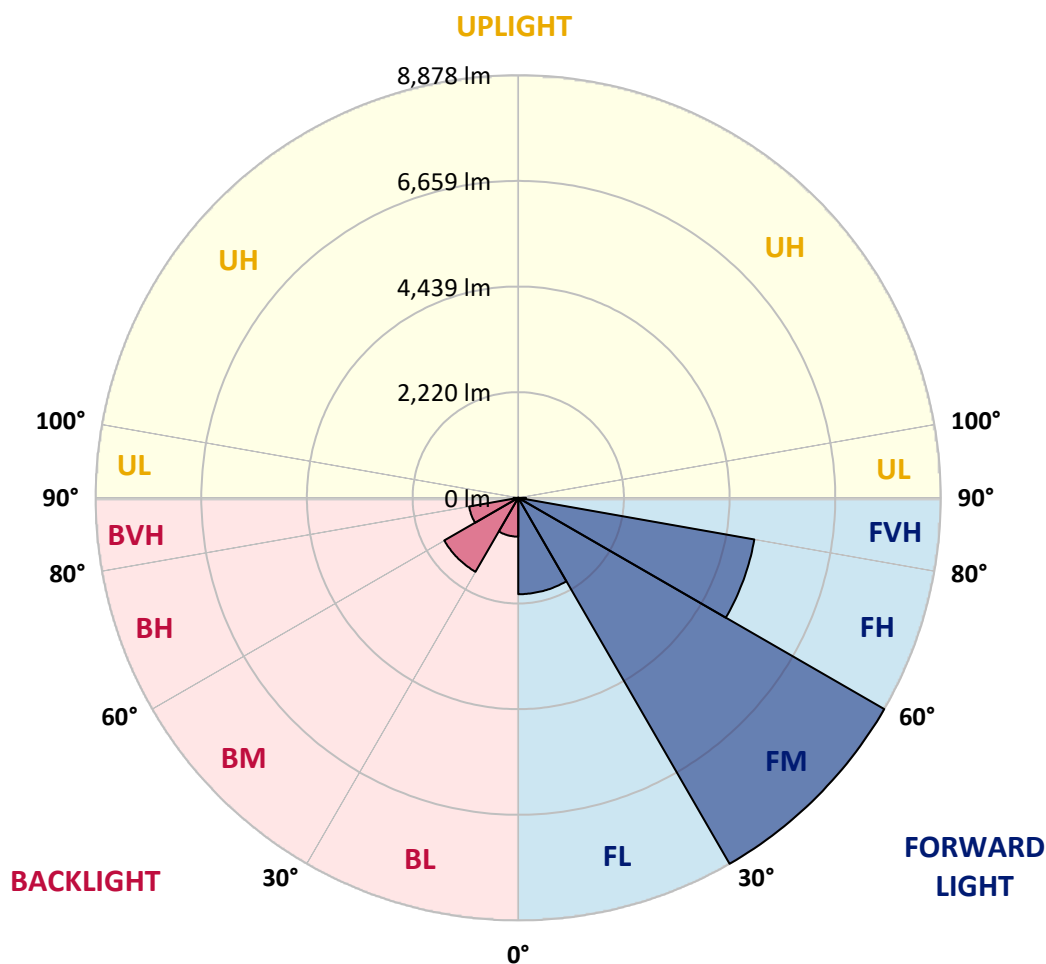
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2024.2	10.2			
FM	(30°-60°)	8878.0	44.7			
FH	(60°-80°)	5036.4	25.4			G3/7500
FVH	(80°-90°)	162.5	0.8			G2/225
BL	(0°-30°)	816.7	4.1	B2/1000		
BM	(30°-60°)	1794.2	9.0	B2/2500		
BH	(60°-80°)	1047.9	5.3	B3/2500		G3/2500
BVH	(80°-90°)	97.3	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°	77°	85°
0°	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9
2.5°	2917.3	2937.8	2912.1	2912.1	2826.0	2780.9	2694.8	2629.2	2511.4	2490.9	2413.0
5°	3448.2	3473.8	3438.0	3422.6	3321.1	3227.8	3083.3	2940.8	2730.7	2709.2	2525.7
7.5°	3859.2	3892.0	3860.3	3843.9	3753.7	3649.1	3480.0	3281.1	2984.9	2942.9	2677.4
10°	4194.4	4199.5	4189.3	4195.4	4124.7	4038.6	3865.4	3633.7	3263.7	3206.3	2860.9
12.5°	4384.0	4407.6	4428.1	4465.0	4452.7	4399.4	4243.6	3966.9	3558.9	3485.1	3060.8
15°	4473.2	4514.2	4560.3	4645.4	4714.1	4727.4	4608.5	4324.6	3859.2	3770.1	3262.7
17.5°	4505.0	4543.9	4616.7	4739.7	4887.3	4986.7	4933.4	4672.1	4156.5	4054.0	3474.9
20°	4665.9	4677.2	4721.3	4838.1	4998.0	5163.0	5203.0	5006.2	4450.7	4334.8	3694.2
22.5°	5010.3	4987.8	5000.1	5053.4	5168.2	5328.1	5419.3	5301.4	4753.0	4619.8	3915.6
25°	5579.2	5513.6	5448.0	5386.5	5444.9	5535.1	5638.6	5596.6	5069.8	4900.6	4139.1
27.5°	6297.7	6217.8	6073.2	5871.3	5800.6	5832.4	5878.5	5870.3	5362.9	5191.7	4369.7
30°	7005.1	6911.8	6739.6	6447.5	6260.8	6176.8	6141.9	6118.3	5681.7	5499.2	4602.4
32.5°	7569.8	7496.0	7326.9	6999.9	6729.3	6585.8	6470.0	6386.0	6014.8	5832.4	4848.4
35°	8063.9	7995.2	7801.5	7444.8	7150.6	6997.9	6846.2	6666.8	6361.3	6176.8	5112.8
37.5°	8514.9	8446.2	8180.7	7809.7	7513.5	7407.9	7272.6	6968.2	6708.8	6534.6	5392.6
40°	8799.8	8784.5	8536.4	8116.2	7808.7	7756.4	7711.3	7317.7	7094.2	6932.3	5700.1
42.5°	8872.6	8906.4	8709.6	8364.2	8071.1	8029.0	8134.6	7713.3	7526.8	7372.0	6048.6
45°	8697.3	8794.7	8665.6	8430.8	8257.6	8235.1	8509.8	8145.9	8005.5	7864.0	6469.0
47.5°	8253.5	8418.5	8365.2	8332.4	8307.8	8405.2	8839.8	8605.1	8547.7	8424.7	6948.7
50°	7357.7	7670.3	7763.6	7970.6	8208.4	8537.4	9140.1	9106.3	9181.1	9057.1	7532.9
52.5°	5808.8	6239.3	6780.6	7299.2	7903.0	8493.4	9470.2	9825.9	10141.6	10073.9	8461.6
55°	4795.1	4988.8	5404.9	6356.1	7310.5	8307.8	9618.8	10407.0	11094.9	11034.4	9165.8
57.5°	4016.1	4189.3	4445.5	5239.9	6414.7	7886.6	9711.1	10761.8	11747.8	11741.7	9860.7
60°	3180.7	3364.2	3626.6	4189.3	5368.0	7158.8	9690.6	11165.6	12581.2	12632.4	10708.5
62.5°	2237.7	2439.6	2730.7	3255.5	4299.0	6215.7	9272.4	11457.8	13562.1	13701.5	11728.4
65°	1470.9	1604.1	1823.5	2276.6	3203.2	5003.1	8473.9	11495.7	14611.7	14847.4	12685.7
67.5°	1031.1	1082.4	1211.6	1457.6	2111.5	3836.7	7201.9	11103.1	15311.9	15577.3	13100.8
70°	804.6	830.2	895.8	994.2	1326.4	2580.0	5518.7	10082.1	15162.2	15439.0	12667.3
72.5°	694.9	719.6	744.2	756.4	889.7	1592.8	3738.3	8429.8	13752.7	13940.3	11013.9
75°	630.4	636.5	657.0	652.9	678.6	1033.2	2157.7	6141.9	10851.0	10786.4	8130.5
77.5°	529.9	538.1	571.9	566.8	602.7	706.2	1120.3	3963.8	7034.8	6596.1	4525.5
80°	449.0	453.0	489.9	483.8	523.8	511.5	571.9	2020.3	2983.9	2527.8	1304.8
82.5°	155.8	192.7	374.1	385.4	399.7	309.5	330.0	824.1	911.2	698.0	273.7
85°	75.8	81.0	190.6	270.6	269.6	155.8	160.9	294.2	287.0	225.5	91.2
87.5°	12.3	15.4	22.5	105.6	84.0	41.0	55.4	57.4	59.4	51.2	20.5
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°	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9	2329.9
2.5°	2355.6	2304.3	2196.7	2097.1	2019.2	1944.4	1902.4	1866.5	1846.0	1841.9	1841.9
5°	2419.1	2313.5	2117.6	1952.6	1845.0	1765.0	1723.0	1696.4	1683.0	1674.8	1673.8
7.5°	2510.3	2355.6	2076.6	1889.1	1776.3	1718.9	1697.4	1693.3	1692.3	1693.3	1696.4
10°	2636.4	2424.2	2072.5	1873.7	1779.4	1747.6	1746.6	1747.6	1751.7	1752.7	1753.8
12.5°	2772.7	2495.0	2089.0	1887.0	1818.4	1800.9	1797.8	1796.8	1799.9	1802.0	1803.0
15°	2921.4	2588.2	2116.6	1915.7	1861.4	1843.0	1839.9	1833.7	1832.7	1831.7	1830.6
17.5°	3074.1	2680.5	2147.5	1946.5	1889.1	1863.4	1852.2	1837.8	1826.6	1823.5	1826.6
20°	3228.9	2771.7	2169.0	1961.8	1891.1	1855.2	1832.7	1808.1	1788.6	1777.4	1781.4
22.5°	3393.9	2867.0	2182.3	1957.7	1872.7	1823.5	1782.5	1753.8	1724.0	1704.6	1705.6
25°	3554.8	2950.1	2181.3	1936.2	1836.8	1774.3	1722.0	1685.1	1644.1	1623.6	1623.6
27.5°	3709.6	3024.9	2155.7	1898.3	1785.6	1715.8	1653.3	1609.2	1569.3	1549.8	1548.8
30°	3869.5	3087.4	2115.6	1843.0	1725.1	1648.2	1579.5	1541.6	1505.7	1487.3	1486.2
32.5°	4028.4	3144.8	2059.2	1774.3	1655.4	1581.6	1513.9	1479.1	1457.6	1457.6	1458.6
35°	4196.5	3184.8	1984.4	1694.3	1581.6	1510.8	1457.6	1437.0	1435.0	1422.7	1419.6
37.5°	4373.8	3210.4	1893.2	1612.3	1508.8	1442.2	1425.8	1401.2	1380.7	1354.0	1349.9
40°	4560.3	3236.0	1783.5	1527.2	1431.9	1395.0	1387.8	1355.0	1296.6	1231.0	1221.8
42.5°	4786.9	3253.5	1669.7	1442.2	1350.9	1338.6	1348.9	1292.5	1199.2	1150.0	1151.1
45°	5049.3	3282.2	1565.2	1358.1	1267.9	1267.9	1311.0	1237.2	1160.3	1129.6	1134.7
47.5°	5389.6	3348.8	1467.8	1265.9	1191.0	1211.6	1226.9	1170.6	1127.5	1089.6	1088.6
50°	5881.6	3508.7	1367.4	1172.6	1132.6	1173.6	1152.1	1119.3	1069.1	1038.3	1035.2
52.5°	6492.6	3603.0	1278.2	1088.6	1082.4	1123.4	1092.6	1061.9	1024.0	983.0	974.8
55°	6908.7	3620.4	1203.4	1027.0	1048.6	1044.5	1033.2	1005.5	985.0	930.7	931.7
57.5°	7374.1	3655.3	1141.8	990.1	1027.0	982.0	977.8	954.3	927.6	890.7	878.4
60°	7930.6	3709.6	1088.6	975.8	1008.6	941.0	920.4	911.2	884.6	866.1	871.2
62.5°	8537.4	3758.8	1034.2	977.8	987.1	901.0	870.2	867.2	850.7	844.6	844.6
65°	8951.5	3624.5	966.6	975.8	953.2	860.0	821.0	820.0	806.7	804.6	803.6
67.5°	8807.0	3199.1	875.4	947.1	918.4	819.0	775.9	771.8	754.4	755.4	755.4
70°	8083.4	2592.3	749.3	876.4	875.4	782.1	728.8	715.4	691.9	696.0	700.1
72.5°	6726.3	1920.8	580.2	758.5	806.7	748.2	674.4	652.9	623.2	627.3	626.3
75°	4857.6	1305.8	422.3	577.1	702.1	708.3	621.2	584.2	548.4	554.5	556.6
77.5°	2485.7	740.0	310.6	397.7	551.4	643.7	573.0	523.8	515.6	573.0	564.8
80°	810.8	371.0	215.2	278.8	361.8	526.8	502.2	445.9	443.8	457.2	392.6
82.5°	241.9	156.8	138.4	183.5	199.9	403.8	433.6	337.2	290.1	305.4	315.7
85°	83.0	75.8	78.9	91.2	95.3	236.8	303.4	223.4	211.2	232.7	229.6
87.5°	19.5	26.6	22.5	20.5	20.5	57.4	117.9	93.3	129.1	86.1	83.0
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)