

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: P196476

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-7030-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196476  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-AFL-7030-800-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23626.2 lumens  
Efficiency: N/A  
Efficacy: 94.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 249  
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

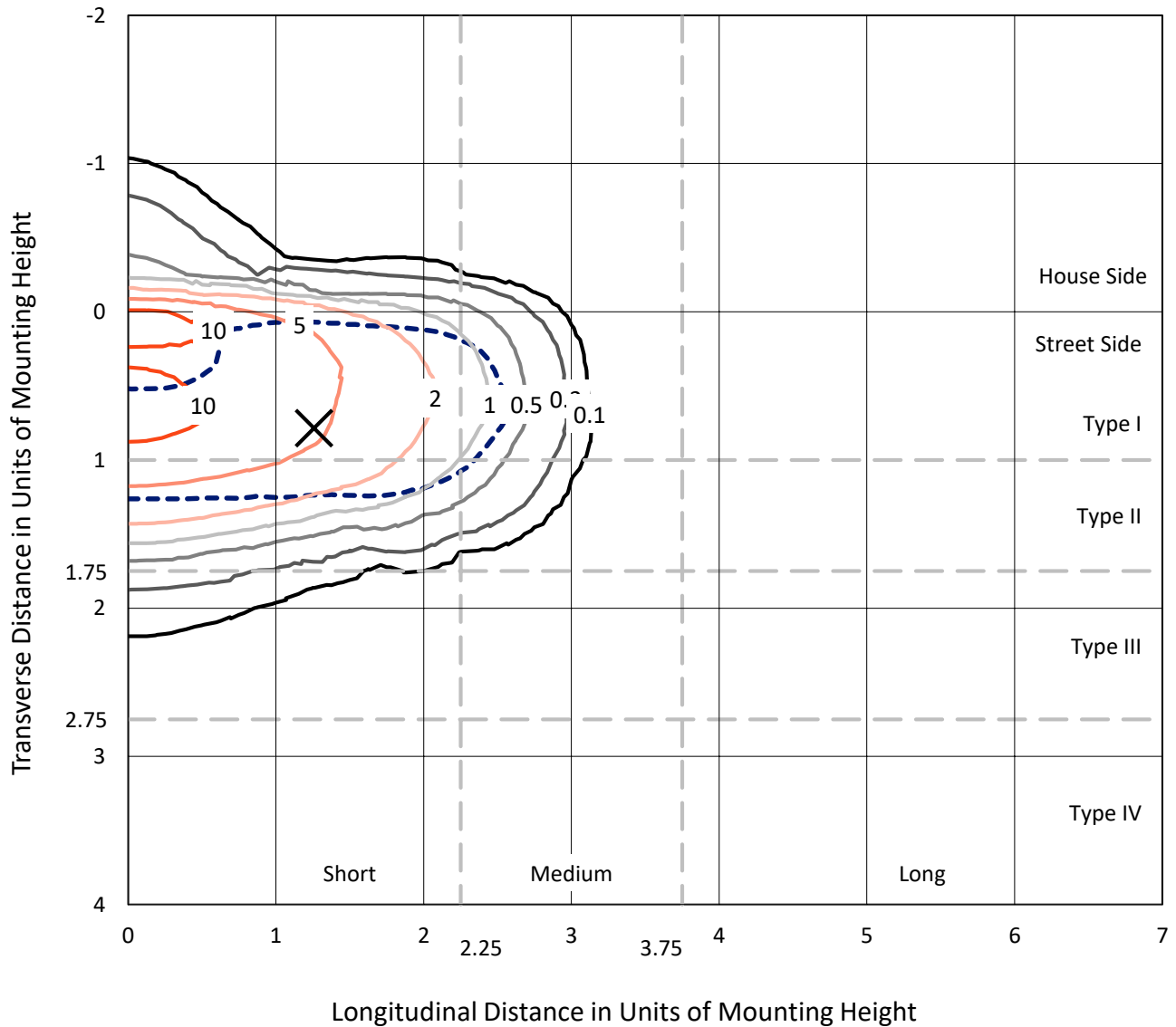


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

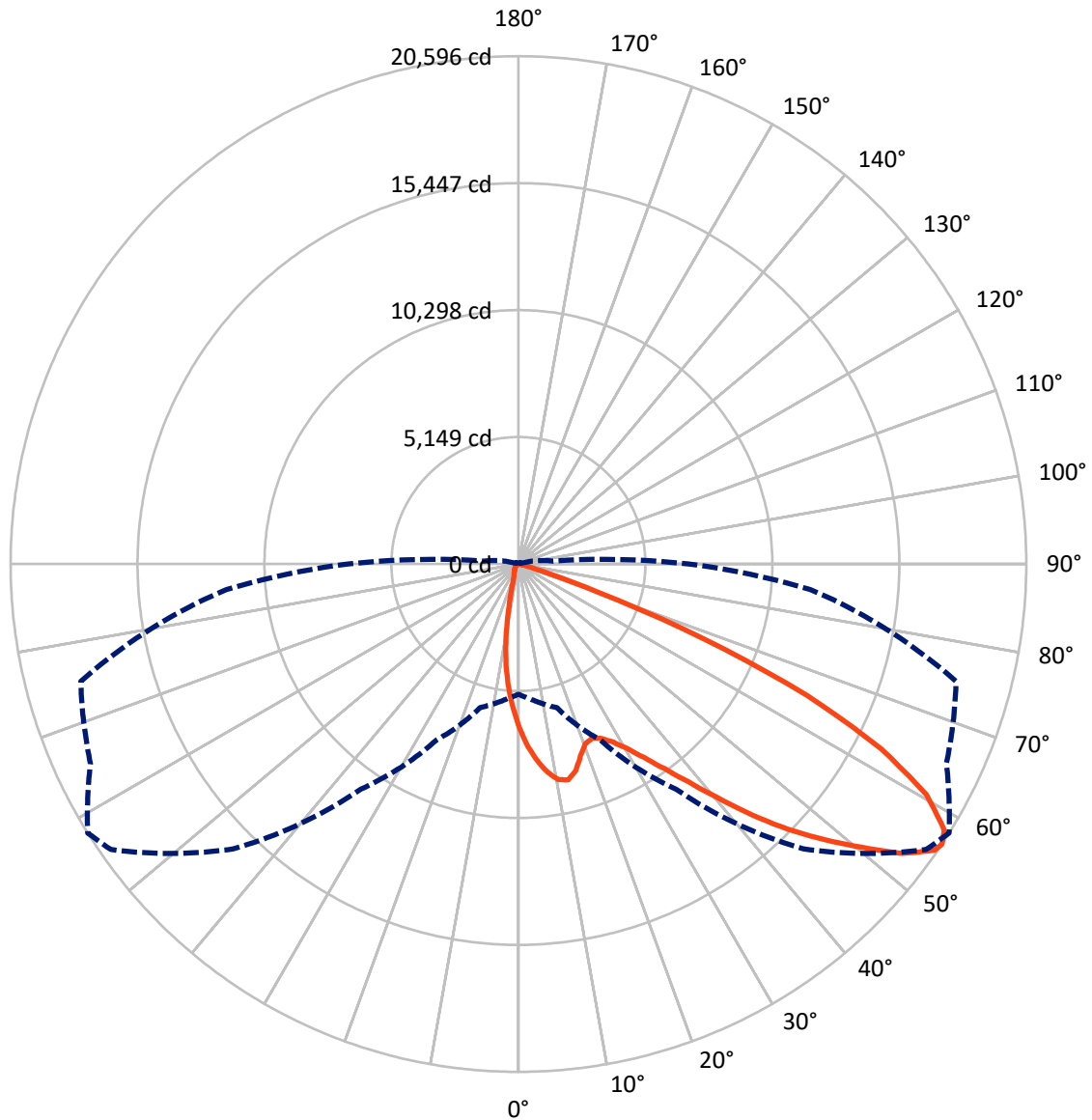


Based on 25 foot mounting height. Maximum calculated value = 13.3 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 56-Deg Vertical

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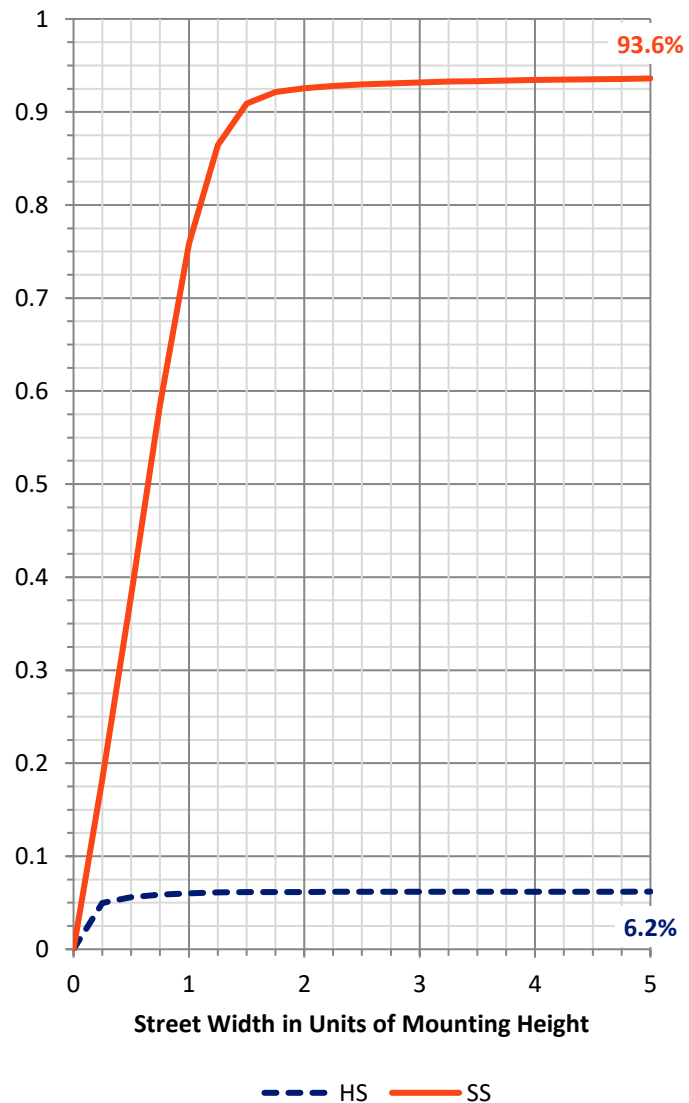
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1474.7	0.0	1474.7
	% Fixture	6.2	0.0	6.2
<b>Street Side</b>	Lumens	22151.5	0.0	22151.5
	% Fixture	93.8	0.0	93.8
<b>Total</b>	Lumens	23626.2	0.0	23626.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	570.6	2.4
10°-20°	1327.8	5.6
20°-30°	2234.2	9.5
30°-40°	3825.9	16.2
40°-50°	5773.3	24.4
50°-60°	6001.2	25.4
60°-70°	3369.0	14.3
70°-80°	461.7	2.0
80°-90°	62.5	0.3
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°	23626.2	100.0
0°-180°	23626.2	100.0

**Coefficient of Utilization**



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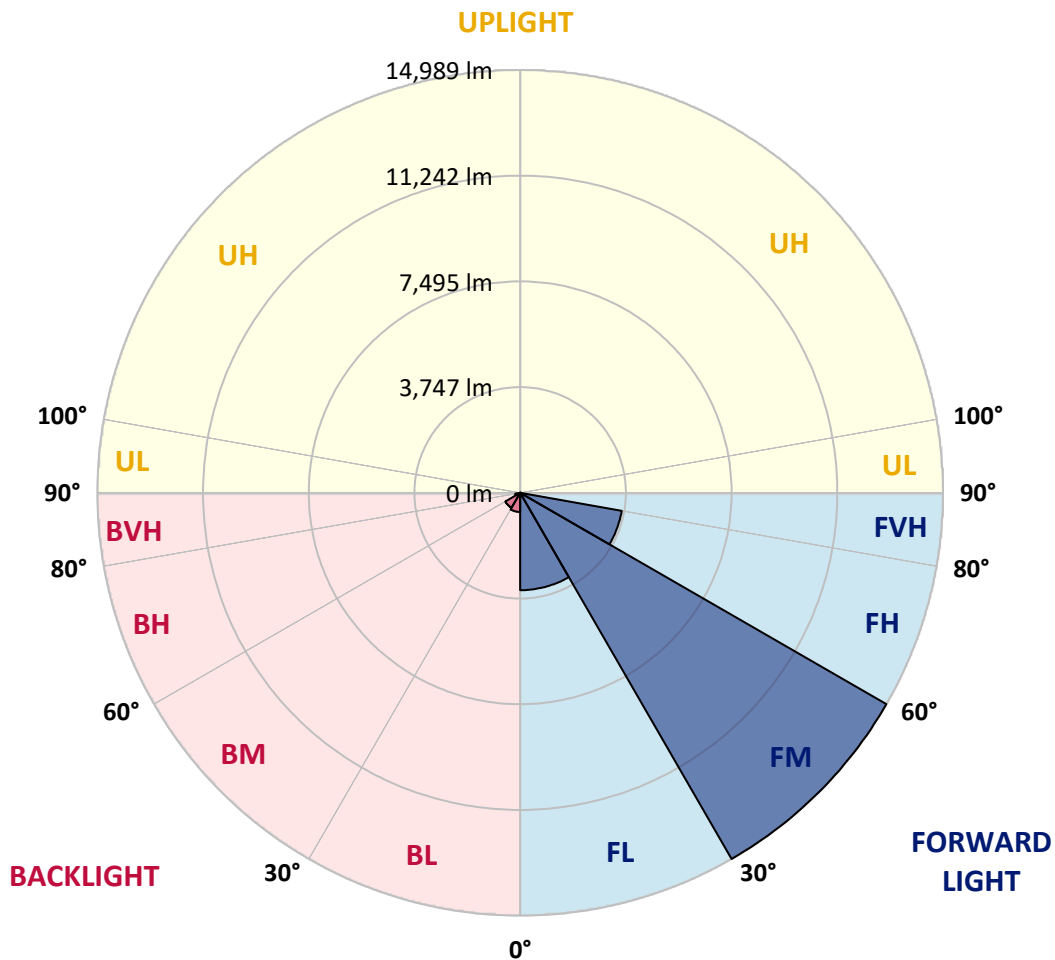
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3452.3	14.6			
FM (30°-60°)	14989.5	63.4			
FH (60°-80°)	3655.8	15.5			G2/5000
FVH (80°-90°)	53.9	0.2			G1/100
BL (0°-30°)	680.3	2.9	B2/1000		
BM (30°-60°)	610.9	2.6	B1/1000		
BH (60°-80°)	174.9	0.7	B1/500		G1/500
BVH (80°-90°)	8.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3
2.5°	8048.5	7999.8	7949.2	7855.5	7769.0	7635.7	7451.8	7406.6	7262.5	7024.6	6802.8
5°	8742.4	8733.4	8699.1	8623.4	8529.8	8367.5	8160.1	8021.4	7797.9	7423.0	6995.8
7.5°	8331.4	8407.2	8531.5	8708.2	8827.2	8810.8	8652.2	8531.5	8309.8	7797.9	7185.0
10°	7022.7	7037.2	7208.5	7579.8	8167.3	8715.4	8922.6	8890.2	8686.5	8125.9	7350.9
12.5°	6561.3	6570.3	6609.9	6728.9	7111.1	7875.4	8814.5	8984.0	8967.8	8439.6	7527.5
15°	6597.4	6602.7	6613.6	6651.4	6759.7	7143.6	8266.5	8697.4	9147.9	8737.0	7700.5
17.5°	6882.1	6878.5	6844.3	6808.3	6842.5	6968.7	7707.7	8162.0	9110.1	8987.5	7842.9
20°	7437.4	7455.5	7340.0	7179.7	7096.7	7102.1	7432.0	7772.6	8897.4	9182.2	7949.2
22.5°	8217.8	8230.5	8041.3	7763.6	7520.4	7397.7	7489.6	7669.9	8652.2	9362.5	8035.8
25°	9149.8	9149.8	8884.9	8490.1	8113.4	7844.7	7765.4	7833.9	8558.6	9566.2	8122.4
27.5°	10155.6	10191.7	9845.6	9328.2	8830.8	8437.8	8189.0	8176.4	8630.6	9822.2	8219.7
30°	11249.8	11282.2	10871.2	10238.5	9649.1	9146.2	8764.0	8681.0	8906.5	10166.5	8362.0
32.5°	12338.5	12365.5	11911.3	11266.0	10579.2	9987.9	9485.1	9353.4	9402.2	10669.3	8571.2
35°	13722.9	13728.3	13153.2	12385.4	11651.7	10957.7	10321.5	10191.7	10137.6	11303.9	8872.2
37.5°	14824.3	14781.0	14416.9	13690.4	12848.7	12124.1	11376.0	11206.5	11076.7	12196.1	9339.1
40°	15083.8	15083.8	15029.7	14811.6	14142.8	13445.3	12720.6	12468.3	12181.7	13247.0	9966.3
42.5°	14407.9	14451.0	14808.0	15282.1	15287.5	14840.4	14132.0	13919.4	13414.7	14443.8	10651.3
45°	12895.6	12908.1	13764.4	15044.1	15912.9	16169.0	15646.3	15352.3	14653.0	15687.7	11278.7
47.5°	12351.1	12390.8	12754.9	14319.5	15959.8	17245.1	17099.1	16695.3	15799.4	16823.3	11864.5
50°	11514.8	11563.5	12008.6	13252.4	15538.1	17935.5	18488.9	18056.1	16843.1	17769.6	12154.6
52.5°	9513.9	9589.5	10218.7	11841.0	14483.5	17964.3	19761.5	19501.9	17912.1	18276.2	12120.4
55°	6547.0	6602.7	7336.4	9243.6	12356.5	17082.9	20309.4	20487.9	18865.6	18389.8	11954.6
56°	5281.5	5490.6	6027.8	7875.4	11145.2	16332.9	20183.3	20596.0	19148.6	18371.7	11882.5
57.5°	3491.6	3531.3	4117.0	5706.9	8949.8	14705.3	19613.6	20365.3	19512.7	18279.7	11830.1
60°	1642.1	1660.2	1871.1	2633.5	4843.5	10716.2	17762.4	19009.8	19646.1	18086.9	11828.4
62.5°	1070.7	1074.3	1099.5	1256.4	1981.0	5836.7	14725.1	16520.4	18541.1	18065.3	11794.1
65°	881.5	890.5	859.9	879.6	1036.5	2200.9	10386.3	12879.3	15947.3	17557.0	11408.5
67.5°	777.0	778.7	737.3	713.8	759.0	966.2	5232.9	8124.1	11927.5	14917.9	9396.8
70°	708.4	706.6	659.7	605.7	607.5	641.7	1705.2	3374.4	6599.2	8857.7	5395.1
72.5°	629.2	632.7	605.7	529.9	504.7	454.2	641.7	910.2	2246.1	2844.4	1422.2
75°	551.5	544.3	517.4	468.6	421.8	304.7	322.7	387.6	585.8	580.3	306.5
77.5°	418.3	411.1	423.6	400.2	329.9	212.7	176.7	201.9	265.0	246.9	124.3
80°	319.0	315.4	288.5	342.5	301.0	160.4	120.7	124.3	144.2	131.5	61.3
82.5°	230.7	228.9	218.1	210.9	191.1	117.1	91.9	97.4	108.1	91.9	45.1
85°	88.3	88.3	171.2	144.2	131.5	79.3	64.9	70.3	82.9	66.6	30.6
87.5°	14.4	14.4	115.4	95.5	59.4	39.7	41.4	45.1	48.6	39.7	23.4
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°	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3	6689.3
2.5°	6671.3	6550.5	6285.5	6029.6	5806.0	5560.9	5436.5	5292.3	5238.2	5130.0	5140.8
5°	6739.7	6487.4	5955.6	5395.1	4881.3	4358.6	3987.3	3637.6	3442.9	3250.0	3250.0
7.5°	6810.0	6424.3	5602.4	4706.5	3841.2	2945.4	2310.9	1802.6	1519.6	1330.3	1324.9
10°	6858.7	6343.1	5200.4	3907.9	2631.7	1517.7	915.7	721.0	650.7	620.0	618.3
12.5°	6921.8	6262.0	4742.5	2967.1	1461.9	721.0	571.4	540.8	528.2	520.9	520.9
15°	6975.8	6146.7	4187.4	1995.4	767.9	540.8	492.1	481.3	479.4	477.7	479.4
17.5°	6988.6	5982.7	3522.2	1168.1	557.0	472.2	450.7	441.6	441.6	439.9	439.9
20°	6959.7	5766.3	2786.7	721.0	481.3	434.5	411.1	400.2	398.4	398.4	398.4
22.5°	6900.2	5490.6	2060.3	546.2	438.0	400.2	369.6	358.7	358.7	360.5	362.3
25°	6826.3	5164.3	1415.0	470.5	405.6	364.2	333.5	322.7	326.2	329.9	331.7
27.5°	6732.5	4774.9	926.5	407.4	362.3	328.1	301.0	293.8	301.0	308.2	311.8
30°	6638.8	4347.8	627.2	353.4	313.7	288.5	272.2	270.4	281.3	297.4	299.3
32.5°	6577.5	3909.8	474.0	317.3	275.8	254.1	246.9	250.5	266.8	284.8	288.5
35°	6572.2	3482.5	403.8	288.5	250.5	230.7	227.2	237.9	256.0	270.4	274.0
37.5°	6656.8	3082.4	365.9	266.8	230.7	210.9	205.5	225.3	241.6	256.0	259.6
40°	6828.0	2723.7	340.7	246.9	214.4	191.1	187.5	203.7	219.9	236.1	241.6
42.5°	7042.7	2388.4	311.8	227.2	196.4	169.5	165.8	178.4	194.7	218.1	221.7
45°	7228.3	2076.6	281.3	205.5	176.7	146.0	144.2	158.7	171.2	192.9	196.4
47.5°	7385.1	1817.0	252.4	182.0	151.5	129.8	128.0	135.2	142.4	162.2	165.8
50°	7302.2	1597.1	223.6	149.5	122.6	111.8	110.0	110.0	119.0	138.8	142.4
52.5°	7098.5	1460.0	196.4	124.3	100.9	95.5	90.1	91.9	100.9	110.0	111.8
55°	6934.4	1395.1	173.0	110.0	84.6	79.3	73.9	72.1	73.9	70.3	66.6
56°	6894.8	1387.9	167.6	106.3	81.1	73.9	66.6	63.1	61.3	54.1	52.2
57.5°	6876.8	1387.9	158.7	99.1	75.7	66.6	57.7	50.5	43.2	37.8	37.8
60°	6862.3	1397.0	147.8	86.6	64.9	54.1	41.4	30.6	25.2	25.2	25.2
62.5°	6831.7	1393.4	135.2	72.1	55.8	41.4	25.2	19.7	18.0	19.7	21.7
65°	6487.4	1294.2	119.0	57.7	43.2	28.9	14.4	14.4	16.2	19.7	21.7
67.5°	5227.4	980.6	97.4	45.1	30.6	21.7	12.6	12.6	16.2	19.7	21.7
70°	2871.5	517.4	82.9	32.4	23.4	18.0	12.6	10.8	16.2	19.7	21.7
72.5°	701.2	216.4	75.7	25.2	21.7	16.2	10.8	10.8	16.2	19.7	21.7
75°	173.0	162.2	61.3	19.7	18.0	14.4	10.8	10.8	16.2	19.7	21.7
77.5°	81.1	214.4	41.4	18.0	16.2	12.6	10.8	10.8	16.2	19.7	19.7
80°	48.6	162.2	25.2	16.2	14.4	12.6	10.8	10.8	16.2	19.7	21.7
82.5°	28.9	46.9	18.0	16.2	14.4	10.8	10.8	10.8	16.2	19.7	21.7
85°	25.2	23.4	18.0	16.2	14.4	12.6	10.8	10.8	18.0	21.7	21.7
87.5°	19.7	18.0	16.2	14.4	14.4	12.6	10.8	10.8	16.2	19.7	21.7
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)