

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: P214664

Luminaire Tested: **ARCH-AF24-90-D-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214664
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-AF24-90-D-U-T2R-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1180mA LIGHT ENGINE 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: 7781.6 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 94
Input Voltage (V): NR
Input Current (A_{in}): 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

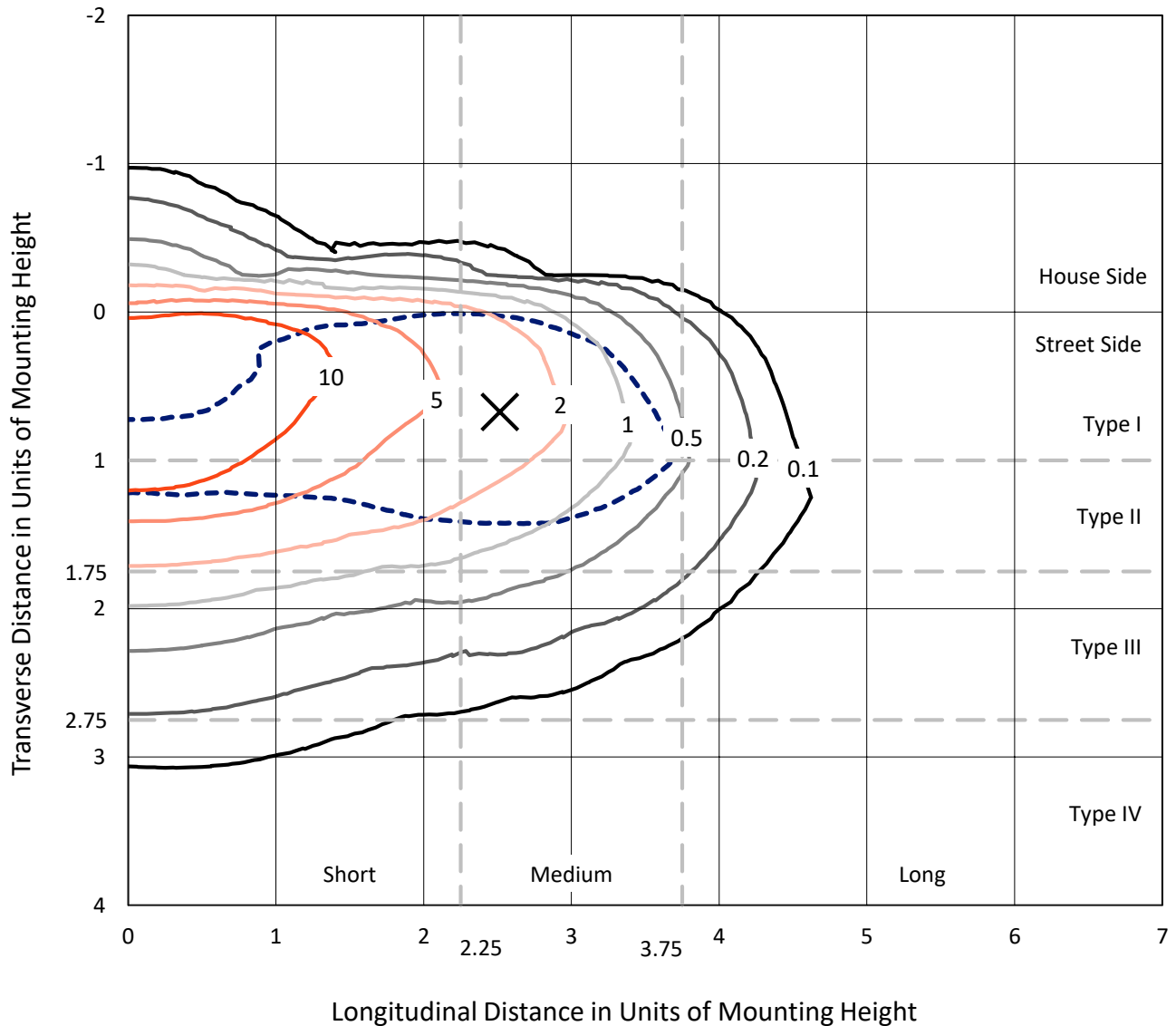


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Iso-Footcandle Lines of Horizontal Illumination

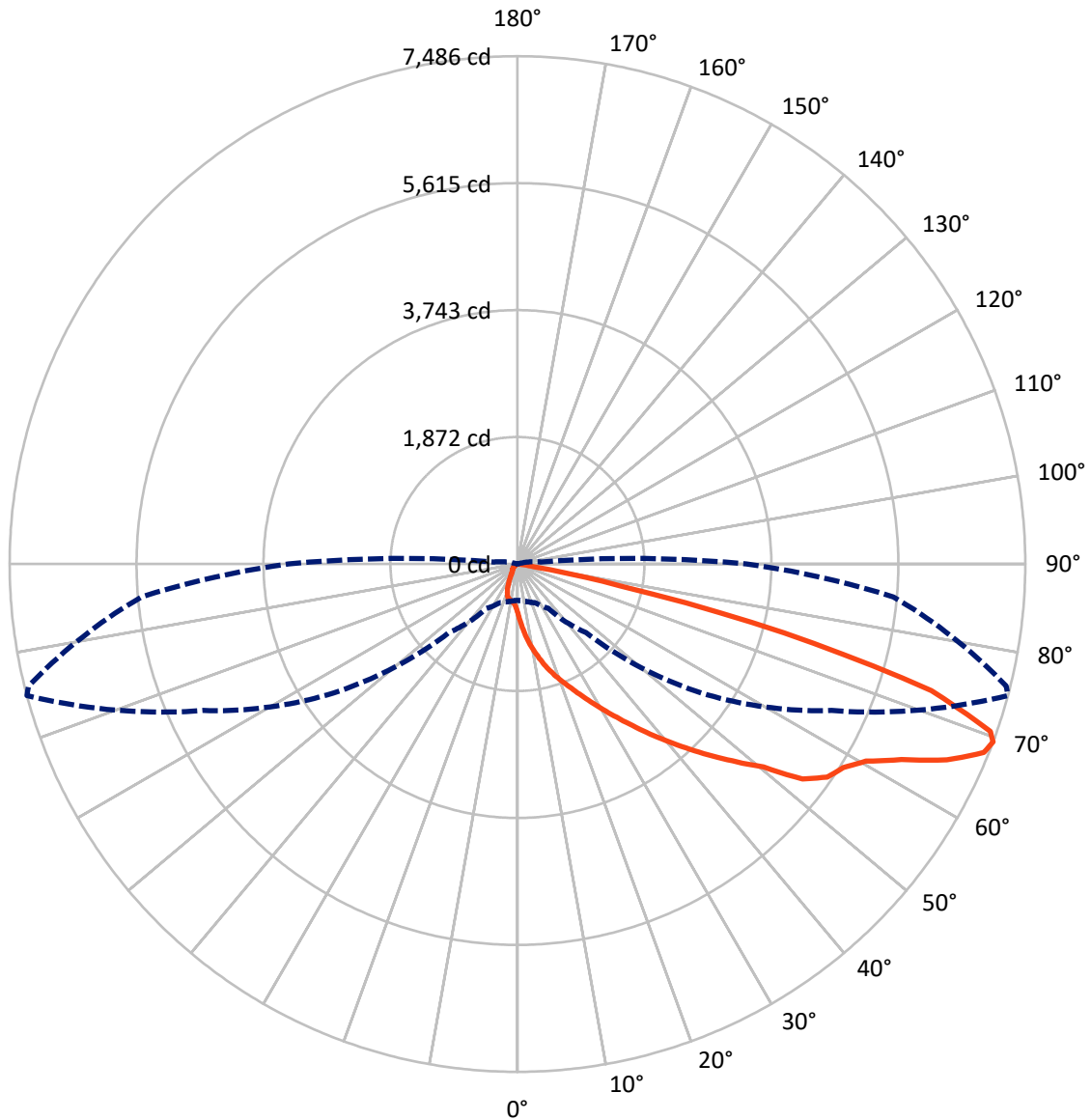
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19.8 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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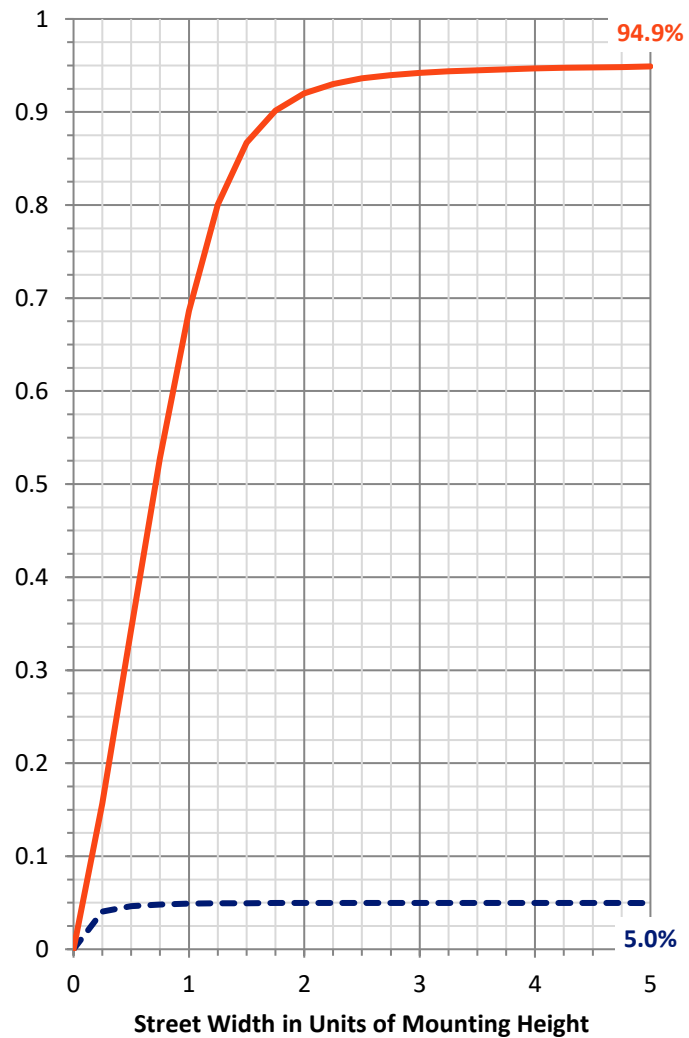
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	388.2	0.0	388.2
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	7393.3	0.0	7393.3
	% Fixture	95.0	0.0	95.0
Total	Lumens	7781.6	0.0	7781.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.4	1.1
10°-20°	301.8	3.9
20°-30°	576.2	7.4
30°-40°	1033.7	13.3
40°-50°	1583.7	20.4
50°-60°	1840.6	23.7
60°-70°	1629.9	20.9
70°-80°	703.0	9.0
80°-90°	28.2	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°	7781.6	100.0
0°-180°	7781.6	100.0



--- HS — SS

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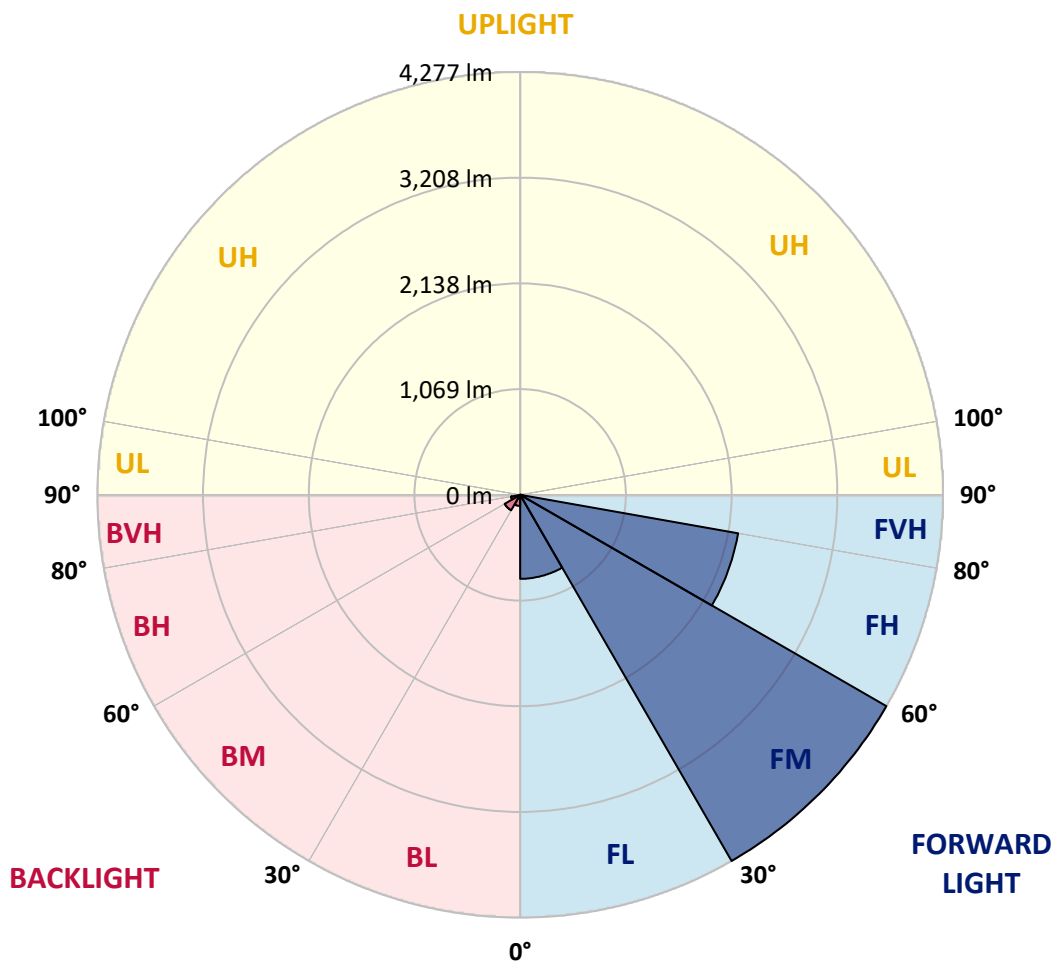
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	849.8	10.9			
FM (30°-60°)	4277.0	55.0			
FH (60°-80°)	2238.9	28.8			G2/5000
FVH (80°-90°)	27.7	0.4			G1/100
BL (0°-30°)	112.8	1.4	B1/500		
BM (30°-60°)	181.0	2.3	B0/220		
BH (60°-80°)	94.1	1.2	B0/110		G0/110
BVH (80°-90°)	0.4	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0
2.5°	1192.8	1181.0	1169.2	1155.8	1125.6	1073.5	1008.0	937.4	850.1	834.9	764.3
5°	1448.2	1443.1	1431.3	1412.9	1379.2	1322.2	1248.2	1144.1	997.9	972.7	823.2
7.5°	1627.9	1624.5	1614.4	1592.6	1562.4	1505.3	1427.9	1315.4	1145.7	1117.2	897.1
10°	1789.1	1787.5	1779.1	1759.0	1728.7	1666.6	1584.2	1466.6	1286.9	1255.0	982.7
12.5°	1935.3	1937.1	1933.7	1923.6	1901.8	1842.9	1748.8	1621.2	1422.9	1387.6	1085.2
15°	2021.0	2026.1	2039.5	2059.7	2066.4	2019.3	1921.9	1780.8	1562.4	1532.2	1202.9
17.5°	1992.5	1997.5	2039.5	2108.4	2173.9	2180.6	2093.3	1931.9	1700.1	1669.9	1318.8
20°	1923.6	1930.3	1974.0	2068.1	2195.8	2284.8	2249.5	2096.6	1831.2	1794.3	1429.7
22.5°	2000.9	2000.9	2014.3	2071.4	2187.4	2326.8	2373.9	2261.2	1965.6	1920.2	1540.6
25°	2266.3	2261.2	2232.7	2209.2	2246.1	2370.5	2467.9	2429.3	2123.5	2071.4	1658.1
27.5°	2602.3	2625.8	2572.1	2486.4	2402.4	2456.1	2551.9	2595.5	2298.3	2244.5	1779.1
30°	2978.6	2988.7	2924.8	2810.7	2662.7	2610.7	2651.0	2738.3	2488.0	2429.3	1905.1
32.5°	3317.9	3309.6	3255.8	3136.6	2953.5	2840.8	2778.7	2852.6	2694.7	2627.4	2034.4
35°	3618.7	3625.4	3559.9	3422.2	3242.3	3123.1	2975.3	2982.0	2926.6	2849.2	2184.0
37.5°	3889.2	3877.4	3815.2	3677.5	3514.6	3385.1	3228.9	3116.4	3180.3	3099.5	2352.0
40°	4109.2	4097.5	4032.0	3897.5	3744.7	3638.8	3516.2	3296.2	3447.3	3355.0	2531.7
42.5°	4283.9	4270.5	4215.1	4085.8	3937.8	3843.8	3785.0	3517.9	3733.0	3640.6	2733.3
45°	4369.6	4357.9	4324.3	4226.8	4097.5	4015.2	4043.7	3773.3	4038.7	3961.4	2955.1
47.5°	4268.9	4263.8	4302.4	4285.7	4211.7	4168.0	4267.1	4052.1	4359.6	4283.9	3210.4
50°	3963.1	3971.5	4084.0	4223.5	4258.7	4310.8	4450.2	4346.1	4703.9	4623.3	3504.4
52.5°	3208.8	3265.9	3605.3	3941.2	4201.7	4398.2	4665.3	4766.1	5265.0	5186.2	3963.1
55°	2395.6	2419.2	2788.8	3363.4	3971.5	4391.5	4825.0	5013.1	5542.2	5461.6	4084.0
57.5°	1900.0	1908.4	2091.6	2677.9	3497.8	4240.2	4908.9	5102.1	5663.3	5596.1	4263.8
60°	1491.9	1501.9	1634.7	2037.8	2830.8	3832.1	4787.9	5179.4	5900.1	5846.4	4577.9
62.5°	1160.8	1171.0	1251.6	1488.5	2123.5	3203.8	4544.4	5303.7	6350.4	6325.1	5092.0
65°	898.8	902.1	957.6	1068.5	1500.3	2523.3	4247.0	5419.6	6958.5	6936.6	5508.7
67.5°	663.6	668.6	707.3	776.1	1013.0	1812.7	3759.9	5330.6	7417.1	7353.3	5659.9
69°	535.9	540.9	574.6	630.0	799.6	1427.9	3314.6	5110.6	7486.1	7425.5	5564.1
70°	458.6	462.0	495.6	542.7	682.1	1212.9	2961.9	4920.7	7395.3	7336.5	5345.7
72.5°	294.0	310.8	344.4	374.6	451.9	803.0	1999.2	4080.7	6380.6	6279.8	4186.5
75°	163.0	168.0	228.5	265.5	300.7	522.5	1112.2	2545.2	4058.9	3988.3	2239.4
77.5°	134.4	137.8	161.3	201.6	201.6	292.4	420.0	1002.9	1543.9	1392.7	606.5
80°	94.1	97.5	122.7	132.7	144.4	164.6	136.1	220.0	238.6	211.6	90.7
82.5°	65.5	68.8	84.0	109.1	115.9	77.2	50.4	65.5	68.8	68.8	35.3
85°	11.8	16.8	62.2	90.7	68.8	23.5	28.5	23.5	21.8	23.5	8.4
87.5°	0.0	0.0	38.7	43.7	36.9	10.1	11.8	8.4	5.0	6.8	3.4
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°	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0
2.5°	729.2	693.9	633.3	589.6	552.7	524.2	512.4	493.9	480.5	487.2	478.8
5°	749.3	687.1	589.6	527.5	483.9	446.9	416.6	393.1	374.6	371.2	368.0
7.5°	781.2	692.1	564.5	487.2	421.7	364.6	317.5	282.2	255.3	255.3	245.3
10°	824.9	705.6	549.3	446.9	349.4	272.2	225.2	191.5	178.1	176.4	173.1
12.5°	885.4	730.8	537.6	394.8	272.2	198.2	169.7	157.9	152.8	151.2	149.6
15°	967.7	767.7	524.2	330.9	206.6	163.0	151.2	141.2	136.1	134.4	132.7
17.5°	1046.6	801.4	495.6	265.5	168.0	147.8	134.4	126.0	119.3	117.6	117.6
20°	1120.5	829.9	446.9	206.6	151.2	132.7	119.3	109.1	102.5	100.8	100.8
22.5°	1197.9	853.4	386.4	168.0	137.8	117.6	104.1	94.1	87.4	85.7	84.0
25°	1280.1	870.2	317.5	149.6	124.3	104.1	89.0	80.6	75.6	74.0	72.2
27.5°	1369.2	877.0	252.0	136.1	109.1	90.7	77.2	68.8	65.5	63.8	63.8
30°	1449.8	870.2	194.9	120.9	95.7	79.0	67.2	60.5	57.1	55.4	55.4
32.5°	1533.8	853.4	156.2	107.5	84.0	67.2	57.1	52.1	50.4	48.7	48.7
35°	1622.9	831.6	134.4	95.7	72.2	58.8	50.4	47.1	45.3	43.7	43.7
37.5°	1727.0	804.8	122.7	85.7	63.8	52.1	43.7	42.0	40.3	40.3	40.3
40°	1844.6	771.1	114.3	77.2	57.1	45.3	38.7	36.9	35.3	35.3	35.3
42.5°	1969.0	732.4	105.9	68.8	50.4	38.7	33.6	33.6	31.9	31.9	30.3
45°	2108.4	693.9	97.5	60.5	43.7	33.6	28.5	26.9	26.9	25.2	25.2
47.5°	2273.0	658.6	89.0	53.8	38.7	28.5	25.2	23.5	21.8	20.2	20.2
50°	2504.9	655.2	79.0	47.1	35.3	23.5	20.2	18.5	16.8	15.1	15.1
52.5°	2735.1	624.9	67.2	38.7	28.5	20.2	15.1	13.4	11.8	11.8	10.1
55°	2787.1	574.6	58.8	33.6	21.8	15.1	11.8	8.4	8.4	6.8	6.8
57.5°	2901.3	551.1	50.4	26.9	16.8	11.8	6.8	5.0	5.0	5.0	5.0
60°	3126.4	544.3	43.7	23.5	11.8	8.4	5.0	3.4	3.4	1.6	1.6
62.5°	3437.2	537.6	36.9	20.2	8.4	5.0	3.4	1.6	0.0	0.0	0.0
65°	3608.6	492.2	30.3	15.1	6.8	5.0	1.6	0.0	0.0	0.0	0.0
67.5°	3563.2	406.5	26.9	10.1	5.0	3.4	1.6	0.0	0.0	0.0	0.0
69°	3373.4	342.7	21.8	8.4	5.0	3.4	1.6	0.0	0.0	0.0	0.0
70°	3145.0	295.6	20.2	6.8	3.4	1.6	1.6	0.0	0.0	0.0	0.0
72.5°	2232.7	154.6	13.4	5.0	3.4	1.6	0.0	0.0	0.0	0.0	0.0
75°	1043.3	68.8	8.4	3.4	1.6	1.6	0.0	0.0	0.0	0.0	0.0
77.5°	230.2	31.9	5.0	3.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	43.7	11.8	3.4	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.1	5.0	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	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)