

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: P256841

Luminaire Tested: **ULA-A5-D-U-SYM-VMx-HSS-BK**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256841
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1804-729-17)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ULA-A5-D-U-SYM-VMx-HSS-BK
Description: UTILITY LIGHT ACORN SYMMETRIC W/ HSS
Light Source: (90) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3958.4 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.17' x H: 2.17')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U5 - G3

Input Watts (W): 35.9
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

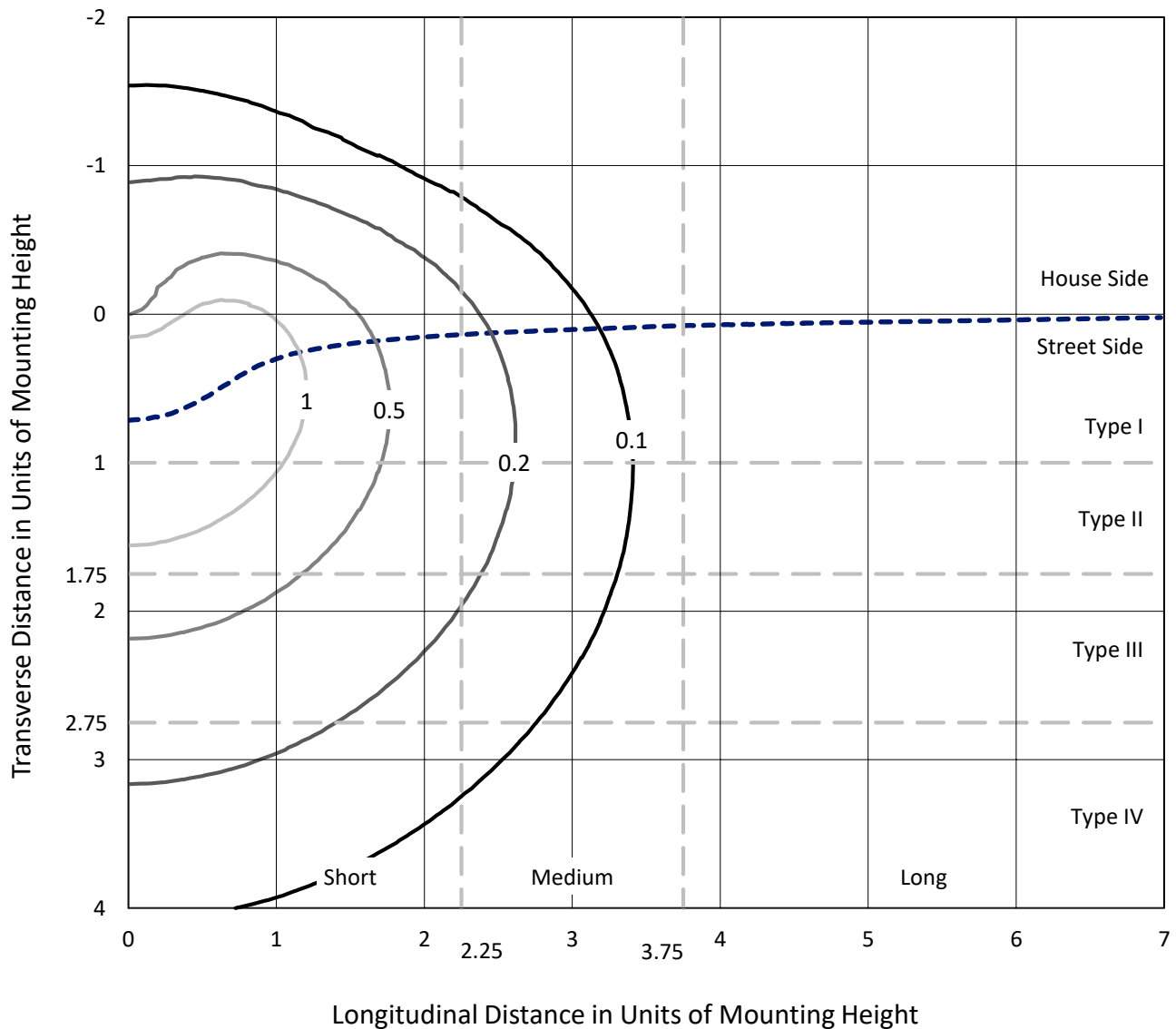


REPORT NUMBER: P256841

CATALOG NUMBER: ULA-A5-D-U-SYM-VMx-HSS-BK

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

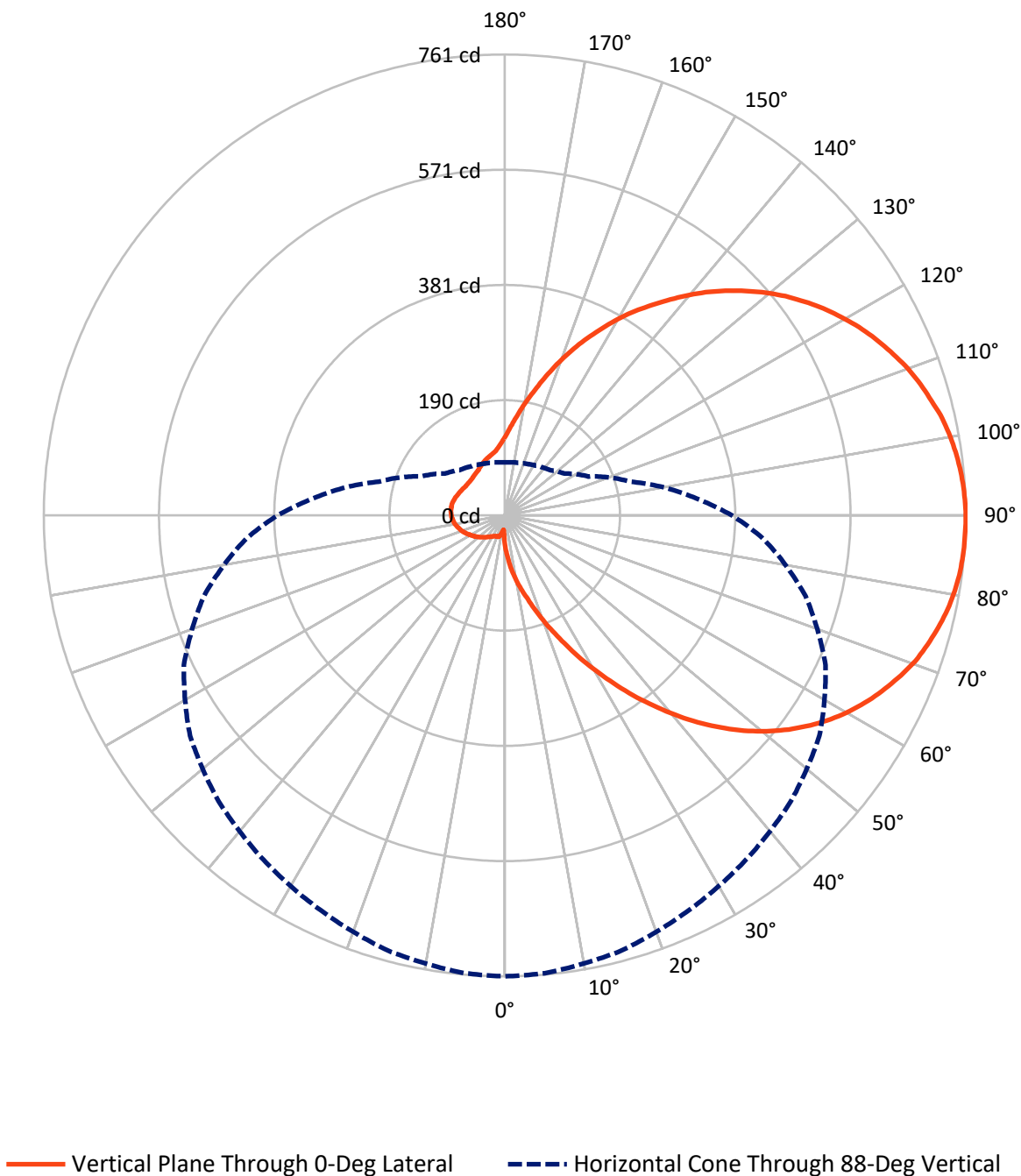


Based on 10 foot mounting height. Maximum calculated value = 2 fc
Type IV - Short - Non-Cutoff

REPORT NUMBER: P256841

CATALOG NUMBER: ULA-A5-D-U-SYM-VMx-HSS-BK

Luminous Intensity Polar Plot



REPORT NUMBER: P256841

CATALOG NUMBER: ULA-A5-D-U-SYM-VMx-HSS-BK

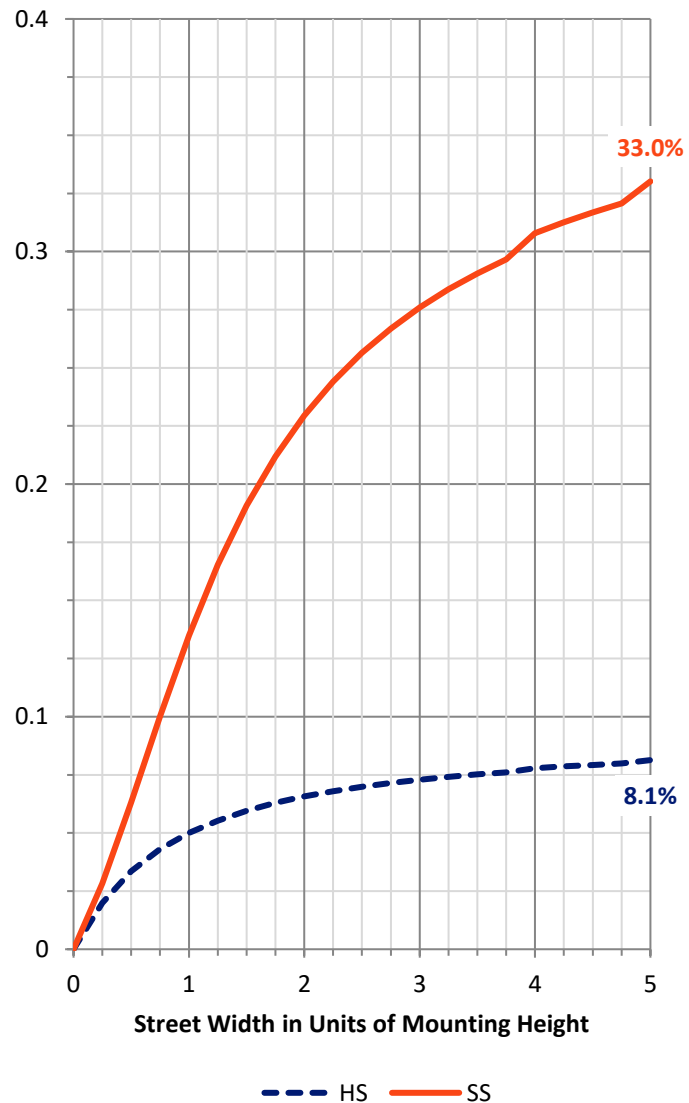
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	357.9	469.8	827.7
	% Fixture	9.0	11.9	20.9
Street Side	Lumens	1532.7	1597.9	3130.7
	% Fixture	38.7	40.4	79.1
Total	Lumens	1890.6	2067.7	3958.4
	% Fixture	47.8	52.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.6	0.1
10°-20°	26.8	0.7
20°-30°	67.3	1.7
30°-40°	131.0	3.3
40°-50°	208.0	5.3
50°-60°	283.5	7.2
60°-70°	348.1	8.8
70°-80°	396.9	10.0
80°-90°	423.6	10.7
90°-100°	426.1	10.8
100°-110°	404.2	10.2
110°-120°	362.9	9.2
120°-130°	307.2	7.8
130°-140°	239.3	6.0
140°-150°	166.6	4.2
150°-160°	100.3	2.5
160°-170°	47.9	1.2
170°-180°	13.0	0.3
0°-90°	1890.6	47.8
0°-180°	3958.4	100.0

Coefficient of Utilization



REPORT NUMBER: P256841

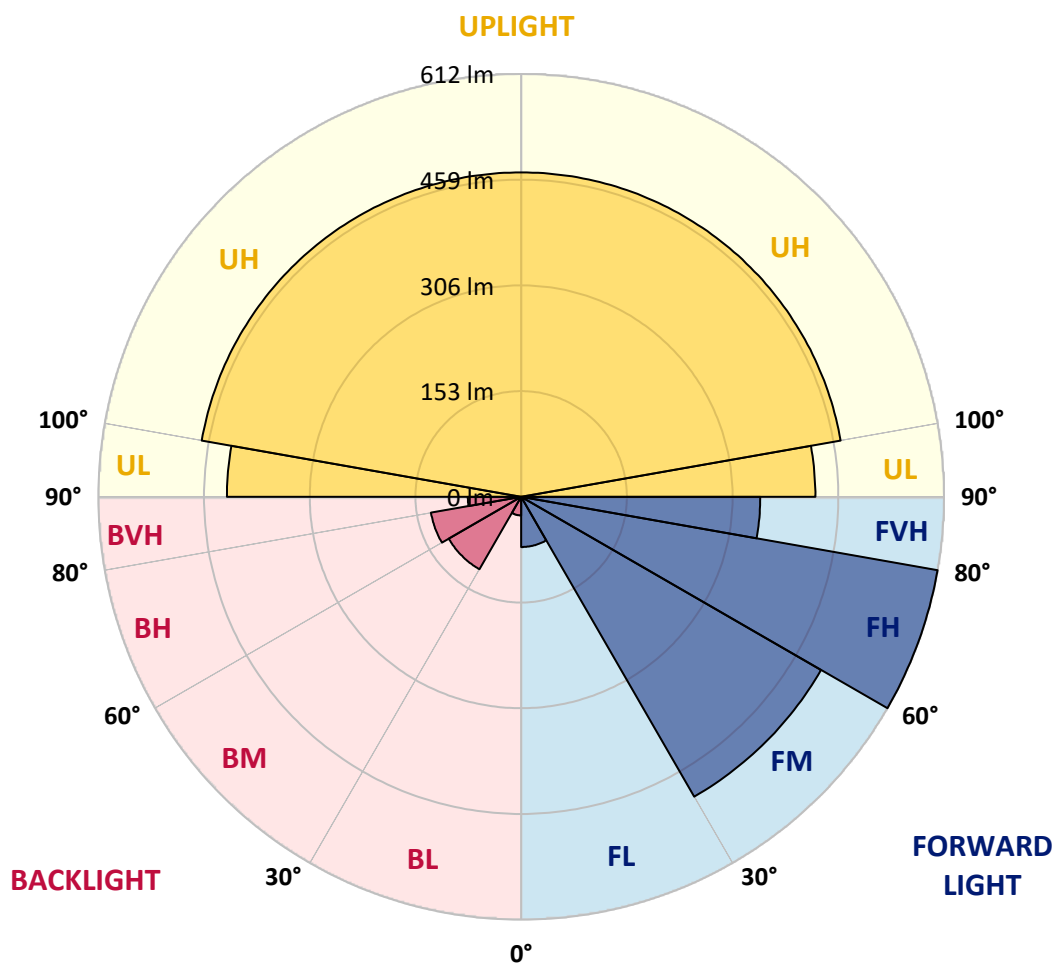
CATALOG NUMBER: ULA-A5-D-U-SYM-VMx-HSS-BK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	72.7	1.8			
FM	(30°-60°)	501.4	12.7			
FH	(60°-80°)	612.4	15.5			G0/660
FVH	(80°-90°)	346.2	8.7			G3/500
BL	(0°-30°)	26.9	0.7	B0/110		
BM	(30°-60°)	121.1	3.1	B0/220		
BH	(60°-80°)	132.6	3.3	B1/500		G1/500
BVH	(80°-90°)	77.3	2.0			G1/100
UL	(90°-100°)	426.1	10.8		U3/500	
UH	(100°-180°)	469.8	11.9		U3/500	

BUG Rating: B1-U5-G3

Type IV Short





REPORT NUMBER: P256841

CATALOG NUMBER: ULA-A5-D-U-SYM-VMx-HSS-BK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
2.5°	62.8	62.8	61.6	62.2	60.5	59.3	56.9	54.6	52.8	50.5	49.3
5°	79.8	78.7	77.5	76.3	73.4	70.4	67.5	63.4	59.3	55.2	52.8
7.5°	95.7	95.1	92.8	91.0	87.5	83.9	79.8	74.6	69.9	64.6	61.6
10°	111.5	111.0	108.6	106.8	102.7	99.2	93.9	88.1	82.2	75.1	71.6
12.5°	127.4	126.8	124.5	123.3	119.8	115.6	109.8	102.1	95.1	86.9	82.8
15°	143.8	143.8	143.2	140.9	136.8	132.7	126.8	118.0	109.2	99.2	94.5
17.5°	165.5	164.4	162.6	160.9	157.3	152.6	143.8	135.6	124.5	112.7	105.7
20°	187.9	186.7	185.5	183.2	178.5	173.8	165.0	155.0	140.9	126.8	118.0
22.5°	211.9	210.8	209.6	207.2	202.5	197.3	187.9	176.1	161.4	143.2	132.1
25°	238.3	238.3	236.6	234.2	229.0	223.7	212.5	199.6	182.6	160.9	148.5
27.5°	268.3	266.5	265.9	263.0	258.3	251.8	240.1	224.8	204.9	179.6	166.1
30°	298.2	297.6	297.0	293.5	288.2	281.2	267.7	251.8	227.8	198.4	182.6
32.5°	330.5	331.1	328.8	324.6	318.8	311.1	296.5	277.7	251.8	217.2	199.0
35°	365.1	364.6	361.0	358.1	350.5	341.1	324.6	303.5	274.2	235.4	214.9
37.5°	398.6	399.2	395.7	391.0	382.2	371.6	353.4	329.3	295.3	253.0	230.1
40°	433.2	433.8	429.7	422.7	413.3	401.0	381.0	354.6	317.0	270.0	243.6
42.5°	467.3	467.3	463.2	456.1	443.2	429.1	407.4	378.7	337.0	285.3	257.1
45°	499.6	499.6	494.3	485.5	471.4	455.6	432.1	400.4	355.2	299.4	268.9
47.5°	531.3	530.7	524.8	513.1	499.6	481.4	456.7	420.3	372.8	312.9	279.4
50°	560.6	560.6	552.4	539.5	522.5	504.3	477.9	439.7	389.2	325.2	289.4
52.5°	587.6	587.1	578.2	564.2	545.4	526.0	497.8	457.3	403.3	336.4	298.8
55°	612.3	611.7	601.7	585.9	566.5	545.4	516.0	473.8	417.4	346.9	307.0
57.5°	635.2	634.6	622.9	605.3	585.9	563.6	533.0	489.0	430.3	356.9	315.2
60°	655.7	654.6	642.8	623.5	602.9	580.0	549.5	503.7	442.1	365.7	322.9
62.5°	673.9	672.8	659.8	639.9	618.2	594.7	562.4	516.0	452.6	374.5	329.3
65°	690.4	689.2	676.3	654.6	632.3	608.2	575.3	527.8	462.6	382.2	336.4
67.5°	705.6	704.5	689.8	667.5	645.2	620.5	587.6	538.9	472.0	389.8	342.8
70°	719.7	717.4	702.1	679.8	655.7	630.5	598.2	548.9	480.8	396.8	348.7
72.5°	730.3	728.5	713.3	689.8	665.7	641.1	607.6	557.1	489.0	403.3	354.0
75°	739.7	738.5	722.7	698.6	673.9	648.7	615.8	564.2	495.5	409.8	359.3
77.5°	747.9	745.6	730.3	706.2	681.0	655.2	622.3	571.2	501.3	414.5	363.4
80°	753.8	752.0	736.2	711.5	686.3	660.4	627.6	576.5	506.0	418.6	366.9
82.5°	757.9	755.5	740.3	715.6	690.4	664.0	631.1	579.4	509.6	422.1	370.4
85°	760.2	758.5	742.6	718.6	692.7	666.3	633.4	582.4	512.5	425.0	372.8
87.5°	760.8	759.6	744.4	719.7	693.9	668.1	634.6	584.1	514.3	426.8	374.5
88°	761.4	759.1	744.4	719.7	694.5	668.1	634.6	584.7	514.3	427.4	375.1
90°	761.4	759.1	744.4	720.3	694.5	667.5	635.2	585.3	514.8	428.0	376.3
92.5°	759.6	757.9	743.2	719.7	693.9	666.9	634.6	584.7	515.4	429.1	377.5
95°	756.7	755.0	740.9	717.4	691.6	665.1	632.8	583.5	514.8	429.1	377.5
97.5°	752.0	750.3	736.8	713.3	688.0	661.6	629.3	581.2	513.1	428.5	377.5
100°	746.1	744.4	730.9	708.0	682.7	656.9	625.2	578.2	510.7	427.4	376.9
102.5°	738.5	736.2	723.3	700.9	676.9	651.0	619.9	573.0	507.2	425.0	375.7
105°	727.9	726.8	714.4	692.7	668.1	643.4	612.9	567.7	503.1	422.1	373.4
107.5°	718.0	716.2	703.9	682.7	659.8	635.8	605.8	561.2	498.4	419.2	371.6



REPORT NUMBER: P256841

CATALOG NUMBER: ULA-A5-D-U-SYM-VMx-HSS-BK

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	706.2	704.5	692.1	672.2	649.3	626.4	597.0	554.2	493.1	415.6	369.8
112.5°	692.1	691.0	678.6	659.8	638.1	616.4	588.2	546.5	487.3	412.1	367.5
115°	678.0	676.3	664.5	646.9	625.8	605.3	578.2	537.7	480.2	408.0	365.1
117.5°	662.8	661.0	649.3	632.3	612.9	592.9	567.1	528.3	473.2	403.3	362.2
120°	645.2	644.0	632.8	617.0	599.4	580.0	554.8	518.4	465.5	398.6	359.3
122.5°	627.6	625.8	615.8	601.1	584.7	566.5	542.4	507.8	456.7	392.7	355.8
125°	608.2	607.0	597.6	584.1	568.9	551.8	528.9	494.9	447.3	386.9	351.6
127.5°	588.2	586.5	577.7	565.3	551.8	535.4	514.3	482.6	437.4	379.2	346.9
130°	566.5	565.3	557.1	546.0	532.5	517.8	497.8	467.9	425.6	371.0	340.5
132.5°	543.6	542.4	535.4	526.0	512.5	499.0	480.2	451.4	412.1	361.6	333.4
135°	520.1	519.5	513.1	504.3	492.0	479.6	461.4	435.0	398.6	351.6	325.2
137.5°	496.1	495.5	489.6	480.8	471.4	458.5	441.5	416.8	383.3	339.9	315.2
140°	470.2	469.6	464.9	456.7	446.7	436.2	419.7	397.4	366.3	326.4	304.7
142.5°	444.4	443.8	439.7	433.8	424.4	413.3	398.0	376.9	349.3	312.9	292.9
145°	419.2	418.6	415.0	409.2	400.4	390.4	375.7	357.5	331.7	298.8	281.2
147.5°	395.1	393.9	391.0	386.3	378.1	368.1	354.6	337.6	314.1	284.7	268.9
150°	369.3	368.7	365.1	361.6	353.4	345.2	332.3	317.6	295.9	269.5	255.4
152.5°	343.4	342.8	340.5	336.4	329.3	321.7	310.0	296.5	277.7	254.2	241.9
155°	318.2	317.6	315.2	312.3	305.3	298.2	287.7	275.3	258.3	238.3	227.2
157.5°	292.9	292.9	291.8	288.2	281.8	275.3	264.8	255.4	240.1	222.5	213.7
160°	268.3	268.3	267.7	264.2	258.9	253.0	243.6	234.2	222.5	207.2	199.6
162.5°	244.2	243.0	243.6	241.3	236.0	231.3	223.1	215.4	204.3	191.4	184.9
165°	221.3	220.7	221.3	219.0	214.3	210.2	202.5	196.7	187.3	176.1	171.4
167.5°	200.8	200.8	200.2	198.4	194.3	190.8	184.9	179.6	172.0	163.2	159.1
170°	182.6	181.4	182.0	180.2	177.3	174.4	169.1	164.4	158.5	151.5	148.5
172.5°	165.5	164.4	165.0	163.2	161.4	159.1	155.6	151.5	146.8	140.3	138.5
175°	150.3	149.7	149.7	148.5	147.4	145.6	142.1	139.7	136.8	133.3	132.1
177.5°	136.8	135.6	136.2	135.6	135.0	134.4	133.3	132.1	130.3	128.6	128.0
180°	126.8	126.8	126.8	126.8	126.8	126.8	126.8	126.8	126.8	126.8	126.8



REPORT NUMBER: P256841

CATALOG NUMBER: ULA-A5-D-U-SYM-VMx-HSS-BK

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
2.5°	48.1	45.8	42.9	39.9	37.0	34.6	33.5	31.7	31.7	30.5
5°	50.5	45.8	41.1	37.0	32.9	29.4	26.4	24.7	24.1	24.1
7.5°	58.7	53.4	47.6	42.3	37.6	33.5	29.9	27.0	25.8	25.2
10°	68.1	61.6	54.0	48.1	42.9	37.6	33.5	30.5	29.4	29.4
12.5°	78.1	69.9	61.1	53.4	46.4	41.1	37.0	34.6	33.5	32.9
15°	88.6	78.1	67.5	58.1	50.5	44.0	39.9	37.6	36.4	35.8
17.5°	99.2	86.3	74.0	62.8	53.4	47.0	41.7	38.2	37.0	37.0
20°	110.4	94.5	79.8	66.9	56.4	48.1	42.3	38.7	37.0	37.0
22.5°	123.3	103.9	85.7	71.0	58.7	49.9	43.4	39.3	37.0	37.0
25°	136.8	113.9	92.8	75.1	61.6	51.7	44.6	39.9	38.2	37.6
27.5°	152.0	123.9	99.8	79.3	64.6	53.4	45.8	41.1	38.7	38.7
30°	166.7	133.3	105.7	83.4	66.9	55.2	47.0	42.3	39.9	39.9
32.5°	180.8	142.7	111.0	86.9	69.3	56.9	48.7	43.4	41.7	41.1
35°	193.7	151.5	115.6	89.2	71.0	58.7	50.5	45.2	42.9	42.9
37.5°	206.1	159.1	119.8	91.6	72.8	59.9	52.2	47.0	44.6	44.6
40°	217.2	165.5	122.7	93.3	74.0	61.6	54.0	48.7	47.0	46.4
42.5°	227.8	170.8	125.0	94.5	75.1	63.4	55.8	51.1	48.7	48.7
45°	236.6	175.5	127.4	95.7	76.3	64.6	57.5	52.8	51.1	50.5
47.5°	244.8	179.6	128.6	96.9	77.5	66.3	59.3	55.2	53.4	52.8
50°	252.4	182.6	129.7	97.5	78.7	68.1	61.1	57.5	55.8	55.2
52.5°	259.5	185.5	130.3	98.0	79.8	69.3	63.4	59.3	57.5	57.5
55°	265.3	188.4	131.5	99.2	81.0	71.6	65.2	62.2	60.5	59.9
57.5°	271.8	190.8	132.7	99.8	82.8	73.4	67.5	64.6	62.8	62.2
60°	277.1	193.1	133.8	101.0	83.9	75.1	69.9	66.9	65.2	64.6
62.5°	282.4	194.9	134.4	102.1	85.7	77.5	72.2	69.3	67.5	66.9
65°	287.1	197.3	136.2	103.9	87.5	79.3	74.6	71.6	69.9	69.9
67.5°	291.8	199.6	137.4	105.1	89.8	81.6	76.9	74.0	72.2	72.2
70°	296.5	201.4	138.5	106.8	91.6	83.9	79.3	76.3	74.6	74.6
72.5°	300.6	203.7	140.3	109.2	93.9	86.3	81.6	78.7	76.9	76.9
75°	304.1	205.5	142.1	111.0	95.7	88.6	83.9	81.0	79.3	78.7
77.5°	308.2	207.8	144.4	112.7	98.0	91.0	86.3	83.4	81.0	81.0
80°	311.1	209.0	146.2	114.5	100.4	92.8	88.1	85.1	83.4	82.8
82.5°	314.1	211.3	147.9	116.2	102.1	94.5	89.8	86.9	85.1	84.5
85°	315.8	212.5	149.1	118.0	103.9	96.3	91.6	88.1	86.3	85.7
87.5°	317.6	214.3	150.9	119.8	105.7	98.0	93.3	89.8	87.5	86.9
88°	318.2	214.9	152.0	120.3	105.7	98.6	93.3	89.8	88.1	87.5
90°	319.4	216.0	153.2	121.5	106.8	99.2	94.5	90.4	88.6	88.1
92.5°	319.9	217.2	154.4	122.7	108.6	100.4	95.1	91.6	89.2	88.6
95°	321.1	218.4	156.2	124.5	109.8	101.6	95.7	92.2	89.8	89.2
97.5°	321.1	219.6	157.9	125.6	110.4	102.1	96.3	92.2	89.8	89.2
100°	321.1	220.7	159.7	126.8	111.5	102.1	96.3	92.2	89.8	89.2
102.5°	320.5	222.5	161.4	128.6	112.1	102.7	96.3	91.6	89.2	89.2
105°	319.9	223.7	163.2	130.3	113.3	102.7	95.7	91.0	88.6	88.6
107.5°	319.9	226.0	166.1	132.1	113.9	102.7	95.1	90.4	88.1	87.5



REPORT NUMBER: P256841

CATALOG NUMBER: ULA-A5-D-U-SYM-VMx-HSS-BK

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	319.4	228.4	169.7	135.0	115.6	103.3	95.1	89.8	86.9	86.9
112.5°	318.8	231.3	172.6	137.4	116.8	103.3	94.5	88.6	86.3	85.7
115°	319.4	234.2	176.7	140.3	118.6	103.9	93.9	88.1	85.1	84.5
117.5°	318.2	237.2	180.8	143.8	120.3	104.5	93.9	87.5	83.9	83.9
120°	317.6	240.1	184.9	148.5	122.7	105.1	93.3	86.3	83.4	82.8
122.5°	316.4	243.0	189.0	152.0	125.0	106.3	93.3	85.7	82.2	82.2
125°	314.7	244.8	192.0	155.0	126.8	106.8	93.3	85.7	81.6	81.0
127.5°	311.7	246.0	195.5	157.9	128.6	108.0	93.3	85.1	81.0	80.4
130°	308.2	246.6	197.3	160.3	130.3	108.6	93.9	85.1	81.0	80.4
132.5°	302.9	246.0	198.4	162.0	132.1	109.8	94.5	85.1	81.0	80.4
135°	297.6	244.2	199.0	163.2	133.3	111.0	95.1	85.1	81.0	80.4
137.5°	290.0	241.3	199.0	163.8	133.8	111.5	95.7	85.7	81.6	81.0
140°	281.8	236.6	196.7	163.8	134.4	112.7	96.9	86.9	82.2	81.6
142.5°	272.4	231.9	194.9	162.6	134.4	113.3	97.5	87.5	82.8	82.8
145°	262.4	226.0	191.4	162.0	134.4	113.9	98.6	88.6	83.9	83.9
147.5°	252.4	219.6	187.9	160.3	134.4	114.5	99.8	90.4	85.7	85.1
150°	241.3	211.3	182.6	156.7	133.3	114.5	100.4	91.6	86.9	86.3
152.5°	229.0	202.5	177.3	153.8	131.5	114.5	101.6	92.8	88.6	88.6
155°	216.6	193.1	170.8	149.7	130.3	115.1	103.3	95.1	91.0	91.0
157.5°	203.7	184.3	164.4	145.6	128.6	115.1	104.5	97.5	93.9	93.3
160°	191.4	174.9	157.9	140.9	126.8	115.1	105.7	99.2	96.3	95.7
162.5°	178.5	164.4	150.3	136.2	123.9	113.9	106.3	101.0	98.0	98.0
165°	165.5	154.4	141.5	130.9	120.9	113.3	106.8	102.1	99.8	99.8
167.5°	155.0	145.0	135.0	126.2	119.2	112.7	107.4	103.9	102.1	102.1
170°	144.4	136.8	129.7	123.3	117.4	112.1	108.6	106.3	104.5	104.5
172.5°	136.2	130.9	125.6	120.9	116.8	113.3	110.4	108.6	107.4	107.4
175°	130.3	126.8	123.9	120.3	118.0	115.6	113.9	112.7	112.1	112.7
177.5°	127.4	125.6	123.9	122.1	121.5	120.3	119.2	118.6	118.6	119.2
180°	126.8	126.8	126.8	126.8	126.8	126.8	126.8	126.8	126.8	126.8

(END OF REPORT)