

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: P234822

Luminaire Tested: **ARCH-M-AF48-80-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234822
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-AF48-80-D-U-T3-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 535mA 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: 6496 lumens
Efficiency: N/A
Efficacy: 78.3 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): 83
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

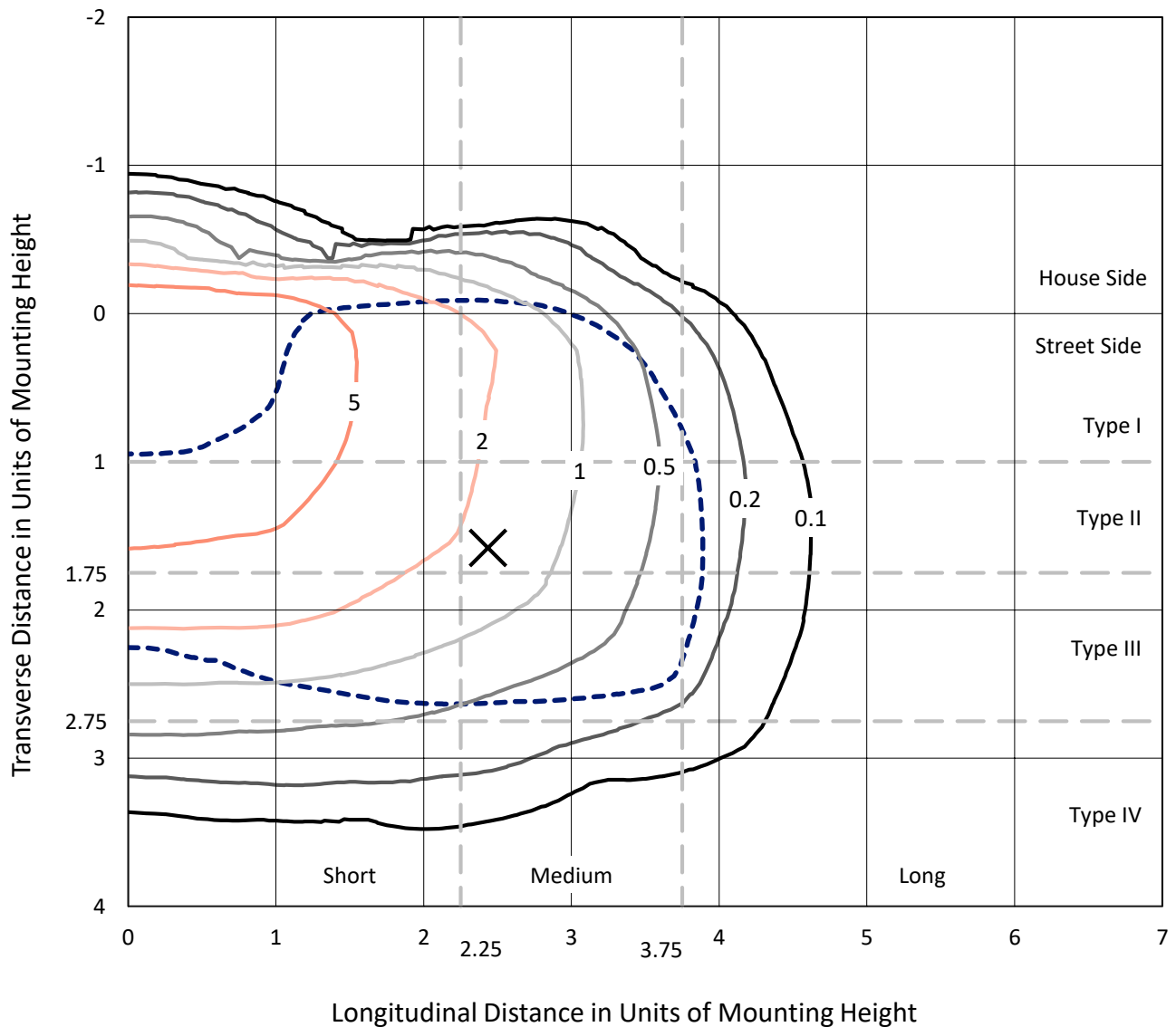


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

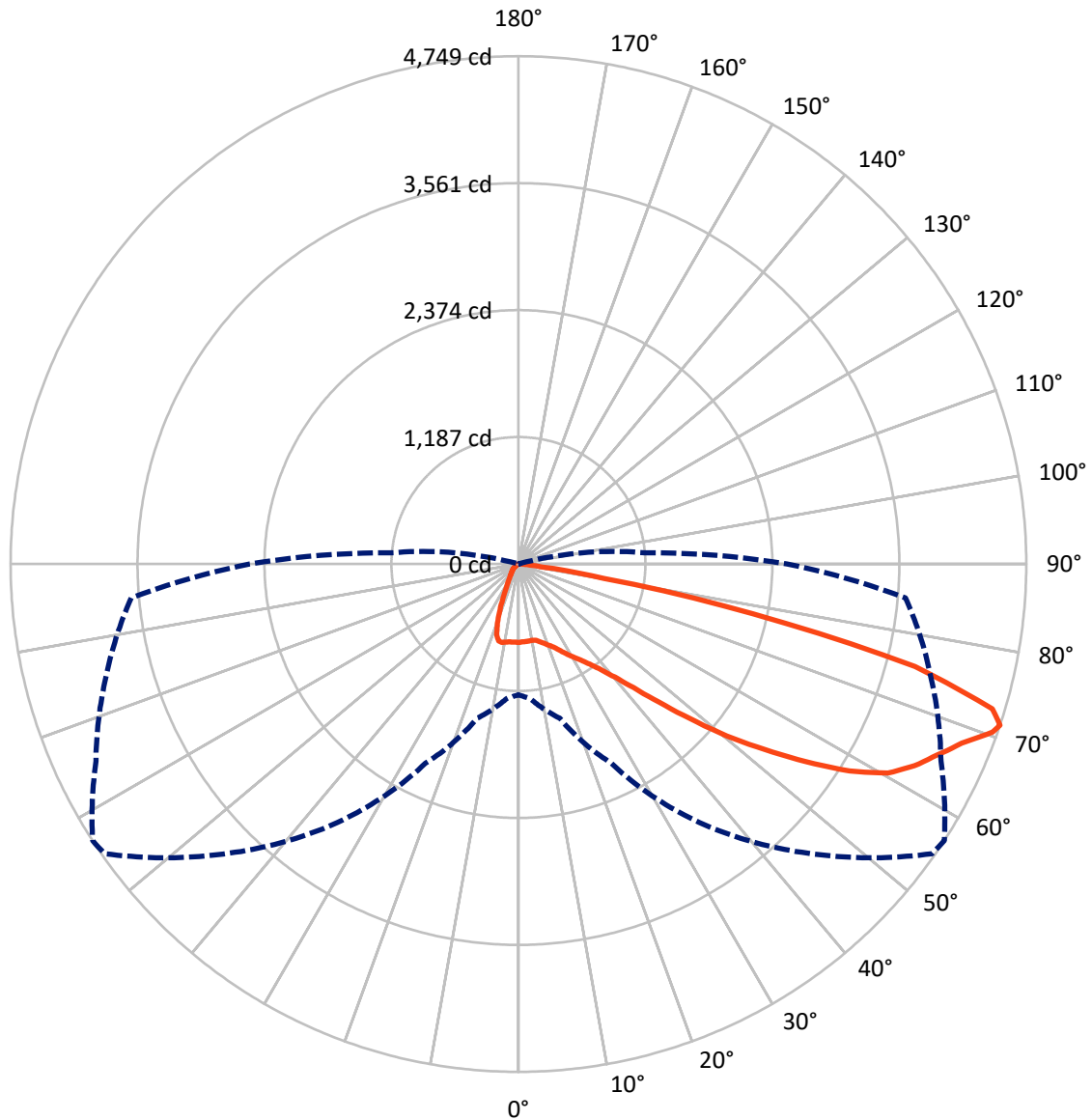


Based on 10 foot mounting height. Maximum calculated value = 9.1 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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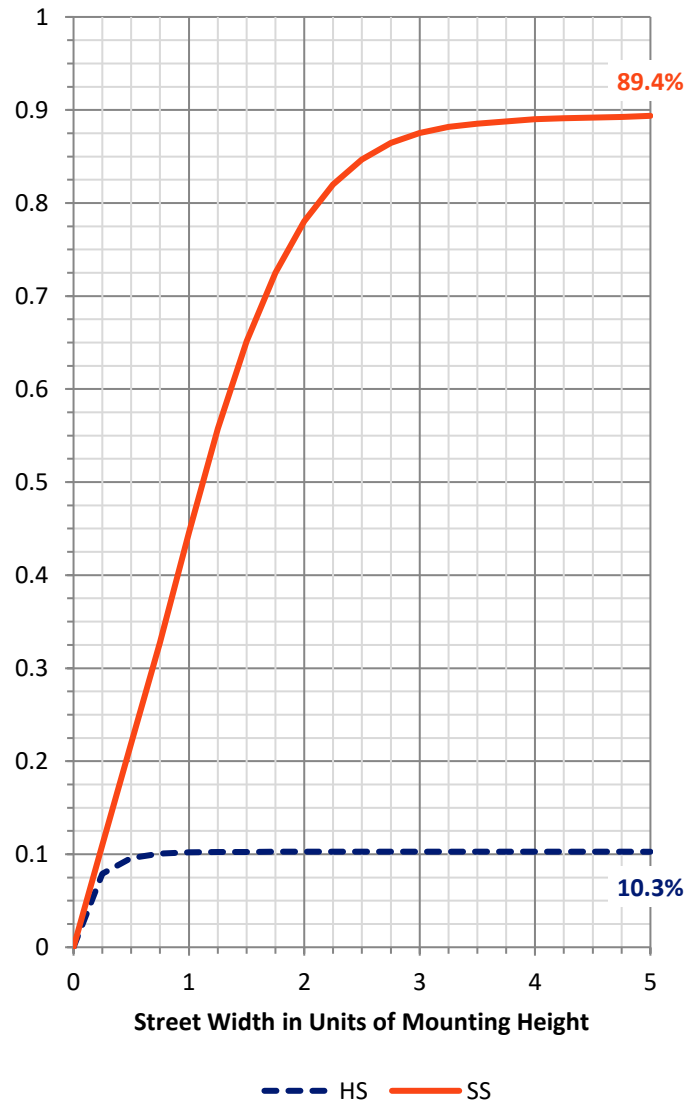
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	673.2	0.0	673.2
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	5822.8	0.0	5822.8
	% Fixture	89.6	0.0	89.6
Total	Lumens	6496.0	0.0	6496.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.9	1.1
10°-20°	184.3	2.8
20°-30°	287.6	4.4
30°-40°	486.1	7.5
40°-50°	944.0	14.5
50°-60°	1585.3	24.4
60°-70°	1892.0	29.1
70°-80°	997.1	15.3
80°-90°	50.7	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°	6496.0	100.0
0°-180°	6496.0	100.0

Coefficient of Utilization



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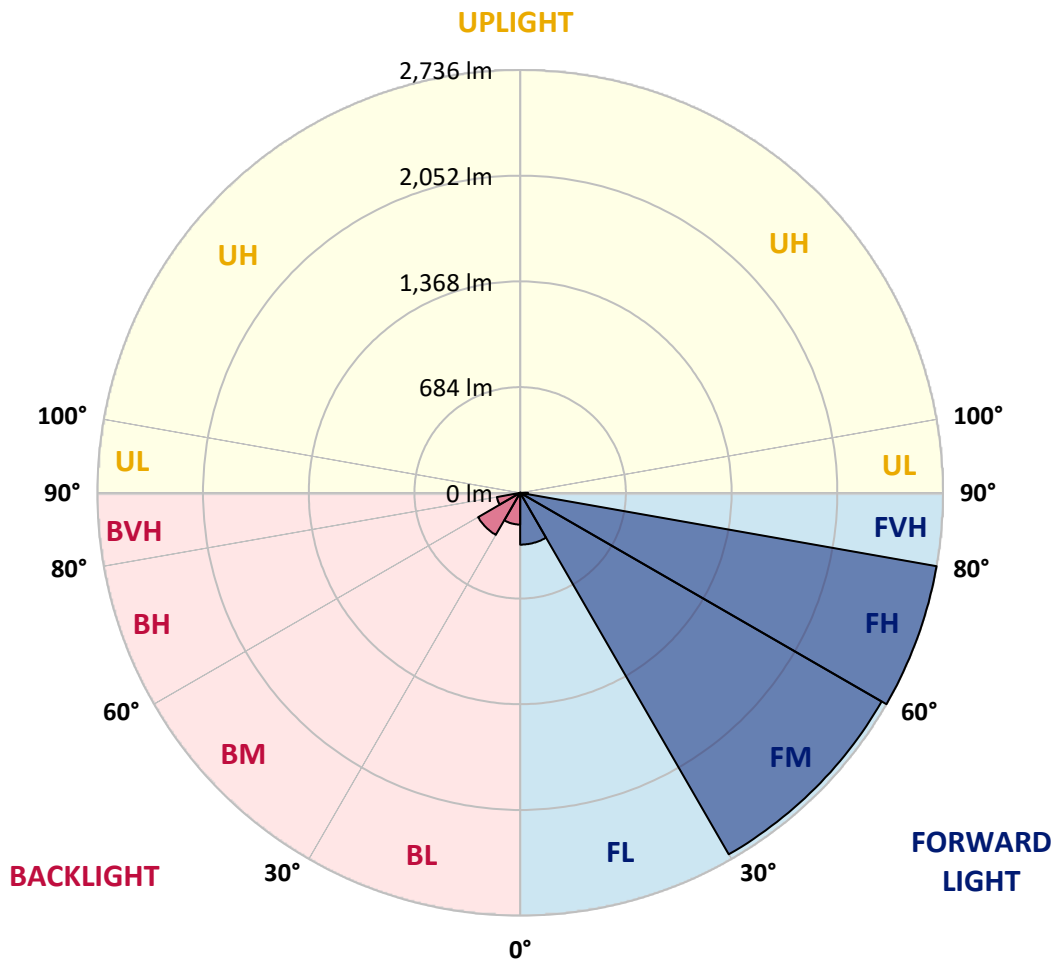
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	335.4	5.2			
FM	(30°-60°)	2701.1	41.6			
FH	(60°-80°)	2736.2	42.1			G2/5000
FVH	(80°-90°)	50.2	0.8			G1/100
BL	(0°-30°)	205.5	3.2	B1/500		
BM	(30°-60°)	314.3	4.8	B1/1000		
BH	(60°-80°)	152.9	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°	734.1	734.1	734.1	734.1	734.1	734.1	734.1	734.1	734.1	734.1	734.1
2.5°	723.6	723.6	723.6	725.1	726.6	726.6	729.6	728.1	728.1	728.1	731.1
5°	703.9	705.4	706.9	709.9	716.0	720.5	728.1	728.1	729.6	732.6	734.1
7.5°	676.6	678.1	682.7	688.7	700.8	711.4	723.6	726.6	731.1	738.7	741.7
10°	660.0	663.0	669.1	676.6	690.2	703.9	719.0	723.6	737.2	750.8	758.4
12.5°	655.4	656.9	663.0	675.1	691.8	708.4	728.1	732.6	752.3	773.5	785.6
15°	663.0	664.5	667.5	681.2	700.8	722.0	747.8	753.8	778.0	802.3	817.4
17.5°	676.6	676.6	679.7	691.8	713.0	737.2	770.5	779.6	806.8	834.1	850.7
20°	685.7	685.7	690.2	702.4	726.6	758.4	797.7	809.8	840.1	870.4	885.5
22.5°	694.8	696.3	700.8	714.5	741.7	785.6	831.0	843.1	877.9	909.7	924.9
25°	720.5	719.0	720.5	732.6	764.4	818.9	876.4	891.6	927.9	962.7	970.3
27.5°	791.7	788.6	769.0	761.4	785.6	853.7	934.0	949.1	991.5	1026.3	1026.3
30°	955.1	949.1	900.7	838.6	818.9	885.5	988.4	1009.6	1064.1	1094.4	1085.3
32.5°	1162.5	1148.9	1086.8	980.9	902.2	927.9	1046.0	1070.2	1139.8	1165.6	1145.9
35°	1389.6	1388.1	1310.9	1174.6	1062.6	1015.7	1120.1	1148.9	1236.7	1259.4	1227.6
37.5°	1630.3	1636.3	1584.8	1397.1	1265.5	1159.5	1218.5	1251.8	1359.3	1386.6	1356.3
40°	1898.2	1896.7	1877.0	1654.5	1509.2	1363.8	1360.8	1391.1	1521.3	1563.7	1521.3
42.5°	2237.3	2234.2	2163.1	1963.3	1804.3	1630.3	1568.2	1578.8	1724.1	1793.7	1731.7
45°	2582.4	2561.2	2479.4	2306.9	2166.1	1960.2	1842.2	1842.2	1966.3	2061.7	1964.8
47.5°	2774.6	2753.4	2720.1	2624.8	2582.4	2352.3	2178.2	2157.0	2253.9	2350.8	2214.5
50°	3027.4	3027.4	2944.2	2907.8	2980.5	2818.5	2549.1	2527.9	2574.8	2652.0	2473.4
52.5°	3227.2	3190.9	3131.9	3163.6	3371.0	3296.8	2919.9	2879.1	2915.4	2935.1	2698.9
55°	3310.5	3275.7	3271.1	3387.7	3708.6	3605.6	3299.9	3263.5	3260.5	3163.6	2895.7
57.5°	3327.1	3296.8	3354.4	3558.7	4037.0	3858.4	3678.3	3651.1	3566.3	3324.1	3097.0
60°	3186.3	3201.5	3340.7	3652.6	4230.8	4077.9	3997.7	3968.9	3773.7	3460.3	3321.1
62.5°	2897.2	2933.6	3193.9	3661.7	4159.7	4167.2	4174.8	4155.1	3934.1	3584.5	3546.6
65°	2555.1	2565.7	2879.1	3536.0	4035.5	4140.0	4305.0	4303.5	4056.7	3723.7	3800.9
67.5°	2105.6	2123.7	2394.7	3112.2	3787.3	4127.9	4476.0	4471.5	4196.0	3882.7	3952.3
70°	1566.7	1589.4	1808.9	2420.4	3233.3	3976.5	4700.1	4703.1	4342.8	4003.7	3847.8
71°	1221.6	1262.4	1492.5	2055.6	2950.2	3823.6	4721.2	4748.5	4359.5	3987.1	3632.9
72.5°	599.4	647.9	937.0	1447.1	2428.0	3481.5	4582.0	4635.0	4255.0	3779.7	3106.1
75°	155.9	165.0	280.0	591.9	1301.8	2306.9	3695.0	3829.7	3478.5	2877.6	1898.2
77.5°	98.4	101.4	131.7	230.1	487.4	876.4	2170.7	2237.3	1987.5	1457.7	669.1
80°	69.6	71.1	83.3	148.3	284.6	255.8	781.1	809.8	719.0	386.0	119.6
82.5°	42.4	42.4	60.5	95.4	175.6	139.3	205.9	219.5	193.8	107.5	39.4
85°	24.2	25.7	37.8	65.1	83.3	68.1	77.2	81.7	83.3	71.1	16.7
87.5°	19.7	21.2	33.3	54.5	45.4	33.3	33.3	34.8	36.3	42.4	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°	734.1	734.1	734.1	734.1	734.1	734.1	734.1	734.1	734.1	734.1	734.1
2.5°	731.1	731.1	732.6	731.1	731.1	731.1	732.6	732.6	732.6	735.7	737.2
5°	734.1	734.1	734.1	732.6	731.1	731.1	734.1	735.7	735.7	740.2	740.2
7.5°	741.7	741.7	738.7	735.7	732.6	728.1	729.6	731.1	729.6	731.1	731.1
10°	758.4	758.4	753.8	747.8	738.7	725.1	706.9	684.2	663.0	655.4	652.4
12.5°	785.6	784.1	775.0	764.4	744.7	697.8	629.7	549.5	482.9	464.7	458.7
15°	815.9	812.9	802.3	784.1	731.1	607.0	464.7	361.8	298.2	283.1	280.0
17.5°	847.7	843.1	828.0	791.7	669.1	451.1	299.7	227.1	192.2	189.2	190.7
20°	881.0	874.9	853.7	776.5	540.4	301.2	193.8	175.6	172.6	172.6	174.1
22.5°	918.8	911.2	882.5	722.0	393.6	199.8	166.5	165.0	163.5	162.0	162.0
25°	962.7	953.6	909.7	623.6	271.0	163.5	158.9	154.4	151.4	148.3	146.8
27.5°	1015.7	1003.6	930.9	502.5	186.2	152.9	149.9	142.3	136.2	130.2	130.2
30°	1068.7	1053.5	924.9	378.4	151.4	142.3	136.2	127.2	118.1	112.0	110.5
32.5°	1124.7	1109.5	885.5	254.3	137.7	130.2	122.6	109.0	98.4	90.8	89.3
35°	1207.9	1195.8	808.3	168.0	124.1	115.0	104.4	90.8	77.2	69.6	68.1
37.5°	1332.1	1316.9	713.0	128.7	109.0	95.4	86.3	71.1	57.5	50.0	48.4
40°	1498.6	1453.2	599.4	113.5	95.4	78.7	66.6	51.5	40.9	36.3	36.3
42.5°	1692.3	1584.8	476.8	102.9	84.8	65.1	48.4	34.8	28.8	27.2	27.2
45°	1898.2	1707.5	354.2	95.4	74.2	51.5	34.8	24.2	21.2	19.7	19.7
47.5°	2110.1	1807.4	246.7	86.3	62.1	39.4	24.2	18.2	15.1	13.6	13.6
50°	2308.4	1872.5	174.1	77.2	53.0	28.8	18.2	13.6	10.6	10.6	10.6
52.5°	2446.1	1866.4	125.6	66.6	40.9	19.7	12.1	9.1	9.1	9.1	9.1
55°	2567.2	1843.7	98.4	57.5	31.8	13.6	9.1	7.6	7.6	6.1	6.1
57.5°	2670.2	1807.4	83.3	46.9	22.7	10.6	6.1	6.1	4.5	4.5	4.5
60°	2758.0	1762.0	69.6	39.4	15.1	7.6	4.5	3.0	3.0	1.5	3.0
62.5°	2877.6	1733.2	60.5	30.3	10.6	4.5	3.0	1.5	1.5	0.0	0.0
65°	2965.3	1678.7	51.5	21.2	6.1	3.0	1.5	1.5	0.0	0.0	0.0
67.5°	2968.4	1580.3	37.8	12.1	4.5	3.0	1.5	0.0	0.0	0.0	0.0
70°	2729.2	1347.2	24.2	6.1	3.0	1.5	1.5	0.0	0.0	0.0	0.0
71°	2509.7	1192.8	19.7	4.5	3.0	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	2067.7	876.4	15.1	4.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
75°	1139.8	317.9	7.6	3.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	364.8	96.9	4.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	62.1	15.1	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.2	6.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.1	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.0	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)