

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: P961004

Luminaire Tested: **NAV-SB1D-827-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961004
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-SB1D-827-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9241.4 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 79.6
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

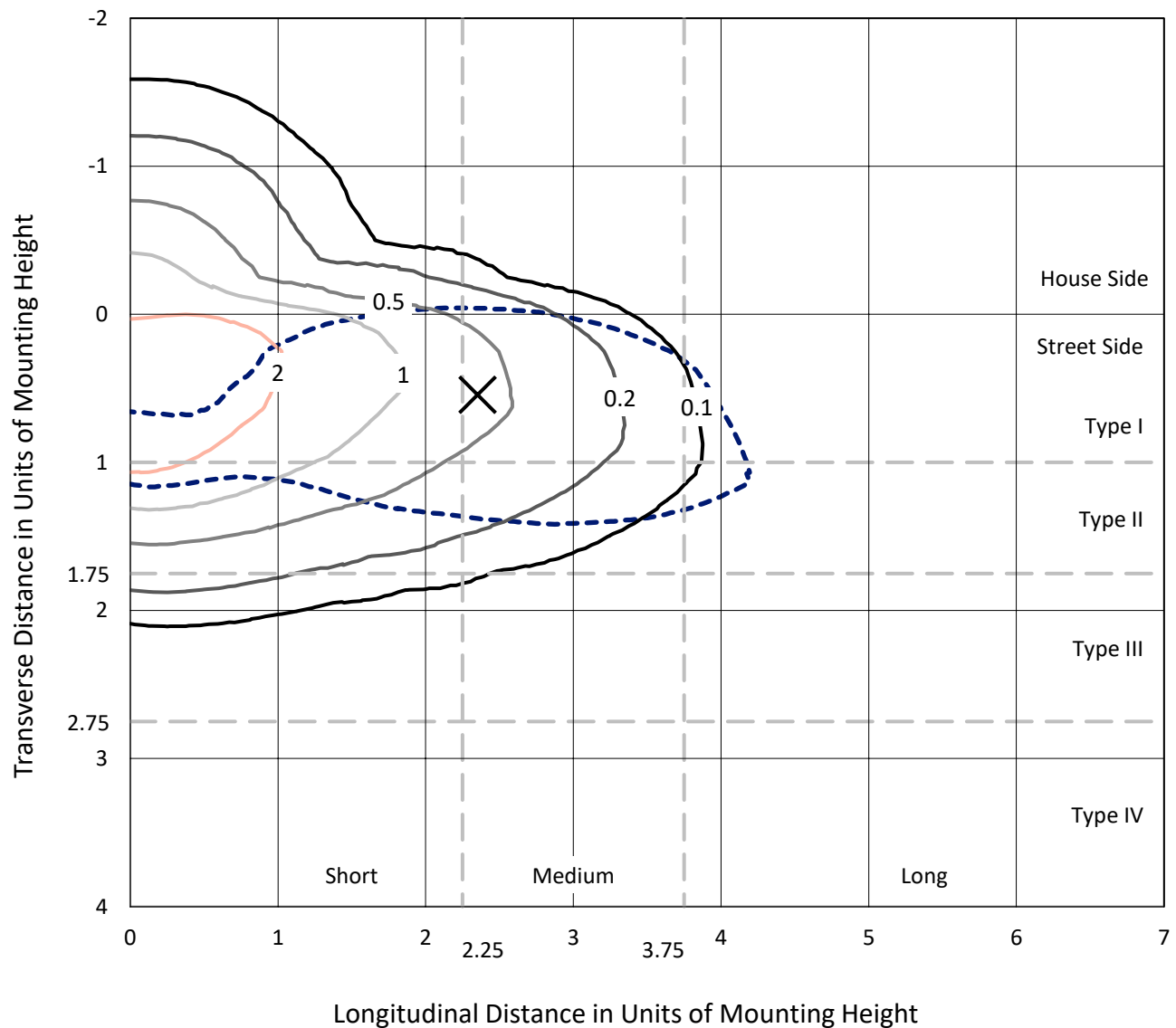


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Iso-Footcandle Lines of Horizontal Illumination

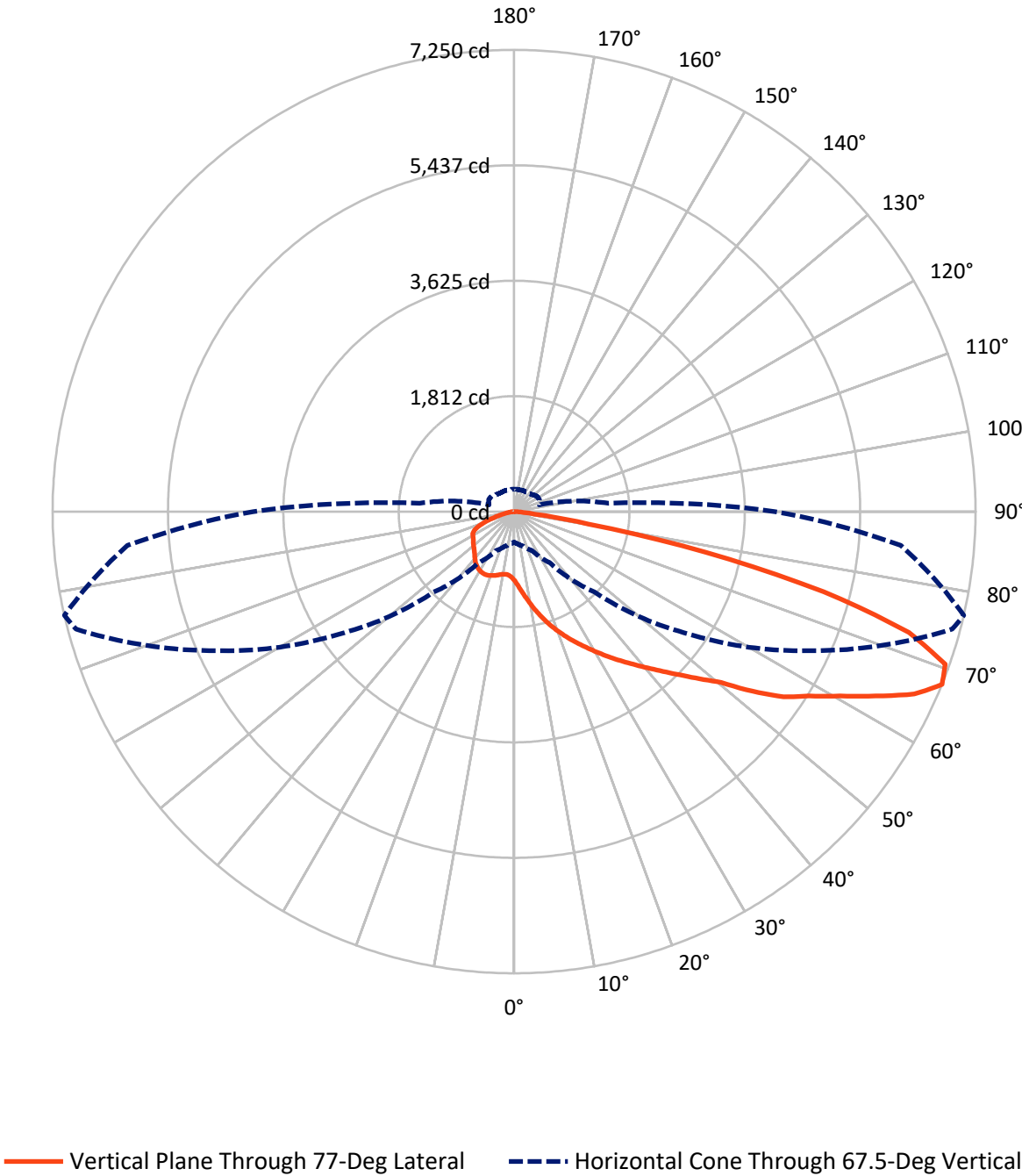
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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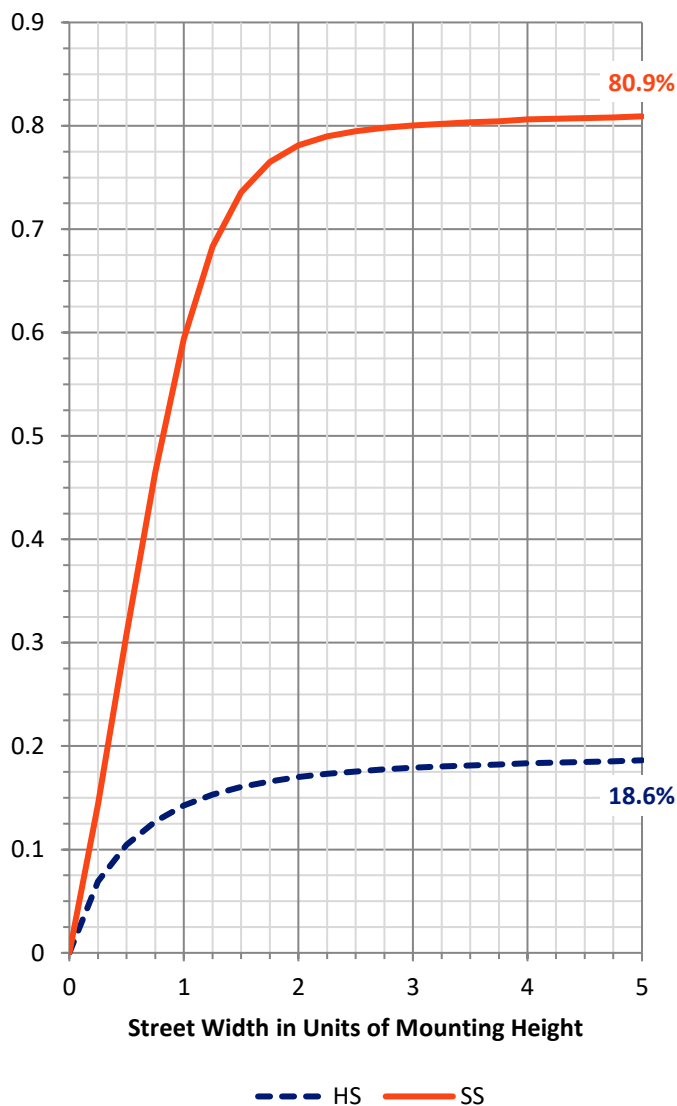
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1748.1	0.0	1748.1
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	7493.3	0.0	7493.3
	% Fixture	81.1	0.0	81.1
Total	Lumens	9241.4	0.0	9241.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.2	1.3
10°-20°	417.5	4.5
20°-30°	788.4	8.5
30°-40°	1270.0	13.7
40°-50°	1737.2	18.8
50°-60°	1959.5	21.2
60°-70°	1829.0	19.8
70°-80°	1002.6	10.8
80°-90°	120.9	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°	9241.4	100.0
0°-180°	9241.4	100.0

Coefficient of Utilization



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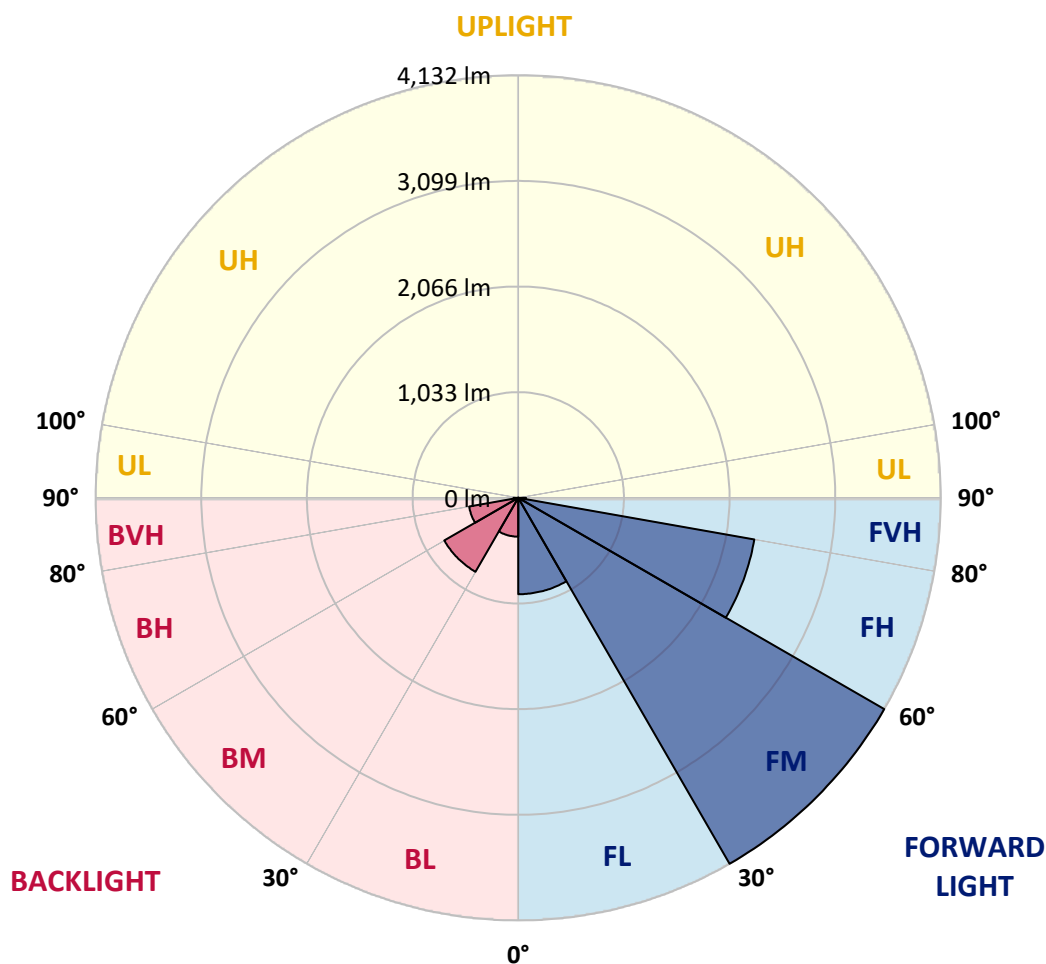
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	942.0	10.2			
FM	(30°-60°)	4131.7	44.7			
FH	(60°-80°)	2343.9	25.4			G2/5000
FVH	(80°-90°)	75.6	0.8			G1/100
BL	(0°-30°)	380.1	4.1	B1/500		
BM	(30°-60°)	835.0	9.0	B1/1000		
BH	(60°-80°)	487.7	5.3	B1/500		G1/500
BVH	(80°-90°)	45.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3
2.5°	1357.6	1367.1	1355.3	1355.3	1315.2	1294.2	1254.1	1223.6	1168.7	1159.2	1123.0
5°	1604.7	1616.6	1600.0	1592.8	1545.6	1502.1	1434.9	1368.6	1270.8	1260.9	1175.4
7.5°	1796.0	1811.3	1796.5	1788.9	1746.9	1698.2	1619.5	1526.9	1389.1	1369.6	1246.0
10°	1952.0	1954.4	1949.7	1952.5	1919.6	1879.5	1798.9	1691.0	1518.8	1492.2	1331.4
12.5°	2040.3	2051.2	2060.8	2078.0	2072.2	2047.4	1975.0	1846.1	1656.3	1622.0	1424.4
15°	2081.8	2100.8	2122.4	2161.9	2193.9	2200.1	2144.7	2012.6	1796.0	1754.5	1518.4
17.5°	2096.5	2114.7	2148.6	2205.8	2274.5	2320.8	2296.0	2174.3	1934.4	1886.7	1617.1
20°	2171.5	2176.7	2197.2	2251.6	2326.0	2402.8	2421.5	2329.8	2071.3	2017.4	1719.2
22.5°	2331.8	2321.2	2327.0	2351.8	2405.3	2479.7	2522.1	2467.3	2212.1	2150.0	1822.2
25°	2596.5	2566.0	2535.4	2506.8	2534.0	2576.0	2624.2	2604.6	2359.4	2280.7	1926.3
27.5°	2930.9	2893.7	2826.4	2732.4	2699.5	2714.3	2735.8	2732.0	2495.9	2416.2	2033.6
30°	3260.1	3216.7	3136.5	3000.6	2913.8	2874.6	2858.4	2847.4	2644.2	2559.3	2141.9
32.5°	3522.9	3488.6	3409.9	3257.7	3131.8	3065.0	3011.0	2971.9	2799.3	2714.3	2256.3
35°	3752.8	3720.9	3630.8	3464.7	3327.8	3256.7	3186.1	3102.7	2960.5	2874.6	2379.4
37.5°	3962.8	3930.8	3807.3	3634.5	3496.7	3447.6	3384.6	3242.9	3122.3	3041.1	2509.7
40°	4095.4	4088.2	3972.8	3777.1	3634.0	3609.7	3588.7	3405.6	3301.5	3226.2	2652.8
42.5°	4129.2	4145.0	4053.4	3892.6	3756.2	3736.6	3785.7	3589.7	3502.8	3430.9	2815.0
45°	4047.6	4092.9	4032.9	3923.6	3843.0	3832.5	3960.4	3791.0	3725.7	3659.9	3010.5
47.5°	3841.1	3917.9	3893.1	3877.8	3866.4	3911.7	4113.9	4004.7	3978.0	3920.7	3233.9
50°	3424.1	3569.7	3613.0	3709.5	3820.1	3973.2	4253.8	4238.0	4272.8	4215.1	3505.7
52.5°	2703.3	2903.7	3155.6	3397.0	3677.9	3952.7	4407.3	4572.8	4719.8	4688.3	3937.9
55°	2231.5	2321.7	2515.5	2958.1	3402.2	3866.4	4476.5	4843.3	5163.4	5135.2	4265.6
57.5°	1869.0	1949.7	2068.9	2438.6	2985.3	3670.3	4519.4	5008.4	5467.3	5464.5	4589.1
60°	1480.2	1565.6	1687.8	1949.7	2498.2	3331.7	4509.9	5196.3	5855.1	5879.0	4983.5
62.5°	1041.4	1135.4	1270.8	1515.1	2000.7	2892.8	4315.2	5332.4	6311.6	6376.5	5458.2
65°	684.6	746.6	848.6	1059.5	1490.8	2328.4	3943.7	5350.0	6800.2	6909.8	5903.8
67.5°	479.9	503.8	563.9	678.3	982.7	1785.6	3351.6	5167.2	7126.0	7249.5	6097.0
70°	374.4	386.4	417.0	462.7	617.3	1200.7	2568.3	4692.1	7056.3	7185.1	5895.2
72.5°	323.4	334.9	346.3	352.1	414.1	741.3	1739.7	3923.2	6400.4	6487.7	5125.7
75°	293.4	296.2	305.8	303.9	315.8	480.8	1004.2	2858.4	5049.9	5019.8	3783.9
77.5°	246.6	250.4	266.2	263.8	280.5	328.7	521.4	1844.7	3273.8	3069.8	2106.1
80°	208.9	210.8	228.1	225.2	243.7	238.0	266.2	940.2	1388.7	1176.4	607.3
82.5°	72.5	89.7	174.1	179.4	186.0	144.1	153.6	383.6	424.0	324.8	127.4
85°	35.3	37.7	88.8	126.0	125.5	72.5	74.9	136.9	133.6	105.0	42.4
87.5°	5.7	7.2	10.5	49.1	39.2	19.1	25.7	26.8	27.7	23.9	9.5
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°	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3	1084.3
2.5°	1096.2	1072.4	1022.3	976.0	939.7	905.0	885.4	868.7	859.2	857.2	857.2
5°	1125.8	1076.7	985.5	908.8	858.6	821.4	801.9	789.5	783.3	779.5	779.0
7.5°	1168.3	1096.2	966.5	879.1	826.7	800.0	790.0	788.0	787.6	788.0	789.5
10°	1226.9	1128.2	964.5	872.1	828.1	813.3	812.8	813.3	815.3	815.7	816.2
12.5°	1290.4	1161.1	972.2	878.2	846.2	838.1	836.7	836.2	837.6	838.7	839.1
15°	1359.6	1204.5	985.1	891.5	866.3	857.7	856.3	853.4	852.9	852.5	852.0
17.5°	1430.6	1247.4	999.4	905.9	879.1	867.3	862.0	855.4	850.0	848.6	850.0
20°	1502.6	1289.9	1009.4	913.1	880.2	863.5	852.9	841.5	832.4	827.2	829.1
22.5°	1579.4	1334.2	1015.6	911.1	871.6	848.6	829.5	816.2	802.4	793.3	793.8
25°	1654.4	1372.9	1015.2	901.1	854.8	825.7	801.4	784.2	765.2	755.6	755.6
27.5°	1726.4	1407.7	1003.2	883.4	831.0	798.6	769.5	749.0	730.3	721.3	720.8
30°	1800.8	1436.8	984.6	857.7	802.9	767.1	735.1	717.5	700.8	692.2	691.7
32.5°	1874.7	1463.6	958.4	825.7	770.4	736.1	704.6	688.4	678.3	678.3	678.9
35°	1953.0	1482.1	923.5	788.5	736.1	703.2	678.3	668.8	667.9	662.2	660.7
37.5°	2035.5	1494.0	881.1	750.4	702.2	671.2	663.6	652.1	642.6	630.2	628.2
40°	2122.4	1506.0	830.0	710.7	666.5	649.2	646.0	630.7	603.4	572.9	568.7
42.5°	2227.7	1514.1	777.1	671.2	628.7	623.0	627.8	601.6	558.1	535.3	535.7
45°	2349.9	1527.5	728.5	632.1	590.1	590.1	610.1	575.7	540.0	525.7	528.1
47.5°	2508.3	1558.5	683.2	589.2	554.3	563.9	571.0	544.8	524.7	507.1	506.7
50°	2737.3	1632.9	636.3	545.7	527.2	546.2	536.2	520.9	497.5	483.3	481.9
52.5°	3021.6	1676.8	594.9	506.7	503.8	522.9	508.5	494.3	476.5	457.5	453.7
55°	3215.2	1684.9	560.1	478.0	488.0	486.1	480.8	468.0	458.5	433.2	433.6
57.5°	3431.8	1701.1	531.5	460.8	478.0	457.0	455.1	444.1	431.7	414.5	408.8
60°	3690.8	1726.4	506.7	454.2	469.4	437.9	428.3	424.0	411.6	403.1	405.5
62.5°	3973.2	1749.3	481.3	455.1	459.4	419.3	405.0	403.5	396.0	393.1	393.1
65°	4165.9	1686.8	449.9	454.2	443.6	400.3	382.1	381.6	375.5	374.4	374.0
67.5°	4098.7	1488.8	407.4	440.7	427.4	381.2	361.1	359.2	351.1	351.6	351.6
70°	3762.0	1206.4	348.7	407.8	407.4	364.0	339.2	333.0	322.0	323.9	325.8
72.5°	3130.4	894.0	270.0	353.0	375.5	348.2	313.9	303.9	290.1	291.9	291.5
75°	2260.6	607.7	196.5	268.5	326.8	329.6	289.0	271.9	255.2	258.1	259.0
77.5°	1156.8	344.4	144.5	185.1	256.7	299.6	266.7	243.7	240.0	266.7	262.8
80°	377.3	172.7	100.1	129.8	168.4	245.2	233.7	207.5	206.5	212.8	182.7
82.5°	112.5	73.0	64.4	85.4	93.1	188.0	201.8	156.9	135.0	142.2	146.9
85°	38.6	35.3	36.7	42.4	44.4	110.2	141.2	104.0	98.3	108.2	106.8
87.5°	9.0	12.4	10.5	9.5	9.5	26.8	54.8	43.5	60.1	40.1	38.6
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)