

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: P961438

Luminaire Tested: **NAV-SB2A-740-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961438
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-SB2A-740-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 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: 9908.7 lumens
Efficiency: N/A
Efficacy: 172.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 57.3
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

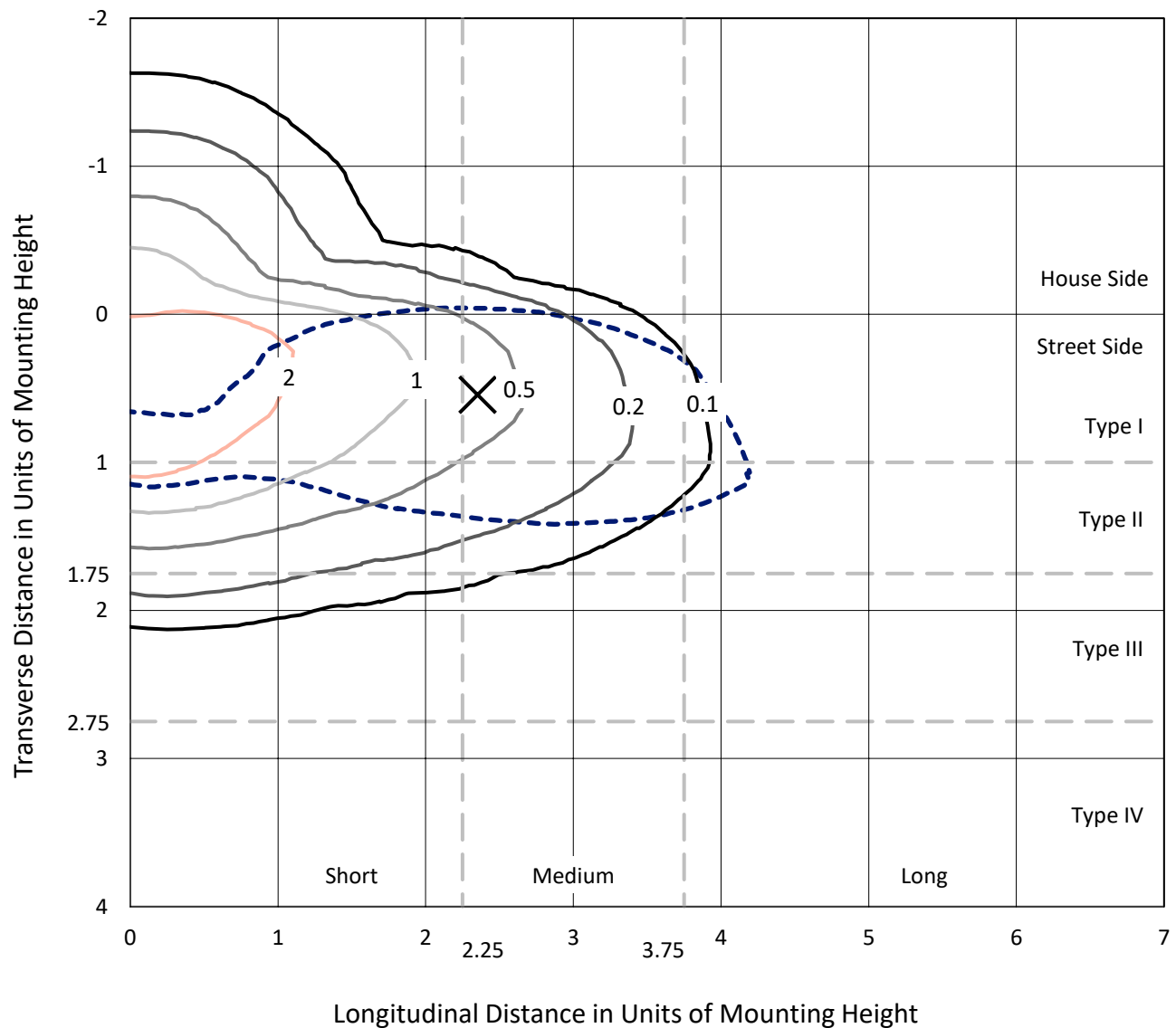


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Iso-Footcandle Lines of Horizontal Illumination

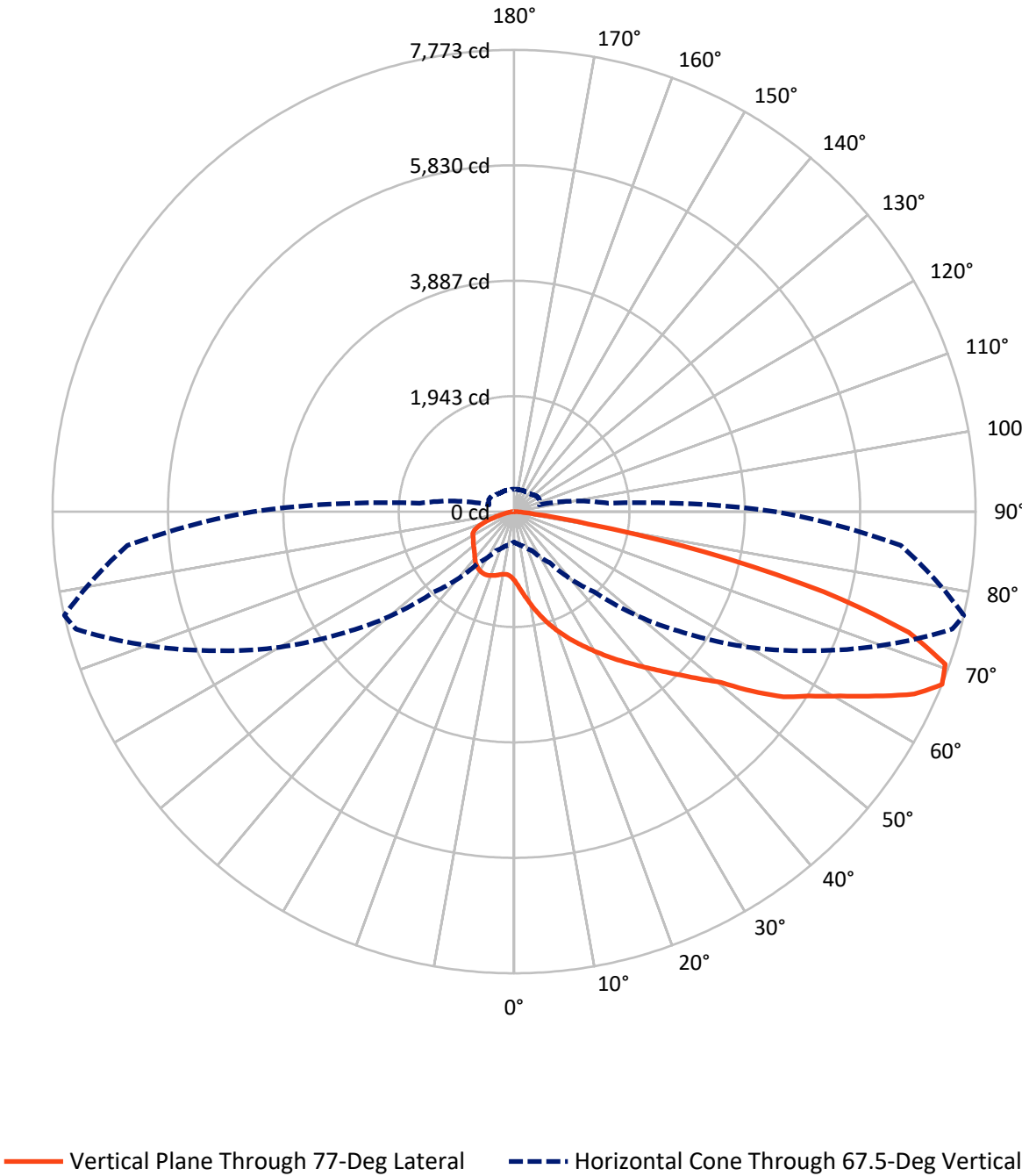
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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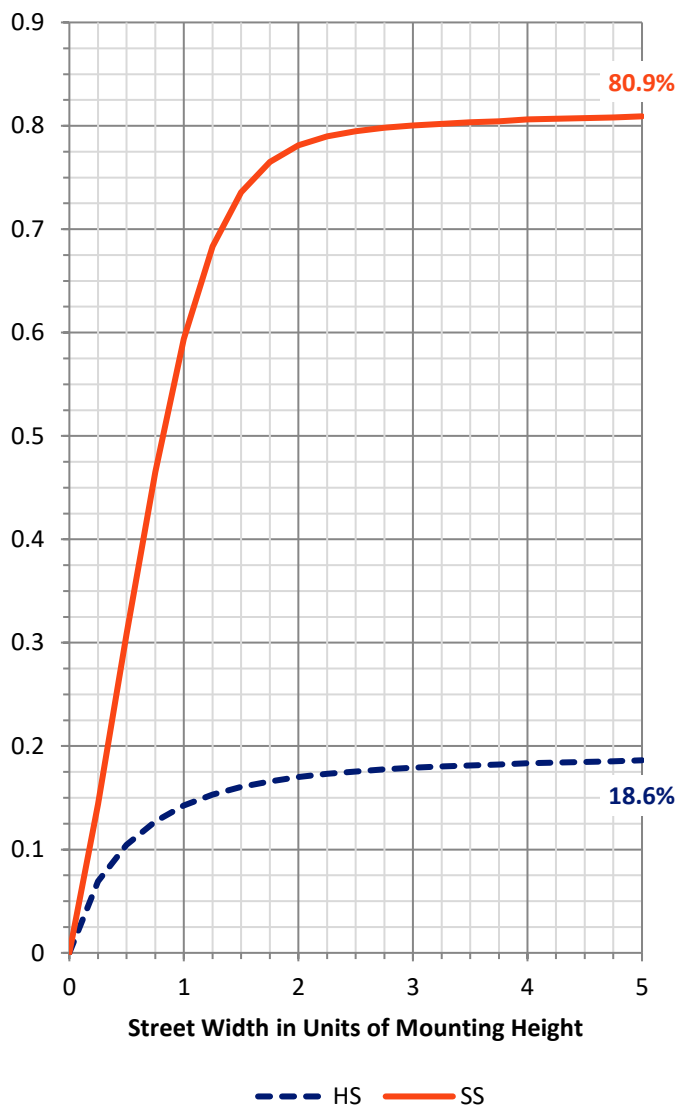
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1874.3	0.0	1874.3
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	8034.3	0.0	8034.3
	% Fixture	81.1	0.0	81.1
Total	Lumens	9908.7	0.0	9908.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.6	1.3
10°-20°	447.7	4.5
20°-30°	845.3	8.5
30°-40°	1361.7	13.7
40°-50°	1862.6	18.8
50°-60°	2101.0	21.2
60°-70°	1961.1	19.8
70°-80°	1075.0	10.8
80°-90°	129.7	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°	9908.7	100.0
0°-180°	9908.7	100.0

Coefficient of Utilization



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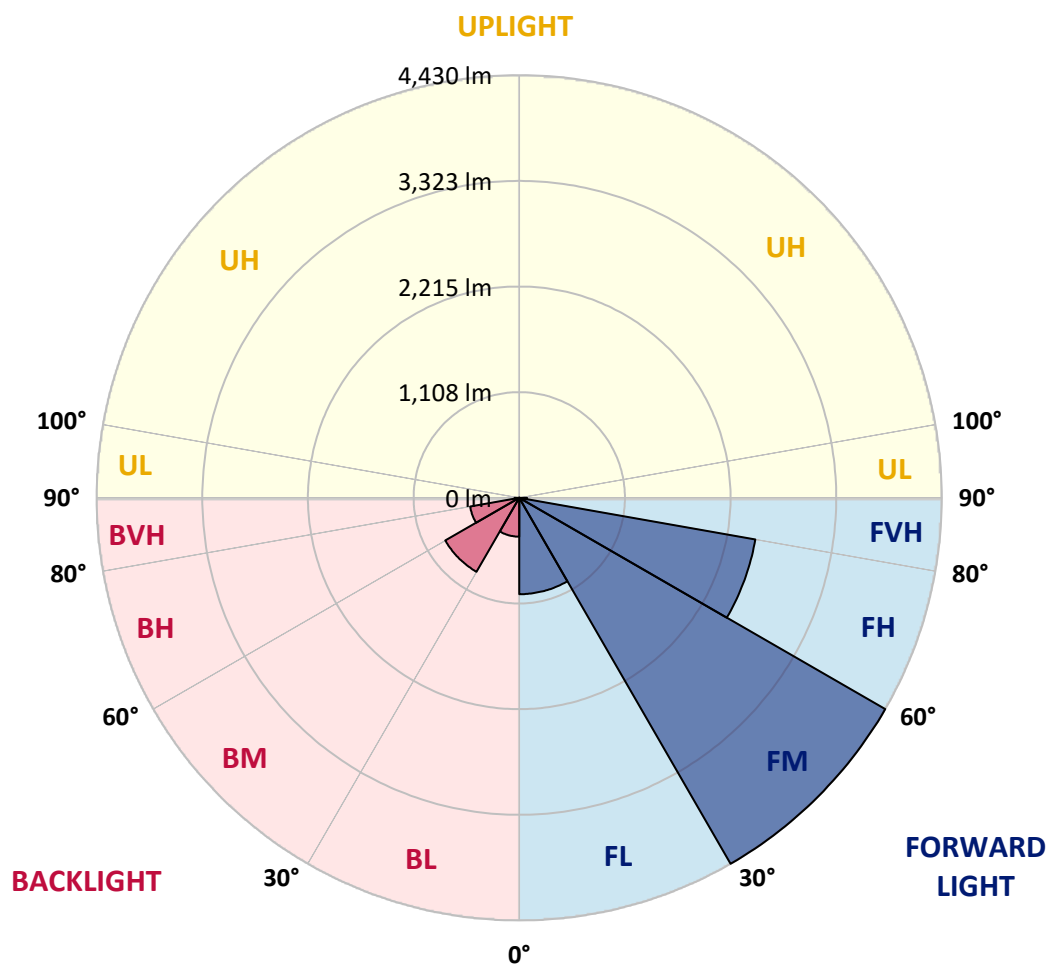
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1010.1	10.2			
FM	(30°-60°)	4430.1	44.7			
FH	(60°-80°)	2513.1	25.4			G2/5000
FVH	(80°-90°)	81.1	0.8			G1/100
BL	(0°-30°)	407.5	4.1	B1/500		
BM	(30°-60°)	895.3	9.0	B1/1000		
BH	(60°-80°)	522.9	5.3	B2/1000		G2/1000
BVH	(80°-90°)	48.6	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°	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6
2.5°	1455.7	1465.9	1453.1	1453.1	1410.2	1387.6	1344.7	1311.9	1253.2	1242.9	1204.1
5°	1720.7	1733.4	1715.5	1707.9	1657.2	1610.7	1538.5	1467.4	1362.6	1351.9	1260.2
7.5°	1925.8	1942.1	1926.3	1918.1	1873.1	1820.9	1736.5	1637.2	1489.4	1468.4	1336.0
10°	2092.9	2095.5	2090.4	2093.5	2058.2	2015.3	1928.7	1813.2	1628.5	1599.9	1427.5
12.5°	2187.6	2199.3	2209.6	2228.0	2221.9	2195.2	2117.5	1979.5	1775.8	1739.0	1527.2
15°	2232.1	2252.5	2275.6	2318.0	2352.3	2358.9	2299.6	2157.9	1925.8	1881.2	1628.0
17.5°	2247.9	2267.4	2303.7	2365.1	2438.8	2488.4	2461.7	2331.4	2074.1	2022.9	1733.9
20°	2328.3	2333.9	2355.9	2414.2	2494.0	2576.3	2596.3	2498.0	2220.9	2163.1	1843.4
22.5°	2500.1	2488.9	2495.0	2521.6	2578.9	2658.6	2704.2	2645.4	2371.7	2305.2	1953.9
25°	2784.0	2751.3	2718.5	2687.9	2717.0	2762.0	2813.6	2792.7	2529.8	2445.3	2065.4
27.5°	3142.5	3102.7	3030.5	2929.8	2894.5	2910.3	2933.3	2929.2	2676.1	2590.7	2180.5
30°	3495.5	3448.9	3363.0	3217.2	3124.1	3082.2	3064.7	3053.1	2835.1	2744.1	2296.5
32.5°	3777.3	3740.4	3656.1	3492.9	3357.9	3286.3	3228.4	3186.5	3001.4	2910.3	2419.3
35°	4023.8	3989.5	3892.8	3714.9	3568.1	3491.9	3416.2	3326.6	3174.2	3082.2	2551.2
37.5°	4248.8	4214.6	4082.2	3896.9	3749.1	3696.5	3628.9	3477.0	3347.6	3260.7	2690.9
40°	4391.1	4383.4	4259.6	4049.9	3896.4	3870.4	3847.8	3651.5	3539.9	3459.2	2844.4
42.5°	4427.4	4444.3	4346.0	4173.7	4027.4	4006.4	4059.1	3848.9	3755.8	3678.5	3018.2
45°	4340.0	4388.5	4324.1	4206.9	4120.5	4109.2	4246.3	4064.7	3994.6	3924.1	3227.9
47.5°	4118.4	4200.8	4174.2	4157.8	4145.5	4194.1	4411.0	4293.9	4265.2	4203.8	3467.4
50°	3671.4	3827.5	3874.0	3977.3	4095.9	4260.1	4560.8	4544.0	4581.3	4519.4	3758.9
52.5°	2898.6	3113.3	3383.4	3642.2	3943.5	4238.2	4725.6	4903.1	5060.6	5026.8	4222.3
55°	2392.7	2489.4	2697.1	3171.7	3647.9	4145.5	4799.8	5193.1	5536.2	5506.1	4573.7
57.5°	2004.0	2090.4	2218.3	2614.7	3200.9	3935.3	4845.8	5370.1	5862.1	5859.0	4920.4
60°	1587.1	1678.6	1809.6	2090.4	2678.6	3572.2	4835.5	5571.6	6277.9	6303.4	5343.4
62.5°	1116.5	1217.3	1362.6	1624.4	2145.1	3101.6	4626.8	5717.3	6767.4	6837.0	5852.3
65°	734.0	800.4	909.9	1136.0	1598.4	2496.5	4228.4	5736.2	7291.1	7408.8	6330.1
67.5°	514.6	540.1	604.5	727.3	1053.7	1914.5	3593.6	5540.3	7640.5	7773.0	6537.2
70°	401.5	414.3	447.0	496.1	661.8	1287.4	2753.8	5030.9	7565.8	7703.9	6320.9
72.5°	346.8	359.1	371.4	377.5	443.9	794.9	1865.4	4206.4	6862.6	6956.2	5495.8
75°	314.6	317.6	327.9	325.8	338.6	515.6	1076.7	3064.7	5414.6	5382.3	4057.1
77.5°	264.4	268.5	285.4	282.9	300.7	352.4	559.0	1977.9	3510.3	3291.4	2258.2
80°	224.1	226.1	244.5	241.4	261.4	255.2	285.4	1008.1	1488.9	1261.3	651.1
82.5°	77.7	96.1	186.7	192.3	199.5	154.5	164.7	411.2	454.7	348.3	136.5
85°	37.8	40.4	95.1	135.0	134.5	77.7	80.3	146.8	143.2	112.5	45.5
87.5°	6.1	7.7	11.3	52.7	41.9	20.5	27.6	28.6	29.6	25.6	10.2
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°	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6
2.5°	1175.4	1149.8	1096.1	1046.5	1007.6	970.3	949.4	931.4	921.2	919.1	919.1
5°	1207.1	1154.5	1056.7	974.4	920.7	880.8	859.8	846.5	839.9	835.8	835.3
7.5°	1252.7	1175.4	1036.3	942.7	886.4	857.7	847.1	845.0	844.5	845.0	846.5
10°	1315.5	1209.6	1034.2	935.0	888.0	872.1	871.6	872.1	874.1	874.6	875.1
12.5°	1383.5	1245.0	1042.4	941.7	907.3	898.7	897.2	896.7	898.2	899.2	899.7
15°	1457.8	1291.5	1056.2	955.9	928.9	919.6	918.1	915.0	914.5	914.0	913.5
17.5°	1533.9	1337.5	1071.5	971.3	942.7	929.9	924.2	917.1	911.4	909.9	911.4
20°	1611.2	1383.0	1082.3	979.0	943.7	925.8	914.5	902.2	892.6	886.9	889.0
22.5°	1693.5	1430.6	1089.0	976.9	934.5	909.9	889.5	875.1	860.3	850.5	851.1
25°	1773.9	1472.0	1088.4	966.2	916.6	885.4	859.3	840.9	820.4	810.2	810.2
27.5°	1851.0	1509.4	1075.6	947.3	891.0	856.2	825.0	803.0	783.1	773.4	772.8
30°	1930.8	1540.6	1055.6	919.6	860.8	822.5	788.2	769.3	751.3	742.2	741.7
32.5°	2010.1	1569.2	1027.6	885.4	826.0	789.2	755.4	738.1	727.3	727.3	727.9
35°	2094.0	1589.2	990.3	845.5	789.2	753.9	727.3	717.1	716.1	709.9	708.4
37.5°	2182.5	1602.0	944.7	804.5	752.9	719.7	711.5	699.2	689.0	675.7	673.6
40°	2275.6	1614.8	890.0	762.1	714.5	696.1	692.6	676.2	647.0	614.3	609.7
42.5°	2388.7	1623.4	833.2	719.7	674.1	668.0	673.1	644.9	598.4	573.9	574.4
45°	2519.6	1637.7	781.0	677.7	632.7	632.7	654.2	617.4	579.0	563.6	566.2
47.5°	2689.4	1671.1	732.5	631.7	594.3	604.5	612.2	584.1	562.6	543.7	543.1
50°	2934.9	1750.8	682.3	585.2	565.2	585.7	574.9	558.5	533.5	518.1	516.6
52.5°	3239.7	1797.8	637.9	543.1	540.1	560.6	545.2	529.9	511.0	490.5	486.5
55°	3447.4	1806.6	600.4	512.5	523.3	521.2	515.6	501.7	491.5	464.4	464.9
57.5°	3679.5	1824.0	569.8	494.0	512.5	489.9	488.0	476.2	462.9	444.4	438.3
60°	3957.3	1851.0	543.1	487.0	503.3	469.6	459.3	454.7	441.4	432.2	434.8
62.5°	4260.1	1875.6	516.1	488.0	492.5	449.6	434.3	432.8	424.6	421.5	421.5
65°	4466.7	1808.6	482.4	487.0	475.7	429.2	409.7	409.2	402.5	401.5	401.0
67.5°	4394.7	1596.3	436.9	472.6	458.3	408.7	387.1	385.2	376.5	377.0	377.0
70°	4033.6	1293.6	373.9	437.3	436.9	390.2	363.7	357.0	345.2	347.3	349.3
72.5°	3356.4	958.5	289.5	378.5	402.5	373.4	336.5	325.8	311.0	313.0	312.5
75°	2423.9	651.6	210.7	287.9	350.3	353.4	310.0	291.5	273.7	276.8	277.8
77.5°	1240.4	369.3	155.0	198.4	275.2	321.2	285.9	261.4	257.3	285.9	281.9
80°	404.6	185.1	107.4	139.1	180.5	262.9	250.6	222.5	221.5	228.2	195.9
82.5°	120.7	78.2	69.1	91.5	99.7	201.5	216.4	168.3	144.7	152.4	157.5
85°	41.4	37.8	39.4	45.5	47.6	118.2	151.4	111.5	105.4	116.1	114.6
87.5°	9.7	13.3	11.3	10.2	10.2	28.6	58.8	46.5	64.5	42.9	41.4
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)