

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: P265843

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265843
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-140-D-U-T2R-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12036.8 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 141
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

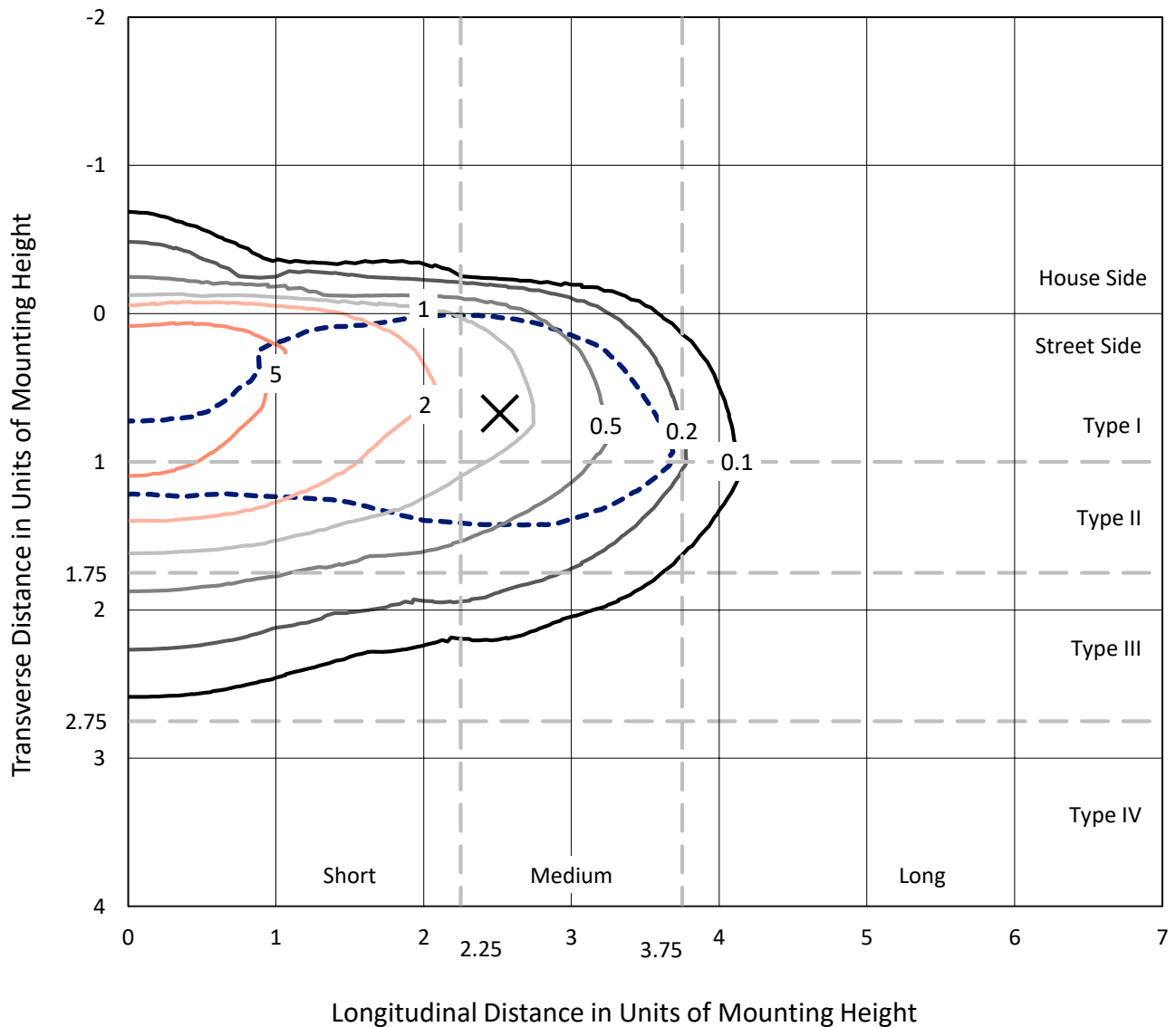


REPORT NUMBER: P265843

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2R-7027-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

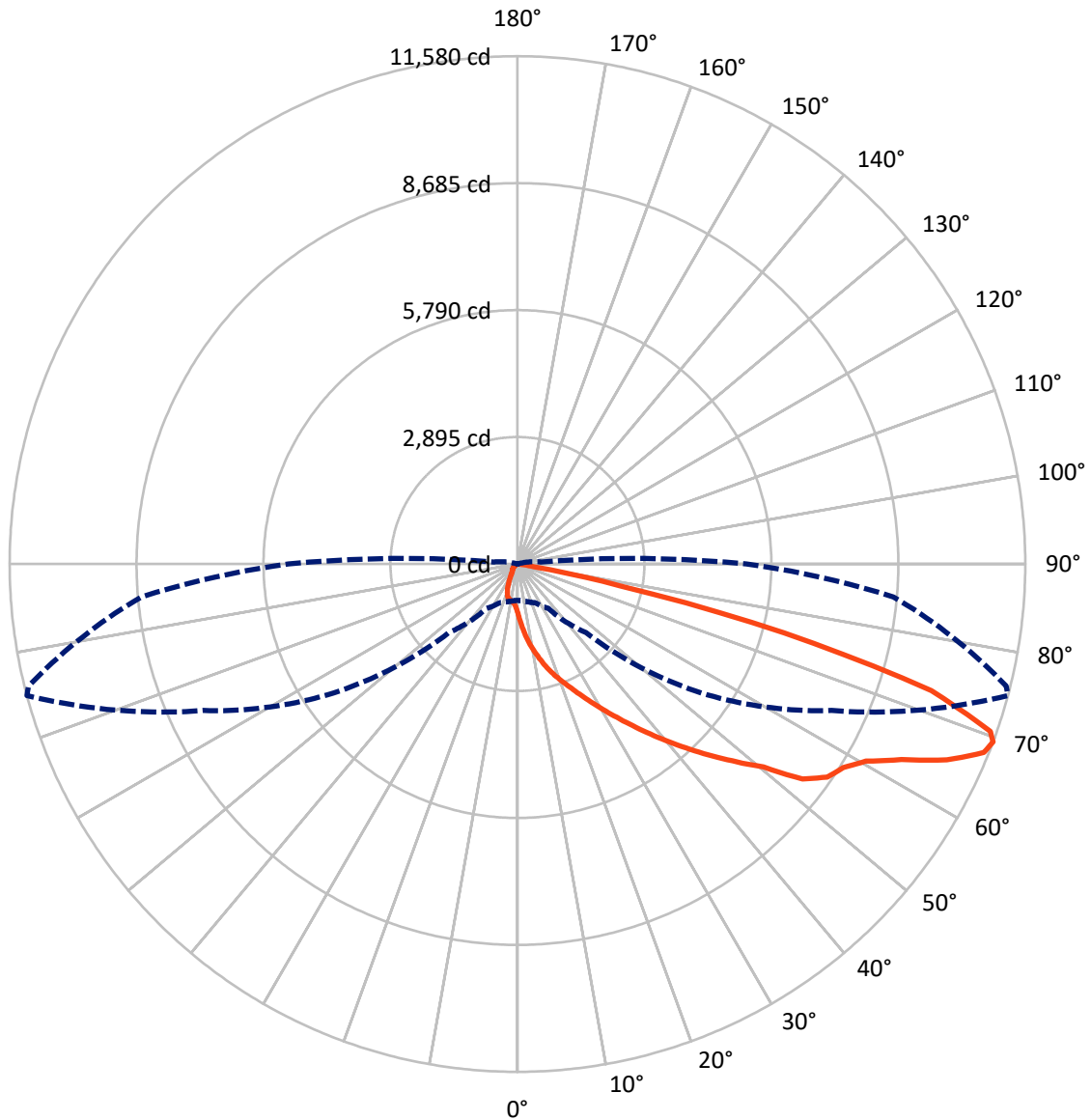


Based on 20 foot mounting height. Maximum calculated value = 7.7 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P265843

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2R-7027-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P265843

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2R-7027-HSS

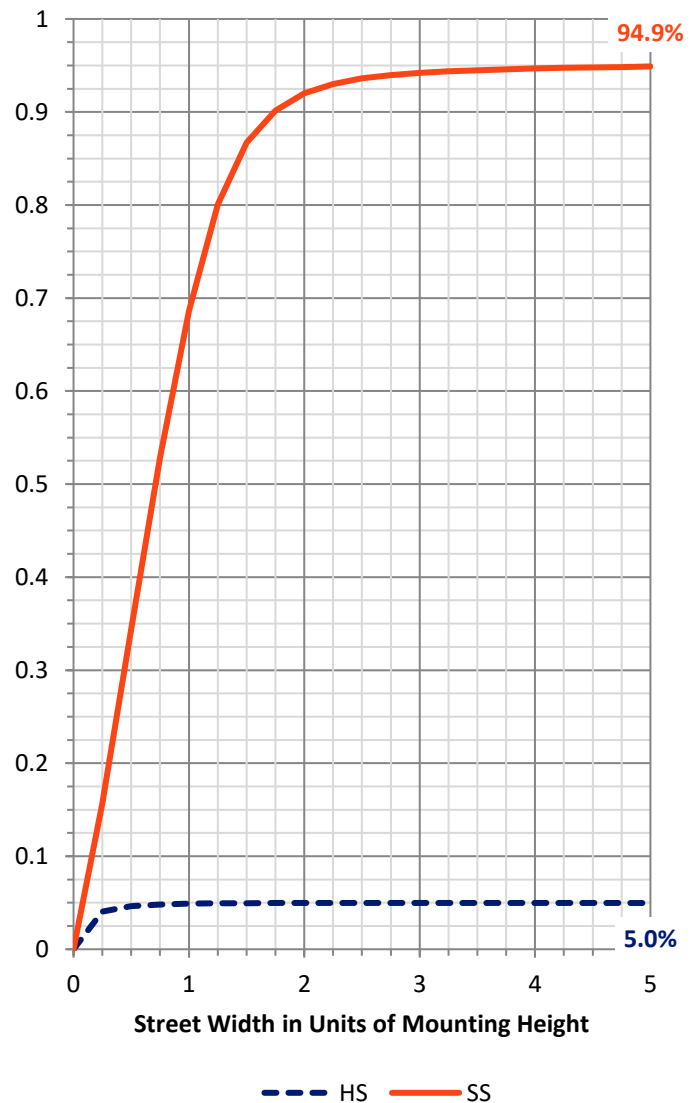
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	600.5	0.0	600.5
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	11436.3	0.0	11436.3
	% Fixture	95.0	0.0	95.0
Total	Lumens	12036.8	0.0	12036.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.6	1.1
10°-20°	466.9	3.9
20°-30°	891.4	7.4
30°-40°	1598.9	13.3
40°-50°	2449.7	20.4
50°-60°	2847.1	23.7
60°-70°	2521.2	20.9
70°-80°	1087.5	9.0
80°-90°	43.6	0.4
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°	12036.8	100.0
0°-180°	12036.8	100.0

Coefficient of Utilization



REPORT NUMBER: P265843

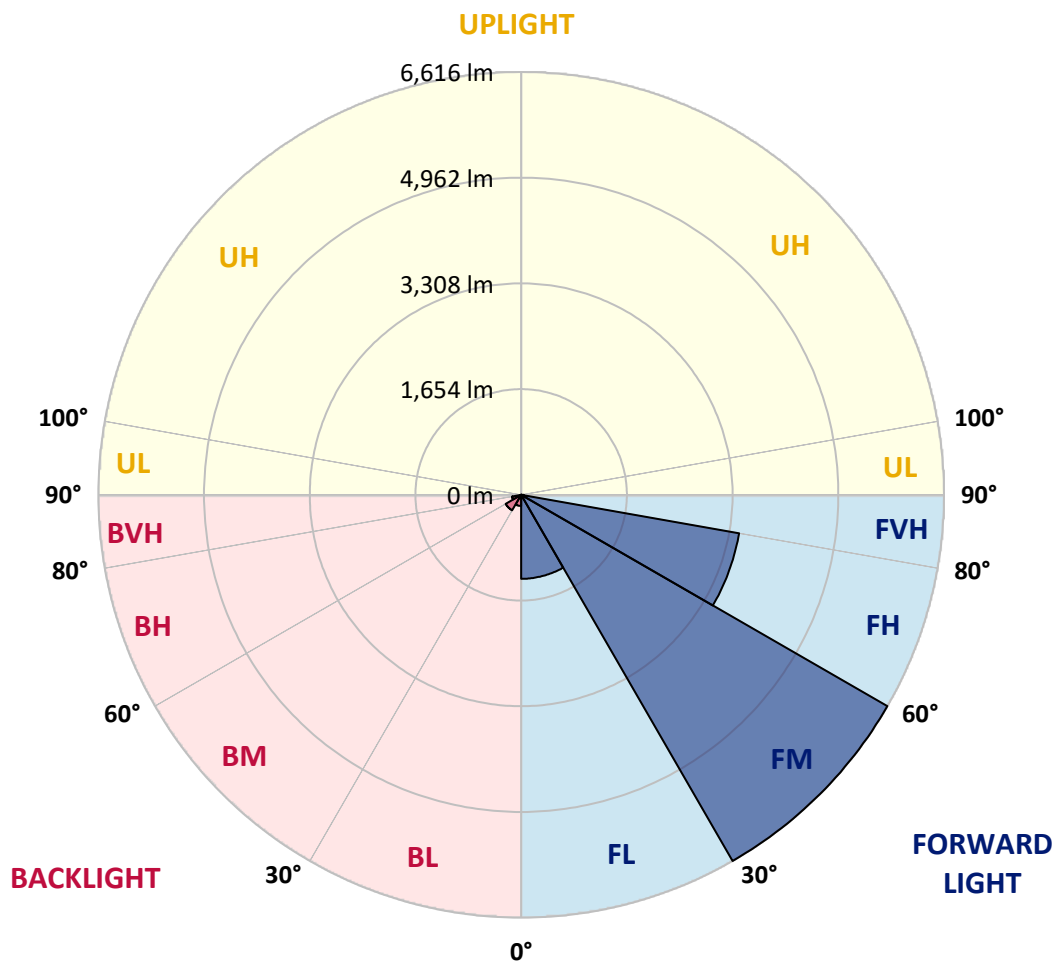
CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2R-7027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1314.4	10.9			
FM	(30°-60°)	6615.8	55.0			
FH	(60°-80°)	3463.2	28.8			G2/5000
FVH	(80°-90°)	42.9	0.4			G1/100
BL	(0°-30°)	174.4	1.4	B1/500		
BM	(30°-60°)	280.0	2.3	B1/1000		
BH	(60°-80°)	145.5	1.2	B1/500		G1/500
BVH	(80°-90°)	0.6	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 II Medium





REPORT NUMBER: P265843

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2R-7027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0
2.5°	1845.1	1826.9	1808.6	1787.8	1741.2	1660.5	1559.2	1450.0	1314.8	1291.6	1182.3
5°	2240.1	2232.3	2214.1	2185.4	2133.6	2045.1	1930.7	1769.8	1543.6	1504.7	1273.3
7.5°	2518.0	2512.9	2497.3	2463.5	2416.8	2328.3	2208.8	2034.8	1772.3	1728.1	1387.7
10°	2767.6	2765.1	2752.0	2720.7	2674.1	2577.9	2450.5	2268.6	1990.6	1941.1	1520.2
12.5°	2993.7	2996.2	2991.0	2975.5	2941.7	2850.7	2705.2	2507.7	2201.0	2146.5	1678.8
15°	3126.2	3133.9	3154.8	3186.0	3196.3	3123.5	2972.9	2754.7	2416.8	2370.0	1860.7
17.5°	3082.1	3089.8	3154.8	3261.3	3362.6	3373.0	3237.9	2988.5	2629.9	2583.0	2040.0
20°	2975.5	2985.8	3053.5	3199.0	3396.4	3534.2	3479.7	3243.2	2832.5	2775.4	2211.4
22.5°	3095.0	3095.0	3115.9	3204.2	3383.5	3599.1	3671.9	3497.8	3040.5	2970.2	2382.9
25°	3505.6	3497.8	3453.7	3417.2	3474.5	3666.7	3817.4	3757.7	3284.7	3204.2	2564.9
27.5°	4025.3	4061.7	3978.6	3846.1	3716.1	3799.2	3947.4	4015.0	3555.0	3471.8	2752.0
30°	4607.4	4623.0	4524.4	4347.5	4118.9	4038.3	4100.8	4235.9	3848.7	3757.7	2946.9
32.5°	5132.3	5119.4	5036.3	4851.7	4568.5	4394.4	4298.2	4412.6	4168.2	4064.3	3147.0
35°	5597.6	5607.8	5506.6	5293.5	5015.4	4830.9	4602.2	4612.6	4526.9	4407.4	3378.3
37.5°	6015.9	5997.8	5901.5	5688.4	5436.5	5236.3	4994.7	4820.6	4919.3	4794.6	3638.1
40°	6356.3	6338.3	6236.8	6029.0	5792.5	5628.7	5439.0	5098.6	5332.5	5189.6	3916.3
42.5°	6626.5	6605.9	6520.1	6319.9	6091.2	5945.7	5854.9	5441.7	5774.2	5631.4	4228.1
45°	6759.1	6740.9	6689.0	6538.3	6338.3	6210.8	6255.0	5836.6	6247.3	6127.7	4571.0
47.5°	6603.3	6595.4	6655.3	6629.2	6514.9	6447.3	6600.7	6268.1	6743.5	6626.5	4966.1
50°	6130.3	6143.2	6317.4	6533.1	6587.6	6668.2	6883.9	6722.7	7276.4	7151.5	5420.8
52.5°	4963.4	5051.8	5576.8	6096.4	6499.2	6803.4	7216.5	7372.4	8144.3	8022.1	6130.3
55°	3705.7	3742.1	4313.8	5202.5	6143.2	6793.0	7463.4	7754.4	8573.1	8448.3	6317.4
57.5°	2939.2	2952.1	3235.3	4142.3	5410.4	6559.1	7593.4	7892.1	8760.1	8656.2	6595.4
60°	2307.7	2323.1	2528.5	3152.2	4378.8	5927.6	7406.3	8011.8	9126.5	9043.3	7081.3
62.5°	1795.7	1811.3	1935.9	2302.4	3284.7	4955.7	7029.3	8204.0	9823.0	9784.0	7876.6
65°	1390.2	1395.4	1481.2	1652.7	2320.6	3903.2	6569.5	8383.3	10763.8	10730.0	8521.1
67.5°	1026.5	1034.3	1094.0	1200.6	1567.1	2804.0	5815.8	8245.6	11473.2	11374.3	8754.9
69°	829.0	836.9	888.8	974.5	1237.0	2208.8	5127.2	7905.2	11579.7	11486.2	8606.8
70°	709.4	714.6	766.7	839.3	1055.1	1876.2	4581.4	7611.5	11439.3	11348.4	8269.0
72.5°	454.7	480.8	532.8	579.4	699.1	1242.1	3092.4	6312.2	9869.8	9713.8	6475.9
75°	252.1	259.9	353.5	410.5	465.1	808.1	1720.3	3937.0	6278.4	6169.3	3464.0
77.5°	207.9	213.1	249.5	311.8	311.8	452.1	649.7	1551.5	2388.1	2154.2	938.1
80°	145.5	150.7	189.7	205.4	223.5	254.7	210.6	340.4	369.1	327.4	140.3
82.5°	101.4	106.5	130.0	168.9	179.3	119.6	78.0	101.4	106.5	106.5	54.5
85°	18.1	26.1	96.2	140.3	106.5	36.4	44.1	36.4	33.7	36.4	12.9
87.5°	0.0	0.0	59.7	67.6	57.1	15.6	18.1	12.9	7.7	10.4	5.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P265843

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2R-7027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0
2.5°	1127.8	1073.3	979.7	912.0	854.9	810.8	792.6	764.0	743.2	753.6	740.7
5°	1159.1	1062.9	912.0	816.0	748.4	691.2	644.4	608.2	579.4	574.2	569.0
7.5°	1208.4	1070.7	873.2	753.6	652.3	564.0	491.2	436.5	395.1	395.1	379.4
10°	1276.0	1091.4	849.7	691.2	540.5	420.9	348.3	296.3	275.5	272.8	267.6
12.5°	1369.5	1130.4	831.7	610.7	420.9	306.6	262.5	244.2	236.4	233.9	231.3
15°	1496.8	1187.6	810.8	511.9	319.6	252.1	233.9	218.3	210.6	207.9	205.4
17.5°	1618.9	1239.7	766.7	410.5	259.9	228.7	207.9	194.9	184.5	181.8	181.8
20°	1733.3	1283.8	691.2	319.6	233.9	205.4	184.5	168.9	158.6	155.9	155.9
22.5°	1852.8	1320.1	597.7	259.9	213.1	181.8	161.2	145.5	135.1	132.5	130.0
25°	1980.3	1346.1	491.2	231.3	192.2	161.2	137.7	124.8	116.9	114.4	111.7
27.5°	2117.9	1356.5	389.9	210.6	168.9	140.3	119.6	106.5	101.4	98.8	98.8
30°	2242.7	1346.1	301.4	187.0	148.1	122.1	103.9	93.6	88.4	85.8	85.8
32.5°	2372.7	1320.1	241.6	166.4	130.0	103.9	88.4	80.6	78.0	75.4	75.4
35°	2510.4	1286.4	207.9	148.1	111.7	91.0	78.0	72.8	70.2	67.6	67.6
37.5°	2671.4	1244.8	189.7	132.5	98.8	80.6	67.6	64.9	62.3	62.3	62.3
40°	2853.3	1192.8	176.6	119.6	88.4	70.2	59.7	57.1	54.5	54.5	54.5
42.5°	3045.7	1133.0	163.8	106.5	78.0	59.7	52.0	52.0	49.3	49.3	46.8
45°	3261.3	1073.3	150.7	93.6	67.6	52.0	44.1	41.6	41.6	38.9	38.9
47.5°	3516.0	1018.7	137.7	83.2	59.7	44.1	38.9	36.4	33.7	31.3	31.3
50°	3874.6	1013.5	122.1	72.8	54.5	36.4	31.3	28.6	26.1	23.4	23.4
52.5°	4230.7	966.7	103.9	59.7	44.1	31.3	23.4	20.8	18.1	18.1	15.6
55°	4311.1	888.8	91.0	52.0	33.7	23.4	18.1	12.9	12.9	10.4	10.4
57.5°	4487.9	852.3	78.0	41.6	26.1	18.1	10.4	7.7	7.7	7.7	7.7
60°	4836.1	842.0	67.6	36.4	18.1	12.9	7.7	5.2	5.2	2.5	2.5
62.5°	5316.9	831.7	57.1	31.3	12.9	7.7	5.2	2.5	0.0	0.0	0.0
65°	5582.0	761.5	46.8	23.4	10.4	7.7	2.5	0.0	0.0	0.0	0.0
67.5°	5511.8	628.9	41.6	15.6	7.7	5.2	2.5	0.0	0.0	0.0	0.0
69°	5218.2	530.1	33.7	12.9	7.7	5.2	2.5	0.0	0.0	0.0	0.0
70°	4864.7	457.3	31.3	10.4	5.2	2.5	2.5	0.0	0.0	0.0	0.0
72.5°	3453.7	239.0	20.8	7.7	5.2	2.5	0.0	0.0	0.0	0.0	0.0
75°	1613.7	106.5	12.9	5.2	2.5	2.5	0.0	0.0	0.0	0.0	0.0
77.5°	356.0	49.3	7.7	5.2	2.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	67.6	18.1	5.2	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	23.4	7.7	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.5	0.0	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)