

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: P232921

Luminaire Tested: **NFFLD-C70-D-UNV-66**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232921
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-236-5)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NFFLD-C70-D-UNV-66
Description: LED FLOOD LIGHT LUMINAIRE
Light Source: (2) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24064.7 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Luminous Opening: (L: 0 ' x W: 1 ' x H: 0.67 '
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 184
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

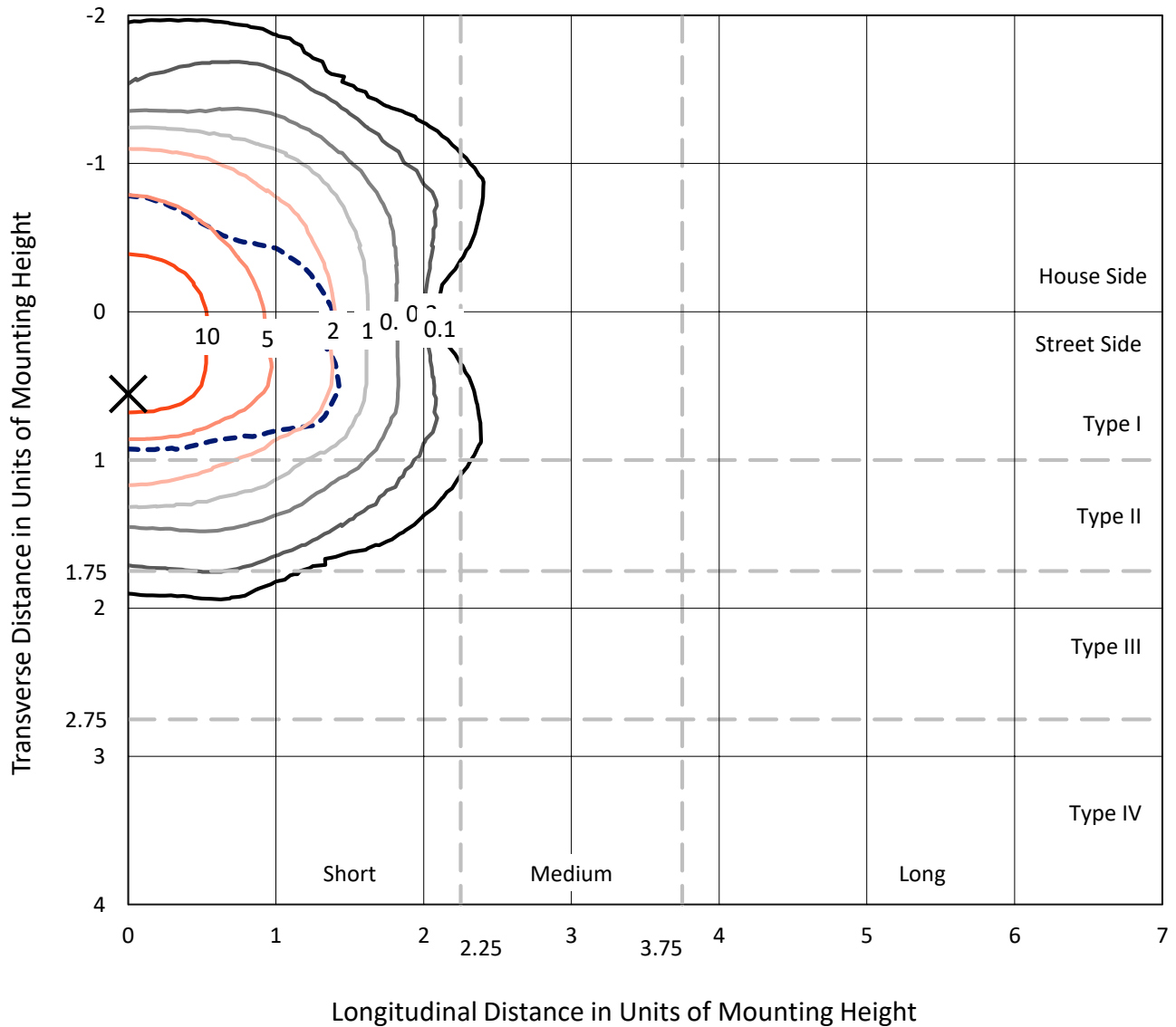


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

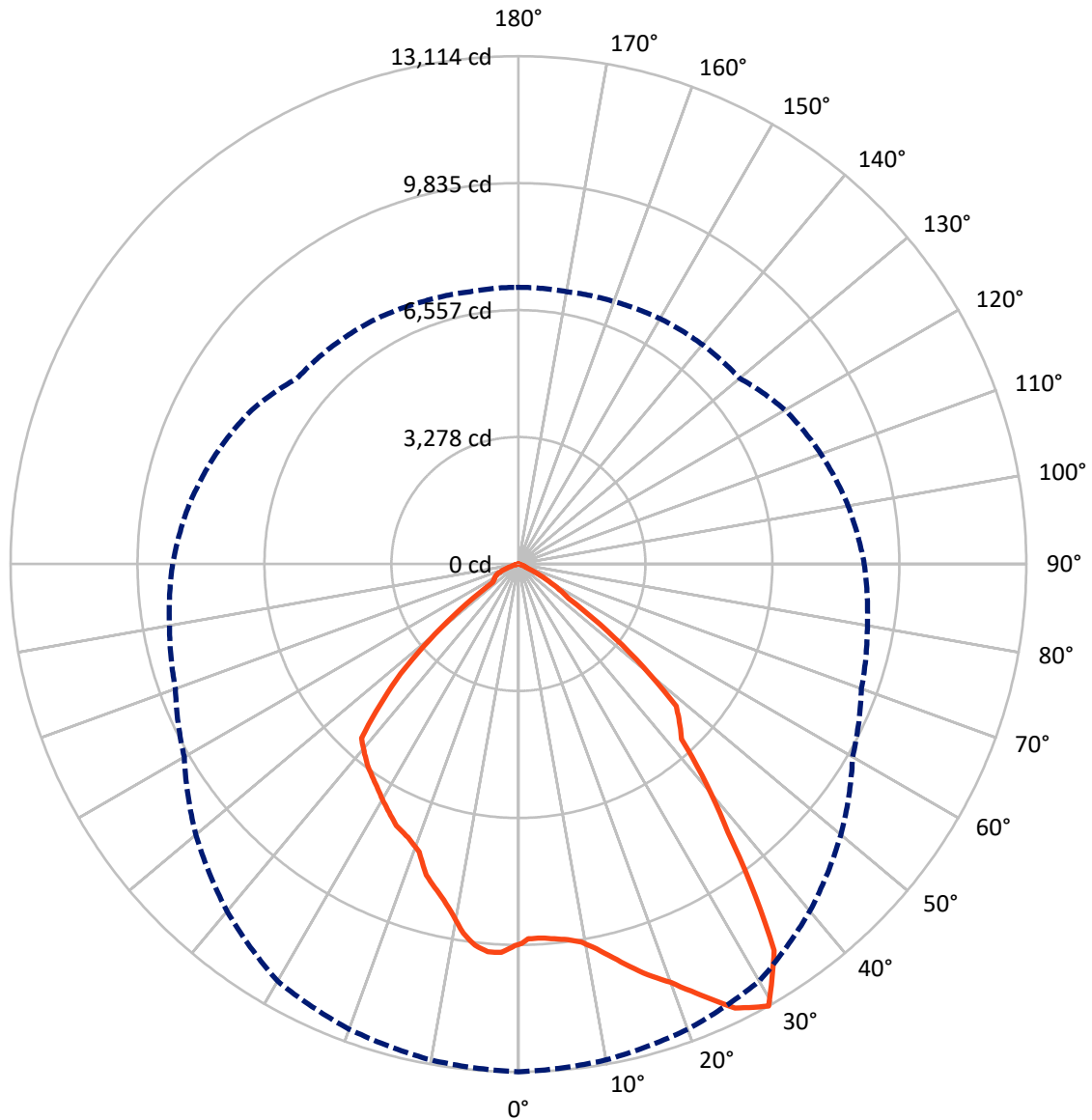


Based on 25 foot mounting height. Maximum calculated value = 15.7 fc
 Type I - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 29-Deg Vertical

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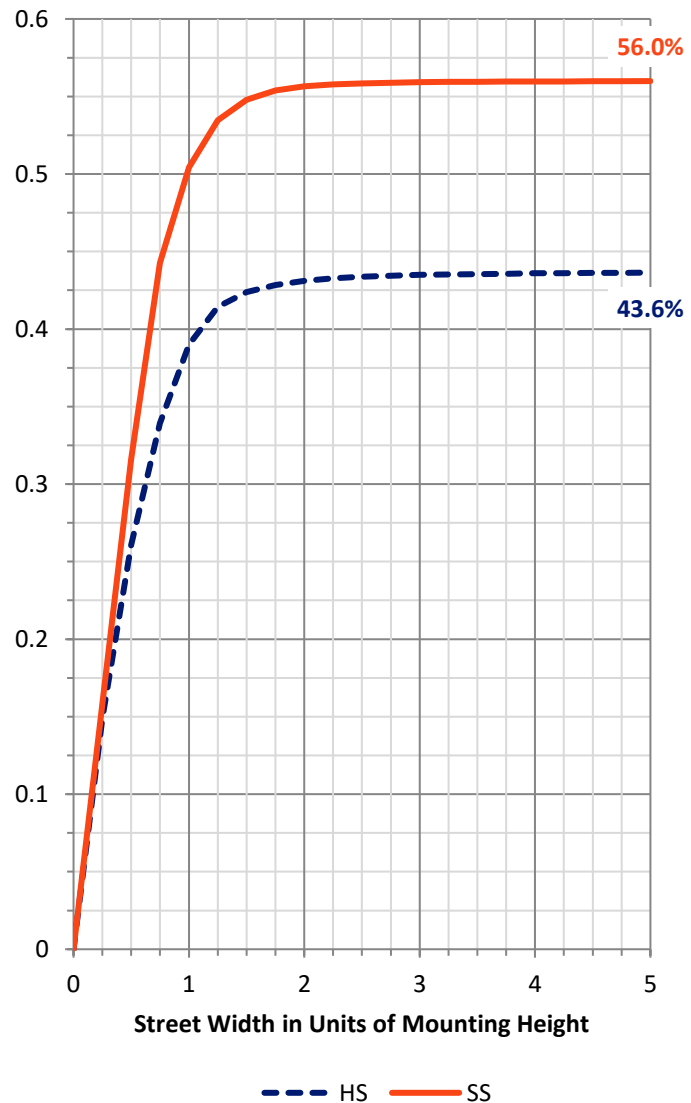
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10593.3	0.0	10593.3
	% Fixture	44.0	0.0	44.0
Street Side	Lumens	13471.4	0.0	13471.4
	% Fixture	56.0	0.0	56.0
Total	Lumens	24064.7	0.0	24064.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	936.7	3.9
10°-20°	2730.5	11.3
20°-30°	4401.7	18.3
30°-40°	5433.9	22.6
40°-50°	5308.3	22.1
50°-60°	3690.2	15.3
60°-70°	1540.0	6.4
70°-80°	329.5	1.4
80°-90°	43.9	0.2
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°	24064.7	100.0
0°-180°	24064.7	100.0



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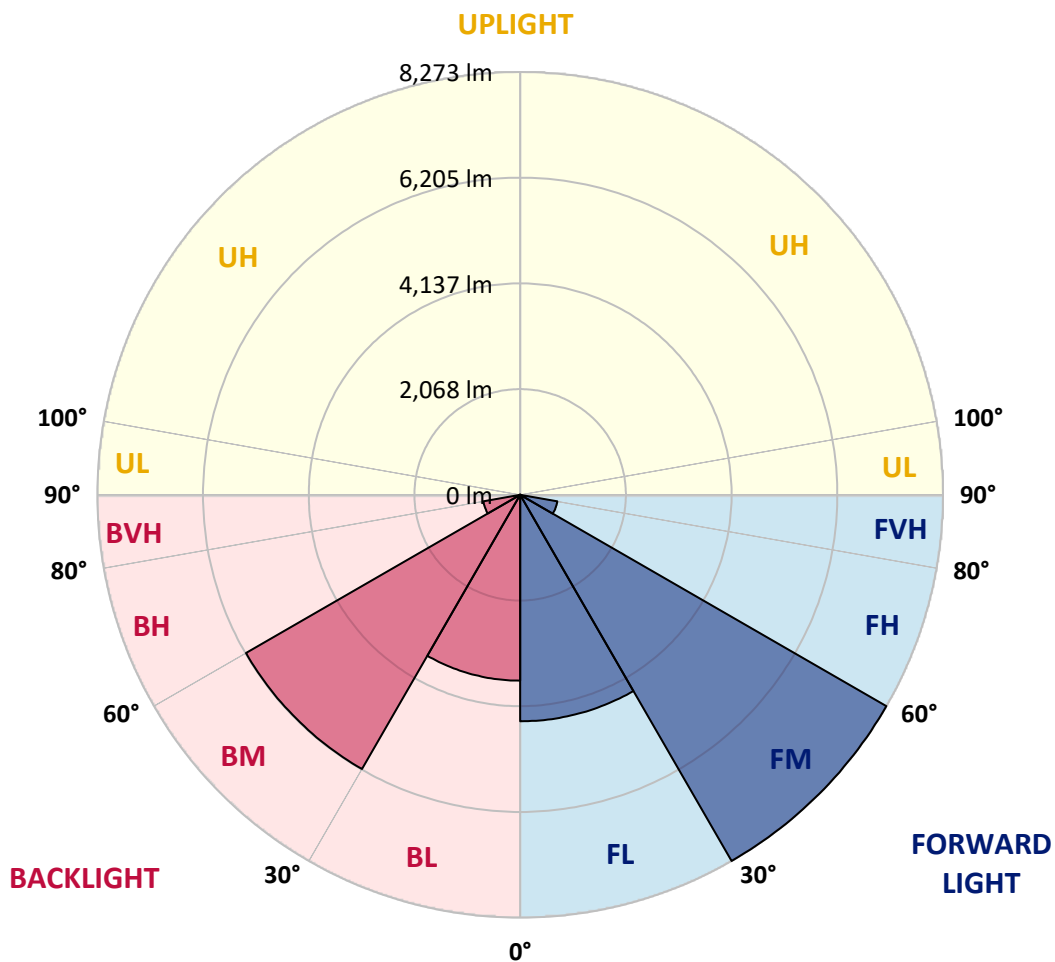
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4431.4	18.4			
FM	(30°-60°)	8273.4	34.4			
FH	(60°-80°)	737.8	3.1			G1/1800
FVH	(80°-90°)	17.9	0.1			G1/100
BL	(0°-30°)	3635.8	15.1	B4/5000		
BM	(30°-60°)	6194.5	25.7	B4/8500		
BH	(60°-80°)	731.3	3.0	B2/1000		G2/1000
BVH	(80°-90°)	22.8	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0
1°	9680.0	9686.1	9695.0	9706.1	9718.6	9732.1	9746.0	9760.1	9774.5	9789.0	9802.8
3°	9674.0	9682.6	9691.2	9690.1	9690.6	9692.8	9696.6	9701.9	9752.1	9807.0	9846.8
5°	9722.0	9714.0	9705.7	9696.0	9686.2	9680.6	9691.4	9712.9	9742.1	9798.0	9879.6
7°	9783.0	9783.7	9769.0	9743.0	9705.9	9682.3	9671.8	9685.6	9734.0	9826.0	9907.6
9°	9899.0	9893.6	9857.6	9823.1	9765.7	9710.3	9667.9	9659.3	9735.7	9820.0	9898.3
11°	10139.0	10105.8	10038.7	9935.6	9818.1	9742.4	9675.7	9655.1	9712.7	9806.0	9865.9
13°	10448.0	10397.1	10284.1	10109.4	9931.7	9769.9	9681.7	9654.8	9725.3	9830.0	9827.3
15°	10785.0	10723.8	10569.4	10352.2	10100.4	9849.1	9710.5	9665.7	9748.5	9840.0	9768.1
17°	11126.9	11042.2	10883.1	10620.3	10283.7	9963.3	9735.9	9703.2	9796.6	9963.0	9678.8
19.5°	11492.9	11431.5	11259.0	10960.9	10572.9	10159.8	9814.2	9710.8	9785.4	10049.0	9562.2
22.5°	12093.9	11971.3	11721.0	11350.4	10913.4	10396.6	9906.1	9639.7	9642.2	9668.0	9303.5
25.5°	12756.9	12588.6	12285.7	11809.9	11315.5	10674.5	9963.9	9510.0	9442.5	9329.0	9015.0
29°	13113.9	13004.6	12781.7	12437.4	11704.3	10870.8	9964.6	9425.8	9150.0	8929.0	8645.2
33°	11962.9	12045.9	12289.6	12646.9	12023.2	10918.1	9974.7	9422.1	8786.3	8340.0	8094.8
37.5°	8784.0	9026.5	9836.3	11081.9	11586.9	11059.6	10004.7	9437.8	8519.2	8051.0	7653.3
42.5°	6178.0	6397.8	6969.8	7775.6	9232.3	10451.8	10154.6	9426.3	8226.2	7847.0	7427.7
47.5°	5482.0	5441.3	5534.9	5586.7	6369.1	8345.0	10010.4	9225.5	7728.0	7391.0	7135.0
55°	1574.0	1882.7	2536.0	3202.2	4136.0	4647.5	7197.7	7296.6	6103.8	6336.0	5963.3
65°	251.0	271.6	563.1	567.0	813.8	1312.0	1657.6	1915.1	1179.3	353.0	1175.3
75°	39.0	45.2	72.4	61.9	67.3	57.1	96.5	120.8	128.7	220.0	189.4
85°	8.0	31.0	32.9	30.3	32.2	32.0	38.4	45.4	46.2	50.0	48.1
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0
1°	9816.0	9827.9	9837.8	9845.2	9849.9	9851.9	9851.5	9849.0	9851.5	9851.9	9849.9
3°	9884.3	9915.5	9946.3	9976.7	10005.5	10031.3	10040.0	10040.0	10040.0	10031.3	10005.5
5°	9932.5	9979.1	10010.7	10019.7	10030.2	10033.1	10033.4	10045.0	10033.4	10033.1	10030.2
7°	9958.4	9983.3	9985.5	9973.3	9937.6	9912.1	9907.2	9910.0	9907.2	9912.1	9937.6
9°	9939.8	9915.4	9863.9	9813.6	9728.7	9661.8	9634.2	9641.0	9634.2	9661.8	9728.7
11°	9858.0	9778.8	9665.1	9529.4	9413.2	9293.9	9215.1	9226.0	9215.1	9293.9	9413.2
13°	9753.0	9573.3	9370.2	9203.8	9051.2	8964.9	8894.1	8885.0	8894.1	8964.9	9051.2
15°	9607.9	9331.7	9108.6	8942.7	8792.8	8696.9	8633.9	8627.0	8633.9	8696.9	8792.8
17°	9437.0	9113.6	8896.2	8738.2	8592.6	8455.8	8383.5	8376.0	8383.5	8455.8	8592.6
19.5°	9245.1	8942.7	8716.7	8506.1	8298.0	8044.7	7893.3	7863.0	7893.3	8044.7	8298.0
22.5°	9017.0	8766.6	8475.9	8119.7	7785.9	7693.6	7639.3	7611.0	7639.3	7693.6	7785.9
25.5°	8736.1	8451.3	8110.4	7688.2	7573.0	7507.5	7454.1	7452.0	7454.1	7507.5	7573.0
29°	8311.0	7953.6	7458.7	7392.1	7317.1	7211.0	7141.9	7146.0	7141.9	7211.0	7317.1
33°	7783.5	7335.8	7015.8	7002.5	6890.0	6810.9	6794.7	6807.0	6794.7	6810.9	6890.0
37.5°	7282.0	6825.5	6590.4	6452.4	6400.8	6440.2	6468.5	6480.0	6468.5	6440.2	6400.8
42.5°	6879.7	6456.3	6072.8	5925.9	5970.8	5986.4	6034.9	6054.0	6034.9	5986.4	5970.8
47.5°	6579.7	6139.6	5543.1	5435.6	5271.6	4675.3	4283.5	4154.0	4283.5	4675.3	5271.6
55°	5580.6	5456.3	4681.2	3579.8	2478.5	1593.7	1067.1	805.0	1067.1	1593.7	2478.5
65°	1925.8	1444.8	895.1	674.9	785.2	668.5	615.6	615.0	615.6	668.5	785.2
75°	230.5	168.2	171.8	143.1	183.5	151.8	104.6	89.0	104.6	151.8	183.5
85°	42.1	37.4	37.7	33.1	29.7	29.4	22.0	1.0	22.0	29.4	29.7
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0	9799.0
1°	9845.2	9837.8	9827.9	9816.0	9802.8	9789.0	9774.5	9760.1	9746.0	9732.1	9718.6
3°	9976.7	9946.3	9915.5	9884.3	9846.8	9807.0	9752.1	9701.9	9696.6	9692.8	9690.6
5°	10019.7	10010.7	9979.1	9932.5	9879.6	9798.0	9742.1	9712.9	9691.4	9680.6	9686.2
7°	9973.3	9985.5	9983.3	9958.4	9907.6	9826.0	9734.0	9685.6	9671.8	9682.3	9705.9
9°	9813.6	9863.9	9915.4	9939.8	9898.3	9820.0	9735.7	9659.3	9667.9	9710.3	9765.7
11°	9529.4	9665.1	9778.8	9858.0	9865.9	9806.0	9712.7	9655.1	9675.7	9742.4	9818.1
13°	9203.8	9370.2	9573.3	9753.0	9827.3	9830.0	9725.3	9654.8	9681.7	9769.9	9931.7
15°	8942.7	9108.6	9331.7	9607.9	9768.1	9840.0	9748.5	9665.7	9710.5	9849.1	10100.4
17°	8738.2	8896.2	9113.6	9437.0	9678.8	9963.0	9796.6	9703.2	9735.9	9963.3	10283.7
19.5°	8506.1	8716.7	8942.7	9245.1	9562.2	10049.0	9785.4	9710.8	9814.2	10159.8	10572.9
22.5°	8119.7	8475.9	8766.6	9017.0	9303.5	9668.0	9642.2	9639.7	9906.1	10396.6	10913.4
25.5°	7688.2	8110.4	8451.3	8736.1	9015.0	9329.0	9442.5	9510.0	9963.9	10674.5	11315.5
29°	7392.1	7458.7	7953.6	8311.0	8645.2	8929.0	9150.0	9425.8	9964.6	10870.8	11704.3
33°	7002.5	7015.8	7335.8	7783.5	8094.8	8340.0	8786.3	9422.1	9974.7	10918.1	12023.2
37.5°	6452.4	6590.4	6825.5	7282.0	7653.3	8051.0	8519.2	9437.8	10004.7	11059.6	11586.9
42.5°	5925.9	6072.8	6456.3	6879.7	7427.7	7847.0	8226.2	9426.3	10154.6	10451.8	9232.3
47.5°	5435.6	5543.1	6139.6	6579.7	7135.0	7391.0	7728.0	9225.5	10010.4	8345.0	6369.1
55°	3579.8	4681.2	5456.3	5580.6	5963.3	6336.0	6103.8	7296.6	7197.7	4647.5	4136.0
65°	674.9	895.1	1444.8	1925.8	1175.3	353.0	1179.3	1915.1	1657.6	1312.0	813.8
75°	143.1	171.8	168.2	230.5	189.4	220.0	128.7	120.8	96.5	57.1	67.3
85°	33.1	37.7	37.4	42.1	48.1	50.0	46.2	45.4	38.4	32.0	32.2
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):

	330°	340°	350°	360°
0°	9799.0	9799.0	9799.0	9799.0
1°	9706.1	9695.0	9686.1	9680.0
3°	9690.1	9691.2	9682.6	9674.0
5°	9696.0	9705.7	9714.0	9722.0
7°	9743.0	9769.0	9783.7	9783.0
9°	9823.1	9857.6	9893.6	9899.0
11°	9935.6	10038.7	10105.8	10139.0
13°	10109.4	10284.1	10397.1	10448.0
15°	10352.2	10569.4	10723.8	10785.0
17°	10620.3	10883.1	11042.2	11126.9
19.5°	10960.9	11259.0	11431.5	11492.9
22.5°	11350.4	11721.0	11971.3	12093.9
25.5°	11809.9	12285.7	12588.6	12756.9
29°	12437.4	12781.7	13004.6	13113.9
33°	12646.9	12289.6	12045.9	11962.9
37.5°	11081.9	9836.3	9026.5	8784.0
42.5°	7775.6	6969.8	6397.8	6178.0
47.5°	5586.7	5534.9	5441.3	5482.0
55°	3202.2	2536.0	1882.7	1574.0
65°	567.0	563.1	271.6	251.0
75°	61.9	72.4	45.2	39.0
85°	30.3	32.9	31.0	8.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)