

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: P195528

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-7050-1200-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195528  
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-7050-1200-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 5000K, 1200mA 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: 33168 lumens  
Efficiency: N/A  
Efficacy: 86.8 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 - G3

Input Watts (W): 382  
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

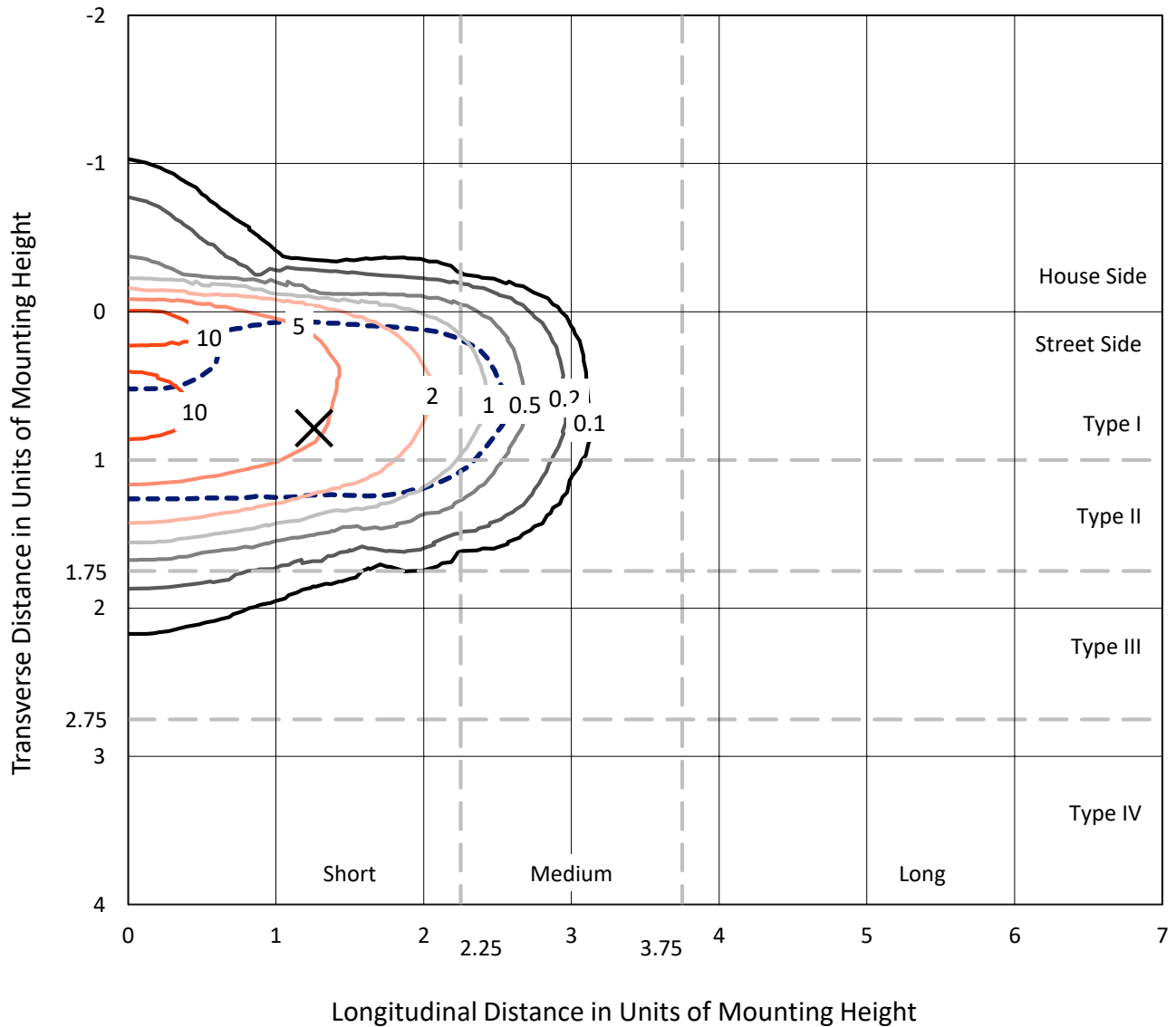


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

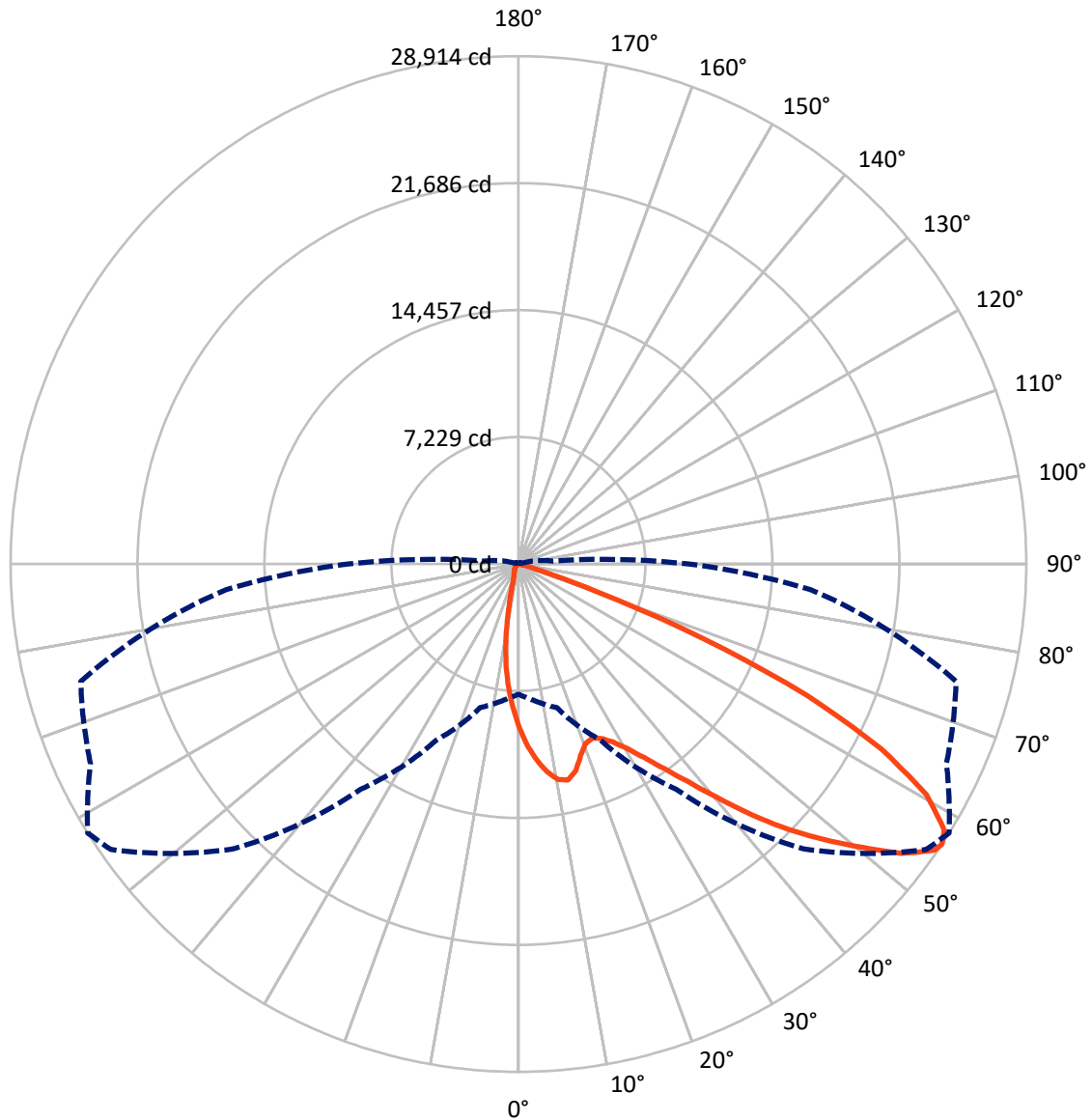


Based on 30 foot mounting height. Maximum calculated value = 13 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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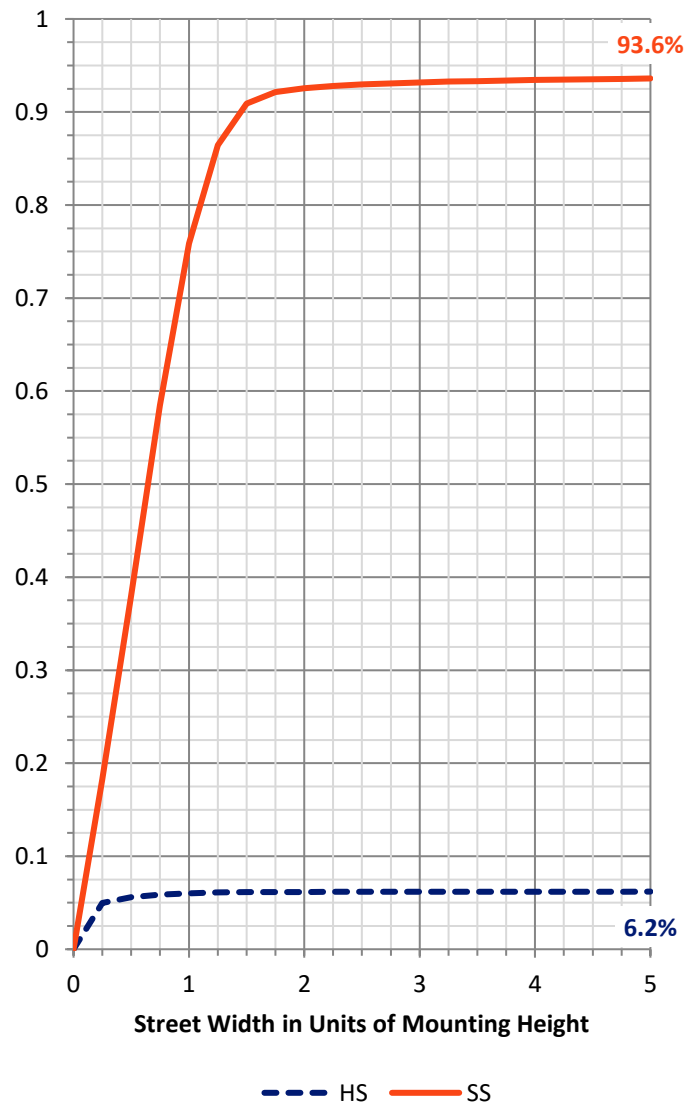
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2070.4	0.0	2070.4
	% Fixture	6.2	0.0	6.2
<b>Street Side</b>	Lumens	31097.6	0.0	31097.6
	% Fixture	93.8	0.0	93.8
<b>Total</b>	Lumens	33168.0	0.0	33168.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	801.1	2.4
10°-20°	1864.0	5.6
20°-30°	3136.5	9.5
30°-40°	5371.0	16.2
40°-50°	8104.9	24.4
50°-60°	8424.8	25.4
60°-70°	4729.6	14.3
70°-80°	648.2	2.0
80°-90°	87.8	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°	33168.0	100.0
0°-180°	33168.0	100.0



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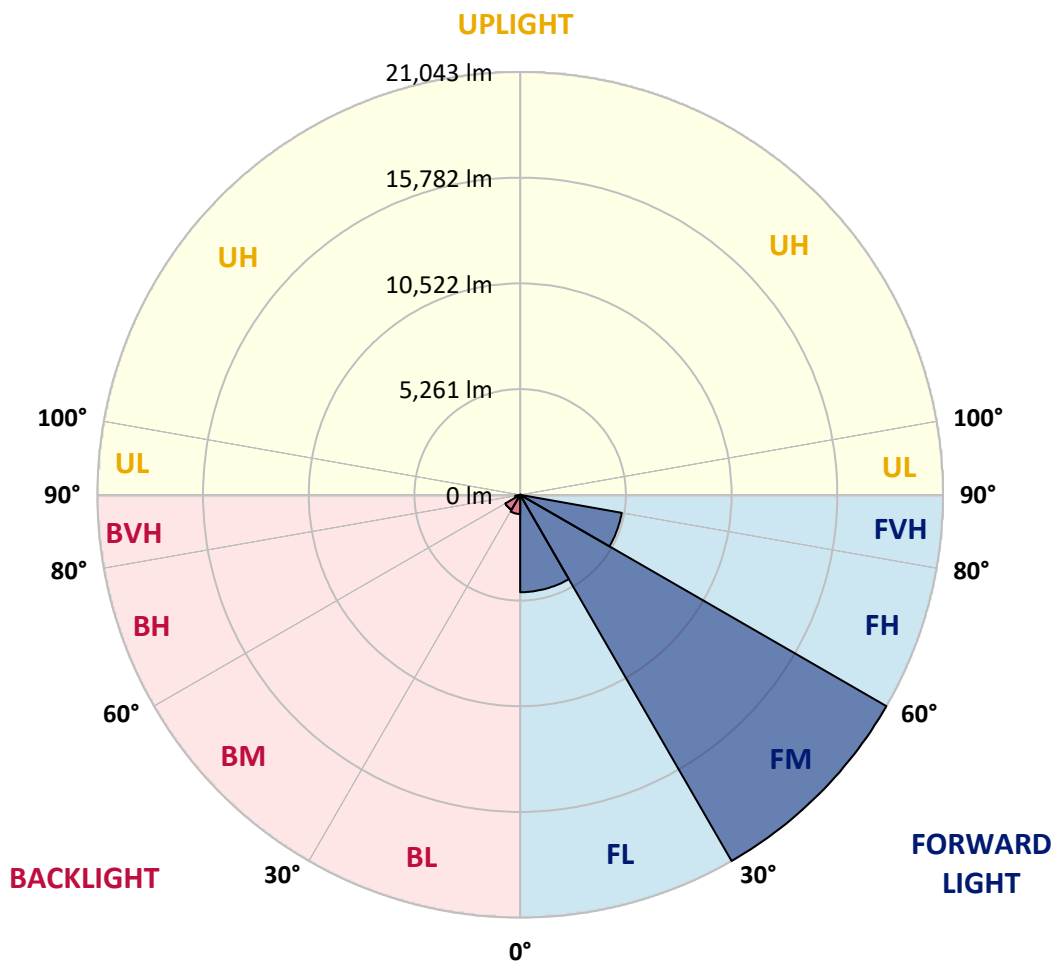
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4846.6	14.6			
FM	(30°-60°)	21043.2	63.4			
FH	(60°-80°)	5132.2	15.5			G3/7500
FVH	(80°-90°)	75.7	0.2			G1/100
BL	(0°-30°)	955.1	2.9	B2/1000		
BM	(30°-60°)	857.6	2.6	B1/1000		
BH	(60°-80°)	245.6	0.7	B1/500		G1/500
BVH	(80°-90°)	12.1	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9
2.5°	11298.9	11230.6	11159.7	11028.1	10906.7	10719.4	10461.3	10398.0	10195.6	9861.5	9550.3
5°	12273.2	12260.5	12212.4	12106.1	11974.6	11746.8	11455.8	11260.9	10947.2	10420.8	9821.1
7.5°	11696.2	11802.5	11977.1	12225.1	12392.1	12369.3	12146.6	11977.1	11665.8	10947.2	10086.8
10°	9859.0	9879.3	10119.7	10641.0	11465.9	12235.2	12526.2	12480.7	12194.7	11407.7	10319.6
12.5°	9211.2	9223.8	9279.5	9446.5	9983.0	11056.0	12374.4	12612.3	12589.5	11848.0	10567.6
15°	9261.8	9269.4	9284.6	9337.7	9489.6	10028.6	11605.1	12209.9	12842.5	12265.6	10810.5
17.5°	9661.6	9656.6	9608.5	9557.9	9606.0	9783.1	10820.6	11458.3	12789.4	12617.3	11010.4
20°	10441.0	10466.3	10304.4	10079.2	9962.8	9970.4	10433.4	10911.7	12490.8	12890.6	11159.7
22.5°	11536.8	11554.5	11288.8	10899.1	10557.4	10385.4	10514.4	10767.5	12146.6	13143.7	11281.2
25°	12845.1	12845.1	12473.1	11918.9	11390.0	11012.9	10901.6	10997.8	12015.0	13429.6	11402.6
27.5°	14257.1	14307.7	13821.9	13095.6	12397.2	11845.5	11496.3	11478.6	12116.3	13789.0	11539.3
30°	15793.2	15838.7	15261.7	14373.5	13546.0	12840.0	12303.5	12187.1	12503.4	14272.3	11739.2
32.5°	17321.6	17359.6	16721.9	15815.9	14851.8	14021.8	13315.7	13131.0	13199.3	14978.3	12032.8
35°	19265.1	19272.7	18465.4	17387.4	16357.5	15383.2	14489.9	14307.7	14231.8	15869.1	12455.4
37.5°	20811.2	20750.5	20239.3	19219.5	18037.7	17020.5	15970.3	15732.4	15550.2	17121.7	13110.8
40°	21175.6	21175.6	21099.7	20793.5	19854.7	18875.4	17858.1	17503.8	17101.4	18597.0	13991.4
42.5°	20226.7	20287.4	20788.5	21454.0	21461.6	20834.0	19839.5	19540.9	18832.3	20277.3	14953.0
45°	18103.5	18121.3	19323.3	21120.0	22339.7	22699.0	21965.2	21552.7	20570.8	22023.4	15833.6
47.5°	17339.3	17395.0	17906.2	20102.7	22405.5	24209.8	24004.8	23437.9	22180.3	23617.6	16656.1
50°	16165.1	16233.5	16858.5	18604.6	21813.3	25179.0	25955.8	25348.5	23645.4	24946.1	17063.5
52.5°	13356.2	13462.5	14345.7	16623.2	20333.0	25219.4	27742.4	27378.0	25146.1	25657.2	17015.4
55°	9191.0	9269.4	10299.3	12976.7	17346.9	23982.0	28511.7	28762.2	26484.7	25816.7	16782.6
56°	7414.5	7708.0	8462.2	11056.0	15646.4	22929.3	28334.5	28914.0	26882.0	25791.3	16681.4
57.5°	4901.7	4957.3	5779.8	8011.7	12564.2	20644.2	27534.9	28590.1	27393.2	25662.3	16608.0
60°	2305.3	2330.6	2626.7	3697.1	6799.6	15044.1	24936.0	26687.2	27580.4	25391.5	16605.5
62.5°	1503.1	1508.2	1543.6	1763.8	2781.1	8193.9	20672.0	23192.5	26029.2	25361.2	16557.4
65°	1237.4	1250.1	1207.1	1234.9	1455.1	3089.8	14581.0	18080.8	22387.8	24647.5	16015.8
67.5°	1090.7	1093.2	1035.0	1002.1	1065.4	1356.4	7346.2	11405.2	16744.6	20942.8	13191.7
70°	994.5	992.0	926.2	850.3	852.8	900.9	2393.9	4737.2	9264.3	12435.1	7573.9
72.5°	883.2	888.2	850.3	744.0	708.6	637.7	900.9	1277.9	3153.1	3993.2	1996.6
75°	774.3	764.2	726.3	657.9	592.1	427.7	453.0	544.1	822.4	814.8	430.2
77.5°	587.1	577.0	594.7	561.8	463.1	298.6	248.0	283.4	372.0	346.7	174.6
80°	447.9	442.8	404.9	480.8	422.6	225.2	169.5	174.6	202.4	184.7	86.0
82.5°	323.9	321.4	306.2	296.1	268.2	164.5	129.1	136.6	151.8	129.1	63.3
85°	124.0	124.0	240.4	202.4	184.7	111.3	91.1	98.7	116.4	93.6	43.0
87.5°	20.2	20.2	162.0	134.1	83.5	55.7	58.2	63.3	68.3	55.7	32.9
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°	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9	9390.9
2.5°	9365.6	9196.0	8824.0	8464.7	8150.9	7806.7	7632.1	7429.7	7353.8	7201.9	7217.1
5°	9461.7	9107.4	8360.9	7573.9	6852.7	6118.9	5597.6	5106.6	4833.3	4562.6	4562.6
7.5°	9560.4	9018.9	7864.9	6607.3	5392.6	4134.9	3244.2	2530.5	2133.3	1867.5	1860.0
10°	9628.7	8905.0	7300.6	5486.2	3694.6	2130.7	1285.5	1012.2	913.5	870.5	868.0
12.5°	9717.3	8791.1	6657.9	4165.3	2052.3	1012.2	802.2	759.2	741.5	731.3	731.3
15°	9793.2	8629.2	5878.5	2801.3	1078.0	759.2	690.8	675.7	673.1	670.6	673.1
17.5°	9810.9	8398.9	4944.7	1639.8	781.9	663.0	632.6	620.0	620.0	617.5	617.5
20°	9770.4	8095.2	3912.2	1012.2	675.7	609.9	577.0	561.8	559.3	559.3	559.3
22.5°	9686.9	7708.0	2892.4	766.8	614.9	561.8	518.8	503.6	503.6	506.1	508.6
25°	9583.2	7250.0	1986.5	660.5	569.4	511.2	468.2	453.0	458.0	463.1	465.6
27.5°	9451.6	6703.4	1300.7	571.9	508.6	460.6	422.6	412.5	422.6	432.7	437.8
30°	9320.0	6103.7	880.6	496.0	440.3	404.9	382.1	379.6	394.8	417.5	420.1
32.5°	9234.0	5488.8	665.5	445.4	387.2	356.8	346.7	351.7	374.5	399.8	404.9
35°	9226.4	4889.0	566.8	404.9	351.7	323.9	318.8	334.0	359.3	379.6	384.6
37.5°	9345.3	4327.2	513.7	374.5	323.9	296.1	288.5	316.3	339.1	359.3	364.4
40°	9585.7	3823.7	478.3	346.7	301.1	268.2	263.2	286.0	308.7	331.5	339.1
42.5°	9886.9	3353.0	437.8	318.8	275.8	237.9	232.8	250.5	273.3	306.2	311.3
45°	10147.5	2915.2	394.8	288.5	248.0	205.0	202.4	222.7	240.4	270.8	275.8
47.5°	10367.7	2550.8	354.3	255.6	212.6	182.2	179.7	189.8	199.9	227.7	232.8
50°	10251.3	2242.1	313.8	210.0	172.1	156.9	154.4	154.4	167.0	194.9	199.9
52.5°	9965.3	2049.7	275.8	174.6	141.7	134.1	126.5	129.1	141.7	154.4	156.9
55°	9735.0	1958.6	242.9	154.4	118.9	111.3	103.8	101.2	103.8	98.7	93.6
56°	9679.3	1948.5	235.3	149.3	113.9	103.8	93.6	88.6	86.0	75.9	73.4
57.5°	9654.0	1948.5	222.7	139.2	106.3	93.6	81.0	70.9	60.7	53.1	53.1
60°	9633.8	1961.2	207.5	121.5	91.1	75.9	58.2	43.0	35.4	35.4	35.4
62.5°	9590.8	1956.1	189.8	101.2	78.4	58.2	35.4	27.8	25.3	27.8	30.4
65°	9107.4	1816.9	167.0	81.0	60.7	40.5	20.2	20.2	22.8	27.8	30.4
67.5°	7338.6	1376.6	136.6	63.3	43.0	30.4	17.7	17.7	22.8	27.8	30.4
70°	4031.2	726.3	116.4	45.5	32.9	25.3	17.7	15.2	22.8	27.8	30.4
72.5°	984.4	303.7	106.3	35.4	30.4	22.8	15.2	15.2	22.8	27.8	30.4
75°	242.9	227.7	86.0	27.8	25.3	20.2	15.2	15.2	22.8	27.8	30.4
77.5°	113.9	301.1	58.2	25.3	22.8	17.7	15.2	15.2	22.8	27.8	27.8
80°	68.3	227.7	35.4	22.8	20.2	17.7	15.2	15.2	22.8	27.8	30.4
82.5°	40.5	65.8	25.3	22.8	20.2	15.2	15.2	15.2	22.8	27.8	30.4
85°	35.4	32.9	25.3	22.8	20.2	17.7	15.2	15.2	25.3	30.4	30.4
87.5°	27.8	25.3	22.8	20.2	20.2	17.7	15.2	15.2	22.8	27.8	30.4
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)