

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: P270347

Luminaire Tested: **NAV-AF-02-D-UNV-SL2-7027-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270347  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-02-D-UNV-SL2-7027-600-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5687.6 lumens  
Efficiency: N/A  
Efficacy: 86.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 66  
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: 25 FT

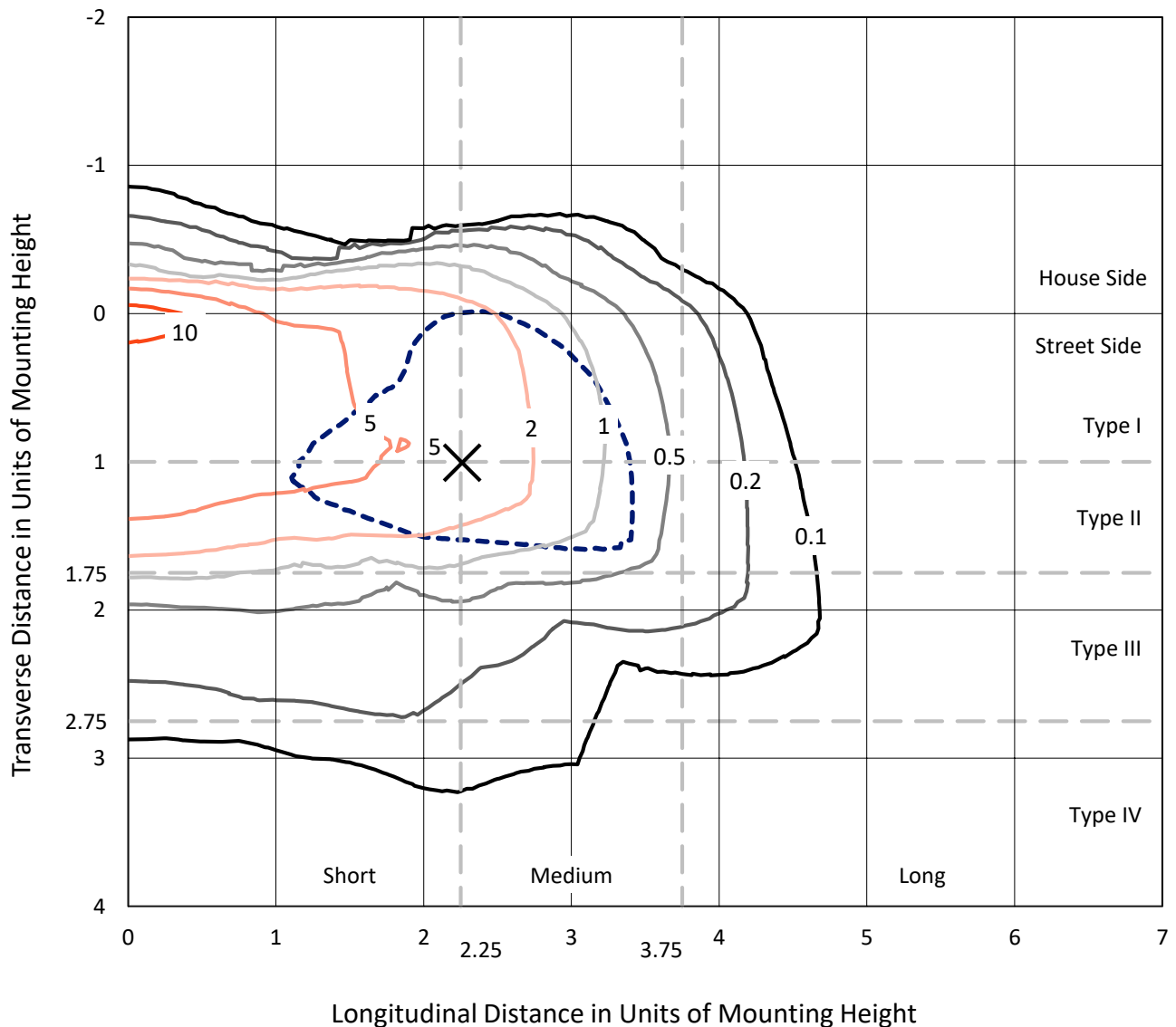


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

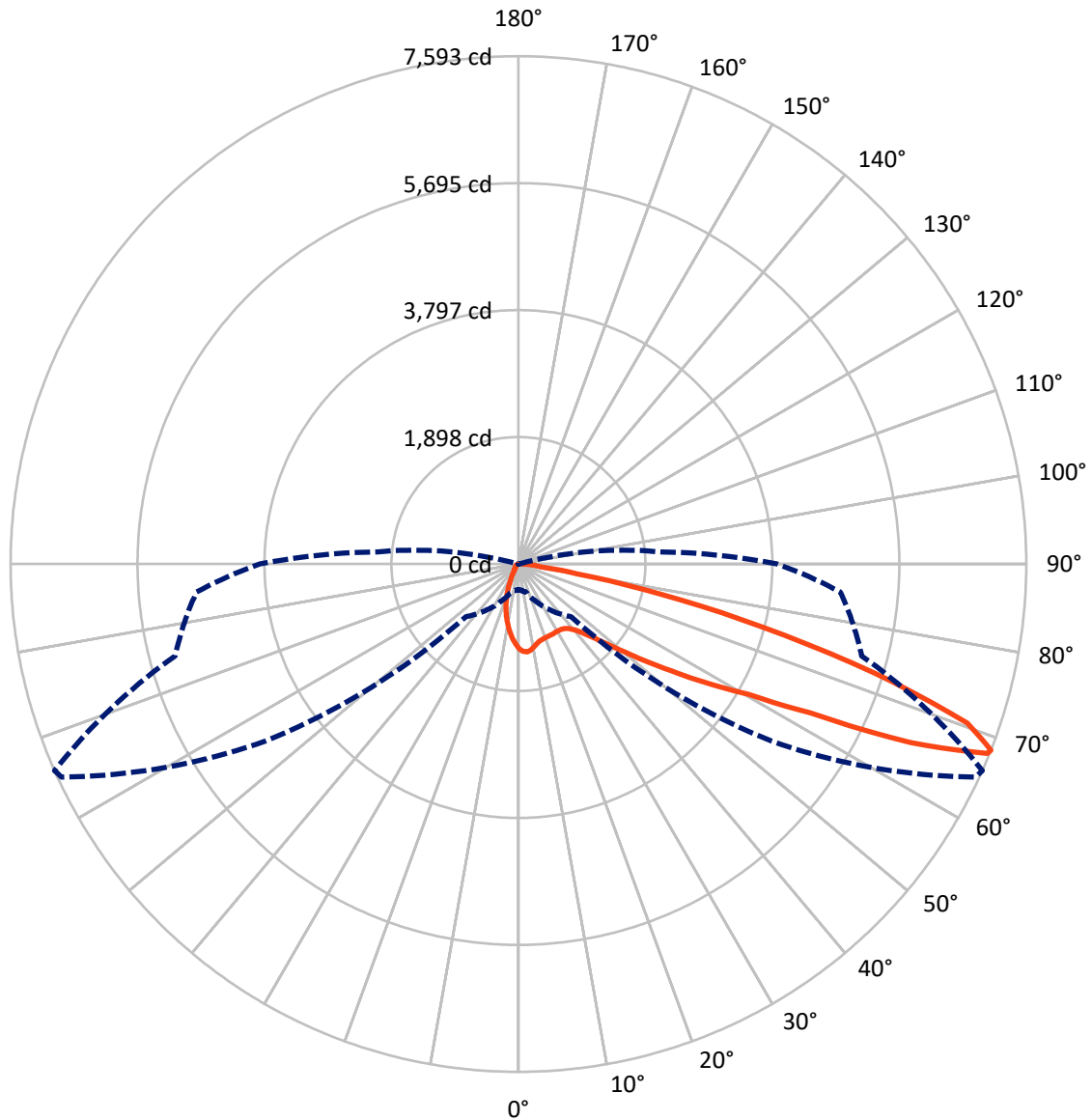


Based on 10 foot mounting height. Maximum calculated value = 12.7 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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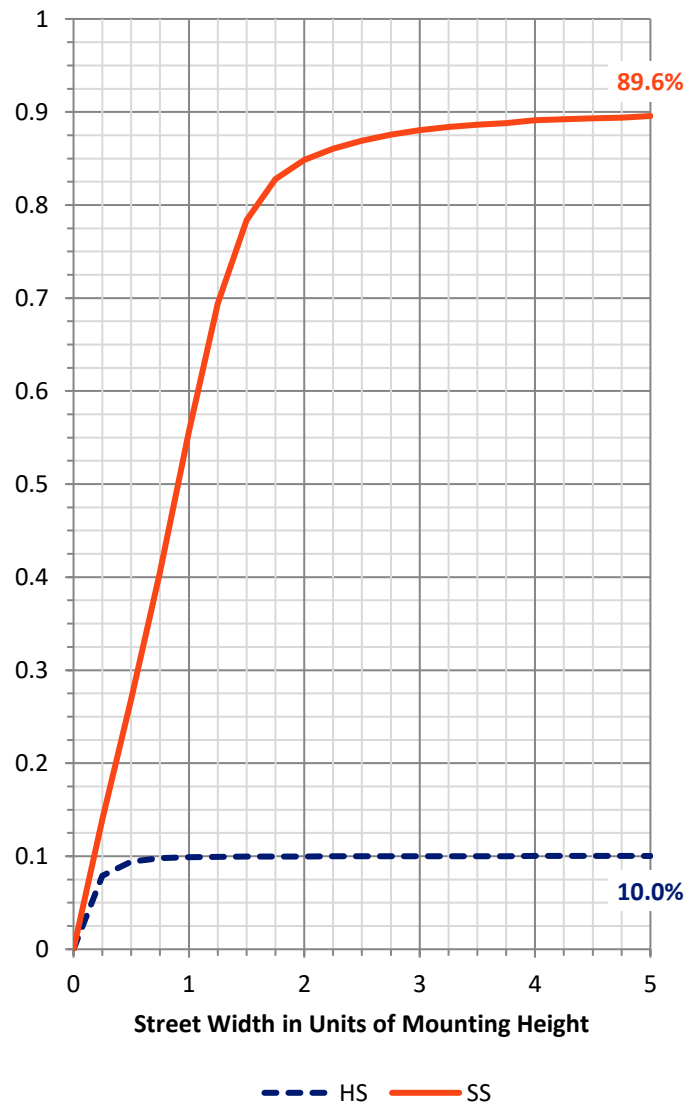
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	576.1	0.0	576.1
	% Fixture	10.1	0.0	10.1
<b>Street Side</b>	Lumens	5111.6	0.0	5111.6
	% Fixture	89.9	0.0	89.9
<b>Total</b>	Lumens	5687.6	0.0	5687.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.9	1.8
10°-20°	223.5	3.9
20°-30°	323.9	5.7
30°-40°	495.8	8.7
40°-50°	848.0	14.9
50°-60°	1326.6	23.3
60°-70°	1527.5	26.9
70°-80°	764.4	13.4
80°-90°	74.0	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°	5687.6	100.0
0°-180°	5687.6	100.0

**Coefficient of Utilization**



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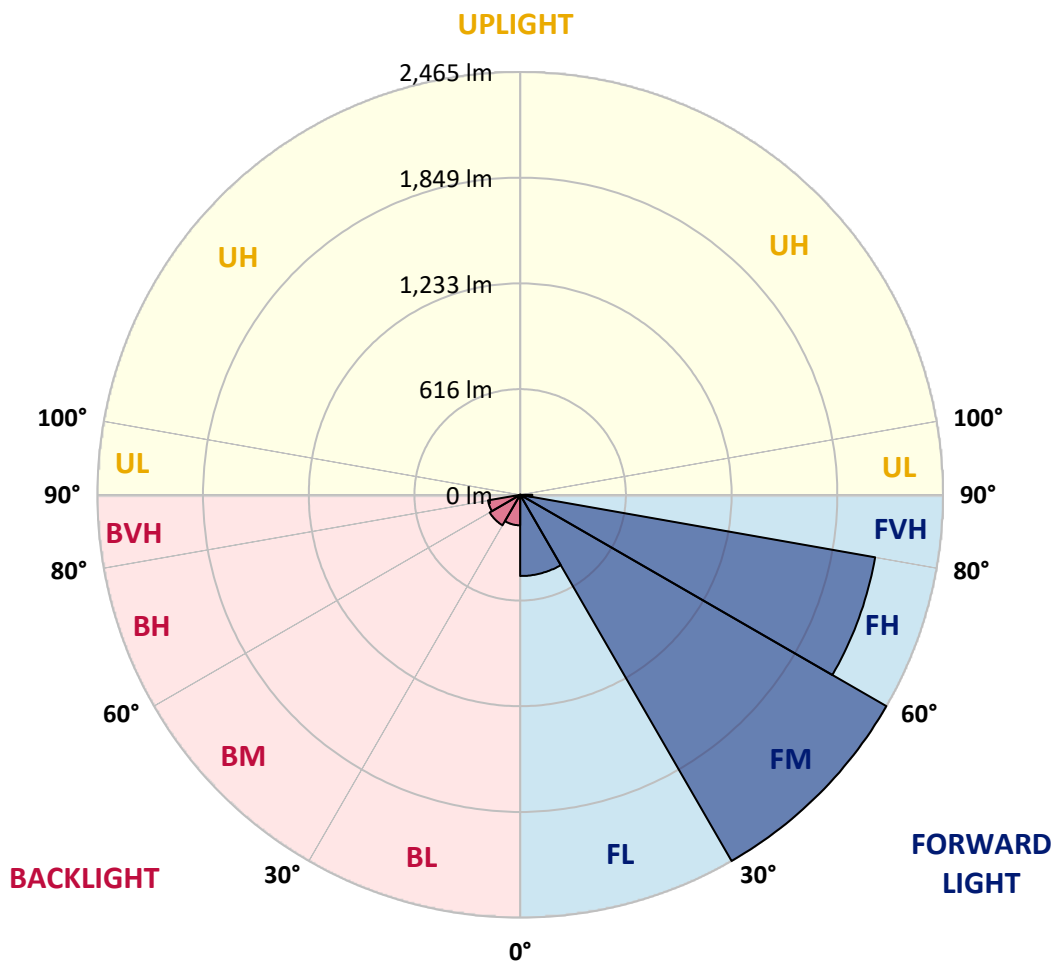
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	473.5	8.3			
FM	(30°-60°)	2465.3	43.3			
FH	(60°-80°)	2101.6	37.0			G2/5000
FVH	(80°-90°)	71.2	1.3			G1/100
BL	(0°-30°)	177.8	3.1	B1/500		
BM	(30°-60°)	205.1	3.6	B0/220		
BH	(60°-80°)	190.3	3.3	B1/500		G1/500
BVH	(80°-90°)	2.8	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°	66°	75°	85°
0°	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1
2.5°	1332.7	1333.8	1333.3	1334.6	1333.8	1326.9	1319.9	1304.7	1306.0	1286.4	1264.5
5°	1239.0	1246.6	1254.3	1261.8	1280.2	1296.2	1315.4	1319.9	1319.9	1302.9	1270.7
7.5°	1143.5	1143.9	1152.4	1162.6	1187.2	1216.8	1261.4	1301.6	1302.5	1306.9	1271.6
10°	1071.6	1073.8	1079.7	1090.8	1115.3	1144.4	1194.3	1257.4	1262.3	1295.3	1262.7
12.5°	1015.8	1018.5	1024.6	1037.6	1060.0	1090.0	1142.6	1214.5	1221.2	1284.1	1260.1
15°	973.0	976.5	981.4	994.3	1018.5	1050.2	1107.8	1185.9	1193.9	1279.6	1268.4
17.5°	955.1	955.1	954.5	963.5	987.6	1019.8	1080.1	1170.8	1181.0	1283.1	1282.8
20°	962.7	961.2	951.9	949.7	964.4	996.6	1058.3	1160.9	1172.5	1290.0	1300.1
22.5°	1002.9	1000.2	979.2	961.7	957.4	978.8	1043.6	1154.2	1168.1	1303.8	1323.5
25°	1088.0	1080.1	1051.0	1011.9	976.5	974.2	1033.2	1150.5	1165.3	1319.9	1348.8
27.5°	1198.9	1196.6	1150.2	1097.5	1029.6	989.0	1030.0	1147.9	1162.6	1331.5	1369.3
30°	1336.4	1337.2	1283.7	1214.9	1112.2	1030.5	1039.9	1146.5	1161.8	1332.4	1378.3
32.5°	1478.3	1479.2	1434.7	1360.9	1225.2	1102.0	1067.5	1152.9	1166.7	1328.9	1377.9
35°	1615.1	1616.3	1589.6	1530.2	1376.2	1201.0	1119.7	1174.3	1184.1	1331.0	1377.0
37.5°	1787.7	1793.1	1760.0	1704.8	1565.4	1346.6	1205.0	1217.7	1225.6	1349.3	1383.7
40°	2082.5	2075.4	1980.7	1886.9	1770.7	1524.0	1328.4	1292.1	1294.8	1396.7	1409.1
42.5°	2425.9	2416.9	2254.8	2093.2	1982.0	1737.9	1485.9	1406.4	1406.0	1476.2	1464.4
45°	2721.4	2716.0	2545.4	2329.8	2215.9	1973.9	1680.2	1571.2	1565.8	1613.6	1565.4
47.5°	2931.3	2926.8	2797.7	2581.6	2486.6	2233.8	1922.6	1795.8	1784.7	1793.6	1729.2
50°	2951.8	2946.9	2901.7	2762.9	2802.7	2615.1	2222.2	2090.0	2075.8	2061.9	1977.1
52.5°	2759.9	2759.4	2782.9	2774.1	3024.1	3105.8	2589.8	2454.0	2437.0	2401.7	2317.3
55°	2367.4	2365.1	2454.9	2585.2	3019.3	3612.2	3150.0	2887.1	2864.8	2794.2	2683.4
57.5°	1729.7	1718.1	1905.7	2182.1	2807.2	3833.6	4039.9	3425.1	3388.0	3164.3	2993.8
60°	955.1	959.5	1200.7	1527.8	2304.8	3789.9	4858.8	4052.4	3955.1	3483.5	3311.7
62.5°	535.4	546.4	726.0	992.9	1469.4	3434.8	5298.2	5132.0	4897.6	3856.0	3713.6
65°	405.0	411.7	501.9	766.2	926.5	2400.5	5368.2	6641.7	6439.4	4420.3	4353.4
67.5°	381.3	386.7	430.8	635.5	843.9	1244.8	4840.4	7534.7	7560.1	5190.0	4849.1
68°	383.9	390.8	434.9	611.2	842.5	1113.5	4615.4	7539.1	7593.2	5314.3	4832.1
70°	352.8	354.6	459.9	599.7	816.6	877.4	3338.9	7022.5	7119.3	5462.1	4386.5
72.5°	134.8	135.3	206.3	519.3	855.5	882.2	1681.9	5550.4	5555.4	4753.4	3419.8
75°	70.1	58.8	64.8	162.6	817.1	859.9	843.9	3789.9	3766.2	3214.8	2095.4
77.5°	48.1	41.1	43.3	56.2	339.7	859.5	609.5	2179.4	2174.4	1367.6	597.8
80°	27.3	23.6	26.0	47.3	119.3	806.8	568.0	936.8	882.8	240.1	96.8
82.5°	13.8	11.6	13.8	39.7	74.1	507.6	552.3	367.4	327.3	57.1	62.9
85°	3.6	3.6	6.6	27.7	46.1	166.5	495.1	265.2	238.4	25.1	44.6
87.5°	0.9	0.4	2.6	10.3	16.4	36.1	274.6	147.9	127.3	12.9	26.0
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°	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1
2.5°	1255.6	1243.1	1218.6	1190.9	1171.2	1149.7	1137.3	1122.1	1110.5	1100.2	1107.8
5°	1251.1	1226.9	1172.5	1111.4	1060.0	1010.9	974.2	939.4	913.0	896.6	903.2
7.5°	1239.5	1203.8	1115.3	1019.8	935.9	856.9	792.6	735.0	690.3	666.2	673.8
10°	1219.8	1169.4	1050.6	918.0	800.6	688.9	593.4	507.6	443.0	412.5	419.7
12.5°	1205.5	1139.1	983.6	819.8	665.3	506.7	380.0	281.8	231.4	201.0	203.6
15°	1199.2	1115.3	921.1	716.2	517.6	325.5	205.4	148.7	131.2	125.0	125.5
17.5°	1200.1	1096.7	861.7	608.6	368.3	187.0	125.9	113.5	110.8	109.5	109.5
20°	1202.4	1077.8	800.1	496.6	235.7	120.6	104.9	100.9	99.5	97.7	98.3
22.5°	1209.1	1063.6	738.0	383.9	145.0	98.3	92.9	89.3	87.0	84.4	84.8
25°	1219.4	1052.9	677.0	276.4	102.2	85.7	80.8	75.8	71.9	68.8	69.2
27.5°	1225.6	1037.6	611.7	188.5	84.8	75.0	68.4	61.7	57.1	54.4	54.0
30°	1221.2	1013.1	537.5	123.6	75.0	64.8	56.8	49.0	44.6	42.4	42.4
32.5°	1209.1	981.4	455.9	90.2	66.6	55.9	46.1	39.3	36.1	34.9	35.3
35°	1195.3	948.4	368.8	76.4	59.8	47.3	37.5	32.2	30.8	30.4	30.4
37.5°	1187.6	919.8	285.3	69.2	53.5	39.3	30.8	27.7	26.3	26.3	26.3
40°	1196.2	897.9	211.2	63.9	47.3	32.6	26.0	23.6	23.3	23.3	23.3
42.5°	1232.4	890.3	154.5	59.4	41.1	27.3	22.3	20.5	20.1	20.5	20.5
45°	1302.9	906.7	117.0	54.9	35.3	22.3	19.3	17.8	17.8	18.3	18.3
47.5°	1422.6	949.2	95.9	50.5	29.5	18.8	16.4	15.6	15.6	16.1	16.1
50°	1608.2	1027.8	86.1	45.5	24.6	16.1	13.8	13.4	13.4	13.8	14.4
52.5°	1890.5	1177.4	81.2	40.7	20.1	13.4	11.6	11.1	11.6	12.0	12.0
55°	2204.4	1368.9	75.5	35.8	17.0	11.1	9.4	9.4	9.8	10.7	10.7
57.5°	2496.7	1553.8	70.1	29.5	14.7	9.0	7.5	7.5	8.4	9.4	9.4
60°	2805.8	1735.0	62.9	23.6	12.4	7.1	6.3	6.3	7.5	8.4	9.0
62.5°	3187.5	1945.9	53.5	18.8	9.8	5.4	4.4	5.7	7.1	8.4	8.4
65°	3739.5	2207.9	42.0	14.7	7.5	4.0	3.6	5.4	6.6	8.1	8.4
67.5°	3939.8	2174.4	31.7	12.0	5.7	3.1	3.1	4.9	6.6	8.1	8.1
68°	3866.7	2101.2	30.4	11.6	5.4	3.1	3.1	4.9	6.6	8.1	8.1
70°	3369.3	1717.6	25.1	9.0	4.4	2.6	2.6	4.4	6.6	7.5	8.1
72.5°	2522.7	1141.2	21.4	5.7	4.0	2.6	2.2	4.4	6.3	7.5	7.5
75°	1447.1	473.8	18.3	4.4	3.6	2.2	2.2	4.0	6.3	7.5	7.5
77.5°	409.0	110.8	14.7	3.6	3.1	2.2	1.7	4.0	5.7	7.1	7.1
80°	75.0	33.1	11.6	3.1	2.6	2.2	1.7	4.0	5.7	7.1	7.1
82.5°	49.5	15.6	8.4	3.1	2.6	2.2	1.7	3.6	5.4	6.6	6.6
85°	37.1	11.1	5.4	3.1	2.6	2.2	1.7	3.6	5.4	6.6	6.6
87.5°	20.5	4.9	4.0	3.6	3.1	2.2	1.7	3.1	4.9	6.3	6.3
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)