

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: P234824

Luminaire Tested: **ARCH-M-AF48-100-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234824
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-AF48-100-D-U-T3-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 660mA 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: 7778 lumens
Efficiency: N/A
Efficacy: 77.0 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): 101
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

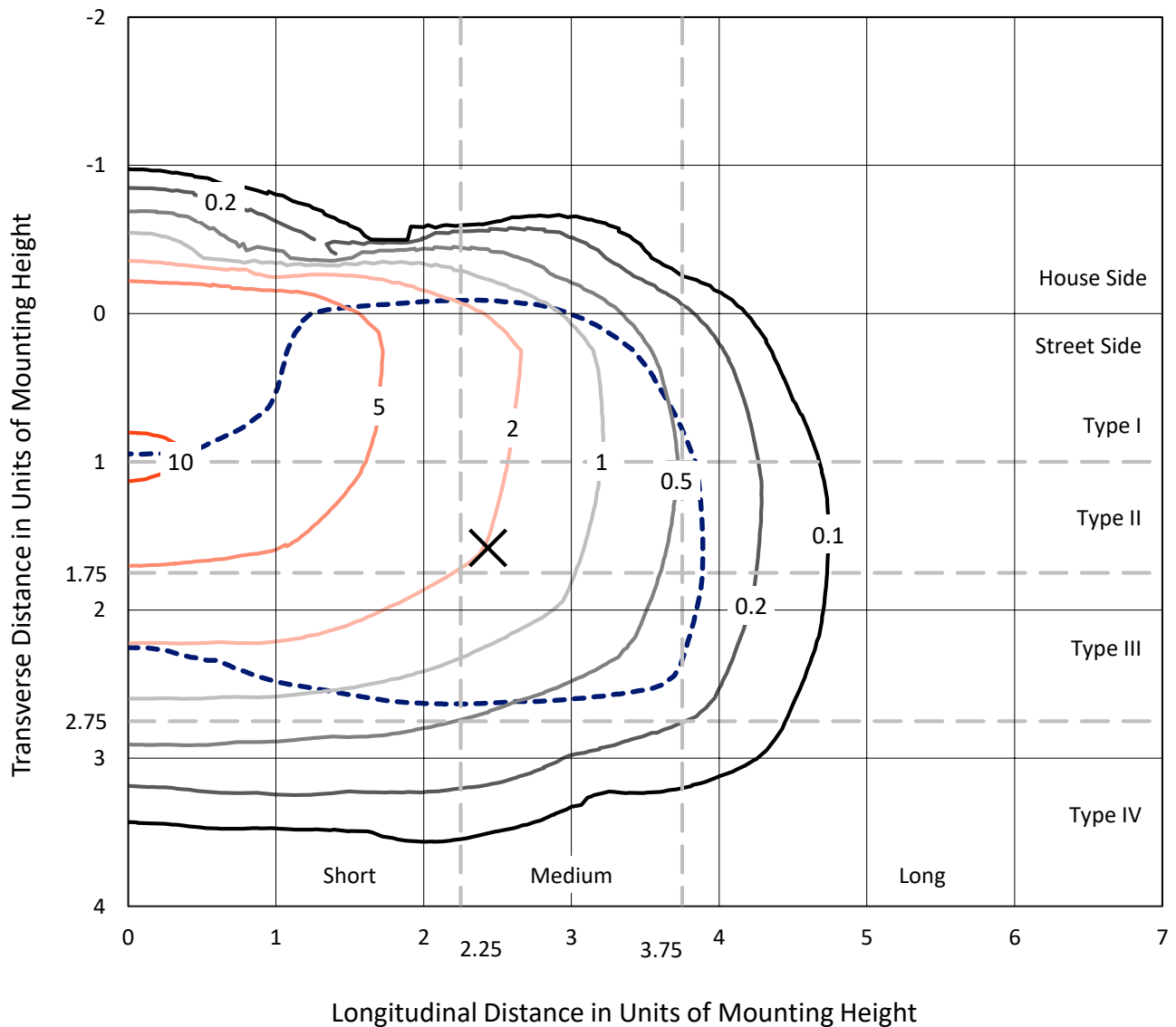


REPORT NUMBER: P234824

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

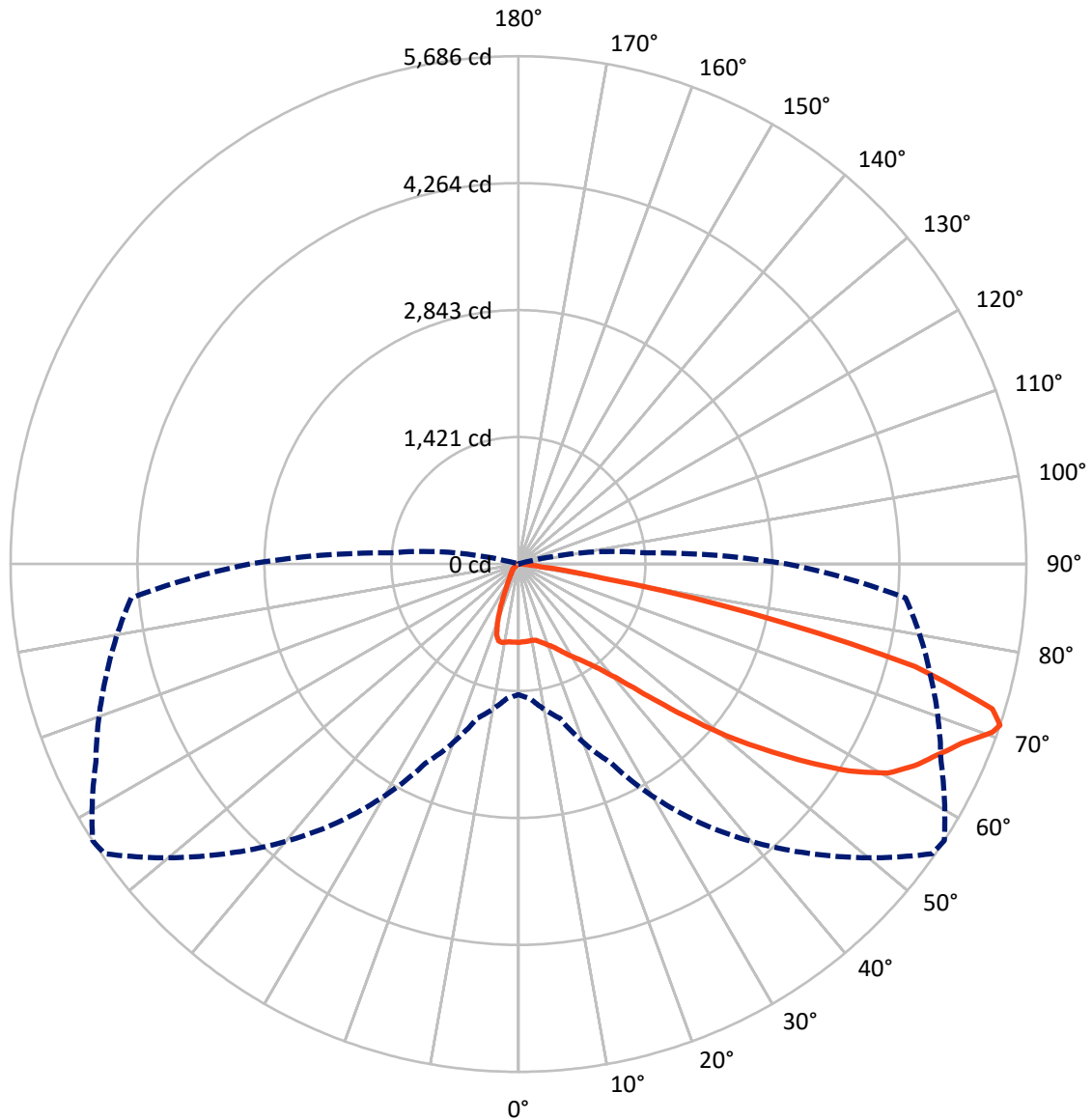


Based on 10 foot mounting height. Maximum calculated value = 10.9 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P234824

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-8027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234824

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-8027-HSS

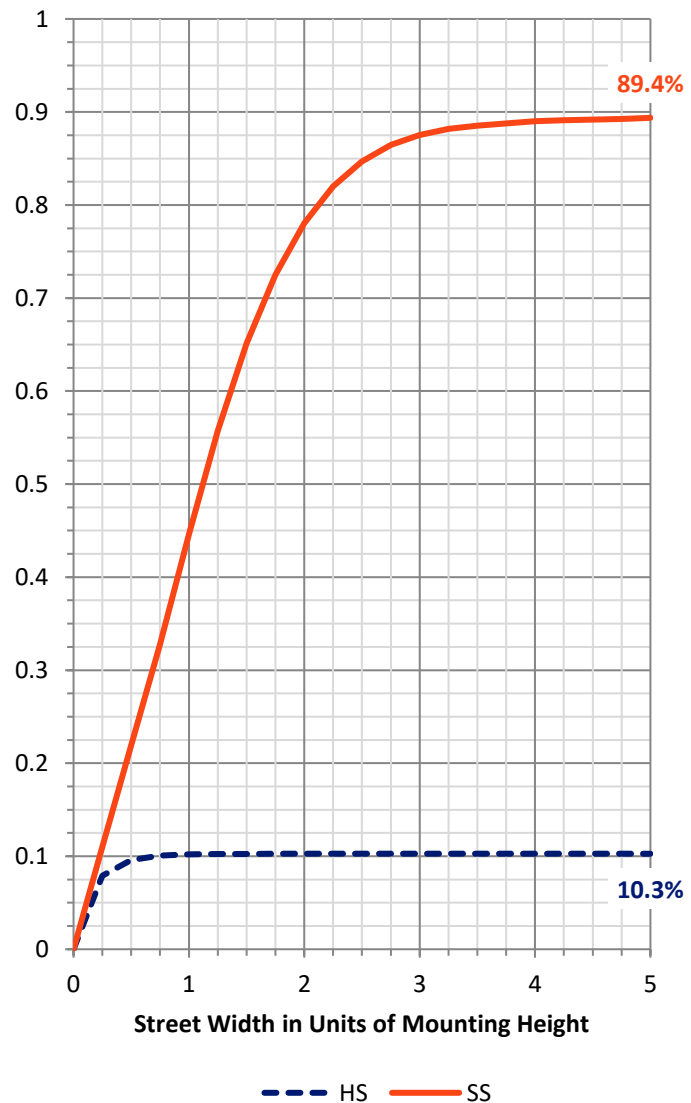
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	806.0	0.0	806.0
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	6972.0	0.0	6972.0
	% Fixture	89.6	0.0	89.6
Total	Lumens	7778.0	0.0	7778.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	1.1
10°-20°	220.7	2.8
20°-30°	344.3	4.4
30°-40°	582.0	7.5
40°-50°	1130.3	14.5
50°-60°	1898.2	24.4
60°-70°	2265.3	29.1
70°-80°	1193.9	15.3
80°-90°	60.7	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°	7778.0	100.0
0°-180°	7778.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234824

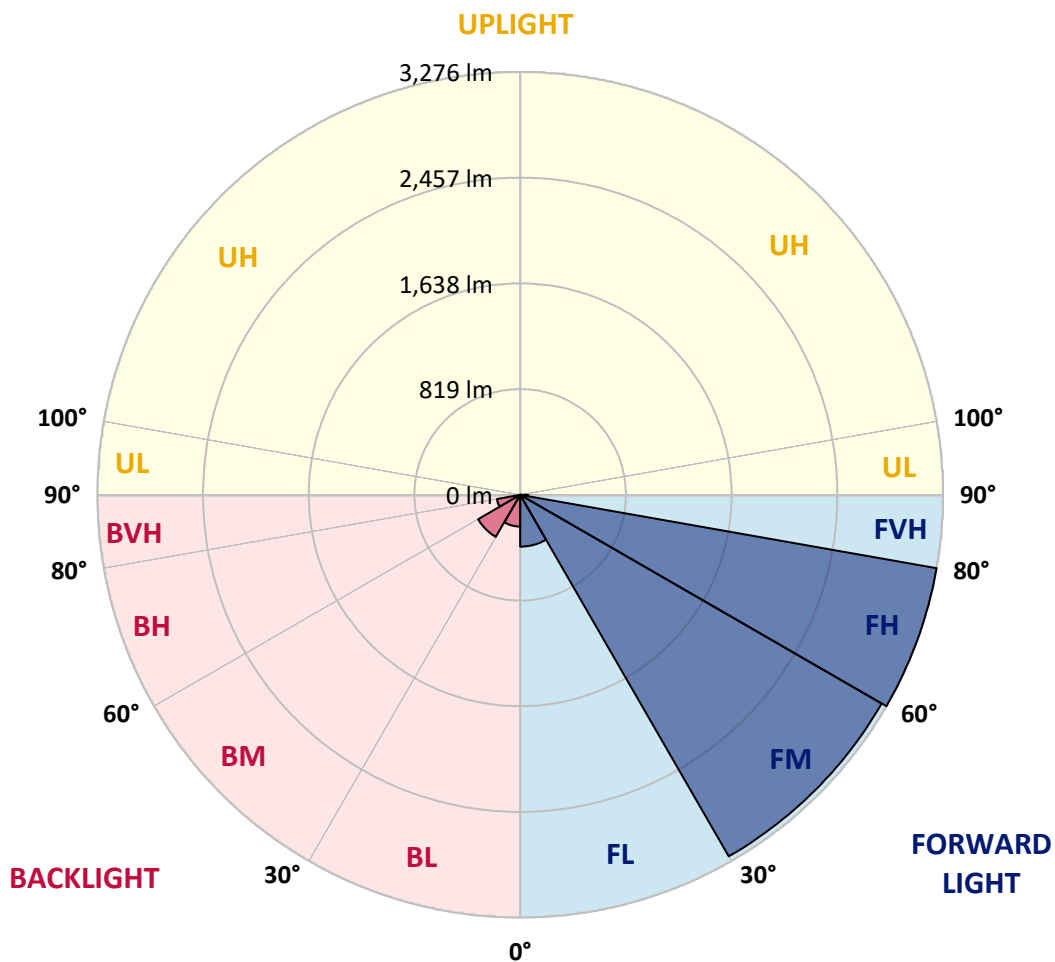
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	401.6	5.2			
FM	(30°-60°)	3234.2	41.6			
FH	(60°-80°)	3276.2	42.1			G2/5000
FVH	(80°-90°)	60.1	0.8			G1/100
BL	(0°-30°)	246.0	3.2	B1/500		
BM	(30°-60°)	376.4	4.8	B1/1000		
BH	(60°-80°)	183.0	2.4	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 III Medium





REPORT NUMBER: P234824

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0
2.5°	866.3	866.3	866.3	868.2	870.0	870.0	873.6	871.8	871.8	871.8	875.4
5°	842.8	844.6	846.4	850.0	857.3	862.7	871.8	871.8	873.6	877.2	879.0
7.5°	810.2	812.0	817.4	824.7	839.2	851.8	866.3	870.0	875.4	884.5	888.1
10°	790.2	793.8	801.1	810.2	826.5	842.8	860.9	866.3	882.7	899.0	908.0
12.5°	784.8	786.6	793.8	808.3	828.3	848.2	871.8	877.2	900.8	926.2	940.7
15°	793.8	795.7	799.3	815.6	839.2	864.5	895.3	902.6	931.6	960.6	978.7
17.5°	810.2	810.2	813.8	828.3	853.7	882.7	922.5	933.4	966.0	998.7	1018.6
20°	821.0	821.0	826.5	841.0	870.0	908.0	955.2	969.7	1005.9	1042.2	1060.3
22.5°	831.9	833.7	839.2	855.5	888.1	940.7	995.0	1009.5	1051.2	1089.3	1107.4
25°	862.7	860.9	862.7	877.2	915.3	980.5	1049.4	1067.5	1111.0	1152.7	1161.8
27.5°	947.9	944.3	920.7	911.7	940.7	1022.2	1118.3	1136.4	1187.1	1228.8	1228.8
30°	1143.6	1136.4	1078.4	1004.1	980.5	1060.3	1183.5	1208.9	1274.1	1310.4	1299.5
32.5°	1392.0	1375.6	1301.3	1174.5	1080.2	1111.0	1252.4	1281.4	1364.8	1395.6	1372.0
35°	1663.8	1662.0	1569.6	1406.5	1272.3	1216.1	1341.2	1375.6	1480.8	1507.9	1469.9
37.5°	1952.0	1959.2	1897.6	1672.9	1515.2	1388.3	1459.0	1498.9	1627.6	1660.2	1623.9
40°	2272.8	2271.0	2247.4	1981.0	1807.0	1633.0	1629.4	1665.6	1821.5	1872.2	1821.5
42.5°	2678.8	2675.2	2590.0	2350.7	2160.4	1952.0	1877.7	1890.4	2064.4	2147.7	2073.4
45°	3092.0	3066.6	2968.8	2762.2	2593.6	2347.1	2205.7	2205.7	2354.4	2468.5	2352.5
47.5°	3322.2	3296.8	3256.9	3142.8	3092.0	2816.5	2608.1	2582.7	2698.7	2814.7	2651.6
50°	3624.9	3624.9	3525.2	3481.7	3568.7	3374.8	3052.1	3026.8	3083.0	3175.4	2961.5
52.5°	3864.1	3820.6	3749.9	3788.0	4036.3	3947.5	3496.2	3447.3	3490.8	3514.3	3231.6
55°	3963.8	3922.1	3916.7	4056.2	4440.5	4317.2	3951.1	3907.6	3904.0	3788.0	3467.2
57.5°	3983.7	3947.5	4016.4	4261.0	4833.8	4619.9	4404.2	4371.6	4270.1	3980.1	3708.2
60°	3815.2	3833.3	4000.0	4373.4	5065.8	4882.7	4786.6	4752.2	4518.4	4143.2	3976.5
62.5°	3469.0	3512.5	3824.2	4384.3	4980.6	4989.6	4998.7	4975.1	4710.5	4291.9	4246.5
65°	3059.4	3072.1	3447.3	4233.9	4832.0	4957.0	5154.6	5152.8	4857.3	4458.6	4551.0
67.5°	2521.1	2542.8	2867.3	3726.4	4534.7	4942.5	5359.4	5353.9	5024.1	4648.9	4732.3
70°	1875.9	1903.1	2165.9	2898.1	3871.4	4761.3	5627.6	5631.2	5199.9	4793.9	4607.2
71°	1462.6	1511.6	1787.1	2461.3	3532.4	4578.2	5653.0	5685.6	5219.8	4774.0	4349.8
72.5°	717.7	775.7	1121.9	1732.7	2907.1	4168.6	5486.2	5549.7	5094.8	4525.7	3719.1
75°	186.7	197.6	335.3	708.7	1558.7	2762.2	4424.2	4585.5	4165.0	3445.4	2272.8
77.5°	117.8	121.4	157.7	275.5	583.6	1049.4	2599.0	2678.8	2379.7	1745.4	801.1
80°	83.4	85.2	99.7	177.6	340.7	306.3	935.2	969.7	860.9	462.2	143.2
82.5°	50.7	50.7	72.5	114.2	210.2	166.7	246.5	262.8	232.0	128.7	47.1
85°	29.0	30.8	45.3	77.9	99.7	81.6	92.4	97.9	99.7	85.2	19.9
87.5°	23.6	25.4	39.9	65.2	54.4	39.9	39.9	41.7	43.5	50.7	9.1
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: P234824

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0
2.5°	875.4	875.4	877.2	875.4	875.4	875.4	877.2	877.2	877.2	880.8	882.7
5°	879.0	879.0	879.0	877.2	875.4	875.4	879.0	880.8	880.8	886.3	886.3
7.5°	888.1	888.1	884.5	880.8	877.2	871.8	873.6	875.4	873.6	875.4	875.4
10°	908.0	908.0	902.6	895.3	884.5	868.2	846.4	819.2	793.8	784.8	781.2
12.5°	940.7	938.8	928.0	915.3	891.7	835.5	754.0	657.9	578.2	556.4	549.2
15°	976.9	973.3	960.6	938.8	875.4	726.8	556.4	433.2	357.1	338.9	335.3
17.5°	1015.0	1009.5	991.4	947.9	801.1	540.1	358.9	271.9	230.2	226.6	228.4
20°	1054.8	1047.6	1022.2	929.8	647.0	360.7	232.0	210.2	206.6	206.6	208.4
22.5°	1100.1	1091.1	1056.7	864.5	471.2	239.2	199.4	197.6	195.7	193.9	193.9
25°	1152.7	1141.8	1089.3	746.7	324.4	195.7	190.3	184.9	181.2	177.6	175.8
27.5°	1216.1	1201.6	1114.6	601.7	222.9	183.1	179.4	170.4	163.1	155.9	155.9
30°	1279.6	1261.5	1107.4	453.1	181.2	170.4	163.1	152.2	141.4	134.1	132.3
32.5°	1346.6	1328.5	1060.3	304.5	164.9	155.9	146.8	130.5	117.8	108.7	106.9
35°	1446.3	1431.8	967.8	201.2	148.6	137.7	125.1	108.7	92.4	83.4	81.6
37.5°	1594.9	1576.8	853.7	154.1	130.5	114.2	103.3	85.2	68.9	59.8	58.0
40°	1794.3	1739.9	717.7	135.9	114.2	94.2	79.7	61.6	48.9	43.5	43.5
42.5°	2026.3	1897.6	570.9	123.2	101.5	77.9	58.0	41.7	34.4	32.6	32.6
45°	2272.8	2044.4	424.1	114.2	88.8	61.6	41.7	29.0	25.4	23.6	23.6
47.5°	2526.5	2164.0	295.4	103.3	74.3	47.1	29.0	21.7	18.1	16.3	16.3
50°	2764.0	2242.0	208.4	92.4	63.4	34.4	21.7	16.3	12.7	12.7	12.7
52.5°	2928.9	2234.7	150.4	79.7	48.9	23.6	14.5	10.9	10.9	10.9	10.9
55°	3073.9	2207.5	117.8	68.9	38.1	16.3	10.9	9.1	9.1	7.2	7.2
57.5°	3197.1	2164.0	99.7	56.2	27.2	12.7	7.2	7.2	5.4	5.4	5.4
60°	3302.3	2109.7	83.4	47.1	18.1	9.1	5.4	3.6	3.6	1.8	3.6
62.5°	3445.4	2075.2	72.5	36.2	12.7	5.4	3.6	1.8	1.8	0.0	0.0
65°	3550.6	2010.0	61.6	25.4	7.2	3.6	1.8	1.8	0.0	0.0	0.0
67.5°	3554.2	1892.2	45.3	14.5	5.4	3.6	1.8	0.0	0.0	0.0	0.0
70°	3267.8	1613.1	29.0	7.2	3.6	1.8	1.8	0.0	0.0	0.0	0.0
71°	3005.0	1428.2	23.6	5.4	3.6	1.8	0.0	0.0	0.0	0.0	0.0
72.5°	2475.8	1049.4	18.1	5.4	1.8	1.8	0.0	0.0	0.0	0.0	0.0
75°	1364.8	380.6	9.1	3.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	436.8	116.0	5.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	74.3	18.1	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	25.4	7.2	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.2	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.6	1.8	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)