

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: P882470

Luminaire Tested: **NAV-SB2B-835-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882470  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2B-835-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

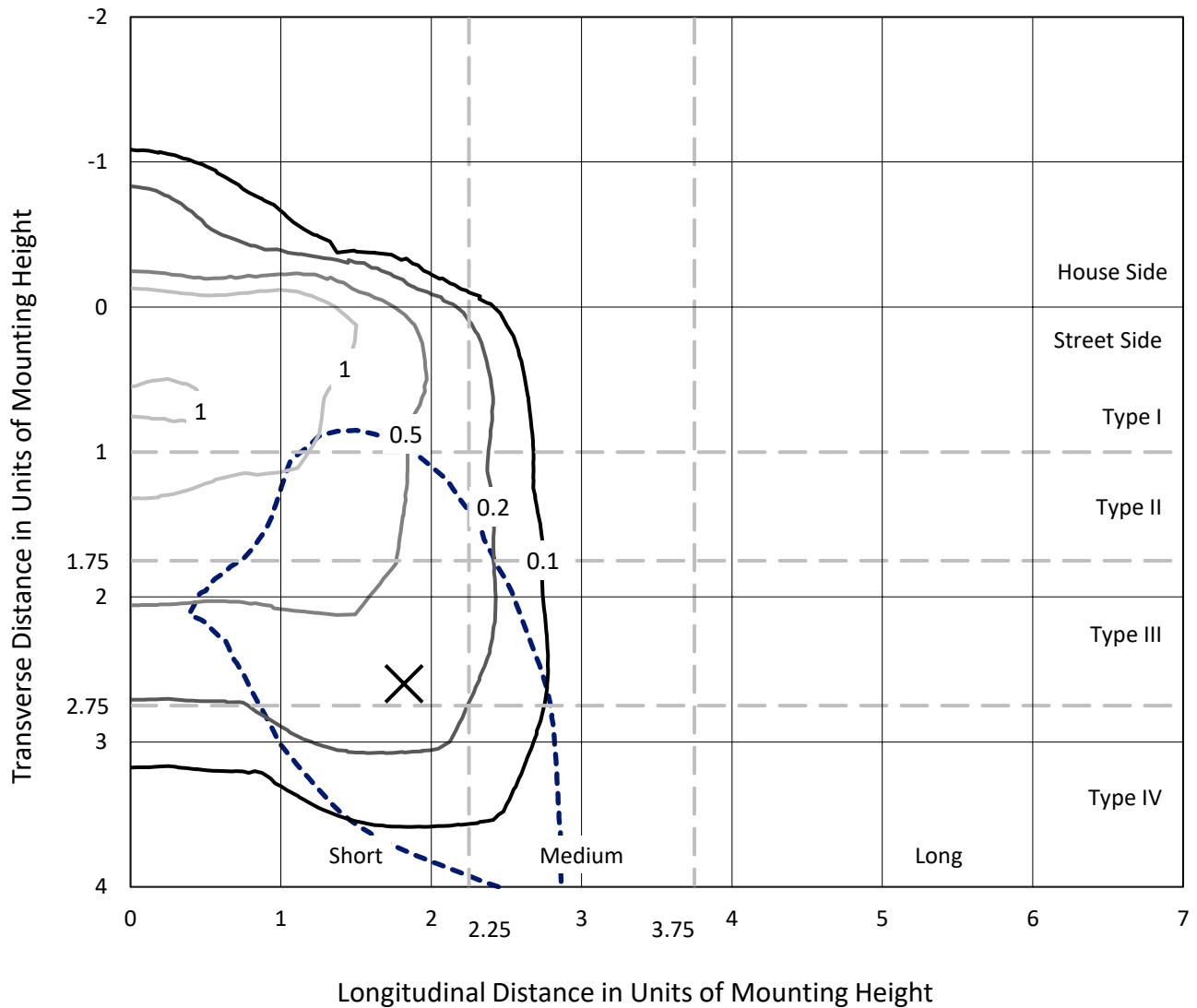
Lumens per Lamp: N/A  
Luminaire Lumens: 7332 lumens  
Efficiency: N/A  
Efficacy: 99.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 73.9  
Input Voltage (V): 120.0  
Input Current (Ain): 0.627  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
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

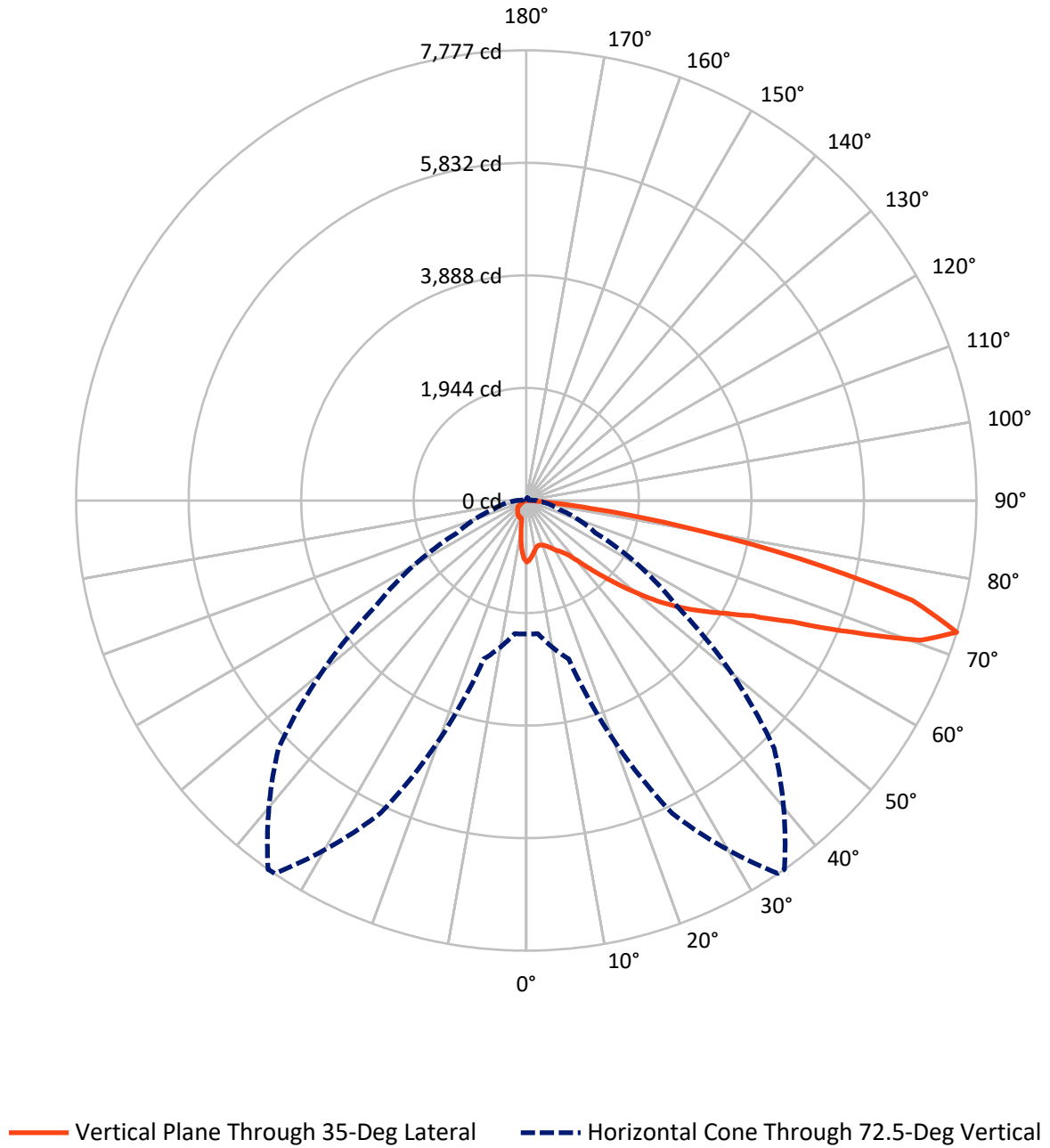
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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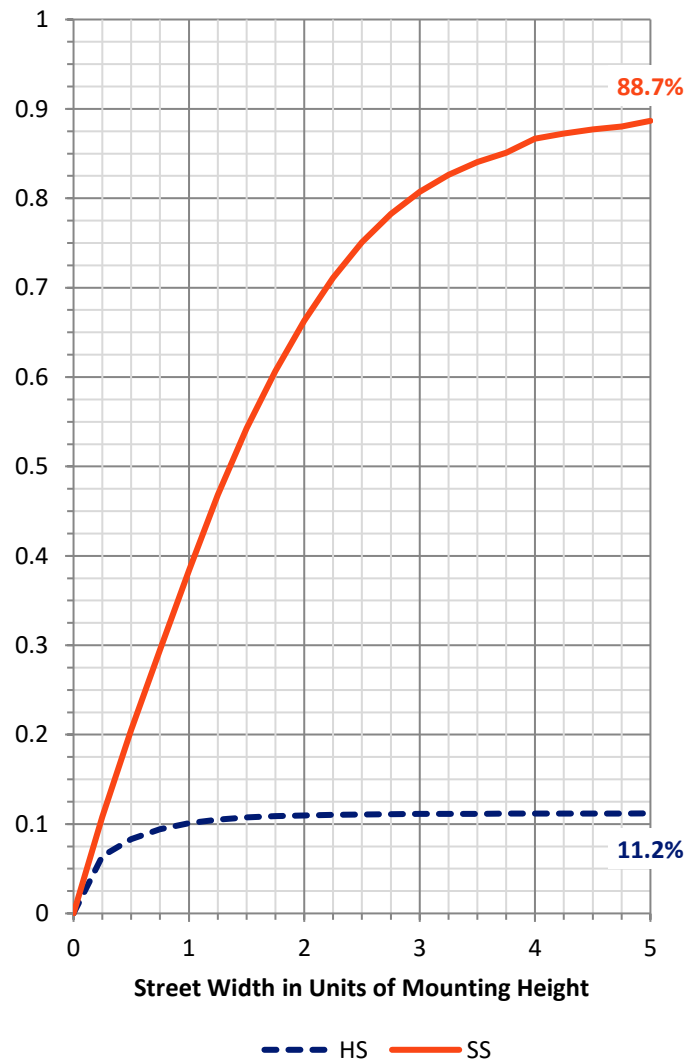
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	825.2	0.0	825.2
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	6506.8	0.0	6506.8
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	7332.0	0.0	7332.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.3	1.2
10°-20°	204.3	2.8
20°-30°	331.8	4.5
30°-40°	553.7	7.6
40°-50°	1047.6	14.3
50°-60°	1664.6	22.7
60°-70°	2059.2	28.1
70°-80°	1280.0	17.5
80°-90°	103.4	1.4
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°	7332.0	100.0
0°-180°	7332.0	100.0

**Coefficient of Utilization**



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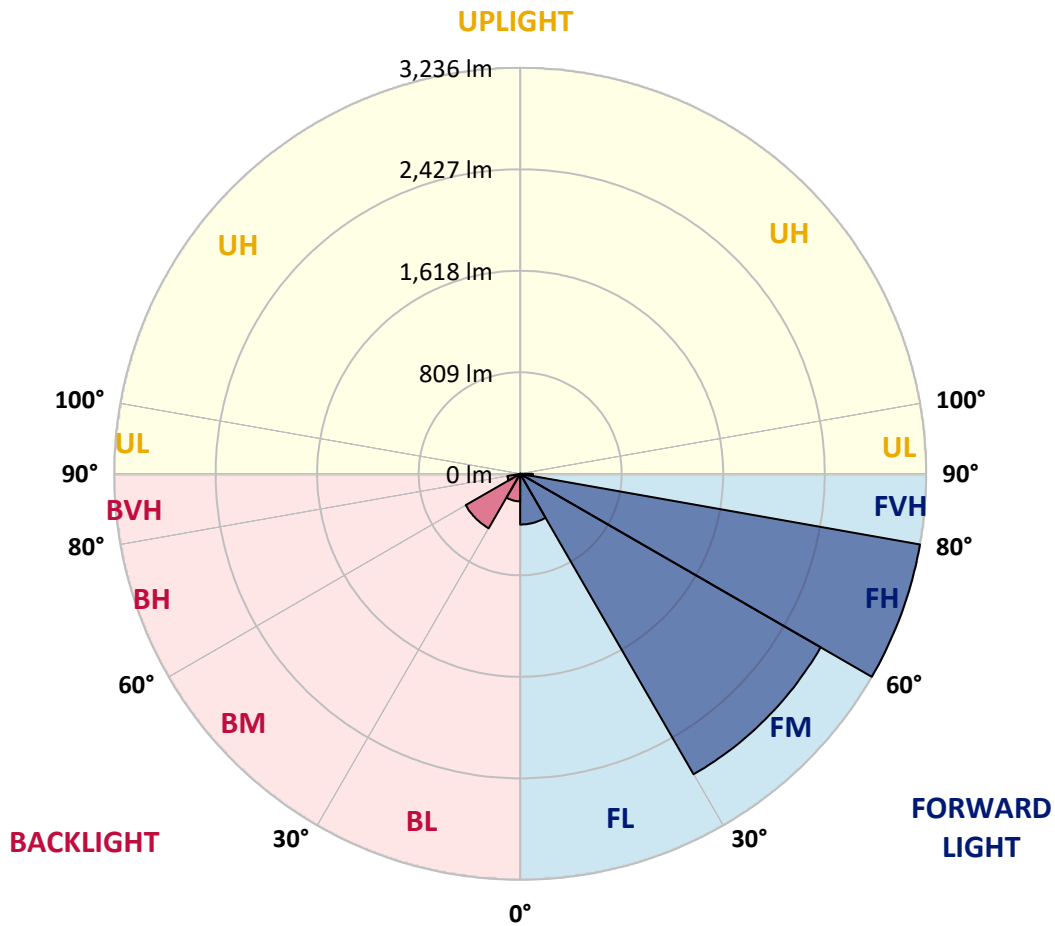
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	404.2	5.5			
FM (30°-60°)	2764.9	37.7			
FH (60°-80°)	3235.7	44.1			G2/5000
FVH (80°-90°)	102.0	1.4			G2/225
BL (0°-30°)	219.3	3.0	B1/500		
BM (30°-60°)	501.0	6.8	B1/1000		
BH (60°-80°)	103.5	1.4	B0/110		G0/110
BVH (80°-90°)	1.4	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 IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7
2.5°	1015.4	1024.0	1025.6	1028.3	1028.3	1031.5	1036.9	1044.4	1056.7	1063.2	1067.5
5°	935.9	942.3	950.4	956.8	969.2	970.8	991.7	1012.2	1040.6	1062.1	1077.2
7.5°	855.8	863.3	874.1	889.7	905.8	910.6	942.3	976.7	1021.8	1062.1	1087.4
10°	799.4	799.9	809.6	825.2	851.0	856.9	895.6	944.5	1000.9	1055.7	1097.0
12.5°	767.7	771.5	775.8	787.6	812.3	816.1	857.4	914.9	979.9	1051.9	1108.3
15°	767.7	770.4	773.1	779.0	798.9	802.1	838.6	896.1	969.2	1053.5	1126.6
17.5°	775.8	780.1	777.9	784.9	805.9	808.0	840.2	890.7	968.6	1063.7	1154.5
20°	795.1	798.3	794.0	798.3	819.3	823.6	856.9	900.9	977.8	1081.5	1189.4
22.5°	825.7	827.3	817.1	820.4	841.8	847.2	885.9	930.0	999.8	1109.9	1236.2
25°	864.4	867.6	852.1	855.8	876.2	882.7	927.3	973.5	1034.7	1149.1	1295.8
27.5°	909.0	910.6	897.2	896.6	923.0	932.1	977.2	1027.2	1081.5	1198.6	1371.0
30°	960.0	964.9	952.0	949.8	983.1	990.7	1035.3	1093.3	1150.2	1272.7	1477.9
32.5°	1000.3	1004.1	996.6	1001.9	1035.8	1041.7	1105.6	1186.8	1258.2	1378.0	1623.5
35°	1058.4	1060.5	1043.3	1053.0	1091.7	1106.7	1201.8	1317.8	1394.1	1510.2	1813.7
37.5°	1268.4	1268.4	1195.3	1147.5	1184.6	1198.0	1333.4	1482.8	1561.7	1687.5	2053.3
40°	1559.1	1554.2	1447.3	1349.5	1344.7	1371.0	1520.9	1690.7	1778.3	1900.2	2323.0
42.5°	1869.0	1861.5	1715.9	1619.2	1603.1	1612.2	1737.4	1946.9	2036.1	2159.7	2613.1
45°	2144.1	2142.0	2008.7	1878.7	1849.7	1878.7	2007.7	2246.7	2310.7	2440.7	2902.7
47.5°	2374.6	2374.6	2277.3	2192.5	2177.4	2194.6	2373.5	2579.3	2573.4	2739.9	3184.7
50°	2640.0	2637.8	2545.4	2508.9	2524.5	2548.6	2794.7	2929.5	2845.2	3033.8	3436.7
52.5°	2825.9	2838.8	2807.1	2801.1	2880.7	2922.6	3222.3	3272.3	3088.6	3312.6	3625.3
55°	2973.1	2988.1	3024.6	3066.0	3219.1	3273.9	3636.5	3597.3	3292.2	3554.4	3733.8
57.5°	3181.5	3160.0	3216.4	3298.1	3545.8	3611.8	4037.9	3904.1	3456.0	3750.4	3745.6
60°	3434.5	3437.8	3447.4	3550.6	3871.9	3956.7	4433.3	4194.2	3561.3	3870.8	3614.5
62.5°	3738.6	3743.5	3763.3	3921.8	4309.7	4389.8	4854.5	4431.7	3609.7	3836.9	3276.1
65°	3717.7	3738.1	3960.0	4502.0	4975.3	5054.3	5346.0	4598.2	3536.6	3527.5	2667.4
67.5°	3386.7	3420.0	3791.3	5195.1	5978.9	6067.0	5940.2	4631.0	3221.3	2743.1	1740.1
70°	2952.6	2964.5	3410.9	5818.3	7140.9	7230.1	6472.1	4270.5	2444.4	1530.0	779.5
72.5°	2305.8	2308.5	2832.3	5962.8	7771.7	7776.5	6054.6	3170.2	1314.6	587.7	270.8
75°	1647.2	1631.0	1897.0	4835.7	6837.4	6892.2	4539.1	1487.1	502.3	277.8	134.8
77.5°	883.2	900.9	1073.4	2867.8	4723.4	4816.9	2476.7	428.7	255.7	189.1	89.2
80°	272.9	288.0	440.0	1313.0	2675.4	2731.8	918.1	190.7	178.4	134.8	58.6
82.5°	86.0	89.2	205.2	551.7	1110.5	1136.3	265.9	108.0	122.0	89.2	34.4
85°	24.7	25.3	91.3	205.8	274.5	279.9	74.7	41.9	69.8	55.3	17.7
87.5°	2.7	8.6	34.4	34.4	24.2	23.6	8.1	9.1	19.9	7.0	3.2
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°	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7	1062.7
2.5°	1064.8	1065.3	1058.4	1046.5	1033.6	1022.9	1009.5	998.7	991.2	989.1	992.8
5°	1072.3	1068.6	1048.7	1012.7	969.7	932.6	891.3	858.5	837.0	827.9	831.1
7.5°	1083.6	1072.9	1029.3	958.4	876.2	803.2	729.0	671.5	635.0	616.7	619.4
10°	1093.3	1071.8	997.1	880.0	754.3	643.6	543.7	474.4	435.7	417.4	418.0
12.5°	1102.4	1071.2	955.2	787.1	616.7	481.4	388.4	354.0	343.3	339.5	338.5
15°	1119.6	1072.9	902.6	680.7	479.8	363.7	329.9	329.3	331.5	330.4	329.9
17.5°	1143.2	1074.5	842.9	567.9	370.2	320.7	319.1	324.0	327.2	325.6	325.0
20°	1173.9	1080.9	779.5	456.1	318.0	310.0	313.7	318.0	320.7	318.0	317.5
22.5°	1216.8	1092.2	710.2	366.4	301.4	303.5	306.8	311.6	314.3	310.5	310.0
25°	1269.5	1109.9	642.0	318.6	293.3	296.0	300.9	306.2	309.4	305.7	305.1
27.5°	1337.7	1138.4	579.1	307.8	285.3	286.9	293.9	301.9	306.2	301.4	301.4
30°	1436.6	1185.1	524.9	312.7	280.4	276.7	286.3	297.6	302.5	298.2	297.6
32.5°	1567.7	1251.2	491.6	320.2	278.3	264.9	274.0	288.5	296.6	293.9	293.9
35°	1739.6	1351.7	478.7	328.8	276.7	252.5	258.9	274.5	288.5	291.2	291.2
37.5°	1948.0	1491.4	482.4	332.5	271.8	242.3	245.5	258.9	277.2	285.8	288.0
40°	2184.9	1654.1	503.9	328.8	266.5	233.7	234.2	244.4	260.6	273.5	277.8
42.5°	2429.4	1844.3	543.7	314.8	261.6	226.2	224.6	231.5	242.3	251.4	255.2
45°	2662.0	2039.9	582.9	295.5	255.7	218.7	214.9	217.6	219.7	223.5	225.6
47.5°	2865.1	2177.4	571.6	277.8	247.7	210.1	203.6	202.5	196.1	195.6	195.0
50°	3005.3	2207.5	507.7	260.0	235.8	200.4	190.2	183.7	172.5	167.1	167.6
52.5°	3049.9	2088.8	414.7	242.3	216.5	187.5	173.0	162.8	148.8	144.0	143.4
55°	2990.8	1856.2	331.5	220.8	189.6	170.3	154.2	140.8	129.5	123.6	123.6
57.5°	2846.3	1560.1	262.2	195.6	161.2	151.0	134.8	121.4	111.7	105.8	104.8
60°	2606.7	1238.9	207.4	165.5	137.5	130.0	113.4	104.8	96.2	89.2	87.6
62.5°	2243.0	884.3	162.8	131.1	115.0	106.4	96.7	90.3	80.0	70.4	68.8
65°	1750.3	541.0	125.7	96.2	92.4	88.1	82.2	76.3	63.9	54.3	52.6
67.5°	1104.0	256.3	89.7	72.5	73.1	70.9	68.2	63.4	54.3	45.7	44.6
70°	486.2	124.1	59.1	55.3	54.3	54.3	56.4	54.8	46.2	38.1	36.5
72.5°	165.5	66.6	44.1	41.9	39.2	38.7	47.3	45.7	37.1	29.5	27.9
75°	86.5	44.6	32.2	30.1	23.6	28.5	37.6	35.5	26.3	19.3	17.7
77.5°	56.4	31.7	22.0	19.3	13.4	18.8	27.9	24.7	15.6	9.7	8.6
80°	35.5	21.0	12.9	9.1	6.4	10.2	15.0	10.7	5.9	2.1	1.6
82.5°	18.8	10.7	4.8	3.2	2.7	3.2	3.8	2.7	1.1	0.0	0.0
85°	7.5	3.8	1.6	1.1	0.5	0.0	1.1	0.5	0.0	0.0	0.0
87.5°	2.7	0.5	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)