

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: P231246

Luminaire Tested: **ARCH-M-AF48-60-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231246
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-60-D-U-T3-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 405mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6558 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 63
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



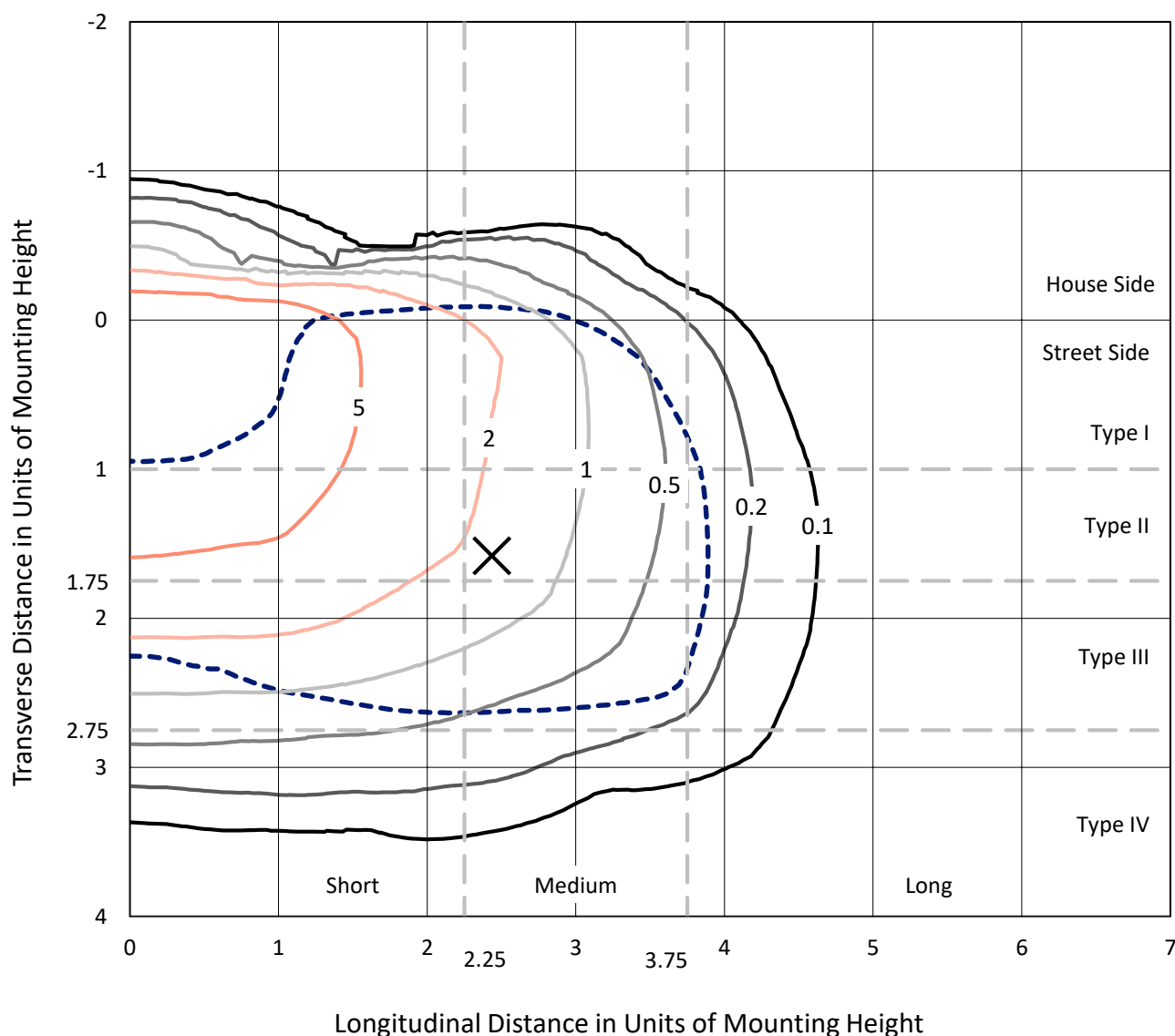
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

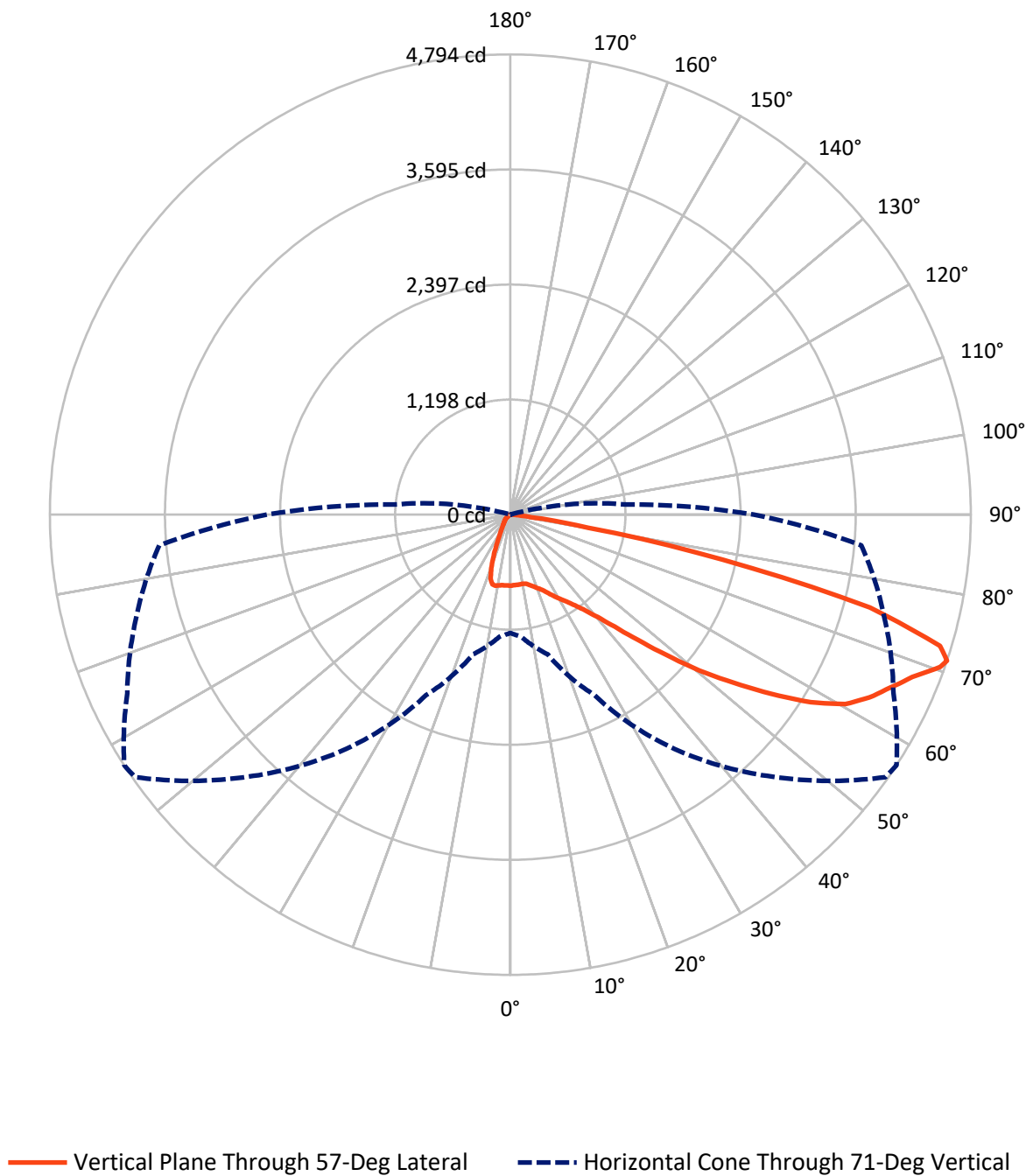


Based on 10 foot mounting height. Maximum calculated value = 9.2 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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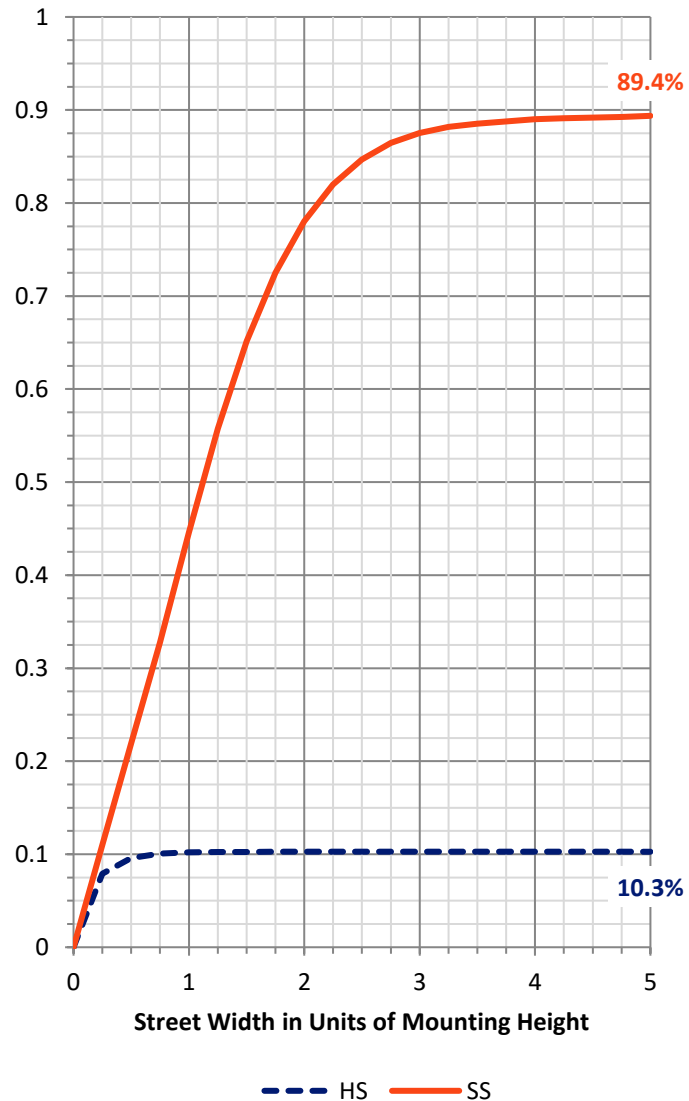
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	679.6	0.0	679.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	5878.4	0.0	5878.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	6558.0	0.0	6558.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	1.1
10°-20°	186.1	2.8
20°-30°	290.3	4.4
30°-40°	490.7	7.5
40°-50°	953.1	14.5
50°-60°	1600.5	24.4
60°-70°	1910.0	29.1
70°-80°	1006.6	15.3
80°-90°	51.1	0.8
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°	6558.0	100.0
0°-180°	6558.0	100.0

Coefficient of Utilization



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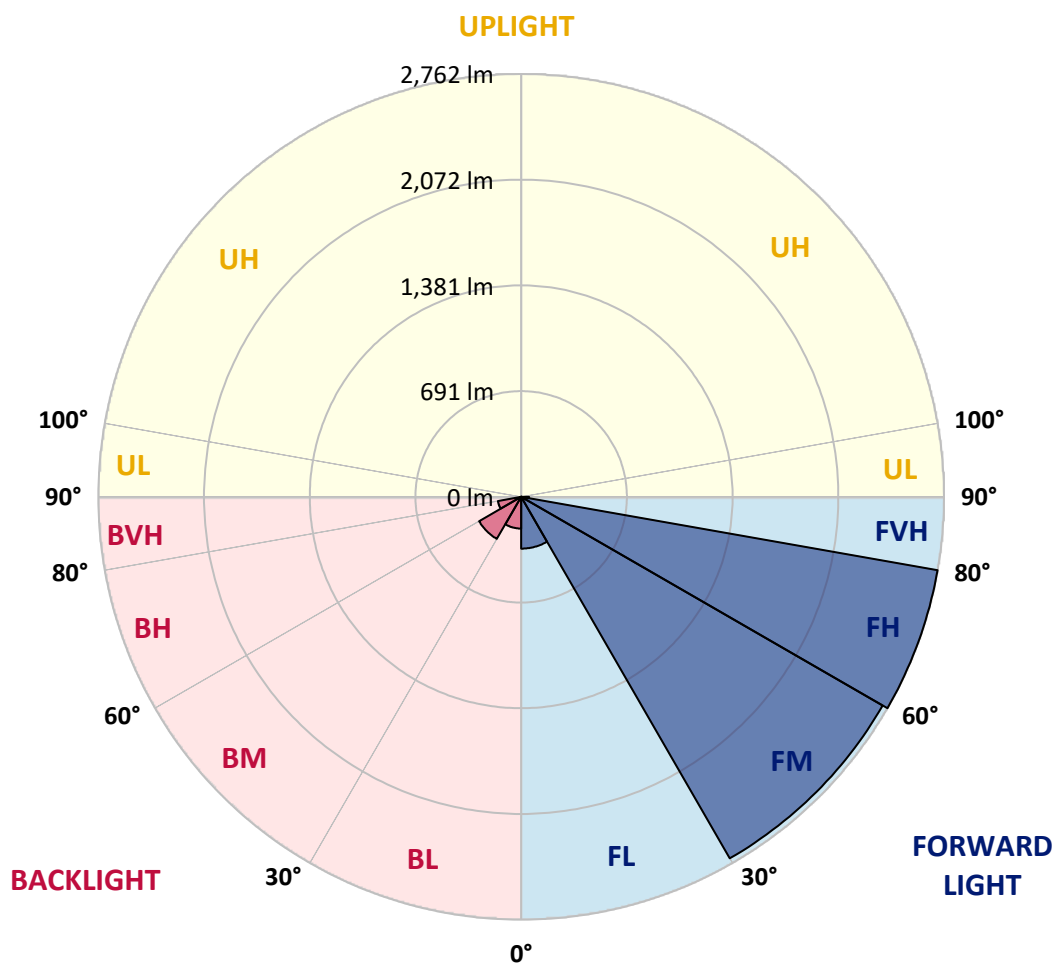
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	338.6	5.2			
FM	(30°-60°)	2726.9	41.6			
FH	(60°-80°)	2762.3	42.1			G2/5000
FVH	(80°-90°)	50.7	0.8			G1/100
BL	(0°-30°)	207.5	3.2	B1/500		
BM	(30°-60°)	317.3	4.8	B1/1000		
BH	(60°-80°)	154.3	2.4	B1/500		G1/500
BVH	(80°-90°)	0.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	741.2	741.2	741.2	741.2	741.2	741.2	741.2	741.2	741.2	741.2	741.2
2.5°	730.5	730.5	730.5	732.0	733.5	733.5	736.6	735.0	735.0	735.0	738.1
5°	710.6	712.1	713.6	716.7	722.8	727.4	735.0	735.0	736.6	739.6	741.2
7.5°	683.1	684.6	689.2	695.3	707.5	718.2	730.5	733.5	738.1	745.7	748.8
10°	666.3	669.3	675.4	683.1	696.8	710.6	725.9	730.5	744.2	758.0	765.6
12.5°	661.7	663.2	669.3	681.6	698.4	715.2	735.0	739.6	759.5	780.9	793.1
15°	669.3	670.9	673.9	687.7	707.5	728.9	754.9	761.0	785.5	809.9	825.2
17.5°	683.1	683.1	686.1	698.4	719.8	744.2	777.8	787.0	814.5	842.0	858.8
20°	692.3	692.3	696.8	709.1	733.5	765.6	805.3	817.6	848.1	878.7	894.0
22.5°	701.4	702.9	707.5	721.3	748.8	793.1	839.0	851.2	886.3	918.4	933.7
25°	727.4	725.9	727.4	739.6	771.7	826.7	884.8	900.1	936.8	971.9	979.5
27.5°	799.2	796.2	776.3	768.7	793.1	861.9	942.9	958.2	1000.9	1036.1	1036.1
30°	964.3	958.2	909.3	846.6	826.7	894.0	997.9	1019.3	1074.3	1104.9	1095.7
32.5°	1173.6	1159.9	1097.2	990.2	910.8	936.8	1056.0	1080.4	1150.7	1176.7	1156.8
35°	1402.8	1401.3	1323.4	1185.8	1072.8	1025.4	1130.8	1159.9	1248.5	1271.4	1239.3
37.5°	1645.8	1651.9	1600.0	1410.5	1277.5	1170.6	1230.2	1263.8	1372.3	1399.8	1369.2
40°	1916.3	1914.8	1894.9	1670.3	1523.6	1376.9	1373.8	1404.4	1535.8	1578.6	1535.8
42.5°	2258.6	2255.6	2183.7	1982.0	1821.6	1645.8	1583.2	1593.9	1740.6	1810.9	1748.2
45°	2607.0	2585.6	2503.1	2328.9	2186.8	1979.0	1859.8	1859.8	1985.1	2081.3	1983.5
47.5°	2801.1	2779.7	2746.1	2649.8	2607.0	2374.7	2199.0	2177.6	2275.4	2373.2	2235.7
50°	3056.3	3056.3	2972.3	2935.6	3008.9	2845.4	2573.4	2552.0	2599.4	2677.3	2497.0
52.5°	3258.0	3221.3	3161.7	3193.8	3403.2	3328.3	2947.8	2906.5	2943.2	2963.1	2724.7
55°	3342.1	3306.9	3302.3	3420.0	3744.0	3640.1	3331.4	3294.7	3291.6	3193.8	2923.4
57.5°	3358.9	3328.3	3386.4	3592.7	4075.6	3895.3	3713.4	3685.9	3600.3	3355.8	3126.6
60°	3216.8	3232.0	3372.6	3687.4	4271.2	4116.8	4035.8	4006.8	3809.7	3493.4	3352.8
62.5°	2924.9	2961.6	3224.4	3696.6	4199.4	4207.0	4214.6	4194.8	3971.7	3618.7	3580.5
65°	2579.5	2590.2	2906.5	3569.8	4074.1	4179.5	4346.1	4344.5	4095.4	3759.3	3837.2
67.5°	2125.7	2144.0	2417.5	3141.9	3823.4	4167.3	4518.7	4514.2	4236.0	3919.7	3990.0
70°	1581.6	1604.6	1826.1	2443.5	3264.1	4014.5	4744.9	4748.0	4384.3	4042.0	3884.6
71°	1233.2	1274.5	1506.8	2075.2	2978.4	3860.1	4766.3	4793.8	4401.1	4025.2	3667.6
72.5°	605.1	654.0	945.9	1460.9	2451.2	3514.7	4625.7	4679.2	4295.6	3815.8	3135.8
75°	157.4	166.6	282.7	597.5	1314.2	2328.9	3730.2	3866.2	3511.7	2905.0	1916.3
77.5°	99.3	102.4	132.9	232.3	492.1	884.8	2191.4	2258.6	2006.5	1471.6	675.4
80°	70.3	71.8	84.0	149.8	287.3	258.3	788.5	817.6	725.9	389.7	120.7
82.5°	42.8	42.8	61.1	96.3	177.3	140.6	207.8	221.6	195.6	108.5	39.7
85°	24.5	26.0	38.2	65.7	84.0	68.8	77.9	82.5	84.0	71.8	16.8
87.5°	19.9	21.4	33.6	55.0	45.8	33.6	33.6	35.1	36.7	42.8	7.6
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°	741.2	741.2	741.2	741.2	741.2	741.2	741.2	741.2	741.2	741.2	741.2
2.5°	738.1	738.1	739.6	738.1	738.1	738.1	739.6	739.6	739.6	742.7	744.2
5°	741.2	741.2	741.2	739.6	738.1	738.1	741.2	742.7	742.7	747.3	747.3
7.5°	748.8	748.8	745.7	742.7	739.6	735.0	736.6	738.1	736.6	738.1	738.1
10°	765.6	765.6	761.0	754.9	745.7	732.0	713.6	690.7	669.3	661.7	658.6
12.5°	793.1	791.6	782.4	771.7	751.9	704.5	635.7	554.7	487.5	469.1	463.0
15°	823.7	820.6	809.9	791.6	738.1	612.8	469.1	365.2	301.0	285.8	282.7
17.5°	855.8	851.2	835.9	799.2	675.4	455.4	302.6	229.2	194.1	191.0	192.5
20°	889.4	883.3	861.9	783.9	545.6	304.1	195.6	177.3	174.2	174.2	175.7
22.5°	927.6	919.9	890.9	728.9	397.3	201.7	168.1	166.6	165.0	163.5	163.5
25°	971.9	962.7	918.4	629.6	273.5	165.0	160.5	155.9	152.8	149.8	148.2
27.5°	1025.4	1013.2	939.8	507.3	188.0	154.3	151.3	143.6	137.5	131.4	131.4
30°	1078.9	1063.6	933.7	382.0	152.8	143.6	137.5	128.4	119.2	113.1	111.6
32.5°	1135.4	1120.1	894.0	256.7	139.1	131.4	123.8	110.0	99.3	91.7	90.2
35°	1219.5	1207.2	816.0	169.6	125.3	116.1	105.4	91.7	77.9	70.3	68.8
37.5°	1344.8	1329.5	719.8	129.9	110.0	96.3	87.1	71.8	58.1	50.4	48.9
40°	1512.9	1467.0	605.1	114.6	96.3	79.5	67.2	52.0	41.3	36.7	36.7
42.5°	1708.5	1600.0	481.4	103.9	85.6	65.7	48.9	35.1	29.0	27.5	27.5
45°	1916.3	1723.8	357.6	96.3	74.9	52.0	35.1	24.5	21.4	19.9	19.9
47.5°	2130.2	1824.6	249.1	87.1	62.7	39.7	24.5	18.3	15.3	13.8	13.8
50°	2330.4	1890.3	175.7	77.9	53.5	29.0	18.3	13.8	10.7	10.7	10.7
52.5°	2469.5	1884.2	126.8	67.2	41.3	19.9	12.2	9.2	9.2	9.2	9.2
55°	2591.7	1861.3	99.3	58.1	32.1	13.8	9.2	7.6	7.6	6.1	6.1
57.5°	2695.7	1824.6	84.0	47.4	22.9	10.7	6.1	6.1	4.6	4.6	4.6
60°	2784.3	1778.8	70.3	39.7	15.3	7.6	4.6	3.1	3.1	1.5	3.1
62.5°	2905.0	1749.7	61.1	30.6	10.7	4.6	3.1	1.5	1.5	0.0	0.0
65°	2993.6	1694.7	52.0	21.4	6.1	3.1	1.5	1.5	0.0	0.0	0.0
67.5°	2996.7	1595.4	38.2	12.2	4.6	3.1	1.5	0.0	0.0	0.0	0.0
70°	2755.3	1360.1	24.5	6.1	3.1	1.5	1.5	0.0	0.0	0.0	0.0
71°	2533.7	1204.2	19.9	4.6	3.1	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	2087.5	884.8	15.3	4.6	1.5	1.5	0.0	0.0	0.0	0.0	0.0
75°	1150.7	320.9	7.6	3.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	368.3	97.8	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	62.7	15.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.4	6.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)