

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: P842450

Luminaire Tested: **ARCH4-50-727-U-T2R-HSS**

Issue Date: 5/27/2024

Test Information

Test Method: LM-79-08
Report Number: P842450
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2403-329-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH4-50-727-U-T2R-HSS
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 435mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6268 lumens
Efficiency: N/A
Efficacy: 117.8 lumens/watt
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 53.2
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: 24 FT

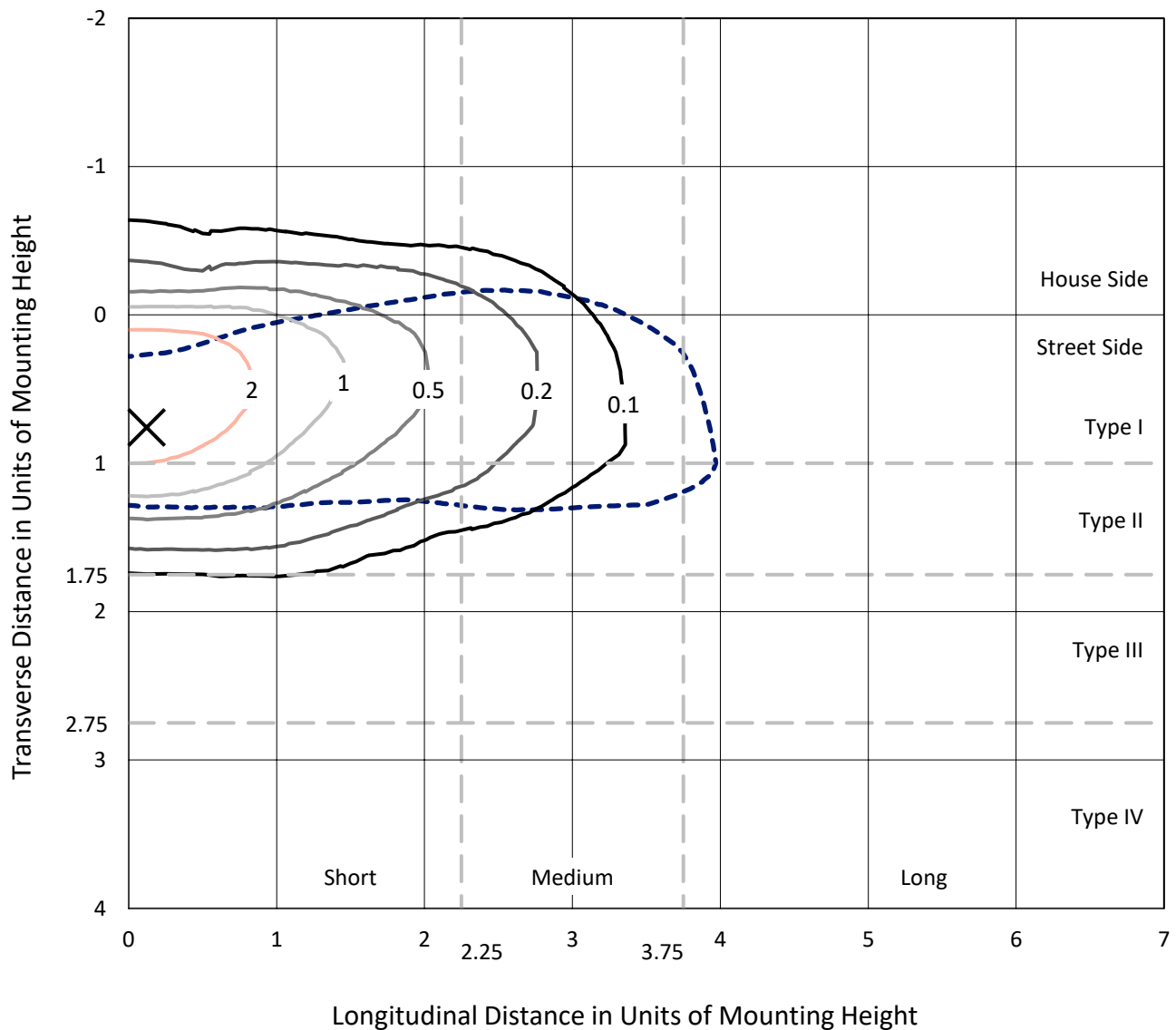


REPORT NUMBER: P842450

CATALOG NUMBER: ARCH4-50-727-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

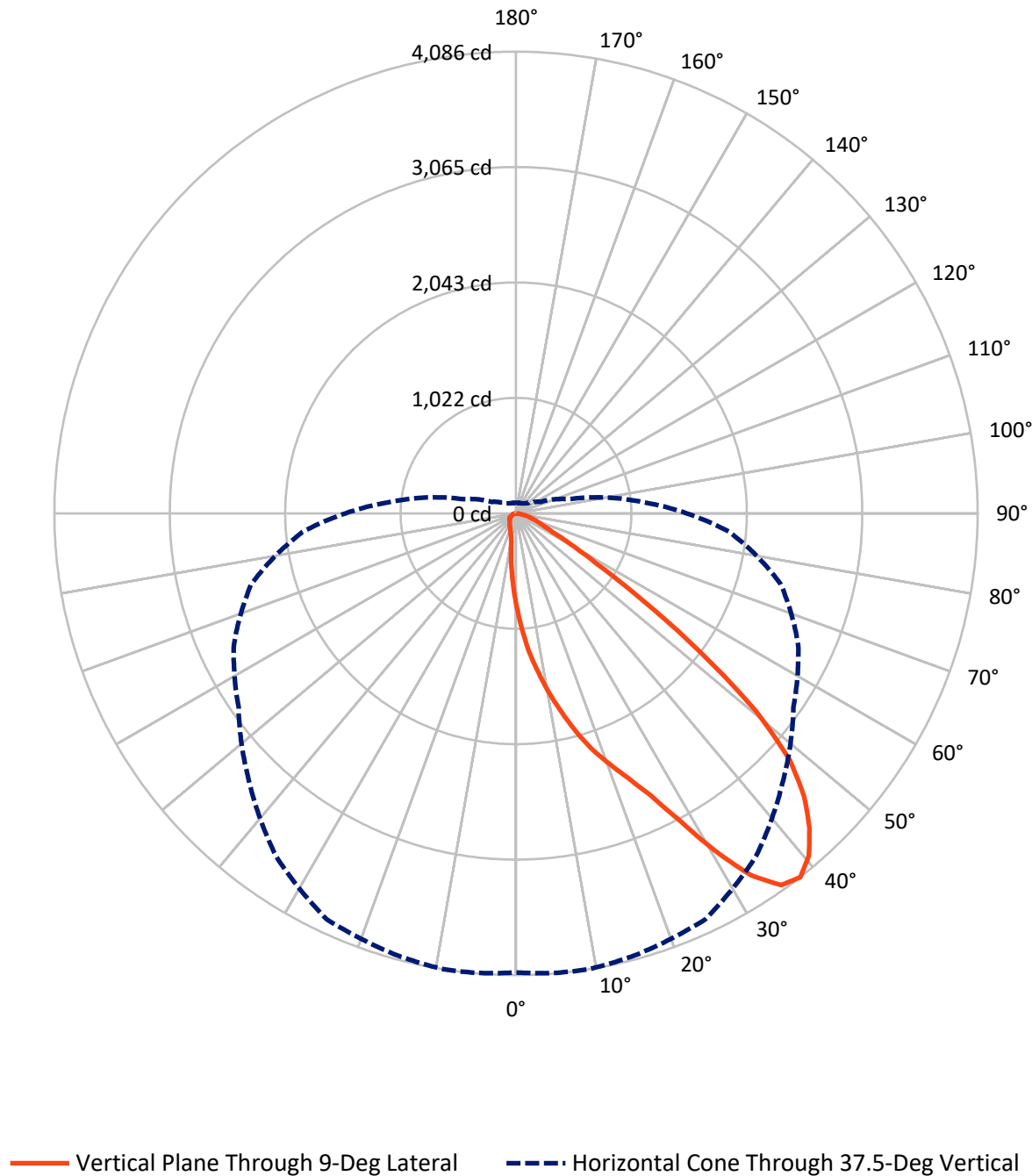
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
Type II - Short - N/A

REPORT NUMBER: P842450
CATALOG NUMBER: ARCH4-50-727-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P842450

CATALOG NUMBER: ARCH4-50-727-U-T2R-HSS

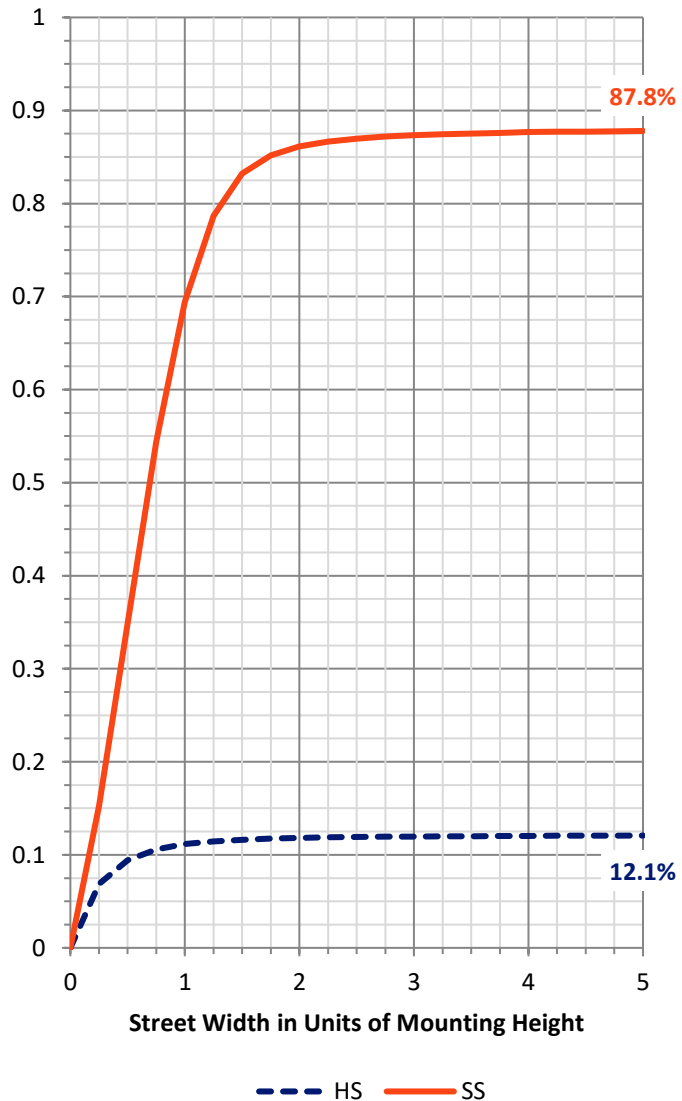
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	762.3	0.0	762.3
	% Fixture	12.2	0.0	12.2
Street Side	Lumens	5505.7	0.0	5505.7
	% Fixture	87.8	0.0	87.8
Total	Lumens	6268.0	0.0	6268.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	1.3
10°-20°	289.5	4.6
20°-30°	594.8	9.5
30°-40°	1051.3	16.8
40°-50°	1396.6	22.3
50°-60°	1324.6	21.1
60°-70°	1010.5	16.1
70°-80°	489.9	7.8
80°-90°	27.6	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°	6268.0	100.0
0°-180°	6268.0	100.0

Coefficient of Utilization



REPORT NUMBER: P842450

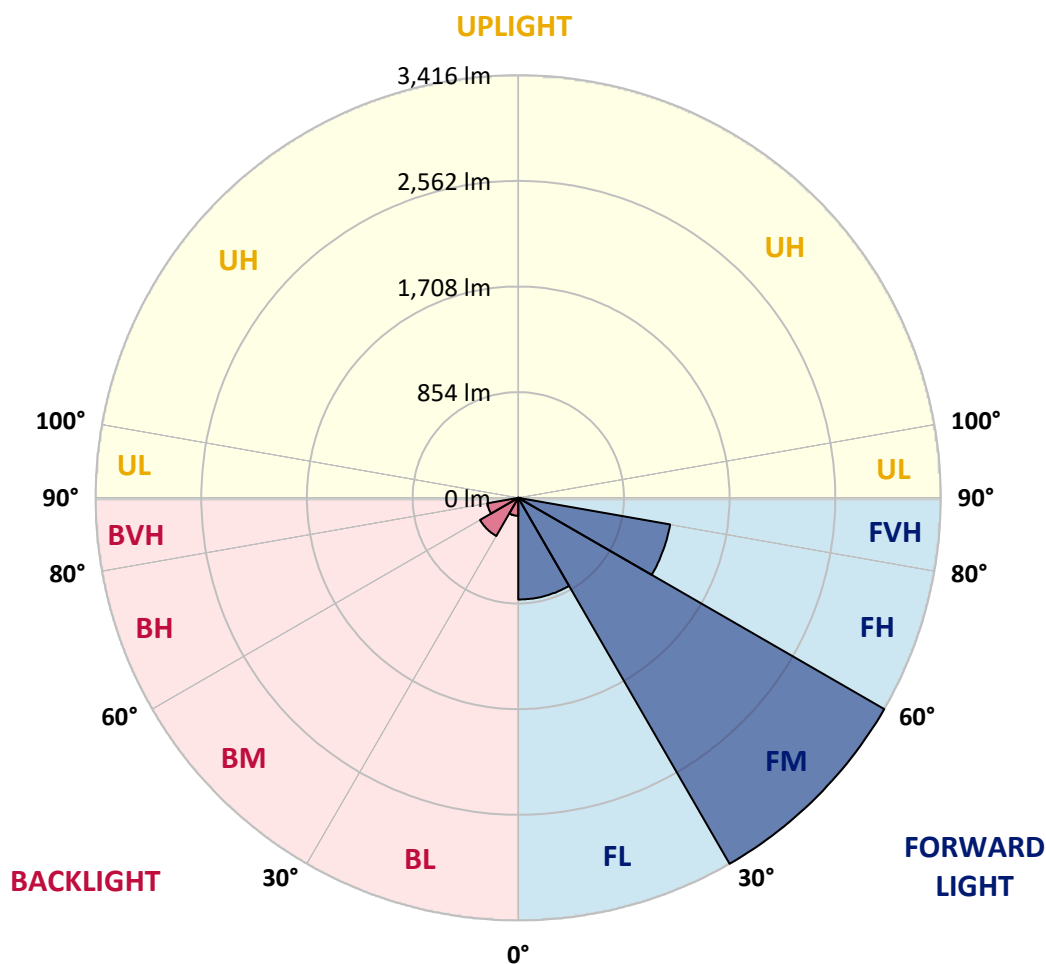
CATALOG NUMBER: ARCH4-50-727-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	822.0	13.1			
FM	(30°-60°)	3415.8	54.5			
FH	(60°-80°)	1246.1	19.9			G1/1800
FVH	(80°-90°)	21.8	0.3			G1/100
BL	(0°-30°)	145.5	2.3	B1/500		
BM	(30°-60°)	356.7	5.7	B1/1000		
BH	(60°-80°)	254.4	4.1	B1/500		G1/500
BVH	(80°-90°)	5.7	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short



REPORT NUMBER: P842450

CATALOG NUMBER: ARCH4-50-727-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	9°	15°	25°	35°	45°	55°	65°	75°	85°
0°	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6
2.5°	1026.7	1008.7	1029.3	1026.7	1008.7	997.1	961.1	949.5	907.0	876.2	849.1
5°	1237.7	1219.7	1237.7	1232.5	1206.8	1178.5	1119.3	1080.7	1004.8	937.9	877.4
7.5°	1412.7	1412.7	1420.4	1421.7	1390.8	1347.0	1273.7	1215.8	1109.0	1006.1	909.6
10°	1601.8	1603.1	1619.8	1608.2	1567.0	1507.9	1415.2	1341.9	1213.2	1078.1	940.5
12.5°	1803.8	1805.1	1810.2	1805.1	1756.2	1680.3	1568.3	1471.8	1323.9	1160.5	982.9
15°	2005.8	2007.1	2013.5	2004.5	1950.4	1861.7	1734.3	1615.9	1441.0	1253.1	1034.4
17.5°	2194.9	2197.5	2202.6	2191.0	2134.4	2028.9	1899.0	1756.2	1565.8	1352.2	1092.3
20°	2364.7	2367.3	2371.2	2355.7	2299.1	2193.6	2053.4	1904.1	1693.1	1453.8	1155.3
22.5°	2535.8	2538.4	2544.8	2524.3	2461.2	2340.3	2202.6	2048.2	1828.2	1565.8	1228.7
25°	2754.6	2757.1	2762.3	2732.7	2646.5	2505.0	2359.6	2201.3	1974.9	1691.8	1318.7
27.5°	3074.9	3072.3	3072.3	3018.3	2870.3	2686.4	2517.8	2357.0	2133.1	1826.9	1417.8
30°	3471.2	3464.7	3460.9	3387.5	3176.6	2890.9	2679.9	2502.4	2285.0	1969.7	1524.6
32.5°	3826.3	3826.3	3818.6	3741.4	3517.5	3166.3	2852.3	2643.9	2431.6	2113.8	1635.2
35°	4036.0	4045.0	4041.1	3983.2	3819.8	3462.2	3085.2	2813.7	2586.0	2264.4	1767.8
37.5°	4064.3	4082.3	4086.2	4051.4	3965.2	3704.0	3343.8	2997.7	2755.8	2426.5	1896.4
40°	3949.8	3988.4	3988.4	3983.2	3952.4	3818.6	3561.2	3211.3	2930.8	2595.0	2026.4
42.5°	3773.5	3813.4	3808.3	3827.6	3819.8	3791.5	3683.5	3410.7	3105.8	2768.7	2144.7
45°	3543.2	3584.4	3574.1	3608.8	3624.3	3655.2	3670.6	3549.7	3278.2	2957.8	2277.2
47.5°	3174.0	3243.5	3258.9	3320.6	3385.0	3481.5	3554.8	3599.8	3439.0	3161.1	2421.3
50°	2628.5	2726.3	2757.1	2887.1	3063.3	3262.8	3381.1	3538.1	3552.2	3369.5	2577.0
52.5°	1882.3	1995.5	2043.1	2256.7	2619.5	2966.8	3180.4	3401.7	3596.0	3569.0	2745.5
55°	1217.1	1313.6	1359.9	1560.6	2043.1	2588.6	2943.7	3225.4	3571.5	3751.7	2938.5
57.5°	750.1	805.4	836.3	1008.7	1452.5	2103.5	2633.6	3063.3	3496.9	3909.9	3139.2
60°	505.6	537.8	553.2	634.3	986.8	1572.2	2207.8	2893.5	3399.1	4016.7	3321.9
62.5°	335.8	346.1	361.5	411.7	651.0	1103.9	1695.7	2589.9	3325.8	4023.1	3457.0
65°	259.9	265.0	271.5	293.3	401.4	771.9	1192.7	2098.4	3216.4	3886.7	3499.5
67.5°	204.6	209.7	217.4	229.0	290.8	523.6	811.8	1537.5	2992.6	3673.2	3430.0
70°	160.8	164.7	169.8	180.1	226.4	379.5	536.5	1021.5	2541.0	3469.9	3211.3
72.5°	127.4	131.2	136.4	146.7	184.0	277.9	368.0	636.9	1959.5	3221.6	2790.6
75°	100.4	102.9	106.8	117.1	148.0	216.1	249.6	380.8	1331.6	2767.4	2174.3
77.5°	50.2	61.8	70.8	81.1	108.1	149.2	166.0	211.0	562.2	1420.4	1037.0
80°	29.6	36.0	38.6	45.0	70.8	90.1	90.1	84.9	177.5	545.5	423.3
82.5°	16.7	23.2	24.4	25.7	42.5	51.5	41.2	30.9	36.0	182.7	123.5
85°	5.1	7.7	9.0	10.3	14.2	15.4	14.2	12.9	10.3	18.0	11.6
87.5°	0.0	0.0	0.0	0.0	1.3	2.6	2.6	2.6	3.9	3.9	3.9
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: P842450

CATALOG NUMBER: ARCH4-50-727-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6
2.5°	833.7	817.0	784.8	755.2	726.9	706.3	687.0	669.0	656.2	645.9	644.6
5°	845.3	811.8	750.1	692.2	639.4	595.7	558.4	528.8	506.9	491.5	490.2
7.5°	860.7	809.3	715.3	629.1	550.7	487.6	433.6	393.7	365.4	353.8	344.8
10°	873.6	806.7	680.6	566.1	463.2	383.4	319.1	279.2	258.6	250.9	247.0
12.5°	895.5	809.3	651.0	508.2	387.3	293.3	244.4	222.6	213.6	207.1	205.9
15°	927.6	820.8	622.7	451.6	310.1	236.7	208.4	194.3	185.3	184.0	182.7
17.5°	959.8	831.1	597.0	393.7	257.3	205.9	186.6	175.0	168.5	167.3	167.3
20°	997.1	844.0	568.7	338.4	220.0	185.3	169.8	160.8	153.1	151.8	151.8
22.5°	1040.8	862.0	541.6	289.5	195.6	169.8	157.0	146.7	140.2	139.0	139.0
25°	1100.0	889.0	519.8	253.5	178.8	157.0	145.4	136.4	131.2	128.7	128.7
27.5°	1165.6	926.3	504.3	231.6	167.3	146.7	135.1	127.4	122.2	119.7	119.7
30°	1239.0	967.5	494.0	222.6	160.8	137.7	127.4	119.7	113.2	111.9	111.9
32.5°	1320.0	1015.1	487.6	223.9	159.5	131.2	119.7	111.9	106.8	104.2	104.2
35°	1410.1	1067.9	483.8	231.6	162.1	126.1	113.2	105.5	100.4	97.8	97.8
37.5°	1510.4	1129.6	483.8	239.3	168.5	124.8	106.8	99.1	95.2	92.6	92.6
40°	1604.4	1195.2	488.9	248.3	175.0	124.8	101.6	95.2	90.1	87.5	87.5
42.5°	1677.7	1232.5	492.8	257.3	178.8	123.5	96.5	90.1	86.2	83.6	83.6
45°	1761.3	1272.4	485.0	261.2	178.8	120.9	92.6	86.2	82.3	79.8	79.8
47.5°	1854.0	1321.3	483.8	263.7	175.0	115.8	88.8	82.3	79.8	77.2	77.2
50°	1947.9	1375.3	486.3	262.5	169.8	108.1	83.6	79.8	75.9	73.3	73.3
52.5°	2054.7	1432.0	491.5	259.9	158.2	99.1	79.8	75.9	72.0	69.5	68.2
55°	2173.0	1493.7	501.8	254.7	142.8	90.1	75.9	72.0	66.9	64.3	63.0
57.5°	2309.4	1569.6	513.3	244.4	126.1	82.3	72.0	66.9	59.2	55.3	54.0
60°	2439.3	1655.8	526.2	220.0	109.4	74.6	68.2	60.5	52.7	50.2	48.9
62.5°	2561.6	1740.7	532.6	176.3	92.6	68.2	64.3	55.3	47.6	45.0	43.7
65°	2640.1	1833.4	518.5	119.7	75.9	63.0	59.2	51.5	43.7	39.9	39.9
67.5°	2645.2	1877.1	469.6	78.5	61.8	56.6	54.0	46.3	38.6	36.0	34.7
70°	2515.3	1811.5	359.0	61.8	51.5	48.9	48.9	41.2	33.5	30.9	29.6
72.5°	2216.8	1604.4	229.0	50.2	43.7	41.2	41.2	34.7	29.6	25.7	24.4
75°	1749.7	1237.7	122.2	41.2	36.0	34.7	32.2	28.3	24.4	21.9	20.6
77.5°	804.1	545.5	56.6	29.6	27.0	27.0	24.4	20.6	19.3	16.7	16.7
80°	317.8	185.3	28.3	19.3	18.0	18.0	18.0	14.2	14.2	11.6	10.3
82.5°	87.5	38.6	14.2	11.6	11.6	11.6	10.3	9.0	9.0	7.7	7.7
85°	9.0	6.4	6.4	6.4	6.4	5.1	5.1	3.9	2.6	2.6	2.6
87.5°	3.9	3.9	3.9	3.9	3.9	2.6	1.3	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)