

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: P961530

Luminaire Tested: **NAV-SB2A-827-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-827-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6770.1 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

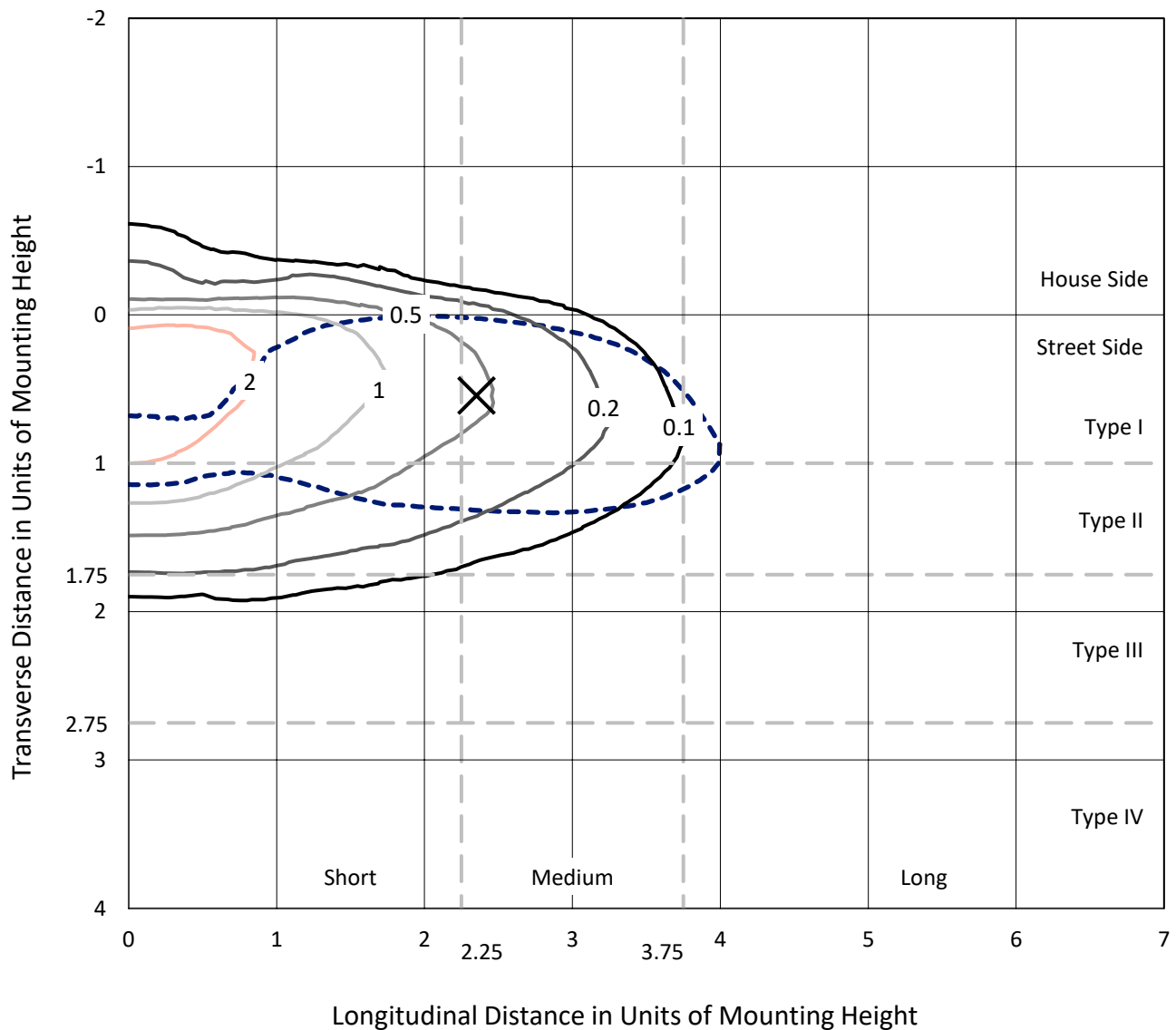
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

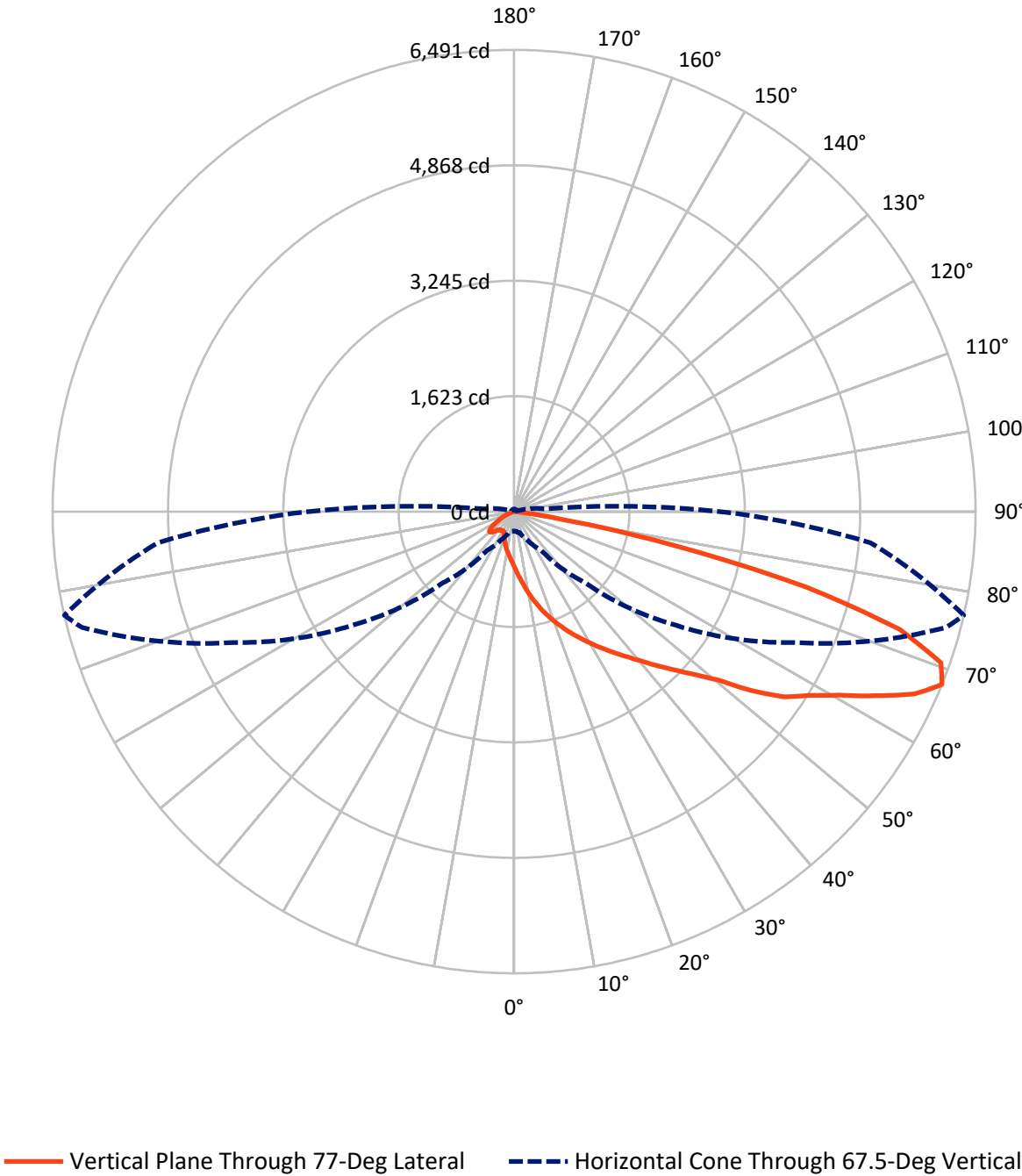
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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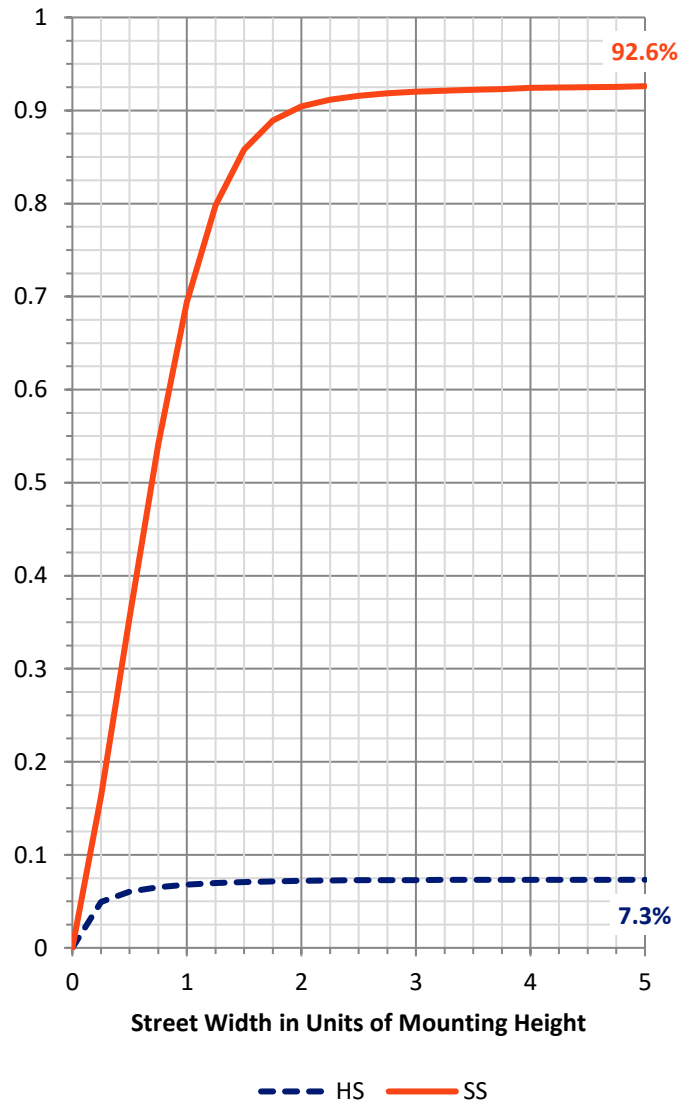
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	498.1	0.0	498.1
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	6272.0	0.0	6272.0
	% Fixture	92.6	0.0	92.6
Total	Lumens	6770.1	0.0	6770.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.7	1.2
10°-20°	279.0	4.1
20°-30°	538.5	8.0
30°-40°	934.8	13.8
40°-50°	1357.3	20.0
50°-60°	1558.7	23.0
60°-70°	1353.2	20.0
70°-80°	637.4	9.4
80°-90°	31.5	0.5
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°	6770.1	100.0
0°-180°	6770.1	100.0

Coefficient of Utilization



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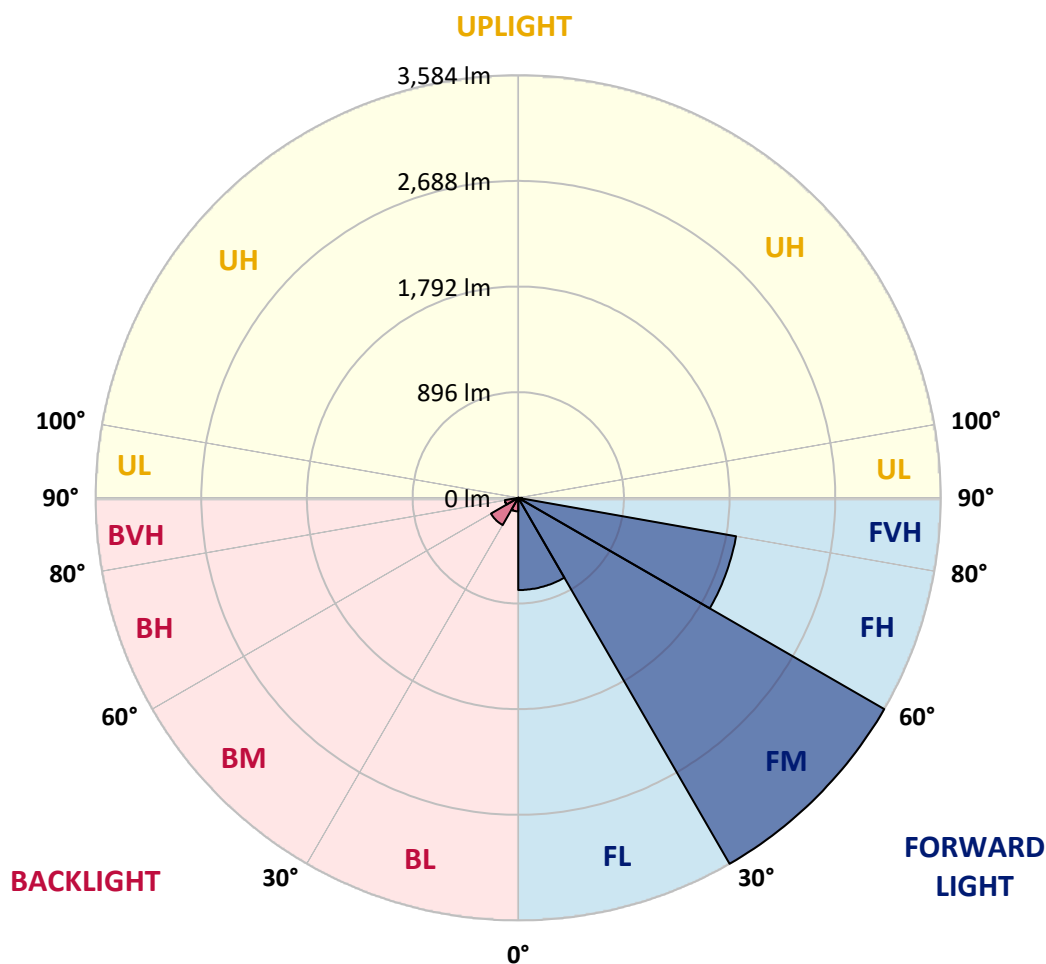
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	781.9	11.5			
FM	(30°-60°)	3583.9	52.9			
FH	(60°-80°)	1875.3	27.7			G2/5000
FVH	(80°-90°)	30.9	0.5			G1/100
BL	(0°-30°)	115.3	1.7	B1/500		
BM	(30°-60°)	266.9	3.9	B1/1000		
BH	(60°-80°)	115.3	1.7	B1/500		G1/500
BVH	(80°-90°)	0.6	0.0			G0/10
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°	780.7	780.7	780.7	780.7	780.7	780.7	780.7	780.7	780.7	780.7	780.7
2.5°	1080.9	1087.6	1077.9	1059.4	1031.7	1013.6	969.4	927.8	881.6	866.8	820.6
5°	1317.5	1323.5	1312.5	1292.3	1255.3	1220.1	1162.0	1075.0	984.6	955.6	873.6
7.5°	1492.9	1496.2	1492.0	1473.5	1438.2	1398.3	1333.5	1230.5	1096.4	1064.5	938.8
10°	1619.0	1630.0	1628.6	1621.6	1598.0	1565.6	1496.6	1379.3	1221.7	1180.5	1012.3
12.5°	1702.6	1714.8	1722.0	1738.0	1736.7	1716.1	1655.6	1531.6	1346.5	1298.3	1095.1
15°	1727.0	1740.0	1767.4	1804.4	1837.2	1847.7	1805.2	1680.8	1484.0	1422.2	1180.1
17.5°	1713.2	1733.4	1766.2	1824.6	1896.5	1943.9	1939.3	1825.0	1608.9	1538.2	1263.3
20°	1743.8	1763.2	1788.8	1838.0	1921.7	2007.9	2042.3	1962.9	1732.9	1659.0	1350.7
22.5°	1913.7	1910.3	1912.9	1920.8	1970.9	2056.3	2127.3	2088.1	1855.7	1780.0	1443.3
25°	2182.7	2167.6	2141.9	2098.7	2086.1	2127.3	2201.3	2199.1	1985.1	1904.0	1537.8
27.5°	2491.4	2488.8	2428.7	2324.4	2265.6	2249.6	2284.9	2307.2	2113.3	2026.7	1632.8
30°	2786.9	2793.6	2712.5	2596.4	2488.4	2425.8	2393.8	2409.8	2243.7	2159.2	1730.8
32.5°	3044.1	3051.3	2963.1	2827.3	2693.5	2617.8	2550.6	2511.0	2385.8	2293.7	1838.4
35°	3261.5	3268.6	3167.4	3017.3	2874.7	2806.2	2730.1	2622.1	2528.8	2443.0	1958.3
37.5°	3455.8	3453.6	3317.8	3166.5	3026.5	2972.3	2932.3	2758.7	2675.9	2593.0	2091.1
40°	3570.5	3579.3	3463.3	3296.4	3160.6	3121.1	3118.6	2928.1	2845.7	2765.4	2236.5
42.5°	3604.1	3619.7	3535.6	3398.6	3275.4	3232.5	3298.6	3111.4	3043.3	2965.1	2401.0
45°	3543.6	3558.7	3520.5	3425.4	3353.6	3325.8	3453.2	3301.4	3254.4	3177.0	2586.4
47.5°	3367.0	3386.0	3395.2	3375.0	3374.2	3402.4	3591.9	3501.6	3504.9	3425.9	2801.1
50°	3025.3	3057.2	3142.1	3213.6	3324.2	3462.9	3726.9	3718.5	3787.5	3719.3	3081.1
52.5°	2403.9	2449.2	2741.9	2937.3	3185.8	3451.6	3875.3	4066.6	4283.1	4183.4	3475.9
55°	1931.8	1931.8	2169.7	2535.4	2915.9	3376.7	3940.1	4292.8	4620.7	4597.1	3753.9
57.5°	1574.8	1593.8	1745.6	2068.9	2525.4	3198.4	3980.0	4434.9	4892.7	4875.4	4025.4
60°	972.0	1012.8	1299.5	1618.6	2081.1	2881.1	3954.8	4578.7	5222.7	5236.6	4352.5
62.5°	547.3	562.5	690.3	1164.5	1618.2	2454.4	3761.7	4658.9	5644.8	5703.6	4689.7
65°	377.9	385.5	434.7	724.8	1121.7	1954.1	3384.7	4608.9	6067.7	6186.7	4975.6
67.5°	274.5	278.3	309.0	442.7	665.5	1416.8	2793.6	4356.7	6291.8	6490.6	5030.2
70°	211.0	213.6	235.9	290.9	393.1	874.4	2028.9	3855.1	6129.5	6367.1	4750.2
72.5°	171.5	174.0	191.3	215.2	260.7	517.1	1229.7	3130.8	5413.1	5669.6	4043.9
75°	144.6	148.0	163.5	179.1	204.3	332.1	576.8	2180.3	4070.8	4239.0	2812.1
77.5°	80.3	74.0	132.8	148.4	172.4	210.2	269.9	1283.1	2279.9	2326.5	1247.7
80°	50.0	51.7	105.5	119.4	132.4	106.0	123.6	493.9	790.4	750.8	241.7
82.5°	3.0	6.8	81.2	86.2	90.8	45.4	46.6	167.8	190.4	174.9	42.8
85°	0.0	0.0	37.0	29.8	31.6	13.0	13.4	39.1	25.6	27.8	8.4
87.5°	0.0	0.0	0.0	0.8	0.0	1.2	2.6	3.4	1.2	1.6	3.0
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°	780.7	780.7	780.7	780.7	780.7	780.7	780.7	780.7	780.7	780.7	780.7
2.5°	791.2	761.8	702.1	643.6	596.1	552.0	520.5	490.6	475.5	474.7	473.8
5°	815.2	753.4	634.0	528.5	443.5	375.5	331.3	299.7	283.8	278.3	277.5
7.5°	848.8	755.9	574.3	427.5	327.5	269.1	243.8	233.7	230.4	226.6	225.8
10°	891.2	761.8	520.9	344.3	258.1	228.7	218.6	214.4	211.9	209.4	208.5
12.5°	938.8	767.2	467.9	285.9	227.0	211.9	204.7	199.7	196.3	193.4	192.5
15°	985.0	770.6	412.9	245.1	211.0	198.8	191.3	185.8	181.2	177.8	177.4
17.5°	1030.8	775.2	361.1	220.7	198.0	185.8	178.2	171.5	167.8	164.0	163.5
20°	1081.7	774.4	312.3	203.5	185.0	172.8	164.8	158.5	154.7	150.5	150.1
22.5°	1128.8	770.2	269.5	188.8	171.5	159.8	150.9	144.6	140.8	137.5	137.0
25°	1183.1	766.8	233.7	175.3	158.9	147.2	137.5	131.6	127.4	124.4	124.0
27.5°	1235.1	761.8	207.7	163.1	146.7	135.4	126.1	119.4	115.6	113.5	113.5
30°	1286.5	760.6	198.0	151.4	135.8	124.4	115.2	108.9	106.0	105.1	104.7
32.5°	1348.3	763.8	202.2	147.2	125.7	114.4	105.5	100.9	98.0	98.0	98.0
35°	1414.3	763.0	208.5	150.9	119.0	104.2	97.6	94.6	91.6	91.6	91.6
37.5°	1497.1	764.3	213.6	157.2	116.4	95.8	92.0	88.3	86.6	86.6	86.6
40°	1620.6	806.0	211.0	162.7	115.6	90.0	82.4	81.2	79.8	79.8	79.8
42.5°	1772.0	896.3	214.4	163.1	115.2	85.8	75.6	78.2	75.2	74.8	74.4
45°	1937.7	995.1	235.9	154.3	114.8	83.6	72.3	75.2	70.6	70.6	70.6
47.5°	2102.1	1093.1	257.7	141.7	113.5	83.2	69.4	67.6	66.4	66.8	66.8
50°	2328.6	1172.9	266.1	124.4	110.6	82.4	63.9	64.4	63.4	64.4	64.4
52.5°	2575.4	1189.7	256.0	105.1	102.2	79.8	60.2	61.8	61.4	62.2	62.2
55°	2729.3	1171.7	211.5	87.4	89.2	69.8	56.4	59.7	59.7	59.7	59.7
57.5°	2888.1	1094.7	150.1	71.0	74.0	57.2	53.0	57.6	57.2	56.8	56.8
60°	3002.5	970.3	98.8	58.4	58.8	47.0	49.2	54.2	53.8	51.7	51.7
62.5°	3087.9	832.8	63.4	49.6	45.0	42.4	45.0	49.2	47.5	42.8	42.0
65°	3078.2	642.4	48.8	42.4	37.0	37.0	39.1	42.8	37.8	30.2	29.4
67.5°	2898.7	434.7	40.4	35.8	31.2	30.6	32.4	35.8	32.4	25.6	24.8
70°	2578.0	284.2	32.4	27.8	24.8	22.7	26.0	30.6	27.4	20.6	19.8
72.5°	2092.3	173.2	24.4	20.2	18.0	14.8	20.6	25.2	21.8	15.2	14.2
75°	1353.7	88.3	16.8	13.0	9.6	8.8	15.2	19.0	15.2	9.2	8.0
77.5°	517.9	37.0	9.2	5.8	5.0	4.2	8.4	11.4	6.4	2.2	1.6
80°	99.6	15.6	4.6	3.0	2.6	1.6	1.2	0.8	0.0	0.0	0.0
82.5°	17.2	5.0	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)