

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: STREETWORKS

Report Number: P256775

Luminaire Tested: **ULA-A4-D-U-ASYM-VMx-BK**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256775
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1804-729-11)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ULA-A4-D-U-ASYM-VMx-BK
Description: UTILITY LIGHT ACORN TYPE IV ASYMMETRIC
Light Source: (60) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3866 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.17' x H: 2.17')
IES Classification: Type - Short - Non-Cutoff
BUG Rating: B1 - U5 - G3

Input Watts (W): 29.7
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: 28.75 FT



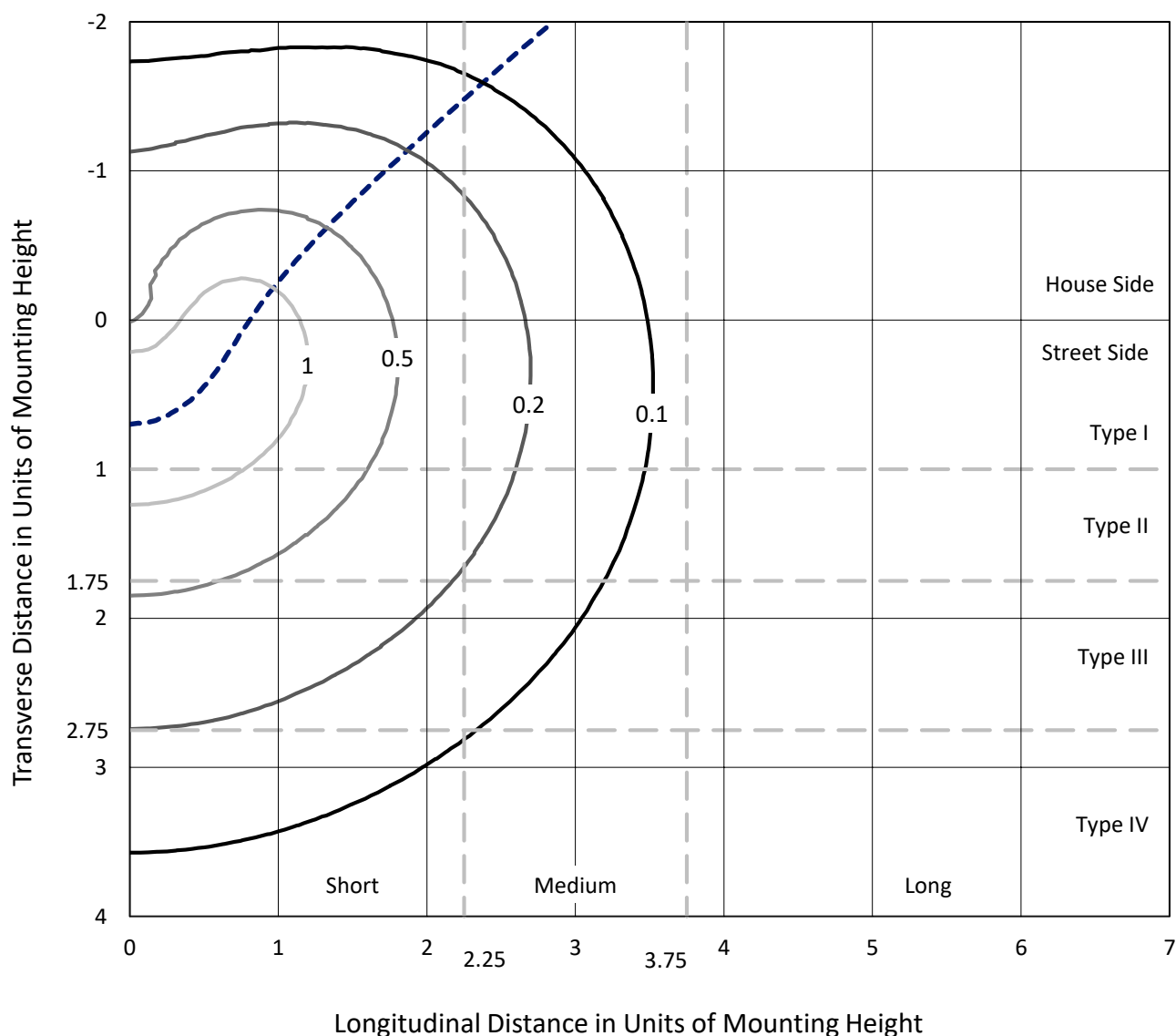
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

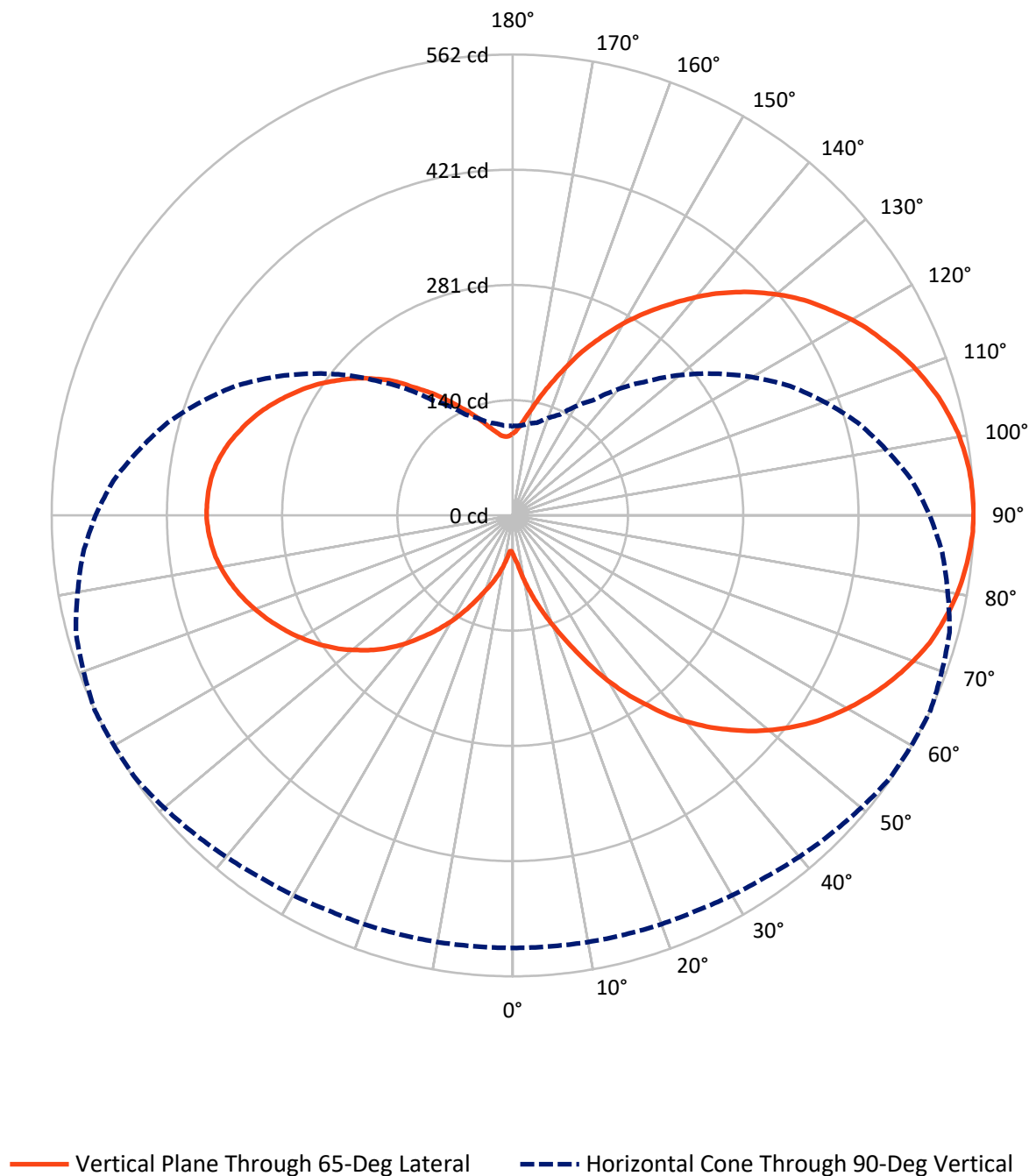


Based on 10 foot mounting height. Maximum calculated value = 1.6 fc
 Type - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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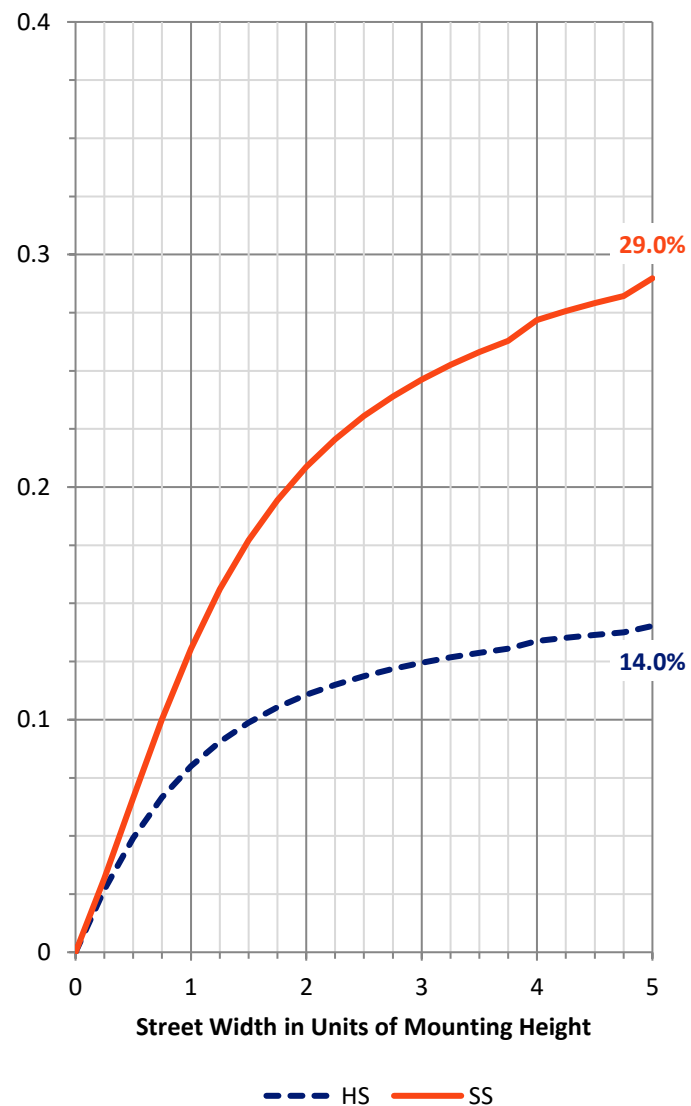
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	606.4	637.0	1243.4
	% Fixture	15.7	16.5	32.2
Street Side	Lumens	1296.6	1326.0	2622.6
	% Fixture	33.5	34.3	67.8
Total	Lumens	1903.0	1963.0	3866.0
	% Fixture	49.2	50.8	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.5	0.1
10°-20°	26.3	0.7
20°-30°	66.3	1.7
30°-40°	129.3	3.3
40°-50°	205.1	5.3
50°-60°	281.5	7.3
60°-70°	350.1	9.1
70°-80°	404.2	10.5
80°-90°	434.7	11.2
90°-100°	436.3	11.3
100°-110°	407.0	10.5
110°-120°	353.2	9.1
120°-130°	285.7	7.4
130°-140°	211.7	5.5
140°-150°	140.2	3.6
150°-160°	81.1	2.1
160°-170°	37.7	1.0
170°-180°	10.2	0.3
0°-90°	1903.0	49.2
0°-180°	3866.0	100.0

Coefficient of Utilization



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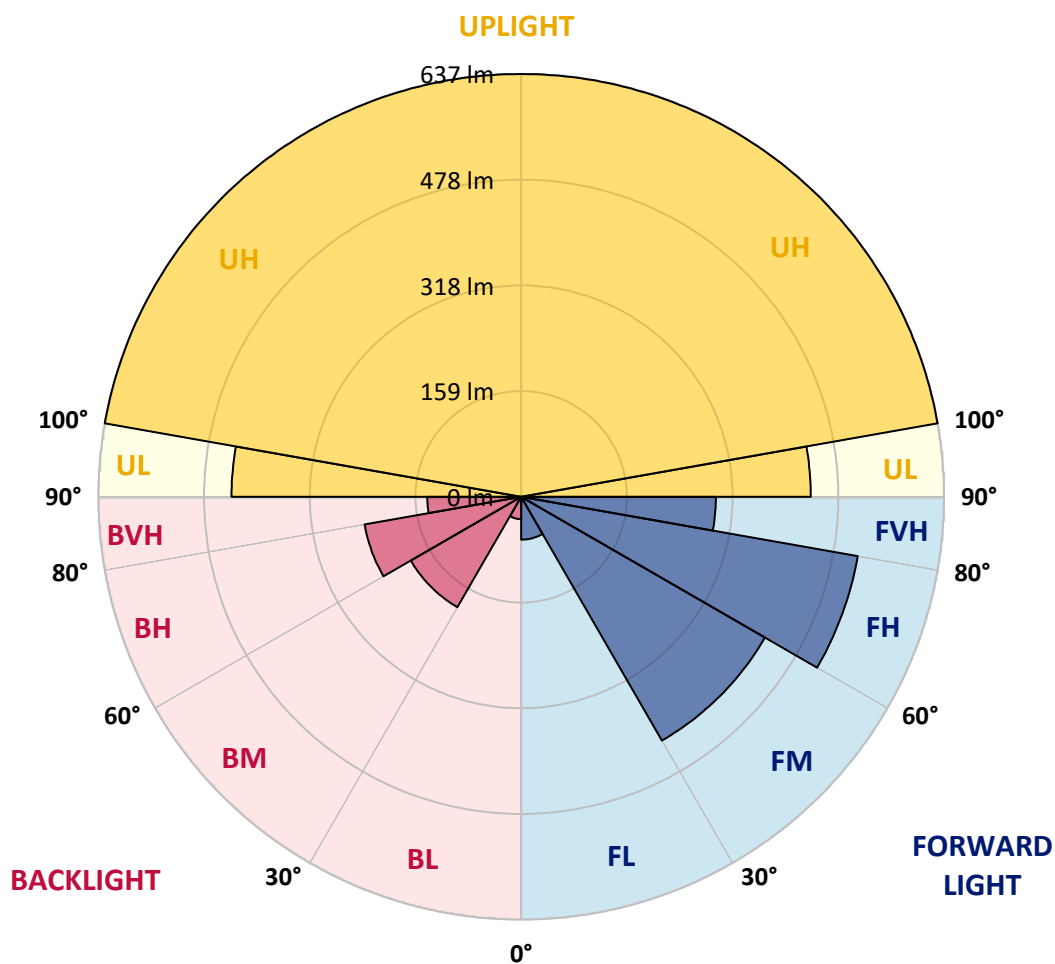
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	64.5	1.7			
FM	(30°-60°)	424.0	11.0			
FH	(60°-80°)	514.8	13.3			G0/660
FVH	(80°-90°)	293.3	7.6			G3/500
BL	(0°-30°)	33.6	0.9	B0/110		
BM	(30°-60°)	191.9	5.0	B0/220		
BH	(60°-80°)	239.5	6.2	B1/500		G1/500
BVH	(80°-90°)	141.5	3.7			G2/225
UL	(90°-100°)	436.3	11.3		U3/500	
UH	(100°-180°)	637.0	16.5		U4/1000	

BUG Rating: B1-U5-G3

Type Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
2.5°	57.7	56.1	56.1	55.3	55.3	54.4	53.6	52.8	51.1	49.5	48.7
5°	69.3	68.5	68.5	66.8	65.2	63.5	61.0	58.6	56.1	52.8	52.0
7.5°	82.5	81.7	81.7	79.2	77.5	75.1	72.6	69.3	66.0	62.7	61.0
10°	95.7	94.9	94.9	93.2	91.6	88.3	85.0	82.5	77.5	73.4	71.8
12.5°	109.7	108.0	108.0	106.4	105.6	103.1	99.8	96.5	90.7	85.8	83.3
15°	122.9	122.1	122.1	121.2	120.4	117.9	114.6	111.3	105.6	99.8	96.5
17.5°	137.7	136.9	136.1	136.1	136.1	133.6	131.1	127.8	121.2	113.8	110.5
20°	154.2	152.6	152.6	153.4	153.4	151.8	149.3	145.2	138.6	130.3	125.4
22.5°	171.6	170.7	171.6	171.6	172.4	171.6	169.1	165.0	158.4	148.5	142.7
25°	190.5	189.7	191.4	192.2	193.8	194.7	192.2	187.2	179.8	168.3	161.7
27.5°	213.6	212.8	213.6	216.9	217.7	218.6	216.9	212.8	203.7	190.5	182.3
30°	234.2	234.2	235.9	238.4	240.8	242.5	240.8	237.5	227.6	212.8	203.7
32.5°	255.7	256.5	257.3	260.6	263.9	266.4	264.8	262.3	250.7	236.7	225.2
35°	278.8	279.6	279.6	283.7	287.9	289.5	290.3	284.6	275.5	258.2	245.8
37.5°	301.9	301.1	301.9	306.0	310.1	312.6	313.4	310.1	298.6	279.6	267.2
40°	321.7	321.7	323.3	327.4	331.6	334.9	335.7	331.6	320.9	300.2	287.0
42.5°	342.3	342.3	343.9	347.2	352.2	355.5	357.1	353.0	340.6	320.9	306.0
45°	361.3	361.3	362.9	367.0	372.0	375.3	377.8	372.8	360.4	339.8	325.8
47.5°	379.4	380.2	381.1	384.4	390.1	393.4	396.7	392.6	379.4	356.3	342.3
50°	396.7	397.6	398.4	402.5	406.6	410.8	414.9	410.8	398.4	374.5	358.8
52.5°	412.4	413.2	414.9	416.5	422.3	427.3	431.4	428.1	414.1	390.1	373.6
55°	428.9	428.9	429.7	431.4	437.1	442.9	447.9	444.6	430.5	405.8	389.3
57.5°	442.9	442.9	443.7	445.4	450.3	456.1	461.9	459.4	445.4	419.8	403.3
60°	455.3	455.3	456.1	457.8	462.7	470.1	475.9	473.4	459.4	433.0	416.5
62.5°	467.7	467.7	468.5	470.1	475.1	482.5	489.1	486.6	472.6	446.2	428.9
65°	478.4	478.4	478.4	480.0	485.8	494.1	500.7	499.0	484.2	458.6	440.4
67.5°	488.3	488.3	488.3	489.1	495.7	504.0	512.2	510.6	496.5	470.1	451.2
70°	498.2	496.5	498.2	498.2	504.8	513.9	522.1	521.3	507.3	480.9	461.9
72.5°	505.6	504.8	505.6	507.3	513.0	522.1	531.2	531.2	517.2	489.9	471.8
75°	511.4	511.4	511.4	513.0	519.6	529.5	538.6	538.6	525.4	498.2	480.0
77.5°	517.2	517.2	518.0	518.8	525.4	535.3	546.0	545.2	532.8	505.6	488.3
80°	521.3	520.5	521.3	523.8	529.5	540.2	551.0	551.0	538.6	512.2	494.1
82.5°	524.6	523.8	524.6	527.1	532.8	544.4	555.1	555.1	543.5	518.0	499.8
85°	526.2	526.2	527.1	529.5	535.3	546.8	557.6	558.4	547.7	522.1	504.0
87.5°	527.1	527.1	527.9	531.2	536.9	547.7	559.2	560.9	550.1	523.8	506.4
90°	527.1	527.1	528.7	531.2	537.8	548.5	560.0	561.7	551.0	525.4	508.1
92.5°	527.1	526.2	528.7	531.2	536.9	547.7	559.2	560.9	551.0	525.4	508.1
95°	525.4	524.6	527.1	529.5	535.3	546.0	556.7	559.2	549.3	524.6	506.4
97.5°	522.1	522.1	523.8	527.1	532.8	542.7	554.3	555.9	546.0	521.3	504.0
100°	518.8	518.8	520.5	522.9	528.7	539.4	549.3	551.8	540.2	517.2	499.0
102.5°	514.7	514.7	515.5	518.0	524.6	534.5	543.5	545.2	535.3	510.6	493.2
105°	508.9	508.1	509.7	512.2	518.0	527.9	536.9	538.6	527.1	503.1	485.8
107.5°	501.5	501.5	501.5	504.8	510.6	520.5	528.7	529.5	518.0	494.1	475.9
110°	494.1	494.1	494.1	496.5	503.1	512.2	520.5	520.5	508.1	484.2	467.7



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CATALOG NUMBER: ULA-A4-D-U-ASYM-VMx-BK

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	485.8	485.0	485.0	487.5	494.1	503.1	511.4	509.7	497.4	473.4	456.9
115°	475.9	475.9	475.1	477.6	485.0	493.2	500.7	498.2	486.6	461.9	445.4
117.5°	466.0	465.2	465.2	467.7	474.3	483.3	489.9	487.5	474.3	450.3	433.8
120°	455.3	454.5	453.6	456.1	463.5	471.8	477.6	474.3	460.2	437.1	421.5
122.5°	442.9	442.1	442.1	444.6	452.0	460.2	465.2	460.2	447.9	424.0	408.3
125°	429.7	430.5	429.7	432.2	438.8	447.9	452.0	447.0	433.8	409.9	394.3
127.5°	416.5	416.5	415.7	419.0	425.6	433.8	438.0	432.2	419.0	395.1	380.2
130°	402.5	402.5	401.7	405.0	411.6	419.0	421.5	415.7	402.5	379.4	364.6
132.5°	386.8	387.7	387.7	391.0	396.7	402.5	405.8	399.2	386.0	363.7	348.9
135°	372.0	371.2	372.0	374.5	381.1	386.0	386.8	381.1	368.7	346.4	332.4
137.5°	354.7	355.5	355.5	358.0	363.7	368.7	369.5	362.9	350.5	329.1	315.1
140°	338.2	338.2	339.8	341.5	345.6	349.7	349.7	343.1	331.6	310.1	296.9
142.5°	320.9	320.9	321.7	325.0	328.3	330.7	329.9	323.3	311.8	291.2	279.6
145°	304.4	304.4	305.2	307.7	310.1	311.8	310.1	304.4	292.8	272.2	261.5
147.5°	288.7	287.9	289.5	291.2	292.8	293.6	292.0	285.4	273.0	255.7	244.1
150°	272.2	272.2	272.2	274.7	275.5	275.5	273.0	266.4	254.9	237.5	227.6
152.5°	255.7	254.9	255.7	256.5	257.3	256.5	253.2	246.6	235.9	220.2	211.2
155°	238.4	238.4	239.2	239.2	239.2	238.4	235.1	227.6	217.7	203.7	193.0
157.5°	221.9	221.9	221.9	221.9	221.9	220.2	216.1	209.5	198.0	185.6	179.0
160°	205.4	205.4	204.6	203.7	202.9	199.6	196.3	189.7	181.5	170.7	165.0
162.5°	187.2	186.4	186.4	185.6	184.8	182.3	178.2	172.4	165.0	155.9	150.9
165°	170.7	169.9	169.1	169.1	167.4	165.0	161.7	156.7	150.1	141.9	137.7
167.5°	155.9	155.1	154.2	154.2	152.6	149.3	146.0	141.9	136.1	129.5	126.2
170°	142.7	141.9	141.0	140.2	138.6	136.1	132.8	128.7	124.5	119.6	116.3
172.5°	129.5	128.7	127.8	127.8	126.2	123.7	121.2	117.9	114.6	110.5	108.9
175°	117.1	117.9	117.1	116.3	115.5	113.0	111.3	108.9	107.2	104.8	103.1
177.5°	107.2	108.0	108.0	107.2	106.4	104.8	103.9	102.3	101.5	99.8	99.0
180°	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0



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CATALOG NUMBER: ULA-A4-D-U-ASYM-VMx-BK

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
2.5°	47.8	45.4	43.7	41.2	38.8	37.1	35.5	33.8	33.0	33.0
5°	49.5	47.0	43.7	40.4	37.9	34.6	33.0	31.3	30.5	30.5
7.5°	58.6	55.3	51.1	47.0	43.7	39.6	37.1	35.5	34.6	34.6
10°	68.5	64.3	59.4	54.4	50.3	46.2	42.9	40.4	39.6	39.6
12.5°	80.0	74.2	68.5	61.9	56.9	51.1	47.8	45.4	44.5	43.7
15°	92.4	85.0	77.5	69.3	62.7	56.9	52.0	48.7	47.8	47.8
17.5°	105.6	95.7	86.6	76.7	68.5	60.2	55.3	51.1	49.5	49.5
20°	119.6	108.0	95.7	84.1	73.4	64.3	56.9	52.8	50.3	50.3
22.5°	136.1	122.1	106.4	92.4	80.0	68.5	59.4	53.6	51.1	50.3
25°	153.4	136.1	118.8	102.3	86.6	72.6	62.7	56.1	52.0	52.0
27.5°	172.4	152.6	132.0	112.2	93.2	77.5	65.2	57.7	53.6	52.8
30°	193.0	169.9	146.0	122.1	100.6	82.5	68.5	59.4	55.3	54.4
32.5°	212.8	186.4	159.2	132.8	108.0	86.6	71.8	61.9	56.9	56.1
35°	234.2	204.6	173.2	143.5	115.5	91.6	74.2	63.5	58.6	57.7
37.5°	254.0	221.9	186.4	153.4	122.9	96.5	77.5	66.0	60.2	59.4
40°	273.0	239.2	201.3	164.1	130.3	101.5	80.8	68.5	61.9	61.0
42.5°	291.2	255.7	215.3	174.0	136.9	106.4	84.1	70.9	64.3	63.5
45°	309.3	270.5	228.5	183.9	144.3	110.5	87.4	72.6	66.8	65.2
47.5°	325.8	285.4	240.8	193.8	150.9	115.5	89.9	75.1	68.5	67.6
50°	341.5	300.2	252.4	203.7	157.5	119.6	93.2	77.5	70.9	70.1
52.5°	356.3	313.4	264.8	213.6	163.3	123.7	96.5	80.0	73.4	72.6
55°	370.3	326.6	275.5	221.9	169.9	127.8	99.0	83.3	75.9	75.1
57.5°	385.2	339.0	286.2	230.9	175.7	132.0	102.3	85.8	78.4	77.5
60°	396.7	350.5	296.1	238.4	181.5	136.1	105.6	88.3	80.8	80.0
62.5°	409.9	361.3	306.0	246.6	187.2	140.2	108.9	91.6	84.1	83.3
65°	420.7	372.0	315.1	254.0	192.2	143.5	111.3	94.0	86.6	85.8
67.5°	432.2	382.7	324.1	261.5	198.0	147.6	114.6	97.3	89.9	89.1
70°	442.1	391.8	332.4	268.1	203.7	151.8	117.9	99.8	93.2	91.6
72.5°	451.2	401.7	340.6	274.7	210.3	155.1	121.2	103.1	95.7	94.9
75°	459.4	409.1	348.1	280.4	214.5	158.4	123.7	105.6	99.0	97.3
77.5°	467.7	416.5	354.7	286.2	218.6	162.5	127.0	108.9	101.5	100.6
80°	474.3	422.3	360.4	290.3	221.9	165.0	129.5	111.3	103.9	103.1
82.5°	479.2	427.3	365.4	294.5	225.2	167.4	131.1	113.0	105.6	104.8
85°	483.3	431.4	368.7	297.8	228.5	169.1	133.6	114.6	107.2	106.4
87.5°	486.6	433.8	371.2	300.2	229.3	170.7	134.4	116.3	108.9	108.0
90°	488.3	435.5	372.8	301.1	230.9	171.6	135.3	117.1	109.7	108.9
92.5°	487.5	435.5	372.8	301.9	231.8	172.4	136.1	117.1	109.7	108.9
95°	486.6	434.7	372.0	301.1	230.9	172.4	136.1	117.1	109.7	108.9
97.5°	483.3	432.2	370.3	299.4	230.1	171.6	134.4	116.3	108.9	108.0
100°	479.2	427.3	367.0	296.9	228.5	169.9	133.6	114.6	107.2	106.4
102.5°	472.6	422.3	362.1	293.6	225.2	167.4	131.1	113.0	105.6	104.8
105°	465.2	415.7	356.3	288.7	221.9	165.0	128.7	110.5	103.1	102.3
107.5°	457.8	406.6	348.9	282.9	217.7	161.7	126.2	108.0	100.6	99.8
110°	447.9	398.4	341.5	277.1	212.8	157.5	122.9	104.8	98.2	96.5



REPORT NUMBER: P256775

CATALOG NUMBER: ULA-A4-D-U-ASYM-VMx-BK

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	437.1	389.3	333.2	269.7	207.9	154.2	120.4	102.3	94.9	94.0
115°	426.4	378.6	324.1	263.1	200.4	150.1	117.1	99.8	92.4	91.6
117.5°	414.9	367.9	314.3	254.9	194.7	146.0	113.8	96.5	89.1	88.3
120°	402.5	357.1	304.4	246.6	188.9	141.9	110.5	94.0	86.6	85.8
122.5°	390.1	345.6	294.5	239.2	183.1	137.7	108.0	90.7	84.1	82.5
125°	376.9	333.2	283.7	230.1	177.3	134.4	104.8	88.3	81.7	80.8
127.5°	362.9	320.0	272.2	221.0	170.7	130.3	102.3	86.6	79.2	78.4
130°	348.1	307.7	261.5	212.8	165.0	126.2	99.8	84.1	76.7	75.9
132.5°	332.4	293.6	249.9	202.1	158.4	122.1	96.5	81.7	75.1	74.2
135°	315.9	279.6	237.5	192.2	151.8	117.9	94.0	80.0	73.4	72.6
137.5°	300.2	264.8	226.0	183.1	146.0	114.6	92.4	78.4	72.6	71.8
140°	282.1	249.1	212.8	174.0	139.4	110.5	89.9	76.7	70.9	70.1
142.5°	264.8	234.2	198.8	165.0	133.6	107.2	88.3	75.9	70.1	69.3
145°	248.3	219.4	187.2	156.7	127.8	103.9	85.8	75.1	70.1	69.3
147.5°	232.6	206.2	176.5	148.5	122.1	100.6	84.1	74.2	69.3	68.5
150°	216.9	190.5	165.0	140.2	117.1	97.3	83.3	73.4	69.3	68.5
152.5°	198.8	177.3	155.1	132.8	112.2	94.9	81.7	73.4	69.3	69.3
155°	184.8	165.0	145.2	125.4	108.0	93.2	81.7	74.2	70.1	70.1
157.5°	170.7	154.2	136.9	119.6	104.8	91.6	81.7	75.1	71.8	71.8
160°	157.5	143.5	128.7	114.6	101.5	90.7	81.7	75.9	73.4	72.6
162.5°	145.2	132.8	120.4	108.9	98.2	89.1	81.7	76.7	74.2	74.2
165°	132.8	122.9	113.0	103.9	95.7	87.4	81.7	78.4	75.9	75.9
167.5°	122.1	114.6	107.2	99.8	93.2	87.4	82.5	79.2	78.4	77.5
170°	113.8	108.0	102.3	96.5	91.6	86.6	83.3	81.7	80.0	80.0
172.5°	106.4	102.3	98.2	94.0	90.7	87.4	85.8	84.1	83.3	83.3
175°	101.5	99.0	96.5	94.0	92.4	89.9	89.1	88.3	87.4	87.4
177.5°	99.0	97.3	96.5	95.7	94.9	94.0	94.0	93.2	93.2	93.2
180°	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0

(END OF REPORT)