

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: P231207

Luminaire Tested: **ARCH-M-AF48-60-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231207
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-AF48-60-D-U-T3-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 405mA 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: 5805 lumens
Efficiency: N/A
Efficacy: 92.1 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): 63
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

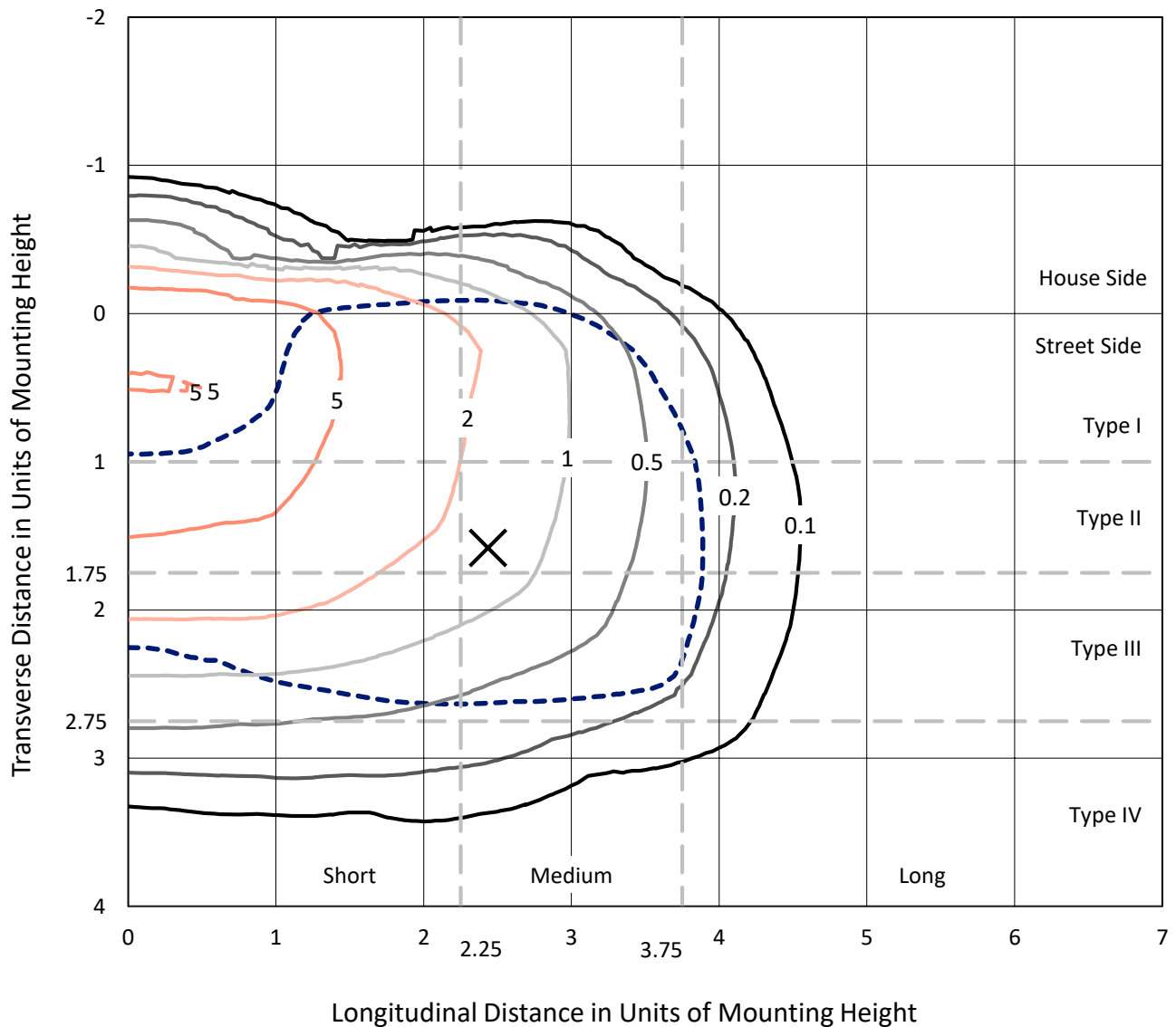


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

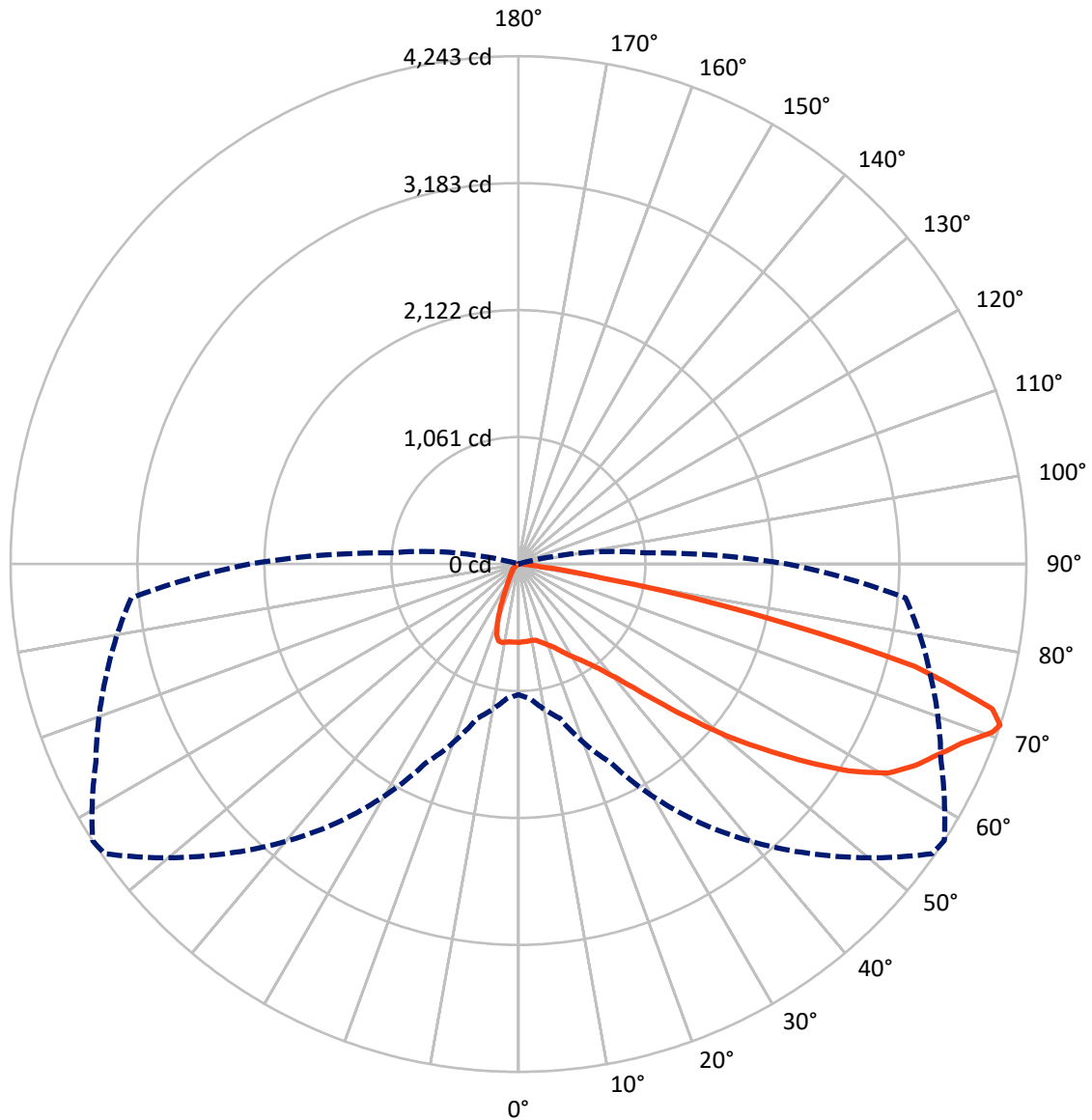


Based on 10 foot mounting height. Maximum calculated value = 8.2 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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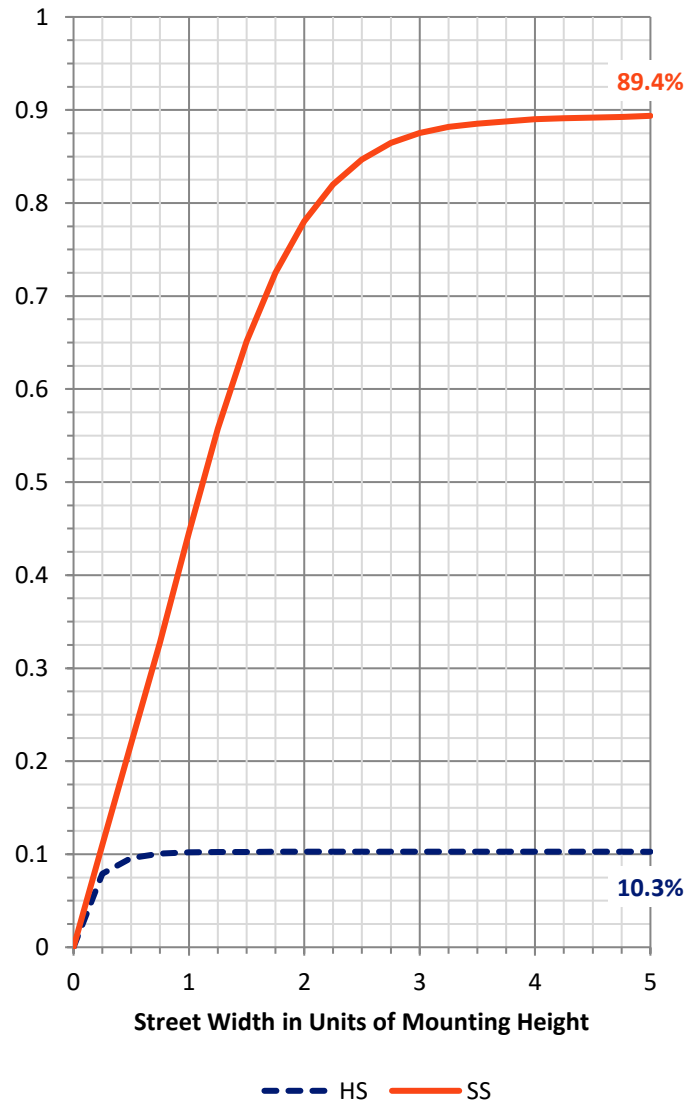
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	601.6	0.0	601.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	5203.4	0.0	5203.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	5805.0	0.0	5805.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.6	1.1
10°-20°	164.7	2.8
20°-30°	257.0	4.4
30°-40°	434.3	7.5
40°-50°	843.6	14.5
50°-60°	1416.7	24.4
60°-70°	1690.7	29.1
70°-80°	891.0	15.3
80°-90°	45.3	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°	5805.0	100.0
0°-180°	5805.0	100.0



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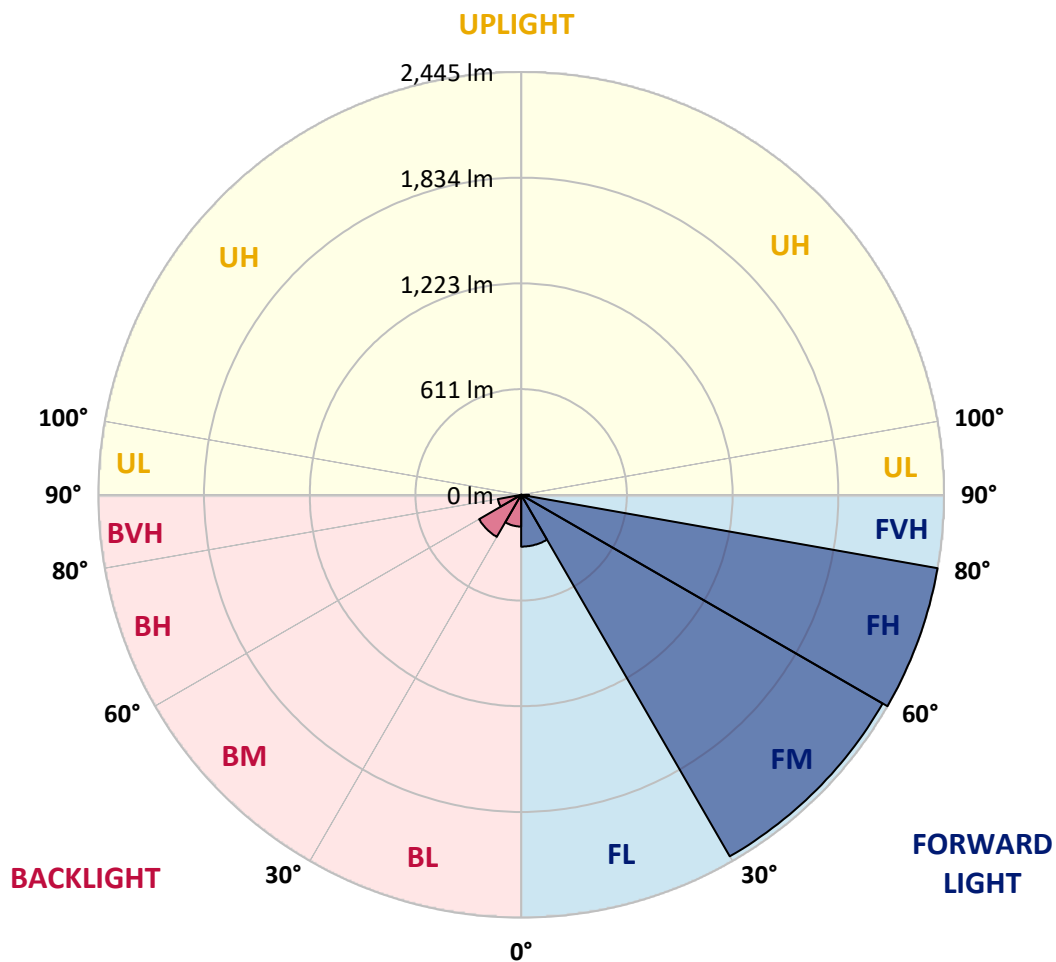
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	299.7	5.2			
FM	(30°-60°)	2413.8	41.6			
FH	(60°-80°)	2445.1	42.1			G2/5000
FVH	(80°-90°)	44.8	0.8			G1/100
BL	(0°-30°)	183.6	3.2	B1/500		
BM	(30°-60°)	280.9	4.8	B1/1000		
BH	(60°-80°)	136.6	2.4	B1/500		G1/500
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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1
2.5°	646.6	646.6	646.6	647.9	649.3	649.3	652.0	650.6	650.6	650.6	653.3
5°	629.0	630.4	631.7	634.4	639.8	643.9	650.6	650.6	652.0	654.7	656.1
7.5°	604.7	606.0	610.1	615.5	626.3	635.8	646.6	649.3	653.3	660.1	662.8
10°	589.8	592.5	597.9	604.7	616.8	629.0	642.5	646.6	658.8	670.9	677.7
12.5°	585.7	587.1	592.5	603.3	618.2	633.1	650.6	654.7	672.3	691.2	702.0
15°	592.5	593.8	596.5	608.7	626.3	645.2	668.2	673.6	695.3	716.9	730.5
17.5°	604.7	604.7	607.4	618.2	637.1	658.8	688.5	696.6	721.0	745.3	760.2
20°	612.8	612.8	616.8	627.6	649.3	677.7	712.9	723.7	750.7	777.8	791.3
22.5°	620.9	622.2	626.3	638.5	662.8	702.0	742.6	753.4	784.6	813.0	826.5
25°	643.9	642.5	643.9	654.7	683.1	731.8	783.2	796.7	829.2	860.3	867.1
27.5°	707.5	704.7	687.2	680.4	702.0	762.9	834.6	848.1	886.0	917.1	917.1
30°	853.5	848.1	804.8	749.4	731.8	791.3	883.3	902.2	950.9	978.0	969.9
32.5°	1038.9	1026.7	971.2	876.5	806.2	829.2	934.7	956.3	1018.6	1041.6	1024.0
35°	1241.8	1240.4	1171.4	1049.7	949.6	907.7	1001.0	1026.7	1105.1	1125.4	1097.0
37.5°	1456.8	1462.3	1416.3	1248.5	1130.8	1036.2	1088.9	1118.7	1214.7	1239.1	1212.0
40°	1696.3	1694.9	1677.3	1478.5	1348.6	1218.8	1216.1	1243.1	1359.5	1397.3	1359.5
42.5°	1999.3	1996.6	1933.0	1754.4	1612.4	1456.8	1401.4	1410.9	1540.7	1602.9	1547.5
45°	2307.7	2288.7	2215.7	2061.5	1935.7	1751.7	1646.2	1646.2	1757.1	1842.4	1755.8
47.5°	2479.5	2460.5	2430.8	2345.6	2307.7	2102.1	1946.5	1927.6	2014.2	2100.7	1979.0
50°	2705.4	2705.4	2631.0	2598.5	2663.4	2518.7	2277.9	2259.0	2300.9	2369.9	2210.3
52.5°	2883.9	2851.5	2798.7	2827.1	3012.4	2946.2	2609.3	2572.8	2605.3	2622.9	2411.8
55°	2958.3	2927.2	2923.2	3027.3	3314.1	3222.1	2948.9	2916.4	2913.7	2827.1	2587.7
57.5°	2973.2	2946.2	2997.6	3180.2	3607.6	3448.0	3287.0	3262.7	3186.9	2970.5	2767.6
60°	2847.4	2860.9	2985.4	3264.0	3780.8	3644.1	3572.4	3546.7	3372.2	3092.2	2967.8
62.5°	2589.0	2621.5	2854.2	3272.1	3717.2	3723.9	3730.7	3713.1	3515.6	3203.2	3169.3
65°	2283.3	2292.8	2572.8	3159.9	3606.3	3699.6	3847.0	3845.7	3625.2	3327.6	3396.6
67.5°	1881.6	1897.8	2140.0	2781.1	3384.4	3688.8	3999.9	3995.8	3749.6	3469.6	3531.9
70°	1400.0	1420.3	1616.5	2162.9	2889.3	3553.5	4200.1	4202.8	3880.9	3577.9	3438.5
71°	1091.6	1128.1	1333.7	1836.9	2636.4	3416.9	4219.0	4243.4	3895.7	3563.0	3246.4
72.5°	535.7	578.9	837.3	1293.2	2169.7	3111.2	4094.6	4141.9	3802.4	3377.7	2775.7
75°	139.3	147.4	250.2	528.9	1163.3	2061.5	3301.9	3422.3	3108.5	2571.5	1696.3
77.5°	87.9	90.6	117.7	205.6	435.6	783.2	1939.8	1999.3	1776.1	1302.6	597.9
80°	62.2	63.6	74.4	132.6	254.3	228.6	698.0	723.7	642.5	344.9	106.9
82.5°	37.9	37.9	54.1	85.2	156.9	124.4	184.0	196.1	173.1	96.0	35.2
85°	21.6	23.0	33.8	58.2	74.4	60.9	69.0	73.0	74.4	63.6	14.9
87.5°	17.6	18.9	29.8	48.7	40.6	29.8	29.8	31.1	32.5	37.9	6.8
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°	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1
2.5°	653.3	653.3	654.7	653.3	653.3	653.3	654.7	654.7	654.7	657.4	658.8
5°	656.1	656.1	656.1	654.7	653.3	653.3	656.1	657.4	657.4	661.5	661.5
7.5°	662.8	662.8	660.1	657.4	654.7	650.6	652.0	653.3	652.0	653.3	653.3
10°	677.7	677.7	673.6	668.2	660.1	647.9	631.7	611.4	592.5	585.7	583.0
12.5°	702.0	700.7	692.6	683.1	665.5	623.6	562.7	491.0	431.5	415.3	409.9
15°	729.1	726.4	716.9	700.7	653.3	542.4	415.3	323.3	266.5	253.0	250.2
17.5°	757.5	753.4	739.9	707.5	597.9	403.1	267.8	202.9	171.8	169.1	170.4
20°	787.3	781.9	762.9	693.9	482.9	269.2	173.1	156.9	154.2	154.2	155.6
22.5°	821.1	814.3	788.6	645.2	351.7	178.6	148.8	147.4	146.1	144.7	144.7
25°	860.3	852.2	813.0	557.3	242.1	146.1	142.0	138.0	135.3	132.6	131.2
27.5°	907.7	896.8	831.9	449.1	166.4	136.6	133.9	127.2	121.7	116.3	116.3
30°	955.0	941.5	826.5	338.2	135.3	127.2	121.7	113.6	105.5	100.1	98.7
32.5°	1005.0	991.5	791.3	227.3	123.1	116.3	109.6	97.4	87.9	81.2	79.8
35°	1079.4	1068.6	722.3	150.1	110.9	102.8	93.3	81.2	69.0	62.2	60.9
37.5°	1190.4	1176.8	637.1	115.0	97.4	85.2	77.1	63.6	51.4	44.6	43.3
40°	1339.2	1298.6	535.7	101.5	85.2	70.3	59.5	46.0	36.5	32.5	32.5
42.5°	1512.3	1416.3	426.1	92.0	75.8	58.2	43.3	31.1	25.7	24.3	24.3
45°	1696.3	1525.8	316.5	85.2	66.3	46.0	31.1	21.6	18.9	17.6	17.6
47.5°	1885.6	1615.1	220.5	77.1	55.5	35.2	21.6	16.2	13.5	12.2	12.2
50°	2062.8	1673.3	155.6	69.0	47.3	25.7	16.2	12.2	9.5	9.5	9.5
52.5°	2185.9	1667.9	112.3	59.5	36.5	17.6	10.8	8.1	8.1	8.1	8.1
55°	2294.2	1647.6	87.9	51.4	28.4	12.2	8.1	6.8	6.8	5.4	5.4
57.5°	2386.1	1615.1	74.4	41.9	20.3	9.5	5.4	5.4	4.1	4.1	4.1
60°	2464.6	1574.5	62.2	35.2	13.5	6.8	4.1	2.7	2.7	1.4	2.7
62.5°	2571.5	1548.8	54.1	27.1	9.5	4.1	2.7	1.4	1.4	0.0	0.0
65°	2649.9	1500.1	46.0	18.9	5.4	2.7	1.4	1.4	0.0	0.0	0.0
67.5°	2652.6	1412.2	33.8	10.8	4.1	2.7	1.4	0.0	0.0	0.0	0.0
70°	2438.9	1203.9	21.6	5.4	2.7	1.4	1.4	0.0	0.0	0.0	0.0
71°	2242.8	1065.9	17.6	4.1	2.7	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	1847.8	783.2	13.5	4.1	1.4	1.4	0.0	0.0	0.0	0.0	0.0
75°	1018.6	284.1	6.8	2.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	326.0	86.6	4.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	55.5	13.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.9	5.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.7	1.4	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)