

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: P961035

Luminaire Tested: **NAV-SB1D-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961035
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-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9548.9 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - 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

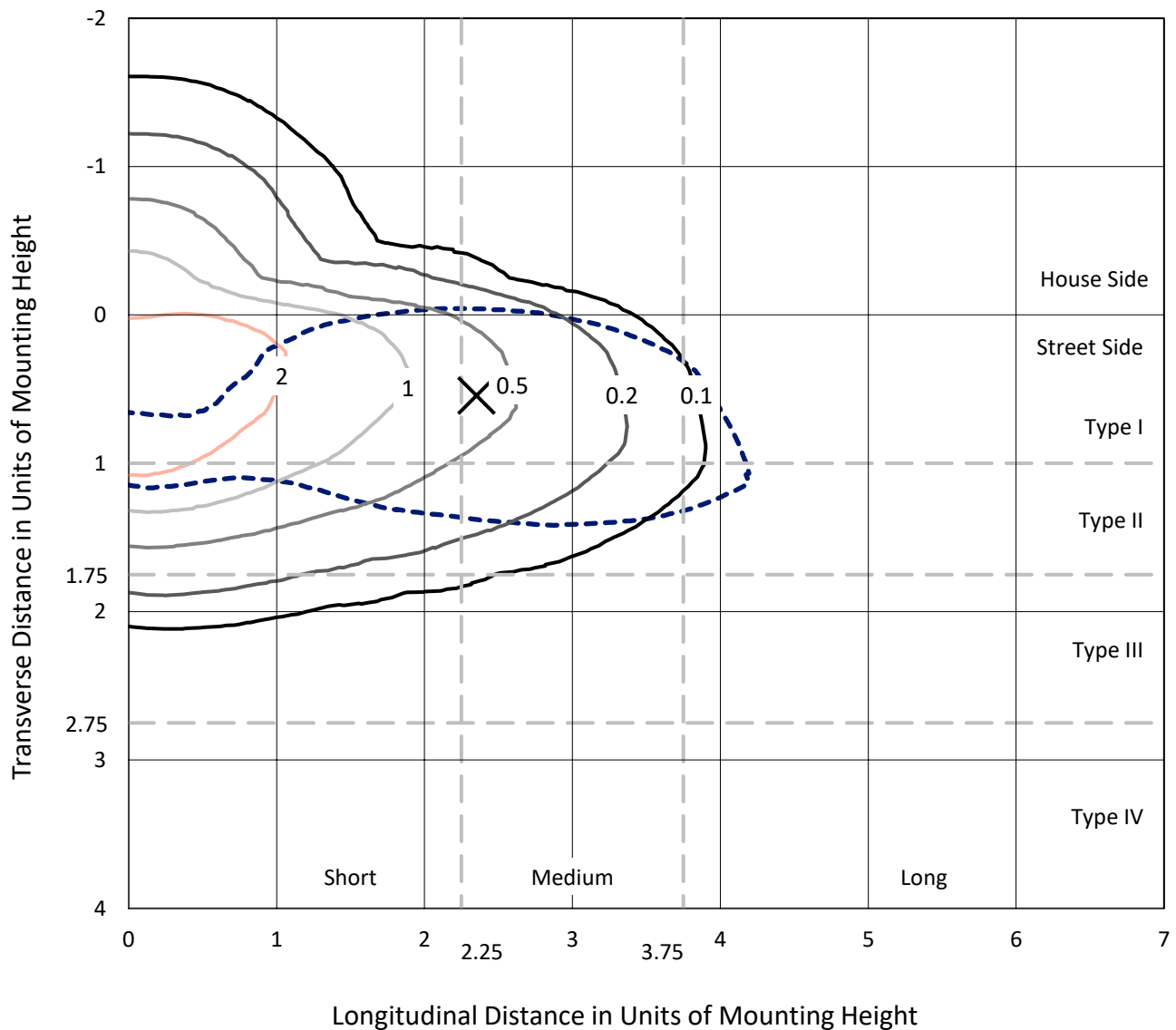


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Iso-Footcandle Lines of Horizontal Illumination

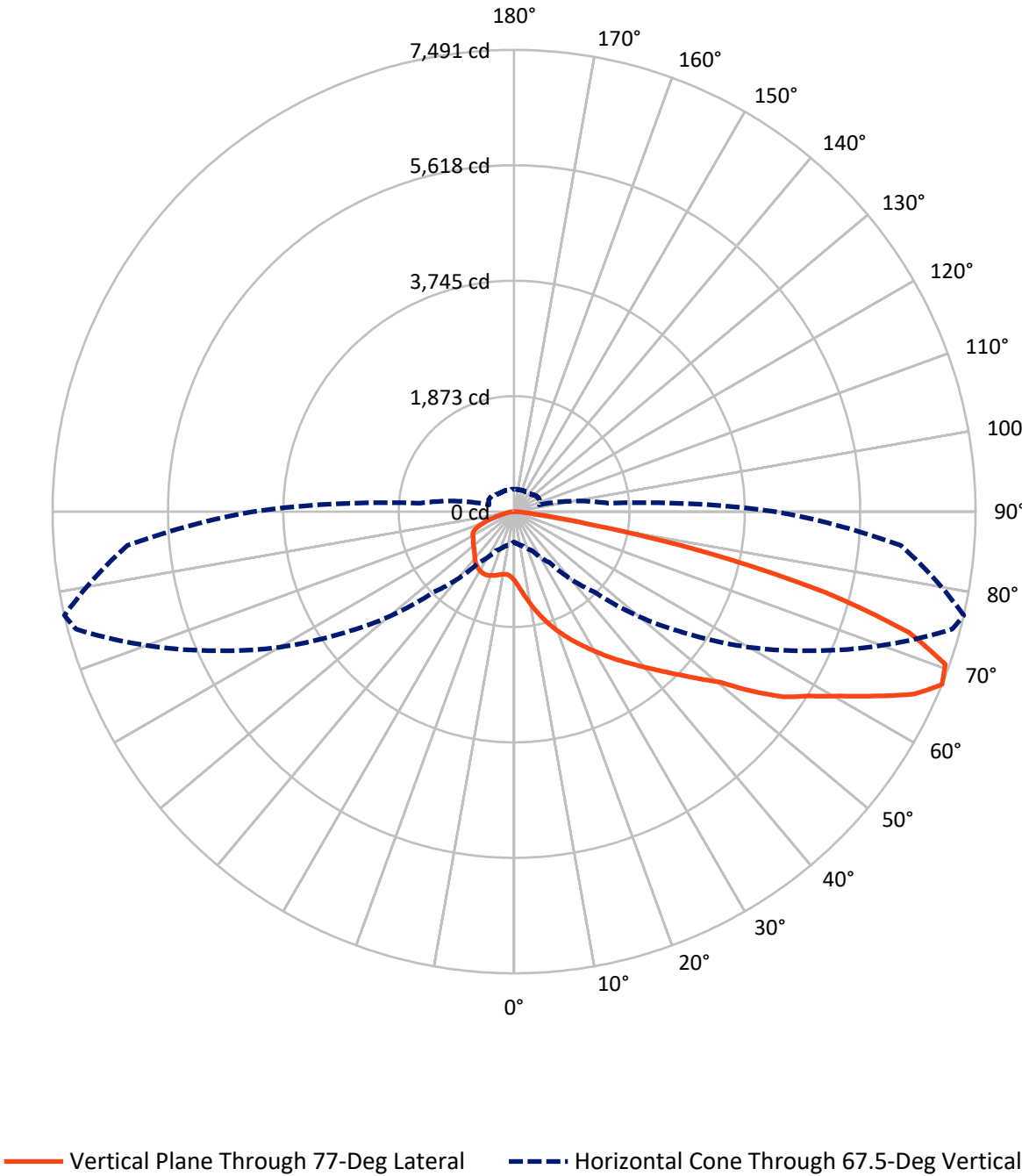
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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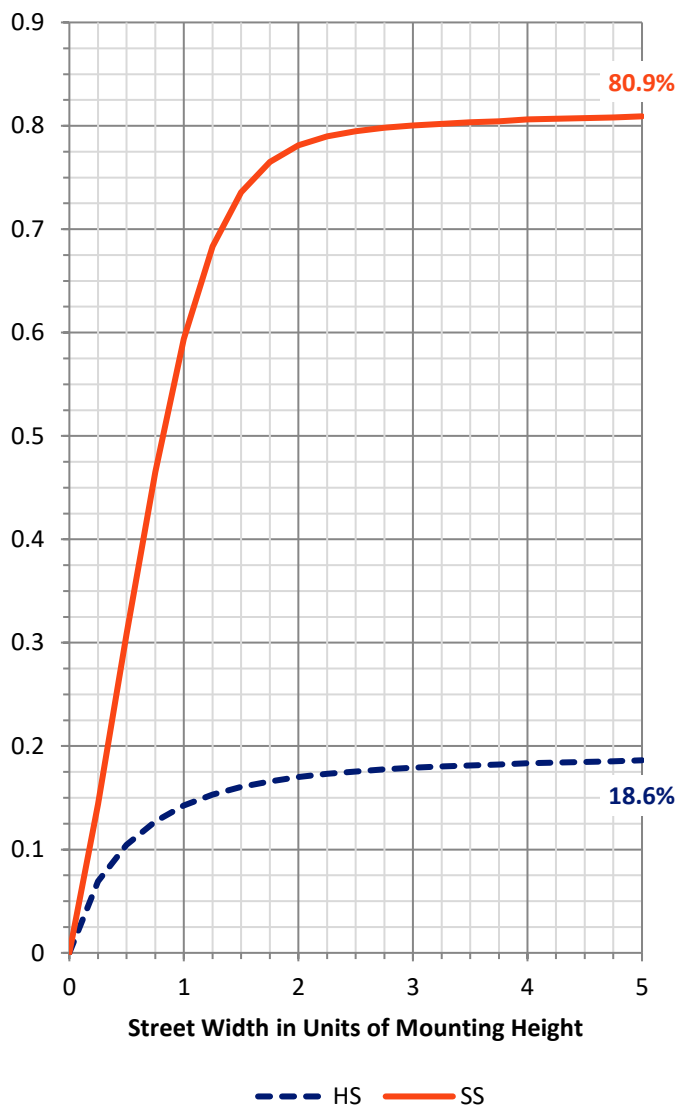
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1806.3	0.0	1806.3
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	7742.6	0.0	7742.6
	% Fixture	81.1	0.0	81.1
Total	Lumens	9548.9	0.0	9548.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.1	1.3
10°-20°	431.4	4.5
20°-30°	814.6	8.5
30°-40°	1312.3	13.7
40°-50°	1795.0	18.8
50°-60°	2024.7	21.2
60°-70°	1889.9	19.8
70°-80°	1036.0	10.8
80°-90°	125.0	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°	9548.9	100.0
0°-180°	9548.9	100.0

Coefficient of Utilization



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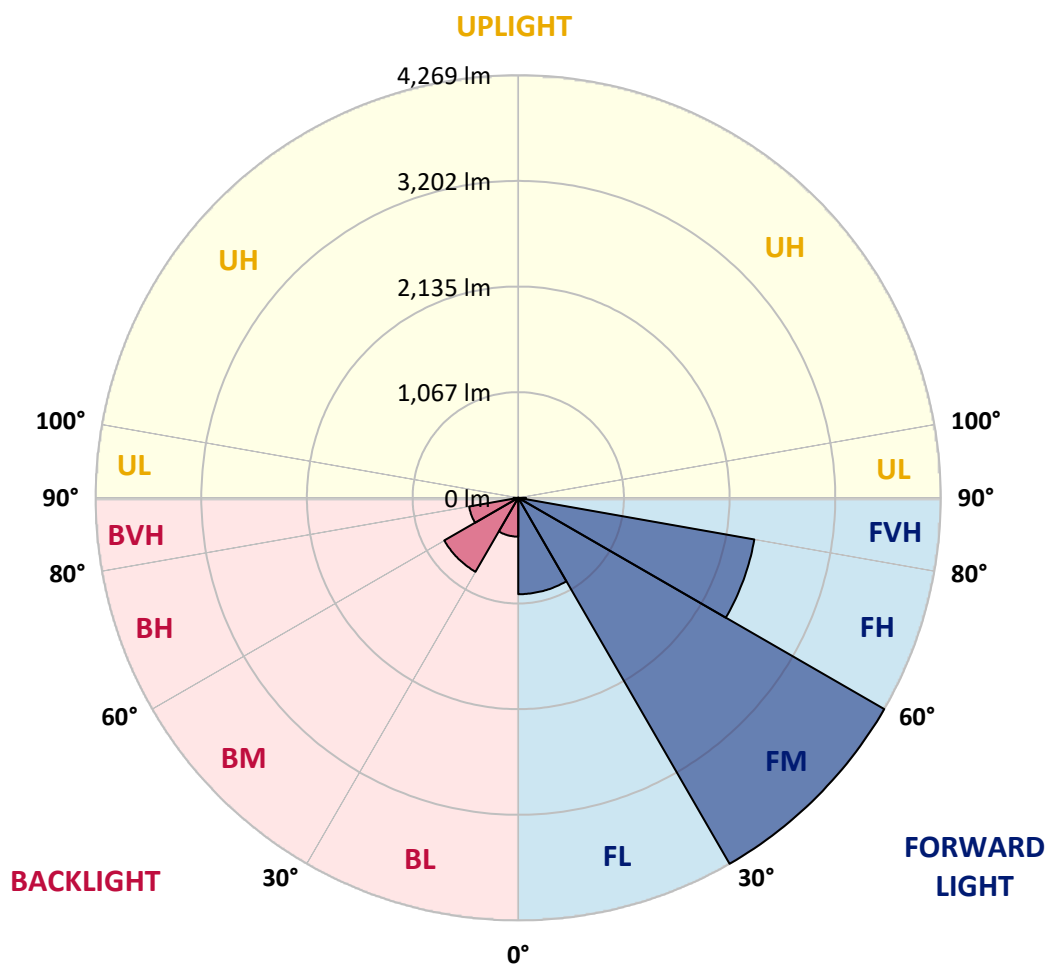
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	973.4	10.2			
FM	(30°-60°)	4269.2	44.7			
FH	(60°-80°)	2421.9	25.4			G2/5000
FVH	(80°-90°)	78.1	0.8			G1/100
BL	(0°-30°)	392.7	4.1	B1/500		
BM	(30°-60°)	862.8	9.0	B1/1000		
BH	(60°-80°)	503.9	5.3	B2/1000		G2/1000
BVH	(80°-90°)	46.8	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°	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4
2.5°	1402.8	1412.7	1400.4	1400.4	1358.9	1337.2	1295.9	1264.3	1207.7	1197.8	1160.3
5°	1658.1	1670.4	1653.2	1645.8	1597.1	1552.2	1482.7	1414.2	1313.1	1302.8	1214.5
7.5°	1855.8	1871.5	1856.3	1848.4	1805.0	1754.8	1673.4	1577.8	1435.3	1415.1	1287.5
10°	2017.0	2019.5	2014.5	2017.5	1983.5	1942.1	1858.7	1747.3	1569.4	1541.8	1375.8
12.5°	2108.2	2119.5	2129.3	2147.1	2141.2	2115.6	2040.7	1907.5	1711.3	1675.9	1471.8
15°	2151.1	2170.7	2193.0	2233.9	2266.9	2273.3	2216.2	2079.6	1855.8	1812.9	1569.0
17.5°	2166.3	2185.1	2220.0	2279.2	2350.2	2398.0	2372.4	2246.7	1998.7	1949.4	1671.0
20°	2243.7	2249.2	2270.4	2326.5	2403.4	2482.8	2502.0	2407.4	2140.2	2084.5	1776.4
22.5°	2409.4	2398.5	2404.4	2430.1	2485.2	2562.2	2606.0	2549.3	2285.6	2221.6	1882.9
25°	2682.9	2651.4	2619.8	2590.3	2618.4	2661.7	2711.5	2691.2	2438.0	2356.6	1990.3
27.5°	3028.5	2990.0	2920.5	2823.4	2789.3	2804.6	2826.8	2822.8	2578.9	2496.6	2101.2
30°	3368.6	3323.7	3240.8	3100.4	3010.7	2970.2	2953.5	2942.2	2732.2	2644.5	2213.2
32.5°	3640.2	3604.6	3523.3	3366.1	3235.9	3166.9	3111.3	3070.8	2892.3	2804.6	2331.5
35°	3877.7	3844.7	3751.5	3580.0	3438.6	3365.1	3292.1	3205.9	3059.0	2970.2	2458.7
37.5°	4094.6	4061.6	3934.0	3755.5	3613.0	3562.3	3497.2	3350.8	3226.1	3142.3	2593.1
40°	4231.6	4224.2	4104.9	3902.9	3755.0	3729.9	3708.1	3518.9	3411.4	3333.5	2741.1
42.5°	4266.7	4282.9	4188.3	4022.1	3881.2	3861.0	3911.7	3709.2	3619.5	3545.0	2908.6
45°	4182.3	4229.2	4167.0	4054.2	3970.8	3960.0	4092.1	3917.1	3849.6	3781.6	3110.8
47.5°	3968.9	4048.2	4022.6	4006.8	3995.0	4041.9	4250.9	4137.9	4110.4	4051.2	3341.4
50°	3538.1	3688.5	3733.3	3832.9	3947.2	4105.4	4395.3	4379.0	4415.0	4355.3	3622.4
52.5°	2793.3	3000.4	3260.6	3510.0	3800.3	4084.2	4554.0	4725.0	4876.8	4844.4	4068.9
55°	2305.8	2399.0	2599.1	3056.5	3515.4	3995.0	4625.4	5004.5	5335.2	5306.1	4407.6
57.5°	1931.2	2014.5	2137.7	2519.8	3084.6	3792.4	4669.8	5175.0	5649.2	5646.3	4741.8
60°	1529.5	1617.8	1743.9	2014.5	2581.4	3442.5	4660.0	5369.3	6050.0	6074.7	5149.4
62.5°	1076.0	1173.1	1313.1	1565.5	2067.2	2989.0	4458.9	5509.8	6521.7	6588.7	5639.9
65°	707.4	771.4	876.9	1094.8	1540.4	2405.9	4074.9	5527.9	7026.4	7139.7	6100.3
67.5°	495.9	520.5	582.6	700.9	1015.4	1845.0	3463.2	5339.2	7363.1	7490.7	6299.9
70°	386.9	399.2	430.8	478.2	637.9	1240.7	2653.8	4848.2	7291.1	7424.2	6091.4
72.5°	334.2	346.0	357.8	363.8	427.8	766.0	1797.6	4053.7	6613.4	6703.6	5296.3
75°	303.1	306.1	315.9	314.0	326.3	496.8	1037.6	2953.5	5218.0	5186.9	3909.8
77.5°	254.8	258.8	275.0	272.5	289.9	339.6	538.7	1906.1	3382.8	3171.9	2176.2
80°	215.9	217.9	235.6	232.7	251.8	246.0	275.0	971.5	1434.9	1215.5	627.5
82.5°	74.9	92.7	179.9	185.3	192.2	148.8	158.7	396.3	438.2	335.7	131.6
85°	36.5	38.9	91.6	130.2	129.7	74.9	77.4	141.4	138.0	108.4	43.9
87.5°	5.9	7.4	10.9	50.7	40.4	19.7	26.6	27.6	28.6	24.6	9.8
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°	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4	1120.4
2.5°	1132.7	1108.0	1056.3	1008.5	971.0	935.0	914.8	897.6	887.8	885.8	885.8
5°	1163.3	1112.5	1018.3	939.0	887.2	848.8	828.6	815.8	809.3	805.4	804.9
7.5°	1207.1	1132.7	998.7	908.5	854.2	826.6	816.2	814.3	813.7	814.3	815.8
10°	1267.7	1165.7	996.7	901.1	855.7	840.4	839.9	840.4	842.3	842.9	843.4
12.5°	1333.3	1199.8	1004.5	907.4	874.4	866.0	864.6	864.1	865.5	866.5	867.0
15°	1404.8	1244.6	1017.8	921.3	895.1	886.2	884.8	881.8	881.3	880.8	880.4
17.5°	1478.3	1288.9	1032.7	936.0	908.5	896.2	890.7	883.8	878.3	876.9	878.3
20°	1552.7	1332.8	1043.0	943.4	909.4	892.2	881.3	869.5	860.1	854.7	856.7
22.5°	1632.0	1378.6	1049.4	941.5	900.6	876.9	857.2	843.4	829.1	819.7	820.2
25°	1709.4	1418.6	1048.9	931.1	883.2	853.2	828.1	810.4	790.6	780.7	780.7
27.5°	1783.8	1454.6	1036.6	912.9	858.6	825.1	795.1	773.9	754.6	745.3	744.8
30°	1860.7	1484.6	1017.4	886.2	829.5	792.6	759.5	741.4	724.1	715.2	714.7
32.5°	1937.1	1512.3	990.3	853.2	796.0	760.6	728.1	711.2	700.9	700.9	701.4
35°	2018.0	1531.5	954.3	814.8	760.6	726.5	700.9	691.1	690.0	684.2	682.6
37.5°	2103.2	1543.8	910.4	775.3	725.6	693.5	685.6	673.8	664.0	651.2	649.1
40°	2193.0	1556.2	857.6	734.4	688.6	670.9	667.4	651.6	623.5	591.9	587.5
42.5°	2301.8	1564.5	803.0	693.5	649.6	643.7	648.6	621.6	576.7	553.1	553.5
45°	2428.0	1578.3	752.7	653.1	609.8	609.8	630.5	594.9	558.0	543.1	545.6
47.5°	2591.7	1610.4	705.8	608.7	572.8	582.6	590.0	562.9	542.2	524.0	523.5
50°	2828.3	1687.3	657.5	563.9	544.7	564.4	554.0	538.2	514.1	499.3	497.8
52.5°	3122.0	1732.6	614.7	523.5	520.5	540.3	525.4	510.7	492.4	472.7	468.7
55°	3322.2	1741.0	578.7	493.8	504.2	502.2	496.8	483.6	473.7	447.5	448.0
57.5°	3546.0	1757.7	549.1	476.1	493.8	472.2	470.3	458.9	446.1	428.3	422.4
60°	3813.6	1783.8	523.5	469.2	485.0	452.5	442.6	438.2	425.4	416.5	419.0
62.5°	4105.4	1807.5	497.3	470.3	474.7	433.3	418.5	417.0	409.1	406.2	406.2
65°	4304.6	1742.9	464.8	469.2	458.4	413.6	394.8	394.3	388.0	386.9	386.4
67.5°	4235.1	1538.3	421.0	455.4	441.7	393.8	373.1	371.2	362.7	363.3	363.3
70°	3887.1	1246.6	360.3	421.5	421.0	376.1	350.4	344.1	332.7	334.7	336.6
72.5°	3234.5	923.7	279.0	364.8	388.0	359.8	324.3	314.0	299.7	301.7	301.1
75°	2335.9	628.0	203.1	277.5	337.6	340.6	298.7	281.0	263.7	266.7	267.6
77.5°	1195.4	355.9	149.3	191.3	265.2	309.5	275.5	251.8	247.9	275.5	271.6
80°	389.9	178.5	103.5	134.1	174.0	253.4	241.5	214.4	213.4	219.9	188.8
82.5°	116.3	75.4	66.5	88.3	96.1	194.2	208.5	162.2	139.5	146.9	151.8
85°	40.0	36.5	37.9	43.9	45.8	113.9	145.9	107.4	101.6	111.9	110.4
87.5°	9.3	12.8	10.9	9.8	9.8	27.6	56.7	44.9	62.1	41.4	40.0
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)