

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: P214817

Luminaire Tested: **ARCH-AF24-80-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214817
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-AF24-80-D-U-T3-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1050mA 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: 6569 lumens
Efficiency: N/A
Efficacy: 79.1 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

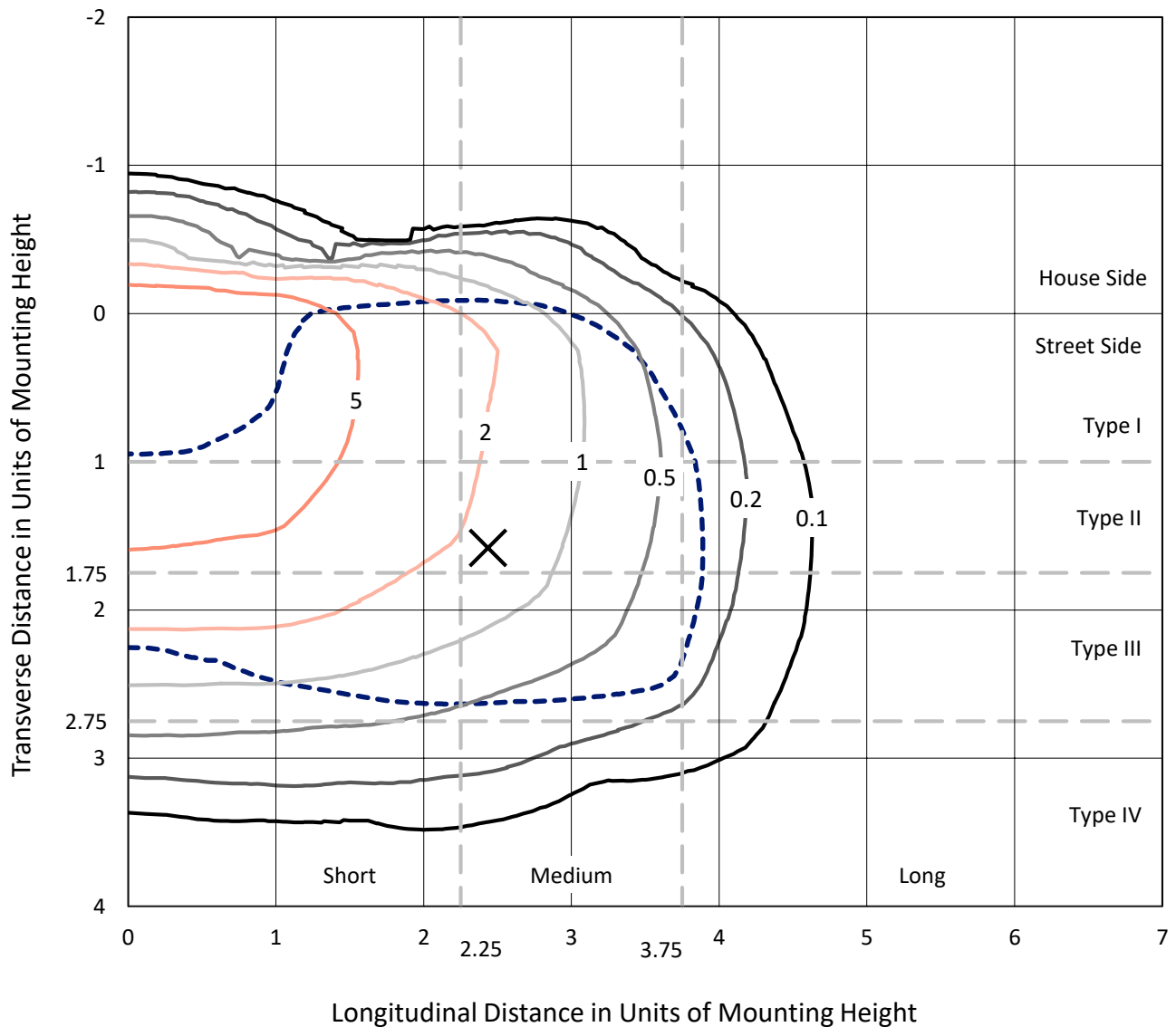
Input Watts (W): 83
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

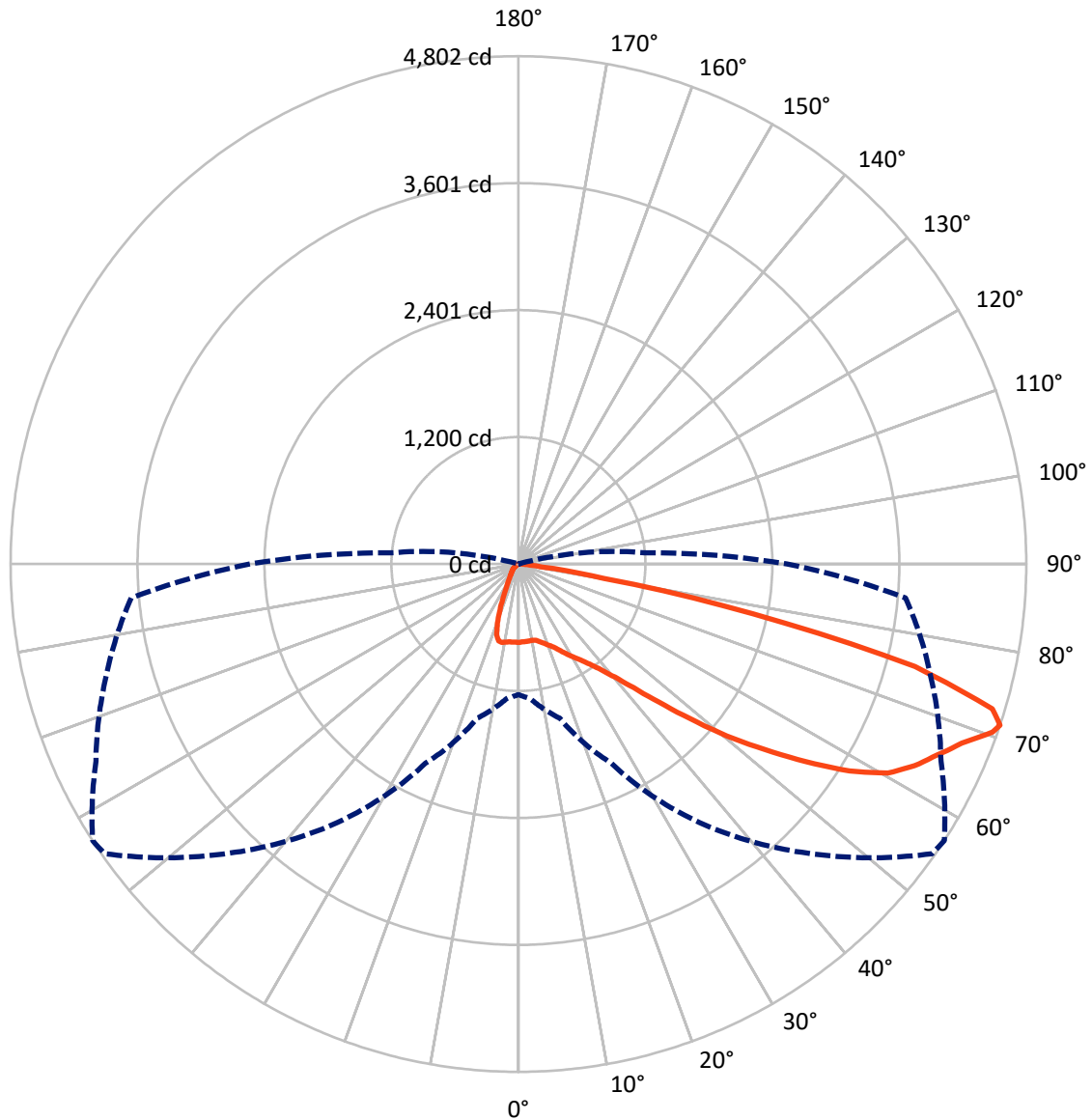


Based on 10 foot mounting height. Maximum calculated value = 9.2 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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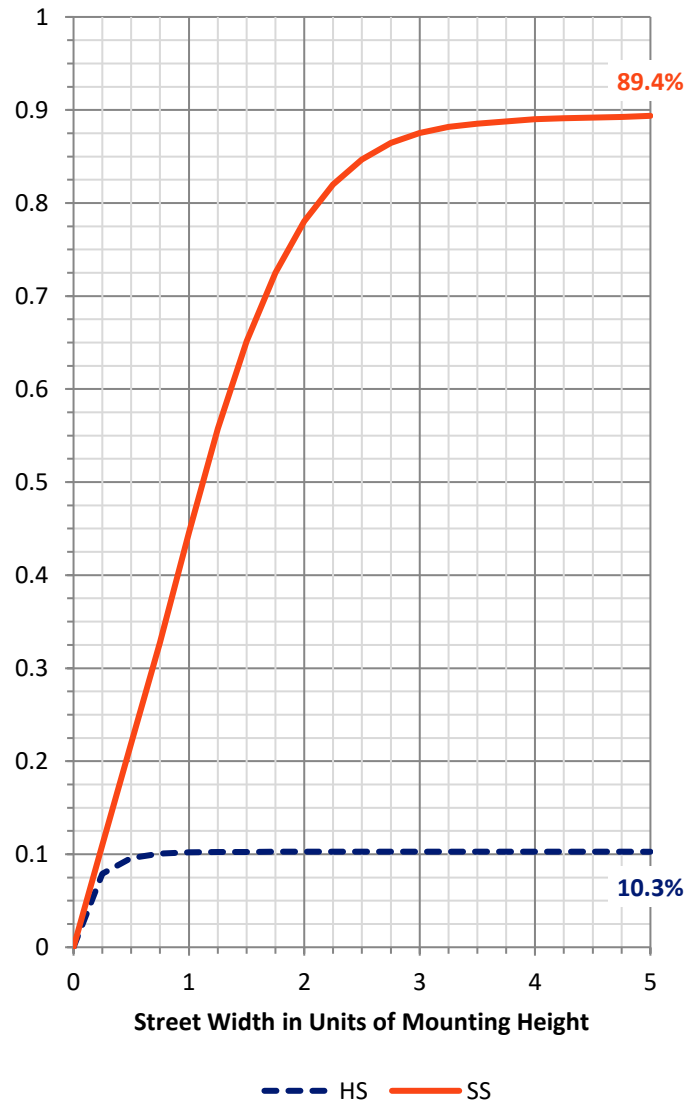
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	680.8	0.0	680.8
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	5888.2	0.0	5888.2
	% Fixture	89.6	0.0	89.6
Total	Lumens	6569.0	0.0	6569.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.7	1.1
10°-20°	186.4	2.8
20°-30°	290.8	4.4
30°-40°	491.5	7.5
40°-50°	954.6	14.5
50°-60°	1603.2	24.4
60°-70°	1913.2	29.1
70°-80°	1008.3	15.3
80°-90°	51.2	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°	6569.0	100.0
0°-180°	6569.0	100.0

Coefficient of Utilization



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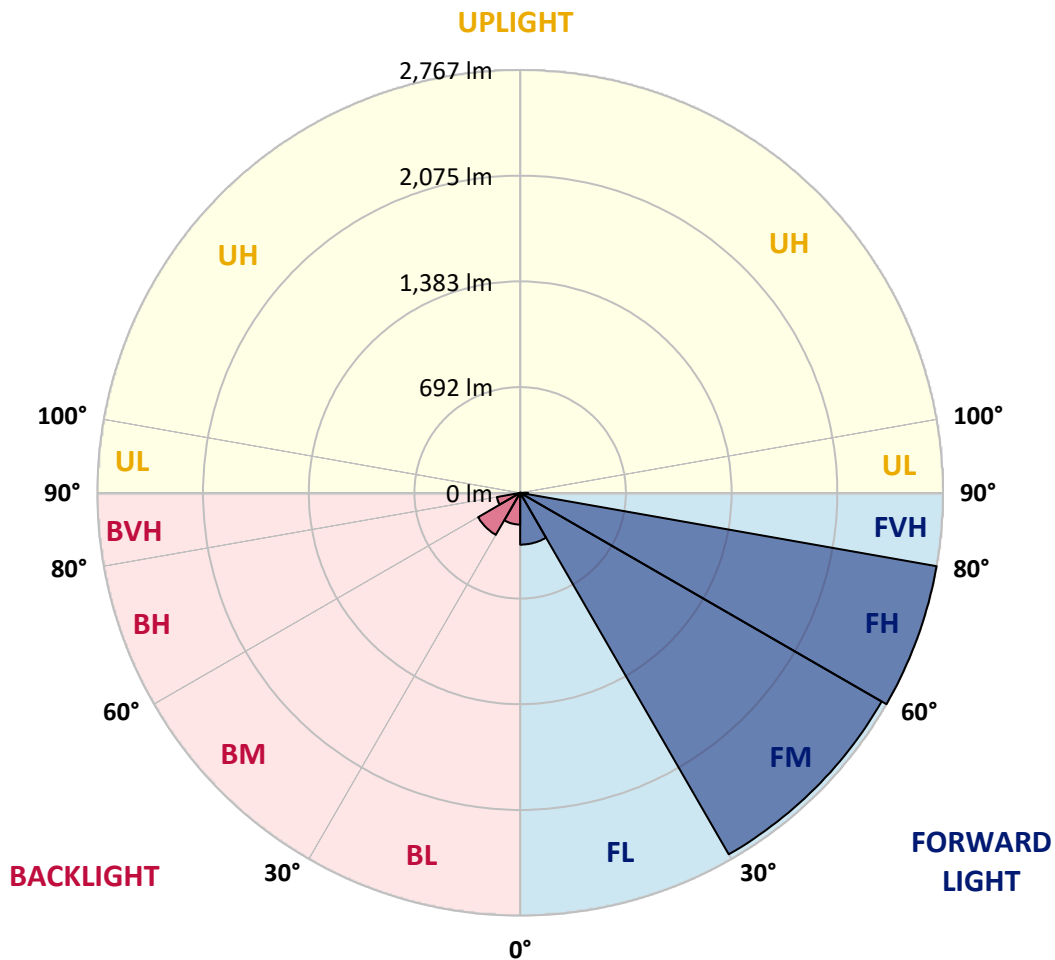
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	339.1	5.2			
FM	(30°-60°)	2731.4	41.6			
FH	(60°-80°)	2766.9	42.1			G2/5000
FVH	(80°-90°)	50.7	0.8			G1/100
BL	(0°-30°)	207.8	3.2	B1/500		
BM	(30°-60°)	317.9	4.8	B1/1000		
BH	(60°-80°)	154.6	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°	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4
2.5°	731.7	731.7	731.7	733.2	734.7	734.7	737.8	736.3	736.3	736.3	739.3
5°	711.8	713.3	714.8	717.9	724.0	728.6	736.3	736.3	737.8	740.9	742.4
7.5°	684.2	685.8	690.4	696.5	708.7	719.4	731.7	734.7	739.3	747.0	750.1
10°	667.4	670.5	676.6	684.2	698.0	711.8	727.1	731.7	745.5	759.2	766.9
12.5°	662.8	664.3	670.5	682.7	699.5	716.4	736.3	740.9	760.8	782.2	794.4
15°	670.5	672.0	675.0	688.8	708.7	730.2	756.2	762.3	786.8	811.3	826.6
17.5°	684.2	684.2	687.3	699.5	721.0	745.5	779.1	788.3	815.9	843.4	860.3
20°	693.4	693.4	698.0	710.3	734.7	766.9	806.7	818.9	849.5	880.2	895.5
22.5°	702.6	704.1	708.7	722.5	750.1	794.4	840.4	852.6	887.8	920.0	935.3
25°	728.6	727.1	728.6	740.9	773.0	828.1	886.3	901.6	938.3	973.5	981.2
27.5°	800.6	797.5	777.6	769.9	794.4	863.3	944.5	959.8	1002.6	1037.8	1037.8
30°	965.9	959.8	910.8	848.0	828.1	895.5	999.6	1021.0	1076.1	1106.7	1097.5
32.5°	1175.6	1161.8	1099.1	991.9	912.3	938.3	1057.7	1082.2	1152.6	1178.7	1158.8
35°	1405.2	1403.7	1325.6	1187.8	1074.6	1027.1	1132.7	1161.8	1250.6	1273.6	1241.4
37.5°	1648.6	1654.7	1602.7	1412.8	1279.7	1172.5	1232.2	1265.9	1374.6	1402.1	1371.5
40°	1919.5	1918.0	1898.1	1673.1	1526.1	1379.2	1376.1	1406.7	1538.4	1581.2	1538.4
42.5°	2262.4	2259.3	2187.4	1985.3	1824.6	1648.6	1585.8	1596.5	1743.5	1813.9	1751.1
45°	2611.4	2590.0	2507.3	2332.8	2190.5	1982.3	1862.9	1862.9	1988.4	2084.8	1986.9
47.5°	2805.8	2784.4	2750.7	2654.3	2611.4	2378.7	2202.7	2181.3	2279.2	2377.2	2239.4
50°	3061.4	3061.4	2977.2	2940.5	3014.0	2850.2	2577.7	2556.3	2603.7	2681.8	2501.2
52.5°	3263.5	3226.7	3167.0	3199.2	3408.9	3333.9	2952.7	2911.4	2948.2	2968.1	2729.3
55°	3347.7	3312.5	3307.9	3425.7	3750.3	3646.2	3337.0	3300.2	3297.2	3199.2	2928.3
57.5°	3364.5	3333.9	3392.1	3598.7	4082.4	3901.8	3719.6	3692.1	3606.4	3361.4	3131.8
60°	3222.2	3237.5	3378.3	3693.6	4278.3	4123.7	4042.6	4013.5	3816.1	3499.2	3358.4
62.5°	2929.8	2966.5	3229.8	3702.8	4206.4	4214.1	4221.7	4201.8	3978.3	3624.7	3586.5
65°	2583.8	2594.6	2911.4	3575.7	4080.9	4186.5	4353.4	4351.8	4102.3	3765.6	3843.6
67.5°	2129.2	2147.6	2421.6	3147.1	3829.8	4174.3	4526.3	4521.7	4243.1	3926.3	3996.7
70°	1584.3	1607.3	1829.2	2447.6	3269.6	4021.2	4752.9	4755.9	4391.6	4048.7	3891.1
71°	1235.3	1276.6	1509.3	2078.7	2983.4	3866.6	4774.3	4801.9	4408.5	4031.9	3673.7
72.5°	606.2	655.1	947.5	1463.4	2455.3	3520.6	4633.5	4687.0	4302.8	3822.2	3141.0
75°	157.7	166.8	283.2	598.5	1316.4	2332.8	3736.5	3872.7	3517.6	2909.9	1919.5
77.5°	99.5	102.6	133.2	232.7	492.9	886.3	2195.0	2262.4	2009.8	1474.1	676.6
80°	70.4	71.9	84.2	150.0	287.8	258.7	789.8	818.9	727.1	390.3	120.9
82.5°	42.9	42.9	61.2	96.4	177.6	140.8	208.2	222.0	195.9	108.7	39.8
85°	24.5	26.0	38.3	65.8	84.2	68.9	78.1	82.7	84.2	71.9	16.8
87.5°	19.9	21.4	33.7	55.1	45.9	33.7	33.7	35.2	36.7	42.9	7.7
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°	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4
2.5°	739.3	739.3	740.9	739.3	739.3	739.3	740.9	740.9	740.9	743.9	745.5
5°	742.4	742.4	742.4	740.9	739.3	739.3	742.4	743.9	743.9	748.5	748.5
7.5°	750.1	750.1	747.0	743.9	740.9	736.3	737.8	739.3	737.8	739.3	739.3
10°	766.9	766.9	762.3	756.2	747.0	733.2	714.8	691.9	670.5	662.8	659.7
12.5°	794.4	792.9	783.7	773.0	753.1	705.7	636.8	555.6	488.3	469.9	463.8
15°	825.1	822.0	811.3	792.9	739.3	613.8	469.9	365.8	301.6	286.2	283.2
17.5°	857.2	852.6	837.3	800.6	676.6	456.2	303.1	229.6	194.4	191.3	192.9
20°	890.9	884.8	863.3	785.3	546.5	304.6	195.9	177.6	174.5	174.5	176.0
22.5°	929.1	921.5	892.4	730.2	398.0	202.1	168.4	166.8	165.3	163.8	163.8
25°	973.5	964.4	920.0	630.7	274.0	165.3	160.7	156.1	153.1	150.0	148.5
27.5°	1027.1	1014.9	941.4	508.2	188.3	154.6	151.5	143.9	137.8	131.6	131.6
30°	1080.7	1065.4	935.3	382.7	153.1	143.9	137.8	128.6	119.4	113.3	111.7
32.5°	1137.3	1122.0	895.5	257.2	139.3	131.6	124.0	110.2	99.5	91.8	90.3
35°	1221.5	1209.3	817.4	169.9	125.5	116.3	105.6	91.8	78.1	70.4	68.9
37.5°	1347.0	1331.7	721.0	130.1	110.2	96.4	87.3	71.9	58.2	50.5	49.0
40°	1515.4	1469.5	606.2	114.8	96.4	79.6	67.4	52.0	41.3	36.7	36.7
42.5°	1711.3	1602.7	482.2	104.1	85.7	65.8	49.0	35.2	29.1	27.6	27.6
45°	1919.5	1726.6	358.2	96.4	75.0	52.0	35.2	24.5	21.4	19.9	19.9
47.5°	2133.8	1827.7	249.5	87.3	62.8	39.8	24.5	18.4	15.3	13.8	13.8
50°	2334.3	1893.5	176.0	78.1	53.6	29.1	18.4	13.8	10.7	10.7	10.7
52.5°	2473.6	1887.4	127.0	67.4	41.3	19.9	12.2	9.2	9.2	9.2	9.2
55°	2596.1	1864.4	99.5	58.2	32.1	13.8	9.2	7.7	7.7	6.1	6.1
57.5°	2700.2	1827.7	84.2	47.5	23.0	10.7	6.1	6.1	4.6	4.6	4.6
60°	2789.0	1781.8	70.4	39.8	15.3	7.7	4.6	3.1	3.1	1.5	3.1
62.5°	2909.9	1752.7	61.2	30.6	10.7	4.6	3.1	1.5	1.5	0.0	0.0
65°	2998.7	1697.6	52.0	21.4	6.1	3.1	1.5	1.5	0.0	0.0	0.0
67.5°	3001.7	1598.1	38.3	12.2	4.6	3.1	1.5	0.0	0.0	0.0	0.0
70°	2759.9	1362.3	24.5	6.1	3.1	1.5	1.5	0.0	0.0	0.0	0.0
71°	2537.9	1206.2	19.9	4.6	3.1	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	2091.0	886.3	15.3	4.6	1.5	1.5	0.0	0.0	0.0	0.0	0.0
75°	1152.6	321.5	7.7	3.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	368.9	98.0	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	62.8	15.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.4	6.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	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)