

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: P214790

Luminaire Tested: **ARCH-AF24-90-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214790
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-AF24-90-D-U-T3-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1180mA LIGHT ENGINE 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: 6233 lumens
Efficiency: N/A
Efficacy: 66.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 94
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

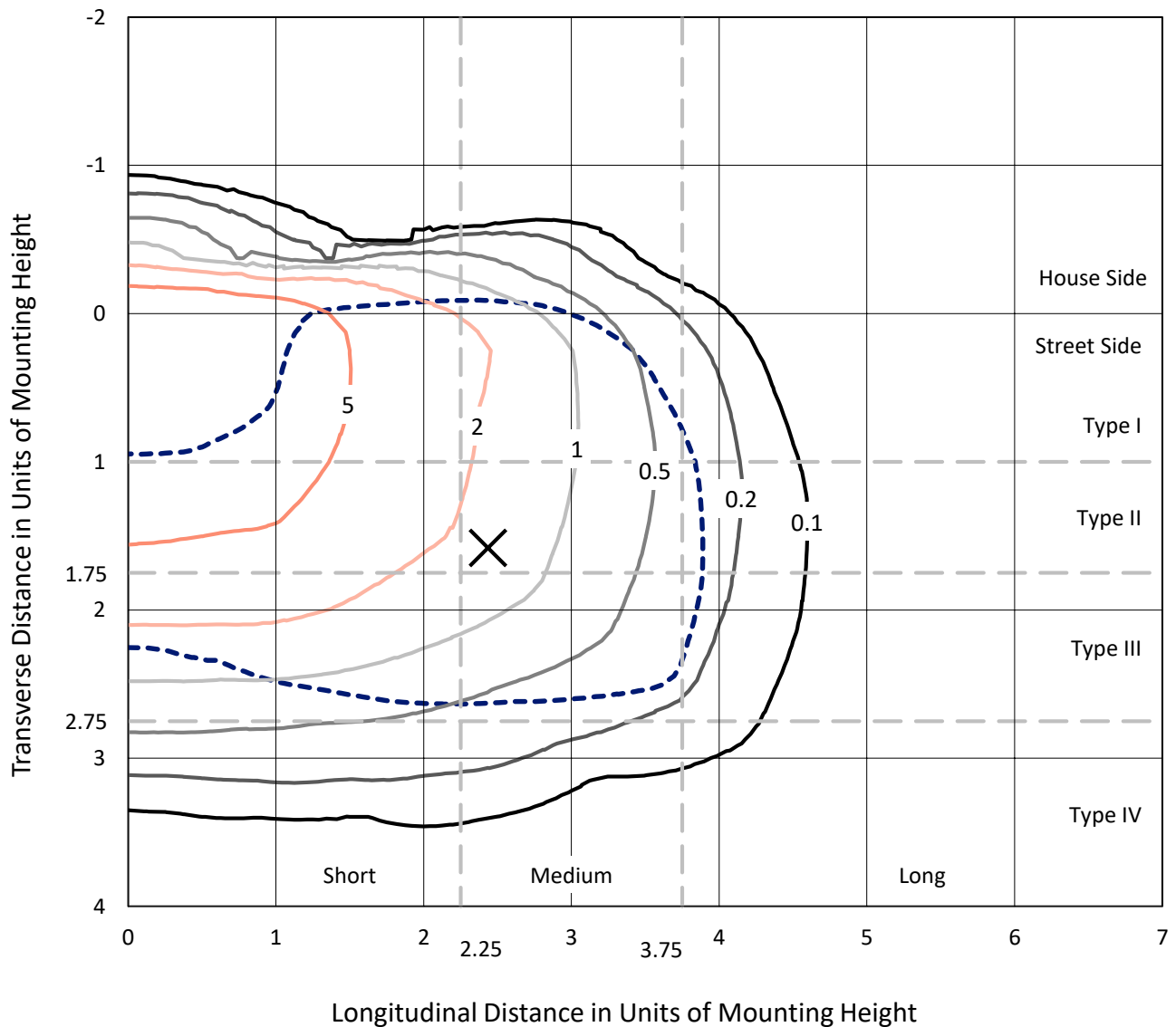


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

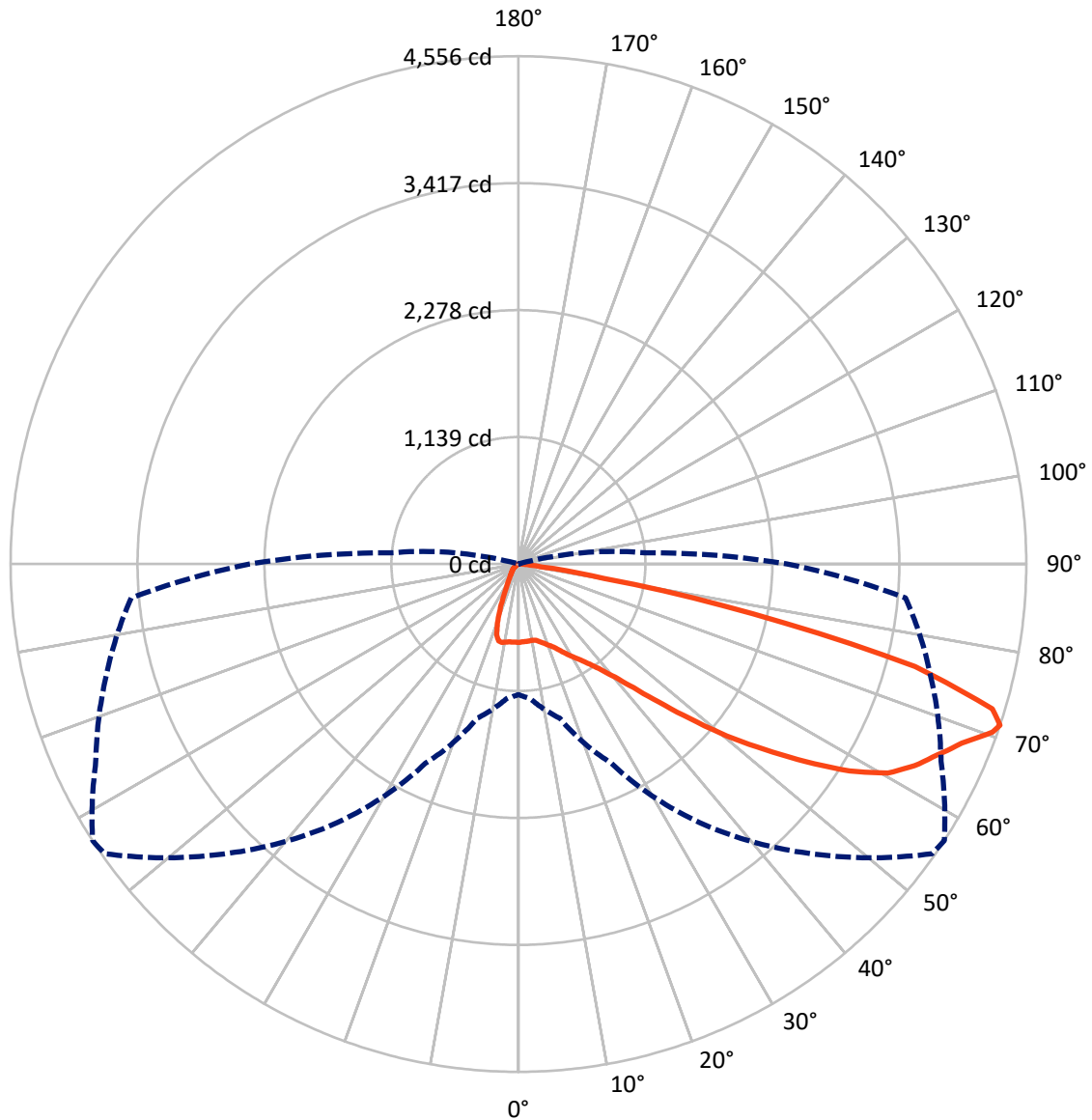


Based on 10 foot mounting height. Maximum calculated value = 8.8 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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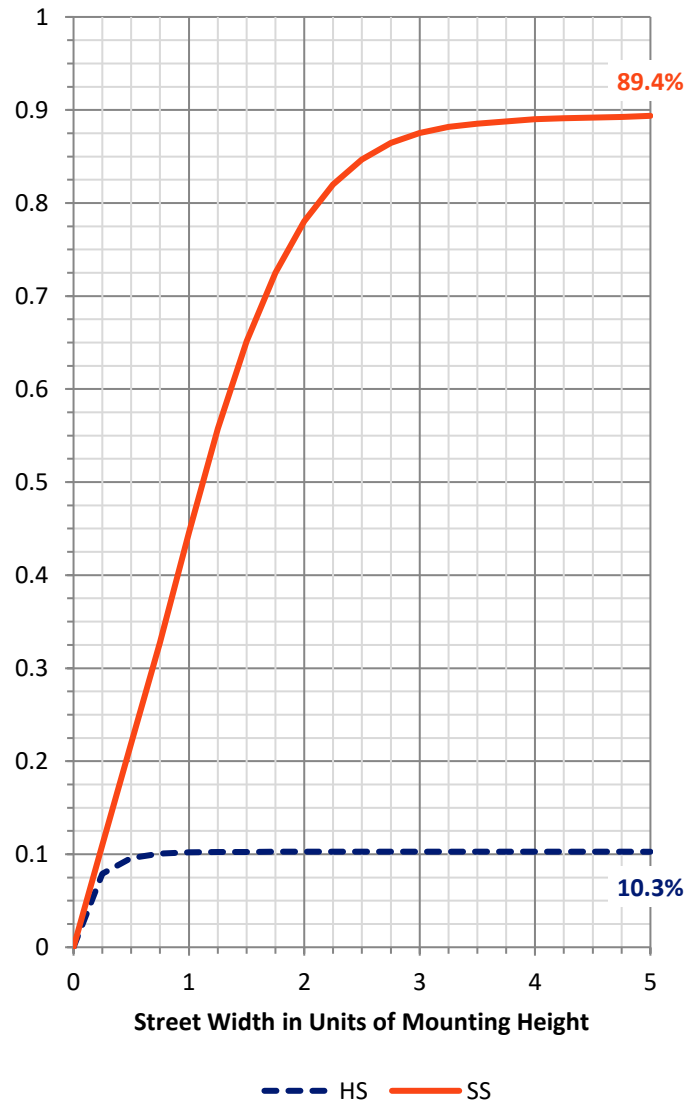
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	645.9	0.0	645.9
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	5587.1	0.0	5587.1
	% Fixture	89.6	0.0	89.6
Total	Lumens	6233.0	0.0	6233.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.2	1.1
10°-20°	176.9	2.8
20°-30°	275.9	4.4
30°-40°	466.4	7.5
40°-50°	905.8	14.5
50°-60°	1521.2	24.4
60°-70°	1815.4	29.1
70°-80°	956.7	15.3
80°-90°	48.6	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°	6233.0	100.0
0°-180°	6233.0	100.0



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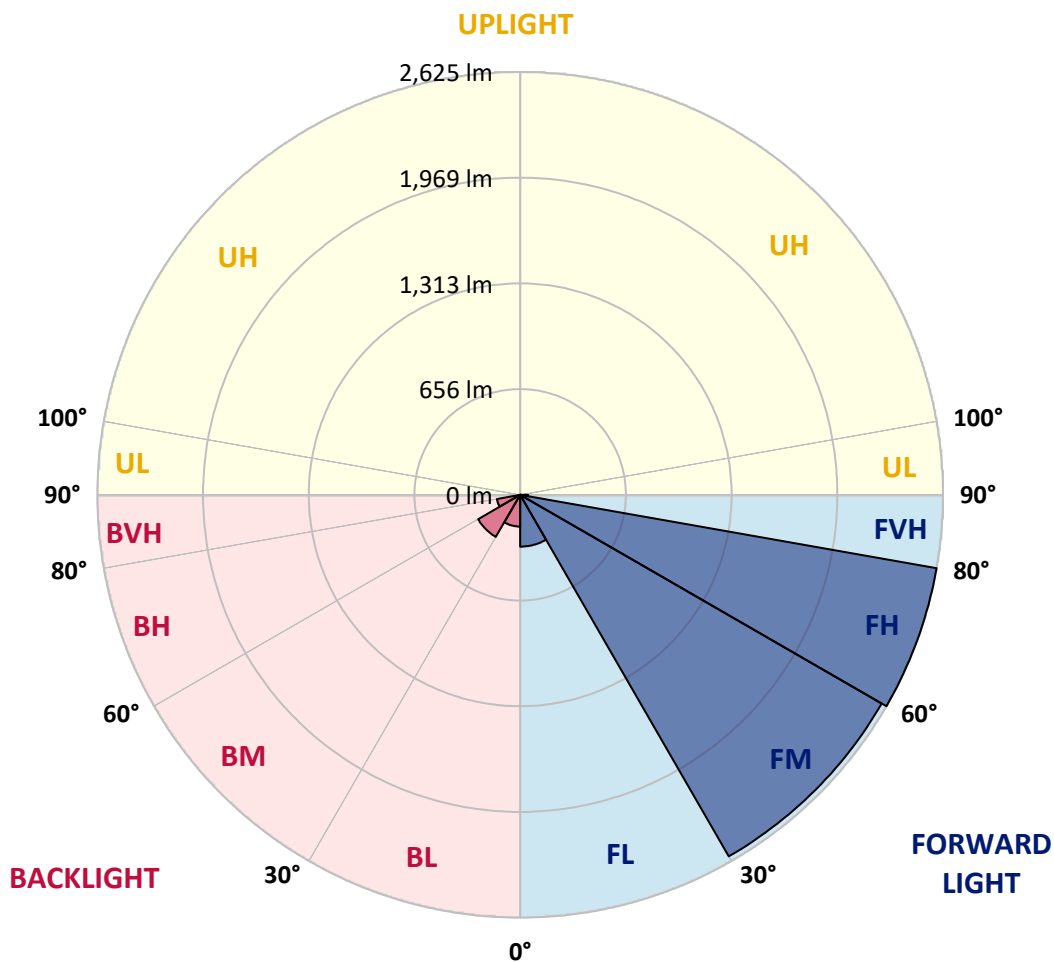
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	321.8	5.2			
FM	(30°-60°)	2591.7	41.6			
FH	(60°-80°)	2625.4	42.1			G2/5000
FVH	(80°-90°)	48.2	0.8			G1/100
BL	(0°-30°)	197.2	3.2	B1/500		
BM	(30°-60°)	301.6	4.8	B1/1000		
BH	(60°-80°)	146.7	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°	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4
2.5°	694.3	694.3	694.3	695.7	697.2	697.2	700.1	698.6	698.6	698.6	701.5
5°	675.4	676.8	678.3	681.2	687.0	691.4	698.6	698.6	700.1	703.0	704.4
7.5°	649.2	650.7	655.0	660.9	672.5	682.6	694.3	697.2	701.5	708.8	711.7
10°	633.3	636.2	642.0	649.2	662.3	675.4	689.9	694.3	707.3	720.4	727.7
12.5°	628.9	630.4	636.2	647.8	663.8	679.7	698.6	703.0	721.9	742.2	753.8
15°	636.2	637.6	640.5	653.6	672.5	692.8	717.5	723.3	746.5	769.8	784.3
17.5°	649.2	649.2	652.1	663.8	684.1	707.3	739.3	748.0	774.1	800.3	816.3
20°	657.9	657.9	662.3	673.9	697.2	727.7	765.4	777.0	806.1	835.1	849.7
22.5°	666.7	668.1	672.5	685.5	711.7	753.8	797.4	809.0	842.4	872.9	887.4
25°	691.4	689.9	691.4	703.0	733.5	785.8	841.0	855.5	890.3	923.7	931.0
27.5°	759.6	756.7	737.8	730.6	753.8	819.2	896.1	910.7	951.3	984.7	984.7
30°	916.5	910.7	864.2	804.6	785.8	849.7	948.4	968.8	1021.1	1050.1	1041.4
32.5°	1115.5	1102.4	1042.8	941.2	865.6	890.3	1003.6	1026.9	1093.7	1118.4	1099.5
35°	1333.3	1331.9	1257.8	1127.1	1019.6	974.6	1074.8	1102.4	1186.6	1208.4	1177.9
37.5°	1564.3	1570.1	1520.7	1340.6	1214.2	1112.6	1169.2	1201.2	1304.3	1330.4	1301.4
40°	1821.3	1819.9	1801.0	1587.5	1448.1	1308.6	1305.7	1334.8	1459.7	1500.3	1459.7
42.5°	2146.7	2143.8	2075.5	1883.8	1731.3	1564.3	1504.7	1514.9	1654.3	1721.1	1661.6
45°	2477.8	2457.5	2379.1	2213.5	2078.4	1880.9	1767.6	1767.6	1886.7	1978.2	1885.2
47.5°	2662.3	2642.0	2610.0	2518.5	2477.8	2257.1	2090.0	2069.7	2162.7	2255.6	2124.9
50°	2904.8	2904.8	2825.0	2790.1	2859.8	2704.4	2445.9	2425.5	2470.6	2544.6	2373.3
52.5°	3096.6	3061.7	3005.1	3035.6	3234.5	3163.4	2801.7	2762.5	2797.4	2816.2	2589.7
55°	3176.4	3143.0	3138.7	3250.5	3558.4	3459.7	3166.3	3131.4	3128.5	3035.6	2778.5
57.5°	3192.4	3163.4	3218.6	3414.6	3873.6	3702.2	3529.4	3503.2	3421.9	3189.5	2971.7
60°	3057.3	3071.9	3205.5	3504.7	4059.5	3912.8	3835.8	3808.2	3620.9	3320.2	3186.6
62.5°	2779.9	2814.8	3064.6	3513.4	3991.2	3998.5	4005.8	3986.9	3774.8	3439.3	3403.0
65°	2451.7	2461.9	2762.5	3392.9	3872.2	3972.4	4130.7	4129.2	3892.5	3573.0	3647.0
67.5°	2020.3	2037.7	2297.7	2986.2	3634.0	3960.7	4294.8	4290.4	4026.1	3725.5	3792.3
70°	1503.3	1525.0	1735.6	2322.4	3102.4	3815.5	4509.8	4512.7	4167.0	3841.6	3692.1
71°	1172.1	1211.3	1432.1	1972.4	2830.8	3668.8	4530.1	4556.2	4183.0	3825.7	3485.8
72.5°	575.2	621.6	899.0	1388.5	2329.7	3340.6	4396.5	4447.3	4082.8	3626.7	2980.4
75°	149.6	158.3	268.7	567.9	1249.1	2213.5	3545.4	3674.6	3337.7	2761.0	1821.3
77.5°	94.4	97.3	126.4	220.8	467.7	841.0	2082.8	2146.7	1907.0	1398.7	642.0
80°	66.8	68.3	79.9	142.3	273.1	245.5	749.4	777.0	689.9	370.4	114.7
82.5°	40.7	40.7	58.1	91.5	168.5	133.6	197.5	210.6	185.9	103.1	37.8
85°	23.2	24.7	36.3	62.5	79.9	65.4	74.1	78.4	79.9	68.3	16.0
87.5°	18.9	20.3	32.0	52.3	43.6	32.0	32.0	33.4	34.9	40.7	7.3
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°	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4
2.5°	701.5	701.5	703.0	701.5	701.5	701.5	703.0	703.0	703.0	705.9	707.3
5°	704.4	704.4	704.4	703.0	701.5	701.5	704.4	705.9	705.9	710.2	710.2
7.5°	711.7	711.7	708.8	705.9	703.0	698.6	700.1	701.5	700.1	701.5	701.5
10°	727.7	727.7	723.3	717.5	708.8	695.7	678.3	656.5	636.2	628.9	626.0
12.5°	753.8	752.4	743.6	733.5	714.6	669.6	604.2	527.2	463.3	445.9	440.1
15°	782.9	779.9	769.8	752.4	701.5	582.4	445.9	347.1	286.1	271.6	268.7
17.5°	813.4	809.0	794.5	759.6	642.0	432.8	287.6	217.9	184.5	181.6	183.0
20°	845.3	839.5	819.2	745.1	518.5	289.0	185.9	168.5	165.6	165.6	167.0
22.5°	881.6	874.4	846.8	692.8	377.6	191.7	159.8	158.3	156.9	155.4	155.4
25°	923.7	915.0	872.9	598.4	260.0	156.9	152.5	148.1	145.2	142.3	140.9
27.5°	974.6	963.0	893.2	482.2	178.6	146.7	143.8	136.5	130.7	124.9	124.9
30°	1025.4	1010.9	887.4	363.1	145.2	136.5	130.7	122.0	113.3	107.5	106.0
32.5°	1079.1	1064.6	849.7	244.0	132.2	124.9	117.6	104.6	94.4	87.1	85.7
35°	1159.0	1147.4	775.6	161.2	119.1	110.4	100.2	87.1	74.1	66.8	65.4
37.5°	1278.1	1263.6	684.1	123.5	104.6	91.5	82.8	68.3	55.2	47.9	46.5
40°	1437.9	1394.3	575.2	108.9	91.5	75.5	63.9	49.4	39.2	34.9	34.9
42.5°	1623.8	1520.7	457.5	98.8	81.3	62.5	46.5	33.4	27.6	26.1	26.1
45°	1821.3	1638.3	339.9	91.5	71.2	49.4	33.4	23.2	20.3	18.9	18.9
47.5°	2024.7	1734.2	236.7	82.8	59.5	37.8	23.2	17.4	14.5	13.1	13.1
50°	2214.9	1796.6	167.0	74.1	50.8	27.6	17.4	13.1	10.2	10.2	10.2
52.5°	2347.1	1790.8	120.6	63.9	39.2	18.9	11.6	8.7	8.7	8.7	8.7
55°	2463.3	1769.0	94.4	55.2	30.5	13.1	8.7	7.3	7.3	5.8	5.8
57.5°	2562.1	1734.2	79.9	45.0	21.8	10.2	5.8	5.8	4.4	4.4	4.4
60°	2646.3	1690.6	66.8	37.8	14.5	7.3	4.4	2.9	2.9	1.5	2.9
62.5°	2761.0	1663.0	58.1	29.0	10.2	4.4	2.9	1.5	1.5	0.0	0.0
65°	2845.3	1610.7	49.4	20.3	5.8	2.9	1.5	1.5	0.0	0.0	0.0
67.5°	2848.2	1516.3	36.3	11.6	4.4	2.9	1.5	0.0	0.0	0.0	0.0
70°	2618.7	1292.7	23.2	5.8	2.9	1.5	1.5	0.0	0.0	0.0	0.0
71°	2408.1	1144.5	18.9	4.4	2.9	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	1984.0	841.0	14.5	4.4	1.5	1.5	0.0	0.0	0.0	0.0	0.0
75°	1093.7	305.0	7.3	2.9	1.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	350.0	93.0	4.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	59.5	14.5	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	20.3	5.8	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.9	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)