

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: P964042

Luminaire Tested: **NAV-SB3B-735-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964042
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-SB3B-735-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17639.2 lumens
Efficiency: N/A
Efficacy: 161.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 109.2
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

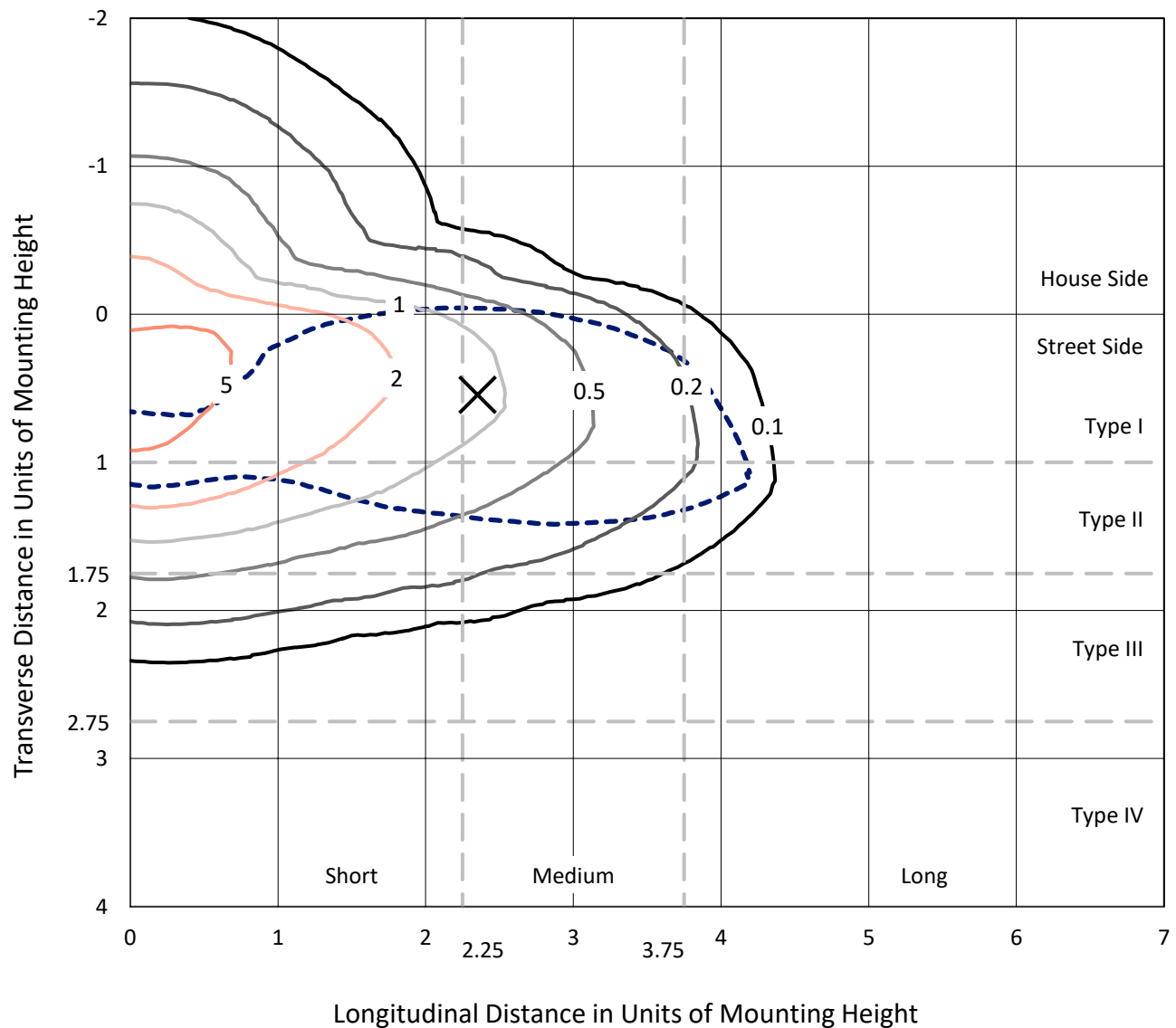


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Iso-Footcandle Lines of Horizontal Illumination

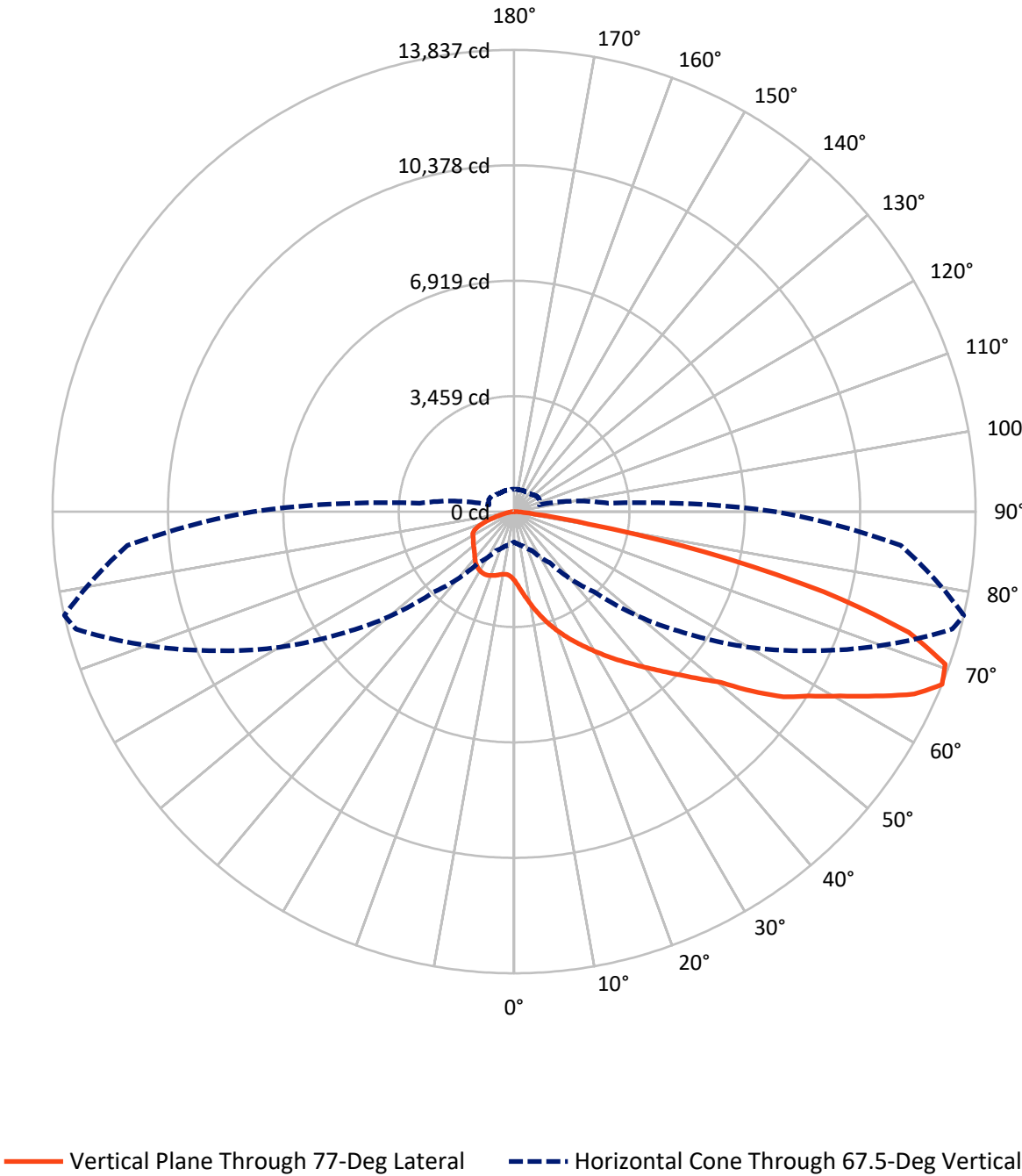
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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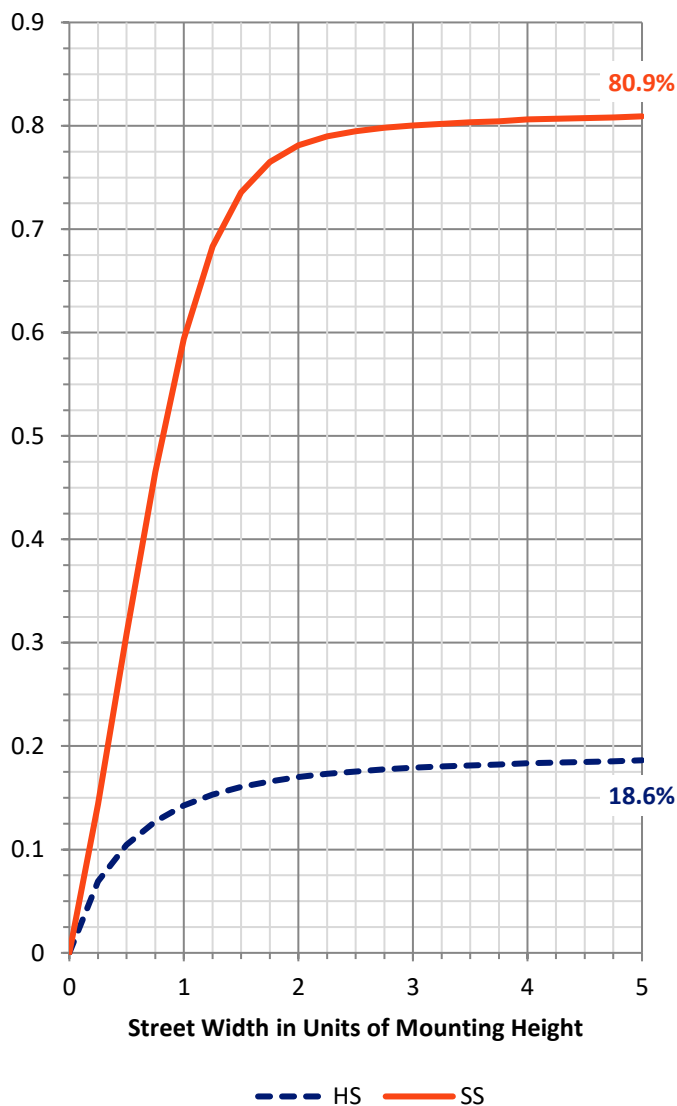
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3336.6	0.0	3336.6
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	14302.6	0.0	14302.6
	% Fixture	81.1	0.0	81.1
Total	Lumens	17639.2	0.0	17639.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.8	1.3
10°-20°	797.0	4.5
20°-30°	1504.8	8.5
30°-40°	2424.1	13.7
40°-50°	3315.8	18.8
50°-60°	3740.2	21.2
60°-70°	3491.0	19.8
70°-80°	1913.7	10.8
80°-90°	230.8	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°	17639.2	100.0
0°-180°	17639.2	100.0

Coefficient of Utilization



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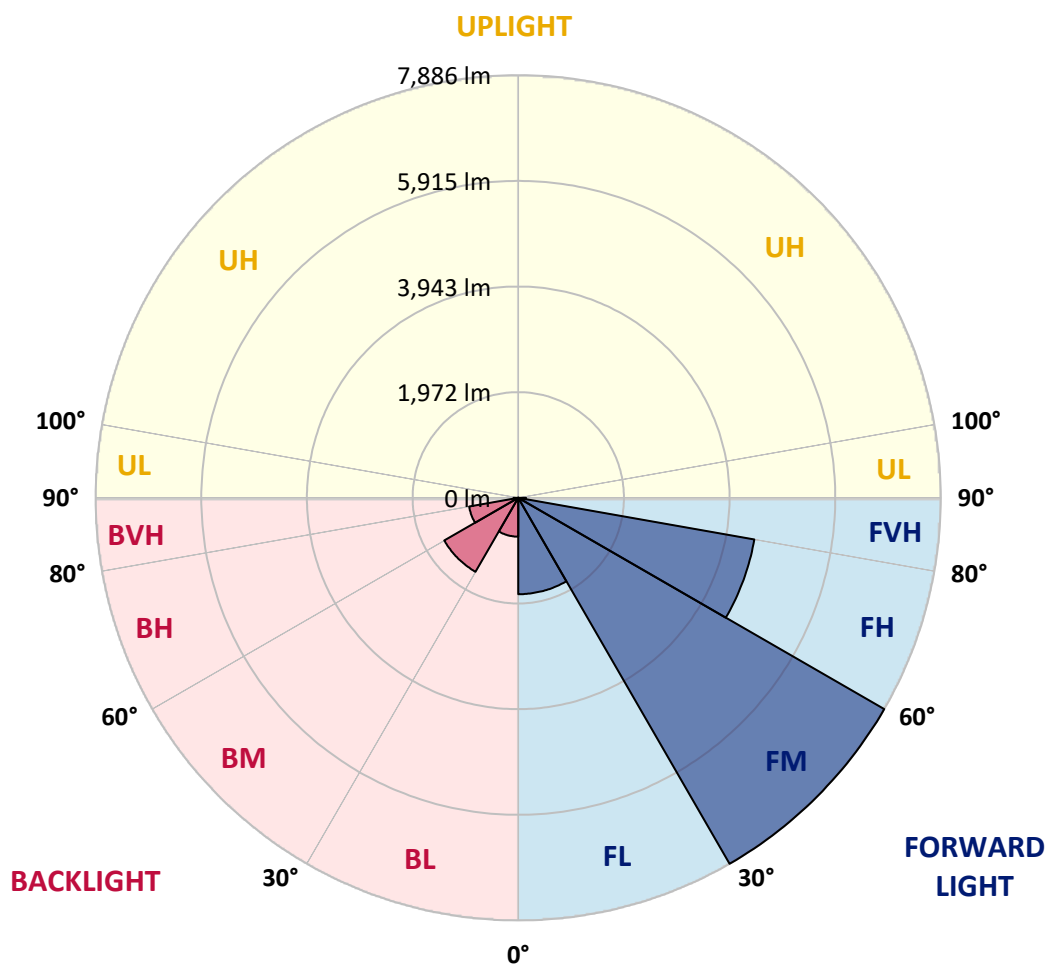
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1798.1	10.2			
FM	(30°-60°)	7886.3	44.7			
FH	(60°-80°)	4473.8	25.4			G2/5000
FVH	(80°-90°)	144.4	0.8			G2/225
BL	(0°-30°)	725.5	4.1	B2/1000		
BM	(30°-60°)	1593.8	9.0	B2/2500		
BH	(60°-80°)	930.9	5.3	B2/1000		G2/1000
BVH	(80°-90°)	86.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7
2.5°	2591.4	2609.5	2586.8	2586.8	2510.3	2470.2	2393.8	2335.5	2230.8	2212.6	2143.4
5°	3063.0	3085.8	3053.9	3040.3	2950.2	2867.2	2738.9	2612.3	2425.7	2406.5	2243.5
7.5°	3428.1	3457.2	3429.0	3414.5	3334.3	3241.5	3091.2	2914.6	2651.5	2614.2	2378.3
10°	3725.9	3730.4	3721.4	3726.8	3664.0	3587.5	3433.6	3227.8	2899.1	2848.2	2541.3
12.5°	3894.3	3915.3	3933.4	3966.2	3955.4	3908.0	3769.5	3523.7	3161.3	3095.8	2718.8
15°	3973.5	4010.0	4050.9	4126.5	4187.5	4199.3	4093.7	3841.5	3428.1	3348.9	2898.2
17.5°	4001.8	4036.3	4101.0	4210.3	4341.4	4429.7	4382.4	4150.2	3692.2	3601.1	3086.7
20°	4144.7	4154.7	4193.9	4297.7	4439.7	4586.4	4621.8	4447.1	3953.5	3850.6	3281.5
22.5°	4450.7	4430.7	4441.5	4488.9	4590.9	4732.9	4813.9	4709.3	4222.1	4103.8	3478.2
25°	4956.0	4897.8	4839.4	4784.8	4836.8	4916.8	5008.8	4971.5	4503.4	4353.3	3676.7
27.5°	5594.2	5523.2	5394.9	5215.5	5152.7	5180.9	5221.9	5214.6	4763.9	4611.8	3881.6
30°	6222.6	6139.6	5986.7	5727.2	5561.5	5486.8	5455.9	5435.0	5047.1	4884.9	4088.3
32.5°	6724.2	6658.7	6508.4	6218.0	5977.6	5850.2	5747.3	5672.6	5343.0	5180.9	4306.8
35°	7163.1	7102.1	6930.0	6613.2	6351.8	6216.2	6081.4	5922.0	5650.7	5486.8	4541.7
37.5°	7563.8	7502.8	7266.9	6937.3	6674.2	6580.4	6460.2	6189.8	5959.5	5804.6	4790.2
40°	7816.9	7803.2	7582.8	7209.5	6936.4	6889.9	6849.9	6500.2	6301.8	6157.9	5063.4
42.5°	7881.5	7911.6	7736.8	7429.9	7169.5	7132.2	7225.9	6851.7	6686.0	6548.5	5373.0
45°	7725.8	7812.3	7697.6	7489.1	7335.2	7315.2	7559.2	7236.0	7111.2	6985.6	5746.4
47.5°	7331.5	7478.2	7430.8	7401.6	7379.8	7466.3	7852.4	7643.8	7592.9	7483.6	6172.4
50°	6535.8	6813.5	6896.3	7080.3	7291.5	7583.8	8119.1	8089.1	8155.6	8045.4	6691.5
52.5°	5160.0	5542.4	6023.1	6483.8	7020.1	7544.6	8412.4	8728.3	9008.7	8948.7	7516.4
55°	4259.5	4431.6	4801.2	5646.2	6493.9	7379.8	8544.4	9244.6	9855.6	9801.9	8142.0
57.5°	3567.4	3721.4	3948.9	4654.6	5698.1	7005.6	8626.3	9559.7	10435.5	10430.1	8759.2
60°	2825.4	2988.4	3221.5	3721.4	4768.4	6359.1	8608.2	9918.4	11175.8	11221.4	9512.3
62.5°	1987.7	2167.1	2425.7	2891.8	3818.7	5521.5	8236.6	10177.8	12047.2	12171.1	10418.3
65°	1306.6	1425.0	1619.8	2022.3	2845.4	4444.3	7527.3	10211.6	12979.6	13189.0	11268.6
67.5°	915.9	961.6	1076.2	1294.8	1875.6	3408.1	6397.3	9862.9	13601.4	13837.3	11637.4
70°	714.7	737.5	795.8	883.2	1178.2	2291.8	4902.3	8955.9	13468.5	13714.4	11252.3
72.5°	617.4	639.2	661.0	672.0	790.4	1414.9	3320.7	7488.1	12216.6	12383.1	9783.6
75°	560.0	565.4	583.6	580.0	602.8	917.8	1916.6	5455.9	9638.9	9581.5	7222.4
77.5°	470.8	478.1	508.1	503.5	535.4	627.4	995.2	3521.0	6248.9	5859.2	4019.9
80°	398.8	402.4	435.2	429.8	465.2	454.4	508.1	1794.7	2650.5	2245.4	1159.1
82.5°	138.4	171.2	332.3	342.3	355.1	275.0	293.2	732.1	809.4	620.0	243.1
85°	67.3	72.0	169.3	240.4	239.4	138.4	143.0	261.3	254.9	200.3	81.1
87.5°	11.0	13.6	20.0	93.8	74.6	36.4	49.2	50.9	52.8	45.5	18.2
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°	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7
2.5°	2092.4	2046.8	1951.3	1862.9	1793.7	1727.2	1689.9	1658.0	1639.9	1636.2	1636.2
5°	2148.8	2055.0	1881.2	1734.5	1639.0	1567.9	1530.6	1507.0	1495.1	1487.8	1486.9
7.5°	2229.9	2092.4	1844.7	1678.1	1578.0	1526.9	1507.9	1504.2	1503.3	1504.2	1507.0
10°	2341.9	2153.4	1841.1	1664.4	1580.7	1552.5	1551.5	1552.5	1556.1	1557.0	1557.9
12.5°	2463.0	2216.3	1855.7	1676.3	1615.3	1599.8	1597.1	1596.1	1598.9	1600.7	1601.7
15°	2595.0	2299.1	1880.3	1701.8	1653.5	1637.1	1634.4	1628.9	1628.0	1627.1	1626.2
17.5°	2730.7	2381.1	1907.5	1729.1	1678.1	1655.4	1645.3	1632.6	1622.6	1619.8	1622.6
20°	2868.2	2462.0	1926.7	1742.7	1679.9	1648.1	1628.0	1606.2	1588.9	1578.8	1582.5
22.5°	3014.7	2546.7	1938.5	1739.1	1663.6	1619.8	1583.4	1557.9	1531.6	1514.2	1515.2
25°	3157.7	2620.5	1937.6	1720.0	1631.7	1576.1	1529.7	1496.9	1460.5	1442.3	1442.3
27.5°	3295.2	2686.9	1914.8	1686.3	1586.2	1524.2	1468.7	1429.6	1394.0	1376.7	1375.9
30°	3437.2	2742.5	1879.3	1637.1	1532.4	1464.1	1403.1	1369.4	1337.5	1321.2	1320.3
32.5°	3578.4	2793.5	1829.2	1576.1	1470.5	1405.0	1344.8	1313.8	1294.8	1294.8	1295.7
35°	3727.7	2829.0	1762.8	1505.1	1405.0	1342.1	1294.8	1276.5	1274.7	1263.8	1261.1
37.5°	3885.3	2851.8	1681.7	1432.2	1340.3	1281.1	1266.6	1244.7	1226.5	1202.8	1199.1
40°	4050.9	2874.5	1584.3	1356.7	1272.0	1239.2	1232.9	1203.8	1151.8	1093.6	1085.4
42.5°	4252.2	2890.0	1483.3	1281.1	1200.1	1189.1	1198.2	1148.2	1065.3	1021.6	1022.5
45°	4485.3	2915.5	1390.4	1206.4	1126.4	1126.4	1164.6	1099.0	1030.7	1003.4	1008.0
47.5°	4787.6	2974.7	1303.9	1124.5	1058.0	1076.2	1089.9	1039.9	1001.6	967.9	967.0
50°	5224.6	3116.7	1214.6	1041.6	1006.1	1042.5	1023.5	994.2	949.7	922.4	919.6
52.5°	5767.3	3200.5	1135.4	967.0	961.6	997.9	970.6	943.3	909.6	873.2	865.9
55°	6137.0	3215.9	1069.0	912.4	931.5	927.8	917.8	893.2	875.0	826.8	827.7
57.5°	6550.4	3246.9	1014.3	879.6	912.4	872.3	868.7	847.7	824.0	791.2	780.3
60°	7044.7	3295.2	967.0	866.8	896.0	835.9	817.6	809.4	785.8	769.4	774.0
62.5°	7583.8	3338.9	918.7	868.7	876.9	800.3	773.1	770.3	755.7	750.3	750.3
65°	7951.6	3219.6	858.6	866.8	846.8	763.9	729.3	728.5	716.6	714.7	713.8
67.5°	7823.2	2841.7	777.6	841.3	815.8	727.5	689.3	685.6	670.1	671.1	671.1
70°	7180.4	2302.8	665.6	778.5	777.6	694.7	647.4	635.5	614.6	618.3	621.9
72.5°	5974.9	1706.3	515.4	673.8	716.6	664.7	599.1	580.0	553.6	557.3	556.4
75°	4314.9	1160.0	375.2	512.6	623.7	629.1	551.8	519.0	487.2	492.6	494.5
77.5°	2208.1	657.4	275.9	353.3	489.8	571.8	509.0	465.2	458.0	509.0	501.7
80°	720.3	329.6	191.2	247.6	321.4	468.0	446.2	396.1	394.2	406.1	348.7
82.5°	214.8	139.3	122.9	163.0	177.5	358.7	385.2	299.6	257.7	271.3	280.4
85°	73.8	67.3	70.1	81.1	84.7	210.3	269.5	198.5	187.6	206.6	204.0
87.5°	17.3	23.7	20.0	18.2	18.2	50.9	104.8	82.8	114.7	76.5	73.8
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)